

APPENDIX A

Notice of Intent



Public Notice

U.S. ARMY CORPS OF ENGINEERS

BUILDING STRONG®

Subject: Notice of Intent to Prepare an Environmental Impact Statement and Notice of Public Scoping Meeting

Action ID: SPK-2004-00116

Comments Period: September 1, 2011 – October 26, 2011

SUBJECT: Notice of Intent (NOI) to Prepare an Environmental Impact Statement (EIS) and Notice of Public Scoping Meeting for the Cordova Hills Project. This notice is to inform interested parties of the opening of scoping and to solicit comments on the proposed project. This notice may also be viewed at the Corps web site at <http://www.spk.usace.army.mil/regulatory.html>. On September 1, 2011, a NOI was published in the Federal Register (Vol. 76, No. 170, 54452), which can be found at <http://www.gpo.gov/fdsys/pkg/FR-2011-09-01/pdf/2011-22392.pdf>.

APPLICANT: Cordova Hills Ownership Group
Attn: Mr. Ron Alvarado
5241 Arnold Avenue
McClellan, California 95652

AGENT: ECORP Consulting, Inc.
Attn: Mr. Jim Stewart
2525 Warren Drive
Rocklin, California 95677

LOCATION: The 2,688-acre site is located in unincorporated eastern Sacramento County, and is bordered on the west by Grant Line Road and on the north by Glory Lane. The proposed project site is north of Kiefer Road and west of the Carson Creek drainage, in portions of Sections 13, 14, 23 and 24, Township 8 North, Range 7 East, and Section 18, Township 8 North, Range 8 East, Mount Diablo Meridian.

PROJECT DESCRIPTION: The applicant proposes to implement a large-scale, mixed-use, mixed-density master planned community with an integrated university, neighborhood and regional commercial and residential uses and associated infrastructure. The applicant proposes approximately: 1,000 acres of residential uses ranging from one dwelling unit per acre to 40 dwelling units per acre; 1,380,000 square feet of retail and commercial uses; 240 acres of private university campus; 635 acres of recreation areas, parks, natural avoided areas and open space corridors; 538 acres of preserve for on-site wetland and habitat avoidance; and 18 miles of off-street/multi-use trails.

The project site is approximately 2,688 acres and contains 89.106 acres of waters of the United States. The proposed project would involve the discharge of fill material into approximately 39.630 acres of waters of the United States, including vernal pools, seasonal wetlands, seeps, intermittent drainages, and stock ponds. The proposed project may also have indirect impacts on other waters of the U.S.

ADDITIONAL INFORMATION:

Background Information: In 2008, the Cordova Hills Ownership Group (applicant) submitted a Department of the Army permit application for the proposed Cordova Hills project. On June 18, 2008, the U.S. Army Corps of Engineers, Sacramento District (Corps) determined that the proposed project may result in significant impacts to the environment, and that the preparation of an Environmental Impact Statement (EIS) is necessary. A revised permit application was submitted by the applicant on March 15, 2011. Sacramento County, as the lead agency responsible for compliance with the California Environmental Quality Act, is currently preparing a Draft Environmental Impact Report (DEIR). The DEIR is expected to be released in the fall of 2011.

Scoping Meeting: The U.S. Army Corps of Engineers, Sacramento District (Corps), will conduct a public scoping meeting on Tuesday, September 13, 2011 from 5:00 p.m. to 7:00 p.m. The scoping meeting will be held at Rancho Cordova City Hall, located at 2729 Prospect Park Drive, Rancho Cordova, California 95670.

Environmental Setting. A wetland delineation of the project site, which has been verified by the Corps, indicates that a total of approximately 89 acres of waters of the United States are present within the proposed project area, including: 47.5 acres of vernal pools; 22.9 acres of seasonal wetlands; 0.01 acres of seeps; 16.9 acres of intermittent drainage; 0.17 acres of Carson Creek; and 1.5 acres of man-made stock ponds.

Alternatives. The EIS will include alternatives to the Proposed Action that will meet NEPA requirements for a reasonable range of alternatives, and will also meet the requirements of *CWA Section 404(b)(1) Guidelines*. The alternatives to be evaluated within the EIS have not yet been developed, but will, at a minimum, include the No Action Alternative, the Proposed Project Alternative, additional on-site alternatives, and off-site alternatives.

OTHER GOVERNMENTAL AUTHORIZATIONS: Water quality certification or a waiver, as required under Section 401 of the Clean Water Act from the Central Valley Regional Water Quality Control Board is required for this project. The applicant has not indicated they have applied for certification.

HISTORIC PROPERTIES: The Corps will initiate consultation with the State Historic Preservation Officer under Section 106 of the National Historic Preservation Act, as appropriate.

ENDANGERED SPECIES: The majority of the proposed project site is located within the Mather Core Recovery Area, an area identified by the U.S. Fish and Wildlife Service as being important for the continued existence of the federally listed vernal pool fairy shrimp (*Branchinecta lynchi*), vernal pool tadpole shrimp (*Lepidurus packardii*), Sacramento Orcutt grass (*Orcuttia viscida*) and slender Orcutt grass (*Orcuttia tenuis*). The proposed project may affect these Federally-listed endangered or threatened species. The Corps will initiate consultation with the U.S. Fish and Wildlife Service, pursuant to Section 7 of the Endangered Species Act, as appropriate.

ESSENTIAL FISH HABITAT: The proposed project will not adversely affect Essential Fish Habitat (EFH) as defined in the Magnuson-Stevens Fishery Conservation and Management Act.

The above determinations are based on information provided by the applicant and our preliminary review.

EVALUATION FACTORS: The Corps' public involvement program includes several opportunities to provide verbal and written comments on the proposed Cordova Hills Project through the EIS process. Affected federal, state, and local agencies, Native American tribes, and other interested private organizations and parties are invited to participate. Potentially significant issues to be analyzed in depth in the EIS include loss of waters of the United States (including wetlands), and impacts related to cultural resources, biological resources, air quality, hydrology and water quality, noise, traffic, aesthetics, utilities and service systems, and socioeconomic effects. The activity's impact on the public interest will include application of the Section 404(b)(1) guidelines promulgated by the

U.S. ARMY CORPS OF ENGINEERS – Sacramento District

650 Capitol Mall, Suite 5-200, Sacramento, CA 95814-4708

<http://www.spk.usace.army.mil/organizations/cespk-co/regulatory/index.html>

Administrator, Environmental Protection Agency (40 CFR Part 230). Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

SUBMITTING COMMENTS: Interested parties are invited to submit written comments on the permit application on or before **October 26, 2011**. Scoping comments should be submitted within the next 60 days, but may be submitted at any time prior to publication of the Draft EIS.

Lisa Gibson, Project Manager
US Army Corps of Engineers, Sacramento District
650 Capitol Mall, Suite 5-200
Sacramento, California 95814-4708

Email: Lisa.M.Gibson2@usace.army.mil

The Corps is particularly interested in receiving comments related to alternatives to the proposed project, the proposal's probable impacts on the affected aquatic environment, and the secondary and cumulative effects. Please note that all comment letters received are subject to release to the public through the Freedom of Information Act and will be addressed within the Draft EIS. If you have questions or need additional information please contact the applicant or the Corps' project manager Lisa Gibson, 916-557-5250, Lisa.M.Gibson2@usace.army.mil.

effects on air quality, water quality, recreation, fisheries, and transportation.

c. USACE is consulting with the State Historic Preservation Officer to comply with the National Historic Preservation Act, and with the U.S. Fish and Wildlife Service and National Marine Fisheries Service to comply with the Endangered Species Act. USACE is also coordinating with the U.S. Fish and Wildlife Service to comply with the Fish and Wildlife Coordination Act.

d. A 45-day public review period will be provided for all interested parties, individuals, and agencies to review and comment on the draft EIS/EIR. All interested parties are encouraged to respond to this notice and provide a current address if they wish to be notified of the draft EIS/EIR circulation.

4. *Availability.* The draft EIS/EIR is currently scheduled to be available for public review and comment in Spring 2012.

Dated: April 25, 2011.

William J. Leady,

Colonel, U.S. Army, District Commander.

[FR Doc. 2011-22383 Filed 8-31-11; 8:45 am]

BILLING CODE 3720-58-P

DEPARTMENT OF DEFENSE

Department of the Army, Corps of Engineers

Intent to Prepare a Draft Environmental Impact Statement for the Proposed Cordova Hills Project in Sacramento County, CA, Corps Permit Application Number SPK-2004-00116

AGENCY: Department of the Army, U.S. Army Corps of Engineers, DOD.

ACTION: Notice of Intent.

SUMMARY: In 2008, the Cordova Hills Ownership Group (applicant) submitted a Department of the Army permit application for the proposed Cordova Hills project. On June 18, 2008, the U.S. Army Corps of Engineers, Sacramento District (Corps) determined that the proposed project may result in significant impacts to the environment, and that the preparation of an Environmental Impact Statement (EIS) is necessary. A revised permit application was submitted by the applicant on March 15, 2011.

The applicant proposes to implement a large-scale, mixed-use, mixed-density master planned community with an integrated university, neighborhood and regional commercial and residential uses and associated infrastructure. The proposed project consists of approximately 1,000 acres of residential uses ranging from one dwelling unit per

acre to 40 dwelling units per acres; 1,380,000 square feet of retail and commercial uses; 240 acres of private university campus; 635 acres of recreation areas, parks, natural avoided areas and open space corridors; 538 acres for on-site wetland and habitat avoidance, and; 18 miles of off-street/multi-use trails.

The project site is approximately 2,688 acres and contains 89.106 acres of waters of the United States. The proposed project would involve the discharge of fill material into approximately 39,630 acres of waters of the United States, including vernal pools, seasonal wetlands, seeps, intermittent drainages, and stock ponds. The proposed project may also have have indirect impacts on other waters of the U.S.

DATES: The Corps will conduct a public scoping meeting that will be held on Tuesday, September 13, 2011 from 5 p.m. to 7 p.m.

ADDRESSES: The scoping meeting will be held at Rancho Cordova City Hall, located at 2729 Prospect Park Drive, Rancho Cordova, CA 95670.

FOR FURTHER INFORMATION CONTACT: Ms. Lisa Gibson, (916) 557-5288, e-mail: lisa.m.gibson2@usace.army.mil.

SUPPLEMENTARY INFORMATION: Interested parties are invited to submit written comments on the permit application on or before October 26, 2011. Scoping comments should be submitted within the next 60 days, but may be submitted at any time prior to publication of the Draft EIS. To submit comments on this notice or for questions about the proposed action and the Draft EIS, please contact Lisa Gibson, 650 Capitol Mall, Suite 5-200, Sacramento, CA 95814-4708. Parties interested in being added to the Corps' electronic mail notification list for the proposed project can e-mail a request to spk-regulatory-info@usace.army.mil and indicate which list you would like your e-mail address to be added. Please refer to Identification Number SPK-2004-00116 in any correspondence.

The proposed Cordova Hills Project site is located in unincorporated eastern Sacramento County. The site is bordered on the west by Grant Line Road, and on the north by Glory Lane. The proposed project site is north of Kiefer Road and west of the Carson Creek drainage, in portions of Sections 13, 14, 23 and 24, Township 8 North, Range 7 East, and Section 18, Township 8 North, Range 8 East, Mount Diablo Meridian.

A wetland delineation of the project site, which has been approved by the Corps, indicates that a total of approximately 89 acres of waters of the

United States are present within the proposed project area, including: 47.5 acres of vernal pools; 22.9 acres of seasonal wetlands; 0.01 acres of seeps; 16.9 acres of intermittent drainage; 0.17 acres of Carson Creek, and; 1.5 acres of man-made stock ponds.

The EIS will include alternatives to the Proposed Action that will meet NEPA requirements for a reasonable range of alternatives, and will also meet the requirements of CWA *Section 404(b)(1) Guidelines*. The alternatives to be evaluated within the EIS have not yet been developed, but will, at a minimum, include the No Action Alternative, the Proposed Project Alternative, additional on-site alternatives, and off-site alternatives.

Sacramento County, as the lead agency responsible for compliance with the California Environmental Quality Act, is currently preparing a Draft Environmental Impact Report (DEIR). The DEIR is expected to be released in the fall of 2011.

The Corps' public involvement program includes several opportunities to provide verbal and written comments on the proposed Cordova Hills Project through the EIS process. Affected federal, state, and local agencies, Native American tribes, and other interested private organizations and parties are invited to participate. Potentially significant issues to be analyzed in depth in the EIS include loss of waters of the United States (including wetlands), and impacts related to cultural resources, biological resources, air quality, hydrology and water quality, noise, traffic, aesthetics, utilities and service systems, and socioeconomic effects.

The Corps will initiate formal consultation with the U.S. Fish and Wildlife Service (USFWS) under Section 7 of the Endangered Species Act for impacts to listed species that may result from the proposed project. The Corps will also consult with the State Historic Preservation Office under Section 106 of the National Historic Preservation Act for properties listed or potentially eligible for listing on the National Register of Historic Places, as appropriate.

The Draft EIS is expected to be made available to the public in the summer of 2012.

Dated: August 15, 2011.

William J. Leady,

Colonel, U.S. Army District Engineer.

[FR Doc. 2011-22392 Filed 8-31-11; 8:45 am]

BILLING CODE 3720-58-P

APPENDIX B

Comments Received on NOI



California Regional Water Quality Control Board Central Valley Region

Katherine Hart, Chair



Matthew Rodriguez
Secretary for
Environmental Protection

11020 Sun Center Drive, #200, Rancho Cordova, California 95670-6114
(916) 464-3291 • FAX (916) 464-4645
<http://www.waterboards.ca.gov/centralvalley>

Edmund G. Brown Jr.
Governor

17 October 2011

OCT 20 2011

Lisa Gibson, Project Manager
United States Army Corps of Engineers
Sacramento District Office
650 Capitol Mall, Suite 5-200
Sacramento, CA 95814-4708

CERTIFIED MAIL
7010 3090 0000 5044 5745

COMMENTS TO NOTICE OF INTENT TO PREPARE AN ENVIRONMENTAL IMPACT STATEMENT AND NOTICE OF PUBLIC SCOPING MEETING, CORDOVA HILLS PROJECT, SACRAMENTO COUNTY

Pursuant to the United States Army Corps of Engineers' Notice of Intent dated 1 September 2011, published in the Federal Register (Vol. 76, No. 170, 54452), the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Notice of Intent to Prepare an Environmental Impact Statement and Notice of Public Scoping Meeting* for the Cordova Hills Project (Proposed Project).

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore our comments will address concerns surrounding those issues.

1. Regulatory Setting

Basin Plan:

The Central Valley Water Board is required to formulate and adopt Basin Plans for all areas within the Central Valley region under Section 13240 of the Porter-Cologne Water Quality Control Act. Each Basin Plan must contain water quality objectives to ensure the reasonable protection of beneficial uses, as well as a program of implementation for achieving water quality objectives with the Basin Plans. Federal regulations require each state to adopt water quality standards to protect the public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act. In California, the beneficial uses, water quality objectives, and the Antidegradation Policy are the State's water quality standards. Water quality standards are also contained in the National Toxics Rule, 40 CFR Section 131.36, and the California Toxics Rule, 40 CFR Section 131.38.

The Basin Plan is subject to modification as necessary, considering applicable laws, policies, technologies, water quality conditions and priorities. The original Basin Plans were adopted in 1975, and have been updated and revised periodically as required, using Basin Plan amendments. Once the Central Valley Water Board has adopted a Basin Plan amendment in noticed public hearings, it must be approved by the State

California Environmental Protection Agency

Water Resources Control Board (State Water Board), Office of Administrative Law (OAL) and in some cases, the United States Environmental Protection Agency (USEPA). Basin Plan amendments only become effective after they have been approved by the OAL and in some cases, the USEPA. Every three (3) years, a review of the Basin Plan is completed that assesses the appropriateness of existing standards and evaluates and prioritizes Basin Planning issues.

For more information on the *Water Quality Control Plan for the Sacramento and San Joaquin River Basins*, please visit our website:
http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/.

The Draft Environmental Impact Statement should provide an expanded discussion on the Proposed Project's consistency with the Basin Plan, in terms of protecting surface and ground water quality in, and downstream of, the Proposed Project area.

Statement of Policy With Respect to Maintaining High Quality of Waters in California (State Water Board Resolution 68-16):

A key policy of California's water quality program is the State's Antidegradation Policy. This policy, formally known as the *Statement of Policy with Respect to Maintaining High Quality Waters in California* (State Water Board Resolution No. 68-16), restricts degradation of surface and ground waters. In particular, this policy protects water bodies where existing quality is higher than necessary for the protection of beneficial uses. Under the Antidegradation Policy, any actions that can adversely affect water quality in all surface and ground waters must:

1. meet Waste Discharge Requirements which will result in the best practicable treatment or control of the discharge necessary to assure that a pollution or nuisance will not occur and the highest water quality consistent with maximum benefit to the people of the State will be maintained;
2. not unreasonably affect present and anticipated beneficial use of the water; and
3. not result in water quality less than that prescribed in water quality plans and policies.

Furthermore, any actions that can adversely affect surface waters are also subject to the Federal Antidegradation Policy (40 CFR Section 131.12) developed under the Clean Water Act.

For more information on this policy, please visit our website at:
http://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/1968/rs68_016.pdf.

Clean Water Act 303(d) Listed for Impaired Water Bodies

Please use the 2010 Clean Water Act 303(d) list for impaired water bodies, which can be located at
http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml

The Final Environmental Impact Statement should provide a comprehensive list of all water bodies located within, and downstream of, the Proposed Project area which are included on the 2010 Clean Water Act 303(d) list for impaired water bodies, and the constituent(s) or parameter(s) each water body or water body segment is listed for.

If Total Maximum Daily Load (TMDL) and implementation plan is under development or completed for any receiving water body or water body segment listed on the Clean Water Act 303(d) list, the Draft Environmental Impact Statement should include an expanded discussion on the Proposed Project's compliance with that TMDL and implementation plan.

2. Permitting Requirements

Construction Storm Water General Permit

Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction Activities (Construction General Permit), Construction General Permit Order No. 2009-009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP).

For more information on the Construction General Permit, visit the State Water Resources Control Board website at:

http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml

The Final Environmental Impact Statement should provide an expanded discussion on the Proposed Project's compliance with this permit, including, but not limited to, the development of a SWPPP.

Phase I and II Municipal Separate Storm Sewer System (MS4) Permits¹

The Phase I and II MS4 permits require the Permittees reduce pollutants and runoff flows from new development and redevelopment using Best Management Practices (BMPs) to the maximum extent practicable. MS4 Permittees have their own development standards, also known as Low Impact Development (LID)/post-construction standards that include a hydromodification component. The MS4 permits also require specific design concepts for LID/post-construction BMPs in the early stages of a project during the entitlement and CEQA process and the development plan review process.

¹ Municipal Permits = The Phase I Municipal Separate Storm Water System (MS4) Permit covers medium sized Municipalities (serving between 100,000 and 250,000 people) and large sized municipalities (serving over 250,000 people). The Phase II MS4 provides coverage for small municipalities, including non-traditional Small MS4s, which include military bases, public campuses, prisons and hospitals.

For more information on which Phase I or II MS4 Permit the Proposed Project applies to, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/municipal_permits/

The Final Environmental Impact Statement should provide an expanded discussion on the Proposed Project's compliance with the MS4 Permit held by Sacramento County, including, but not limited to, the implementation of specific LID measures throughout the Proposed Project area and a post-construction hydromodification strategy.

Clean Water Act Section 401 Permit – Water Quality Certification

If an United States Army Corps of Engineers (USACOE) permit, or any other federal permit, is required for the Proposed Project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of Proposed Project activities.

Please clarify in the Draft Environmental Impact Statement that there are no waivers for 401 Water Quality Certifications in California.

According to our records, a 401 Water Quality Certification application for the Proposed Project has not been received by the Central Valley Regional Board to date.

Waste Discharge Requirements

If USACOE determines that only non-jurisdictional waters of the State (i.e., "non-federal" waters of the State) are present in the Proposed Project area, the Proposed Project will require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation.

For more information on the Water Quality Certification and WDR processes, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/water_quality_certification/

3. General Requirements for Issuing 401 Water Quality Certifications or Waste Discharge Requirements

In order for the Central Valley Water Board to issue a 401 Water Quality Certification or Waste Discharge Requirements for the Proposed Project, the following items are required at a minimum. The project proponent should be aware of the following minimum requirements for a 401 Water Quality Certification or Waste Discharge Requirement.

- a) A signed and dated Central Valley Regional Water Quality Control Board Section 401 Water Quality Certification Application Form, completed as instructed in each section of the form. The Section 401 Water Quality Certification Application can be located at:
http://www.waterboards.ca.gov/centralvalley/help/business_help/permit2.shtml
- b) A finalized project description detailing all Proposed Project activities, including, but not limited to, all permanent and temporary impacts to waters of the State or waters of the United States, such as fill types and volumes, excavation types and volumes, and locations of culvert or other in-water work, diversions, dewatering, and potential habitat or water quality impacts.
- c) A description of any other steps that have been or will be taken to avoid, minimize, or compensate for loss of significant adverse impacts to beneficial uses of the waters of the State by the project proponent.
- d) A copy of the Notice of Determination and Record of Decision, Draft and Final Environmental Impact Statements and Reports, Mitigation Monitoring and Reporting Plan, Resolution adopting the CEQA environmental documentation, and Statement of Overriding Consideration.
- e) A copy of the signed, dated and completed Department of Fish and Game (DFG) Streambed Alteration Agreement application, including any attachments, or written correspondence/email from DFG stating this permit is not required for the Proposed Project.

If an Incidental Take Permit is issued by DFG, a copy of the final, signed and approved Incidental Take Permit should be submitted.

- f) A copy of the signed, dated and completed USACOE 404 permit application, including any attachments. If the USACOE 404 permit application is updated, revised, modified, or withdrawn, the project proponent should inform the Central Valley Water Board immediately.
- g) A copy of current or updated comprehensive wetland delineations is required. Wetland delineations should include, but not be limited to, all waters of the State and waters of the United States located within the Proposed Project area. Waters of the State and/or waters of the United States, may include, but not be limited to, all permanent and temporary water bodies, isolated and non-isolated waters, jurisdictional and non-jurisdictional waters such as rivers, creeks, streams, lakes, reservoirs, vernal pools, playas, potholes, wet meadows, marshes, mudflats, sandflats, fens, natural ponds, swamps, seasonal wetlands, riparian woodlands, sloughs, floodplains, and bogs located within the entire Proposed Project area. The wetland delineation should contain a map or series of maps covering the entire Proposed Project area illustrating the location(s) of all permanent and temporary impacts to waters of the State and

waters of the United States.

Copies of comprehensive wetland delineations and any other documentation submitted to any state or federal agency delineating waters of the State and/or waters of the United States, including revisions, should be submitted as part of the 401 Water Quality Certification application package.

- h) A copy of the final, signed jurisdiction wetland delineation determination letter from the USACOE.
- i) Photos and maps of the Proposed Project area illustrating any locations where permanent or temporary impacts to waters of the State or waters of the United States will occur, including, but not limited to, culvert, pipe, bridge, fill and excavation locations.
- j) A minimum processing fee is required; however, additional fees in accordance with Title 23 CCR § 2200 (a)(2) may also be required. Please use the fee calculator at http://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/dredgefillfeecalculator.xls to determine the total fee.

A copy of the fee calculator sheet should be submitted with the application package and check.

Please include a check payable to the State Water Resources Control Board.

- k) If compensatory mitigation is required by any state or federal agency, compliance with compensatory mitigation requirements is required, or a USACOE approved mitigation plan.

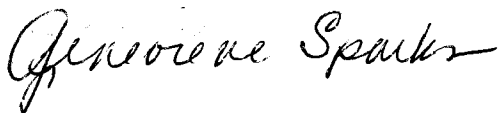
Compensatory mitigation for impacts to the waters of the State may be required by the Central Valley Water Board, in addition to any compensatory mitigation required by USACOE, United States Fish and Wildlife Service (USFWS), National Oceanic Atmospheric Administration/National Marine Fisheries Service (NOAA/NMFS) and/or DFG.

- l) If the USACOE, or any other federal agency, conducts an Endangered Species Section 7 consultation with the NOAA/NMFS and/or the USFWS, a copy of the Biological Opinion(s) or concurrence letter(s) from these federal agencies is required.
- m) The Central Valley Regional Water Quality Control Board will require specific information on any installed, removed, replaced or abandoned culverts, pipes, bridges or other infrastructure within the Proposed Project area. Necessary information includes a detailed description and map of the locations of the infrastructure work, the dimensions and type of the infrastructure, and associated structure (i.e., headwalls, wingwalls, flared ends).

The type and volume (cubic yards) of fill (i.e., riprap, concrete, clean soil, asphalt), and volume of excavated material (cubic yards) below the ordinary high water mark will need to be provided and should be consistent with the map of culvert locations throughout the Proposed Project Area.

- n) For any non-infrastructure work requiring fill or excavation, the volume (cubic yards) and type of material that will be installed and/or removed below the ordinary high water mark in waters of the State or waters of the United States is required. Volumes and material types should be provided for each individual impacted location within the Proposed Project area.
- o) A hydrological analysis of impacts to receiving waters within, or downstream of, the Proposed Project area.
- p) A pre-certification meeting at the Central Valley Water Board will be required for the Proposed Project.
- q) A site visit will be required for the Proposed Project.

If you have questions regarding these comments, please contact me at (916) 464-4745 or gsparks@waterboards.ca.gov.



Genevieve (Gen) Sparks
Environmental Scientist
401 Water Quality Certification Program

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8631 BOND ROAD
ELK GROVE, CA 95624

YOLO COUNTY
1234 FORTNA AVENUE
WOODLAND, CA 95695

1.800.429.1022
FIGHTtheBITE.net

Lisa Gibson
US Army Corps of Engineers, Sacramento District
650 Capitol Mall Suite 5-200
Sacramento, CA. 95814

October 25, 2011

Re: SPK-2004-00116

The Sacramento Yolo Mosquito and Vector Control District has reviewed NOI/EIS for the Cordova Hills Project SPK-2004-00116. Please consider the following comments.

Address public health in regards to mosquito control and related activities while preparing the Environmental Impact Statement (EIS).

Consider implementation of District's Mosquito Reduction Best Management Practices (BMP) found in the District's BMP manual which is posted for your convenience at: http://www.fightthebite.net/download/SYMVCD_BMP_Manual.pdf

Sincerely,

Kevin Combo
Ecological Management Technician
Sac-Yolo Mosquito and Vector Control District
916-405-2093
kcombo@fightthebite.net

California Native Plant Society

October 26, 2011

Lisa M. Gibson
U.S. Army Corps of Engineers
Sacramento District
650 Capitol Mall, Suite 5-200
Sacramento, CA, 95814-4708
Lisa.M.Gibson2@usace.army.mil

VIA EMAIL

Subject: Notice of Intent to Prepare and EIS
Cordova Hills Project
Public Notice Number SPK-2004-00116

Dear Ms. Gibson,

The California Native Plant Society (CNPS) is a statewide non-profit organization of some 10,000 scientists, educators, and laypeople dedicated to the conservation and understanding of the California native flora. As a science-based conservation organization, we believe that good land use decisions must be accompanied by a thorough assessment of the environmental impacts as required by the state and federal Endangered Species Acts, the Clean Water Act, the National Environmental Policy Act, the California Environmental Quality Act, and other resource protection laws.

The Sacramento Valley Chapter of CNPS has been highly involved in participating in and commenting upon land use decisions at all levels that affect vernal pool ecosystems in Sacramento County. Chapter volunteers serve on the South Sacramento Habitat Conservation Plan steering committee and biological subcommittee. Chapter volunteers serve on a stakeholders group to determine land use planning for the former Mather Air Force Base and its vernal pool grassland ecosystem. Chapter volunteers serve on local land trust boards, steering committees, and management committees. Chapter volunteers have testified at innumerable planning commission, board of supervisors, and city council meetings on projects that impact vernal pool resources.

The Sacramento Valley Chapter of CNPS has long viewed the region including the area referenced in the Cordova Hills Project as the "Yellowstone" of vernal pool landscapes in Sacramento County. Geospatial analysis independently conducted for the developing South Sacramento Habitat Conservation Plan has confirmed that this region is unique within Sacramento County from the perspective of both density and diversity of vernal pools present, and in listed species presence. The diversity of vernal pool sizes, shapes, and hydroperiods is strongly correlated to high species diversity and a high level of ecosystem supporting function. The density of aquatic resources and listed species indicates that losses of this habitat will not easily be mitigated for elsewhere in the county.

CNPS hereby incorporates by reference the comments of the Environmental Council of Sacramento and Habitat 2020 submitted by Sean Wirth. CNPS is also highly concerned with the overall level of take, undermining of the South Sacramento Habitat Conservation Plan, and leap frog development resulting in poor urban connectivity. It also proposes misuse of the proposed Southeast Connector which will set a precedence for additional sprawl along this "expressway".

In addition to the concerns and issues expressed by ECOS and Habitat 2020, CNPS would like the U.S. Army Corps of Engineers to consider a full range of alternatives and conduct a comprehensive cumulative impacts analysis. Specific suggestions include:



Dedicated to the preservation of California native flora

Alternatives Analysis

CNPS requests that an alternative which includes protection of important resources immediately adjacent to Grant Line Road. This area is the upper watershed of a tributary to Laguna Creek. In the Record of Decision for the Sunridge Properties (SPK-2009-0051), the Corps identified an alternative (Alternative 3) which included preservation of this watershed on the west side of Grant Line Road as the Environmentally Preferred Alternative. This project abuts that set of projects.

Cumulative Impacts Analysis

The EIS for the Cordova Hills Project must consider and cross-walk with the various other EISs completed or being prepared for other projects in and around the area including Mather Specific Plan, The Preserve (or now called The Ranch or Sunridge 530)", Sun-Creek, Heritage Falls, The Arboretum, Rio Del Oro, Cordova Hills, Folsom Sphere of Influence, Glenborough, Easton Place, Excelsior Estates, Rendering Plant, and The Connector.

CNPS specifically requests that the U.S. Army Corps of Engineers consider any parcel for which a wetland delineation has been received, or for which a pre-application meeting has been held, regardless of the status of the permit application, within a five mile radius of Cordova Hills project be included in the cumulative impacts analysis.

CNPS specifically requests that the U.S. Army Corps of Engineers also analyze the cumulative impacts of unregulated vernal pool losses as has been recently disclosed through a mapping project conducted by Dr. Robert F. Holland. This report is available at <http://www.placerlandtrust.org/vernalpoolreport.aspx>.

Summary

On behalf of CNPS, I appreciate the opportunity to comment on this Notice of Intent. Please keep me informed of activities related to projects in this area that might impact vernal pool grasslands and endangered species habitat.

Sincerely,



Carol W. Witham
CNPS Treasurer
1141 37th Street
Sacramento CA 95816
(916) 452-5440
cwitham@ncal.net



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street

San Francisco, CA 94105-3901

November 4, 2011

Lisa M. Gibson
U.S. Army Corps of Engineers
650 Capital Mall Suite 5-200
Sacramento, CA 95814-4708

Subject: Intent to Prepare a Draft Environmental Impact Statement for the Proposed Cordova Hills Project in Sacramento County, CA (Corps Permit Application Number SPK-2004-00116)

Dear: Ms. Gibson,

The U.S. Environmental Protection Agency (EPA) is providing comments on the Federal Register Notice published August September 1, 2011 inviting comments on the subject action. Our comments are provided pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality regulations (40 CFR Parts 1500-1508), our NEPA review authority under Section 309 of the Clean Air Act and the provisions of the Federal Guidelines (Guidelines) promulgated at 40 CFR 230 under Section 404(b)(1) of the Clean Water Act.

EPA has serious concerns about the project, a mixed use, mixed-density community with an integrated university. According to the Notice of Intent, nearly 40 acres of the site's approximately 89 acres of waters of the United States would be lost due to direct impacts from fill. We agree with the Army Corps letter, dated June 18, 2008 to the project proponent, the Cordova Hills Ownership Group. That letter raised the possibility of permit denial, in large part because the project is within a portion of Sacramento County that has experienced, and continues to experience, a large loss of wetlands, including vernal pools.

The project site includes more than 47 acres of vernal pools. These are designated as critical habitat for a variety of threatened and endangered species by the U.S. Fish and Wildlife Service¹. This project and several others nearby would add to the already significantly reduced acreage of vernal pools in what the U.S. Fish and Wildlife has defined as the Mather core area.

We were pleased to learn that the project will now include the 880-acre Pilatus parcel², also owned by the Cordova Hills Ownership Group. Therefore the project will consist of the 2688 acre project site and the additional 880-acre parcel. A credible 404(b)(1) alternatives analysis could not be completed without considering the northern property. We acknowledge the benefit of information provided by the project proponent³ on Low Impact Development features (e.g., bioretention systems, swales incorporating native vegetation, pervious walkways, and roofs and streets that direct runoff to rain gardens and swales) and the 50-foot buffer areas planned around preserve areas.

¹ See the *Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon*, 2005, U.S. Fish and Wildlife Service

² October 6, 2011 Cooperating Agency Meeting among Lisa Gibbons, with the Army Corps of Engineers, and Mark Hanson, a consultant for the Cordova Hills Ownership Group with SBM Site Services, and others

³ October 13, 2011 email from Mark Hanson, a consultant for the Cordova Hills Ownership Group with SBM Site Services to Tom Kelly, U.S. EPA.

We appreciate the opportunity to review this Notice of Intent. When look forward to participating in the development of the DEIS, as a cooperating agency. When the DEIS is released for public review, please send one hard copy and one electronic copy to the address above (mail code: CED-2). If you have questions, please contact me at (415) 972-3856 or kelly.thomasp@epa.gov.

Sincerely,

A handwritten signature in black ink that reads "Tom Kelly". The signature is fluid and cursive, with a long horizontal stroke at the end.

Tom Kelly
Environmental Review Office
Communities and Ecosystems Division

EPA DETAILED COMMENTS, INTENT TO PREPARE A DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE PROPOSED CORDOVA HILLS PROJECT IN SACRAMENTO COUNTY, CA (CORPS PERMIT APPLICATION NUMBER SPK_2004-00116)

Waters of the United States

The DEIS should demonstrate compliance with Clean Water Act Section 404(b)(1) Guidelines (Guidelines) and their requirements for avoidance and minimization (40 CFR 230.10). Generally, the Guidelines limit issuing 404 permits to only those projects that avoid waters of the United States to the maximum extent practicable.

The DEIS should also demonstrate compliance with the Corps and EPA approved *Compensatory Mitigation for Losses of Aquatic Resources; Final Rule* (Mitigation Rule) 33 CFR Parts 325 and 332, and 40 CFR Part 230. Where impacts to WOUS are determined to be unavoidable, the Property Owners will need to identify appropriate compensatory mitigation consistent with Final Rule, which can be found at: <http://www.epa.gov/wetlandsmitigation/> and: <http://www.usace.army.mil/cw/cecwo/reg/citizen.htm>.

In preparing the DEIS, we remind the Corps of its findings in the Sunridge Properties Record of Decision:

Recognizing the significant cumulative loss of vernal pools, compensatory mitigation for future unavoidable impacts to vernal pool wetlands within the Mather Core Recovery Area shall be accomplished in the Mather Core Recovery Area, unless determined impracticable or inappropriate by the Corps.

The same criteria should also be applied to compensatory mitigation to future unavoidable impacts to vernal pool wetlands for this project.

We remain willing to assist you and the project proponent in determining compliance with the Guidelines. For further coordination and assistance with issues pertaining to waters of the U.S., please contact Paul Jones, EPA Wetlands Office at (415) 9723470, or by email at jones.paul@epa.gov.

Air Quality

The DEIS should include a detailed discussion of ambient air conditions (i.e., baseline or existing conditions), the area's attainment or nonattainment status for all NAAQS, and potential air quality impacts (including cumulative and indirect impacts) from the construction and operation of the project for each fully evaluated alternative. It should include estimates of all criteria pollutant emissions and diesel particulate matter (DPM). Additionally, the DEIS should ensure that the emissions from both the construction and the operational phases of the project conform to the approved State Implementation Plan and do not cause or contribute to violations of the NAAQS.

The Corps should include a Construction Emissions Mitigation Plan and adopt this plan in the ROD. In addition to all applicable local, state, or federal requirements, EPA recommends that the following mitigation measures be included in the Construction Emissions Mitigation Plan in order to reduce impacts associated with emissions of particulate matter (PM) and other toxics from construction-related activities:

Fugitive Dust Source Controls:

- Stabilize open storage piles and disturbed areas by covering and/or applying water or chemical/organic dust palliative where appropriate. This applies to both inactive and active sites, during workdays, weekends, holidays, and windy conditions.

- Install wind fencing and phase grading operations where appropriate, and operate water trucks for stabilization of surfaces under windy conditions.
- When hauling material and operating non-earthmoving equipment, prevent spillage and limit speeds to 15 miles per hour (mph). Limit speed of earth-moving equipment to 10 mph.

Mobile and Stationary Source Controls:

- Reduce use, trips, and unnecessary idling from heavy equipment.
- Maintain and tune engines per manufacturer's specifications to perform at California Air Resources Board (CARB) and/or EPA certification levels, where applicable, and to perform at verified standards applicable to retrofit technologies.
- Employ periodic, unscheduled inspections to limit unnecessary idling and to ensure that construction equipment is properly maintained, tuned, and modified consistent with established specifications. CARB has a number of mobile source anti-idling requirements. See their website at: <http://www.arb.ca.gov/msprog/truck-idling/truck-idling.htm>.
- Prohibit any tampering with engines and require continuing adherence to manufacturer's recommendations.
- If practicable, lease new, clean equipment meeting the most stringent of applicable Federal¹ or State Standards². In general, commit to the best available emissions control technology. Tier 4 engines should be used for project construction equipment to the maximum extent feasible³. Lacking availability of non-road construction equipment that meets Tier 4 engine standards, the responsible agency should commit to using CARB and or EPA-verified particulate traps, oxidation catalysts and other appropriate controls where suitable to reduce emissions of DPM and other pollutants at the construction site.

Administrative controls:

- Identify all commitments to reduce construction emissions and update the air quality analysis to reflect additional air quality improvements that would result from adopting specific air quality measures.
- Identify where implementation of mitigation measures is rejected based on economic infeasibility.
- Prepare an inventory of all equipment prior to construction and identify the suitability of add-on emission controls for each piece of equipment before groundbreaking. (Suitability of control devices is based on: whether there is reduced normal availability of the construction equipment due to increased downtime and/or power output, whether there may be significant damage caused to the construction equipment engine, or whether there may be a significant risk to nearby workers or the public.) Meet EPA diesel fuel requirements for off-road and on-highway, and where appropriate use alternative fuels such as natural gas and electric.
- Develop a construction traffic and parking management plan that minimizes traffic interference and maintains traffic flow.
- Identify sensitive receptors in the project area, such as children, elderly, and infirm, and specify the means by which you will minimize impacts to these populations. For example, locate construction equipment and staging zones away from sensitive receptors and fresh air intakes to buildings and air conditioners.

¹ EPA's website for nonroad mobile sources is <http://www.epa.gov/nonroad/>.

² For ARB emissions standards, see: <http://www.arb.ca.gov/msprog/offroad/offroad.htm>.

³ Diesel engines < 25 hp rated power started phasing in Tier 4 Model Years in 2008. Larger Tier 4 diesel engines will be phased in depending on the rated power (e.g., 25 hp - <75 hp: 2013; 75 hp - < 175 hp: 2012-2013; 175 hp - < 750 hp: 2011 - 2013; and \geq 750 hp 2011- 2015).

Water Availability

The DEIS should describe existing and/or proposed sources of water supply for the Project and direct, indirect and cumulative impacts to water resources that may occur. The proposed Project could result in over 10,000 new residential units and a mix of commercial facilities, resulting in significant increases in water demands for an indefinite period of time. EPA strongly encourages including a discussion in the DEIS of all water conservation measures that will be implemented to reduce water demands for the proposed Project, both during and after construction. The Project design should maximize conservation measures such as appropriate use or recycled water for landscaping and industry, xeric landscaping, a water pricing structure that accurately reflects the economic and environmental costs of water use, and water conservation education. An estimate of the water resource benefits that result from each mitigation and conservation measure proposed should be included in the DEIS. Water saving strategies can be found in the EPA's publications *Protecting Water Resources with Smart Growth* at www.epa.gov/piedpage/pdf/waterresources_with_sg.pdf, and *USEPA Water Conservation Guidelines* at www.epa.gov/watersense/docs/app_a508.pdf.

In addition, the DEIS should describe water reliability for the Project and clarify how existing and proposed sources will be affected by climate change. At a minimum, EPA expects a qualitative discussion of impacts to water supply and adaptability of the Project to these changes, as part of the DEIS impacts analysis.

Smart Growth

Smart Growth is defined as an effort to improve a project area with the participation of several stakeholders. It incorporates government and community partnering, environmental stewardship and transportation network enhancements for safety and functionality.

Consider implementing Smart Growth principles in development planning.

National, state and local organizations have come together to form the Smart Growth Network (SGN), a voluntary initiative led by 36 partner organizations that have come together to help integrate development which benefits the economy, communities and ecological sustainability. For innovative solutions which address low impact development, please visit EPA's Smart Growth website at <http://www.epa.gov/smartgrowth/index.htm>.

With the help of Smart Growth development, project proponents can demonstrate their commitment to being environmentally sound in development planning. Additionally, the value of having Smart Growth development provides economic growth and quality of life goals; attributes found attractive to both developers and potential home owners. Smart Growth design is beneficial for all stakeholders due to its ability to save money and save resources. Furthermore, the 2004 National Community Preference Survey conducted by the National Association of Realtors concluded that Americans tend to favor Smart Growth communities for the reason that they offer shorter commute times and offer walkable communities. The SGN has made it feasible and efficient to become a partner within the network. For information regarding the SGN please visit the following Web Site: <http://www.smartgrowth.org/>.

The Sacramento Council of Governments has approved a blueprint for growth in the region. The goals of the blueprint include providing housing choice and diversity, preserving natural resources, and providing choices for transportation that encourage walking, riding bikes, riding buses and light rail, and carpooling. The DEIS should discuss conformance with the blueprint.

Green Building

As stated at EPA's Green Building website, "green building is the practice of creating structures and using processes that are environmentally responsible and resource-efficient throughout a building's life-cycle from siting to design, construction, operation, maintenance, renovation and deconstruction." The website goes on to state that "well-designed, constructed, operated and maintained green buildings can have many benefits, including durability; reduced costs for energy, water, operations and maintenance; improved occupant health and productivity; and the potential for greater occupant satisfaction than standard developments. A green building may cost more up front, but can save money over the life of the building through lower operating costs." These upfront costs may be only a few percentage points higher than conventional building standards⁴. For more information on Green Building, the City of Folsom and Property Owners should visit EPA's Green Building website at: www.epa.gov/greenbuilding/index.htm. The EIS should discuss the environmental and economic benefits of green building relevant to the Project alternatives.

Greenhouse Gases and Climate Change

We recommend that the EIS quantify the annual greenhouse gas emissions that would occur as a result of project-related construction, operation, maintenance, and inspection activities. The EIS should compare these values to estimated greenhouse gas emissions at a regional, national, and global scale for different inventory categories. Comparing the magnitude of annual emissions from other sources will enable the decision makers to better understand the magnitude of the greenhouse gases associated with the proposed project and the extent to which their decision making may affect regional greenhouse gas emissions. The EIS should also discuss voluntary measures available to reduce and offset greenhouse gas emissions.

As part of the cumulative impacts analysis, EPA recommends the EIS present a general, qualitative discussion of the anticipated effects of climate change, including potential effects at a regional scale, on the project.

Consider the Use of Native Vegetation

To help protect the natural environment and its valuable water resources, EPA recommends that developers take future water use into consideration. EPA recommends landscaping with native plants when feasible. Using native plants that are adapted to the environment is an important consideration when developing in arid areas with limited water resources.

Vegetation planning is an important aspect of development. For example, trees can help block the summer sun. They also help by acting as wind breaks during extreme weather, control humidity and can help with home appreciation. We encourage the use of native plants and trees in development planning. This can help reduce water consumption and maintenance costs, which are attractive attributes for home owners. The Arizona Native Plant Society has a brochure that outlines several native plant species and their benefits to the landscape, see the following Web page: <http://www.aznps.org/html/GrowNative.pdf>.

Cumulative Effects

⁴ According to the frequently asked questions on green building, at EPA's website <http://www.epa.gov/greenbuilding/pubs/faqs.htm#13>

The proposed project is one of several developments in the area that have occurred in the recent past or are proposed and under various stages of development. As a result, it is critical that the cumulative effects analysis be comprehensive and rigorous, and that it consider an appropriate scope of activities, and spatial and temporal scales when assessing project effects. EPA suggests referring to the Council on Environmental Quality 1997, guidance *Considering Cumulative Effects Under the National Environmental Policy Act* found at <http://www.nepa.gov/nepa/ccenepa/ccenepa.htm>, and 1999 EPA guidance, *Consideration of Cumulative Impacts in EPA Review of NEPA Documents* found at <http://www.epa.gov/compliance/resources/policies/nepa/cumulative.pdf>. In addition, we recommend referring to the EPA, California Department of Transportation, and Federal Highway Administration Guidance for Preparers of Cumulative Impact Analysis found at http://www.dot.ca.gov/ser/cumulative_guidance/purpose.htm. While this guidance was developed for transportation projects, the principles and the 8-step process in this guidance can be applied to other types of projects, both within and outside of California. We recommend the principles and steps in this guidance to other agencies as a systematic way to analyze cumulative impacts for their projects.

APPENDIX C

404(b)(1) Alternatives Information

Section 404(b)(1) Alternatives Information Cordova Hills, Sacramento County, California

Prepared For:
U.S. Army Corps of Engineers
On Behalf of:
Cordova Hills Ownership Group

July 2014

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EXECUTIVE SUMMARY

Pursuant to the *Section 404(b)(1) Guidelines for Specification of Disposal Sites for Dredged or Fill Material* (33 U.S.C. § 1344(b)(1); 40 C.F.R. Pt. 230), this Alternatives Information evaluates potentially practicable alternatives and identifies the “least environmentally damaging practicable alternative,” or the “LEDPA,” in connection with the proposed development of a master planned community on approximately 2,668± acres within the County of Sacramento. The project is identified as the Cordova Hills Project (“Project”). The Cordova Hills Ownership Group (composed of Cordova Hills, LLC, and Conwy, LLC)(collectively the “Applicant”) is the project applicant and has applied for a U.S. Army Corps of Engineers (“Corps”) permit under the authority of Section 404 of the Clean Water Act to discharge dredged or fill material into approximately 39.630 onsite acres of waters of the United States and approximately 2.667 acres of offsite waters of the United States associated with offsite roadway improvements.

Summary of Proposed Project

The Cordova Hills Project site is comprised of approximately 2,668± acres and is generally located east of Grant Line Road at its intersection with Glory Lane (See Figures 3 and 4.)

The Project seeks to implement new standards for community design that incorporates “openness” and provides extensive preserved natural resources and distant mountain views.

The Project will result in a community consisting of estate, low, medium and high density residential units that gradually transition from the rural edge along the Project’s eastern boundary to the proposed regional retail and town center uses along the existing Grant Line Road which will be converted to the Capital Southeast Connector. The Project will also include a 223+/- acre University/College Campus Center site with a prototype design for a higher educational institution, athletic facilities, and student and faculty housing.

The Project is also designed to provide for a variety of environmentally responsible regional and community retail centers, office uses, medical facilities, and a network of trails and public uses.

Taken together, it is anticipated that this planned community will provide a strong mix of uses that will sustain themselves over time, through natural resource conservation, energy efficient homes, use of solar and other renewable energies, state of the art communication systems, fuel efficient vehicles, walkability, stormwater management, and multi-modal transportation.

The Corps verified wetland delineation of the Project site identifies approximately 89.106 acres of Waters of the U.S. These include 47.509 acres of vernal pools, 18.219 acres of seasonal wetland swale, 4.771 acres of seasonal wetland, 0.012 acre of seep, 16.899 acres of intermittent drainage, 1.522 acres of man-made stock ponds, and 0.174 acre of Carson Creek (Figure 8. *Verified Wetland Delineation*).

The Project was designed to preserve as many of the large, concentrated vernal pool complexes on the western terrace as practicable as well as maintain sufficient watersheds to support these

vernal pool complexes. Implementation of the Project will consist of preservation, avoidance of aquatic resources, and unavoidable adverse impacts. Project implementation would result in the avoidance of 49.317 acres of Waters of the U.S., and direct impacts to 39.630 acres of Waters of the U.S. Direct impacts will be mitigated to attain “no net loss” of wetland features and functions. The Project would also require 0.36 acres of offsite wetlands impacts necessary for roadway expansions which include 0.081 acres of vernal pools, 0.24 acres of swales/streams/creeks, 0.014 acres of roadside ditch, and 0.025 acres of seasonal impoundments. Those roadway expansions are for regional roadways in the County of Sacramento, City of Rancho Cordova, City of Folsom, and City of Elk Grove. They are likely to occur whether or not the Project develops since the need for them arises from other new developments in the region independently of the Project.

Off-Site Alternatives Summary

The Applicant has submitted substantial information regarding off-site alternatives to the Corps in connection with the Environmental Impact Report (EIR) certified by Sacramento County in January, 2013 and during the preparation of the Environmental Impact Statement (EIS) currently underway. The EIR analysis concluded that areas that could support a comparable large scale mixed-use project already had pending development applications and were therefore not available to the Applicant.

The EIR’s analysis also concluded that the Mather Specific Plan area could potentially be amended to incorporate the project because it was a County initiated project. Among other reasons, the Mather Specific Plan Area was not considered a practicable offsite alternative for the Project because the County was in contract to sell the undeveloped portion of the Mather Specific Plan area to a competing development company, thus making it unavailable. The EIR’s basis for rejecting the off-site alternatives is supplied in Appendix 4-A (EIR Offsite Alternatives Analysis).

Applicant also submitted a Clean Water Act §404(b)(1) Off-Site Alternatives Supplement (April 2013) to the Corps that evaluated 14 potential offsite locations in the southeastern Sacramento County area. A copy of that document is included as Appendix 4-B hereto. Those locations were determined not practicable for a combination of logistical and unavailability reasons.

As a result of the two foregoing evaluations of off-site alternatives, the Corps has agreed that no further information on any off-site alternatives is required at this time.

On-Site Alternatives Summary

This Alternatives Information evaluates on-site avoidance and minimization alternatives for development of a large scale mixed-use community at the Project Site. These alternatives were first analyzed to determine if they were practicable taking into consideration whether they met the Project’s overall project purpose and whether they were practicable to the Applicant after considering logistics and cost. Each practicable on-site alternative was evaluated to determine whether it would result in less adverse impact on the aquatic ecosystem as compared to the

Proposed Project. The analysis determined that two on-site alternatives were practicable: the Proposed Action Alternative and the Regional Conservation Plan Alternative. However, a variation of the Proposed Action Alternative also was examined that is referred to as the Modified Proposed Action Alternative that was also determined to be practicable.

Conclusion

This Alternatives Information has concluded that the Applicant's Modified Proposed Action Alternative is the likely candidate to be the least environmentally damaging practicable alternative.

1.0 INTRODUCTION

1.1 Purpose of this Alternatives Information

This document sets forth the “least environmentally damaging practicable alternative” analysis (“Alternatives Analysis”) required by the U.S. Environmental Protection Agency’s (“EPA”) *Section 404(b)(1) Guidelines for Specification of Disposal Sites for Dredged or Fill Material* (40 C.F.R. Pt. 230) to evaluate the proposed development of a master planned community in unincorporated Sacramento County, California. The proposed federal action for the Project is the issuance of an individual Section 404 Permit by the U.S. Army Corps of Engineers (“Corps”) to discharge fill material into approximately 39.630 acres onsite and 0.36 acres offsite of waters of the United States (“Jurisdictional Waters”) as defined by the Clean Water Act (“CWA”). The Project would avoid 49.317 acres of Jurisdictional Waters by placing them into a 538.5 acre onsite preserve system, which comprises approximately 20% of the overall project site. Sections 4, 5 and 6 of this document focus on determining the practicable onsite alternatives and the evaluation of which practicable alternative would be the least environmentally damaging practicable alternative.

1.2 Project Overview

The 2,668± acre Project is intended to implement the planning theories of “New Urbanism” and “New Ruralism.” It includes new master plan design concepts and technology in order to create a viable and sustainable master planned community that includes a University/College Campus Center.

The Project will result in a mixed-use community consisting of estate lots, as well as low, medium and high density residential units that gradually transition from the rural edge along the Project’s eastern boundary to the regional commercial centers along the existing Grant Line Road and potential future Capital Southeast Connector. The 223 +/- acre University/College Campus Center site will be situated, in part, along the Project’s southwestern boundary, and includes academic and administrative facilities, athletic facilities, student and faculty housing.

The Project is also designed to provide a variety of environmentally responsible regional and community retail centers, office uses, medical facilities, and a comprehensive network of trails and public uses serving the residents, University/College Campus Center students and staff, and the surrounding region.

The Applicant intends for the Project to provide a strong mix of uses that will sustain themselves over time, through natural resource conservation, energy efficient homes, use of solar and other renewable energies, state of the art communication systems, Neighborhood Electric Vehicles (NEVs), walkability, stormwater management, and multi-modal transportation.

1.3 History of Project Refinement

After initial pre-application meetings with the Corps, in early 2007 the Applicant began actively participating in the South Sacramento Habitat Conservation Plan (“SSHCP”), a regional approach intended to address issues related to urban development, habitat conservation and agricultural protection. At the same time, the Applicant began the analysis and design of the Cordova Hills preserve boundary. Since there was no SSHCP hard line map at the time, the Applicant looked at other recently permitted and approved projects as a guide to help design the preserve boundary. Most of the recently permitted projects in the area preserved approximately 50% of their vernal pool resources. As such, the Applicant sought to preserve a comparable amount of the Project’s vernal pool resources. In addition, when designing the preserve boundary, the Applicant also took into consideration the unique features of the property such as the occurrences of Sacramento Orcutt grass and the edge conditions of the land plan.

In October 2008, the Applicant began discussions with the SSHCP planning team regarding the Project’s preserve boundary and what the SSHCP planning team considered to be a robust preserve with adequate boundaries. The Applicant’s consulting team conducted additional scientific analysis of the site, consisting of a detailed watershed analysis and additional rare plant surveys.

The Applicant submitted an initial 404 permit application to the Corps on April 28, 2008. (See Figure 1.) As shown in Table 1, according to a tabulation calculated by ECORP, the Cordova Hills Project’s biological and wetlands consultant, the application contemplated preserving 24 acres of wetlands in a 183 acre main plateau preserve and preserving a total of over 41 acres of wetlands within a total of 332.6 acres of preserved lands.

Table 1: Preservation Refinement Summary				
Site Plan	Main Plateau Preserved Wetlands	Main Plateau Preserve Acreage	Total Preserved Wetlands	Total Preservation Acreage
2008 Application*	24.0	183.1	41.4	332.6
2009 Refinement**	33.3	385.9	49.7	541.7
2011 Resubmittal**	34.6	381.2	49.5	538.5

* Impacts for this version differed in ways they were calculated (Wetlands were only classified as Impact or Preserve, and all wetlands were clipped at the preserve edge (VP/SW were not calculated this was in subsequent refinements)) Acreage calculations excluded the Northern Property (Grantline Pilatus) which is excluded from subsequent versions.

** Preserve acreage calculated by excluding direct impacts (Acreage value consists of Preserve/Avoided/Temporary Impact)

In February of 2009, after numerous meetings with the SSHCP planning team and the environmental community, the Applicant increased the preserve boundary on the main plateau by approximately 203 acres from 183 acres of preservation to 386 acres of preservation, or a 111% increase. The Applicant increased the preserve boundary in 2009 primarily because of the following factors:

- The detailed watershed analysis concluded that some of the watersheds within the originally proposed wetland preserve would not be large enough to ensure that the preserved wetlands would remain viable. Based on this watershed analysis, all watersheds within the expanded preserve boundary will hydrologically support the wetland features proposed for preservation.
- The environmental community requested that the preserve boundaries be more consistent with the U.S. Fish and Wildlife Service (“USFWS”) recommendations. The preservation map proposed by the environmental community on October 17, 2008 was taken into consideration, along with letters and opinions voiced at environmental outreach meetings.
- Vernal pool preservation was increased from approximately 50% to approximately 67% to better meet the USFWS’ Vernal Pool Recovery Plan goal of preserving core areas of vernal pool complexes.

Due to subsequent changes to the Project its overall project footprint was reduced and the April 28, 2008 application was re-submitted to the Army Corps of Engineers on March 15, 2011 showing a total of 538.5 acres of preservation (including the 381.2 acre main plateau preserve). (See Figure 2.) This 2011 application represents the “Proposed Action Alternative.”

On January 29, 2013, the Sacramento County Board of Supervisors certified an environmental impact report and approved major land use entitlements for the Project that are consistent with the project description in Section 2.1 below. On March 12, 2013, the Board of Supervisors approved the Cordova Hills Special Planning Area Ordinance and a Development Agreement for the Project, thereby vesting its land use entitlements. A Large Lot Tentative Map was approved by the Board of Supervisors on April 23, 2013.

The County’s findings supporting the approval of the environmental impact report included:

- The Board finds that the Cordova Hills SPA Ordinance is a plan for sustainable, greenfield planning and development through its enhanced environmental designs. Examples include the potential solar farm within the Project area’s “bufferlands” and a commitment that 20 percent of all electricity required by the Project area will come from renewable onsite energy sources.

- The Board finds that the Project's design will provide neighborhood serving retail uses that reduce the length and number of vehicle trips and the resulting global climate change impacts when compared to a "business-as-usual" development in this same location, and has included all feasible mitigation in this regard.
- The Board finds that the Project accommodates a mix of new and traditional housing types ranging from single-family to multi-family to high-density residential units in order to serve all income levels.
- The Board finds that the Project's 223-acre site for a campus of higher education benefits the County by addressing both regional and state-wide current and long-term deficiencies in local options for students seeking a college education.
- The Board finds that the Project's 223-acre university/college center site implements County General Plan Policy ED-68 by serving to attract "additional institutions of higher education to Sacramento County." In addition, the Project supports the continued integration of regional institutions of higher education into the local and regional economies, as set forth in General Plan Policy ED-69.

(See, CEQA Findings of Fact and Statement of Overriding Considerations, at Pages 100 to 101, attached as Appendix 6.)

As noted above in this Section 1.3, the Cordova Hills project has undergone a continuing series of project refinements in order to reduce its impacts on vernal pools located within the project site. As shown on the below chart comparing the Cordova Hills project's earlier iterations with other development projects in southeastern Sacramento County, since its inception this project has consistently been among the top ten projects with the highest percentage of vernal pools preserved and avoided, an important resource in the Mather Core Area. It should be noted that four of the project design refinements for Cordova Hills are among the top ten projects with the highest percentage of vernal pools preserved and avoided in that Area for vernal pools.

VERNAL POOL IMPACTS

PROJECT	% OF TOTAL VERNAL POOLS PRESERVED & AVOIDED	Total Vernal Pool Direct Impacts	Total Vernal Pools Preserved	Total Vernal Pools	Notes
Aboretum - Waegel	73%	5.97	16.15	22.12	Sunridge Properties FEIS - October 2010 Pg. 400
Grantline 208	67%	3.27	6.79	10.06	Settlement Impacts ADS and Grantline 208 March 2013
Modified Proposed Action/Potential LEDPA - August 2014	69%	14.921	32.588	47.509	Corps Alternative 3 Hybrid
Cordova Hills - March 15th, 2011 Application	67%	15.644	31.865	47.509	Amended App for Section 404 Pg. 21. 404, 404 Permit, 404 Application, March 15, 2011 Submittal
Cordova Hills Regional Conservation Alternative/Potential LEDPA	64%	16.885	30.623	47.508	SSHCP Alternative Exhibit, EIS Folder in 'S' Drive
Douglas 103	61%	1.66	2.57	4.23	Sunridge Properties FEIS - October 2010 Pg. 398 (There were no settlement preserve adjustments as part of CNPS)
Anatolia	58%	29.67	41.1	70.77	Sunridge Properties FEIS - October 2010 Pg. 398
Cordova Hills - April 2008 Application	53%	24.81	27.5	52.31	Submitted 404 Permit Preserve 4-28-08
Suncreek	47%	14.5	12.72	27.22	Suncreek Joint EIR EIS, Pg. 3.3-35, Ch. 3.3-11
Montelena	43%	6.914	5.295	12.209	Approved BO Pg. 3
Arista Del Sol	41%	5.08	3.51	8.59	Settlement Impacts ADS and Grantline 208 March 2013
Folsom SOI	37%	2.92	1.72	4.64	Folsom SOI DEIR DEIS Pg. 516
The Preserve	32%	10.46	4.93	15.39	DEIR Oct. 2005 Pg. 437 (4.9-25) Most Recent Document Available
Sunridge Park	4%	1.31	0.05	1.36	Sunridge Properties FEIS - October 2010 Pg. 398
Anatolia IV	0%	1.36	0	1.36	Sunridge Properties FEIS - October 2010 Pg. 398
Delta Shores	0%	0	0	0	Draft EIR - Pg. 5.4-3
Douglas 98	0%	3.7	0	3.7	Sunridge Properties FEIS - October 2010 Pg. 398
North Douglas	0%	1.99	0	1.99	Sunridge Properties FEIS - October 2010 Pg. 398
Lot J	0%	1.88	0	1.88	Sunridge Properties FEIS - October 2010 Pg. 398

WATERS OF THE U.S. IMPACTS

PROJECT	% OF TOTAL WETLANDS PRESERVED & AVOIDED	Total Waters of the U.S. Direct Impacts	Total Waters of the U.S. Preserved (Onsite Only)	Total Waters	Notes
Douglas 98	100%	3.91	0	3.91	Sunridge Properties FEIS - October 2010 Pg. 398
North Douglas	100%	6.15	0	6.15	Sunridge Properties FEIS - October 2010 Pg. 398
Lot J	100%	2.99	0	2.99	Sunridge Properties FEIS - October 2010 Pg. 398
Montelena	97%	4.257	0.115	4.372	Approved BO Pg. 3
Sunridge Park	91%	1.81	0.19	2	Sunridge Properties FEIS - October 2010 Pg. 398
The Preserve	74%	15.65	5.61	21.26	DEIR Oct. 2005 Pg. 437 (4.9-25) Most Recent Document Available
Modified Proposed Action/Potential LEDPA - August 2014	63%	32.645	56.426	89.071	Corps Alternative 3 Hybrid
Delta Shores	61%	17.251	11.169	28.42	Draft EIR - Pg. 5.4-3
Arista Del Sol	60%	17.18	11.26	28.44	Settlement Impacts ADS and Grantline 208 March 2013
Suncreek	55%	24.17	19.5	43.67	Suncreek Joint EIR EIS, Pg. 3.3-35, Ch. 3.3-11
Cordova Hills - April 2008 Application	51%	51.83	60.35	102.18	Submitted 404 Permit Preserve 4-28-08
Anatolia	50%	44.22	44	88.22	Sunridge Properties FEIS - October 2010 Pg. 398
Folsom SOI	47%	39.5	44.14	83.64	Folsom SOI DEIR DEIS Pg. 516
Cordova Hills - March 15th, 2011 Application	45%	39.789	49.317	89.106	Amended App for Section 404 Pg. 21. 404, 404 Permit, 404 Application, March 15, 2011 Submittal
Cordova Hills Regional Conservation Alternative/Potential LEDPA	43%	38.414	50.692	89.106	SSHCP Alternative Exhibit, EIS Folder in 'S' Drive
Douglas 103	42%	1.98	2.73	4.71	Sunridge Properties FEIS - October 2010 Pg. 398 (There were no settlement preserve adjustments as part of CNPS)
Grantline 208	34%	3.72	7.38	11.1	Settlement Impacts ADS and Grantline 208 March 2013
Aboretum - Waegel*	27%	31.78	85.2	116.98	Sunridge Properties FEIS - October 2010 Pg. 400
Anatolia IV	0%	1.36	0	1.36	Sunridge Properties FEIS - October 2010 Pg. 398

* Approximately half of the wetlands are a lake (58.44 acres)

The Cordova Hills Project site consists of approximately 2,668± acres and is generally located east of Grant Line Road at its intersection with Glory Lane. (See Figures 3 and 4.) As identified on the U.S. Geological Survey “Buffalo Creek, California” 7.5-minute topographic quadrangle, the Project site consists of portions of Sections 13, 14, 23 and 24, Township 8 North, and Range 7 East [Mount Diablo Base Meridian (MDBM)] and Sections 18, Township 8 North, and Range 8 East (MDBM).

The lands to the west of the Project site that are within the City of Rancho Cordova have been approved for development in conjunction with the Sunridge Specific Plan and the Suncreek Specific Plan. Development of the Sunridge Specific Plan and the Suncreek Specific Plan areas will result in the development of intense urban uses along the length of the Cordova Hills Project’s western boundary. Urban development in those areas is now taking place within one mile of the Cordova Hills site.

1.4.1 General Plan Policies Related to Project Location and Design

The Sacramento County 2030 General Plan (the “General Plan”) carries forward two primary concepts from the previous General Plan that guide future growth in the County. These are the concepts of the Urban Services Boundary (“USB”) and the Urban Policy Area (“UPA”). The USB was designed and adopted as the ultimate long term growth boundary for all future urban growth in the County. Urban services, such as water and sewer, were not to be extended beyond the USB by any County agency. Within the USB, the County created an intermediate boundary for urban growth over time. That interim boundary is the UPA, which sets the boundary for where growth is to occur during the near term under the General Plan. The UPA has not previously been revised since it was originally adopted over twenty (20) years ago.

When the County updated its General Plan in 2011, it recognized the need for providing a specific mechanism for evaluating proposals that would amend or revise the interim UPA boundary. As part of its update to the General Plan, the County created a set of performance criteria that needed to be satisfied before the County would approve a request to change the UPA. Proposals for an amendment to the UPA are to be evaluated for a number of performance factors based on a scale of 1 to 24 points, with 18 points being the minimum required to qualify for a UPA amendment.

In order for a new project to be considered suitable by the County for new urban development the project site must be within both the USB, which is the ultimate growth boundary, as well as within the UPA, which is the near term growth boundary. The Cordova Hills Project has always been within the USB since the USB was originally adopted more than twenty (20) years ago. However, it was not within the original UPA, but immediately adjacent to the UPA. Consequently, in order for the Cordova Hills Project to be developed, it had to be included within the UPA.

In order to be eligible to file an application for an amendment of the UPA, a proposed project must first obtain approval and authorization from the County to file such an application. When the Project Applicant first sought approval to file such an application with the County, it had

included the lands referred to herein as the Pilatus Alternative as part of the original Cordova Hills Project. However, when the County authorized the Project Applicant to file an application to amend the UPA in March 2008, the Project Applicant was first required to delete the lands within the Pilatus Alternative from the application to amend the UPA.

The application to amend the UPA to include the current configuration of the Cordova Hills Project was filed with the County in 2008. In evaluating whether the Cordova Hills Project satisfied the performance criteria for a UPA amendment, the County determined that Cordova Hills had scored 21 points, which exceeded the 18 point requirement. The Cordova Hills Project is the first project to be evaluated under the new General Plan Update's performance criteria to receive approval for an expansion of the UPA.

The Project is consistent with various General Plan policies and is consistent with the General Plan's Growth Criteria. The Sacramento County General Plan has long designated approximately 2,366.3 acres of the Project proposed for commercial and residential development as within the USB. When the land use entitlements for the Project were approved by Sacramento County in January 2013, the UPA was amended to include the Cordova Hills proposed areas of development, except for the Bufferlands which will remain in uses consistent with its pre-existing agricultural zoning.

Because the Project's residential and commercial land uses are located within both the USB and UPA, it is consistent with the County's 25-year horizon development plans. (General Plan Land Use Element at 19 ["Goal: Direct new growth to previously urbanized areas, planned growth areas and strategically located new growth areas to promote efficient use of land, to reduce urban sprawl and its impacts, to preserve valuable environmental resources, and to protect agricultural and rangeland operations . . . Objective: Reserve the land supply to amounts that can be systematically provided with urban services and confine the ultimate urban area within limits established by natural resources"].)

The General Plan explains that the USB and UPA "work in tandem to manage and direct future development, as well as provide infrastructure and service providers with intermediate and ultimate growth boundaries to use to plan for future expansion." General Plan policies also support developing "[n]ew communities that feature a mix of housing, jobs and retail development . . . that protect environmental resources and preserve open space" such as the Project. (General Plan Land Use Element at 35.) Likewise, the General Plan supports neighborhoods "with a mix of employment opportunities, commercial amenities, neighborhood services, and a variety of housing types and sizes" that have been incorporated into the Project's specific plan. (General Plan Land Use Element at Page 41.) The General Plan's intent is to provide a variety of destinations nearby to each other to reduce dependence on automobile travel and to promote a sense of neighborhood through increased community interaction. (*Id.*)

The Project is also consistent with the General Plan's policies related to mixed-use developments. The General Plan explains in detail that:

“Mixed use developments offer the most benefits when located in community centers, commercial corridors and/or near transit stops. The best examples of mixed use often incorporate retail or office space on the ground floor and residential units above. Mixing compatible uses can form a symbiotic relationship with each use supporting the other and benefiting both. Residents benefit from local access to retail, employment, recreational amenities, cultural centers, transit, and other daily needs offered within walking or biking distance from their home. Residents also have the option of living directly above or near their place of work, be it in an office building or a commercial establishment. Commercial, office and employment uses realize an equal benefit from being located near residents. Nearby residents support local retail establishments, such as shopping at the corner store, eating at local restaurants, and frequenting nearby coffee shops, bars, and theaters. Employers benefit from the opportunity to tap a dense and diverse local workforce.

The community as a whole can reap possibly the largest rewards. Nearby residents can be a boon to the local economy and public transportation, increasing tax revenue and transit ridership. Mixing uses is also a desirable approach to developing more compactly, accommodating residential and commercial growth while relieving development pressures on the urban fringe. The mix of housing, retail and office space also helps foster a jobs/housing balance, reducing commute traffic. More active streets and sidewalks add to a community’s identity and spirit, as well as making public spaces safer and more appealing to shoppers. Active nightlife and the presence of residents makes for more ‘eyes on the streets,’ reducing the likelihood of a deserted streetscape that can lead to unwanted behavior.”

(General Plan Land Use Element at Page 42.)

To this end, the General Plan asks the County to “[s]upport private development requests that propose pedestrian- and transit-friendly mixed use projects in commercial corridors, town centers, and near existing or proposed transit stops.” (General Plan Land Use Element at Page 43.)

Existing urban development adjacent to the Project location ensures that implementation of the Project will, consistent with General Plan policies, not result in leap-frog development or unnecessary infrastructure. Cordova Hills is directly adjacent to the Sunridge Specific Plan, which currently has existing homes and continues to build out. It is anticipated by the time Cordova Hills is ready to begin construction the Sunridge Specific Plan will be further built out and bring infrastructure closer to Cordova Hills. Currently, the necessary sewer, water, and dry utilities infrastructure to serve Cordova Hills is located less than one mile from the project within the Sunridge Specific Plan area.

In addition to Cordova Hills being mentioned in the text of the General Plan as a result of the amendment to the UPA as noted above, it is also designated on the General Plan's Land Use Diagram to reflect the Project's land use designations.

Finally, the General Plan specifically states the anticipated benefits the Project will provide the County and its residents:

"Pending Cordova Hills Application on May 14, 2008, the Board of Supervisors took action to accept an application to amend the Urban Policy Area (UPA) for approximately 2,366 acres in the Grant Line East area known as "Cordova Hills". On December 2, 2009, the Board of Supervisors amended the original application to include an additional 251 acres known as the "Bufferlands," for total project acreage of approximately 2,668 acres. The Board of Supervisors also accepted to receive and file the project information and proceed with environmental review. Some of the benefits from considering this project as identified in Board findings include:

- the unique opportunity to master plan large, contiguous habitat preserves totaling at least 450 acres within the project area to help successfully implement the SSHCP;
- the unique opportunity to address the transition from the urban area within the USB to the rural area outside the USB by creating an ag-res, agricultural or open space buffer inside the USB, thereby assuring that urban uses do not abut rural uses and that the area outside the USB remains rural in nature;
- the unique opportunity to incorporate Blueprint Principles into the project design including transportation choices, compact development, mixed land uses, natural resource conservation and quality design;
- the extraordinary benefit to Sacramento County allowing for the near-term accommodation of a 240-acre University of Sacramento, with up to 7,000 students¹ and 800 faculty members resulting in an approximately \$1 billion in regional economic activity and a significant education and cultural amenity with no other location in the County affording such a unique and important opportunity.

(Sacramento County General Plan, Land Use Element, at Page 15)

¹ The prototype university site layout, as conceptually designed, would accommodate up to 6,000 students.

1.4.2 Transportation Considerations Related to Project Location

The Cordova Hills Project's western frontage abuts Grant Line Road, which was originally designated in Sacramento County's General Plan as a six lane thoroughfare, but is now designated as a 4-lane limited access expressway known as the Southeast Connector. The Capitol Southeast Connector Joint Power Authority ("JPA") has selected Grant Line Road as the route for a 4 lane limited access expressway between U.S. Highway 50 and State Route 99. Sacramento County recently has amended its General Plan to include the future Southeast Connector. As such, Grant Line Road has been planned to be a major transportation corridor that would support a regional commercial center along that major road.

2.0 PROJECT ALTERNATIVES ANALYSIS BACKGROUND

The Section 404(b)(1) Guidelines prohibit the discharge of dredged or fill materials to Jurisdictional Waters if there is a “practicable alternative to the proposed discharge that would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other, significant adverse environmental consequences.” (40 C.F.R. § 230.10(a).)

An alternative is “practicable” if it is “available and capable of being done after taking into consideration cost, existing technology and logistics in light of overall project purposes.” (40 C.F.R. § 230.10(a)(2).) The preamble to the Guidelines explains “[i]f an alleged alternative is unreasonably expensive to the applicant, the alternative is not, 'practicable.'” (45 Federal Register 85343 (December 24, 1980).)

If the proposed activity would involve a discharge into a special aquatic site such as a wetland, the Section 404(b)(1) Guidelines distinguish between those projects that are water dependent and those projects that are not. A water dependent project is one that requires access to water to achieve its basic purpose. A non-water dependent project is one that does not require access to water for its basic purpose.

The Section 404(b)(1) Guidelines establish two rebuttable presumptions for non-water dependent projects that propose a discharge into a special aquatic site. The first presumption is that a practicable alternative is available that does not involve discharging into a special aquatic site. The second presumption is that all practicable alternatives to a proposed discharge, which do not involve a discharge into a special aquatic site, are presumed to have less adverse impact to aquatic resources. The applicant has the burden of clearly demonstrating that these presumptions do not apply in a particular case. (40 C.F.R. § 230.10(a)(3).)

This alternatives information will evaluate which alternatives may be practicable, then identify which practicable alternative is the least environmentally damaging practicable alternative as required by the Section 404(b)(1) Guidelines. The interspersed nature of aquatic features on the Project Site, and the extensive aquatic features generally found in southeastern Sacramento area, makes an off-site alternative for a large mixed-use development such as Cordova Hills that avoids all impacts to aquatic features impracticable because of the ubiquitous presence of aquatic features in this part of Sacramento County.

2.1 Project Purpose

The “basic” project purpose is to develop residential and commercial land uses. This basic project purpose is not water-dependent.

The “overall project purpose” is used to evaluate potentially practicable alternatives to the proposed project in accordance with the Section 404(b)(1) Guidelines. The Corps may not reject a legitimate project purpose and substitute one it deems more appropriate. (See generally, *Friends of the Earth v. Hintz*, 800 F.2d 822, 833-834 (9th Cir. 1986); *Sylvester v. U.S. Army Corps of Engineers*, 882 F.2d 407, 409 (9th Cir. 1989); *Greater Yellowstone Coalition v.*

Flowers, 359 F.3d 1257, 1270 (10th Cir. 2004).)

For the Cordova Hills Project: “The overall purpose is to provide a viable large-scale master-planned mixed-use development, and its associated infrastructure, within the Urban Services Boundary in southeastern Sacramento County” (hereinafter the “Overall Project Purpose”).

2.2 Project Need and Objectives

Outlined below are the Applicant’s project needs and objectives which, in conjunction with the Overall Project Purpose, guided the design of the Project:

- Develop a mixed-use community that is designed in a manner that provides compatible land uses and reduces overall internal vehicle trips.
- Develop an economically feasible master-planned community that reasonably minimizes its impact on biologically sensitive natural resources and that avoids and preserves on-site wetland and other aquatic resources to the extent practicable.
- Develop a sustainable, multi-service town center that promotes walkability and alternative transit modes including but not limited to Neighborhood Electric Vehicles (NEVs), light rail, shuttle bus, and carpool facilities.
- Provide uses for two underserved markets in the southeast Sacramento region:
 - Provide for the development of a major university/college campus center in Sacramento County by dedicating land and financial resources that may only be used for a university/college.
 - Provide residential neighborhoods: (a) that are age-restricted in order to serve seniors, and (b) that include larger lot sizes for executive housing to serve corporate executives.
- Develop internal Project infrastructure and circulation networks of multiple modes that provide efficient connections to various land use components throughout the Project; specifically, trail opportunities to enhance the integration between the university, town center, schools, and preserves/open space corridors surrounding the Project.
- Develop recreational and open space opportunities that include neighborhood and community parks that are fully integrated into the Project through adequate trail connections and provide critical regional trail connections associated with adjacent trail systems
- Allow for the inclusion of alternative energy sources to serve the mixed-use community.

2.3 Project Description

The Applicant designed the Project based on the overall project purpose and project need and objectives described above. The Project is intended to accommodate projected population growth and needs of Sacramento County through a comprehensive approach towards land use development consisting of residential, commercial, and higher education uses, and required infrastructure, as well as an open space preserve area, in a coordinated and interrelated development envelope. Each aspect of development is integral to the viability of all other developmental elements, as further discussed below.

The current Cordova Hills permit application consists of a project with 951.6 acres of residential, 240.3 acres of mixed-use residential/commercial, and 565.9 acres of schools, parks, roads/utilities, detention basins, and open space uses. The non-University/College Campus Center portion of the Proposed Action will consist of six distinct districts referred to as Villages. The County of Sacramento approved the Proposed Action as described in this Section 2.3 at hearings held during January and March, 2013.

2.3.1 Residential

The Proposed Action includes a maximum of 8,000 residential units in six Villages. Assuming 2.54 persons per household for rental units and 2.71 persons per household for owner-occupied units, this will provide housing for a residential population of approximately 21,379 residents in the Villages plus 4,040 residents on the University/College Campus Center (household estimates are from the Sacramento Area Council of Governments). Low Density Residential lot sizes will range from 4,000 to 8,000 square feet, and Medium Density Residential lot sizes will range from 3,000 to 6,000 square feet. High density residential zoning will be developed with attached condominiums and multi-family dwellings. The Proposed Action also includes on-site construction of affordable residential units. **Table 2** summarizes the number of units in each Village.

Table 2: Villages - Residential Summary		
Village	Number of Units	
Town Center Village	1,750	
Ridgeline Village	995	
University Village	1,475	
Estates Village	500	
East Valley Village	1,740	
Creekside Village	1,540	

The integrated University/College Campus Center component of the Proposed Action was designed to accommodate a residential program that could house most of its students on campus. Off-campus students and faculty are envisioned to live within close proximity to the campus to create more synergies for the University/College Campus Center and to be aligned with sustainability principles by reducing the need to travel long distances to school and work. Every type of lifestyle and income will be employed at the University/College Campus Center so it is critical that diversified housing types for every lifestyle and income be provided within close proximity to the campus.

The Cordova Hills Special Planning Area (“SPA”) Master Plan assumes that the University/College Campus Center would have up to 6,000 students at build out. 4,040 of the students could live on campus and 1,960 students live off campus. Applicant’s consultant, Economic and Planning Systems, Inc. (“EPS”) estimated that 1,295 students could live in the high density residential units provided at the University Village directly east of the University/College Campus Center site and the Town Center Village just north of the University/College Campus Center. (See, Table 3) Of the remaining students living off campus, 665 are estimated to live throughout other Villages in Cordova Hills.

Table 3: Summary of Housing for University/College Students	
Student Housing	Students
Living On Campus	4,040
Living Off Campus	1,960
Total Students	6,000
Off Campus: High Density Residential (i.e. University Village, Town Center Village)	1,295
Off Campus: Remainder Cordova Hills	665
Total Student Off Campus Housing	1,960

In addition to providing student off-campus housing, all university or college employees could be housed off-campus throughout the Cordova Hills community, even though many may choose to live outside the community. EPS determined with a detailed analysis of the estimated salaries of university employees that the range and number of product types was

sufficient to house and be affordable to all 2,000 full time faculty and staff within the Cordova Hills Plan Area. EPS's detailed analysis of housing demand related to the University/College Campus Center may be found in Appendix 2.

2.3.2 University/College Campus Center

In 2007, the Applicant began planning for the incorporation of a university/college campus into the design of the project site. The Applicant determined that synergies were clear between a University/College Campus Center and a large scale mixed-use development. Cordova Hills worked closely with one entity, the University of Sacramento, on locating at the site. However, that entity has ceased operations and will not be pursuing a new campus. As such, the Applicant has re-initiated discussions with other potential university and college users for the designated campus site within Cordova Hills and has secured entitlements from the County that strongly encourage and incentivize the integration of a higher education campus. If unsuccessful, the Applicant is required to donate the campus site to the County so that it can pursue the establishment of a higher education facility on this site.

The Sacramento County Board of Supervisors made a number of key findings when it voted to accept the Cordova Hills application, which included the proposed University/College Campus Center. Those findings will generally apply to any university or college user that ultimately utilizes the campus site. Those Board findings included the following:

“1) The proposed application and subject property represents a minor and logical extension of the Urban Policy Area (UPA) for the purpose of preparation of a Specific Plan or other development request in that:

a) The subject property is approximately 2,366 acres, of which less than 2,000 acres are considered available for urban uses.

b) While the proposed application would increase the total area within the UPA by 2.6%, it would only expand the developable area within the UPA by approximately 2% (+/- 0.2%).

c) Accepting the proposed application still leaves more than 45,000 acres between the existing UPA and the Urban Services Boundary (USB) that may be considered for future urban development, including land along the Jackson Highway Corridor, within the remaining Grant Line East area, Aerojet property south of Highway 50, small pockets south of Elk Grove, and within the communities of Orangevale and Rio Linda/Elverta.

d) The property is contiguous to the existing UPA, to planned urban development, and to existing or planned infrastructure necessary to serve development in the project area. The size and location of the subject property represents a logical extension of the UPA and will allow for the logical extension of necessary infrastructure and services.

e) The entire property is under single ownership, allowing for preparation of a Specific Plan or other master planning effort to occur in an efficient, coherent and cohesive manner.”

“2) Accepting this application would result in an extraordinary benefit to Sacramento County, as it would allow for the near-term accommodation of a private university, the University of Sacramento, on 240 acres located within the subject property. At full build out, the University would accommodate up to 7,000 students² and 800 faculty members, resulting in approximately \$1 billion in regional economic activity and a significant education and cultural amenity for the County and the region. No other location in the County attends such a unique and important opportunity.”³

“3) Accepting this application would also afford the County the unique opportunity to:

a) ‘Master plan’ large, contiguous habitat preserves totaling at least 450 acres within the project area to help successfully implement the South Sacramento Habitat Conservation Plan (SSHCP) and satisfy federal and state law.

b) Address the transition from the urban area within the USB to the rural area outside the USB by creating an agricultural-residential, agricultural or open space buffer inside the USB, thereby ensuring that urban uses do not abut rural uses and that the area outside the USB remains rural in nature.

c) Incorporate Blueprint Principles into the project design including: transportation choices, housing choices, compact development, mixed land uses, natural resource conservation, and quality design.”

Under the prototype design, at full build out the University/College Campus Center could consist of 1,870,000 square feet of facilities with classrooms and lecture halls; special facilities, such as laboratories, libraries, a place of worship, or a performing arts center; student union; student and faculty housing; a sports complex; gardens; and open space. An illustrative land use plan for the University/College Campus Center is represented in Figure 5.

The University/College Campus Center is recognized in the Cordova Hills Special Planning Area Ordinance as a central component of the Proposed Action. (See, Cordova Hills Special Planning

² See Footnote 1.

³ The University of Sacramento is no longer the identified user of the higher education campus proposed as part of the Cordova Hills project. However, an institution of higher education remains a component of the project. The net developable acreage of the University/College Campus Center is approximately 223 acres after deducting the avoided/preserved wetland areas and roadway footprint.

Area Ordinance, Section 613-13.H.) The County has determined that the University/College Campus Center serves as the focal point of the Cordova Hills community and therefore prohibited the Applicant from seeking alternative land uses for the 223- acre location during the 30- year term of the Development Agreement for the Project. (January 29, 2013 Sacramento County Staff Report, at Page 5; Development Agreement § 2.3.1.1.) Accordingly, modifications to the site or density of the proposed location almost certainly would compromise the programming and planning needs of the envisioned facility, which was designed with a primary focus on meeting the needs of the students and employees either on campus or directly adjacent to campus. (See, “University Site at Cordova Hills,” Holabird & Root (January 28, 2014) in Appendix 7.)

2.3.3 Mixed-use: Retail/Commercial/Office/Residential

The Proposed Action includes a total of 1.3 million square feet of mixed-use development (retail/commercial/office/residential) with 74% of these uses located in the Town Center and the remainder spread throughout the Villages.

The Town Center and University Village are proposed to contain a large array of mixed-use types, including restaurants, movie theatres, book stores, home supply stores, electronic stores, and other types of similar retail. The Proposed Action is designed to accommodate the University Village retail in a condensed “main street” atmosphere that will provide the amenities necessary for a “college town.” The Town Center’s mixed-use zoning will provide for office and some high density residential uses above the first-floor retail. The locations of the mixed use retail commercial in the development will allow residents to make use of electric vehicles and the transit system to reduce automobile use and reduce the resulting air emissions.

As these types of commercial and retail uses require high levels of traffic and visibility to thrive, they will be concentrated along Grant Line Road, along the western edge of the Project location. (See, “Commercial Location Opinion Letter – Master Planned Community in Sacramento County,” The Concord Group, at Page 5 (January 24, 2014) attached as Appendix 8; “Town Center Village, Cordova Hills,” Brown Stevens Elmore & Sparre, at Page 1 (January 27, 2014) attached as Appendix 9.) Additionally, with the future expansion of Grant Line Road, likely as the new Southeast Connector, this area will become a regional transportation corridor that will further support the Town Center as a shopping and entertainment center for the southeast Sacramento County region. (See, Cordova Hills Special Planning Area Ordinance, Section 613-13.A.)

In the remaining districts there will be neighborhood-serving retail/office/mixed-use village centers. These neighborhood-serving retail villages will consist of grocery stores, dry cleaners, restaurants, and other retail stores that meet the daily needs of residents and students within the community.

At build out Cordova Hills is projected to generate an annual net revenue surplus of \$2.7 million to the County’s General Fund. (See, Cordova Hills Fiscal Impact Analysis October 2012.) Phase

1 of the Project is projected to generate a net general fund surplus of \$752,000. (See, Cordova Hills Fiscal Impact Analysis October 2012.) Commercial development is critical to obtaining those revenues. Thus, any reduction of commercial uses in the Proposed Action would decrease these general fund revenues.

2.3.4 Parks and Open Space.

Approximately 35% of the project site is devoted to various park and open space amenities. In particular, the Proposed Action includes a mix of parks, open space, recreation, and non-vehicular circulation amenities, including: a Sports Park, community parks, neighborhood parks, pocket parks, linear parks, detention basin parks, community facilities, open space, utility easements, drainage corridors, wetland avoidance areas, and a large trail network.

Among these amenities is included a set of bufferlands, which are proposed to be located in the southwest corner of the project site, west of the University/College Campus Center. These bufferlands will include a Sports Park, as well as other potential uses, including: a solar farm; a district energy plant; a corporation yard; a park and ride lot; a natural resource avoided area; agriculture; community gardens; a sewer pump station; and water tanks.

Conceptually, the Sports Park will include: baseball fields and concession area; regulation soccer fields; basketball courts; picnic and playground areas; and parking associated with these uses. A common service road also will extend from University Boulevard and provide access both to the Sports Park as well as the University/College Campus Center. On account of the required features, the proposed Sports Park cannot feasibly be reduced in size without removing the regional amenities such as the playing fields.

Notably, the Sports Park strategically is located near Grant Line Road such that it will avoid impacts that otherwise might be caused on the interior of the site. In addition to concentrating impacts associated with heavy use of the Sports Park on the periphery of the project site, for instance, the Sports Park's location also will allow it to double as a park and ride lot, thereby helping to preserve additional land and further reduce impacts elsewhere in the Project. Such coordination can be facilitated because activities for the Sports Park typically take place in the evenings and weekends, whereas park and ride lots typically are utilized during business hours during the week – thus, there should be limited overlap between these two uses.

2.3.5 Wetlands Avoidance Opportunities

Most of the on-site wetland resources will be avoided. The location and size of these open space areas significantly influence the shape and size of the Villages by restricting local circulation routes. Development is prohibited within wetland avoidance areas and the uses adjacent to them will be controlled to avoid directly impacting the resources. Detention basins will be placed along the outer edges of all of the above avoidance areas, which will detain and treat water prior to discharge into the wetland systems, as well as discourage human intrusion into the avoidance areas. Preserving these environmentally richer concentrations of wetlands

and protecting the viability of the adjacent watersheds ensures the long-term viability of the wetland resources.

The Cordova Hills Master Plan Document establishes three distinct resource avoided areas located throughout the project site. These areas include: (1) Main Avoided Area (which includes the bufferlands); (2) the Paseo Central corridor avoidance; and (3) the University/College Campus Center Avoided Area. The largest wetland avoidance area – the Main Avoided Area – is proposed on the western third of the Project, atop the western plateau and where the majority of the wetlands exist. This area extends from the southwestern property boundary of the project site to the northern boundary line, and provides an open backdrop to the Town Center and establishes a balance between man-made and natural environments. This avoidance area also enhances the entry experience to the University/College Campus Center along the northern edge of University Boulevard, and provides a major Village boundary.

Second, a north-south intermittent drainage that bisects the central portion of the project site, referred to as the Paseo Central avoidance area, will be avoided within an open space corridor – along with some of the wetlands connected to the drainage. Avoidance of this primary north-south drainage corridor in its natural state will create a major open space and recreation amenity that defines the edges of the Villages along this feature. The drainage also will be the focus of a major open space corridor that includes a pedestrian and bike trail linking the entire community to this signature wetland feature. The Paseo Central drainage corridor also exits the central portion of Cordova Hills to the south and then re-enters the site at the University/College Campus Center's southeastern corner, referred to as the University/College Campus Center Avoided Area. The drainage corridor's re-appearance on the University/College Campus Center site is proposed for avoidance in the same manner as it is on the central portion of the project site.

Because of the relatively steeply sloping terrain of the Paseo Central watershed area in terms of its future development potential, the area adjacent to the Paseo Central preserved area (currently with a land use identified as R-2) is proposed for fill roughly eight feet deep, out of which the required drainage basins (to handle flood detention, water quality treatment, and hydro modification management) will be designed and constructed. On account of such fill, it will then be possible to gravity-drain the basins into the to-be-preserved intermittent drainage, without having to construct deep discharge pipes or channels through the Paseo Central corridor. The limits of this proposed fill have been designed to approximate the limits of the existing 100-year flood plain.

McKay & Soms, the Project's civil engineering firm, has analyzed locating these drainage basins outside (and thus uphill) of the R-2 designated open space and found that, due to the existing slope of the terrain, significant additional grading would be required not only for the basins themselves but also for the surrounding areas in order that graded slopes would be able to "catch" the existing slopes uphill of the proposed drainage basin location. On account of these practicability constraints, the lands located adjacent to the Paseo Central and identified

as R-2 cannot feasibly be included as preserved waters along the designated Paseo Central corridor. (See discussion of the Additional Avoidance Areas in Sections 5.8 to 5.14 below)

2.3.6 Schools. The Proposed Action includes three areas designated as elementary school sites (approximately 8 to 10 acres each), and one area designated as a joint middle and high school (approximately 79 acres). Cordova Hills is within the Elk Grove Unified School District.

2.3.7 Circulation And Roadway Network.

The central proposed point of access into the project site is an extension of the existing Chrysanthy Boulevard, which would bisect the center of the project site and provide the access point into the proposed Town Center. Two additional access points are proposed between ½-mile and ¾-mile north and south of the Chrysanthy access. The two access points to the south and north of Chrysanthy will traverse into the eastern area of the project site creating a loop where both the roads will eventually connect. These three access points into the project site will be four lanes and decrease to two lanes at the eastern side of the project site. The Sacramento Metropolitan Fire District considers these three access points necessary to meet the fire department's emergency response time policies. (See, Letter to Applicant from Deputy Chief Arend, December 19, 2011, attached as Appendix 3.)

The major north-south roadway within the Town Center, Town Center Blvd., will traverse through the Town Center parallel to Grant Line Road. Due to County roadway and intersection engineering requirements, Town Center Blvd. must be at least 1,500 feet from Grant Line Road.

The Town Center and western third of the project site on the plateau will consist of a grid street network due to the flat topography and high density of land uses that exist in the area. The remainder of the project site to the east follows a modified grid street network due to the density of land uses and topography.

a. Transit System

As outlined in the Cordova Hills SPA Master Plan, the Proposed Action will include a transit system that internally loops through the community and connects off-site to the Mather light rail station located along Hwy 50. At buildout, the transit system will operate 7 days a week and will have 15 minute headways during peak hours. According to the Cordova Hills Urban Services Plan and cost estimates provided by MV Transportation, the Cordova Hills transit system will cost approximately \$2,085,270 annually to operate. University/College Campus Center students will pay an annual fee to obtain a transit pass that will enable them to ride the transit system at all times without any additional charge. Residential homes and commercial buildings within Cordova Hills will pay a special tax or fee that also will allow residents and employees to ride the transit system without additional charge at all times. Lastly, although all residents, employees, and students within Cordova Hills will ride the transit system without the need to pay fares, the Applicant assumes there will be additional revenue generated from non-residents, non-employees, and non-students that will pay a fare box fee to ride the transit

system. To promote a high ridership of the transit system, it is critical the fare box be free for residents, employees, and students. This is also a requirement in the Project's Greenhouse Gas Plan and Air Quality Mitigation Plan.

Below in Table 4 is a summary of the funding sources for the Cordova Hills transit system.

Table 4: Annual Transit Funding	
Funding Sources for Cordova Hills Transit System	Funding
Fare box Recovery	\$104,270
University/College Fees	\$600,000
Special Assessments/Fees/Taxes	<u>\$1,381,000</u>
Total Funding	\$2,085,270

It is important for the University/College Campus Center to provide transit opportunities beyond personal automobiles for students to allow them to leave campus for shopping, entertainment, and traveling purposes. The Proposed Action also must have a transit system with 15 minute headways that loops internally and connects to Highway 50 to reduce vehicle miles traveled for the overall Cordova Hills community and to comply with the Greenhouse Gas Plan and Air Quality Mitigation Plan that are included as mandatory mitigation measures.

2.3.8 Public Utilities Water Supply

a. Potable Water

Cordova Hills is located within the Zone 40 service area of the Sacramento County Water Agency ("SCWA"). The Proposed Action requires the off-site extension of water lines. On-site transmission lines will be routed throughout the project area. Due to the varying elevations of the project site, several booster pumps as well as pressure reducing stations will be required to maintain system pressures to Zone 40 standards throughout the site. Generally, the on-site transmission system will consist of 16-inch to 24-inch mains extending through the site. A grid of 8-inch to 12-inch distribution mains will extend from the transmission system to serve local users. Water infrastructure will be phased with development to meet end user demands as well as operational criteria of the system.

b. Wastewater

The Cordova Hills Project area has been annexed into the Sacramento Area Sewer District ("SASD") and the Sacramento Regional County Sanitation District ("SRCSD"). SASD owns and

operates sewer trunk and collection systems throughout Sacramento County. SRCSD owns and operates the Sacramento Regional Wastewater Treatment Plant and interceptor system throughout Sacramento County. The Proposed Action requires the off-site extension of sewer lines. On-site transmission lines will be routed throughout the project area.

c. Stormwater

The western portion of the project site includes intermittent drainages within the headwaters of Laguna Creek, whereas a small eastern portion of the area drains into Carson Creek, a tributary to Deer Creek and ultimately the Cosumnes River. The remaining central portion of the project site drains into an unnamed intermittent drainage that drains into Deer Creek. The Proposed Action includes detention basins and open stormwater swales, as well as an underground pipe system for stormwater. Water quality will be conserved and enhanced through the use of local water quality features such as grassy swales, settling basins, and natural filters to clean surface run-off water before it reaches the natural drainage channels. These features will be incorporated in the pedestrian open space corridors and in dual-use park land. Low Impact Design (LID) principles such as bio swales, landscape retention areas, rain gutters dispensing to lawns, cobblestone driveways, and “Hollywood style” driveways will be incorporated to the greatest extent practicable and when soil conditions permit.

2.4 Site Description

a. Soils

The Natural Resources Conservation Service (“NRCS”) has identified sixteen soil types on the project site. The sixteen identified soil types are: (101) Amador-Gillender complex, 2-15% slopes, (125) Corning complex, 0-8% slopes, (126) Corning-Redding complex, 8-30% slopes, (132) Creviscreek sandy loam, 0-3% slopes, (156) Hadselville-Pentz complex, 2-30% slopes, (158) Hicksville loam, 0-2% slopes, (160) Hicksville sandy loam, 0-2% slopes, (163) Keyes sandy loam, 2 to 15 percent slopes, (187) Pardee-Ranchoseco complex, 3-15% slopes, (188) Pentz-lithic xerothents complex, 30-50% slopes, (189) Peters clay, 1-8% slopes, (192) Red Bluff loam, 2-5% slopes, (193) Red Bluff-Redding complex, 0-5% slopes, (198) Redding gravelly loam, and 0-8% slopes, (215) San Joaquin silt loam, 3 to 8 percent slopes, and (242) Xerofluvents, 0-2% slopes. (Figure 6, *Natural Resources Conversation Service Soil Types*.)

b. Vegetation and Wildlife

The Cordova Hills project site is generally comprised of level to steeply rolling topography, and is situated at elevations ranging from 130 to 278 feet above mean sea level (“MSL”). The western portion of the site is a relatively flat terrace supporting a number of vernal pool complexes at an approximate average elevation of 245 feet above MSL. The central portion of the site is comprised of the valley formed by an intermittent tributary to Deer Creek, which drains from north to south. The eastern portion of the site is occupied by a series of steeply rolling hills, and Carson Creek along the eastern boundary. The site is occupied by an annual grassland community that is interspersed with complexes of ephemeral wetlands (i.e., vernal

pools, seasonal wetlands, and seasonal wetland swales) and intermittent drainages. Two stock ponds are located in the western portion of the site, and Carson Creek borders the project site along a portion of its eastern boundary. The intermittent drainages onsite are tributary to Deer Creek and Laguna Creek.

The site's annual grassland community is dominated by non-native naturalized Mediterranean grasses including medusahead grass (*Taeniatherum caput-medusae*), ripgut brome (*Bromus diandrus*), soft brome (*Bromus hordeaceus*), wild oats (*Avena fatua*), and ryegrass (*Lolium multiflorum*). Other herbaceous species in this community include rose clover (*Trifolium hirtum*), bicolored lupine (*Lupinus bicolor*), cut-leaf geranium (*Geranium dissectum*), common vetch (*Vicia sativa*), filaree (*Erodium botrys*), sticky tarweed (*Holocarpha virgata*), Fitch's spikeweed (*Hemizonia fitchii*), yellow star-thistle (*Centaurea solstitialis*), hairy hawkbit (*Leontodon taraxacoides*), and turkey mullein (*Eremocarpus setigerus*).

Vernal pools and other seasonal wetlands found onsite may be considered by the U.S. Fish and Wildlife Service ("USFWS") to constitute potential habitat for vernal pool fairy shrimp (*Branchinecta lynchi*) (federal threatened status), vernal pool tadpole shrimp (*Lepidurus packardii*) (federal endangered status), slender Orcutt grass, (*Orcuttia tenuis*) (federal threatened status), and Sacramento Orcutt grass (*Orcuttia viscida*) (federal endangered status). Focused special-status plant field surveys were conducted within the Conwy and Solitu portions of the site in accordance with the *USFWS Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants* (USFWS 2000a). During the course of these surveys, Sacramento Orcutt grass was documented in three vernal pools within the project site. (Figure 7, *Locations of Sacramento Orcutt Grass*.) No other special status plant species have been documented on-site.

Surveys conducted in the winter of 2013 sampled 883 aquatic features for the presence of special status branchiopods such as the vernal pool fairy shrimp and the vernal pool tadpole shrimp. (See, ECORP "2013 Assessment Level Wet Season 90-Day Report of Findings Regarding Federally-Listed Branchiopods," in Appendix 5.) The results of this survey indicate that the proposed areas of avoidance include the majority of identified areas of occupied habitat. (Figure 14, *2013 Assessment Level Vernal pool Branchiopod Survey Results*.)

The portion of Carson Creek along the eastern boundary of the site is largely unvegetated due to the Creek's scouring effects. Plant species identified on the banks of Carson Creek include Indian chickweed (*Mollugo verticillata*) and rough cockle-bur (*Xanthium strumarium*).

c. Special Status Plant Surveys

ECORP Consulting, Inc. ("ECORP") conducted special-status plant surveys in accordance with the USFWS Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants (USFWS 2000), Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Natural Communities (California Department of Fish and Wildlife 2000), and California Native Plant Society ("CNPS") Botanical Survey Guidelines of the California Native Plant Society (CNPS 2001) throughout the Conwy and

Solitu portions of the site in May 2007, April and June 2008, and August 2009. Special-status plant surveys were conducted in 2010 and 2011 for the 251 acre area at the site referred to as the Bufferlands.

Sacramento Orcutt grass was observed in portions of three vernal pools. These vernal pools are in the same general area as previously-documented CNDDDB records of Sacramento Orcutt grass on-site. All three of the vernal pools occupied by Sacramento Orcutt grass are located within the proposed avoidance areas, with a buffer of at least 300 feet to the nearest edge of the avoidance area.

d. Wetlands

The Corps verified wetland delineation identifies approximately 89.106 acres of Waters of the U.S. on the project site. These include 47.509 acres of vernal pools, 18.219 acres of seasonal wetland swale, 4.771 acres of seasonal wetland, 0.012 acre of seep, 16.899 acres of intermittent drainage, 1.522 acres of man-made stock ponds, and 0.174 acre of Carson Creek (Figure 8, *Verified Wetland Delineation*.)

Table 5: Existing, Avoidance, and Impacted Waters of the U.S. (Acres)				
Type	Existing	Impact	Temporary Impact	Avoided
<i>Wetlands</i>				
Vernal Pool	47.509	15.644	0.000	31.865
Seasonal Wetland	4.771	3.059	0.000	1.712
Seasonal Wetland Swale-	18.219	13.866	0.000	4.353
Seep	0.012	0.012	0.000	0.000
<i>Other Waters</i>				
Intermittent Drainage	16.899	6.361	0.159	10.379
Creek (Carson Creek)	0.174	0.000	0.000	.174
Man-made Stock Pond	1.522	0.688	0.000	0.835
Total:	89.106	39.630	0.159	49.317

As shown in Table 5, of the 89.106 acres of Jurisdictional Waters mapped within the project site, development would result in direct impacts to 39.630 acres of Jurisdictional Waters, including 15.644 acres of vernal pools, 3.059 acres of seasonal wetlands, and 13.866 acres of swales. The Proposed Action would also require 2.667 acres of offsite wetlands impacts necessary for roadway expansions which include 2.524 acres of vernal pools, 0.012 acres of

swales, and 0.031 acres of seasonal impoundments. Those roadway expansions are for regional roadways in the County of Sacramento, City of Rancho Cordova, City of Folsom, and City of Elk Grove. They are likely to occur whether or not the project site develops since the need for them arises from other new developments in the region independently of the Proposed Action.

The Proposed Action was designed to avoid as many of the large, concentrated vernal pool complexes on the western terrace as practicable. Implementation of the Proposed Action will consist of avoidance of resources and unavoidable impacts. A small portion of the project site along its eastern boundary is within the 100 year floodplain of Carson Creek. This portion is not proposed for development as part of the Cordova Hills Project. These are the areas of avoidance described on Table 5 above. Project implementation would result in the avoidance of 49.317 acres, and direct impacts to 39.630 acres of Waters of the U.S. Direct impacts will be mitigated to attain “no net loss” of wetland features.

The areas of impact avoidance are shown on Figure 2, *Proposed Action Alternative - Land Use Plan*. Approximately 55% of the Project site’s jurisdictional waters, including 67% of the onsite vernal pools, would be avoided by the Proposed Action Alternative. In addition, the lands along the eastern boundary of the Cordova Hills Project site within the floodplain of Carson Creek will also be protected from future urban development by way of a conservation easement under the Proposed Action Alternative. Section 2.3.19 of the Cordova Hills Development Agreement requires the recordation of a conservation easement over that land adjacent to the project site before the first building permit is issued for the Cordova Hills Project.

3.0 REGULATORY REQUIREMENTS

3.1 General Clean Water Act Requirements

The goal of the Clean Water Act (“CWA”) is to “restore and maintain the chemical, physical and biological integrity of the Nation’s waters.” (33 U.S.C. § 1251(a).) To meet this objective, Section 301 of the CWA prohibits the discharge of any pollutant into navigable waters unless authorized under either Section 402 or 404 of the CWA. (33 U.S.C. § 1341.) Section 404 authorizes the issuance of permits for the discharge of dredged or fill material into Jurisdictional Waters. (33 U.S.C. § 1344.)

3.2 Overview of the Section 404 Process

The Corps administers the Section 404 program on behalf of the Secretary of the Army. The EPA has the authority to determine the scope of Section 404 jurisdiction, to issue guidelines, in conjunction with the Secretary of the Army, on the discharge of dredged or fill material (Section 404(b)(1), 33 U.S.C. § 1344(b)(1), the “Section 404(b)(1) Guidelines”), and to prohibit a discharge if EPA determines under Section 404(c) of the CWA (33 U.S.C. § 1344(c)) that the discharge will result in unacceptable adverse effects on municipal water supplies, shellfish beds and fishery areas, wildlife, or recreational areas. The EPA can exercise its Section 404(c) authority to veto the Corps’ issuance of a Section 404 permit.

The Corps’ Section 404 permit review involves “the consideration of the full public interest by balancing the favorable impacts against the detrimental impacts.” The Corps evaluates the probable impacts of the proposed activity and its intended use on the public interest. (33 C.F.R. § 320.1(a).) In its review, the Corps carefully weighs the benefits reasonably likely to accrue against foreseeable detriments. (33 C.F.R. § 320.4(a).) The Corps’ public interest analysis reflects a variety of factors including land use, economics, property ownership, and general needs and welfare of people, and it assesses the relative extent of the public and private need for the proposed project. (33 C.F.R. § 320.4(a).) The Corps should assume that “[w]hen private enterprise makes application for a permit . . . that appropriate economic evaluations have been completed, the proposal is economically viable, and is needed in the market place.” (33 CFR 320.4(q)). For Section 404 permits the Corps also determines whether a proposed activity complies with the Section 404(b)(1) Guidelines, including determining which alternative is the LEDPA under 40 C.F.R. 230.10(a) and whether significant degradation of aquatic resources, after considering proposed mitigation, would occur under 40 C.F.R.230.10(c)..

The Corps’ regulations also address the relationship between the Corps and state and local land use planning agencies. The regulations expressly state that “the primary responsibility for determining zoning and local land use matters rest with state and local and tribal authorities.” (33 C.F.R. § 320.4(j)(2).) The regulations direct that upon compliance with the Corps’ rules and other applicable federal law, in the absence of “overriding national factors of the public interest” that may be revealed during a permit application review, a permit “will be generally issued following receipt of a favorable state determination.” (33 C.F.R. § 320.4(j)(4).)

3.3 Section 404(b)(1) Requirements

The Corps is required to determine whether a project complies with the Section 404(b)(1) Guidelines. (40 C.F.R. Pt. 230; 33 C.F.R. § 320.4(a)(1).) The *Memorandum of Agreement between the EPA and the Corps Concerning the Determination of Mitigation Under the Clean Water Act Section 404(b)(1) Guidelines* (1990) (“MOA”) provides that the Corps evaluation under the Section 404(b)(1) Guidelines first must avoid impacts, then minimize impacts, and finally provide appropriate and practicable compensatory mitigation for any remaining unavoidable adverse impacts. The MOA encourages on-site, in-kind mitigation and an overall no net loss of functions and values. The Corps’ regulations found in Part 332 of Title 33 of the Code of Federal Regulations provides further support for the Corps’ no-net loss policy and reinforces the Corps’ commitment to protecting Jurisdictional Waters, including wetlands. The Section 404(b)(1) Guidelines prohibit the discharge of dredged or fill materials to Jurisdictional Waters if the proposed discharge is not the least environmentally damaging practicable alternative (40 CFR 230.10(a)).

The Section 404(b)(1) Guidelines also contain substantive requirements in addition to the “practicable alternative” standard. These include prohibiting discharges that cause or contribute to violation of water quality standards, violate any toxic effluent limit under Section 307 of the CWA, or jeopardize the continued existence of any endangered species or destroy or modify its critical habitat. (40 C.F.R. § 230.10(b).) If a federally-listed threatened or endangered species may be affected by a project, then the Corps is required to consult with the U.S. Fish and Wildlife Service, pursuant to 33 C.F.R. § 320.3. The Section 404(b)(1) Guidelines also prohibit any discharge that causes or contributes to significant degradation of Jurisdictional Waters. (40 CFR 230.10(c).) The Section 404(b)(1) Guidelines generally require that appropriate and practicable steps be taken to minimize adverse impacts on the aquatic ecosystem. (40 CFR 230.10(d).) An evaluation of the Project’s compliance with these substantive requirements will be provided as part of the Section 404 Permit process.

4.0 SCREENING ANALYSIS

4.1 Off-Site Alternatives Screening

The Applicant has submitted substantial information regarding off-site alternatives to the Corps through the Environmental Impact Report (EIR) certified by the County on January 29, 2013, and the Environmental Impact Statement (EIS) process currently underway. The EIR analysis concluded that the offsite locations that could support a large scale mixed-use project already had pending applications and were therefore not available. The EIR's basis for rejecting the off-site alternatives is supplied in Appendix 4-A EIR Offsite Alternatives Analysis.

The EIR's Offsite Alternatives Analysis also concluded that the Mather Specific Plan area could potentially be amended to incorporate the Project because it was a County initiated development. However, the EIR determined the Mather Specific Plan off-site alternative was not practicable due to the constraints created by its close proximity to the Mather airport overflight zones and the fact that it could therefore only provide one half of the residential development being proposed by the Cordova Hills Project. In addition, the Mather Specific Plan area would not allow the Town Center land uses to be physically situated adjacent to the University/College Campus Center land use in order to preserve the synergy between those land uses afforded by the Cordova Hills location. Moreover, the undeveloped land at the Mather Specific Plan Area is under contract to be sold by the County to a competing developer, making that offsite alternative not available. Consequently, the EIR's rejection of that alternative supports the conclusion that the Mather Specific Plan area is not practicable, as well as being unavailable.

In addition to the analysis in the EIR of Offsite Alternatives, the Applicant previously submitted the "Clean Water Act §404(b)(1) Offsite Alternatives Supplement, Cordova Hills" dated April 2013 to the Corps, a copy of which is supplied in Appendix 4-B hereto (the "Offsite Supplement"). The Offsite Supplement examined fourteen (14) alternative offsite locations for the project using three initial screening criteria. Those initial screening criteria consisted of (1) location within the USB in southeastern Sacramento County; (2) suitability for development of a large scale mixed use project; and (3) location along a major transportation corridor. Only five offsite alternatives passed the initial screening criteria. Those five offsite alternatives were then secondarily evaluated using the following criteria: (1) existence of any land use or environmental constraints; (2) presence of any logistical constraints; and (3) availability of the offsite alternatives. The five offsite alternatives considered under the secondary screening criteria in the Offsite Supplement were (i) Grant Line/Jackson; (ii) Aerojet; (iii) Mather Field Specific Plan; (iv) Folsom SOI; and (v) Rock Creek.

The Grant Line/Jackson Alternative consisted of approximately 2,457 acres, of which 488 acres are proposed for perpetual conservation in the South Sacramento Habitat Conservation Plan. That leaves 1,969 acres of land, which was sufficient to provide for a large scale mixed use development. Ownership of this alternative presented a substantial logistical constraint, with 84 parcels being owned by 68 different entities. In addition, one of the largest parcels at 710

acres is controlled by a competing developer who is currently seeking Corps approval for the Section 404 permit needed for the Arboretum Project. Excluding the acreage of the Arboretum project leaves approximately 1,747 acres owned by numerous entities. Given that the remaining 1,747 acres is below the 1,900 acre threshold and the numerous owners of those remaining acres, the Grant Line/Jackson alternative was deemed unavailable, as well as failing the logistics constraint.

The Aerojet property consists of approximately 6,304 acres within the USB and is situated along a major transportation corridor. However, the Aerojet property has been designated by the EPA as a Superfund site due to extensive groundwater contamination and has significant Superfund restrictions that would preclude the land uses and project objectives of the Cordova Hills project. As an example, those restrictions prohibit all residential uses, hospitals, and schools for persons under 21 years of age, all of which will preclude key components of the Cordova Hills project. In addition, the site is still being actively used for the conduct of Aerojet's ongoing rocket building and testing business. The remaining unrestricted portions of the Aerojet site are currently under consideration by the Corps for the necessary Section 404 Permit to develop it with the Rio Del Oro project. In light of the foregoing, it was determined that the Aerojet site was not practicable because of the Superfund restrictions over most of the site, and by reason of its unavailability due to the development approvals being pursued by its owners.

As already discussed above, the Mather Field Specific Plan alternative was determined to be unavailable due its sale by Sacramento County to a competing developer. Moreover, the Mather Alternative had land use constraints caused by the operation of the Mather Airport that would preclude residential uses, regional shopping centers, colleges/universities, and hospitals in the over flight zone of the Mather Airport or within the 65 CNEL noise zone contour. Due to those constraints and the size of the wetland preserves, the acreage of remaining developable property at Mather was only 418 acres, which is too small for a large scale, mixed use development comparable to the Cordova Hills project.

The Folsom SOI alternative contains approximately 3,596 acres situated along major transportation corridors of Highway 50 and the proposed Southeast Connector. It is within the City of Folsom, so the criteria of being situated within the USB is not applicable. It has 1,053 acres that will be set aside as open space and oak woodlands, leaving approximately 2,546 acres for potential development. Thus, it has sufficient land to meet the 1,900 acre threshold criteria. However, the Folsom SOI is owned by competing development interests who have filed applications with the Corps for the necessary Section 404 Permit to develop the property. Consequently, the Folsom SOI alternative was found to be unavailable.

The last alternative to be considered in the Offsite Supplement was the Rock Creek Property. It has approximately 2,584 acres within the USB and is located along both sides of the Jackson Highway (State Route 16) so it is along a major transportation corridor. Approximately 168 acres of the Rock Creek Project are within existing conservation easements. Other portions of this alternative, approximately 1,424 acres, are within the Mather Airport over flight zone or 65

CNEL noise contour that would preclude the development of any residential uses, regional shopping centers, colleges/universities and hospitals. The over flight zone also covers most of the alternative's frontage along the Jackson Highway, which would preclude a regional shopping center use. As a result, only 949 acres of the alternative are not constrained by the over flight zone, the 65 CNEL noise contour, or within an existing conservation easement. The remaining area is too small for development as a large scale, mixed use development comparable to the Cordova Hills project. In addition, the Rock Creek property is owned by competing development interests. As a result, the Rock Creek property was considered an impracticable alternative due to the land use restrictions resulting from its proximity to the Mather Airport and its control by other developers who are processing applications for land use entitlements and Section 404 permits.

4.2 On-Site Initial Screening Criteria

The on-site alternatives analyzed in this alternatives information document focused on avoiding and reducing impacts to aquatic resources as compared to the Project (the Proposed Action Alternative). The alternatives are based on the overall project purpose, the EIS's alternatives screening criteria, and were developed by the Corps in coordination with other Federal agencies including U.S. Fish and Wildlife Service and U.S. Environmental Protection Agency. The Proposed Action is intended to accommodate projected population growth and needs of Sacramento County through a comprehensive approach towards land use development consisting of residential, commercial, and higher education uses, and required infrastructure, as well as an open space preserve area, in a coordinated and interrelated development envelope. Each aspect of development is integral to the viability of all other developmental elements, as further discussed below. The following primary screening criteria were developed to eliminate alternatives that would be unable to meet the overall project purpose and need.

4.2.1 Located Within the USB

The market area for the Proposed Action is the Southeastern Sacramento County within the USB. This area has been identified as a future growth area in both the Rancho Cordova General Plan and Sacramento County's General Plan Update. In addition, the County of Sacramento completed a visioning effort identifying the area east of Grant Line Road as a future growth area. The City and County are striving to improve the jobs/housing balance in the area that currently has approximately three jobs to every one home. It is estimated that the Sacramento Region will add 1.7 million new residents between 2002 and 2050 – a roughly 90% increase in population. (SACOG Regional Forum, 2002.) This growth is expected to primarily occur in communities such as Rancho Cordova that are beyond the current urban fringe. (See, SACOG, "Regional Forum, 2002," in Appendix 1.)

The City of Rancho Cordova is home to the region's second largest Fortune 500 job base but housing availability has not matched this rapid growth in the job market. Approximately 40,000 employees commute to jobs in Rancho Cordova each day. (*Concerning the City of Rancho Cordova*, Sacramento Business Journal, June 16, 2006, in Appendix 1) In addition, about

140,000 people work within one mile of the Highway 50 corridor in the Rancho Cordova area. (Sacramento Bee, January 14, 2007, in Appendix 1) This reflects Rancho Cordova being the second largest job market in the SACOG Six County region through at least 2027. (*Projections of employment, population, households, and household income in the SACOG Six County region for 2000 – 2050*, Center for Continuing Study of the California Economy, in Appendix 1) The Proposed Action is intended in part to meet the tremendous housing demand in the area surrounding Rancho Cordova and in other southeastern Sacramento communities. (See, Table 6) In addition, the County of Sacramento considers it a priority to obtain the educational, cultural, and economic benefits associated with bringing a new higher education facility to the Sacramento region and has determined the project site to be an ideal location for such use. (Sacramento County Board of Supervisors, May, 14, 2008.)

Table 6: Fastest-Growing Local Area Communities, 2005-2007

<u>Communities</u>	<u>2005</u>	<u>2027</u>	<u>Increase 05-07</u>	<u>% Increase 05-07</u>
-				
<u>Population</u>				
Cosumnes	<u>6,496</u>	<u>59,474</u>	<u>52,978</u>	<u>816%</u>
Rancho Cordova	<u>117,182</u>	<u>169,093</u>	<u>51,911</u>	<u>44%</u>
Laguna	<u>67,277</u>	<u>116,509</u>	<u>49,232</u>	<u>73%</u>
Vineyard	<u>24,171</u>	<u>69,609</u>	<u>45,438</u>	<u>188%</u>
West Sacramento	<u>39,878</u>	<u>84,362</u>	<u>44,484</u>	<u>112%</u>
-				
<u>Households</u>				
Rancho Cordova	<u>42,568</u>	<u>67,871</u>	<u>25,303</u>	<u>59%</u>
Laguna	<u>22,378</u>	<u>46,658</u>	<u>24,280</u>	<u>108%</u>
West Sacramento	<u>14,453</u>	<u>35,688</u>	<u>21,234</u>	<u>147%</u>
Cosumnes	<u>2,193</u>	<u>22,684</u>	<u>20,491</u>	<u>934%</u>
Yuba City	<u>24,117</u>	<u>43,994</u>	<u>19,877</u>	<u>82%</u>
-				
<u>Employment</u>				
West Sacramento	<u>29,479</u>	<u>84,356</u>	<u>54,876</u>	<u>186%</u>
Rancho Cordova	<u>91,550</u>	<u>146,055</u>	<u>54,505</u>	<u>60%</u>
Roseville	<u>66,290</u>	<u>117,095</u>	<u>50,805</u>	<u>77%</u>
Downtown Sacramento	<u>113,421</u>	<u>159,479</u>	<u>46,058</u>	<u>41%</u>
East Sacramento	<u>58,148</u>	<u>80,767</u>	<u>22,619</u>	<u>39%</u>
<i>(Source: MTP 2027 Adopted March 2006 (Table 2, pg 13) - SACOG projections adopted 12-16-04; Center for Continuing Study of the California Economy.)</i>				

As an initial screening criteria, identification of alternatives was limited to properties currently within the USB in southeastern Sacramento County. County policy since 1993 expressly prohibits consideration of applications for urban development for areas outside of the USB. (Sacramento County General Plan Policies LU-1 and LU-2.) Because of the impracticability of obtaining urban services for a project outside the USB, development outside the USB presents a significant logistical impediment. The USB is intended by the County to be a permanent boundary not subject to modification except under extraordinary circumstances. Areas that are outside of Sacramento County's USB can be excluded as impracticable alternatives.

4.2.2 Large Scale Mixed-use Project

Generally, mixed-use projects are developed as master-planned communities. Master-planned communities are comprehensively planned developments constructed on a single tract of land or on multiple contiguous parcels owned and/or controlled by a minimal number of cooperating entities. The master planned approach ensures that design solutions are implemented in a comprehensive, interrelated manner. In contrast, projects that are developed on a parcel by parcel basis ordinarily do not provide the opportunity for a cohesive development.

Large Scale Criteria

The SACOG 2013-2021 Regional Housing Needs Allocation projects that unincorporated Sacramento County will require 13,844 additional housing units through 2021. The County has determined that approximately 8,000 of these units should be located in the Cordova Hills Special Planning Area. (Cordova Hills Master Plan, p. 3-13.)

The Applicant has determined that a successful large scale mixed-use development providing 8,000 units of residential housing, 1.3 million square feet of commercial uses (including a regional commercial center sufficient to support regional office, retail, and a university/college campus center for approximately 6,000 students requires a minimum of approximately 1,900 acres within the USB when taking into consideration the required ancillary uses, such as schools and recreational amenities, and the mixture of residential housing stock required for a successful master-planned development. As such, for purposes of this analysis, to meet the overall project purpose a feasible onsite alternative will need approximately 1,900 acres within the USB.

Mixed-use Criteria

The design of the Cordova Hills Project has undergone many revisions in order to create a viable development with reduced impacts on the overall environment. Its mixed-use design has been guided by the following growth concepts promoted by Sacramento County and SACOG in order to create more livable communities:

- Provide a variety of transportation choices
- Offer housing choices and opportunities
- Take advantage of compact development
- Use existing assets
- Contain a mix of land uses

(See, SACOG, “Better Ways to Grow,” at Page 1, in Appendix 1; see also, Sacramento County General Plan Policies LU-25, LU-26, LU-28 and LU-29.) Any project alternative will need to be able to support a mixed-use project that meets these standards.

The regional retail/office center use in the Town Center is an integral part of the mixed-use community that is planned for the Proposed Action, and indeed, as the Cordova Hills Special Planning Area Ordinance recognizes, may serve an integral role in the future development of the southeast Sacramento County region. (See, Cordova Hills Special Planning Area Ordinance, Section 613-13.A.) A critical requirement for a successful Town Center is its location along a major transportation corridor. The importance of location has long been recognized. “With rare exceptions, main street retail cannot survive entirely on foot traffic, and must be located near substantial drive-by traffic.” (See, New Urbanism, “Comprehensive Report 2001-2002,” at Page 5-3), in Appendix 1.) The same principles which make for a successful downtown area have been recognized as applying equally to creating a successful new town center. “As with all main street development, town centers located near a busy arterial road increase the visibility of their retail and take advantage of high-volume automobile traffic.” (See, New Urbanism, “Comprehensive Report 2001-2002,” at Page 5-8, in Appendix 1.) The office use component also requires easy access to a major transportation corridor. (See, New Urbanism, “Comprehensive Report 2001-2002,” at Page 6-6, in Appendix 1); see also, “Commercial Location Opinion Letter – Master Planned Community in Sacramento County,” The Concord Group, at Pages 3 to 5 (January 24, 2014), in Appendix 8); “Town Center Village, Cordova Hills,” Brown Stevens Elmore & Spare (January 27, 2014) in Appendix 9.)

This analysis therefore concludes that one of the screening criteria for a successful mixed-use project requires easy access to a major transportation corridor to support regional commercial and office uses. Thus, to satisfy the overall project purpose and need, alternatives must be located near a major transportation corridor. (Figure 1. *Major Transportation Corridors and Urban Services Boundary*.)

Revenue Neutral Criteria

County General Plan Policy PC-7 requires that any project in an expanded Urban Policy Area (“UPA”) area be cost-neutral to the County’s General Fund. In furtherance of this goal, Policy PC-7 requires that an applicant provide the County with a service plan that demonstrates that a project will in fact be revenue neutral. Because the Proposed Action is required to be revenue neutral, any alternative without the Town Center was rejected as not meeting this requirement. The Cordova Hills Special Planning Area Fiscal Impact Analysis relies on the property and sales taxes generated by the commercial uses at the Cordova Hills project to meet the revenue neutral criteria. (See, EPS, “Cordova Hills Special Planning Area Fiscal Impact Analysis” in Appendix 14) The County found that the approximately 966,779 square feet of commercial uses proposed within the Town Center area would generate substantial tax revenue for the County. (CEQA Findings of Fact and Statement of Overriding Considerations, at Page 98, in Appendix 6.) Any alternative without a Town Center would not approach the revenues necessary to be revenue neutral.

After applying the three primary criteria described above, only the following Alternatives that were noted in the EIS Alternatives Analysis will be examined in this information document:

- The Proposed Action Alternative
- The Expanded Drainage Preservation Alternative
- The Pilatus Alternative
- The Regional Conservation Alternative.

Excluded EIS Alternatives

Alternatives without the above primary components of (i) being within the USB, (ii) being a large scale mixed-use project; and (iii) being able to satisfy the County's revenue neutral criteria, were deemed unsuitable for further consideration because such alternative would be inconsistent with the overall project purpose and need. Under Section 404(b)(1) Guidelines, an applicant and the Corps are only required to consider alternatives that would attain the overall project purpose. Alternatives that would not attain the overall project purpose are assumed *a priori* to be non-practicable alternatives. The following three alternatives were eliminated from further analysis for the reasons stated below.

No Action Alternative. The No Action Alternative was excluded because it would not meet the basic project purpose of developing residential and commercial land uses. While the No Action Alternative is within the USB, it would not develop a large scale mixed-use project, which is necessary to meet the overall project purpose and need.

Expanded Preserves Alternative. The Expanded Preserves Alternatives evaluated in the EIS would place approximately 1,142 acres into wetland preserve and avoidance areas. To do so would require increasing the size of the western preserve area on the plateau all the way to the project site's boundary along Grant Line Road. As a result the developable area would be reduced to approximately 1,527 acres. More important, such an expansion of the plateau preserve all the way to Grant Line Road would completely remove the project's Town Center land uses, including the commercial/retail uses in the regional shopping center. That would be a fundamental change to the proposed Project. Without the regional shopping center, the Cordova Hills Project could not meet the County's revenue neutral criteria, because there would not be the substantial sales tax revenue a regional shopping center would provide. As noted above in Section 2.3.3 and below in Section 4.3.1, it is important from a logistics standpoint that a regional shopping center be located along Grant Line Road. It would not be practicable to relocate the regional shopping center to an area within the interior of Cordova Hills that does not have frontage along Grant Line Road. Consequently, the Expanded Preserves Alternative would not be able to satisfy the overall project purpose and need for a large scale mixed-use community without providing for the regional shopping center and Town Center mixed uses. Moreover, without a Town Center component with a regional shopping center, the Expanded Preserves Alternative could not satisfy the County requirement for the Cordova Hills

Project to be revenue neutral and would not be able to obtain the necessary County land use approvals.

Moreover, the Expanded Preserves Alternative would only provide two points of access into the project site from Grant Line Road at North Loop Road and at University Boulevard. At least three points of access have been found necessary for public safety and fire purposes for a project site of this size by the Sacramento Metropolitan Fire District. (See, Letter to Applicant from Deputy Chief Arend, December 19, 2011, in Appendix 3)

Maximum Preservation Alternative. The Maximum Preservation Alternative would increase the avoided areas onsite to a total of approximately 1,193.2 acres. The plateau preserve would be expanded to approximately 725.9 acres and encompass the entire western side of the project site along Grant Line Road. Unlike the Expanded Preserves Alternative, it would eliminate the North Loop Road access point from Grant Line Road into the project site and the Chrysanthy Boulevard access point from Grant Line Road, leaving University Boulevard at Grant Line Road as the sole remaining point of access into the project site. With only one access point into the project site, the Maximum Preservation Alternative would not be feasible from a public safety and logistics standpoint. The Sacramento Metropolitan Fire District has stated that at least three access points are needed for a project with residential uses of this size. (See, Letter to Applicant from Deputy Chief Arend, December 19, 2011, attached as Appendix 3.) Moreover, the Sacramento County Code, Title 22, Section 22.110.040, requires any new residential area with more than 40 residential units to have at least two points of access. With only one point of access, the Maximum Preservation Alternative is not feasible from a logistics standpoint because it suffers from an inability to fulfill basic life and fire safety access considerations and does not comply with applicable legal requirements for a minimum of two access points. The Maximum Preservation Alternative would also completely eliminate the Town Center area, and thereby do away with all mixed-use and regional commercial center uses at the project site. This Alternative would only contain residential and the university/college campus center land uses. Thus, the Maximum Preservation Alternative would not be able to fulfill the Cordova Hills Project's overall purpose to provide a large scale master planned mixed-use development because it would remove the Town Center mixed-use component from the project site. Without the Town Center's regional commercial uses, this Alternative would not be able to satisfy the County's revenue neutral requirement of General Plan Policy PC-7 since it would have no land uses that generated any appreciable sales tax revenues for the County. Loss of the Town Center uses would also adversely impact the Cordova Hills Project's ability to reduce vehicle miles travelled ("VMT's") because residents would have to drive offsite in order to conduct their shopping and seek employment. Reducing VMT's was one of the Cordova Hills Project's identified purposes for a large scale mixed-use development. Consequently, as a result of being unable to satisfy two of the three screening criteria set forth above, as well as the inability of this Alternative to satisfy minimum legal requirements for access roadways into the project site, the Maximum Preservation Alternative was found not to be a candidate for further consideration.

4.3 Practicability Screening Criteria

On-site alternatives consistent with the overall project purpose were evaluated to determine whether they would be practicable based on cost, logistical and technological considerations. The following practicability criteria were applied to evaluate potential on-site alternatives. An alternative that failed to meet one or more of the criteria was identified as not practicable and was not further reviewed as potentially less environmentally damaging on the basis that the alternative was not practicable. Alternatives that satisfied the costs or logistics criteria and were on the borderline of the other set of criteria were also considered practicable alternatives.

4.3.1 Logistics Criteria

a. Proximity of Town Center Regional Commercial Development to Grant Line Road.

On-site alternatives were evaluated based on the proximity of the Town Center regional commercial development area to Grant Line Road.

According to materials obtained from The Concord Group and from Brown, Stevens, Elmore & Sparre, it is clear that being situated along Grant Line Road will be essential to the success of the proposed regional commercial development component of the Cordova Hills Project. Commercial uses, such as retail space and offices, require high levels of traffic and visibility – such as those provided by a nearby thoroughfare – to survive. Visibility of retail space, for instance, is a key factor in determining if consumers will shop at a location and if potential tenants will be attracted to lease opportunities. (See, “Commercial Location Opinion Letter – Master Planned Community in Sacramento County,” The Concord Group, at Page 5 (January 24, 2014) in Appendix 8; New Urbanism, “Comprehensive Report 2001-2002”, at Pages 5-3 to 5-8, in Appendix 1) Further, when considering the construction or purchase of a retail or commercial site, developers, investment acquisition firms, and franchisors have basic criteria regarding the location, demographics, and traffic counts that inform their decision-making processes. In particular, these basic criteria generally require that a property be highly visible, located on a heavily traveled roadway or thoroughfare, and meet a baseline traffic count. Still other preferences include that the site be visible from or easily accessible to the highway. (“Town Center Village, Cordova Hills,” Brown Stevens Elmore & Spare, at Page 1 (January 27, 2014) in Appendix 9.) Thus, the better the access and visibility to a busy road, the more consumers will shop, the higher tenant occupancy rates will stay, the more lease rates will increase, and the more valuable the property becomes. (See, “Commercial Location Opinion Letter – Master Planned Community in Sacramento County,” The Concord Group, Page 5 (January 24, 2014) in Appendix 8.) Potential tenants will not locate in a facility that does not have these location and visibility criteria met.

By contrast, if the Town Center regional commercial component of the Cordova Hills Project was located within the core residential area of the community, both visibility and access substantially would be impaired – not to mention that such a decision would lead to significant traffic congestion within the community. Locating the Town Center use within an interior residential community would not work because the physical buildings with their signage would not be able to be seen by drivers from Grant Line Road, the only major road abutting the

property. In the context of the Cordova Hills Project, Grant Line Road ideally is situated for the regional commercial development. Relocating the Town Center to the interior of the project site simply would not be feasible. (See, “Commercial Location Opinion Letter – Master Planned Community in Sacramento County,” The Concord Group, Page 5 (January 24, 2014) in Appendix 8.)

Research conducted by The Concord Group indicates that the actual demand for commercial space likely will be greater than the area currently planned for the Town Center in the Proposed Action. The project site, for instance, is located in a new growth submarket of Sacramento and boasts close proximity and access to major regional employers. The future path of growth within Sacramento County has been identified as the market area along Highway 50 east of Sacramento and southwest of the City of Folsom. (See, “Strategic Market Opportunity Analysis and Positioning,” The Concord Group, at Page 1 (February 21, 2014) in Appendix 10) Further, Grant Line Road is a potential location for the future Capital Southeast Connector, which will link Interstate 5 to the southwest with Highway 50 to the north, which would greatly increase traffic counts and provide greater site visibility and opportunity to attract more regional traffic. The County itself recognized the potential value of such expansion, noting in the Cordova Hills Special Planning Area Ordinance that “[t]he Capital Southeast Connector could become a regional transportation corridor that will support the Town Center as a shopping and entertainment center for the southeast Sacramento County region.” (Cordova Hills Special Planning Area Ordinance, Section 613-13.A.) However, even if the Capital Southeast Connector never is constructed, the County will expand Grant Line Road to a six-lane thoroughfare as originally contemplated in the County General Plan prior to the inclusion of the Connector, which would increase traffic counts and visibility in a manner similar to the Capital Southeast Connector.

The Concord Group combined demand from the community, the market area, and three different future drive-by traffic scenarios to calculate a maximum commercial development demand. Traffic scenario number one used the same average daily traffic counts as a 2011 study, scenario number two used the projected traffic counts from the implementation of the Southeast Capital Connector along Grant Line Road, and scenario three used the counts agreed upon for transforming Grant Line Road into a six-lane roadway where the project site is located. Based on this analysis, the maximum commercial space demanded from each of these scenarios is 1.37 million square feet, 2.02 million square feet, and 2.05 million square feet, respectively – each of which represents a potential commercial demand in excess of the commercial square footage being proposed for the Town Center area. (See, The Concord Group, “Strategic Market Opportunity Analysis and Positioning” at page 24 (February 2014) in Appendix 10) Accordingly, in order to provide for a commercial development that both fits within the character of the Cordova Hills Project but also substantially takes advantage of the significant commercial opportunities along Grant Line Road, the Proposed Action provides for a Town Center commercial development situated along Grant Line Road. (See, William Hezmalhalch Architects, Inc., “Cordova Hills Commercial Demand and Acreage Requirements,” at Pages 1 and 2 (June 23, 2014) in Appendix 12)

The parking for the Town Center commercial development was also examined to determine if it would be feasible to accommodate the parking in parking structures instead of parking lots. It has been estimated that the Town Center commercial development will generate a need for 4,404 parking spaces. The estimated cost to provide that number of parking spaces with at-grade surface parking lots would be \$20,552,000. If multi-floor parking structures were used to provide the same number of parking spaces, the cost would increase to \$91,483,483. (See, Parking Structure Cost Comparison in Appendix 11) The use of a parking structure would be over four (4) times as expensive to the Applicant as using surface parking for the Town Center.

b. Contiguous Development.

On-site alternatives were evaluated in terms of whether the project layout would result in disconnected, island-like areas of development that would result in disjointed roadways with poor or insufficient access, and disjointed routes for water sewer, drainage infrastructure. Infrastructure efficiencies are available from contiguous development. An additional concern is the need for residential, commercial, and higher education uses to be contiguous with each other to ensure that the project will support a walkable, new urbanist community. Moreover, the separation of the project site's land uses will disrupt the "college town" feel or "sense of place" that is an objective of the Cordova Hills Project. The approved Cordova Hills Master Plan provides:

Cordova Hills is intended to include a high degree of connectivity. Connectivity is a measurement of the vehicular, pedestrian and bicycle connections and directness of the road or trail. A well-connected network will have many short links, numerous vehicular or pedestrian route intersections and few dead-ends; the more intersections, the greater the connectivity. The connectivity index for Cordova Hills' neighborhoods is 140 intersections (pedestrian or vehicular) per square mile except where topography precludes connections and in the Estate Village. This criteria [sic] is based on USGBC's LEED for Neighborhood Development requirements. All development will be designed to minimize barriers to pedestrian access and interconnectivity . . . Barriers to pedestrian access between neighborhoods shall be minimized. All community pedestrian paths and bikeways will connect to the commercial and mixed-use areas within Cordova Hills.

Through the reliance on higher density housing and land-use planning efficiencies, the Applicant has minimized the developable acreage needed for a successful large scale mixed-use community that would contain all of the proposed land uses of the Cordova Hills Project. The Applicant has determined that approximately 1,900 generally contiguous developable acres within the USB is required to support a large scale mixed-use development, and the mixture of residential housing stock required for a similar master-planned development. Therefore, for each alternative the acreage associated with the Bufferlands' Sports Park, the Agricultural land uses and the Avoided Areas were subtracted from the total acreage of the alternative to

determine the developable acreage of an alternative within the USB. The land use plan was then reviewed to determine if the developable acreage provided sufficient connectivity to support a walkable, new urbanist community with comparable land uses, residential units, commercial development and a University/College Campus Center site.

c. Accessibility.

On-site alternatives were evaluated in terms of the number of vehicular exit and entry points to the project site along Grant Line Road. The Sacramento Metropolitan Fire District determined that three (3) access points are necessary for public safety reasons in order to maintain adequate emergency access to the eastern residential portions of the project site and the Cordova Hills Project's recreational facilities. These three access points are also necessary to adequately serve the traffic demand generated by the proposed Town Center. A copy of the Metropolitan Fire District's letter to the applicant describing the fire and public safety need for the three access points is attached as Appendix 3.

d. University/College Campus Center

On-site alternatives were evaluated based on the location of the University/College Campus Center in the same location, configuration, and size as analyzed in the Adopted Cordova Hills Master Development Plan and as described in the Development Agreement with the County regarding the Cordova Hills Project. As noted above, the University/College Campus Center is located in one 223-acre Project location. Relocating a portion of these facilities to another location within the project site or decreasing the 223-acre footprint would compromise the programming and planning needs of the envisioned facility, which was designed with a primary focus on all of the students' and employees' needs being met either on the centrally-designed campus or directly adjacent to such campus in the University Village area and in the Town Center commercial area. (See "University Site at Cordova Hills," Holabird & Root, Page 1 (January 17, 2014) in Appendix 7.)

The University/College Campus Center specifically is designed to accommodate either a single institution or a cluster of smaller, integrated institutions. This model is typical and suitable for a wide variety of potential institutions throughout the world, and is the orientation most likely to attract an academic institution to the location. Higher education institutions, when looking to expand or establish a campus, typically look for opportunities for the majority of their student housing needs to be accommodated onsite and their shopping/entertainment needs to be met within close proximity. Further, such educational institutions typically prefer opportunities for their students to live on or very near campus for social, safety, educational, and recreational reasons. Two-thirds of the housing for the proposed University/College Campus Center use is met onsite and one-third is located offsite. Relocating parts of the campus facilities to dispersed areas would not allow realistic programming of the site for a university or college campus. The housing, classroom, public and administrative buildings, and recreational amenities required by an academic institution must be cohesively situated and planned. (See, "University Site at Cordova Hills," Holabird & Root, Page 2 (January 17, 2014) in Appendix 7.)

Second, the entirety of the University/College Campus Center was planned with direct frontage on the major south entry (University Boulevard) to the proposed Project. Such access for the entirety of the proposed facility to the University Boulevard frontage provides myriad benefits, including: (1) allowing easy and proximate access to university facilities from Grant Line Road; (2) helping to create local and regional identity; (3) enabling easy commuter use of the Cordova Hills planned internal transit system connecting to the light rail lines along Highway 50; (4) providing better public access to facility resources; and (5) providing for adjacent access by students and staff to the specifically planned University Village as well as the Town Center area. (See, “University Site at Cordova Hills,” Holabird & Root, Pages 1 to 3 (January 17, 2014) in Appendix 7)

The proposed density for the University/College Campus Center cannot practicably be increased. The proposed facility already is programmed with an overall Floor Area Ratio (FAR) of 0.2. To achieve such a density, both academic as well as residential buildings will be four (4) to six (6) stories in height. As the upper limit for walk-up structures, this is the maximum acceptable height for buildings to foster interactivity among occupants. To significantly increase the site’s building density would be to create an urban campus in an otherwise suburban setting – which would not be in keeping with the proposed sustainable site-design strategies or the overall Cordova Hills Master Plan. (See, “University Site at Cordova Hills,” Holabird & Root, Page 2 (January 17, 2014) in Appendix 7.)

Increasing the building density without increasing building height would require a reduction in the open space being made available on the campus – a clear negative impact to the overall design and functionality of the proposed facility. In addition to constraining the necessary campus services, a decrease in open space also would diminish the quality and experience of the campus grounds, which are designed to be in harmony with the Cordova Hills Project’s Master Plan. (See, “University Site at Cordova Hills,” Holabird & Root, Page 2 (January 17, 2014) in Appendix 7.)

As currently envisioned, the University/College Campus Center is planned to have a student density of 26.9 students per acre – significantly greater than other comparable institutions of higher education with similar programming. For example, the University of California at Davis has a student density of 5.4 students per acre; the University of California at San Diego has a student density of 14.3 per acre; the University of California at Santa Barbara has a student density of 22.2 per acre; the University of California at Irvine has a student density of 18.6 per acre; and the national average student density for all universities is 15.7 students per acre. (See, “University Site at Cordova Hills”, Holabird & Root, at Pages 3-4 (January 17, 2014) in Appendix 7) In light of the foregoing it is clear that the proposed student density at the University/College Campus Center is already far above average. Increasing it further would make it unattractive to a potential university user looking for a suburban location.

e. Sports Park

On-site alternatives were evaluated based on the proximity of Sports Park development to Grant Line Road – where it necessarily will be located in order to achieve maximum interactivity with the Cordova Hills Project as a whole. Notably, the Sports Park will be heavily utilized and will result in a wide variety of impacts that are incompatible with the core residential area of the Proposed Action. Such impacts, among numerous others, include the creation of very loud noises as well as the installation and use of bright lights. Further, as opposed to the option of preserving less land within the Town Center in order to accommodate a park and ride lot near Grant Line Road, the Proposed Action instead would combine the park and ride lot with the Sports Park parking lot, since these uses are active during opposite times – thereby preserving a greater amount of land adjacent to the Town Center. Finally, the proposed Sports Park also is strategically located next to the University/College Campus Center, for which it will serve as an overflow parking lot during university events. Thus, if any part of the Sports Park were relocated to another part of the project site, these synergistic benefits correspondingly would be reduced. Nor can the proposed Sports Park be decreased in size, due to the minimum regulation size requirements for the different types of athletic fields to be constructed and the demands of the County. Accordingly, alternatives that either would reduce the size of the Sports Park or relocate it to another location were rejected as impracticable.

f. Land Use Policies

On-site alternatives were evaluated as to whether they would require amendments to the County's General Plan, the County planning and zoning codes applicable to the Cordova Hills Special Planning Area, and the Development Agreement related to Cordova Hills. The Cordova Hills Master Plan, adopted by ordinance in March 2013, sets forth the development framework for land use, affordable housing, circulation, utilities and services, and design. The Master Plan's Land Use Plan sets forth the overall pattern and intensity of land use, and circulation that serves the proposed uses. On-site alternatives that would create conflicts with the County's zoning code were considered impracticable due to the speculative ability of the applicant of obtaining legislative action from County that would permit such an alternative. Amendment of the County's zoning code, including the applicable Development Agreement, would be subject to voter referendum, would require environmental review under CEQA, and would require a new entitlement process involving the County's Planning Commission and Board of Supervisors. Such approvals would potentially add several years to the project timeline and the ultimate adoption of such amendments is questionable at best. This constitutes a significant logistical site constraint.

Specific constraints in the General Plan, Cordova Hills Master Plan, and the Development Agreement include:

Urban Policy Area: The Cordova Hills SPA is located wholly within the County's UPA. The General Plan anticipates only incremental adjustments to the UPA over the next 25 year planning cycle. (General Plan Land Use Element at Pages 18 to 19.) Amending the UPA would require a re-initiation of the planning process for Cordova Hills, including compliance with the California Environmental Quality Act. Amending the UPA would also require the County to

make specific findings (General Plan Policy LU-119), and would require a logical and cohesive planning boundary which disfavors peninsulas (See General Plan Policy LU-119 figure of examples of illogical planning boundaries). This is a significant logistical constraint.

Land Use Plan: The Cordova Hills Land Use plan designates the permitted uses throughout the project area. Onsite Alternatives that contemplate uses inconsistent with such designations would be prohibited by the Cordova Hills Special Planning Ordinance and would require an amendment to the Cordova Hills Special Planning Ordinance.

University Requirement: The currently proposed 223 acre location for a University/College Campus Center “shall be used solely for the design, development and operation of an institution of education which awards college level degrees” (Development Agreement § 2.3.1.) If such an institution does not locate on the 223 acre portion designated in the Land Use Plan by the end of the 30 year Initial Term of the Development Agreement, then ownership of the University/College Campus Center site is to be transferred at no cost to Sacramento County so that the County can pursue a university. Moreover, the Development Agreement specifies that the developer will not seek or apply for a change in the land use during the thirty (30) year Initial Term of the Development Agreement. (Development Agreement § 2.3.1.1)

Sports Park Requirement: The applicant is required to dedicate the 50 acre site shown as a “Sports Park” to the County. (Development Agreement § 2.3.6.) The Sports Park is intended to be used for both park activities and as a park and ride facility for the Project. (Master Plan at 3-32.) It is intended to include baseball fields, basketball courts, picnic and playground areas and parking facilities. (Development Agreement § 2.3.6.)

Town Center Districts: The Cordova Hills Master Plan requires that the Town Center include five districts with distinct characters and intended uses (see Master Plan Figure 4.4), therefore alternatives that preclude this mix of districts would be inconsistent with the Master Plan and impracticable unless the Master Plan were to be changed.

Residential Density: The Cordova Hills Master Plan contains specific development standards for each use designation on its Land Use Plan. These development standards contain minimum and maximum density requirements, minimum lot sizes, and maximum height restrictions. (Master Plan Table 4.6 through 4.9.) Alternatives inconsistent with these standards would be impracticable.

4.3.2 Cost Criteria

The applicant retained Economic & Planning Systems, Inc. (“EPS”) to analyze and compare the financial feasibility of the four development alternatives for the Cordova Hills Special Planning Area included in this Section 404(b)(1) Alternatives Information, and analyzed below in Section 5. As a baseline, that analysis compares the development costs of those four development alternatives to the development cost of the Cordova Hills Project described in the original Section 404 Permit application made in 2008 by the Applicant. (hereinafter the “Original Application Alternative”)

The Original Application Alternative for the Cordova Hills project site would have consisted of 1,511.3 net developable acres that contained 1,227.2 acres of residential uses; 102.9 acres of commercial and office uses; and 181.2 acres of university uses. There would have been 9,465 total dwelling units in the Original Application Alternative and 1,349,379 building square feet. The Total Development Cost for the Original Application Alternative would have been \$868,631,000. The Average Cost Per Developable Acre would have been \$492,000. (See, EPS, "Cordova Hills Feasibility Analysis," (July 23, 2014) in Appendix 13.)

EPS performed a financial feasibility analysis dated July 1, 2014 for all of the project alternatives. After discussion with the U.S. Army Corps of Engineers' staff regarding an earlier version of that analysis, EPS revised its analysis to respond to requests from the Corps to include: (1) the total development costs of each of the four alternatives; and (2) a comparison of the estimated cost burdens of the project alternatives to the development costs of the Original Application Alternative. (See, EPS, "Cordova Hills Feasibility Analysis," (July 23, 2014) in Appendix 13.)

a. Total Development Cost

The total development cost for each proposed alternative is summarized in Table 1 of the EPS Feasibility Analysis dated July 23, 2014 (Appendix 13 at Table 1) and includes the following categories:

- Backbone infrastructure
- Public facilities
- Fee programs
- Subdivision improvements
- Land acquisition and entitlement costs.

Building permit fees were excluded from these costs. The total development costs for the Original Application Alternative were \$868,631,000, while for the Proposed Action they were \$808,551,000 (See, EPS, "Cordova Hills Feasibility Analysis" (July 23, 2014) at Table 1, in Appendix 13.)

b. Development Cost Comparison Methodology

The Cordova Hills Feasibility Analysis Table 1 (Appendix 13 at Table 1.) also summarizes and compares results based on the Development Cost Comparison Methodology for the Applicant's original permit application alternative made in 2008 (the "Original Application Alternative"), as

well as for each of the current four development alternatives that are the subject of this document, including the following additional comparisons of the alternatives:

- Comparison 1: Average Development Cost per Developable Acre. This comparison compares the average development cost per developable acre for each of the alternatives.
- Comparison 2: Average Development Cost per Dwelling Unit as Percentage of Sales Price. This comparison compares the average development cost per dwelling unit as a percentage of the unit sales price.
- Comparison 3: Average Development Cost per Square Foot for Nonresidential Uses. This comparison compares the average development cost per building square foot for the nonresidential uses at the project site for each alternative.

Each of these comparisons relies on detailed cost and development estimates for each of the four project alternatives. In addition, Comparison 2 also uses the average dwelling unit sales price. The backup data for each of these comparisons is contained in Table 2 through Table 9. (See, EPS, "Cordova Hills Feasibility Analysis," (July 23, 2014) at Tables 1 to 9, in Appendix 13.)

Utilizing the Development Cost Comparison Methodology, those alternatives that would represent a substantial increase in costs over the Original Application Alternative and/or the Proposed Action (with regards to either of the two respective comparisons) and would therefore be unreasonably expensive to the Applicant are not considered feasible and practicable.

The tables immediately below compare the results of Comparison 1, Comparison 2 and Comparison 3 for each of the proposed alternatives.

Comparison 1: Average Development Cost per Developable Acre

<u>Alternative</u>	<u>Average Cost per Developable Acre</u>	<u>Percentage Difference from Original Application Alternative</u>
<u>Original Application</u>	<u>\$492,000</u>	<u>Baseline</u>
<u>Proposed Action Alternative</u>	<u>\$518,000</u>	<u>+5.3%</u>
<u>Expanded Drainage Preservation Alternative</u>	<u>\$658,000</u>	<u>+33.7%</u>
<u>Pilatus Alternative</u>	<u>\$588,000</u>	<u>+19.5%</u>
<u>Regional Conservation Alternative</u>	<u>\$529,000</u>	<u>+7.5%</u>

Comparison 2: Average Development Cost per Dwelling Unit as Percentage of Sales Price

<u>Alternative</u>	<u>Average Cost per Dwelling Unit as Percentage of Sales Price</u>	<u>Percentage Difference from Original Application Alternative</u>
<u>Original Application</u>	<u>20.6%</u>	<u>Baseline</u>
<u>Proposed Action Alternative</u>	<u>21.5%</u>	<u>+4.3%</u>
<u>Expanded Drainage Preservation Alternative</u>	<u>27.9%</u>	<u>+35.0%</u>
<u>Pilatus Alternative</u>	<u>26.6%</u>	<u>+28.7%</u>
<u>Regional Conservation Alternative</u>	<u>22.8%</u>	<u>+10.5%</u>

Comparison 3: Non-Residential Cost Comparison - Cost Per Sq. Ft.

	<u>Original</u>	<u>Proposed Action</u>	<u>Regional Conservation</u>	<u>Expanded Drainage</u>	<u>Pilatus</u>
Avg. Cost Per Sq. Ft.	\$37	\$40	\$42	\$50	\$47
% difference from Original	0%	+8%	+14%	+35%	+27%
Source: Cordova Hills Feasibility Analysis for Section 404(b)(1) Permit; EPS #142002.2					

5.0 PRACTICABILITY SCREENING ANALYSIS

The following describes the on-site alternatives evaluated in this information document. Neither the Expanded Preserves Alternative nor the Maximum Preserves Alternative were evaluated further in this Section 5.0 because they do not contain the Town Center component necessary for the regional commercial land use that is an integral and important part of the proposed Project. Under the Section 404(b)(1) Guidelines, an alternative is not considered practicable if it is not available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purpose. In addition, alternatives without a regional commercial component would not be able to satisfy the revenue neutral criteria and comply with County General Plan Policy PC-7 (See, Section 4.4.2 above), thereby rendering any such alternatives infeasible.

5.1 Proposed Action Alternative

The primary components of the Proposed Action Alternative would be up to 8,000 residential units, 1.3 million square feet of commercial uses, and a 223 acre University/College Campus Center. (See, Figure 9. *Proposed Action Alternative Land Use Plan*)

5.1.1 Logistics

The Proposed Action Alternative satisfies all of the above-described logistics criteria. More specifically, such alternative: (1) contemplates a regional commercial center along Grant Line Road; (2) includes approximately 1,931.3 (2,668.5 – 737.2) generally contiguous developable acres within the USB; (3) provides three main access points to Grant Line Road; (4) preserves the University/College Campus Center in the location planned for in the approved Master Plan and the Development Agreement; (5) contemplates a Sports Park adjacent to Grant Line Road; and (6) is consistent with the established Sacramento County regulatory framework. This provides sufficient acreage to develop a functionally integrated walkable, new urbanist large scale mixed-use community.

Therefore, the Proposed Action Alternative meets the logistics criteria for practicability.

5.1.2 Costs

The total development cost for the Proposed Action Alternative is \$808,551,000, which breaks down into the following specific categories:

- Backbone infrastructure: \$210,790,000
- Public facilities: \$93,870,000
- Fee programs: \$122,910,000
- Subdivision improvements: \$297,960,000

- Land acquisition and entitlement costs: \$83,021,000
(See, EPS, “Cordova Hills Feasibility Analysis,” (July 23, 2014) at Table 2, in Appendix 13.)

Development Cost Comparison Methodology

Based on an estimated 1,373.1 total net developable acres, the average development cost per developable acre (Comparison 1) for the Proposed Action Alternative is \$518,000. (See, EPS, “Cordova Hills Feasibility Analysis,” (July 23, 2014) at Table 1, in Appendix 13.) Further, based on an average cost per dwelling unit of \$70,000 and an average sales price per dwelling of \$325,000⁴, the average development cost per dwelling unit as percentage of sales price (Comparison 2) for this alternative is 21.5%. (Appendix 13 at Page 3, Table 1.) For the nonresidential uses (Comparison 3), the average development cost per square foot for the Proposed Action Alternative is approximately \$40. With an average sales price of \$224 per square foot for the nonresidential uses, the average development cost per square foot as a percentage of sales price is 17.7% for the Proposed Action Alternative.

5.1.3 CONCLUSION

Because the Proposed Action Alternative satisfies the logistics and cost criteria it is considered a practicable alternative. The Total Development Cost per acre is 5.3% more than for the Original Application Alternative.

5.2 Expanded Drainage Preservation Alternative

The Expanded Drainage Preservation Alternative differs from the Original Application Alternative and Proposed Action Alternative by preserving a substantially larger portion of the on-site drainages, particularly in the drainage feature that trends south/southwest through the central portion of the project site (which ultimately connects to Deer Creek south of the Project site). This drainage feature would also have a 50-foot buffer zone from the adjacent HDR-2 development. The south/southwest-trending drainage feature in the eastern portion of the project site would also have increased preservation. (See Figure 10. *Expanded Drainage Alternative Land Use Plan*) This alternative would result in a total of 921 acres of preservation, as compared to 539 acres preserved under the Proposed Action Alternative. 18.186 acres of jurisdictional waters of the U.S. would be filled under the Expanded Drainage Preservation Alternative, compared to 39.630 acres that would be filled under the Proposed Action Alternative (a difference of 21.444 fewer acres filled).

The Expanded Drainage Preservation Alternative would reduce the number of residential units from 8,000 in the Proposed Action Alternative to 5,425 units, and reduce the amount of commercial and office square footage from 1,349,419 square feet to 1,210,693 square feet.

⁴ The average sales price per dwelling varies among all the Alternatives discussed in this document because the mix of housing types changes based on the acres of developable land and where that land is being removed from development due to the changing sizes of the preserves and avoided areas.

5.2.1 Logistics

The Expanded Drainage Preservation Alternative would include a reduced size regional commercial center along Grant Line Road, and would provide three access points. However, this alternative would only provide 1,614.1 (2,668.5 -1,054.4) acres of developable acreage within the USB, which is insufficient to provide a functionally integrated walkable, new urbanist large scale mixed-use community. Further, the increased areas of preservation substantially interfere with the connectivity of the project site. For example, the southeast Creekside Village neighborhoods would be isolated from the rest of the Cordova Hills community. The isolation of the two fingers of development in Creekside Village would conflict with the numerous Cordova Hills Master Plan policies that support connectivity and reliance on non-automobile transportation. The Expanded Drainage Preservation Alternative also contains significant connectivity issues in the Ridgeline and East Valley Village areas. The majority of the low density residences in East Valley would not have direct pedestrian routes of travel to the proposed elementary school site, while residences in this village farther to the west would be placed on a peninsula of development. Further, the regional commercial center in the Town Center would also be physically divided by a preserve area between North Loop and Chrysanthy Boulevard such that the largest parcel in the Town Center was only 30 acres in size. This would have unacceptable impacts on customer movement and would isolate the northern half of the Town Center from local residents and students. It is a common characteristic of regional commercial centers that they have a minimum size of forty (40) acres. (See, William Hezmalhalch Architects, Inc., "Cordova Hills Commercial Demand and Acreage Requirements", June 23, 2014, at Page 1, in Appendix 12)

Avoiding the swale and wetland complex to the south of the planned Sports Park would also be impracticable. The Cordova Hills Project is obligated by its Air Quality Mitigation Plan to provide on-site renewable energy systems and supply 20% of its electricity usage from a renewable source. (See, Cordova Hills Air Quality Mitigation Plan (January 2013) at Page 4) Meeting that obligation will be accomplished by using a solar energy farm. It was estimated that the project's residential units would require 20.3 MVA of power on average and 41.1 MVA of power at peak times. Each MW of generation capacity of a photovoltaic solar facility produces approximately 1,235 to 1,850 MWH of electricity a year in a climate such as Sacramento County. (See, 1,714 MWH/year [<http://gardenenergy.net/projects>]; 1,854 MWH/year [<http://www.glumac.com/articles/SacramentoPhotovoltaic.html>]; 1,235 MWH/year [<https://www.solarcity.com/commercial/portfolio/government/city-of-sacramento.aspx>].) Using an average of 1,543 MWH a year per MW of installed solar arrays, supplying the 12,893 MWH that approximates 20% of Cordova Hills' annual electricity use would require 8.35 MW of energy capacity. (See, Cordova Hills Draft EIR at Pages 7-21 to 7-23) Photovoltaic solar farms require approximately 8 acres per megawatt of energy depending on the technology used and local conditions. (See, Sacramento County September 22, 2010 Staff Report "2030 General Plan Update – Adoption Hearing #9 and Solar Farms Discussion," at Page 6.) Meeting the Cordova Hills Project's renewable energy requirements will require a minimum of 66.6 contiguous acres of the 127.6 agricultural acres in the Bufferlands area of the project

site. (See, Bob Parkins Renewable Energy Consultants, “Preliminary Evaluation of Solar System Configurations and Issues – Cordova Hills”, at Page 1 in Appendix 15.)

The most efficient solar energy farm should be built in one contiguous array in order to reduce wiring losses and avoid added wiring expense, as well as to avoid building duplicate interconnection unit substations. If the solar arrays are split into two locations, with part of the system located to the north at the Pilatus property, it would create the need for an additional unit substation. That additional substation would need its own multi-MVA transformer, breakers, switches, reclosers, ground fault detection banks, relays, and communications in order to feed a lateral underground transmission line that connects with SMUD at the southern solar array. It has been estimated that the underground lateral connection would follow roads for a distance of approximately three (3) miles to the single point of interconnection with SMUD at the southern array. The estimated additional costs for splitting the solar energy farm into two locations would include a unit substation for \$1,500,000 to \$2,000,000 and underground transmission lateral for 3 miles at \$765,000/mile at a cost of \$2,295,000, resulting in a total additional cost of between \$3,795,000 to \$4,295,000. (See, Bob Parkins Renewable Energy Consultants, “Preliminary Evaluation of Solar System Configurations and Issues – Cordova Hills”, at Pages 2 and 3 in Appendix 15.) An additional cost of splitting the solar energy farm into two locations would be unreasonably expensive to the Applicant, based upon the estimate of another \$3,795,000 to \$4,295,000 in costs if the solar farm arrays were situated into two different locations.

It is also important that the solar farm be located on relatively flat terrain in order to avoid the costs of building on steep slopes, such as those which are present at the Project site. If mass grading does not take place in an effort to avoid the existing swales and wetland features, then the existing steep slopes create construction challenges that add costs. One method of building on steep slopes involves the use of a mechanized crawler that installs “earth screws” as a method of providing supporting posts for the solar array system, while minimizing excavation and the need for concrete footings. However, the crawler will nonetheless disturb plants and turn up the soil as it travels across the landscape to install the earth screws. Construction logistic issues will also remain, with the need to preposition all solar system materials and associated installation equipment near the final installation locations with trucks. If the land is not graded to a more level condition, then steep slopes will restrict the free movement of materials and workers. If materials must be moved and positioned by workers on foot, then logistic and labor costs will be driven up. For the solar energy system envisioned for the Cordova Hills project site, the cost increase for building the system on sloped ground was estimated to be between \$5,500,000 to \$6,825,000 in additional costs. That additional cost increase does not include any environmental mitigation costs. Such a cost increase would result in the solar energy system not being economically feasible, and therefore an unreasonable cost burden on the Applicant if the solar energy farm were to be installed without filling the wetlands in the Bufferlands area of the Project site. (See, Bob Parkins Renewable

Energy Consultants, “Preliminary Evaluation of Solar System Configurations and Issues – Cordova Hills”, at Pages 1 and 2 in Appendix 15.)

Relocating the solar energy farm as a whole to another area at the project site is not likely to reduce wetlands impacts; instead, it is likely to result in greater wetlands impacts due to the higher densities of wetlands found in other areas of the project site. Moreover, relocating the solar energy farm to another location such as the Pilatus property would create problems with operation of the solar energy farm that would arise from dust generated by agricultural plowing and crop dusting or adjacent farm properties that would have an adverse effect on the solar panels. Placing a solar farm at the Pilatus property would also create problems for the adjacent agricultural operations due to chemical weed abatement activities on the solar farm. (See, Sacramento County September 22, 2010 Staff Report “2030 General Plan Update – Adoption Hearing #9 and Solar Farms Discussion,” at Page 9.)

Moreover, it would not be feasible to meet the required 20% renewable energy goal solely through the use of individual roof-top solar systems. Considerable costs would have to be incurred to design solar energy systems for every house plan and orientation. Not every house will have the desired southern orientation at the proper tilt to maximize solar power generation and achieve the 20% renewable energy requirement. Complex roof lines can reduce the amount of usable roof area to accommodate the photovoltaic modules. Shading from HVAC equipment, vents, dormers, and other roof planes can significantly impact energy generation. (See, Bob Parkins Renewable Energy Consultants, “Preliminary Evaluation of Solar System Configurations and Issues – Cordova Hills”, at Page 3 in Appendix 15.) Moreover, solar energy farms are designed to avoid problems with shade and shadows that arise when roof-top solar systems are used. The Cordova Hills Greenhouse Gas Reduction Plan requires the planting of approximately 15,000 trees on the Project site, with 4 trees being planted every 50 feet along the roadway system. (See, Cordova Hills Greenhouse Gas Plan (May 2011), at Page 32) The tree shading requirement, as well as the planting of trees near homes by homeowners to provide shade in backyards and sideyards, would come into conflict with roof-top solar units as the trees grow and mature and cast shadows over adjacent buildings. That shading will further reduce solar energy generation. (See, Bob Parkins Renewable Energy Consultants, “Preliminary Evaluation of Solar System Configurations and Issues – Cordova Hills”, at Page 3 in Appendix 15.)

Moving the Sports Park to another location within the project site would also create problems. The Sports Park was situated near the intersection of Grant Line and University in order to provide easy public access to the facility. It must be located along a major street, such as University Boulevard, in order to avoid disrupting the traffic flow within the project site. Moving the Sports Park to another location within the interior of the site would require re-evaluating and potentially increasing the size of the interior roadway network to accommodate traffic flows. Due to its amenities, the Sports Park is anticipated to attract not only residents of the Cordova Hills Project, but also residents from nearby areas in Rancho Cordova and Folsom.

By situating the Sports Park near the Grant Line and University intersection, such inbound traffic flows are diverted quickly from University Boulevard into the Sports Park, rather than being routed through the interior of the Cordova Hills community.

The Development Agreement and Cordova Hills Master Plan also require the Sports Park to provide a park-and-ride function with its parking area. Insofar as Grant Line Road is a major north-south roadway and the intended right-of-way for the Capital Southeast Connector, the Sports Park's park-and-ride lot feature could not logically be placed anywhere else in the project site except next to the Grant Line Road/Southeast Connector alignment where it would be the most effective at attracting users.

Noise and light considerations are also logistical factors which dictate that the Sports Park must remain in its originally intended location. The playing fields are planned to have lighting systems that will afford the opportunity for games to be played during nighttime hours. The lighting and noise generated from nighttime play at a 50-acre Sports Park would disturb residents if located nearby their neighborhoods. Moreover, the Sports Park cannot be reduced in size because of the land area need to physically accommodate all of the programmed playing fields (4 regulation soccer fields, 4 baseball fields, and 2 basketball courts), picnic areas and associated recreational amenities that will be provided by the Sports Park. (See, Cordova Hills Master Plan (March 2013), at Page 3-32)

The Expanded Drainage Preservation Alternative also creates problems for the University/College Campus Center. California is projected to continue to have increasing enrollment demand for both public and private higher education institutions. (California Postsecondary Education Commission, 2010, "Contribution of California's Independent Colleges and Universities in Meeting Undergraduate Demand.") In response to this demand, the University/College Campus Center site within Cordova Hills is designed to accommodate 6,000 students and 2,036 employees. The Campus Center is designed to accommodate a single, large institution in the traditional model of a major university along with accessible facilities for the community and general public, such as a theater and performing arts center. The Campus Center is also flexibly designed to accommodate an aggregation of smaller institutions nested together in the Oxford University model. The University/College Campus Center is organized around the concept of districts and landmarks. Districts are mainly comprised of major programmatic functions: academic, athletic, and residential. The University/College Campus Center will be primarily a residential non-commuter campus due to these three districts with students treating the campus as their community rather than simply a classroom.

In order to accommodate the programming for a 6,000 student campus with 2,036 employees, allow the flexibility for a large institution or an aggregation of smaller institutions, and to be a primarily residential campus with three districts to support the students and employees, the University/ College Campus Center – as described in the above logistics criteria – would require about 250 contiguous acres to achieve this programming. The site plan for the campus that encompasses only 223 acres was designed by one of the most experienced campus design firms (Holabird and Root) in the country and has been designed to efficiently encompass the required

components of the campus. Retaining all of the necessary campus facilities in a contiguous, central location is the only manner in which a sense of place required to implement a thriving academic environment could be achieved. (See, Holabird and Root, “University Site at Cordova Hills” (January 28, 2014) at Page 2, in Appendix 7) Without a centralized location for all of the educational facilities and components, these features would be lost.

The proposed increased avoided area on the University/College Campus Center site with the Expanded Drainage Preserve Alternative would make any sports and recreation facilities normally associated with a higher education facility, such as a sports stadium or a track, infeasible and the expanded preserve area physically divide the campus. The Proposed Action Alternative would devote over 85.7 acres towards athletic facilities and 39.7 acres towards the living and learning zone for a total of 125.4 acres for these two components of the campus. By contrast, the Expanded Drainage Preservation Alternative only provides 99.5 acres in a U shaped land area for both the athletic zone and living and learning zone, thereby making design of a college campus for 6,000 students that contains adequate facilities and the necessary sense of place infeasible. A reduction of the University/College Campus Center site from 223 acres down to 197 acres would significantly reduce its attractiveness and feasibility as a location for a new institution of higher education. As noted by Holabird and Root, specialist architects in the design of college and university campuses, the 223 acre site should not be compromised by reducing its size or locating it elsewhere within the Project area, as it would no longer meet the programming and planning needs of a university user. (See, Holabird and Root, “University Site at Cordova Hills” (January 28, 2014), at Page 4, in Appendix 7) Therefore, the Expanded Drainage Preservation Alternative fails the logistics criteria for practicability.

5.2.2 Costs

The total development cost for the Expanded Drainage Preservation Alternative is \$705,256,000 which breaks down into the following specific categories:

- Backbone infrastructure: \$219,440,000
- Public facilities: \$76,100,000
- Fee programs: \$124,120,000
- Subdivision improvements: \$202,575,000
- Land acquisition and entitlement costs: \$83,021,000

(See, EPS, “Cordova Hills Feasibility Analysis,” (July 23, 2014) at Table 2, in Appendix 13.)

Development Cost Comparison Methodology

Based on an estimated 1,022.1 total developable acres at the Expanded Drainage Preservation Alternative, the average development cost per developable acre (Comparison 1) for the

Expanded Drainage Preservation Alternative is \$658,000, or 33.7% greater than the Original Application Alternative. (See, EPS, "Cordova Hills Feasibility Analysis," (July 23, 2014) at Table 1, in Appendix 13.)

Further, based on an average cost per dwelling unit of \$92,000 and an average sales price per dwelling of \$330,000⁵, the average development cost per dwelling unit as percentage of sales price (Comparison 2) for this alternative is 27.9%, which is an average development cost per unit increase that is 35.0% greater than the cost per dwelling unit of the Original Application Alternative. (See, EPS, "Cordova Hills Feasibility Analysis," (July 23, 2014) at Table 1, in Appendix 13.)

Development costs for the nonresidential uses (Comparison 3) at the project site would also be significantly higher under the Expanded Drainage Preservation Alternative. The average development cost per square foot of nonresidential uses would be approximately \$50/sq.ft. The average development cost per square foot as a percentage of the selling price is 22.6%, which is an increase of 34.7% when compared to the Original Application Alternative. (See, EPS, "Cordova Hills Feasibility Analysis," (July 23, 2014) at Table 1, in Appendix 13.)

Accordingly, because it would result in a substantial increase in costs (under any of the Corps Cost Comparison metrics) and be unreasonably expensive to the Applicant as compared to the Original Application Alternative and the Proposed Action Alternative, the Expanded Drainage Preservation Alternative therefore fails the cost criteria for practicability because it likely is financially infeasible.

5.2.3 Conclusion

Because the Expanded Drainage Preservation Alternative does not satisfy either the logistics criteria or the cost criteria, it is not considered a practicable alternative.

5.3 Pilatus Alternative

The Pilatus Alternative adds approximately 862 acres of land to the north of the project site, and thereby increases the total project site acreage from 2,668.5 acres to approximately 3,531 acres. A larger area of the central drainage feature that trends south/southwest through the central portion of the project site would be preserved; this central drainage feature also extends north into the Pilatus property, and it would be preserved there as well. In addition, the western preserve area (adjacent to the Town Center) would be reconfigured and increased in size by extending it toward Grant Line Road. A total of approximately 962 acres (out of the 3,551-acre project site) would be preserved under this alternative, as compared to approximately 539 acres preserved (out of the 2668.5-acre project site) under the Proposed Action Alternative. (See Figure 11. *Pilatus Alternative Land Use Plan*) 32.655 acres of jurisdictional waters of the U.S. would be filled out of a total of 108.64 acres present on the

⁵ See Footnote 4 regarding an explanation for the changes in the average sales price per dwelling among the Alternatives.

entire Pilatus Alternative project site. 39.630 acres would be filled out of a total of 89.106 acres present on the Cordova Hills site under the Proposed Action Alternative.

The Pilatus Alternative would increase the number of residential units from 8,000 in the Proposed Action Alternative to 8,770 and increase the amount of commercial and office square footage from 1,349,419 square feet to 1,491,758 square feet.

5.3.1 Logistics

The Pilatus Alternative contemplates a reduced regional commercial center along Grant Line Road and provides three access points from Grant Line Road as required by the Sacramento Metropolitan Fire District and as approved by the County of Sacramento for the Cordova Hills Project. This alternative also includes approximately 2,445.2 (3,551.0-1,105.8) developable acres within the USB.

The land-use plan for the Pilatus Alternative presents contiguity problems similar to those found in the Expanded Drainage Preservation Alternative. The Pilatus Alternative would create the same fingers of development in Creekside Village as would the Expanded Drainage Preservation Alternative. The additional avoided areas in the south eastern corner of the East Valley Village would create a barrier to pedestrian movement between the East Valley Village and the Estates Village residences to the north and south. If walking or biking trails were built across the additional preserve areas, they would increase the amount of human intrusion into the preserves, as well as create additional adverse edge effects for the preserved areas.

The Pilatus Alternative also contains a major expansion of the preservation area into the University/College Campus Center's athletic zone that would create substantial planning obstacles to designing adequate athletic facilities such as a track or sports stadium that would be expected for a university/college with a residential program. The athletic portions of the University/College Campus Center are essential for the university/college user to accommodate sports programs and provide students and faculty with recreational opportunities. Decreasing the size of the recreational fields and still meeting student and faculty demands would not be possible. (See, Holabird and Root, "University Site at Cordova Hills," (January 28, 2014), at Pages 2 and 4, in Appendix 7)

Contiguity and connectivity of the Project site with the Pilatus Alternative would be disrupted because neighborhoods would be disjointed due to the high amount of bridging over the fingers of avoided drainage/wetlands areas. For example, the west side of the Pilatus parcel contains an island of development that would include approximately 60 residences that would only be accessible by a single bridge to the south. This would result in these residences being effectively isolated from the remainder of the Pilatus Alternative's neighborhoods and would not promote a walkable neighborhood. Moreover, it would create a substantial and irreconcilable public safety problem because fire and police vehicles would have only one point of ingress and egress from that isolated island of development on the west side of the Pilatus parcel. There is also a second larger island of development in the northwest corner of the Pilatus Alternative that likewise would have only one point of access, raising similar fire and

public safety concerns. Moreover, creating any such residential areas with only one point of access simply would be illegal under the Sacramento County Code. Title 22, Section 22.110.040 of the County Code requires any new residential area with between 40 to 100 units to have two points of access. Fire and public safety considerations dictate that there be at least two points of access to the residential areas if one road were to become blocked. Thus, the Pilatus Alternative would not be feasible for both legal and logistical reasons.

An additional significant legal impediment to the Pilatus Alternative is the fact that it would propose urban development in an area that is completely outside of the Sacramento County Urban Policy Area. The Applicant originally proposed including the Pilatus Alternative Area as part of the Cordova Hills Project when it sought permission from Sacramento County to expand the Urban Policy Area at the Cordova Hills Project. The County refused to accept an application for an expansion of the Urban Policy Area into the area encompassed by the Pilatus Alternative, and the Applicant was instructed to delete it from the project application. Consequently, as further explained in section 4.3.1(f) above, there is no basis upon which to believe that the County now would accept an application to move the lands of the Pilatus Alternative inside the Urban Policy Area at this time.

The Pilatus Alternative also contains unacceptable logistical impacts on the Town Center. The expanded main avoided area would create two small islands (9.8 acres and 9.9 acres) of town center land uses along University Boulevard which would physically divide the planned Southern Gateway District of the Town Center. The breakup of the Southern Gateway District would prevent it from having a pedestrian friendly main street with connected retail establishments that are primarily intended to serve students and residents of the University Village.

Finally, avoiding the entire swale and wetland complex to the south of the planned Sports Park would also be impracticable for all of the same reasons described previously in Section 5.2.1 concerning the Expanded Drainage Alternative that proposed similar avoidance.

Relocating the solar energy farm to another area at the Pilatus Alternative is not likely to reduce wetlands impacts; instead, it is likely to result in greater wetlands impacts due to the higher densities of wetlands found in other areas of the Pilatus Alternative. Moreover, relocating the solar farm to another location such as the Pilatus property would create problems with operation of the solar farm that would arise from dust generated by agricultural plowing and crop dusting at neighboring properties that would have an adverse effect on the solar panels. Placing a solar farm at the Pilatus property would also create problems for the adjacent agricultural operations due to pesticide drift arising from chemical weed abatement activities on the solar farm. (See, Sacramento County September 22, 2010 Staff Report "2030 General Plan Update – Adoption Hearing #9 and Solar Farms Discussion," at Page 9.) As mentioned above in Section 5.2.1 concerning placing a portion of the solar farm on the Pilatus Alternative, it would unreasonably increase costs to the Applicant from a range of \$3,79,000 to \$4,295,000 for an additional unit substation and electrical transmission lines. (See, Bob Parkins

Renewable Energy Consultants, “Preliminary Evaluation of Solar System Configurations and Issues – Cordova Hills”, at Page 3 in Appendix 15.)

In light of the above, the Pilatus Alternative’s numerous contiguity and logistics issues result in the Pilatus Alternative failing the logistics criteria for practicability. It would create isolated islands of residential development that would be prohibited under the Sacramento County Code because of insufficient roadway access for fire and police emergency vehicles. It would not allow the development of a solar farm of sufficient size to meet the required 20% renewable energy requirement that was placed upon the project. In addition, it would create additional preserve areas that need to be bisected by roads, trails and bike paths and thereby exacerbate edge effects on the preserves from increased human intrusion.

5.3.2 Costs

The total development cost for the Pilatus Alternative is \$1,033,210,000, which breaks down into the following specific categories:

- Backbone infrastructure: \$334,760,000
- Public facilities: \$96,620,000
- Fee programs: \$153,800,000
- Subdivision improvements: \$337,550,000
- Land acquisition and entitlement costs: \$110,480,000

(See, EPS, “Cordova Hills Feasibility Analysis,” (July 23, 2014) at Table 2, in Appendix 13.)

Development Cost Comparison Methodology

Based on an estimated 1,625.3 total developable acres, the average development cost per developable acre (Comparison 1) for the Pilatus Alternative is \$588,000, or 19.5% greater than the Original Application Alternative. (See, EPS, “Cordova Hills Feasibility Analysis,” (July 23, 2014) at Table 1, in Appendix 13.)

Further, based on an average cost per dwelling unit of \$89,000 and an average sales price per dwelling of \$335,000⁶, the average development cost per dwelling unit as percentage of sales price (Comparison 2) for this alternative is 26.6%, or 28.7% greater than the Original Application Alternative. (See, EPS, “Cordova Hills Feasibility Analysis,” (July 23, 2014) at Table 1, in Appendix 13.)

⁶ See Footnote 4 for an explanation of the rationale for changes in the average sales price per dwelling.

Costs for the nonresidential uses (Comparison 3) at the Pilatus Alternative would also be higher. The development cost per square foot would be approximately \$47, as compared to \$37 for the Original Application Alternative. The average development cost per square foot as a percentage of the nonresidential sales price would be 21.0%, which results in an increase that is 26.4% higher than for the Original Application Alternative. (See, EPS, "Cordova Hills Feasibility Analysis," (July 23, 2014) at Table 1, in Appendix 13.)

Accordingly, because it would result in a substantial increase in costs under Comparison 2 and Comparison 3 that are unreasonably expensive for the Applicant as compared to the Original Application Alternative or the Proposed Action Alternative, the Pilatus Alternative therefore fails the cost criteria for practicability because it is unreasonably expensive to the Applicant and outside the range of financial feasibility.

5.3.3 Conclusion

Because the Pilatus Alternative does not satisfy either the logistics criteria or the cost criteria because it would be unreasonably expensive to the Applicant due to a 19.5% increase in the average cost per developable acre, it is not considered a practicable alternative.

5.4 Regional Conservation Alternative

The Regional Conservation Alternative was developed to avoid development in areas intended to be preserved by the draft South Sacramento County Habitat Conservation Plan (SSHCP). Under this alternative, the central portion of the Town Center area has been reconfigured to be more linear in nature in a north-south orientation along Grant Line Road. Along with this reconfiguration, the proposed wetland preserve area would be expanded to the west in the southerly portion of the preserve area and moved to the east in the northerly portion of the preserve to be completely consistent with the SSHCP preservation areas. The main plateau preserve would be expanded to 401.7 acres from 381.2 acres but would include approximately 2.9 fewer acres of wetlands. Development in the central and eastern portions of the project site would remain the same as that contemplated under the Proposed Action Alternative. 559 acres would be preserved under the Regional Conservation Alternative compared to approximately 539 acres of preservation under the Proposed Action Alternative. (See Figure 12. *Regional Conservation Alternative Land Use Plan*)

The Regional Conservation Alternative would reduce the number of residential units from 8,000 in the Proposed Action Alternative to 7,740 units, and reduce the amount of commercial and office square footage from 1,349,419 square feet to 1,261,296 square feet.

Under the Regional Conservation Alternative, 38.414 acres of jurisdictional waters of the U.S. would be filled, compared to 39.630 acres that would be filled under the Proposed Action Alternative (a difference of 1.216 fewer acres filled).

5.4.1 Logistics

The Regional Conservation Alternative contemplates a regional commercial center along Grant Line Road, which includes approximately 1,919.3 (2,668.5-749.2) generally contiguous developable acres within the USB, and provides three access points along Grant Line Road. This provides sufficient acreage to develop a functionally integrated walkable, new urbanist large scale mixed-use community, and is generally consistent with applicable land use policy constraints.

Therefore, the Regional Conservation Alternative meets the logistics criteria for practicability.

5.4.2 Costs

The total development cost for the Regional Conservation Alternative is \$788,231,000, which breaks down into the following specific categories:

- Backbone infrastructure: \$221,660,000
- Public facilities: \$82,060,000
- Fee programs: \$120,680,000
- Subdivision improvements: \$280,810,000
- Land acquisition and entitlement costs: \$83,021,000

(See, EPS, "Cordova Hills Feasibility Analysis," (July 23, 2014) at Table 2, in Appendix 13.)

Development Cost Comparison Methodology

Based on an estimated 1,343.5 total developable acres, the average development cost per developable acre (Comparison 1) for the Regional Conservation Alternative is \$529,000, or an increase of 7.5% when compared to the Original Application Alternative. (See, EPS, "Cordova Hills Feasibility Analysis," (July 23, 2014) at Table 1, in Appendix 13.)

Further, based on an average development cost per dwelling unit of \$73,000 and an average sales price per dwelling of \$320,000⁷, the average development cost per dwelling unit as percentage of sales price (Comparison 2) for this alternative is 22.8%, or 10.5% greater than the Original Application Alternative. (See, EPS, "Cordova Hills Feasibility Analysis," (July 23, 2014) at Table 1, in Appendix 13.)

For the nonresidential uses in the Regional Conservation Alternative, the average development cost per building square foot (Comparison 3) would be approximately \$42/sq.ft. As a percentage of the nonresidential building selling price of \$224/sq.ft., that would be a

⁷ See Footnote 4.

development cost per square foot that was 18.8% of the selling price per square foot. This results in an increase of 12.0% over the Original Application Alternative. Accordingly, while it would result in an increase in costs (under the Development Cost Comparison Methodology) as compared to the Original Application Alternative, the Regional Conservation Alternative could still satisfy the cost criteria for practicability.

5.4.3 Conclusion

Because the Regional Conservation Alternative satisfies the logistics criteria and substantially satisfies the cost criteria with only a 7.5% increase in the total development cost per acre when compared to the Original Application Alternative, it is considered a practicable alternative.

5.5 Other Environmental Impacts Criteria

Practicable on-site alternatives were evaluated to determine whether they would result in other significant adverse environmental consequences such as biological or agricultural impacts. As further discussed below in Section 5.6, because the Regional Conservation Alternative would result in fewer edge effects while having substantially similar impacts to aquatic features, the analysis concluded that it would have fewer environmental impacts than the Proposed Action Alternative.

5.6 Aquatic Resources Impacts

Under the Section 404(b)(1) Guidelines, the applicant must demonstrate that there are no practicable alternatives to the proposed discharge of fill materials that would have less adverse impacts on the aquatic ecosystem, provided that the alternative does not have other significant adverse environmental impacts. The 404(b)(1) Guidelines define the aquatic ecosystem as waters of the United States, including wetlands that “serve as habitat for interrelated and interacting communities of plants and animals.” (40 C.F.R. §230.3(c).) Accordingly, the analysis of alternatives to the proposed discharge considers an alternative’s effects on the aquatic ecosystem in terms of a watershed-based approach which reflects the interrelated and interacting aquatic resources, vegetation and wildlife habitat. The types of wetlands that are important aquatic resources include intact vernal pool complexes and their associated waters. Other important wetlands include high functioning aquatic resources consisting of seasonal wetlands, intermittent streams and swales. Practicable alternatives that would have greater direct or indirect effects on aquatic resources than the Proposed Action Alternative or that would result in a fragmented pattern of preservation of small preserve areas with increased edge effects on the aquatic resources were considered to have greater environmental impacts.

In evaluating whether an alternative was likely to be less damaging to the aquatic ecosystem, in addition to consideration of direct impacts, this analysis relied on the objective of minimizing edge effects on aquatic resources by minimizing corridors and isolated preserves. The objectives also included aligning avoided areas to provide natural corridors and connectivity with the concentrations of vernal pools and swales in the main avoided area and the preserve edge.

5.6.1 Aquatic Resource Impacts of the Proposed Action Alternative

As shown in Table 4 above, of the 89.106 acres of Jurisdictional Waters mapped within the Project Site, development under the Proposed Action Alternative would result in direct impacts to 39.630 acres of Jurisdictional Waters, including 15.644 acres of vernal pools, 3.059 acres of seasonal wetlands, and 13.866 acres of swales. The avoided areas seek to maximize the contiguity of aquatic features and minimize edge effects by avoiding narrow corridors and isolated features. The Proposed Action alternative also requires approximately 2.667 acres of offsite waters of the United States associated with offsite roadway improvements. Nonetheless, the Proposed Action Alternative would preserve and avoid 67% of all onsite vernal pools and 45% of all Jurisdictional Waters onsite.

5.6.2 Aquatic Resource Impacts of the Regional Conservation Alternative

Under the Regional Conservation Alternative, 38.414 acres of jurisdictional waters of the U.S. would be filled, including 16.885 acres of vernal pools, 2.955 acres of seasonal wetlands, and 13.254 acres of swales, compared to 39.630 acres that would be filled under the Proposed Action Alternative (a difference of 1.216 fewer acres filled). (See, Table 7 below) The central portion of the Town Center area has been reconfigured to be more linear in nature in a north-south orientation along Grant Line Road. Along with this reconfiguration, the proposed wetland preserve area would be expanded to the west to be completely consistent with the SSHCP preservation areas. The expansion would result in the main plateau preserve increasing to 401.7 acres from 381.2 acres, but would include approximately 2.9 fewer acres of wetlands in the Main Plateau Preserve. Overall, the Regional Conservation Alternative would avoid and preserve 64% of all onsite vernal pools and avoid 43% of all Jurisdictional Waters.

Table 7: ECORP Comparison of Aquatic Resources Preservation					
Site Plan	Total Impacted Wetlands	Main Plateau Preserved Wetlands	Main Plateau Preserve Acreage	Total Preserved Wetlands	Total Preservation Acreage
Proposed Action Alternative*	39.63	34.6	381.2	49.5	538.5
Regional Conservation Alternative*	38.41	31.7	401.7	48.2	559.0

* Preserve acreage calculated by excluding direct impacts (Acreage value consists of Preserve/Avoided/Temporary Impact)

The Regional Conservation Alternative would have the same 2.667 acres of impacts to offsite waters of the United States associated with offsite roadway improvements as the Proposed

Action Alternative. The Regional Conservation Alternative therefore maintains the contiguity of aquatic features and minimizes edge effects while also directly impacting an additional 1.216 acres of jurisdictional vernal pools compared to the Proposed Action Alternative. (See, Table 8)

Table 8: ECORP Comparison of Impacts (Acres)		
Type	Proposed Action Alternative Impacts	Regional Conservation Alternative Impacts
Creek	0.0	0.0
Seasonal Wetland	3.059	2.955
Seasonal Wetland Swale-	13.866	13.254
Seep	0.012	0.012
Vernal Pool	15.644	16.885
Intermittent Drainage	6.521	4.620
Man-made Stock Pond	0.688	0.688
Total:	39.790	38.414

*Includes temporary impacts (Source: ECORP February 2013).

5.6.3 Aquatic Resource Impacts Conclusion

Based on what has been proposed, the Regional Conservation Alternative is a potential candidate for being the LEDPA among the alternatives, because it has the fewest overall direct aquatic impacts of the practicable alternatives and reduces indirect effects compared to the Proposed Action Alternative. However, as analyzed below, the Corps has requested that the Applicant analyze another configuration described as the “Modified Proposed Action Alternative” which is practicable and would have fewer impacts to the aquatic environment than the Regional Conservation Alternative.

5.7 Zone Analyses

At the request of the Corps, the Applicant has conducted further “study zone” analyses to determine if any practicable adjustments to the Cordova Hills Project’s land use plan could be made to further reduce the impacts on aquatic features. The Applicant and the Corps developed the study zones shown in Figure 13 (*Study Zones*) where the potential for further avoidance was evaluated. This analysis focused on the practicability of avoiding the aquatic features identified as “Zone Features” on Figure 13 and the specific aquatic features identified thereon. In addition, the Corps requested that the Applicant analyze two additional sub-alternatives that generally focus on avoiding the aquatic features in the study zones. A comprehensive quantitative cost analysis using the Development Cost Comparison

Methodology was not conducted for these sub-alternatives, but they were reviewed under the qualitative project purpose and logistics screening criteria applied to the primary alternatives.

5.7.1 Zone A (a portion of the Town Center)

The Zone A area consists of 91.5 acres of the Project's Town Center along Grant Line Road. This zone includes approximately 6.01 acres of aquatic features. Complete avoidance of all aquatic features in the Zone A area would result in the loss of 565,105 square feet of commercial uses and 445 dwelling units. Avoidance of these features is impracticable because such avoidance would prevent the development of a regional commercial center along Grant Line Road by reducing the size of the regional commercial land use area to less than the minimum forty (40) acres needed for a regional retail center. (See, William Hezmalhalch Architects, Inc., "Cordova Hills Commercial Demand and Acreage Requirements", June 23, 2014, at Page 1, in Appendix 12) Also, unacceptable edge effects would occur by creating new avoidance areas that would be in close proximity to Grant Line Road and to the Project's required circulation improvements along Grant Line Road. In addition, the approved Capitol Southeast Connector project will expand Grant Line Road to a four-lane expressway encompassing 200 plus feet of right of way, with an even greater right of way needed at intersections/interchanges along the Southeast Connector. Within Zone A is the Project's North Loop Road/Grant Line Road intersection, so the land needed for the right of way at that point is likely to be greater than 200 feet wide. Trying to expand the avoided areas along Grant Line Road would not be feasible. Therefore, all of the existing wetland resources along Grant Line Road will be impacted by the Cordova Hills Project's roadway improvements, as well as by the Capitol Southeast Connector.

Preservation of all the wetland features in Zone A also would result in other roadway circulation problems. The Cordova Hills Project's Town Center Blvd is the Project's major north-south connector street. It would not be practicable to shift the location of that roadway to avoid additional wetland features in Zone A because it would result in the loss of a feasible regional commercial land use on the Project's western side or would intrude into the proposed primary avoidance area on the plateau at the project site. Because the Zone A wetlands features completely bisect the Town Center between Grant Line Road and the main avoided area, the only potential way for Town Center Blvd. to avoid the wetland features identified on Figure 13 in Zone A would be through the use of bridging over those wetland areas. However, the portion of the Town Center where the bridging would occur is intended for anchor tenants. Bridging would create unacceptable access barriers to these retail pads. Even if bridging were to be implemented, the avoided wetland features would be subject to tremendous edge effects from the surrounding regional commercial uses and major roadways.

A total avoidance approach to Zone A would also result in the loss of the high density residential uses in the northeast corner of Zone A. That would equate to the loss of most of the 400 dwelling units there that are designed to be of higher density and lower cost than other portions of the Project. It would be impracticable from a cost perspective and interfere with the Cordova Hills Master Plan's goal of creating a community that provides a diverse supply of housing types and densities to provide a diversity of lifestyles and ages to support a vibrant

community atmosphere. These housing units would most likely be used by students, local employees or lower income residents and are a critical component of the Project's housing mix. Losing those higher density units would also negatively impact the project's ability to satisfy its affordable housing plan as legally required by Section 2.3.3 of the Development Agreement.

Avoidance of all the aquatic features in Zone A would also result in the loss of at least one of the Project's three access points to Grant Line Road. The North Loop Road intersection with Grant Line Road would be eliminated by the creation of the Zone A avoidance area. As a result, the Project would have inadequate fire and public safety access. (See Letter to Applicant from Deputy Chief Arend (December 19, 2011) in Appendix 3.) Moreover, the Cordova Hills roadway circulation system would be unworkable from a traffic engineering perspective without a connection of North Loop Road to Grant Line Road.

Consequently, creating an entire Zone A Avoidance area is not practicable from a logistics standpoint. It would result in the loss of the project site's third access point at North Loop Road/Grant Line Road; it would make the project's circulation system unworkable due to the loss of the North Loop Road/Grant Line Road connection; it would cause insurmountable public safety impacts by removing the North Loop Road/Grant Line Road access point for the project site; it would result in the loss of almost 400 units of affordable housing and interfere with fulfillment of the legally required affordable housing requirement; and it would adversely affect the project's ability to maintain its revenue neutral status by taking away half of the sales tax and property tax revenues from the Town Center commercial area.

5.7.2 Zone B (a portion of the Bufferlands)

The Zone B area consists of approximately 148.9 acres which would be a majority of the Bufferlands. The aquatic features of Zone B consist primarily of seasonal wetland swales (2.39 acres of 3.17 total aquatic feature acres in the Bufferlands).

Avoidance of the entire Zone B area would result in the loss of the 50-acre Sports Park (intended to include baseball fields, soccer fields, and basketball courts) that is planned to be adjacent to the University/College Campus Center. This a primary community resource for the entire project, not just the University/College Campus Center, that cannot practicably be relocated anywhere else on the Project site due to topographic, logistical and economic constraints. See the discussion above in Section 5.3.1. Loss of the Sports Park would be a significant logistics problem for a number of reasons. Transferring ownership of the Sports Park to Sacramento County is legally required by the Development Agreement §2.3.6. In addition, the park acreage of the Sports Park is necessary to satisfy the Project's minimum recreation requirements that include per capita requirements for sports fields and playing courts. Moreover, relocation of the Sports Park land use to another area of the project site is also not feasible. The Sports Park is strategically located adjacent to Grant Line Road since it is a regional recreational facility that would draw users and traffic from communities outside of the Project area. It would not be practicable to route such outside traffic further east to a more interior location within Cordova Hills where the residential neighborhoods exist without having

negative impacts on the internal circulation system. Parking at the Sports Park is also required to provide a park-and-ride lot function by Section 2.3.17 the Development Agreement. Dedication of the land for the park-and-ride lot in this location is required to be transferred by the Development Agreement to Sacramento County. In order to be the most effective, the park-and-ride lot has to be located near a major access point for the project. Moving it away from the University Boulevard/Grant Line Road intersection to a more interior location would not be feasible, since it has been strategically situated to “capture” the traffic moving along University Boulevard, Town Center Drive, and Grant Line Road as commuters leave the project site for offsite jobs.

Avoiding the entire swale and wetland complex to the south of the planned Sports Park in the Bufferlands area would also be impracticable. The Project is obligated to provide on-site renewable energy systems and supply 20% of its electricity usage from a renewable source. (See, Cordova Hills Air Quality Mitigation Plan (January 2013), at Page 4.) As previously explained in Section 5.2.1 for the Expanded Drainage Alternative that would have similarly avoided that swale and wetland complex, it is not feasible to relocate the solar farm to another location at the project site. An additional consideration is that relocating the solar farm to an offsite location would be outside the scope of the impact’s analyzed in the Cordova Hills EIR, as well as in the Cordova Hills EIS. Nor would it be feasible to meet the 20% renewable energy requirement by using individual rooftop solar systems, or to avoid impacts on the wetland features by building a solar system around them on Zone B’s existing slopes, as previously explained in Section 5.2.1 for the Expanded Drainage Alternative.

5.7.3 Zone C (a portion of University/College Campus Center)

The Zone C area includes approximately 126.2 acres that would be the majority of the proposed 223-acre University/College Campus Center site. This zone includes only approximately 1.55 acres of aquatic features. Avoidance of the Zone C area would create several practicability concerns.

As discussed previously in Section 5.2.1, any reduction in the size of the University/College Campus Center site would be impracticable. The footprint of the campus site has already been minimized, and any further reductions would not be feasible to avoid the Zone C aquatic features, as the site would no longer meet the programming and planning needs of a university user. See, Holabird and Root, “University Site at Cordova Hills” (January 28, 2014), at Page 4, in Appendix 7) The 223 acre site of the University/College Campus Center was designed to accommodate 6,000 students and 2,036 employees. The Campus Center site is flexible so it can accommodate either a large institution of higher education in the traditional model of a major university, or accommodate an aggregation of smaller institutions of higher education nested together in the Oxford University model. In order to accommodate educational programming for a 6,000 student campus with 2,036 employees and allow the flexibility for a large institution or an aggregation of smaller institutions, it would typically require about 250 contiguous acres to achieve this programming. However, the site plan for the campus encompasses only 223 acres and has been designed to efficiently encompass the required components of the campus

as well as to create a sense of place required to implement a thriving academic environment. It is not possible to further reduce the size of the Campus Center site and still attain all of the necessary features and facilities needed to attract a university user. (See, Holabird and Root, "University Site at Cordova Hills" (January 28, 2014), at Pages 2 and 4, in Appendix 7)

The increased avoided area necessary to protect all of the swale features in Zone C on the University/College Campus Center site would make any sports and recreation facilities normally associated with a higher education facility, such as a sports stadium or a track, impracticable and would physically divide the campus. The Proposed Action Alternative would devote over 85.7 acres towards athletic facilities and 39.7 acres towards the living and learning zone, for a total of 125.4 acres for these two components of the campus. By contrast, avoiding all the aquatic features in Zone C would leave only 99.5 acres within a U shaped land area for both the athletic zone and living and learning zone, making the design of a college campus for 6,000 students that contains adequate facilities and the necessary sense of place impracticable. (See, Holabird and Root, "University Site at Cordova Hills" (January 28, 2014), at Page 4, in Appendix 7)

Breaking the campus apart in order to spread college facilities throughout the rest of the Project area would be impracticable for logistical reasons. A non-contiguous campus would prevent the creation of any sense of place and would instead reflect the design of a commuter-school where students are not invested in, or served by, the surrounding community. It must be recognized that one of the important factors in choosing the Campus Center site was its relatively low density of wetland aquatic features when compared to other areas within the Cordova Hills site. See, Holabird and Root, "University Site at Cordova Hills" (January 28, 2014), at Page 4, in Appendix 7)

Finally, the limited aquatic resources in Zone C would be indirectly impacted by the remaining (and potentially higher intensity than currently planned) portion of the campus and the adjacent Sports Park. Relocating the sports and recreation facilities to other portions of the Project area would create greater pressure on the higher value aquatic resources at other parts of the Project site and could result in the project becoming impracticable for cost and logistical reasons if the facilities replaced residential or commercial land uses.

5.7.4 Zone D (a portion of Ridgeline and University Villages)

The Zone D area is approximately 86.8 acres in size. It consists of 28.8 acres within Ridgeline Village and 58 acres within University Village. Avoidance of the aquatic features in Zone D would result in the loss of up to 460 medium-density dwelling units, as well as the loss of a portion of Ridgeline Village's neighborhood commercial uses.

Avoidance of all the approximately 3.74 acres of aquatic features in the Zone D area would require the expansion of the Project's avoided area to the west of the Paseo Central. Such an expanded avoided area would face the same practicability constraints described previously above in Section 5.2.1 concerning the Expanded Drainage Preservation Alternative. It would reduce the size of the Ridgeline and University Village areas far more than the Expanded

Drainage Preservation Alternative would. It would exacerbate pedestrian and bike trail connectivity issues in the Ridgeline and University Village areas by isolating them from the eastern half of the project site to a far higher degree than the Expanded Drainage Preservation Alternative would.

Critically, one of the Project's two primary east-west arterial streets, University Boulevard, could not be realigned north or south of Zone D because of roadway engineering standards and topography. The curvature of arterial roads is restricted for both safety and traffic flow standards. This makes the curve radii necessary to avoid Zone D aquatic features impracticable. (See, County Improvement Standards, Section 4, at Pages 4-9 and 4-25.) Without the ability to connect University Boulevard to the residential area in the eastern half of the project site, there would be an inability to provide the eastern half of the project with at least two access points, as required by the Sacramento County Code. Residential areas with only one point of access are illegal under the Sacramento County Code. Title 22, Section 22.110.040 of the County Code requires any new residential area with more than 40 units to have two points of access.

Avoidance of the aquatic features in Zone D would also interfere with the project roadway system's north-south connectivity. The north-south collector that runs through Zone D cannot be relocated to avoid Zone D. County street engineering standards require a minimum of 1,000 foot spacing between intersections for smaller collector roads and 1,200 foot spacing for larger collectors. (See, County Improvement Standards, Section 4, at Pages 4-9 and 4-25.) The north-south collector cannot be shifted to the east because of the presence of the Paseo Central (a preserved wetland area) and the need for the north-south collector to remain in the central portion of the Project area. The north-south collector cannot be shifted to the west due to insufficient spacing from the neighboring collector street to the west and the existence of the Project's primary avoided area on the plateau. Thus, there are significant logistics impediments that cannot be overcome if the aquatic features in Zone D were to be avoided.

Avoiding the aquatic features of Zone D would also result in land-use planning constraints. Expanding the Paseo Central to include all of the Zone D area would isolate the residential Creekside Village to the east of the Paseo Central from the higher density University Village to the west of the Paseo Central. A larger avoided area would prevent the development of a walkable sense of community where residents of the Creekside Village would walk or bike to visit, eat, or shop in University Village. The creation of a new north-south finger of avoided area through the center of University Village would also create circulation issues and reduce the connectivity of the eastern half of the community from the western half and conflict with the Master Plan's goals of minimizing dead end streets.

The applicant also analyzed the potential additional avoidance of a swale located south of University Boulevard on the west side of the Paseo Central. Additional avoidance associated with this area also seeks to protect several clustered jurisdictional waters immediately to the north of the swale. As an initial matter, these potential additional avoidance areas extend into areas designated for development on the Proposed Action Alternative. And typical for areas designated for development is the need for significant earthwork – both cuts and fills – to

support the proposed land use densities. It is not clear how the natural hydrology sustaining this swale and related areas could be maintained once it is surrounded by development, as runoff volumes and water quality from development areas generally will require mitigation and/or treatment prior to being discharged into jurisdictional waters. Further, preservation of such natural hydrology would require de-centralized discharge locations, resulting in greater inefficiency as well as cost. (See, McKay & Soms, "Cordova Hills- Additional Avoidance Areas" (June 6, 2014) at Page 1)

Further, the direct loss of otherwise developable acreage due to the overlap of the avoided area in Zone D, coupled with the need to re-locate the drainage mitigation basins out of the R-2 designated open space corridor into lands designated for residential development, would result in the loss of an estimated 5 acres of MDR-designated lands and associated 50 dwelling units. An undetermined number of additional dwelling units also may be lost due to steep slope banks necessary to "catch" the proposed grades required for development. Alternatively, it would be necessary to construct approximately 1,600 linear feet of 5 feet tall retaining wall at an estimated cost of \$20 per square foot of wall, for a total additional cost of approximately \$200,000. (See, McKay & Soms, "Cordova Hills- Additional Avoidance Areas" (January 13, 2014) at Page 2)

The above discussion also shows that avoidance on the aquatic features in Zone D would also result in cost increases. The project's development cost per acre using the Development Cost Comparison Methodology would increase due to (i) the loss of 86.8 acres of developable land in Zone D, and (ii) an increase of at least \$200,000 in those development costs due to the need to construct new retaining walls because of the additional grading need to avoid the loss of more than 50 dwelling units.

In light of the foregoing logistics and cost considerations, avoidance of all aquatic features in Zone D, as well as avoidance of only the swale on the south side of University Boulevard and west of the Paseo Central, would be impracticable.

5.7.5 Zone E (a portion of Creekside Village)

The Zone E area consists of 61.3 acres of Creekside Village and contains approximately 2.02 acres of aquatic features in the south-east portion of the Project site. The avoidance of these features would result in the loss of up to 245 dwelling units. The aquatic features in Zone E are virtually situated in the center of the southern half of the Creekside Village area of Cordova Hills. Avoidance of the aquatic features in Zone E would result in significant logistical and cost constraints due to the fingers of development it would create.

As discussed above in Section 5.2.1 in the practicability analysis of the Expanded Drainage Preservation Alternative, the two fingers of the developed areas that result from avoiding Zone E would result in unacceptable connectivity issues that would prevent adequate incorporation into the Cordova Hills community. The southeast Creekside Village neighborhood would be isolated from the rest of the Cordova Hills community. In addition, the two fingers of remaining

development in Creekside Village would conflict with the numerous Cordova Hills Master Plan policies that support connectivity and reliance on non-automobile transportation.

The total infrastructure needs created by the Zone E avoidance would be cumulatively impracticable because of the substantial increase in backbone infrastructure costs. It would require constructing vehicular bridges and utility crossings over the aquatic features that would be impracticable for cost reasons. The estimated costs for avoiding the aquatic features would be a total of approximately \$325,000 for bridges and utility crossings. (See, McKay & Soms, "Cordova Hills- Additional Avoidance Areas" (January 13, 2014) at Page 4) Providing the infrastructure necessary to serve the resulting finger of development that would exist on the east side of Creekside Village would further increase costs and be impracticable given the limited amount of development that would be possible on the eastern finger and the increased costs associated with serving both fingers with necessary separate wet and dry utilities and roadways.

The lack of connectivity that would result from avoidance of the Zone E aquatic features also would conflict with the Cordova Hills Master Plan's circulation policies. Such policies strongly support direct and attractive routes to primary destinations and incentives for non-automobile modes of transportation. The Master Plan's goals include promoting a bicycle and pedestrian trail system that connects the community's many features. The isolation of the residences to on the east side of Zone E in Creekside Village would directly conflict with these goals and result in serious logistical concerns for the development of this area.

Further, the edge effects of an avoided area in Zone E must be considered. Any additional avoided area in Zone E would be surrounded on three sides by urban development. The avoided area would undoubtedly experience polluted surface runoff from the developed areas. If walking or biking trails were built across the additional avoided area, those trails would increase the amount of human intrusion into the preserve, as well as create additional adverse edge effects for the preserved area due to presence of people and their pets, as well as problems from general littering and illegal dumping in the avoided area.

Those edge effects would reduce the value of the avoided aquatic features in Zone E to the point that the additional avoidance would not substantially contribute to a less environmentally damaging alternative.

In light of the logistics problems created by Zone E in terms of connectivity issues, cost increases spread over fewer developable acres, and additional edge effects, creating additional avoidance areas in Zone E would not be practicable.

5.7.6 Zone F (the Estates Village and a portion of East Valley Village)

The Zone F avoidance area would be a total of approximately 265.6 acres. Zone F encompasses 93.8 acres of East Valley Village and the entire 171.8 acres of the Estates Village area. Within Zone F are approximately 2.06 acres of aquatic features. Complete avoidance in Zone F would result in the loss of approximately 975 dwelling units. Zone F avoidance would result in many

of the same practicability concerns as presented by the Expanded Drainage Preservation Alternative discussed above in Section 5.2.1.

Zone F would remove a development area at Cordova Hills that was primarily comprised of low density large lot residences. Removal of the Estates Village residences would be inconsistent with the Cordova Hills Master Plan's goal of creating a community that provides a diverse supply of housing types and densities for a diversity of lifestyles and ages to support a vibrant community atmosphere.

Removing the large lot, low density residences under Zone F would also compromise a land use plan that was intentionally designed to minimize the impacts and edge affect at the urban/agricultural interface. The transition from higher density residential areas to the very low density large lots was deliberately planned along the Project's eastern boundary. Good land use planning dictates that there be a smooth transition into the adjoining agricultural land uses neighboring the Project site.

If the eastern portion of the Project has an increased preserve in Zone F, it will just create a new urban edge which would be immediately adjacent to the relatively higher density residential area in the interior of Cordova Hills, without the ameliorating intervening low density residential uses provided by the large lot areas. Zone F would increase the impacts of development on the neighboring undeveloped agricultural lands without any transition or buffer. As the land uses at Cordova Hills proceed from east to west, the residential densities consistently increase. Creating an enlarged Zone F preserve would destroy the orderly transition from the lowest density residential uses to the undeveloped agricultural lands on the east side of Cordova Hills that was deliberately crafted to minimize the "urban edge" impacts on those undeveloped agricultural lands to the east.

Also, if just the north to south oriented swale features in East Valley Village were avoided, logistic issues for the east side of Cordova Hills would be substantially increased because the majority of the low density residences in East Valley Village would not have any direct pedestrian or bicycle routes of travel to the proposed elementary school site. In addition, residences in this village farther to the west would be placed on a peninsula of development. Such a Zone F avoided area would also isolate all residences in the southeast corner of the site from the elementary school and adjacent neighborhoods.

Cost issues would also be of concern with a Zone F avoidance area. By not developing Zone F, there would be a loss of 265.6 developable acres. Since the Proposed Action Alternative includes a total of 1,931.3 developable acres, avoiding the Zone F area would be a 14 % reduction in the developable acreage at Cordova Hills. Such a substantial reduction in the size of the developable area would increase the total developable cost per acre, making the project infeasible from a cost perspective.

As a result of the logistics and cost problems created by the Zone F area, it was deemed not practicable to revise the project by incorporating a Zone F avoidance area.

5.8 Analysis of Additional Avoidance Areas (A-1a and 1b)

In addition to avoiding the Zones discussed above, the applicant also evaluated additional avoidance of certain specific aquatic features within the Cordova Hills project site. These are referred in this document to as “Additional Avoidance Areas.”

Within the Town Center area, the Applicant analyzed the potential additional avoidance of the two large vernal pools in the northwest quadrant of the Town Center area. The most westerly of those vernal pools is referred to as “A-1a” and the easterly vernal pool is referred to “A-1b”. The most easterly vernal pool described as Additional Avoidance Area as A-1b is being placed within the boundary of the main plateau preserve area, so it will be avoided as was proposed with the Expanded Drainage Preservation Alternative and the Proposed Action Alternative.

Extending the plateau preserve area to encompass Avoidance Area A-1a will create a number of problems. In order to include Avoidance Area A-1a into the preserve, it would be necessary to extend the an arm of the preserve all the way to Grant Line Road, thereby dividing the Town Center area into two disconnected pieces with no roadway connections between them if the main plateau preserve is expanded to include Area A-1a. Town Center Boulevard was planned and designed as the major north-south connector roadway for the project on the west side of the plateau preserve. With preservation of Additional Avoidance Area A-1a, Town Center Boulevard would no longer be able to serve as the major north-south connecting roadway for the western side of the project site. Moreover, residents and patrons of the businesses in the northern portion of the Town Center could not access the southern portion of the Town Center or the University/College Campus Center areas without taking a circuitous route that would require them to either return to Grant line Road and then drive south to the Grant Line/Chrysanthy Boulevard intersection or require them to drive to the east on North Loop into the interior of the project site and then use internal streets in order to reach University Boulevard and the southern portion of the Town Center and University/College Campus Center. This complicated access situation would be a completely unworkable situation that would be made even worse when the Southeast Connector is constructed and the project site’s access to Grant Line Road is restricted to a right turn in/right turn out only intersection. At that point, people in the northern portion of the Town Center could not reach the southern portion of the project site unless then used the circuitous North Loop Road/internal streets/University Boulevard route to reach the southern portion of the Town Center or the University/College Campus Center. Consequently, it is readily apparent that the expansion of the plateau preserve to include Additional Avoidance Area A-1a would create an unacceptable logistics problem.

There would also be unacceptable direct impacts that arise by preserving Additional Avoidance Area A-1a that is in close proximity to Grant Line Road and North Loop Road. The large vernal pool in Additional Avoidance Area A-1a has a northerly segment that extends up to North Loop Road and a westerly segment that extends all the way to Grant Line Road. In addition, Additional Avoidance Area A-1a would be immediately adjacent to, if not within, the future

right of way for the Southeast Connector. The Connector Project will result in expanding Grant Line Road from its current configuration as a two-line rural roadway into a four-lane expressway encompassing 200 plus feet of right of way, with an even greater right of way needed at the North Loop Road/Grant Line Road intersection. The land needed for the right of way at the North Loop Road/Grant Line intersection may possibly be greater than 200 feet wide when the Connector's exit and entry lanes are taken into consideration. All the existing wetland resources in Additional Avoidance Area A-1a along Grant Line Road would be adversely impacted by the Capitol Southeast Connector, as well as by the interim improvements that the Cordova Hills Project is obligated to construct along Grant Line before it reaches its ultimate roadway configuration for the Connector.

Expanding the Cordova Hills plateau preserve to include Additional Avoidance Area A-1a would also result in the loss of approximately one quarter of the Town Center's regional commercial square footage and interfere with the project's ability to meet the overall project purpose and the project need. An expanded preserve all the way to Grant Line Road would divide the Town Center into a northern portion situated to the north of North Loop Road and a southern portion that would be south of the expanded preserve. The lack of revenue from the lost regional commercial square footage in the Town Center would impact the practicability of the project from a cost perspective by reducing the developable acres, as well as negatively affect the project's ability to maintain its revenue neutral status with the County because of all the sales tax revenues and property tax revenues that would be lost by reducing the Town Center commercial uses by approximately one quarter.

In sum, Additional Avoidance Area A-1a would not be feasible from a logistics or environmental perspective. It would substantially interfere with the ability to create an efficient internal roadway circulation network and isolate the northern portion of the Town center from the southern portion of the Town Center and the University/College Campus Center uses except by the most circuitous of routes. The wetlands in Additional Avoidance Area A-1a would be exposed to substantial direct impacts by reason of being situated within and adjacent to the future rights of way for Grant Line Road and North Loop Road, as well as the Southeast Connector. A loss of approximately one quarter of the Town Center's developable area, coupled with the disruption of the Town Center's ability to serve as a viable regional commercial center, would interfere with the Cordova Hills project's ability to fulfill its purpose and need.

5.9 Analysis of Additional Avoidance Area (A-2)

There is a large swale complex located within the south portion of the Bufferlands area that has been designated as Additional Avoidance Area A-2. As shown on Figure 15 entitled "Cordova Hills Additional Avoided Areas," that swale complex occupies the majority of the lower, less contoured topography of the Bufferlands. It is a relatively flat area and would require little grading in order to prepare it for use as the solar farm. The location of that swale complex would adversely limit the Project's ability to implement the proposed solar farm within the Bufferlands area. The Project is obligated by the Air Quality Mitigation Plan to provide on-site

renewable energy systems and supply 20% of its electricity usage from a renewable source. (Cordova Hills Air Quality Mitigation Plan, (January 2013) at Page 4.) It would not be feasible to relocate the solar farm elsewhere on the project site for all of the same reasons described in Section 5.2.1 and still be able to fulfill that requirement.

Though avoiding all swale features in Additional Avoidance Area A-2 is impracticable, the applicant has determined that the avoidance of the western-most swale complex would be practicable. That swale is generally situated along the western boundary of the Bufferlands area. Avoidance of this swale would leave intact the majority of the lower, less contoured topography of the Bufferlands and would maintain sufficient contiguous acres of agricultural land for a successful solar farm project. Further, the western swale complex generally follows the major contour lines of the Bufferlands. Consequently, avoidance of that western-most swale in the Bufferlands area has been made a component of the new Modified Proposed Action Alternative discussed below in Section 5.15.

5.10 Analysis of Additional Avoidance Area (A-3)

Additional Avoidance Area A-3 includes a swale complex that generally lies between the eastern border of the University/College Campus Center and western boundary of the flex commercial and high density residential uses of the university Village area. The current land use designation for this area is recreation and open space ("R-2") in the Cordova Hills Master Plan. Avoiding and preserving that swale would be consistent with this land use designation and is therefore considered practicable. The applicant will include Additional Avoidance Area A-3 as a preservation component of the new Modified Proposed Action discussed below.

5.11 Analysis of Additional Avoidance Area (A-4)

Additional Avoidance Area A-4 is within the University Village area. It includes a swale located south of University Boulevard on the west side of the Paseo Central. Additional Avoidance Area A-4 also proposes avoiding several clustered jurisdictional waters immediately to the north of the swale.

As an initial matter, these potential additional avoidance areas extend out westerly from the Paseo Central into areas designated for development on the Proposed Action Alternative. They would be surrounded by urban development on the north, west and south sides. In terms of natural hydrology, it is not clear how these existing swales and aquatic features would be sustained under developed conditions. Runoff volumes from developed areas will generally require treatment prior to being discharged into jurisdictional waters. The developed areas will be discharging runoff into a centralized system for treatment and into discharge basins for the attenuation of high flows during storm events. (See, MacKay & Somps, "Drainage Plan for Cordova Hills (May 31, 2011)" approved by Sacramento County on July 27, 2011)

Additional Avoidance Area A-4 would interfere with the project's proposed stormwater drainage system. It would overlap the 0.7 acre detention and water quality treatment basin

identified as B-12. In addition, avoidance of the jurisdictional waters situated north of the swale would also interfere with 1.2 acre drainage and water quality detention basin identified as B-11.

The direct losses associated with Additional Avoidance Area A-4 results from its overlap with developable acreage, plus the need to relocate and redesign the drainage detention basins. It also would bifurcate a 10-acre medium density residential parcel designated for seventy-five (75) units within University Village. That direct loss of developable acreage would require the redesign of the drainage system into five separate and smaller (and less efficient) drainage basins. Redesigning and relocating the drainage basins onto lands designated for residential development would eliminate approximately 5.6 acres of MDR-designated lands and the loss of 56 dwelling units. That redesigned drainage system would increase costs by \$167,000. (McKay and Soms, "Cordova Hills-Additional Avoidance Areas," August 4, 2014, at Page 2 in Appendix 16)

Because of the sloping topography in the vicinity of Additional Avoidance Area A-4, additional dwelling units may be lost due to the steeply sloped banks and the engineering need to "catch" the proposed grades required for development. An alternative design to avoid the loss of additional dwelling units would involve the use of retaining walls. It has been estimated that approximately 1,600 linear feet of 5-foot tall retaining wall would be necessary, with an estimated construction cost of \$200,000. (See, McKay and Soms, "Cordova Hills-Additional Avoidance Areas," August 4, 2014, at Page 2 in Appendix 16)

In light of the foregoing, Additional Avoidance Area A-4 would result in the loss of a total of 56 dwelling units, and require the redesign and relocation of the stormwater drainage detention basins at cost of \$167,000. The total developable land lost with Avoidance Area A-4 would be approximately 5.6 acres. Preservation of Avoidance Area A-4 also would require either 1,600 linear feet of 5-feet high retaining wall at a cost of \$200,000 or require the loss of even more dwelling units due to the need for creating steep sloped banks around the graded developed areas. The total cost increase would be \$367,000 (\$167,000 + \$200,000). (See, McKay and Soms, "Cordova Hills-Additional Avoidance Areas," August 5, 2014, at page 2 in Appendix 16) Consequently, from both a logistics and cost perspective, Additional Avoidance Area A-4 is not considered practicable.

5.12 Analysis of Additional Avoidance Area (A-5)

Additional Avoidance Area A-5 is situated within the East Valley Village. It includes a swale located on the east side of the Paseo Central, about halfway between North Loop Road and University Boulevard. Additional Avoidance Area A-5 extends eastward from the Paseo Central, bifurcating the heart and high-density residential uses in East Valley Village and the north/south collector road on the east side of the Paseo Central.

As with the other Additional Avoidance Areas, Additional Avoidance Area A-5 extends into lands designated for development on the Proposed Action Alternative. It would result in the loss of approximately 6.5 +/- acres that would provide 90 high density residential units in the focal

point and high activity center of the mixed-use residential portion of the East Valley Village. (See, McKay and Soms, "Cordova Hills-Additional Avoidance Areas," August 4, 2014, at Page 2 in Appendix 16) It would also divide two roadways important to the circulation system of both East Valley Village and the Cordova Hills Project as a whole. As noted above, it would cross the un-named major north-south roadway in the center of the Cordova Hills site, as well as a secondary north-south roadway. Insofar as those roadways are important roadways for the project's circulation system, it would be necessary to build crossings over the aquatic features of Avoidance Area A-5. It has been estimated that those crossings would be 80 feet and 60 feet long, and would cost approximately \$290,000 if open bottom arch culverts were used for the crossings. (See, McKay and Soms, "Cordova Hills-Additional Avoidance Areas," August 4, 2014, at Pages 2 and 3 in Appendix 16). Water and sanitary sewer trunk lines would also have to cross Avoidance Area A-5. Installing sleeves for those utility lines for the width of the Avoidance Area A-5 was estimated to add another \$72,000 in costs if open-cut construction methods could be used within the footprint of the roadway crossings. (See, McKay and Soms, "Cordova Hills-Additional Avoidance Areas," August 4, 2014, at Page 3 in Appendix 16)

In order to maintain hydrology that would supply water to the swale feature in Avoidance Area A-5, it would be necessary to redesign the drainage system. The original drainage basin B-17 serving this area would need to be divided into five (5) separate and smaller drainage basins that discharged into the swale of Avoidance Area A-5. That additional cost has been estimated at \$320,000. The five additional drainage basins would also consume another 1.68 acres of developable land and result in the loss of another 24 dwelling units. (See, McKay and Soms, "Cordova Hills-Additional Avoidance Areas," August 4, 2014, at Page 3 in Appendix 16).

Due to the high density land use on the center of East Valley Village, substantial retaining walls would need to be built along the edge of the avoided areas to support the flat terrain required to build high density residential buildings. A total of approximately 2,700 linear feet of retaining walls were estimated to be necessary, with heights ranging from 5 to 10 feet tall. The cost would be approximately \$505,000. If those retaining walls were not built, then simply altering the grades would result in the loss of an additional 2 acres of developable land. (McKay and Soms, "Cordova Hills-Additional Avoidance Areas," August 4, 2014, at Page 3 in Appendix 16.) It can therefore be seen that creating Avoidance Area A-5 would result in the cost per developable acre to unreasonably increase because of the loss of the developable acres from the additional preserved aquatic features and the cost increase resulting from having to build retaining walls for \$505,000 in order to avoid the loss of additional developable acres. The total cost increase to implement the preservation of Avoidance Area A-5 would be approximately \$1,187,000 (\$505,000 + \$320,000 + \$290,000 + \$72,000). If no retaining walls were built, then the total amount of developable land lost would be 8.18 acres to accommodate Avoidance Area A-5. If sloped banks were used instead of retaining walls, the developable land lost would increase to 10.18 acres. This avoidance alternative presents both a logistics problem, as well as an unreasonably significant cost increase to the Applicant, demonstrating it would not be practicable to avoid the aquatic features in Additional Avoidance Area A-5.

5.13 Analysis of Additional Avoidance Area (A-6)

Additional Avoidance Area A-6 includes a swale that runs in a north-south direction within the center of the more traditional low density residential eastern half of East Valley Village. Approximately 50 low density residential dwelling units and 9.8 +/- acres of developable land would be lost, as well as the loss of 0.57 acres of LDR land because of having to split detention basin B28 into seven smaller basins. As a result of Additional Avoidance Area A-6, the drainage system would need to be redesigned to create seven smaller drainage basins outside of Additional Avoidance Area A-6. Such a seven detention basin system would be less efficient than basin B28. The added cost of the seven basin drainage system has been estimated at an additional \$400,000. (See, McKay and Soms, "Cordova Hills-Additional Avoidance Areas," August 4, 2014) at Page 3 in Appendix 16) In addition, increasing the number of detention basins from one to seven would increase the ongoing maintenance costs for the detention basins.

As with many of the other avoided areas discussed above, Additional Avoidance Area A-6 extends into areas designated for development on the Proposed Action Alternative. Also typical for areas designated for development is the need for significant earthwork – both cuts and fills – to support the proposed land use densities in this area of the Cordova Hills project site. In light of the high market value of the low density residential dwelling units, it would be critical to minimize the loss of developable land should Additional Avoidance Area A-6 be preserved. Because of the topography in this area, it would require the construction of substantial retaining walls. It was estimated that approximately 5,600 linear feet of retaining walls would be required, and those walls would range from 5 feet tall to over 20 feet tall. Such massive retaining walls would cost an estimated \$2,410,000. Please note that such high retaining walls are necessary because this area was planned for extensive grading, sometimes with as much as 25 feet of fill being required. If sloped banks were used instead of retaining walls, then it was estimated that an additional 6 acres of developable land would be lost with Additional Avoidance Area A-6. (See, McKay and Soms, "Cordova Hills-Additional Avoidance Areas," August 4, 2014, at Page 3 in Appendix 15)

Circulation issues would also be created by Additional Avoidance Area A-6. Loop Road is the backbone of the internal circulation system throughout the Cordova Hills site. Loop Road in the East Valley Village area would need to cross over Additional Avoidance Area A-6 in order to provide access to the Estates Village area in the eastern portion of Cordova Hills. This will necessitate a large open bottom arch culvert or similar structure over the drainage feature. The cost of such a crossing was estimated at \$165,000. In addition, sanitary sewer and water lines would also have to cross Additional Avoidance Area A-6, costing an additional \$72,000. (See, McKay and Soms, "Cordova Hills-Additional Avoidance Areas," August 4, 2014, at Page 3 in Appendix 16)

The future continued viability of the jurisdictional waters within Additional Avoidance Area A-6 is doubtful. The swale would be surrounded on the west, north and east sides by residential development. Such urban development could not drain into the swale of Additional Avoidance Area A-6 because the urban drainage needs to be treated and the volume of stormwater controlled before it can be discharged. Such treatment and control must be done with drainage

detention basins before the drainage can be discharged into jurisdictional waters. If the drainage system were altered to accommodate Avoidance Area A-6, a seven detention basin system would increase costs by an additional \$400,000 and require an additional 0.57 acres of land. If such a seven basin detention system were not used, there will be little to no surface water flows that would enter Additional Avoidance Area A-6, and the swale would cease to function without the previous natural hydrology when the surrounding area is developed.

Another factor to be considered concerning the preservation of Additional Avoidance Area A-6 are the edge effects that it would experience. Additional Avoidance Area A-6 extends like a narrow finger into a residential area and would be surrounded on three sides by low density residential uses. The risk of human intrusion, littering, and illegal trash disposal into the drainage swale of Additional Avoidance Area A-6 would be high.

In light of the foregoing logistics and cost issues involving the loss of at least 50 dwelling units, 5,000 linear feet of retaining walls up to 20 feet tall that would cost an estimated \$2,410,000 to construct, the need for roadway and utility crossings that would cost an additional combined \$237,000 (\$165,000 + \$72,000) to build over it, and the additional \$400,000 cost to build a seven detention basin drainage system, it seems clear that it would not be feasible or practicable to preserve Additional Avoidance Area A-6. Total increased costs would be \$3,047,000 (\$2,410,000 + \$165,000 + \$72,000 + \$400,000), which is an unreasonable cost increase to the Applicant. In addition, it would result in the loss of a total of 16.37 acres (9.8 + 0.57 + 6.0) of developable land if the project were redesigned to accommodate Avoidance Area A-6.

5.14 Analysis of Additional Avoidance Area (A-7)

Additional Avoidance Area A-7 consists of a swale runs north-south through the center of the southern half of Creekside Village. If preserved, it would divide Creekside Village into an eastern and western half. Additional Avoidance Area A-7 would result in the loss of approximately 6 +/- acres of land designed for park and detention basin uses (detention basin B30), 3 +/- acres of land designated for medium density residential uses, and approximately 4.5 +/- acres of low density residential uses, for a total loss of 13.5 +/- developable acres. It was estimated that preservation of Additional Avoidance Area A-7 would result in the loss of 92 dwelling units. (See, McKay and Soms, "Cordova Hills-Additional Avoidance Areas," August 4, 2014, at Pages 3 and 4 in Appendix 16)

If Additional Avoidance Area A-7 were preserved, then detention basin B30 would be lost and there would be a need to redesign the drainage system in this area of Cordova Hills. Due to the location of Avoidance Area A-7 in the center of Creekside Village, five smaller detention basins would need to be constructed. A cost increase of \$265,000 for the drainage system was estimated if a five detention basin system were used. That would also result in the loss of an

additional 0.72 +/- acre of developable land. (See, McKay and Soms, "Cordova Hills-Additional Avoidance Areas," August 4, 2014, at Pages 3 and 4 in Appendix 16)

The topography in Creekside Village is uneven and will require grading and filling to provide developable areas. In order to preserve Additional Avoidance Area A-7, it would be necessary to build an estimated 3,700 linear feet of retaining walls with heights of up to 15 feet. The estimated cost for such a retaining wall system is \$1,100,000. (See, McKay and Soms, "Cordova Hills-Additional Avoidance Areas," August 4, 2014, at Page 4 in Appendix 16) If retaining walls were not used, then using sloped banks to support the development pads would result in the loss of an additional 1.9 +/- acres of developable land, making for a potential loss of up to 16.12 (13.5 + 1.9 + 0.72) acres of developable land (See, McKay and Soms, "Cordova Hills-Additional Avoidance Areas," August 4, 2014, at Page 4 in Appendix 16)

Additional Avoidance Area A-7's central location in Creekside Village also causes problems for the roadway system. In order to connect the resulting two sides of Creekside Village, it would be necessary to build two roadway and utility crossings of Avoidance Area A-7. It is anticipated that open-bottom arch culverts could be used, with the total cost of two roadway and utility crossings for water and sewer being a total of \$325,000 (\$250,000 + \$75,000). (See, McKay and Soms, "Cordova Hills-Additional Avoidance Areas," August 4, 2014, at Page 4 in Appendix 16)

As with several of the other Additional Avoidance Areas discussed above, there would also be issues with the future continued viability of the jurisdictional wetlands in Avoidance Area A-7 should it be preserved. The natural hydrology feeding the swale would cease once the surrounding lands to the west, north and east were developed. Surface flows from the residential areas surrounding it would all be diverted into the Cordova Hills drainage system for water treatment purposes and to control stormwater volumes in detention basins. Moreover, because Avoidance Area A-7 is surrounded on three sides by urban development and would have two roadway crossings, the edge effects from human intrusion would be significant.

The preservation of Additional Avoidance Area A-7 does not appear practicable or feasible in light of the foregoing issues. It would result in the loss of at least 14.22 +/- developable acres (13.5 + 0.72) and potentially up to 16.12 +/- developable acres if sloped banks are used. Additional construction costs for the five detention basins instead of one would be an additional \$265,000; costs for the required retaining walls would be a substantial and additional \$1,100,000; and the additional costs for two roadway and utility crossings would be another \$325,000, for a total increased cost of \$1,690,000 (\$1,100,000 + \$325,000 + \$265,000). (McKay and Soms, "Cordova Hills-Additional Avoidance Areas," August 4, 2014, at Pages 3 and 4 in Appendix 16). That \$1,690,000 of additional costs would be unreasonable for the Applicant. In addition, the future viability of the aquatic features in Avoidance Area A-7 is doubtful due to the loss of their natural hydrology and the edge effects from enhanced exposure to human intrusion and the two roadway crossings.

5.15 Summary of Additional Avoidance Areas

As discussed above in Sections 5.8, 5.9 and 5.10, it would be possible to preserve the swales Avoidance Area A-1b, Avoidance Area A-2 and Avoidance Area A-3 and still have a feasible project. However, the avoidance and preservation of the swales in Avoidance Areas A-4 through A-7 would not be feasible and would result in unreasonable cost increases for the Applicant. Avoidance of those four swales would result in unreasonable cost increases totaling \$6,041,000, as well as result in the loss of 315 residential units and 32.37 acres of developable land. (See, McKay and Soms, "Cordova Hills-Additional Avoidance Areas," August 4, 2014, at Page 4 in Appendix 16)

The cost impacts of preserving Avoidance Areas A-4 through A-7 for each of the four Alternatives examined in this document, as well as the originally proposed project, are shown below in Table 9 below. For the original project, preservation of the swales would result in a 3% overall increase in per dwelling unit costs. For the Proposed Action Alternative, Regional Conservation Alternative and Pilatus Alternative, there would be an overall 4% increase in per unit costs. For the Expanded Drainage Preservation Alternative, the cost increase would be 6% per dwelling unit.

Table 9 – Swale Avoidance Cost Comparison

Costs without Swale Avoidance					
	Original 404	Proposed Action	Regional Conservation	Expanded Drainage	Pilatus
Total Cost (Residential Share)	\$603,287,000	\$563,863,000	\$561,609,000	\$501,045,000	\$783,187,000
Total Dwelling Units	9,465	8,000	7,740	5,425	8,770
Avg. Cost Per Dwelling Unit	\$63,738.72	\$70,482.88	\$72,559.30	\$92,358.53	\$89,302.96

Costs WITH Swale Avoidance					
	Original 404	Proposed Action	Regional Conservation	Expanded Drainage	Pilatus
Total Cost (Residential Share)	\$603,287,000	\$563,863,000	\$561,609,000	\$501,045,000	\$783,187,000
Total Dwelling Units	9,150	7,685	7,425	5,110	8,455
Avg. Cost Per Dwelling Unit	\$65,933.01	\$73,371.89	\$75,637.58	\$98,051.86	\$92,630.04

Percentage Difference	3%	4%	4%	6%	4%
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5.16 Modified Proposed Action Alternative

The Modified Proposed Action Alternative was designed to avoid development in areas intended to be preserved by the Proposed Action Alternative and to preserve additional swales and drainage features at the project site. Those additional swales and drainage features that would be placed into preserves are shown on Figure 16, *Modified Proposed Action Alternative*, and result in the onsite preservation of 56.426 acres of jurisdictional waters, which is preservation of 63% of all jurisdictional waters. They include a swale complex in the Bufferlands area, two swale complexes in Creekside Village, and the swale complexes at the project site's eastern boundary in the Estates Village area. Under this alternative, the central portion of the Town Center area has been reconfigured to preserve a drainage/tributary feature that is part of the tributary system for Laguna Creek to the west. The main plateau preserve would be expanded to 384 acres (from 381.2 acres), and would thereby include 28.548 acres of vernal pools; 0.875 acres of seasonal wetlands; 2.089 acres of seasonal wetland swales; 1.564 acres of intermittent drainage; and 0.835 acres of stock ponds.

Development in the central and eastern portions of the Project site would basically remain the same as that contemplated under the Proposed Action Alternative, although areas previously designated for agricultural and R-2 land uses would be redesignated as avoided areas ("AV") and become preserve areas. A grand total of approximately 582.08 acres would be preserved under Modified Proposed Action Alternative compared to approximately 539 acres of preservation under the Proposed Action Alternative. (See Figure 16.) The total 56.462 acres of avoided wetlands with the Modified Proposed Action Alternative would include 32.588 acres of vernal pools; 2.001 acres of seasonal wetlands; 7.233 acres of seasonal wetland swales; 13.631 acres of intermittent drainage; 0.174 acres of creek; and 0.835 acres of stock pond.

The Modified Proposed Action Alternative would reduce the number of residential units from 8,000 in the Proposed Action Alternative to approximately 7,979 residential units, a loss of 21 dwelling units. There would be no change in the 1,349,419 square feet of commercial and office square footage.

Under the Modified Proposed Action Alternative, a total of 32.645 acres of jurisdictional waters of the U.S. would be filled, compared to filling 39.630 acres by the Proposed Action Alternative (a difference of 6.985 fewer acres being filled). More important, the Modified Proposed Action Alternative would preserve and avoid 32.588 acres of vernal pools, which is the avoidance of 69% of all onsite vernal pools, the vast majority of which are within the Mather Core Area.

5.16.1 Logistics

The Modified Proposed Action Alternative substantially satisfies all of the Cordova Hills Project's logistics criteria. More specifically, such alternative: (1) contemplates a regional commercial center of sufficient size along Grant Line Road; (2) includes approximately 1,928.3 developable acres, which is three fewer acres within the USB than the Proposed Action Alternative; (3) still provides three main access points to Grant Line Road; (4) retains the

University/College Campus Center in the same location as provided in the approved Master Plan and the Development Agreement; (5) allows a Sports Park in the approved location adjacent to Grant Line Road; and (6) would be consistent with the established County regulatory framework. Consequently, the Modified Proposed Action Alternative provides sufficient acreage to develop a functionally integrated walkable, new urbanist large scale mixed-use community. Therefore, the Modified Proposed Action Alternative satisfies the logistics criteria for practicability.

5.16.2 Costs

As a result of having three (3) fewer net developable acres than the Proposed Action Alternative, the total development cost for the Modified Proposed Action Alternative is basically the same as for the Proposed Action Alternative.

Development Cost Comparison Methodology

Based on an estimate of approximately 1,370.1 total net developable acres, the average development cost per developable acre for the Modified Proposed Action Alternative is virtually the same as for the Proposed Action Alternative's cost of \$518,000/acre. (See, Table 1 in Appendix 13.) Further, the average development cost per dwelling unit would remain basically the same at \$70,000, assuming an average sales price per dwelling of \$325,000. Consequently, the average development cost per dwelling unit as a percentage of sales price for this alternative is the same as for the Proposed Action Alternative at 21.5%.

5.16.3 Conclusion

Because the Modified Proposed Action Alternative satisfies the logistical criteria and substantially satisfies the cost criteria, it is considered a practicable alternative.

5.17 Candidates for the LEDPA Conclusion

There are two practicable candidates that have been identified for the Least Environmentally Damaging Alternative. The Modified Proposed Action would preserve and avoid 69% of all vernal pools at the project site, and would preserve and avoid 63% of all Waters of the United States. In comparison, the Regional Conservation Alternative would preserve and avoid 64% of the vernal pools on the project site, and preserve 43% of the Waters of the United States. Please see the below chart which compares these two alternatives with each other, as well as with other projects in the Sacramento Region.

VERNAL POOL IMPACTS

PROJECT	% OF TOTAL VERNAL POOLS PRESERVED & AVOIDED	Total Vernal Pool Direct Impacts	Total Vernal Pools Preserved	Total Vernal Pools	Notes
Aboretum - Waegel	73%	5.97	16.15	22.12	Sunridge Properties FEIS - October 2010 Pg. 400
Grantline 208	67%	3.27	6.79	10.06	Settlement Impacts ADS and Grantline 208 March 2013
Modified Proposed Action/Potential LEDPA - August 2014	69%	14.921	32.588	47.509	Corps Alternative 3 Hybrid
Cordova Hills - March 15th, 2011 Application	67%	15.844	31.865	47.509	Amended App for Section 404 Pg. 21, 404, 404 Permit, 404 Application, March 15, 2011 Submittal
Cordova Hills Regional Conservation Alternative/Potential LEDPA	64%	16.885	30.623	47.508	SSHCP Alternative Exhibit, EIS Folder in 'S' Drive
Douglas 103	61%	1.66	2.57	4.23	Sunridge Properties FEIS - October 2010 Pg. 398 (There were no settlement preserve adjustments as part of CNPS)
Anatolia	58%	29.67	41.1	70.77	Sunridge Properties FEIS - October 2010 Pg. 398
Cordova Hills - April 2008 Application	53%	24.81	27.5	52.31	Submitted 404 Permit Preserve 4-28-08
Suncreek	47%	14.5	12.72	27.22	Suncreek Joint EIR EIS, Pg. 3.3-35, Ch. 3.3-11
Montelena	43%	6.914	5.295	12.209	Approved BO Pg. 3
Arista Del Sol	41%	5.08	3.51	8.59	Settlement Impacts ADS and Grantline 208 March 2013
Folsom SOI	37%	2.92	1.72	4.64	Folsom SOI DEIR DEIS Pg. 516
The Preserve	32%	10.46	4.93	15.39	DEIR Oct. 2005 Pg. 437 (4.9-25) Most Recent Document Available
Sunridge Park	4%	1.31	0.05	1.36	Sunridge Properties FEIS - October 2010 Pg. 398
Anatolia IV	0%	1.36	0	1.36	Sunridge Properties FEIS - October 2010 Pg. 398
Delta Shores	0%	0	0	0	Draft EIR - Pg. 5.4-3
Douglas 98	0%	3.7	0	3.7	Sunridge Properties FEIS - October 2010 Pg. 398
North Douglas	0%	1.99	0	1.99	Sunridge Properties FEIS - October 2010 Pg. 398
Lot J	0%	1.88	0	1.88	Sunridge Properties FEIS - October 2010 Pg. 398

WATERS OF THE U.S. IMPACTS

PROJECT	% OF TOTAL WETLANDS PRESERVED & AVOIDED	Total Waters of the U.S. Direct Impacts	Total Waters of the U.S. Preserved (Onsite Only)	Total Waters	Notes
Douglas 98	100%	3.91	0	3.91	Sunridge Properties FEIS - October 2010 Pg. 398
North Douglas	100%	6.15	0	6.15	Sunridge Properties FEIS - October 2010 Pg. 398
Lot J	100%	2.99	0	2.99	Sunridge Properties FEIS - October 2010 Pg. 398
Montelena	97%	4.257	0.115	4.372	Approved BO Pg. 3
Sunridge Park	91%	1.81	0.19	2	Sunridge Properties FEIS - October 2010 Pg. 398
The Preserve	74%	15.65	5.61	21.26	DEIR Oct. 2005 Pg. 437 (4.9-25) Most Recent Document Available
Modified Proposed Action/Potential LEDPA - August 2014	63%	32.645	56.426	89.071	Corps Alternative 3 Hybrid
Delta Shores	61%	17.251	11.169	28.42	Draft EIR - Pg. 5.4-3
Arista Del Sol	60%	17.18	11.26	28.44	Settlement Impacts ADS and Grantline 208 March 2013
Suncreek	55%	24.17	19.5	43.67	Suncreek Joint EIR EIS, Pg. 3.3-35, Ch. 3.3-11
Cordova Hills - April 2008 Application	51%	51.83	60.35	102.18	Submitted 404 Permit Preserve 4-28-08
Anatolia	50%	44.22	44	88.22	Sunridge Properties FEIS - October 2010 Pg. 398
Folsom SOI	47%	39.5	44.14	83.64	Folsom SOI DEIR DEIS Pg. 516
Cordova Hills - March 15th, 2011 Application	45%	39.789	49.317	89.106	Amended App for Section 404 Pg. 21, 404, 404 Permit, 404 Application, March 15, 2011 Submittal
Cordova Hills Regional Conservation Alternative/Potential LEDPA	43%	38.414	50.692	89.106	SSHCP Alternative Exhibit, EIS Folder in 'S' Drive
Douglas 103	42%	1.98	2.73	4.71	Sunridge Properties FEIS - October 2010 Pg. 398 (There were no settlement preserve adjustments as part of CNPS)
Grantline 208	34%	3.72	7.38	11.1	Settlement Impacts ADS and Grantline 208 March 2013
Aboretum - Waegel*	27%	31.78	85.2	116.98	Sunridge Properties FEIS - October 2010 Pg. 400
Anatolia IV	0%	1.36	0	1.36	Sunridge Properties FEIS - October 2010 Pg. 398

* Approximately half of the wetlands are a lake (58.44 acres)

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Figure 15. Cordova Hills Additional Avoided Areas

Figure 16. Modified Proposed Action Alternative

APPENDIX

1. Planning Theories and Policies.
2. EPS Analysis of Housing Demand Related to University/College Campus Center.
3. Letter to Applicant from Deputy Chief Arend (December 19, 2011).
4. 4-A: EIR Offsite Alternatives Analysis.
4-B: Offsite Alternatives Supplement (April 2013)
5. ECORP, “2013 Assessment Level Wet Season 90-day Report of Findings Regarding Federally Listed Branchiopods.”
6. CEQA, Findings of Fact and Statement of Overriding Considerations.
7. “University Site at Cordova Hills,” Holabird & Root (January 28, 2014).
8. “Commercial Location Opinion Letter – Master Planned Community in Sacramento County,” The Concord Group (January 24, 2014).
9. “Town Center Village, Cordova Hills,” Brown Stevens Elmore & Sparre (January 27, 2014).
10. “Strategic Market Opportunity Analysis and Positioning,” The Concord Group (February 21, 2014).
11. “Parking Structure Cost Comparison.”
12. “Cordova Hills Commercial Demand and Acreage Requirements,” William Hezmalhalch Architects (June 23, 2014).
13. EPS, “Cordova Hills Feasibility Analysis,” (July 1, 2014).
14. EPS, “Cordova Hills Special Planning Area Fiscal Impact Analysis.”
15. Bob Parkins Renewable Energy Consultants, “Preliminary Evaluation of Solar System Configurations and Issues – Cordova Hills.”
16. MacKay & Somps, “Cordova Hills – Additional Avoidance Areas A-4, A-5, A-6 & A-7” (August 4, 2014).

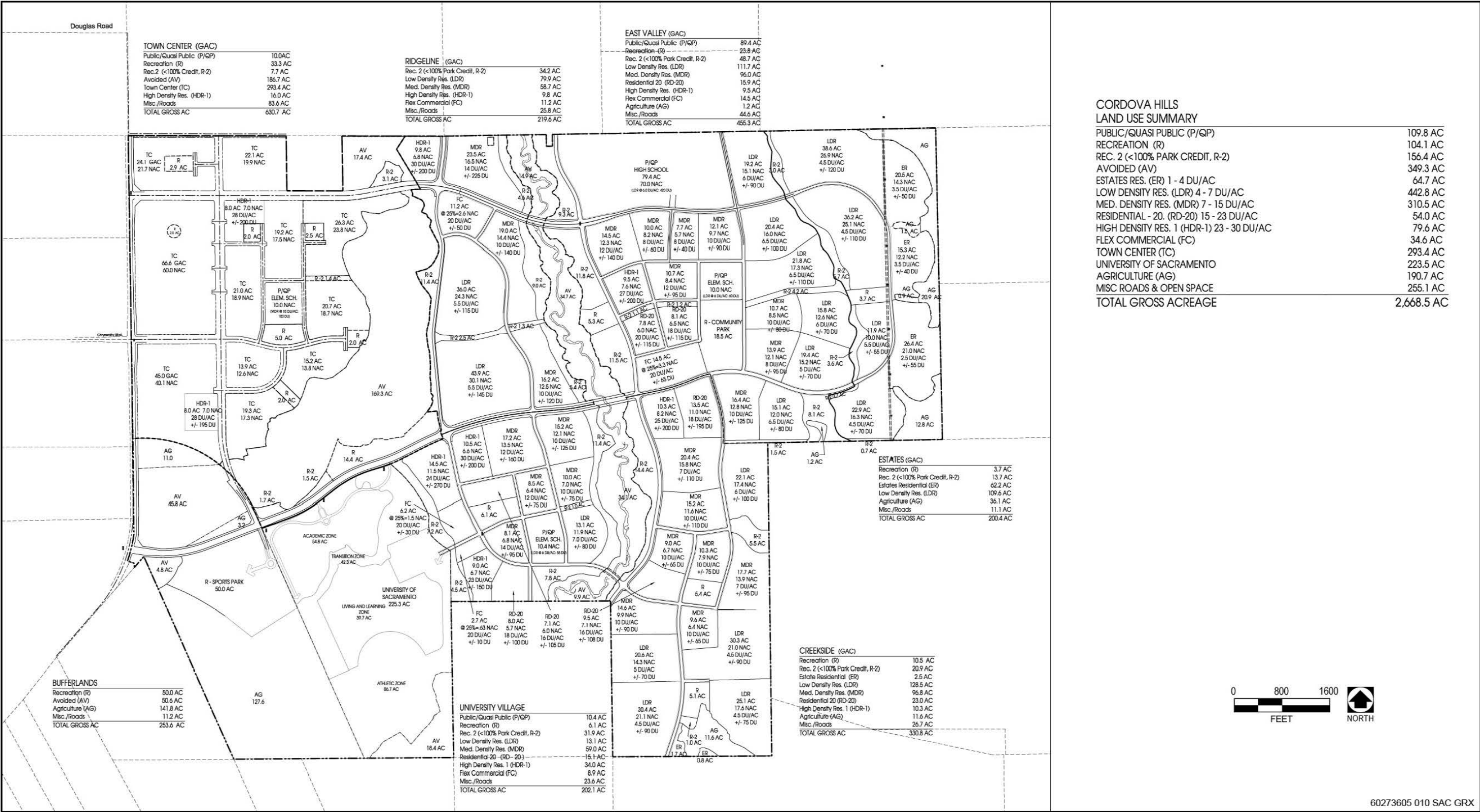


Figure 1. 2008 Land Use Plan

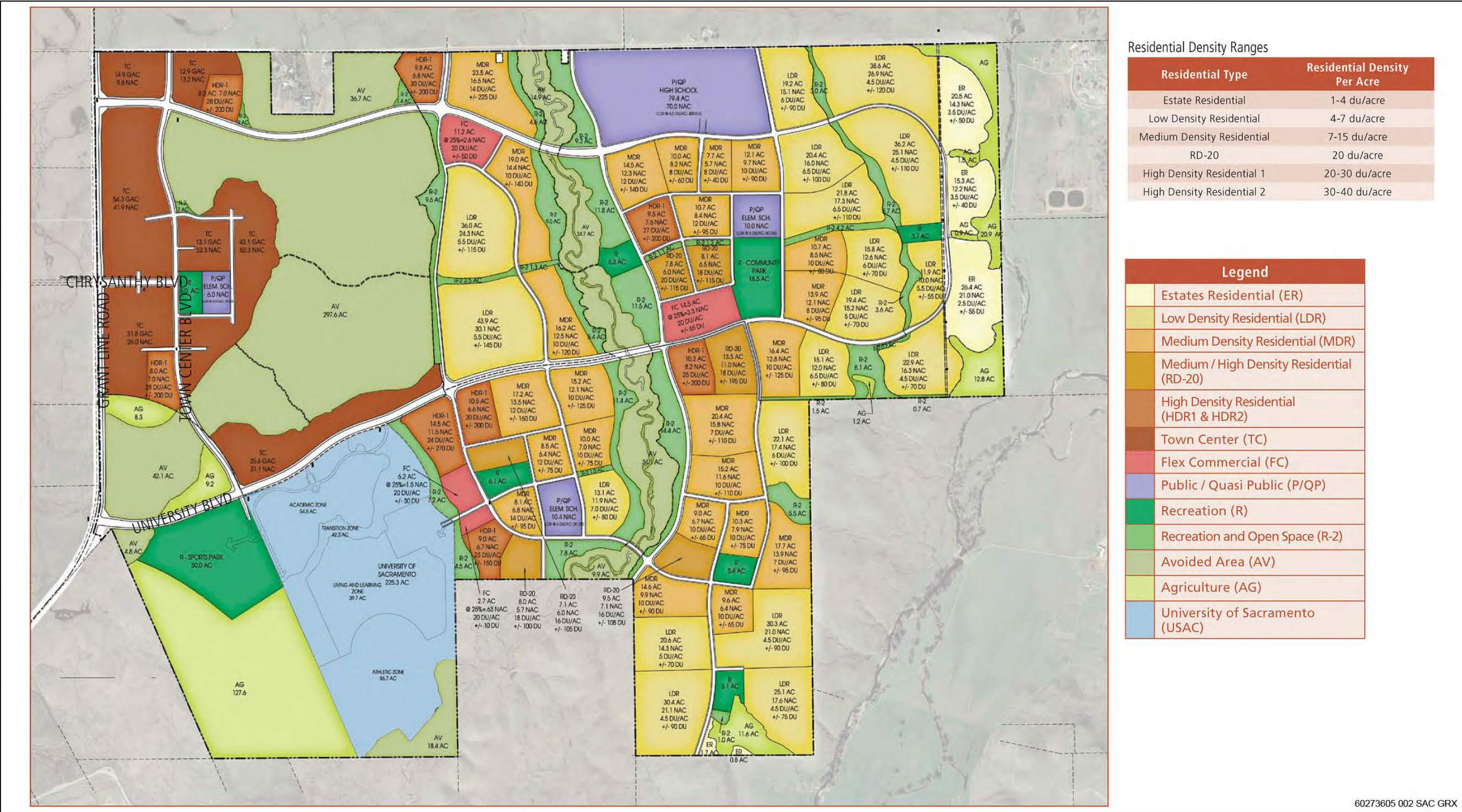


Figure 2. Proposed Action Alternative Land Use Plan

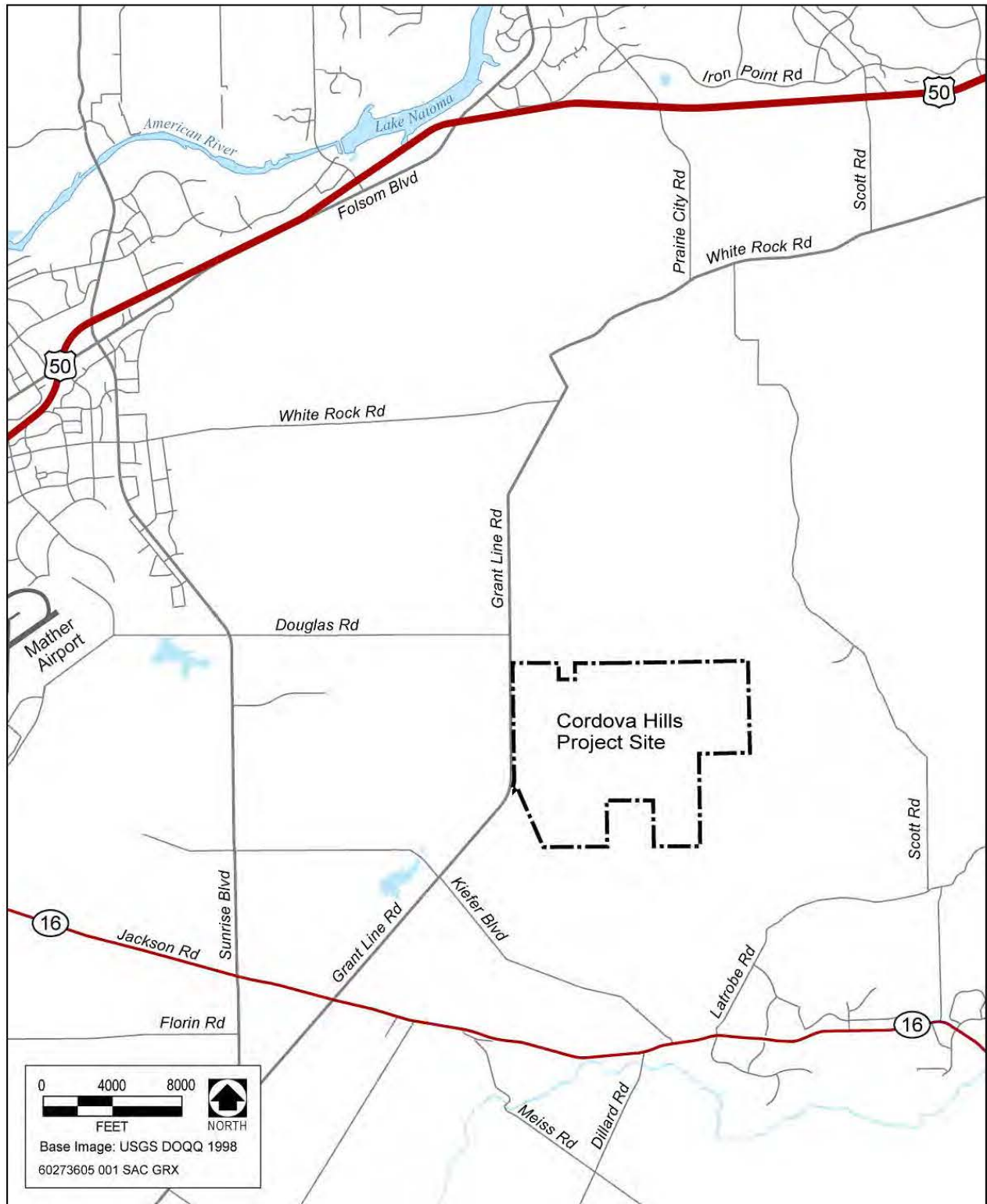


Figure 3. Project Vicinity

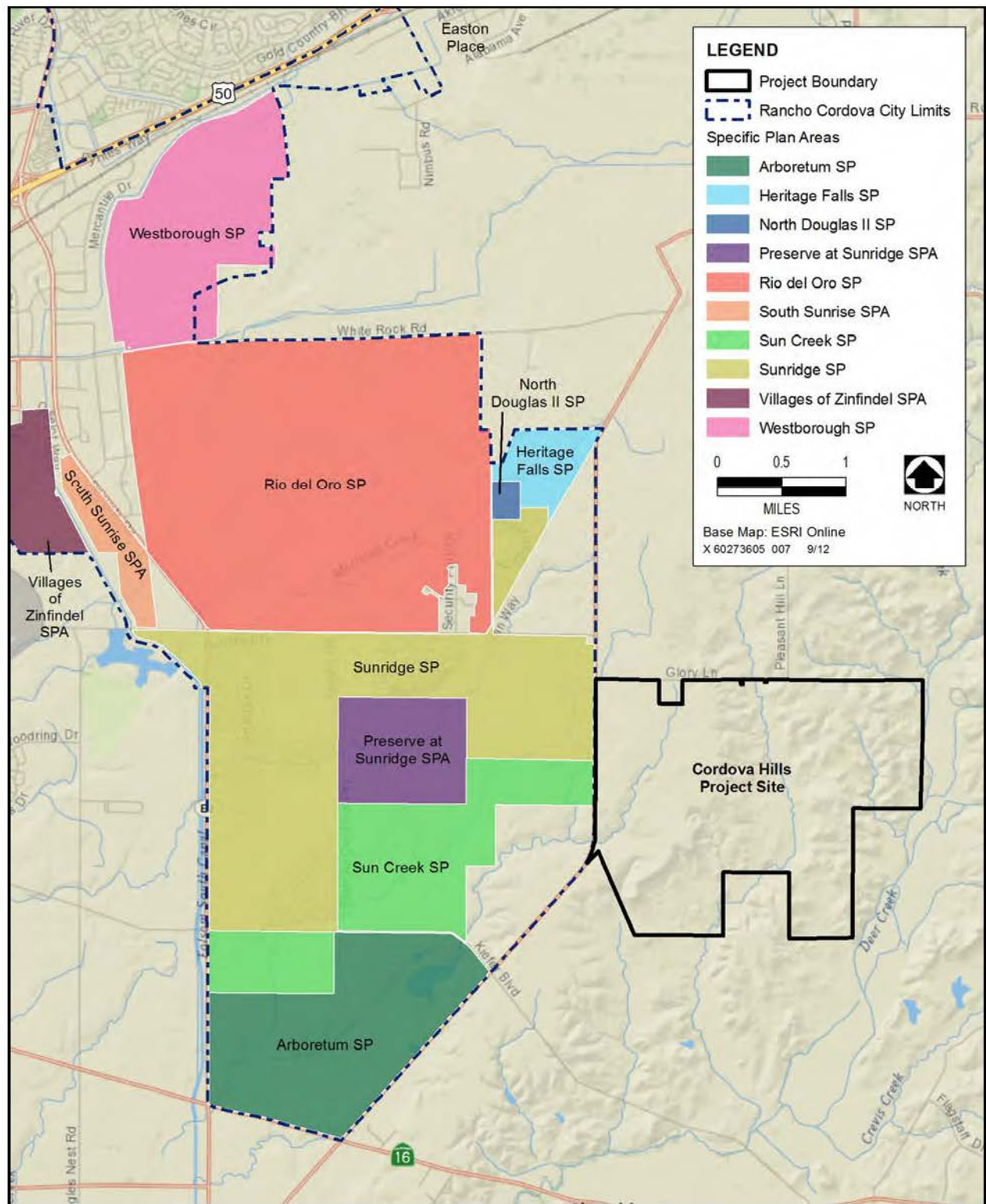


Figure 4. Project Site and Specific Plan Areas

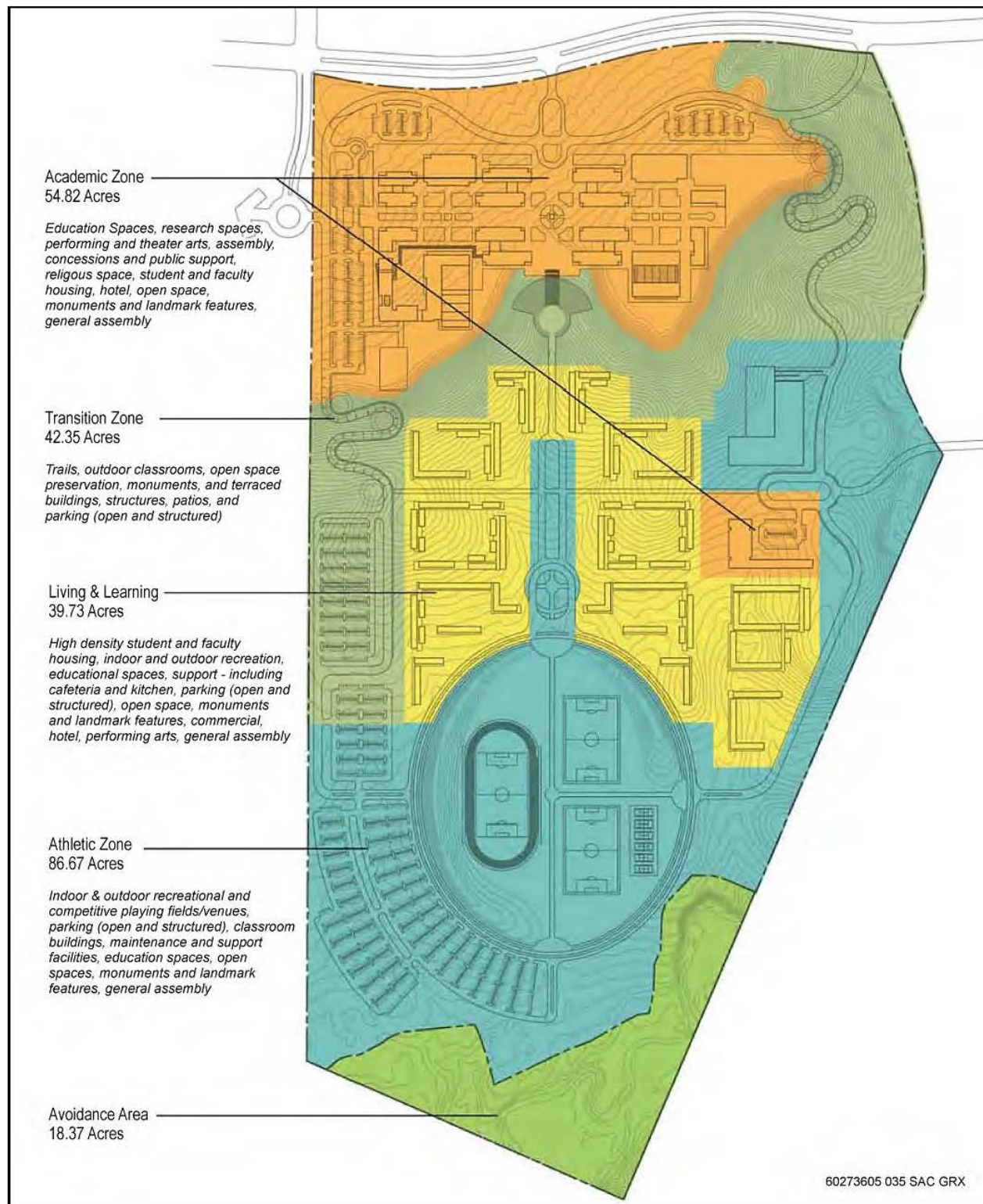
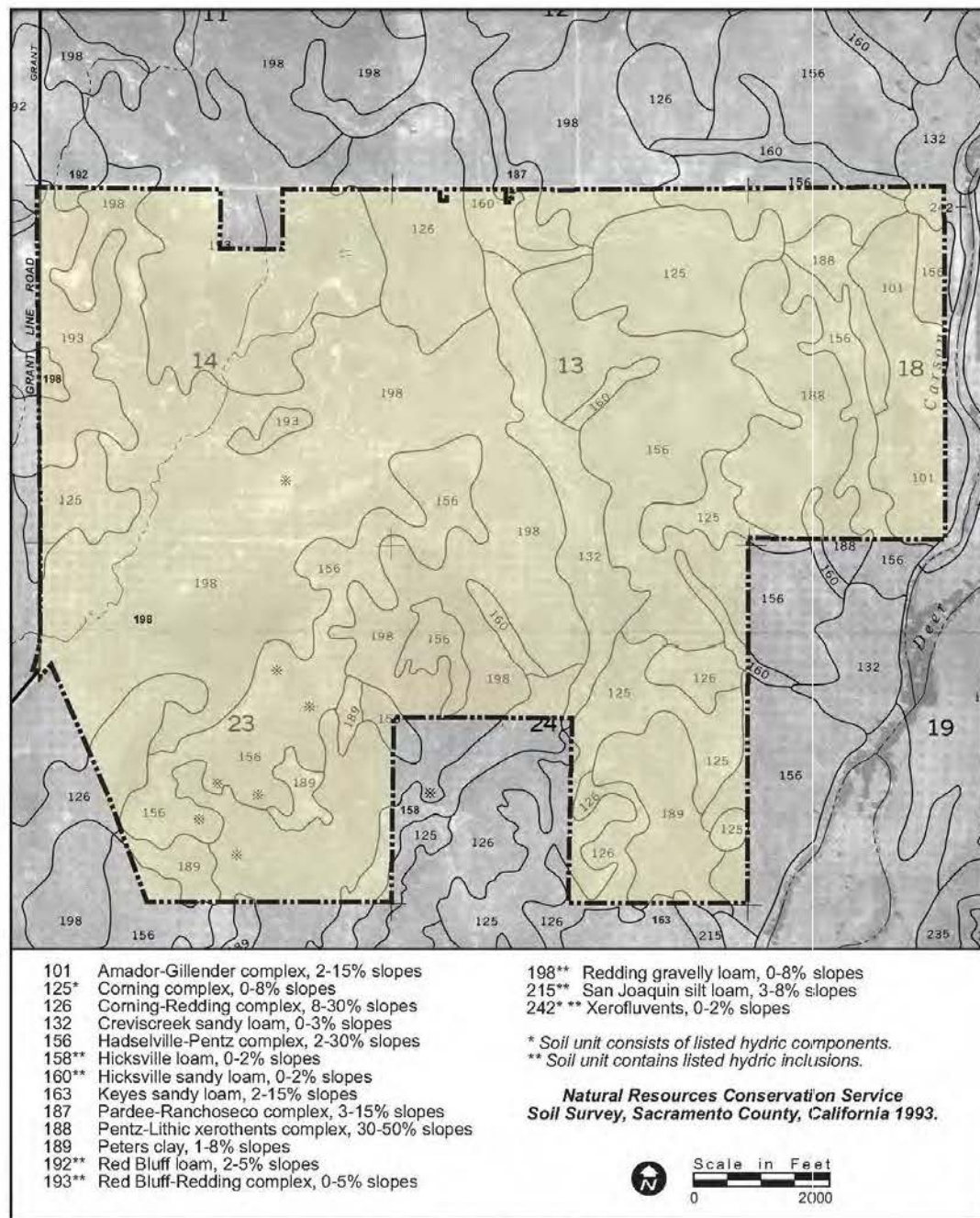


Figure 5. University/ College Campus Center Land Use Plan



2005-217 Cordova Hills



Figure 6. Natural Resources Conservation Service Soil Types

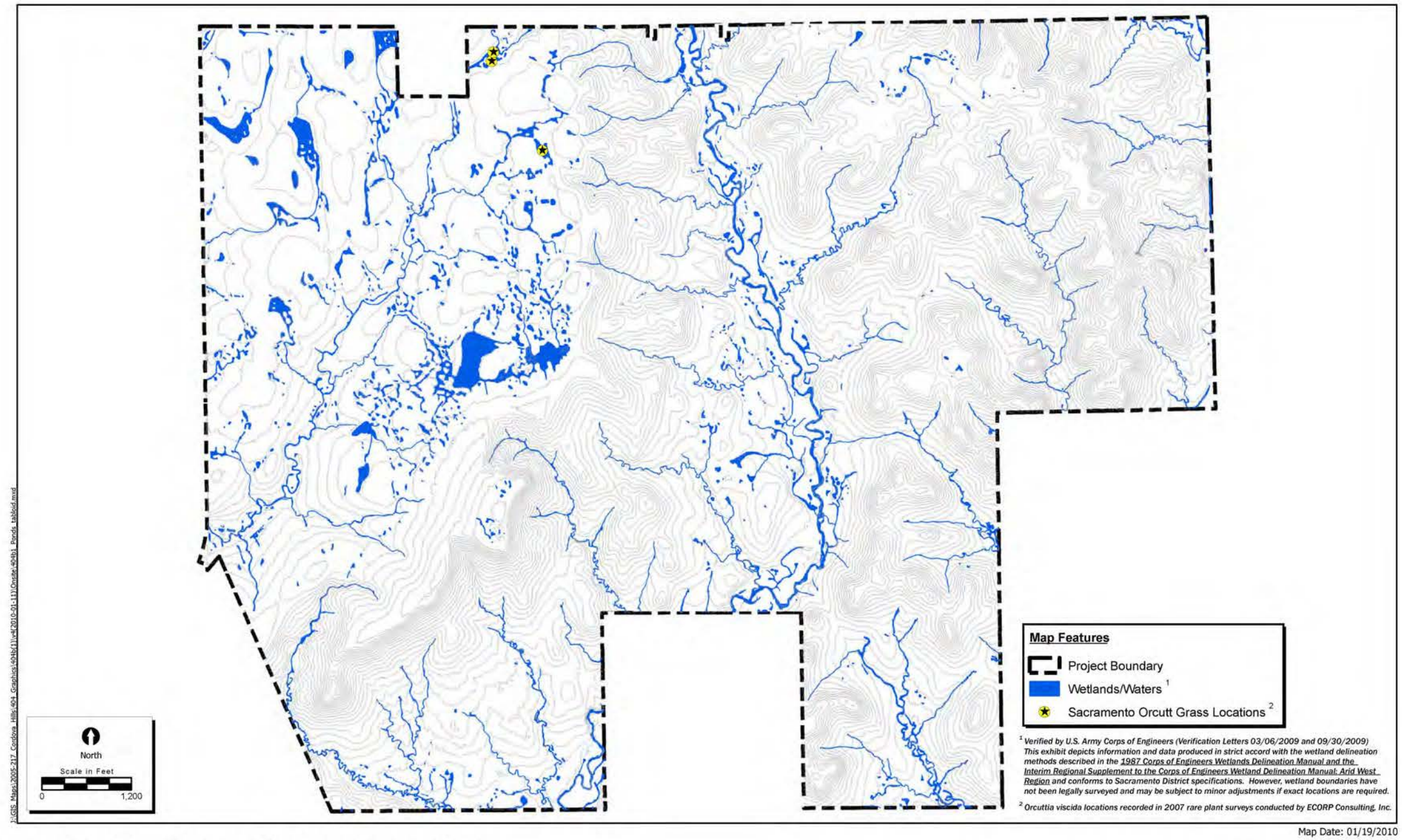


Figure 5. Locations of Sacramento Orcutt Grass (*Orcuttia viscida*)

2005-217 Cordova Hills



Figure 7. Locations of Sacramento Orcutt Grass

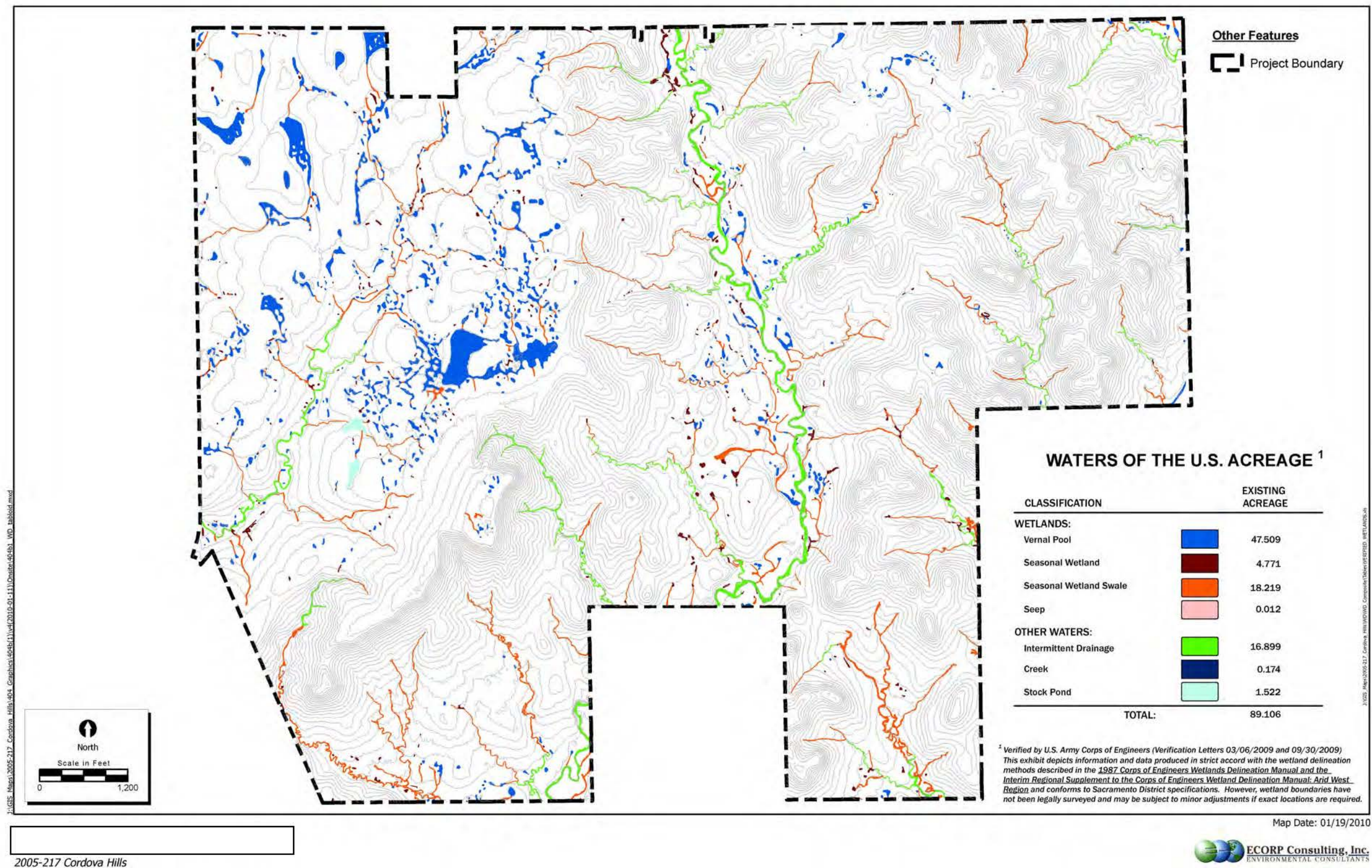


Figure 8. Verified Wetland Delineation

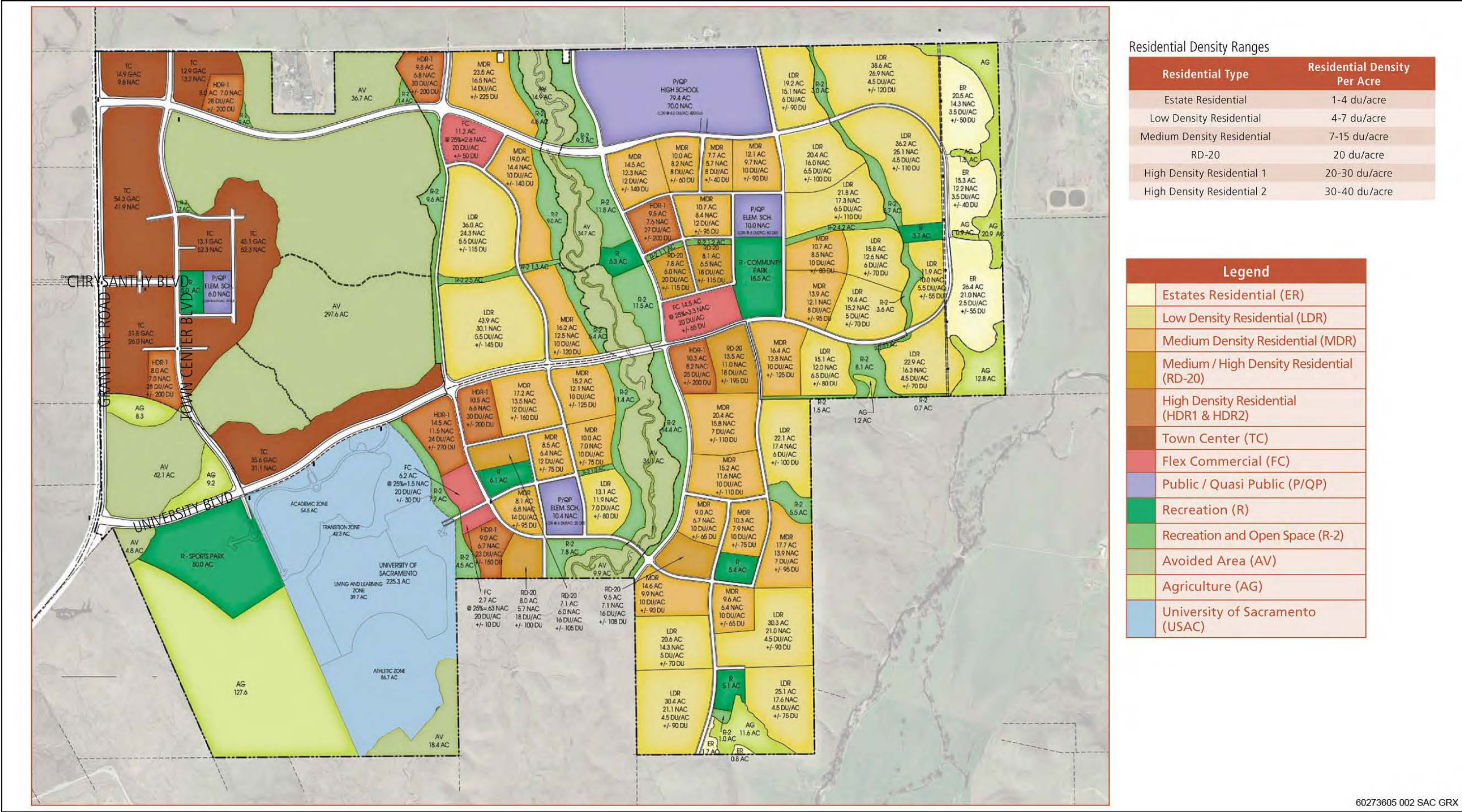


Figure 9. Proposed Action Alternative Land Use Plan

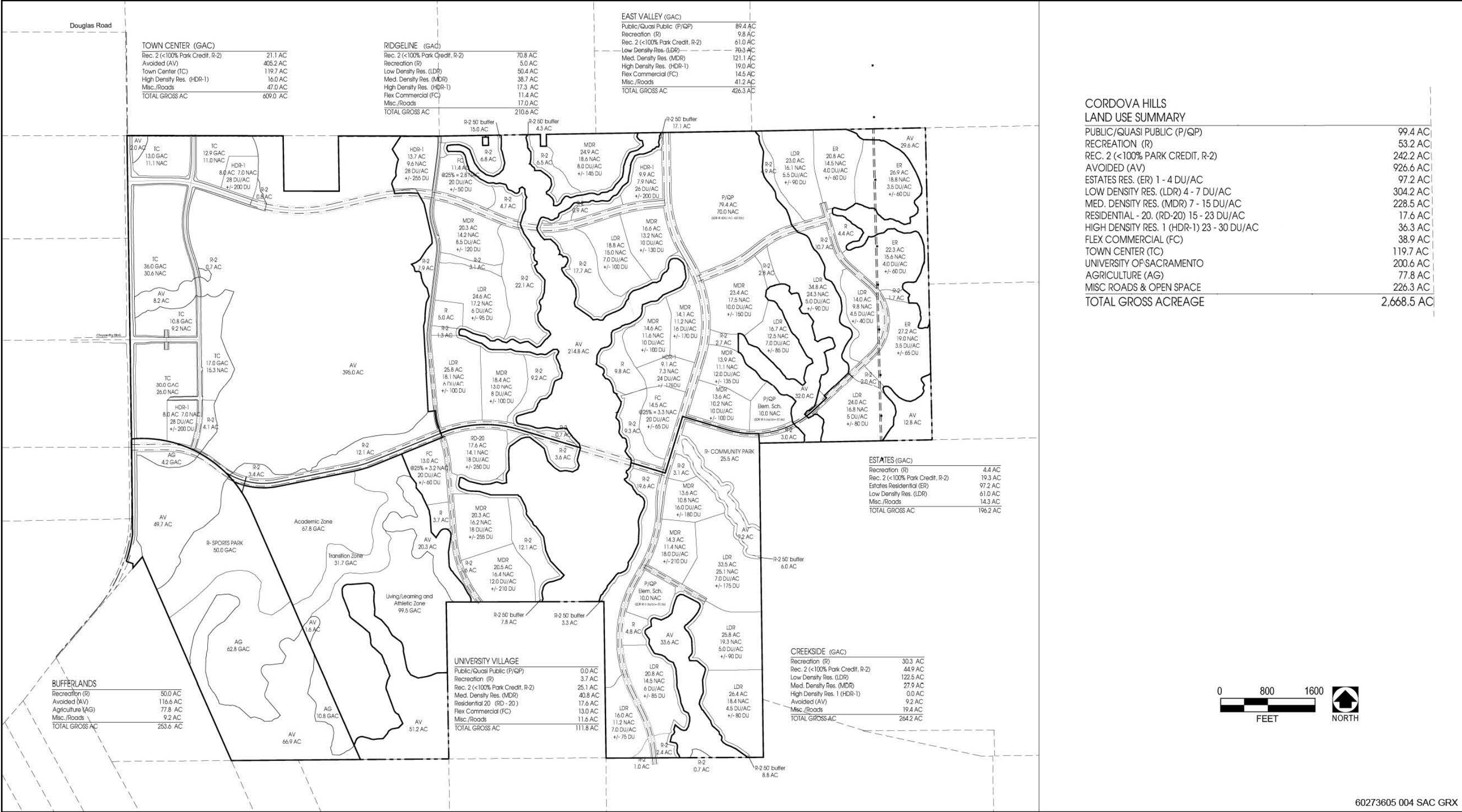
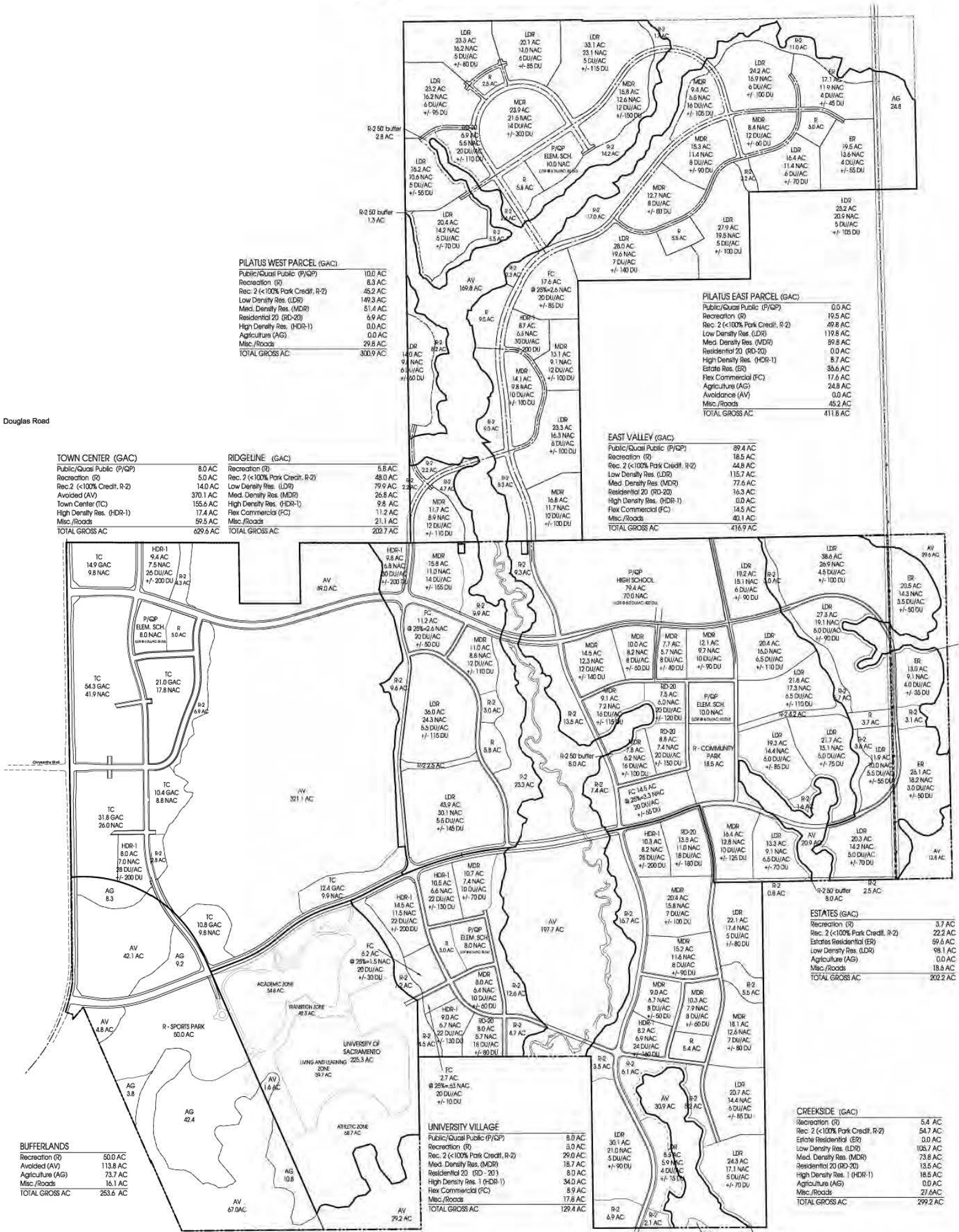


Figure 10. Expanded Drainage Preservation Alternative Land Use Plan

Figure 11. Pilatus Alternative Land Use Plan

PILATUS PARCEL
LAND USE SUMMARY

PUBLIC/QUASI PUBLIC (P/QP)	10.0 AC
RECREATION (R)	27.8 AC
REC. 2 (<100% PARK CREDIT, R-2)	95.0 AC
AVOIDED (AV)	169.8 AC
ESTATES RES. (ER) 1 - 4 DU/AC	36.6 AC
LOW DENSITY RES. (LDR) 4 - 7 DU/AC	269.1 AC
MED. DENSITY RES. (MDR) 7 - 15 DU/AC	41.2 AC
RESIDENTIAL - 20. (RD-20) 15 - 23 DU/AC	6.9 AC
HIGH DENSITY RES. 1 (HDR-1) 23 - 30 DU/AC	8.7 AC
FLEX COMMERCIAL (FC)	17.6 AC
AGRICULTURE (AG)	24.8 AC
MISC ROADS & OPEN SPACE	75.0 AC
TOTAL GROSS ACREAGE	882.5 AC



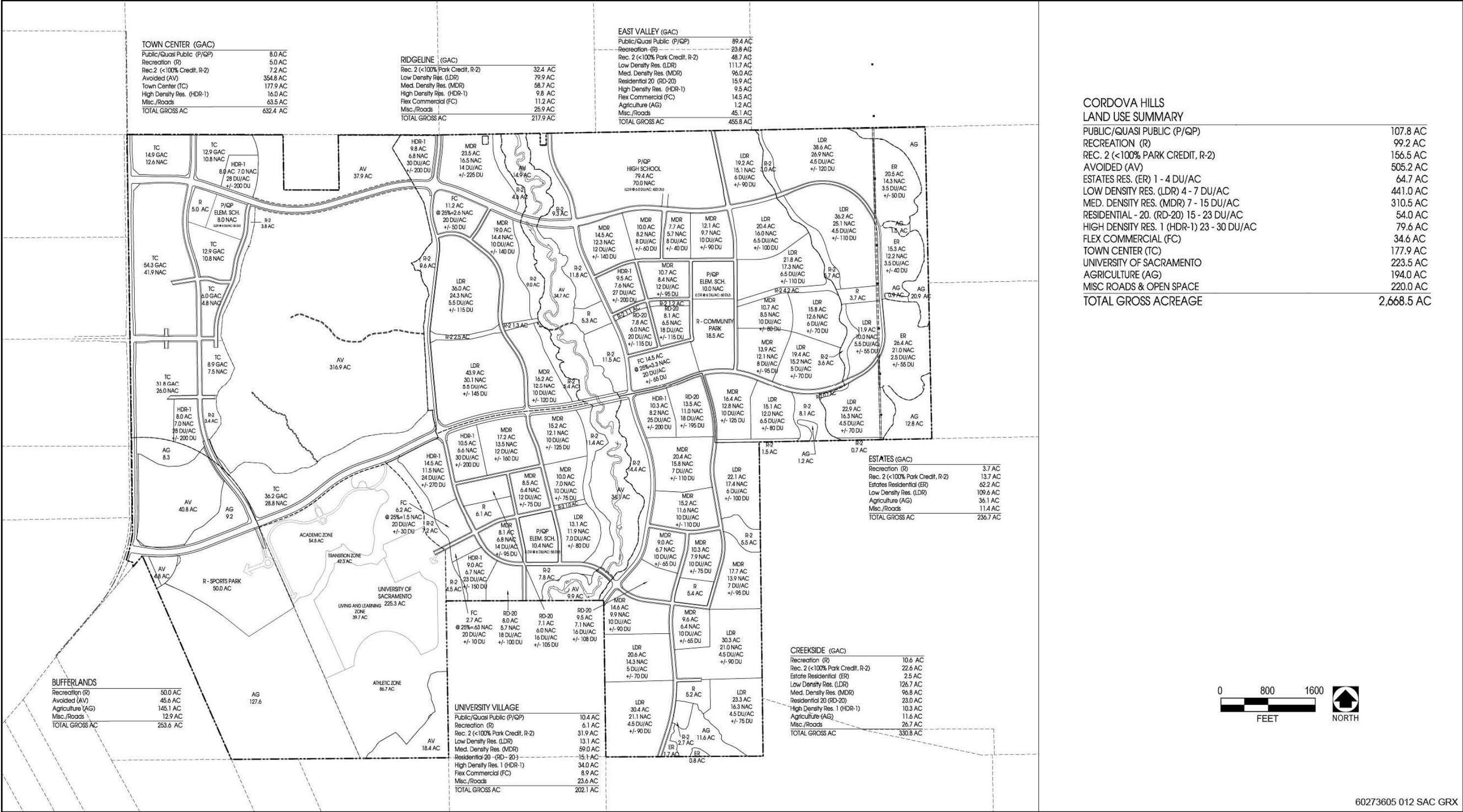


Figure 12. Regional Conservation Alternative Land Use Plan

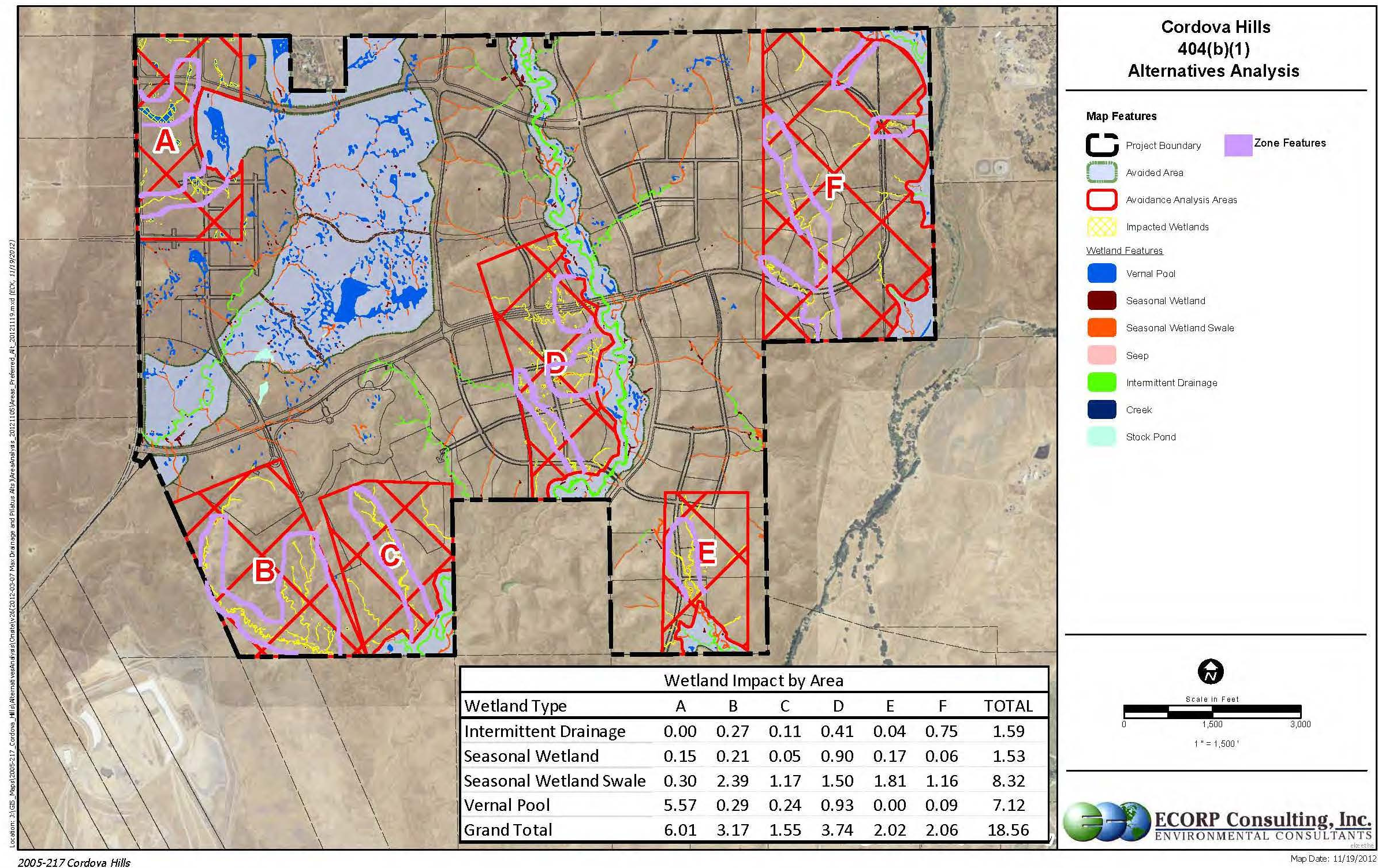










Figure 13. Study Zones




Location: J:\GIS_Maps\2005-217_Cordova_Hills\Meetings\2014-07-08_ACoE_LGibson\Additional Preserves Figure\CH_ACOE_Avoidance_Areas.mxd (ECK/JDS, 7/10/2014)

Figure 15.
Cordova Hills
Additional Avoided Areas

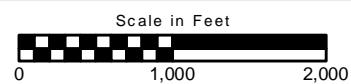
Map Features

-  Project Boundary
-  Verified WUOS
-  Additional AG Avoided Areas
-  Additional AG Avoided Waters = 0.384 acres
-  Additional Avoided Areas
-  Additional Avoided Waters = 12.379 acres
-  Additional Central R-2 Avoided Areas
-  Additional Central R-2 Avoided Waters = 1.946 acres*

Proposed Land Use

-  AG
-  R-2
-  AV

* 1.477 acres with removal of overlap waters with "Additional Avoided Waters" layer
Avoided area data provided by Lisa Gibson of the Army Corps of Engineers



DRAFT

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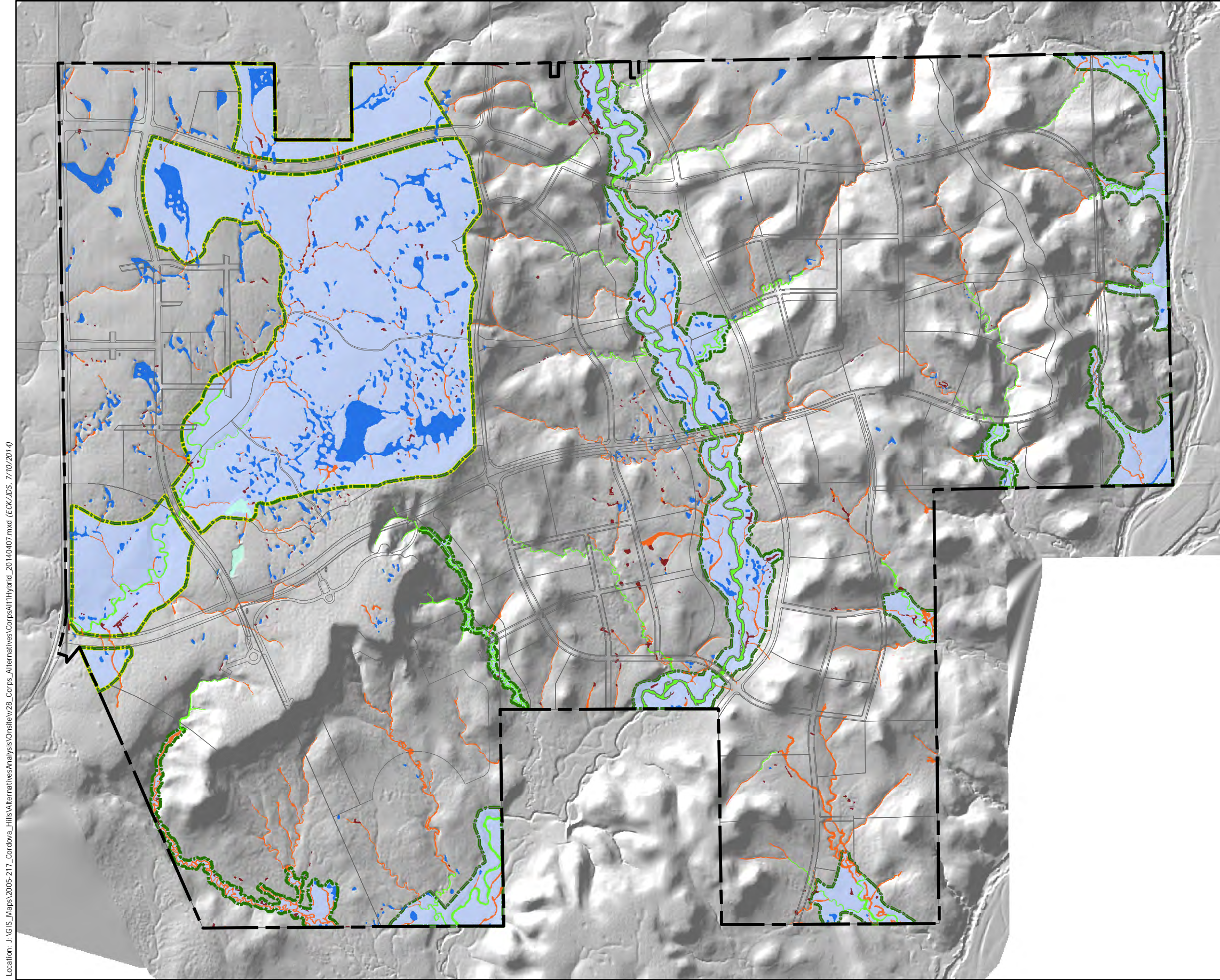


Figure 16.
Modified Proposed Action Alternative

Map Features

- Project Boundary
 - Preserve (582 acres)
- Wetlands/Waters
- Vernal Pool
 - Seasonal Wetland
 - Seasonal Wetland Swale
 - Seep
 - Intermittent Drainage
 - Creek
 - Stock Pond

Plateau Avoidance

	<i>Avoided</i>
Vernal Pool	28.548
Seasonal Wetland	0.875
Seasonal Wetland Swale	2.089
Intermittent Drainage	1.564
Stock Pond	0.835
Total	33.910

Plateau Preserve
(384 acres)

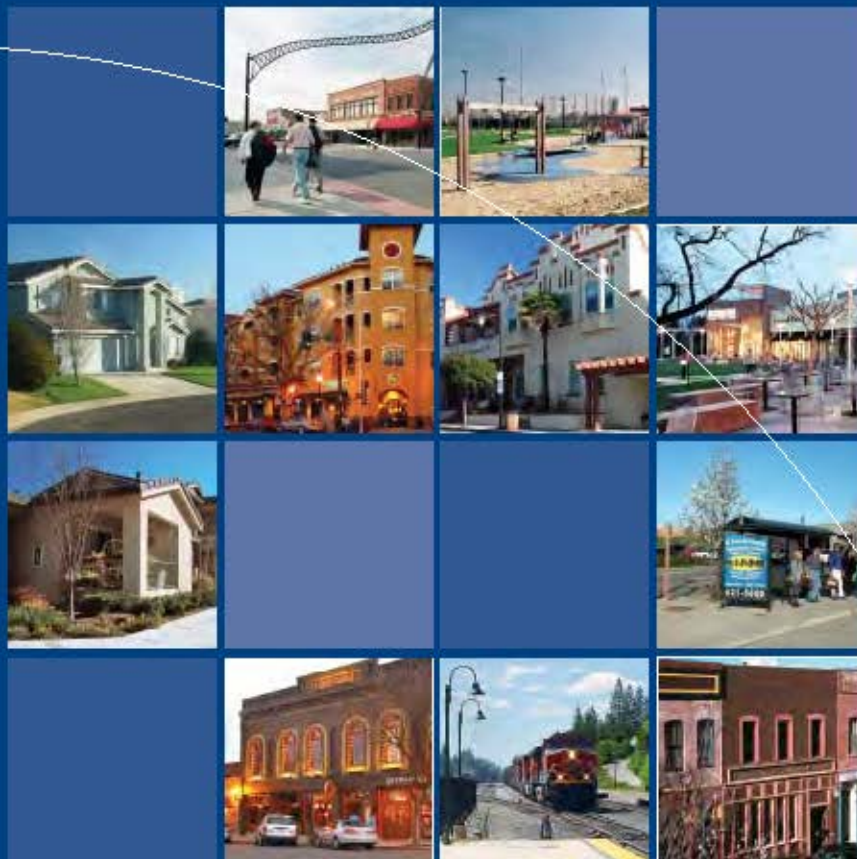
Overall Impact and Avoidance

	<i>Impacted</i>	<i>Avoided</i>	<i>Total</i>
Vernal Pool	14.921	32.588	47.509
Seasonal Wetland	2.770	2.001	4.771
Seasonal Wetland Swale	10.986	7.233	18.219
Seep	0.012	0.000	0.012
Intermittent Drainage	3.268	13.631	16.899
Creek	0.000	0.174	0.174
Stock Pond	0.688	0.835	1.522
Total	32.645	56.462	89.106

Examples from the Sacramento Region of

THE SEVEN PRINCIPLES OF SMART GROWTH

Better Ways to Grow



Smart Growth

Quality of life concerns are driving communities throughout the State of California and the nation to make growing smarter a top priority. Nowhere is this mission more important than in the six-county Sacramento Region, which is experiencing some of the fastest growth in the state. The region's political leaders—from Colfax to Isleton and Winters to Placerville—are working together under the umbrella of the Sacramento Area Council of Governments to address these concerns through the Sacramento Region Blueprint: Transportation/Land Use Study. This booklet is part of that effort, and provides some examples of what the region's communities can accomplish when they seek to grow smarter.

Smart growth. Good growth. Sustainable development. Whatever the terminology, the goals are the same: to preserve and enhance the quality of life for the region's citizens. Good growth does this by promoting a sense of community in new and expanding areas while protecting the integrity and vitality of existing communities—thereby strengthening the region as a whole.

Davis Commons. Placerville's Historic Downtown. Roseville's Sierra Crossings. Beermann's Beerwerks in Lincoln. These and the many other examples on the following pages show how the region's government leaders have implemented the following good growth concepts, widely accepted to encourage more livable communities:

- Provide a variety of **transportation choices**
- Offer **housing choices** and opportunities
- Take advantage of **compact development**
- Use **existing assets**
- **Mixed land uses**
- Preserve open space, farmland, natural beauty, through **natural resources conservation**
- Encourage distinctive, attractive communities with **quality design**

Every community in the Sacramento Region has examples of these good growth principles to share, and the examples included here are not meant to be comprehensive. But there is at least one from every jurisdiction. Those jurisdictions are to be commended for their foresight and creativity and encouraged as they work to grow smart in the future.

PRINCIPLE 1

Transportation Choices

Community design can help encourage people to walk, ride bicycles, ride the bus, ride light rail, take the train or car-pool. For example, streets can be designed to include dedicated bike lanes or special lanes for bus rapid transit. Community design can encourage people to make more trips closer to home, making walking or biking easier. As more people walk, bike, or ride the bus, congestion and air pollution are reduced.

[1]
El Dorado County
El Dorado Multimodal Transportation Facility
Residents can park their cars or bikes at the facility and commute via El Dorado Transit. Commuters can utilize shopping and services within walking distance of the facility.

[2]
City of Galt
Deadman Gulch Trail System
The popular trail system connects to three parks, one school, and multiple residential developments. The City of Galt has zoned more homes along the trail and plans to link it to a future commercial retail development.

[3]
City of Colfax
Multimodal Station
The City of Colfax is turning its historic Colfax Depot into a Multimodal Transportation Station by adding new parking, an automated ticket booth, and a passenger platform. Plans to renovate the building exterior and landscaping are in the works. Colfax is served daily by Amtrak passenger rail and by a feeder bus line that connects to the Capitol Corridor train.



[1]



[3]

[2]



2

3



[1]



[2]

[3]



PRINCIPLE 2

Housing Choices

Providing a variety of places where people can live—apartments, condominiums, townhouses, and single-family detached homes—creates opportunities for the variety of people who need them—families, singles, seniors, and people with special needs. This issue is of special concern for the very low-, low-, and moderate-income people for whom finding housing, especially housing close to work, is challenging. By providing a diversity of housing options, more people have a choice.

[1]
City of Loomis
Stonebridge
Stonebridge provides much-needed homes close to the center of Loomis. The petite-lot homes appeal to seniors, singles, and small families. The city was able to preserve a wetlands open space by requiring very small lots. Despite initial skepticism over whether the small lots would sell, the homes are very popular.

[2]
City of Citrus Heights
Normandy Park Apartments
Built for active seniors, Normandy Park is strategically connected to San Juan Park to give residents opportunities for recreation within walking distance.

[3]
City of Roseville
Sierra Crossings Development
This neighborhood offers affordable three- and four-bedroom homes, including 53 middle-income and six low-income units.

PRINCIPLE 3

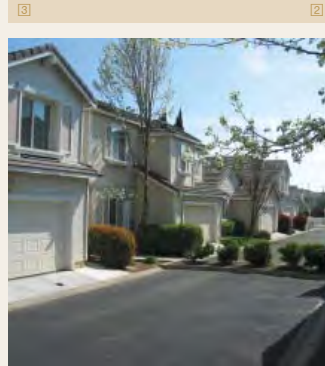
Compact Development

Creating environments that are more compactly built and use space in an efficient but more aesthetic manner can encourage more walking, biking, and public transit use.

[1]
City of West Sacramento
Metro Place
Metro Place's new townhomes are alluring because of the development's proximity to the River Walk, Downtown Sacramento, and Raley Field. Nine out of the 44 units are affordable and ten live-work loft units are scheduled.

[2]
City of Sacramento
Fremont Building
This landmark near the Capitol combines three levels of residential over retail commercial development. Kitty-corner from a park and located less than two blocks from light rail, the Fremont Building continues to be fully leased. Density is 77 units per acre.

[3]
City of Elk Grove
Laguna Pointe
Twenty percent of Laguna Pointe's homes are affordable. The units are built on petite lots, with small pedestrian-friendly streets, allowing for greater density. Lot sizes average 2,500 square feet and density is 10 units per acre.



PRINCIPLE 4

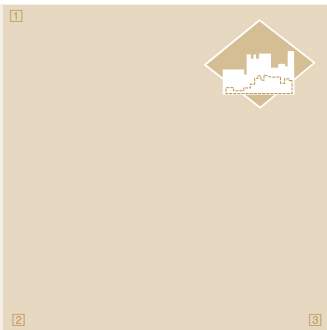
Use Existing Assets

Focusing development in communities with vacant land or intensifying development of underutilized land can make better use of public infrastructure, including roads. Building on existing assets can also mean refurbishing historic buildings or clustering buildings more densely in suburban office parks.

[1]
City of Placerville
Historic Downtown
Placerville has fought to preserve and maintain its Historic Main Street and, as a result, the district is vibrant and thriving. Many of its historic buildings house unique specialty shops, great restaurants, and a variety of service businesses.

[2]
City of Lincoln
Beermann's Beerwerks
Beermann's Beerwerks and Meat Market now occupies the Victorian building at 645 5th Street in downtown Lincoln after refurbishment of the historic site.

[3]
City of Winters
The Palms
Seaman's Opera House, built in 1876, is now known as The Palms. The refurbished concert hall is almost fully booked with all sorts of musical performances year round.



PRINCIPLE 5

Mixed Land Uses

Building homes together with small businesses or even light industry is called “mixed-use” development, and it has proven to create active, vital neighborhoods. There are many examples of this type of development: a housing project near an employment center; a small shopping center near houses; or a high-rise building with ground-floor retail and apartments or condominiums upstairs. Mixed-use development near transit can boost ridership.

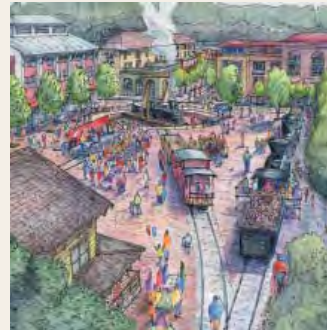
[1]
City of Yuba City
Town Center Project
Yuba City is avoiding the trends of strip development, residential growth into agricultural lands, and loss of employment to competing locations. The City's general plan focuses instead on revitalizing the downtown district, improving the riverfront, and creating a Town Square commercial district.

[2]
City of Davis
Aggie Village/Davis Commons
This grassy “gateway” to Davis pairs convenient parking with bicycle and pedestrian access. Its proximity to the neighborhood of Aggie Village, a development of petite-lot homes and pedestrian-friendly streets, makes it a prime example of a “walkable” mixed-use development.

[3]
City of Folsom
Folsom Historic Railroad Block
This six-acre mixed-use development will profit from the pedestrian traffic of the future adjoining light rail station in Historic Downtown Folsom. By 2005, plans call for construction of an 88-room hotel, 67,000 square feet of retail, 26 live-work lofts, 140 rental units, and a 60,000 square foot plaza.



[3]



[1]



[2]



6

7



[1]



[2]

[3]



PRINCIPLE 6

Natural Resources Conservation

Our quality of life is better when we have clean air to breathe and water to drink, and when we can experience the outdoors—in parks and greenbelts or in natural places. To ensure healthy and attractive natural environments we must preserve and maintain our open spaces and natural places and conserve the most productive farmland. Community design can help accomplish this by encouraging energy-efficient design, water conservation and storm water management, and the planting of shade trees to reduce ground temperatures in the summer.

[1]
Placer County
Placer Legacy
In 1998 Placer County adopted “Placer Legacy,” a comprehensive open space and agricultural preservation program to implement the conservation goals laid out in the county's and cities' general plans. It seeks to encourage urban development in the community centers by preserving open space buffers between and around towns.

[2]
Sutter County
Contained Urbanization
The County directs new urban and suburban residential development to existing rural communities and within the spheres of influence of Yuba City and Live Oak.

[3]
Yolo County, Cities of Davis and Woodland
Open Space Preservation
Making headline news, Davis and Woodland have drawn a “green line in the dirt” to preserve 11,600 acres of farmland from urban development as a buffer between the two cities. Yolo County directs development to existing urbanized areas.

Quality Design

How projects are developed, how they are oriented in relationship to the street, how well designed their façades are, if they have setbacks and where their garages are placed, all contribute to a community's attractiveness. This also influences how much people like to walk or bike and contributes to community pride and sense of ownership.

1

City of Auburn

Auburn Promenade

Once home to the Auburn Hotel, the newly renovated Auburn Promenade now leases its historic charm and style to businesses. Employees have immediate access to all of the pedestrian-friendly downtown.

2

City of Woodland

Krellenberg Court and Beamer Place

These 19th Century buildings were renovated with sensitivity to their historical features. Pedestrians can't pass by without being lured in by tempting shops and the charming architecture. A paseo links the front sidewalk to the rear patio, while providing the shops more window space.

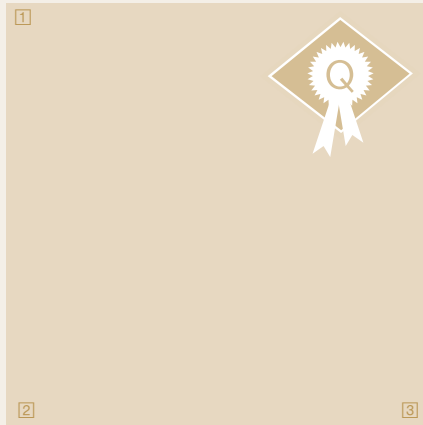
3

City of Sacramento

Del Paso Nuevo

Construction continues on the "neo-traditional" project that imitates the small, pre-World War II-style neighborhood model. Three hundred homes will cluster around a town center. Attractive walkways and narrow roads will connect them to adjacent public services and stores.

8



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New Urbanist Tenets

**A number of
proven
principles and
design trends in
new urbanist
communities
have emerged.**

The impact of new urbanism on the development industry has been a major one—far in excess of its share of the market. Beginning in the late 1980s with Seaside in Florida, the first new urbanist greenfield project, and Randolph in Richmond, Virginia, the first new urbanist infill project, the design principles of new urbanism have permeated all sectors of development, including the U.S. Department of Housing and Urban Development's HOPE VI program, public works departments, the military base housing privatization program, local planning commissions, housing and redevelopment authorities, and environmental groups. Now, after 15 years of built projects, a number of proven principles and design trends in new urbanist communities have emerged.

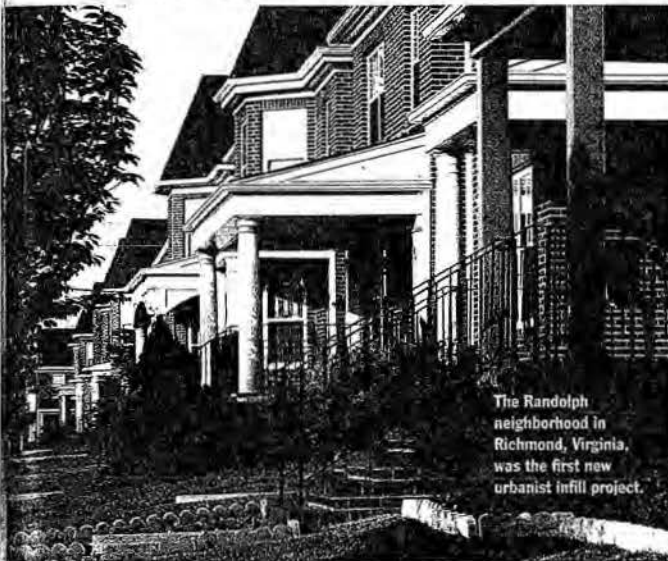
Principles of New Urbanism

A short version of new urbanist principles for neighborhoods, modeled after pre-World War II traditional American neighborhoods, includes the following tenets:

- they are walkable from end to end;
- they have a civic core and a mix of uses and amenities;
- they have an interconnected street network;
- they have recognizable boundaries;
- they provide for chance meetings and privacy; and
- they have a variety of housing types.

New urbanist communities may be fundamentally different from the conventional subdivisions and master-planned communities that still dominate the market, yet sometimes the distinction is blurred. An ongoing controversy is whether the principles of new urbanism are being "dumbed down" by faux new urbanist developments where houses with shallow front porches and paste-on historic facades have replaced McMansion houses (still in cul-de-

sac subdivisions) while the place-making tenets of new urbanism are ignored. Another variation of the partial approach is to include one or two traditional neighborhood design pods in a master-planned community of mostly conventional subdivisions.



The Randolph neighborhood in Richmond, Virginia, was the first new urbanist infill project.

sac subdivisions) while the place-making tenets of new urbanism are ignored. Another variation of the partial approach is to include one or two traditional neighborhood design pods in a master-planned community of mostly conventional subdivisions.

Design Trends in New Urbanism

A Focus on the Street. As the movement has matured, several traffic engineering solutions have become standard, such as interconnected street networks (no culs-de-sac), rear alleys for garage access and utilities, narrower streets with on-street parking, and sidewalks with planting strips and street trees. Single-family houses are set close to the street, typically 20 to 25 feet from the sidewalk,

and inclusion of front porches is encouraged to present a public face to the street. Townhouses and apartments are located at the sidewalk, with parking behind and interior to the block. New urbanist developments connect to adjacent roads, neighborhoods, and developments in multiple locations to reinforce the urban pattern, prevent congestion, and improve individual choices.

Pattern Books and Design Codes. It is one thing to prepare a new urbanist master plan with interconnected walkable streets, alleys, a civic core, and a mix of housing types; it is another to control the vertical development and architectural character of the community. Increasingly, developers of new urbanist communities are commissioning prescriptive pattern books and design codes to regulate lot sizes, building setbacks and massing, garage locations, landscape treatments, and architectural styles based on regional context. Recently, a growing number of communities, such as Monroe, Michigan, have adopted developer pattern books into their zoning ordinances to protect the integrity of the design in the event the original master developer leaves or sells the project.

Housing Variety. One of the key advances of new urbanism was to break down the practice of segregating housing types that occurs in many conventional master-planned communities. The standard was to locate houses of similar size and price in separate pods of the development; townhouse and garden apartments, if included in the program, were to be in their own enclaves. Mixing housing types within a new urbanist neighborhood, or even within an individual block, has not hurt property values, as illustrated by the Kentlands in Gaithersburg, Maryland. Lot and housing values are 15 percent higher in new urbanist developments than in conventional subdivisions in the same regional market, according to a joint Urban Land Institute/Congress for New Urbanism study in 1999. A consequence of housing variety is increased density overall, which leads to higher returns on land development while at the same time fostering the walkable nature of the community and providing housing for a range of incomes and lifestyles.

Mixed Uses. Master plans for new urbanist communities nearly always feature a retail component. Some of the earlier developments placed retail at the center of the development with mixed, and mostly unfavorable, financial results. Later projects have tended to locate the retail development near the edge of the new community, where additional customers other than residents of the development can see it and get access to it from busy arterial roads. Live/work units also are appearing in village centers such as Fairview Village in Portland, Oregon. An ongoing challenge is the viability of vertical mixed use, with apartments or offices over ground-floor retail. This development model is often an important feature of a village or town center, but financing is more difficult to obtain for this type of project, and building code regulations increase costs. Nevertheless, the advantages of creating a traditional main street and urban vitality usually outweigh those difficulties. Civic facilities, such as parks, community centers, libraries, cultural buildings, schools, and churches,

New urbanist projects that are located on urban infill sites, such as Park DuValle in Louisville, Kentucky, have blocks and streets in a grid pattern rather than the more curvilinear model common in greenfield developments.

can be located in the center of developments with much better results. In larger new urbanist developments, such as Stapleton in Denver, Colorado, office buildings, large institutional employers, and even shopping centers are part of the master plan.

Urban Infill. Although high-profile greenfield projects like Celebration in Florida and the Kentlands have garnered the most media and industry attention, new urbanist projects have also been placed on urban infill sites, such as Harbor Town in Memphis, Tennessee, and Park DuValle in Louisville, Kentucky. The design principles hold for both greenfield and infill developments, but infill sites tend to be denser with more housing variety, including affordable as well as rehabbed units; have blocks and streets in a grid pattern rather than the more curvilinear model common in greenfield developments; and are more transit friendly. Connections to adjacent neighborhoods and city amenities are also more readily achieved in an existing urban grid.

Green Design. An intrinsic ethic of new urbanism is concern for the environment, which can work its way into community design in a variety of ways, beginning with regional and local connections to transit. Ideally, a greenfield development will not be automobile dependent; Orenco Station in Portland, Oregon, for example, is a new urbanist community with a transit focus. Locating stores and civic uses within walking distance of housing can decrease automobile trips and promote a healthy lifestyle. Compact and dense development also can preserve land, and buildings, parks, trails, and conservation areas can be sited to preserve prime environmental assets such as wetlands, woodlands, and animal habitats. Because they recognize the importance of sustainable design and desire to market their

Infill and brownfield new urbanist projects, such as Summerset in Pittsburgh, which is located next to a slag hillside, are representative of smart growth and green design principles.



developments as environmentally responsible, most new urbanist developers practice green design when choosing building materials, solar orientation, and energy and stormwater management systems. Infill and brownfield new urbanist projects, such as Summerset in Pittsburgh, Pennsylvania, are representative of smart growth and green design principles.

Community Process and Entitlements

Entitlements and zoning approvals for both greenfield and urban infill sites are becoming increasingly difficult and expensive to obtain due to NIMBYism, environmental restrictions, and attitudes and



laws opposing growth. New urbanist developments often can overcome such opposition through strong master plans and design codes exhibiting sensitivity to the community, the environment, and the historic context. For instance, a new urbanist master plan and a pattern book—if developed and adopted with community cooperation through a public process, often including a design charrette—can make the entitlement process one of accommodation and relatively swift approval rather than opposition and long delays.

Lifestyle Trends in New Urbanist Communities

The bottom line for the successful design, development, and marketing of a new urbanist project is creation of a total and connected community, not just a collection of houses on isolated culs-de-sac. The ULI/CNU study concluded that the 15 percent premium for new urbanist houses over those in conventional subdivisions is not based on the size of the individual house or the amenities it provides, but rather on the opportunity to buy into a community. New urbanist developments, therefore, tend to attract people who value social interaction, cultural and class diversity, walking, housing variety, and environmentally responsible design, and who are interested in participating in community activities. Most developers, such as Disney Development at Celebration, establish an initial homeowner association and social activities to lay the groundwork for the spontaneous development of community activism that tends to be typical of mature new urbanist developments.

New urbanist communities also can be valued for accommodating people in life-cycle housing, enabling them to go from raising children to retirement years without having to move from the community in which they have established roots and friends.

Untapped Market

There is a large untapped market for new urbanist communities. A household survey by the Maine state planning office five years ago found that 37 percent of prospective homebuyers would prefer a new urbanist neighborhood over a conventional subdivision if it were available in their community. New urbanist developments currently command at most 3 percent of the market, depending on which criteria are used as a definition. This year, housing starts in America will again top 1 million units. Even if an increased market share for new urbanism is not achieved in the near term, the built examples of the best new urbanist communities have established design trends and lifestyle expectations that raise the bar for the entire development industry. ■

DONALD K. CARTER IS PRESIDENT OF URBAN DESIGN ASSOCIATES IN PITTSBURGH, PENNSYLVANIA.

A New Lakefront Neighborhood in the Heart of Downtown Chicago

The Great Chicago Fire of 1871 reduced much of the city to rubble, yet over time that rubble turned to lakefill that became, literally, the foundation of today's Grant Park, Navy Pier, Millennium Park, Museum Campus, and the Illinois Center complex. One 28-acre plot of land has remained almost untouched—a tract representing the largest undeveloped parcel of downtown land in a major U.S. city. For years, the land sat idle at the city's front door, where the Chicago River meets Lake Michigan—steps from Michigan Avenue and the Loop commercial district.

A 15-year development program currently underway is bringing this last parcel up from the ashes. The \$2.5 billion Lakeshore East development will comprise 4,950 residences, a six-acre public park, 2.2 million gross square feet of commercial space, 1,500 hotel rooms, and a 300- to 350-student public school. Conceived by Chicago-based Magellan Development Group Ltd. and Near North Properties Inc., Lakeshore East will create an entire new lakefront neighborhood in the heart of downtown.

"If you consider the size, scope, and prominence of its location, you'd be hard pressed to find another project like Lakeshore East," notes Richard Tomlinson, a managing partner of Chicago-based architecture firm Skidmore, Owings and Merrill LLP (SOM), who oversaw creation of the Lakeshore East master plan.

That plan tackled a number of challenges, including:

- negotiating a three-tiered road system that surrounds the site on three sides;
- accommodating a 52-foot grade change from the existing road network to the center of the site;
- developing new, usable open space in one of Chicago's most dense areas; and
- designing with sensitivity toward existing structures, residents, and businesses surrounding the site.

Many of these challenges stem from the site's history. In 1851, the Illinois Central Railroad received a charter to build a transportation hub connecting the railroad system to cargo boats at the lakefront. In exchange, Illinois Central agreed to build a barrier along Lake Michigan to prevent flooding and erosion along Michigan Avenue, then near the water's edge.

Under its agreement with the city, Illinois Central owned any land

created by the floodwall barrier; after the Great Fire, that land stretched into Lake Michigan for acres. The city began discussions with Illinois Central about future uses for the land as early as 1909, the year of architect Daniel Burnham's famous Plan for Chicago, an early and ambitious example of strategic urban planning. Over the years, the Illinois Central site attracted a number of development concepts, from an early-20th-century proposal for a forest of office skyscrapers to a 1980s plan for a new Chicago Bears football stadium.

As the rail yards fell into disuse in the first half of the 20th century, plans evolved for creation of a three-level street system on the site. Using that model, Illinois Central and developer Metropolitan Structures launched a megadevelopment—Illinois Center. Announced in the 1960s, Illinois Center stretched across 83 acres of riverfront property, following a master plan created by Ludwig Mies van der Rohe's Chicago architectural practice.

At that time the nation's largest downtown mixed-use development, Illinois Center was ultramodern in design and massive in scale. But the weak economy of the 1970s halted construction, leaving much of the site's eastern section undeveloped. While a handful of parcels were sold off for individual developments such as Harbor Point

Condominiums on North Harbor Drive, 28 acres remained untouched.

In an effort to make the fallow site useful, Metropolitan Structures converted part of it to a nine-hole downtown golf course, and among the golfers it attracted was Joel Carlins, president of Magellan Development Group. "On the fifth or sixth hole, I looked around and said, 'This is a fabulous piece of land,'" Carlins remembers. "I decided to find out who owned it." Over the next three years, Magellan and Near North Properties worked with the city to map out the site's potential use. In 2002, the partnership acquired the site and brought SOM on board to create the master plan.

Bordered by three levels of Columbus Drive on the west, two levels of Lake Shore Drive on the east, three levels of Wacker Drive on the north, and three levels of Randolph Street on the south, the Lakeshore East parcel maps out like a geometry problem. The master plan marked a major shift from Illinois Central's previous vision for the site. Designed by Mies van der Rohe's successor firm, Fujikawa Johnson & Associates, that highly modernist plan called for a dense assembly of skyscrapers surrounding a narrow spine of open space. By contrast, the SOM plan places six-acre Harbor Park as its centerpiece, with three- to seven-story park homes encircling much of it. "We took the fundamental approach of creating a new neighborhood in a very pivotal site in the city," SOM's Tomlinson explains. "While you're in the park, you see high rises, but the park itself is ringed by a much more urban residential scale."

In addition to Harbor Park, Lakeshore East will include a wide array of residences, from high-rise condominium and rental towers to the low-rise park homes. A village center retail component—with a gourmet grocer, restaurants, shops, and cafés—has been designed by San Francisco-based KMD Architects, and the first public school in Chicago's central business district is planned for Harbor Park's northeast corner. "In effect, Lakeshore East is a village in itself, with all the components of a classic Chicago neighborhood," notes Carlins.

While offering a structure to accommodate these neighborhood amenities, SOM's master plan also addresses the parcel's design dilemmas:

- The plan situates new high-rise buildings at the corners of the site, near existing towers developed in the 1970s and 1980s. Structures nearer the lake will be shorter, optimizing view corridors. This strategy addresses the concerns of office and residential neighbors.



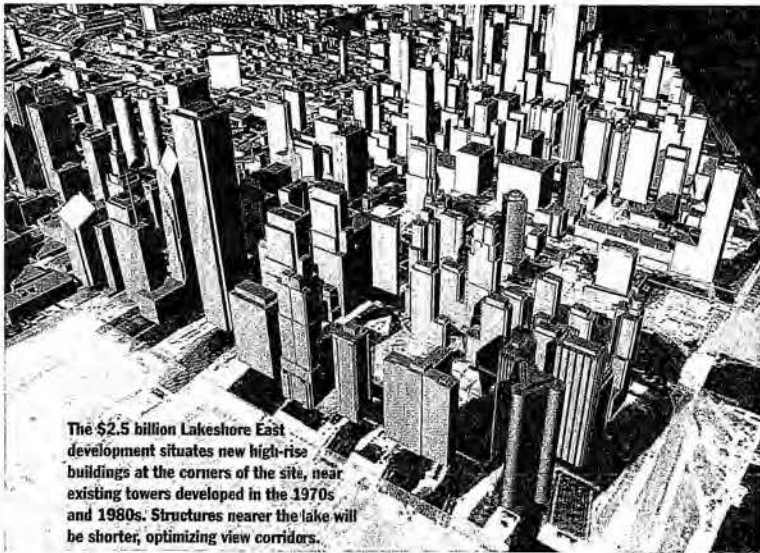
A 28-acre tract of land—the largest undeveloped parcel of downtown land in a major U.S. city—is being transformed into a new lakefront neighborhood that will include 4,950 residences, a six-acre public park, 2.2 million gross square feet of commercial space, 1,500 hotel rooms, and a public school.

■ By mandating 45 percent open space—in one of the nation's most dense areas—the SOM program supports Chicago's central area vision plan, intended to guide the next 20 years of downtown development. "The project's inclusion of usable public green space falls right in line with the central area plan's goal of encouraging new, creative, livable developments to further enhance our downtown area," says Robert A. Wislow, chairman of Chicago-based U.S. Equities Realty and a steering committee member for Chicago's central area vision plan.

■ To contend with the property's 52-foot grade change, SOM and Houston-based Harbor Park designer James Burnett and Associates created a gentle slope to give the park a more natural feel. The park also sits on "real

level roadways bordering the site. "Residents will essentially use the three-level system without knowing it," asserts Benet Haller, central district project manager for the Chicago department of planning and development.

■ SOM's plan encourages design diversity. Currently, seven different architecture firms from across the United States are working on individual projects in the neighborhood, following a model typical of publicly managed developments. "If it were the city developing the site, it would make sense to divide it into different pieces and hold design competitions," points out John Norquist, president and CEO of the Congress for the New Urbanism and former mayor of Milwaukee. "Then you end up with diversity within a structured plan."



The \$2.5 billion Lakeshore East development situates new high-rise buildings at the corners of the site, near existing towers developed in the 1970s and 1980s. Structures nearer the lake will be shorter, optimizing view corridors.

ground" to allow trees and vegetation to grow naturally—a challenge considering the underground road system that surrounds it.

■ Since the land originated as landfill, the city never integrated it into the downtown infrastructure—from the street grid to basic utilities. SOM and the development partnership are establishing that infrastructure in the early phases of construction. Existing roads will extend into the development where possible, and a creative road system will link seamlessly to the two- and three-

level roadways bordering the site. Conversely, the decision of Magellan and Near North to maintain ownership of all 28 acres is expected to ensure a unified vision as the development unfolds over the next 15 years. This summer, for example, all vacant parcels at Lakeshore East will be landscaped to blend in with Harbor Park. On each parcel targeted for development, this landscaping will remain in place until construction begins. "We could easily sell off parcels, but we want to control the quality of what's built there," notes Carlins.

During the 1990s, downtown Chicago grew 12 times faster than the rest of the city, according to the 2000 U.S. census—a growth trend likely to continue in the near future. Last summer, the city's central area plan projected that the number of housing units in Chicago's downtown area could double by 2020. Over the same period, the plan predicts, the total downtown residential population will swell to about 140,000—a 69 percent increase from the 83,000 residents reported in the 2000 census.

The strong push toward downtown living can be seen in the sales figures of the first Lakeshore East residential development to go to market, the Lancaster. Within seven months, the Loewenberg + Associates-designed 29-story condominium building has sold more than 85 percent of its residences, according to Gail Lissner, vice president of condominium development for Chicago-based Appraisal Research Counselors.

"The idea that this building is part of a total community resonates with buyers," says architect James Loewenberg, president of Near North Properties, a codeveloper of the Lakeshore East development. "Even downtown, people want to feel that they're living in a neighborhood." Other Lakeshore East residential developments are poised to capitalize on downtown's projected growth, including a 550-unit rental tower called the Shoreham, on which ground has been broken; the park homes that border Harbor Park, which will have finalized designs by this fall; the Regatta, a 45-story condominium building recently announced; and 340 on the Park, a steel-and-glass condominium tower developed by LR Development Co. in a joint venture with Magellan and Near North Properties, which overlooks Grant and Millennium parks to the south and Harbor Park to the north.

Harbor Park and site infrastructure will be completed by the end of this summer. Construction of the Lancaster should be completed by the end of this year, with other retail and residential developments following suit in 2005 and 2006. Construction of the elementary school could begin late this year, depending on the Chicago public school system budget.

Haller views the neighborhood as a significant leap for downtown development—a bold statement in a city known for its commitment to strong urban design.—J. Cason Bufe, a communications consultant with DickinsonGroup, a Chicago-based integrated marketing firm

Reconfiguring Sprawl to Create a More Sustainable Future

In November 2000, San Jose, California, approved 6.6 million square feet of low-density campus-style office, research and development, and light-industrial development in an agricultural area south of the city known as Coyote Valley. The plan provided neither the homes to accommodate the projected 20,000 new employees at the site nor the public transit to transport them there. Environmental groups and neighboring cities responded by chastising the city for approving typical sprawl development that would exacerbate regional traffic, air quality, and housing affordability problems, and then challenged the approvals in court. Ultimately, the collapse of the high-tech market put the development plans on hold and provided the opportunity to explore how smart growth and new urbanism could create a more sustainable future for Coyote Valley.

With the momentary lull in development pressure, Greenbelt Alliance, a Bay Area nonprofit organization dedicated to preserving the region's open space and improving the livability of its cities and towns, took the opportunity to attempt to recast the discussion about future growth in Coyote Valley and to raise the bar for future planning.

Its idea, funded by a grant from the David and Lucile Packard Foundation, was to develop an alternative, smart growth strategy for Coyote Valley—one that would advocate a more responsible and sustainable approach to growth. WRT/Solomon E.T.C., a national planning and design practice, was hired to craft this alternative vision, titled "Getting It Right," for the 6,800-acre site.

The fact that Greenbelt Alliance, an advocacy group rather than a developer or government entity, was involved presented another challenge for the project and for WRT/Solomon E.T.C.: the vision had to emerge not only from a cogent set of ideas, but also through an inclusive planning process. Because one of Greenbelt Alliance's goals was to build broad-based support among stakeholders for the vision, dozens of community organizations, government bodies, and business interests were involved in the visioning process.

From the beginning, the objective was not to challenge growth, but to demonstrate to the city, landowners, developers, and other stakeholders that there is a responsible—and feasible—alternative to sprawl. The city's development objective for Coyote Valley is to ac-

commodate at least 50,000 new jobs and 25,000 new housing units, representing roughly 17 million square feet of office and industrial space and 80,000 new residents. The Coyote Valley vision incorporates these objectives and illustrates how the site can accommodate projected growth in a manner that builds a sense of community, economic vitality, environmental health, and social equity.



The new vision plan stands in stark contrast to the city's current general plan, which segregates uses into automobile-oriented industrial campuses with vast areas of surface parking, and walls off residential subdivisions from busy arterial roadways. Instead, the new plan proposes a compact, transit-oriented, mixed-use community that provides housing choice, job diversity, and agricultural preservation, and that is sustainably integrated with its natural setting. Ideally, this will result in a community that is more urban—and more urbane—than might typically be expected of greenfield development on the urban fringe.

The Coyote Valley vision plan embraces natural processes and green infrastructure as an element of urban form in a more integral manner than is typical in new urbanist practice. The hydrology of the valley is one of the primary factors shaping the plan: among its main elements are protection of water quality in the Coyote Valley aquifer and management of flood conditions on the two creeks that flow the length of the valley. The plan transforms these constraints into a formal element of the new community—a multifunctional open-space corridor extending the length of the site

that provides for flood management and groundwater recharge, enhanced riparian and grassland habitat, and expanded recreation opportunities. This green spine is the primary element in an integrated system of parks intended to give structure to the community and provide a significant visual feature at its heart. Within this structure, the plan takes its cues from new urbanism principles, forging neighborhoods,

blocks, and building types that combine to create a townscape that is economically viable and satisfying to experience. Density and compactness are critical to preserving valuable agricultural lands and riparian corridors, supporting public transit and pedestrian orientation, and achieving the city goal of making at least 20 percent of the housing affordable. By limiting urban development to one-third of the site, the vision plan allows one-third to be dedicated to parks and natural open space, and the other third to be preserved as an agricultural greenbelt.

The plan recognizes that conventional commercial farming is not economically viable in close proximity to the urban development; instead, it proposes strategies for sustainable urban-edge agriculture that are based on a synergy between the urban and the rural, producer and consumer. The "food belt," as it is incorporated in the plan, will bring together a variety of financing techniques and institutions to place new kinds of small-scale agriculture in and around the community. This food belt of boutique farmers and community gardeners, sustained by contracts to supply Coyote Valley commercial users and schools, is intended to connect the new community to its agricultural heritage.

Consistent with new urbanist practice, the plan focuses development in the town center and in the centers of a series of well-defined, transit-oriented neighborhoods. Streets that accommodate regional traffic but that are scaled to the needs and comfort of pedestrians are essential features of these centers. The town center



follows the precedent of downtown Palo Alto, where large volumes of regional traffic move through a delicately scaled pedestrian-oriented business and shopping district. The structure of the Coyote Valley town center, like that of Palo Alto, consists of a main street and a flanking one-way couplet that divides regional traffic into volumes that can be handled by pedestrian-friendly streets with short blocks. The same principle applies in the neighborhood centers where arterial streets are divided into walkable one-way couplets.

The vision plan calls for a mix of housing, ranging from small-lot detached units at ten dwellings per acre to mid- and high-rise buildings with densities upward of 100 units per acre. Although to reach the city's 25,000-unit goal, residential development needs to achieve an average overall density of 28 units per acre, the plan rejects artificially high densities and is sensitive to the project's feasibility. Developers are unlikely to build high-rise residential towers in such a rural setting anytime soon, and, likewise, buyers and renters are unlikely to be interested in such housing until there is an established community. To keep construction costs in line with the likely near-term market and the city's goal of 5,000 below-market-rate units, the vision plan assumes that most of the housing will be in the 25- to 35-unit-per-acre range, at which it can be built with wood-frame construction and surface parking.

Rather than focusing on a numeric balancing of jobs and housing, the plan recommends development of a range of housing options that more accurately reflects the likely employment composition of the future community. If traffic impacts associated with Coyote Valley are to be minimized, future development will need to provide the opportunity for workers across economic levels to actually live there, reducing the need for long commutes.

To avoid creation of a stratified community made up almost exclusively of high-income residents who can afford the Bay Area's market-rate housing and low-income residents who benefit from affordable housing policies, the city needs to develop policies and programs to assist moderate-income households.

To support public transit, create a walkable 24-hour community, and provide the flexibility to respond to the inevitable fluctuations in the economy, the vision plan proposes compact commercial development. If employees work near transit, the land area devoted to surface parking can be reduced and buildings can conform to an integrated framework of streets.

The plan is based on the emerging model based on districts rather than campuses as the organizing principle for employment centers. While the form is different, the vision plan recognizes that the employment-oriented

The Coyote Valley town center is structured on a triad of streets that will accommodate high volumes of traffic while preserving a pedestrian environment. Public transit will anchor the town center, with a Caltrain station at the east end and a bus rapid transit/light-rail transit station at the west end.

district must serve the same functional needs as an office park, R&D center, corporate campus, and industrial park. For example, it must be appropriately served by parking and accommodate buildings with large, flexible floor plates, as well as groups of buildings that can function as a single, secured enclave. The plan illustrates how these requirements can be met with configurations of blocks that also create streetscapes that contribute to walkable, mixed-use neighborhoods.

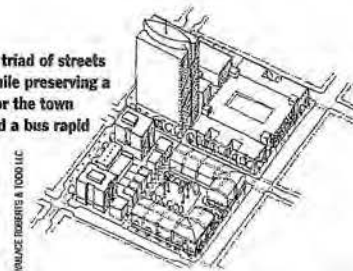
The proposed mix of employment-generating uses ranges from a minimum-density floor/area ratio (FAR) of 0.25 to FARs upward of 3.0 for higher-density office-type uses. To achieve the 17 million square feet target for employment-generating development and maintain a compact urban form, the vision plan assumes an average overall FAR of 1.0 for nonresidential development.

Development patterns and building types that are the building blocks of the Coyote Valley community are integrally related to transportation policies. One factor that contributes to the walkable urbanity of the plan is a reduction in the amount of parking below what is normally needed and provided in suburban California. This is a practical proposition only in concert with mixed-use development and a transportation demand management (TDM) program.

A main strategy to making these densities feasible is development of aggressive and comprehensive parking and TDM programs that will promote numerous strategies to support transit, reduce required parking, and shift the cost of parking to the user rather than the developers and tenants. The TDM program for Coyote Valley is based on other innovative programs instituted in the Bay Area—at Stanford University and the NASA Ames Research Center at Moffett Field in Mountain View—that have reduced automobile trips by 25 to 35 percent.

The TDM program includes provision of public transit, bike paths, and a variety of financial incentives to promote carpooling, ridesharing, and use of alternative transportation modes. The resulting reductions allowed in parking ratios contribute to block and building types that do not isolate buildings in seas of surface parking.

The goal is that the transit-served centers ultimately will have the highest residential and commercial densities; however, initial market demand is for lower-density building types. The plan hopes to respond to the near-term market while still achieving desired density through designation of catalytic development sites—key areas in the centers where interim lower-density zoning will be enacted, then changed in favor of mandatory higher densities as market and development patterns are established.



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Finally, the vision plan extends new urbanist practice through integration of both the largest and smallest scales of intervention addressed by new urbanism principles. The large-scale objectives of the plan—land conservation, ecological function, and creation of a compact community that accommodates pedestrians, bicycles, and transit—cannot be accomplished without appropriate configurations of blocks, streets, and buildings. All uses incorporated in the plan are configured as street-defining perimeter blocks, including housing at a broad range of densities, office space, retail outlets large and small, and R&D and industrial buildings. All uses are part of a network of walkable, bikeable, mixed-use streets defined by more or less continuous building frontages as in any intact traditional town. Accommodation of parking in a combination of mid-block lots, parking structures lined with other uses, and on-street spaces is viewed as fundamental to creating the walkable streetscapes the plan demands.

The vision plan for Coyote Valley, completed in 2003, has had a substantial impact on San Jose's current planning for the area. The discussion has shifted from whether the plan for Coyote Valley will reflect an environmentally sound, smart growth vision to how such a vision can be achieved, and a higher standard has been set for what is an acceptable future for the site.

Several lessons can be learned from Coyote Valley. The first is that the elements of sprawl can be reconfigured into townscapes if they are rethought at the macro and micro scales. A corollary to this is that new urbanism is at its highest and best form when its application is site specific and not formulaic. In Coyote Valley, for example, the design was inspired by the particular hydrologic and ecological functions of the site. More sustainable communities can be achieved with the insight of an integrated design and development team: "Getting it Right" combined ideas of both urbanism and environmentalism. Finally, advocacy organizations have a far more powerful voice if they are for rather than against something. Greenbelt Alliance focused its energies on the "where" and "how" of development rather than whether it should occur. Coyote Valley suggests that more distinctive and sustainable communities are possible when multiple perspectives are brought together to solve a problem.

Stephen D. Hammond, director of planning; **Daniel Solomon**, principal, WRT/Solomon E.T.C., San Francisco

New urbanist retail development

Main street retail is a big trend. Retail expert and town planner Robert Gibbs reports that an increasing percentage of proposed shopping centers nationally feature new urbanist (NU) design. At a recent national shopping center conference, "there was a buzz around all those booths that had New Urbanism projects," he says. "They were swamped with national tenants who wanted to lease their space."

The promise of integrating residential and commercial uses is an essential ingredient in the New Urbanism, but until recently that promise was largely unrealized. By the end of 2000, however, *New Urban News* identified 46 projects with significant retail components (see table on page 5-24), many of which are new. This shift is partly due to the fact that many NU projects are maturing to a point that allows for such retail development. But it also reflects the renewed interest in urban shopping.

Barron's reported in August 1999 that shoppers are beginning to tire of enclosed malls, leading developers to experiment with open-air town square, or main street, shopping and entertainment districts. Since then, this trend has gained momentum. Many new main street projects are located in suburbs, others are in historic cities and towns, but all feature stores built to the sidewalk, curbside parking, and greater attention paid to the quality of public space. For NU developers, this trend may provide some hope — more retailers are getting used to operating in a pedestrian-oriented environment. Traditional mall tenants such as the Gap and Banana Republic are increasingly opening stores on city streets, lured by lower rents, the absence of fees for mall maintenance and security, and the growing number of affluent empty-nesters who are returning to urban areas.

Time of experimentation

Main street retail has been largely abandoned by developers in the last 70 years. Strategies that worked in the 1920s, the last time main streets were built from scratch, often won't work in the new millennium. This is therefore a time of widespread experimentation as developers discover how to make NU retail work — on many levels.

Many issues that face main street retail are similar to those confronting suburban shopping centers. **Location**, for example, is key to both. With rare exceptions, main street retail cannot survive entirely on foot traffic, and must be located near substantial drive-by traffic. "Every national retailer wants 20,000 cars going by, or 200,000 square feet of compatible retail to make [the project] a destination," explains Gibbs. **Parking** is another common issue — although in the case of NU retail, it should be located on the street and on the interior of blocks, rather than in a parking lot in front of the store. And, just like conventional shopping centers, many NU town centers require **anchor stores**.

In other respects, NU retail is radically different from most of what has been built in recent decades. NU town centers are not just commercial ventures, they also serve an aesthetic and **social function**. The buildings must define a space — and that generally means multistory, mixed-use buildings. Such buildings are **aesthetically pleasing**, and they lend a 24-hour energy to the downtown, which can make both the commercial and residential space more viable. On the negative side, mixed-use buildings are more complicated to finance and build. For this reason, some commercial developers will not do mixed use. Some NU main streets have been built for retail only, with second stories on some units to simulate the visual effect of a main street. This can work if the main street is in close proximity to, and well connected to, residential units.

In social terms, the town center generally forms the heart and soul of the community. Retail is thought of as an amenity, something that will make the community more attractive and help to sell houses. The NU main street developer, therefore, is taking into account aesthetic and social impacts to a far greater degree than a conventional shopping center developer.

The safest route to creating a town center is to build only what the market will support today. The best circumstance is when a strong market for retail space exists *before* the residential portion of the project is built. This allows the developer to create the amenity right from the start, and reap the profits from the town center development. In other cases, the developer may have to create a market for retail by building residential units — a process which may take from several years to a decade.

Another approach is to subsidize retail as an amenity to help sell or lease residential and/or office space. Disney, for example, built the downtown for Celebration, Florida, long before a viable market was established for the shops. Celebration's downtown created significant value for the community, but this approach has its risks: Celebration struggled to keep storefronts filled during the early years, and some merchants went out of business, leaving empty storefronts at times.

A developer, therefore, must use good judgement when trying to "jump start" a town center. The developer should think carefully about what kind of enterprise can survive, even *with* a subsidy — say, reduced or zero rent for a few years. And the space should eventually be able to profitably support retail without subsidy.

With these general issues in mind, NU developers are employing a range of strategies to bring main streets into new neighborhoods. The following chapter explores specific issues and case studies.

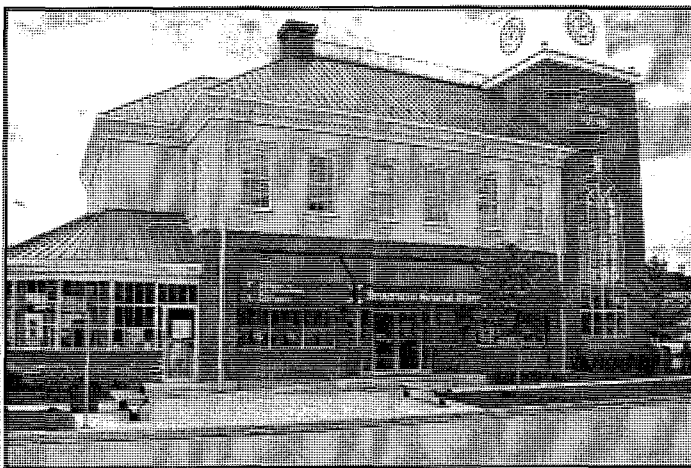
* The challenge of the stand-alone store

With the exception of densely populated cities, the neighborhood grocery store has become obsolete in recent decades. In most of the US, the convenience store on a commercial strip has replaced the corner store. But the idea of the neighborhood store is central to the New Urbanism, both in practical and psychological terms. It provides a place where children can walk to get a popsicle on a summer afternoon, or adults can stop for a quart of milk on the

way home. It also offers a public gathering space, where chance encounters with neighbors take place, and where the shopkeeper is known by his or her first name. When people buy a home in a NU community, the corner store is an amenity that they usually expect.

When this market is in the form of a stand-alone corner store — the smallest increment of retail in a NU community — experience shows that making it work is a challenge.

All stand-alone grocery stores on the interior of traditional neighborhood developments (TNDs) with little drive-by traffic from outside of their development have struggled, and some have gone



The corner store in McKenzie Towne.

Combining services and products in unique ways

New urbanism, with its smaller stores and pedestrian-oriented designs, faces the challenge of meeting all (or most) of its residents' needs within a walkable distance. This challenge can be met by combining services and products in creative ways.

Developer Henry Turley of Harbor Town has employed a strategy of combining services in retail stores in the small downtown. In Turley's view, the more services per square foot, the better the businesses will do, and the happier residents will be. Exemplifying this strategy is a pizza parlor/video store/pub in one small storefront — a business packed with customers from the start. Turley also runs a small, full-service grocery store and leases out space to a dry cleaner and bank that operates a part-time, mini-branch office in the same 10,400 sq-ft. building.

In PON's commercial center, one retailer is creating a garden store/pub combination. A courtyard with outdoor seating is designed to encourage traffic between the adjacent buildings.

ServMart, a Chicago area firm, has developed a retail concept that provides many services — e.g. dry cleaning, mail services, copying/faxing, video rental, photo processing, repairs, tailoring, flowers — in a single small location. The firm makes arrangements with existing local establishments to do the actual work — getting a bulk discount so ServMart customers pay no premium. While ServMart currently has five locations in upscale apartment complexes in the Chicago area, the firm has plans to expand the concept nationwide. One developer has been talking to ServMart about opening a store in a new urbanist neighborhood center.


Steve Yanklowitz of ServMart says the company usually operates out of a 300 sq-ft. to 600 sq-ft. space. ServMart does not pay rent — instead it compensates property owners with a small percentage of sales. The main cost of the business is labor, and that is minimized by staying open only during limited hours. The business has been profitable even in apartment complexes with 300 to 400 units.

a dry cleaner, a hair salon, dentist and chiropractor offices, and builders' sales office. There is no grocery store, however, and residents must go elsewhere for food and staples.

The most dynamic part of the commercial center is the cafe, an attractive circular coffee shop with plenty of outdoor seating in sight of the busy playground on the square. The cafe has become the social center of the neighborhood, with weekly dance nights, live music, and afternoon bridge sessions. It has also made Cornell a destination for residents of nearby older subdivisions. The owner says 60 to 70 percent of his clientele comes from outside Cornell.



New urbanist town centers



Town centers serve a relatively large area, and often draw from a radius of several miles. Robert Gibbs argues that most conventional retail guidelines also apply to TNDs, and predicts that many NU town centers will fail because they have disregarded those rules. As with all main street retail development, town centers located near a busy arterial road increase the visibility of their retail and take advantage of high-volume automobile traffic. Also important is the stability provided by an anchor store, and a ready pedestrian consumer base.

Celebration

Celebration, Disney's neotraditional town in Osceola County, Florida, is perhaps the biggest, most comprehensive, and best-known TND. The downtown consists mostly of three- and four-story buildings with retail on the first floor and apartments and offices above. With 77,000 square feet of retail now completed and 3,500 residents in Celebration, the downtown is still going through growing pains. Although many of the businesses — particularly restaurants — have been successful, about a half dozen have failed in the past few years. But as of January 2001, all but 2 of the 24 storefronts were occupied.

In building Celebration's downtown, Disney took risks that would bankrupt other developers, including choosing a location at least a mile from an arterial road, and opening retail space when only two percent of the homes were complete.

While Disney cut separate deals with every merchant, many were enticed with breaks at the start. Goodings, a 5,000 sq.ft. grocery, run by a regional supermarket chain, carries most basic food stuffs, household items, and liquor. Goodings is a key merchant, as are restaurants and hangouts like Cafe D'Antonio, which has reported sales of close to \$600/square foot annually, and the town's two-screen cinema.



Celebration's downtown features apartments and offices above retail. Cafe D'Antonio, one of the most successful businesses, is seen in the foreground, right.

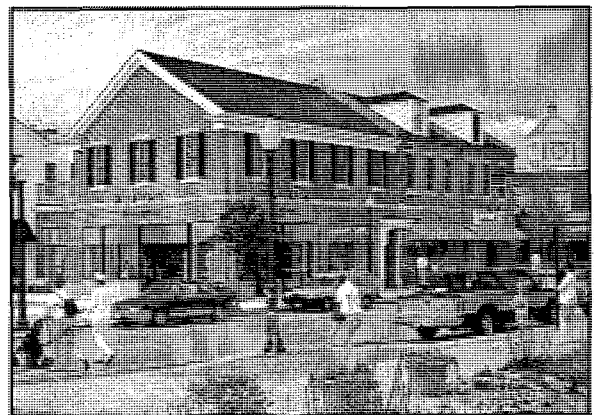
Large town centers (200,000 square feet and up)

Mashpee Commons

Mashpee Commons, in Cape Cod, Massachusetts, like Celebration, offers an alternative model of NU development, where the commercial district is built first. Mashpee Commons' retail, however, benefits from its location at the intersection of two state highways. Also, the project is one of the earliest and best examples of retrofitting suburbia to create a traditional neighborhood.

Buff Chace and Douglas Storrs took a 1960s era conventional strip mall, flipped the project around and created a new main street district on the back of the strip mall. They renamed the project Mashpee Commons and then hired Elizabeth Plater-Zyberk and Andres Duany in 1988 to plan surrounding neighborhoods, which have remained mostly unbuilt.

With more than 250,000 square feet of commercial space and 13 residential units over retail, Mashpee Commons has become a downtown without surrounding neighborhoods — the opposite development pattern of most early-stage NU projects. The project's tenant mix includes a full range of national, regional, and local merchants. It has national specialty stores (Gap, Talbots, Starbucks and Banana Republic) as well as regional stores and community-



Mashpee Town Center.

Creating a mix of local, regional, and national stores

On a sentimental level, local shopkeepers are generally preferred over chain stores for NU main streets and town centers. "The small retailer is who everybody is looking for," says Robert Gibbs. However, national chains generally bring in \$400/square foot in sales, whereas a local proprietor may generate as little as \$60/square foot. Gibbs worked with one such proprietor on improving the window displays, signage, and overall presentation, and sales doubled in 90 days. "If you want local tenants in your traditional neighborhood development, you have got to get them help" with marketing and presentation, he warns.

Big box stores represent 66 percent of all retail sales nationwide, Gibbs reports. Yet new urbanist projects often shun big boxes on the premise that small, local shops will work better from an urban design perspective. But main streets and downtowns need anchors, he says. "One of the problems with TNDs is that they haven't provided for any anchor."

Buff Chace and Douglas Storrs, developers of Mashpee Commons on Cape Cod, Massachusetts, have been very successful in creating a balance of national, regional and local retailers. "We have placed a big emphasis on mom and pop stores in the last year. That's a part of the industry that's almost disappeared," explains Storrs.

Meanwhile, Storrs says national retailers are also beginning to understand the benefit of being part of Mashpee Commons. "It's a vindication of the fact that this is a better form of development, and they understand that from a business standpoint and know that they'll do better here." Although Storrs has been able to convince national retailers to change the design of their store facades to fit in to NU development — a CVS drug store terminates North Street (see photo) — this negotiation takes constant vigilance.

Bethesda Row provides another example of creating the local/regional/national mix. This development in downtown Bethesda, Maryland will include 512,000 square feet of retail and offices at completion. Great care has been taken to maintain a mix of local, regional and national retailers and to encourage diversity in storefront design. The first phases of Bethesda Row have already brought new pedestrian life to downtown.

City Place, a 72-acre development in downtown West Palm Beach, opened in October of 2000, and is already bustling with activity. The project includes 600,000 square feet of retail space, with a balanced mixture of national, regional, and local merchants, and several strong anchor stores. Ninety-six percent of the retail space had been leased as of the end of 2000.



based “mom and pop” establishments.

During the year 2000, four new liner buildings were constructed in Mashpee Common's outer parking lot. All 16 of the retail spaces in these new buildings have been leased at the highest square foot rental rates within the center. The new street is anchored by a 25,000 sq.ft. Gap and a 10,000 sq.ft. CVS drugstore, and local retailers include a barber shop and stores selling specialty paper, antiques, perfume, art, dog supplies, and mobile phones.

Mashpee Commons' performance has steadily improved since the early 1990s, as reflected in the gross sales of tenants. In 2000, stores' sales growth ranged from 8 percent to 14 percent. Comparing Mashpee Commons to other shopping centers (using Urban Land Institute surveys), Mashpee Commons generally falls in the top 10 percent of community shopping centers in rent and sales per square foot.

Kentlands/Lakelands

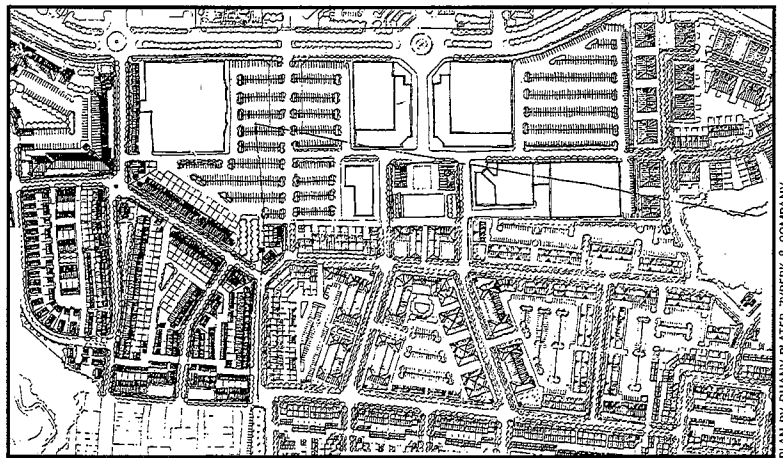
One of the more significant new urbanist town centers to open within the last few years is **Market Square**, the downtown shared by Kentlands and Lakelands in Gaithersburg, Maryland. Market Square demonstrates that good urban design and connectivity can create a good place, despite lackluster architecture.

Mike Watkins, town architect and a resident of Kentlands, criticizes the mostly one-story, single-use retail buildings on Market Square's main street, but he notes that the town center has a good “third place” in the Wine Harvest, a wine and cheese shop with a wine bar. A coffee shop has become a sought-after workplace for teenagers, and the Moby Dick Restaurant and the Stadium 8 movie theaters are popular gathering places for residents. Other retail includes a 35,000 sq.ft supermarket, health club, clothing, and hobby stores. In effect, these businesses amount to a series of anchors in the 255,000 sq.ft. complex. Retail space, reportedly nearly full, is leased at close to \$50/square foot.

Market Square is built on a block and street pattern that is well connected to the rest of Kentlands and Lakelands, which together have about 3,000 housing units, more than 2,000 of which are built. A mix of uses, including hundreds of apartments, are located in close proximity, even if most of the large buildings do not mix uses. Also, the town center includes about 50 live/work units where residents live above shops. The live/work units give part of the downtown a more authentic main street look. Most of Market Square's large establishments front parking lots in the center of blocks. Kentlands Boulevard, a heavily traveled thoroughfare, borders one side of Market Square. Pedestrian connections between the parking lots and the street network are designed so anchor stores will lend their customers to the smaller shops — just as in conventional shopping centers.

Abacoa Town Center

Abacoa Town Center in Jupiter, Florida, opened its first mixed-use building at the end



Market Square includes big box stores (facing parking lots), shops lining interior streets, and recreational uses. Townhomes and apartments are nearby.



Redmond Town Center

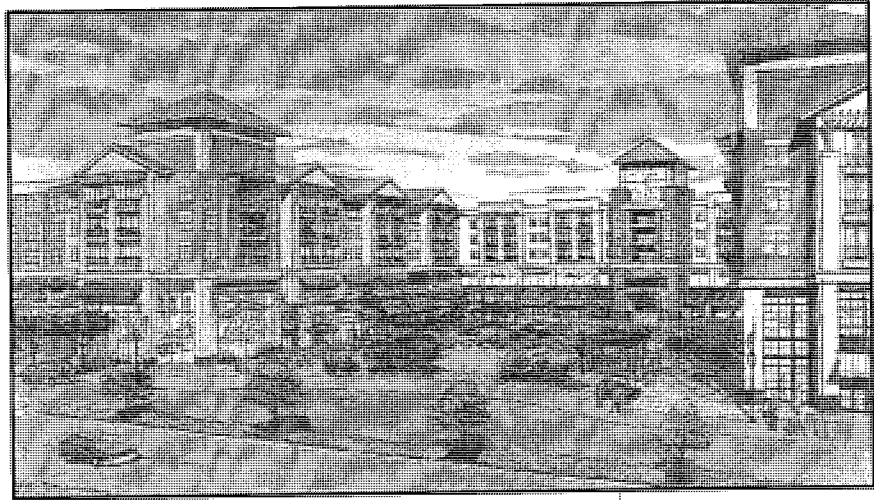
• An emphasis on designing quality streets and public spaces has contributed to the success of Redmond Town Center in the sprawling suburb of Redmond, Washington, home of the Microsoft Corporation.

This NU greenfield project is adjacent to Redmond's historic downtown on a site that in the 1980s was intended for an enclosed regional mall. With numerous plazas and public spaces, restaurants and coffee shops, a multiplex cinema, retail shops (the small-scale anchors are Borders Books and Eddie Bauer), and a Marriott hotel, Redmond Town Center has become a magnet for residents of the surrounding town. Business in retail stores, including Eddie Bauer, has doubled — sometimes tripled — projected numbers, officials say.

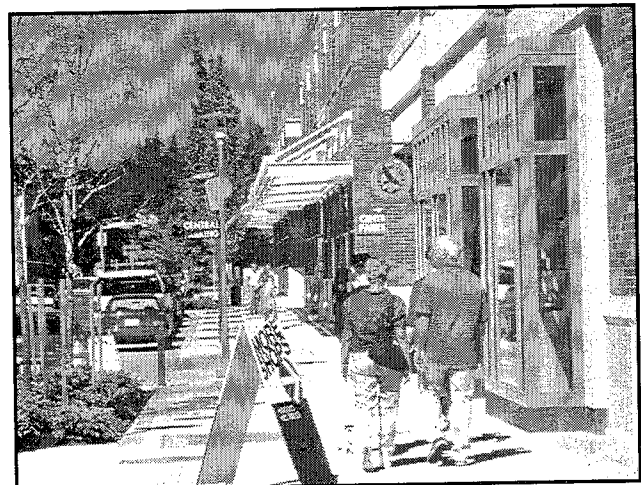
The first phase of the 120-acre, \$200-million project opened in September 1997, with 450,000 square feet of retail and office. By late 2000, 600,000 square feet of retail space had been completed. Two hundred apartments are also planned.

The new town center's street grid connects directly with that of the three-block old downtown. The scale of buildings in the town center — consistently two stories with brick facades — is similar to the historic precedent. Block sizes are city-scale, ranging from about 250 to 600 feet, according to Walt Niehoff, partner in the Seattle firm Loschky, Marquardt & Nesholm (LMN), project designers. LMN has designed enclosed malls, and Niehoff used some rules generally applied to malls, e.g. a shopper should walk a maximum of 300 feet from one "court" to the next. Buildings are a maximum of 300 feet, and blocks are often divided in the middle with a pedestrian walkway, plaza, or both.

Although the plan shows a tremendous amount of parking — both in lots and structures — the mixed-use allows for shared parking.



Pentagon Row: a town center for a suburb.



Redmond Town Center.

Silver Spring

In the Washington, DC, suburb of Silver Spring, the downtown declined sharply from the 1960s through the 1980s. Now a new downtown center is rising on 20 acres of mostly vacant land in the urban core. The first retail businesses in the first phase opened in the fall of 2000. The 30,000 sq.ft. supermarket and a local chain hardware store have become popular destinations and are generating pedestrian traffic.

The supermarket includes a cafe with an independent street entrance, but the door is locked from the outside, forcing patrons to use the main entrance to the supermarket. The

Retail developments in new urbanist projects¹

Project / Location	Square footage of retail		Description
	Built/construction ²	Total at build-out	
1. Abacoa Jupiter, FL	172,000	347,000	Town center in TND, includes local stores, services, and 80,000 sq.ft. cinema
2. Addison Circle Addison, TX	120,000	220,000	Urban center, apartments above retail
3. Amelia Park Fernandina Beach, FL	12,500	70,000	Beauty salon, travel agency, services; corner store will follow
4. Avalon Park Orlando, FL	40,000	400,000 ³	Two retail buildings with bistro/convenience store, video store, barber, doctor's office, apartments above
5. Beachwalk Michigan City, IN	2,600	20,000	Cafe with sale of convenience foods; 20 more stores in master plan
6. Bethesda Row Bethesda, MD	157,000	225,000	Includes renovations and new retail
7. Brea Downtown City of Brea	94,500	184,000	Mixed-use core of infill project; national specialty stores, cinema, restaurants, apartments above retail
8. Carlyle Alexandria, VA	10,000	300,000	Dense urban neighborhood with retail below offices
9. Celebration Osceola County, FL	77,000	N/A	Town center with specialty shops, grocery, cinema.
10. Cheshire Black Mountain, NC	4,600	35,000 ³	Cafe, apartment in first commercial building
11. CityPlace West Palm Beach, FL	600,000	600,000	Mix of local specialty shops, national and regional restaurants, supermarket, 20-screen multiplex cinema
12. Cornell Markham, Ontario	20,000	N/A	First neighborhood in larger development; coffee shop, convenience store, hair stylist, drug store, dentist, bank
13. Cotton District Starkville, MS	4,800	6,800	First five commercial buildings include sales and storage space, coffee shop, deli, beauty salon
14. The Crossings Mountain View, CA	N/A	N/A	Mall redevelopment; two storefronts
15. Daniel Island Charleston, SC	50,000 ³	500,000 ³	Town center includes general store/gas station
16. Eagleview Uwchlan Twp., PA	16,000	32,000	Restaurant, deli/general store, other services on town square
17. Eastgate Town Center Chattanooga, TN	140,000	140,000	Converted mall; mixed-use buildings on town square: dry cleaners, restaurant, office space
18. Haile Village Center Gainesville, FL	105,000 ³	160,000	Town center, market, medical offices, clothing, cards
19. Harbor Town Memphis, TN	15,400	N/A	Main street grouping, grocery with liner stores video/pizza shop, coffeeshop/newstand
20. The Heritage at Freemason Harbour Norfolk, VA	10,000	10,000	Infill project includes 3,000 sq.ft. gourmet grocery, bakery, professional services
21. I'On Mount Pleasant, SC	15,400	15,400	Design center, hair salon, real estate office, gourmet food store, garden store/pub, restaurant; office space above retail
22. Kentlands/Lakelands Gaithersburg, MD	255,000	255,000	Main street with specialty shops, restaurants, cinema, fitness center, upscale grocery chain
23. King Farm Town Center Rockville, MD	54,000	125,000	Supermarket chain, first building in town center
24. Legacy Town Center Plano, TX	300,000	300,000	400-room hotel, 115,000 sq.ft. furniture store, small shops, restaurants
25. Mashpee Commons Mashpee, MA	255,331 ³	770,331 ³	Town center for future villages; total at build-out includes retail for surrounding neighborhoods.

¹Projects have a mix of uses, including residential; this table focuses only on retail. ²Built or under construction. ³Includes square footage of offices.

Project / Location	Square footage of retail		Description
	Built/construction ²	Total at build-out	
26. McKenzie Towne Calgary, Alberta	98,000	106,000	Town center with retail in single-use buildings, supermarket
27. Middleton Hills Madison, WI	20,000	100,000	Cafe, hair salon, live/work units
28. Mizner Park Boca Raton, FL	236,000	236,000	Retail below residential in dense downtown redevelopment
29. Newpoint Beaufort County, SC	8,000	8,000	General store, bakery with offices above
30. Orenco Station Portland, OR	15,000	68,000	Town center, live/work units, lofts above retail, mostly local shops and services
31. Park DuValle Louisville, KY	N/A	25,000 ³	Town center will include retail space with apartments above and a commercial and office district
32. Pentagon Row Arlington, VA	300,000	300,000	Urban center for dense suburb, apartments above retail
33. Post Uptown Square Denver, CO	18,288	20,000	Dry cleaner, coffee shop, small professional offices
34. Prospect Longmont, CO	2,000	120,000	Restaurant/cafe in TND
35. Redmond Town Center Redmond, WA	600,000	<u>660,000</u>	Town retail center adjacent to historic downtown
36. Reston Town Center Reston, VA	312,000	530,000	Dense urban core with commercial and residential for suburban area
37. River Ranch Town Center Lafayette, LA	4,000	30,000 ³	Wildlife gallery, neighborhood grocery/cafe
38. Riverside Atlanta, GA	25,000	25,000	Town square with apartments over retail
39. Rosemary Beach Walton County, FL	20,000 ³	137,500 ³	Live-work units, B&B/cafe, incubator businesses (art gallery, restaurant, gift shop, ice cream shop)
40. Seaside Walton County, FL	50,000 ³	NA	General store, specialty shops, restaurants
41. Silver Spring Silver Spring, MD	50,000	500,000	Regional grocery store, local hardware store
42. Southern Village Chapel Hill, NC	16,000	70,000	Cafe, cinema, retail center under development
43. Town Commons Howell, MI	13,000	13,000	Ground-floor retail in three-story buildings, including grocery store with outdoor cafe seating
44. Uptown District San Diego, CA	145,000	145,000	Supermarket, retail shops, restaurants
45. Vermillion Huntersville, NC	14,000 ³	31,000 ³	Restaurant, live/work units (custom blinds, clothier)
46. Winter Park Mall Winter Park, FL	367,000	367,000	Bookstore chain, restaurants, supermarket, multiplex theater replacing demolished mall

¹Projects have a mix of uses, including residential; this table focuses only on retail. ²Built or under construction. ³Includes square footage of offices.

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Key issues relating to office parks and mixed-use centers

Identity

Image-conscious corporations prefer buildings and grounds that reflect their personalities and corporate presence. While some choose nondescript buildings, others select buildings that are both architecturally distinct and highly visible to the public.

In the isolated office park, corporate image and identity are conveyed by signature buildings surrounded by spacious lawns. Visibility from a high-volume road provides exposure to motorists, but corporate facilities are perceived as remote and inaccessible. This setting emphasizes corporate individuality over community.

In a compact, mixed-use environment, corporate image and identity are conveyed through appropriate architectural and urban design solutions. Corporate individuality is expressed in ways that recognize the scale and character of the surrounding neighborhood. The corporate workplace is both visible and accessible to pedestrians, motorists, and transit patrons. It is perceived as an integral part of the community. This setting emphasizes community over corporate individuality.

Accessibility

Office tenants require easy access to their facilities for their labor force. In the isolated office park, accessibility is largely limited to single-occupancy vehicles. Large peak-traffic flows place a heavy burden on the roadway system — particularly the arterial and highway networks — often requiring extensive and costly improvements.

In a compact, mixed-use environment accessibility is multimodal — pedestrian, bicycle and transit in addition to single-occupancy vehicles. Peak traffic is dispersed. Road improvements are limited.

Flexibility

Flexibility in both building layout and site layout is highly prized. Corporations like the ability to add workspace, by occupying additional buildings if demand increases. Conversely, corporations like to have an “exit strategy,” the ability to easily move out and find new occupants for buildings they own.

The large corporate campus with signature buildings is unwieldy and often difficult to retrofit for new tenants. The “pod” layout — large areas assigned to specific uses — found in office parks is not easily adaptable to changing spatial requirements. Large, former single-use buildings may be difficult to subdivide and market to smaller tenants.

The modified grids found in compact, mixed-use environments provide the most flexible approach to spatial layout. The discipline imposed by the well-defined spatial structure guarantees a coherent whole while easily incorporating facilities of all sizes and floor plates, including the standard office building and parking deck.

Predictability

Corporations like a measure of control over their immediate surroundings. Incompatible or inappropriate uses can diminish the quality of a location.

The large suburban corporate campus contains, in part, its own environs — the lawns, storm water detention facilities and so forth. Local zoning provides some limited measure of predictability beyond the limits of the corporate compound. But many highway-oriented corporate facilities end up with gas stations, fast-food outlets, retail outlets and other less-



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MEMORANDUM

To: Mark Hanson, Conwy, LLC
From: Allison Shaffer and Tim Youmans
Subject: University Housing Demand versus Supply; EPS #16586.6
Date: August 19, 2011

The purpose of this memorandum is to assess the ability of the Cordova Hills Project to provide housing in the community to meet the needs of University students and employees. The University would require off-campus housing near the University. The attached tables demonstrate how Cordova Hills could meet the off-site housing demands of the University.

Summary

The summary table below shows the estimated University housing demand as a percentage of the Cordova Hills housing supply. The estimated housing demand generated by University students and employees ranges from 11 percent to 79 percent of the supply, depending on housing type.

Housing Type	University Demand	Total Supply	University Demand as Pct of Supply
Renter-Occupied			
High Density - Ext. Low Income	74	210	35%
High Density - Very Low Income	74	417	18%
High Density - Low Income	269	417	65%
High Density - Market Rate	288	363	79%
Residential 20	350	444	79%
Subtotal	1,055	1,851	57%
Owner-Occupied			
High Density - Market Rate	261	363	72%
Residential 20	225	444	51%
Medium Density	367	3,265	11%
Low Density	269	1,930	14%
Estates Residential	106	147	72%
Subtotal	1,228	6,149	20%
TOTAL	2,283	8,000	29%

Analysis

Tables 1 through 8 provide the analysis for the summary shown above.

Table 1 summarizes the University demand for housing in the Cordova Hills community as a percentage of the Cordova Hills housing supply. It shows both the housing demand for students and for University employees. For each housing category, the student and employee demands are summed and expressed as a percentage of the projected Cordova Hills housing supply at buildout.

Table 2 estimates the housing demand for University students presumed to be living off campus. The numbers of undergraduate and graduate students living off campus were obtained from the Draft Cordova Hills Special Planning Area Master Plan. Estimates were made for the percentage of students who would live in each housing type. These percentages were applied to the total students demanding off-campus housing to arrive at an estimated number of students by housing type who would live in the Cordova Hills community. These numbers of students were divided by an average number of students per household to estimate the total number of housing units by housing type demanded by University students.

Table 3 estimates the housing demand for University employees. For each of six different income ranges, the top section of **Table 3** shows the estimated average salary, the estimated maximum home price an employee with that average salary could afford to pay, the estimated number of University employees within that income range, and the estimated number of housing units demanded by those employees. The salary, maximum home price, and employee information is detailed in subsequent tables (described below). The analysis is based on the assumption that all University employees would live in Cordova Hills, so the Cordova Hills housing supply can be compared to the maximum demand from the University. Although it is recognized that several University employees may decide to live in other areas, the land use plan includes an adequate supply of housing to fully meet the maximum housing demands generated by the University (see previous summary table on the first page of this memorandum).

The number of housing units demanded, however, is adjusted downward from the number of employees to account for the fact that there may be more than one wage earner per household. To estimate the number of housing units demanded within each income range, the number of University employees is multiplied by an adjustment factor. The estimated adjustment factors range from 75 percent at the lower income levels to 95 percent at the higher levels. Overall, it is estimated that the number of Cordova Hills housing units demanded is approximately 80 percent of the number of employees. The adjustment factors were estimated to reflect the following two outcomes from having more than one employee per household:

- There are typically an estimated 1.2 wage earners per household, meaning that each employee may not generate the demand for one house. In some cases, two University employees may live together in one house.
- The estimated 1.2 wage earners per household may result in greater household incomes than estimated because the estimates are based on one employee's income. Consequently, some of the estimated employees in each income group will actually be in higher income groups and able to afford more expensive housing. This would be especially true in the lower income groups, where the additional wage earners could result in employees moving into any

of the higher income ranges. Thus, at the lower income levels the housing units demanded are estimated as a lesser percentage of employees than at the higher levels.

Using the estimated number of housing units demanded in each income range and the estimated home sales prices, the bottom section of **Table 3** shows the percentage (page 1) and number (page 2) of the various types of homes demanded by employees in each income range.

Table 4 shows the estimated maximum home price an employee in each income range could pay. These estimates are based on assumptions concerning the percentage of income an employee would use for housing, the amount of that income that would be used for mortgage payments (versus property taxes and insurance), the down payment made, and loan terms.

Table 5 shows estimated home values and number of units for Cordova Hills at buildout for each housing product type.

Table 6 estimates the percentage and number of University employees in each income range. These estimates are based on further backup information shown in **Tables 7** and **8**.

Please call Allison Shaffer or Tim Youmans at (916) 649-8010 if you have questions or comments concerning this analysis.

Table 1
Cordova Hills Alternatives Analysis
University Housing Demand vs. Supply

Housing Type	University Housing Demand			Total Supply [3]	University Demand as Pct of Supply
	Students [1]	Employees [2]	Total		
Renter-Occupied					
High Density - Ext. Low Income	58	16	74	210	35%
High Density - Very Low Income	58	16	74	417	18%
High Density - Low Income	58	211	269	417	65%
High Density - Market Rate	225	63	288	363	79%
Residential 20	177	173	350	444	79%
Subtotal	576	479	1,055	1,851	57%
Owner-Occupied					
High Density - Market Rate	26	235	261	363	72%
Residential 20	26	199	225	444	51%
Medium Density	19	348	367	3,265	11%
Low Density	0	269	269	1,930	14%
Estates Residential	0	106	106	147	72%
Subtotal	71	1,157	1,228	6,149	20%
TOTAL	647	1,636	2,283	8,000	29%

comp

[1] See Table 2.

[2] See Table 3.

[3] See Table 5.

Table 2
Cordova Hills Alternatives Analysis
Students Off-Campus Housing Demand

Item	Average Students per Household	Housing Distribution		Students		Dwelling Units		Total Student Demand
		Undergrad.	Graduate	Undergrad.	Graduate	Undergrad.	Graduate	
Students				430	1,530			
Renter-Occupied								
High Density Res. - Extremely Low Income	3	5%	10%	22	153	7	51	58
High Density Res. - Very Low Income	3	5%	10%	22	153	7	51	58
High Density Res. - Low Income	3	5%	10%	22	153	7	51	58
High Density Res. - Market Rate	3	50%	30%	215	459	72	153	225
Residential 20	3	35%	25%	151	382	50	127	177
Subtotal Renter-Occupied		100%	85%	432	1,300	143	433	576
Owner-Occupied								
High Density Residential - Market Rate	3	0%	5%	0	77	0	26	26
Residential 20	3	0%	5%	0	77	0	26	26
Medium Density Residential	4	0%	5%	0	77	0	19	19
Low Density Residential	0	0%	0%	0	0	0	0	0
Estates Residential	0	0%	0%	0	0	0	0	0
Subtotal Owner-Occupied		0%	15%	0	230	0	71	71
TOTAL		100%	100%	432	1,530	143	504	647

students

Source: Cordova Hills Draft Master Plan (April 2011) and EPS.

Table 3
Cordova Hills Alternatives Analysis
University Employees' Housing Demand

	Affordable Housing Income Limit (3-Person)	Estimated Sales Price	University Employees' Demand by Income Level							Total
			Entry Level	Low/Mid Income	Middle Income	High/Mid Income	High Income	Very High Income	Top	
Income Range			< \$40 K	\$40K - \$60K	\$60K - \$80K	\$80K - \$100K	\$100K - \$125K	\$125K - \$150K	>\$150K	
Average Income [1]			\$20,000	\$50,000	\$70,000	\$90,000	\$112,500	\$137,500	\$150,000	
Maximum Affordable Home Price [1]			\$110,000	\$264,000	\$353,000	\$463,000	\$573,000	\$705,000	\$770,000	
University Employees [2]			42	561	651	436	241	74	31	2,036
Adjustment Factor [3]			75%	75%	80%	80%	90%	90%	95%	80%
Estimated Housing Units			32	421	521	349	217	67	29	1,636
			Percentage of Dwelling Units by Housing Type [4]							
Renter-Occupied										
High Density Res. - Ext. Low Income	\$20,300	NA	50%							1%
High Density Res. - Very Low Income	\$33,800	NA	50%							1%
High Density Res. - Low Income	\$54,100	NA		50%						13%
High Density Res. - Market Rate		NA		15%						4%
Residential 20		NA		10%	25%					11%
Subtotal			100%	75%	25%	0%	0%	0%	0%	29%
Owner-Occupied										
High Density Res. - Market Rate	\$250,000			25%	25%					14%
Residential 20	\$275,000				25%	20%				12%
Medium Density Residential	\$345,000				25%	40%	30%	20%		21%
Low Density Residential	\$445,000					40%	40%	40%	50%	16%
Estates Residential	\$500,000						30%	40%	50%	7%
Subtotal			0%	25%	75%	100%	100%	100%	100%	71%
TOTAL			100%	100%	100%	100%	100%	100%	100%	100%

emp

Source: Cordova Hills Master Plan (April 2011) and EPS.

[1] See Table 4.

[2] See Table 6.

[3] Adjustment accounts for approximately 1.2 wage earners per household, which will both reduce the number of households at lower income levels and reduce the number of households in total since not every University employee will demand one house. The estimated adjustment factors account for a greater reduction of houses at lower income levels.

[4] Estimated percent and number of units by housing type for employees within each income level. It is assumed that only a portion will choose the most expensive housing that they can afford.

Table 3
Cordova Hills Alternatives Analysis
University Employees' Housing Demand

	Affordable Housing Income Limit (3-Person)	Estimated Sales Price	University Employees' Demand by Income Level							Total
			Entry Level	Low/Mid Income	Middle Income	High/Mid Income	High Income	Very High Income	Top	
Income Range			< \$40 K	\$40K - \$60K	\$60K - \$80K	\$80K - \$100K	\$100K - \$125K	\$125K - \$150K	>\$150K	
Average Income [1]			\$20,000	\$50,000	\$70,000	\$90,000	\$112,500	\$137,500	\$150,000	
Maximum Affordable Home Price [1]			\$110,000	\$264,000	\$353,000	\$463,000	\$573,000	\$705,000	\$770,000	
University Employees [2]			42	561	651	436	241	74	31	2,036
Adjustment Factor [3]			75%	75%	80%	80%	90%	90%	95%	80%
Estimated Housing Units			32	421	521	349	217	67	29	1,636
Number of Dwelling Units by Housing Type [4]										
Renter-Occupied										
High Density Res. - Ext. Low Income	\$20,300	NA	16	0	0	0	0	0	0	16
High Density Res. - Very Low Income	\$33,800	NA	16	0	0	0	0	0	0	16
High Density Res. - Low Income	\$54,100	NA	0	211	0	0	0	0	0	211
High Density Res. - Market Rate		NA	0	63	0	0	0	0	0	63
Residential 20		NA	0	42	131	0	0	0	0	173
Subtotal			32	316	131	0	0	0	0	479
Owner-Occupied										
High Density Res. - Market Rate	\$250,000		0	105	130	0	0	0	0	235
Residential 20	\$275,000		0	0	130	69	0	0	0	199
Medium Density Residential	\$345,000		0	0	130	140	65	13	0	348
Low Density Residential	\$445,000		0	0	0	140	87	27	15	269
Estates Residential	\$500,000		0	0	0	0	65	27	14	106
Subtotal			0	105	390	349	217	67	29	1,157
TOTAL			32	421	521	349	217	67	29	1,636

emp

Source: Cordova Hills Master Plan (April 2011) and EPS.

[1] See Table 4.

[2] See Table 6.

[3] Adjustment accounts for approximately 1.2 wage earners per household, which will both reduce the number of households at lower income levels and reduce the number of households in total since not every University employee will demand one house. The estimated adjustment factors account for a greater reduction of houses at lower income levels.

[4] Estimated percent and number of units by housing type for employees within each income level. It is assumed that only a portion will choose the most expensive housing that they can afford.

Table 4
Cordova Hills Alternatives Analysis
Estimated Maximum House Price by Income Level

Item	Average Income	% of Income on Housing	Total Annual Housing Cost	Monthly Housing Cost [1]	Monthly Mortgage [2]	Loan Amount [3]	Maximum Affordable House Price [4]
Formula	a	b	c = a * b	d = c / 12	e = d * 80%	f (assumes 80/20 loan)	g = f / 0.8
Household Income Range							
< \$40,000	\$20,000	35%	\$7,000	\$600	\$500	\$88,000	\$110,000
\$40,000 - \$60,000	\$50,000	35%	\$17,500	\$1,500	\$1,200	\$211,000	\$264,000
\$60,000 - \$80,000	\$70,000	35%	\$24,500	\$2,000	\$1,600	\$282,000	\$353,000
\$80,000 - \$100,000	\$90,000	35%	\$31,500	\$2,600	\$2,100	\$370,000	\$463,000
\$100,000 - \$125,000	\$112,500	35%	\$39,375	\$3,300	\$2,600	\$458,000	\$573,000
\$125,000 - \$150,000	\$137,500	35%	\$48,125	\$4,000	\$3,200	\$564,000	\$705,000
\$150,000+	\$150,000	35%	\$52,500	\$4,400	\$3,500	\$616,000	\$770,000

max_value

[1] Includes principal, interest, taxes, and insurance.

[2] Monthly housing cost less estimate for insurance and taxes.

[3] Assumes purchaser takes out loan for 80% of purchase price of the home. Loan amount calculated by computing the present value of a monthly mortgage payment stream assuming 30 year loan with fixed 5.5% interest.

[4] Home price computed based on loan amount plus 20% down payment.

Table 5
Cordova Hills Alternatives Analysis
Estimated Home Values and Dwelling Units by Residential Land Use

Housing Type	Estimated Sales Price	Cordova Hills Dwelling Units		
		Single Family	Multifamily	Total
Renter-Occupied				
High Density Res. - Extremely Low Income [2]	NA	0	210	210
High Density Res. - Very Low Income [2]	NA	0	417	417
High Density Res. - Low Income [2]	NA	0	417	417
High Density Res. - Market Rate [1]	NA	0	363	363
Residential 20 [1]	NA	0	444	444
Subtotal Renter-Occupied		0	1,851	1,851
Owner-Occupied				
High Density Residential - Market Rate [1]	\$250,000	0	363	363
Residential 20 [1]	\$275,000	0	444	444
Medium Density Residential	\$345,000	3,265	0	3,265
Low Density Residential	\$445,000	1,930	0	1,930
Estates Residential	\$500,000	147	0	147
Subtotal Owner-Occupied		5,342	807	6,149
Total Residential Land Uses		5,342	2,658	8,000

lu

Source: Cordova Hills Master Plan (April 2011) and EPS.

[1] Residential 20 and High Density Residential - Market Rate are estimated to be 50% owner-occupied and 50% renter-occupied.

[2] Based on the project's affordable housing plan.

Table 6
Cordova Hills Alternatives Analysis
Estimated University Employees by Salary Range

Item	Total	Entry-Level		Low/Mid Income		Middle Income		High/Mid Income		High Income		Very High Income		Top	
		Below	\$40K	\$40K	\$60K	\$60K	\$80K	\$80K	\$100K	\$100K	\$125K	\$125K	\$150K	Over	\$150K
Academic - Administrative															
Academic Administration	100%		0%		0%		10%		10%		20%		40%		20%
F.T.E. Faculty	100%		0%		0%		25%		40%		25%		5%		5%
Faculty Support	100%		10%		35%		45%		10%		0%		0%		0%
Central Administration	100%		5%		40%		40%		10%		0%		5%		0%
Student Services Administration	100%		15%		75%		10%		0%		0%		0%		0%
Student Life / Services															
Cafeteria and Student Union	100%		0%		70%		25%		0%		5%		0%		0%
Main Library	100%		5%		40%		45%		5%		5%		0%		0%
Athletic, Fitness, Wellness	100%		5%		20%		50%		10%		5%		5%		5%
Main Chapel	100%		20%		40%		20%		15%		5%		0%		0%
Theater and Arts	100%		5%		20%		40%		25%		5%		5%		0%
Physical Plant	100%		0%		5%		30%		40%		20%		5%		0%
Housing	100%		0%		20%		50%		25%		0%		5%		0%
Retail, Lodging, Conference	100%		0%		45%		45%		5%		5%		0%		0%
Academic - Administrative															
Academic Administration	27		0		0		3		3		5		11		5
F.T.E. Faculty	400		0		0		100		160		100		20		20
Faculty Support	130		13		46		58		13		0		0		0
Central Administration	94		5		37		38		9		0		5		0
Student Services Administration	34		5		26		3		0		0		0		0
Subtotal	685		23		109		202		185		105		36		25
Student Life / Services															
Cafeteria and Student Union	420		0		294		105		0		21		0		0
Main Library	59		3		24		26		3		3		0		0
Athletic, Fitness, Wellness	113		6		22		56		11		6		6		6
Main Chapel	24		5		9		5		4		1		0		0
Theater and Arts	104		5		21		42		26		5		5		0
Physical Plant	470		0		23		141		188		94		24		0
Housing	51		0		10		25		13		0		3		0
Retail, Lodging, Conference	110		0		49		49		6		6		0		0
Subtotal	1,351		19		452		449		251		136		38		6
Total Employees	2,036		42		561		651		436		241		74		31

salary

Source: Salary.com, Cordova Hills Draft Master Plan (April 2011), and EPS.

Table 7
Cordova Hills Alternatives Analysis
Job Descriptions by Salary Range

Entry-Level Under \$30,000			
Crossing Guard	Day Care Center Teacher	Teacher Aide	Teaching Assistant (College)
Middle Income \$30,000 - \$50,000			
Academic Advisor	Assistant Coach	Counselor - Higher Ed.	Religious Educator
Academic Support Coordinator	Assistant Student Activities Director	Digital Collection Librarian	Res. Hall Manager (Incl. Room, Board)
Admissions Representative - Higher Ed.	Asst. Professor	Financial Aid Counselor - Higher Ed.	Res. Hall Manager (No Room, Board)
Adult Education Teacher	Athletic Trainer Assistant - Higher Ed.	Foreign Studies Advisor	Researcher I - Academic
Alumni Relations Officer	Career Counselor - Higher Ed.	Laboratory Coordinator - Higher Ed.	Resource Development Coordinator - Higher Ed.
Assistant Bookstore Director	Conference Coordinator - Higher Ed.	Recreation Coordinator (Intramurals)	Ticket Manager (Sports Event) - Higher Ed.
Assistant Campus Recreation Director	Cooperative Program Coordinator	Registrar Assistant	
Upper Middle Income \$50,000 - \$80,000			
Academic Advising Director	Bookstore Director - Higher Ed.	Grants/Contracts Specialist - Higher Ed.	Major Gift Officer - Higher Ed.
Alumni Affairs Director	Bursar	Grants/Proposal Manager	Major Gift Officer, Sr. - Higher Ed.
Annual Gift Coordinator - Higher Ed.	Campus Police Lieutenant	Grants/Proposal Writer	Metadata Services Director
Annual Gift Director - Higher Ed.	Campus Recreation Director	Head Athletic Trainer - Higher Ed.	Museum Curator - Higher Ed.
Archivist - Higher Ed.	Campus Security Director	Head Cataloging Librarian	Professor
Assistant Athletics Director	Career Services Director	Head Coach (Major Sport)	Public School Teacher
Assistant School Principal	Continuing Education Director	Health Educator	Registrar
Assoc. Professor	Continuing Education Planner - Higher Ed.	Housing Director	Religious Activities and Education Director
Associate Admissions Director	Counseling Psychologist - Higher Ed.	Institutional Research Director - Assistant	Researcher II - Academic
Associate Bursar	Curriculum Specialist	Instructional Technology Specialist	Researcher III - Academic
Associate Financial Aid Director	Dean of Distance Learning	Instructor	Student Activities Director
Associate Food Services Director - Higher Ed.	Education Manager	Librarian - Higher Ed.	Student Union Director
Associate Housing Director	Financial Aid Director - Higher Ed.	Library Services Coordinator	Student Union Manager
Associate Registrar	Food Services Manager - Higher Ed.	Library Services Manager	Teacher Vocational Education
Asst. Professor	Foreign Students Director	Library Technical Services Director	Women's Athletics Director
High Income \$80,000 - \$100,000			
Assistant to the President - Higher Ed.	Chief Admissions Officer	Flight Instructor	Major Gift Director - Higher Ed.
Assoc. Professor	Consultant - Education	Food Services Director - Higher Ed.	Men's Athletics Director
Associate Dean	Corporate Relations Director - Higher Ed.	Fundraising Manager	Planned Gift Director - Higher Ed.
Asst. Professor	Dean	Institutional Research Director	Professor
Athletics Director - Higher Ed.	Director of International Education	Library Services Director - Higher Ed.	
Six Figure Income Level \$100,000+			
Assoc. Professor - Law	Chief Academic Officer	College Vice President	Provost
Assoc. Professor - Medicine	Chief Development Officer - Higher Ed.	Dean	School Superintendent
Associate Chief Academic Officer	Chief Enrollment Management Officer	Graduate Medical Education Director	Top Graduate Medical Education Executive
Associate Dean	Chief Student Affairs Officer	Nursing Education Director	
Chancellor	College President	Professor	

Source: Salary.com.

classifications

Table 8
Cordova Hills Alternatives Analysis
Median Salary by Position

Item	Typical		Median Salary	Median Salary (Rounded)	Pct. Of Employees below Level Shown				
	Education	Years			10%	25%	75%	90%	
Academic Advising Director	Masters/ Bachelors	varies	\$65,472	\$65,000	\$43,588	\$54,017	\$78,380	\$90,131	
Academic Advisor	Masters/ Bachelors	0- 10	\$40,838	\$41,000	\$32,816	\$36,639	\$45,677	\$50,082	
Academic Support Coordinator	Masters/ Bachelors	2-10	\$48,131	\$48,000	\$34,511	\$41,002	\$55,862	\$62,900	
Associate Admissions Director	Masters/ Bachelors	2-10	\$59,752	\$60,000	\$41,112	\$49,995	\$71,421	\$82,044	Sacramento
Plant Manager	Masters/ Bachelors	10 - 15+	\$134,397	\$134,000	\$94,951	\$113,749	\$159,024	\$179,536	Sacramento
Janitor	High School	varies	\$25,916	\$26,000	\$19,986	\$22,812	\$29,744	\$33,239	Sacramento
Professor (Acctg)	Doctorate /Masters	<1; 15+	\$114,288	\$114,000	\$62,990	\$87,437	\$182,357	\$244,331	Sacramento
Professor (Biology)	Doctorate /Masters	<1; 15+	\$114,288	\$114,000	\$62,990	\$87,437	\$182,357	\$244,331	Sacramento
Professor (Business Admin)	Doctorate /Masters	<1; 15+	\$109,399	\$109,000	\$65,400	\$86,368	\$187,759	\$259,102	Sacramento
Professor (Communication)	Doctorate /Masters	0 - 5	\$87,801	\$88,000	\$57,592	\$71,988	\$137,040	\$181,870	Sacramento
Professor (Education)	Doctorate /Masters	varies	\$88,065	\$88,000	\$62,159	\$74,505	\$153,539	\$213,149	Sacramento
Professor (Medical)	Doctorate	15+	\$144,074	\$144,000	\$109,357	\$125,902	\$197,351	\$245,847	Sacramento
Professor (Psychology)	Doctorate /Masters	0 - 10	\$90,844	\$91,000	\$58,906	\$74,126	\$173,119	\$248,026	Sacramento
Associate Professor (Medicine)	Doctorate	5 - 15+	\$112,313	\$112,000	\$84,460	\$97,734	\$159,390	\$200,341	Sacramento
Assistant Professor (Medicine)	Doctorate	2 - 10	\$88,235	\$88,000	\$74,295	\$80,938	\$155,029	\$212,021	Sacramento
Associate Financial Aid Director	Masters/ Bachelors	0- 10	\$58,020	\$58,000	\$40,312	\$48,751	\$68,952	\$78,905	Sacramento
Associate Bursar	Masters/ Bachelors	2-10	\$57,704	\$58,000	\$38,880	\$47,551	\$68,323	\$78,564	Sacramento
Dean of Arts and Sciences	Doctorate /Masters	2 - 15+	\$145,709	\$146,000	\$88,125	\$115,568	\$183,237	\$217,405	Sacramento
Dean of Business	Doctorate /Masters	15 +	\$162,537	\$163,000	\$83,958	\$121,406	\$205,964	\$245,501	Sacramento

detail

Source: Salary.com.



KURT P. HENKE

Sacramento Metropolitan Fire District

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December 19, 2011

Mark Hanson
Conwy, LLC
5241 Arnold Ave
McClellan, CA 95652

RE: Cordova Hills Access Points and Circulation

Based upon the fire and emergency services modeling Citygate Associates, LLC completed on August 29, 2011 regarding the Cordova Hills project, Sacramento Metropolitan Fire District has determined the need for three access points into Cordova Hills along Grant Line Road. Also, a minimum of two roadways extending to the eastern area of the project must be maintained.

North Loop and University Blvd. access points are needed to serve the southern and northern areas of Town Center Village. These two roadways are also essential in providing emergency services to the eastern area of the project where 6,250 of the 8,000 residential units exist.

Chrysanthly Blvd. access point is needed to both serve the Town Center portion of the project and to provide adequate emergency access to the eastern residential portion of the Cordova Hills, as well the project's university/college campus and recreational facilities. Cordova Hills Phase 1 and 2 will be serviced by fire station(s) in Sunridge and/or Suncreek developments. Cordova Hills will also eventually be serviced by the fire station site planned to be built in Cordova Hills East Valley Village in phase 3. Until the East Valley Village fire station is operational, the fire stations on the Sunridge and/or Suncreek development will be required to access Cordova Hills via Chrysanthly Blvd. As such, it is critical Chrysanthly be maintained as a direct access point to Cordova Hills via Town Center Blvd. in order to meet the District's travel time policy.

If Grant Line Road south of Chrysanthly Blvd or the intersection of University Blvd. and Grant Line Rd. were congested, due to an accident or otherwise, the District would

suffer an unacceptable delay in responding to emergencies on the university/college campus or the project's recreational facilities, including the sports park, if alternative access via Town Center Blvd. is not provided. In addition, considering anticipated traffic volumes, the District requires three access points to adequately serve the approximately 966,000 sq. ft. of commercial buildings in the Town Center. Finally, the District requires three access points to serve the over six thousand units planned in the eastern portion of Cordova Hills to avoid both anticipated and unanticipated congestion resulting in unacceptable travel time delays. Town Center Blvd. will provide alternative access to the northeastern residential portions of the project if Grant Line Rd. or its intersection with North Loop Road is suffering from congestion.

In conclusion, without University Blvd., North Loop, and Chrysanthy access points and roadways, the Fire District could not service Cordova Hills according to the District's travel time policy.

Sincerely,

A handwritten signature in blue ink, appearing to read "Duane Arend", is written over the printed name.

Duane Arend

Deputy Chief

OFF-SITE ALTERNATIVES

Changing the location of the site is a major deviation from the intent of the Project, as a substantial amount of language in the Special Planning Area references the views of the Sierra and the landscape setting as informing and driving many of the design choices and other layout considerations of the Project. The Project site is also already owned by the applicants, and purchasing other property or entering into other development agreements in order to pursue an off-site alternative poses a substantial logistical and financial hurdle. Given that a change in location already represents a fundamental change in Project scope and poses a substantial challenge to implement, it was determined that any off-site location should allow the other basic Project designs and objectives to remain essentially intact. On-site alternatives have been designed to make more substantive changes to proposed uses and total developed area, but it was determined that the total land area and uses of the proposed Land Plan should be able to remain essentially intact for any offsite alternative.

Multiple factors were considered when investigating off-site alternatives. The Project includes approximately 1,732 acres of urban uses (exclusive of areas designated as Avoided Area, Agriculture, or Recreation), and will need an additional 107 acres of parkland, for a total of 1,837 acres. An alternative location should be able to accommodate a similar amount of development. The area also must be suitable for a mix of uses which is substantially consistent with the Project mix – both in terms of types of uses and proportions of those uses – in order to be considered consistent with the basic objectives of the Project (e.g. a site suited for industrial and commercial uses, with little residential, would be rejected).

Consistent with the intention to create an urban development, most properties lying outside of the Urban Services Boundary were excluded from consideration. The Urban Services Boundary is designed to be the ultimate edge of urban development in the County, and all long-range plans for infrastructure (such as roadways and utilities) have assumed that areas outside of the Urban Services Boundary would remain rural in nature. Development of land outside of the Urban Services Boundary would therefore result in greater environmental impacts, particularly due to growth inducement, as it would require a significant precedent-setting amendment to a central policy of the General Plan.

Another factor in the suitability of a site is the ability to obtain enough separate parcels of sufficient size. The Project area consists of ten parcels and only three owners, all of whom have elected to move forward with this single Project. Though there are many other properties within the Urban Services Boundary, these properties may not be obtainable, as there may be a multitude of separate owners who may be unwilling to sell or enter into some other agreement, the land may be within conservation easements, or the land may be in some other use which precludes urban development.

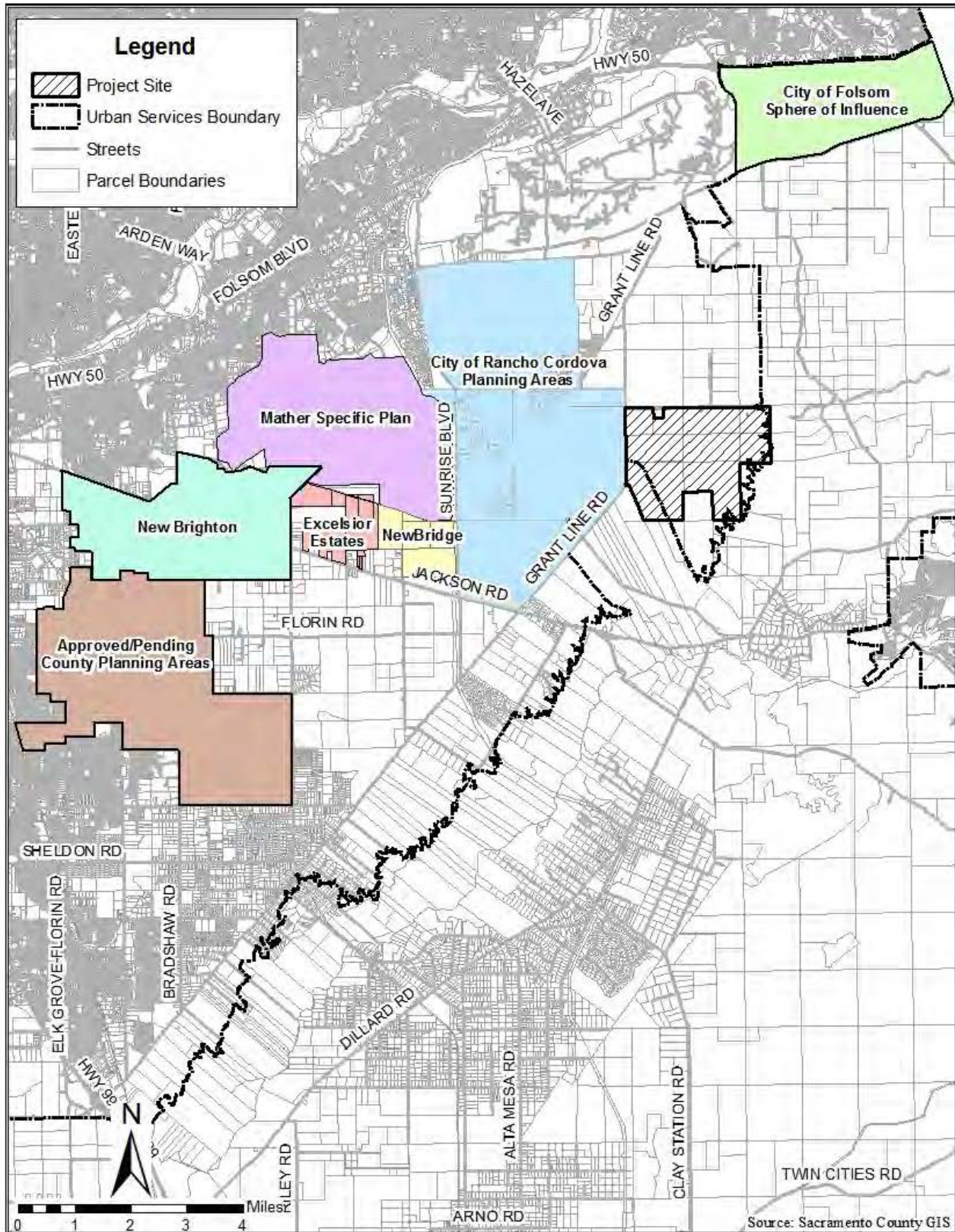
Land which is already in the process of obtaining local land use entitlements for development would be nominally suitable if the proposed mix of uses was similar to that of the Project, but then the Project would be subject to the master planning done for that

area – the SPA could no longer be part of the Project. Since many of the Project objectives relate to the development regulations contained in the SPA, land already subject to master planning proposals was excluded from consideration as both potentially infeasible to acquire and for failure to meet basic Project objectives.

The proposal for a large retail center (the Town Center) requires relative proximity to a major existing or proposed transportation corridor (such as a freeway system or thoroughfare). Alternative locations which are too far from such a corridor would make the retail component too inconvenient to reach, and would likely result in trips continuing to other retail centers which were more proximate or more accessible. To remain economically viable, the Town Center needs to be near a major transportation corridor. The following transportation corridors were identified as suitable: Highway 50, Jackson Highway (State Route 16), Sunrise Boulevard, Folsom Boulevard, White Rock Road, Prairie City Road, and Grant Line Road. Other locations were considered infeasible.

Plate ALT-2 depicts areas which may contain sufficient land area but are already the subject of existing proposed or approved master planning. New Brighton, Excelsior Estates, and NewBridge are master plan proposals that are within pre-application processing with the County of Sacramento. The City of Folsom Sphere of Influence is outside of the Urban Services Boundary, but was included because it is existing, and the negative physical consequences of the expansion would not be due to the Project. The City of Rancho Cordova Planning Areas (the depicted boundaries are approximate, not exact) include the approved Sunridge Specific Plan, the pending Rio Del Oro land plan, the pending Suncreek Specific Plan, and the pending Arboretum Specific Plan. The Sacramento County planning areas include the approved Florin Vineyard Gap Community Plan, Vineyard Springs Comprehensive Plan, and the Vineyard Station Specific Plan. The areas on the exhibit all encumber large portions of land, and all but the Mather Specific Plan are infeasible due to problems with acquisition and the inability to meet Project objectives (as described previously). The Mather Specific Plan area is further discussed below because it is a County-initiated project, and thus is within the ability of the County to amend to fit the Project, if possible.

Plate ALT-2: Locations With Existing Master Planning Proposals/Approvals



Remaining lands that could be considered include properties north of the Project site, properties between Grant Line Road and the various existing planning areas, and properties south of the City of Elk Grove (Plate ALT-3); these areas are further discussed below. Note that most of the large area north of the City of Rancho Cordova planning areas is part of a Federal Superfund site owned by Aerojet, a propulsion manufacturer, and is unavailable for development at this time.

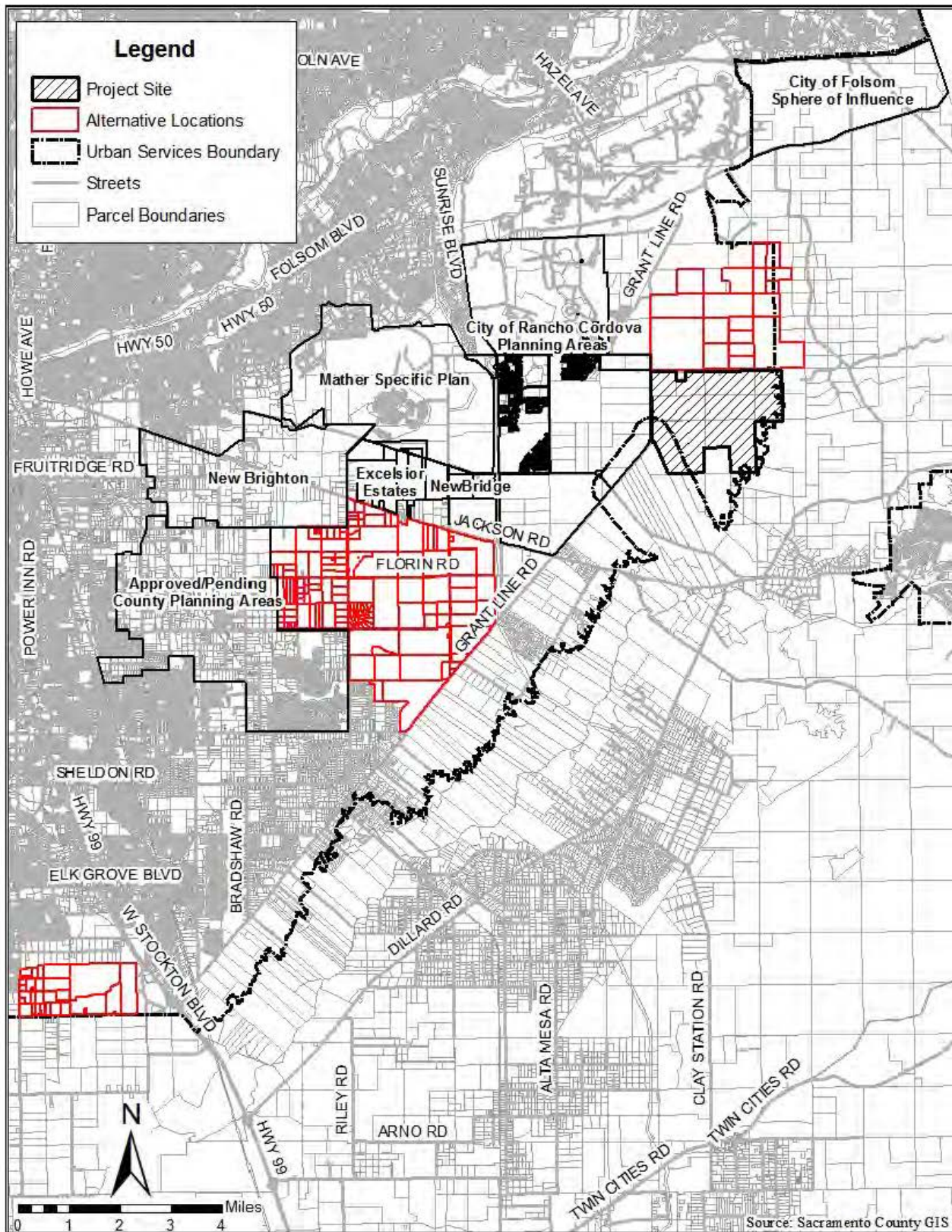
MATHER FIELD SPECIFIC PLAN

A university has been proposed within the Mather Field area – the proposed Mather Field Specific Plan (County Control Number 2006-0151) includes a 272-acre area labeled “Sports Complex” and a 593-acre area labeled “University and Village/Residential”. The Mather Field Specific Plan area contains approximately 5,700 acres of land, but a significant portion of this property is within the direct influence of Mather Airport and would be unsuitable for residential uses. A review of the proposed Specific Plan indicates that unless the proposed Specific Plan were modified, only approximately 1,000 acres would be suitable for Project uses. This figure is obtained by excluding the airport; existing development; approximately 220 acres of the land designated as Sports Complex; and areas designated as a preserve or riparian buffer, as a golf course, as Airport Commercial, as Economic Development, and as Commerce Center.

The Mather Field Specific Plan Sports Complex is approximately 270 acres, and so could accommodate the 50-acre sports park concept of the Project, but the remaining 220 acres would still be used for other sports facilities; it could not be used for other Project uses. The land designated Economic Development is excluded because it is a small “island” of uses over 2 miles away from the other available urban uses designated in the Specific Plan. The Commerce Center lands are excluded because the Specific Plan includes approximately 550 acres of commercially-designated lands, but the Project only requires approximately 230 acres. Without amending the proposed Mather Field Specific Plan, the residential development envisioned by the Project would need to be reduced by approximately 550 acres – which is more than half of the Project residential land.

In addition to a substantial reduction in the proposed residential uses of the Project, pursuing this alternative would place the commercial uses of the Town Center a minimum of one mile away from the University and residential lands. The Specific Plan locates the Sports Complex, Mather Lake, and a golf course in between the University and Village/Residential area and the Commercial Development area. As a result, the direct connectivity between the Town Center and University envisioned by the Project would not be possible. This connection was considered integral to the Town Center, as the student body represents an important spending base.

Plate ALT-3: Potential Alternative Locations



The Mather Field Specific Plan was reviewed to determine whether changes could be made to the Specific Plan uses so that the Project could be accommodated – since the Specific Plan is a County-initiated project – but it was determined to be infeasible. The Specific Plan land uses have been located in areas that are compatible with the noise and safety zones that exist around Mather Airport. Commercial uses are proposed in areas where residential land uses are incompatible, and thus the conversion of some of the commercial land to residential uses is infeasible. Likewise, the Sports Complex, golf course, and commercial uses are located in areas where those uses are compatible, and cannot be switched to bring the commercial uses closer to the residential and University area.

This alternative was considered but rejected during the scoping process due to the following factors: inability to accommodate the residential uses of the Project, inability to maintain connectivity between the retail component and the spending base, and inability to provide multimodal connections supporting non-automotive travel between important project components. On the latter point, placing the commercial and residential/university components of the Project one mile apart would result in failure to achieve objectives 1, 3, and 5 of the Project.

PROPERTY SOUTH OF ELK GROVE

This area includes approximately 1,400 acres of contiguous land, which falls below the approximately 1,800 acres needed to accommodate the Project uses. This location is also adjacent to the approved Elk Grove Promenade Mall project, which was under construction when the recession caused all work to halt. It is unlikely to be economically feasible to include the intensive retail of a large mall and the retail uses of the Town Center. Given that the mall is already approved and is partially constructed, the Town Center would need to be removed from the Project. The mall cannot be considered a replacement for the Town Center, because while the Elk Grove Promenade Mall is designed to be a more standard retail-only development, the Town Center is designed to be a mixed use development consisting of retail, office, and residential. Given that this location does not include sufficient land area and would require the removal of a major component of the Project, this site was eliminated from detailed consideration.

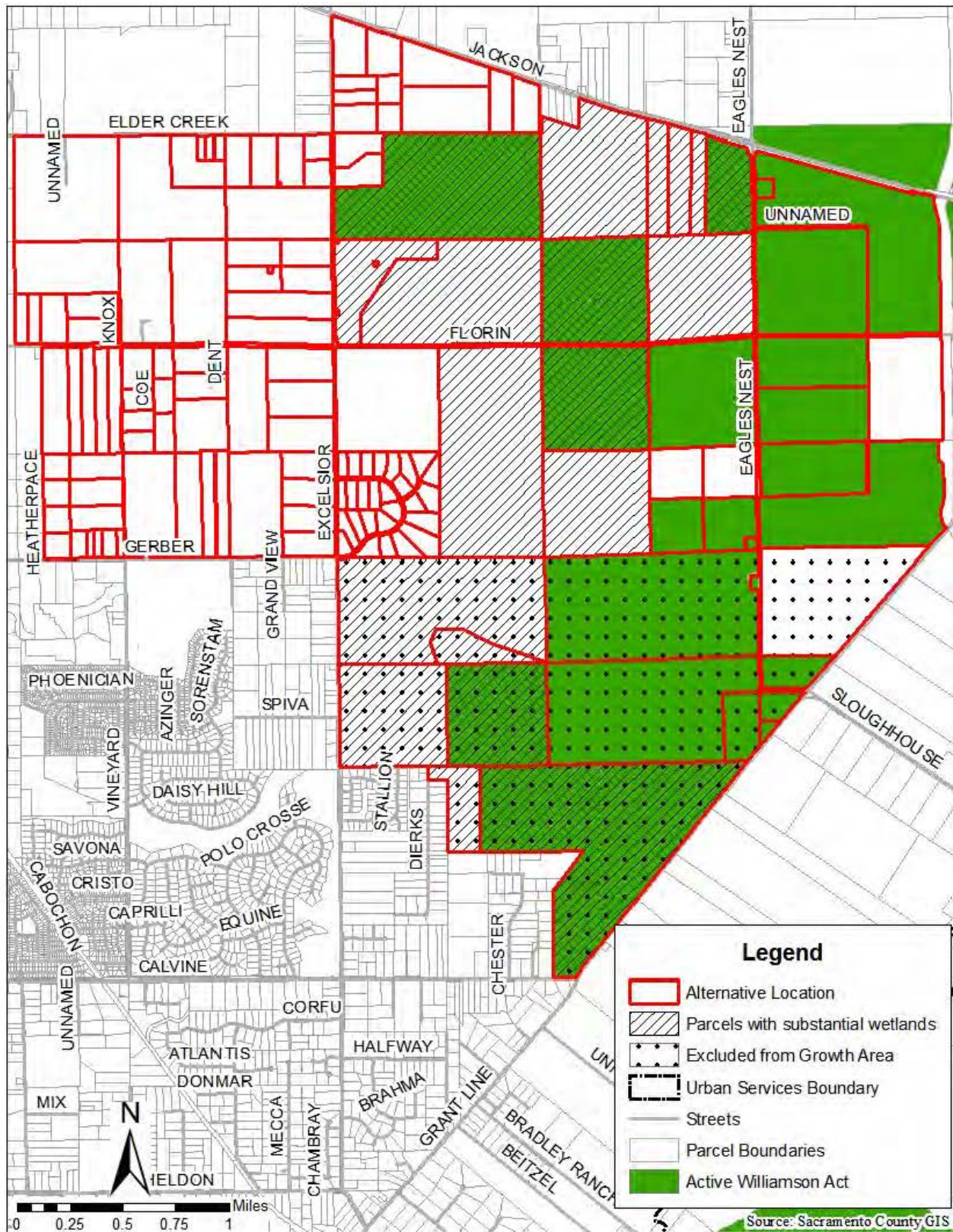
PROPERTY BETWEEN GRANT LINE ROAD AND OTHER PLANNING AREAS

This area includes approximately 7,500 acres, 153 different parcels, and over 100 different owners (Plate ALT-4). Not all of this land would be needed, so an analysis was done to identify a more specific area to consider. Review of aerial photography indicates that significant land area includes wetland complexes; some of this property is already owned by organizations such as the Sacramento Valley Conservancy and some is being considered for inclusion in the anticipated Draft South Sacramento Habitat Conservation Plan as preserve area or protected area. Plate ALT-4 shows the land areas with the densest concentrations of wetlands. Other areas also include wetlands, but they do not appear to be as densely concentrated or as intact. In addition, the land

south of Florin Road has been the subject of discussion before the Sacramento County Board of Supervisors, for potential inclusion in the Draft 2030 General Plan as a new growth area, and was ultimately excluded from consideration. Notwithstanding the change in growth management strategy which was approved subsequent to this decision-making, it remains questionable whether this decision would be reversed for a Project alternative. The final major constraint is the presence of substantial amounts of land under active Williamson Act contract. These various constraints exclude most of the property from consideration on the dual basis that development here would not reduce impacts to wetlands and may be infeasible to develop due to the presence of multiple Williamson Act contracts and other land use restrictions.

Excluding the existing subdivision at the corner of Excelsior and Gerber Roads, the remaining land area that is not encumbered by significant wetlands or Williamson Act contracts encompasses approximately 2,300 acres and 80 parcels. Various parcels are being used for the operation of businesses, such as a plant nursery and an equestrian facility, but most are agricultural or agricultural-residential parcels with single-family homes. The significant number of parcels and the fact that many of them have single-family homes would make acquisition of the land infeasible both due to logistical and financial reasons. The other option would be to enter into a development agreement with the property owners, which would be similar to the model used to develop the Florin Vineyard Gap Community Plan. This is also logistically challenging, and in order to work would require that the entire SPA be revisited in consultation with the many different property owners. It is unlikely that the SPA and the Project objectives would remain intact as a result of this process. Furthermore, each owner would be operating under separate financial constraints and under separate timeframes, and thus it would be infeasible to develop large, coherent pieces at the same time. This alternative was ultimately rejected due to failure to meet Project objectives and due to logistical infeasibility.

Plate ALT-4: Constraints on Property West of Grant Line Road



PROPERTY NORTH OF THE PROJECT

This area includes parcels which are north of the Project site, but excludes land operated as an aggregate mine by Teichert. There are eighteen parcels in this area, for a total of approximately 3,200 acres. Approximately 862 acres of this land is currently owned by the Project proponents. Five of the eighteen parcels include some land outside of the Urban Services Boundary, which would not be available for urban development; removing this area, which is approximately 370 acres, leaves 2,830 acres for development. This is sufficient land to accommodate the Project uses, and is located along the same major transportation corridor as the Project. Aside from the Project proponents, there are eight property owners of this land. It may be difficult to acquire the remaining land or otherwise enter into development agreements with the owners.

Aside from some difficulty with acquisition, the primary issue with this site is that development of this site would not result in lesser environmental impacts than development of the Project site. This alternative site is adjacent to the Project site, and as such shares most of the same constraints and issues described for the Project. Review of aerial photography clearly indicates that the property north of the Project site also includes plateau areas with dense aggregations of vernal pools, as well as intermittent drainages, seasonal wetlands, and other features. In addition, the only two parcels adjacent to Grant Line Road (totaling 960 acres) are within active Williamson Act. There are no existing public water or sewer lines proximate to the site. Though the site is farther from the Kiefer Landfill, it is adjacent to an active mining area. Ultimately, it was clear that this alternative would not result in a reduction in significant impacts, and so was eliminated from more detailed consideration.

Note that although relocating the entire Project to these northern properties has been rejected, a detailed analysis has been included for an alternative that would include a portion of the property to the north (Expanded Footprint Alternative).

DESCRIPTION OF ALTERNATIVES

NO PROJECT

The No Project alternative may either be considered to be maintenance of the existing condition, development to the degree that would be allowed without any further discretionary review or entitlements, or an in-between version. In the case of the Project site, there is little difference between these versions of the No Project. The site is zoned AG-80 (Agricultural properties of a minimum of 80 acres in size), and encompasses ten parcels. In the No Project Alternative, each of these parcels could be developed with one single-family home. Given the rural nature of the area, it is assumed that urban services such as public water and sewage disposal would not be used, and that homes would rely on individual wells and septic systems. Though analyzed as though up to ten homes would be constructed, it is probable that if homes

2013 Assessment Level Wet Season
90-Day Report of Findings
Regarding Federally-Listed Branchiopods
For
Cordova Hills
Sacramento County, California

26 February 2013

Prepared for:
Cordova Hills, LLC



ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

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2013 Assessment Level Wet Season 90-Day Report of Findings Regarding Federally-Listed Branchiopods

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INTRODUCTION

On behalf of Cordova Hills, LLC, ECORP Consulting, Inc. (ECORP) conducted a wet season survey of the Cordova Hills site located in Sacramento County, California. The purpose of the survey was to determine the presence of vernal pool branchiopod species listed as endangered or threatened by the U.S. Fish and Wildlife Service (USFWS) [(e.g., vernal pool fairy shrimp (*Branchinecta lynchi*) and vernal pool tadpole shrimp (*Lepidurus packardii*)]. The survey was conducted under the authority of Federal Fish and Wildlife Permit No. TE-012973-8.1 and in compliance with the April 19, 1996 *Interim Survey Guidelines to Permittees for Recovery Permits under Section 10(a)(1)(A) of the Endangered Species Act for the Listed Vernal Pool Branchiopods* (Guidelines) (USFWS 1996). This document is the 90-Day Report of Findings for the Cordova Hills site (as required by Item VII of the Guidelines), which summarizes the results of wet season survey work for this site. ECORP received authorization to conduct the 2013 wet season survey from the USFWS on 4 December 2012 (Attachment A – Survey Authorization).

Existing Site Conditions

The ±2,688-acre Cordova Hills site is located east of Grant Line Road, north of Kiefer Road, south of Glory Lane, and west of Carson Creek (Figure 1. *Project Site and Vicinity*). The site corresponds to portions of Sections 13, 14, 23, and 24, Township 8 North, and Range 7 East (MDBM) and a portion of Section 18, Township 8 North, and Range 7 East (MDBM) of the "Buffalo Creek, California" 7.5-minute quadrangle (U.S. Department of the Interior, Geological Survey 1980). The approximate center of the site is located at 38° 32' 30" North and 121° 10' 30" West within the Lower Sacramento and Lower Cosumnes-Lower Mokelumne Watersheds (#18020109 and 18040005, respectively, U.S. Department of the Interior, Geological Survey 1978).

The site is comprised of gently rolling to steeply sloped topography, and is situated at elevations ranging from 130 to 260 feet above mean sea level (MSL). The site can generally be characterized as an annual grassland community that is interspersed with large complexes of ephemeral wetlands (i.e., vernal pools, seasonal wetlands, and seasonal wetland swales) and

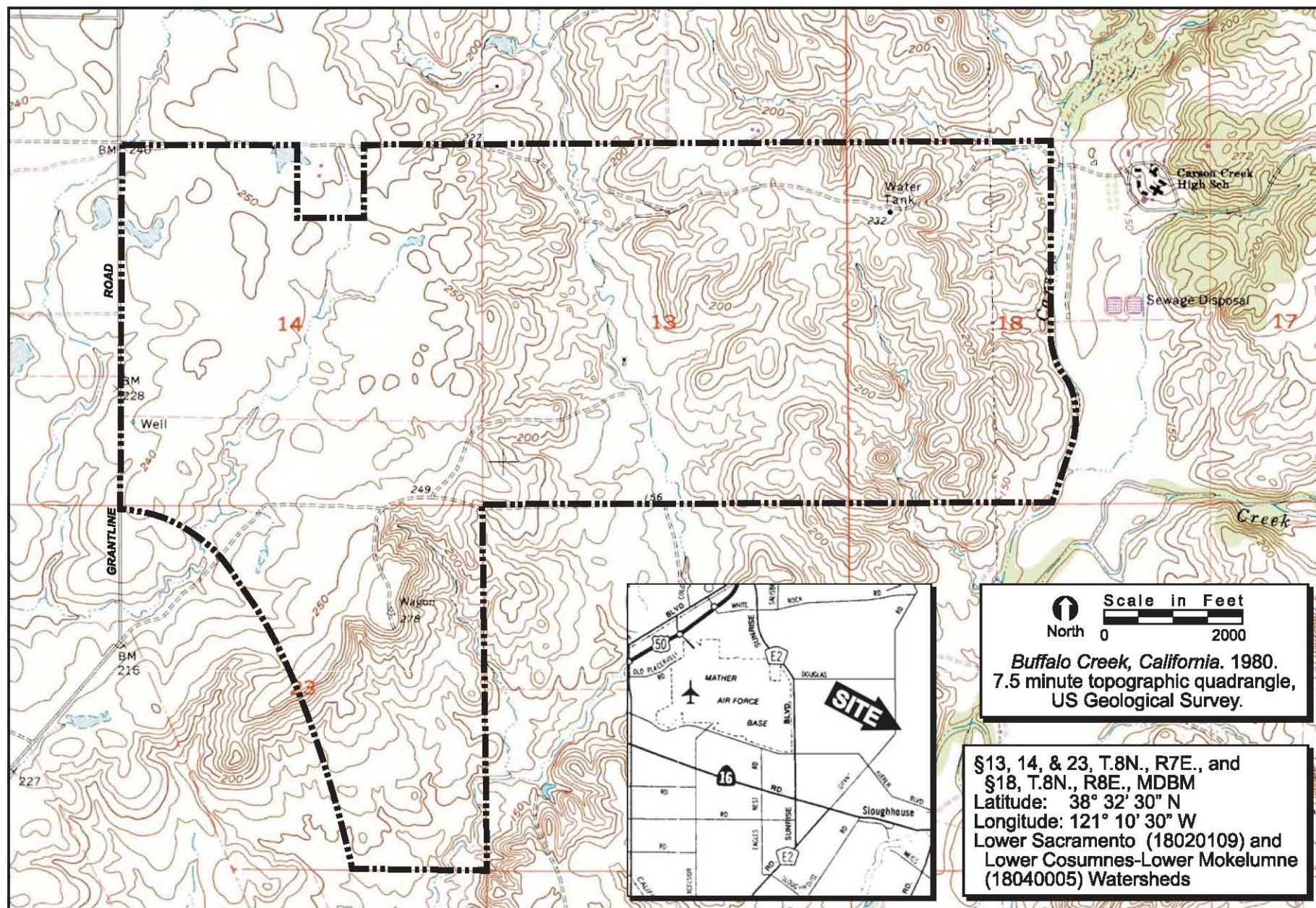


FIGURE 1. Project Site and Vicinity Map

ephemeral drainages. Two stock ponds are located in the south central portion of the site and Carson and Deer Creeks border the project along its eastern boundary. The site is currently used as pastureland for livestock grazing. According to the Soil Survey of Sacramento County, California (U.S. Department of Agriculture, Soil Conservation Service 1993), 16 soil units, or types, occur on-site including (101) Amador-Gillender complex 2-15% slopes, (125) Corning complex, 0-8% slopes, (126) Corning-Redding complex, 8-30% slopes, (132) Creviscreek sandy loam, 0-3% slopes, (156) Hadselville-Pentz complex, 2-30% slopes, (158) Hicksville loam, 0-2% slopes, (160) Hicksville sandy loam, 0-2% slopes, (163) Keyes sandy loam, 2-15% slopes (187) Pardee-Ranchoseco complex, 3-15% slopes, (188) Pentz-lithic xerothents complex, 30-50% slopes (189) Peters clay, 1-8% slopes, (192) Red Bluff loam, 2-5% slopes, (193) Red Bluff-Redding complex, 0-5% slopes, (198) Redding gravelly loam, 0-8% slopes, (215) San Joaquin silt loam, 3-8% slopes, and (242) Xerofluvents, 0-2% slopes (Figure 2. *Natural Resources Conservation Service Soil Types*).

The majority of the site is composed of annual grassland. This community is dominated by non-native naturalized Mediterranean grasses including medusahead grass (*Elymus caput-medusae*), ripgut brome (*Bromus diandrus*), soft brome (*Bromus hordeaceus*), wild oats (*Avena fatua*), and ryegrass (*Festuca perennis*). Other herbaceous species in this community include rose clover (*Trifolium hirtum*), bicolored lupine (*Lupinus bicolor*), cut-leaf geranium (*Geranium dissectum*), common vetch (*Vicia sativa*), filaree (*Erodium botrys*), sticky tarweed (*Holocarpha virgata*), Fitch's spikeweed (*Hemizonia fitchii*), yellow star-thistle (*Centaurea solstitialis*), hairy hawkbit (*Leontodon saxatilis*), and turkey mullein (*Croton setigerus*).

Interspersed within the annual grassland community are a number of aquatic features. Aquatic features present within the site include vernal pools, seasonal wetlands, seasonal wetland swales, seeps, ephemeral drainages, intermittent drainages, creek, and stock ponds (ECORP 2008) (Figure 3. *Wetland Delineation*). The wetland delineation map has been verified by the U.S. Army Corps of Engineers (USACE) in letters dated 11/7/08, 3/6/09, and 9/30/09 (Regulatory # SPK-2004-00116). Below are detailed descriptions of the aquatic habitats on-site.

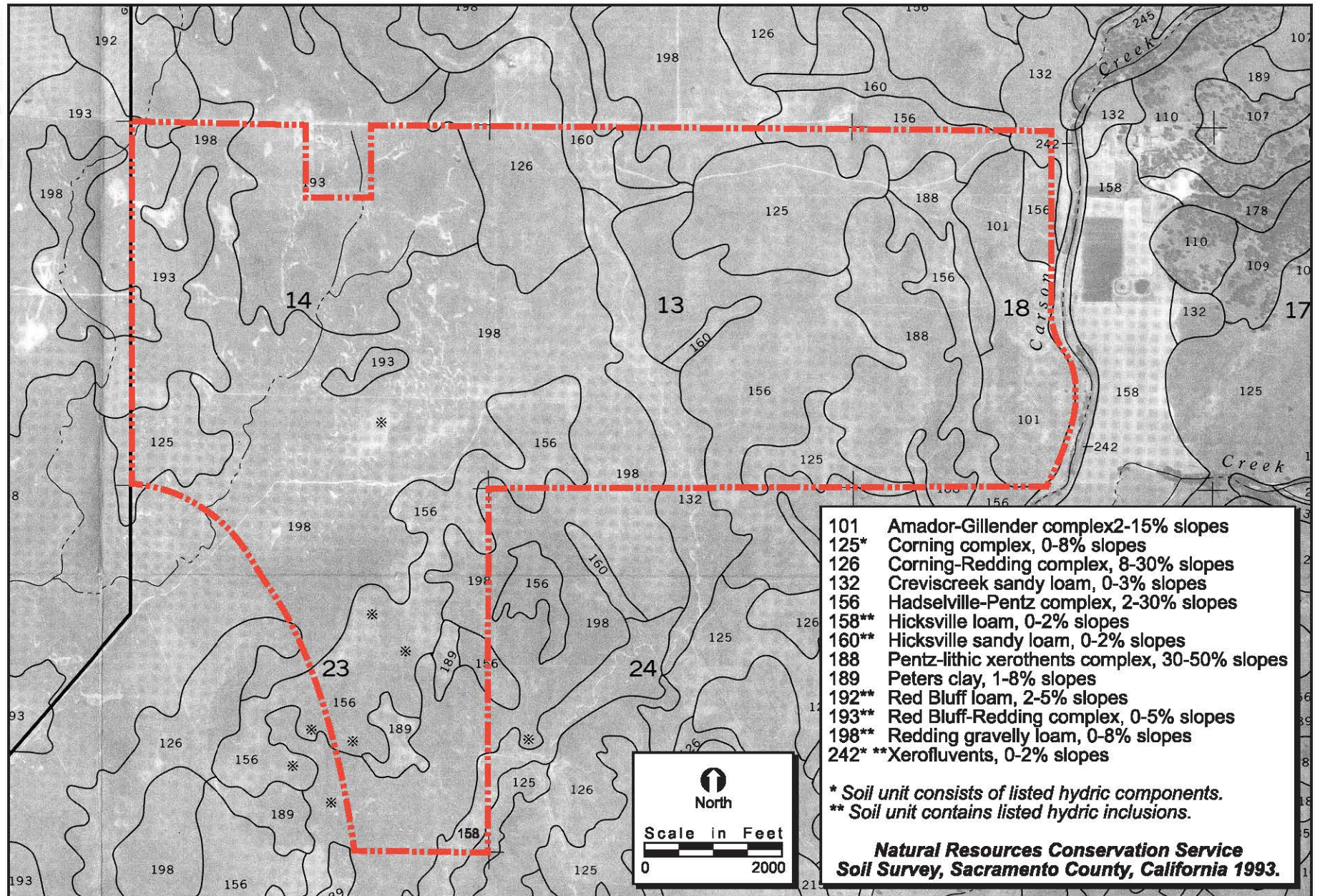
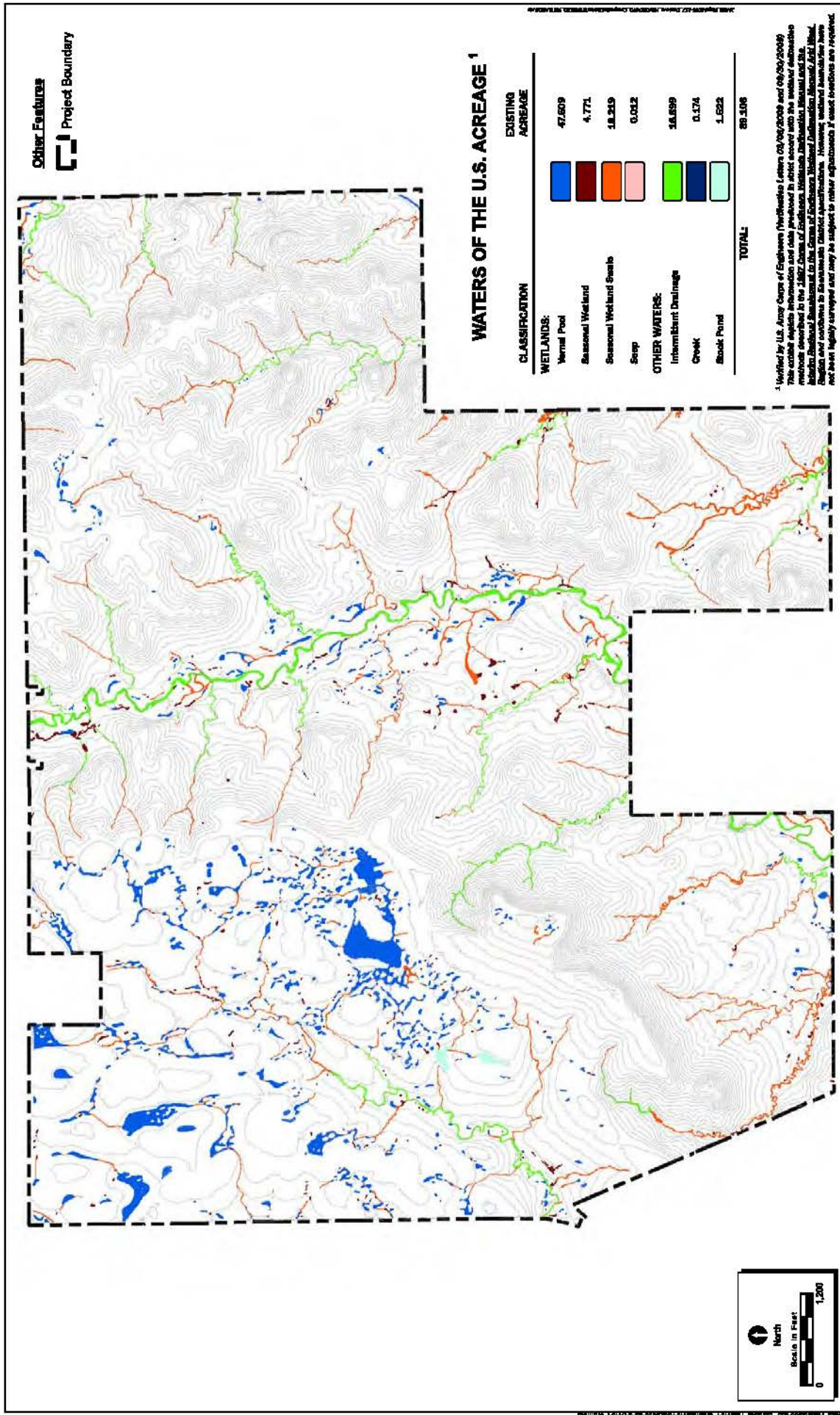


FIGURE 2. Natural Resources Conservation Service Soil Types



Map Date: 01/19/2010

Figure 3. Wetland Delineation

2005-217 Cordova Hills

Vernal Pool

Vernal pools are topographic basins within the grassland community that are typically underlain with an impermeable or semi-permeable hardpan or duripan layer. Direct rainfall and surface runoff inundate the pools during the wet season. The pools typically remain inundated and/or saturated through spring and are dry by late spring through the following wet season. Vernal pools are scattered throughout the site with the highest concentration occurring in the northwestern corner of the site. The vernal pools are dominated by native species including slender popcorn flower (*Plagiobothrys stipitatus*), Vasey's coyote thistle (*Eryngium vaseyi*), Carter's buttercup (*Ranunculus bonariensis*), smooth goldfields (*Lasthenia glaberrima*), double-horn downingia (*Downingia bicornuta*), Sacramento mesamint (*Pogogyne zizyphoroides*), and creeping spikerush (*Eleocharis macrostachya*).

Seasonal Wetland

Seasonal wetlands are ephemerally wet due to accumulation of surface runoff and rainwater within low-lying areas. Inundation periods tend to be relatively short and they are commonly dominated by non-native annual, and sometimes perennial, hydrophytic species. Seasonal wetlands are scattered throughout the site with the largest concentration occurring within the large vernal pool complex in the northwest corner of the site. Species composition in the seasonal wetlands include ryegrass, mannagrass (*Glyceria declinata*), Mediterranean barley (*Hordeum marinum*), hyssop loosestrife (*Lythrum hyssopifolium*), and slender popcorn flower.

Seasonal Wetland Swale

Seasonal wetland swales are linear features that convey stormwater runoff and support a predominance of hydrophytic vegetation. Seasonal wetland swales are scattered throughout the site within the vernal pool complex and as tributaries to the drainages. Species composition in the seasonal wetland swales includes Mediterranean barley, slender popcorn flower, white-headed navarretia (*Navarretia leucocephala*), hairy hawkbit, and filaree.

Seep

Seeps are seasonally or perennially wet areas resulting from discharge of groundwater to the surface. The seeps are located on a hillside in the southeastern portion of the property. Dominant plant species identified in the seeps included iris-leaf rush (*Juncus xiphioides*), white-tip clover (*Trifolium variegatum*), and ryegrass. Other species found in the seeps include cut-leaved geranium and common vetch.

Intermittent Drainage

Intermittent drainages are linear features that exhibit an ordinary high water mark and convey both stormwater and groundwater flows. Intermittent drainages differ from ephemeral drainages in that they receive groundwater recharge for all or a portion of the year. This usually results in greater quantities and duration of flow relative to ephemeral drainages. These features tend to be largely unvegetated due to the depth and scouring effects of flowing water. Hydrophytic vegetation was present along the banks of these drainages and in areas of sediment accumulation that provide a substrate suitable for plant establishment and growth. Plants observed within intermittent drainages included toad rush (*Juncus bufonius*), bractless hedgehyssop (*Gratiola ebracteata*), and slender popcorn-flower. Annual grasses and forbs commonly found in the uplands also occur on the banks of the drainages.

Creek

The portion of Carson Creek present on-site is largely unvegetated due to the scouring effects of the water. Plant species identified on the banks include Indian chickweed (*Mollugo verticillata*) and rough cockle-bur (*Xanthium strumarium*).

Stock Pond

Stock ponds represent ponded areas that were either created or enhanced through the placement of an earthen dam in the course of a drainage and/or through excavation. Stock ponds exhibit an ordinary high water mark. Two stock ponds are found near the south central portion of the site. Vegetation associated with these feature generally occur within the

shallower areas along the margins. Plant species observed within and adjacent to the stock pond include creeping spikerush, smooth goldfields, prostrate knotweed (*Polygonum arenastrum*), mannagrass, and broad-leaved loosestrife (*Lythrum portula*).

METHODS

Sampling methodology generally followed the “wet season sampling” protocol outlined in the Guidelines (USFWS 1996). However, the purpose of this assessment-level survey was to establish presence of and not to support the absence of listed vernal pool branchiopod species. As discussed with Mr. Terry Adelsbach of USFWS, ECORP attempted to sample all of the seasonal wetland swales and intermittent drainages, and 50 percent of the vernal pools and seasonal wetlands on-site. This sampling strategy provided a general distribution of federally-listed vernal pool branchiopods found on-site. Therefore, the full wet season protocol was not conducted. The sampling was timed to optimize the potential to observe listed vernal pool branchiopods.

Permitted ECORP biologists Natasha Bartley and Todd Wood conducted the wet season survey, with assistance from ECORP biologists Keith Kwan, Tom Scofield, Daria Snider, Emily Tozzi, and Ben Watson. Six site visits were conducted during the 2013 wet season. Site visits were conducted on the following dates: 2, 3, 4, 6, and 7 January 2013 and 4 February 2013. All sampled features were visually inspected and dip-netted once during the sampling period. Representative portions of each feature's bottom, edges, and vertical water column were sampled using a dip net with a 500-micron mesh size. Required data were collected and documented on data forms comparable to the U.S. Fish and Wildlife Service Vernal Pool Data Sheet Wet Season Survey. If vernal pool branchiopods were observed, an estimate of the number of individuals, by order of magnitude (e.g., 10s, 100s, 1000s), per feature was made. In addition, non-branchiopod aquatic invertebrate and vertebrate species observed during sampling were recorded (identified to lowest possible taxon during field surveys).

RESULTS

A total of 883 aquatic features were sampled on-site. This included approximately 50 percent of the vernal pools and seasonal wetlands, more than 95 percent of the seasonal wetland swales and intermittent drainages, and two stock ponds on-site. The federally-threatened vernal pool fairy shrimp was observed in 36 aquatic features and the federally-endangered vernal pool tadpole shrimp was observed in 74 aquatic features on-site (Table 1 – Listed Vernal Pool Branchiopods Observed During the 2013 Assessment Level Survey, Attachment B – 2013 Assessment Level Vernal Pool Branchiopod Survey Results). Additionally, the non-listed California fairy shrimp (*Linderiella occidentalis*) was observed in 205 aquatic features on-site.

Table 1 – Listed Vernal Pool Branchiopods Observed During the 2013 Assessment Level Survey

ID	Branchiopod Species Observed ¹	ID	Branchiopod Species Observed ¹
CH_POND-1	LEP PAC	CH_VP-239	BRA LYN,LEP PAC
CH_POND-2	LEP PAC	CH_VP-240	BRA LYN
CH_SW-67	BRA LYN	CH_VP-241	BRA LYN
CH_SWS-1	LEP PAC	CH_VP-245	BRA LYN,LEP PAC
CH_SWS-13	LEP PAC	CH_VP-250	LEP PAC
CH_SWS-70	BRA LYN,LEP PAC	CH_VP-251	BRA LYN
CH_SWS-86	LEP PAC	CH_VP-252	LEP PAC
CH_SWS-92	LEP PAC	CH_VP-259	LEP PAC
CH_SWS-100	LEP PAC	CH_VP-262	LEP PAC
CH_SWS-101	LEP PAC	CH_VP-265	LEP PAC
CH_SWS-103	LEP PAC	CH_VP-271	LEP PAC
CH_SWS-105	BRA LYN	CH_VP-272	LEP PAC
CH_SWS-135	LEP PAC	CH_VP-278	BRA LYN,LEP PAC
CH_SWS-192	LEP PAC	CH_VP-280	LEP PAC
CH_SWS-207	LEP PAC	CH_VP-283	BRA LYN
CH_SWS-233	LEP PAC ca*	CH_VP-300	BRA LYN,LEP PAC
CH_SWS-284	LEP PAC	CH_VP-302	LEP PAC
CH_SWS-293	BRA LYN	CH_VP-304	BRA LYN,LEP PAC
CH_VP-14	BRA LYN	CH_VP-305	BRA LYN,LEP PAC
CH_VP-15	BRA LYN	CH_VP-310	LEP PAC
CH_VP-34	BRA LYN	CH_VP-315	LEP PAC
CH_VP-35	BRA LYN	CH_VP-351	BRA LYN
CH_VP-62	LEP PAC	CH_VP-352	LEP PAC
CH_VP-89	BRA LYN	CH_VP-358	LEP PAC
CH_VP-90	LEP PAC	CH_VP-362	LEP PAC
CH_VP-93	BRA LYN,LEP PAC	CH_VP-380	LEP PAC
CH_VP-95	BRA LYN	CH_VP-383	BRA LYN,LEP PAC
CH_VP-99	BRA LYN	CH_VP-388	BRA LYN
CH_VP-105	LEP PAC	CH_VP-408	LEP PAC
CH_VP-107	BRA LYN,LEP PAC	CH_VP-413	LEP PAC
CH_VP-112	LEP PAC	CH_VP-426	LEP PAC
CH_VP-116	LEP PAC	CH_VP-457	LEP PAC

Table 1 – Listed Vernal Pool Branchiopods Observed During the 2013 Assessment Level Survey

ID	Branchiopod Species Observed¹	ID	Branchiopod Species Observed¹
CH_VP-135	LEP PAC	CH_VP-459	BRA LYN
CH_VP-140	LEP PAC	CH_VP-460	LEP PAC
CH_VP-141	LEP PAC	CH_VP-489	LEP PAC
CH_VP-153	LEP PAC	CH_VP-493	LEP PAC
CH_VP-159	BRA LYN	CH_VP-495	LEP PAC
CH_VP-160	LEP PAC	CH_VP-511	LEP PAC
CH_VP-176	LEP PAC	CH_VP-513	BRA LYN
CH_VP-190	LEP PAC	CH_VP-529	LEP PAC
CH_VP-195	BRA LYN,LEP PAC	CH_VP-597	LEP PAC
CH_VP-206	LEP PAC	CH_VP-609	LEP PAC
CH_VP-211	LEP PAC	CH_VP-611	BRA LYN,LEP PAC
CH_VP-213	LEP PAC	GLM_VP-21	LEP PAC
CH_VP-226	BRA LYN,LEP PAC	GLM_VP-42	LEP PAC
CH_VP-230	BRA LYN	GLM_VP-44	LEP PAC
CH_VP-235	BRA LYN,LEP PAC	S_SW-59	BRA LYN
CH_VP-238	BRA LYN,LEP PAC		

¹ BRA LYN = *Branchinecta lynchi* (vernal pool fairy shrimp), LEP PAC = *Lepidurus packardii* (vernal pool tadpole shrimp), ca*=Only carapace observed

Other aquatic invertebrates observed on-site included members of Anisoptera, Collembola, Conchostraca, Copepoda, Cladocera, Ostracoda, Dytiscidae, Platyhelminthes, Hydrophilidae, Corixidae, Notonectidae, Chironomidae, Culicidae, Baetidae, Limnephilidae, Physidae, and Haliplidae. Additionally, Pacific tree frog (*Pseudacris regilla*) egg masses were observed at various locations on-site.

Wet season survey data sheets are provided in Attachment C. The sheets summarize all required data (e.g., wetland depth of inundation, surface area, and water temperature). Representative site photographs are provided in Attachment D. Completed California Native Species Field Survey Forms for the vernal pool fairy shrimp, vernal pool tadpole shrimp, and California fairy shrimp occurrences have been submitted to the California Natural Diversity Database and copies of the forms are included in Attachment E.

SUMMARY

Approximately 50 percent of the vernal pools and seasonal wetlands, more than 95 percent of the seasonal wetland swales and intermittent drainages, and two stock ponds were sampled for

the presence of federally-listed branchiopods on-site. A total of six wet season site visits were conducted on 2, 3, 4, 6, and 7 January 2013 and 4 February 2013. The federally-listed-as-threatened vernal pool fairy shrimp was observed in 36 aquatic features, the federally-listed-as-endangered vernal pool tadpole shrimp was observed in 74 aquatic features, and the non-listed California fairy shrimp was observed in 205 aquatic features on-site.

"We certify that the information in this survey report and attached exhibits fully and accurately represent our work."

Signature

Date

Signature

Date

REFERENCES

- ECORP Consulting, Inc. 2008. Wetland Delineation for Cordova Hills, Sacramento County, California. Prepared for the Conwy, LLC. Dated: 14 August 2008
- U.S. Department of Agriculture, Soil Conservation Service. 1993. Soil Survey of Sacramento, California. Soil Conservation Service. Davis, California.
- U.S. Department of the Interior, Fish and Wildlife Service (USFWS). 1996. Interim survey guidelines to permittees for recovery permits under section 10(a)(1)(A) of the Endangered Species Act for the listed vernal pool branchiopods.
- U.S. Department of the Interior, Geological Survey, 1978. Hydrologic Map-1978, State of California. Geological Survey. Reston, Virginia.
- U.S. Department of the Interior, Geological Survey. 1980. "Buffalo Creek, California" 7.5-minute Quadrangle. Geological Survey. Denver, Colorado

LIST OF ATTACHMENTS

Attachment A – Survey Authorization

Attachment B – 2013 Assessment Level Vernal Pool Branchiopod Survey Results

Attachment C – Wet Season Survey Data Sheets

Attachment D – Representative Site Photographs

Attachment E – California Native Species Field Survey Forms

**BEFORE THE BOARD OF SUPERVISORS
OF THE COUNTY OF SACRAMENTO**

Control No. 2008-GPB-SDP-ZOB-AHP-00142

Re: Application of Cordova Hills, LLC;)	CEQA FINDINGS OF FACT
Grant Line, LLC; and Cielo, LLC)	AND
for General Plan Amendments, Rezone,)	STATEMENT OF OVERRIDING
Bikeway Master Plan Amendment, Zoning)	CONSIDERATIONS
Ordinance Amendment, Large Lot Tentative)	
Map, Affordable Housing Plan,)	
Development Agreement, Public Facilities)	
Financing Plan, Street Resolution, Zone 40)	
Boundary Amendment, Zone 41 Boundary)	
Amendment, and Water Supply Master Plan)	
Amendment for a Project known as)	
CORDOVA HILLS)	
_____)	

CEQA FINDINGS OF FACT
AND
STATEMENT OF OVERRIDING CONSIDERATIONS

I. INTRODUCTION

The Final Environmental Impact Report ("FEIR") prepared for the Cordova Hills Project (the "Project") addresses the environmental effects associated with the Project. These CEQA Findings of Fact and Statement of Overriding Considerations have been prepared to comply with the requirements of the California Environmental Quality Act ("CEQA") (Public Resources Code, Section 2100 *et seq.*) and the CEQA Guidelines (Cal. Code of Regulations, Title 14, Section 15000 *et seq.*)

II. DEFINITIONS

"APN" means Assessor's Parcel Number.

"Applicants" collectively means Cordova Hills, LLC; Grant Line, LLC; and Cielo, LLC.

"Board" means the Board of Supervisors of the County of Sacramento.

"CAAQ" means the California Ambient Air Quality Standard.

"CARB" means the California Air Resources Board.

"CEQA" means the California Environmental Quality Act.

“CEQA Findings” means these CEQA Findings of Fact and Statement of Overriding Considerations for the Cordova Hills Project.

“CO₂e” means carbon dioxide equivalent.

“Condition” or “Condition of Approval” means a condition of approval adopted by the County in connection with approval of the Project.

“Cordova Hills LSD” or “Cordova Hills Local Services District” means a county service area formed to provide municipal services to the Project area.

“County” means the County of Sacramento.

“County Planning Commission” means the County Planning Commission of the County of Sacramento.

“CPAC” means Community Planning Advisory Council.

“dB” means decibels.

“DEIR” or “Draft EIR” means the Draft Environmental Impact Report for the Project (January 9, 2012).

“DERA” means the County of Sacramento Community Development Department’s Planning and Environmental Review Division.

“DOT” means the County of Sacramento Department of Transportation.

“EIR” means Environmental Impact Report, consisting of both the DEIR and FEIR.

“Environmental Coordinator” means the person within the County of Sacramento’s Community Development Department designated to act as the Environmental Coordinator for DERA.

“FEIR” or “Final EIR” means the Final Environmental Impact Report for the Project (November 2012).

“GHG” means greenhouse gases.

“lbs./day” means pounds per day.

“Ldn” means Day-Night Equivalent Noise Level.

“LOS” means level of service.

“MMRP” means Mitigation Monitoring and Reporting Program.

“MT” means metric tons.

“NOP” means Notice of Preparation.

“NOx” means oxides of nitrogen.

“Planning Department” means the County of Sacramento Department of Community Development.

“PM10” means fine particulate matter 10 microns in diameter or less.

“PM2.5” means fine particulate matter 2.5 microns in diameter or less.

“Project” means the Cordova Hills Project.

“ROG” means reactive organic gases.

“SACOG” means the Sacramento Area Council of Governments.

“SMAQMD” means the Sacramento Metropolitan Air Quality Management District.

“Staff Report” means the County Staff Report to the Board of Supervisors for the Project for the Agenda of December 12, 2012.

“Staff Report Addendum #12” means Addendum #12 to the Staff Report, for the Agenda of January 29, 2013.

“TAC” means toxic air contaminants.

“U.S. 50” means United States Highway 50.

“V/C” means volume-to-capacity ratio.

“VMT” means vehicle miles travelled.

III. PROJECT DESCRIPTION

Project Location and Setting

The Project site is located in the southeastern portion of Sacramento County on approximately 2,669 acres, adjacent to the east side of the City of Rancho Cordova. Grant Line Road extends along the Project’s western boundary. The eastern side of the Project site abuts Carson Creek. The northern boundary of the Project site is Glory Lane, an unimproved two-lane gravel road that intersects Grant Line Road just south of

Douglas Road. The Kiefer Landfill and the Landfill's 2,000 ft. buffer zone are southwest of the Project site. The Property which contains the Project site consists of APNs 073-0040-020 through -026, 073-0040-029, 073-0050-023, and 073-0050-052.

As noted above, the Cordova Hills project site is comprised of approximately 2,669± acres and is generally located east of Grant Line Road at its intersection with Glory Lane. As identified on the U.S. Geological Survey "Buffalo Creek, California" 7.5' topographic quadrangle map, the project site consists of portions of Sections 13, 14, and most of Section 23 in Township 8 North, Range 7 East, and the western half of Section 18 in Township 8 North, Range 8 East of the Mount Diablo Base and Meridian.

Project Description

The Project includes a mix of residential uses from high density residential along the western edge of the Project to low density residential along the eastern boundary approaching the USB. The Project includes a Town Center commercial area adjacent to Grant Line Road. Just southeast of the Town Center is the proposed location of a university/college campus center. The Project includes mixed uses consisting of residential, office, retail, a university/college campus center, schools, parks, and a trail network. Cordova Hills is organized into six distinct districts/villages (Town Center, University Village, Ridgeline, East Valley, Creekside, and Estates). The proposed Project includes a maximum of 8,000 residential units and 1.3 million square feet of commercial uses, approximately 70 acres of formal parkland and 150 acres of passive recreation land, 26 miles of Community Class II on-street bicycle paths and 22 miles of off-street trails and paths, three designated school sites, and plans for a transit system.

The Project will require amendments to the General Plan in order to include the site within the Urban Policy Area and recognize the proposed land uses, streets, and bikeways on the Land Use Diagram, Transportation Plan, and Bikeway Master Plan. The entire site will be rezoned from Agriculture (AG-80) to Special Planning Area (SPA). The adopted SPA will then become the primary land use document which stipulates uses and designs that are allowable within the Project area. There are 485 acres in the southeastern portion of the site that are under Williamson Act contract. The contract is in non-renewal and is expected to expire in 2016. The Project will also require an amendment of the Zone 40 Water Supply Master Plan, as the Project area is not included in the existing planning document, and includes a General Plan Amendment to allow limited water service outside of the Urban Services Boundary.

Project Objectives

The Project objectives are as follows:

- Develop a mixed use community that is designed in a manner that provides compatible land uses and reduces overall internal vehicle trips.

- Develop an economically feasible master planned community that reasonably minimizes its impact on biologically sensitive natural resources with feasible onsite wetland avoidance and preservation.
- Develop a sustainable, multi-service town center that promotes walkability and alternative transit modes including but not limited to Neighborhood Electric vehicles (NEVs), light rail, shuttle bus, and carpool facilities.
- Provide uses for two underserved markets in the southeast Sacramento region:
 - Provide for development of a major private university/college campus center in Sacramento County.
 - Provide residential neighborhoods that are age restricted in order to serve seniors and larger lot sizes for executive housing to serve corporate executives.
- Develop internal Project infrastructure and circulation networks of multiple modes that provide efficient connections to various land use components throughout the Project; specifically, trail opportunities to enhance the integration between the university/college campus center, town center, schools, and preserves/open space corridors surrounding the Project.
- Develop recreational and open space opportunities that include neighborhood and community parks that are fully integrated into the Project through adequate trail connections and provide critical regional trail connections associated with adjacent trail systems.
- Allow for the inclusion of alternative energy sources to serve the mixed use community.

Requested Entitlements

The Project includes the following entitlements to permit its physical development:

- (1) A **General Plan Amendment** to move the Urban Policy Area (UPA) boundary east to include approximately 2,366.3 +/- acres of the Project Area.
- (2) A **General Plan Amendment** to amend the Land Use Diagram from General Agriculture to Low Density Residential, Medium Density Residential, Commercial and Office, Recreation, Natural Preserve, and Public/Quasi Public for approximately 2,366.3 +/- acres.
- (3) A **General Plan Amendment** to include a new policy in the Land Use Element to address the provision of limited public water service to serve uses potentially allowed by the Cordova Hills Special Planning Area and currently allowed in the County of Sacramento Permanent Agricultural Zone designation for 251 acres located in proximity to the Kiefer Landfill, and an Amendment to LU-1 to reference this exception.

- (4) Amend the **General Plan Transportation Diagram** to show new thoroughfares, arterials and collectors as shown in the Transportation General Plan Amendment Diagram dated October 17, 2011.
- (5) Amend the **Bikeway Master Plan to add on-street and off-street bikeways** as shown in the Bikeways Master Plan Amendment Diagram dated October 17, 2011.
- (6) A **Zoning Ordinance Amendment** to adopt the Cordova Hills Special Planning Area (SPA) to incorporate the Cordova Hills Master Plan including Design Guidelines and Development Standards. The SPA consists of a total of approximately 2,668.7 +/- acres.
- (7) A **Large Lot Tentative Subdivision Map** to create 155 large lot parcels for the purpose of creating legal parcels corresponding to villages within the Cordova Hills SPA and within the approximately 2,669 +/- acre SPA. Included on the Map are requests for abandonment of easements.
- (8) An **Affordable Housing Plan** with two options as presented in the Plan consisting of on-site construction of multi-family units or land dedication.
- (9) A **Development Agreement** by and between the County of Sacramento and Property Owners.
- (10) Adoption of a **Public Facilities Financing Plan** for the Cordova Hills Project that includes a Capital Improvement Program and Financing Plan.
- (11) A **Street Resolution** to allow certain County streets within the Cordova Hills Land Use Master Plan to be based on less than a 40-foot right-of-way, pursuant to State of California Streets and Highways Code Section 906.
- (12) **Zone 40 Boundary:** Amend Zone 40 boundary to include the 251 +/- acres of the Cordova Hills Project which lies outside of the Urban Services Boundary.
- (13) **Zone 41 Boundary:** Amend Zone 41 boundary to include the 251 +/- acres of the Cordova Hills Project which lies outside of the Urban Services Boundary.
- (14) Adoption of the **Cordova Hills Water Supply Master Plan Amendment:** Amends the existing Zone 40 Water Supply Master Plan to include provision of water service to Cordova Hills.

The discretionary action required by the Board to approve the Project is the adoption of all of those requested entitlements in order to allow the development of the Project, with

the exception of the Zone 40 and Zone 41 Boundary amendments and the Cordova Hills Water Supply Master Plan Amendment that are to be adopted by the Board of the Sacramento County Water Agency in connection with the Project.

IV. BACKGROUND

On July 1, 2008, Applicants submitted an application for the Project (Control #2008-GBP-SDP-ZOB-AHP-00142). Previously, on May 14, 2008, the Board of Supervisors voted to accept an application to amend the Urban Policy Area boundary and to accept an application for the future development of the Project.

On June 22, 2010, the County issued a Notice of Preparation (NOP) of an EIR for the Project. The NOP for the Project was distributed to the State Clearinghouse, responsible agencies, interested groups and individuals, and surrounding property owners. The NOP was circulated for a 30-day comment period, which ended on July 22, 2010. Fifteen (15) letters were received in response to the NOP.

On August 3, 2010, the County held a public scoping meeting for the Project at the offices of the Sacramento County Department of Transportation, 9630 Conservation Way, Sacramento, California. A notice of the scoping meeting was sent to all individuals and agencies on the NOP mailing list, counties and cities surrounding the area, property owners within 500 feet of the Project site and other interested parties known to the County. The purpose of the scoping meeting was to solicit comments regarding the scope of the EIR.

On January 9, 2012, the Draft Environmental Impact Report (DEIR) for the Project was released for public review. The DEIR was circulated through the State Clearinghouse for a 45-day public review period, which ended on February 22, 2012.

On March 18, 2010, the Cordova Community Planning Advisory Council (CPAC) considered the Project as an informational item with a Project overview and introduction to the Project given by the Applicants and received public comments regarding the Project. No action was taken.

On June 23, 2010, the Cosumnes Community Planning Advisory Council (CPAC) considered the Project as an informational item with a Project overview and introduction to the Project given by the Applicants and received public comments regarding the Project. No action was taken.

On January 19, 2012, the Cordova CPAC held a public hearing on the Project. After receiving public comments regarding the Project and DEIR, the CPAC voted in favor of recommending approval of the Applicants' requested General Plan Amendment and all other requested land use entitlements.

On January 25, 2012, the Cosumnes CPAC held a public hearing on the Project. After receiving public comments regarding the Project and DEIR, the CPAC voted in favor of recommending approval of the Applicants' requested General Plan Amendment and all other requested land use entitlements.

On September 24, 2012, the Planning Commission held a public hearing on the Project and DEIR. After receiving public comments regarding the Project and DEIR, the Planning Commission closed the public comment period, directed staff to prepare the Final EIR and recommended approval of the project to the Board on a 4-0 (with 1 absent) vote.

On November 28, 2012, the Final EIR (FEIR) for the Project was released for public review by the County.

On December 12, 2012 the Board of Supervisors held a public hearing regarding the Project. After receiving public comments on the Project, the Board closed the public comment period and continued the Project to January 29, 2013.

V. RECORD OF PROCEEDINGS

The record of proceedings for the Board's decision on the Project consists of the following documents, at a minimum:

- The Project application package for the Cordova Hills Project (Project Control Number 2008-GPB-SDP-ZOB-AHP-00142, including all written documentation, maps, and subsequent amendments and submittals;
- The Notice of Preparation and other public notices issued by the County in conjunction with the Project;
- The Draft Environmental Impact Report for the Project (January 9, 2012);
- All comments submitted by agencies or members of the public during the comment period on the Draft EIR and responses to those comments;
- The Final EIR prepared for the Project (November 28, 2012), including comments received on the Draft EIR and responses to those comments;
- All comments and correspondence submitted to the County with respect to the Project, in addition to timely comments on the Draft EIR;
- The Mitigation, Monitoring and Reporting Program for the Project;
- All findings and resolutions adopted by the Board in connection with the Project, and all documents cited or referred to therein;
- All reports, studies, memoranda, maps, staff reports, and other planning documents relating to the Project prepared by the County, consultants to the County, or responsible or trustee agencies with respect to the County's compliance with the requirements of CEQA and with respect to the County's action on the Project;
- All minutes and verbatim transcripts of all information sessions, public meetings, and public hearings held by the County in connection with the Project;

- Any documentary or other evidence submitted to the County at such information sessions, public meetings and public hearings;
- Matters of common knowledge to the Board, including, but not limited to, the following:
 - 1) Federal, state, and local laws and regulations;
 - 2) The County General Plan (2011);
 - 3) The Zoning Code of Sacramento County;
 - 4) The Sacramento County Code;
 - 5) Other formally adopted policies and ordinances.
- Any documents expressly cited in these CEQA Findings, in addition to those cited above; and
- Any other materials required for the record of proceedings by Public Resources Code Section 21167.6, subdivision (e).

VI. FINDINGS REQUIRED UNDER CEQA

Public Resources Code Section 21002 provides that “public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would *substantially lessen* the significant environmental effects of such projects.” (Emphasis added.) The same statute states that the procedures required by CEQA “are intended to assist public agencies in systematically identifying both the significant effects of proposed projects and the feasible alternatives or feasible mitigation measures which will *avoid or substantially lessen* such significant effects.” (Emphasis added.) Section 21002 goes on to state that “in the event [that] specific economic, social, or other conditions make infeasible such project alternatives or such mitigation measures, individual projects may be approved in spite of one or more significant effects thereof.”

The mandate and principles announced in Public Resources Code Section 21002 are implemented in part, through the requirement that agencies must adopt findings before approving projects for which environmental impact reports are required. (See, Public Resources Code Section 21081(a); CEQA Guidelines Section 15091(a).) For each significant environmental effect identified in an environmental impact report for a proposed project, the approving agency must issue a written finding reaching one or more of three permissible conclusions. The first such finding is that “[c]hanges or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the final EIR.” (CEQA Guidelines Section 15091(a)(1).) The second permissible finding is that “[s]uch changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.” (CEQA Guidelines Section 15091(a)(2).) The third potential conclusion is that “[s]pecific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the final EIR.” (CEQA Guidelines Section 15091(a)(3).)

Public Resources Code Section 21061.1 defines “feasible” to mean “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social and technological factors.” CEQA Guidelines Section 15364 adds another factor: “legal” considerations. (See also, Citizens of Goleta Valley v. Board of Supervisors (“Goleta II”) (1990) 52 Cal.3d 553, 565.) The concept of “feasibility” also encompasses the question of whether a particular alternative or mitigation measure promotes the underlying goals and objectives of a project. (City of Del Mar v. City of San Diego (1982) 133 Cal. App.3d 410, 417.) “[F]easibility under CEQA encompasses ‘desirability’ to the extent that desirability is based on reasonable balancing of the relevant economic, environmental, social, and technological factors.” (*Id.*; see also, Sequoyah Hills Homeowners Ass’n. v. City of Oakland (1993) 23 Cal.App.4th 704, 715.)

The CEQA Guidelines do not define the difference between “avoiding” a significant environmental effect and merely “substantially lessening” such an effect. The County must therefore glean the meaning of these terms from the other contexts in which the terms are used. Public Resources Code Section 21081, on which CEQA Guidelines Section 15091 is based, uses the term “mitigate” rather than “substantially lessen.” Such an understanding of the statutory term is consistent with the policies underlying CEQA, which include the policy that “public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant effects of such projects.” (Public Resources Code Section 21002.)

For purposes of these CEQA Findings, the term “avoid” refers to the effectiveness of one or more mitigation measures to reduce an otherwise significant effect to a less than significant level. In contrast, the term “substantially lessen” refers to the effectiveness of such measure or measures to substantially reduce the severity of a significant effect, but not to reduce that effect to a less than significant level. These interpretations appear to be mandated by the holding in Laurel Hills Homeowners Association v. City Council (1978) 83 Cal.App.3d 515, 519-521, in which the Court of Appeal held that an agency had satisfied its obligation to substantially lessen or avoid significant effects by adopting numerous mitigation measures, not all of which rendered the significant impacts in question less than significant.

Although CEQA Guidelines Section 15091 requires only that approving agencies specify that a particular significant effect is “avoid[ed] or substantial[ly] lessened,” these CEQA Findings, for purposes of clarity, in each case will specify whether the County has determined whether the effect in question has been reduced to a less than significant level, or has simply been substantially lessened but not to a less than significant level and therefore remains significant. Moreover, although Guidelines Section 15091, read literally, does not require findings to address environmental effects that an environmental impact report identifies as merely “potentially significant,” these CEQA Findings will nonetheless fully account for all such effects identified in the Final EIR for the Project. For each significant impact of the Project identified in the Final EIR, a finding has been

made that changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant environmental effect identified in the Final EIR. A narrative of supporting facts is included with the appropriate finding.

CEQA requires that the lead agency adopt mitigation measures or alternatives, where feasible, to substantially lessen or avoid the significant environmental impacts that would otherwise occur. Project modifications or alternatives are not required, however, where such changes are infeasible or where the responsibility for modifying the project lies with another agency. (CEQA Guidelines Section 15091(a) and (b).)

With respect to a project for which significant impacts are not avoided or substantially lessened, a public agency, after adopting proper findings, may nevertheless approve the project if the agency first adopts a statement of overriding considerations setting forth the specific reasons why the agency found the project's benefits outweighed and made the unavoidable adverse environmental effects acceptable. (CEQA Guidelines, Sections 15093 and 15043(b); see also Public Resources Code Section 21081(b).) The California Supreme Court has stated, "[t]he wisdom of approving ... any development project, a delicate task which requires a balancing of interests, is necessarily left to the sound discretion of the local officials and their constituents who are responsible for such decisions. The law as we interpret and apply it simply requires that those decisions be informed, and therefore balanced." (Goleta II, 52 Cal.3d at p. 576.)

In seeking to effectuate the substantive policy of CEQA to substantially lessen or avoid significant environmental impacts to the extent feasible, a public agency, in adopting findings, need not necessarily address the feasibility of both mitigation measures and environmentally superior alternatives when contemplating approval of a project with significant impacts. Where a significant impact can be mitigated to an "acceptable" level solely by the adoption of feasible mitigation measures, the public agency, in drafting its findings, has no obligation to also consider the feasibility of any environmentally superior alternative that could also mitigate or substantially lessen that same impact – even if the alternative would render the impact less severe than would the proposed project as mitigated. (Laurel Hills Homeowners Association v. City Council (1978) 83 Cal.App.3d 515, 521, see also Kings County Farm Bureau v. City of Hanford (1990) 221 Cal.App.3d 692, 730-731; and Laurel Heights Improvement Association v. Regents of the University of California ("Laurel Heights I") (1998) 47 Cal.3d 376, 400-403.)

These CEQA Findings constitute the County's best efforts to set forth the evidentiary and policy bases for its decision to approve the Project in a manner consistent with the requirements of CEQA. To the extent that these CEQA Findings conclude that various proposed mitigation measures described in the Final EIR are feasible and have not been modified, superseded or withdrawn, the County hereby binds itself to implement those measures. These CEQA Findings are not merely informational, but rather constitute a binding set of obligations that will come into effect when the Board adopts resolution(s) and ordinance(s) approving the Project and the Mitigation and Monitoring Program. (Public Resources Code Section 21081.6(b).)

It is important to note that these CEQA Findings do not address, and are not required to address, the impacts of the environment *upon* the Project, as opposed to the Project's impacts upon the environment. This principle was originally enunciated in Baird v. County of Contra Costa (1995) 32 Cal.App.4th 1464, 38 Cal.Rptr.2d 93, and subsequently followed in South Orange County Wastewater Authority v. City of Dana Point (2011) 127 Cal.Rptr.3d 636, and in City of Long Beach v. Los Angeles Unified School District (2009) 176 Cal.App.4th 889. Most recently in Ballona Wetlands Land Trust et al. v. City of Los Angeles (2011) 201 Cal.App.4th 455 the court went so far as to invalidate CEQA Guidelines Section 15126.2(a) to the extent that the Guidelines would require an EIR to examine and analyze the impacts of the environment on a proposed project absent any evidence that the proposed project would exacerbate existing environmental hazards and thereby create an impact on the environment. Consistent with those court decisions, these CEQA Findings and the EIR only examined the impacts of the environment on the Project to the extent that the Project would exacerbate any existing environmental hazards present in and around the Project area.

VII. MITIGATION MONITORING AND REPORTING PROGRAM

As required by Public Resources Code Section 21081.6(a)(1), the County, in adopting these CEQA Findings, has also adopted a Mitigation Monitoring and Reporting Program ("MMRP"). The MMRP is designed to ensure that during Project implementation the Applicants and any other responsible parties comply with the feasible mitigation measures identified below.

The Sacramento County Code establishes the mechanism for the enforcement of mitigation monitoring and reporting programs. The Code provides:

"For each Project for which a Mitigation Monitoring and Reporting Program is required by this Chapter and adopted by the Approving Body, full compliance with the adopted Program for the Project shall be a condition of approval of the Project..."

(Sacramento County Code, Title 20, Chapter 20.02, Section 20.02.040)

Elsewhere the County Code states:

"...[A]ny person who violates any of the provisions of this Chapter, or fails to comply with any of the regulatory requirements adopted by the 'Environmental Coordinator' pursuant to this Chapter, is guilty of a misdemeanor, and upon conviction may be punished by a fine not to exceed five hundred dollars or imprisonment in the County jail not to exceed six months, or both. Each such person shall be guilty of a separate offense for each and every day during any portion of which any violation of any provision of this Chapter, or regulations adopted by the 'Environmental Coordinator' pursuant to this Chapter, is committed, continued, or permitted by any such person, and he or she shall be punished accordingly."

(Sacramento County Code, Title 20, Chapter 20.02, Section 20.02.080)

In addition, the County may “carry out or seek other remedies as permitted by law.” (Sacramento County Code, Title 20, Chapter 20.02, Section 20.02.090.) For example, the County may seek injunctive relief, issue a stop work order, revoke a permit, or abate a nuisance caused by non-compliance with the conditions of approval (Id.)

VIII. SIGNIFICANT EFFECTS AND MITIGATION MEASURES

A. Less-Than-Significant Impacts/No Mitigation.

These CEQA Findings do not address impacts that were determined to be less than significant or beneficial prior to mitigation. Therefore, these Findings do not address the following impacts because they were determined to be either less than significant or beneficial in the Final EIR:

- **Air Quality / Project Operation Would Generate CO Emissions** – Eighteen intersections would either be subject to degradation of LOS to a level of service E or worse, or add vehicles to an intersection already operating at an LOS of E or worse. Examining these facilities as compared to the SMAQMD screening methodology for CO impacts, Project traffic would not cause threshold exceedance.
- **Geology and Soils** – Multiple topics were examined: soil erosion, expansive soils, naturally occurring asbestos, mineral resources, and geologic hazards. The Project has the potential to increase soil erosion due to disturbance of onsite soils, and some of the soils in the Project area have a high shrink-swell potential. There are existing regulations in place to address both of these issues, including the Sacramento County Land Grading and Erosion Control Ordinance, the Uniform Building Code, and the California Building Code. The Project site is not considered likely to include asbestos-containing soils, and soil testing found no evidence of naturally occurring asbestos. There are no mapped mineral resources on the site, and furthermore, the Project includes a plan to use whatever suitable rock deposits are found on the site to serve Project construction needs; the Project will not obstruct access to mineral resources. Seismic ground-shaking hazards are low in Sacramento County, and existing building codes require adherence to seismic design standards.
- **Hydrology and Water Quality / Hydrology** – The Project included a Drainage Master Plan which evaluated the on- and off-site floodplains, the potential for hydromodification of stream channels, and the adequacy of existing and planned stormwater infrastructure. The existing floodplains on the site will be within the Avoided Areas where no development will occur, and detention basins have been included to ensure that the post-Project flow rates do not exceed pre-Project rates. Put in general terms, the design to prevent hydromodification is typically a detention basin outlet control structure which retains all stormwater

runoff generated up to a 10-year event and slowly releases the runoff through a very small outlet. The Project also includes stormwater infrastructure which is sufficient to handle flows.

- **Hydrology and Water Quality / Water Quality** – Compliance with adopted Ordinances and standards will ensure that future development projects implemented as a result of Project approval will not cause violation of a water quality standard or waste discharge requirement, result in substantial erosion or siltation, and will not result in substantial increases to polluted runoff associated with construction. Compliance with the County Stormwater Ordinance, implementation of Low impact Development Standards, and implementation of the Drainage Master Plan will ensure that development of the site will not alter the course of local waterways in a manner that results in substantial erosion or siltation, will not cause violation of a water quality standard or waste discharge requirement, and will not result in substantial increases to polluted runoff.

- **Land Use / Conflict with Adopted Land Use Plans** – The Project uses are compatible with the surrounding existing and proposed land use plans, and would not result in substantial conflicts with land use plans designed to avoid environmental effects.

- **Land Use / Conflict with General Plan Growth Management Policy** – General Plan Policy LU-120 is intended to reduce impacts of many different types – such as growth inducement, unacceptable operating conditions on roadways, poor air quality, and lack of appropriate infrastructure – by establishing design criteria for all amendments to the Urban Policy Area. A project must be consistent with LU-120 before it may be considered for approval. The Planning Division has reviewed the Project for consistency with LU-120 and has found in the affirmative. The Project has been deemed consistent with criteria PC-1 through PC-10, and has achieved a total of 21 points in the criteria-based standards (CB-1 through CB-5). A total of 18 points is required and 24 points are possible. Given that the Project has been deemed consistent, Project impacts related to conflict with growth management policy are less than significant.

- **Land Use / Conflict with General Plan Policies related to Growth Inducement** – The Project is inconsistent with Policy LU-1, and includes a General Plan Amendment to address this inconsistency. The General Plan Amendment includes language specifically intended to avoid growth-inducing impacts.

- **Land Use / Conflict with General Plan Policies related to Public Services and Utilities** - Compliance with General Plan Policies LU-13, LU-66, LU-110, and LU-123 is intended to ensure that minimum service standards for public services and utilities are met. The Project includes a facilities financing plan which was submitted to all of the applicable service entities for review and approval. Long-term funding sources have been identified for the maintenance of

public services. The Project will not result in any substantial environmental impacts related to conflict with General Plan policies which pertain to public services or utilities.

- **Land Use / Conflict with General Plan Policies related to Air Quality and Transportation** – The Project results in significant impacts related to both transportation and air quality, but these impacts are not due to General Plan Policy inconsistency. The Project is consistent with policies intended to alleviate air quality and transportation impacts.

- **Land Use / Division or Disruption of an Established Community** - The division or disruption of an established community is an impact considered by CEQA. Case law has established that a project must create physical barriers within the established community in order to be considered under this impact category. There is no existing development on the project site, nor are there developments north, south, or east of the site that could be divided or disrupted by the project. Furthermore, the Project includes stub streets so that if there ever is development north or south of the site in the future as indicated in the City of Rancho Cordova General Plan, those uses could connect into the Project. The project will not disrupt or divide an established community.

- **Land Use / Displacement of Housing** – There is no existing housing on the Project site that could be displaced by the Project, nor would the Project uses cause the displacement of nearby housing. The site is not included in the affordable housing inventory as part of implementation of the Sacramento County General Plan Housing Element.

- **Noise / Construction Noise** – it is acknowledged that construction related noise could be a nuisance to sensitive receptors; however, this increase in noise is short term, and noise standards are intended to address long term sources of noise. Construction related noise would not result in a permanent increase in ambient noise. Though noise volumes would undergo short term increases, the existing construction ordinance is designed to avoid significant community effects through the restriction of nighttime and weekend disturbance.

- **Noise / Kiefer Landfill Noise** – All sensitive uses are located a sufficient distance from the landfill to avoid substantial noise exposure. Noise at the university/college campus center (the nearest area where residences would be located) would be 44 dB, which is well within standards.

- **Public Services / Fire Protection** – The Project site is located within an area of Sacramento County designated as a State Responsibility Area (SRA) by the California Department of Forestry and Fire Protection (CAL FIRE), and has been assigned a moderate fire hazard severity risk rating (the lowest fire hazard rating applied to SRAs). The site will be served by the Sacramento Metropolitan Fire District, which will need up to two fire stations on the site. The Project will

be subject to the building standards and regulations of the County of Sacramento Building Code, and these regulations will be sufficient to ensure adequate protection.

- **Public Services / Police Protection** – The Project is within the service area of the Sacramento County Sheriff's Department (SSD) and will increase the demand for SSD services. According to SSD, the development of the Project will "not likely necessitate the construction of additional police facilities." In order to meet staffing ratios, SSD would need to add 16 staff members. Law enforcement services will be funded through the County General Fund and through County Police Services Community Facilities District 2005-1 (CFD 2005-1) annual special tax, which will be levied on each new home. Existing funding mechanisms, policies and regulations will ensure that the Sheriff's Department can adequately serve the new growth.
- **Public Services / Solid Waste** – An annual total of 18,592 tons of waste will require landfill disposal, and a total of 25,241 tons of construction debris will need to be disposed of in the Kiefer Landfill. The Sacramento County Department of Waste Management and Recycling has indicated that landfill capacity is adequate to support the waste disposal needs generated by the Project.
- **Public Services/ Schools** – Student enrollment resulting from the Project will be approximately 4,686 total students, with approximately 2,553 of these in grades K – 6 (elementary school), 748 in grades 7 – 8 (middle school), and 1,384 in grades 9-12 (high school). The Project will generate the need for three elementary schools but only about 63% of a middle/high school; the land use plan includes these school sites. Elk Grove Unified School District (EGUSD) Facilities and Planning Department staff (K. Williams) has indicated that EGUSD has been working with the Project proponents to be sure that adequate school facilities can be accommodated within the Project area and is satisfied with the proposed development and financing plans for the needed schools.
- **Public Services / Parks and Recreation** – The Project area is located within CSA 4b which is staffed by the Sacramento County Regional Parks Department (Parks Department). The Project area will be detached from CSA 4b, and will be provided park and recreation services under the proposed Cordova Hills LSD; discretionary action by LAFCO is required for the detachment and formation actions. The Project generates a need for approximately 106.9 acres of parkland, and provides 99.1 acres of formal parkland that will be developed. In addition to the formal parks, the Project includes approximately 151 acres of R-2 open space areas that will include trails, informal play areas, picnic areas, and paseos. The informality of these areas precludes full park credit for these areas, but partial Quimby Act credit may be given. If 5% of the R-2 areas received Quimby Act credit, that would be sufficient to achieve the full requirement of 106.9 acres of credited parkland. The Parks Department has reviewed the plans and deemed them adequate.

- **Public Services / Libraries** – The Cordova Hills SPA indicates that a new full service, 15,000 square foot branch library is planned within the proposed Town Center to serve the Cordova Hills community as well as residents in the surrounding area. According to the Sacramento Public Library Authority Facility Master Plan 2007 – 2015 (Library Master Plan), the proposed library size is adequate to serve the demands generated by the Project at buildout. The Project includes a funding mechanism for a new library that is of sufficient size to accommodate the expected population of the Project, which has been developed in coordination with the Sacramento Public Library System.
- **Public Utilities / Adequacy of Water Supply** – The projected annual water demand for the entire Project is 6,549.9 acre feet per year (AFY), including system losses. The Project will be served by the Sacramento County Water Agency (SCWA) Zone 40, which has a total maximum water supply to Zone 40 of 102,151 AFY. There is sufficient capacity to serve the Project.
- **Public Utilities / Adequacy of Sewage Disposal** – The Project will result in an average dry weather flow of 4.99 million gallons per day (mgd). The peak wet weather flow for Project buildout is 10.41 mgd. The Sacramento Regional Wastewater Treatment Plant has a permitted average dry weather flow (ADWF) design capacity of 181 mgd and wet weather flow (AWWF) of 392 mgd. The plant receives and treats approximately 141 ADWF (Seyfried, 2008). The Project disposal demand can be met by this existing capacity
- **Public Utilities / Adequacy of Energy Services** – The estimated annual residential and commercial electricity demand for the Project will be 122,903,000 kilowatt hours and that the estimated annual residential and commercial natural gas demand for the Project will be 4,201,494 therms. The California Energy Commission's Energy Consumption Data Management System reports that 10,691.67 million kilowatt hours of energy and 315.57 million therms were consumed within Sacramento County in the year 2010. The estimated energy usage of the Project is substantially less than the annual energy production for either SMUD or PG&E.
- **Public Utilities / Exceed Sustainable Groundwater Yield** – A long-term average annual yield of 40,900 AFY of groundwater has been identified in both the Water Forum Agreement (WFA) and Water Supply Master Plan for SCWA in the Central Basin. Additionally, as a signatory to the WFA and a member of the Sacramento Central Groundwater Authority (Groundwater Authority), SCWA recognizes the Water Forum-defined long-term sustainable average annual yield of the underlying groundwater basin of 273,000 AFY. The additional groundwater draw caused from implementation of the proposed Project will not result in exceedance of the agreed-upon sustainable yield of 273,000 AFY.

- **Public Utilities – Groundwater Recharge** – The central intermittent drainage on the site is mapped as an area of high groundwater recharge potential. This area is being retained within open space in the Project, and will not be subject to direct impacts.

The Project's impacts to the above listed environmental issues are less than significant. Therefore, the EIR did not identify or require any mitigation measures to lessen or avoid those environmental impacts.

B. Less-Than-Significant Impacts/ Mitigation Suggested.

With regard to impacts that were found by the EIR to be less-than-significant, there were several of them where the EIR nonetheless recommended mitigation to ensure that the impact would remain less-than-significant. These impacts and their suggested mitigation measures were as follows:

- **Agricultural Resources** – The proposed land uses are permitted with approval of the Zoning Ordinance Amendment adopting the Cordova Hills SPA. There are no lands designated as Prime Farmland on the site, and the land does not support intensive agricultural investment. Though there are soils that are considered prime when irrigated, the site is not irrigated. The Project will result in the loss of 8.6 acres of Unique Farmland (a former eucalyptus grove that has been removed) and 242.4 acres of Grazing Land, which exceeds the 50-acre threshold established by the County; mitigation is required. The Project will not result in substantial conflicts with existing agricultural use of adjacent lands, though mitigation requiring deed notices is recommended. There is one existing Williamson Act contract (72-AP-109) within the Project limits. The landowner initiated the non-renewal process for this contract in February 2007. Under the nonrenewal process the contract will expire in the year 2016, and the land will no longer be subject to Williamson Act contract restrictions. The Project proposal includes a large-lot subdivision map which would create parcels that range from less than an acre in size to approximately 35 acres, and also includes a rezone from an agricultural to an urban designation. In order to approve the subdivision map, the approval action would either need to be deferred until February 2013 (within three years of contract nonrenewal) or the Board of Supervisors would need to make findings that the parcels can maintain agricultural use. In order to approve the rezoning, the approval action would need to stipulate that the zoning agreement will not become effective until 2016. Mitigation is included to ensure agricultural activities are maintained until expiration. Provided these actions take place the Project would be consistent with the provisions of the Williamson Act. Required Mitigation: **AG-1:** "The applicant shall provide all prospective buyers of properties within 500 feet of the northern property boundary with written notice that they could be subject to inconvenience or discomfort resulting from accepted farming activities as per provisions of the County Right-To-Farm Ordinance and shall include a Note on all final maps disclosing the Right-To-Farm Ordinance." **AG-2:** "The applicant shall enter into an agreement with an

agricultural operator to maintain grazing use, or other more intensive use, on the land which is subject to Williamson Act contract 72-AP-109. Agricultural use shall be maintained until Williamson Act contract expiration. Documentation of this agreement shall be submitted to the Environmental Coordinator prior to approval of the zoning agreement for the Williamson Act contracted property."

AG-3: "Prior to the approval of improvement plans, building permits, or recordation of the final map, whichever occurs first, the applicant shall offset the loss of 8.6 acres of Unique Farmland and 242.6 acres of Grazing Land through 1:1 preservation of farmland within a permanent conservation easement. Preservation land must be in-kind or similar resource value."

- **Biological Resources – Amphibians.** The Project site contains suitable habitat and suitable upland habitat for the western spadefoot. The latter species has been observed within the site. The Project will result in loss of approximately 19 acres of seasonal wetlands and vernal pools which are potential breeding habitat for the species, for which 1:1 mitigation is required pursuant to County policies regarding wetland loss. Western spadefoot, a Species of Concern, has been observed in several counties across the state, and a number of sites with suitable habitat for western spadefoot are already being protected. Additionally, 23 vernal pool species are federally protected; preservation efforts for those species and associated habitats will contribute to the conservation of the western spadefoot. While a localized population of the western spadefoot may be reduced through development of the Project site, the regional population will not be reduced significantly for the reasons stated above. Required Mitigation: **BR-1:** "To compensate for the permanent loss of wetlands, the applicant shall perform one or a combination of the following prior to issuance of building permits, and shall also obtain all applicable permits from the Army Corps of Engineers, the U.S. Fish and Wildlife Service, the Central Valley Regional Water Quality Control Board, and the California Department of Fish and Game: A. Where a Section 404 Permit has been issued by the Army Corps of Engineers, or an application has been made to obtain a Section 404 Permit, the Mitigation and Management Plan required by that permit or proposed to satisfy the requirements of the Corps for granting a permit may be submitted for purposes of achieving a no net-loss of wetlands. The required Plan shall be submitted to the Environmental Coordinator, U.S. Army Corps of Engineers, and U.S. Fish and Wildlife Service for approval prior to its implementation. B. If regulatory permitting processes result in less than a 1:1 compensation ratio for loss of wetlands, the Project applicant shall demonstrate that the wetlands which went unmitigated/uncompensated as a result of permitting have been mitigated through other means. Acceptable methods include payment into a mitigation bank or protection of off-site wetlands through the establishment of a permanent conservation easement, subject to the approval of the Environmental Coordinator. C. The Project applicant may participate in the South Sacramento Habitat Conservation Plan if it is adopted and if the Project area and activities are covered. The applicant shall prepare Project plans in accordance with that Plan and any and all fees or land dedications shall be completed prior to construction."

- **Land Use / Conflict with General Plan Policies related to Land Use Compatibility.** Policy LU-19 states that appropriate buffers should be placed between incompatible uses, and Policy LU-94 states that new development should be compatible with existing development. The Project is adjacent to two existing uses, the Boys Ranch and Kiefer Landfill, with potential to result in conflicts. For the Boys Ranch, the distance from the majority of the site and the topographical changes between the site and the Boys Ranch acts as a natural barrier. For the Kiefer Landfill, distance from the site combined with existing regulations for landfills will prevent substantial impacts. For both facilities, there remains the potential for nuisance impacts. For this reason, mitigation is included requiring disclosure of the facilities to prospective buyers. Required Mitigation: LU-1: "The location and nature of the Sacramento County Boys Ranch facility shall be disclosed to all prospective buyers of estate-residential properties. **LU-2:** The location and nature of the Kiefer Landfill facility shall be disclosed to all prospective buyers of properties within one mile of the ultimate active landfill boundary. The disclosure notice shall include: A. A statement substantially consistent with the following: 'The landfill will expand in height and land area over time, and thus the visibility and proximity of the landfill from the property at the time of purchase does not reflect how visible or proximate the landfill will be in the future.' This statement shall be supplemented with relevant facts about ultimate landfill design, including the distance of the property to the ultimate planned edge of the landfill waste disposal area to the nearest 100 feet and the ultimate planned height of the landfill (as set forth in the Solid Waste Facilities Permit). B. Notification that the landfill operates under a Solid Waste Facilities Permit and is required to control pests, vectors, litter, and odor to the extent practicable, but that it is not possible to eliminate all of these nuisances. For this reason, property owners may experience some of these nuisance conditions. C. Notification that the active landfill area is lighted at night."

- **Noise / Mather Airport.** The Project site is located approximately four miles east of Mather Airport. Although the Project site is located outside the 60 dB CNEL contour of Mather Airport, the Project site is located within the overflight path of approaching and departing aircraft that fly below 3,000 feet above ground level. During an average one-month time period, a very small percentage of total departure (two percent) and arrival (eight percent) flights are passing over the Project site and there are less than 15 percent of the total touch-and-go flights passing over the Project site. Though the Project will not expose people to excessive aircraft noise, continued and future use of Mather Airport has the potential to be a nuisance and generate objections by residents and other sensitive receptors. An Avigation Easement to inform future potential residential buyers will be required to help reduce the impact to Mather Airport from new complaints by future residents or other sensitive receptors of the proposed Project; these various conditions are included as mitigation. Required Mitigation: NO-6: "The following conditions will be required to ensure adequate disclosure of Mather Airport operations: 1. Notification in the Public Report prepared by the

California Department of Real Estate shall be provided disclosing to prospective buyers that the parcel is located within the applicable Airport Planning Policy Area and that aircraft operations can be expected to overfly that area at varying altitudes less than 3,000 feet above ground level. 2. Avigation Easements prepared by the Sacramento County Counsel's Office shall be executed and recorded with the Sacramento County Recorder on each individual parcel contemplated in the development in favor of the County of Sacramento. All Avigation Easements recorded pursuant to this policy shall, once recorded, be copied to the director of Airports and shall acknowledge the property location within the appropriate Airport Planning Policy Area and shall grant the right of flight and unobstructed passage of all aircraft into and out of the appropriate airport."

C. Significant and Potentially Significant Impacts/ Mitigation Required.

The EIR also identified a number of significant or potentially significant environmental effects or impacts that the Project will or may cause. Some of those significant effects can be fully avoided through the adoption of feasible mitigation measures. Other effects cannot be avoided or substantially lessened by the adoption of feasible mitigation measures or alternatives and are, therefore, considered significant and unavoidable. However, for the reasons set forth below in Section X, the Board has determined that those significant, unavoidable effects of the Project are outweighed by overriding economic, social and other considerations.

It has been found that the Project would result in significant or potentially significant environmental effects which can be fully avoided through the adoption of feasible mitigation measures with respect to the following issues or resources:

- **Air Quality / Construction Activities Would Increase NOx Emissions**
– The Project has the potential to result in significant impacts throughout most of the life of the Project, even after implementation of the Basic Construction Emissions Control Practices and Enhanced Construction Emission Control Practices which are required by rule through the Sacramento Metropolitan Air Quality District (SMAQMD). Mitigation is included (which is in addition to the rules) to ensure that all subsequent projects which occur within the Project area conform to the SMAQMD mitigation and abatement requirements which are in effect at the time. This will offset Project emissions.
- **Air Quality / Project Operation Would result in TAC Emissions** –
Using the published California Air Resources Board siting criteria for sources of toxic air contaminants (TAC) and sensitive receptors, there are no off-site TAC sources proximate to the sensitive receptors of the Project, and the Project will not generate TAC that would impact off-site sensitive receptors. The Project could result in exposure of proposed on-site uses to proposed on-site stationary source TAC, but mitigation is included to ensure that the siting of new uses conforms to ARB recommendations.

- **Air Quality / Project Operation May Result in Exposure to Objectionable Odors** – The Project is proximate to both the Boys Ranch and the Kiefer Landfill. The former facility is specifically prohibited from causing a nuisance odor condition, and nuisance odor is fully controllable through maintenance of aerated conditions in the ponds. Though based on historic operation of wastewater facilities in general and of this facility in particular it can be expected that there will be events when aeration fails (a pump malfunctions, for instance), it can also be expected that these will be infrequent events of short duration. Only considering meteorological conditions and the proximity of the Project to the landfill, it would be likely that some significant odor impacts to the Project could occur; however, the SMAQMD Guide does not provide further information regarding factors that can reduce odor impacts, if present. Kiefer Landfill has established an active gas-to-energy system that employs active gas extraction from the landfill for use in electrical generation. As landfill gas is a major source of odor from a landfill, the active extraction of gases for use in generating electricity is an effective form of limiting odors. Given the foregoing and the mitigation incorporated below, odor impacts are not expected to be substantial.

- **Biological Resources / Special Status Species / Bird Species** – The following special status bird species are identified as having potential to occur on or near the Project site: burrowing owl, Cooper's hawk, ferruginous hawk, golden eagle, grasshopper sparrow, northern harrier, Swainson's hawk, tricolored blackbird, and white-tailed kite. Excluding the large avoided area and two adjacent smaller avoided areas on the western side of the site, the Project will result in the conversion of 2,120 acres of grassland habitat to urban uses (note that the central linear avoided area is not considered preserved for the purposes of Swainson's hawk habitat, which is why the mitigation requirement in BR-4 is higher than the total grassland lost). Except the tricolored blackbird, all of the species listed above use grasslands for foraging and/or nesting and will be impacted by Project development. The Swainson's hawk is the only threatened species, and mitigation is included requiring 1:1 habitat mitigation. Mitigation of habitat for the benefit of the Swainson's hawk will also provide habitat compensation for other bird species. The Project site does not contain any trees for nesting, but there are offsite trees nearby; pre-construction nesting surveys have been included for tree-nesting raptors. Pre-construction nesting surveys are also included for burrowing owl (which is ground-nesting), and are also included for tricolored blackbird (for those areas which are within 300 feet of suitable habitat, such as cattail or blackberry).

- **Biological Resources / Special Status Species / Plants** – The Project site was surveyed for special status plant species in May 2007, April and June 2008, and May and July 2010 by ECORP Consulting Inc. The special status plant surveys revealed two special status species present on the Project site: legnere and Sacramento Orcutt grass. The wetlands containing those plants are located

within Avoided Areas, but given the proximity of these wetlands to development areas, mitigation requires additional measures be implemented to control invasive species and to avoid pollution runoff from urban activities.

- **Cultural Resources** - The Project area contains three historic era sites, and a fourth historical site that is included in a multi-component site. One prehistoric bedrock mortar station site and one prehistoric component of a multi-component site were discovered in the project area. None of the sites are associated with any important persons or events in California or national history. They are not considered to be unique and do not represent the work of a master or possess high artistic values. In all cases, the historic sites lack sufficient cultural material to address research questions. All of the historic sites were evaluated as not eligible under any criteria for the National Register of Historic Places or the California Register of Historical Resources and are not considered a historical resource or unique archeological resource as defined by CEQA. There always remains a potential to encounter buried or as yet undiscovered resources during land clearing and construction work. Mitigation is included to ensure that such resources are treated appropriately if discovered.

- **Hazards and Hazardous Materials** - The site was assessed for on-site hazardous conditions, and this assessment concluded that there is no evidence of any recognized hazardous conditions that may have a significant adverse effect on the development of the Project site. There are three agency-listed contaminated sites within approximately one mile of the Project site. These include the Sacramento County Boys Ranch (a juvenile correction facility within 1,000 feet of the eastern Project boundary), Aerojet (located just over a mile to the northwest), and the Kiefer Landfill (located approximately 2,000 feet to the south). The Boys Ranch hazardous condition was remediated and the case closed. Aerojet remediation activities are ongoing. Contaminated soils from Aerojet would not affect the Project, as these are off-site, while the groundwater contamination plumes are migrating away from the Project area. Groundwater contamination at Kiefer Landfill is likewise migrating away from the Project site. The Project will also be using public water provided through the Sacramento County Water Agency, not groundwater. Landfill gas migration from Kiefer Landfill also appears not to affect the site, but a mitigation measure is nonetheless included for the small portion of the site outside of the Urban Services Boundary that is within the 2,000 foot buffer established around the Kiefer Landfill.

- **Noise / Traffic Noise** – Traffic on the internal Project roadways and on Grant Line Road will generate noise that has the potential to exceed General Plan noise standards related to both residential and non-residential uses. Mitigation is included to ensure that future subdivisions and non-residential developments are constructed in a manner that achieves compliance with General Plan standards.

- **Noise / On-site Stationary and Community Noise** - The Project includes uses which include noise-generating sources such as playing fields, loading docks,

a corporation yard, and other uses. Mitigation is included to require that all such uses located adjacent to residential lands be designed so as not to cause the General Plan standards to be exceeded.

D. Significant and Unavoidable Impacts.

The Final EIR identified mitigation measures that would reduce the above significant impacts to a less-than-significant level. The Project was determined in the Final EIR to result in significant and unavoidable environmental effects with respect to the following impacts regardless of whether all feasible mitigation was required:

- **Aesthetics / Degradation of Existing Views and Visual Quality** – The Project will remove the illusion of continuity – that is, the illusion that the grasslands continue unbroken up to the foothills – both due to the introduction of the structures themselves, and because of the substantial changes in the color and texture of the viewshed. The Project will introduce hard, angled shapes into an area that previously appeared smooth, and will introduce a wider array of color into an area that was previously quite uniform. Though this will increase the diversity of the view, the loss of continuity and the partial obstruction of views of the Sierra Nevada significantly and negatively impacts the quality of the views. These impacts are due to the placement of a large urban development in an area currently dominated by open space; the impact is not due to any particular feature or features that could be changed. The Project will substantially degrade the existing visual character and quality of the site.
- **Aesthetics / New Source of Light or Glare** - Project lighting will not result in sleep disruption or significant wildlife impacts, but will nonetheless introduce a substantial new source of light. This impact is not due to any individual feature or features, but due to the result of introducing a large urban development within a rural landscape. Though the impact cannot be made less than significant, usage of lighting fixtures that minimize glare and light trespass can reduce the impact to some degree.
- **Air Quality / Operational Emissions of Ozone Precursors** - The Project will result in worst-case NO_x and ROG emissions of 415.22 pounds per day and 857.40 pounds per day, respectively, which is significantly above the threshold of 65 pounds per day. A mitigation plan is included to reduce emissions by 35%, but emissions will still exceed the threshold.
- **Air Quality / Construction Activities Would Increase Particulate Matter Emissions** – Modeling conducted by SMAQMD has indicated that applying basic construction rules will ensure that impacts will not be significant provided that construction is limited to no more than 15 acres of active grading per day. On a project of this size, it is unreasonable to assume that construction will be limited to such a small area. The Project will generate particulate matter emissions which exceed the SMAQMD thresholds.

- **Air Quality / Conflict With or Obstruct Air Quality Plans** - The current State Implementation Plan (SIP) did not assume that the land east of Grant Line Road would develop, and thus even if the Project's emissions of ozone precursors were not significant, the Project would still conflict with implementation of the SIP.

- **Biological Resources / Wetlands and Surface Waters** – In total, there are approximately 89.11 acres of wetland resources on the Project site. The Project will result in the fill or dredge of 41.37 acres of wetlands on the site, which includes approximately 16 acres of vernal pool; three acres of seasonal wetland; 15 acres of seasonal wetland swale; six acres of intermittent drainage; and less than one acre of seep, stock pond, and creek. Mitigation is required to offset these direct impacts, but given the extent of wetland loss (46% of the wetlands on the site) and the fact that this is in a Rank 1 Vernal Pool Recovery Plan area the mitigation is not sufficient to reduce impacts. Future development within the SPA could include amendments to the SPA which would modify the Avoided Area boundaries. This could result in additional incremental losses of needed uplands and/or wetlands, increasing the severity of what is already a significant impact in an area noted as vital to the recovery of vernal pool resources. For this reason, mitigation is also included which would require the establishment of a permanent conservation easement over all areas designed as Avoided.

- **Biological Resources / Special Status Species / Invertebrates** - The site contains wetlands suitable for the California linderella, midvalley fairy shrimp, Ricksecker's water scavenger beetle, vernal pool fairy shrimp, and vernal pool tadpole shrimp. Published protocols for the vernal pool fairy shrimp and vernal pool tadpole shrimp contain survey requirements for determining absence, and mitigation to be applied in case of presence or if presence is being assumed. These same measures are applied to the Species of Concern, California linderella and midvalley fairy shrimp as well. Mitigation being required for these species will also serve to provide mitigation for the Ricksecker's water scavenger beetle, which uses the same habitats. Though in-kind mitigation will be required for the loss of habitat on the site, the loss of 46% of the wetlands on the site within an area identified as vital to the recovery for vernal pool habitats and their dependent species is significant even with mitigation.

- **Climate Change** - In concert with state and federal activities, the design features of the SPA are intended to offset the Project climate change impact. Ideally, this mitigation would reduce the Project emissions and climate change impacts to levels that are not cumulatively significant, but there are many unknown variables and implementation challenges. Given the substantial emissions which will result from the Project and the uncertainties related to target-setting and the current state of modeling this analysis concludes that Project

impacts may remain significant. The effects of climatic changes on the Sacramento region are potentially significant, and can only be mitigated through both adaptation and reduction strategies. By requiring mitigation of projects that may result in significant greenhouse gas emissions, and by adopting County programs and changes in government operations, the County is implementing all feasible strategies to reduce the effects of climate change on the region. Nonetheless, it is probable that these strategies will not be sufficient to offset all of the impacts of climate change, and that some of these impacts will be significant.

- **Land Use / Conflict With the SACOG Blueprint and General Plan Policy** - The Project includes a wide variety of transportation choices, an array of housing choices, a mix of uses, compact community design, and fosters a sense of place. While acknowledging that in terms of internal community design the Project appears to be an excellent example of “smart growth” development and is consistent with relevant General Plan policies, it must also be acknowledged that the Project conflicts with the principles with respect to the preservation of open space and the proximity to existing developed communities. In terms of open space preservation, the analysis is somewhat subjective, and the Project has directed preservation toward the most sensitive vernal pool areas of the site. In terms of directing development toward existing communities, the conflict is more clear. Though projected for future development, the Blueprint envisions growth occurring from the existing city centers outward rather than the reverse. This is a fundamental underpinning to the Blueprint, and as a result, the Project’s inconsistency with this principle is considered substantial.

- **Noise / Substantial Increase in Existing Ambient Noise** - The Project would result in a substantial increase in existing ambient noise for multiple roadway segments, but only two of these include receptors which would be impacted: Sunrise Boulevard and Douglas Boulevard. Noise volumes would be increased by 2 dB on Sunrise Boulevard and by 7 dB and 10 dB along Douglas Boulevard. Based on the existing noise environments, these are substantial increases. On Sunrise Boulevard, a noise barrier is not appropriate because businesses rely on visibility to attract customers, and on Douglas Road a barrier is already present. Thus, no further improvements can be made to reduce impacts.

- **Public Utilities / Construction Impacts** – Water, sewer, and dry utility lines constructed within the Project boundaries would not cause any additional utility-specific construction impacts, as utility construction will occur within areas that will already urbanize as part of the Project. Most of the off-site utility lines are shown within areas already proposed for utility construction as part of service provider master planning documents. There are some improvement areas which have not already been studied or approved, and which are likely to contribute to wetland impacts and impacts to associated species.

- **Traffic and Circulation / Existing Plus Project** - The Project results in significant impacts to six County intersections, ten City of Rancho Cordova intersections, the Zinfandel and US 50 freeway ramp intersection, two County roadway segments, one City of Elk Grove roadway segment, eleven City of Rancho Cordova roadway segments, two US 50 freeway segments, and bicycle and pedestrian facilities. Mitigation is included which will improve operating conditions to acceptable levels for most of these facilities, but there are some impacts for which no feasible mitigation exists. These are: the Zinfandel and US 50 freeway ramp intersection and Sunrise Boulevard from US 50 to White Rock Road. Furthermore, the County does not have land use authority in other jurisdictions, and cannot guarantee that non-County facilities will be constructed.

- **Traffic and Circulation / Cumulative Plus Project** - The Project results in significant impacts to five City of Rancho Cordova intersections, the Zinfandel and US 50 freeway ramp intersection, one new Project roadway segment, four City of Rancho Cordova roadway segments, six Caltrans freeway segments, and four Caltrans freeway ramps. Mitigation is included which will improve operating conditions to acceptable levels for most of these facilities, but there are some impacts for which no feasible mitigation exists. These are: the Zinfandel and US 50 freeway ramp intersection, the intersection of Sunrise Boulevard and International Drive, Grant Line Road from North Loop Road to Douglas Road, eastbound US 50 from Watt Avenue to Bradshaw Road, eastbound US 50 from Rancho Cordova Parkway to Hazel Avenue, westbound US 50 from Hazel Avenue to Rancho Cordova Parkway, westbound US 50 from Mather Field Road to Power Inn/Howe Avenue, eastbound US 50 Exit Ramp to Watt Avenue, eastbound US 50 Slip Ramp Entrance from Watt Avenue, westbound US 50 Exit Ramp to Watt Avenue, and westbound US 50 Slip Ramp Entrance from Watt Avenue.

E. IMPACTS AND REQUIRED MITIGATION MEASURES:

AESTHETICS

1. **Impact: Degradation of Existing Views and Visual Quality.** The Project will remove the illusion of continuity – that is, the illusion that the grasslands continue unbroken up to the foothills – both due to the introduction of the structures themselves, and because of the substantial changes in the color and texture of the viewshed. The Project will introduce hard, angled shapes into an area that previously appeared smooth, and will introduce a wider array of color into an area that was previously quite uniform. Though this will increase the diversity of the view, the loss of continuity and the partial obstruction of views of the Sierra Nevada significantly and negatively impacts the quality of the views. These impacts are due to the placement of a large urban development in an area currently dominated by open space; the impact is not due to any particular feature or features that could be changed.

The Project will substantially degrade the existing visual character and quality of the site. (Significant)

Finding: The EIR did not identify any changes or alterations that could be required in, or incorporated into, the Project to substantially reduce the significant environmental effect identified in the EIR. The Project will introduce hard, angled shapes into an area that previously appeared smooth and uniform. The Project's impact on visual quality or character is considered significant and unavoidable because the Project site will no longer present its current natural state.

Mitigation: The EIR determined that no mitigation measures were available to substantially lessen this impact.

Level of Significance After Mitigation: Since there is no feasible mitigation, this impact will remain Significant and Unavoidable.

2. **Impact: New Source of Light and Glare. Project lighting will not result in sleep disruption or significant wildlife impacts, but will nonetheless introduce a substantial new source of light. This impact is not due to any individual feature or features, but due to the result of introducing a large urban development within a rural landscape. Though the impact cannot be made less than significant, usage of lighting fixtures that minimize glare and light trespass can reduce the impact to some degree. (Significant)**

Finding: Changes or alterations have been required in, or incorporated into, the Project which substantially reduce the significant environmental effect as identified in the EIR. While the proposed aesthetics mitigation measure requires all lighting to be subject to the 2008 Building Efficiency Standards Section 147 and to use only fixtures approved by the International Dark Sky Association to reduce the Project's impact on the nighttime sky, this impact is significant and unavoidable because the Project site will still be a source of urban nighttime light and glare in an area where there is no other light pollution.

Mitigation: The following mitigation measure has been incorporated into the Project to substantially lessen this impact, but not to a less-than-significant level:

Mitigation Measure AE-1. The SPA shall be amended to require all lighting applications subject to the 2008 Building Efficiency Standards Section 107 to use fixtures approved by the International Dark Sky Association.

Level of Significance After Mitigation: Significant and Unavoidable.

AIR QUALITY

1. **Impact: Construction Activities Would Increase NOx Emissions.** The Project has the potential to result in significant impacts throughout most of the life of the Project, even after implementation of the Basic Construction Emission Control Practices and Enhanced Construction Emission Control Practices which are required by rule through the Sacramento Metropolitan Air Quality District (SMAQMD). Mitigation is included (which is in addition to the rules) to ensure that all subsequent projects which occur within the Project area conform to the SMAQMD mitigation and abatement requirements which are in effect at the time. This will offset Project emissions. (Significant)

Finding: Changes or alterations have been required in, or incorporated into, the Project which substantially reduce the significant environmental effect as identified in the EIR by requiring all individual development projects in the Project Area to implement SMAQMD rules and mitigation pertinent to construction-related ozone precursor emissions, as defined by the most current version of the SMAQMD Guide to Air Quality Assessment.

Mitigation Measures: The following mitigation measure has been incorporated into the Project to avoid this impact and reduce it to a less-than-significant level:

Mitigation Measure AQ-1. The following language shall be added to the SPA: All individual development projects shall implement Sacramento Metropolitan Air Quality Management District rules and mitigation pertinent to construction-related ozone precursor emissions, as defined by the most current version of the Sacramento Metropolitan Air Quality Management District Guide to Air Quality Assessment.

Level of Significance After Mitigation: Less-than-Significant.

2. **Impact: Operational Emissions of Ozone Precursors.** The Project will result in worst-case NOx and ROG emissions of 415.22 pounds per day and 857.40 pounds per day, respectively, which is significantly above the threshold of 65 pounds per day. A mitigation plan is included to reduce emissions by 35%, but emissions will still exceed the threshold. (Significant)

Finding: Changes or alterations have been required in, or incorporated into, the Project which substantially lessen the significant environmental effects from operational emissions of ozone precursors identified in the EIR by requiring compliance with the provisions of the Air Quality Management Plan dated June 1, 2011, as updated March 2012 (errata) and as amended January 2013, that will reduce the emissions of ozone precursors and by requiring the incorporation of the requirements of that plan into the Cordova Hills SPA conditions. However, those measures will not completely avoid this impact or reduce it below the 65 pounds per day threshold, and the impact will still remain significant and unavoidable.

Mitigation Measure: The following mitigation measure has been incorporated into the Project to substantially lessen this impact, but not to a less-than-significant level:

Mitigation Measure AQ-2. Comply with the provisions of the Air Quality Management Plan dated June 1, 2011, as updated March 2012 (errata) and as amended January 2013, and incorporate the requirements of this plan into the Cordova Hills Special Planning Area conditions. Also the following text shall be added to the Cordova Hills SPA: "All amendments to the Cordova Hills SPA with the potential to result in a change in ozone precursor emissions shall include an analysis which quantifies, to the extent practicable, the effect of the proposed SPA amendment on ozone precursor emissions. The amendment shall not increase total ozone precursor emissions above what was considered in the AQMP for the entire Cordova Hills project and shall achieve the original 35% reduction in total overall project emissions. If the amendment would require a change in the AQMP to meet that requirement, then the proponent of the SPA amendment shall consult with SMAQMD on the revised analysis and shall prepare a revised AQMP for approval by the County, in consultation with SMAQMD."

Level of Significance After Mitigation: Significant and Unavoidable.

3. **Impact: Construction activities Would Increase Particulate Matter Emissions.** Modeling conducted by SMAQMD has indicated that applying basic construction rules will ensure that impacts will not be significant provided that construction is limited to no more than 15 acres of active grading. On a project of this size, it is unreasonable to assume that construction will be limited to such a small area. The Project will generate particulate matter emissions which exceed thresholds. (Significant)

Finding: The EIR did not identify any changes or alterations that could be required in, or incorporated into, the Project to substantially reduce the particulate matter emissions from construction activities because it would be unreasonable to expect that construction activities could be limited to 15 acres of active grading per day in a project of this size.

Mitigation Measures: There were no feasible mitigation measures identified in the EIR that could avoid or substantially lessen this impact.

Level of Significance After Mitigation: Significant and Unavoidable.

4. **Impact: Conflict With or Obstruct Air Quality Plans.** The current State Implementation Plan (SIP) did not assume that the land east of Grant Line Road would develop, and thus even if the Project's emissions of ozone

precursors were not significant, the Project would still conflict with implementation of the SIP. (Significant)

Finding: Aside from requiring compliance with Mitigation Measure AQ-2, the EIR did not identify any other changes or alterations that could be required in, or incorporated into, the Project to substantially reduce this impact.

Mitigation Measure: The following mitigation measure has been incorporated into the Project to substantially lessen this impact, but not to a less-than-significant level:

Mitigation Measure AQ-2. Comply with the provisions of the Air Quality Management Plan dated June 1, 2011, as updated March 2012 (errata) and as amended January 2013, and incorporate the requirements of the amended AQMP into the Cordova Hills Special Planning Area conditions. Also the following text shall be added to the Cordova Hills SPA: "All amendments to the Cordova Hills SPA with the potential to result in a change in ozone precursor emissions shall include an analysis which quantifies, to the extent practicable, the effect of the proposed SPA amendment on ozone precursor emissions. The amendment shall not increase total ozone precursor emissions above what was considered in the AQMP for the entire Cordova Hills project and shall achieve the original 35% reduction in total overall project emissions. If the amendment would require a change in the AQMP to meet that requirement, then the proponent of the SPA amendment shall consult with SMAQMD on the revised analysis and shall prepare a revised AQMP for approval by the County, in consultation with SMAQMD."

Level of Significance After Mitigation: Significant and Unavoidable.

5. **Impact: Project Operation Would result in TAC Emissions.** Using the published California Air Resources Board siting criteria for sources of toxic air contaminants (TAC) and sensitive receptors, there are no off-site TAC sources proximate to the sensitive receptors of the Project, and the Project will not generate TAC that would impact off-site sensitive receptors. The Project could result in exposure of proposed on-site uses to proposed on-site stationary source TAC, but mitigation is included to ensure that the siting of new uses conforms to ARB recommendations. (Potentially Significant)

Finding: Changes or alterations have been required in, or incorporated into, the Project which substantially avoid the potentially significant impacts from the TAC emissions that would result from project operation by requiring buffers to be established on a project-by-project basis between sources that emit TACs or odors and sensitive receptors, such as schools, daycare facilities, congregate care facilities, hospitals, or other places of long-term residency (including single and multi-family).

Mitigation Measure: The following mitigation measure has been incorporated into the Project to avoid this impact and reduce it to a less-than-significant level:

Mitigation Measure AQ-3. The following language shall be added to the SPA: Buffers shall be established on a project-by-project basis and incorporated during permit or project review to provide for buffer separations between sensitive land uses and sources of air pollution or odor. The California Air Resources Board's "Air Quality and Land Use Handbook: A Community Health Perspective", or more current document, shall be utilized when establishing these buffers. Sensitive uses include schools, daycare facilities, congregate care facilities, hospitals, or other places of long-term residency for people (this includes both single- and multiple-family). The buffers shall be applied to the source of air pollution or odor, and shall be established based either on proximity to existing sensitive uses or proximity to the property boundary of land designated for sensitive uses. Buffers current at the time of the establishment of this SPA indicate that sensitive uses should be:

- A. A least 500 feet from auto body repair services.
- B. At least 50 feet from existing gasoline dispensing stations with an annual throughput of less than 3.6 million gallons and 300 feet from existing gasoline dispensing stations with an annual throughput at or above 3.6 million gallons.
- C. At least 300 feet from existing land uses that use methylene chloride or other solvents identified as a TAC, including furniture manufacturing and repair services.

Level of Significance After Mitigation: Less-than-Significant.

6. **Impact: Project Operation May Result in Exposure to Objectionable Odors.** The Project is proximate to both the Boys Ranch and the Kiefer Landfill. The former facility includes wastewater treatment ponds. The Boys Ranch is specifically prohibited from causing a nuisance odor condition, and nuisance odor is fully controllable through maintenance of aerated conditions in the ponds. Though based on historic operation of wastewater facilities in general and of the Boys Ranch facility in particular, it can be expected that there will be events when aeration fails (a pump malfunctions, for instance), but it can also be expected that these will be infrequent events of short duration. Considering the meteorological conditions and the proximity of the Project to the Kiefer Landfill, it would be likely that some significant odor impacts to the Project also could occur; however, the SMAQMD Guide does provide further information regarding factors that can reduce odor impacts, if present. Kiefer Landfill has established an active gas-to-energy system that employs active gas extraction from the landfill for use in electrical

generation. As landfill gas is a major source of odor from a landfill, the active extraction of gases for use in generating electricity is an effective form of limiting odors. Given the foregoing and the mitigation incorporated below, odor impacts are not expected to be substantial. (Potentially Significant)

Finding: Changes or alterations have been required in, or incorporated into, the Project which substantially avoid the potentially significant impacts during Project operation that may arise from exposure to objectionable odors from the Boys Ranch water treatment ponds or the Kiefer Landfill. Those changes include adding a requirement to the SPA that the western perimeter of the Sports Park and University/College Campus Center that are within 2,000 feet of the Kiefer Landfill include a minimum 25-foot wide landscaping area with a dense mix of trees that will grow to at least 40 feet in height to reduce odors and the uses from the Landfill.

Mitigation Measure: The following mitigation measure has been incorporated into the Project to avoid this impact and reduce it to a less-than-significant level:

Mitigation Measure AQ-4: Include in the SPA a requirement that the western perimeter of the Sports Park and University/College Campus Center (where these are within 2,000 feet of the Kiefer landfill) include a minimum 25-foot-wide landscaping area. This landscaping area shall include a dense mix of trees and shrubs, to screen the uses from the landfill. Acceptable tree species include those expected to reach minimum heights of 40 feet.

Level of Significance After Mitigation: Less-than-Significant.

BIOLOGICAL RESOURCES

1. **Impact: Wetlands and Surface Waters.** In total, there are approximately 89.11 acres of wetland resources on the Project site. The Project could result in the fill or dredge of approximately 39.63 acres of wetlands on the site, which includes approximately 16 acres of vernal pools; three acres of seasonal wetlands; 15 acres of seasonal wetland swales; six acres of intermittent drainages; and less than one acre of seep, stock pond, and creek. However, it is possible that the Project could impact up to a total of approximately 41.37 acres of wetlands if a 50-foot buffer is applied to non-linear wetland impacts, as well as taking into account possible impacts that might arise to off-site wetlands associated with the construction of water tanks and other utilities on adjacent lands. However, the offsite water tanks and associated utilities will not be designed until later Project phases, so it is likely that 41.37 acres is an overestimate of the total Project wetland impacts. Mitigation is required to offset these direct impacts, but given the extent of wetland loss (46% of the wetlands on the site) and the fact that this is in a

Rank 1 Vernal Pool Recovery Plan area the mitigation is not sufficient to reduce impacts. Future development within the SPA could include amendments to the SPA which would modify the Avoided Area boundaries. This could result in additional incremental losses of needed uplands and/or wetlands, increasing the severity of what is already a significant impact in an area noted as vital to the recovery of vernal pool resources. For this reason, mitigation is also included which would require the establishment of a permanent conservation easement over all areas designed as Avoided. (Significant)

Finding: Changes or alterations have been required in, or incorporated into, the Project which substantially lessen the potential environmental impacts on wetlands and surface waters identified in the EIR. In order to substantially lessen the impacts, the EIR proposed mitigation measures requiring the Applicants to obtain and comply with the requirements of Clean Water Act Section 404 and Section 401 Permits prior to issuance of any building permits at the Project, and to the extent the required mitigation did not require 1:1 compensation for the loss of wetlands, the mitigation measures will require mitigation to be provided by the Applicants through other means, such as by the purchase of mitigation credits at a mitigation bank for the shortfall, protecting offsite wetlands via a conservation easement to make up the shortfall, or participation in the South Sacramento Habitat Conservation Plan (if it should be adopted) in order to ensure there is no net loss of wetlands. In addition, the EIR's mitigation measures required all Avoided Areas at the Project site to be placed under a permanent conservation easement in order to protect the wetlands and surface waters in those Avoided Areas.

Mitigation: The following mitigation measures have been incorporated into the Project as conditions of approval to substantially lessen this impact, but the impact will nonetheless remain significant and unavoidable:

Mitigation Measure BR-1: To compensate for the permanent loss of wetlands, the Applicants shall perform one or a combination of the following prior to issuance of building permits and shall also obtain all applicable permits from the Army Corps of Engineers, the U.S. Fish and Wildlife Service, the Central Valley Regional Water Quality Control Board, and the California Department of Fish and Game:

A. Where a Section 404 Permit has been issued by the Army Corps of Engineers, or an application has been made to obtain a Section 404 Permit, the Mitigation and Management Plan required by that permit or proposed to satisfy the requirements of the Corps for granting a permit may be submitted for purposes of achieving a no net-loss of wetlands. The required Plan shall be submitted to the Environmental Coordinator, U.S. Army Corps of Engineers, and U.S. Fish and Wildlife Service for approval prior to its implementation.

B. If regulatory permitting processes result in less than a 1:1 compensation ratio for loss of wetlands, the Project applicant shall demonstrate that the wetlands which went unmitigated/uncompensated as a result of permitting have been mitigated through other means. Acceptable methods include payment into a mitigation bank or protection of off-site wetlands through the establishment of a permanent conservation easement, subject to the approval of the Environmental Coordinator.

C. The Project applicant may participate in the South Sacramento Habitat Conservation Plan if it is adopted, and if the Project area and activities are covered. The Applicant shall prepare Project plans in accordance with that Plan and any and all fees or land dedications shall be completed prior to construction.

Mitigation Measure BR-2: Prior to issuance of building permits, all areas designated within the SPA as Avoided shall be placed within a permanent conservation easement, which shall be reviewed and approved by the Environmental Coordinator. At a minimum, the permanent conservation easements must cover all areas which are required to be preserved as part of the Section 404 and Section 401 wetland permits.

Level of Significance After Mitigation: Significant and Unavoidable.

2. **Impact: Special Status Species / Bird Species.** The following special status bird species are identified as having potential to occur on or near the Project site: burrowing owl, Cooper's hawk, ferruginous hawk, golden eagle, grasshopper sparrow, northern harrier, Swainson's hawk, tricolored blackbird, and white-tailed kite. Excluding the large avoided area and two adjacent smaller avoided areas on the western side of the site, the Project will result in the conversion of 2,120 acres of grassland habitat to urban uses (note that the central linear Avoided Area is not considered preserved for the purposes of Swainson's hawk habitat, which is why the mitigation requirement in BR-4 is higher than the total grassland lost). Except for the tricolored blackbird, all of the species listed above use grasslands for foraging and/or nesting and will be impacted by Project development. The Swainson's hawk is the only Threatened Species, and mitigation is included requiring 1:1 habitat mitigation. Mitigation of habitat for the benefit of the Swainson's hawk will also provide habitat compensation for other bird species. The Project site does not contain any trees for nesting, but there are offsite trees nearby; pre-construction nesting surveys have been included for tree-nesting raptors. Pre-construction nesting surveys are also included for burrowing owl (which is ground-nesting), and are also included for tricolored blackbird (for those areas which are within 300 feet of suitable habitat, such as cattail or blackberry). (Significant)

Finding: Changes or alterations have been required in, or incorporated into, the Project which avoid the significant environmental effects identified in the EIR to

a less than significant level. The mitigation measures will require a focused tree survey by a qualified biologist within 14 days prior to the start of any construction work between March 1 and September 15 to detect active raptor nests. If active nests are found, protective measures determined by the California Dept. of Fish and Game will be implemented to protect the nests. Mitigation for the loss of Swainson's hawk foraging habitat will also be required in the form of placing permanent conservation easements over agricultural lands providing foraging habitat to the satisfaction of the California Dept. of Fish and Game, complying with the County's Swainson's Hawk Impact Mitigation Program, or complying with a new Swainson's Hawk mitigation policy/program adopted by the County Board of Supervisors. Mitigation must be provided prior to the approval of improvement plans, building permits or the recordation of final maps, whichever occurs first. The foraging habitat provided must consist of grassland or similar habitat, not cropland, because this mitigation measure also compensates for impacts to species that do not use cropland habitat. The total mitigation habitat area required is 2,267 acres, but may be reduced to 2,231 acres if the areas designated for continued agricultural uses on the eastern and southeastern sides of the Project outside of the Urban Services Boundary are placed under a permanent conservation easement to preserve their availability as foraging habitat. Further adjustments in the amount of replacement foraging habitat may be made at the discretion of the Environmental Coordinator if the avoided area on the western plateau at the Project is increased in size as a result of the Section 404 Permit's requirements. Significant impacts to burrowing owls will also be avoided because the mitigation requires focused burrowing owl surveys within 500 feet of a construction area by a qualified biologist prior to any construction activities. Surveys must be conducted between 14 and 30 days prior to the commencement of construction and be in accordance with the "Burrowing Owl Survey Protocol and Mitigation Guidelines" of the DFG. If no burrows are found, then a letter report shall be submitted to the County and no further mitigation will be necessary. If an occupied burrow is found, then the applicants shall contact the Environmental Coordinator and consult with DFG to determine if burrow avoidance is possible or if burrow relocation is necessary. If burrows are to remain, then a minimum of 6.5 acres of foraging habitat per burrow must be permanently preserved and all construction activity within 160 feet of an occupied burrow will be prohibited between September 1 and January 31, and prohibited within 250 feet between February 1 and August 31. Protective fencing must also be placed around active burrows to protect those buffer zones, and any permanent improvements located at least 250 feet from an occupied burrow being avoided. All mitigation for impacts to burrowing owls, whether they are relocated or their burrows are preserved onsite, must be conducted in accordance with the DFG's "Staff Report on Burrowing Owl Mitigation (October 17, 1995)", and any current updates. In order to avoid significant impacts to tricolored blackbird and their nesting habitat, the Applicants will be required to have a qualified biologist conduct preconstruction surveys for any work undertaken between March 1 and July 31 for nesting tricolored blackbirds. Such surveys will include the construction site and 300 ft., surrounding the site, and will be performed between

14 days and 30 days before work begins. A written report of survey results must be submitted to the Environmental Coordinator prior to any ground disturbing activity taking place. If nesting tricolored blackbird are present, then further mitigation will be required that includes consultation with the DFG to implement avoidance and impact minimization measures as directed by the DFG. Impacts to tricolored blackbirds are to be avoided by establishing a 300 foot temporary fenced setback from any nesting colony until the nesting colony is no longer dependent on the nesting habitat, as determined by a qualified biologist.

Mitigation: The following mitigation measures have been incorporated into the Project as conditions of approval to avoid this impact to special status bird species:

Mitigation Measure BR-3. If construction, grading, or Project-related improvements are to occur between March 1 and September 15, a focused survey for tree- or ground-nesting raptors within 500 feet of the construction site (1/2 mile for Swainson's hawk) and for ground-nesting grasshopper sparrow shall be conducted by a qualified biologist within 14 days prior to the start of construction work (including clearing and grubbing). If active nests are found, the California Department of Fish and Game shall be contacted to determine appropriate protective measures. If no active nests are found during the focused survey, no further mitigation will be required.

Mitigation Measure BR-4. Prior to the approval of improvement plans, building permits, or recordation of the final map, whichever occurs first, implement one of the options below to mitigate for the loss of Swainson's hawk foraging habitat on the Project site; based on current Project designs this is 2,267 acres. Based on current designs, this can be reduced to 2,231 acres of mitigation if the Applicant establishes a permanent conservation easement over the areas designated Agriculture on the eastern and southeastern sides of the site (these are areas outside of the Urban Services Boundary). Foraging habitat preserved shall consist of grassland or similar habitat open habitat, not cropland, because this mitigation measure also offsets impacts to other species that do not use cropland habitat.

A. The project proponent shall utilize one or more of the mitigation options (land dedication and/or fee payment) established in Sacramento County's Swainson's Hawk Impact Mitigation Program (Chapter 16.130 of the Sacramento County Code).

B. The Project proponent shall, to the satisfaction of the California Department of Fish and Game, prepare and implement a Swainson's hawk mitigation plan that will include preservation of Swainson's hawk foraging habitat.

C. Should the County Board of Supervisors adopt a new Swainson's hawk mitigation policy/program (which may include a mitigation fee payable prior to issuance of building permits) prior to the implementation of one of the measures above, the Project proponent may be subject to that program instead.

If the design of the primary Avoided Area on the western plateau (currently 382 acres in size) is increased in size in response to Section 404 wetland permitting requirements, the total amount of mitigation land required may be adjusted downward to reflect this increased avoidance, at the discretion of the Environmental Coordinator.

Mitigation Measure BR-5. Prior to construction activity (including site improvements, and building construction) focused surveys shall be conducted by a qualified biologist for burrowing owls in the construction area and within 500 feet of the construction area. Surveys shall be conducted no less than 14 days and no more than 30 days prior to commencement of construction activities. Surveys shall be conducted in accordance with "Burrowing Owl Survey Protocol and Mitigation Guidelines" published by The California Burrowing Owl Consortium (April 1993). The following shall also apply:

A. If no occupied burrows are found in the survey area, a letter report documenting survey methods and findings shall be submitted to the County and no further mitigation is necessary.

B. If an occupied burrow is found the applicant shall contact the Division of Environmental Review and Assessment and consult with the California Department of Fish (CDFG), prior to construction, to determine if avoidance is possible or if burrow relocation will be required.

C. If owls are to remain on-site, a minimum of 6.5 acres of foraging habitat for each occupied burrow needs to be permanently preserved according to California Department of Fish and Game guidelines. In addition, no activity shall take place within 160 feet of an active burrow from September 1 to January 31 (wintering season) or 250 feet from February 1 through August 31 (breeding season). Protective fencing shall be placed, at the distances above, around the active burrows and no activity shall occur within the protected buffer areas. Permanent improvements shall be a minimum of 250 feet from an occupied burrow.

D. Any impact to active owl burrows, relocation of owls, or mitigation for habitat loss shall be done in accordance with the Fish and Game "Staff Report on Burrowing Owl Mitigation" (October 17, 1995) or the version current at the time of construction. Written evidence from Fish and Game staff shall be provided to the Environmental Coordinator

attesting to the permission to remove burrows, relocate owls, or mitigate for lost habitat, and shall include a plan to monitor mitigation success.

Mitigation Measure BR-6. If construction occurs between March 1 and July 31 pre-construction surveys for nesting tricolored blackbirds shall be performed by a qualified biologist. Surveys shall include the construction site and areas of appropriate habitat within 300 feet of the construction site. The survey shall occur no longer than 14 days prior to the start of construction work (including clearing, grubbing or grading). The biologist shall supply a brief written report (including date, time of survey, survey method, name of surveyor and survey results) to the Environmental Coordinator prior to ground disturbing activity. If no tricolored blackbird were found during the pre-construction survey, no further mitigation would be required. If an active tricolored blackbird colony is found on-site or within 300 feet of the construction site the project proponent shall do the following:

A. Consult with the California Department of Fish and Game to determine if project activity will impact the tricolored blackbird colony(s), and implement appropriate avoidance and impact minimization measures if so directed. Provide the Environmental Coordinator with written evidence of the consultation or a contact name and number from the California Department of Fish and Game.

B. The applicant may avoid impacts to tricolored blackbird by establishing a 300-foot temporary setback with fencing that prevents any project activity within 300 feet of the colony. A qualified biologist shall verify that setbacks and fencing are adequate and will determine when the colonies are no longer dependent on the nesting habitat (i.e. nestlings have fledged and are no longer using habitat), which will determine when the fencing may be removed. The breeding season typically ends in July.

Level of Significance After Mitigation: Less-than-Significant.

3. **Impact: Special Status Species – Invertebrates.** The site contains wetlands suitable for the California linderella, midvalley fairy shrimp, Ricksecker's water scavenger beetle, vernal pool fairy shrimp, and vernal pool tadpole shrimp. Published protocols for the vernal pool fairy shrimp and vernal pool tadpole shrimp contain survey requirement for determining absence, and mitigation to be applied in case of presence or if presence is being assumed. These same measures are applied to the Species of Concern, California linderella and midvalley fairy shrimp as well. Mitigation being required for these species will also serve to provide mitigation for the Ricksecker's water scavenger beetle, which uses the same habitats. Though in-kind mitigation will be required for the loss of habitat on the site, the loss of 46% of the wetlands on the site within an area identified as vital to the recovery for

vernal pool habitats and their dependent species is significant even with mitigation. (Significant)

Finding: Changes or alterations have been required in, or incorporated into, the Project which substantially lessen the significant environmental impacts as identified in the EIR, but not to a less-than-significant level. The presence of California linderella, midvalley fairy shrimp, vernal pool shrimp and vernal pool tadpole shrimp will be assumed, unless USFWS protocol surveys are performed to determine that those species are not present. If those species are absent, then the Ricksecker's water scavenger may also be presumed to be absent, and no further mitigation will be required. If the species are present or their presence is being assumed, then the vernal pools to be avoided shall have a 250 ft. buffer established where no construction will be allowed. Where vernal pools are being filled, then all applicable permits must be obtained from the USFWS, Army Corps of Engineers, DFG and Central Valley California Regional Water Quality Control Board and mitigation provided as required by the permits. At a minimum, the mitigation ratios shall be consistent with County General Plan Policy of no net loss of wetland resources. Any vernal pool loss not mitigated for through the permit process shall be mitigated for by purchase of credits at a mitigation bank or by the protection of offsite wetlands with a permanent conservation easement approved by the Environmental Coordinator.

Mitigation: The following mitigation measures have been incorporated into the Project as conditions of approval to lessen and reduce the Project's significant and unavoidable impacts on the identified special status invertebrates:

Mitigation Measure BR-7: Presence of California linderella, midvalley fairy shrimp, vernal pool fairy shrimp and vernal pool tadpole shrimp shall be assumed unless determinate surveys that comply with U.S. Fish and Wildlife protocols conclude that the species are absent. If the protocol surveys are performed and all listed crustacean species are absent, Ricksecker's water scavenger beetle may also be presumed absent, and no further mitigation shall be required for listed vernal pool invertebrates. If species are found, one or a combination of the following shall apply:

A. *Total Avoidance: Species are present or assumed to be present.* Unless a smaller buffer is approved through formal consultation with the Fish and Wildlife Service, construction fencing shall be installed a minimum of 250 feet from all delineated vernal pool margins. All construction activities are prohibited within this buffer area. For all vernal pools where total avoidance is achieved, no further action is required.

B. *Compensate for habitat removed.* Obtain all applicable permits from the U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, California Department of Fish and Game, and the Central Valley Regional Water Quality Control Board for any proposed modifications to vernal pools and mitigate for habitat loss in accordance

with the Biological Opinion and Section 404 permits obtained for the Project. At a minimum, mitigation ratios shall be consistent with County General Plan Policy, which requires no net loss of wetland resources. Any vernal pool loss not mitigated through the permitting process shall be mitigated for by payment into a mitigation bank or protection of off-site wetlands through the establishment of a permanent conservation easement, subject to the approval of the Environmental Coordinator.

Level of Significance After Mitigation: Significant and Unavoidable.

4. **Impact: Special Status Species – Plants.** The Project site was surveyed for special status plant species in May 2007, April and June 2008, and May and July 2010 by ECORP Consulting Inc. The special status plant surveys revealed two special status species present on the Project site: legenere and Sacramento Orcutt grass. The wetlands containing these plants are located within Avoided Areas, but given the proximity of these wetlands to development areas, mitigation requires additional measures be implemented to control invasive species and to avoid pollution runoff from urban activities. (Potentially Significant)

Finding: Changes or alterations have been required in, or incorporated into, the Project which avoid the potentially significant environmental impacts to the identified special status plant species identified in the EIR and will make the impact less-than-significant. In order to ensure that the potentially significant impact is reduced to a less-than-significant level, the mitigation measures require the Applicants to prepare a pesticide and pollution prevention plan for any construction activities that might encroach within the 250 ft. buffer around vernal pools 358, 363, 370, 426 or 511 in order to reduce pollution run-off, pesticide drift and other similar contaminants from impacting those vernal pools and their plants, and to protect the preserve areas from urban contaminants. Such a plan will have to be incorporated into the Operations and Management Plan for the preserves required by the Section 404 Permit process. In addition, to further protect the special status plant species in the preserve areas, the Applicants will be required to prepare an invasive species removal and prevention plan to remove invasive species from preserve areas and to restore the affected wetland features. This plan will also have to be incorporated into the operations and Management Plan required as part of the Section 404 permit process and thereby protect the special status plant species from harm by invasive species.

Mitigation: The following mitigation measures have been incorporated into the Project to substantially lessen the Project's significant and unavoidable impacts to the special status plant species identified in the EIR:

Mitigation Measure BR-8: If construction activities encroach within the 250-foot buffer for vernal pools 358, 363, 370, 426 or 511 the applicant shall prepare a pesticide and pollution prevention plan. The plan shall

include measures to reduce pollution run-off, pesticide drift, and other similar potential contaminants, to protect surrounding preserve areas from urban contaminants. Measures shall include the implementation of best management practices (e.g. straw wattles, silt fencing, and soil stabilization) for stormwater control. The plan shall be incorporated in the Operations and Management Plan which is a requirement of the Section 404 permit process

Mitigation Measure BR-9: The project applicant shall prepare an invasive species removal and prevention plan. The plan shall provide methods to remove invasive species from preservation areas and to restore the affected wetland features. The plan shall include methods for the prevention of the introduction of new invasive species from landscapes associated with the development. Minimum components of such a plan shall include: mapping of existing invasive plant populations within the avoided areas, with the map being updated a minimum of every five years; a description of acceptable methods for removing invasive species, examples of which include hand removal or biological controls (e.g. natural parasites); and a prohibition on the use of non-native plants within either the avoided areas or the Recreation-2 areas. The plan shall be incorporated in the Operations and Management Plan which is a requirement of the Section 404 permit process.

Level of Significance After Mitigation: Less-than-Significant.

CLIMATE CHANGE

1. **Impact:** In concert with state and federal activities, the design features of the SPA are intended to offset the Project climate change impact. Ideally, this mitigation would reduce the Project emissions and climate change impacts to levels that are not cumulatively significant, but there are many unknown variables and implementation challenges. Given the substantial emissions which will result from the Project and the uncertainties related to target-setting and the current state of modeling the analysis in the EIR concluded that the Project impacts on climate change may remain significant. The effects of climatic changes on the Sacramento region are potentially significant, and can only be mitigated through both adaptation and reduction strategies. By requiring mitigation of projects that may result in significant greenhouse gas emissions, and by adopting County programs and changes in government operations, the County is implementing all feasible strategies to reduce the effects of climate change on the region. Nonetheless, it is probable that these strategies will not be sufficient to offset all of the impacts of climate change, and that some of these impacts will continue to be significant. (Significant)

Finding: Changes or alterations have been required in, or incorporated into, the Project which substantially lessen the significant environmental impact as identified in the EIR, but not to a less-than-significant level. While climate change mitigation measure CC-1 will reduce and lessen the climate change impacts generated by the Project by requiring all amendments to the SPA to include an analysis of the effect of the amendment on greenhouse gas emissions so as not to exceed an average of 5.80 metric tons per capita (including emissions from building energy usage and vehicles) the cumulative contribution to greenhouse gas emissions will nonetheless remain significant and unavoidable.

Mitigation: The following mitigation measure has been incorporated into the Project to substantially lessen the Project's significant and unavoidable impacts on climate change:

Mitigation Measure CC-1. The following text shall be added to the Cordova Hills SPA: "All amendments to the SPA with the potential to change the SPA-wide GHG emissions shall include an analysis which quantifies, to the extent practicable, the effect of the Amendment on SPA-wide greenhouse gas emissions. The Amendment shall not increase SPA-wide greenhouse gas emissions above an average 5.80 metric tons per capita (including emissions from building energy usage and vehicles). If the SPA amendment would require a change in the approved GHG Reduction Plan in order to meet the 5.80 MT CO₂e threshold, then the proponent of the SPA amendment shall consult with the SMAQMD on the revised analysis and shall prepare a revised GHG Reduction Plan for approval by the County, in consultation with SMAQMD."

Level of Significance After Mitigation: Significant and Unavoidable.

CULTURAL RESOURCES

1. **Impact:** The Project area contains three historic era sites, and a fourth historical site that is included in a multi-component site. One prehistoric bedrock mortar station site and one prehistoric component of a multi-component site were discovered in the Project area. None of the sites are associated with any important persons or events in California or national history. They are not considered to be unique and do not represent the work of a master or possess high artistic values. In all cases, the historic sites lack sufficient cultural material to address research questions. All of the historic sites were evaluated as not eligible under any criteria for the National Register of Historic Places or the California Register of Historical Resources and are not considered a historical resource or unique archeological resource as defined by CEQA. There always remains a potential to encounter buried or as yet undiscovered resources during land clearing and construction work. Mitigation is included to ensure that such resources are treated appropriately if discovered. (Potentially Significant)

Finding: Mitigation measures require that the Applicants halt all work within a 200 ft. radius of the discovery and have a qualified archeologist evaluate the significance of the find. If a resource is found that is potentially eligible for listing on the National Register or California Register or is cultural in origin, then the Applicants shall either arrange for total avoidance or test excavations or total data recovery as mitigation. A determination of how to treat the resource shall be made by the archeologist, DERA and the Applicants, and shall be documented in writing and submitted to DERA. If human remains are discovered, then work will stop and the County Coroner shall be notified. If the remains are determined to be Native American in origin, then the guidelines of the Native American Heritage Commission shall be followed in the treatment and disposition of the remains.

Mitigation: The following mitigation measure has been incorporated into the Project to avoid the potentially significant impacts to cultural resources identified in the EIR:

Mitigation Measure CR-1. If subsurface deposits believed to be cultural or human in origin are discovered during construction, then all work must halt within a 200-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeology, shall be retained at the Applicant's expense to evaluate the significance of the find. If it is determined due to the types of deposits discovered that a Native American monitor is required, the Guidelines for Monitors/Consultants of Native American Cultural, Religious, and Burial Sites as established by the Native American Heritage Commission shall be followed, and the monitor shall be retained at the Applicant's expense. Work cannot continue within the 200-foot radius of the discovery site until the archaeologist conducts sufficient research and data collection to make a determination that the resource is either 1) not cultural in origin; or 2) not potentially eligible for listing on the National Register of Historic Places or California Register of Historical Resources. If a potentially-eligible resource is encountered, then the archaeologist, the Environmental Coordinator, and project proponent shall arrange for either 1) total avoidance of the resource, if possible; or 2) test excavations or total data recovery as mitigation. The determination shall be formally documented in writing and submitted to the Environmental Coordinator as verification that the provisions of CEQA for managing unanticipated discoveries have been met. In addition, pursuant to Section 5097.97 of the State Public Resources Code and Section 7050.5 of the State Health and Safety Code, in the event of the discovery of human remains, all work is to stop and the County Coroner shall be immediately notified. If the remains are determined to be Native American, guidelines of the Native American Heritage Commission shall be adhered to in the treatment and disposition of the remains.

Level of Significance After Mitigation: Less-than-Significant.

HAZARDS AND HAZARDOUS MATERIALS

1. **Impact:** The Project area was assessed for on-site hazardous conditions, and this assessment concluded that there is no evidence of any recognized hazardous conditions that may have a significant adverse effect on the development of the Project. There are three agency-listed contaminated sites within approximately one mile of the Project. These include the Sacramento County Boys Ranch (a juvenile correction facility within 1,000 feet of the eastern Project boundary), Aerojet (located just over a mile to the northwest), and the Kiefer Landfill (located approximately 2,000 feet to the south). The Boys Ranch hazardous condition was remediated and the case closed. Aerojet remediation activities are ongoing. Contaminated soils from Aerojet would not affect the Project, as these are off-site, while the groundwater contamination plumes are migrating away from the Project area. Groundwater contamination at Kiefer Landfill is likewise migrating away from the Project. The Project will also be using public water provided through the Sacramento County Water Agency, not groundwater. Landfill gas migration from Kiefer Landfill also appears not to affect the site, but a mitigation measure is nonetheless included for the small portion of the site outside of the Urban Services Boundary that is within the 2,000 foot buffer established around the Kiefer Landfill. (Potentially Significant)

Finding: Changes or alterations have been required in, or incorporated into, the Project which avoid the potentially significant environmental effects of hazardous materials on the Project area from landfill gas generated by buried waste at the Kiefer Landfill. Those measures require any structure within the Project area that is within 1,000 feet of buried waste at Kiefer Landfill to be continuously monitored for the landfill gas and designed and constructed to prevent landfill gas accumulation within the structure in order to prevent adverse impacts from the landfill gas.

Mitigation: The following mitigation measure has been incorporated into the Project to avoid the potentially significant impacts arising from landfill gas generated by buried waste at the Kiefer Landfill on people and structures in the Project area identified in the EIR:

Mitigation Measure HM-1. Any structure within the Project boundaries (including but not limited to, buildings, subsurface vaults, utilities, or any other areas where potential landfill gas buildup may cause adverse impacts to the public health or safety or the environment) within 1,000 feet of buried waste or proposed buried waste at Kiefer Landfill (refer to Plate HM-2 of the EIR) shall be continuously monitored by the owner/operator of said structure for landfill gas and be designed and constructed to prevent landfill gas accumulation in those structures.

Level of Significance After Mitigation: Less-than-Significant.

LAND USE

1. **Impact: Conflict with SACOG Blueprint and General Plan Policy.** The Project includes a wide variety of transportation choices, an array of housing choices, a mix of uses, compact community design, and fosters a sense of place. While acknowledging that in terms of internal community design the Project appears to be an excellent example of “smart growth” development and is consistent with relevant General Plan policies, it must also be acknowledged that the Project conflicts with the principles with respect to the preservation of open space and the proximity to existing developed communities. In terms of open space preservation, the analysis is somewhat subjective, and the Project has directed preservation toward the most sensitive vernal pool areas of the site. In terms of directing development toward existing communities, the conflict is more clear. Though projected for future development, the Blueprint envisions growth occurring from the existing city centers outward rather than the reverse and did not forecast growth taking place in the Project area until the Year 2050. This is a fundamental underpinning to the Blueprint, and as a result, the Project’s inconsistency with this principle is considered substantial. (Significant and Unavoidable)

Finding: There are no mitigation measures that would lessen the Project’s conflict with the SACOG Blueprint. While the Project is adjacent to areas within the City of Rancho Cordova that are zoned and fully entitled for urban development, the nearest developed area with housing and infrastructure is approximately one mile away from the Project site. As stated in the SACOG Blueprint, it is not intended to be applied or implemented in a literal, parcel-level manner and was not intended to indicate that a specific parcel should or should not be developed in a particular manner. That level of planning is the responsibility of local governments and is beyond the specificity appropriate for regional scale, long-term scenario planning. (See, SACOG, *Blueprint Growth Principles*, 2004.) The Project’s conflict with the SACOG Blueprint is one of timing and differences in principle interpretation, insofar as the Blueprint did not estimate growth taking place in the Project area until the Year 2050.

Mitigation: There is no mitigation available.

Level of Significance After Mitigation: Significant and Unavoidable.

NOISE

1. **Impact: Traffic Noise.** Traffic on the internal Project roadways and on Grant Line Road will generate noise that has the potential to exceed General

Plan noise standards related to both residential and non-residential uses. Mitigation is included to ensure that future subdivisions and non-residential developments are constructed in a manner that achieves compliance with General Plan standards. (Significant)

Finding: Changes or alterations have been required in, or incorporated into, the Project which will avoid the potentially significant environmental effects arising from traffic noise that could exceed General Plan noise standards related to residential uses and non-residential uses. Those measures require any residential uses that would be exposed to a noise level greater than 65 dB Ldn at the property line to be designed to reduce noise levels for exterior activity areas in compliance with the standards stated in the General Plan's Noise Element. Residential projects exposed to noise levels greater than 70 dB Ldn at the property line must be designed and constructed to achieve an interior noise level of 45 dB Ldn or less. Non-residential development projects, such as churches, libraries, meeting halls, and schools exposed to greater than 60 dB Ldn, and all non-residential development projects such as transient lodging, hospitals and nursing homes, and office buildings exposed to greater than 65 dB Ldn at the property line must demonstrate that the interior noise level will not exceed the standards in the General Plan's Noise Element. Those standards may be satisfied by use of noise barriers, increased setbacks, enhanced building construction techniques, or the strategic placement of structures. Non-residential projects may demonstrate compliance by documenting that the location of the noise contours and assuming a standard exterior-to-interior noise attenuation of 25 dB. In all other cases the noise reduction must be substantiated by an acoustical analysis performed by a qualified acoustical consultant that is submitted to and verified by DERA prior to the issuance of any building permits for residential areas. All parks exposed to noise levels in excess of 70 dB Ldn must be designed and constructed to reduce noise levels in park activity areas to comply with General Plan Noise Element standards by means of noise barriers, setbacks and strategic placement of play structures, and substantiate the reduction by way of an acoustical analysis prepared by a qualified acoustical consultant and verified by DERA prior to issuance of building permits for the park sites in order to demonstrate compliance with the mitigation requirements.

Mitigation: The following mitigation measures have been incorporated into the Project to avoid the significant impacts from noise on residential uses, non-residential uses and park sites within the Project, as identified in the EIR:

NO-1. All residential development projects exposed to greater than 65 dB L_{dn} (as identified in Appendix NO-1) at the property line shall be designed and constructed to reduce noise levels to within General Plan Noise Element standards for exterior activity areas. Potential options for achieving compliance with noise standards include, but are not limited to, noise barriers, increased setbacks, and/or strategic placement of structures. An acoustical analysis substantiating the required noise level reduction,

prepared by a qualified acoustical consultant shall be submitted to and verified by the Environmental Coordinator prior to the issuance of any building permits for affected sites.

NO-2. All residential development projects exposed to greater than 70 dB L_{dn} (as identified in Appendix NO-1) at the property line shall be designed and constructed to achieve an interior noise level of 45 dB L_{dn} or less. Potential options for achieving compliance with noise standards include, but are not limited to, noise barriers, increased setbacks, strategic placement of structures and/or enhanced building construction techniques. An acoustical analysis substantiating the required noise level reduction, prepared by a qualified acoustical consultant, shall be submitted to and verified by the Environmental Coordinator prior to the issuance of any building permits for the site.

NO-3. Non-residential development projects such as churches, libraries, meeting halls, and schools exposed to greater than 60 dB L_{dn} , and all non-residential development projects such as transient lodging, hospitals and nursing homes, and office buildings exposed to greater than 65 dB L_{dn} (as identified in Appendix NO-1) at the property line shall demonstrate that interior noise volumes will not exceed General Plan Noise Element standards for non-residential uses exposed to traffic noise. This may be accomplished by providing documentation that the type of use is within acceptable limits based on the location of the identified noise contours and assuming standard exterior-to-interior attenuation of 25 dB. If this cannot be demonstrated, an acoustical analysis substantiating the required noise level reduction, prepared by a qualified acoustical consultant, shall be submitted to and verified by the Environmental Coordinator prior to the issuance of any building permits for affected sites. Potential options for achieving compliance with noise standards include, but are not limited to, noise barriers, increased setbacks, strategic placement of structures and/or enhanced building construction techniques. The measure does not apply to commercial uses.

NO-4. All parks exposed to noise volumes in excess of 70 dB (as identified in Appendix NO-1) at the property line shall be designed and constructed to reduce noise levels within park activity areas (benches, play structures, etc.) to within General Plan Noise Element standards for parks. Potential options for achieving compliance with noise standards include, but are not limited to, noise barriers, increased setbacks, and/or strategic placement of structures. For barrier and other structural options, an acoustical analysis substantiating the required noise level reduction, prepared by a qualified acoustical consultant shall be submitted to and verified by the Environmental Coordinator prior to the issuance of any building permits for affected sites.

Level of Significance After Mitigation: Less than Significant.

2. **Impact: Onsite Stationary and Community Noise.** The Project includes uses which include noise-generating sources such as playing fields, loading docks, a corporation yard, and other uses. Mitigation is included to require that all such uses located adjacent to residential lands be designed so as not to cause the General Plan standards to be exceeded. (Significant)

Finding: Changes or alterations have been required in, or incorporated into, the Project which will avoid the significant environmental effects arising from noise generated from onsite stationary and community sources that could exceed General Plan noise standards by requiring non-residential development adjacent to residential properties to be constructed so as to ensure that noise levels generated by the non-residential use does not exceed the standards in the General Plan Noise Element and requiring the noise level reduction is substantiated by an acoustical analysis prepared by a qualified acoustical consultant and submitted to the Environmental Coordinator prior to issuance of any building permits for the non-residential uses that have the potential to generate substantial noise levels if located adjacent to residential uses.

Mitigation: The following mitigation measures have been incorporated into the Project to avoid the significant impacts from noise generated from onsite stationary sources and community noise sources on residential uses at the Project, as identified in the EIR:

NO-5. All non-residential development projects located adjacent to residentially designated properties shall be designed and constructed to ensure that noise levels generated by the uses do not result in General Plan Noise Element standards being exceeded on adjacent properties. An acoustical analysis substantiating the required noise level reduction, prepared by a qualified acoustical consultant shall be submitted to and verified by the Environmental Coordinator prior to the issuance of any building permits for the non-residential projects with the potential to generate substantial noise (e.g. car wash, auto repair, or buildings with heavy-duty truck loading docks) if those uses are adjacent to residentially designated properties. The acoustical analysis shall include, but not be limited to, consideration of potential noise conflicts due to operation of the following items:

- Outdoor playing fields;
- Mechanical building equipment, including HVAC systems;
- Loading docks and associated truck routes;
- Refuse pick up locations; and
- Refuse or recycling compactor units.

Level of Significance After Mitigation: Less than Significant.

3. **Impact: Substantial Increase in Existing Ambient Noise.** The Project would result in a substantial increase in existing ambient noise for multiple roadway segments, but only two of these include receptors which would be impacted: Sunrise Boulevard and Douglas Boulevard. Noise volumes would be increased by 2 dB on Sunrise Boulevard and by 7 dB and 10 dB along Douglas Boulevard. Based on the existing noise environments, these are substantial increases. On Sunrise Boulevard, a noise barrier is not appropriate because businesses rely on visibility to attract customers, and on Douglas Road a barrier is already present. Thus, no further improvements can be made to reduce impact. (Significant and Unavoidable)

Finding: There are no mitigation measures that would lessen the substantial increase in the ambient noise level that would result from the noise generated on Sunrise Boulevard and Douglas Boulevard by Project-generated traffic. A noise barrier is already present on Douglas Road and there is no other feasible mitigation possible. A noise barrier would not be appropriate and feasible mitigation along Sunrise Boulevard because the commercial uses along it depend on visibility from the roadway to attract their customers.

Mitigation: There is no mitigation available.

Level of Significance After Mitigation: Significant and Unavoidable.

PUBLIC UTILITIES

1. **Impact: Construction Impacts.** Water, sewer, and dry utility lines constructed within the Project boundaries would not cause any additional utility-specific construction impacts, as utility construction will occur within areas that will already urbanize as part of the Project. Most of the off-site utility lines are shown within areas already proposed for utility construction as part of service provider master planning documents. There are some improvement areas which have not already been studied or approved, and which are likely to contribute to wetland impacts and impacts to associated species. (Significant and Unavoidable)

Finding: There are no mitigation measures that would lessen the impacts from construction related to providing public utilities to the project site to a less-than-significant level. While mitigation measures AQ-1, BR-1, BR-3, BR-4, BR-5, BR-7, BR-8, and CR-1 described above all would apply to the construction of public utilities at the Project site, they would not reduce the construction impacts to a less than significant level.

Mitigation: There is no mitigation available in addition to Mitigation Measures AQ-1, BR-1, BR-3, BR-4, BR-5, BR-7, BR-8, and CR-1 that have already been required at the Project to lessen its environmental impacts.

Level of Significance After Mitigation: Significant and Unavoidable.

TRAFFIC AND CIRCULATION

Mitigation Measures in the EIR being implemented through Conditions of Approval.

The Board considered each of the proposed Mitigation Measures in the EIR for the Project's Traffic and Circulation impacts. In most circumstances, the Board determined that it would be appropriate to implement the proposed Mitigation Measures with Conditions of Approval that were adopted for the Project in order to better accomplish the mitigation. In the instances when the Board has done so, it was determined that the Condition of Approval was more specific and better designed to implement the mitigation for the identified impact described in the FEIR.

With regard to Mitigation Measure TR-1.B, it was determined in the FEIR that due to the completion of construction of the Zinfandel Drive extension project and the installation of a new traffic signal at the Douglas Road and Zinfandel Drive/Eagles Nest Road intersection, Mitigation Measure TR-1.B is no longer needed. Mitigation Measure TR-1.F was deleted because the County is currently constructing this improvement. Mitigation Measure TR-5.H was deleted because the improvement has been constructed by others. The timing for the implementation of Condition of Approval #61 that is being used to implement Mitigation Measure TR-2.D has also been changed by Condition of Approval No. 61 to require them at 500 DUEs, instead of at 3,200 DUEs.

Also note that the language of Mitigation Measure TR-2.D has changed. The reasoning for the change was dual: the Board desired a measure which would succeed in reducing the impact while also improving the north-south flow conditions at this intersection (though not necessary due to a Project impact) and because Measure TR-2.D. would have required more extensive roadway work. County DOT performed further analysis of the mitigation measure and found that there was an alternative reconfiguration which would reduce the amount of reconstruction needed, which would improve north-south flow, and would also result in an equivalent LOS as measure TR-2.D. The revised lane reconfigurations consist of the following: two eastbound through lanes, an eastbound right turn lane, and an eastbound left turn lane; a northbound left turn lane, two northbound through lanes and a northbound right turn lane; a westbound through lane, a westbound right turn lane and a westbound left turn lane; a southbound through lane, a southbound left turn lane, and a southbound right turn lane. The threshold for construction of the above intersection improvements has also been changed by Condition of Approval No. 61 to require them at 500 DUEs, instead of at 3,200 DUEs.

The Board finds that the Conditions of Approval identified below will implement the roadway and intersection improvements needed by the corresponding Mitigation Measure for the identified impacts and therefore implements the revised Mitigation Measures in the FEIR with the identified Conditions of Approval. The Board further finds that while those referenced Conditions of Approval would substantially lessen the Project's significant and unavoidable impacts on transportation and circulation arising from the Project in the "Cumulative Plus Project" scenario, they would not reduce the impacts to a less than significant level. In addition,

the Board must find that because many of the traffic improvements would be needed in jurisdictions beyond the County's control and authority, the Board must find that the traffic impacts on those roadway segments and intersections identified in the EIR to be significant and unavoidable. Within the Cordova Hills Project Area, the impacts to North Loop Road from Street D to Street F would not be addressed by any of those Conditions of Approval, so Mitigation Measure TR-10 proposed in the EIR will continue to be required to substantially reduce the Cumulative Plus Project traffic impact, although it would not do so to a less than significant level. As noted in the EIR, because the County does not have exclusive jurisdiction over roadways and intersections situated partly or wholly within the boundaries of another government jurisdiction, the County cannot be assured that the recommended improvements situated wholly or partly in those other jurisdictions will be constructed, and must therefore conclude that the below identified impacts would remain significant and unavoidable for purposes of CEQA.

1. **Impact: Existing Plus Project.** The Project results in significant impacts to six County intersections, ten City of Rancho Cordova intersections, the Zinfandel and US 50 freeway ramp intersection, two County roadway segments, one City of Elk Grove roadway segment, eleven City of Rancho Cordova roadway segments, two US 50 freeway segments, and bicycle and pedestrian facilities. Mitigation is included which will improve operating conditions to acceptable levels for most of these facilities, but there are some impacts for which no feasible mitigation exists. These are: the Zinfandel and US 50 freeway ramp intersection and Sunrise Boulevard from US 50 to White Rock Road. Furthermore, the County does not have land use authority in other jurisdictions, and cannot guarantee that non-County facilities will be constructed. The following intersections and roadway segments would be significantly impacted under the "Existing Plus Project" scenario:

Bradshaw Road and Jackson Road – intersection.
Mather Boulevard and Douglas Road – intersection.
Eagles Nest Road and Jackson Road – intersection.
Grant Line Road and Sunrise Boulevard – intersection.
Grant Line Road and White Rock Road – intersection.
Prairie City Road and White Rock road – intersection.
School Access and North Loop Road – intersection.
Zinfandel Drive and White Rock Road – intersection.
Sunrise Boulevard and White Rock Road – intersection.
Sunrise Boulevard and Douglas Road – intersection.
Sunrise Boulevard and Jackson Road – intersection.
Grant Line Road and Jackson Road – intersection.
Grant Line Road and Kiefer Boulevard – intersection.
Grant Line Road and Douglas Road – intersection.
Grant Line Road and North Loop Road – intersection.
Grant Line Road and Chrysanthy Boulevard – intersection.

Grant Line Road and University Boulevard – intersection.
 Prairie City Road from US 50 to White Rock Road – roadway.
 Grant Line Road from Sheldon Road to Calvine Road – roadway.
 Grant Line Road from Jackson Road to Kiefer Boulevard – roadway.
 Grant Line Road from Kiefer Boulevard to University Boulevard – roadway.
 Grant Line Road from University Boulevard to Chrysanthy Boulevard – roadway.
 Grant Line Road from Chrysanthy Boulevard to North Loop Road – roadway.
 Grant Line Road from North Loop Road to Douglas Road – roadway.
 Grant Line Road from Douglas Road to White Rock Road – roadway.
 Jackson Road from Sunrise Boulevard to Grant Line Road – roadway.
 Douglas Road from Sunrise Boulevard to Rancho Cordova Parkway – roadway.
 Douglas Road from Rancho Cordova Parkway to Grant Line Road – roadway.
 Westbound US 50 from Hazel Avenue to Sunrise Boulevard – freeway.
 Eastbound US 50 from Sunrise Boulevard to Hazel Avenue – freeway.

Finding: Specific economic, legal, social, technological, or other considerations make infeasible the project alternatives identified in the EIR. There are a number of mitigation measures that would avoid the impacts from traffic generated by the Project in the “Existing Plus Project” scenario to a less than significant level, but due to the fact that many of the mitigation measures described in the EIR would need to be implemented in adjacent jurisdictions, the County cannot guarantee that the suggested traffic improvements would ever get funded and constructed. Consequently, the Board must find that because many of the traffic improvements would be needed in jurisdictions beyond the County’s control and authority, the Board must find that the Project’s traffic impacts on those roadways segments and intersections identified in the EIR to be significant and unavoidable. In other cases, even if the suggested traffic mitigation improvement were to get built, it would still not result in a level of service that would allow the Board to reach a conclusion that the Project’s impacts are less-than-significant.

Mitigation: The following mitigation measures or agency recommendations/requirements have been incorporated into the Project as conditions of approval to substantially lessen the Project’s traffic and circulation impacts, but not to a less than significant level:

Mitigation Measure TR-1. The applicant shall construct or fund, as set forth in the phasing and financing plan approved by the Sacramento County Department of Transportation, the below mitigation measures. The phasing and financing plan shall ensure commencement of construction of traffic improvements prior to degradation of LOS below applicable County standards. This mitigation recognizes that should any of the measures below benefit other

projects, a reimbursement agreement and/or a fee credit to the applicant may be considered.

- A. *Bradshaw Road and Jackson Road* – Provide a second westbound through lane.
- B. *Mather Boulevard and Douglas Road* – Deleted because a traffic signal at Douglas Road/Zinfandel Drive was constructed during preparation of the Final EIR and additional analysis showed that another signal is no longer needed..
- C. *Eagles Nest Road and Jackson Road* – Construct a new traffic signal. Provide a left turn lane and a through-right turn shared lane on the northbound and southbound approaches.
- D. *Grant Line Road and Sunrise Boulevard* – Provide a separate southbound right turn lane so the southbound approach has one left turn lane, one through lane and one right turn lane.
- E. *Grant Line Road and White Rock Road* – Modify the intersection and traffic signal To provide dual left turn lanes and two through lanes on the northbound approach; provide two through lanes and a separate right turn lane on the southbound approach; and provide two left turn lanes and a separate right turn lane on the eastbound approach. On the western leg of the intersection, two westbound departure lanes are required.
- F. *Prairie City Road and White Rock Road* – Deleted because this improvement is in the process of being completed by a County DOT project.
- G. *School Access and North Loop Road* – Provide dual eastbound left turn lanes. The applicant shall be responsible for a focused access study addressing the internal circulation of the Cordova Hills project to finalize the design of intersection geometries and length of left turn pockets. The scope of work for the analysis shall be submitted to the Sacramento County DOT staff. Upon completion, the analysis shall be submitted to the Sacramento County DOT for approval and recommendations.

Implementation of Mitigation Measure TR-1 will be accomplished by satisfaction of the following Conditions of Approval requiring the identified transportation improvements:

Condition 41. As part of intersection improvements, provide dual eastbound left turn lanes at the intersection of North Loop Road and the proposed school access pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation. (Mitigation Measures TR-1.G and TR-8.A)

Condition 59. Modify the existing intersection of Bradshaw Road and Jackson Road (State Route 16) to provide a second westbound through lane pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation and Caltrans. Note: The additional westbound through lane shall be carried through the intersection. (Mitigation Measure: TR-1.A) (Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 2,000 DUEs within the Cordova Hills SPA)

Condition 60. Commence reconstruction and widening of the existing intersection of Grant Line Road and White Rock Road pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation. Improvements shall include dual northbound left turn lanes and two northbound through lanes; two southbound through lanes and one southbound right turn lane; two eastbound left turn lanes, and one eastbound right turn lane. On the western leg of the intersection, two westbound departure lanes are required. Note: A project to widen White Rock Road from two lanes to four lanes between Grant Line Road and Prairie City Road is currently (2012) under construction. (Mitigation Measure: TR-1.E) (Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 3,200 DUEs within the Cordova Hills SPA)

Condition 67. Commence reconstruction and widening of the existing intersection of Eagles Nest Road at Jackson Road (State Route 16) to a signalized intersection pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation and Caltrans. Improvements shall include a left turn lane and a through-right turn shared lane on the all approaches. (Mitigation Measure: TR-1.C) (Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 4,500 DUEs within the Cordova Hills SPA)

Condition 68. Commence reconstruction and widening of the existing intersection of Grant Line Road at Sunrise Boulevard to provide a separate southbound right turn lane so the southbound approach has one left turn lane, one through lane, and one right turn lane pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation. (DEIR Mitigation Measure: TR-1.D) (Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 5,800 DUEs within the Cordova Hills SPA)

Mitigation Measure TR-2. The applicant shall construct or fund, as set forth in the phasing and financing plan approved by the Sacramento County Department of Transportation, and in consultation with the City of Rancho Cordova, the below mitigation measures. The phasing and financing plan shall ensure commencement of construction of traffic improvements prior to degradation of LOS below the applicable County or City standards. This mitigation recognizes that should any of the measures below benefit other projects, a reimbursement agreement may be considered.

A. *Zinfandel Drive and White Rock Road* – The applicant shall be responsible for a fair share of this measure. Provide separate dual right turns on the westbound approach so the westbound approach has two left turn lanes, two through lanes and two right turn lanes. The fair share shall be calculated to the satisfaction of Sacramento County Department of Transportation and may be up to 100% of the cost of the improvements.

B. *Sunrise Boulevard and White Rock Road* – Provide overlap phasing on the eastbound and westbound approaches.

C. *Sunrise Boulevard and Douglas Road* – Provide overlap phasing on the westbound approach.

D. *Sunrise Boulevard and Jackson Road* – Provide an eastbound through lane, an eastbound through-right turn shared lane, and an eastbound left turn lane; a northbound left turn lane, two northbound through lanes, and a right turn lane; one westbound through lane, a westbound right turn lane, and a westbound left turn lane; a southbound through lane, a southbound left turn lane, and a southbound right turn lane.

E. *Grant Line Road and Jackson Road* – The applicant shall be responsible for a fair share of this measure. Provide a left turn lane and a through-right shared turn lane on the eastbound and westbound approaches. Provide a separate left turn lane, a through lane and a separate right turn lane on the northbound and southbound approaches. The fair share shall be calculated to the satisfaction of Sacramento County Department of Transportation and may be up to 100% of the cost of the improvements.

F. *Grant Line Road and Kiefer Boulevard* – Construct a new traffic signal. Provide a left turn lane, a through lane and a through-right turn shared lane on the northbound and southbound approaches; provide a left turn lane and a through-right turn shared lane on the eastbound and westbound approaches.

G. *Grant Line Road and Douglas Road* – Construct a new traffic signal. Provide dual left turn lanes and a separate through lane on the

northbound, a through lane and a through-right turn shared lane on the southbound approach, and a separate left turn lane and a free-right turn lane on the eastbound approach. Also an extra southbound departure lane is needed for the eastbound free-right movement. To be consistent with the segment mitigations a second northbound through lane is included.

H. *Grant Line Road and North Loop Road* – Construct a new traffic signal. Provide two through lanes and a separate right turn lane on the northbound approach, dual left turn lanes and one through on the southbound approach, and one left turn lane and one free-right turn lane on the westbound approach. Also an extra northbound departure lane is needed for the westbound free-right movement. To be consistent with the segment mitigations a second southbound through lane is included.

I. *Grant Line Road and Chrysanthy Boulevard* – Construct a new traffic signal. Provide a through lane and a separate right turn lane on the northbound approach, dual left turn lanes and a through lane on the southbound approach, and dual left turn lanes and one right turn lane on the westbound approach. To be consistent with the segment mitigations a second northbound and southbound through lane is included. Also provide two westbound through lanes for when Chrysanthy Boulevard is connected through Rancho Cordova.

J. *Grant Line Road and University Boulevard* – Construct a new traffic signal. Provide a through lane and a separate free-right turn lane on the northbound approach, dual left turn lanes and one through lanes on the southbound approach, and dual left turn lanes and a right turn lane on the westbound approach. Also an extra eastbound departure lane is needed for the northbound free-right movement. To be consistent with the segment mitigations a second northbound and southbound through lane is included.

Implementation of Mitigation Measure TR-2 will be accomplished by satisfaction of the following Conditions of Approval requiring the identified transportation improvements:

Condition 49. Commence reconstruction and widening of the intersection of University Boulevard and Grant Line Road pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion of such improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. Improvements shall include modification of the existing traffic signal, providing a u-turn lane, two through lanes, and a free right turn lane on the northbound approach; two left turn lanes and two through lanes on the southbound approach; and two left turn lanes and a right turn lane on the westbound approach. Note: The two westbound

left turn lanes shall be extended to a length based on the queuing analysis and to the satisfaction of the Department of Transportation. For the free-right turn movement, provide sufficient acceleration lane and taper length and grant the right of direct vehicular access to the County of Sacramento along the acceleration/taper lane length to the satisfaction of the Department of Transportation. Bus turnouts will be required on Grant Line Road and University Boulevard. (Mitigation Measures TR-2.J and TR-9.D) (Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 3,200 DUEs within the Cordova Hills SPA)

Condition 51. Commence reconstruction and widening of the intersection of North Loop Road and Grant Line Road pursuant to the latest Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached an agreement for construction of the portion of such improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. Improvements shall include modification to the traffic signal, providing a u-turn lane, three through lanes, and a right turn lane on the northbound approach; two left turn lanes and a free right turn lane on the westbound approach; and two left turn lanes and three through lanes on the southbound approach. Note: The two southbound left turn lanes shall be extended to a length based on the queuing analysis and to the satisfaction of the Department of Transportation. For the free-right turn movement, provide sufficient acceleration lane and taper length and grant the right of direct vehicular access to the County of Sacramento along the acceleration/taper lane length to the satisfaction of the Department of Transportation. Bus turnouts will be required on Grant Line Road and North Loop Road. (Mitigation Measures TR-2.H and TR-9.C) (Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 6,500 DUEs within the Cordova Hills SPA)

Condition 52. Commence reconstruction and widening of the intersection of Chrysanthy Boulevard and Grant Line Road pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion of such improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. Improvements shall include modification to the traffic signal, providing a u-turn lane, two through lanes, and a right turn lane on the northbound approach; two left turn lanes and two through lanes on the southbound approach; and two left turn lanes, pavement for two future through lanes, and a right turn lane on the westbound approach.

Note: The two southbound left turn lanes shall be extended to a length based on a queuing analysis and to the satisfaction of the Department of Transportation. Bus turnouts will be required on Grant Line Road and Chrysanthy Boulevard. (Mitigation Measure TR-2.I) (Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 7,500 DUEs within the Cordova Hills SPA)

Condition 54a. Commence reconstruction and widening of the existing intersection of Sunrise Boulevard at Jackson Road (State Route 16) pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation and Caltrans, provided that the County, Caltrans and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Improvements shall include an eastbound through lane, an eastbound through-right turn shared lane, and an eastbound left turn lane; a northbound left turn lane, two northbound through lanes and a right turn lane; one westbound through lane, a westbound right turn lane and a westbound left turn lane; a southbound through lane, a southbound left turn lane, and a southbound right turn lane. Note: The two eastbound and northbound through lanes shall be carried through the intersection. (Mitigation Measure: TR-2.D) (Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 500 DUEs within the Cordova Hills SPA).

Condition 62. Commence reconstruction and widening of the existing intersection of Grant Line Road at Jackson Road (State Route 16) pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation and Caltrans, provided that the County, Caltrans and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. Improvements shall include a traffic signal modification to accommodate dual eastbound left turn lanes, an eastbound through lane, and an eastbound through-right turn shared lane; a westbound left turn lane, westbound through lane and a westbound through-right turn shared lane; a northbound left turn lane, a northbound through lane, and a northbound through-right turn shared lane; and a southbound shared through-right turn lane, a southbound through lane and a southbound left turn lane. (Mitigation Measure: TR-2.E) (Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 3,200 DUEs within the Cordova Hills SPA).

Condition 63. Commence reconstruction and widening of the existing intersection of Grant Line Road at Kiefer Boulevard to a signalized intersection pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. Improvements shall include a northbound left turn lane, a northbound through lane, and a northbound through-right turn shared lane; a westbound left turn shared lane and a westbound through-right turn shared lane; a southbound left turn lane and a southbound through-right turn shared lane; and a southbound through-right turn shared lane; and an eastbound left turn lane and an eastbound through-right turns shared lane. (Mitigation Measure: TR-2.F) (Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 3,200 DUEs within the Cordova Hills SPA).

Condition 56. Commence reconstruction and widening of the Grant Line Road at Douglas Road intersection to modify a signalized intersection pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. Improvements shall include a southbound u-turn lane, two southbound through lanes and a southbound right turn lane; an eastbound left turn lane and an eastbound free right turn lane; and dual northbound left turn lane and two through lanes. For the free-right turn movements, provide sufficient acceleration lane length and grant the right of direct vehicular access to the County of Sacramento along the acceleration lane length to the satisfaction of the Department of Transportation. Note: Bus turnouts will be required on Grant Line Road and Douglas Road. The through lanes in the northbound and southbound directions shall be carried through the intersection. Prior to the time of issuance of the first building permit, and again before the issuance of the building permit for the 1,000th DUE, updated intersection analyses shall be performed by County that include this intersection. The timing of this intersection improvement may be revised to preserve the County's LOS E standard, and may increase or decrease the DUE trigger for the construction of this improvement, but shall not require the improvement any sooner than 250 DUEs. If the DUE trigger for the construction of the foregoing intersection improvements is lowered, then Developer shall make commercially reasonable efforts to commence the improvements prior to the lower DUE being exceeded; however, the development of the Cordova Hills Project shall not be suspended or

delayed so long as Developer has made reasonable efforts to commence construction prior to exceeding the lower DUE trigger. Developer shall make a contribution to the costs of each updated intersection analyses to be conducted for this and three other intersections in an amount not to exceed \$2,000, with the total Developer contribution for both exceed \$4,000. (Mitigation Measure TR-2.G) (Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 1,800 DUEs within the Cordova Hills SPA)

Condition 55. Commence reconstruction and widening of the Grant Line Road at Douglas Road intersection to modify a signalized intersection pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. Improvements shall include dual northbound left turn lanes and a northbound through lane; a southbound u-turn lane, a southbound through lane and an eastbound right turn lane. Note: Bus turnouts will be required on Grant Line Road and Douglas Road. The through lanes in the northbound and southbound directions shall be carried through the intersection. Prior to the time of issuance of the first building permit, and again before the issuance of the building permit for the 1,000th DUE, updated intersection analyses shall be performed by County that include this intersection. The timing of this intersection improvement may be revised to preserve the County's LOS E standard, and may increase or decrease the DUE trigger for the construction of this improvement, but shall not require the improvement any sooner than 250 DUEs. If the DUE trigger for the construction of the foregoing intersection improvements is lowered, then Developer shall make commercially reasonable efforts to commence the improvements prior to the lower DUE being exceeded; however, the development of the Cordova Hills Project shall not be suspended or delayed so long as Developer has made reasonable efforts to commence construction prior to exceeding the lower DUE trigger. Developer shall make a contribution to the costs of each updated intersection analyses to be conducted for this and three other intersections in an amount not to exceed \$2,000, with the total Developer contribution for both exceed \$4,000. (Mitigation Measure TR-2.G) (Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 850 DUEs within the Cordova Hills SPA)

Condition 81. Pay a fair share (18%) contribution towards the modification and associated improvements to the intersection of Sunrise

Boulevard and White Rock Road pursuant to the City of Rancho Cordova Improvement Standards to provide overlap phasing on the eastbound and westbound approaches. (Mitigation Measure TR-2.B)

Condition 84. Pay a fair share (16%) contribution towards the modification and associated improvements at the intersection of Zinfandel Drive and White Rock Road pursuant to the City of Rancho Cordova Improvement Standards and to the satisfaction of the Department of Transportation in order to provide separate dual right turns on the westbound approach so the westbound approach has two left turn lanes, two through lanes and two right turn lanes. (Mitigation Measure TR-2.A)

Condition 85. Pay a fair share (16%) contribution towards the modification and associated improvements at the intersection of Sunrise Boulevard and Douglas Road pursuant to the City of Rancho Cordova Improvement Standards and to the satisfaction of the Department of Transportation to provide overlap phasing on the westbound approach. (Mitigation Measure TR-2.C)

Mitigation Measure TR-3. The applicant shall construct or fund, as set forth in the phasing and financing plan approved by the Sacramento County Department of Transportation, the below mitigation measures. The phasing and financing plan shall ensure commencement of construction of traffic improvements prior to degradation of LOS below applicable County standards. This mitigation recognizes that should any of the measures below benefit other projects, a reimbursement agreement and/or a fee credit to the applicant may be considered.

A. *Prairie City Road from US 50 to White Rock Road* – Increase roadway capacity by upgrading the capacity class for this segment from a rural highway without shoulders to a rural highway with shoulders.

Implementation of Mitigation Measure TR-3 will be accomplished by satisfaction of the following Condition of Approval requiring the identified transportation improvements:

Condition 70. Commence reconstruction and widening of Prairie City Road from a rural highway without shoulders to a rural highway with shoulders from U.S. 50 to White Rock Road pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Folsom have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. (Mitigation Measure: TR-3.A) (Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential

land uses (including the University) for 6,500 DUEs within the Cordova Hills SPA)

Mitigation Measure TR-4. The applicant shall construct or fund, as set forth in the phasing and financing plan approved by the Sacramento County Department of Transportation, and in consultation with the City of Elk Grove, the below mitigation measures. The phasing and financing plan shall ensure commencement of construction of traffic improvements prior to degradation of LOS below the applicable County or City standards. This mitigation recognizes that should any of the measures below benefit other projects, a reimbursement agreement may be considered.

A. *Grant Line Road from Sheldon Road to Calvine Road* – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity class to an arterial with moderate access control.

Implementation of Mitigation Measure TR-4 will be accomplished by satisfaction of the following Condition of Approval requiring the identified transportation improvements:

Condition 80. Pay a fair share (9%) contribution towards the reconstruction and widening of Grant Line Road from an existing two-lane road section to a four-lane thoroughfare center road section from Sheldon Road to Calvine Road pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation. (Mitigation Measure TR-4.A)

Mitigation Measure TR-5. The applicant shall construct or fund, as set forth in the phasing and financing plan approved by the Sacramento County Department of Transportation, and in consultation with the City of Rancho Cordova, the below mitigation measures. The phasing and financing plan shall ensure commencement of construction of traffic improvements prior to degradation of LOS below the applicable County or City standards. This mitigation recognizes that should any of the measures below benefit other projects, a reimbursement agreement may be considered.

A. *Grant Line Road from Jackson Road to Kiefer Boulevard* – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity class to an arterial with moderate access control.

B. *Grant Line Road from Kiefer Boulevard to University Boulevard* – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity class to an arterial with moderate access control.

C. *Grant Line Road from University Boulevard to Chrysanthy Boulevard* – Increase roadway capacity by widening this segment to 4

lanes and upgrading the capacity class to an arterial with moderate access control.

D. *Grant Line Road from Chrysanthy Boulevard to North Loop* – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity class to an arterial with moderate access control.

E. *Grant Line Road from North Loop to Douglas Road* – Increase roadway capacity by widening this segment to 6 lanes and upgrading the capacity class to an arterial with moderate access control.

F. *Grant Line Road from Douglas Road to White Rock Road* – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity class to an arterial with moderate access control.

G. *Jackson Road from Sunrise Boulevard to Grant Line Road* – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity class to an arterial with moderate access control.

H. *Douglas Road from Sunrise Boulevard to Rancho Cordova Parkway* – Deleted because this improvement was constructed by others.

I. *Douglas Road from Rancho Cordova Parkway to Grant Line Road* – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity class to an arterial with moderate access control. Construct interim sidewalk improvements (typically a detached asphaltic concrete path) and bicycle lanes.

Implementation of Mitigation Measure TR-5 will be accomplished by satisfaction of the following Conditions of Approval requiring the identified transportation improvements:

Condition 64. Commence reconstruction and widening of Grant Line Road from an existing two-lane road section to a four-lane thoroughfare center section with an interim raised center median (with Type 4 curbs, but no root barrier), interim AC paths (refer to Standard Detail 4-5 for separation requirements of AC path from right-of-way) and six-foot bike lanes from Jackson Road (State Route 16) to Kiefer Boulevard based on a 96-foot standard thoroughfare pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. (Mitigation Measure: TR-5.A) (Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 3,200 DUEs within the Cordova Hills SPA)

Condition 65. Commence reconstruction and widening of Grant Line Road from an existing two-lane road section to a four-lane thoroughfare center section with an interim raised center median (with Type 4 curbs, but no root barrier), interim AC paths (refer to Standard Detail 4-5 for separation requirements of AC path from right-of-way) and six-foot bike lanes from Kiefer Boulevard to University Boulevard based on a 96-foot standard thoroughfare pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. Note: Bus turnouts will be required on Grant Line Road. Refer to Condition 49 that requires improvements to the intersection of University Boulevard and Grant Line Road. (Mitigation Measure: TR-5.B) (Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 3,200 DUEs within the Cordova Hills SPA)

Condition 66. Commence reconstruction and widening of Grant Line Road from an existing two-lane road section to four-lane thoroughfare center section with an interim raised center median (with Type 4 curbs, but no root barrier), interim AC paths (refer to Standard Detail 4-5 for separation requirements of AC path from right-of-way) and six-foot bike lanes from Douglas Road to White Rock Road based on a 96-foot standard thoroughfare pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. (Mitigation Measures: TR-5.F and TR-7.A) (Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 3,200 DUEs within the Cordova Hills SPA)

Condition 71. Commence reconstruction and widening of Grant Line Road from a four-lane road section to a six-lane thoroughfare section from North Loop Road to Douglas Road based on a 96-foot standard thoroughfare pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance

pending such agreement and development may continue. (Note: Bus turnouts will be required on Grant Line Road. Condition number 51 requires improvements to the intersection of North Loop Road and Grant Line Road and Condition number 69 requires improvements to the intersection of Douglas Road and Grant Line Road.) (Mitigation Measures TR-5.E and TR-11.C) (Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 6,500 DUEs within the Cordova Hills SPA)

Condition 72. Commence reconstruction and widening of Jackson Road (State Route 16) from an existing two-lane road section to four-lane thoroughfare center section with an interim raised center median (with Type 4 curbs, but no root barrier), interim AC paths (refer to Standard Detail 4-5 for separation requirements of AC path from right-of-way) and six-foot bike lanes from Sunrise Boulevard to Grant Line Road based on a 96-foot standard thoroughfare pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. (Mitigation Measure: TR-5.G) (Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 6,900 DUEs within the Cordova Hills SPA)

Condition 73. Commence reconstruction and widening of Grant Line Road from an existing two-lane road section to a four-lane thoroughfare center road section with an interim raised center median (with Type 4 curbs, but no root barrier), interim AC paths (refer to Standard Detail 4-5 for separation requirements of AC path from right-of-way) and six-foot bike lanes from University Boulevard to Chrysanthy Boulevard based on a 96-foot standard thoroughfare pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. (Mitigation Measure: TR-5.C) (Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 7,500 DUEs within the Cordova Hills SPA)

Condition 74. Commence reconstruction and widening of Grant Line Road from an existing two-lane road section to a four-lane

thoroughfare center road section with an interim raised center median (with Type 4 curbs, but no root barrier), interim AC paths (refer to Standard Detail 4-5 for separation requirements of AC path from right-of-way) and six-foot bike lanes from Chrysanthy Boulevard to North Loop Road based on a 96-foot standard thoroughfare pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. (Mitigation Measure: TR-5.D) (Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 7,500 DUEs within the Cordova Hills SPA)

Condition 83. Pay a fair share (58%) contribution towards the reconstruction and widening of Douglas Road from an existing two-lane road section to a four-lane arterial section from Americanos Boulevard to Grant Line Road, including a raised center median, interim AC paths and six-foot bike lanes pursuant to the City of Rancho Cordova Improvement Standards. Also, pay a fair share (58%) contribution towards construction of a landscape median, two westbound travel lanes (any turn lanes at major intersections as applicable), a westbound six foot bike lane, and a westbound interim AC path for 5,030 feet on Douglas Road from Rancho Cordova Parkway to Americanos Boulevard. (Mitigation Measures TR-5.I and TR-7.A)

Mitigation Measure TR-6. The applicant shall be responsible for funding a fair share of the construction costs of the below mitigation measures. The fair share shall be calculated to the satisfaction of Sacramento County Department of Transportation, in consultation with Caltrans.

- A. *Westbound US 50 from Hazel Avenue to Sunrise Boulevard* – Add an auxiliary lane.
- B. *Eastbound US 50 from Sunrise Boulevard to Hazel Avenue* – Add an auxiliary lane.

Implementation of Mitigation Measure TR-6 will be accomplished by satisfaction of the following Conditions of Approval requiring the identified transportation improvements:

Condition 78. Pay a fair share (4%) contribution towards the addition of an auxiliary lane on westbound U.S. 50 from Hazel Avenue to Sunrise Boulevard. (Mitigation Measure TR-6.A)

Condition 79. Pay a fair share (9%) contribution towards the addition of an auxiliary lane on eastbound U.S. 50 from Sunrise Boulevard to Hazel Avenue. (Mitigation Measure TR-6.B)

Mitigation Measure TR-7. The applicant shall be responsible for a fair share of the below mitigation measures. The fair share shall be calculated to the satisfaction of Sacramento County Department of Transportation and may be up to 100% of the cost of the improvements.

A. Construct interim sidewalk improvements (typically a detached asphaltic concrete path) and bicycle lanes along Grant Line Road from Douglas Road to White Rock Road and on Douglas Road from Rancho Cordova Parkway to Grant Line Road, to the satisfaction of the Sacramento County Department of Transportation.

Implementation of Mitigation Measure TR-7 will be accomplished by satisfaction of the following Conditions of Approval requiring the identified transportation improvements:

Condition 66. Commence reconstruction and widening of Grant Line Road from an existing two-lane road section to four-lane thoroughfare center section with an interim raised center median (with Type 4 curbs, but no root barrier), interim AC paths (refer to Standard Detail 4-5 for separation requirements of AC path from right-of-way) and six-foot bike lanes from Douglas Road to White Rock Road based on a 96-foot standard thoroughfare pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. (Mitigation Measures: TR-5.F and TR-7.A) (Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 3,200 DUEs within the Cordova Hills SPA)

Condition 83. Pay a fair share (58%) contribution towards the reconstruction and widening of Douglas Road from an existing two-lane road section to a four-lane arterial section from Americanos Boulevard to Grant Line Road, including a raised center median, interim AC paths and six-foot bike lanes pursuant to the City of Rancho Cordova Improvement Standards. Also, pay a fair share (58%) contribution towards construction of a landscape median, two westbound travel lanes (any turn lanes at major intersections as applicable), a westbound six foot bike lane, and a westbound interim AC path for 5,030 feet on Douglas Road from Rancho Cordova Parkway to Americanos Boulevard. (Mitigation Measures TR-5.I and TR-7.A)

Level of Significance After Mitigation: Significant and Unavoidable.

2. **Impact: Cumulative Plus Project.** The Project results in significant impacts to five City of Rancho Cordova intersections, the Zinfandel and US 50 freeway ramp intersection, one new Project roadway segment, four City of Rancho Cordova roadway segments, six Caltrans freeway segments, and four Caltrans freeway ramps. Mitigation is included which will improve operating conditions to acceptable levels for most of these facilities, but there are some impacts for which no feasible mitigation exists. These are: the Zinfandel and US 50 freeway ramp intersection, the intersection of Sunrise Boulevard and International Drive, Grant Line Road from North Loop Road to Douglas Road, eastbound US 50 from Watt Avenue to Bradshaw Road, eastbound US 50 from Rancho Cordova Parkway to Hazel Avenue, westbound US 50 from Hazel Avenue to Rancho Cordova Parkway, westbound US 50 from Mather Field Road to Power Inn/Howe Avenue, eastbound US 50 Exit Ramp to Watt Avenue, eastbound US 50 Slip Ramp Entrance from Watt Avenue, westbound US 50 Exit Ramp to Watt Avenue, and westbound US 50 Slip Ramp Entrance from Watt Avenue. The following intersections and roadway segments would be significantly impacted under the “Cumulative Plus Project” scenario:

- School Access and North Loop Road – intersection.
- Sunrise Boulevard and Douglas Road – intersection.
- Grant Line Road and Douglas Road – intersection.
- Grant Line Road and North Loop Road – intersection.
- Grant Line Road and University Boulevard – intersection.
- North Loop Road from Street D to Street F – roadway.
- Grant Line Road from Rancho Cordova Parkway to Kiefer Boulevard – roadway.
- Grant Line Road from Kiefer Boulevard to University Boulevard – roadway.
- Grant Line Road from North Loop Road to Douglas Road – roadway.
- Grant Line Road from Douglas Road to White Rock Road – roadway.

Finding: Specific economic, legal, social, technological, or other considerations make infeasible the project alternatives identified in the EIR. There are a number of mitigation measures that would avoid the impacts from traffic generated by the Project in the “Cumulative Plus Project” scenario to a less than significant level, but due to the fact that many of the mitigation measures described in the EIR would need to be implemented in adjacent jurisdictions, the County cannot guarantee that the suggested traffic improvements would ever get funded and constructed. Consequently, the Board must find that because many of the traffic improvements would be needed in jurisdictions beyond the County’s control and authority, the Board must find that the traffic impacts on those roadways

segments and intersections identified in the EIR to be significant and unavoidable. In other cases, even if the suggested traffic mitigation improvement were to get built, it would still not result in a level of service that would allow the Board to reach a conclusion that the Project's impacts are less-than-significant.

Mitigation: The following mitigation measures or agency recommendations/requirements have been incorporated into the Project as conditions of approval to substantially lessen the Project's traffic and circulation impacts, but not to a less than significant level:

Mitigation Measure TR-8. The applicant shall be responsible for a fair share of the below mitigation measures. The fair share shall be calculated to the satisfaction of Sacramento County Department of Transportation and may be up to 100% of the cost of the improvements.

A. *School Access and North Loop Road* – Provide dual eastbound left turn lanes.

Implementation of Mitigation Measure TR-8 will be accomplished by satisfaction of the following Condition of Approval requiring the identified transportation improvements:

Condition 41. As part of intersection improvements, provide dual eastbound left turn lanes at the intersection of North Loop Road and the proposed school access pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation. (Mitigation Measures TR-1.G and TR-8.A)

Mitigation Measure TR-9. The applicant shall be responsible for a fair share of the below mitigation measures. The fair share shall be calculated to the satisfaction of Sacramento County Department of Transportation, in consultation with the City of Rancho Cordova, and may be up to 100% of the cost of the improvements.

A. *Sunrise Boulevard and Douglas Road* – Provide overlap phasing on the eastbound and westbound right turns.

B. *Grant Line Road and Douglas Road* – Provide a third southbound through lane and overlap phasing on the eastbound right turn lane. To be consistent with the segment mitigations a third northbound through lane is included.

C. *Grant Line Road and North Loop Road* – Provide a westbound free-right turn lane. Also an extra northbound departure lane is needed for the westbound free-right movement.

D. *Grant Line Road and University Boulevard* – Provide a northbound free-right turn lane. Also an extra eastbound departure lane is needed for the northbound free-right movement.

Implementation of Mitigation Measure TR-9 will be accomplished by satisfaction of the following Conditions of Approval requiring the identified transportation improvements:

Condition 49. Commence reconstruction and widening of the intersection of University Boulevard and Grant Line Road pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion of such improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. Improvements shall include modification of the existing traffic signal, providing a u-turn lane, two through lanes, and a free right turn lane on the northbound approach; two left turn lanes and two through lanes on the southbound approach; and two left turn lanes and a right turn lane on the westbound approach. Note: The two westbound left turn lanes shall be extended to a length based on the queuing analysis and to the satisfaction of the Department of Transportation. For the free-right turn movement, provide sufficient acceleration lane and taper length and grant the right of direct vehicular access to the County of Sacramento along the acceleration/taper lane length to the satisfaction of the Department of Transportation. Bus turnouts will be required on Grant Line Road and University Boulevard. (Mitigation Measures TR-2.J and TR-9.D) (Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 3,200 DUEs within the Cordova Hills SPA)

Condition 51. Commence reconstruction and widening of the intersection of North Loop Road and Grant Line Road pursuant to the latest Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached an agreement for construction of the portion of such improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. Improvements shall include modification to the traffic signal, providing a u-turn lane, three through lanes, and a right turn lane on the northbound approach; two left turn lanes and a free right turn lane on the westbound approach; and two left turn lanes and three through lanes on the southbound approach. Note: The two southbound left turn lanes shall be extended to a length based on the queuing analysis and to the satisfaction of the Department of Transportation. For the free-right turn movement, provide sufficient acceleration lane and taper length and grant the right of direct vehicular

access to the County of Sacramento along the acceleration/taper lane length to the satisfaction of the Department of Transportation. Bus turnouts will be required on Grant Line Road and North Loop Road. (Mitigation Measures TR-2.H and TR-9.C) (Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 6,500 DUEs within the Cordova Hills SPA)

Condition 69. Commence reconstruction and widening of the Grant Line Road at Douglas Road intersection to a signalized intersection pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. Improvements shall include dual northbound left turn lanes (length of northbound left turn lanes to be determined based on future analysis) and three northbound through lanes; a southbound u-turn lane, three southbound through lanes and a southbound right turn lane; and an eastbound left turn lane and an eastbound free right turn lane. For the free-right turn movements, provide sufficient acceleration lane length to the satisfaction of the Department of Transportation. Note: The through lanes in the northbound and southbound directions shall be carried through the intersection. (Mitigation Measures TR-2.G and TR-9.B) (Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 6,500 DUEs within the Cordova Hills SPA)

Condition 82. Pay a fair share (16%) contribution towards the modification and associated improvements at the intersection of Sunrise Boulevard and Douglas Road pursuant to the City of Rancho Cordova Improvement Standards and to the satisfaction of the Department of Transportation to provide overlap phasing on the eastbound and westbound right turns. (Mitigation Measure TR-9.A)

Mitigation Measure TR-10. The applicant shall be responsible for a fair share of the below mitigation measures. The fair share shall be calculated to the satisfaction of Sacramento County Department of Transportation and may be up to 100% of the cost of the improvements.

A. *North Loop Road from Street D to Street F* – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity class to an arterial with low access control.

Mitigation Measure TR-11. The applicant shall be responsible for a fair share of the below mitigation measures. The fair share shall be calculated to the

satisfaction of Sacramento County Department of Transportation, in consultation with the City of Rancho Cordova, and may be up to 100% of the cost of the improvements.

A. *Grant Line Road from Rancho Cordova Parkway to Kiefer Boulevard* – Increase roadway capacity by widening this segment to a 6 lane arterial with moderate access control.

B. *Grant Line Road from Kiefer Boulevard to University Boulevard* – Increase roadway capacity by widening this segment to a 6 lane arterial with moderate access control.

C. *Grant Line Road from North Loop to Douglas Road* – Increase roadway capacity by widening this segment to a 6 lane arterial with moderate access control.

D. *Grant Line Road from Douglas Road to White Rock Road* – Increase roadway capacity by widening this segment to a 6 lane arterial with moderate access control.

Implementation of Mitigation Measure TR-11 will be accomplished by satisfaction of the following Conditions of Approval requiring the identified transportation improvements:

Condition 71. Commence reconstruction and widening of Grant Line Road from a four-lane road section to a six-lane thoroughfare section from North Loop Road to Douglas Road based on a 96-foot standard thoroughfare pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. (Note: Bus turnouts will be required on Grant Line Road. Condition number 51 requires improvements to the intersection of North Loop Road and Grant Line Road and Condition number 69 requires improvements to the intersection of Douglas Road and Grant Line Road.) (Mitigation Measures TR-5.E and TR-11.C) (Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 6,500 DUEs within the Cordova Hills SPA)

Condition 75. Pay a fair share (21%) contribution towards the reconstruction and widening of Grant Line Road from an existing four-lane thoroughfare center road section to a six-lane thoroughfare section from Douglas Road to White Rock Road pursuant to the Sacramento

County Improvement Standards and to the satisfaction of the Department of Transportation. (Mitigation Measure: TR-11.D)

Condition 76. Pay a fair share (34%) contribution towards the reconstruction and widening of Grant Line Road from an existing four-lane thoroughfare center road section to a six-lane thoroughfare section from Rancho Cordova Parkway to Kiefer Boulevard. (Mitigation Measure: TR-11.A)

Condition 77. Pay a fair share (54%) contribution towards the reconstruction and widening of Grant Line Road from an existing four-lane thoroughfare center road section to a six-lane thoroughfare section from Kiefer Boulevard to University Boulevard. (Mitigation Measure: TR-11.B)

Level of Significance After Mitigation: Significant and Unavoidable.

IX. PROJECT ALTERNATIVES

The Project will cause unavoidable significant environmental effects to aesthetics, air quality, biological resources, climate change, land use, noise, public utilities, and traffic and circulation. Thus, the County must consider the feasibility of any environmentally superior alternatives to the Project, as proposed. The County must evaluate whether one or more of these alternatives could substantially lessen or avoid these unavoidable significant environmental effects. (*Citizens for Quality Growth v. City of Mount Shasta* (1988) 198 Cal.App.3d 433, 443-445; *see also*, Public Resources Code Section 21002.)

In seeking to effectuate the policy of CEQA to substantially lessen or avoid significant environmental effects to the extent feasible, a lead agency, in adopting findings, need not necessarily address the feasibility of both mitigation measures and environmentally superior alternatives when contemplating approval of a proposed project with significant impacts. Where a significant impact can be mitigated to an “acceptable” level solely by the adoption of feasible mitigation measures, the lead agency in drafting its findings, has no obligation even to consider the feasibility of any environmentally superior alternative that could also substantially lessen or avoid that same impact – even if the alternative would render the impact less severe than would the proposed project as mitigated. (*Laurel Hills Homeowners Association v. City Council* (1978) 83 Cal.App.3d 515, 521 [147 Cal.Rptr. 842]; *see also*, *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 730-731 [270 Cal.Rptr. 650]; and *Laurel Heights Improvement Association v. Regents of the University of California* (“Laurel Heights I”) (1988) 47 Cal.3d 376, 400-403 [253 Cal.Rptr. 426].)

As noted above in these CEQA Findings, the Project will result in significant and unavoidable environmental effects with respect to aesthetics, air quality, biological resources, climate change, land use, noise, public utilities, and traffic and circulation.

The EIR examined alternatives to the Project to determine whether an alternative could meet the Project's objectives, while avoiding or substantially lessening the significant unavoidable impacts of the Project. The EIR examined in detail the following alternatives to the Project:

- No Project Alternative
- Expanded Preserves Alternative
- Expanded Footprint Alternative

As stated in the EIR, the Project has the following objectives, as provided by the Applicant for the Project (DEIR, page 1-38):

- (i) Develop a mixed use community that is designed in a manner that provides compatible land uses and reduces overall internal vehicle trips.
- (ii) Develop an economically feasible master-planned community that reasonably minimizes its impact on biologically sensitive natural resources with feasible onsite wetland avoidance and preservation.
- (iii) Develop a sustainable, multi-service town center that promotes walkability and alternative transit modes including but not limited to Neighborhood Electric Vehicles (NEVs), light rail, shuttle bus, and carpool facilities.
- (iv) Provide uses for two underserved markets in the southeast Sacramento region:
 - a. Provide for the development of a major private university facility in Sacramento County.
 - b. Provide residential neighborhoods that are age restricted in order to serve seniors and larger lot sizes for executive housing to serve corporate executives.
- (v) Develop internal Project infrastructure and circulation networks of multiple modes that provide efficient connections to various land use components throughout the Project; specifically, trail opportunities to enhance the integration between the university/college campus center, town center, schools, and preserves/open space corridors surrounding the Project.
- (vi) Develop recreational and open space opportunities that include neighborhood and community parks that are fully integrated into the project through adequate trail connections and provide critical regional trail connections associated with adjacent trail systems.
- (vii) Allow for inclusion of alternative energy sources to serve the mixed use community.

A. NO PROJECT ALTERNATIVE

Description of No Project Alternative

With respect to the analysis of a “no project” alternative, Section 15126.6(e)(2) of the CEQA Guidelines provides:

The “no project” analysis shall discuss the existing conditions at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services.

Consistent with that direction, the EIR’s analysis of the No Project Alternative assumes no changes to the site’s existing land use designation and zoning. The No Project Alternative would continue the existing agricultural use for cattle grazing or other uses allowed under the existing General Plan land use designation and zoning. The site is zoned AG-80 (Agriculture – 80 acre minimum lot size). Some of the allowed uses other than the existing uses include single family dwellings and farm employee housing. The No Project Alternative was analyzed as if up to ten (10) homes would be constructed under the AG-80 zoning, and conservatively assumed that each home would involve taking one acre of land out of agricultural uses. That assumption included access roads, the homes, and appurtenant improvements.

Environmental Impacts of No Project Alternative

Aesthetics. The No Project Alternative would avoid any significant and unavoidable aesthetic impacts. While the project site would continue in agricultural uses, up to ten (10) houses could be built on it but they would have minimal visual impacts. There would be no significant impacts associated with glare or nighttime lighting. Consequently, there would be no contribution to cumulative aesthetic impacts by the No Project Alternative.

Agricultural Resources. Under the No Project Alternative, the Project site would continue in agricultural uses; therefore, all impacts to agricultural uses would be less than significant. However, because of its AG-80 zoning, the site could be subdivided into with up to ten lots of 80-acres each that could each contain a single family dwelling. The No Project Alternative would not conflict with the existing agricultural designations or use, conflict with a Williamson Act contract, or convert agricultural lands to a non-agricultural use.

Air Quality. There could be an increase in construction NOx emissions over the existing agricultural activities with the potential construction of up to ten homes under the No Project Alternative. However, that construction would be regarded as less than

significant under SMAQMD thresholds. Operational impacts from ozone precursors (NOx and ROG) would also be considered less than significant from ten homes under SMAQMD guidelines. While the construction of up to ten homes would generate increased particulate matter emissions, it would not be likely to disturb more than 15 acres at the same time. Consequently, the No Project Alternative is not considered to exceed the screening threshold for particulate matter emissions and would have less than significant impacts. The No Project Alternative would not exceed the SMAQMD thresholds of 65 lbs./day of NOx or ROG during operational activities, so it would conflict or obstruct implementation of an Air Quality Plan. While the No Project Alternative would generate CO emissions, they would not exceed ambient standards and would have a less than significant impact. The No Project Alternative would not expose sensitive receptors to toxic air contaminants (TACs). Although three of the parcels under the No Project Alternative are situated within one mile of Kiefer Landfill and one parcel is proximate to the Sacramento County Boys Ranch, this Alternative would not expose a substantial number of people to objectionable odors.

Biological Resources. Under the No Project Alternative, agricultural activities would continue at the site, but the construction of up to ten homes could result in some minimal losses of habitat if each home was on a one acre site. Existing regulations for the protection of wetlands and special status species prohibit direct impacts without obtaining appropriate permits and satisfying applicable permit mitigation requirements. Thus, while some impacts to wetlands might occur, these would be minimal and most of the site's approximately 89 acres of wetlands would be retained. It was also assumed that no take of special status species would occur in the No Project Alternative.

Climate Change. Under the No Project Alternative the current agricultural land use would not significantly contribute to greenhouse gas emissions. Even if the site were developed with ten homes, the total emissions from the No Project Alternative would only be a tiny fraction (0.005%) of total County emissions. In sum, the No Project Alternative's climate change impacts were determined to be less than significant.

Cultural Resources. Under the No Project Alternative, there would not be any impacts to cultural resources. There are no known historical resources on the site as defined by CEQA. Because the Alternative has a much smaller construction footprint than the proposed Project, there is a much lower probability of discovering unknown subsurface deposits. The EIR determined that the impacts on cultural resources would be less than significant.

Geology and Soils. There are existing regulations in place to assure that construction on the site does not cause soil erosion, and will avoid substantial risk to life and property associated with expansive soils or geological hazards, such as seismicity. The site is not likely to have asbestos-containing soils and soil testing found no evidence of naturally occurring asbestos. There are no mapped mineral resources on the site, and the construction of up to ten homes would not preclude the site's future mining. Impacts to soils and geology were therefore found to be less than significant.

Hazards and Hazardous Materials. While the No Project Alternative would involve the use of wells as a source of potable water, the groundwater contamination from the Aerojet facility and the Kiefer Landfill properties is migrating away from the site, so the wells would not be negatively impacted by contamination. Impacts from hazards and hazardous materials are less than significant.

Hydrology and Water Quality. The No Project Alternative would impact less than 1% of the watershed area on the site. This would not result in substantial hydrologic changes to the site. County regulations and ordinances would preclude building any homes in the 100-year floodplain or impeding or redirecting flood flows. The No Project Alternative either would require appropriate erosion controls through permitting requirements, or would be too small to generate substantial polluted runoff. Consequently, the No Project Alternative would have less than significant impacts on hydrology and water quality.

Land Use. There would be no change in the land use designations under the No Project Alternative. The site would remain AG-80 and be consistent with the SACOG Blueprint, inasmuch as urbanization of the site was not contemplated under the Blueprint until the cumulative planning horizon. This Alternative would not displace an existing community or displace housing elsewhere. The Land Use impacts are less than significant.

Noise. The construction of up to ten homes would not have significant construction noise impacts. The homes would not generate significant traffic noise, nor be sources of significant stationary source noise. Since the Alternative would not result in the exposure of people to a substantial noise source or exceed a noise standard, the noise impacts are less than significant.

Public Services. The addition of up to ten new homes with this Alternative would not result in substantial demands for public services, increased staffing or additional facilities. The impacts to public services from the No Project Alternative would be less than significant.

Public Utilities. The No Project Alternative would not have a public water or public sewer, but would rely on private wells and septic systems that have to be installed in compliance with County ordinances and requirements. Electrical and gas lines would have to be extended to home sites, but SMUD and PG&E have the ability to supply services. Impacts from public utilities would be less than significant.

Traffic and Circulation. Traffic volumes generated by up to ten new homes under the No Project Alternative would be too low to require a traffic impact analysis. This Alternative would not cause any level of significance threshold to be exceeded, nor would the existing deficiencies in bicycle and pedestrian facilities on Grant Line and Douglas Road be significantly impacted. The Alternative would not conflict with any adopted transit plan or non-automotive master plan. Impacts to traffic and circulation would be less than significant.

Relationship to Project Objectives

The No Project Alternative would not meet any of the Project objectives because the Project would not be constructed.

Finding

The Board finds that:

- (a) The No Project Alternative would not develop a mixed use community that was designed with compatible land uses to reduce overall internal vehicle trips when compared to a “business-as-usual” development;
- (b) The No Project Alternative would not result in an economically feasible master-planned community;
- (c) The No Project Alternative would not create a sustainable, multi-service town center that promotes walkability and alternative transit modes, including but not limited to Neighborhood Electric Vehicles, light rail, shuttle bus, and carpool facilities.
- (d) The No Project Alternative would not provide for land uses that would allow for the development of a major private university in Sacramento County or provide for land uses that allow residential neighborhoods that are age restricted in order to serve seniors, nor would the No Project Alternative create large lot sizes suitable for executive housing to serve corporate executives;
- (e) The No Project Alternative would not create any internal Project infrastructure and circulation networks of multiple modes that provide efficient connections to various land use components in the Project;
- (f) The No Project Alternative would not develop any neighborhood and community parks or provide connections to adjacent trail systems or regional trail systems; and
- (g) The No Project Alternative would not provide any alternative energy sources to serve a mixed use community.

In light of the foregoing, the Board further finds that the no Project Alternative would not meet any of the Project Objectives.

B. EXPANDED PRESERVES ALTERNATIVE

Description of Expanded Preserves Alternative

Under the Expanded Preserves Alternative, the Project would be significantly changed by placing approximately 1,142 acres into preserves, primarily by expanding the preserve on the western plateau of the site, compared to the Project that would avoid only 493 acres. The expanded preserve size would remove any development along Grant Line Road north of the University Boulevard intersection. Overall, it would reduce the non-residential square footage to only 382,640 sq.ft. compared to the Project’s 1,349,419 sq.ft. of non-residential uses. It would also reduce the area of urban development at the site to only 1,527 acres. These changes are highlighted on Plate ALT-5 in the Draft EIR.

An Expanded Preserves Alternative would remove the Town Center from the western side of the site and result in the loss of its mixed use retail and commercial center along a major roadway. No replacement of the Town Center land use was included in this Alternative.

The Expanded Preserves Alternative would avoid nearly all impacts to vernal pools by significantly expanding the vernal areas to 1.142 acres, although impacts would still occur due to construction of access roads across the expanded preserve at the western side of the site. Expansion of the preserves would not only result in the loss of the Town Center area, but also result in reducing the size of other land uses, such as removing 23 acres of the Academic Zone at the University/College Campus Center, losing 20 acres of the Sports Park, 9 acres of medium density residential in Ridgeline Village, 10 acres of high density residential in Ridgeline Village, 3 acres of low density residential in Ridgeline Village, 29 acres of medium density residential in University Village, 31 acres of low density residential in East Valley Village, and 39 acres of public/quasi-public uses in East Valley Village. As a result of the losses in developed area the Expanded Preserves Alternative would contain only 6,845 housing units compared to the Project's 9,010 total units.

Environmental Impacts of Expanded Preserves Alternative

Aesthetics. The Expanded Preserves Alternative would preclude any development of the western plateau area along Grant Line Road, and allow development in portions of the site that area not currently visible from Grant Line Road or by the Douglas Road/Rancho Cordova viewer groups. This would maintain the continuity of most of the existing views. Consequently, the degradation of views and visual quality would be less than significant for those viewer groups.

The impacts to viewers along Kiefer Road and Latrobe Road would be similar to the impacts from the Proposed Project, but due to distance from the site and the intervening landforms, the impacts to these existing views would be less than significant as well. However, the existing views for the viewer group north of the Project site would still have their visual quality reduced from moderately high to moderately low by the Expanded Preserved Alternative, resulting in aesthetic impacts from the Expanded Preserves Alternative that would be significant and unavoidable. This Alternative would also introduce new sources of light and glare at the site from the more than 6,000 new homes and nearly 400,000 square feet of commercial uses it would create. That would be a substantial new source of nighttime lighting, and while application of Mitigation Measure AE-1 could lessen this impact, the impact would remain significant and unavoidable for this Alternative.

Agricultural Resources. While the Expanded Preserves Alternative would result in less urbanization of the existing grazing lands at the site, its impacts would be similar to that of the Proposed Project. Mitigation Measure AG-1 would reduce conflicts with neighboring offsite agricultural uses. This Alternative's impacts on Williamson Act contracts would be the same as those for the Proposed Project, and would require

Mitigation Measure AG-2 in order to reduce them to a less than significant level. In the Expanded Preserve Alternative, the 8.6 acres of Unique Farmland would be situated within a Preserve, as would some of the grazing land now situated outside of the USB. Placing existing farmland within a preserve would preclude unrestricted farming activities. Consequently, those 255.6 acres of impacted farmland also would require mitigation by Mitigation Measure AG-3 in order to reduce this Alternative's impact on agricultural resources to a less than significant level.

Air Quality. Changes made by the Expanded Preserves Alternative would be unlikely to reduce the impact of the worst-case NOx emissions scenario from construction activities. Its impacts would be similar to the proposed Project, and require implementation of Mitigation Measure AQ-1 in order to reduce the impact of construction period NOx emissions to a less than significant level. Operational emissions of ozone precursors (NOx and RPG) would be less, but would still exceed the SMAQMD's thresholds and therefore require preparation and implementation of an air quality mitigation plan. However, even with an air quality mitigation plan that required a 35% reduction in ozone precursor emissions, the operational emissions impacts of the Expand Preserves Alternative would remain significant and unavoidable.

Construction of the Expanded Preserves Alternatives would generate particulate matter emissions of PM2.5 and PM10. While compliance with existing rules and regulations would be required, construction is likely to exceed 15 acres per day at any given time, and this Alternative would have significant and unavoidable impacts relating to PM2.5 and PM10 from construction activities. Because the Expanded Preserves Alternative would be expected to have construction emissions that exceeded 85 lbs./day of NOx and ROG and operational activities that would exceed 65 lbs./day of NOx and ROG, the Alternative has the potential to conflict with or obstruct the implementation of the regional ozone attainment plan and would have a significant and unavoidable impact on Air Quality. CO emissions from this Alternative are not expected to exceed ambient standards or create any CO hotspots, so its impacts on CO emissions would be less than significant.

The Expanded Preserves Alternative has the same potential for producing toxic air contaminants (TACs) as does the proposed Project. However, with implementation of Mitigation Measure AQ-3, the siting of new uses would conform with CARB recommendations and the impact from exposure to TACs would be less than significant. This Alternative would place sensitive land uses in close proximity to the Kiefer Landfill and the Sacramento County Boys' Ranch, and the same mitigation would apply in order to reduce this impact from odors they generate to a less than significant level.

Biological Resources. The Expanded Preserves Alternative would create 1,142 acres of preserves to protect 72 acres of wetlands and place an additional 37.3 acres of agricultural lands under a conservation easement. Thus, 81% of the site's wetlands would be in a preserve. Mitigation Measure BR-1 would apply to reduce the impacts on wetlands to an estimated 17 acres, and with mitigation the impact would be considered

less than significant since 99% of the vernal pools would be preserved and 81% of the total wetlands preserved.

As a result of the increased preserves and agricultural areas protected from future development by way of conservation easements, the area where impacts to special status species are avoided increases to 1,179 acres and the impacted areas are reduced to 1,490 acres. Mitigation Measures BR-3, BR-5 and BR-6 would reduce impacts to birds to a less than significant level. Impacts to amphibians, such as the western spadefoot, would be less than significant since more wetlands and more upland areas are being preserved. Impacts to invertebrates, such as the listed species of shrimp, would be less than significant once mitigation is provided as required by the state and federal permits and the County's requirement for no net loss of wetlands. Similarly, impacts to special status plants, such as those found around vernal pools, would similarly be reduced to a less than significant level due to the increased preservation and mitigation requirements of existing regulations and ordinances that assure no net loss of wetlands.

Climate Change. With the Expanded Preserves Alternative, the reduction in size of the developed area is not expected to alter the per capita and per square foot energy sector GHG emissions from those of the proposed Project which were 1.18 MT per capita for residential uses and 5.75 MT per 1,000 sq.ft. of commercial uses. Total GHG emissions from the energy usage of the Expanded Preserves Alternative was estimated as 8,460 MT annually. Transportation GHG emissions for this Alternative were estimated at 4.48 MT per capita annually, that would be reduced to 3.77 MT per capita with implementation of the GHG Reduction Plan. Because the Expanded Preserves Alternative would have transportation sector GHG emissions that are above the current County thresholds now in effect, the Alternative's GHG emissions would be considered to have significant and unavoidable impacts.

Cultural Resources. There are no known historic resources on the site. There would be a slightly reduced likelihood of discovering unknown subsurface cultural resources when compared to the proposed Project because this Alternative has a smaller construction footprint. Mitigation Measure CR-1 would apply and reduce this Alternative's impacts on cultural resources to a less than significant level.

Geology and Soils. As with the proposed Project, the observance of existing regulations would ensure that construction does not cause substantial soil erosion and will avoid substantial risk to life and property associated with expansive soils or geological hazards. The site is not likely to have asbestos-containing soils and there is no naturally occurring asbestos. There are no mapped mineral resources on the site. Consequently, the Expanded Preserves Alternative would have less than significant impacts on geology and soils.

Hazards and Hazardous Materials. The Expanded Preserves Alternative would have the same less-than-significant impacts from hazards and hazardous materials as would the proposed Project and the No Project Alternative. Mitigation Measure HM-1 would assure that no impacts arise.

Land Use. The impacts of the Expanded Preserves Alternative are the same as the proposed Project with regard to conflicts with adopted land use plans, and are therefore less than significant. The Expanded Preserves Alternative has similar conflicts with the SACOG Blueprint as does the proposed Project, and they are therefore significant and unavoidable. This Alternative would have less than significant impacts related to General Plan policies regarding growth inducement, public services and utilities, transportation and air quality, land use compatibility, disruption of an existing community, and displacement of housing.

Noise. The noise impacts of the Expanded Preserves Alternative are similar to the proposed Project with regard to construction noise levels, onsite traffic noise, onsite community and stationary noise, Mather Airport noise, and noise due to Kiefer Landfill activities, all of which are less-than-significant. There would be significant and unavoidable noise impacts from this Alternative due to the substantial increase it would cause in the ambient noise level at the site.

Public Services. The Expanded Preserves Alternative would result in an estimated population of 19,690 residents including the university/college campus center. The demand for public services is reduced as a result of the smaller population, with only an additional 13 Sheriff's Department staff members being needed, only 14,292 tons of waste being produced annually and 19,436 tons of construction waste, only 79 acres of parkland being needed, library remaining the same, and schools remaining the same. As a result, the impacts to public services would remain less-than-significant.

Public Utilities. As with the proposed Project, the Expanded Preserves Alternative would have similar impacts to those of the proposed Project. Impacts from the construction of infrastructure would be significant and unavoidable since the regional and offsite improvements are still needed to serve the site. Energy efficiency impacts would remain less than significant, as would water demand and sewer disposal demand. Impacts to groundwater yield and groundwater recharge would be less-than-significant.

Traffic and Circulation. A reduction in the number of access points along Grant Line Road would result from the Expanded Preserves Alternative from three to two points, and a number of internal roadways also would be eliminated. Six offsite intersections would experience significant impacts in the absence of any mitigation to add improvements to them: Bradshaw Road and Jackson Road; Mather Boulevard and Douglas Road; Eagles Nest Road and Jackson Road; Grant Line Road and Sunrise Boulevard; Grant Line Road and White Rock Road; and Prairie City Road and White Rock Road. There will be no adverse impacts to any intersections in the City of Elk Grove with this Alternative. In the City of Rancho Cordova, the Expanded Preserves Alternative would have significant impacts to the following intersections if no mitigation improvements are provided: Sunrise Boulevard and White Rock Road; Sunrise Boulevard and Douglas Road; Sunrise Boulevard and Jackson Road; Grant Line Road and Jackson Road; Grant Line Road and Kiefer Boulevard; Grant Line Road and Douglas Road; Grant Line Road and North Loop Road; and Grant Line Road and University Boulevard. No

Caltrans state freeway intersection impacts would arise from this Alternative. Impacts to Sacramento County roadway segments would be less than significant. In the City of Elk Grove, roadway impacts to Grant Line Road between Sheldon Road and Calvin Road would be significant without the implementation of Mitigation Measure TR-4 that would reduce them to less-than-significant if it were to be implemented. Ten roadway segments in the City of Rancho Cordova would be impacted by the Expanded Preserves Alternative, and all but one of them could be reduced to less-than-significant if Mitigation Measure TR-5 could be implemented. However the roadway segment on Sunrise Boulevard from Folsom Boulevard to White Rock Road would remain at an unacceptable LOS of E even with Mitigation Measure TR-5's implementation. Caltrans freeway segments impacted by this Alternative are those on Westbound US 50 from Hazel to Sunrise and Eastbound US 50 from Sunrise to Hazel that would remain significant and unavoidable impacts, even with Mitigation Measure TR-6. With the implementation of Mitigation Measure TR-7, impacts to bicycles and pedestrians would be less-than-significant from the Expanded Preserves Alternative.

In the Cumulative Plus Project scenario, the Expanded Preserves alternative would have less-than-significant impacts on County intersections, City of Folsom intersections, City of Elk Grove intersections and Caltrans freeway intersections. In the City of Rancho Cordova, this Alternative would have significant and unavoidable impacts to the intersections of Sunrise Boulevard and Douglas Road that could not be mitigated to achieve a level of service above LOS E; Grant Line Road and Douglas Road that could be mitigated to LOS C; Grant Line Road and North Loop Road that could be mitigated to LOS C; and Sunrise Boulevard and International Drive that could not be mitigated above LOS E. Even where mitigation could improve some of the intersections in Rancho Cordova, there is no guarantee that it would be implemented, so the impacts must be considered significant and unavoidable. Under the Cumulative Plus Project scenario, roadway segment impacts in Sacramento County and the City of Elk Grove with the Expanded Preserves Alternative would be less than significant. Impacts to roadway segments in the City of Rancho Cordova could be improved by Mitigation Measures TR-10.C. and TR-10.D. to less than significant levels if implemented, otherwise the impacts would be significant and unavoidable. Impacts of this Alternative in the Cumulative Plus Project scenario on Caltrans freeway segments and ramp junctions would be significant and unavoidable at the following locations: Eastbound US 50 from Watt Avenue to Bradshaw Road; Eastbound US 50 from Rancho Cordova Parkway to Hazel Avenue; Westbound US 50 from Hazel to Rancho Cordova Parkway; Westbound US 50 from Bradshaw Road to Watt Avenue; Westbound US 50 from Watt Avenue to Power Inn Road/Howe Avenue; Eastbound US 50 Slip Ramp Entrance from Watt Avenue; Westbound US 50 Exit Ramp to Watt Avenue; and Westbound US 50 Slip Ramp Entrance from Watt Avenue. Impacts to bicycles, pedestrians and transit with the Expanded Preserves Analysis would be less-than-significant.

Relationship to Project Objectives

The Expanded Preserves Alternative would meet most of the basic Project objectives, but not all of them. It would not provide any land along Grant Line Road for

a sustainable, multi-service Town Center. It would substantially reduce the square footage of non-residential land uses to only 382,640 sq.ft. when compared to the Project's 1,349,419 sq.ft, and would remove the ability to locate any of those types of non-residential uses along Grant Line Road. The ability to create a sustainable, multi-service town center is questionable. In addition, it would reduce the number of dwelling units to only 6,845 compared to the 9,010 dwelling units the Project could provide.

Finding

The Board finds that the Expanded Preserves Alternative is the environmentally superior alternative because it will result in fewer significant and unavoidable impacts in several categories, most notably in wetland loss due to the larger preserves/avoided areas and in impacts to invertebrate species. It will result in the least amount of land being urbanized at 1,490 acres, the lowest water demand at 5,484 AFY, the least amount of pollutants such as NOx at 319.72 tons and 660.20 tons of ROGs, the least amount of impacts to wetlands and other habitat losses due to placing 43% of the site in preserves and avoided areas, and would have lower utility demands for electricity of 72,003,00 kWh and 2,988,810 therms of natural gas when compared to the proposed Project.

C. EXPANDED FOOTPRINT ALTERNATIVE

Description

The Expanded Footprint Alternative is composed of the Expanded Preserves Alternative together with another 862 acres of land added to the north of the Project site referred to as "Grant Line Pilatus." The total area of this Alternative is 3,531 acres. It would designate 2,016 acres for development and preserve 1,515 acres. Plate ALT-8 in the Draft EIR shows a potential land use plan for the Expanded Footprint Alternative. Within this Alternative, a modified Town Center could be relocated into the Ridgeline Village area, while the displaced housing from Ridgeline Village could be moved to the Grant Line Pilatus property on the north. This still creates a problem, since the Town Center would not be directly accessible from Grant Line Road. The Town Center would be smaller than the proposed Project, and the ability to support a viable commercial land use with 1,032,640 sq.ft. of non-residential uses would be questionable since reduced vehicle access and reduced visibility from Grant Line Road would result in less traffic at the site. However, the commercial and residential land uses of this Alternative would be more in balance than with the Expanded Preserves Alternative, which had only 382,640 sq.ft. of non-residential land uses. The Grant Line Pilatus property contains wetlands and linear waterways; as a result, a system of preserves for it was created based upon the standard 250 ft. buffer. This resulted in 373 acres of the total 862 acre Grant Line Pilatus property being placed into preserves, only leaving 489 acres for potential development.

The Town Center use that could be provided in the Expanded Footprint Alternative is only 150 acres, versus over 200 acres at the proposed Project. In addition, the smaller Town Center of this Alternative could not serve as a significant retail/commercial center because of its location in the Project site's interior, rather than

along Grant Line Road, a major regional transportation corridor. Access and exposure to the traffic along Grant Line Road for the commercial uses would be significantly compromised. This Alternative would result in approximately 8,045 dwelling units, a reduction to 1,032,640 sq.ft. of non-residential uses, and have an estimated population of 22,850 persons.

Environmental Impacts of the Expanded Footprint Alternative

Aesthetics. Under the Expanded Footprint Alternative, there would be similar views and visual quality for the Grant Line Road and Douglas Road / Rancho Cordova viewer groups as there would be for the proposed Project, which was a less than significant impact. View and visual quality impacts to the Kiefer Road and Latrobe Road viewer groups would also be less than significant. There would be no impacts to the residents to the north, because the residences would exist on land that would be developed. A new viewer group on Scott Road would be impacted, but that impact would be less than significant. As with the proposed Project, this Alternative would introduce new nighttime light and glare into the area, and such an impact would be significant and unavoidable.

Agricultural Resources. The added northern properties in the Expanded Footprint Alternative have the same AG-80 zoning and uses as the proposed Project area. Mitigation Measure AG-1 would be applied to reduce any impacts to adjacent agricultural uses to a less than significant level.

Impacts to lands under Williamson Act contracts would be similar to the proposed Project. Since the lands in the added northern area are now in a Williamson Act contract non-renewal status, approval of a subdivision map for the northern area would need to be deferred until February 2013 (within 3 years of nonrenewal). A rezone of the northern area would need to specify that the rezoning was not effective until 2016, and Mitigation Measure AG-2 would be included to ensure the continued agricultural use of the northern area until 2016. These actions would make the Expanded Footprint Alternative consistent with the Williamson Act.

The Expanded Footprint Alternative would convert 255.6 acres of protected farmland to non-agricultural uses. Mitigation Measure AG-3 would require mitigation for that conversion, and thereby reduce this impact to a less than significant level.

Air Quality. Although the number of residential units and size of the commercial development that would be constructed with the Expanded Footprint Alternative is less than with the proposed Project, the production of NOx emissions by construction activities would still exceed significance thresholds. Mitigation Measure AQ-1 would need to be implemented in order to make these impacts less than significant.

Operational emissions of ozone precursors, such as NOx and ROG, would be less than for the proposed Project, they would still exceed the thresholds of significance. An air quality mitigation plan would be required, and the same plan as used for the proposed

Project could be implemented to reduce emissions by 35%. However, the reduction in emissions would still be above the threshold, so this impact would be significant and unavoidable.

The northern area of the Expanded Footprint Alternative has the potential to expose people to offsite emissions of particulate matter due to the existence of an active aggregate mining operation on adjacent property. However, the area of the mine nearest the northern area is scheduled to be the deposit that is mined first, while the northern area is the one assumed to be developed last due to the need to extend infrastructure to serve it. Consequently, this impact could be reduced to a less than significant level by requiring mitigation that would prohibit development within 2,500 feet of an active or approved and planned mining operation, as suggested in the Draft EIR.

Construction activities at the Expanded Footprint Alternative would increase particulate matter emissions of PM2.5 and PM10. Because those construction activities are likely to involve more than 15 acres per day at any given time, it will result in significant emissions. In spite of the mitigation measures that would be imposed by existing rules and regulations to reduce this particulate matter impact, the Expanded Footprint Alternative will result in significant and unavoidable PM2.5 and PM10 emissions.

The Expanded Footprint Alternative would exceed SMAQMD thresholds of 85 lbs./day for NOx during construction and 65 lbs./day of NOx or ROG during its operation. That would have the potential for interfering with the success of regional ozone attainment plans, and would be a significant and unavoidable impact of this Alternative. Traffic would increase on a cumulative basis with this Alternative, but to a lesser degree than with the proposed Project. Since localized CO concentrations near major vehicular access routes were not found to exceed ambient standards with the proposed Project's traffic, this Alternative's CO emissions would have a less than significant impact.

As with the proposed Project, there are no existing sources of toxic air contaminants (TACs) in proximity to the Expanded Footprint Alternative. Mitigation Measure AQ-3 would apply to ensure that new uses in the Alternative would not expose sensitive receptors to TACS from the new uses, such as gasoline stations. Impacts of this Alternative relating to exposure to TACs would therefore be less than significant. The Expanded Footprint Alternative will result in the placement of sensitive uses in proximity to the Kiefer Landfill and the Sacramento County Boys' Ranch, with the same potential for exposure to objectionable odors. Implementation of the same mitigation as required for the proposed Project would result in this being a less than significant impact.

Biological Resources. The Expanded Footprint Alternative would have a total of 1,552 acres of preserves and avoided areas, and 1,979 acres of development. 89 acres of vernal pools and other wetlands would be placed in preserves, resulting in 81% of the total wetland acres being preserved. Of the 54.09 acres of vernal pools onsite, a total of 51.44 acres would be preserved, which results in the preservation of 95% of all vernal

pools. The impacts from roadways on the preserves for this Alternative would be increased due to three crossings of the central preserve on the Grant Line Pilatus property in the northern area. In addition, there would be unknown impacts to offsite wetlands on adjacent properties through which the northern access road to the Project site would have to travel. That offsite area contains dense concentrations of vernal pools, but no jurisdictional wetland delineation has been performed. Nonetheless, the wetland impacts of the Expanded Footprint Alternative would be less than significant for the same reasons as stated above for the Expanded Preserves Alternative. With the implementation of Mitigation Measures BR-3, BR-4, BR-5 and BR-6, impacts to special status bird species would be reduced to less than significant. Impacts to special status amphibians, such as the western spadefoot, would also be less than significant, just as they were for the proposed Project. Impacts to vernal pool crustaceans would be less than significant due to compliance with the County's no net loss of wetlands policy and the permitting requirements of other agencies when a wetland area is filled. The Grant Line Pilatus property contains a single elderberry plant that could provide habitat for the valley elderberry longhorn beetle. That plant would be placed within a preserve area, so impacts would be less than significant. Surveys for special status plants were not conducted at the Grant Line Pilatus property. However, with the implementation of mitigation requiring a rare plant survey and mitigation if any rare plants are found, the impacts of this Alternative would be reduced to less than significant.

Climate Change. While there would be fewer homes and businesses with the Expanded Footprint Alternative, the per capita and per square foot energy emissions of GHGs would be essentially unchanged at 1.18 MT per capita for residential and 5.75 MT per 1,000 sq.ft. for commercial. Total GHG emissions from energy usage in this Alternative were estimated at 10,526 MT annually. GHG emissions from the transportation sector for this Alternative were estimated at 3.78 MT per capita. Because these emissions, even with mitigation, are above current County GHG thresholds, this Alternative would have significant and unavoidable climate change impacts.

Cultural Resources. The cultural resources impacts for that portion of this Alternative that is the same as the Expanded Preserves Alternative would be the same. The northern area has not had a cultural resources survey conducted, but a record search showed six historical isolates within or adjacent to it that consisted of miscellaneous farming equipment, a tractor, and an oil can. Isolates lack historical context and are not considered significant historical resources. Thus, there are no known significant cultural resources at the northern area. Because there has never been a survey of the northern area and because it is unknown what subsurface resources may exist, a mitigation measure requiring a survey by a qualified professional should be adopted that in combination with Mitigation Measure CR-1 will ensure that any impacts to cultural resources would be less than significant.

Geology and Soils. The impacts to geology and soils would be the same as for the Expanded Preserves Alternative and be less than significant. The northern area has the same geologic characteristics as the proposed Project.

Hazards and Hazardous Materials. Under the Expanded Footprint Alternative, the impacts related to this topic would be virtually the same as for the proposed Project. Mitigation Measure HM-1 would apply and reduce any impacts to a less than significant level.

Hydrology and Water Quality. While the Expanded Footprint Alternative includes more land overall, it results in the conversion of less land to urban development than does the proposed Project. It also includes the same watershed areas, though its drainage master plan would have to be revised to take in the northern area. It is expected that this will still result in the Alternative's development having a less than significant impact. Construction related and operational water quality impacts of this Alternative would be the same as those for the proposed Project, and with observance of existing regulations, the impacts are expected to be less than significant.

Land Use. The Expanded Footprint Alternative would not conflict with any adopted County or city land use plans which avoids environmental impacts, consequently its impact in this regard is less than significant. This Alternative uses the same basic internal designs as the proposed Project, so the conclusions as to providing a variety of transportation choices, compact building and community design, a range of housing, as well as fostering a sense of place apply. While it provides more open space than the proposed Project, it still conflicts with the SACOG Blueprint because it does not direct growth toward an existing urban core. The portion of the Expanded Footprint Alternative north of the proposed Project does not have frontage on Grant Line Road in contrast to the proposed Project which abuts actively planned urban development in the City of Rancho Cordova along the Grant Line Road frontage. Consequently, this portion of the alternative does not have direct contact with existing urban development or land currently in planning by the City of Rancho Cordova. This is a significant and unavoidable impact of the Alternative. Its growth inducing impacts are less than significant. Impacts related to General Plan policies concerning public services and utilities are similar to those for the proposed Project and are less than significant. Impacts related to the General Plan policies for air quality are also less than significant, just as for the proposed Project. General Plan policies require new development to be compatible with existing development. The proposed mitigation for reducing this Alternative's particulate matter exposure impacts that would require a 2,500 ft. buffer from active mining operations at the nearby Teichert mining company property would reduce any land use compatibility impacts to a less than significant level. This Alternative would not divide or disrupt an existing community, and would not displace any housing, so its impacts in these areas are less than significant.

Noise. Construction of the Expanded Footprint Alternative would increase noise levels, but remain less than significant, just as for the proposed Project. With implementation of mitigation measures, impacts from onsite traffic would be less than significant. Onsite sources of community and stationary noise would have less than significant impacts, just as for the proposed Project. Noise impacts from the Kiefer Landfill would be less than significant, just as for the proposed Project. Ambient noise levels at the site of this Alternative would increase and be a significant and unavoidable

impact, just as they would be for the proposed Project. Mather Airport noise would have a less than significant impact on this Alternative.

Public Services. The estimated population for this Alternative is 22,850 persons, which is about 90% of the population of the proposed Project. Existing regulations, ordinances, codes and fee mechanisms would ensure that the necessary facilities are constructed and funded to provide the public services needed for this Alternative's population. Impacts on public services would be less than significant.

Public Utilities. The water supply master plan and sewer master plan would all need to be amended to serve this Alternative, as fewer supply lines would be needed on the main Cordova Hills section and new lines would be needed to serve the northern area added by this Alternative. The same regional and offsite improvements would be needed, so the impacts are similar to the infrastructure construction impacts of the proposed Project and would therefore be significant and unavoidable. In terms of energy efficiency, this Alternative will not result in the wasteful, inefficient and unnecessary consumption of energy, and its demand for energy will not exceed the available supply, so its impacts in this regard are less than significant. Its demand for water and sewer services will also be less than significant. The Alternative will not use groundwater to the extent that it would exceed the sustainable yield, so its impacts are less than significant. Nor will it adversely impact groundwater recharge.

Traffic and Circulation. The Expanded Footprint Alternative would reduce the number of access points at Grant Line Road to only two points, and the inclusion of larger preserves would also eliminate several internal roadways from the proposed Project. Under existing plus project conditions, the implementation of Mitigation Measure ALT -5 in the Draft EIR would ensure that the Expanded Footprint Alternative has less than significant impacts on the intersections situated in Sacramento County. Impacts of this Alternative on intersections in the City of Elk Grove would be less than significant as well. However, impacts to intersections in the City of Rancho Cordova would be significant and unavoidable because the County cannot ensure that Mitigation Measure ALT-6 in the Draft EIR and any other mitigation improvements to roadways suggested in the EIR would be implemented by the City of Rancho Cordova. Any Caltrans state highway intersection impacts from this Alternative would be less than significant.

Implementation of Mitigation Measures TR-3A and TR-4 for the proposed Project would result in the roadway segment impacts from the Expanded Footprint Alternative being less than significant in Sacramento County. Impacts to roadway segments in the City of Rancho Cordova, City of Folsom and City of Elk Grove from the Expanded Footprint Alternative would be significant and unavoidable because the County cannot be certain that the suggested roadway segment improvements proposed as mitigation would be implemented by the cities. In addition, in some cases within Rancho Cordova there is no mitigation available to restore the LOS to an acceptable level on certain roadway segments, such as along Sunrise Boulevard from US 50 to White Rock Road. Along the Caltrans US 50 freeway, implementation of Mitigation Measure TR-6 would reduce

traffic impacts of the Expanded Footprint Alternative to a less than significant level in the existing plus project scenario. There would be less than significant impacts to Caltrans ramp junctions with this Alternative in the existing plus project scenario. Impacts of this Alternative on bicycles and pedestrians would be the same as those of the proposed Project. Implementation of Mitigation Measure TR-7 would reduce impacts of this Alternative to less than significant in the existing plus project condition. This Alternative would have less than significant impacts on transit service in the existing plus project condition, assuming the same internal transit system is adopted as would be used for the proposed Project.

In the cumulative plus project scenario, the Expanded Footprint Alternative requires the implementation of Mitigation Measure ALT-7 in the Draft EIR in order to reduce impacts on Sacramento County intersections to a less than significant level. In this scenario, the Alternative would not require any mitigation in order for its impacts on intersections in the City of Elk Grove and in the City of Folsom to be less than significant. However, under the cumulative plus project condition, impacts to intersections in the City of Rancho Cordova would be significant and unavoidable, because the County cannot be certain that the suggested mitigation would be implemented in the City. In addition, in some cases there is no mitigation available to reduce impacts on Rancho Cordova intersections to an acceptable level of service. With regard to Caltrans intersections, this Alternative does not have any significant impacts in the cumulative plus project condition.

With implementation of Mitigation Measure ALT-9 suggested in the Draft EIR, the Expanded Footprint Alternative's impacts on Sacramento County roadway segments in the cumulative plus project condition would be reduced to a less than significant level. Impacts to roadway segments in the City of Elk Grove for this Alternative in the cumulative plus project scenario would also be less than significant. However, impacts to a number of roadway segments in the City of Rancho Cordova and City of Folsom would be significant and unavoidable in the cumulative plus project condition with this Alternative. That conclusion was reached because the County cannot be certain that the City of Rancho Cordova and City of Folsom would implement the suggested mitigation in order to improve the LOS to acceptable levels. Significant impacts from the Expanded Footprint Alternative would also be caused to a number of freeway segments along US 50 in the cumulative plus project condition. Caltrans has no plans or funding to make further improvements to those segments of US 50 and to the impacted US 50 ramp junctions, so there is no feasible mitigation available to lessen the impacts of this Alternative on US 50.

In the cumulative plus project scenario, the Expanded Footprint Alternative would have nearly identical impacts as would the proposed Project on bicycles, pedestrians and the transit system. All of those impacts would be less than significant and would not require any additional mitigation for this scenario.

Relationship to Project Objectives

The Expanded Footprint Alternative would only partially meet the basic Project objectives for the same reasons as the Expanded Preserve Alternative fails to meet them. It would not provide any land along Grant Line Road for a sustainable, multi-service Town Center. Relocating the Town Center uses into the interior of the Project site would deny them any visibility to the users on Grant Line Road.

Finding

While the Expanded Footprint Alternative results in one fewer significant impact to Aesthetics compared to the Expanded Preserves Alternative, the Expanded Preserves Alternative results in the least amount of land being urbanized, the least amount of pollutants such as NOx and ROG, the least amount of impacts to wetlands and other habitat loss, and the least utility demand. When the expanded Footprint Alternative is compared to the proposed Project, the Expanded Footprint Alternative results in fewer impacts to Aesthetics, and fewer significant impacts to wetlands and invertebrate species when mitigation is performed. Consequently, the Expanded Footprint Alternative would not be the environmentally superior alternative when compared to the Expanded Preserves Alternative. However, it would have fewer significant and unavoidable impacts than the proposed Project.

D. ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The Draft EIR concluded that the Expanded Preserves Alternative would be the environmentally superior alternative. Although this alternative does not reduce many of the identified significant and unavoidable impacts of the Project to a less-than-significant level, it does reduce the impacts on wetlands and on invertebrate species (vernal pool crustaceans) to a less than significant level with mitigation when compared to the proposed Project. The proposed Project's impacts on wetland loss and on invertebrate species are significant and unavoidable, even with mitigation. As a result, the Board finds the Expanded Preserves Alternative to be the environmentally superior alternative.

X. STATEMENT OF OVERRIDING CONSIDERATIONS

A. Introduction

Pursuant to CEQA Guidelines Section 15092, the Board finds that in approving the Project it has eliminated or substantially reduced all significant and potentially significant effects of the Project on the environment where feasible, as shown in the EIR and described in these Findings.

The Board recognizes that approval of the Project will result in significant adverse environmental impacts on: aesthetics; air quality; biological resources; climate change; land use; noise; public utilities; and traffic and circulation that cannot be avoided or reduced to a less-than-significant level even with the adoption of all feasible mitigation

measures. In the Board's judgment and acting pursuant to Section 15093 of the CEQA Guidelines, the Board finds that the project and its benefits outweigh its unavoidable significant effects. The following statement identifies the reasons why, in the Board's judgment, the benefits of the Project as approved outweigh its unavoidable significant effects and remaining residual impacts. The EIR described certain environmental impacts that cannot be avoided if the Project is implemented. In addition, the EIR described certain impacts which, although substantially mitigated or lessened, are potentially not mitigated to a point of being less than significant.

This Statement of Overriding Considerations applies specifically to those impacts found to be significant and unavoidable, as well as to any residual impacts. Such significant impacts include, but are not limited to:

- Aesthetics: Degradation of existing views and visual quality.
- Aesthetics: New source of light or glare.
- Air Quality: Operational emissions of ozone precursors.
- Air Quality: Construction activities would increase particulate matter emissions.
- Air Quality: Conflict with or obstruct air quality plans.
- Biological Resources: Wetlands and surface waters.
- Biological Resources: Special status species – invertebrates
- Climate Change: Given the substantial emissions which will result from the Project and the uncertainties related to target-setting and the current state of modeling this analysis concludes that Project impacts may remain significant.
- Land Use: Conflict with the SACOG Blueprint and General Plan Policy.
- Noise: Substantial increase in existing ambient noise.
- Public Utilities: Construction impacts.
- Traffic and Circulation: Existing Plus Project. The project results in significant impacts to six County intersections, ten City of Rancho Cordova intersections; one City of Folsom intersection, one City of Folsom intersection, the Zinfandel and US 50 freeway ramp intersection, two County roadway segments, one City of Elk Grove roadway segment, eleven City of Rancho Cordova roadway segments, two US 50 freeway segments, and bicycle and pedestrian facilities.
- Traffic and Circulation: Cumulative Plus Project. The Project results in significant impacts to five City of Rancho Cordova intersections, the Zinfandel and US 50 freeway ramp intersection, one new Project roadway segment, four City of Rancho roadway segments, six Caltrans freeway segments, and four Caltrans freeway ramps.

In addition to the above impacts, this Statement of Overriding Considerations applies to any residual impacts which have been substantially lessened or avoided, but not necessarily to a level of less than significant.

The Board believes that many of the unavoidable and irreversible environmental effects, as well as many of the environmental effects which have not been mitigated to a less than significant level, will be substantially reduced by the mitigation measures for the Project. The Board recognizes that the implementation of the Project will result in certain potentially irreversible environmental effects.

In reaching the Board's decision to approve the Project and all related documentation, the Board has carefully considered each of the unavoidable impacts, each of the impacts that have not been substantially mitigated to a less than significant level, as well as each of the residual impacts over which there is a dispute concerning the impact's significance after mitigation. Notwithstanding the identification and analysis of impacts which are identified as significant and unavoidable, the Board, acting consistent with Section 15093 of the CEQA Guidelines, hereby determines that the benefits of the Project outweigh the unavoidable adverse impacts and remaining residual impacts, and that the Project should be approved.

The following statement identifies the reasons why, in the Board's judgment, the benefits of the Project as approved outweigh its significant and unavoidable effects. Any one of these reasons is sufficient to justify approval of the Project. Thus, even if a court were to conclude that not every reason is supported by substantial evidence, the Board would stand by its determination that each individual reason alone is sufficient. The substantial evidence supporting the various benefits can be found in the preceding CEQA Findings, which are incorporated by reference into this Section X, and in the documents found in the Record of Proceedings, as defined above in Section V.

B. Specific Findings.

1. The Project's Benefits Outweigh Unavoidable Impacts. The remaining unavoidable and irreversible impacts of the Project are acceptable in light of the economic, fiscal, social, public safety, environmental, land use, and other considerations set forth herein because the Board finds that the benefits of the Project outweigh any significant and unavoidable or irreversible adverse environmental impacts of the Project, as well as outweighing any residual impacts over which a controversy exists concerning the impacts' significance following mitigation.

2. Rejected or Deleted Mitigation Measures. Any of the mitigation measures that were suggested in the DEIR and FEIR but not incorporated into the Project due to their infeasibility are infeasible in part because such measures would impose limitations and restrictions on the Project so as to prohibit the attainment of economic, social, and other benefits of the Project which this Board finds outweigh the unmitigated impacts of the Project. In addition, several proposed mitigation measures were deleted because the suggested roadway/intersection improvements had already been constructed by others or

the proposed roadway/intersection improvements were determined not to be necessary in light of other nearby improvements built by others.

As a result of comments received during the public hearing on the Project concerning its potential air quality impacts and ability to achieve a 35% reduction in those impacts, the Applicant has amended the Project's AQMP. The County and SMAQMD have worked together to reach a consensus on additional feasible mitigation to reduce the Project's operational air quality impacts and have determined that the additional mitigation is equivalent or more effective at reducing those air quality impacts.. As a result, SMAQMD provided a verification of the Amended AQMP on January 17, 2013. The Amended AQMP has added the following new feasible mitigation requirements, in addition to those found in the original endorsed AQMP:

- The Project will provide low-emission furnaces and electrical outlets for appliances. (SMAQMD 99C)
- The Project will exceed the Year 2013 Title 24 requirements by 20%, and will include energy star cool roofs and tankless water heaters. (SMAQMD 99D)
- The Project will provide on-site renewable energy systems for at least 20% of the Project's energy needs. (SMAQMD 99E)

In regard to rejected mitigation measures, the Board finds that the Conditions of Approval Numbers 40 through 85 relating to traffic and circulation improvements (listed beginning on page 54 of these Findings) to be constructed or funded by the Applicants and/or their successors are necessary to implement proposed Mitigation Measures TR-1 through TR-9 and TR-11 in the EIR; these measures have not been rejected or modified (except as described in paragraphs which follow) but will be implemented via the Conditions of Approval. The Board has determined that the Conditions of Approval are more specific and better designed to implement the roadway improvements needed to mitigate for the identified transportation and circulation impacts described in the EIR.

Mitigation Measure TR-1.E. was modified and replaced with Condition of Approval 60 because a portion of the required roadway/intersection improvement is currently being constructed by the County as part of the County's White Rock Road Improvement Project. TR-1.E would have required the Applicant to install two eastbound left turn lanes. That portion of the mitigation measure has been deleted, since the dual eastbound left turn lanes are being constructed by the County.

Mitigation Measure TR-1.F. was deleted in its entirety because the County also is currently making the proposed roadway/intersection improvements to the intersection of White Rock Road and Prairie City Road as part of the County's White Rock Road Improvement Project. Consequently, this mitigation measure is no longer required and was deleted.

Implementation of the specific lane modifications to the Sunrise Boulevard and Jackson Highway (State Route 16) intersection recommended by Mitigation Measure TR-2.D. have been revised, as reflected in Condition of Approval No. 61. The reasoning for

the change was dual: the Board desired a measure which would succeed in reducing the impact while also improving the north-south flow conditions at this intersection (though not necessary due to a Project impact) and because Measure TR-2.D. would have required more extensive roadway work. County DOT performed further analysis of the mitigation measure and found that there was an alternative reconfiguration which would reduce the amount of reconstruction needed, which would improve north-south flow, and would also result in an equivalent LOS as measure TR-2.D. The revised lane reconfigurations consist of the following: two eastbound through lanes, an eastbound right turn lane, and an eastbound left turn lane; a northbound left turn lane, two northbound through lanes and a northbound right turn lane; a westbound through lane, a westbound right turn lane and a westbound left turn lane; a southbound through lane, a southbound left turn lane, and a southbound right turn lane. The threshold for construction of the above intersection improvements has also been changed by Condition of Approval No. 61 to require them at 500 DUEs, instead of at 3,200 DUEs.

Mitigation Measure TR-5.H. was deleted in its entirety because the widening of Douglas Road to a four lane arterial between Sunrise Boulevard and Rancho Cordova Parkway has already been completed by others, so there is no need for the Project to contribute funding for the construction of this roadway segment.

Mitigation Measure TR-1.B. also has been deleted in its entirety because the roadway/intersection improvements proposed in the EIR at Douglas Road and Mather Boulevard subsequently were determined by the County Department of Transportation to no longer be necessary due to other traffic improvements built at the Douglas Road and Zinfandel Drive intersection, as described in the FEIR.

Some mitigation measures were rejected or their implementation revised because they sought to implement a level of service ("LOS") on roadways or intersections shared with an adjacent jurisdiction, or entirely within an adjacent jurisdiction, that conflicted with and was more stringent than the County's policy of maintaining a LOS "E" on roadways and intersections in urban areas. For policy reasons, as well as for economic ones, the County has declined to apply a LOS standard established by a neighboring jurisdiction that was in direct conflict with the County's own policies and standards. The County further finds that use of a more stringent level of service standard from another jurisdiction would impede the achievement of the Project's goals and objectives and interfere with the County's inherent police power and discretion to control land use decisions within the County's jurisdiction. County General Plan Policy CI-9 provides that the County should:

"Plan and design the roadway system in a manner that meets Level of Service (LOS) D on rural roadways and LOS E on urban roadways, unless it is infeasible to implement project alternatives or mitigation measures that would achieve LOS D on rural roadways or LOS E on urban roadways. The urban areas are those areas within the Urban Service Boundary as shown on the Land Use Element of the Sacramento County General Plan. The areas outside the Urban Service Boundary are considered rural."

In addition, the County General Plan contains Policy LU-65 that specifies:

“Level of service shall be consistent with policies in this Plan, or where none are applicable, shall use Federal and State environmental standards and commonly accepted industry norms and standards as guidelines.”

For those reasons, the County has rejected proposed mitigation measures in the EIR that were based on maintaining LOS "D" on roads shared with another jurisdiction which conflicted with the County's own policy of maintaining an LOS "E" standard for urban roadways. However, in order to ameliorate the decline in the level of service on such shared roadways, the triggers for commencement of the required roadway improvements have been adjusted so that they fall between an LOS D and LOS E threshold.

In a related vein, the Board has also found it infeasible to require the implementation of proposed mitigation measures that would have required the Applicants and/or their successors to construct many substantial improvements to Grant Line Road without there being any reasonable expectation of receiving a reimbursement for those construction costs that exceeded the Project's fair share of the Grant Line Road improvements. The Board finds that other developments in adjacent jurisdictions not only benefit from those roadway improvements, but also trigger the need for such improvements. Instead of requiring the Applicants to build such physical improvements in another jurisdiction, the Board finds that it is more feasible to simply require the Project to pay its fair share of the cost to construct the Grant Line Road improvements or to construct only Grant Line Road improvements situated within the boundary of the County.

3. Balance of Competing Goals. The Board finds that it is imperative to balance competing goals of protecting the environment while allowing new economic development to take place in approving the Project and certifying the EIR for the Project. Not every policy or environmental concern has been fully satisfied because of the need to satisfy competing concerns to a certain extent. Accordingly, in some instances the Board has chosen to accept certain environmental impacts because to eliminate them would unduly compromise some other important economic, social, environmental or other goals, such as providing a site designated for future university/college campus uses, encouraging people to walk or bicycle, promoting a new community that is designed for the use of neighborhood electric vehicles (NEVs) from the very outset. The Board further finds and determines that the design of the Project provides for a positive balance of competing goals and that the economic, fiscal, social, environmental, land use and other benefits to be provided by the Project outweigh any environmental and related potential detriment from the Project.

C. Overriding Considerations.

Based upon the above enumerated objectives and the comprehensive vision developed by the Board through extensive public participation, the Board has determined

that the Project should be approved and that any remaining unmitigated environmental impacts attributable to the Project are outweighed by the following specific economic, fiscal, social, environmental, land use and other overriding considerations.

1. Economic Considerations.

The Board finds that substantial evidence is included in the administrative record demonstrating the economic benefits which the County would derive from implementation of the Project, including, but not limited to the following:

- The Board finds that employment opportunities within the County will be provided at the Project by creating construction jobs and jobs at the regional retail/commercial uses, neighborhood-serving retail uses, business-professional office uses, research and development uses, public service facilities and university/college campus center. The Board further finds that at build-out, the Project is estimated to provide a total of 6,669 new jobs.
- The Board finds that the Project's 223-acre university/college campus area provides the opportunity to attract a major employer of highly trained and educated workers such as university professors, school administrators, researchers and teaching assistants. The Board finds that there is demand for such an institution in California, and in the Sacramento region. In making this finding, the Board has determined that it is beneficial to have land already designated in a manner compatible with the use being sought; the need to go through a lengthy entitlement and permit process before construction can begin can be an important deterrent for major employers of this kind. Thus, the Project will attract and incentivize a higher-learning institution.
- The Board finds that the 966,779 sq.ft. of commercial uses proposed at the Town Center area of the Project have the potential to generate substantial sales tax revenue for the County that can be used to support numerous important County public safety and health services and programs. The Board further finds that the Project represents a significant capital investment in the County and will generate substantial property tax revenue. In addition, the Board finds that businesses locating in the Project will provide substantial employment opportunities in a variety of jobs in the retail, office and educational environments, and that such employment provides steady income, thus supporting other businesses and provides stable employment and income that in turn enhances the local economy.
- The Board finds that the Project's Finance Plan meets the goals of General Plan Policy CI-27 that requires a project's public facilities financing plan to incorporate and fund the capital costs for transit.

- The Board finds that the Fiscal Impact Analysis for the Project shows it to be cost-neutral to the County's General Fund and existing taxpayers.

2. Environmental, Educational and Land Use Considerations.

Substantial evidence is included in the record that the implementation of the Project will have beneficial as well as potential adverse impacts relating to environmental and land use considerations. In reaching that conclusion, the Board has relied upon the following factors:

- The Board finds that the Project is within an area which has already been designated as being within a future urban development area, because the Project is within the Urban Services Boundary (with the exception of the 251 acres known as the "bufferlands" and the agricultural/floodplain areas along the eastern boundary, which will remain in agricultural zoning). The Urban Services Boundary of the County General Plan defines the limits of future urban development, and was first established in 1993. The Board further finds that Project is located immediately adjacent to the City of Rancho Cordova and to areas within the City that are approved for development and in which development is now taking place.
- The Board has found as part of the adopted Sacramento County General Plan that future development should include a variety of housing types, have a pedestrian- and transit-oriented design, and be higher density (minimum 7 or 9.3 homes to the acre, depending on the methodology), as established through Policy LU-121. It is recognized that these goals compete with the goal to preserve habitat. The Board finds that the Project has achieved a reasonable balance between these competing goals. Specifically, the project has provided the desired designs as follows:
 - o The Board finds that the Project provides the County with a high quality mixed use community containing a variety of housing types, a 223+ acre site designated for a university/college campus center, school sites, a 50-acre sports park, community parks, large retail and commercial centers, and neighborhood-serving retail uses on vacant property located in the southeastern area of the County that meets current and future needs for those types of land uses in the County.

- The Board finds that the Project is consistent with the County General Plan Policies LU-21 and LU-22 because of the Project's balance of employment, neighborhood services and housing types. The Board further finds that the Project complies with Policy LU-23 by providing a compact and mixed use development in a new growth area. The Cordova Hills SPA Ordinance provides a commercial-flex zone with mixed use residential and commercial uses in certain areas, thereby promoting home-work and small business activities and avoiding additional commute trips.
- The Board finds that the Project, through implementation of the SPA Ordinance and the Cordova Hills Master Plan's Design Guidelines and Development Standards, incorporates strong architectural and design features that are compatible with adjacent land uses, while providing a unique identity for the Project as a whole.
- The Board finds that the Project's 223-acre site for a campus of higher education benefits the County by addressing both regional and state-wide current and long-term deficiencies in local options for students seeking a college education.
- The Board finds that the Project's 223-acre university/college center site implements County General Plan Policy ED-68 by serving to attract "additional institutions of higher education to Sacramento County." In addition, the Project supports the continued integration of regional institutions of higher education into the local and regional economies, as set forth in General Plan Policy ED-69.
- The Board finds that the Project accommodates a mix of new and traditional housing types ranging from single-family to multi-family to high-density residential units in order to serve all income levels.
- The Board finds that the Project provides for the long-term preservation of the Urban Services Boundary by recording a deed restriction precluding urban development along the eastern boundary within the Project site, and by securing a conservation easement on off-site land to the east of the Project (known as the East Carson Creek property).

While achieving the above desired designs, the Board also finds the following:

- The Board finds that the Project creates approximately 538 acres of open space and avoidance areas, which is 20 percent of the land within the approximately 2,669-acre Project site. The Project preserves 56 percent of the wetlands on the site and preserves 67 percent of its vernal pool acreage, and preserves the most sensitive vernal pool areas. The open space areas at the Project connect with existing and proposed open space areas outside the boundaries of the Project to the north, east and south.
- The Board finds that the Project provides for large, contiguous habitat conservation with its avoidance and preserve areas that total approximately 538 acres at the Project. Those areas assist the County with successfully designing and implementing the South Sacramento Habitat Conservation Plan.
- The Board finds that the Project's design will provide neighborhood serving retail uses that reduce the length and number of vehicle trips and the resulting global climate change impacts when compared to a "business-as-usual" development in this same location, and has included all feasible mitigation in this regard.
- The Board finds that the Cordova Hills SPA Ordinance is a plan for sustainable, greenfield planning and development through its enhanced environmental designs. Examples include the potential solar farm within the Project area's "bufferlands" and a commitment that 20 percent of all electricity required by the Project area will come from renewable onsite energy sources.
- The Board finds that the Project conserves energy and reduces GHG emissions by requiring all commercial and residential development to achieve a 20 percent energy efficiency above that required by the 2013 Title 24 energy efficiency regulations.
- The Board finds that the Project's land use pattern integrates a multi-modal circulation system with a trail network, a locally funded transit system that connects to the regional transit network with an internal transit loop, and contains a street system that serves the requirements of neighborhood electric vehicles (NEVs). All of these features reduce the production of greenhouse gases and reduce the use of fossil fueled motor automobiles for short trips at the Project compared to a

conventional community in the Sacramento region. There will be no need for the County to retrofit or modify the Project's roadway system in order to allow the use of NEVs or incorporate a transit system within the Project area. The Board further finds that the above features meet the goals in General Plan Policy LU-27 to provide safe, interesting and convenient environments for pedestrians and bicyclists; Policy LU-37 to provide support and the development of pedestrian and bicycle connections between transit stations and nearby uses; Policy LU-39 to implement the ADA Transitional Plan and Pedestrian Master Plan; Policy CI-3 to interconnect travel modes and form an integrated, coordinated and balanced multi-modal transportation system consistent with the land uses being served; Policy CI-4 to provide multiple transportation choices to link housing, recreational, employment, commercial, educational, and social services; Policy CI-32 to provide a comprehensive, safe, convenient and accessible bicycle and pedestrian system; Policy AQ-1 that requires new development to be designed to promote pedestrian/bicycle access and circulation; and Policy CI-34 to construct and maintain bikeways and multi-use trails to minimize conflicts between bicyclists, pedestrians and motorists.

- The Board finds that the Project's design reduces its climate change impacts, when compared to a "business-as-usual development, by promoting pedestrian uses, providing retail and residential uses adjacent to employment opportunities, by requiring the planting of numerous trees along the Project's roadways, trails, paseos and parking areas, and by providing a fully Project-funded internal transit shuttle bus system that will reduce vehicle miles travelled and motor vehicle emissions. The Board further finds that the Project contains a pedestrian and bike trail loop system with off-road and on-road routes that link the homes with recreation areas, open space areas, shopping areas and the university/college campus facilities, resulting in reduced VMTs and automobile use.
- The Board finds that the Project's dedicated neighborhood electric vehicle (NEV) lanes on the Project's internal streets promote and encourage the use of NEVs as an environmentally sound alternative to the use of the automobile for destinations within the Project site.
- The Board finds that the Project's transportation system includes an internal transit system loop that also connects outside of the Project area to the Highway 50 corridor,

including Regional Transit's bus and light rail facilities at the Mather/Mills light rail station and thereby promotes the use of public transit instead of the automobile.

- The Board finds that the Project creates a safe and efficient network of inter-connected streets with public bike and pedestrian trails. The Project contains approximately 27.6 miles of Community Class II on-street bicycle paths and approximately 27.8 miles of off-street trails and 20 miles of paseos for a total of 75 miles of trails, paseos, and class II bicycle paths that result in enhanced walkability because no home will be more than ¼ mile from one of the trails, paths, or other open space.
- The Board finds that the Project provides a total of approximately 75 miles of trails, bike lanes and paseos, and is required to dedicate a trail easement to the County for an off-site connection to a potential future County-wide trail system.
- The Board finds that the Project's transit system and its connection to Regional Transit's light rail system implements County General Plan Policy CI-26 by expanding neighborhood shuttle services in unincorporated areas and implements Policy CI-30 by collaborating with transit service providers to promote phased implementation of transit services to all growth areas as development occurs.
- The Board finds that the Project benefits the County by providing land at no cost to the County with an irrevocable offer of dedication in order to accommodate traffic improvements along Grant Line Road outlined in the current County General Plan, as well as provide land needed by the County for a potential future expansion of Grant Line Road as a limited access expressway.
- The Board finds that while the Project has substantial impacts related to transportation, air quality and climate change, those impacts are not due to any significant conflicts with the County's General Plan.

Based upon the above land use and environmental considerations, the Board has determined that any environmental detriment caused by the Project has been minimized to the extent feasible. Where not feasible, the environmental detriment is outweighed and counterbalanced by the significant economic, fiscal, educational, environmental and land use benefits to be generated for the County.

3. Other Related Overriding Considerations.

In addition to the economic, environmental, educational, and land use considerations identified above, the Board has considered various factors in arriving at its decision to approve the Project. Although economic, fiscal, environmental, educational, and land use benefits to be derived by the County are the primary reasons for the County's decision to approve the Project, other factors have been considered by the County in the planning process and add to the benefits of the Project when weighed against any unavoidable environmental impacts identified in the EIR. Among these factors include the prospect of creating a development plan with substantial open space for vacant, underutilized land which will serve as a model for future environmentally sensitive development.

CONCLUSION

The Board finds that it is imperative to balance competing goals in approving the Project and the remaining environmental impacts resulting from the Project. Not every policy or environmental concern has been fully satisfied because of the need to satisfy competing concerns to a certain extent. Accordingly, in some instances the Board has chosen to accept certain environmental impacts because to eliminate them would unduly compromise some other important economic, social, environmental, educational or other goal. The Board finds and determines that the Project and the supporting environmental documentation provide for a positive balance of the competing goals and that the economic, fiscal, social, environmental, educational and other benefits to be obtained by the Project outweigh any environmental and related potential detriments from the Project.

Any remaining significant effects on the environment attributable to the Project that are found to be unavoidable, irreversible or not substantially mitigated to a less-than-significant level are acceptable due to the overriding considerations set forth above. The Board has concluded that with all the environmental trade-offs of the Project taken into account, the Project's implementation will represent a net positive impact on the County, and based upon such considerations after a comprehensive analysis of all the underlying planning and environmental documentation, the Board has approved the Project.

The Board hereby approves and adopts the foregoing CEQA Findings and Statement of Overriding Considerations for the Project.

Date: January 29, 2013

By: 
CHAIR, BOARD OF
SUPERVISORS
COUNTY OF SACRAMENTO

ATTEST:

By: *Cyndi Lee*
CLERK, SACRAMENTO
COUNTY BOARD OF
SUPERVISORS

Date: January 29, 2013

January 28, 2014

Mark Hanson
Cordova Hills, LLC
5241 Arnold Ave
McClellan, CA 95652

RE: University Site at Cordova Hills

Dear Mark,

You have asked me to comment on the appropriateness of the County zoned higher education site at Cordova Hills and in particular respond to the questions you raised regarding the University site's footprint potentially occupying less than 223 acres by increasing the densities. Essentially you have asked "why does the University site need to be 223 acres?" As the master planners and programmers for that particular site, Holabird & Root has intimate knowledge of the background, needs and potential for this site as the location for a college or university.

Holabird & Root is a global architecture, planning and design firm with nearly 140 years of experience in creating a variety of world-class buildings, projects and land plans. A significant portion of that experience has been in assisting colleges and universities to plan their current and future needs. We have worked with the Cordova Hills project since 2008, a large part of which was directly devoted to the planning of the university land.

The portion of the Cordova Hills project which has been approved for a college or university encompasses approximately 223 acres, with direct frontage on the major southerly entryway (University Boulevard) to the project. This frontage allows easy and proximate access from Grant Line Road (the future "Connector") which is also important for both local and regional identity. The location of the 223 acres in this particular location is also important as it bordered immediately to the east by the specifically planned "university village" and across University Boulevard from the project's southerly town center area. These land uses are important for the success of an institution of higher learning in that they provide direct alternatives to on campus housing, higher densities for student life, shopping, working and for faculty and staff living.

The university site at Cordova Hills was designed with a primary focus on most of the students/employees needs being met on campus or directly adjacent. The vision for the University is not of a commuter school. The University site is approved for 1,870,000 sq. ft. of total buildings that would accommodate 6,000 students and 2,036 total employees resulting in a total population of 8,036 throughout class times.

The University site is designed into five distinct areas:

1. Academic Area – Academic Buildings, administrative centers and more public amenities
2. Transition Area – Steep slope that is not buildable
3. Living and Learning Area – Student Housing
4. Athletic Area – Athletic fields and supportive structures (e.g., gymnasiums)
5. Avoidance Area – Wetlands Preserve

The design for the site can accommodate a single institution, or a cluster of smaller integrated institutions. This model is typical and is suitable to many potential institutions throughout the world. Higher education institutions, when looking to expand or establish a new campus, look for opportunities for the majority of their students housing needs to be accommodated onsite and their shopping/entertainment needs to be met within close proximity, unless they are planning to be more of a commuter type campus. The Cordova Hills University site is programmed to accommodate housing for most of its students (4,000 students) and the remainder will be met in the adjacent University Village and Town Center. Higher education institutions and their students prefer opportunities for their students to live on or very near campus for social, safety, educational and recreational reasons. This is why two thirds of the housing is met onsite and one third is offsite. If any housing, education, or recreational opportunities were decreased on the Cordova Hills university site the model would not be as attractive or flexible for potential users.

Densities should not be increased on the site. The University site is already programmed with an overall Floor Area Ratio (FAR) of 0.2. Given the considerable open space requirements of a residential campus—quadrangles, courtyards, athletic fields, site circulation, parking—this is considered to be an ideal density. To achieve the desired density, both academic and residential buildings will be 4 to 6 stories in height. As the upper limit for walk-up structures, this is the maximum acceptable height for buildings to foster interactivity among occupants. To further increase density on the site without increasing building height would require a reduction in open space allotment on campus. In addition to constraining the necessary campus services, a decrease in open space would also diminish the quality and experience of the campus grounds, which are designed to be in harmony with the regional context as well as the surrounding development. To significantly increase the site building density would be to create an urban campus in an otherwise rural setting. This would not be in keeping with the proposed sustainable site-design strategies or the overall Cordova Hills community plan.

The university site, as planned and programmed will provide more public access off of the northerly University Boulevard. This more public (approximately 50 acre plateau area) will be the main entry of the university with more focus on administrative centers, performing arts center, library, and major classrooms. Beyond, and below this plateau will be the more “student life” – oriented areas, like residential halls and dining common and then, beyond that, the athletic facilities.

The university site has been designed and programmed to enable students and faculty substantial opportunities for on and off campus walking, with an effort to provide broad alternatives to single use automobile trips. This, in an effort to reduce the impacts associated with automobile emissions, and to preclude students (especially in their freshman and sophomore years) from bringing their cars to campus. In fact, the site's approval has been tied to strictly limiting the number of student parking permits, requires time-restricted parking passes, and requires a "ZipCar"-like system that collectively reduces the number of required parking spaces by 2,884 compared to business as usual. After these reductions the total parking spaces needed by the University is 2,153 spaces, which will be placed in compact structures. The goal of these parking regulations was to ensure that the university is not a typical commuter school and to minimize the university's need for additional land. The proximity of the site (as mentioned above) to the town center and university village also enable the easy commuter use of the Cordova Hills planned internal transit system connecting to the light rail lines along Highway 50.

In the programming for the site, it is anticipated that there will ultimately be 6,000 students equating to 26.9 students per acre. This is significantly greater than other universities that are programmed in a similar nature. The following table shows data for the National Universities and National Liberal Arts Colleges in suburban locales of California that rank in the U.S. News and World Report top 100 schools for 2014. The table shows that top ranked Liberal Arts Colleges in suburban California settings average 18.8 students per acre, 30% less dense than the proposed university site at Cordova Hills. And top ranked National Universities in suburban California settings average 15.7 students per acre, 42% less dense than the proposed university site at Cordova Hills.

School	Rank	Type	Locale	Students	Acres	Stud/Acre
Pomona College	4	Liberal Arts Colleges	Suburban	1,607	140	11.5
Harvey Mudd College	16	Liberal Arts Colleges	Suburban	783	33	23.7
Scripps College	25	Liberal Arts Colleges	Suburban	962	30	32.1
Pitzer College	35	Liberal Arts Colleges	Suburban	1,084	35	31.0
Soka University of America	41	Liberal Arts Colleges	Suburban	438	103	4.3
Westmont College	94	Liberal Arts Colleges	Suburban	1,355	133	10.2
Liberal Arts College Average						18.8
California Institute of Technology	10	National University	Suburban	2,243	124	18.1
Univ. of California - Davis	39	National University	Suburban	32,354	5,993	5.4
Univ. of California - San Diego	39	National University	Suburban	28,294	1,976	14.3
Univ. of California - Santa Barbara	41	National University	Suburban	21,927	989	22.2
Univ. of California - Irvine	49	National University	Suburban	27,479	1,477	18.6
National University Average						15.7
University Site at Cordova Hills	-	-	Suburban	6,000	223	26.9

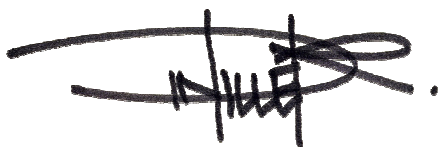
The site for the university use was not selected without a great deal of due diligence. In fact, the original user for the site selected this particular 223 acres after exhaustive searching (and much planning) on other sites in the Sacramento and Placer County areas. This specific site in Cordova Hills provides the best location, for its future access, views, adequate land to build out a vision, and that the site was relatively free of valuable wetland resources. (The 223 acre site only has approximately 2.69 acres of waters of the U.S that will be impacted, which primarily consist of low quality drainages and swales with no Endangered Species Habitat.) Other sites that were identified by the user at the time had greater potential wetlands impacts and of higher quality.

The athletic portions of the site are essential for universities/colleges to accommodate sports programs and provide students and faculty with recreational opportunities. It is not possible to increase densities or decrease the size of the recreational fields and still meet student and faculty demands.

Overall, the approximate 223 acre site is a flexible model for many universities throughout the world. It is not feasible to increase densities any further due to university programming and campus planning requirements. In addition, it is not possible to increase densities any further through regulations or programming, as this has already been done with respect to parking. The density of parking has already been maximized through the use of parking structures. Decreasing the 223 acre footprint would not allow realistic programming of the site for a university or college campus that requires the housing, classroom, public and administrative buildings and recreational amenities required. Simply put, the 223 acre site should not be compromised by reducing its size, or locating it elsewhere within the Plan Area, otherwise it would not meet the programming and planning needs of the university envisioned or the land that was exhaustively planned with the County.

Sincerely,

HOLABIRD&ROOT LLC

A handwritten signature in black ink, appearing to read 'J. Miller', is written over a horizontal line.

Jim Miller
Principal



THE CONCORD GROUP

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COMMERCIAL LOCATION LETTER FOR THE
MASTER PLANNED COMMUNITY OF CORDOVA HILLS IN
SACRAMENTO COUNTY, CALIFORNIA

FINAL REPORT
JANUARY 24, 2014

PREPARED FOR:
CORDOVA HILLS, LLC



LIST OF EXHIBITS

SUMMARY

1. Site Plan
2. The Capital Southeast Connector
3. Traffic Counts
 - A. Cordova Hills
 - B. Dublin Ranch
 - C. Ladera Ranch
 - D. Woodbury
 - E. Rancho Santa Margarita
 - F. North Natomas



To: Cordova Hills, LLC
From: The Concord Group
Date: January 24, 2014
Re: **Commercial Location Opinion Letter - Master Planned Community in Sacramento County**

1. Introduction

Cordova Hills, LLC is pursuing the development of Cordova Hills, a master planned community located in Sacramento County, California. The current master plan consists of up to 8,000 residential units and 1,349,000sf of commercial use. Of this commercial space, 382,000sf of it will be resident serving, located within the core of the residential community. The remaining 967,000sf of commercial space is planned as a Town Center Village situated along Grant Line Road (Exhibit 1).

Cordova Hills, LLC has asked The Concord Group (“TCG”) to compose a narrative evaluating the market-driven need to locate the Town Center commercial uses on Grant Line Road. To meet this objective, TCG, an established land use economics firm, utilized its experience with master planned communities and analyzed the location of major commercial components of analogous master planned communities across California to formulate an opinion.

TCG’s key conclusions are as follows (with support provided in the italicized report sections):

- Major commercial uses of master planned communities are typically located on streets within the community that have the highest traffic counts (*Section 2*);
- The introduction of the Capital Southeast Connector or City/County General Plan six lane thoroughfare will increase daily traffic counts on Grant Line Road tremendously (*Section 2*);
- Visibility and access are key factors to retail tenant success. Without this, customer demand will be weak, sales per square foot will not pass the threshold of feasibility and tenants will not be able to pay rent (*Section 3*);
- Number of households within a one-mile radius would be greater if Town Center remains located along Grant Line Road (*Section 3*);
- Flow of traffic within community will become congested if major commercial component is located within the core residential areas (*Section 3*);

Weighing the above factors, TCG’s opinion is the Town Center location along Grant Line Road is best suited for this community.

The following memorandum summarizes TCG’s most salient findings supporting the conclusions outlined above. An exhibit package of maps and data is attached to the memorandum and will be referred to throughout the text. These exhibits show aerials of analogous master plans that have their commercial uses located on the busiest streets within their respective communities. The analogues are as follows:

1. Dublin Ranch – Dublin, CA
2. Ladera Ranch – Ladera Ranch, CA
3. Woodbury – Irvine, CA
4. Rancho Santa Margarita – Rancho Santa Margarita, CA
5. North Natomas – Sacramento, CA

2. Traffic Counts

Grant Line Road is a major thoroughfare connecting the US-99 freeway to the US-50 freeway, cutting through the eastern suburbs of Sacramento County. The US-50 is a heavily traveled route running east from Sacramento to the Nevada state line in South Lake Tahoe. The US-99 is one of the main north-south routes on the West Coast traveling through the center of California from the US-Mexico border to the US-Canada border. The traffic counts for the Grant Line Road exit on the US-99 and US-50 are 68,100 and 93,500, respectively. Another major access point to the subject site is by way of Sunrise Blvd, which has a traffic count of 135,100 at its exit on the US-50 (Exhibit 3A).

The primary reason why the traffic count on Grant Line Road next to the subject site is so low (5,100) is because currently there is virtually no residential use along Grant Line Road between Jackson Road and the US-50. Grant Line Road is mostly used as a connection point between the two freeways. However, as shown, the site has several feeders with high traffic counts. With the build out of the community, the traffic counts along Grant Line Road next to the site will only increase.

Furthermore, another catalyst to increasing traffic counts is the introduction of the Capital Southeast Connector (Exhibit 2). “The Connector is a planned 35-mile parkway...[that] will have four to six traffic lanes...[and] will span from Interstate 5, south of Elk Grove, to Highway 50 in El Dorado County, just east of El Dorado Hills. Communities in El Dorado and Sacramento Counties will be efficiently linked with Folsom, Rancho Cordova and Elk Grove to reduce congestion and spur economic investment.”¹ Grant Line Road makes up the majority of The Connector. The Connector will be a multimodal street, meaning it “will provide options for a variety of travel modes throughout the corridor, including transit, bicyclists, pedestrians and even equestrians.”¹ Locating a town center on this type of street is viewed as a strong positive. “Town centers and urban villages are ripe for multimodal streets.”²

The portion of Grant Line Road on The Connector that the Town Center would be located along will be a four lane expressway. According to DKS Associates, with the implementation of The Connector, this segment of road will experience daily traffic counts of 62,100 by the year 2035. ⁴ If The Connector never becomes a reality, Sacramento County still plans on transforming Grant Line Road into a six lane thoroughfare. The County’s General Plan states that the introduction of the six lane thoroughfare would increase daily traffic counts to 74,200 along the section of Grant Line Road where the Town Center would be located. The CCIM Institute, a reputable source in the commercial real estate industry, took a survey in which experienced leasing and sales brokers, appraisers, investors and lenders were asked what they considered to be the main “predictors of a successful shopping center.” One of the most important factors highlighted was to locate the center on a street with a high daily traffic count. The survey showed that “a daily traffic count of fewer than 25,000 cars on adjacent streets is a negative influence and fewer than 15,000 cars is strongly negative. More than 55,000 cars is very positive.”³ With the introduction of either The Connector or the six lane thoroughfare, the traffic counts would exceed the 55,000 car threshold discussed in the survey.

Looking at the analogous master plans across California, it is consistent across all four that the major commercial uses are located along streets with the highest traffic count or streets that connect to ones with the highest traffic counts in and around the community. (1) Dublin Ranch in Dublin, CA has its commercial uses located along Dublin Blvd, which is the street with the highest traffic count within the borders of the community. Dublin Blvd also intersects Tassajara Road and Fallon Road, both of which are immediate exits off the I-580 (Exhibit 3B). (2) Ladera Ranch has all its commercial uses along the two busiest streets in the community, Crown Valley Parkway, which is fed by the I-5 and Antonio Parkway. The rest of the community

is all residential use, with no commercial use located along any of the residential streets (Exhibit 3C). (3) The commercial space of the Woodbury community in Irvine Ranch is located at the intersection of Sand Canyon Avenue and Irvine Blvd, the two busiest streets bordering the community. Sand Canyon Avenue is fed by the I-5 and Irvine Blvd is fed by the CA-133 state route (Exhibit 3D). (4) The majority of commercial uses, including retail, office and industrial in Rancho Santa Margarita are located along the busiest roads of the planned community: the CA-241, Antonio Parkway and Santa Margarita Parkway (Exhibit 3E). (5) The community of North Natomas in Sacramento, 30 miles northwest of the site, has its commercial uses on the two busiest streets in the community. There is a smaller shopping center on Del Paso Road, which is fed by both the I-5 and the US-99, and then there is the larger Natomas Shopping Center at the intersection of Del Paso Road and Natomas Blvd (Exhibit 3F).

3. Visibility and Access

Visibility of retail space is a key factor in determining if consumers will shop at a location and if tenants will be drawn to rent. According to the Urban Land Institute, “Commercial uses, such as retail space [and] offices require high levels of traffic and visibility to thrive.”² Referring back to the CCIM survey, other top variables considered in creating a successful shopping center besides high traffic counts were the following:

- Number of households within a one-mile radius
- Household income in a one-mile radius
- Competition
- Visibility
- Access

In regards to visibility, the professionals surveyed “reported that more than 85% visibility...from the primary street...is a strong, positive influence, while anything less than 65% visibility creates a negative or very negative influence.” Access also “proved to be a significant factor according to a high percentage of respondents.”³

If the major commercial component of Cordova Hills was located within the core residential area of the community and not located along Grant Line Road, both visibility and access would be greatly compromised. In addition, locating within the residential community would limit the ability of the developer to segment the types of commercial leading to cannibalization of demand. With regards to visibility, the physical buildings with their signage would not be able to be seen from the major street. Access would not be as simple as pulling into the commercial use parking lot straight from Grant Line Road. Also, if access to the commercial space is tucked into Cordova Hills, this would lead to traffic congestion within the community. Residents trying to get home would have to compete with consumers and vice versa. The better the access and visibility, the more consumers will shop, the higher tenant occupancy rates will stay, the more lease rates will increase and the more valuable the property becomes.

Considering the number of households within a one-mile radius, the Town Center commercial would be more feasible if it remains where it is currently planned along Grant Line Road. This location allows the radius to include the future residential development across Grant Line Road as proposed in the Rancho Cordova General Plan as well as the households within Cordova Hills. If the Town Center were to be located interior to the project, the households reached would only include those within Cordova Hills. Furthermore, the eastern boundary of Cordova Hills abuts the Urban Services Boundary line, which is the County’s ultimate growth boundary that precludes development beyond this line. If the Town Center was located here there would be portions of the one mile radius with no development/homes, which decreases the viability of commercial.

* * *

The above assignment was completed by Josh Samaha under the direction of Tim Cornwell and John Shumway. Should you have any questions regarding the data or conclusions generated by the analysis, feel free to contact us at 415-397-5490.

Sources

- /1: The Capital Southeast Connector Joint Powers Authority < <http://www.connectorjpa.net/the-project/>>
- /2: Urban Land Institute – *Town Centers and Urban Villages*
- /3: CCIM Institute – “Ingredients of a Successful Shopping Center”
< <http://www.ccim.com/cire-magazine/articles/ingredients-successful-shopping-center>>
- /4: DKS Associates, a transportation planning and engineering firm, was commissioned by the Capital Southeast Connector Joint Powers Authority to perform a study on how The Connector would increase traffic counts

SUMMARY

THE CONCORD GROUP

EXHIBIT 1

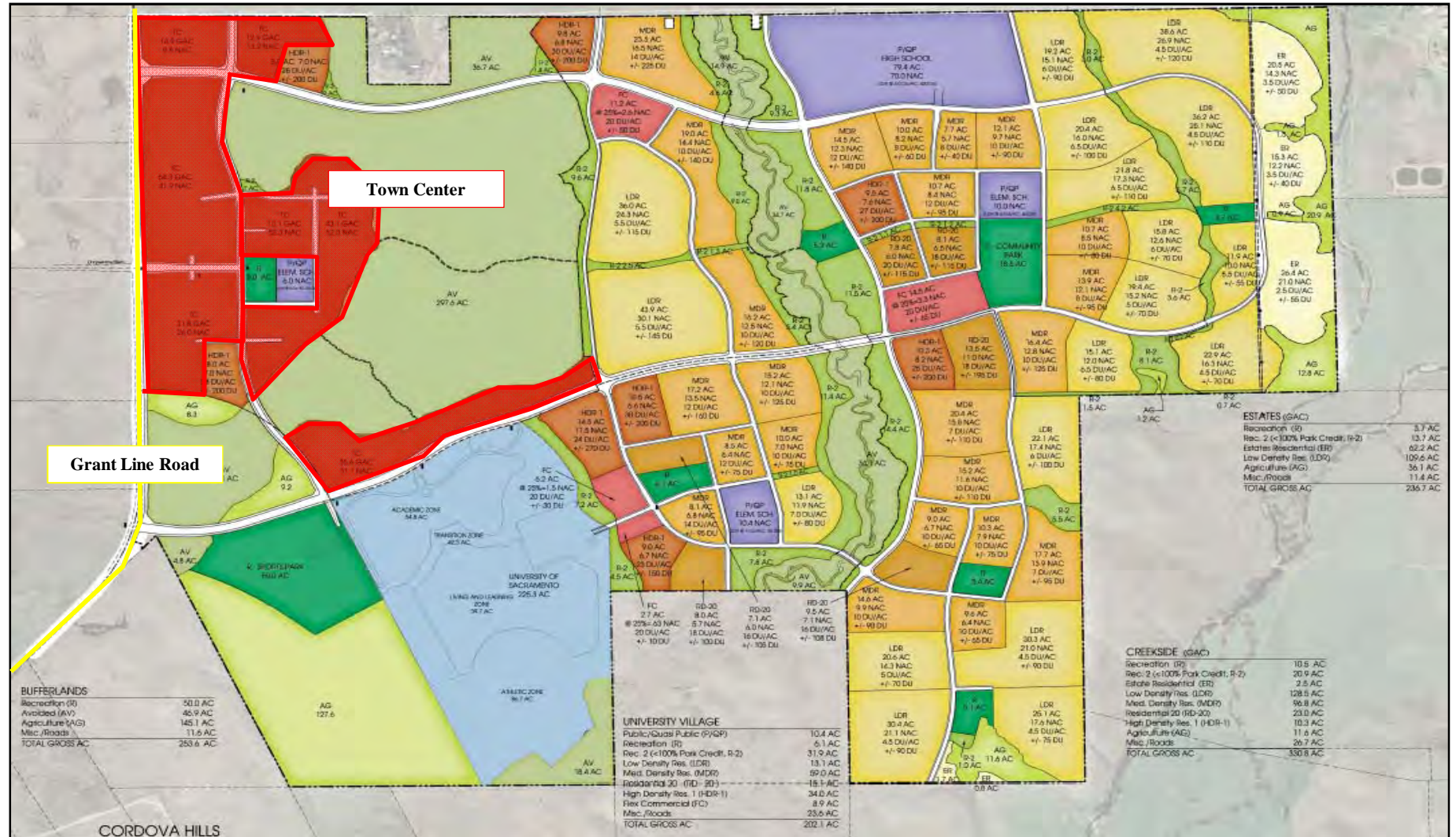
SITE PLAN
CORDOVA HILLS
JANUARY 2014

EXHIBIT 2

THE CAPITAL SOUTHEAST CONNECTOR
SACRAMENTO COUNTY AND EL DORADO COUNTY, CA
JANUARY 2014

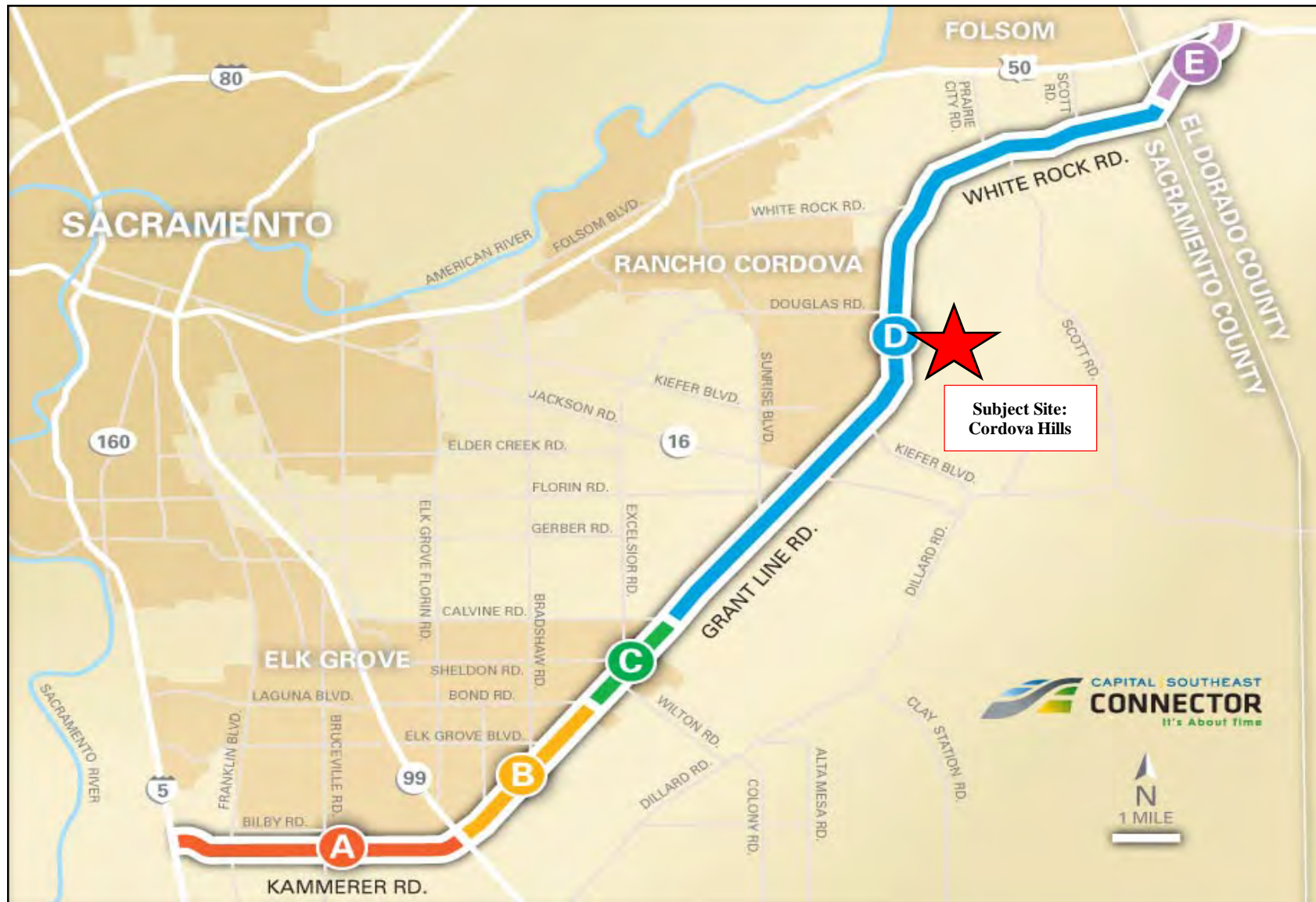


EXHIBIT 3A

TRAFFIC COUNTS
CORDOVA HILLS; SACRAMENTO COUNTY, CA
JANUARY 2014

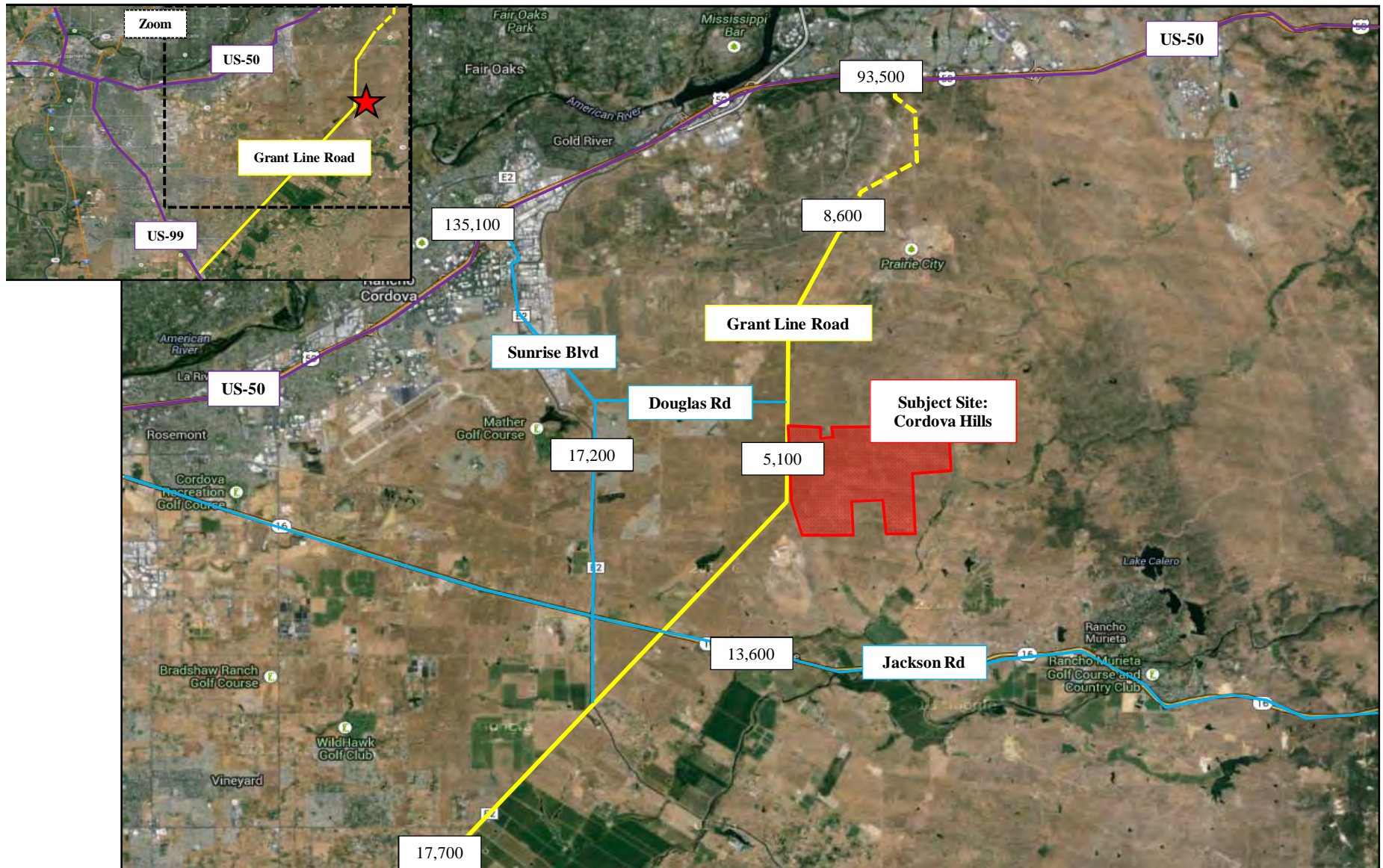


EXHIBIT 3B
TRAFFIC COUNTS
DUBLIN RANCH; DUBLIN, CA
JANUARY 2014

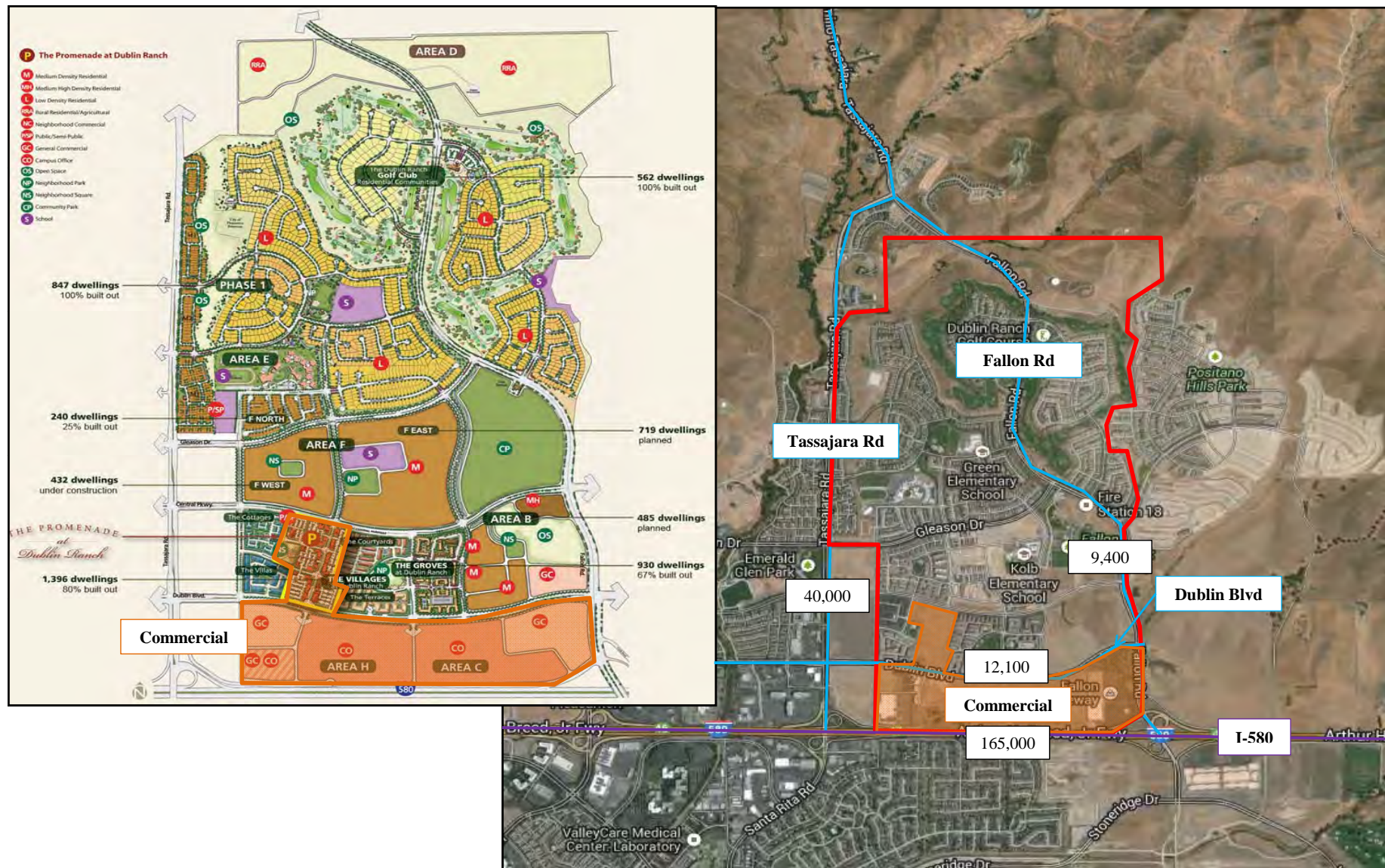


EXHIBIT 3C

TRAFFIC COUNTS
 LADERA RANCH; LADERA RANCH, CA
 JANUARY 2014

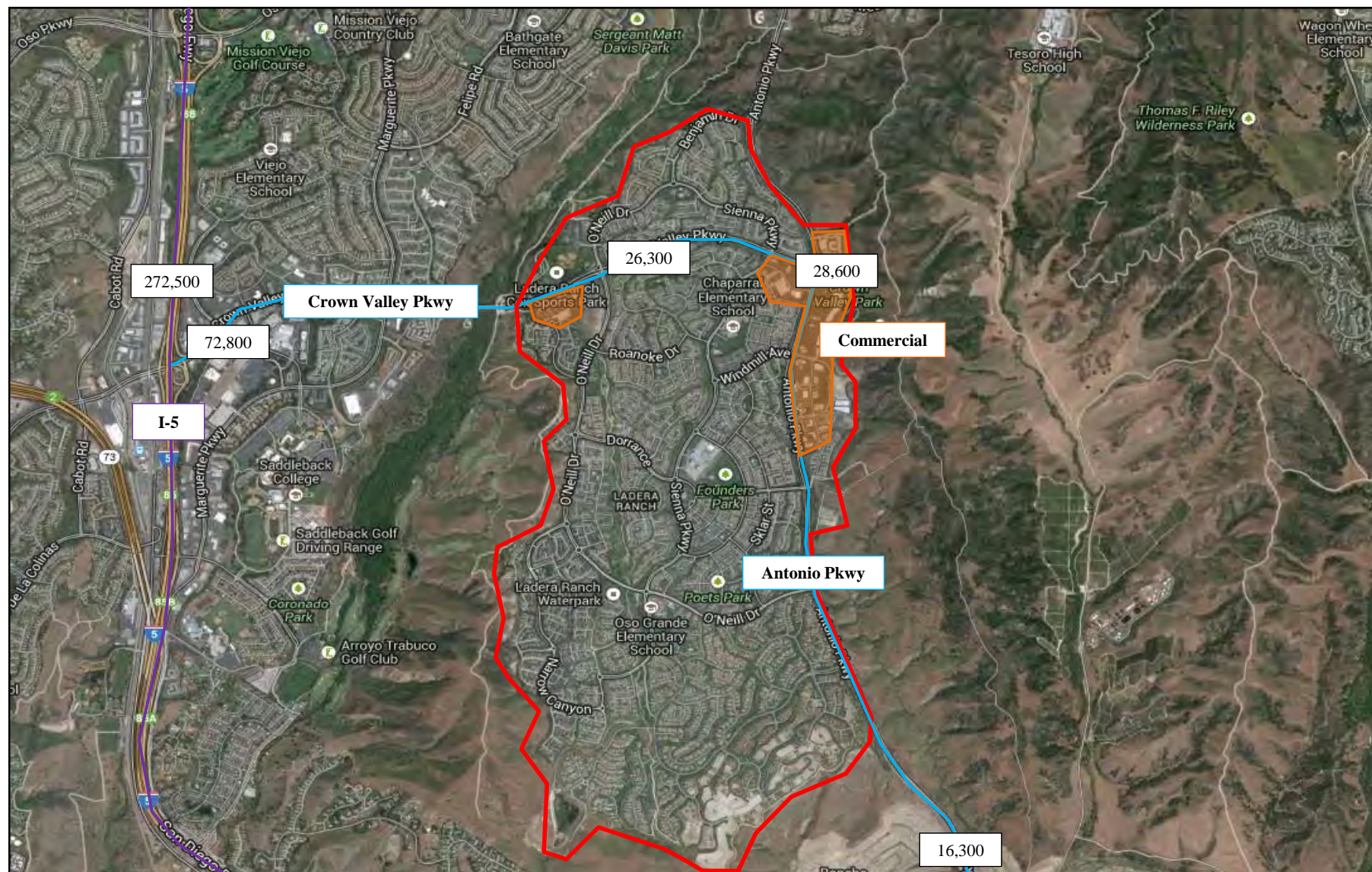


EXHIBIT 3D
TRAFFIC COUNTS
WOODBURY; IRVINE, CA
JANUARY 2014



EXHIBIT 3E

TRAFFIC COUNTS
 RANCHO SANTA MARGARITA; RANCHO SANTA MARGARITA, CA
 JANUARY 2014

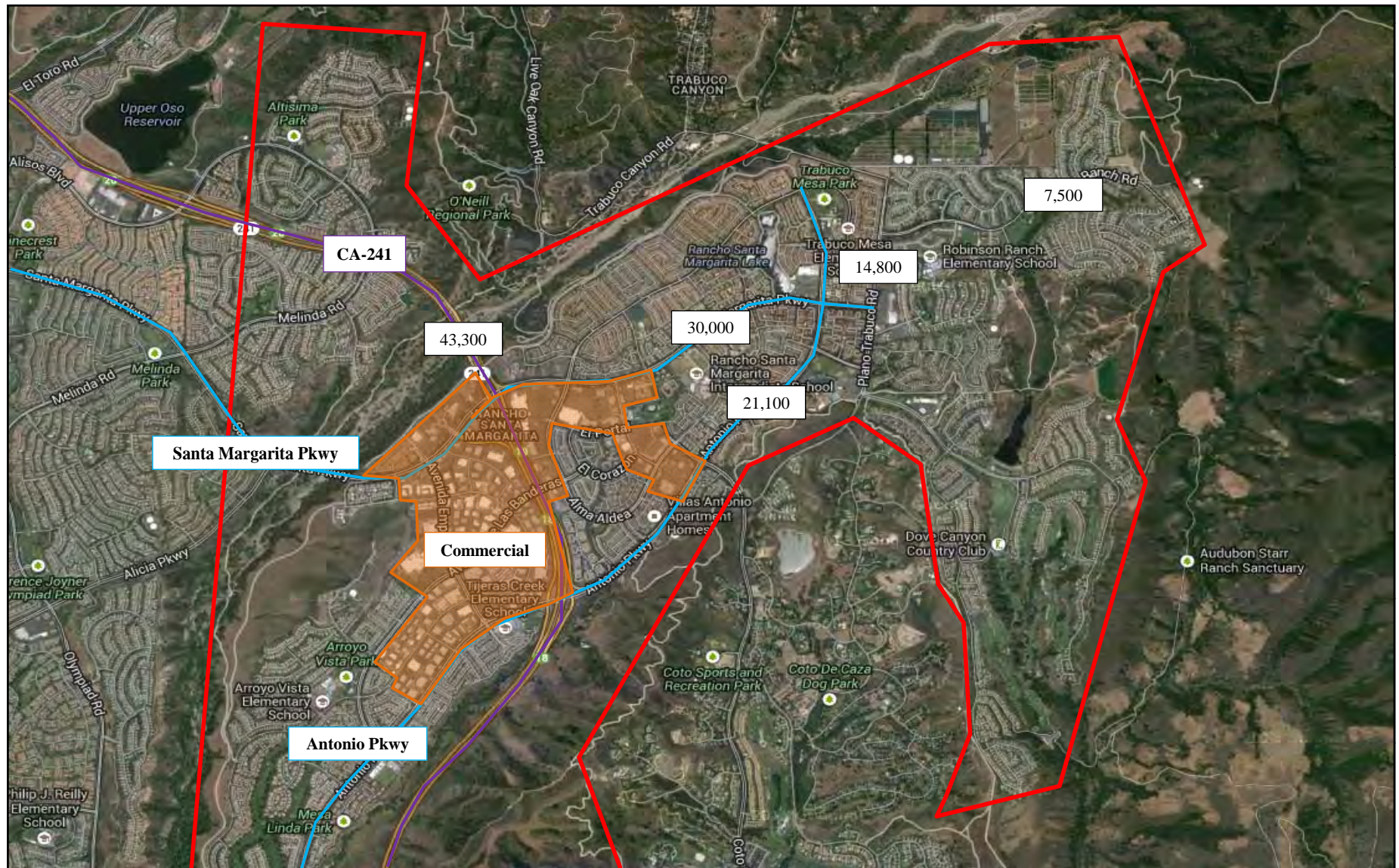


EXHIBIT 3F
TRAFFIC COUNTS
NORTH NATOMAS; SACRAMENTO, CA
JANUARY 2014



27 January 2014

VIA ELECTRONIC MAIL TO:

Mr. Ron Alvarado
Cordova Hills, LLC
5241 Arnold Avenue
McClellan, CA 95652

Re: Town Center Village, Cordova Hills

Dear Ron:

Pursuant to your request, Brown Stevens Elmore & Sparre ("BSES") conducted an analysis of the placement of commercial zoned land within the Cordova Hills Master Plan. The purpose of this report is to provide Cordova Hills, LLC with an opinion as to the current location of Town Center Village (commercial zoned land) and its potential for success.

When considering building or purchasing a retail/commercial site, developers, investment acquisition firms and franchisors have basic criteria regarding the location, demographics and traffic counts as part of their decision making process. The basic criteria often require that a property be highly visible, located on a heavily traveled roadway or thoroughfare and have a baseline traffic count requirement. Other preferences include that the site be visible from the highway and/or easily accessible to the highway/freeway. As part of their acquisition strategy, DDR, a major retail portfolio investment firm traded on the New York Stock Exchange (DDR), require that properties have "superior ingress, egress and visibility." Another publically traded real estate investment firm, Investco Real Estate (IVZ), prefers retail centers with "good visibility and multiple access points along major roadways with adequate traffic counts." The locally based developer Petrovich Development Company lists "strong intersection – solid traffic counts" and "good visibility from arterials" as desirable attributes for land acquisitions. Both franchisors Denny's, McDonald's and Smash Burger have a minimum requirement of 30,000 average daily traffic counts on a primary artery. This commonality of the decision making criteria between acquisition firms, developers and franchisors, demonstrates that visibility, accessibility and high traffic counts are key factors in the success of retail and commercial sites.

The below retail centers are comparable in design to Town Center Village and have strong traffic counts, excellent visibility and access and have easy freeway access. The comparable properties have also drawn additional retail, office and housing to their respective regions and encouraged further growth in surrounding areas. This further demonstrates that visibility, access and solid traffic counts are key components to successful retail and commercial properties. From the information available to BSES, following is a brief examination of four successful retail centers that are comparable in size and design to Town Center Village in the Sacramento region:

	RETAIL CENTER	SIZE SF	TYPE/DESCRIPTION/HIGHLIGHTS	TRAFFIC COUNT
1	Riverpoint Marketplace Ikea Court West Sacramento	925,000	Regional Mall Outdoor, anchored multi-building center Excellent visibility and access Excellent freeway access	81,793 MPSI (2012) I-80 Ramp 15,474 MPSI (2012) Reed Avenue


2	El Dorado Hills Town Center Town Center Drive and Vine Street El Dorado Hills	750,000	Lifestyle Center Outdoor, anchored multi-building center Excellent visibility and access	27,536 MPSI (2012) Latrobe Road 23,973 MPSI (2012) White Rock Road
3	Palladio at Broadstone 410 Palladio Parkway Folsom	700,000	Lifestyle Center Outdoor, anchored multi-building center Excellent visibility and access	43,561 Converted (2012) E Bidwell Street 42,903 ADT (2012) Scott Road
4	The Promenade at Sacramento Gateway 3541-3661 N. Freeway Blvd Sacramento	644,324	Power Center Outdoor, anchored multi-building center Excellent visibility and access Excellent freeway access	49,748 ADT (2012) Truxel Road 27,675 ADT Gateway Park Boulevard

Since key factors of successful retail and commercial properties include high visibility, accessibility and high traffic counts, the placement of Town Center Village within Cordova Hills is critical to the viability of the center and the Cordova Hills development. Town Center Village must be placed following the same basic criteria as the above centers. Thus, to be successful, Town Center Village should be located along a major thoroughfare, be highly visible and have high traffic counts. If Town Center Village were moved to a less visible, accessible area within Cordova Hills, it decreases its visibility and traffic counts and its potential for success.

Currently, Cordova Hills Town Center Village is perfectly situated along Grant Line Road. Grant Line Road is the only major thoroughfare in the area and provides ingress and egress to Town Center Village, excellent visibility and good traffic counts. Once Grant Line Road is widened, as a limited access thoroughfare, traffic counts should dramatically increase. This will further improve drive-by impulse sales, increase market share and add to the draw of Cordova Hills. Since Cordova Hills promotes a "live where you work" lifestyle, it is imperative that Town Center Village be successful and has the ability to service the community. If Town Center Village were placed deeper within Cordova Hills, its potential for success is greatly diminished and could hinder the viability of the Cordova Hills.

In my opinion, it is imperative that Town Center Village remain in its current location along Grant Line Road. This location provides high visibility, accessibility and the strong traffic counts necessary for the viability of the project.

Sincerely,



F. Frederick Brown
President
DRE 01040050

FFB:pce
CordovaHills(Retail)Alvarado LTR 012414.docx



1/27/2014
Page 1



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STRATEGIC MARKET OPPORTUNITY UPDATE FOR THE
COMMERCIAL COMPONENT OF CORDOVA HILLS, A
MASTER PLANNED COMMUNITY IN
SACRAMENTO COUNTY, CALIFORNIA

DRAFT REPORT
JANUARY 31, 2014

PREPARED FOR:
SBM



Memorandum

To: SBM
From: The Concord Group
Date: January 31, 2014
Re: Strategic Market Opportunity Analysis and Positioning/ Absorption Recommendations for the Commercial Component of Cordova Hills a Master Planned Community in Sacramento County, California

We understand that SBM is seeking input as to the ideal mix and land allocation for the Cordova Hills a master planned community in Rancho Cordova, California (“the Site”). SBM required The Concord Group (“TCG”) to complete a strategic market analysis for the Site focusing on historic, current and likely future supply and demand conditions facing the site as a way to evaluate market supportable community program. TCG had previously completed this study in September 2011 and has brought the analysis current. The following are our key findings generated by the study:

Market Overview:

- The Market Area, generally consisting of the area along Highway 50 east of Sacramento and southwest of Folsom, represents the future path of growth within Sacramento County and the area in which the site will compete on a more or less equal basis. Historically, this area has been a major outlet of growth for the region.
- The Sacramento County job market has seen significant declines since its 2006 peak. However, the Sacramento County job market is up 2.9% since 2011. Econometric models project cumulative growth of 9.2% through 2020 and a return to peak employment between 2019 and 2020.

Retail Supply/Demand Conditions:

- Market vacancy is currently 12.9% for retail space with very limited change over the last four quarters. Retail vacancies are down from 13.5% at the time of the 2011 study, indicating a slight increase in consumer spending as Sacramento County rebounds from the downturn.
- Retail development volume continues to increase and absorption numbers indicate a net absorption of 349,264 square feet over the past two years (417,926 square feet L5Y). Simultaneously, rental rates within the market area are slowly but steadily on the rise with a year-over-year increase of 1.1% between 2012 and 2013.
- Total retail square feet per household has seen mild increase over from 2000 through 2013, while occupied retail square feet per household (“OSH”) have remained relatively stagnant over the same time. In the last two years, OSH has increased from 112 square feet per household to 115 SF/HH, showing a positive net absorption but still down from peak of 120 SF/HH in 2007.

- There is currently a substantial amount of planned retail square footage in the supply pipeline. At this time, an estimated 16.1MM square feet of retail space is at some stage in the planning process in the Market Area, approximately a 66% increase from the 2011 study (9.7MMsf). The bulk of this product is in large master planned communities with development occurring apace with residential sales over a 20-30 year timeframe. Based on our research, discussion with local planning departments, secondary sources, and the overall scale of these projects TCG projects approximately 7.9MM s.f. of the total planned supply to reach the market with an average of 294K s.f. delivered annually over the next ten years.
- Our syndicated sources project average annual growth of approximately 703 households per year over the next five years while TCG's projection based on anticipated housing deliveries averages approximately 1,011 households over the same time period, the bulk of which projected to enter market starting 2018).
- Based on annual consumer spending of \$10,267, retail demand in the Market Area is calculated to be an average of 111K s.f. per year over the next ten years. In addition to demand from the surrounding communities the Site will also benefit from demand originating from residents within the community. Utilizing a more targeted consumer spending total of \$6,906, TCG projects a total community resident based demand of 487K s.f.

Office Supply/Demand Conditions:

- Office vacancy is currently 13.5% in the market area, declining 2.7% over the past two years. As noted above, Sacramento County's job market declined precipitously beginning in 2007, but has seen positive growth in both of the past two years with syndicated sources forecasting a return to 2006 peak levels between 2019 and 2020.
- While the differential between total and occupied square feet to households ("OSH") ratio is not as severe as in the 2011 study, the office market still faces an uphill battle as employment recovers. At approximately 2.1 times the Sacramento County average, OSH ratios within the market area have increased from 247 SF/HH in 2011 to 251 SF/HH.
- The Market Area's office supply pipeline currently contains an estimated 26.5MM s.f. of office development, a 130% increase from the 2011 study (11.7MMsf). Much like retail, this substantial square footage is primarily located in large master planned communities with development occurring over the next 20 to 30 years. Given the extent of development and current market challenges, TCG projects approximately 5.9MM s.f. of the total office supply will be completed in the next ten years, with no deliveries until 2016.
- Employment in Sacramento County is projected to grow at an average rate of 1.3% from 2014 to 2020, resulting in an average of 7,240 new jobs per year. Key industries that will drive new job growth include Professional & Business Services, Education & Health Services, Financial Activities, and Leisure & Hospitality.
- Based on employment growth projections as well as the historical net absorption to home sales ratio TCG estimates total office demand in the Market Area to be approximately 4.3MM s.f. over the next ten years. Given this demand, as compared to future deliveries as well as prior year supply overhang, TCG foresee supply meeting annual demand through 2017, but the market will be oversupplied starting in 2018.

Site Opportunity:

- The Site is located in the new growth submarket of Sacramento and boasts close proximity and access to major regional employers. The site will serve as a new community providing both resident and regional serving retail and office uses.
- Cordova Hills is located along Grant Line Rd, a potential location for the future Capital Southeast Connector (“CSEC”) which will link Interstate 5 to the southwest with Highway 50 to the north. Though a limited traffic roadway at present, construction of the CSEC would greatly increase traffic counts and provide greater Site visibility and opportunity to attract more drive by and regional traffic. Even if the CSEC is never constructed, Sacramento County still plans on expanding Grant Line Road into a six lane roadway which would increase traffic counts much like the CSEC.
- Retail and office markets are struggling with high vacancy rates (15.5% for retail and 13.5% for office). The substantial supply of commercial development projects currently in the planning pipeline looks to place additional pressure on vacancy rates with projects competing over the limited demand in the marketplace.
- The flexible zoning designation offers the opportunity to adjust product mix based on market conditions. Zoning flexibility is a boon for the Site as market recovery and economic development opportunities can dictate deliveries with construction tailored to fit the best use type.

Conclusions:

- The Market Area is currently experiencing depressed retail and office markets. Following strong growth through the mid-2000s, the Market Area has contracted significantly with lease rates and occupancy rates declining during the widespread and protracted national economic downturn. Due to a glut of current planned space the market looks to be challenged for the foreseeable future with significant competition for demand. Since the 2011 market study, a proposed development of four communities which comprise the Jackson Highway Master Plan (28K resi. units, 5.6MM sf retail and 15.3MMsf office) has created even more competition in the Market Area.
- Overall, TCG foresees the commercial development planned at the subject site to be successful if planned to match fair share demand opportunity. TCG combined demand from the community, the market area, and three different future drive by traffic scenarios to calculate a maximum site demand. Drive by traffic scenario 1 used the same average daily traffic counts as the 2011 study. Scenario 2 used the projected traffic counts from the implementation of the Southeast Capital Connector along Grant Line Road. Scenario 3 used the counts from the proposed Sacramento County General Plan which intends on transforming Grant Line Road into a six lane roadway where the site is located. The maximum commercial space demanded from each of these scenarios is 1.47MMsf, 2.12MMsf and 2.15MMsf, respectively. This equates into an 8.9%, 56.9% and 59.4% increase over the planned commercial square footage for the community, respectively.

* * * *

This assignment was completed by Trafton Bean and Josh Samaha under the guidance of Tim Cornwell. We have enjoyed working with you on this assignment and look forward to our continued involvement with your team. If you have any questions, please do not hesitate to call.



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4. Commuting Patterns
5. Growth Metrics
6. Product Vintage Trends

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2. Retail Submarket Performance
3. Retail Macro Trends
4. Retail Inventory Map
5. Consumer Spending Capacity
6. Retail Opportunity Gaps

7. Projected Retail Space Demand
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 - B. Community Residents
 - C. Community Capture
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III. OFFICE ANALYSIS

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2. Office Submarket Performance
3. Office Macro Trends
4. Office Inventory Map
5. Office Demand
6. Future Office Development
7. Office Trade Area Intersection
8. Projected Office Supply versus Potential Demand

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2. Site Plan
3. Site Evaluation
4. Recommendations

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- A. Planned and Proposed Retail Development
- B. Planned and Proposed Office Development

SUMMARY OF FINDINGS
MARKET METRICS
HIGHWAY 50 CORRIDOR; SACRAMENTO COUNTY, CALIFORNIA
JANUARY 2014

Scale and Portion	Retail			Office		
	Variance	2014	2012	Variance	2014	2012
Market Scale						
Commercial SF						
2000	538,915	6,807,315 sf	6,268,400 sf	851,697	15,645,770 sf	14,794,073 sf
2013	1,084,334	9,211,084 sf	8,126,750 sf	1,084,554	20,332,539 sf	19,247,985 sf
Households						
2000	11,783	59,075	47,292	11,783	59,075	47,292
2013	14,565	70,007	55,442	14,565	70,007	55,442
Projected by 2023						
From Syndicated	12,588	76,570	63,982	12,588	76,570	63,982
From Planned Unit Deliveries	19,103	87,231	68,128	19,103	87,231	68,128
SF/ HH						
2000	(17)	115	133	(48)	265	313
2013	(15)	132	147	(57)	290	347
Occupied SF/ HH						
2000	(16)	109	126	(41)	244	285
2013	(11)	115	125	(31)	251	283
Concluded SF/HH						
2000	(16)	109	126	2	127	125
2013	(11)	115	125	(1)	120	121
Internal Dynamics						
HHs Planned		7,750	7,750		7,750	7,750
Retail SF Supported						
@ 2000 Concluded Ratio	(127,079)	845,715 sf	972,794 sf			
@ 2013 Concluded Ratio	(83,477)	888,342 sf	971,819 sf			
				3,100	196,850	193,750
				(1,550)	186,000	187,550
Commercial SF Planned		1,349,419	1,349,419		1,349,419	1,349,419
Product Mix		72%	72%		28%	28%
		971,582 sf	971,582 sf		377,837 sf	377,837 sf
(Over)/Under	(83,477)	-83,239 sf	237 sf	(1,550)	-191,837 sf	-190,287 sf
Market Demand						
10-Year Total	118,966	1,110,688 sf	991,722 sf	663,059	4,298,208 sf	3,635,148 sf
Annual Avg.	11,897	111,069 sf	99,172 sf	66,306	429,821 sf	363,515 sf
Assumed 20-Year	237,931	2,221,376 sf	1,983,444 sf	1,326,119	8,596,415 sf	7,270,297 sf
Market Supply						
Total Planned	6,425,793	16,101,941 sf	9,676,148 sf	14,781,522	26,483,609 sf	11,702,087 sf
Planned per New HHs	442	1,354 sf	912 sf	1,124	2,227 sf	1,103 sf
Completion Estimate	2,925,266	7,948,712 sf	5,023,446 sf	6,246,125	12,603,685 sf	6,357,560 sf
Planned per New HHs	195	668 sf	473 sf	461	1,060 sf	599 sf
Completion Est. by 2023	1,071,247	2,937,594 sf	1,866,347 sf	2,436,281	5,918,971 sf	3,482,690 sf
Estimated Completion per New HHs	71	247 sf	176 sf	170	498 sf	328 sf
Realities of Scale						
Market Gap						
Equilibrium SF per HH	(11)	115 sf	125 sf	(1)	120 sf	121 sf
Total SF Absorbable at Equilibrium	32,407	1,363,244 sf	1,330,836 sf	142,990	1,427,172 sf	1,284,182 sf
Completion Est. by 2023	1,071,247	2,937,594 sf	1,866,347 sf	2,436,281	5,918,971 sf	3,482,690 sf
Net Market-wide Over/Under	(1,038,840)	-1,574,350 sf	-535,510 sf	(2,293,291)	-4,491,799 sf	-2,198,508 sf
Potential Market Vacancy in 2023	7%	25.8%	18.9%	2%	30.6%	28.8%
Growth						
HHs/ Emps Req'd To Absorb						
Total Planned	63,310	140,475 HHs	77,165 HHs	123,985	220,697 HHs	96,711 HHs
Completion Estimate	29,285	69,345 HHs	40,061 HHs	52,489	105,031 HHs	52,542 HHs
Completion by 2023	10,744	25,628 HHs	14,884 HHs	20,542	49,325 HHs	28,783 HHs
Annual Average HH Growth	(293)	656 HHs	949 HHs	(293)	656 HHs	949 HHs
% Growth Required						
Total Planned	61%	200.7%	139.2%	141%	315.2%	174.4%
Completion Estimate	27%	99.1%	72.3%	55%	150.0%	94.8%
Completion by 2023	10%	36.6%	26.8%	19%	70.5%	51.9%

I. MARKET OVERVIEW

**REGIONAL LOCATION AND MARKET AREA DELINEATION
SACRAMENTO MSA, CALIFORNIA
JANUARY 2014**

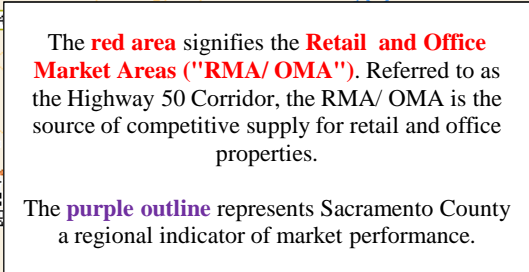


EXHIBIT I-2

DEMOGRAPHIC SUMMARY
MARKET AREA; SACRAMENTO MSA, CALIFORNIA AND SELECTED CITIES
JANUARY 2014

Demographic Category	Market Area			City of Sacramento			Sacramento County			Sacramento MSA		
	2014	2011	Δ	2014	2011	Δ	2014	2011	Δ	2014	2011	Δ
Household Statistics												
Population 2000	160,770	122,431	38,339	406,233	407,018	(785)	1,223,782	1,223,499	283	1,796,842	1,796,857	(15)
2000 Households	59,075	47,292	11,783	154,287	154,581	(294)	453,700	453,602	98	665,300	665,298	2
% of MSA	8.9%	7.1%	1.8%	23.2%	23.2%	0.0%	68.2%	68.2%	0.0%	100.0%	100.0%	0.0%
Population 2014	193,328	142,714	50,614	482,381	475,179	7,202	1,468,628	1,416,396	52,232	2,227,651	2,147,172	80,479
2014 Households	70,846	55,442	15,404	180,023	178,131	1,892	529,053	517,163	11,890	814,406	787,760	26,646
% of MSA	8.7%	7.0%	1.7%	22.1%	22.6%	-0.5%	65.0%	65.6%	-0.7%	100.0%	100.0%	0.0%
2000-2014 Annual HH Growth												
Nominal Growth	841	741	100	1,838	2,141	(303)	5,382	5,778	(396)	10,650	11,133	(482)
Growth Rate	1.3%	1.5%	-0.1%	1.1%	1.3%	-0.2%	1.1%	1.2%	-0.1%	1.5%	1.5%	-0.1%
% of MSA Growth	7.9%	6.7%	1.2%	17.3%	19.2%	-2.0%	50.5%	51.9%	-1.4%	100.0%	100.0%	0.0%
2019 Households	74,359	60,437	13,922	188,027	190,544	(2,517)	552,316	556,018	(3,702)	851,952	859,820	(7,868)
% of MSA Total	8.7%	7.0%	1.7%	22.1%	22.2%	-0.1%	64.8%	64.7%	0.2%	100.0%	100.0%	0.0%
2014-2019 Annual HH Growth												
Nominal Growth	703	999	(296)	1,601	2,483	(882)	4,653	7,771	(3,118)	7,509	14,412	(6,903)
Growth Rate	1.0%	1.7%	-0.8%	0.9%	1.4%	-0.5%	0.9%	1.5%	-0.6%	0.9%	1.8%	-0.9%
% of MSA Growth	9.4%	6.9%	2.4%	21.3%	17.2%	4.1%	62.0%	53.9%	8.0%	100.0%	100.0%	0.0%
Income Statistics												
Median Income												
2014	\$62,650	\$57,191	\$5,459	\$46,360	\$46,696	(\$336)	\$52,647	\$54,339	(\$1,692)	\$56,332	\$57,829	(\$1,497)
2019	\$66,156	\$58,908	\$7,248	\$48,875	\$47,692	\$1,183	\$55,880	\$55,963	(\$83)	\$59,845	\$59,676	\$169
2014-2019 Annual Growth Rate	1.1%	0.6%	0.5%	1.1%	0.4%	0.6%	1.2%	0.6%	0.6%	1.2%	0.6%	0.6%
2014 HH Income Breakdown												
Under \$25,000	18%	18%	0%	28%	26%	2%	23%	21%	2%	22%	19%	3%
\$25,000 to \$50,000	22%	26%	-3%	26%	27%	-2%	25%	26%	-1%	23%	24%	-1%
\$50,000 to \$75,000	19%	21%	-2%	19%	19%	-1%	19%	20%	-1%	18%	20%	-2%
\$75,000 to \$100,000	13%	14%	-1%	11%	11%	0%	12%	13%	-1%	13%	14%	-1%
\$100,000 to \$150,000	16%	14%	1%	10%	10%	0%	12%	13%	-1%	14%	14%	-1%
\$150,000 to \$200,000	7%	4%	3%	4%	3%	1%	5%	4%	1%	6%	4%	2%
\$200,000 to \$500,000	4%	2%	2%	2%	2%	0%	3%	3%	0%	4%	3%	0%
\$500,000 +	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%
Spending Statistics												
Consumer Spending (\$000,000)	\$3,255	\$2,196	\$1,060	\$8,502	\$8,302	\$201	\$27,134	\$26,399	\$735	\$44,001	\$42,217	\$1,784
% of MSA	7.4%	5.2%	2.2%	19.3%	19.7%	-0.3%	61.7%	62.5%	-0.9%	100.0%	100.0%	0.0%

EXHIBIT I-3

EMPLOYMENT TRENDS
SACRAMENTO COUNTY, CALIFORNIA
1995 THROUGH 2020

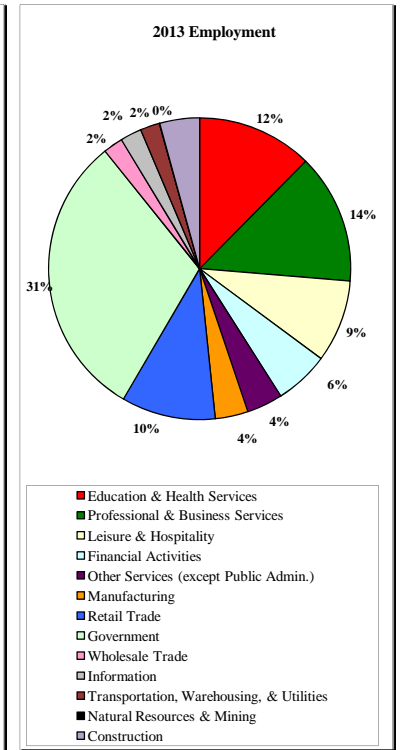
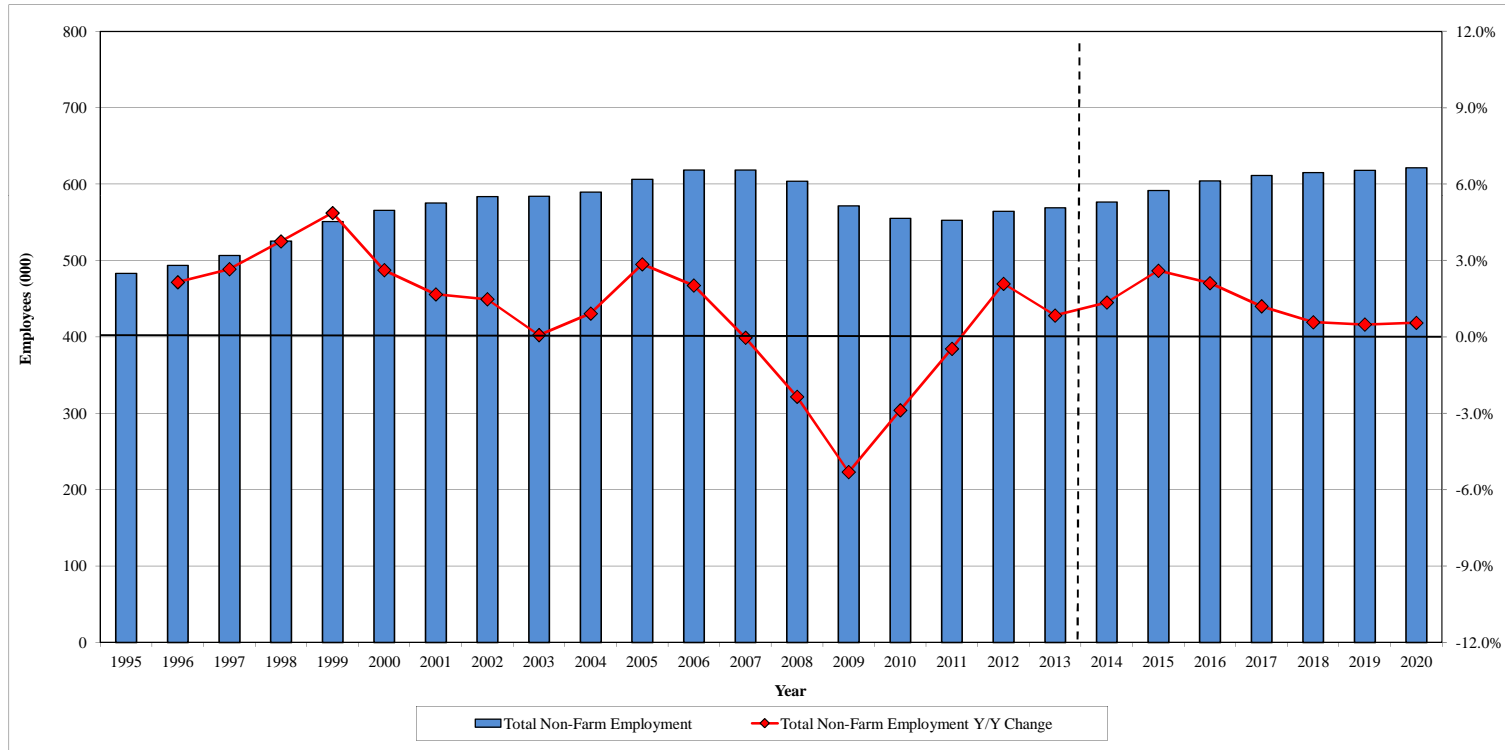
Employment Industry	Annual Employment (000s)																								Ann. Growth			Employment			
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	'08-'13	'13-'20		2013	2020
																												%	#		
Education & Health Services	46.4	48.0	46.8	48.2	49.4	51.5	55.1	54.5	57.8	60.3	63.0	66.3	68.5	69.9	70.0	68.8	70.6	72.1	73.5	75.2	77.7	80.1	81.9	83.2	84.5	85.8	1.0%	2.2%	12.3	13%	14%
Professional & Business Services	57.7	61.4	65.1	69.9	76.2	80.1	75.1	72.9	71.4	72.4	78.5	81.4	82.5	81.5	76.0	77.3	78.7	83.9	86.2	87.8	91.7	95.1	97.1	98.3	99.6	100.8	1.1%	2.3%	14.6	15%	16%
Leisure & Hospitality	40.6	41.1	40.4	39.5	41.0	43.5	44.8	46.8	47.3	48.6	49.9	52.2	53.3	52.8	50.5	49.0	49.6	50.7	52.5	54.4	56.0	57.6	58.7	59.2	59.6	60.1	-0.1%	2.0%	7.6	9%	10%
Financial Activities	31.7	33.5	36.8	42.1	42.8	40.8	40.0	40.6	43.3	43.6	45.0	46.0	43.0	39.8	36.6	32.4	30.7	30.9	30.7	30.8	31.5	32.3	32.8	33.2	33.5	33.7	-5.1%	1.4%	3.0	5%	5%
Other Services (except Public Admin.)	16.5	17.0	17.7	18.5	19.3	19.5	20.6	21.4	21.8	22.3	21.9	21.7	22.1	22.6	22.0	21.5	21.3	21.2	20.0	19.8	20.2	20.6	21.0	21.0	21.0	21.0	-2.4%	0.7%	1.0	4%	3%
Manufacturing	27.0	29.6	30.0	30.3	29.3	29.0	27.1	26.5	25.9	26.0	27.2	26.4	23.7	22.5	20.3	19.5	20.3	21.3	22.0	22.2	22.5	22.8	22.6	22.3	22.1	-0.4%	0.0%	0.1	4%	4%	
Retail Trade	52.1	52.0	53.4	55.9	59.0	60.3	60.3	60.9	63.1	64.5	65.6	65.7	64.4	60.7	55.7	56.0	56.6	58.2	59.8	60.1	60.7	61.0	60.7	60.2	59.5	58.9	-0.3%	-0.2%	-0.9	11%	9%
Government	152.9	151.1	154.1	155.9	162.4	165.1	170.5	177.4	168.5	164.0	165.5	170.2	175.1	177.4	175.0	171.1	167.1	167.2	166.8	168.1	170.5	171.6	172.3	172.9	173.5	174.3	-1.2%	0.6%	7.5	29%	28%
Wholesale Trade	12.6	13.0	13.9	13.6	14.3	14.7	15.6	15.2	16.0	15.8	15.8	16.5	15.7	14.3	12.5	11.7	11.6	12.1	12.5	12.7	12.9	13.0	12.9	12.8	12.7	12.6	-2.7%	0.1%	0.1	2%	2%
Information	14.0	14.1	13.9	13.8	14.7	14.5	17.8	18.4	17.5	16.4	15.5	15.4	15.6	14.5	13.7	12.7	12.1	11.3	10.7	10.8	11.1	11.3	11.4	11.4	11.4	11.4	-5.8%	0.8%	0.6	2%	2%
Transportation, Warehousing, & Utilities	10.4	10.3	10.5	11.1	12.2	12.7	12.4	11.7	11.6	12.2	12.5	13.1	13.7	13.4	12.3	11.5	11.3	12.4	12.8	13.0	13.1	13.3	13.4	13.4	13.4	13.5	-0.9%	0.7%	0.7	2%	2%
Natural Resources & Mining	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	-12.7%	-0.2%	0.0	0%	0%
Construction	21.1	22.1	23.8	26.5	30.7	33.7	35.7	37.2	39.9	43.3	45.8	43.6	40.8	34.5	27.1	23.7	22.8	23.1	21.7	21.8	24.0	25.5	26.5	26.9	27.0	27.4	-8.9%	3.4%	5.7	4%	4%
Total Non-Farm (000)	483.3	493.7	506.8	525.8	551.4	565.9	575.3	583.8	584.3	589.6	606.5	618.7	618.5	604.0	571.9	555.5	552.9	564.4	569.2	576.9	591.9	604.4	611.6	615.2	618.2	621.6	-1.2%	1.3%	52.4	100%	100%
% Change		2.2%	2.7%	3.8%	4.9%	2.6%	1.7%	1.5%	0.1%	0.9%	2.9%	2.0%	0.0%	-2.3%	-5.3%	-2.9%	-0.5%	2.1%	0.8%	1.4%	2.6%	2.1%	1.2%	0.6%	0.5%	0.6%					
												28.0%						-10.6%													12.4%

28.0%

-10.6%

12.4%

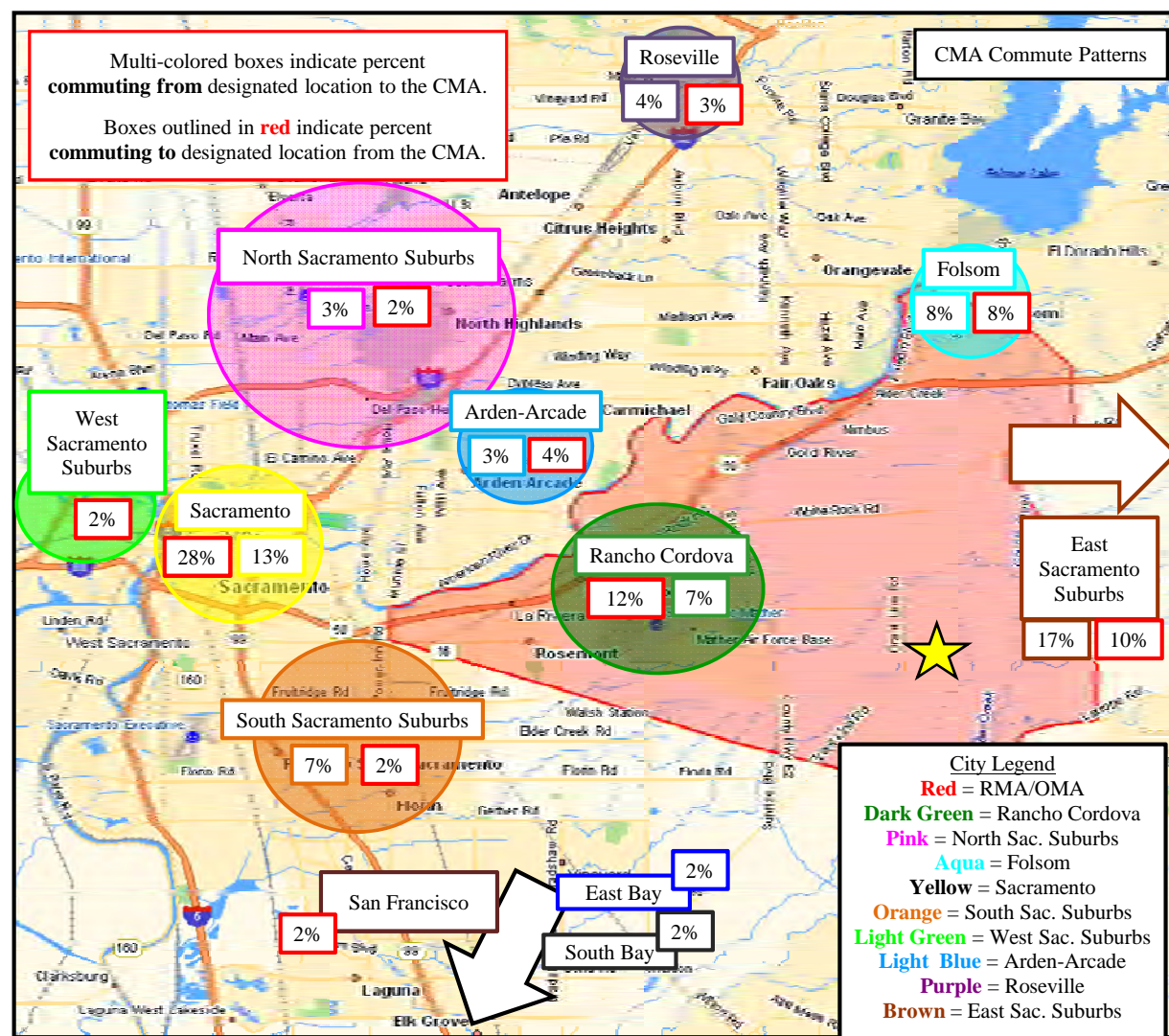
Sacramento County projected to return to peak between 2019 and 2020



Note: All employment figures represent year end; Projections were updated as of 12/25/2013

Source: Moody's Economy.com

EXHIBIT I-4
COMMUTING PATTERNS
RETAIL & OFFICE MARKET AREA
2011



2011 RMA/OMA Commute Patterns		
RMA Employment Base:		
Commute from:	Share	Number
Sacramento City	13%	12,186
Folsom	8%	7,274
Rancho Cordova	7%	7,043
South Sacramento Suburbs	7%	7,010
Roseville	4%	3,462
Arden-Arcade	3%	2,766
North Sacramento Suburbs	5%	4,471
South Bay	2%	1,485
East Bay	2%	1,841
Other East Sacramento Suburbs	17%	16,715
Other	34%	32,573
Total:	100%	96,826
RMA Employed Population:		
Commute to:	Share	Number
Sacramento City	28%	16,360
Rancho Cordova	12%	7,092
Folsom	8%	4,408
Arden-Arcade	4%	2,613
Roseville	3%	1,935
North Sacramento Suburbs	2%	1,179
West Sacramento Suburbs	2%	1,127
San Francisco	1%	826
South Sacramento Suburbs	2%	1,233
Other East Sacramento Suburbs	10%	5,886
Other	27%	15,899
Total:	100%	58,558

Source: Longitudinal Employer-Household Dynamics, U.S. Census Bureau

EXHIBIT I-4

COMMUTING PATTERNS - PROPOSED CAPITAL SOUTHEAST CONNECTOR RANCHO CORDOVA JANUARY 2014



Capital SouthEast Connector: Project Details

Location

From I-5, S of Elk Grove through Rancho Cordova to Hwy-50 in El Dorado County, just E of El Dorado Hills

Length

Approx. 35 miles

Number of Lanes

4-6 traffic lanes

Modes Served (as currently planned)

- Auto
- Truck
- Transit
- Bike
- Pedestrian
- Equestrian

Jurisdictions Involved

- Elk Grove
- Folsom
- Rancho Cordova
- El Dorado County
- Sacramento County

Current Funding Sources

- Main funding source: Sacramento County Measure A for the next 30 years
- Contributions from jurisdictions for being a Joint Powers Authority

Construction Schedule

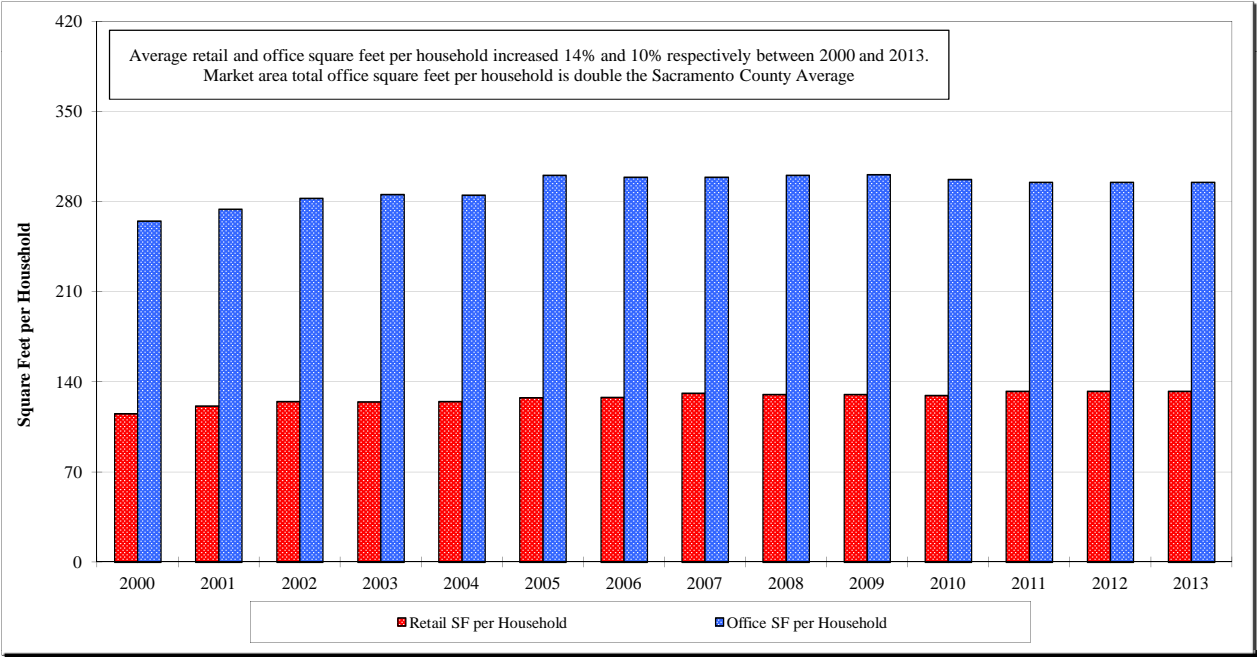
- Start: Approx. 2018, dependent on environmental process and funding
- Completion: Approx. 2035

Source: Elk Grove, Folsom, Rancho Cordova, El Dorado and Sacramento County Joint Powers Authority (JPA)

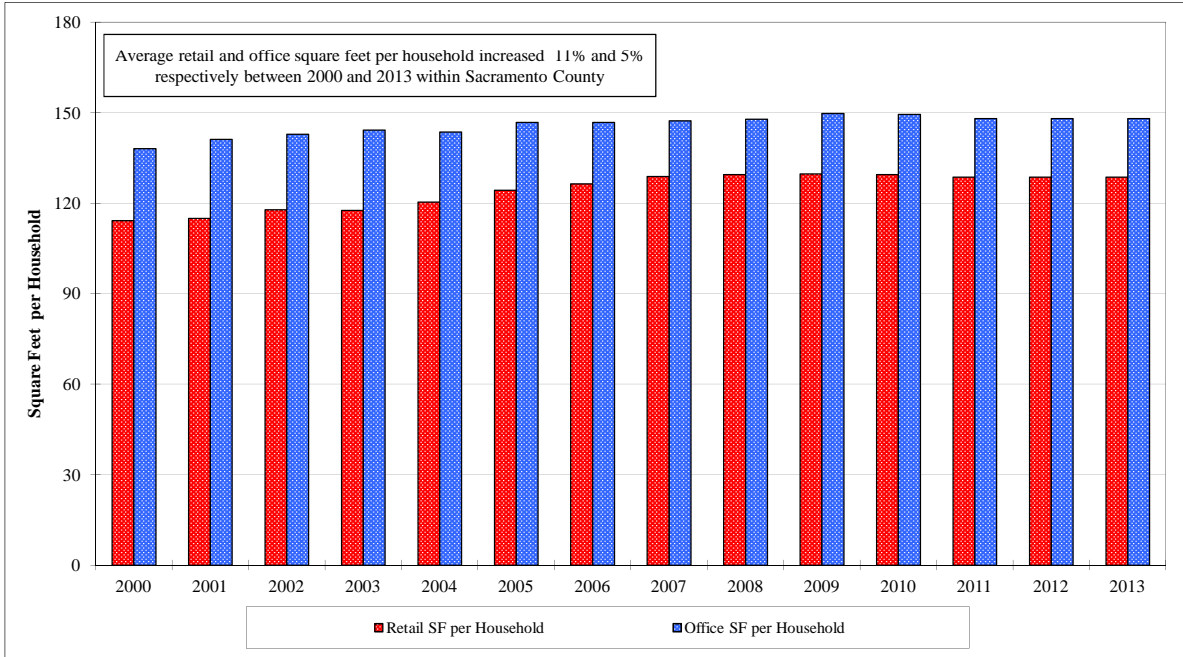
EXHIBIT I-5

GROWTH METRICS
SACRAMENTO COUNTY AND COMMERCIAL MARKET AREA
2000 THROUGH 2013

		Market Area									
Population (1)	HHs (2)	New Home Sales (3)	Retail SF (000s) (4)	Retail Net Abs (000s)	Ratios		Office SF (000s)	Office Net Abs (000s)	Ratios		
					SF/ HH	Abs to Sales			SF/ HH	Abs to Sales	
2000	160,770	59,075	1,109	6,807	442	115	398	15,646	679	265	612
2001	163,096	59,918	1,296	7,274	373	121	288	16,430	25	274	19
2002	165,421	60,760	1,406	7,583	340	125	242	17,174	316	283	225
2003	167,747	61,603	1,325	7,672	101	125	76	17,584	521	285	393
2004	170,072	62,445	1,289	7,796	111	125	86	17,806	-128	285	-99
2005	172,398	63,286	914	8,087	299	128	327	19,008	1,471	300	1,609
2006	174,723	64,128	650	8,215	-189	128	-291	19,178	384	299	591
2007	177,049	64,968	666	8,521	318	131	477	19,422	219	299	328
2008	179,375	65,809	444	8,567	-335	130	-755	19,779	129	301	292
2009	181,700	66,649	290	8,676	242	130	835	20,062	-84	301	-291
2010	184,026	67,489	170	8,731	-2	129	-14	20,067	-297	297	-1,749
2011	186,351	68,329	155	9,075	-7	133	-46	20,153	-67	295	-432
2012	188,677	69,168	179	9,191	112	133	628	20,327	387	294	2,161
2013	191,002	70,007	291	9,211	237	132	814	20,333	314	290	1,079
2000-2013 Averages:		841	727		146	127	201		276	291	380



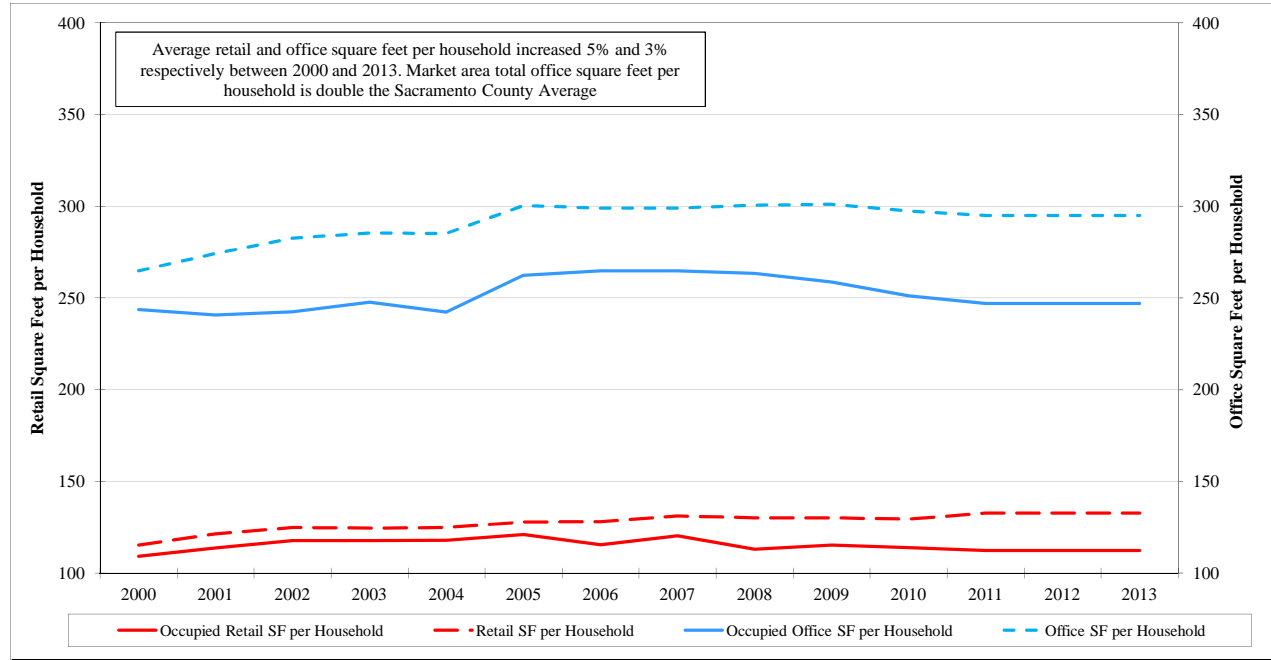
Sacramento County										
Population (2)	HHs (3)	New Home Sales (4)	Retail SF (000s) (5)	Retail Net Abs (000s)	Ratios		Office SF (000s)	Office Net Abs (000s)	Ratios	
					SF/ HH	Abs to Sales			SF/ HH	Abs to Sales
1,223,782	453,700	5,345	51,844	1,391	114	260	62,662	1,233	138	231
1,255,412	458,741	7,165	52,750	1,054	115	147	64,788	1,031	141	144
1,280,881	468,047	8,586	55,180	2,284	118	266	66,895	911	143	106
1,305,015	476,866	10,476	56,103	741	118	71	68,804	921	144	88
1,325,614	484,393	9,596	58,341	2,432	120	253	69,569	195	144	20
1,341,554	490,218	9,280	60,931	2,827	124	305	71,982	3,270	147	352
1,354,291	494,872	5,928	62,561	875	126	148	72,671	311	147	52
1,367,694	499,770	3,952	64,411	2,307	129	584	73,646	1,017	147	257
1,380,499	504,449	2,846	65,350	-769	130	-270	74,595	260	148	92
1,390,793	508,211	1,575	65,935	-1,001	130	-636	76,122	-63	150	-40
1,398,672	511,090	1,085	66,194	91	130	84	76,397	-997	149	-919
1,416,161	517,480	954	66,566	456	129	478	76,637	-64	148	-67
1,433,650	523,871	1,286	66,771	119	127	92	76,917	941	147	732
1,451,139	530,262	1,560	67,010	569	126	365	77,082	832	145	533
5,889		4,974		955	124	192		700	146	141



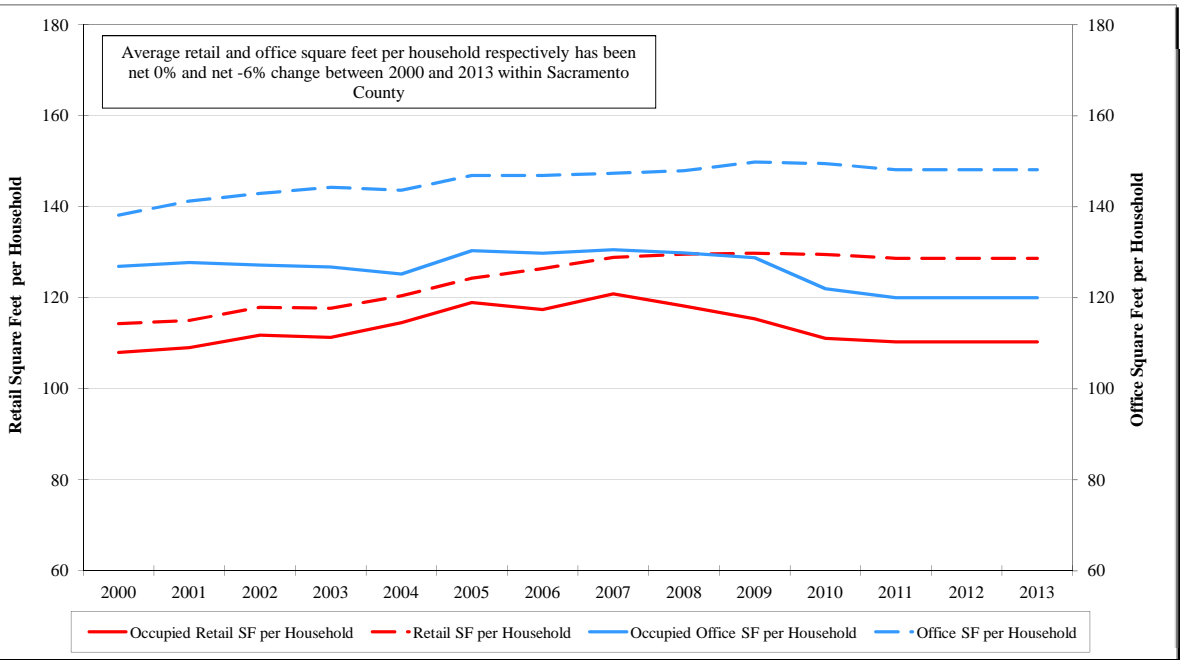
(1) Population information based on Claritas 2000, 2014 data. Growth in interceding years benchmarked to Sacramento County with growth percentage representing each respective year's share of 2002-20013 growth (California Department of Finance)
(2) Household figure estimated based on population and 2000, 2014 average persons per household metric
(3) 2013 new home sales total aggregated based on 3Q2013 data
(4) Retail net absorption based on CoStar RMA data 2006-2013 and REIS year-over-year percent change for 2000 - 2013

EXHIBIT I-5
GROWTH METRICS - OCCUPIED SPACE
MARKET AREA
2000 THROUGH 2013

Market Area										
Population (1)	HHs (2)	New Home Sales (3)	Occ. Retail SF (000s) (4)	Retail Net Abs (000s)	Ratios		Occ. Office SF (000s)	Office Net Abs (000s)	Ratios	
					SF/ HH	Abs to Sales			SF/ HH	Abs to Sales
2000	160,770	59,075	1,109	6,447	442	109	14,394	679	244	612
2001	163,096	59,918	1,296	6,815	373	114	14,419	25	241	19
2002	165,421	60,760	1,406	7,159	340	118	14,735	316	243	225
2003	167,747	61,603	1,325	7,258	101	118	15,256	521	248	393
2004	170,072	62,445	1,289	7,367	111	118	15,128	-128	242	-99
2005	172,398	63,286	914	7,666	299	121	16,599	1,471	262	1,609
2006	174,723	64,128	650	7,401	-189	115	16,983	384	265	591
2007	177,049	64,968	666	7,814	318	120	17,201	219	265	328
2008	179,375	65,809	444	7,443	-335	113	17,331	129	263	292
2009	181,700	66,649	290	7,685	242	115	17,247	-84	259	-291
2010	184,026	67,489	170	7,682	-2	114	16,949	-297	251	-1,749
2011	186,351	68,329	155	7,675	-7	112	16,882	-67	247	-432
2012	188,677	69,168	179	7,788	112	113	17,269	387	250	2,161
2013	191,002	70,007	291	8,025	237	115	17,583	314	251	1,079
2000-2013 Average:		841	727	146	115	201	276	252	380	



Sacramento County										
Population (2)	HHs (3)	New Home Sales (4)	Occ. Retail SF (000s) (5)	Retail Net Abs (000s)	Ratios		Occ. Office SF (000s)	Office Net Abs (000s)	Ratios	
					SF/ HH	Abs to Sales			SF/ HH	Abs to Sales
1,223,782	453,700	5,345	48,993	1,391	108	260	57,572	1,233	127	231
1,255,412	458,741	7,165	50,007	1,054	109	147	58,603	1,031	128	144
1,280,881	468,047	8,586	52,311	2,284	112	266	59,515	911	127	106
1,305,015	476,866	10,476	53,073	741	111	71	60,436	921	127	88
1,325,614	484,393	9,596	55,483	2,432	115	253	60,633	195	125	20
1,341,554	490,218	9,280	58,311	2,827	119	305	63,903	3,270	130	352
1,354,291	494,872	5,928	58,088	875	117	148	64,214	311	130	52
1,367,694	499,770	3,952	60,395	2,307	121	584	65,230	1,017	131	257
1,380,499	504,449	2,846	59,626	-769	118	-270	65,490	260	130	92
1,390,793	508,211	1,575	58,623	-1,001	115	-636	65,439	-63	129	-40
1,446,369	528,519	1,085	58,714	91	111	84	64,442	-997	122	-919
1,468,628	536,652	954	59,171	456	110	478	64,377	-64	120	-67
1,490,887	544,786	1,286	59,289	119	109	92	65,319	941	120	732
1,513,145	552,920	1,560	59,858	569	108	365	66,152	832	120	533
7,632		5,985	955	113	160	700	126	117		

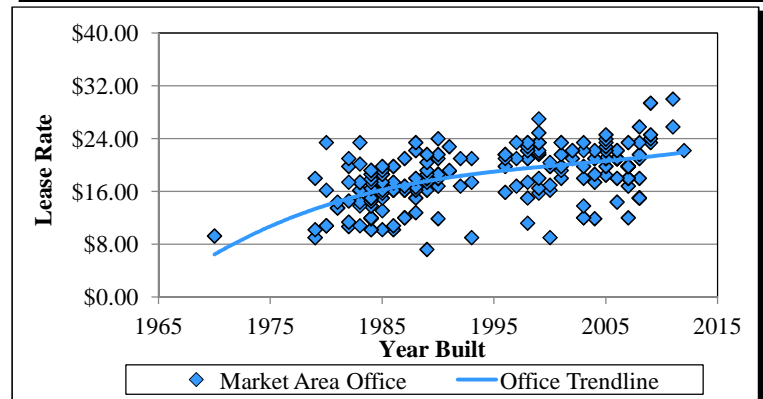
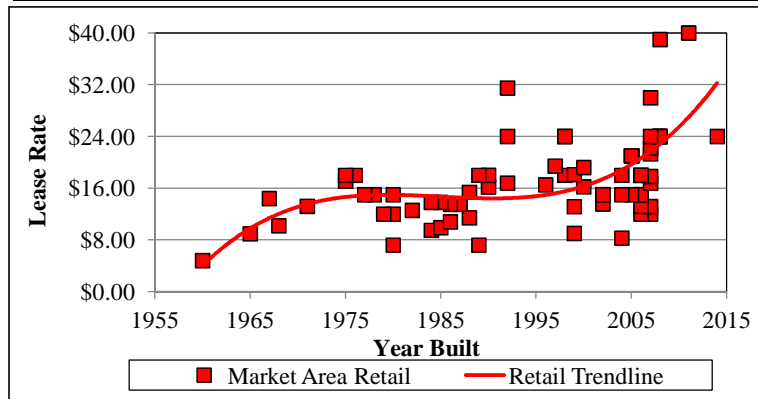
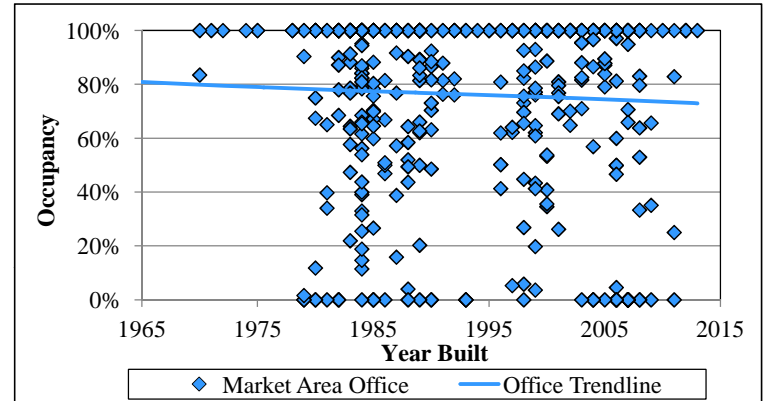
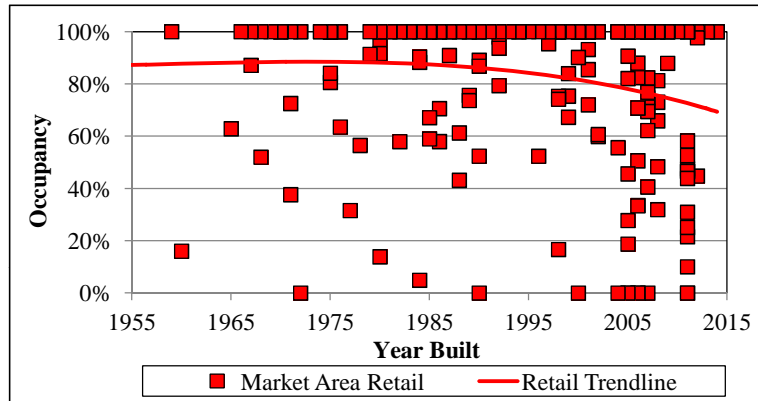


(1) Population information based on Claritas 2000, 2014 data. Growth in interceding years benchmarked to Sacramento County with growth percentage representing each respective year's share of 2002-20013 growth (California Department of Finance)
(2) Household figure estimated based on population and 2000, 2013 average persons per household metric
(3) 2011 new home sales total aggregated based on 3Q2013 data
(4) Retail net absorption based on CoStar RMA data 2006-2013 and REIS year-over-year percent change for 2000 - 2005

EXHIBIT I-6

PRODUCT VINTAGE TRENDS MARKET AREA JANUARY 2014

Year Built/ Reno.	Retail					Office				
	# Props.	Total RBA	Avg. Size	Rental Rate	Occ %	# Props.	Total RBA	Avg. Size	Rental Rate	Occ %
2010 - 2014	28	594,809	21,243	\$40.12	66%	10	391,895	39,190	\$29.07	83%
2000 - 2009	84	1,896,161	22,573	15.94	80%	128	6,134,855	47,929	21.36	85%
1990 - 1999	37	1,716,466	46,391	21.42	92%	90	4,852,349	53,915	20.81	81%
1980 - 1989	44	912,062	20,729	11.83	84%	187	6,613,743	35,368	16.87	80%
1970 - 1979	30	632,402	21,080	15.74	85%	16	288,918	18,057	12.58	87%
Before 1970	15	95,352	6,357	7.53	64%	3	14,520	4,840	NA	100%
Total/ Wtd. Avg.:	238	5,847,252	24,568	\$19.21	83%	434	18,296,280	42,157	\$19.60	82%



Source: CoStar

II. RETAIL ANALYSIS

EXHIBIT II-1

RETAIL MARKET AREA
HIGHWAY 50 CORRIDOR; SACRAMENTO MSA, CALIFORNIA
JANUARY 2014

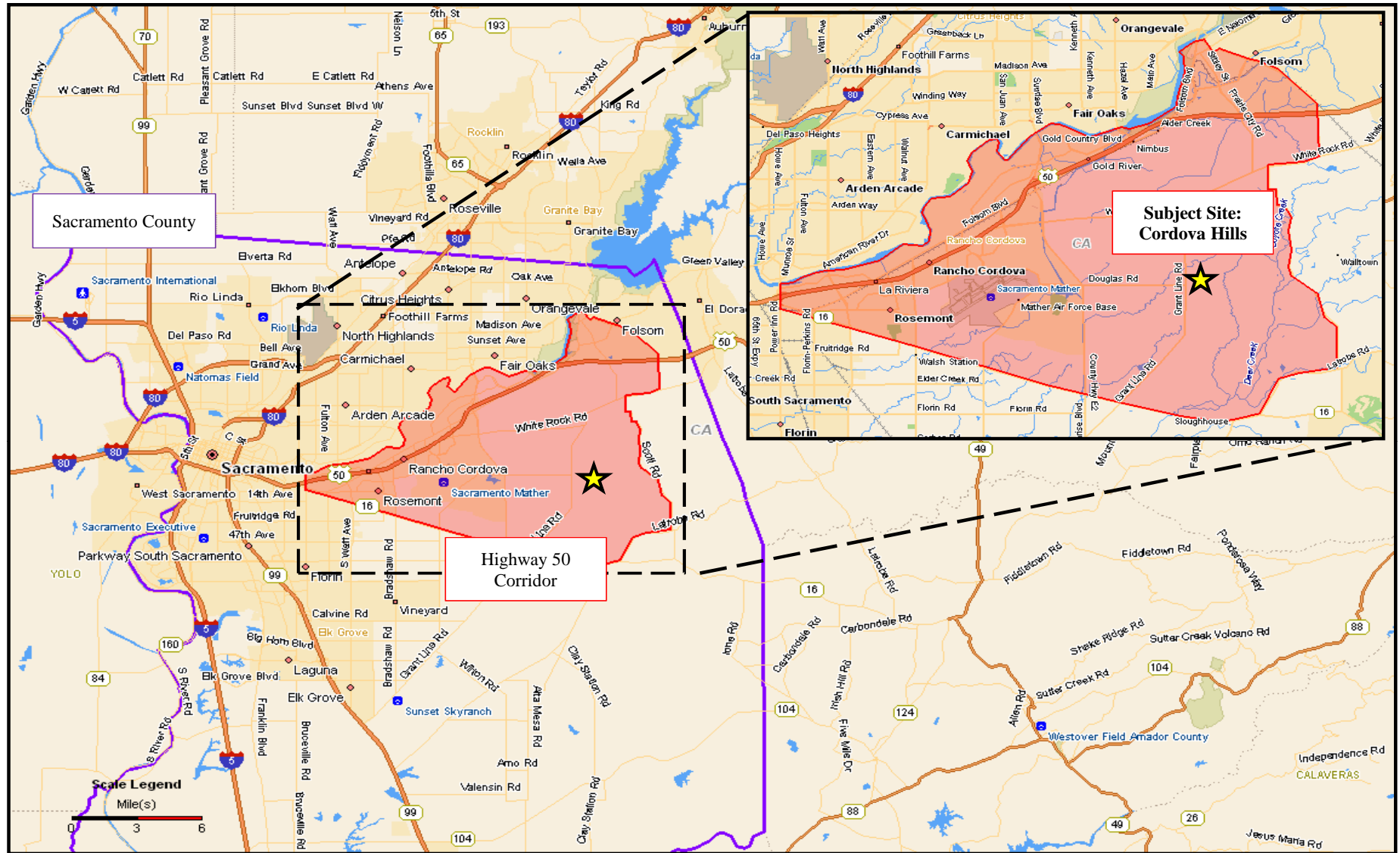


EXHIBIT II-2

**RETAIL SUBMARKET PERFORMANCE
RETAIL MARKET AREA, SACRAMENTO COUNTY & SACRAMENTO MSA, CALIFORNIA
2014**

	<u>Retail Market Area</u>	<u>Sacramento County</u>	<u>Sacramento MSA</u>
Demographics (1)			
Total Population	193,328	1,468,628	2,227,651
Total Households	70,846	529,053	814,406
5-Year Projected CAGR	1.0%	0.9%	0.9%
Average Household Size	2.7	2.8	2.7
Median Household Income	\$42,996	\$43,852	\$43,663
5-Year Projected CAGR	0.7%	1.0%	1.2%
Consumer Spending (\$000,000)	\$3,255	\$27,134	\$44,001
4Q2013 Retail Market Factors (2)			
Rentable Building Area (SF)	9,211,084	67,009,614	101,820,697
L5Y % Change	17.2%	15.4%	14.8%
L5Y Deliveries (SF) (3)	1,353,363	8,929,812	13,090,908
L5Y Net Absorption (SF)	417,926	(79,514)	180,061
Vacancy Rate	12.9%	10.7%	9.7%
Vacant Stock (SF)	1,186,508	7,151,124	9,905,057
Asking Rent	\$14.38	\$15.45	\$15.84
L4Q % Change	0.1%	-1.4%	-2.9%

(1) Demographic data from Claritas 2014 projections.

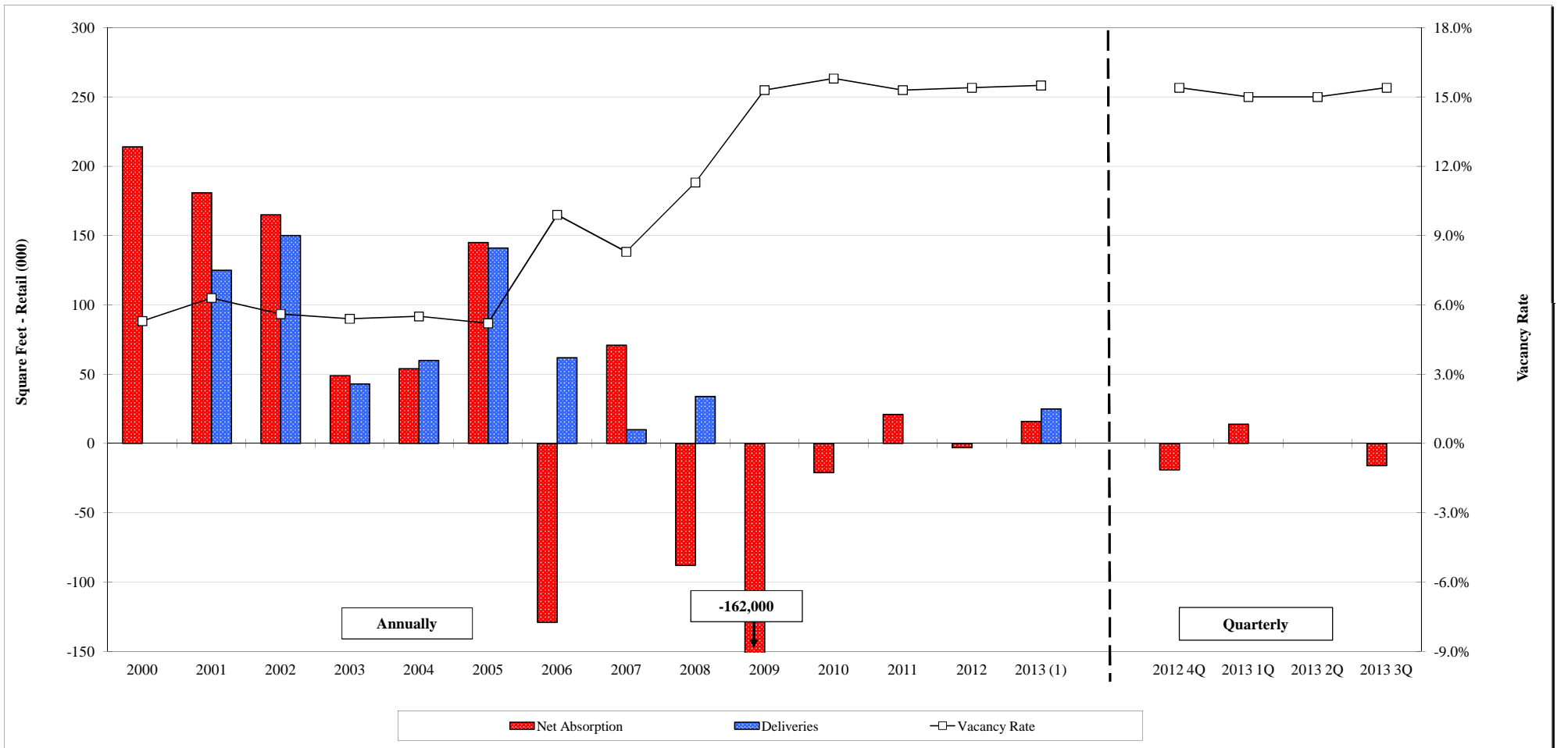
(2) Retail market data from CoStar 4Q2013 numbers.

(3) L5Y Data represents 1Q2009 through 4Q2013 time period

EXHIBIT II-3

RETAIL MACRO TRENDS
RETAIL MARKET AREA
2000 THROUGH 3Q2013

Market Factor	Annually															Quarterly			
	2000	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013 (1)	2012 4Q	2013 1Q	2013 2Q	2013 3Q
<i>RMA (Shopping Centers Over 10K SF)</i>																			
RBA (000s)	3,299	3,299	3,525	3,675	3,718	3,778	3,919	3,981	3,991	4,025	4,025	4,025	4,025	4,025	4,050	4,025	4,025	4,025	4,025
Net Absorption (000s)	214	214	181	165	49	54	145	-129	71	-88	-162	-21	21	-3	16	-19	14	0	-16
Deliveries (000s)	0	0	125	150	43	60	141	62	10	34	0	0	0	0	25	0	0	0	0
Total Vacancy Rate	5.3%	5.3%	6.3%	5.6%	5.4%	5.5%	5.2%	9.9%	8.3%	11.3%	15.3%	15.8%	15.3%	15.4%	15.5%	15.4%	15.0%	15.0%	15.4%
Vacant SF (000s)	175	175	222	206	201	208	204	394	331	455	616	636	616	620	628	620	604	604	620

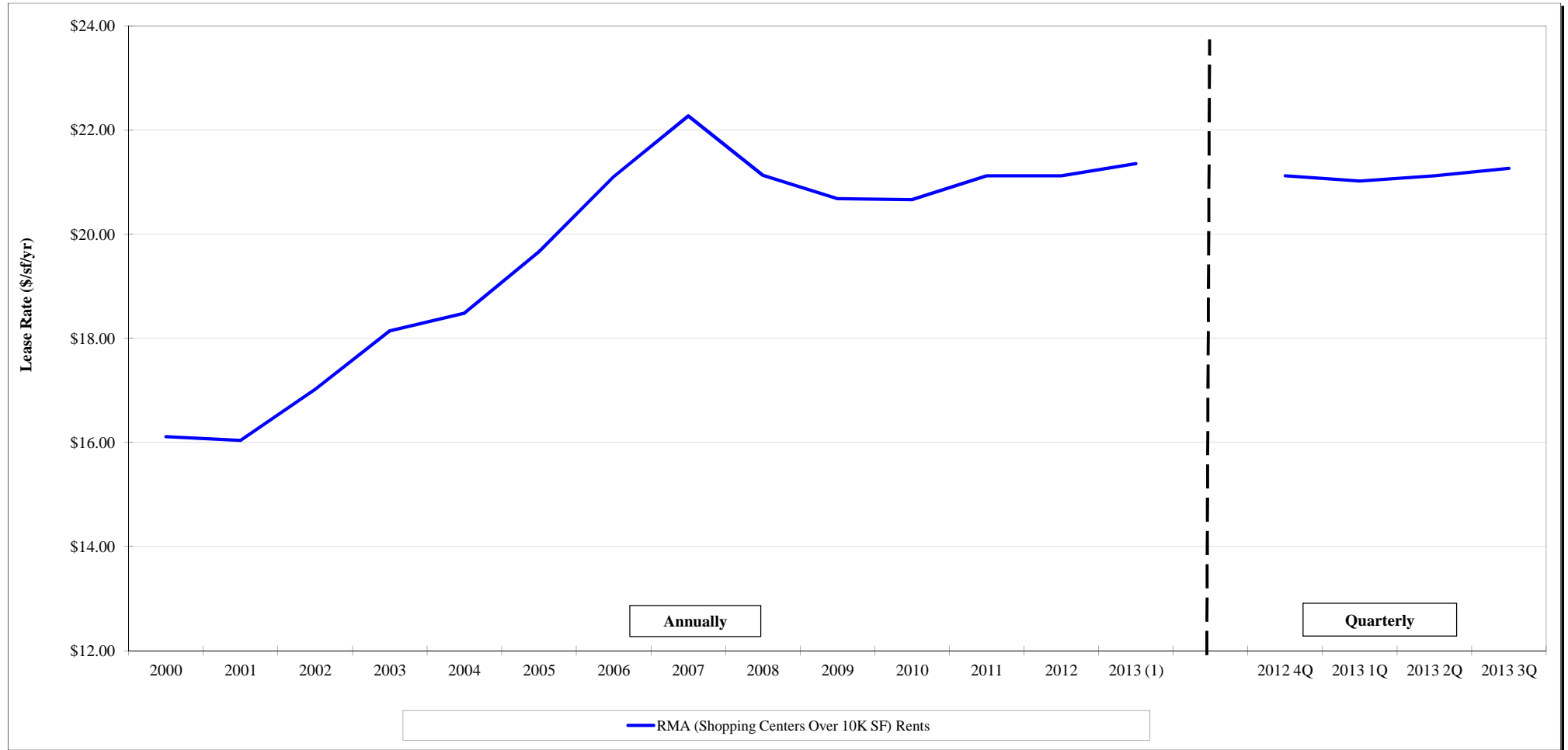


(1) 2013 REIS projection based on data through 3Q2013.

EXHIBIT II-3

RETAIL MACRO TRENDS
RETAIL MARKET AREA
2000 THROUGH 3Q2013

Market Factor	Annually														Quarterly			
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013 (1)	2012 4Q	2013 1Q	2013 2Q	2013 3Q
<i>RMA (Shopping Centers Over 10K SF)</i>																		
Rental Rate (1)	\$16.11	\$16.04	\$17.02	\$18.14	\$18.48	\$19.66	\$21.10	\$22.27	\$21.13	\$20.68	\$20.66	\$21.12	\$21.12	\$21.35	\$21.12	\$21.02	\$21.12	\$21.26
Y/Y % Change	-	-0.4%	6.1%	6.6%	1.9%	6.4%	7.3%	5.5%	-5.1%	-2.1%	-0.1%	2.2%	0.0%	1.1%	0.0%	-0.5%	0.5%	0.7%
Vacancy Rate	5.3%	6.3%	5.6%	5.4%	5.5%	5.2%	9.9%	8.3%	11.3%	15.3%	15.8%	15.3%	15.4%	15.5%	15.4%	15.0%	15.0%	15.4%



(1) 2013 data based on projections through 3Q2013

(2) Represents a Triple Net lease type

JANUARY 2014



EXHIBIT II-5

**CONSUMER SPENDING CAPACITY
RETAIL MARKET AREA
2013**

Spending Category	Consumer Spending Capacity		
	Total	Per Capita	Share*
GAFO (1)			
Other General Merchandise	\$233,109,290	\$1,206	12%
Department Stores	163,188,960	844	8%
Furniture	65,654,372	340	3%
Sporting Goods/Hobby	47,016,228	243	2%
Books & Music	15,700,273	81	1%
Electronics/Appliances	68,919,938	356	3%
Clothing & Accessories	153,536,990	794	8%
GAFO Total:	\$747,126,051	\$3,865	38%
Non-GAFO			
Eating & Drinking Places	\$334,338,728	\$1,729	17%
Misc. Stores	52,778,510	273	3%
Health & Personal Care	152,395,629	788	8%
Building/Garden Materials	304,957,083	1,577	15%
Food & Beverage	393,281,035	2,034	20%
Non-GAFO Total:	\$1,237,750,985	\$6,402	62%
Total Excl. Vehicle/Gas/Non-Store:	\$1,984,877,036	\$10,267	100%
Gas/Motor Vehicle/Non-Store			
Gas Stations	\$289,183,570	\$1,496	NA *
Other Non-Store Retailers (2)	237,832,518	1,230	NA *
Motor Vehicle	743,453,516	3,846	NA *
Gas/Motor Vehicle/Non-Store Total:	\$1,270,469,604	\$6,572	NA
Total:	\$3,255,346,640	\$16,838	NA

(1) GAFO=General Merchandise, Apparel, Furniture and Other

(2) Includes vending machine operators and direct-selling establishments

* Share of total sales, excluding Motor Vehicle, Gas Stations and Electronic Shopping

Source: Claritas Data Systems, 2013

EXHIBIT II-6

**RETAIL OPPORTUNITY GAPS
RETAIL MARKET AREA
2013**

Spending Category	Consumer Spending			
	Consumer Demand	Actual Sales	Gap	
			\$	%
GAFO (1)				
Other General Merchandise	\$233,109,290	\$591,971,948	(\$358,862,658)	-154%
Department Stores	163,188,960	309,296,116	(146,107,156)	-90%
Furniture	65,654,372	39,585,761	26,068,611	40%
Sporting Goods/Hobby	47,016,228	34,870,495	12,145,733	26%
Books & Music	15,700,273	4,789,838	10,910,435	69%
Electronics/Appliances	68,919,938	118,974,036	(50,054,098)	-73%
Clothing & Accessories	153,536,990	114,150,719	39,386,271	26%
GAFO Total:	\$747,126,051	\$1,213,638,913	(\$466,512,862)	-62%
Non-GAFO				
Eating & Drinking Places	\$334,338,728	\$278,745,462	\$55,593,266	17%
Misc. Stores	52,778,510	48,534,631	4,243,879	8%
Health & Personal Care	152,395,629	98,186,155	54,209,474	36%
Building/Garden Materials	304,957,083	400,092,745	(95,135,662)	-31%
Food & Beverage	393,281,035	431,010,701	(37,729,666)	-10%
Non-GAFO Total:	\$1,237,750,985	\$1,256,569,694	(\$18,818,709)	-2%
Total Excl. Vehicle/Gas/Non-Store:	\$1,984,877,036	\$2,470,208,607	(\$485,331,571)	-24%
Outflow Categories:	\$911,786,361	\$1,307,794,251	(\$396,007,890)	-43%
Gas/Motor Vehicle/Non-Store				
Gas Stations	\$289,183,570	\$170,128,395	\$119,055,175	41%
Other Non-Store Retailers (2)	237,832,518	23,543,653	214,288,865	90%
Motor Vehicle	743,453,516	278,362,570	465,090,946	63%
Gas/Motor Vehicle/Non-Store Total:	\$1,270,469,604	\$472,034,618	\$798,434,986	63%
Total:	\$3,255,346,640	\$2,942,243,225	\$313,103,415	10%

(1) GAFO=General Merchandise, Apparel, Furniture and Other

(2) Includes vending machine operators and direct-selling establishments

Note: Gray = categories with spending gap

EXHIBIT II-7A

PROJECTED RETAIL SPACE DEMAND - OVERALL
RETAIL MARKET AREA
2014 - 2023

Target Spending Category	Source	Per Capita Spending		Spent Locally	New Resident Generated Spending										2014-2023 Total (1)	Implied/ Total Households
		Num.	Perc.		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023		
New Population Projection (1)					1,791	1,791	1,791	1,791	1,791	1,791	1,791	1,791	1,791	1,791	17,908	6,562
Clothing & Accessories	Claritas	\$794	8%	8%	\$1,422,215	\$1,422,215	\$1,422,215	\$1,422,215	\$1,422,215	\$1,422,215	\$1,422,215	\$1,422,215	\$1,422,215	\$1,422,215	\$14,222,153	
Sporting Goods/Hobby	Claritas	243	2%	2%	435,512	435,512	435,512	435,512	435,512	435,512	435,512	435,512	435,512	435,512	4,355,120	
Books & Music	Claritas	81	1%	1%	145,432	145,432	145,432	145,432	145,432	145,432	145,432	145,432	145,432	145,432	1,454,319	
Department Stores	Claritas	844	8%	8%	1,511,622	1,511,622	1,511,622	1,511,622	1,511,622	1,511,622	1,511,622	1,511,622	1,511,622	1,511,622	15,116,216	
Furniture	Claritas	340	3%	3%	608,157	608,157	608,157	608,157	608,157	608,157	608,157	608,157	608,157	608,157	6,081,574	
Electronics/Appliances	Claritas	356	3%	3%	638,406	638,406	638,406	638,406	638,406	638,406	638,406	638,406	638,406	638,406	6,384,064	
Building/Garden Materials	Claritas	1,577	15%	15%	2,824,822	2,824,822	2,824,822	2,824,822	2,824,822	2,824,822	2,824,822	2,824,822	2,824,822	2,824,822	28,248,218	
Food & Beverage	Claritas	2,034	20%	20%	3,642,968	3,642,968	3,642,968	3,642,968	3,642,968	3,642,968	3,642,968	3,642,968	3,642,968	3,642,968	36,429,678	
Health & Personal Care	Claritas	788	8%	8%	1,411,643	1,411,643	1,411,643	1,411,643	1,411,643	1,411,643	1,411,643	1,411,643	1,411,643	1,411,643	14,116,429	
Other General Merchandise	Claritas	1,206	12%	12%	2,159,295	2,159,295	2,159,295	2,159,295	2,159,295	2,159,295	2,159,295	2,159,295	2,159,295	2,159,295	21,592,947	
Misc. Stores	Claritas	273	3%	3%	488,888	488,888	488,888	488,888	488,888	488,888	488,888	488,888	488,888	488,888	4,888,881	
Eating & Drinking Places	Claritas	1,729	17%	17%	3,096,984	3,096,984	3,096,984	3,096,984	3,096,984	3,096,984	3,096,984	3,096,984	3,096,984	3,096,984	30,969,844	
All Spending Categories:		\$10,267	100%	100%	\$18,385,944	\$18,385,944	\$18,385,944	\$18,385,944	\$18,385,944	\$18,385,944	\$18,385,944	\$18,385,944	\$18,385,944	\$18,385,944	\$183,859,441	

Total Retail Demand

Spending Based Demand

Annual Spending

Target Retail Sales per Square Foot ULI - "Dollars & Cents"

\$18,385,944	\$18,385,944	\$18,385,944	\$18,385,944	\$18,385,944	\$18,385,944	\$18,385,944	\$18,385,944	\$18,385,944	\$18,385,944	\$18,385,944	\$18,385,944	\$18,385,944	\$18,385,944	\$18,385,944	\$183,859,441
\$300	\$300	\$300	\$300	\$300	\$300	\$300	\$300	\$300	\$300	\$300	\$300	\$300	\$300	\$300	

I. Demand for Retail Space

61,286 sf	61,286 sf	61,286 sf	61,286 sf	61,286 sf	61,286 sf	61,286 sf	61,286 sf	61,286 sf	61,286 sf	61,286 sf	61,286 sf	61,286 sf	61,286 sf	61,286 sf	612,865 sf
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Home Sales/ Net Absorption Based Demand

Projected Housing Deliveries

Average People per Household

Projected New Population

Average Spending Per Person

Target Retail Sales per Square Foot ULI - "Dollars & Cents"

337	337	1,087	1,087	2,209	2,209	2,209	2,220	2,764	2,764						
2.73	2.73	2.73	2.73	2.73	2.73	2.73	2.73	2.73	2.73	2.73	2.73	2.73	2.73	2.73	
919	919	2,966	2,966	6,029	6,029	6,029	6,059	7,542	7,542						
10,267	10,267	10,267	10,267	10,267	10,267	10,267	10,267	10,267	10,267	10,267	10,267	10,267	10,267	10,267	
\$300	\$300	\$300	\$300	\$300	\$300	\$300	\$300	\$300	\$300	\$300	\$300	\$300	\$300	\$300	

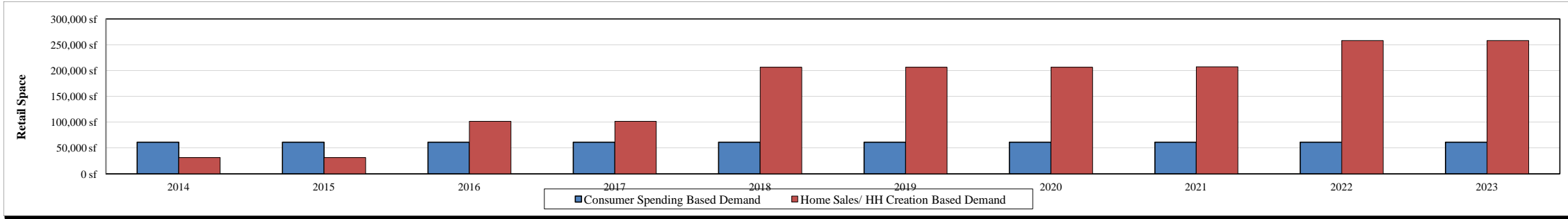
17,224

II. Demand for Retail Space

31,460 sf	31,460 sf	101,510 sf	101,510 sf	206,335 sf	206,335 sf	206,335 sf	207,351 sf	258,106 sf	258,106 sf						1,608,511 sf
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Total Demand for Retail Space [Average of I. & II.]

46,373 sf	46,373 sf	81,398 sf	81,398 sf	133,811 sf	133,811 sf	133,811 sf	134,319 sf	159,696 sf	159,696 sf						1,110,688 sf
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(1) Population projections based on Claritas projections from 2014-2019. Average annual growth applied to all years within 2014-2023 timeframe

EXHIBIT II-7B

**PROJECTED RETAIL SPACE DEMAND - COMMUNITY RESIDENTS
CORDOVA HILLS; SACRAMENTO COUNTY, CALIFORNIA
JANUARY 2014**

<u>Target Spending Category</u>	<u>Per Capita Spending</u>		<u>New Resident Generated Spending</u>
	<u>Num.</u>	<u>Perc.</u>	
Subject Site New Households ⁽¹⁾			7,750
Average Household Size ⁽²⁾			2.73
Subject Site New Population Growth			21,149
Food & Beverage	\$2,034	29%	\$43,021,879
Clothing & Accessories	\$794	11%	16,795,750
Books & Music	\$81	1%	1,717,487
Health & Personal Care	\$788	11%	16,670,894
Misc. Stores	\$273	4%	5,773,557
Eating & Drinking Places	\$1,729	25%	36,574,050
Other General Merchandise	\$1,206	17%	25,500,339
Target Spending Categories:	\$6,906	100%	\$146,053,955
<hr/>			
Total Retail Demand			
Annual Spending			\$146,053,955
<u>Target Retail Sales per Square Foot ⁽³⁾</u>			<u>\$300</u>
Total Demand for Retail Space			486,847 sf

(1) Subject Site total based on presented average of 7,500 - 8,000 homes

(2) Based on Market Area average household size; Claritas

(3) Per ULI's "Dollars & Cents" study

Source: Claritas

EXHIBIT II-7C

**PROJECTED RETAIL SPACE DEMAND - COMMUNITY CAPTURE
CORDOVA HILLS; SACRAMENTO COUNTY, CALIFORNIA
JANUARY 2014**

I. Retail Demand

Internal Retail Demand		Market Area Fair Share	
<u>Spending Categories</u>	<u>SF Demanded @ Buildout</u>	<u>Spending Categories</u>	<u>SF Demanded Through 2033</u>
Clothing & Accessories	55,986	Clothing & Accessories	171,831
Sporting Goods/Hobby	--	Sporting Goods/Hobby	52,618
Books & Music	5,725	Books & Music	17,571
Department Stores	--	Department Stores	182,633
Furniture	--	Furniture	73,477
Electronics/Appliances	--	Electronics/Appliances	77,132
Building/Garden Materials	--	Building/Garden Materials	341,293
Food & Beverage	143,406	Food & Beverage	440,141
Health & Personal Care	55,570	Health & Personal Care	170,554
Other General Merchandise	85,001	Other General Merchandise	260,884
Misc. Stores	19,245	Misc. Stores	59,067
Eating & Drinking Places	121,913	Eating & Drinking Places	374,175
Total Demand:	486,847		2,221,376

II. Cordova Hills Capture

Internal Retail Demand			Market Area Fair Share		
<u>Capture Scenarios:</u>	<u>% Capture</u>	<u>Demand (SF)</u>	<u>Capture Scenarios:</u>	<u>% Capture</u>	<u>Demand (SF)</u>
Baseline	40%	194,739	Baseline	8%	177,710
Uplift 1	50%	243,423	Uplift 1	10%	222,138
Uplift 2	60%	292,108	Uplift 2	15%	333,206
Maximum	75%	365,135	Maximum	20%	444,275
Average Demand:		273,851			294,332
Total Demand:				568,183	

EXHIBIT II-8
FUTURE RETAIL DEVELOPMENT
SOUTHEASTERN SACRAMENTO COUNTY
2014 THROUGH 2023

I. Key Project Detail

Large Scale Approved Projects in CMA:

- In Sunridge, no retail is currently moving through pipeline, despite high demand from area residents. Three shopping centers have been approved, but none are currently moving forward.
- Larger Rio del Oro Master Plan contains a total of 153 retail acres planned for 2 regional town centers, a local town center, and multiple village commercial centers throughout the community
- Arboretum retail plans include 2 neighborhood shopping centers totaling 45K SF (on 3.5 acres), a larger 125K SF shopping center (on 14 acres) and a 290K SF sub-regional center (on 35 acres)
- Villages of Zinfandel retail planned over 25 acres in center of residential community
- 21.6 acres set aside for community shopping center at Preserve on northwest corner of parcel
- Easton Place planned as business hub on I-50 corridor, with retail in Central District to house 630K SF of entertainment and ground-floor; Market District - 563,300 SF neighborhood-serving
- Glenborough retail planned in 3 areas: 72K SF of Village J - ground-floor neighborhood-serving; 151K SF of Village K - small conventional center; Village O3 - neighborhood convenience on 2.4 acres
- Within the four Jackson Hwy projects (Mather South, West Jackson, Newbridge and Jackson Township) there are 5.6MM sf planned

II. Current Inventory Overhang

RMA Current Retail Inventory:	Market Equilibrium Vacancy Rate:	Current Vacancy	Variance to Equilibrium	Total Overhang
9,211,084	11.5%	12.9%	1.4%	127,233

III. Future Retail Supply

Status	Rancho Cordova	Unincorporated Sacramento Co.	Folsom SOI	RMA Total
Under Construction:	0	0	128,000	128,000
Approved:	2,535,432	1,437,500	4,033,743	8,006,675
Planned:	1,531,395	5,584,874	0	7,116,269
Pending Zoning/No Application	850,996	0	0	850,996
Total Planned	4,917,824	7,022,374	4,161,743	16,101,941

Total Deliveries @ 88.5% Occ.: 14,250,218
Total Required Spending (\$000s): 4,275,065
Implied HH Growth: 152,589
Growth % 215%

Status	Completion Likelihood	Delivery Probability									
		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Under Construction:	100%	50%	50%	0%	0%	0%	0%	0%	0%	0%	0%
Approved:	60%	0%	0%	5%	5%	5%	5%	5%	5%	5%	5%
Planned:	40%	0%	0%	0%	0%	5%	5%	5%	5%	5%	5%
Pending Zoning/No Application	20%	0%	0%	0%	0%	0%	0%	5%	5%	5%	5%

Status	Weighted Average	Projected Deliveries									
		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Under Construction:	128,000	64,000	64,000	0	0	0	0	0	0	0	0
Approved:	4,804,005	0	0	240,200	240,200	240,200	240,200	240,200	240,200	240,200	240,200
Pending:	2,846,508	0	0	0	0	142,325	142,325	142,325	142,325	142,325	142,325
Pending Zoning/No Application	170,199	0	0	0	0	0	0	8,510	8,510	8,510	8,510
Future Total:	7,948,712	64,000	64,000	240,200	240,200	382,526	382,526	391,036	391,036	391,036	391,036

EXHIBIT II-9

RETAIL TRADE AREA INTERSECTION SOUTHEASTERN SACRAMENTO COUNTY, CALIFORNIA JANUARY 2014

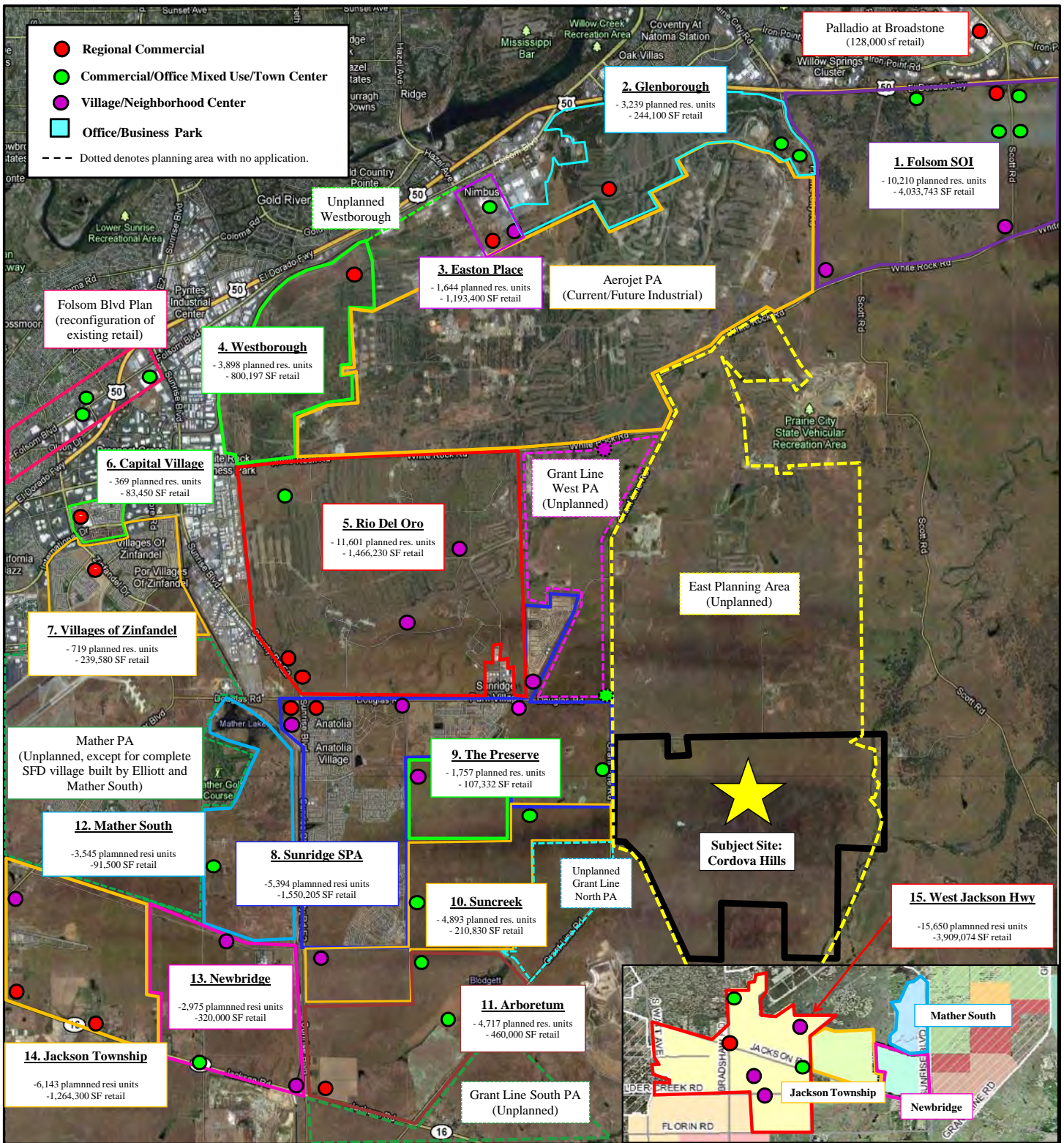
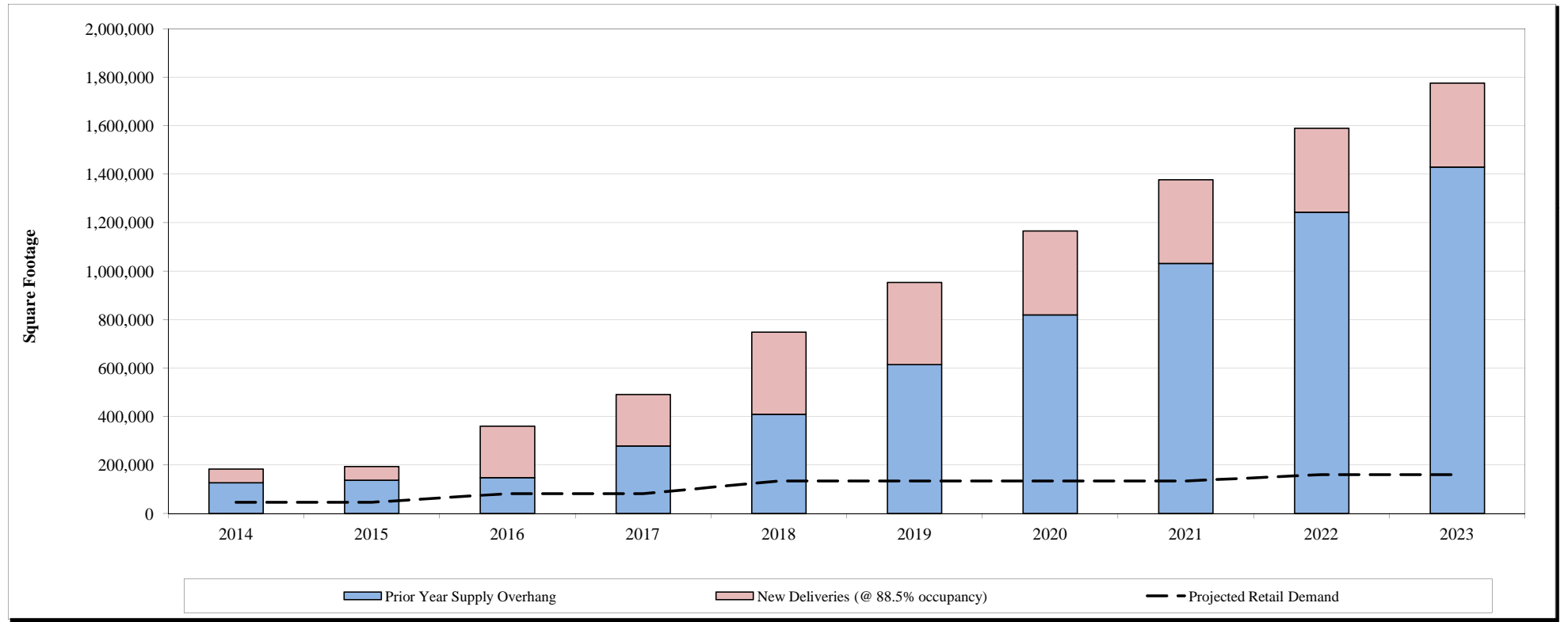


EXHIBIT II-10

PROJECTED SUPPLY VERSUS POTENTIAL DEMAND - RETAIL
SOUTHEASTERN SACRAMENTO COUNTY
JANUARY 2014

	Annual Forecast									
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Projected Supply:										
Prior Year Supply Overhang	127,233	137,500	147,767	278,946	410,124	614,849	819,573	1,031,829	1,243,576	1,429,946
New Deliveries (@ 88.5% occupancy)	56,640	56,640	212,577	212,577	338,535	338,535	346,067	346,067	346,067	346,067
Total Supply:	183,873	194,140	360,344	491,523	748,660	953,384	1,165,640	1,377,895	1,589,643	1,776,013
Retail Demand Forecast:										
Annual Square Footage	46,373	46,373	81,398	81,398	133,811	133,811	133,811	134,319	159,696	159,696
Under (Over) Supply:	(137,500)	(147,767)	(278,946)	(410,124)	(614,849)	(819,573)	(1,031,829)	(1,243,576)	(1,429,946)	(1,616,316)



Note: Retail demand does not include additional population added by subject site

III. OFFICE ANALYSIS

EXHIBIT III-1

OFFICE MARKET AREA HIGHWAY 50 CORRIDOR; SACRAMENTO MSA, CALIFORNIA JANUARY 2014

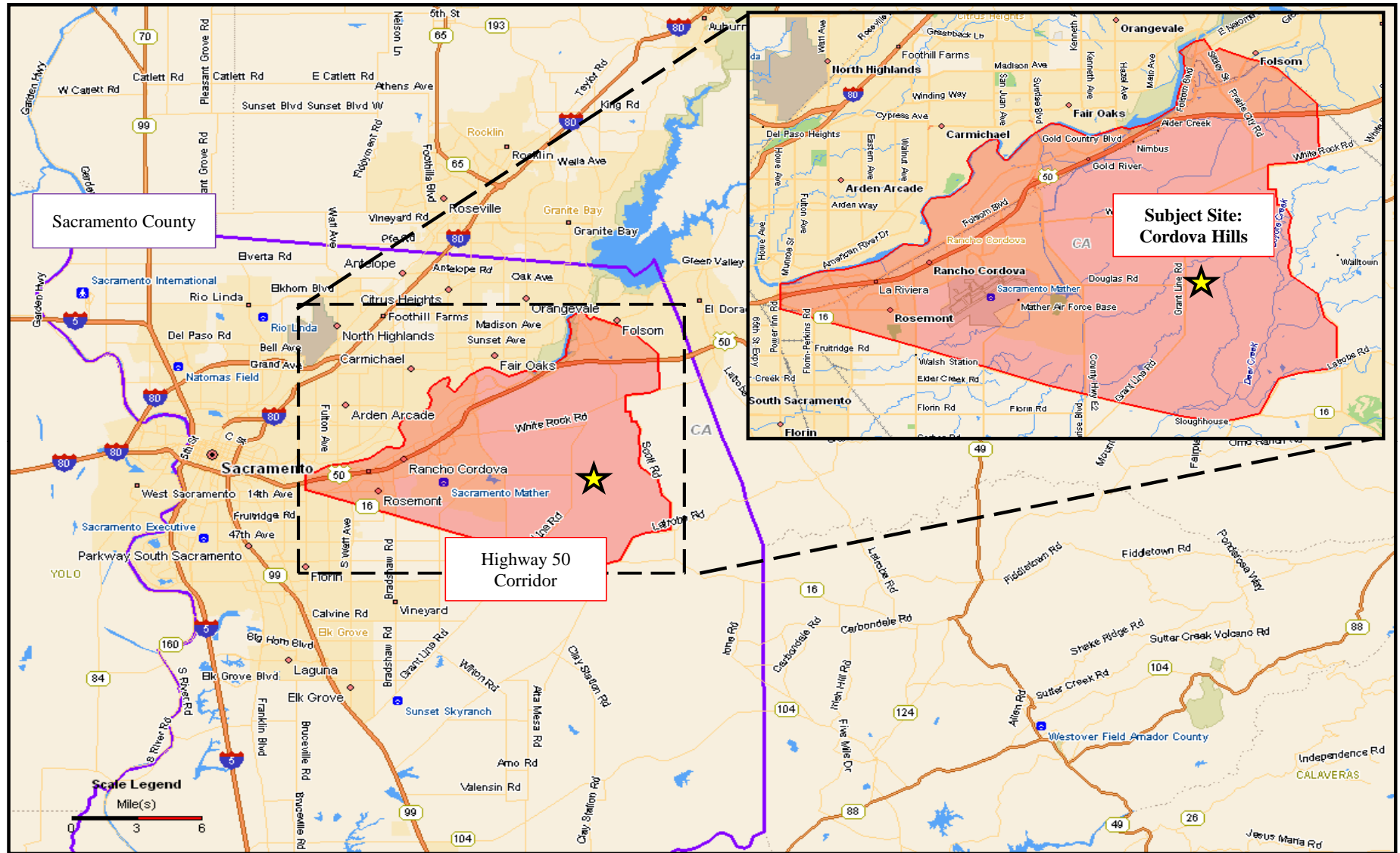


EXHIBIT III-2

**OFFICE SUBMARKET PERFORMANCE
OFFICE MARKET AREA, SACRAMENTO COUNTY & SACRAMENTO MSA, CALIFORNIA
2014**

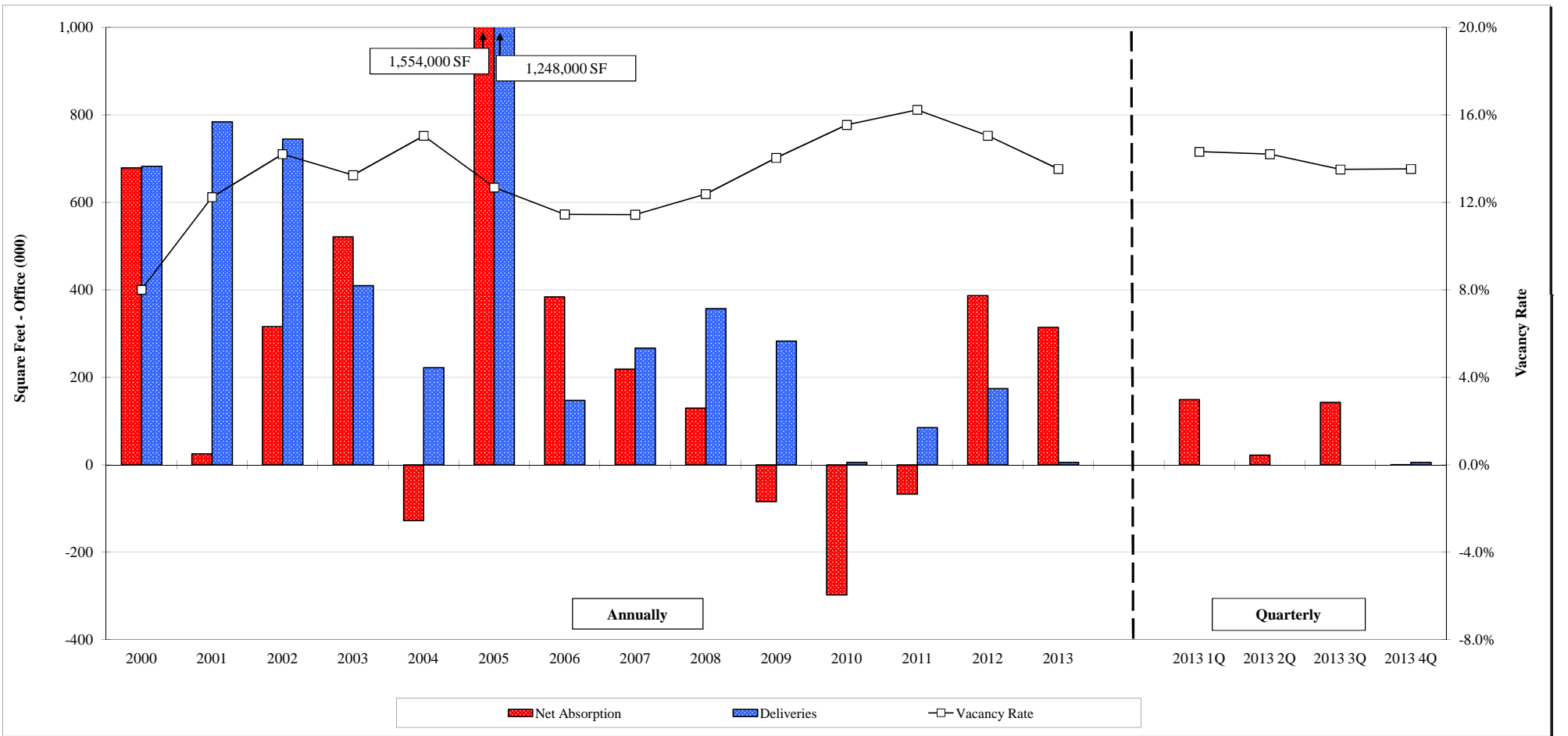
	<u>Office Market Area</u>	<u>Sacramento County</u>	<u>Sacramento MSA</u>
Demographics			
Total Population	193,328	1,468,628	2,227,651
Total Households	70,846	529,053	814,406
5-Year Projected CAGR	1.0%	0.9%	0.9%
Average Household Size	2.7	2.8	2.7
Median Household Income	\$42,996	\$43,852	\$43,663
5-Year Projected CAGR	0.7%	1.0%	1.2%
4Q2013 Office Market Factors			
Office Total			
Rentable Building Area (SF)	20,332,539	77,082,410	99,790,152
L5Y % Change	4.7%	4.7%	5.5%
L5Y Deliveries (SF)	910,441	3,443,646	5,244,625
L5Y Net Absorption (SF)	381,503	909,214	1,387,484
Vacancy Rate	13.5%	14.2%	14.7%
Vacant Stock (SF)	2,749,558	10,930,879	14,693,038
Asking Rent	\$18.80	\$19.98	\$19.78
LTM % Change	-5.1%	-1.9%	-2.6%
Class A			
Rentable Building Area (SF)	6,760,865	21,829,974	26,352,972
% of Total	33%	28%	26%
L5Y % Change	6.0%	12.4%	14.7%
L5Y Deliveries (SF)	384,853	2,414,898	3,370,506
L5Y Net Absorption (SF)	170,775	1,411,477	2,528,174
Vacancy Rate	10.4%	11.9%	13.2%
Vacant Stock (SF)	703,679	2,603,954	3,465,617
Asking Rent	\$22.14	\$25.66	\$24.58
% Premium	17.8%	28.4%	24.3%
LTM % Change	-3.9%	-0.5%	0.4%

Sources: CoStar; Claritas

EXHIBIT III-3

OFFICE MACRO TRENDS OFFICE MARKET AREA 2000 THROUGH 4Q2013

Market Factor	Annually															Quarterly			
	2000	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2013 1Q	2013 2Q	2013 3Q	2013 4Q
<i>OMA</i>																			
RBA (000s)	15,646	15,646	16,430	17,174	17,584	17,806	19,008	19,178	19,422	19,779	20,062	20,067	20,153	20,327	20,333	20,327	20,327	20,327	20,333
Net Absorption (000s)	679	679	25	316	521	-128	1,471	384	219	129	-84	-297	-67	387	314	149	22	143	0
Deliveries (000s)	682	682	784	745	410	222	1,202	147	267	357	283	6	85	174	6	0	0	0	6
Total Vacancy Rate	8.0%	8.0%	12.2%	14.2%	13.2%	15.0%	12.7%	11.4%	11.4%	12.4%	14.0%	15.5%	16.2%	15.0%	13.5%	14.3%	14.2%	13.5%	13.5%
Vacant SF (000s)	1,252	1,252	2,011	2,440	2,328	2,678	2,409	2,196	2,221	2,448	2,815	3,118	3,270	3,058	2,750	2,909	2,887	2,744	2,750

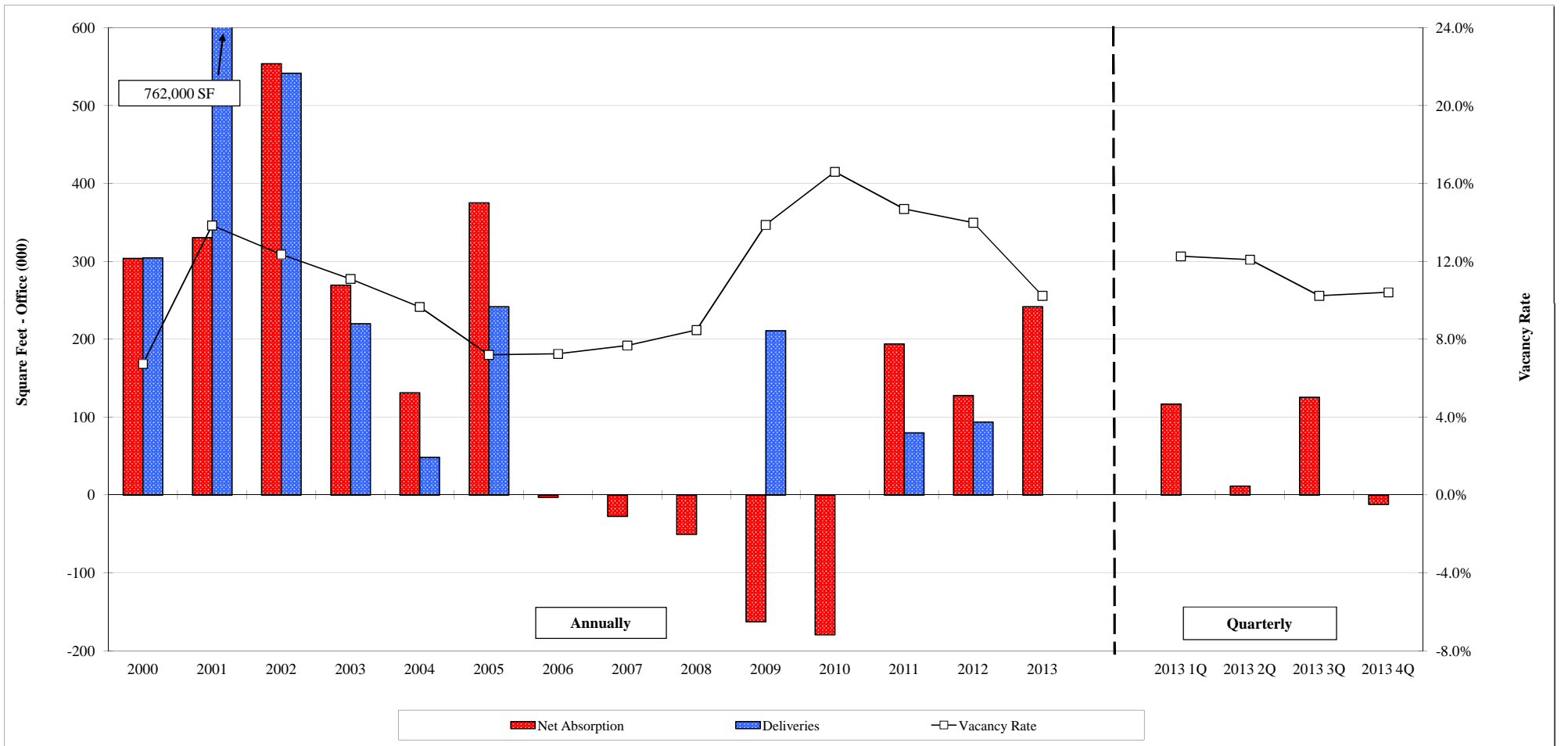


Source: CoStar

EXHIBIT III-3

OFFICE MACRO TRENDS - CLASS A
OFFICE MARKET AREA
2000 THROUGH 4Q2013

Market Factor	Annually															Quarterly			
	2000	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2013 1Q	2013 2Q	2013 3Q	2013 4Q
OMA - Class A																			
RBA (000s)	4,564	4,564	5,324	5,866	6,086	6,134	6,376	6,376	6,376	6,376	6,587	6,587	6,667	6,761	6,761	6,761	6,761	6,761	6,761
Net Absorption (000s)	304	304	331	554	269	131	375	-3	-28	-50	-163	-180	194	128	242	117	12	125	-12
Deliveries (000s)	305	305	760	542	220	49	242	0	0	0	211	0	80	94	0	0	0	0	0
Total Vacancy Rate	6.7%	6.7%	13.8%	12.4%	11.1%	9.7%	7.2%	7.2%	7.7%	8.5%	13.9%	16.6%	14.7%	14.0%	10.2%	12.3%	12.1%	10.2%	10.4%
Vacant SF (000s)	307	307	737	725	675	593	459	462	490	540	914	1,093	979	946	692	829	817	692	704

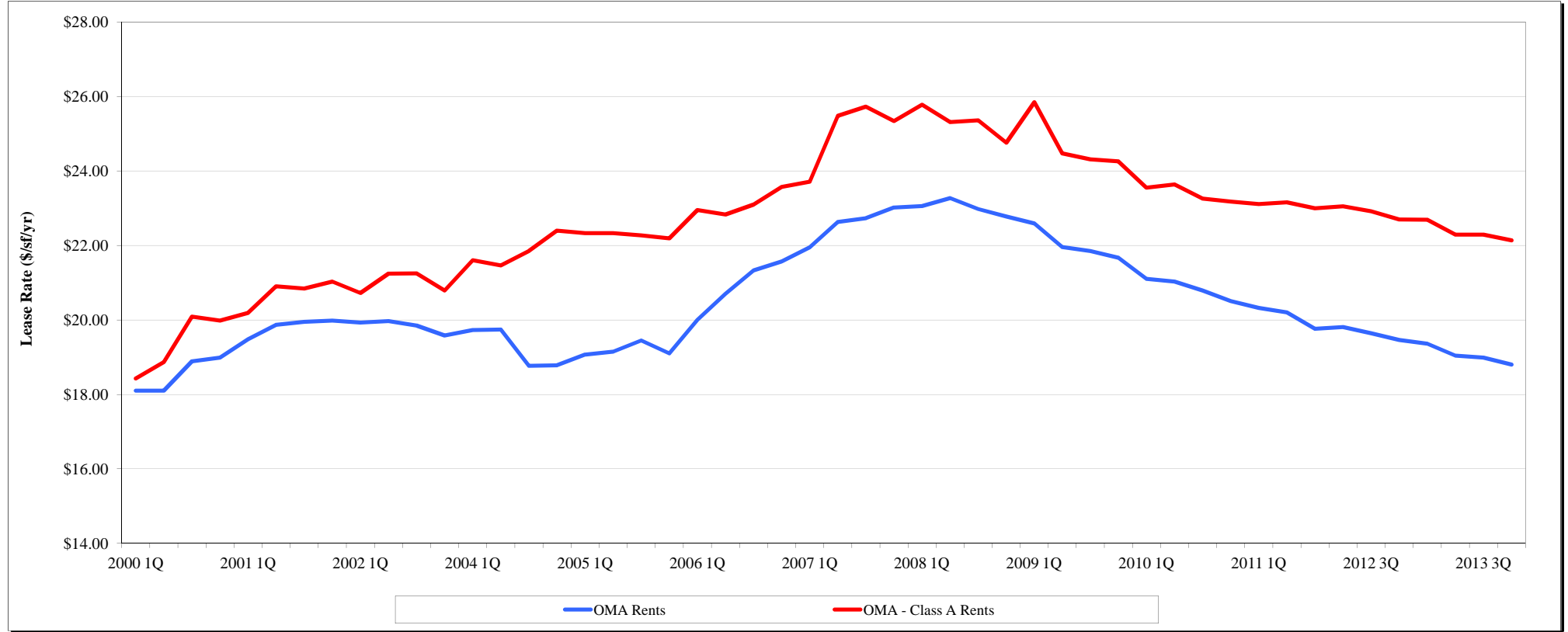


Source: CoStar

EXHIBIT III-3

OFFICE MACRO TRENDS
OFFICE MARKET AREA
2000 THROUGH 4Q2013

Market Factor	Annually														Quarterly			
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2013 1Q	2013 2Q	2013 3Q	2013 4Q
OMA																		
Rental Rate ⁽¹⁾	\$18.99	\$19.98	\$19.58	\$19.87	\$18.78	\$19.10	\$21.57	\$23.02	\$22.78	\$21.67	\$20.50	\$19.92	\$19.46	\$18.80	\$19.36	\$19.04	\$18.99	\$18.80
Y/Y % Change	-	5.2%	-2.0%	1.5%	-5.5%	1.7%	12.9%	6.7%	-1.0%	-4.9%	-5.4%	-2.8%	-2.3%	-3.4%	-5.6%	-1.7%	-0.3%	-1.0%
Vacancy Rate	8.0%	12.2%	14.2%	13.2%	15.0%	12.7%	11.4%	11.4%	12.4%	14.0%	15.5%	16.2%	15.0%	13.5%	14.3%	14.2%	13.5%	13.5%
OMA - Class A																		
Rental Rate ⁽²⁾	\$19.98	\$21.03	\$20.79	\$21.69	\$22.40	\$22.19	\$23.57	\$25.34	\$24.76	\$24.26	\$23.18	\$22.97	\$22.70	\$22.14	\$22.69	\$22.29	\$22.29	\$22.14
% Market	105%	105%	106%	109%	119%	116%	109%	110%	109%	112%	113%	115%	117%	118%	117%	117%	117%	118%
Y/Y % Change	NA	5%	-1%	4%	3%	-1%	6%	8%	-2%	-2%	-4%	-1%	-1%	-2%	-2%	-2%	0%	-1%
Vacancy Rate	6.7%	13.8%	12.4%	11.1%	9.7%	7.2%	7.2%	7.7%	8.5%	13.9%	16.6%	14.7%	14.0%	10.4%	12.3%	12.1%	10.2%	10.4%



(1) Represents a Gross lease

Source: CoStar

JANUARY 2014

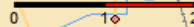


EXHIBIT III-5

OFFICE DEMAND

SACRAMENTO COUNTY, CALIFORNIA

2014 THROUGH 2023

I. Demand from Net New Jobs (000s)

Industry	Sacramento Co 2014 Emp. (000s)	Annual New Jobs (000s) (1)										% Office Using (2)	SF Per Job (3)	OMA Capture (5)	Potential Office Demand - Square Feet (000s)										Annual Average
		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023				2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
Construction	21.8	0.1	2.2	1.6	1.0	0.4	0.2	0.3	0.5	0.5	0.4	5%	270	26.6%	0.4	7.8	5.6	3.4	1.4	0.6	1.2	1.7	1.8	1.6	2.6
Education & Health Services	75.2	1.7	2.5	2.4	1.8	1.4	1.2	1.3	1.4	1.4	1.3	40%	260	26.6%	48.0	68.3	66.4	50.2	37.4	34.3	35.9	38.3	37.5	36.1	45.2
Financial Activities	30.8	0.1	0.7	0.8	0.6	0.4	0.3	0.3	0.3	0.3	0.4	95%	250	26.6%	8.1	41.5	49.8	35.5	22.2	18.1	15.9	17.2	19.3	22.5	25.0
Government	168.1	1.3	2.4	1.1	0.7	0.6	0.7	0.8	0.9	0.9	0.8	50%	200	26.6%	34.5	63.6	30.0	18.1	15.0	18.2	20.5	25.1	23.6	21.8	27.1
Information	10.8	0.1	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	35%	270	26.6%	2.6	6.2	5.7	2.3	-0.1	-0.4	-0.2	-0.3	-0.8	-1.2	1.4
Leisure & Hospitality	54.4	1.9	1.6	1.6	1.1	0.5	0.4	0.5	0.5	0.3	0.2	5%	225	26.6%	5.7	4.9	4.8	3.3	1.6	1.2	1.4	1.4	1.0	0.6	2.6
Manufacturing	22.2	0.2	0.3	0.3	0.0	-0.2	-0.3	-0.3	-0.3	-0.3	-0.3	5%	200	26.6%	0.4	0.8	0.9	0.0	-0.6	-0.7	-0.7	-0.7	-0.8	-0.9	-0.2
Natural Resources & Mining	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5%	265	26.6%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Services (except Public Admin.)	19.8	-0.1	0.3	0.5	0.3	0.1	0.0	0.0	0.0	0.0	0.0	60%	265	26.6%	-6.0	13.9	19.9	13.4	2.8	-0.5	0.2	0.9	1.5	-0.6	4.6
Professional & Business Services	87.8	1.6	3.9	3.4	2.0	1.2	1.3	1.2	1.4	1.4	1.4	90%	225	26.6%	87.5	210.8	181.3	107.4	64.0	69.2	66.7	75.4	75.1	73.7	101.1
Retail Trade	60.1	0.3	0.6	0.4	-0.3	-0.6	-0.7	-0.6	-0.5	-0.5	-0.6	5%	250	26.6%	1.1	1.9	1.2	-1.0	-1.9	-2.2	-2.1	-1.7	-1.7	-1.9	-0.8
Transportation, Warehousing, & Util.	13.0	0.2	0.1	0.2	0.1	0.0	0.0	0.1	0.1	0.1	0.1	5%	250	26.6%	0.6	0.5	0.5	0.4	0.0	0.0	0.2	0.3	0.3	0.2	0.3
Wholesale Trade	12.7	0.2	0.2	0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	10%	250	26.6%	1.6	1.1	0.7	-0.4	-0.8	-0.9	-0.7	-0.4	-0.4	-0.4	-0.1
Total Nonfarm	576.9	7.7	15.0	12.5	7.3	3.5	3.0	3.4	4.2	4.0	3.5	32%	245	26.6%	184.7	421.3	366.7	232.6	141.0	137.1	138.4	157.3	156.4	151.5	208.7

II. Demand from Obsolescence/Redevelopment (000s)

Industry	Sacramento Co 2014 Emp. (000s)	Total Employment (000s) (1)										% Office Using (2)	SF Per Job (3)	Current Inventory (SF 000s) (3)	Annual Obsolescence Rate (4)	OMA Capture (5)	Potential Office Demand - Square Feet (000s)										Annual Average
		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023						2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
Construction	21.8	21.8	24.0	25.5	26.5	26.9	27.0	27.4	27.9	28.4	28.8	5%	270	294	0.5%	26.6%	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Education & Health Services	75.2	75.2	77.7	80.1	81.9	83.2	84.5	85.8	87.2	88.5	89.8	40%	260	7,822	0.5%	26.6%	10.4	10.5	10.5	10.6	10.7	10.8	10.8	10.8	10.9	10.9	10.7
Financial Activities	30.8	30.8	31.5	32.3	32.8	33.2	33.5	33.7	34.0	34.3	34.6	95%	250	7,317	0.5%	26.6%	9.7	9.7	9.8	9.9	9.9	9.9	10.0	10.0	10.0	10.0	9.9
Government	168.1	168.1	170.5	171.6	172.3	172.9	173.5	174.3	175.3	176.2	177.0	50%	200	16,809	0.5%	26.6%	22.3	22.4	22.5	22.5	22.5	22.6	22.6	22.6	22.7	22.5	
Information	10.8	10.8	11.1	11.3	11.4	11.4	11.4	11.4	11.4	11.3	11.3	35%	270	1,024	0.5%	26.6%	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Leisure & Hospitality	54.4	54.4	56.0	57.6	58.7	59.2	59.6	60.1	60.6	60.9	61.1	5%	225	612	0.5%	26.6%	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Manufacturing	22.2	22.2	22.5	22.8	22.8	22.6	22.3	22.1	21.8	21.5	21.2	5%	200	222	0.5%	26.6%	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Natural Resources & Mining	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	5%	265	1	0.5%	26.6%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Services (except Public Admin.)	19.8	19.8	20.2	20.6	21.0	21.0	21.0	21.0	21.0	21.1	21.1	60%	265	3,156	0.5%	26.6%	4.2	4.2	4.2	4.2	4.2	4.3	4.3	4.3	4.3	4.3	4.2
Professional & Business Services	87.8	87.8	91.7	95.1	97.1	98.3	99.6	100.8	102.2	103.6	105.0	90%	225	17,784	0.5%	26.6%	23.6	23.8	24.0	24.3	24.4	24.5	24.6	24.7	24.8	24.9	24.4
Retail Trade	60.1	60.1	60.7	61.0	60.7	60.2	59.5	58.9	58.4	57.9	57.3	5%	250	751	0.5%	26.6%	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Transportation, Warehousing, & Util.	13.0	13.0	13.1	13.3	13.4	13.4	13.4	13.5	13.6	13.6	13.7	5%	250	162	0.5%	26.6%	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Wholesale Trade	12.7	12.7	12.9	13.0	12.9	12.8	12.7	12.6	12.5	12.4	12.4	10%	250	318	0.5%	26.6%	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Total Nonfarm	576.9	577	592	604	612	615	618	622	626	630	633	43%	230	56,272	0.5%	26.6%	74.8	75.0	75.6	76.1	76.4	76.6	76.8	76.9	77.1	77.4	76.3
Total Demand																	259.4	496.4	442.3	308.7	217.3	213.6	215.1	234.2	233.5	228.9	285.0

III. Demand from New Home Units (000s) (6)

	OMA Historical Average S.F. (6)	Planned and Proposed Delivery Projection (6)										OMA Capture (5)	Potential Office Demand - Square Feet (000s)										Annual Average
		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
New Home Deliveries	380	337	337	1,087	1,087	1,861	1,861	1,861	1,872	2,415	2,415	100.0%	128	128	413	413	707	707	707	711	917	917	574.7
Total Office Market Area Demand (Average: Growth + Obsolescence, Home Deliveries):													193.69	312.16	427.57	360.77	462.01	460.16	460.90	472.51	575.39	573.05	429.82

III. Cordova Hills Demand Capture

From Region	
Average Annual Demand (2014-2023)	429.8
Cumulative Demand (2014-2023)	4,298.2

Capture Metrics	
OMA Approved/Under Constr RBA	10,051

Cordova Hills Capture	8.1%	3.1%	13.2%
Est. Avg. Annual (2014-2023)	35.0	13.2	56.8
Est. Cumulative (2014-2033)	700.3	264.0	1,136.6

(1) Source: Economy.com

(2) Per TCG projection

(3) Per ULI, CoStar

(4) Industry average adjusted for high-growth area

(5) Per CoStar. Represents capture of total occupied inventory

(6) Based on 2000-2013 historic home sales to net absorption ratio (SF) and estimated +/- 20-30 year delivery timeline of planned and proposed units (excludes site)

(7) Average of total capture and completion through 2023 capture

(8) Capture based on subject site planned commercial versus market area total

(9) Capture based on subject site planned commercial versus market area completed through 2023

EXHIBIT III-6

FUTURE OFFICE DEVELOPMENT SOUTHEASTERN SACRAMENTO COUNTY 2014 THROUGH 2023

I. Key Projects Detail

Large Scale Approved Projects in OMA:

- Rio del Oro includes 86 acres for 3 business parks, including 2 large employment centers and small professional office complexes, while 283 acres are planned for 3 light industrial parks
- Villages of Zinfandel approved for 121.4 acres of office/business park space, while 133.9 acres of space planned for light industrial/flex uses.
- Easton Place divided into 3 districts: Transit District close to light rail planned for 283K SF of office space; Central District - 1.5M SF high-rise office; Market District - 375K SF office
- Office uses at Glenborough at Easton are planned for 2 highly visible sites adjacent to Hwy 50: Village H, located across from Intel in Folsom, planned for 147K SF of office (on 13.5 acres) while Village S, located between Hazel Ave & Iron Point light rail stations, planned for 308,400 SF office (on 23.6 acres)
- Planned office development at Arboretum site includes single Business Park on southwestern parcel of site spread over 22 acres
- Three of the four Jackson Hwy project communities are planned for a total of 15.3MM sf of office with 14.4MM sf within West Jackson (plans to make it a major office hub)

II. Current Inventory Overhang

OMA Current Office Inventory:	Market Equilibrium Vacancy Rate:	Current Vacancy	Variance to Equilibrium	Total Overhang
20,332,539	12.5%	13.5%	1.0%	207,991

III. Future Office Supply

Status	Rancho Cordova	Unincorporated Sacramento Co.	Folsom SOI	OMA Total	
Under Construction:	0	0	0	0	Total Deliveries @ 87.5% Occ.: 23,173,158
Approved:	6,249,640	2,635,900	1,165,666	10,051,206	Implied Job Growth (@ 200 SF/ Emp.): 115,866
Pending:	1,137,961	15,294,441	0	16,432,402	Growth % 75.6%
Stalled:	0	0	0	0	
Total Planned	7,387,602	17,930,341	1,165,666	26,483,609	

Status	Completion Likelihood	Delivery Probability									
		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Under Construction:	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Approved:	60%	0%	0%	5%	5%	5%	5%	10%	10%	10%	10%
Pending:	40%	0%	0%	0%	0%	5%	5%	5%	5%	5%	10%
Stalled:	20%	0%	0%	0%	0%	0%	0%	5%	5%	5%	5%

Status	Weighted Average	Projected Deliveries									
		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Under Construction:	0	0	0	0	0	0	0	0	0	0	0
Approved:	6,030,724	0	0	301,536	301,536	301,536	301,536	603,072	603,072	603,072	603,072
Pending:	6,572,961	0	0	0	0	328,648	328,648	328,648	328,648	328,648	657,296
Stalled:	0	0	0	0	0	0	0	0	0	0	0
Future Total:	12,603,685	0	0	301,536	301,536	630,184	630,184	931,720	931,720	931,720	1,260,368

EXHIBIT III-7

OFFICE TRADE AREA INTERSECTION
SOUTHEASTERN SACRAMENTO COUNTY, CALIFORNIA
JANUARY 2014

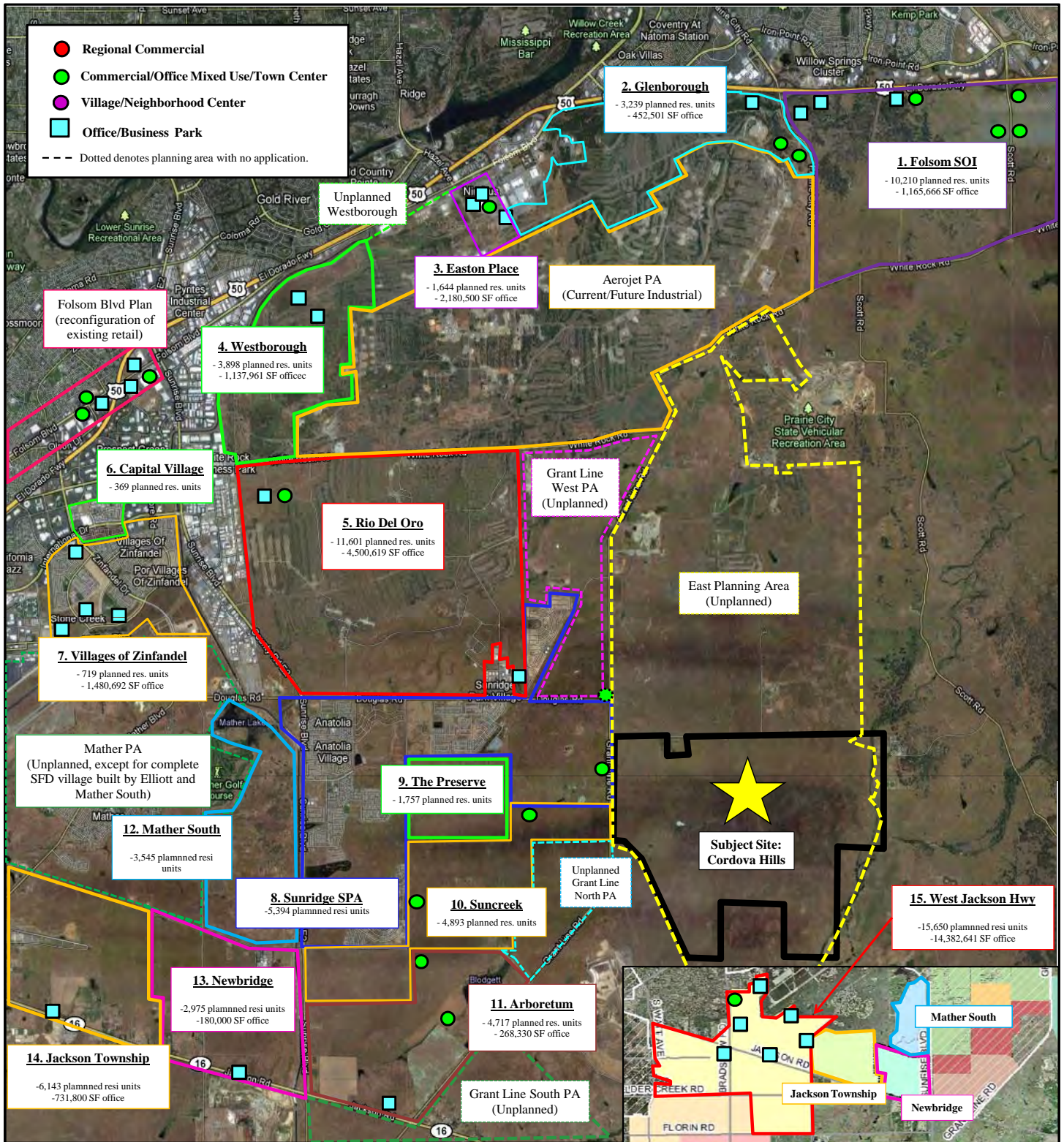
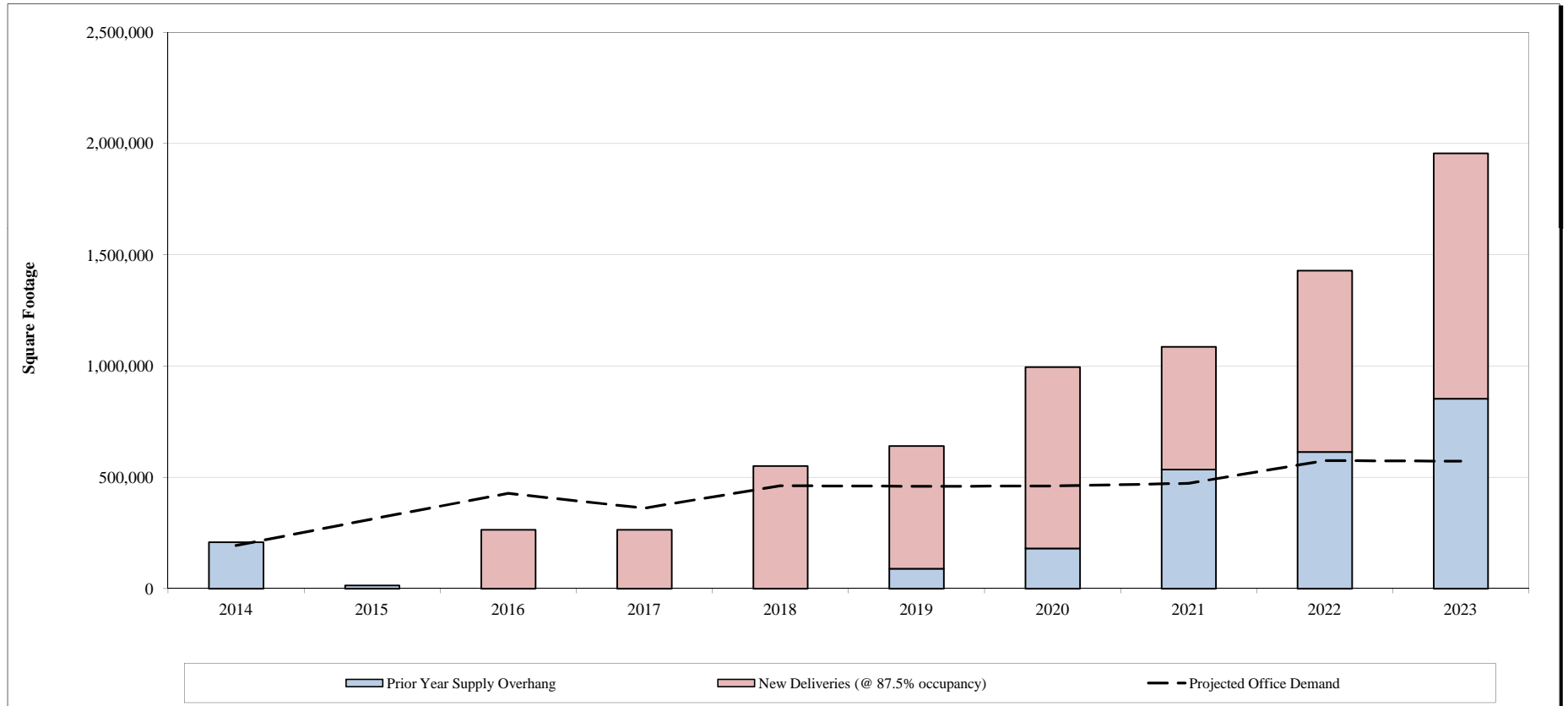


EXHIBIT III-8

**PROJECTED SUPPLY VERSUS POTENTIAL DEMAND - OFFICE
SOUTHEASTERN SACRAMENTO COUNTY
JANUARY 2014**

	Annual Forecast									
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Projected Supply:										
Prior Year Supply Overhang	207,991	14,298	0	0	0	89,398	180,650	535,002	613,904	853,773
New Deliveries (@ 87.5% occupancy)	0	0	263,844	263,844	551,411	551,411	815,255	551,411	815,255	1,102,822
Total Supply:	207,991	14,298	263,844	263,844	551,411	640,810	995,905	1,086,413	1,429,160	1,956,595
Office Demand Forecast:										
Annual Square Footage	193,692	312,157	427,567	360,769	462,013	460,160	460,904	472,509	575,387	573,051
Under (Over) Supply:	(14,298)	297,859	163,722	96,925	(89,398)	(180,650)	(535,002)	(613,904)	(853,773)	(1,383,544)



IV. SITE-SPECIFIC ANALYSIS

EXHIBIT IV-1
LOCAL SETTING
CORDOVA HILLS; SACRAMENTO COUNTY, CALIFORNIA
JANUARY 2014

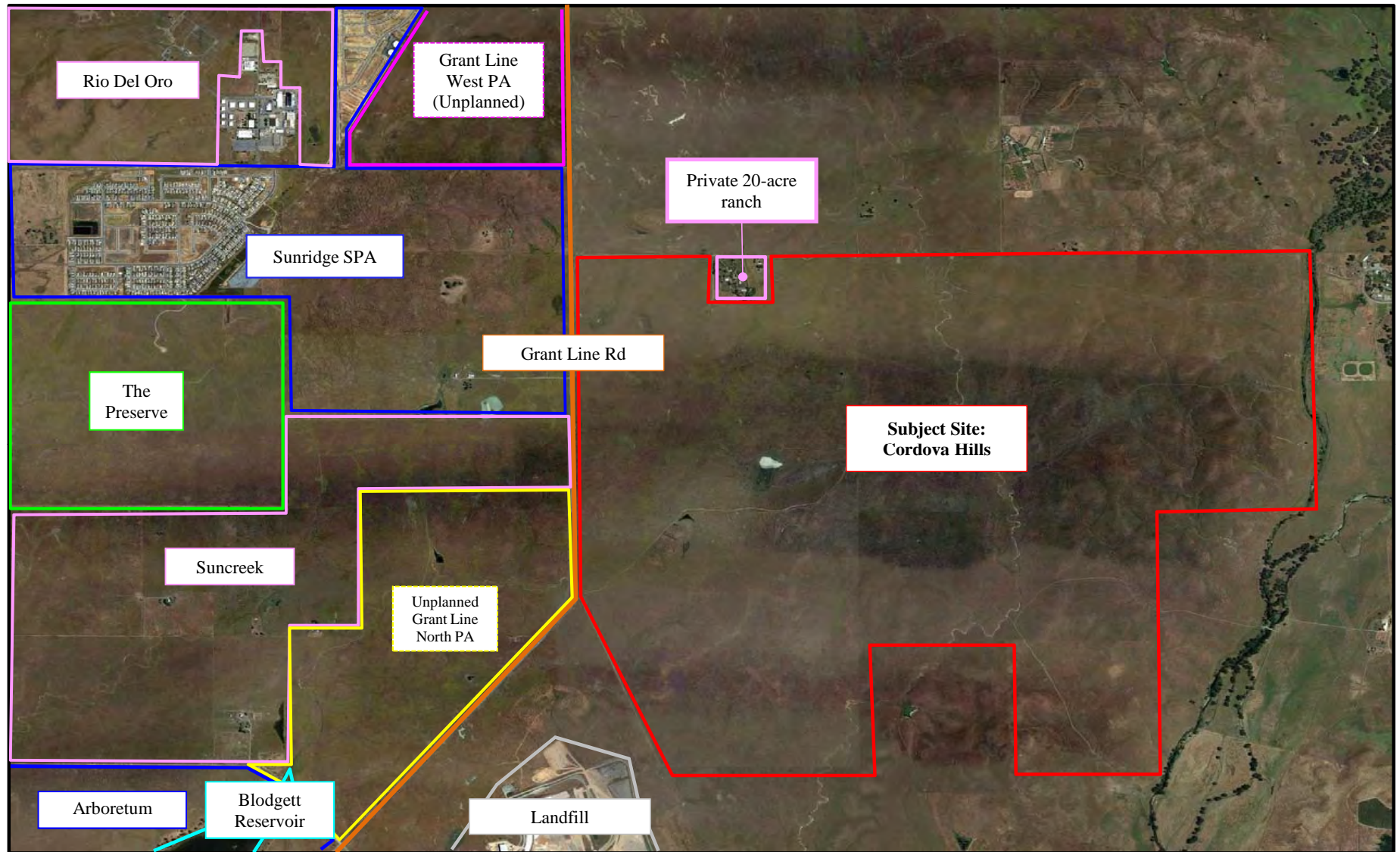
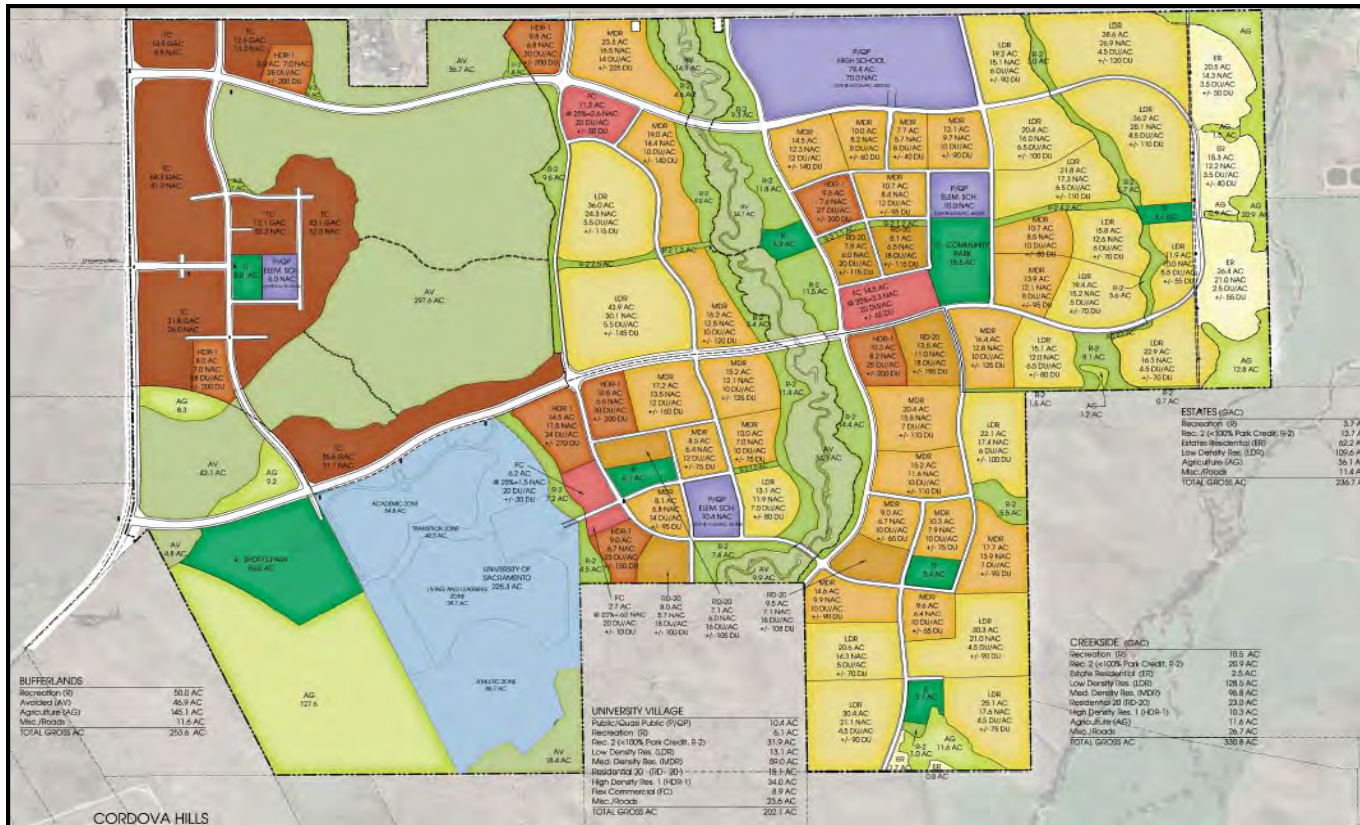


EXHIBIT IV-2
SITE PLAN
CORDOVA HILLS; SACRAMENTO COUNTY, CALIFORNIA
JANUARY 2014



Land Use	Lease Sq. Ft.	For-Sale Units	Lease Sq. Ft.
<i>Commercial</i>			
Rideline	92,000		
University Village	88,860		
East Valley	111,200		
FRO	90,580		
Town Center	966,779		
Total:	1,349,419		
<i>Residential</i>			
For-Sale		7,750	
SITE TOTAL: (1)	1,349,419	7,750	

→ **TC Village Districts**
 North
 Retail/ Ent.
 Business Mix-Use
 East
 S. Gateway

Total: 966,779

(1) Residential units based on average total from SBM development plan.

EXHIBIT IV-3

**SITE EVALUATION
CORDOVA HILLS; SACRAMENTO COUNTY, CALIFORNIA
JANUARY 2014**

Element	Retail	Office	Comments
Local Area	2.5 3.5	3.0 3.5	<ul style="list-style-type: none"> Open space surrounds subject site with initial phases of new master planned communities to the west Market area's median income above Sacramento County average Substantial growth projected for unincorporated area with greater than 50,000 homes planned for South East Sacramento County
Access/Visibility	1.5 3.5	2.0 3.0	<ul style="list-style-type: none"> Limited connectivity to Highway 50, regional connector providing access to downtown Sacramento Site located on eastern edge of current development with limited potential for capturing drive by attention Future construction of Capital South East Connector due to upgrade Grant Line Road to a high-traffic thoroughfare, greatly improving access
Site Characteristics	4.0 4.0	3.5 3.5	<ul style="list-style-type: none"> 2,300-acre parcel, relatively flat in topography, proposed for mixed-use development in a high growth area of the county Limited surrounding construction with opportunity to create new community in previously unutilized landscape
Surrounding Land Uses	2.5 3.5	2.5 3.5	<ul style="list-style-type: none"> Site bordered by open space/ agricultural land on all sides Sacramento County landfill located approximately 0.4 miles southwest of site Site part of large master plan, which will be a part of catalyst redevelopment of the area, attracting significant residents, visitor and business traffic
Proximity to Services	1.5 4.0	1.5 4.0	<ul style="list-style-type: none"> Diverse selection of lifestyle and general merchandise retail planned for site Zinfandel Shopping Center located approximately 7 miles NW of site in Rancho Cordova Additional retail centers located along Folsom Blvd and Highway 50 (8-10 miles) UC Davis Medical Center/ Hospital approx. 14 mile to W of site (Sacramento) Nearest grocery located 8 miles NE in El Dorado Hills (post development, nearest grocery to potentially be located on site)
Overall Rating:	2.4	2.5	
Post Build-out:	3.7	3.5	

Note: Ratings on 1 - 5 scale, with 5 = major competitive advantage, 3 = parity, and 1 = major disadvantage.
Post build-out ratings displayed below current (*italicized*)

EXHIBIT IV-4
RECOMMENDATIONS
CORDOVA HILLS; SACRAMENTO COUNTY, CALIFORNIA
JANUARY 2014

I. Planned Cordova Hills Product Program

Planned Deliveries			
Focus/ Location	Total SF	Focus/ Location	Total Units
Community Commercial		Community Residential ⁽¹⁾	
Ridgeline	92,000	For-Sale	7,750
University Village	88,860		
East Valley	111,200		
FRO	90,580		
Total	382,640		
Town Center Commercial			
North	59,991		
Retail/ Ent.	392,911		
Business Mix-Use	281,398		
East	112,123		
S. Gateway	120,356		
Total	966,779		
Grand Total	1,349,419		

II. Market Realities through 2023

Use Type	Demand	Supply	Over/ Under	Assumed Growth	HHs/Emps Required	Years of Growth
Retail (000s)	1,110.69	3,064.83	-1,954.14	46.3%	32,818	HHs 19.1
Office (000s)	4,298.21	6,126.96	-1,828.75	20.0%	30,635	emp 14.3

III. Subject Site Recommendations

Commercial Demand Opportunities		Program Impact		
Use /Source	Projected Cum. Demand	Program	Variance	
		SF	%	
Retail		Planned Comm. SF	1,349,419	
Region	294,332	Demand Comm. SF		
Transit Prox.		Scenario 1	1,470,172	
Scenario 1 ⁽²⁾	201,671	Scenario 2	2,116,607	
Scenario 2 ⁽³⁾	848,106	Scenario 3	2,150,978	
Scenario 3 ⁽⁴⁾	882,477	Program Variance		
Community	273,851	Scenario 1	120,753	8.9%
Total		Scenario 2	767,188	56.9%
Scenario 1	769,854	Scenario 3	801,559	59.4%
Scenario 2	1,416,290			
Scenario 3	1,450,660			
Office				
Total	700,317			
Grand Total				
Scenario 1	1,470,172			
Scenario 2	2,116,607			
Scenario 3	2,150,978			

(1) Household total based on presented average of 7,500 - 8,000 homes

(2) Transit demand based on non-subject site drive by traffic along Grant Line Rd under the traffic counts from the 9/2011 TCG Study (see 06439.01 Section III for full details) and subject site % share of Grant Line fronting retail (approx. 76%)

(3) Transit demand based on non-subject site drive by traffic along Grant Line Rd under the traffic counts from the proposed Southeast Capital Connector (see 06439.01 Section III for full details) and subject site % share of Grant Line fronting retail (approx. 76%)

(4) Transit demand based on non-subject site drive by traffic along Grant Line Rd under the traffic counts from the proposed Sacramento County General Plan (see 06439.01 Section III for full details) and subject site % share of Grant Line fronting retail (approx. 76%)

APPENDICES

APPENDIX A
PLANNED AND PROPOSED RETAIL DEVELOPMENT
SOUTHEASTERN SACRAMENTO COUNTY
JANUARY 2014

Project Name	Street Address	Planning Area	City	Developer/Builder	Product Type	Size (in SF)*	Status
<i>Sunridge Specific Plan</i>							
Anatolia II	Sunrise Blvd @ Chrysanthy Blvd - SE Corner	Sunridge Specific Plan	Rancho Cordova	River West	Major retail center	114,998	Approved
Sunridge Park	Douglas Rd @ Americanos Blvd - SW Corner	Sunridge Specific Plan	Rancho Cordova	River West	Major retail center	54,624	Approved
Douglas 103	Douglas Rd @ Americanos Blvd - SW Corner	Sunridge Specific Plan	Rancho Cordova	River West	Major retail center	186,872	Stalled
Mather East	Sunrise Blvd @ Douglas Rd - surrounding Sunridge Plaza	Sunridge Specific Plan	Rancho Cordova	River West	Mixed-use Village Center (11)	267,371	Stalled
Grantline 208	Grant Line Rd @ Chrystanthy Blvd - NW Corner	Sunridge Specific Plan	Rancho Cordova	River West	Mixed-use Village Center	254,913	Pending
Sunridge Plaza	Sunrise Blvd @ Douglas Rd - SW Corner	Sunridge Specific Plan	Rancho Cordova	Donahue Schriber	Shopping Center	98,639	Stalled
Montelena	SW corner of Rancho Cordova Pkwy and Douglas Rd	Sunridge Specific Plan	Rancho Cordova	Montelena Doudlas, LLC	Mixed-use Village Center	200,000	Approved
North Douglas I	Douglas Rd @ Americanos Blvd - NE Corner	Sunridge Specific Plan	Rancho Cordova	River West	Mixed-use Village Center	82,416	Pending
North Douglas II	Americanos Blvd @ Rockdale Dr - E Side	Sunridge Specific Plan	Rancho Cordova	River West	Mixed-use Village Center	61,332	Stalled
Arista Del Sol	Middle of Arista Del Sol (currently ungridded)	Sunridge Specific Plan	Rancho Cordova	River West	Mixed-use Village Center	53,666	Pending
Sunridge Park	SE Corner of Sunridge Park (unnamed roads)	Sunridge Specific Plan	Rancho Cordova	River West	Mixed-use Village Center	22,041	Pending
Anatolia I (9)	Sunrise Blvd. @ Douglas Rd. - SE Corner	Sunridge Specific Plan	Rancho Cordova	River West	Major retail center (Safeway anchored)	153,331	Stalled
						Under Construction:	0
						Approved:	369,623
						Pending:	413,036
						Stalled:	767,546
						Total Retail Sunridge SAP:	1,550,205
<i>Remainder Rancho Cordova</i>							
Rio del Oro (1)	NEC Sunrise Blvd & Douglas Rd	Rio del Oro Specific Plan	Rancho Cordova	Elliott Homes & GenCorps (of Aerojet)	Neighborhood services, regional town center	1,466,230	Approved
Arboretum-Waegell Specific Plan (2)	NEC Sunrise Blvd & Highway 16	Grant Line North Planning Area	Rancho Cordova	Lewis Communities	Neighborhood services, regional town center	460,000	Approved
Villages of Zinfandel (10)	SEC Zinfandel Dr & International Dr	Zinfandel Special Planning Area	Rancho Cordova	NA	Neighborhood-Oriented Shopping Center	239,580	Approved
Westborough at Easton (6)	N of White Rock Rd/E of Sunrise Blvd	Easton Project	Rancho Cordova	K Hovnanian Homes Northern Inc.	Transit oriented Town Center	800,197	Pending
Suncreek	SEC Sunrise Blvd & Keifer Blvd	Suncreek Specific Plan	Rancho Cordova	The Hodgson Company	Neighborhood/village centers, mixed-use centers	210,830	Pending
Sunridge 530/The Preserve (3)	E of Rancho Cordova Blvd & Pericles Dr	Sunrise Douglas Community Plan	Rancho Cordova	K Hovnanian	Small Scale Commercial Shopping Center	107,332	Pending
Capital Village (8)	NEC Zinfandel Dr & International Dr	Capital Village Specific Plan	Rancho Cordova	NA	Main Street Town Center	83,450	Stalled
						SF Under Construction:	0
						SF Approved:	2,165,810
						SF Pending:	1,118,359
						SF Stalled:	83,450
						Total Retail Remaining Rancho Cordova:	3,367,619

APPENDIX A
PLANNED AND PROPOSED RETAIL DEVELOPMENT
SOUTHEASTERN SACRAMENTO COUNTY
JANUARY 2014

Project Name	Street Address	Planning Area	City	Developer/Builder	Product Type	Size (in SF)*	Status
Unincorporated Sacramento County							
Easton Place (4)	SEC Folsom Blvd & Hazel Ave	Easton Project	Unincorp. Sac Co.	GenCorp Realty Investments	Ground floor retail in business park, neighborhood services	1,193,400	Approved
Jackson Township (13)	Jackson Rd & Tree View Rd	Jackson Township Specific Plan	Unincorp. Sac Co.	Tsakopoulos Investments	General and community commercial, mixed-use	1,264,300	Pending
Newbridge (13)	Jackson Rd & Zinfandel Dr	Newbridge Specific Plan	Unincorp. Sac Co.	East Sacramento Ranch, LLC	General commercial and mixed-use	320,000	Pending
West Jackson (13)	Jackson Rd & Excelsior Rd	West Jackson Hwy Master Plan	Unincorp. Sac Co.	Teichert Land Co & Granite Construction Co	General commercial and mixed-use	3,909,074	Pending
Mather South (13)	Sunrise Blvd & Keifer Blvd	Mather South Specific Plan	Unincorp. Sac Co.	Lewis Operating Corp	Mixed-use	91,500	Pending
Glenborough at Easton (5)	SWC Hwy 50 & Prairie City Rd	Glenborough Planning Area	Unincorp. Sac Co.	GenCorp Realty Investments	Ground floor neighborhood serving, conventional retail centers	244,100	Approved
						SF Under Construction:	0
						SF Approved:	1,437,500
						SF Pending:	5,584,874
						SF Stalled:	0
						Total Retail Unincorporated Sacramento County:	7,022,374
Folsom							
Folsom SOI (7)	NEC Prairie City Rd & White Rock Rd	Folsom Plan Area Specific Plan	Folsom	Multiple (7)	General, Community and Regional Retail	4,033,743	Approved
Palladio at Broadstone (12)	E. Bidwell St. & Iron Point Road	---	Folsom	Elliott Homes	Regional Retail	128,000	Under Constr.
						SF Under Construction:	128,000
						SF Approved:	4,033,743
						SF Pending:	0
						SF Stalled:	0
						Total Retail Folsom:	4,161,743
						Total CMA SF Under Construction:	128,000
						Total CMA SF Approved:	8,006,675
						Total CMA SF Planned:	7,116,269
						Total CMA SF Stalled:	850,996
						TOTAL RETAIL SF IN CMA:	16,101,941

- (1) In larger Master Plan, 20 acres currently planned for Local Town Center, which is envisioned to attract community and neighborhood serving retail; 20 acres for 2 parcels of a Village Commercial Center where residents can access a retail storefronts and professional services; 113 acres for 2 regional town centers, the larger of which will serve as a lifestyle/power center and the second of which will provide opportunity for retail, office and neighborhood serving commercial uses
- (2) Planned retail development at Arboretum site includes two community shopping centers totaling 45,000 SF (on 3.5 acres), a 125,000 SF neighborhood shopping center (on 14 acres) and a 290,000 SF sub-regional center (on 35 acres)
- (3) 11.2 (previously 20) acres set aside for conventional, small scale commercial shopping center at Preserve on northwest corner of parcel at intersection of Rancho Cordova Pkwy and Chrysanthly Blvd
- (4) Easton Place divided into three districts: Transit District encompasses 1,194 units of high-density residential housing and 283K SF of office space; Central District encompasses 450 high-density residential housing units, 1.525M SF office space and 630,100 SF of entertainment and ground-floor retail and space; Market District encompasses 375,500 SF office space, 563,300 SF neighborhood retail
- (5) Retail at Glenborough planned in three areas: 72,100 SF of Village J retail planned for ground-floor (below residential) neighborhood-serving commercial stores and restaurants; 151,100 SF of Village K retail to include small conventional retail center that could include grocery store, pharmacy and other restaurants; Village O3 retail set on 2.4 acres as neighborhood convenience retail
- (6) Westborough retail preliminarily planned for Transit Oriented Town Center on 83.5 acres of retail space at northeast corner of parcel
- (7) City of Folsom currently submitting application for parcel annexation; 20-30 year builtout planned with improvements/vertical construction expected to begin in 3-5 years; Retail projects in Folsom SOI include 205,952 SF of ground floor retail space below residential, 423,621 SF Community Commercial space, 2,052,765 SF General Commercial space, and 1,351,405 Regional Commercial space. Plan area property owners include: Aerojet, Carpenter Ranch, Zarghami & Javanifard, South Folsom Investors, Country Day School, Elliott Homes, Russell-Promontory, Mangini Trust, Folsom White Rock Investors, Folsom Heights, Arcadian Heights
- (8) Capital Village project originally planned for 332,264 SF commercial space in "Town Center", of which approximately 2/3 has been built. Five parcels remaining to be built on, including two small parcels (less than 10k SF), two mid-size (approx. 20k SF) and 31 retail units of unbuilt live/work product on northeastern area of site
- (9) According to Rancho Cordova Planning Department, no retail is currently moving through pipeline, despite high demand from area residents. Safeway-anchored center was planned on Anatolia I parcel, but city struggling to get Safeway

APPENDIX A
PLANNED AND PROPOSED RETAIL DEVELOPMENT
SOUTHEASTERN SACRAMENTO COUNTY
JANUARY 2014

Project Name	Street Address	Planning Area	City	Developer/Builder	Product Type	Size (in SF)*	Status
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to sign on. Walgreen's at Sunrise & Keifer only current retail in area.

(10) Villages of Zinfandel retail planned over 25 acres in center of currently under construction residential community

(11) No office space is currently planned for Sunridge Specific Plan Area; all unplanned commercial-zoned space is assumed to be 100% retail

(12) Palladio Mall is a regional commercial destination. It has 60Ksf of office that is completed and fully leased. The 640Ksf of retail is 80% built out.

(13) Jackson Highway Master Plan is comprised of four communities: Jackson Township, Mather South, Newbridge and West Jackson. All four communities are in environmental review (about half way through approval process)

*Note: Retail FAR, or floor to area ratio, estimated at 0.22 du/acre for projects with reported acreage figures, less planned total square footage.

Sources: City of Rancho Cordova, Folsom, Unincorporated Sacramento County Planning Departments, The Concord Group

APPENDIX B
PLANNED AND PROPOSED OFFICE DEVELOPMENT
SOUTHEASTERN SACRAMENTO COUNTY
JANUARY 2014

Project Name	Street Address	Planning Area	City	Developer/Builder	Size (in SF)*	Status
<i>Sunridge Specific Area Plan</i>						
According to Rancho Cordova Planning Department, no significant office developments are planned for the Sunridge Specific Area. All commercial acreage in the plan area is considered to be retail.						
SF Under Construction:					0	
SF Approved:					0	
SF Pending:					0	
SF Stalled:					0	
Total Office Sunridge SAP:					0	
<i>Remaining Rancho Cordova</i>						
Rio del Oro (1)	NEC Sunrise Blvd & Douglas Rd	Rio del Oro Specific Plan	Rancho Cordova	Elliott Homes & GenCorps (of Aerojet)	4,500,619	Approved
Arboretum-Waegell Specific Plan (2)	NEC Sunrise Blvd & Highway 16	Grant Line North Planning Area	Rancho Cordova	Lewis Communities	268,330	Approved
Villages of Zinfandel (7)	SEC Zinfandel Dr & International Dr	Zinfandel Special Planning Area	Rancho Cordova	NA	1,480,692	Approved
Westborough at Easton (5)	N of White Rock Rd/E of Sunrise Blvd	Easton Project	Rancho Cordova	GenCorp Realty Investments	1,137,961	Pending
SF Under Construction:					0	
SF Approved:					6,249,640	
SF Pending:					1,137,961	
SF Stalled:					0	
Total Office Remaining Rancho Cordova:					7,387,602	
<i>Unincorporated Sacramento County</i>						
Easton Place (3)	SEC Folsom Blvd & Hazel Ave	Easton Project	Unincorp. Sac Co.	GenCorp Realty Investments	2,180,500	Approved
Jackson Township (8)	Jackson Rd & Tree View Rd	Jackson Township Specific Plan	Unincorp. Sac Co.	Tsakopoulos Investments	731,800	Pending
Newbridge (8)	Jackson Rd & Zinfandel Dr	Newbridge Specific Plan	Unincorp. Sac Co.	East Sacramento Ranch, LLC	180,000	Pending
West Jackson (8)	Jackson Rd & Excelsior Rd	West Jackson Hwy Master Plan	Unincorp. Sac Co.	Teichert Land Co & Granite Construction Co	14,382,641	Pending
Glenborough at Easton (4)	SWC Hwy 50 & Prairie City Rd	Glenborough Planning Area	Unincorp. Sac Co.	GenCorp Realty Investments	455,400	Approved
SF Under Construction:					0	
SF Approved:					2,635,900	
SF Pending:					15,294,441	
SF Stalled:					0	
Total Office Unincorporated Sacramento County:					17,930,341	
<i>Folsom SOI</i>						
Folsom SOI (6)	NEC Prairie City Rd & White Rock Rd	Folsom Plan Area Specific Plan	Folsom	Multiple (6)	1,165,666	Approved
SF Under Construction:					0	
SF Approved:					1,165,666	
SF Pending:					0	
SF Stalled:					0	
Total Office Pleasanton:					1,165,666	
Total Under Construction Office SF:					0	
Total Approved Office SF:					10,051,206	
Total Pending Office SF:					16,432,402	
Total Stalled Office SF:					0	
TOTAL OFFICE SF IN CMA:					26,483,609	

- (1) 86 acres are currently planned in the greater Rio del Oro Master Plan for 3 business parks (consisting of large employment centers to small professional offices and services), while 283 acres are planned for 3 industrial parks (consisting primarily of light manufacturing uses)
- (2) Planned office development at Arboretum site includes single Business Park on southwestern parcel of site spread over 22 acres
- (3) Easton Place divided into three districts: Transit District encompasses 1,194 units of high-density residential housing and 283K SF of office space; Central District encompasses 450 high-density residential housing units, 1.525M SF office space and 630,100 SF of entertainment and ground-floor retail and space; Market District encompasses 372,500 SF office space, 563,300 SF neighborhood retail
- (4) Office uses at Glenborough at Easton are planned for 2 highly visible sites adjacent to Hwy 50: Village H, located across from Intel in Folsom, planned for 147K SF of office (on 13.5 acres) while Village S, located between Hazel Ave & Iron Point light rail stations, planned for 308,400 SF office (on 23.6 acres)
- (5) Westborough at Easton preliminarily planned for 93.3 acres of commercial office space
- (6) City of Folsom currently submitting application for parcel annexation; 20 year builtout planned with improvements/vertical construction expected to begin in 2-3 years; 89.2 acres planned for Office/Industrial park within Folsom SOI; Plan area property owners include: Aerojet, Carpenter Ranch, Zarghami & Javanifard, South Folsom Investors, Country Day School, Elliott Homes, Russell-Promontory, Mangini Trust, Folsom White Rock Investors, Folsom Heights, Arcadian Heights
- (7) Villages of Zinfandel approved for 121.4 acres of office/business park space, exclusive of the 133.9 acres of space planned for light industrial/flex uses.
- (8) Jackson Highway Master Plan is comprised of four communities: Jackson Township, Mather South, Newbridge and West Jackson. All four communities are in environmental review (about half way through approval process)

*Note: Office FAR, or floor to area ratio, estimated at 0.28 du/acre for projects with reported acreage figures, less planned total square footage.

Sources: City of Rancho Cordova, Folsom, Unincorporated Sacramento County Planning Departments, The Concord Group

Parking Structure Comparison

	Above-Grade Parking Structure	Grade-Level Surface Parking Lot	Difference
Cost per Space*	\$20,545.75	\$4,666.67	
Number of Spaces in Cordova Hills Town Center	4,404	4,404	
Total Cost	\$90,483,483.00	\$20,552,000.00	\$69,931,483.00

*Figures derived from the following Reports, Studies, & Articles and Price includes land, hard costs, and soft costs

	a Parking Structure	Price per Space in a Parking Lot
Parking Structure Technical Report for SF MTC by Nelson Nygaard (Bay Area Market, 2012)	\$26,650.00	\$5,000.00
Parking Structure Cost Outlook for 2013 by Carl Walker Inc. (National Market, 2013)	\$17,533.00	
ReThinking a Lot - Eran Ben-Joseph (National Market, 2012)	\$20,000.00	\$4,000.00
Construction Costs for Parking Stalls - Square Feet Blog (National Market, 2008)	\$18,000.00	\$5,000.00
Averages	\$20,545.75	\$4,666.67



June 23, 2014

Mark Hanson
Project Manager
SBM SITE SERVICES LLC
5241 Arnold Ave.
McClellan, CA 95652

ARCHITECTURE
PLANNING
COMMUNITY DESIGN
URBAN DESIGN

RE: Cordova Hills Commercial Demand and Acreage Requirements

Dear Mr. Hanson,

The Cordova Hills Town Center was designed to be a regional commercial center with office and retail components located along Grant Line Road. The main retail component is planned to be located south of North Loop Road and north of Chrysanthy Boulevard due to the fact this is the largest contiguous parcel located along Grant Line Road. This area is planned to be a retail lifestyle center of approximately 42 acres. The office component of the Cordova Hills Town Center will be located south of Chrysanthy Boulevard along Grant Line Road.

Referencing a survey of experienced leasing and sales brokers, appraisers, investors and lenders conducted by the CCIM institute, "85% visibility is a strong positive influence; while anything less than 65% visibility creates a negative or very negative influence." (*Ingredients of a Successful Shopping Center*, Ownbey, Davis, & Daly, 1994). A site less than 40 acres in size would only reduce the viability of a successful regional retail center.

Looking at the attached retail matrix a clear pattern emerges that there is a minimum size and minimum developable acreage that a regional retail lifestyle center needs to achieve in order to be successful and attract the major and minor anchor tenants for the shopping center. The fundamental principles that make these lifestyle centers so important are because there are crucial principles which need to be implemented at the Town Center at Cordova Hills. These principles include factors such as number of houses in the immediate vicinity, frontage and visibility from major roadways, ability to draw anchor tenants, and ability to achieve a diverse tenant mix. These last two factors are dependent upon developable square footage for a regional center.

When reviewing the attached retail matrix, it becomes clear that none of the retail lifestyle centers comparable to Cordova Hills fall below a developable size of 40 acres. In fact, the range of developable acreages goes from 42 acres all the way up to 254 acres. The average size of all the site areas is 98 acres. One can see that there is no maximum size that a regional commercial center needs to be successful. However, a consistent pattern for each center is that none of them fall below a minimum size of 40 acres. Based on these examples and WHA's decades of experience in designing regional retail lifestyle centers, we conclude a minimum of 40 contiguous acres is required for a successful retail lifestyle center.

The Concord Group, a nationally recognized expert in market analysis concluded in their January 2014 report that Cordova Hills has the demand for 1.4 million sq. ft. to 2.15 million sq. ft. of commercial uses throughout the entire project. With Cordova Hills existing approvals, the Town Center will be short of this demand with 1.3 million sq. ft. of total project wide commercial sq. ft. Approximately 966,779 of the 1.3 million sq. ft. of commercial is approved for the Town Center. Working with the County of Sacramento staff the Cordova Hills Town Center is envisioned to be a high density commercial center with a higher than normal floor to area ratio (FAR) of .35 (See, Table 4.6 Development Standards of SPA). Based on this FAR, 966,779 sq. ft. of commercial in the Town Center will require 63 developable acres of land in the Town Center. This can be achieved at the 41.9 acre parcel planned for the retail lifestyle center in combination with the 26 acre parcel south of Chrysanthy Boulevard and along Grant Line Road for a total of 67 acres of developable land for commercial uses. However, the Town Center is a mixed use village and residential should be incorporated into these regional commercial centers, which will consume the 4 acre difference between the 67 acres and the 63 acres needed for the commercial center. The remaining land in the Town Center for residential use consists of 58.6 acres in Town Center East, 31.1 acres in Town Center South, 23 acres in Town Center North, 4 acres in the commercial acres for mixed use residential and 14 acres for two affordable housing sites, resulting in a total residential acreage of 130.7 acres. Cordova Hills is approved for 1,750 residential units in the Town Center and 966,779 sq. ft. of commercial. In order to achieve 1,750 units, Cordova Hills would have to build at 13 dwelling units per acre in the Town Center. This is already an extremely high density, which in WHA's professional opinion cannot be further increased. In conclusion, no more developable acreage in the Town Center can be lost or densities increased and still have a viable project.

Lastly, there is an existing minor drainage swale that flows from the proposed Plateau Preserve boundary in an east to west direction and bifurcates the Town Center approximately 450' north of Chrysanthy Boulevard. Preserving this swale would not be possible due to the bifurcation of the 42 acre regional retail lifestyle center. The area south of the existing swale would not be large enough to construct any type of viable retail building(s) with only 450' of frontage along Grant Line Road. It is critical that all of the retail buildings be constructed along Grant Line Road in a contiguous manner in order to have the essential visibility. Preserving the swale would essentially render the site acreage south of the swale useless, resulting in approximately 9 acres of retail lifestyle center acreage that would not be developable. This would reduce the total developable acreage of the retail lifestyle center from 42 acres to 33 acres, which does not meet the minimum contiguous acreage required.

In conclusion, based on the attached matrix of retail lifestyle center examples and decades of analogues of regional retail lifestyle centers, we conclude a minimum of 40 contiguous acres along a major transportation corridor, and with great visibility, is required for a successful retail lifestyle center. No more developable acreage in the Town Center can be lost or the densities increased and still have a viable project.

Regards,

WILLIAM HEZMALHALCH ARCHITECTS, INC.



Todd Larner
Senior Principal

TL/

MEMORANDUM

To: Mark Hanson, Cordova Hills, LLC

From: Allison Shaffer and Tim Youmans

Subject: Cordova Hills Feasibility Analysis for Section 404(b)(1) Permit; EPS #142002.2

Date: July 23, 2014

The Economics of Land Use



Introduction

As part of the Cordova Hills Project Section 404(b)(1) permit approval process, Economic & Planning Systems, Inc. (EPS) was requested to analyze and compare the financial feasibility of five development alternatives for the Cordova Hills Special Planning Area project. The alternative that was originally submitted to the U.S. Army Corps of Engineers (Corps) for consideration is referred to as the Original 404(b)(1) Permit Alternative. The Proposed Action Alternative is the Cordova Hills development project detailed in the Cordova Hills Special Planning Area Master Plan and in the Final Cordova Hills Public Facilities Financing Plan (PFFP). In addition, there are three other development alternatives. All of the development alternatives are listed below:

- Original 404(b)(1) Permit Alternative
- Proposed Action Alternative
- Regional Conservation Alternative
- Expanded Drainage Preservation Alternative
- Pilatus Parcel Alternative

EPS performed an initial financial feasibility analysis in April 2013. After discussion with the Corps's staff concerning that analysis, EPS revised this analysis to respond to requests from the Corps to include specific cost items and to estimate cost burdens across land use types. The resulting analysis, referred to as the Corps Cost Comparison, is detailed in the remainder of this memorandum.

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Corps Cost Comparison

Summary and Detail Tables

Table 1 summarizes and compares the results of the Corps Cost Comparison for each of the alternatives. It includes the following three comparisons of the alternatives:

- Comparison 1: Average Development Cost per Developable Acre.
- Comparison 2: Residential Comparison.
- Comparison 3: Nonresidential Comparison.

All of the comparisons rely on detailed cost and development estimates for each of the alternatives. In addition, Comparison 2 also uses the average dwelling unit sales prices, and Comparison 3 uses the average sales price per nonresidential building square foot. This backup data is contained in **Table 2** through **Table 10**, as summarized below. The cost, development, and sales price estimates and the three comparisons are discussed following the description of the tables.

Table 2 contains the detailed development cost and fee program estimates for each alternative.

Table 3 shows the calculation of the estimated subdivision improvement costs for each alternative.

Table 4 contains the estimated acres, dwelling units, and nonresidential building square feet by land use for each alternative.

Table 5 shows the calculation of the estimated average sales price per dwelling unit and nonresidential building square foot for each alternative.

Table 6 contains the detailed backbone infrastructure and public facilities cost estimates by funding source for the Original 404(b)(1) Alternative.

Table 7 contains the detailed backbone infrastructure and public facilities cost estimates by funding source for the Proposed Action Permit Alternative.

Table 8 contains the detailed backbone infrastructure and public facilities cost estimates by funding source for the Regional Conservation Alternative.

Table 9 contains the detailed backbone infrastructure and public facilities cost estimates by funding source for the Expanded Drainage Alternative.

Table 10 contains the detailed backbone infrastructure and public facilities cost estimates by funding source for the Pilatus Parcel Alternative.

Appendix A details the bonding capacity estimates for each alternative.

Total Development Cost

The total development cost for each alternative is summarized in **Table 1** and detailed in **Tables 2** and **3**. The total development costs used in this analysis include the following items:

- Backbone infrastructure and public facilities costs funded through the following sources:

- Cordova Hills Special Financing District (CHSFD).
- Private developer financing.
- Sacramento County (County) and regional fee programs.

Note that the County and regional fee program costs include only the costs of improvements that Cordova Hills will construct. Costs of offsite improvements constructed by the agencies imposing the fees are excluded. For example, the costs of schools constructed by the Elk Grove Unified School District are excluded. In addition, building permit processing fees are excluded.

- Subdivision Improvements.
- Land Acquisition and Entitlement Costs.

For each alternative, the total development costs are reduced by the infrastructure bonding capacity to arrive at the net development costs that will be funded by the developer.

Developable Acres and Dwelling Units

Developable acres, dwelling units, and nonresidential building square feet for each alternative are summarized in **Table 1** and detailed in **Table 4**. The Corps Cost Comparison includes the following acres in the developable acres estimate:

- Residential acres
- Commercial and office acres
- University acres (excluding the transition zone, which is not planned for development)

Average Sales Prices

The average dwelling unit sales price for each of the alternatives is included in **Table 1** to facilitate the calculation of the average development cost per dwelling unit as a percentage of unit sales price for Comparison 2. Likewise, the average sales price per nonresidential building square foot for each of the alternatives is included in **Table 1** to facilitate the calculation of the average development cost per nonresidential building square foot as a percentage of building sales price for Comparison 3. **Table 5** details the estimated average sales price per dwelling unit and per nonresidential building square foot for each of the alternatives.

Cost Comparisons

Three comparisons are made for the Corps Cost Comparison, which assess three different cost burden factors as described below. In each comparison, the Original 404(b)(1) Permit Alternative is used as the base alternative to which each of the other four alternatives is compared.

For each of the three comparisons, the Original 404(b)(1) Permit Alternative has the lowest cost burden factors. The Proposed Action Alternative has slightly higher cost burden factors, the Regional Conservation Alternative has moderately higher cost burden factors, and the Expanded

Drainage Preservation Alternative and Pilatus Parcel Alternative have substantially higher cost burden factors.

Comparison 1: Average Development Cost per Developable Acre

Comparison 1 compares the average development cost per developable acre for each of the alternatives, as summarized below.

<u>Alternative</u>	<u>Average Cost per Developable Acre</u>	<u>Pct. Difference from Original 404(b)(1) Permit Alternative</u>
Original 404(b)(1) Permit	\$ 492,000	
Proposed Action	\$ 518,000	5.3%
Regional Conservation	\$ 529,000	7.5%
Expanded Drainage Preservation	\$ 658,000	33.7%
Pilatus Parcel	\$ 588,000	19.5%

Comparison 2: Residential Comparison

Comparison 2 compares the average development cost per dwelling unit as a percentage of the dwelling unit sales price (residential cost burden percentage). This comparison takes into account both the average dwelling unit sales price for the different alternatives and the density of the residential development. The results are summarized below.

<u>Alternative</u>	<u>Average Cost per Dwelling Unit as Pct. Of Sales Price</u>	<u>Pct. Difference from Original 404(b)(1) Permit Alternative</u>
Original 404(b)(1) Permit	20.6%	
Proposed Action	21.5%	4.3%
Regional Conservation	22.8%	10.5%
Expanded Drainage Preservation	27.9%	35.0%
Pilatus Parcel	26.6%	28.7%

Comparison 3: Nonresidential Comparison

Comparison 3 compares the average development cost per nonresidential building square foot as a percentage of the nonresidential building square foot sales price (nonresidential cost burden percentage), as summarized below.

<u>Alternative</u>	<u>Average Cost per Bldg. Sq. Ft. as Pct. Of Sales Price</u>	<u>Pct. Difference from Original 404(b)(1) Permit Alternative</u>
Original 404(b)(1) Permit	16.5%	
Proposed Action	17.9%	8.1%
Regional Conservation	18.8%	13.5%
Expanded Drainage Preservation	22.3%	35.1%
Pilatus Parcel	21.0%	27.0%

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Table 1
Cordova Hills Special Planning Area 404(b)(1) Alternatives Analysis
Average Cost per Developable Acre

Corps Cost Comparison

Land Use	Formula	Original 404(b)(1) Permit Alternative	Alternative			
			Proposed Action	Regional Conservation	Expanded Drainage Preservation	Pilatus Parcel
Total Development Cost [1]		\$ 868,631,000	\$ 808,551,000	\$ 788,231,000	\$ 705,256,000	\$ 1,033,210,000
Less Bonding Capacity [2]		(\$ 125,679,000)	(\$ 97,352,000)	(\$ 77,948,000)	(\$ 33,097,000)	(\$ 78,071,000)
Remaining Cost to Developer	<i>a</i>	\$ 742,952,000	\$ 711,199,000	\$ 710,283,000	\$ 672,159,000	\$ 955,139,000
Developable Acres [3]						
Residential	<i>b</i>	1,227.2	1,088.6	1,062.3	761.9	1,332.7
Commercial and Office	<i>c</i>	102.9	103.3	100.0	92.9	119.2
University (excluding transition zone)	<i>d</i>	181.2	181.2	181.2	167.3	173.4
Total Developable Acres	<i>e</i>	1,511.3	1,373.1	1,343.5	1,022.1	1,625.3
Dwelling Units [3]	<i>f</i>	9,465	8,000	7,740	5,425	8,770
Building Square Feet [3]	<i>g</i>	1,349,379	1,349,379	1,261,256	1,210,923	1,491,758
Cost Allocation of Developer Cost (based on percentage of developable acres)						
Residential	$h=a*(b/e)$	\$ 603,287,000	\$ 563,863,000	\$ 561,609,000	\$ 501,045,000	\$ 783,187,000
Commercial and Office	$i=a*(c/e)$	\$ 50,588,000	\$ 53,483,000	\$ 52,877,000	\$ 61,093,000	\$ 70,050,000
University (excluding transition zone)	$j=a*(d/e)$	\$ 89,077,000	\$ 93,853,000	\$ 95,797,000	\$ 110,021,000	\$ 101,902,000
Total Developer Cost		\$ 742,952,000	\$ 711,199,000	\$ 710,283,000	\$ 672,159,000	\$ 955,139,000
Comparison 1: Average Cost per Developable Acre						
Average Cost per Developable Acre (Rounded)	<i>a/e</i>	\$ 492,000	\$ 518,000	\$ 529,000	\$ 658,000	\$ 588,000
Percentage Difference from Original 404(b)(1) Permit Alternative			5.3%	7.5%	33.7%	19.5%
Comparison 2: Residential Comparison						
Average Cost per Dwelling Unit (Rounded)	$k=h/f$	\$ 64,000	\$ 70,000	\$ 73,000	\$ 92,000	\$ 89,000
Average Sales Price per Dwelling Unit [4]	<i>l</i>	\$ 310,000	\$ 325,000	\$ 320,000	\$ 330,000	\$ 335,000
Average Cost per Unit as Percentage of Sales Price	<i>k/l</i>	20.6%	21.5%	22.8%	27.9%	26.6%
Percentage Difference from Original 404(b)(1) Permit Alternative			4.3%	10.5%	35.0%	28.7%
Comparison 3: Nonresidential Comparison						
Avg. Cost per Nonres. Bldg. Sq. Ft. (Rounded)	$l=i/g$	\$ 37	\$ 40	\$ 42	\$ 50	\$ 47
Avg. Sales Price per Nonres. Bldg. Sq. Ft. [4]	<i>m</i>	\$ 224	\$ 224	\$ 224	\$ 224	\$ 224
Avg. Cost per Nonres. Bldg. Sq. Ft. as Pct. of Sales Price	<i>l/m</i>	16.5%	17.9%	18.8%	22.3%	21.0%
Percentage Difference from Original 404(b)(1) Permit Alternative			8.1%	13.5%	35.1%	27.0%

cost per acre

- [1] See Table 2.
 [2] See Appendix A.
 [3] See Table 4.
 [4] See Table 5.

Table 2
Cordova Hills Special Planning Area 404(b)(1) Alternatives Analysis
Total Development Cost and Fees

Corps Cost Comparison

Item	Cost by Alternative				
	Original 404(b)(1) Permit Alternative	Proposed Action	Regional Conservation	Expanded Drainage Preservation	Pilatus Parcel
Backbone Infrastructure [1]					
Roads	\$ 111,660,000	\$ 103,250,000	\$ 112,360,000	\$ 126,050,000	\$ 196,400,000
Sanitary Sewer System	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Storm Drainage System -- Zone 11A	\$ 2,610,000	\$ 2,070,000	\$ 2,220,000	\$ 1,550,000	\$ 2,250,000
Storm Drainage System -- Outside of Zone 11A	\$ 11,320,000	\$ 9,350,000	\$ 11,320,000	\$ 9,050,000	\$ 15,570,000
Potable Water	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Earthwork	\$ 98,630,000	\$ 96,120,000	\$ 95,760,000	\$ 82,790,000	\$ 120,540,000
Subtotal Backbone Infrastructure (Rounded)	\$ 224,220,000	\$ 210,790,000	\$ 221,660,000	\$ 219,440,000	\$ 334,760,000
Public Facilities [1]					
Fire	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Parks	\$ 53,690,000	\$ 47,460,000	\$ 45,740,000	\$ 46,080,000	\$ 52,830,000
Open Space and Trails	\$ 21,830,000	\$ 19,560,000	\$ 19,070,000	\$ 14,030,000	\$ 23,830,000
Habitat and Wetlands	\$ 13,140,000	\$ 15,350,000	\$ 5,750,000	\$ 4,550,000	\$ 8,410,000
Library	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Transit	\$ 520,000	\$ 500,000	\$ 500,000	\$ 440,000	\$ 550,000
CHLSD Facilities	\$ 9,000,000	\$ 9,000,000	\$ 9,000,000	\$ 9,000,000	\$ 9,000,000
Special District Formation and Updates	\$ 2,000,000	\$ 2,000,000	\$ 2,000,000	\$ 2,000,000	\$ 2,000,000
Subtotal Public Facilities (Rounded)	\$ 100,180,000	\$ 93,870,000	\$ 82,060,000	\$ 76,100,000	\$ 96,620,000
Fee Programs [1]					
SCTDF	\$ 44,880,000	\$ 44,880,000	\$ 44,880,000	\$ 44,880,000	\$ 44,880,000
SASD (Sewer)	\$ 42,490,000	\$ 42,490,000	\$ 41,170,000	\$ 45,800,000	\$ 66,460,000
SCWA Zone 11A (Drainage)	\$ 2,110,000	\$ 1,680,000	\$ 1,800,000	\$ 1,260,000	\$ 1,820,000
SCWA Zone 40 (Water)	\$ 18,240,000	\$ 17,380,000	\$ 17,150,000	\$ 20,180,000	\$ 22,220,000
Sacramento Metropolitan Fire	\$ 11,730,000	\$ 10,630,000	\$ 10,170,000	\$ 8,010,000	\$ 11,890,000
Sacramento County Library Authority	\$ 6,650,000	\$ 5,850,000	\$ 5,510,000	\$ 3,990,000	\$ 6,530,000
Subtotal Fee Programs	\$ 126,100,000	\$ 122,910,000	\$ 120,680,000	\$ 124,120,000	\$ 153,800,000
Subdivision Improvements [2]	\$ 335,110,000	\$ 297,960,000	\$ 280,810,000	\$ 202,575,000	\$ 337,550,000
Land Acquisition and Entitlement Cost [3]	\$ 83,021,000	\$ 83,021,000	\$ 83,021,000	\$ 83,021,000	\$110,480,000
Total	\$ 868,631,000	\$ 808,551,000	\$ 788,231,000	\$ 705,256,000	\$ 1,033,210,000

cost

[1] See Table 6 through Table 10 for details. Includes the costs of all onsite backbone infrastructure and public facilities and only the offsite backbone facilities that Cordova Hills is obligated to construct. Costs of offsite backbone facilities constructed by other agencies and funded through their fee programs are not included.

[2] See Table 3.

[3] Provided by Cordova Hills, LLC for the Proposed Action Alternative. For the Pilatus Parcel Alternative which has a greater acreage, this cost was estimated as the Proposed Action Alt. cost * (Pilatus Parcel Alt. Acres / Proposed Action Alt. Acres).

Table 3
Cordova Hills Special Planning Area 404(b)(1) Alternatives Analysis
Subdivision Improvements Cost

Corps Cost Comparison

Item	Estimated Subdivision Cost Per Unit	Alternative				
		Original 404(b)(1) Permit Alternative	Proposed Action	Regional Conservation	Expanded Drainage Preservation	Pilatus Parcel
Dwelling Units [1]						
Estates		147	147	147	245	235
Low Density		1,900	1,930	1,855	1,375	2,660
Medium Density		3,350	3,265	2,680	2,090	3,375
Residential 20 - Owner-occupied [2]		899	444	639	268	340
Residential 20 - Renter-occupied [2]		899	444	639	267	340
HDR - Owner-occupied & Market Rate [3]		518	364	385	236	338
HDR - Renter-occupied & Market Rate [3]		517	363	385	236	338
HDR - Renter-occupied & Affordable [3]		1,235	1,043	1,010	708	1,144
Total Dwelling Units		9,465	8,000	7,740	5,425	8,770
Subdivision Improvement Costs						
	<i>per unit</i>					
Estates	\$ 30,000	\$ 4,410,000	\$ 4,410,000	\$ 4,410,000	\$ 7,350,000	\$ 7,050,000
Low Density	\$ 50,000	\$ 95,000,000	\$ 96,500,000	\$ 92,750,000	\$ 68,750,000	\$ 133,000,000
Medium Density	\$ 40,000	\$ 134,000,000	\$ 130,600,000	\$ 107,200,000	\$ 83,600,000	\$ 135,000,000
Residential 20 - Owner-occupied	\$ 25,000	\$ 22,475,000	\$ 11,100,000	\$ 15,975,000	\$ 6,700,000	\$ 8,500,000
Residential 20 - Renter-occupied	\$ 25,000	\$ 22,475,000	\$ 11,100,000	\$ 15,975,000	\$ 6,675,000	\$ 8,500,000
HDR - Owner-occupied & Market Rate	\$ 25,000	\$ 12,950,000	\$ 9,100,000	\$ 9,625,000	\$ 5,900,000	\$ 8,450,000
HDR - Renter-occupied & Market Rate	\$ 25,000	\$ 12,925,000	\$ 9,075,000	\$ 9,625,000	\$ 5,900,000	\$ 8,450,000
HDR - Renter-occupied & Affordable	\$ 25,000	\$ 30,875,000	\$ 26,075,000	\$ 25,250,000	\$ 17,700,000	\$ 28,600,000
Total Subdivision Improvement Costs		\$ 335,110,000	\$ 297,960,000	\$ 280,810,000	\$ 202,575,000	\$ 337,550,000

sub

Source: Cordova Hills, LLC, EPS.

[1] See Table 4.

[2] Assumed to be half owner-occupied and half renter-occupied.

[3] Affordable housing assumed to be 15% of all other dwelling units; remaining HDR split evenly between owner-occupied and renter-occupied.

Table 4
Cordova Hills Special Planning Area 404(b)(1) Alternatives Analysis
Land Uses for Development Alternatives at Buildout

Corps Cost Comparison

Land Use	Original 404(b)(1) Permit Alternative		Proposed Action Alternative		Regional Conservation Alternative		Expanded Drainage Preservation Alternative		Pilatus Parcel Alternative	
	Acres	Dwelling Units/ Bldg. Sq. Ft.	Acres	Dwelling Units/ Bldg. Sq. Ft.	Acres	Dwelling Units/ Bldg. Sq. Ft.	Acres	Dwelling Units/ Bldg. Sq. Ft.	Acres	Dwelling Units/ Bldg. Sq. Ft.
Residential Land Uses										
Estates Residential (1-7 units/acre)	64.7	147	64.7	147	64.7	147	97.2	245	96.2	235
Low Density Residential (4-7 units/acre)	497.8	1,900	491.1	1,930	481.0	1,855	329.2	1,375	690.9	2,660
Medium Density Residential (7-15 units/acre)	439.0	3,350	386.8	3,265	341.2	2,680	247.5	2,090	407.1	3,375
Residential 20 (15-23 units/acre)	116.4	1,798	61.5	888	87.5	1,278	33.3	535	47.5	680
High Density Residential (23-30 units/acre)	109.3	2,270	84.6	1,770	87.9	1,780	54.7	1,180	91.0	1,820
Total Residential Land Uses	1,227.2	9,465	1,088.6	8,000	1,062.3	7,740	761.9	5,425	1,332.7	8,770
Nonresidential Land Uses										
Commercial	79.2	1,038,839	79.5	1,038,839	71.3	899,316	68.5	893,383	86.3	1,079,583
Office	23.7	310,540	23.8	310,540	28.7	361,940	24.4	317,540	32.9	412,175
Total Commercial	102.9	1,349,379	103.3	1,349,379	100.0	1,261,256	92.9	1,210,923	119.2	1,491,758
Public Uses										
Public/Quasi Public	107.8		105.8		107.8		99.4		115.4	
Recreation	99.1		99.1		99.2		103.2		121.2	
Rec 2	152.5		150.6		157.9		245.5		309.6	
Avoided Area	349.3		493.2		511.0		921.4		962.1	
Agriculture	190.7		194.0		194.0		77.9		99.3	
Misc. Roads & Open Space	215.5		210.4		212.8		167.3		275.8	
Total Public Uses	1,114.9		1,253.1		1,282.7		1,614.7		1,883.4	
University										
Developable										
Academic Zone	54.8		54.8		54.8		67.8		54.8	
Living and Learning Zone	39.7		39.7		39.7		99.5		39.7	
Athletic Zone	86.7		86.7		86.7		0.0		78.9	
Subtotal University Developable	181.2		181.2		181.2		167.3		173.4	
Transition Zone	42.3		42.3		42.3		31.7		42.3	
Total University	223.5		223.5		223.5		199.0		215.7	
Total	2,668.5		2,668.5		2,668.5		2,668.5		3,551.0	

Source: Cordova Hills, LLC, EPS

dev

Table 5
Cordova Hills Special Planning Area 404(b)(1) Alternatives Analysis
Average Sales Price per Dwelling Unit

Corps Cost Comparison

Item	Estimated Sales Price Per Unit/Sq. Ft.	Alternative				
		Original 404(b)(1) Permit Alternative	Proposed Action	Regional Conservation	Expanded Drainage Preservation	Pilatus Parcel
Dwelling Units [1]						
Estates		147	147	147	245	235
Low Density		1,900	1,930	1,855	1,375	2,660
Medium Density		3,350	3,265	2,680	2,090	3,375
Residential 20 - Owner-occupied [2]		899	444	639	268	340
Residential 20 - Renter-occupied [2]		899	444	639	267	340
HDR - Owner-occupied & Market Rate [3]		518	364	385	236	338
HDR - Renter-occupied & Market Rate [3]		517	363	385	236	338
HDR - Renter-occupied & Affordable [3]		1,235	1,043	1,010	708	1,144
Total Dwelling Units		9,465	8,000	7,740	5,425	8,770
Building Square Feet [1]						
Commercial		1,038,839	1,038,839	899,316	893,383	1,079,583
Office		310,540	310,540	361,940	317,540	412,175
Total Building Square Feet		1,349,379	1,349,379	1,261,256	1,210,923	1,491,758
Sales - Residential						
	<i>per unit</i>					
Estates	\$ 500,000	\$ 73,500,000	\$ 73,500,000	\$ 73,500,000	\$ 122,500,000	\$ 117,500,000
Low Density	\$ 445,000	\$ 845,500,000	\$ 858,850,000	\$ 825,475,000	\$ 611,875,000	\$ 1,183,700,000
Medium Density	\$ 345,000	\$ 1,155,750,000	\$ 1,126,425,000	\$ 924,600,000	\$ 721,050,000	\$ 1,164,375,000
Residential 20 - Owner-occupied	\$ 275,000	\$ 247,225,000	\$ 122,100,000	\$ 175,725,000	\$ 73,700,000	\$ 93,500,000
Residential 20 - Renter-occupied	\$ 234,000	\$ 210,366,000	\$ 103,896,000	\$ 149,526,000	\$ 62,478,000	\$ 79,560,000
HDR - Owner-occupied & Market Rate	\$ 250,000	\$ 129,500,000	\$ 91,000,000	\$ 96,250,000	\$ 59,000,000	\$ 84,500,000
HDR - Renter-occupied & Market Rate	\$ 213,000	\$ 110,121,000	\$ 77,319,000	\$ 82,005,000	\$ 50,268,000	\$ 71,994,000
HDR - Renter-occupied & Affordable	\$ 133,000	\$ 164,255,000	\$ 138,719,000	\$ 134,330,000	\$ 94,164,000	\$ 152,152,000
Total Sales - Residential		\$ 2,936,217,000	\$ 2,591,809,000	\$ 2,461,411,000	\$ 1,795,035,000	\$ 2,947,281,000
Average Sales Price per Dwelling Unit		\$310,000	\$325,000	\$320,000	\$330,000	\$335,000
Sales - Nonresidential						
	<i>per bldg. sq. ft.</i>					
Commercial	\$ 225	\$ 233,738,775	\$ 233,738,775	\$ 202,346,100	\$ 201,011,175	\$ 242,906,175
Office	\$ 220	\$ 68,318,800	\$ 68,318,800	\$ 79,626,800	\$ 69,858,800	\$ 90,678,500
Total Sales - Nonresidential		\$ 302,057,575	\$ 302,057,575	\$ 281,972,900	\$ 270,869,975	\$ 333,584,675
Average Sales Price per Bldg. Sq. Ft.		\$ 224	\$ 224	\$ 224	\$ 224	\$ 224

sales

Source: Cordova Hills, LLC, EPS.

[1] See Table 4.

[2] Assumed to be half owner-occupied and half renter-occupied.

[3] Affordable housing assumed to be 15% of all other dwelling units; remaining HDR split evenly between owner-occupied and renter-occupied.

Table 6
Cordova Hills Special Planning Area 404(b)(1) Alternatives Analysis
Backbone Infrastructure and Public Facilities Costs - Original 404(b)(1) Permit Alternative

Original 404(b)(1) Permit Alternative

	Cordova Hills Special Financing District			Fee Programs [1]			Developer Funded	Total
	Community	University	Subtotal	Cordova Hills	Other	Subtotal		
Backbone Infrastructure								
Roads	\$ 103,730,000	\$ 7,930,000	\$ 111,660,000	\$ 0	\$ 44,880,000	\$ 44,880,000	\$ 0	\$ 156,540,000
Sanitary Sewer System	\$ 0	\$ 0	\$ 0	\$ 22,670,000	\$ 19,820,000	\$ 42,490,000	\$ 0	\$ 42,490,000
Storm Drainage System -- Zone 11A	\$ 2,240,000	\$ 370,000	\$ 2,610,000	\$ 2,110,000	\$ 0	\$ 2,110,000	\$ 0	\$ 4,720,000
Storm Drainage System -- Outside of Zone 11A	\$ 9,980,000	\$ 1,340,000	\$ 11,320,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 11,320,000
Potable Water	\$ 0	\$ 0	\$ 0	\$ 18,240,000	\$ 0	\$ 18,240,000	\$ 0	\$ 18,240,000
Earthwork	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 98,630,000	\$ 98,630,000
Subtotal Backbone Infrastructure (Rounded)	\$ 115,950,000	\$ 9,640,000	\$ 125,590,000	\$ 43,020,000	\$ 64,700,000	\$ 107,720,000	\$ 98,630,000	\$ 331,940,000
Public Facilities								
Fire	\$ 0	\$ 0	\$ 0	\$ 11,730,000	\$ 0	\$ 11,730,000	\$ 0	\$ 11,730,000
Parks	\$ 53,690,000	\$ 0	\$ 53,690,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 53,690,000
Open Space and Trails	\$ 11,700,000	\$ 0	\$ 11,700,000	\$ 0	\$ 0	\$ 0	\$ 10,130,000	\$ 21,830,000
Habitat and Wetlands	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 13,140,000	\$ 13,140,000
Library	\$ 0	\$ 0	\$ 0	\$ 6,650,000	\$ 0	\$ 6,650,000	\$ 0	\$ 6,650,000
Transit	\$ 440,000	\$ 80,000	\$ 520,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 520,000
CHLSD Facilities	\$ 8,400,000	\$ 600,000	\$ 9,000,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 9,000,000
Special District Formation and Updates	\$ 1,870,000	\$ 130,000	\$ 2,000,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 2,000,000
Subtotal Public Facilities (Rounded)	\$ 76,100,000	\$ 810,000	\$ 76,910,000	\$ 18,380,000	\$ 0	\$ 18,380,000	\$ 23,270,000	\$ 118,560,000
Total Backbone Infrastructure & Public Facilities	\$ 192,050,000	\$ 10,450,000	\$ 202,500,000	\$ 61,400,000	\$ 64,700,000	\$ 126,100,000	\$ 121,900,000	\$ 450,500,000

orig cost

Source: Cordova Hills, LLC, EPS.

[1] Includes the costs of all onsite backbone infrastructure and public facilities and only the offsite backbone facilities that Cordova Hills is obligated to construct. Costs of offsite backbone facilities constructed by other agencies and funded through their fee programs are not included.

Table 7
Cordova Hills Special Planning Area 404(b)(1) Alternatives Analysis
Backbone Infrastructure and Public Facilities Costs - Proposed Action Alternative

Proposed Action Alternative

	Cordova Hills Special Financing District			Fee Programs [1]			Developer Funded	Total
	Community	University	Subtotal	Cordova Hills	Other	Subtotal		
Backbone Infrastructure								
Roads	\$ 95,190,000	\$ 8,060,000	\$ 103,250,000	\$ 0	\$ 44,880,000	\$ 44,880,000	\$ 0	\$ 148,130,000
Sanitary Sewer System	\$ 0	\$ 0	\$ 0	\$ 20,600,000	\$ 21,890,000	\$ 42,490,000	\$ 0	\$ 42,490,000
Storm Drainage System -- Zone 11A	\$ 1,530,000	\$ 540,000	\$ 2,070,000	\$ 1,680,000	\$ 0	\$ 1,680,000	\$ 0	\$ 3,750,000
Storm Drainage System -- Outside of Zone 11A	\$ 8,250,000	\$ 1,100,000	\$ 9,350,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 9,350,000
Potable Water	\$ 0	\$ 0	\$ 0	\$ 17,380,000	\$ 0	\$ 17,380,000	\$ 0	\$ 17,380,000
Earthwork	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 96,120,000	\$ 96,120,000
Subtotal Backbone Infrastructure (Rounded)	\$ 104,970,000	\$ 9,700,000	\$ 114,670,000	\$ 39,660,000	\$ 66,770,000	\$ 106,430,000	\$ 96,120,000	\$ 317,220,000
Public Facilities								
Fire	\$ 0	\$ 0	\$ 0	\$ 10,630,000	\$ 0	\$ 10,630,000	\$ 0	\$ 10,630,000
Parks	\$ 47,460,000	\$ 0	\$ 47,460,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 47,460,000
Open Space and Trails	\$ 10,480,000	\$ 0	\$ 10,480,000	\$ 0	\$ 0	\$ 0	\$ 9,080,000	\$ 19,560,000
Habitat and Wetlands	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 15,350,000	\$ 15,350,000
Library	\$ 0	\$ 0	\$ 0	\$ 5,850,000	\$ 0	\$ 5,850,000	\$ 0	\$ 5,850,000
Transit	\$ 420,000	\$ 80,000	\$ 500,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 500,000
CHLSD Facilities	\$ 8,340,000	\$ 660,000	\$ 9,000,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 9,000,000
Special District Formation and Updates	\$ 1,850,000	\$ 150,000	\$ 2,000,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 2,000,000
Subtotal Public Facilities (Rounded)	\$ 68,550,000	\$ 890,000	\$ 69,440,000	\$ 16,480,000	\$ 0	\$ 16,480,000	\$ 24,430,000	\$ 110,350,000
Total Backbone Infrastructure & Public Facilities	\$ 173,520,000	\$ 10,590,000	\$ 184,110,000	\$ 56,140,000	\$ 66,770,000	\$ 122,910,000	\$ 120,550,000	\$ 427,570,000

pa cost

Source: Cordova Hills, LLC, EPS.

[1] Includes the costs of all onsite backbone infrastructure and public facilities and only the offsite backbone facilities that Cordova Hills is obligated to construct. Costs of offsite backbone facilities constructed by other agencies and funded through their fee programs are not included.

Table 8
Cordova Hills Special Planning Area 404(b)(1) Alternatives Analysis
Backbone Infrastructure and Public Facilities Costs - Regional Conservation Alternative

Regional Conservation Alternative

	Cordova Hills Special Financing District			Fee Programs [1]			Developer Funded	Total
	Community	University	Subtotal	Cordova Hills	Other	Subtotal		
Backbone Infrastructure								
Roads	\$ 103,080,000	\$ 9,280,000	\$ 112,360,000	\$ 0	\$ 44,880,000	\$ 44,880,000	\$ 0	\$ 157,240,000
Sanitary Sewer System	\$ 0	\$ 0	\$ 0	\$ 20,150,000	\$ 21,020,000	\$ 41,170,000	\$ 0	\$ 41,170,000
Storm Drainage System -- Zone 11A	\$ 1,630,000	\$ 590,000	\$ 2,220,000	\$ 1,800,000	\$ 0	\$ 1,800,000	\$ 0	\$ 4,020,000
Storm Drainage System -- Outside of Zone 11A	\$ 9,980,000	\$ 1,340,000	\$ 11,320,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 11,320,000
Potable Water	\$ 0	\$ 0	\$ 0	\$ 17,150,000	\$ 0	\$ 17,150,000	\$ 0	\$ 17,150,000
Earthwork	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 95,760,000	\$ 95,760,000
Subtotal Backbone Infrastructure (Rounded)	\$ 114,690,000	\$ 11,210,000	\$ 125,900,000	\$ 39,100,000	\$ 65,900,000	\$ 105,000,000	\$ 95,760,000	\$ 326,660,000
Public Facilities								
Fire	\$ 0	\$ 0	\$ 0	\$ 10,170,000	\$ 0	\$ 10,170,000	\$ 0	\$ 10,170,000
Parks	\$ 45,740,000	\$ 0	\$ 45,740,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 45,740,000
Open Space and Trails	\$ 10,220,000	\$ 0	\$ 10,220,000	\$ 0	\$ 0	\$ 0	\$ 8,850,000	\$ 19,070,000
Habitat and Wetlands	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 5,750,000	\$ 5,750,000
Library	\$ 0	\$ 0	\$ 0	\$ 5,510,000	\$ 0	\$ 5,510,000	\$ 0	\$ 5,510,000
Transit	\$ 420,000	\$ 80,000	\$ 500,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 500,000
CHLSD Facilities	\$ 8,320,000	\$ 680,000	\$ 9,000,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 9,000,000
Special District Formation and Updates	\$ 1,850,000	\$ 150,000	\$ 2,000,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 2,000,000
Subtotal Public Facilities (Rounded)	\$ 66,550,000	\$ 910,000	\$ 67,460,000	\$ 15,680,000	\$ 0	\$ 15,680,000	\$ 14,600,000	\$ 97,740,000
Total Backbone Infrastructure & Public Facilities	\$ 181,240,000	\$ 12,120,000	\$ 193,360,000	\$ 54,780,000	\$ 65,900,000	\$ 120,680,000	\$ 110,360,000	\$ 424,400,000

rc cost

Source: Cordova Hills, LLC, EPS.

[1] Includes the costs of all onsite backbone infrastructure and public facilities and only the offsite backbone facilities that Cordova Hills is obligated to construct. Costs of offsite backbone facilities constructed by other agencies and funded through their fee programs are not included.

Table 9
Cordova Hills Special Planning Area 404(b)(1) Alternatives Analysis
Backbone Infrastructure and Public Facilities Costs - Expanded Drainage Alternative

Expanded Drainage Alternative

	Cordova Hills Special Financing District			Fee Programs [1]			Developer Funded	Total
	Community	University	Subtotal	Cordova Hills	Other	Subtotal		
Backbone Infrastructure								
Roads	\$ 112,870,000	\$ 13,180,000	\$ 126,050,000	\$ 0	\$ 44,880,000	\$ 44,880,000	\$ 0	\$ 170,930,000
Sanitary Sewer System	\$ 0	\$ 0	\$ 0	\$ 15,330,000	\$ 30,470,000	\$ 45,800,000	\$ 0	\$ 45,800,000
Storm Drainage System -- Zone 11A	\$ 920,000	\$ 630,000	\$ 1,550,000	\$ 1,260,000	\$ 0	\$ 1,260,000	\$ 0	\$ 2,810,000
Storm Drainage System -- Outside of Zone 11A	\$ 7,900,000	\$ 1,150,000	\$ 9,050,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 9,050,000
Potable Water	\$ 0	\$ 0	\$ 0	\$ 20,180,000	\$ 0	\$ 20,180,000	\$ 0	\$ 20,180,000
Earthwork	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 82,790,000	\$ 82,790,000
Subtotal Backbone Infrastructure (Rounded)	\$ 121,690,000	\$ 14,960,000	\$ 136,650,000	\$ 36,770,000	\$ 75,350,000	\$ 112,120,000	\$ 82,790,000	\$ 331,560,000
Public Facilities								
Fire	\$ 0	\$ 0	\$ 0	\$ 8,010,000	\$ 0	\$ 8,010,000	\$ 0	\$ 8,010,000
Parks	\$ 46,080,000	\$ 0	\$ 46,080,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 46,080,000
Open Space and Trails	\$ 7,520,000	\$ 0	\$ 7,520,000	\$ 0	\$ 0	\$ 0	\$ 6,510,000	\$ 14,030,000
Habitat and Wetlands	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 4,550,000	\$ 4,550,000
Library	\$ 0	\$ 0	\$ 0	\$ 3,990,000	\$ 0	\$ 3,990,000	\$ 0	\$ 3,990,000
Transit	\$ 350,000	\$ 90,000	\$ 440,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 440,000
CHLSD Facilities	\$ 7,530,000	\$ 1,470,000	\$ 9,000,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 9,000,000
Special District Formation and Updates	\$ 1,670,000	\$ 330,000	\$ 2,000,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 2,000,000
Subtotal Public Facilities (Rounded)	\$ 63,150,000	\$ 1,890,000	\$ 65,040,000	\$ 12,000,000	\$ 0	\$ 12,000,000	\$ 11,060,000	\$ 88,100,000
Total Backbone Infrastructure & Public Facilities	\$ 184,840,000	\$ 16,850,000	\$ 201,690,000	\$ 48,770,000	\$ 75,350,000	\$ 124,120,000	\$ 93,850,000	\$ 419,660,000

ed cost

Source: Cordova Hills, LLC, EPS.

[1] Includes the costs of all onsite backbone infrastructure and public facilities and only the offsite backbone facilities that Cordova Hills is obligated to construct. Costs of offsite backbone facilities constructed by other agencies and funded through their fee programs are not included.

Table 10
Cordova Hills Special Planning Area 404(b)(1) Alternatives Analysis
Backbone Infrastructure and Public Facilities Costs - Pilatus Parcel Alternative

Pilatus Parcel Alternative

	Cordova Hills Special Financing District			Fee Programs [1]			Developer Funded	Total
	Community	University	Subtotal	Cordova Hills	Other	Subtotal		
Backbone Infrastructure								
Roads	\$ 182,590,000	\$ 13,810,000	\$ 196,400,000	\$ 0	\$ 44,880,000	\$ 44,880,000	\$ 0	\$ 241,280,000
Sanitary Sewer System	\$ 0	\$ 0	\$ 0	\$ 24,380,000	\$ 42,080,000	\$ 66,460,000	\$ 0	\$ 66,460,000
Storm Drainage System -- Zone 11A	\$ 1,570,000	\$ 680,000	\$ 2,250,000	\$ 1,820,000	\$ 0	\$ 1,820,000	\$ 0	\$ 4,070,000
Storm Drainage System -- Outside of Zone 11A	\$ 14,130,000	\$ 1,440,000	\$ 15,570,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 15,570,000
Potable Water	\$ 0	\$ 0	\$ 0	\$ 22,220,000	\$ 0	\$ 22,220,000	\$ 0	\$ 22,220,000
Earthwork	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 120,540,000	\$ 120,540,000
Subtotal Backbone Infrastructure (Rounded)	\$ 198,290,000	\$ 15,930,000	\$ 214,220,000	\$ 48,420,000	\$ 86,960,000	\$ 135,380,000	\$ 120,540,000	\$ 470,140,000
Public Facilities								
Fire	\$ 0	\$ 0	\$ 0	\$ 11,890,000	\$ 0	\$ 11,890,000	\$ 0	\$ 11,890,000
Parks	\$ 52,830,000	\$ 0	\$ 52,830,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 52,830,000
Open Space and Trails	\$ 12,770,000	\$ 0	\$ 12,770,000	\$ 0	\$ 0	\$ 0	\$ 11,060,000	\$ 23,830,000
Habitat and Wetlands	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 8,410,000	\$ 8,410,000
Library	\$ 0	\$ 0	\$ 0	\$ 6,530,000	\$ 0	\$ 6,530,000	\$ 0	\$ 6,530,000
Transit	\$ 470,000	\$ 80,000	\$ 550,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 550,000
CHLSD Facilities	\$ 8,450,000	\$ 550,000	\$ 9,000,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 9,000,000
Special District Formation and Updates	\$ 1,880,000	\$ 120,000	\$ 2,000,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 2,000,000
Subtotal Public Facilities (Rounded)	\$ 76,400,000	\$ 750,000	\$ 77,150,000	\$ 18,420,000	\$ 0	\$ 18,420,000	\$ 19,470,000	\$ 115,040,000
Total Backbone Infrastructure & Public Facilities	\$ 274,690,000	\$ 16,680,000	\$ 291,370,000	\$ 66,840,000	\$ 86,960,000	\$ 153,800,000	\$ 140,010,000	\$ 585,180,000

pp cost

Source: Cordova Hills, LLC, EPS.

[1] Includes the costs of all onsite backbone infrastructure and public facilities and only the offsite backbone facilities that Cordova Hills is obligated to construct. Costs of offsite backbone facilities constructed by other agencies and funded through their fee programs are not included.

APPENDIX A

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Table A-1
Cordova Hills Financing Plan
Estimated Infrastructure Bond Sizing at Buildout

Original 404(b)(1) Permit Alternative

Item	Assumption	Amount
Bond Assumptions [1]		
Interest Rate	6.5%	
Term	30 years	
Annual Tax Escalation	2.0%	
Estimated Annual Maximum Special Taxes [2]		\$11,825,000
Less Estimated Administration Costs	4%	(\$473,000)
Less Delinquency Coverage	10%	(\$1,183,000)
Estimated Max. Special Taxes for Gross Debt Service		\$10,169,000
Bond Size		
Total Base Bond Size (2014 \$)		\$132,794,000
Increase for Annual Tax Escalation [3]	20%	\$26,559,000
Total Bond Size (Rounded)		\$159,353,000
Estimated Bond Proceeds		
Total Bond Size		\$159,353,000
Less Capitalized Interest [4]	18 months	(\$15,537,000)
Less Bond Reserve Fund	1 yr debt svc.	(\$10,169,000)
Less Issuance Cost	5%	(\$7,968,000)
Estimated Bond Proceeds (Rounded)		\$125,679,000

bond orig

Source: EPS.

[1] Estimated bond sizing based on conservative assumptions. The interest rate will be determined at the time of bond sale; the bond term could be 25 to 30 years or more. This analysis assumes 30 years.

[2] See Table A-2.

[3] Assumes special taxes are escalated 2.0% annually for 30 years, which increases total bond size by approximately 20%.

[4] Length of time for capitalized interest is dependent upon developer and county preference.

Table A-2
Cordova Hills Financing Plan
Estimated Maximum Annual Special Tax Revenue at Buildout

Item	Land Use									Total	
	Estates Residential	Low Density LDR)	Med. Density (MDR)	Residential 20		HDR			Commercial		Office
				Owner-occupied	Renter-occupied	Owner-occupied & Market Rate	Renter-occupied & Market Rate	Renter-occupied & Affordable			
Dwelling Units	147	1,900	3,350	899	899	518	517	1,235			9,465
Nonresidential Acres									79.2	23.7	102.9
Estimated Max. Special Tax for Infrastructure [1]	\$2,310	\$1,880	\$1,250	\$1,100	\$780	\$900	\$610	\$390	\$7,500	\$7,500	
Estimated Annual Maximum Special Tax Revenue for Infrastructure at Buildout (Rounded)	\$340,000	\$3,572,000	\$4,188,000	\$989,000	\$701,000	\$466,000	\$315,000	\$482,000	\$594,000	\$178,000	\$ 11,825,000

tax orig

Source: Cordova Hills, LLC, EPS.

[1] See Table A-3.

Table A-3
Cordova Hills Services Costs
Estimated Annual Taxes/Assessments (2014\$)

Original 404(b)(1) Permit Alternative

Item	Formula	Percentage	Residential							Nonresidential		
			Estates Residential	Low Density (LDR)	Med. Density (MDR)	Residential 20		HDR			Commercial	Office
						Owner-occupied	Renter-occupied	Owner-occupied & Market Rate	Renter-occupied & Market Rate	Renter-occupied & Affordable		
Assumptions												
Estimated Average Sales Price per Dwelling Unit	a		\$500,000	\$445,000	\$345,000	\$275,000	\$234,000	\$250,000	\$213,000	\$133,000		
Less Homeowners' Exemption			(\$7,000)	(\$7,000)	(\$7,000)	(\$7,000)	(\$7,000)	(\$7,000)	(\$7,000)	(\$7,000)		
Estimated Taxable Sale Price	b		\$493,000	\$438,000	\$338,000	\$268,000	\$227,000	\$243,000	\$206,000	\$126,000		
Nonresidential Assumptions												
Estimated Price per Bldg. Sq. Ft.											\$ 225	\$ 220
Estimated Price per Acre											\$2,940,300	\$2,874,960
			Amount per Dwelling Unit							Amount per Acre		
Capacity for Taxes/Assessments	c=a*1.8%	1.8%	\$9,000	\$8,010	\$6,210	\$4,950	\$4,212	\$4,500	\$3,834	\$2,394		
Existing Taxes/Assessments												
General Property Tax	b*1.0%	1.0000%	\$4,930	\$4,380	\$3,380	\$2,680	\$2,270	\$2,430	\$2,060	\$1,260	\$29,403	\$28,750
Los Rios College General Obligation Bond	b*0.0181%	0.0181%	\$89	\$79	\$61	\$49	\$41	\$44	\$37	\$23	\$532	\$520
School CFD Taxes (Elk Grove Unified School District)			\$200	\$200	\$200	\$200	\$200	\$200	\$200	\$200	\$800	\$800
Sacramento County Police Services CFD 2005-1 Tax			\$362	\$362	\$362	\$265	\$265	\$265	\$265	\$265	\$0	\$0
SCWA Zone 13 Water & Drainage Studies Assessment [1]			\$7	\$7	\$7	\$0	\$0	\$0	\$0	\$0	\$14	\$14
CSA 1 Street Lights Assessment			\$52	\$52	\$52	\$5	\$5	\$5	\$5	\$5	\$142	\$142
Subtotal Existing Taxes/Assessments			\$5,640	\$5,080	\$4,062	\$3,199	\$2,781	\$2,944	\$2,567	\$1,753	\$30,891	\$30,226
Estimated Max. Special Tax for Services (Rounded)			\$1,050	\$1,050	\$890	\$650	\$650	\$650	\$650	\$250	\$1,626	\$2,885
Subtotal Existing Taxes/Asses. And Estimated Special Services Tax	d		\$6,690	\$6,130	\$4,952	\$3,849	\$3,431	\$3,594	\$3,217	\$2,003	\$32,517	\$33,111
Special Taxes for Infrastructure (Rounded) [2]			\$2,310	\$1,880	\$1,250	\$1,100	\$780	\$900	\$610	\$390	\$7,500	\$7,500
Total Taxes/Assesments			\$9,000	\$8,010	\$6,202	\$4,949	\$4,211	\$4,494	\$3,827	\$2,393	\$40,017	\$40,611
Total Taxes/Assessments Percentage of Sales Price			1.80%	1.80%	1.80%	1.80%	1.80%	1.80%	1.80%	1.80%	1.36%	1.41%

Source: The Gregory Group, EPS, Sacramento County.

[1] Single Family: \$6.94 per unit; Multifamily: \$6.94 per acre; Commercial: \$13.89 per acre.

[2] Residential: 1.8% of home value less all other taxes (c-d). Commercial: \$7,500 per acre

2 pct orig

Table A-4
Cordova Hills Financing Plan
Estimated Infrastructure Bond Sizing at Buildout

Proposed Action Alternative

Item	Assumption	Amount
Bond Assumptions [1]		
Interest Rate	6.5%	
Term	30 years	
Annual Tax Escalation	2.0%	
Estimated Annual Maximum Special Taxes [2]		\$9,159,000
Less Estimated Administration Costs	4%	(\$366,000)
Less Delinquency Coverage	10%	(\$916,000)
Estimated Max. Special Taxes for Gross Debt Service		\$7,877,000
Bond Size		
Total Base Bond Size (2014 \$)		\$102,863,000
Increase for Annual Tax Escalation [3]	20%	\$20,573,000
Total Bond Size (Rounded)		\$123,436,000
Estimated Bond Proceeds		
Total Bond Size		\$123,436,000
Less Capitalized Interest [4]	18 months	(\$12,035,000)
Less Bond Reserve Fund	1 yr debt svc.	(\$7,877,000)
Less Issuance Cost	5%	(\$6,172,000)
Estimated Bond Proceeds (Rounded)		\$97,352,000

bond pa

Source: EPS.

[1] Estimated bond sizing based on conservative assumptions. The interest rate will be determined at the time of bond sale; the bond term could be 25 to 30 years or more. This analysis assumes 30 years.

[2] See Table A-5.

[3] Assumes special taxes are escalated 2.0% annually for 30 years, which increases total bond size by approximately 20%.

[4] Length of time for capitalized interest is dependent upon developer and county preference.

Table A-5
Cordova Hills Financing Plan
Estimated Maximum Annual Special Tax Revenue at Buildout

Proposed Action Alternative

Item	Land Use									Total	
	Estates Residential	Low Density	Med. Density	Residential 20		HDR			Commercial		Office
				Owner-occupied	Renter-occupied	Owner-occupied & Market Rate	Renter-occupied & Market Rate	Renter-occupied & Affordable			
Dwelling Units	147	1,930	3,265	444	444	364	363	1,043			8,000
Nonresidential Acres									79.5	23.8	103.3
Estimated Max. Special Tax for Infrastructure [1]	\$2,040	\$1,610	\$1,060	\$800	\$620	\$740	\$580	\$390	\$7,500	\$7,500	
Estimated Annual Maximum Special Tax Revenue for Infrastructure at Buildout (Rounded)	\$300,000	\$3,107,000	\$3,461,000	\$355,000	\$275,000	\$269,000	\$211,000	\$407,000	\$596,000	\$178,000	\$ 9,159,000

tax pa

Source: Cordova Hills, LLC, EPS.

[1] See Table A-6.

Table A-6
Cordova Hills Services Costs
Estimated Annual Taxes/Assessments (2014\$)

Proposed Action Alternative

Item	Formula	Percentage	Residential							Nonresidential		
			Estates Residential	Low Density (LDR)	Med. Density (MDR)	Residential 20		HDR			Commercial	Office
						Owner-occupied	Renter-occupied	Owner-occupied & Market Rate	Renter-occupied & Market Rate	Renter-occupied & Affordable		
Assumptions												
Estimated Average Sales Price per Dwelling Unit	a		\$500,000	\$445,000	\$345,000	\$275,000	\$234,000	\$250,000	\$213,000	\$133,000		
Less Homeowners' Exemption			(\$7,000)	(\$7,000)	(\$7,000)	(\$7,000)	(\$7,000)	(\$7,000)	(\$7,000)	(\$7,000)		
Estimated Taxable Sale Price	b		\$493,000	\$438,000	\$338,000	\$268,000	\$227,000	\$243,000	\$206,000	\$126,000		
Nonresidential Assumptions												
Estimated Price per Bldg. Sq. Ft.											\$ 225	\$ 220
Estimated Price per Acre											\$2,940,300	\$2,874,960
			Amount per Dwelling Unit							Amount per Acre		
Capacity for Taxes/Assessments	c=a*1.8%	1.8%	\$9,000	\$8,010	\$6,210	\$4,950	\$4,212	\$4,500	\$3,834	\$2,394		
Existing Taxes/Assessments												
General Property Tax	b*1.0%	1.0000%	\$4,930	\$4,380	\$3,380	\$2,680	\$2,270	\$2,430	\$2,060	\$1,260	\$29,403	\$28,750
Los Rios College General Obligation Bond	b*0.0181%	0.0181%	\$89	\$79	\$61	\$49	\$41	\$44	\$37	\$23	\$532	\$520
School CFD Taxes (Elk Grove Unified School District)			\$200	\$200	\$200	\$200	\$200	\$200	\$200	\$200	\$800	\$800
Sacramento County Police Services CFD 2005-1 Tax			\$362	\$362	\$362	\$265	\$265	\$265	\$265	\$265	\$0	\$0
SCWA Zone 13 Water & Drainage Studies Assessment [1]			\$7	\$7	\$7	\$0	\$0	\$0	\$0	\$0	\$14	\$14
CSA 1 Street Lights Assessment			\$52	\$52	\$52.2	\$4.7	\$4.7	\$4.66	\$4.66	\$4.66	\$142	\$142
Subtotal Existing Taxes/Assessments			\$5,640	\$5,080	\$4,062	\$3,199	\$2,781	\$2,944	\$2,567	\$1,753	\$30,891	\$30,226
Estimated Max. Special Tax for Services (Rounded)			\$1,320	\$1,320	\$1,080	\$950	\$810	\$810	\$680	\$250	\$1,841	\$2,774
Subtotal Existing Taxes/Asses. And Estimated Special Services Tax	d		\$6,960	\$6,400	\$5,142	\$4,149	\$3,591	\$3,754	\$3,247	\$2,003	\$32,732	\$33,000
Special Taxes for Infrastructure (Rounded) [2]			\$2,040	\$1,610	\$1,060	\$800	\$620	\$740	\$580	\$390	\$7,500	\$7,500
Total Taxes/Assesments			\$9,000	\$8,010	\$6,202	\$4,949	\$4,211	\$4,494	\$3,827	\$2,393	\$40,232	\$40,500
Total Taxes/Assessments Percentage of Sales Price			1.80%	1.80%	1.80%	1.80%	1.80%	1.80%	1.80%	1.80%	1.37%	1.41%

Source: The Gregory Group, EPS, Sacramento County.

[1] Single Family: \$6.94 per unit; Multifamily: \$6.94 per acre; Commercial: \$13.89 per acre.

[2] Residential: 1.8% of home value less all other taxes (c-d). Commercial: \$7,500 per acre

2 pct pa

Table A-7
Cordova Hills Financing Plan
Estimated Infrastructure Bond Sizing at Buildout

Regional Conservation Alternative

Item	Assumption	Amount
Bond Assumptions [1]		
Interest Rate	6.5%	
Term	30 years	
Annual Tax Escalation	2.0%	
Estimated Annual Maximum Special Taxes [2]		\$7,333,000
<i>Less Estimated Administration Costs</i>	4%	(\$293,000)
<i>Less Delinquency Coverage</i>	10%	(\$733,000)
Estimated Max. Special Taxes for Gross Debt Service		\$6,307,000
Bond Size		
Total Base Bond Size (2014 \$)		\$82,361,000
<i>Increase for Annual Tax Escalation [3]</i>	20%	\$16,472,000
Total Bond Size (Rounded)		\$98,833,000
Estimated Bond Proceeds		
Total Bond Size		\$98,833,000
<i>Less Capitalized Interest [4]</i>	18 months	(\$9,636,000)
<i>Less Bond Reserve Fund</i>	1 yr debt svc.	(\$6,307,000)
<i>Less Issuance Cost</i>	5%	(\$4,942,000)
Estimated Bond Proceeds (Rounded)		\$77,948,000

bond rc

Source: EPS.

[1] Estimated bond sizing based on conservative assumptions. The interest rate will be determined at the time of bond sale; the bond term could be 25 to 30 years or more. This analysis assumes 30 years.

[2] See Table A-8.

[3] Assumes special taxes are escalated 2.0% annually for 30 years, which increases total bond size by approximately 20%.

[4] Length of time for capitalized interest is dependent upon developer and county preference.

Table A-8
Cordova Hills Financing Plan
Estimated Maximum Annual Special Tax Revenue at Buildout

Regional Conservation Alternative

Item	Land Use									Total	
	Estates Residential	Low Density LDR)	Med. Density (MDR)	Residential 20		HDR			Commercial		Office
				Owner-occupied	Renter-occupied	Owner-occupied & Market Rate	Renter-occupied & Market Rate	Renter-occupied & Affordable			
Dwelling Units	147	1,855	2,680	639	639	385	385	1,010			7,740
Nonresidential Acres									71.3	28.7	100.0
Estimated Max. Special Tax for Infrastructure [1]	\$1,820	\$1,390	\$820	\$710	\$430	\$550	\$530	\$390	\$7,500	\$7,500	
Estimated Annual Maximum Special Tax Revenue for Infrastructure at Buildout (Rounded)	\$268,000	\$2,578,000	\$2,198,000	\$454,000	\$275,000	\$212,000	\$204,000	\$394,000	\$535,000	\$215,000	\$ 7,333,000

tax rc

Source: Cordova Hills, LLC, EPS.

[1] See Table A-9.

Table A-9
Cordova Hills Services Costs
Estimated Annual Taxes/Assessments (2014\$)

Regional Conservation Alternative

Item	Formula	Percentage	Residential							Nonresidential		
			Estates Residential	Low Density (LDR)	Med. Density (MDR)	Residential 20		HDR			Commercial	Office
						Owner-occupied	Renter-occupied	Owner-occupied & Market Rate	Renter-occupied & Market Rate	Renter-occupied & Affordable		
Assumptions												
Estimated Average Sales Price per Dwelling Unit	a		\$500,000	\$445,000	\$345,000	\$275,000	\$234,000	\$250,000	\$213,000	\$133,000		
Less Homeowners' Exemption			(\$7,000)	(\$7,000)	(\$7,000)	(\$7,000)	(\$7,000)	(\$7,000)	(\$7,000)	(\$7,000)		
Estimated Taxable Sale Price	b		\$493,000	\$438,000	\$338,000	\$268,000	\$227,000	\$243,000	\$206,000	\$126,000		
Nonresidential Assumptions												
Estimated Price per Bldg. Sq. Ft.											\$ 225	\$ 220
Estimated Price per Acre											\$2,940,300	\$2,874,960
			Amount per Dwelling Unit							Amount per Acre		
Capacity for Taxes/Assessments	c=a*1.8%	1.8%	\$9,000	\$8,010	\$6,210	\$4,950	\$4,212	\$4,500	\$3,834	\$2,394		
Existing Taxes/Assessments												
General Property Tax	b*1.0%	1.0000%	\$4,930	\$4,380	\$3,380	\$2,680	\$2,270	\$2,430	\$2,060	\$1,260	\$29,403	\$28,750
Los Rios College General Obligation Bond	b*0.0181%	0.0181%	\$89	\$79	\$61	\$49	\$41	\$44	\$37	\$23	\$532	\$520
School CFD Taxes (Elk Grove Unified School District)			\$200	\$200	\$200	\$200	\$200	\$200	\$200	\$200	\$800	\$800
Sacramento County Police Services CFD 2005-1 Tax			\$362	\$362	\$362	\$265	\$265	\$265	\$265	\$265	\$0	\$0
SCWA Zone 13 Water & Drainage Studies Assessment [1]			\$7	\$7	\$7	\$0	\$0	\$0	\$0	\$0	\$14	\$14
CSA 1 Street Lights Assessment			\$52	\$52	\$52	\$5	\$5	\$5	\$5	\$5	\$142	\$142
Subtotal Existing Taxes/Assessments			\$5,640	\$5,080	\$4,062	\$3,199	\$2,781	\$2,944	\$2,567	\$1,753	\$30,891	\$30,226
Estimated Max. Special Tax for Services (Rounded)			\$1,540	\$1,540	\$1,320	\$1,040	\$1,000	\$1,000	\$730	\$250	\$2,434	\$4,414
Subtotal Existing Taxes/Asses. And Estimated Special Services Tax	d		\$7,180	\$6,620	\$5,382	\$4,239	\$3,781	\$3,944	\$3,297	\$2,003	\$33,325	\$34,640
Special Taxes for Infrastructure (Rounded) [2]			\$1,820	\$1,390	\$820	\$710	\$430	\$550	\$530	\$390	\$7,500	\$7,500
Total Taxes/Assesments			\$9,000	\$8,010	\$6,202	\$4,949	\$4,211	\$4,494	\$3,827	\$2,393	\$40,825	\$42,140
Total Taxes/Assessments Percentage of Sales Price			1.80%	1.80%	1.80%	1.80%	1.80%	1.80%	1.80%	1.80%	1.39%	1.47%

Source: The Gregory Group, EPS, Sacramento County.

[1] Single Family: \$6.94 per unit; Multifamily: \$6.94 per acre; Commercial: \$13.89 per acre.

[2] Residential: 1.8% of home value less all other taxes (c-d). Commercial: \$7,500 per acre

2 pct rc

Table A-10
Cordova Hills Financing Plan
Estimated Infrastructure Bond Sizing at Buildout

Expanded Drainage Alternative

Item	Assumption	Amount
Bond Assumptions [1]		
Interest Rate	6.5%	
Term	30 years	
Annual Tax Escalation	2.0%	
Estimated Annual Maximum Special Taxes [2]		\$3,114,000
Less Estimated Administration Costs	4%	(\$125,000)
Less Delinquency Coverage	10%	(\$311,000)
Estimated Max. Special Taxes for Gross Debt Service		\$2,678,000
Bond Size		
Total Base Bond Size (2014 \$)		\$34,971,000
Increase for Annual Tax Escalation [3]	20%	\$6,994,000
Total Bond Size (Rounded)		\$41,965,000
Estimated Bond Proceeds		
Total Bond Size		\$41,965,000
Less Capitalized Interest [4]	18 months	(\$4,092,000)
Less Bond Reserve Fund	1 yr debt svc.	(\$2,678,000)
Less Issuance Cost	5%	(\$2,098,000)
Estimated Bond Proceeds (Rounded)		\$33,097,000

bond ed

Source: EPS.

[1] Estimated bond sizing based on conservative assumptions. The interest rate will be determined at the time of bond sale; the bond term could be 25 to 30 years or more. This analysis assumes 30 years.

[2] See Table A-11.

[3] Assumes special taxes are escalated 2.0% annually for 30 years, which increases total bond size by approximately 20%.

[4] Length of time for capitalized interest is dependent upon developer and county preference.

Table A-11
Cordova Hills Financing Plan
Estimated Maximum Annual Special Tax Revenue at Buildout

Expanded Drainage Alternative

Item	Land Use									Total	
	Estates Residential	Low Density LDR)	Med. Density (MDR)	Residential 20		HDR			Commercial		Office
				Owner-occupied	Renter-occupied	Owner-occupied & Market Rate	Renter-occupied & Market Rate	Renter-occupied & Affordable			
Dwelling Units	245	1,375	2,090	268	267	236	236	708			5,425
Nonresidential Acres									68.5	24.4	92.9
Estimated Max. Special Tax for Infrastructure [1]	\$1,200	\$770	\$280	\$330	\$60	\$180	\$240	\$390	\$7,500	\$7,500	
Estimated Annual Maximum Special Tax Revenue for Infrastructure at Buildout (Rounded)	\$294,000	\$1,059,000	\$585,000	\$88,000	\$16,000	\$42,000	\$57,000	\$276,000	\$514,000	\$183,000	\$ 3,114,000

tax ed

Source: Cordova Hills, LLC, EPS.

[1] See Table A-12.

Table A-12
Cordova Hills Services Costs
Estimated Annual Taxes/Assessments (2014\$)

Expanded Drainage Alternative

Item	Formula	Percentage	Residential							Nonresidential		
			Estates Residential	Low Density (LDR)	Med. Density (MDR)	Residential 20		HDR			Commercial	Office
						Owner-occupied	Renter-occupied	Owner-occupied & Market Rate	Renter-occupied & Market Rate	Renter-occupied & Affordable		
Assumptions												
Estimated Average Sales Price per Dwelling Unit	a		\$500,000	\$445,000	\$345,000	\$275,000	\$234,000	\$250,000	\$213,000	\$133,000		
Less Homeowners' Exemption			(\$7,000)	(\$7,000)	(\$7,000)	(\$7,000)	(\$7,000)	(\$7,000)	(\$7,000)	(\$7,000)		
Estimated Taxable Sale Price	b		\$493,000	\$438,000	\$338,000	\$268,000	\$227,000	\$243,000	\$206,000	\$126,000		
Nonresidential Assumptions												
Estimated Price per Bldg. Sq. Ft.											\$ 225	\$ 220
Estimated Price per Acre											\$2,940,300	\$2,874,960
			Amount per Dwelling Unit							Amount per Acre		
Capacity for Taxes/Assessments	c=a*1.8%	1.8%	\$9,000	\$8,010	\$6,210	\$4,950	\$4,212	\$4,500	\$3,834	\$2,394		
Existing Taxes/Assessments												
General Property Tax	b*1.0%	1.0000%	\$4,930	\$4,380	\$3,380	\$2,680	\$2,270	\$2,430	\$2,060	\$1,260	\$29,403	\$28,750
Los Rios College General Obligation Bond	b*0.0181%	0.0181%	\$89	\$79	\$61	\$49	\$41	\$44	\$37	\$23	\$532	\$520
School CFD Taxes (Elk Grove Unified School District)			\$200	\$200	\$200	\$200	\$200	\$200	\$200	\$200	\$800	\$800
Sacramento County Police Services CFD 2005-1 Tax			\$362	\$362	\$362	\$265	\$265	\$265	\$265	\$265	\$0	\$0
SCWA Zone 13 Water & Drainage Studies Assessment [1]			\$7	\$7	\$7	\$0	\$0	\$0	\$0	\$0	\$14	\$14
CSA 1 Street Lights Assessment			\$52	\$52	\$52	\$5	\$5	\$5	\$5	\$5	\$142	\$142
Subtotal Existing Taxes/Assessments			\$5,640	\$5,080	\$4,062	\$3,199	\$2,781	\$2,944	\$2,567	\$1,753	\$30,891	\$30,226
Estimated Max. Special Tax for Services (Rounded)			\$2,160	\$2,160	\$1,860	\$1,420	\$1,370	\$1,370	\$1,020	\$250	\$3,689	\$6,778
Subtotal Existing Taxes/Asses. And Estimated Special Services Tax	d		\$7,800	\$7,240	\$5,922	\$4,619	\$4,151	\$4,314	\$3,587	\$2,003	\$34,580	\$37,004
Special Taxes for Infrastructure (Rounded) [2]			\$1,200	\$770	\$280	\$330	\$60	\$180	\$240	\$390	\$7,500	\$7,500
Total Taxes/Assesments			\$9,000	\$8,010	\$6,202	\$4,949	\$4,211	\$4,494	\$3,827	\$2,393	\$42,080	\$44,504
Total Taxes/Assessments Percentage of Sales Price			1.80%	1.80%	1.80%	1.80%	1.80%	1.80%	1.80%	1.80%	1.43%	1.55%

Source: The Gregory Group, EPS, Sacramento County.

[1] Single Family: \$6.94 per unit; Multifamily: \$6.94 per acre; Commercial: \$13.89 per acre.

[2] Residential: 1.8% of home value less all other taxes (c-d). Commercial: \$7,500 per acre

2 pct ed

Table A-13
Cordova Hills Financing Plan
Estimated Infrastructure Bond Sizing at Buildout

Pilatus Parcel Alternative

Item	Assumption	Amount
Bond Assumptions [1]		
Interest Rate	6.5%	
Term	30 years	
Annual Tax Escalation	2.0%	
Estimated Annual Maximum Special Taxes [2]		\$7,346,000
Less Estimated Administration Costs	4%	(\$294,000)
Less Delinquency Coverage	10%	(\$735,000)
Estimated Max. Special Taxes for Gross Debt Service		\$6,317,000
Bond Size		
Total Base Bond Size (2014 \$)		\$82,492,000
Increase for Annual Tax Escalation [3]	20%	\$16,498,000
Total Bond Size (Rounded)		\$98,990,000
Estimated Bond Proceeds		
Total Bond Size		\$98,990,000
Less Capitalized Interest [4]	18 months	(\$9,652,000)
Less Bond Reserve Fund	1 yr debt svc.	(\$6,317,000)
Less Issuance Cost	5%	(\$4,950,000)
Estimated Bond Proceeds (Rounded)		\$78,071,000

bond pp

Source: EPS.

- [1] Estimated bond sizing based on conservative assumptions. The interest rate will be determined at the time of bond sale; the bond term could be 25 to 30 years or more. This analysis assumes 30 years.
- [2] See Table A-14.
- [3] Assumes special taxes are escalated 2.0% annually for 30 years, which increases total bond size by approximately 20%.
- [4] Length of time for capitalized interest is dependent upon developer and county preference.

Table A-14
Cordova Hills Financing Plan
Estimated Maximum Annual Special Tax Revenue at Buildout

Pilatus Parcel Alternative

Item	Land Use									Commercial	Office	Total
	Estates Residential	Low Density (LDR)	Med. Density (MDR)	Residential 20		HDR						
				Owner-occupied	Renter-occupied	Owner-occupied & Market Rate	Renter-occupied & Market Rate	Renter-occupied & Affordable				
Dwelling Units	235	2,660	3,375	340	340	338	338	1,144			8,770	
Nonresidential Acres									86.3	32.9	119.2	
Estimated Max. Special Tax for Infrastructure [1]	\$1,570	\$1,140	\$600	\$580	\$290	\$410	\$430	\$390	\$7,500	\$7,500		
Estimated Annual Maximum Special Tax Revenue for Infrastructure at Buildout (Rounded)	\$369,000	\$3,032,000	\$2,025,000	\$197,000	\$99,000	\$139,000	\$145,000	\$446,000	\$647,000	\$247,000	\$ 7,346,000	

tax pp

Source: Cordova Hills, LLC, EPS.

[1] See Table A-15.

Table A-15
Cordova Hills Services Costs
Estimated Annual Taxes/Assessments (2014\$)

Pilatus Parcel Alternative

Item	Formula	Percentage	Residential								Nonresidential	
			Estates Residential	Low Density (LDR)	Med. Density (MDR)	Residential 20		HDR			Commercial	Office
						Owner-occupied	Renter-occupied	Owner-occupied & Market Rate	Renter-occupied & Market Rate	Renter-occupied & Affordable		
Assumptions												
Estimated Average Sales Price per Dwelling Unit	a		\$500,000	\$445,000	\$345,000	\$275,000	\$234,000	\$250,000	\$213,000	\$133,000		
Less Homeowners' Exemption			(\$7,000)	(\$7,000)	(\$7,000)	(\$7,000)	(\$7,000)	(\$7,000)	(\$7,000)	(\$7,000)		
Estimated Taxable Sale Price	b		\$493,000	\$438,000	\$338,000	\$268,000	\$227,000	\$243,000	\$206,000	\$126,000		
Nonresidential Assumptions												
Estimated Price per Bldg. Sq. Ft.											\$ 225	\$ 220
Estimated Price per Acre											\$2,940,300	\$2,874,960
			Amount per Dwelling Unit								Amount per Acre	
Capacity for Taxes/Assessments	c=a*1.8%	1.8%	\$9,000	\$8,010	\$6,210	\$4,950	\$4,212	\$4,500	\$3,834	\$2,394		
Existing Taxes/Assessments												
General Property Tax	b*1.0%	1.0000%	\$4,930	\$4,380	\$3,380	\$2,680	\$2,270	\$2,430	\$2,060	\$1,260	\$29,403	\$28,750
Los Rios College General Obligation Bond	b*0.0181%	0.0181%	\$89	\$79	\$61	\$49	\$41	\$44	\$37	\$23	\$532	\$520
School CFD Taxes (Elk Grove Unified School District)			\$200	\$200	\$200	\$200	\$200	\$200	\$200	\$200	\$800	\$800
Sacramento County Police Services CFD 2005-1 Tax			\$362	\$362	\$362	\$265	\$265	\$265	\$265	\$265	\$0	\$0
SCWA Zone 13 Water & Drainage Studies Assessment [1]			\$7	\$7	\$7	\$0	\$0	\$0	\$0	\$0	\$14	\$14
CSA 1 Street Lights Assessment			\$52	\$52	\$52	\$5	\$5	\$5	\$5	\$5	\$142	\$142
Subtotal Existing Taxes/Assessments			\$5,640	\$5,080	\$4,062	\$3,199	\$2,781	\$2,944	\$2,567	\$1,753	\$30,891	\$30,226
Estimated Max. Special Tax for Services (Rounded)			\$1,790	\$1,790	\$1,540	\$1,170	\$1,140	\$1,140	\$830	\$250	\$2,841	\$5,131
Subtotal Existing Taxes/Asses. And Estimated Special Services Tax	d		\$7,430	\$6,870	\$5,602	\$4,369	\$3,921	\$4,084	\$3,397	\$2,003	\$33,732	\$35,357
Special Taxes for Infrastructure (Rounded) [2]			\$1,570	\$1,140	\$600	\$580	\$290	\$410	\$430	\$390	\$7,500	\$7,500
Total Taxes/Assesments			\$9,000	\$8,010	\$6,202	\$4,949	\$4,211	\$4,494	\$3,827	\$2,393	\$41,232	\$42,857
Total Taxes/Assessments Percentage of Sales Price			1.80%	1.80%	1.80%	1.80%	1.80%	1.80%	1.80%	1.80%	1.40%	1.49%

Source: The Gregory Group, EPS, Sacramento County.

[1] Single Family: \$6.94 per unit; Multifamily: \$6.94 per acre; Commercial: \$13.89 per acre.

[2] Residential: 1.8% of home value less all other taxes (c-d). Commercial: \$7,500 per acre

2 pct pp

Public Hearing Draft Report

Cordova Hills Special Planning Area Fiscal Impact Analysis

The Economics of Land Use



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October 2012

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1. EXECUTIVE SUMMARY

Conwy, LLC, retained Economic & Planning Systems, Inc. (EPS), to prepare a fiscal impact analysis (Analysis) of the Cordova Hills Special Planning Area project (Project). The 2,668-acre Project is vacant and is located in unincorporated Sacramento County (County), just east of the approved Sunridge Specific Plan and the proposed Suncreek Specific Plan in the City of Rancho Cordova.

This report describes the estimated fiscal impact on the County's annual General Fund and Road Fund budgets resulting from the provision of public services to the Project. Specifically, the Analysis estimates whether projected General Fund and Road Fund revenues from the Project will adequately cover the costs of delivering countywide services (e.g., public protection, health and sanitation, education, and public assistance), as well as County-administered municipal services (e.g., law enforcement, fire protection, and road maintenance) to the Project's residents and businesses.

This report also discusses the Project's impacts on fire protection and library services costs, which are provided by independent agencies. This discussion is derived from the Cordova Hills Urban Services Plan.

Analytical Background

This Analysis is part of a comprehensive set of three studies that evaluate the development impacts of the Project. These are the other two studies:

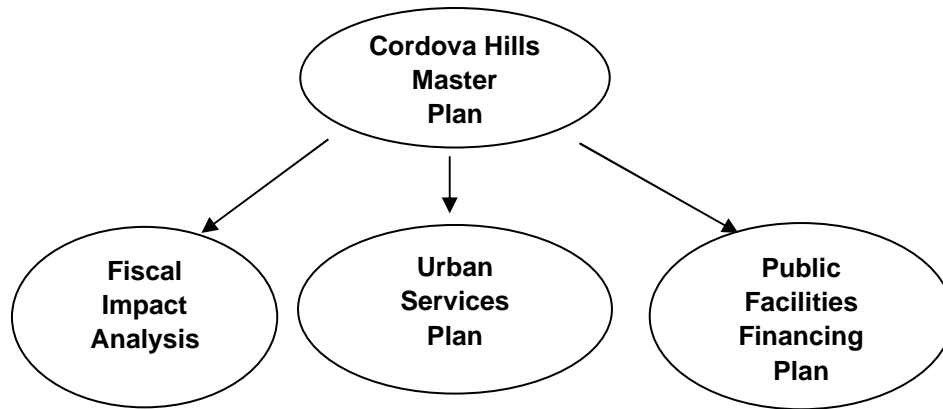
- The Cordova Hills Urban Services Plan (Urban Services Plan).
- The Cordova Hills Public Facilities Financing Plan (Financing Plan).

Figure 1 identifies the three companion documents EPS prepared and their relation to the Draft Cordova Hills Master Plan (Master Plan). **Figure 2** identifies the analytical focus of each document.

- The Urban Services Plan describes the service levels and financing strategy to fund an urban level of public services that will be provided to the Project's future residents, businesses, and employees. It also includes a Governance Plan, which provides a detailed description of the proposed Cordova Hills Local Services District (CHLSD), the procedural requirements to establish the CHLSD, and other institutional features recommended. As detailed in the Urban Services Plan, the CHLSD could be either a County Service Area or a Community Services District. **Figure 3** identifies the Project's municipal services and identified service providers, including the CHLSD.
- The Financing Plan provides the estimated cost and timing of backbone infrastructure and other public facilities needed to serve new development in the Project. It also provides the strategy to match the timing of costs with the availability of probable funding sources.

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Figure 1
Cordova Hills Special Planning Area
Public Services and Facilities Funding and Financing Documents



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Figure 2
Cordova Hills Special Planning Area
Public Services and Facilities Funding and Financing Documents

Service/Facility Type	Service Provider	EPS Technical Documents		
		Urban Services Analysis	Fiscal Impact Analysis	Public Facilities Financing Plan
Public Services				
Fire Protection	Indep. Agency	X	X	
Electricity	Indep. Agency	X		
Natural Gas	Indep. Agency	X		
Library	Indep. Agency	X	X	
Recreation	CHLSD	X		
Parks	CHLSD	X		
Open Space and Trails	CHLSD	X		
Habitat and Wetlands	CHLSD	X		
Landscape Corridors	CHLSD	X		
Supplemental Road Maintenance	CHLSD	X		
Transit	CHLSD	X		
Transportation Management Association	CHLSD	X		
Administration and Communications	CHLSD	X		
General Government	County		X	
Health & Sanitation	County		X	
Education	County		X	
Public Assistance	County		X	
Public Protection [1]	County		X	
Public Ways	County		X	
Recreation [2]	County		X	
Roads	County		X	
Backbone Infrastructure and Public Facilities [3]				
Backbone Infrastructure				
Roadways	County			X
Sanitary Sewer	County			X
Storm Drainage	County			X
Potable Water	County			X
Public Facilities				
Fire	Indep. Agency			X
Parks and Recreation	CHLSD			X
Open Space and Trails	CHLSD			X
Habitat and Wetlands	CHLSD			X
Library	Indep. Agency			X
Transit	CHLSD			X
Corporation Yard and CHLSD Facilities	CHLSD			X
Special District Formation and Updates	CHLSD			X
Schools	Indep. Agency			X

"eps_docs"

Source: EPS.

[1] Includes Detention and Correction, Judicial, Sheriff, Sheriff-Unincorporated, and Other.

[2] Includes services at countywide recreation facilities only.

[3] This list represents backbone infrastructure and public facilities that are included in the Financing Plan.

Figure 3
Cordova Hills Special Planning Area
Organization of Urban Services

Sacramento County		Independent Agencies		Cordova Hills Local Services District (CHLSD)
Service	Provider	Service	Provider	Service
Domestic Water	SCWA Zone 41	Fire Protection	Sac. Metropolitan Fire District	Recreation
Sanitary Sewer	SRCSD	Electricity	SMUD	Operations and Maintenance [1]
	SASD	Natural Gas	PG&E	Parks
Safety and Street Lighting	CSA-1	Library	Sac. Public Library Authority	Open Space and Trails
Storm Drainage	SCWA Zone 12			Habitat Maintenance
Roads within Public ROW	County Department of Transportation			Landscape Corridors
Solid Waste [2]	County Dept. of Waste Management and Recycling			Road Maintenance
Law Enforcement	County Sheriff Department			Transit
Animal Control	County Dept. of Animal Care and Regulation			Transportation Management Association
Code Enforcement	County Code Enforcement Division			Administration and Communications (Intranet site)
General Government	County			Solid Waste [2]

providers

- [1] The CHLSD may contract out for some operations and maintenance functions.
[2] The CHLSD may provide solid waste services.

Overview of Results

At Project buildout, as summarized in **Table 1**, the Analysis estimates the General Fund, including Police Services Community Facilities District (CFD) 2005-1 revenue, will experience an annual surplus of \$2.7 million and the Road Fund will experience an annual deficit of \$201,000.¹ At buildout of Phase 1, the General Fund, including Police Services CFD 2005-1 revenue, will experience an annual surplus of \$752,000 and the Road Fund will experience an annual deficit of \$34,000.

Overview of Project Land Uses and Phasing

Planned development in the Project consists of a maximum of 8,000 residential units on approximately 1,096 acres, with approximately 65 acres of commercial and office development, and approximately 223 acres, which will accommodate a university or other institution of higher learning (hereafter referred to as “university/college campus center”). The remaining acreage will be used for parks, recreation, open space, trails, agriculture, schools, and other public facility improvements, such as roadways. The Project is divided into six separate villages.

Master Plan Land Use Adjustments

In this Analysis, the buildout dwelling units were reduced from the maximum 8,000 dwelling units to 7,500 dwelling units, and the buildout nonresidential building square feet were reduced from 1.3 million square feet to 851,000 square feet to be consistent with the Financing Plan. The more conservative projections in the Financing Plan help ensure that costs per dwelling unit or building square foot are not understated if actual development occurs at levels below the maximum authorization.

In addition, this Analysis uses persons per household factors developed in the Financing Plan. For purposes of developing fair share cost allocations, the Financing Plan’s persons per household factors used to project population are different from those used in the Master Plan. The Financing Plan differentiates between factors for different residential uses while the Master Plan assumes only two factors: one for single-family uses and one for multifamily uses. Because of the difference in assumed dwelling units, the total projected population in the Financing Plan (20,110 people) is less than in the Master Plan (21,379 people).

Please see Table 2-1 and Table 2-4 in the Financing Plan for the calculations used to make these adjustments.

Project Location

The Project is bordered to the west by Grant Line Road, to the north by Glory Lane (about one-half mile south of Douglas Road), and to the east by Carson Creek. The Kiefer Landfill and its associated bufferlands are southwest of the Project, and the required bufferlands extend into the southwest portion of the Project. **Map 1** shows the regional location of the Project.

¹ Refer to **Chapter 2** of this report for more details regarding the Police Services CFD 2005-1.

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Table 1
Cordova Hills Special Planning Area
Fiscal Impact Analysis
Fiscal Impact Summary (2011\$)

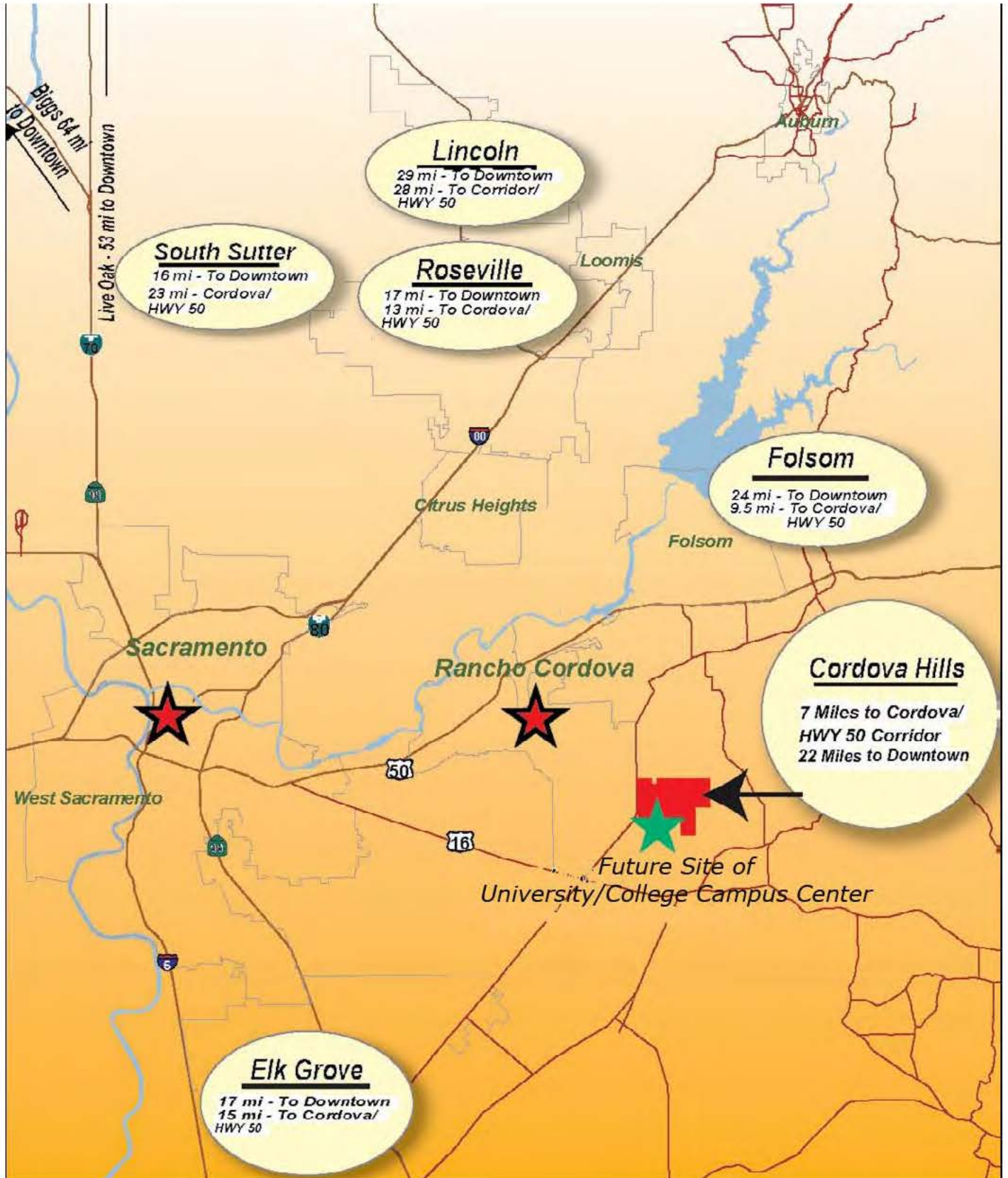
Item	Annual Fiscal Impact (Rounded)	
	Phase 1	Buildout
General Fund		
Revenues	\$2,175,000	\$10,246,000
Expenditures	\$1,952,000	\$9,834,000
Surplus/(Deficit)	\$223,000	\$412,000
Police Services CFD 2005-1 Revenue [1]	\$529,000	\$2,315,000
General Fund Surplus/(Deficit) with Police Services CFD Revenue	\$752,000	\$2,727,000
Road Fund		
Revenues	\$186,000	\$924,000
Expenditures	\$220,000	\$1,125,000
Road Fund Surplus/(Deficit)	(\$34,000)	(\$201,000)

"sum_all"

Source: Sacramento County FY 2010-11 Adopted Budget and EPS.

[1] Calculated in Table B-7.

Map 1 Cordova Hills Vicinity



Organization of Report

This report is divided into four chapters, including this executive summary as **Chapter 1**:

- **Chapter 2** explains the methodology and assumptions underlying the County General Fund and Road Fund revenue and expenditure projections in this Analysis.
- **Chapter 3** describes the Project's fiscal impact on General Fund and Road Fund revenues and expenditures.
- **Chapter 4** describes the Project's fiscal impact on fire protection and library services, which are provided by independent agencies. This chapter was derived from Chapter 4 in EPS's Urban Services Plan.

Detailed fiscal calculations and assumptions are contained in the following five appendices:

- **Appendix A: Fiscal Impact Summary and Assumption Tables** includes Project-related assumptions, including detailed land use plans and population and employment estimates.
- **Appendix B: Revenue-Estimating Tables** contain the revenue-estimating tables and projected annual revenues.
- **Appendix C: Expenditure-Estimating Tables** contain the expenditure-estimating tables and projected annual expenditures.
- **Appendix D: Supporting Tables for Revenue Estimates** includes supporting calculations for the study's revenue estimates.
- **Appendix E: Other Agency Fiscal Impacts** includes support calculations used to derive fire protection and library revenues and expenditures.

2. COUNTY FISCAL METHODOLOGY AND ASSUMPTIONS

This section details the underlying methodology and assumptions used to estimate the fiscal impact of the Project on the County. It describes assumptions concerning unincorporated countywide and municipal public services delivery, land use development, and General Fund and Road Fund budgeting. In addition, it describes the methodology used to forecast the Project-related revenues and expenditures.

Countywide and Municipal Services

This Analysis examines the Project's ability to generate adequate County revenues to cover the County's costs of providing services to the Project. Specifically, it evaluates the fiscal impact of providing countywide services and municipal services (e.g., law enforcement and road maintenance) on the County's General Fund and two road funds (collectively, the "Road Fund").

This analysis evaluates the fiscal impact of the Project on two of the County's three road funds: the Roads Fund and the Transportation Sales Tax Fund, which both fund operations and maintenance of unincorporated County roads. This analysis excludes the County's third Road Fund, the Roadway Fund, because it is funded by development impact fee revenues and is used primarily for capital improvements.

Items Excluded from Analysis

Please note that this Analysis does not include the following costs or their associated revenues:

- Activities budgeted in other Governmental Funds or Proprietary Funds.
- Urban services and independent agency services are not discussed in this report. Urban services (e.g., park and open space maintenance) and their related costs and funding sources are discussed in detail in the Urban Services Plan.²
- Capital facilities or funding of capital facilities needed to serve new development. Capital improvement requirements and funding are addressed in the Financing Plan.

General Assumptions

This Analysis uses information and land use assumptions from the Project proponent, as well as historical data and projected demographic data from the California Department of Finance (DOF), Claritas, and U.S. Bureau of Labor Statistics.

² A new local services district, the CHLSD (see Chapter 1 for discussion), is proposed to provide select public services because of the special nature of the range of services provided and the enhanced levels of services required by the Project. The CHLSD would provide services not provided by the County or independent agencies and enhanced levels of services from the level typically provided by the County.

The Analysis is based on the Final Adopted Fiscal Year (FY) 2010-11 County budget, tax regulations, statutes, and other general assumptions discussed in the following section. Each revenue item is estimated based on current State legislation and current County practices. Future changes by either State legislation or County practices could affect the revenues and expenditures estimated in this Analysis. All costs and revenues are shown in constant 2011 dollars. General fiscal and demographic assumptions are detailed in **Table A-1**.

Other critical assumptions that may affect the results of this Analysis are actual versus estimated commercial values and the assumed mix of commercial land uses, especially assumptions regarding the types of retail land uses (i.e., community-serving retail or region-serving retail). The land use information in this Analysis was provided by the Project proponent. The results of this Analysis will vary if development plans or other assumptions change from those on which this Analysis is based.

Revenue- and Expenditure-Estimating Assumptions

This Analysis focuses on discretionary revenues that will be generated by the Project. Offsetting revenues (i.e., dedicated revenues that are used to offset the cost of specific County department/function costs) are excluded from this Analysis. Departmental costs that are funded by offsetting revenues are excluded from the Analysis as well. Calculations used to exclude offsetting revenues from the Analysis are shown in **Table B-1**. Calculations used to exclude corresponding departmental costs are shown in **Table C-1**. The offsetting revenue analysis was prepared based on EPS's fiscal experience. EPS has not yet coordinated with the County in its analysis of budgeted revenues and expenditures.

Development Assumptions

The following list documents additional assumptions concerning development in the Project.

Buildout Land Uses—As described in **Chapter 1**, buildout dwelling units in this Analysis were reduced from the Master Plan's maximum 8,000 dwelling units to 7,500 dwelling units, and the buildout nonresidential building square feet were reduced from 1.3 million square feet to 851,000 square feet to be consistent with the Financing Plan. Please see Chapter 1 of this Analysis for more detail or Chapter 2 of the Financing Plan.

The buildout land use plan is also consistent with the Urban Services Plan. The Project's land use plan for residential, nonresidential, and public land uses is provided in **Table A-2A**. A detailed nonresidential land use table is provided in **Table A-2B**.

Phase 1 Land Use Plan—The Phase 1 development schedule prepared by WHA proposes 468,000 square feet of nonresidential development. The timing of this development is uncertain, though, and nonresidential development will likely experience a lag after residential development commences. For the purpose of this Analysis as well as the Urban Services Plan, EPS used a modified Phase 1 development schedule composed of these:

- 100 percent of the Phase 1 residential development.
- 120,000 square feet of commercial development.

The modified Phase 1 schedule provides a more conservative estimate of Phase 1 revenues and costs because the net cost of serving residential development is greater than the cost of serving commercial development. It is also more reflective of the type of development that may result in the initial years of the Project.

Affordable Units—The Project's residential development includes affordable housing for low-, very low-, and extremely low-income households. In this Analysis, the calculation of affordable housing units is based on a total Project unit count of 7,500. A breakdown showing the number of buildout affordable housing units by income level is provided below.

Unit Type	Affordability	Units	Length of Affordability
Rental	Low Income (80% AMI)	391	55 years
Rental	Very Low Income (50% AMI)	391	55 years
Rental	Extremely Low Income (30% AMI)	196	55 years
Total Affordable Units		978	

Phasing of affordable housing has not been defined because it will be outlined in the Project's forthcoming affordable housing agreement(s). For purposes of this Analysis, Phase 1 affordable housing units were calculated based on the share of total residential development planned during Phase 1 (23 percent). Thus, 23 percent of the Project's total 978 affordable housing units were estimated to be developed in Phase 1—the equivalent of 228 units.

All of the Project's affordable units are anticipated to be renter-occupied and consist of the High-Density Residential product type.

Assessed Value and Real Growth Assumptions—The Project's residential and nonresidential assessed value was estimated to generate revenue projections for property tax, property tax in lieu of Vehicle License Fee (PTIL VLF), and Real Property Transfer Tax. To be conservative in forecasting these revenues, the estimated assessed values for Project land uses are assumed to remain static in 2011-dollar values; real growth in assessed value is not estimated.

Residential Assessed Value—The analysis estimates average prices per unit for the following residential land use types:

- Estates Residential.
- Low Density.
- Medium Density.
- Residential 20.
- High-Density Residential (41 percent market-rate and 59 percent affordable units).

Estimates of prices for market-rate homes are based on a February 2010 analysis of The Gregory Group's residential market data. Price points for market-rate rental units were reduced by 15 percent of market-rate prices to reflect reduced values for rental housing. Price points for affordable rental units were derived using 2010 income limits for extremely low-, very low-, and

low-income households provided by State Community Development Block Grant (CDBG) and HOME Investment Partnerships Program (HOME). Affordable for-sale home prices were estimated based on the 2010 income limits. Affordable rental values were derived by reducing the for-sale prices by 15 percent. Estimated residential values are shown in **Table A-3**. The weighted average value for affordable rental units was calculated in **Table D-3**.

Nonresidential Assessed Value—Valuation of the Project's nonresidential land uses is based on assessed values for new Folsom and Rancho Cordova retail and office parcels in the Parcel Quest database as of June 2011. The estimated value per square foot for commercial and office land uses are \$225 and \$220, respectively. Estimated nonresidential values are shown in **Table A-3**.

Owner- and Renter-Occupied Housing Breakdown—According to the Master Plan, Residential 20 and High-Density Residential units will consist of both apartments and condominiums. For the purpose of this Analysis, the following assumptions were made:

- Residential 20, which consists exclusively of market-rate units, was estimated to be 50-percent rental and 50-percent owner-occupied.
- High Density Residential market-rate units were estimated to be 50-percent rental and 50-percent owner-occupied.
- High-Density Residential affordable units were estimated to be 100-percent rental. This assumption is consistent with the Project's Affordable Housing Plan.

Residential Persons per Household—Population factors used to estimate future residents of the Project's residential and university/college campus center housing units were taken from the Financing Plan and Urban Services Plan. **Table A-3** identifies persons-per-household estimates. **Table A-4** estimates the Project's Phase 1 and buildout population.

Reader's Note: Persons-per-household estimates differ from those in the Master Plan. The Master Plan uses one estimate for all single-family housing and one for all multifamily housing. For the purposes of this Analysis, separate estimates were established for each type of residential unit to more accurately estimate population by land use. The overall population that would be generated from the maximum of 8,000 dwelling units is approximately equal using either set of persons-per-household factors.

Nonresidential Square Feet per Employee—Employee projections for commercial land uses were generated using an average factor of 500 square feet per employee. Employees generated by the Project's office land uses were based on a factor of 275 square feet per employee. Factors are based on EPS's experience and standard industry assumptions. Calculations are shown in **Table A-3**. **Table A-4** estimates the Project's Phase 1 and buildout employees.

Reader's Note: Buildout dwelling units and square feet in this Analysis are consistent with those in the Urban Services Plan and Financing Plan but are lower than those in the Master Plan. The Master Plan projections are higher because they are used to estimate maximum Project impacts. This Analysis uses a more conservative estimate of development that is likely to occur.

University/College Campus Center Student and Other Residents—University/college campus center residents will reside in the Project's student housing and temporary housing. A persons-per-unit factor of 4.0 was used for student housing, while a factor of 1.0 was used for temporary housing. As shown in **Table A-3**, there are 460 university/college campus center students anticipated in Phase 1 and 4,140 university/college campus students anticipated at buildout of the Project.³

University/College Campus Center Employees and Off-Site Students—Approximately 200 faculty and non-student staff employees will be generated by Phase 1 development of the university/college campus center. At buildout, about 2,000 university/college campus center faculty and non-student staff employees are projected. In addition, 140 university/college campus center students are anticipated to live off-campus and off-site (outside of the Project) through development of Phase 1 of the Project. At buildout, 1,860 off-campus and off-site university/college campus center students are anticipated. These students are estimated to generate fiscal revenues and expenses at a level similar to other employees generated by Project development. These estimates are shown in **Table A-4**.

Revenue-Estimating Methodology

EPS used either a marginal revenue case-study approach or an average-revenue approach to estimate Project-related revenues.

The marginal revenue case-study approach simulates actual revenue generation resulting from new development. The case-study approach for property tax-related revenues (i.e., ad valorem property taxes and PTIL VLF) is based on the estimated assessed value of the Project at buildout. The case-study approach for estimating sales and use tax revenues (e.g., Bradley-Burns Local Sales Tax, Property Tax In-Lieu of Sales Tax, and Proposition 172 Public Safety Sales Tax) is based on the supply of new retail square footage and estimated taxable sales per square foot. These methodologies are discussed in further detail later in this section.

The average-revenue approach calculates the County's FY 2010-11 budgeted revenues on a countywide per-persons-served basis to forecast the revenues that will be derived from estimated new residents and employees of the Project. A *per-persons-served* basis of estimating revenues is used to take into account that businesses (and their employees) have a fiscal impact on many County revenues but at a lower level than residential development's impact.

Revenue sources that are *not* expected to increase as a result of development are excluded from the Analysis. These sources of revenue are not affected by development because they are either one-time revenue sources not guaranteed to be available in the future or there is no direct relation between increased population and employment growth and increased revenue.

A listing of all revenue sources by fund and the corresponding estimating procedure used to forecast future Project revenues are shown in **Table B-1** and summarized in the table on the following page.

³ Total students in the Project, comprising those who live both on and off campus, are estimated to equal 600 in Phase 1 and 6,000 at buildout of the Project. Those students who live off-campus and off-site (outside of the Project) are discussed in the following section.

Revenues	Revenue Estimating Procedure
General Fund	
Taxes	
Property Tax	Marginal Revenue (Case Study)
Property Transfer Tax	Marginal Revenue (Case Study)
Property Tax in Lieu of VLF	Marginal Revenue (Case Study)
Property Tax in Lieu of Sales Tax	Marginal Revenue (Case Study)
Sales and Use Tax	Marginal Revenue (Case Study)
Transient Occupancy Tax	[1]
Utility User Tax	Average Revenue
Other Taxes	Average Revenue
Licenses, Permits, & Franchises	Average Revenue
Fines, Forfeitures, & Penalties	Average Revenue
Use of Money & Property	[2]
Intergovernmental Revenues	[2]
Prop 172. Public Safety Sales Tax	Marginal Revenue (Case Study)
Charges for Services	[2]
Miscellaneous Revenues	[2]
Operating Transfer In	[2]
Residual Equity Transfer In	[2]
Fund Balance Unreserved/Undesignated	[2]
Decreases to Reserves/Designations	[2]
Road Fund	
Roads Fund	
Fund Balance	[2]
Charges for Services	[2]
Gas Tax	Average Revenue
Intergovernmental Revenue	[2]
Licenses, Permits, & Franchises	Average Revenue
Other Taxes	[2]
Property Tax	Marginal Revenue (Case Study)
Sales and Use Tax	[2]
Use of Money & Property	[2]
Transportation Sales Tax Fund	
Fund Balance	[2]
Intergovernmental Revenue	[2]
Miscellaneous Revenues	[2]
One-Half Sales Tax	Marginal Revenue (Case Study)
Use of Money & Property	[2]

[1] Transient occupancy tax revenues are fully dedicated to the Transient Occupancy Tax Fund, which funds cultural services. Thus, this revenue source is not included in the County revenue projections.

[2] Refers to revenues that are not affected by development or are negligible revenue sources.

Property Tax

Estimated annual property tax revenue resulting from development in the Project is presented in **Table B-3**. The Project is located in the following three tax rate areas (TRAs):

- TRA 51-025
- TRA 51-083
- TRA 51-107

The property taxes the County will receive from the Project are derived from the total assessed value of the Project (less the \$7,000 per dwelling unit homeowners' exemption) and the weighted average County General Fund allocation of the 1-percent ad valorem property tax for each TRA, as shown in **Table D-1**. The TRA allocations are weighted based on an estimate of the proportional assessed value in each TRA.⁴

Property Tax in Lieu of Vehicle License Fee

This Analysis uses a formula provided by the California State Controller's Office to project PTIL VLF. PTIL VLF is calculated by taking the percentage increase in a jurisdiction's assessed value resulting from a given project and applying that percentage share to the jurisdiction's current State allocation of PTIL VLF. This calculation is shown in **Table B-3**.

Real Property Transfer Tax

Real property transfer tax is based on the increase in assessed value by land use type and anticipated turnover of both residential and commercial properties over time. This Analysis is based on the assumption that owner-occupied residential property will transfer property ownership at 10 percent per year (or once every 10 years) and renter-occupied residential and commercial property will turnover 5 percent per year (or once every 20 years). Tax revenue projections are identified in **Table B-4**.

Sales and Use Taxes

Sales tax revenue projections are based on estimated Project area spending at proposed commercial land uses in the Project. The sales tax-based revenues examined include the Bradley-Burns Uniform Sales Tax 1-percent rate and a revenue-neutral factor estimating the reduction in revenues resulting from the shift of property tax in lieu of sales tax (0.25 percent). In this Analysis, 100 percent of Bradley-Burns sales tax revenue and the shift of property tax in lieu of sales tax revenue has been allocated to the County. **Table B-5** provides detail on these calculations.

Fiscal impact analyses typically use one of three methods to project annual taxable sales attributable to new development. These methods are summarized below:

⁴ Land use information by TRA was not available. To prepare a weighted average for all three TRAs, the assessed value by village in the Cordova Hills Village Concept Map was estimated and compared with the TRA boundaries shown in the Cordova Hills TRA Map.

- **Method 1**—Market Support Method, which accounts for new taxable sales in a jurisdiction that are generated by new residents and employees of a given development. This method includes new taxable sales inside and outside a development's boundaries.
- **Method 2**—Retail-Space Method, which accounts for taxable spending at new on-site retail outlets in a development. This method includes the spending assumed to be generated by new residents, employees, and visitors.
- **Method 3**—Combination of Methods 1 and 2 above. This approach includes on-site and off-site spending by new residents and employees in a jurisdiction, as well as on-site retail spending by visitors. Because both Method 1 and Method 2 separately estimate on-site taxable spending from Project residents and employees, an adjustment is made in Method 3 to avoid double-counting.

The Project is located in a rural part of the County, relatively far from the Cities of Sacramento or Folsom, where the County's unincorporated population is more concentrated. Because of the Project's location, it is expected the Project's retail space will need to be fully supported by the Project's residents and employees. As a result, the retail-space method (Method 2) was selected to estimate annual taxable sales.

The Project's annual taxable sales were calculated by multiplying an "annual sales per square foot" factor, published in the Urban Land Institute's *Dollars and Cents of Shopping Centers: 2008*, by the Project's proposed retail land uses. The projected sales tax revenue generated by retail development in the Project is shown in **Table B-5A**.

Proposition 172

Revenues from the half-cent sales tax for public safety are included in the Analysis and calculated in **Table B-5**. Proposition 172 revenues cover public safety services costs that are otherwise funded by discretionary General Fund revenues. EPS has estimated that the County will retain approximately 95 percent of total revenues for countywide public safety services. This assumption has not been verified by the County; rather, it is based on EPS's experience in analyzing public safety sales tax allocations in other counties.

Transient Occupancy Tax Revenue

According to the County budget, Transient Occupancy Tax (TOT) is reserved for costs associated with "artistic, cultural, civic, and other activities which enhance the image and quality of life of the community." Because it is a non-discretionary revenue source, it has been excluded from this Analysis.

It is important to note, though, that TOT is expected to yield a significant amount of non-discretionary revenue. At buildout, this Analysis estimates that the Project's proposed 200 rooms will generate \$675,000 in annual TOT revenue (**Table B-6**). EPS assumed an average daily room rate of \$110 and a vacancy rate of 70 percent, based on Sacramento area hotel trends. These assumptions were confirmed by the Sacramento Convention and Visitors Bureau.

Police Services Community Facilities District 2005-1 Revenue

As discussed in the Urban Services Plan, police services will be funded through the County General Fund and through the County Police Services CFD 2005-1 annual special tax. **Table B-7** shows the estimated CFD 2005-1 revenue generated by the Project.

Road Fund Revenues

Table B-1 identifies the Road Fund and Transportation Sales Tax Fund revenue-estimating procedures. This analysis includes revenues generated by property tax and by Measure A, the County's half-cent sales tax. The share of Measure A revenue allocated to the County for traffic control and safety; safety, streetscaping, pedestrian, and bike facilities; and street and road maintenance is calculated as a per capita multiplier in **Table B-1**.

Expenditure-Estimating Methodology

EPS estimated General Fund expenditures by using an average-cost approach for all expenditures. This method is based on the assumption that the marginal cost of County services to new Project residents and employees would equal the County's existing average cost structure. While the average-cost approach is a common modeling framework for County fiscal impact analyses, it is conservative in that it includes certain fixed costs that are not likely to be affected by growth. For example, it is unlikely that budget items such as "County Counsel" or "Personnel" would increase at all, let alone in a linear 1:1 fashion as a result of new development.

A listing of all County General Fund expenditures and the estimating procedures used to forecast future expenditures from the Project are shown on **Table C-1**. Costs were based on the County's FY 2010-11 budget and supplemental information from County staff.

Average cost *per person served* was used to estimate the following General Fund and Road Fund expenditures because these expenditures are impacted by additional residents *and* employees:

- | | |
|----------------------------------|----------------------|
| • Legislative and Administrative | • Other ⁵ |
| • Finance | • Public Protection |
| • County Counsel | • Roads |
| • Personnel | |

Elections, Health & Sanitation, Education, Public Assistance, and Recreation were allocated on an average cost *per capita* basis because these services primarily benefit residents only.

General Government

When an average cost methodology is employed, it is common practice in the industry to apply an efficiency factor for certain departments/functions to recognize that new development is not anticipated to have a linear 1:1 cost impact on a jurisdiction. In this Analysis, an efficiency factor of 80 percent was applied to the General Government expenditure multipliers. This factor

⁵ Includes Other General, Promotion, Property Management, and Plant Acquisition.

is based on the assumption that economies of scale are realized in General Government department functions that lessen the incremental costs of serving new growth (i.e., employees and persons served). Thus, to account for departmental efficiencies, General Government costs are estimated at a reduced rate instead of being directly proportional to growth.

Sheriff

The County Sheriff's department provides a variety of services to two population bases: the countywide population and the unincorporated population. As a result, this Analysis calculates two separate average-cost multipliers for Sheriff:

- Sheriff: Represents services provided to the countywide population.
- Sheriff—Unincorporated: Represents services provided to the unincorporated population.

Countywide services include correctional and court security, while unincorporated services include field patrol. The costs of these services are identified separately in the County budget.

The County Sheriff's budget also identifies the costs of other overhead and investigative activities and carryover funding. Although these items are attributable to countywide and unincorporated services delivery, the County budget does not provide a countywide and unincorporated services cost and funding breakdown. As a result, EPS reallocated overhead and investigative costs and carryover funding to countywide and unincorporated services. The reallocation was based on the proportional relation of countywide and unincorporated Sheriff costs, as shown in **Table C-3**. Based on this reallocation, a modified average-cost multiplier was derived for Sheriff—Unincorporated services. All calculations are shown in **Table C-3**.

Excluded Expenditures

The following expenditure categories were excluded from Project expenditure calculations: public ways, debt service, contingency, and increases to reserves/designations. These categories were excluded because they are not considered to be affected by Project development or are assumed to have negligible impacts.

3. COUNTY FISCAL IMPACT RESULTS

The County General Fund is estimated to have an annual surplus of approximately \$223,000 at completion of Phase 1 of the Project and \$412,000 at buildout before accounting for the revenues generated by CFD No. 2005-1 to pay for police services. The overall surplus to the County after accounting for the CFD No. 2005-1 revenue (excluding the Road Fund) is estimated at \$752,000 after Phase 1 and \$2.7 million at buildout. The County Road fund is estimated to have an annual deficit of \$34,000 after Phase 1 and \$201,000 at buildout.

The County fiscal impact summary is provided in **Table 1**. **Table 2** provides a detailed list of the Project's estimated General Fund and Road Fund revenue and expenditure projections. Highlights from the results are noted below.

Revenues

- Total annual General Fund revenues at buildout are estimated at \$10.2 million. Property tax-based revenues comprise 79.7 percent of total fiscal revenues at buildout, while the Project's sales tax-based revenues represent 7.0 percent. **Table B-2** shows the percentage breakdown of the Project's total fiscal revenues by each revenue source.
- The Road Fund is anticipated to generate \$924,000 annually at buildout. Project-generated road revenues are expected to come from the gas tax; licenses, permits, and forfeitures; property tax; and the half-cent sales tax.

Expenditures

- Total annual General Fund expenditures at buildout are estimated at \$9.8 million. The largest expenditure item is Sheriff—Unincorporated services, which comprises 26.4 percent of total costs at buildout. Judicial and Sheriff services are the second- and third-greatest expenditure items, respectively, representing 18.4 percent and 16.0 percent of total costs at buildout. **Table C-2** shows the percentage breakdown of the Project's total fiscal expenditures by each budget function.
- The Road Fund is anticipated to generate annual road operations expenditures of \$1.1 million at buildout.

Funding and Mitigation of Potential Fiscal Deficits

The results of this Analysis estimate a surplus in the General Fund and a deficit in the Road Fund. This annual deficit is anticipated to be funded by a Mello-Roos Community Facilities District (CFD) formed by the CHLSD to fund authorized services. Refer to the Urban Services Plan for additional details.

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Table 2
Cordova Hills Special Planning Area
Fiscal Impact Analysis
Estimated Revenue and Expenditure Summary (2011\$)

Item	Annual Fiscal Impact (Rounded)	
	Phase 1	Buildout
General Fund		
Annual General Fund Revenues [1]		
Property Tax	\$1,085,000	\$5,073,000
Property Transfer Tax	\$55,000	\$256,000
Property Tax in Lieu of VLF	\$556,000	\$2,600,000
Property Tax in Lieu of Sales Tax	\$51,000	\$238,000
Sales and Use Tax	\$153,000	\$714,000
Transient Occupancy Tax [2]	\$0	\$0
Utility User Tax	\$48,000	\$247,000
Other Taxes	\$37,000	\$189,000
Licenses, Permits, & Franchises	\$81,000	\$416,000
Fines, Forfeitures, & Penalties	\$12,000	\$61,000
Prop 172. Public Safety Sales Tax	\$97,000	\$452,000
Subtotal General Fund Revenues	\$2,175,000	\$10,246,000
Annual General Fund Expenditures [3]		
General Government	\$103,000	\$521,000
Health & Sanitation	\$295,000	\$1,422,000
Education	\$1,000	\$5,000
Public Assistance	\$166,000	\$800,000
Public Protection		
Detention and Correction	\$177,000	\$904,000
Judicial	\$354,000	\$1,808,000
Sheriff	\$308,000	\$1,577,000
Sheriff - Unincorporated	\$508,000	\$2,596,000
Other	\$30,000	\$152,000
Subtotal Public Protection	\$1,377,000	\$7,037,000
Recreation	\$10,000	\$49,000
Subtotal General Fund Expenditures	\$1,952,000	\$9,834,000
General Fund Surplus/(Deficit)	\$223,000	\$412,000
Police Services CFD 2005-1 Revenue [4]	\$529,000	\$2,315,000
Surplus/(Deficit) with Police Services CFD Revenue	\$752,000	\$2,727,000
Road Fund		
Revenues [1]	\$186,000	\$924,000
Expenditures [3]	\$220,000	\$1,125,000
Road Fund Surplus/(Deficit)	(\$34,000)	(\$201,000)

"summary"

Source: Sacramento County FY 2010-11 Adopted Budget and EPS.

- [1] See Table B-1 for detail on revenue estimating procedures. Does not include Police Services CFD 2005-1. Police Services CFD 2005-1 revenues are calculated in Table 1.
- [2] Transient Occupancy Tax (TOT) revenues are fully dedicated to the TOT Fund, which funds cultural services. The project is estimated to generate \$674,520 in annual revenue for the County's TOT Fund, as shown in Table B-6.
- [3] See Table C-1 for detail on expenditure estimating procedures.
- [4] Calculated in Table B-7.

4. INDEPENDENT AGENCY SERVICES

Introduction

This chapter describes the Project's impacts on fire protection and library services. This discussion and the referenced tables were derived from the Draft Urban Services Plan. Fire protection will be provided by the Sacramento Metropolitan Fire District (SMFD), while library services will be provide by the Sacramento Public Library Authority.

Fire Protection

SMFD is the service provider for the area and will continue to provide services once the Project has developed. This service will include service to the university/college campus center in the initial stages of development. However, as the university/college campus center builds out, it may elect to provide its own fire services for the campus separately from the SMFD or to supplement the SMFD services.

The university/college campus center will be zoned to accommodate the tallest buildings in the Project, which have a maximum building height of six stories. As such, a truck company will be needed for the Project to accommodate these building heights. The Project also will require an engine company, which is required in all service areas. In addition to the engine company and truck company for fire protection services, the Project will require a medic company (an ambulance with two paramedics). The SMFD services will be funded through property tax revenue.

Fire Protection Services Costs and Revenues

The approximate annual costs to provide fire and medical services to the Project and property tax revenue available for SMFD services are summarized on the following page.

Based on the revenue and cost estimates, there will be a surplus of approximately \$3.0 million at buildout to provide fire and medical services to the Project, including the university. Thus, the university/college campus center will not be required to contribute to any operations funding for SMFD fire and medical services. At this time, Phase 1 costs are not available from the SMFD.

Fire District Services Costs (2011\$)

Item	Annual Total (2011\$)	
	Phase 1	Buildout
Annual SMFD Fire Service Revenues		
Annual SMFD Property Tax Revenue (Rounded) [1]	\$ 1,500,000	\$ 6,800,000
Annual Measure Q Parcel Tax Revenue [2]	\$ 105,000	\$ 501,000
Subtotal Annual Fire Service Revenues	\$ 1,605,000	\$ 7,301,000
Annual SMFD Fire Service Operating Costs [3]		
Engine Company	NA	\$ 1,500,000
Truck Company	NA	\$ 2,000,000
Medic Company	NA	\$ 800,000
Subtotal Annual Fire Service Costs	NA	\$ 4,300,000
Fire Service Surplus/(Shortfall)	NA	\$ 3,001,000

"fire_txt"

Source: SMFD; Sacramento County; EPS.

[1] Estimated in Table E-1.

[2] Measure Q authorized a \$100 parcel tax on all parcels within the Project. For the purpose of this analysis, revenue from the Measure Q parcel tax is based on the assumption that all single-family homes (Estates Residential, Low Density Residential, and Medium Density Residential) are constructed on their own parcel. In actuality, more revenue would be generated from remaining land uses in the Project. However, it is unknown at this time how many parcels will be attributable to the High Density Residential (including Residential 20) and commercial and office land uses.

[3] Operating costs provided by the Sacramento Metropolitan Fire District (SMFD).

Fire District Capital Costs

With respect to capital improvements, the Project (including the university/college campus center) will be subject to the districtwide fire facilities fee to cover the cost of new fire station real property acquisition, development, and equipment. Table 8-2 of the Financing Plan estimates the Project will generate approximately \$9.7 million in fee revenue. The SMFD has indicated that development in the Project area will require at least one new fire station in the Project. In a January 14, 2011, comment letter from the SMFD regarding the Financing Plan, the SMFD noted that \$9.7 million would be adequate to construct and equip at least one fire station. An additional station could be located in the Project depending on how stations are located to best serve both the Project and surrounding areas. In this case, the \$9.7 million in Project fee revenue would be sufficient to fund the share of capital fire costs attributable to the Project, including the university/college campus center.

Library Services

The Sacramento Public Library Authority is the fourth-largest library system in California, serving the public in the City and County of Sacramento, as well as the Cities of Citrus Heights, Elk Grove, Galt, Isleton, and Rancho Cordova. The Sacramento Public Library operates 28 libraries, which includes a Central Library in Downtown Sacramento. More than 600,000 residents have a library card and more than 7 million items are circulated annually.

A branch library is planned in the Town Center Village to serve the Project's residents, as well as residents in the surrounding area. The branch library may be phased in over time by locating first in a leased space in a commercial setting and ultimately locating in a permanent facility. The library will serve as a center of public activity and will be located adjacent to a public space such as a plaza and near shops, restaurants, and entertainment venues in the Town Center Village.

Library Services Costs and Revenues

It is estimated that library services will be fully funded through property tax revenue, so an additional assessment will not be necessary. Below is a summary table of library service costs, revenues, and the estimated surplus at Phase 1 and buildout.

The Project will require approximately 53 percent of a 15,000-square-foot branch library, using a standard of 0.4 square feet per resident. The Sacramento Public Library Authority has estimated that a branch library of this size requires an annual operations budget of approximately \$800,000. Thus, the annual cost to serve Project residents at buildout is approximately 53 percent of this amount, or \$427,000. Project property tax revenue to be allocated to the Sacramento Public Library Authority is estimated at \$495,000 at buildout.

Phase 1 development results in an estimated annual Project library services cost of \$107,000 versus a property tax allocation of \$106,000. This is a breakeven situation given the assumptions used to model costs and revenues. Thus, this analysis concludes that no funding, in addition to property taxes, will be needed for Cordova Hills library services for Phase 1.

Fire Protection and Library Backup Calculations

Table E-1 estimates the annual property tax allocation to the SMFD and Sacramento Public Library Authority from Project development at the completion of Phase 1 and at buildout. The estimates in **Table E-1** are based on the estimated annual property taxes generated by Project development (see **Table E-2**) and the percentage of the property tax allocated to the SMFD from development in the Project TRAs (see **Table D-1**). **Tables E-1** and **E-2** were taken from Chapter 4 of the Draft Urban Services Plan.

Library Services Costs (2011\$)

Item	Formula	Phase 1	Buildout
Persons Served	<i>a</i>	4,567	20,110
Library Square Feet per Capita	<i>b</i>	0.4	0.4
Library Square Feet to Serve Cordova Hills	$c=a*b$	2,000	8,000
Branch Library Square Feet	<i>d</i>	2,000	15,000
Annual Services Cost of Branch Library [1]	<i>e</i>	\$ 106,667	\$ 800,000
Average Annual Cost per Square Foot		\$ 53	\$ 53
Cordova Hills Portion	$f=c/d$	100%	53%
Cordova Hills Annual Library Services Cost	$g=e*f$	\$ 106,667	\$ 426,667
Estimated Property Tax Revenue [2]	<i>h</i>	\$ 105,775	\$ 494,729
Surplus/(Shortfall) [3]	<i>h-g</i>	(\$ 891)	\$ 68,062
Cordova Hills Net Annual Library Services Cost to be Funded by Urban Services Fee		\$ 0	\$ 0

lib cost

Source: Sacramento County Library

[1] Buildout cost based on Sacramento County budget for large County branches that operates 6 days a week (See Table 4-5). Phase 1 cost estimated as buildout cost per sq. ft. * sq. ft. required to serve Phase 1 development.

[2] See Table E-1.

[3] This result is essentially a breakeven position, where costs and revenues are within 1% of each other.



APPENDICES:

- Appendix A: General Assumptions
- Appendix B: County Revenue Analysis
- Appendix C: County Expenditure Analysis
- Appendix D: Revenue Support Calculations
- Appendix E: Other Agency Fiscal Impacts



APPENDIX A: General Assumptions

Table A-1	General Assumptions	A-1
Table A-2A	Land Use Detail	A-2
Table A-2B	Nonresidential Land Use Detail	A-3
Table A-3	Land Use Assumptions	A-4
Table A-4	Estimated Residential and Employee Population by Land Use Category	A-5

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Table A-1
Cordova Hills Special Planning Area
Fiscal Impact Analysis
General Assumptions

Item	Assumption
General Assumptions	
Base Fiscal Year [1]	FY 2010-11
Property Turnover Rate (% per year) [2]	
Residential - Owner-occupied	10.0%
Residential - Renter-occupied	5.0%
Nonresidential	5.0%
General Demographic Characteristics	
Sacramento County Population	
Claritas [3]	1,432,253
DOF [4]	1,445,327
Average Total Sacramento County Population [5]	1,438,790
Sacramento County Unincorporated Population	
DOF [4]	567,700
Sacramento County Employees [6]	608,697
Sacramento County Unincorporated Employees [6]	199,591
Sacramento County Persons Served [7]	1,743,139
Sacramento County Unincorporated Persons Served [7]	667,496

"gen_assumps"

Source: California Department of Finance (DOF), Claritas, U.S. Census, and EPS.

- [1] Revenues and Expenditures are in 2011 dollars. Future revenues and costs are assumed to increase at the rate of inflation.
- [2] Property turnover rates based on EPS experience.
- [3] Based on Claritas Demographics Snapshot March 14, 2011.
- [4] California Department of Finance data for January 1, 2010.
- [5] Uses an average of the Claritas and DOF population estimates.
- [6] Based on Claritas Workplace and Employment Summary (2009).
- [7] Defined as total population plus half of total employees.

Table A-2A
Cordova Hills Special Planning Area
Fiscal Impact Analysis
Land Use Detail

Land Use	Assumptions	Phase 1			Buildout		
		Acreage [1]	Dwelling Units	Nonres. Sq. Ft. [2]	Acreage [1]	Dwelling Units	Nonres. Sq. Ft.
Residential Land Uses	<i>Max. Units/Acre</i>						
Estates Residential (1-4 units/acre)	4	-	-	-	64.7	138	-
Low Density Residential (4-7 units/acre)	7	48.3	290	-	491.1	1,809	-
Medium Density Residential (7-15 units/acre)	15	63.3	760	-	386.8	3,061	-
Residential 20 (20 units/acre)	20	7.5	150	-	61.5	833	-
High Density Residential (23-40 units/acre)	40	21.0	550	-	84.6	1,659	-
Total Residential		140.1	1,750	-	1,088.6	7,500	-
Nonresidential Land Uses	<i>Floor Area Ratio</i>						
Nonresidential [3]							
Commercial	0.21	13.3	-	120,000	72.6	-	654,860
Office	0.15	-	-	-	30.7	-	196,540
Total Nonresidential		13.3	-	120,000	103.3	-	851,400
Undeveloped Commercial		68.3	-	-	-	-	-
Mixed Use [3]							
Town Center	-	-	-	-	-	-	-
Flex Commercial	-	-	-	-	-	-	-
Total Mixed Use		-	-	-	-	-	-
Total Nonresidential		81.6	-	120,000	103.3	-	851,400
Total Res. and Nonres. Development		221.7	1,750	120,000	1,191.9	7,500	851,400
Public Uses							
Public/Quasi Public		6.0	-	-	105.8	-	-
Recreation		15.0	-	-	99.1	-	-
Rec 2		3.0	-	-	150.6	-	-
Avoided Area		381.2	-	-	493.2	-	-
Agriculture		145.1	-	-	194.0	-	-
Misc. Roads & Open Space		74.0	-	-	210.4	-	-
Total Public Uses		624.3	-	-	1,253.1	-	-
University/College Campus Center [4]		54.8	-	344,000	223.5	-	1,870,000
University/College Campus Center Housing Units/Residents							
Student Residents (90% undergrad, 10% grads)		-	115	-	-	1,010	-
Other Residents (100 temporary)		-	-	-	-	100	-
Total University/College Campus Center		-	115	-	-	1,110	-
Total All Land Uses		900.8	1,865	464,000	2,668.5	8,610	2,721,400

"land_uses"

Source: EPS and WHA Land Use Summary (6/21/10).

- [1] The Phase 1 geographic area is equivalent to the Town Center, the surrounding agricultural area, the separate avoided area (preserve), and part of the university/ccc.
[2] To provide a conservative estimate of fiscal feasibility, this analysis assumes only 120,000 square feet of retail development in Phase 1. Buildout of Phase 1 will include additional retail and office development totaling 468,800 square feet.
[3] Mixed use is incorporated into nonresidential categories, as described in Table 2-1 in the Cordova Hills Public Facility Financing Plan.
[4] Includes the academic zone, transition zone, living and learning zone, and athletic zone. Square footage by category is not available.

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Table A-2B
Cordova Hills Special Planning Area
Fiscal Impact Analysis
Nonresidential Land Use Detail [1]

Item	Phase 1 [2]		Buildout		
	Acres	Building Square Feet	Acres	Building Square Feet	
Commercial					
Retail					
Neighborhood-Serving Retail					
Building Type 1A	Grocery - Super	0.0	0	6.4	58,000
Building Type 1B	Grocery - Specialty	0.0	0	19.6	177,200
Building Type 4A	In Line Shops (80'Deep)	0.0	0	12.4	112,000
Building Type 4B	In Line Shops (60'Deep)	0.0	0	9.2	82,800
Subtotal, Neighborhood, Serving Retail		13.3	120,000	47.7	430,000
Community-Serving Retail					
Building Type 3A	Big Box - Home Improvement	0.0	0	0.0	0
Building Type 3B	Big Box	0.0	0	0.0	0
Building Type 5A	Quality Restaurant	0.0	0	8.4	75,760
Building Type 5B	High Volume Restaurant	0.0	0	0.0	0
Building Type 5C	Fast Food Restaurant	0.0	0	2.7	24,500
Building Type 10	Fuel Station	0.0	0	0.9	8,000
Subtotal, Community-Serving Retail		0.0	0	12.0	108,260
Subtotal Retail		0.0	0	59.7	538,260
Service/Other					
Building Type 2	Lodging (200 Keys)	0.0	0	7.3	66,000
Building Type 4C	Service/ Bank	0.0	0	3.3	30,000
Building Type 8	Fitness	0.0	0	1.6	14,600
Building Type 9	Theater	0.0	0	0.0	0
Building Type 11	Transit Hub	0.0	0	0.7	6,000
Subtotal Other		0.0	0	12.9	116,600
Total Commercial		0.0	0	72.6	654,860
Office					
Building Type 6A	Mixed Use Office	0.0	0	0.0	0
Building Type 6B	General Office	0.0	0	10.3	66,000
Building Type 6C	Office Park	0.0	0	6.2	40,000
Subtotal (excluding FRO)		0.0	0	16.5	106,000
Building Type 12	FRO - Zone	0.0	0	14.1	90,540
Total Office		0.0	0	30.7	196,540
TOTAL NONRESIDENTIAL		13.3	120,000	103.3	851,400

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Source: William Hezmallhalch Architects.

[1] This table estimates retail square footage by subcategory, which is used to calculate the project's sales tax revenue projections.

[2] To provide a conservative estimate of fiscal feasibility, this analysis assumes only 120,000 square feet of retail development in Phase 1. Buildout of Phase 1 will include additional retail and office development totaling 468,800 square feet.

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Table A-3
Cordova Hills Special Planning Area
Fiscal Impact Analysis
Land Use Assumptions

Land Use	Buildout Units/ Sq. Ft. [1]	Estimated Assessed Value per Unit/Sq. Ft. [2]	Turnover Rate	Persons per Dwelling Unit [1]	Sq. Ft. per Employee [1]
Residential Land Uses					
Owner-Occupied	<i>Units</i>	<i>Per Unit</i>			
Estates Residential	138	\$500,000	10%	3.25	-
Low Density Residential	1,809	\$445,000	10%	3.10	-
Medium Density Residential	3,061	\$345,000	10%	2.80	-
Residential 20 [3]	416	\$275,000	10%	2.20	-
High Density Residential - Market Rate [3]	341	\$250,000	10%	2.20	-
Subtotal Owner-Occupied	5,765				
Renter-Occupied					
Residential 20 [3]	416	\$234,000	5%	2.20	-
High Density Res. - Market Rate [3]	341	\$213,000	5%	2.20	-
High Density Res. - Affordable [3] [4]	978	\$133,000	5%	2.20	-
Subtotal Renter-Occupied	1,735				
Total Residential Land Uses	7,500				
Nonresidential Land Uses					
	<i>Sq. Ft.</i>	<i>Per Sq. Ft.</i>			
Commercial	654,860	\$225	5%	-	500
Office	196,540	\$220	5%	-	275
Total Nonresidential	851,400				
University/College Campus Center Housing Units/Residents [5]					
	<i>Units</i>	<i>Per Unit</i>			
Student Residents (90% undergrad, 10% grads)	1,010	n/a	-	4.00	-
Other Residents (100 temporary)	100	n/a	-	1.00	-
Total University/College Campus Center	1,110	n/a			

lu_assumps

Source: Wade & Assoc., WHA Inc. (4/9/10), Gregory Group, Parcel Quest, and EPS.

- [1] Persons per household, buildout dwelling units, and buildout square feet differ from those in the Draft Cordova Hills Master Plan. The Master Plan projections are higher because they are used to estimate maximum Project impacts. Reduced estimates are used in this analysis and in the Financing Plan to provide a more conservative estimate of development that is likely to occur. The Master Plan uses one estimate for all single family housing and one for all multifamily housing. For the purposes of this analysis and the Financing Plan, separate estimates were established for each type of residential unit to more accurately estimate population by land use. The overall population that would be generated from the maximum of 8,000 dwelling units is approximately equal using either set of persons per household factors. Please see Table 2-1 in the Financing Plan for calculations used to adjust the Master Plan projections.
- [2] Home values are based on a February 2010 review of the Gregory Group's home sales database and on estimated home values within comparable new projects in the area. Nonresidential values are based on June 2011 Parcel Quest data for retail and office product types.
- [3] For purposes of this analysis, Residential 20 and High Density Residential - Market Rate are estimated to be 50% owner-occupied and 50% renter-occupied. Renter-occupied values are discounted by 15% to reflect the lower price points of rental housing.
- [4] Based on the project's affordable housing plan. Weighted average unit value calculated in Table D-3.
- [5] University/college campus center employee projections are shown in Table A-4.

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Table A-4
Cordova Hills Special Planning Area
Fiscal Impact Analysis
Estimated Residential and Employee Population by Land Use Category

Item	Assumptions [1]	Resident and Employee Population [2]	
		Phase 1	Buildout
<hr/>			
<u>Population</u>	<i>Persons/Dwelling Unit</i>	<i>Residents</i>	
Residential			
Estates Residential	3.25	0	448
Low Density Residential	3.10	899	5,609
Medium Density Residential	2.80	2,128	8,571
Residential 20	2.20	330	1,832
High Density Residential	2.20	1,210	3,651
Subtotal Residential Uses		4,567	20,110
University/College Campus Center			
Student Residents (90% undergrads, 10% grads)	4.00	460	4,040
Other Residents (Temporary)	1.00	0	100
Subtotal University/College Campus Center		460	4,140
Total Population		5,027	24,250
<u>Employment & Off-Campus Students</u>	<i>Sq. Ft./Employee</i>	<i>Employees</i>	
Community Employment			
Commercial	500	240	1,310
Office	275	0	715
Subtotal Nonresidential Uses		240	2,024
University/College Campus Center Employment			
Faculty	n/a	TBD	685
Non-Student Staff	n/a	TBD	1,351
Subtotal University/College Campus Center		207	2,036
Off-Campus/Off-Site Students [3]		140	1,860
Total Employees and Off-Campus Students		587	5,920
Total Persons Served [4]		5,321	27,210

"pop_empl"

Note: Totals may not add because of rounding.

Source: California Department of Finance and EPS.

[1] Persons per dwelling unit and sq. ft. per employee assumptions represent adjustments from the Master Plan.

For details on calculations, see Table A-3 in this analysis and Table 2-1 of the Cordova Hills Financing Plan.

[2] Based on preliminary estimates of residential and nonresidential development in the proposed land use plan.

[3] Includes the share of total university/college campus center students that will not live in the Project. These students are estimated to generate fiscal revenues and expenses at a level similar to employees. Total students in the Project (on-campus and off-campus) are estimated to be 600 in Phase 1 and 6,000 at buildout.

[4] "Persons Served" is defined as 100% of residential population and 50% of employees and off-campus students.

APPENDIX B:

County Revenue Analysis



Table B-1	Revenue-Estimating Procedures (2 pages)	B-1
Table B-2	Estimated Annual Project Revenues	B-3
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Table B-1
Cordova Hills Special Planning Area
Fiscal Impact Analysis
Revenue-Estimating Procedures

Item	Estimating Procedure	Case Study Reference	FY 2010-11 Recommended Revenues [1]	Offsetting Revenues [2]	Net Annual General Fund Revenues	Service Population	Revenue Multiplier
General Fund Revenues							
Taxes							
Property Tax	Case Study	Table B-3	\$220,000,379	\$0	\$220,000,379	NA	-
Property Transfer Tax	Case Study	Table B-4	\$6,000,000	\$0	\$6,000,000	NA	-
Property Tax in Lieu of VLF	Case Study	Table B-3	\$130,385,745	\$0	\$130,385,745	NA	-
Property Tax in Lieu of Sales Tax	Case Study	Table B-3	\$13,413,170	\$0	\$13,413,170	NA	-
Sales and Use Tax	Case Study	Table B-5	\$45,292,215	\$0	\$45,292,215	NA	-
Transient Occupancy Tax [3]	Case Study	-	\$2,258,401	\$0	\$2,258,401	NA	-
Utility User Tax	Persons Served	-	\$15,812,750	\$0	\$15,812,750	1,743,139	\$9.07
Other Taxes	Persons Served	-	\$12,083,353	\$0	\$12,083,353	1,743,139	\$6.93
Total Taxes			\$445,246,013	\$0	\$445,246,013	NA	-
Licenses, Permits, & Franchises	Persons Served	-	\$37,915,462	\$11,257,162	\$26,658,300	1,743,139	\$15.29
Fines, Forfeitures, & Penalties	Persons Served	-	\$31,530,485	\$27,615,485	\$3,915,000	1,743,139	\$2.25
Use of Money & Property	[4]	-	\$11,629,665	\$747,316	\$10,882,349	NA	-
Intergovernmental Revenues	[4]	-	\$1,346,799,790	\$1,208,073,480	\$138,726,310	NA	-
Prop 172. Public Safety Sales Tax	Case Study	Table B-5	\$89,000,000	\$89,000,000	\$0	NA	-
Charges for Services	[4]	-	\$127,425,041	\$122,191,336	\$5,233,705	NA	-
Miscellaneous Revenues	[4]	-	\$189,969,445	\$65,622,605	\$124,346,840	NA	-
Operating Transfer In	[4]	-	\$21,272,552	\$18,000,000	\$3,272,552	NA	-
Residual Equity Transfer In	[4]	-	\$187,069	\$187,069	\$0	NA	-
Subtotal			\$1,855,729,509	\$1,542,694,453	\$313,035,056	NA	-
Fund Balance Unreserved/Undesignated	[4]	-	-	\$8,138,537	(\$8,138,537)	NA	-
Decreases to Reserves/Designations	[4]	-	-	\$4,604,180	(\$4,604,180)	NA	-
Total Financing Uses			\$2,300,975,522	\$1,555,437,170	\$745,538,352	NA	-
Road Fund [6]							
Roads Fund							
Fund Balance	[4]	-	\$16,827,508	\$0	\$16,827,508	NA	-
Charges for Services	[4]	-	\$1,944,498	\$77,000	\$1,867,498	NA	-
Gas Tax	Persons Served	-	\$29,500,000	\$0	\$29,500,000	1,743,139	\$16.92
Intergovernmental Revenue	[4]	-	\$50,810,489	\$50,810,489	\$0	NA	-
Licenses, Permits, & Franchises	Persons Served	-	\$1,300,000	\$0	\$1,300,000	1,743,139	\$0.75
Other Taxes	[4]	-	\$22,775	\$22,775	\$0	NA	-
Property Tax	Case Study	-	\$358,000	\$358,000	\$0	NA	-
Sales and Use Tax	[4]	-	\$301,000	\$301,000	\$0	NA	-
Use of Money & Property	[4]	-	\$477,700	\$477,700	\$0	NA	-
Total Roads Fund			\$101,541,970	\$52,046,964	\$49,495,006		
Transportation Sales Tax Fund							
Fund Balance	[4]	-	(\$16,265,875)	\$0	(\$16,265,875)	NA	-
Intergovernmental Revenue	[4]	-	\$13,630,241	\$13,630,241	\$0	NA	-
Miscellaneous Revenues	[4]	-	\$4,274,428	\$4,274,428	\$0	NA	-
One-Half Sales Tax	[5]	-	\$25,089,523	\$0	\$25,089,523	NA	\$17.29
Use of Money & Property	[4]	-	\$100,000	\$0	\$100,000	NA	-
Total Transportation Sales Tax Fund	[4]	-	\$26,828,317	\$17,904,669	\$8,923,648		
Total Road Fund Revenues			\$128,370,287	\$69,951,633	\$58,418,654		

"rev_est_procedures"

Source: Sacramento County FY 2010-11 Adopted Budget and EPS.

Notes on next page.

Table B-1
Cordova Hills Special Planning Area
Fiscal Impact Analysis
Revenue-Estimating Procedures

- [1] As shown in Schedule 5 of the Sacramento County Final Adopted Fiscal Budget.
- [2] Represents revenues generated by specific General Fund and Road Fund department functions. These revenues are allocated to their corresponding departments as offsetting revenues in Table C-1. These costs are also shown in Schedule 2 of the Sacramento County Final Adopted Fiscal Budget.
- [3] Transient occupancy tax revenues are fully dedicated to the Transient Occupancy Tax Fund, which funds cultural services.
- [4] Refers to revenues that are not affected by development or that are negligible revenue sources.
- [5] Based on the County's Measure A Sales Tax Revenue & Distribution Chart dated March 2011. A per capita multiplier was derived based on the Measure A revenue allocated to the County for traffic control and safety; safety, streetscaping, pedestrian, and bike facilities; and street and road maintenance.

FY 2010-11 Total

Measure A County Allocations	\$9,814,519
------------------------------	-------------

Unincorporated County Population	567,700
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One-half Sales Tax per Capital Multiplier	\$17.29
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- [6] Includes the Road Fund and Transportation Sales Tax Fund. This analysis excludes the County's Roadway Fund, which is funded by development impact fee revenues and used primarily for capital improvements.

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Table B-2
Cordova Hills Special Planning Area
Fiscal Impact Analysis
Estimated Annual Project Revenues (2011\$)

Revenue	Net Multiplier	Annual Fiscal Impact		Percentage Breakdown of Ann. Buildout Revenues
		Phase 1	Buildout	
Population		5,027	24,250	
Persons Served		5,321	27,210	
General Fund Revenues [1]				
Property Tax	NA	\$1,084,710	\$5,073,367	49.5%
Property Transfer Tax	NA	\$54,567	\$256,149	2.5%
Property Tax in Lieu of VLF	NA	\$555,913	\$2,600,097	25.4%
Property Tax in Lieu of Sales Tax	NA	\$51,000	\$237,984	2.3%
Sales and Use Tax	NA	\$153,000	\$713,951	7.0%
Transient Occupancy Tax [2]	NA	\$0	\$0	0.0%
Utility User Tax	\$9.07	\$48,257	\$246,794	2.4%
Other Taxes	\$6.93	\$36,871	\$188,565	1.8%
Licenses, Permits, & Franchises	\$15.29	\$81,350	\$416,040	4.1%
Fines, Forfeitures, & Penalties	\$2.25	\$11,971	\$61,222	0.6%
Prop 172. Public Safety Sales Tax	NA	\$96,900	\$452,169	4.4%
Total Annual General Fund Revenues		\$2,174,539	\$10,246,336	100.0%
Road Fund				
Gas Tax	\$16.92	\$90,023	\$460,392	49.8%
Licenses, Permits, & Franchises	\$0.75	\$3,990	\$20,407	2.2%
Property Tax	NA	\$5,130	\$23,996	2.6%
One-Half Sales Tax	NA	\$86,908	\$419,234	45.4%
Total Annual Road Fund Revenues		\$186,051	\$924,029	100.0%

"revenues"

Source: Sacramento County FY 2010-11 Adopted Budget and EPS.

[1] Includes only those revenues affected by development. See Table B-1 for revenue-estimating assumptions.

[2] Transient Occupancy Tax (TOT) revenues are fully dedicated to the TOT Fund, which funds cultural services.

The project is estimated to generate \$674,520 in annual revenue for the County's TOT Fund, as shown in Table B-6.

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Table B-3
Cordova Hills Special Planning Area
Fiscal Impact Analysis
Estimated Annual Property Tax Revenues (2011\$)

Item	Assumptions/ Source	Formula	Annual Fiscal Impact	
			Phase 1	Buildout
One-Percent Property Tax Revenue				
Assessed Value (2011\$) [1]	Table D-2	<i>a</i>	\$549,022,300	\$2,567,867,425
Property Tax Revenue (1% of Assessed Value)	1.00%	<i>b = a * 1.00%</i>	\$5,490,223	\$25,678,674
Estimated Property Tax Allocation [2]				
County General Fund	19.76%	<i>c = b * 19.76%</i>	\$1,084,710	\$5,073,367
County Roads	0.09%	<i>d = b * 0.09%</i>	\$5,130	\$23,996
Other Agencies/ERAF	80.15%	<i>f = b * 80.15%</i>	\$4,400,383	\$20,581,312
Total			\$5,490,223	\$25,678,674
Property Tax In-Lieu of Motor Vehicle In-Lieu Fee Revenue (VLF)				
Total Countywide Assessed Value [3]		<i>g</i>	\$128,769,550,688	\$128,769,550,688
Total Assessed Value of Project		<i>h = a</i>	<u>\$549,022,300</u>	<u>\$2,567,867,425</u>
Total Assessed Value		<i>i = g + h</i>	\$129,318,572,988	\$131,337,418,113
Percent Change in AV		<i>j = h / g</i>	0.4264%	1.9942%
Property Tax In-Lieu of VLF [4]	\$130,385,745	<i>k = j * \$130,385,745</i>	\$555,913	\$2,600,097

"prop_tax"

Source: Sacramento County FY 2010-11 Adopted Budget, State Controller's Office, and EPS.

[1] For assumptions and calculation of assessed value, see Table D-2.

[2] For assumptions and calculation of the estimated property tax allocation, refer to Table D-1.

[3] Total secured and unsecured assessed value for the County for 2010-11 provided by the Sacramento County Assessor's Office.

[4] Property Tax in Lieu of VLF taken from the Sacramento County FY 2010-11 Adopted Budget.

Table B-4
Cordova Hills Special Planning Area
Fiscal Impact Analysis
Real Property Transfer Tax (2011\$)

Description	Source/ Assumption	Phase 1		Buildout	
		Assessed Value [1]	Annual Transfer Tax Revenue [2]	Assessed Value [1]	Annual Transfer Tax Revenue [2]
Rate per \$1,000 of Assessed Value	\$1.10			-	-
Turnover rate					
Residential Owner-Occupied	10%			-	-
Residential Renter-Occupied	5%			-	-
Nonresidential	5%			-	-
Assessed Value of Transfer Tax					
#REF!					
Owner-Occupied					
Estates Residential	-	\$0	\$0	\$67,941,563	\$7,474
Low Density Residential	-	\$127,020,000	\$13,972	\$792,506,250	\$87,176
Medium Density Residential	-	\$256,880,000	\$28,257	\$1,034,596,875	\$113,806
Residential 20	-	\$20,100,000	\$2,211	\$111,555,000	\$12,271
High Density Res. - Market Rate	-	\$39,098,700	\$4,301	\$82,787,063	\$9,107
Subtotal Owner-Occupied	-	\$443,098,700	\$48,741	\$2,089,386,750	\$229,833
Renter-Occupied					
Residential 20	-	\$17,025,000	\$936	\$94,488,750	\$5,197
High Density Res. - Market Rate	-	\$33,145,400	\$1,823	\$70,181,625	\$3,860
High Density Res. - Affordable	-	\$28,753,200	\$1,581	\$123,228,000	\$6,778
Subtotal Renter-Occupied	-	\$78,923,600	\$4,341	\$287,898,375	\$15,834
Total Residential Land Uses		\$522,022,300	\$53,082	\$2,377,285,125	\$245,667
Nonresidential Land Uses					
Commercial	-	\$27,000,000	\$1,485	\$147,343,500	\$8,104
Office	-	\$0	\$0	\$43,238,800	\$2,378
Total Nonresidential Land Uses	-	\$27,000,000	\$1,485	\$190,582,300	\$10,482
Total Res. And Nonres. Land Uses		\$549,022,300	\$54,567	\$2,567,867,425	\$256,149

"transfer_tax"

Source: Sacramento County and EPS.

[1] Values derived in Table D-2. Note that assessed values (AV)s are expressed in 2011\$ and include no real AV growth.

[2] Formula for Transfer Tax = Assessed Value/1000 * Rate per \$1,000 of Assessed Value * Turnover rate.

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Table B-5
Cordova Hills Special Planning Area
Fiscal Impact Analysis
Estimated Annual Taxable Sales and Use Tax Revenue (2011\$)

Item	Formula	Assumptions	Annual Fiscal Impact	
			Phase 1	Buildout
Estimated Annual Taxable Sales				
County Annual Taxable Sales inside Project [1]		Table B-5A	\$20,400,000	\$95,193,400
Total Estimated Annual Taxable Sales	<i>a</i>		\$20,400,000	\$95,193,400
Annual Sales Tax Revenue				
Bradley Burns Sales Tax Rate		1.0000%		
Subtotal Estimated Local Sales Tax Rate		1.0000%		
Less Property Tax in Lieu of Sales Tax Rate [2]		-0.2500%		
Total Annual Sales Tax Revenue	<i>b = a * .75%</i>	0.7500%	\$153,000	\$713,951
Annual Property Tax in Lieu of Sales Tax Revenue [2]	<i>c = a * .25%</i>	0.2500%	\$51,000	\$237,984
Annual Prop. 172 Public Safety Tax Revenue	<i>d = a * .005%</i>	0.5000%	\$102,000	\$475,967
Estimated County Share of Prop. 172 Revenue [3]	<i>e = d * 95.0000</i>	95.0000%	\$96,900	\$452,169

"sales_tax"

Source: Sacramento County, California State Board of Equalization, and EPS.

[1] Represents taxable sales from the project's onsite retail.

[2] Based on Senate Bill 1096 as amended by Assembly Bill 2115 which states 1/4 of the 1 percent sales tax revenue (.2500 percent) will be exchanged for an equal dollar amount of property tax revenue.

[3] This analysis estimates that the County receives 95 percent of all Prop. 172 Sales Tax revenues generated in the County. Based on EPS's experience with Prop. 172 tax retained by other counties.

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Table B-5A
Cordova Hills Special Planning Area
Fiscal Impact Analysis
Estimated Annual Taxable Sales, Adjusted Retail Space Method (2011\$)

Item	Annual Taxable Sales per Sq. Ft. [1]	Annual Fiscal Impact			
		Phase 1		Buildout	
		Commercial Sq. Ft. [2]	Total Annual Taxable Sales	Commercial Sq. Ft. [2]	Total Annual Taxable Sales
Annual Taxable Sales from Commercial Site					
Neighborhood-Serving Retail	\$170	120,000	\$20,400,000	430,000	\$73,100,000
Community-Serving Retail	\$195	0	\$0	108,260	\$21,110,700
Office	\$5	0	\$0	196,540	\$982,700
Gross Annual Taxable Sales		120,000	\$20,400,000	734,800	\$95,193,400
Annual Taxable Sales inside Project			\$20,400,000		\$95,193,400

"sales_tax_b"

Source: U.S. Department of Labor Bureau of Labor Statistics; Urban Land Institute; and EPS.

[1] Based on an analysis of data from ULI's *Dollars & Cents of Shopping Centers: 2008*.

Assumptions	Annual Sales per Sq. Ft.	Taxable Retail Sales Factor	Annual Taxable Sales
			per Sq. Ft. (Rounded)
Neighborhood-Serving Retail	\$364	47%	\$170
Community-Serving Retail	\$299	65%	\$195
Office	\$5	100%	\$5

[2] Based on the developer's detailed land use plan and EPS assumptions shown in Table A-2B. Excludes land uses categorized as Service/Other.

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Table B-6
Cordova Hills Special Planning Area
Fiscal Impact Analysis
Transient Occupancy Tax Revenue (2011\$)

Items	Formula	Assumption	Annual Revenue	
			Phase 1	Buildout
Building Type 2 Planned Hotel Rooms	<i>a</i>		0	200
Annual Rooms Available			0	73,000
Annual Rooms Available	$b = a * 365$			
Occupancy Rate [1]	<i>c</i>	70.0%		
Average Daily Room Rate [1]	<i>d</i>	\$110.00		
County of Sacramento Transient Occupancy Tax Rate [1]	<i>e</i>	12.0%		
Transient Occupancy Tax (2011\$)	$f = b * c * d * e$		\$0	\$674,520
<i>"tot"</i>				

Source: Smith Travel Research, City of Sacramento, and EPS.

[1] Provided by the Sacramento Convention and Visitors Bureau.

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Table B-7
Cordova Hills Special Planning Area
Fiscal Impact Analysis
Estimated Annual Police Services CFD 2005-1 Revenue (2011\$)

Land Use	Special Tax Rate per Unit	Phase 1		Buildout	
		Dwelling Units	Annual Tax Revenue	Dwelling Units	Annual Tax Revenue
Residential Land Uses					
Estates Residential	\$ 338.62	0	\$ 0	138	\$ 46,666
Low Density Residential	\$ 338.62	290	\$ 98,200	1,809	\$ 612,691
Medium Density Residential	\$ 338.62	760	\$ 257,351	3,061	\$ 1,036,495
Residential 20 [3]	\$ 248.32	150	\$ 37,248	833	\$ 206,726
High Density Residential [3]	\$ 248.32	550	\$ 136,576	1,659	\$ 412,056
Nonresidential Land Uses [1]					
Commercial	\$ 0.00	N/A	\$ 0	N/A	\$ 0
Office	\$ 0.00	N/A	\$ 0	N/A	\$ 0
Total		1,750	\$ 529,375	7,500	\$ 2,314,634

police

Source: Sacramento County CFD 2005-1 rates for 2010-11.

[1] Residential tax only; no tax on commercial and office uses.

APPENDIX C:

County Expenditure Analysis



Table C-1	Expenditure-Estimating Procedures (2 pages)	C-1
Table C-2	Estimated Annual Expenditures	C-3
Table C-3	Estimated Unincorporated Sheriff Costs.....	C-4

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Page 1 of 2

Table C-1
Cordova Hills Special Planning Area
Fiscal Impact Analysis
Expenditure-Estimating Procedures (Footnotes on Page 2)

Function/Category	Estimating Procedure	Total Financing Uses, All Funds [1]	General Fund Total Financing Uses [2]	Reserve Provision	Carryover	Offsetting Revenue [3]	Net Cost	Modified Net Cost [4]	Service Population	Average Cost	Factor [5]	Exp. Multiplier
Annual General Fund Expenditures		<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>	<i>f = b - d - e</i>	<i>g</i>	<i>h</i>	<i>i = f or g / h</i>	<i>j</i>	<i>k = i * j</i>
General Government												
Legislative and Administrative	per person served	\$7,668,383	\$7,668,383	\$0	\$258,374	\$3,382,516	\$4,027,493	-	1,743,139	\$2.31	0.80	\$1.85
Finance [6]	per person served	\$23,199,824	\$14,635,005	\$0	\$199,855	\$91,332,210	\$14,635,005	-	1,743,139	\$8.40	0.80	\$6.72
County Counsel	per person served	\$6,307,507	\$6,307,507	\$0	\$352,277	\$4,203,201	\$1,752,029	-	1,743,139	\$1.01	0.80	\$0.80
Personnel	per person served	\$14,118,046	\$14,118,046	\$0	(\$29,040)	\$12,837,296	\$1,309,790	-	1,743,139	\$0.75	0.80	\$0.60
Elections	per capita	\$9,607,736	\$9,607,736	\$0	\$550,000	\$3,113,756	\$5,943,980	-	1,438,790	\$4.13	0.80	\$3.30
Other [7]	per person served	\$113,261,245	\$27,862,350	\$0	\$1,475,573	\$12,774,165	\$13,612,612	-	1,743,139	\$7.81	0.80	\$6.25
Subtotal General Government		\$174,162,741	\$80,199,027	\$0	\$2,807,039	\$127,643,144	\$41,280,909					
Health & Sanitation	per capita	\$622,998,535	\$559,720,976	\$0	(\$7,660,812)	\$482,988,789	\$84,392,999	-	1,438,790	\$58.66	1.00	\$58.66
Education	per capita	\$10,485,563	\$329,066	\$0	\$3,476	\$0	\$325,590	-	1,438,790	\$0.23	1.00	\$0.23
Public Assistance [8]	per capita	\$672,650,180	\$672,650,180	\$0	(\$3,014,257)	\$628,171,894	\$47,492,543	-	1,438,790	\$33.01	1.00	\$33.01
Public Protection												
Detention and Correction	per person served	\$103,788,075	\$103,788,075	\$0	\$969,308	\$44,888,869	\$57,929,898	-	1,743,139	\$33.23	1.00	\$33.23
Judicial	per person served	\$170,027,873	\$170,027,873	\$30,805	\$1,282,156	\$52,925,056	\$115,820,661	-	1,743,139	\$66.44	1.00	\$66.44
Sheriff	per person served	\$249,024,413	\$249,039,993	\$0	(\$3,966,591)	\$132,706,179	\$120,300,405	\$100,998,634	1,743,139	\$57.94	1.00	\$57.94
Sheriff - Unincorporated	per person served	\$81,355,527	\$81,355,527	\$0	\$0	\$36,962,976	\$44,392,551	\$63,694,322	667,496	\$95.42	1.00	\$95.42
Other [9]	per person served	\$52,775,698	\$41,226,667	\$15,580	\$423,362	\$31,055,243	\$9,748,062	-	1,743,139	\$5.59	1.00	\$5.59
Subtotal Public Protection		\$656,971,586	\$645,438,135	\$46,385	(\$1,291,765)	\$298,538,323	\$348,191,577					
Public Ways [10]	[12]	\$153,537,861	\$133,200	\$0	\$66,600	\$0	\$66,600	-	NA	NA	1.00	NA
Recreation [11]	per capita	\$26,294,626	\$8,347,494	\$0	\$102,266	\$5,352,303	\$2,892,925	-	1,438,790	\$2.01	1.00	\$2.01
Debt Service	[12]	\$82,466,344	\$0	\$0	\$0	\$0	\$0	-	NA	NA	NA	NA
Subtotal		\$2,399,567,436	\$1,966,818,078	\$46,385	(\$8,987,453)	\$1,542,694,453	\$524,643,143					
Contingency	[12]	\$2,070,237	\$2,005,237	\$0	\$0	\$0	\$2,005,237	-	NA	NA	NA	NA
Increases to Reserves/Designations	[12]	\$7,982,408	\$324,305	\$0	\$0	\$0	\$324,305	-	NA	NA	NA	NA
Total		\$2,409,620,081	\$1,969,147,620	\$46,385	(\$8,987,453)	\$1,542,694,453	\$526,972,685					
Road Fund [10]												
Roads Fund	per person served	\$101,541,970	NA	\$0	\$0	\$52,046,964	\$49,495,006	-	1,743,139	\$28.39	1.00	\$28.39
Transportation Sales Tax Fund	per person served	\$26,828,317	NA	\$0	\$0	\$4,274,428	\$22,553,889	-	1,743,139	\$12.94	1.00	\$12.94
Road Fund Total		\$128,370,287		\$0	\$0	\$56,321,392	\$72,048,895	-				

"exp_est_procedures"

Source: Sacramento County FY 2010-11 Adopted Budget and EPS.

Table C-1
Cordova Hills Special Planning Area
Fiscal Impact Analysis
Expenditure-Estimating Procedures (Footnotes on Page 2)

- [1] Department costs provided in Schedule 8 of the FY 2010-11 County Fiscal Budget
- [2] Total financing uses of \$1.969 billion are shown in Schedule 7 of the County budget.
- [3] Represents departmental revenues identified for specific General Fund department functions in the County's FY 2010-11 Adopted Budget.
- [4] Unincorporated Sheriff's costs are estimated using a modified net cost approach, as shown in Table C-3.
- [5] This Analysis applies an efficiency factor of 20 percent to the general government expenditure multipliers. This factor assumes that economies of scale are realized within General Government department functions that lessen the incremental costs of serving new growth (residents and persons served).
- [6] Excludes Nondepartmental offsetting revenues under Finance, as these represent non-dedicated revenues from taxes. In this analysis, net costs are equal to General Fund financing uses of \$14 million.
- [7] Includes Other General, Promotion, Property Management, and Plant Acquisition.
- [8] Includes Other Assistance and Public Assistance.
- [9] Includes Other Protection and Protective Inspection.
- [10] In this analysis, the "Public Ways" multiplier only includes Contribution to Paratransit, which is the only General Fund-funded activity within this function. The Roads Fund and Transportation Sales Tax Fund costs are analyzed separately in this analysis as the "Road Fund."
- [11] Represents regional park maintenance.
- [12] These expenditure categories will not be affected by the proposed new development and are therefore not included in this analysis.

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Table C-2
Cordova Hills Special Planning Area
Fiscal Impact Analysis
Estimated Annual Expenditures (2011\$)

Expense Category	Net Multiplier	Annual Fiscal Impact [1]		Percentage Breakdown of Annual Buildout Costs	Buildout Per Capita Cost
		Phase 1	Buildout		
Population		5,027	24,250		
Persons Served		5,321	27,210		
Annual General Fund Expenditures					
General Government					
Legislative and Administrative	\$1.85	\$9,834	\$50,294	0.5%	\$2.07
Finance	\$6.72	\$35,736	\$182,759	1.9%	\$7.54
County Counsel	\$0.80	\$4,278	\$21,879	0.2%	\$0.90
Personnel	\$0.60	\$3,198	\$16,356	0.2%	\$0.67
Elections	\$3.30	\$16,614	\$80,145	0.8%	\$3.30
Other	\$6.25	\$33,239	\$169,991	1.7%	\$7.01
Total General Government		\$102,900	\$521,425	5.3%	\$21.50
Health & Sanitation	\$58.66	\$294,861	\$1,422,379	14.5%	\$58.66
Education	\$0.23	\$1,138	\$5,488	0.1%	\$0.23
Public Assistance	\$33.01	\$165,935	\$800,450	8.1%	\$33.01
Public Protection					
Detention and Correction	\$33.23	\$176,817	\$904,270	9.2%	\$37.29
Judicial	\$66.44	\$353,514	\$1,807,928	18.4%	\$74.55
Sheriff	\$57.94	\$308,273	\$1,576,561	16.0%	\$65.01
Sheriff - Unincorporated	\$95.42	\$507,697	\$2,596,447	26.4%	\$107.07
Other	\$5.59	\$29,754	\$152,165	1.5%	\$6.27
Subtotal Public Protection		\$1,376,055	\$7,037,370	71.5%	\$290.20
Public Ways	NA	-	-	0.0%	\$0.00
Recreation	\$2.01	\$10,108	\$48,758	0.5%	\$2.01
Total General Fund		\$1,950,996	\$9,835,870	100.0%	\$405.61
Road Fund					
Roads Fund	\$28.39	\$151,071	\$772,603	68.7%	
Transportation Sales Tax Fund	\$12.94	\$68,840	\$352,060	31.3%	
Road Fund Total		\$219,911	\$1,124,663	100.0%	

"expenditures"

Source: Sacramento County FY 2010-11 Adopted Budget and EPS.

[1] See Table C-1 for expenditure estimating procedures.

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Table C-3
Cordova Hills Special Planning Area
Fiscal Impact Analysis
Estimated Unincorporated Sheriff Costs

Item	FY 2010-11 Final Adopted Net Costs	Percentage Allocation [1]	Reallocated Countywide & Unincorp. Net Cost [1]	Total Adjusted Net Cost
Total Sheriff Net Costs [2]	\$164,692,956			
Overhead and Investigative Services Costs				
Office of the Sheriff	\$389,061			
Departmental Services	\$7,900,913			
Support Services	\$20,684,307			
Investigative Services	\$16,967,278			
Carryover	\$3,966,591			
Total	\$49,908,150			
Countywide Sheriff Services				
Correctional/Court Security Services	\$70,392,255	61.3%	\$30,606,379	\$100,998,634
Unincorporated Sheriff Services				
Field Services	\$44,392,551	38.7%	\$19,301,771	\$63,694,322
Total	\$114,784,806	100.0%	\$49,908,150	\$164,692,956

"sheriff"

Source: Sacramento County FY 2010-11 Adopted Budget and EPS.

[1] This analysis allocates overhead and investigative services costs to countywide and unincorporated Sheriff activities, as these costs are attributed to both countywide and unincorporated services.

[2] Derived in Table C-1.

APPENDIX D: Revenue Support Calculations



Table D-1	AB-8 Property Tax Allocations	D-1
Table D-2	Annual Assessed Valuation	D-2
Table D-3	Affordable Unit Value Estimate	D-3

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Table D-1
Cordova Hills Special Planning Area
Fiscal Impact Analysis
AB-8 Property Tax Allocations

Fund	TRA 51-025	TRA 51-083	TRA 51-107	Weighted Average [1]	ERAF Adjustment [2]	Post-ERAF Allocation
Percent of Total AV by TRA [1]	58.2%	12.8%	29.0%			
Property Tax Allocations						
Taxing Entities Evaluated in Analysis						
COUNTY GENERAL	37.8552	39.7692	49.5064	41.4841	52.3742%	19.7571
COUNTY ROADS	0.0853	0.0896	0.1115	0.0934		0.0934
COUNTY LIBRARY	1.7581	1.8470	2.2992	1.9266		1.9266
Other Taxing Entities						
LOS RIOS COMM COLLEGE	3.1425	3.3014	4.1097	3.4437		3.4437
ELK GROVE UNIFIED	21.9999	23.1122	28.7710	24.1088		24.1088
COUNTY WIDE EQUALIZ	0.1129	0.1186	0.1476	0.1237		0.1237
SACRAMENTO METRO FIRE	33.0098	29.6227	12.3914	26.5880		26.5880
SLOUGHHOUSE RESOURCE	0.0176	0.0184	0.0230	0.0192		0.0192
JUVENILE HALL	0.0477	0.0501	0.0623	0.0522		0.0522
REGIONAL OCCUP CENTER	0.0828	0.0870	0.1082	0.0907		0.0907
PHYS HAND-UNIFIED	0.3963	0.4163	0.5182	0.4342		0.4342
COUNTY SUPT-ADMIN	0.2232	0.2345	0.2919	0.2446		0.2446
INFANT DEV-PHYS HANDIC	0.0050	0.0053	0.0066	0.0055		0.0055
INFANT DEV-MENTALLY HA	0.0050	0.0053	0.0066	0.0055		0.0055
CHILDREN'S INST	0.3862	0.4058	0.5051	0.4233		0.4233
SACTO-YOLO MOSQUITO	0.7474	0.7852	0.9774	0.8190		0.8190
DEV CENTER HANDICAPPED	0.1254	0.1317	0.1640	0.1374		0.1374
Subtotal (not including ERAF)	100.0000	100.0000	100.0000	100.0000		78.2730
ERAF Allocation						21.7270
Total	100.0000	100.0000	100.0000	100.0000		100.0000

"city_annex_share"

Source: EPS.

[1] Land use information by TRA was not available. To prepare a weighted average for all three TRAs, the AV by village in the Cordova Hills Village Concept Map was estimated and compared with the TRA boundaries shown in the Cordova Hills TRA Map.

[2] Based on the FY 2010-11 ERAF share estimate prepared by the County.

Table D-2
Cordova Hills Special Planning Area
Fiscal Impact Analysis
Annual Assessed Valuation (2011\$)

Item	Value per Unit/Sq. Ft. [1]	Phase 1		Buildout	
		Units/ Square Feet	Assessed Value [2]	Units/ Square Feet	Assessed Value [2]
<i>Formula</i>	<i>a</i>	<i>b</i>	<i>c = a * b</i>	<i>d</i>	<i>e = a * d</i>
Residential	<u>Per Unit</u>	<u>Units</u>		<u>Units</u>	
Estates Residential	\$500,000	0	\$0	138	\$67,941,563
Low Density Residential	\$445,000	290	\$127,020,000	1,809	\$792,506,250
Medium Density Residential	\$345,000	760	\$256,880,000	3,061	\$1,034,596,875
Residential 20					
Owner-Occupied	\$275,000	75	\$20,100,000	416	\$111,555,000
Renter-Occupied [3]	\$234,000	75	\$17,025,000	416	\$94,488,750
Total Residential 20		150	\$37,125,000	833	\$206,043,750
High Density Residential					
Market Rate Units					
Owner-Occupied	\$250,000	161	\$39,098,700	341	\$82,787,063
Renter-Occupied [3]	\$213,000	161	\$33,145,400	341	\$70,181,625
Total Market Rate Units		322	\$72,244,100	681	\$152,968,688
Affordable Rate Units [4]					
Renter-Occupied	\$133,000	228	\$28,753,200	978	\$123,228,000
Total Affordable Rate Units		228	\$28,753,200	978	\$123,228,000
Total High Density		550	\$100,997,300	1,659	\$276,196,688
Total Residential		1,750	\$522,022,300	7,500	\$2,377,285,125
Nonresidential	<u>Per Sq. Ft.</u>	<u>Square Feet</u>		<u>Square Feet</u>	
Commercial	\$225	120,000	\$27,000,000	654,860	\$147,343,500
Office	\$220	0	\$0	196,540	\$43,238,800
Total Nonresidential		120,000	\$27,000,000	851,400	\$190,582,300
Total Assessed Value			\$549,022,300		\$2,567,867,425

"av"

Source: Gregory Group and EPS.

[1] See Table A-3 for detail.

[2] Note that assessed values (AV)s are expressed in 2011\$ and include no real AV growth. Includes \$7,000 homeowners' exemption.

[3] Renter-occupied home values are discounted by 15% to reflect the lower price points of rental housing.

[4] Weighted average affordable unit value calculated in Table D-3. Phase 1 units based on the percent of total affordable units at buildout.

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Table D-3
Cordova Hills Special Planning Area
Fiscal Impact Analysis
Affordable Unit Value Estimate

Item		Income Categories [1]			Weighted Average
		Extremely Low Income	Very Low Income	Low Income	
Number of Units		196	391	391	
Assumptions					
Gross Yearly Income	at top of income threshold	\$19,800	\$32,900	\$52,650	\$38,000
Income Available for Housing	35% of gross income	\$6,930	\$11,515	\$18,428	\$13,000
Less Homeowners Assoc. Dues	\$0 Monthly	\$0	\$0	\$0	\$0
Less Annual Ad Valorem Tax Payments	approx. 1.8% of Sales Price	(\$1,170)	(\$2,020)	(\$3,280)	(\$2,400)
Less Annual Insurance Payment		(\$500)	(\$500)	(\$500)	(\$500)
Gross Max. Annual Mortgage Payment		\$5,260	\$8,995	\$14,648	\$11,000
Interest Rate [2]	5.8% Fixed, 30 Year Term				
Down Payment	5% of Sales Price	\$3,900	\$6,700	\$10,900	\$8,000
Maximum Mortgage Amount	95% of Sales Price	\$74,700	\$127,800	\$208,000	\$149,000
Maximum Affordable Home Sales Price		\$78,600	\$134,500	\$218,900	\$157,000
Estimated Value of Rental Units [3]		\$66,810	\$114,325	\$186,065	\$133,000

"attain"

Source: State Dept. of Housing and Community Development (2010), Wells Fargo and EPS.

Note: The project's affordable units are anticipated to be 100% rental. This analysis derives per-unit rental values based on an initial calculation of maximum affordable home sales price. This sales price is then discounted by 15% to yield an estimated per-unit rental value.

[1] Income limits assume three persons per household.

[2] Wells Fargo FHA rate posted April 25, 2011.

[3] Rental units are discounted by 15% to reflect the lower price points of rental housing.

APPENDIX E:

Other Agency Fiscal Impacts



Table E-1	Estimated Annual Property Tax Revenue for Fire and Library Services	E-1
Table E-2	Estimated Annual Property Taxes	E-2

DRAFT**Table E-1****Cordova Hills Urban Services Plan****Estimated Annual Property Tax Revenue for Fire and Library Services (2011\$) [1]**

Item	Percentage [2]	Phase 1 [1]	Buildout
Estimated Annual Property Taxes [3]		\$ 5,490,223	\$ 25,678,674
Sacramento Metropolitan Fire Portion	26.59%	\$ 1,459,738	\$ 6,827,436
Sacramento Public Library Authority Portion	1.93%	\$ 105,775	\$ 494,729

rd lib

[1] This table was derived from the Urban Services Plan, which analyzes the entire Phase 1 land use plan provided by WHA instead of the adjusted Phase 1 program used in this fiscal analysis.

Thus, the Phase 1 estimates above reflect the entire Phase 1 land use plan for purposes of consistency.

[2] See Table D-1.

[3] See Table E-2.

E-1

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Table E-2
Cordova Hills Special Planning Area
Fiscal Impact Analysis
Estimated Annual Property Taxes (2011\$) [1]

Item	Estimated Assessed Value per Dwelling Unit/ Bldg. Sq. Ft. [1]	Phase 1		Buildout	
		Dwelling Units/ Bldg. Sq. Ft.	Estimated Annual Property Taxes	Dwelling Units/ Bldg. Sq. Ft.	Estimated Annual Property Taxes
Residential [1]	<u>per unit</u>	<u>dwelling units</u>		<u>dwelling units</u>	
Estates Residential	\$ 500,000	0	\$ 0	138	\$ 679,416
Low-Density	\$ 445,000	290	\$ 1,270,200	1,809	\$ 7,925,063
Medium-Density	\$ 345,000	760	\$ 2,568,800	3,061	\$ 10,345,969
High-Density					
Residential 20 - Owner-Occupied	\$ 275,000	75	\$ 201,000	416	\$ 1,115,550
Residential 20 - Renter-Occupied	\$ 234,000	75	\$ 170,250	416	\$ 944,888
HDR - Owner-Occupied & Market Rate	\$ 250,000	161	\$ 390,987	341	\$ 827,871
HDR - Renter-Occupied & Market Rate	\$ 213,000	161	\$ 331,454	341	\$ 701,816
HDR - Renter-Occupied & Affordable	\$ 133,000	228	\$ 287,532	978	\$ 1,232,280
Subtotal High-Density		700	\$ 1,381,223	2,492	\$ 4,822,404
Subtotal		1,750	\$ 5,220,223	7,500	\$ 23,772,851
Nonresidential [2]	<u>per bldg. sq. ft.</u>	<u>bldg. sq. ft.</u>		<u>bldg. sq. ft.</u>	
Commercial	\$ 225	120,000	\$ 270,000	654,860	\$ 1,473,435
Office	\$ 220	0	\$ 0	196,540	\$ 432,388
Subtotal		120,000	\$ 270,000	851,400	\$ 1,905,823
Total			\$ 5,490,223		\$ 25,678,674

ann prop tax

[1] Est. property taxes = (assessed value per unit - \$7,000 homeowners' exemption) *dwelling units * 1%

[2] Est. property taxes = assessed value per bldg. sq. ft. * bldg. sq. ft. * 1%



27 August 2014

To: Mr. Mark Hanson
Cordova Hills LLC
5241 Arnold Ave.
McClellan Park, CA 95652

From: Bob Parkins PE
Bob Parkins Renewable Energy Consultants
www.bobparkinsconsultants.com

Subject: Preliminary Evaluation of Solar System Configurations and Issues
Cordova Hills

In accordance with your request I have evaluated the initial plans and topographic maps of the proposed Cordova Hills development in Sacramento County, California to determine the challenges installing different types of solar photovoltaic (PV) systems considering the site conditions. According to the Cordova Hills 2010 Dry Utilities Report, “the project’s residential units would require 20.3 MVA (20.3MW) of power on average and 41.1 MVA (41.1MW) of power at peak hours” (1). Cordova Hills is required through CEQA mitigation measures to provide at least 20% of the overall residential energy usage from a renewable source. This can be accomplished with a 25MW conventional fixed tilt solar system on a minimum of about 66 acres. In my evaluation of a 25MW solar system, I specifically considered the following:

- a. The impact of construction on the existing natural slopes, considering fixed tilt ground mounts.
- b. The cost of splitting the proposed solar system and locating part of it on flatter land to the north.
- c. The potential of using roof mounted PV systems on the residences.

(1) Note: The “MW” unit is added to the quote for additional clarification.

Construction on the Existing Slopes

The preferred solar project site includes natural drainage patterns with apparent vernal pools and seasonal wetlands sloping significantly from approximately north to south. The southern orientation is the ideal for generating solar energy. However, the existing steep slopes create construction challenges which will add costs. The preferred construction method is to level the terrain within reasonable limits to facilitate the movement of equipment, material and the laborers. For example, the photo shows a method of placing supporting posts for a fixed tilt system on a steep hillside using “earth screws” and a crawler. Steel pipes or rolled sections (I-beams)

may also be driven with a crawler mounted pile driver. This method minimizes excavation and the need for concrete footings. However, the crawler will, by necessity, disturb the plants and turn up the soil. Another big issue is construction logistics. Normal construction practice is to preposition all the solar system material and its associated installation equipment near the final installation locations. This is normally done with trucks. Obviously, steep slopes restrict the free movement of material and workers so a lot may have to be performed by hand and foot, thereby driving up logistic and labor costs.



Example of a crawler driving “earth screws” into a steep slope to serve as the foundation for solar racking. The blue arrow shows previously driven screws. Moving material and equipment is more time consuming than equivalent work on level land.

Attached to this letter report is a site topography map showing 69 acres that can be developed for the solar system and the Corporation Yard, which are required as part of the Cordova Hills EIR and SPA Master Plan. Of this area, 66.6 acres will be reserved for the solar system and 2.4 acres will be reserved for the Corporation Yard. The full 66 acres of the existing steep topography would be required for the fixed tilt system.

Conclusion: The additional logistic and labor costs to build a fixed tilt system on steep slopes is estimated to be at least about **12 to 15%** of the project costs. For a 25MW solar system, the direct cost adder is estimated to be about **\$5,500,000 to \$6,825,000**, not including environmental mitigation, which can be substantial. As such, building a fixed tilt solar system on the existing slopes is not economically feasible or technically advisable.

Splitting a System into Parts:

The ideal project situation is to build a large solar system so it is one contiguous array to reduce wiring losses and added wiring expense as well as avoid building duplicate interconnection unit substations. If the array is split, with part of the system located to the north, an additional unit substation, which would include a multi-MVA transformer, breakers, switches, reclosers, ground fault detection banks, relays, and communications would have to be constructed to feed a lateral underground transmission line to connect to the single point of interconnection with SMUD at the southern array. The underground lateral will follow roads to take advantage of their available rights-of-way for a total length of about three miles.

Conclusion: The estimated costs to split the system array are:

Unit substation	\$1,500,000 to \$2,000,000
Transmission lateral	3 miles @ \$765,000 = \$2,295,000
Total estimated cost	\$3,795,000 to \$4,295,000

Placing the Solar System on Individual Resident Roofs

Locating the required 25MW of solar systems on individual residential roofs (distributed generation) is another possibility. However, this presents other implementation complications. Considerable costs would be incurred to design systems for every house plan and orientation. Not every house will have the desired southern orientation at the proper tilt to achieve the 20% renewable energy required for the development. Complex roof lines can also reduce the amount of usable roof area to accommodate the PV modules and shading from HVAC equipment, vents, dormers, and other roof planes can significantly impact energy generation. Furthermore, Cordova Hills is obligated by its EIR and adopted Greenhouse Gas Plan to plant 15,000 trees. Planting the trees near homes to provide shade, and thereby reduce cooling loads and energy use, will likewise shade the roof mounted solar systems, further reducing solar energy generation. Finally, as not every home would be suitable for a roof mounted solar system, there will be inequity among the home owners in sharing the benefits and savings of solar energy. A central solar system with virtual net metering will achieve the desired equity in the community.

Conclusion: Design issues related to orientation, tilt, available roof area, and shading from roof features and trees, the question of the equitable distribution of solar benefits within the community, and the increased costs for implementation will substantially reduce the target solar energy generation and jeopardize the project.

Summary:

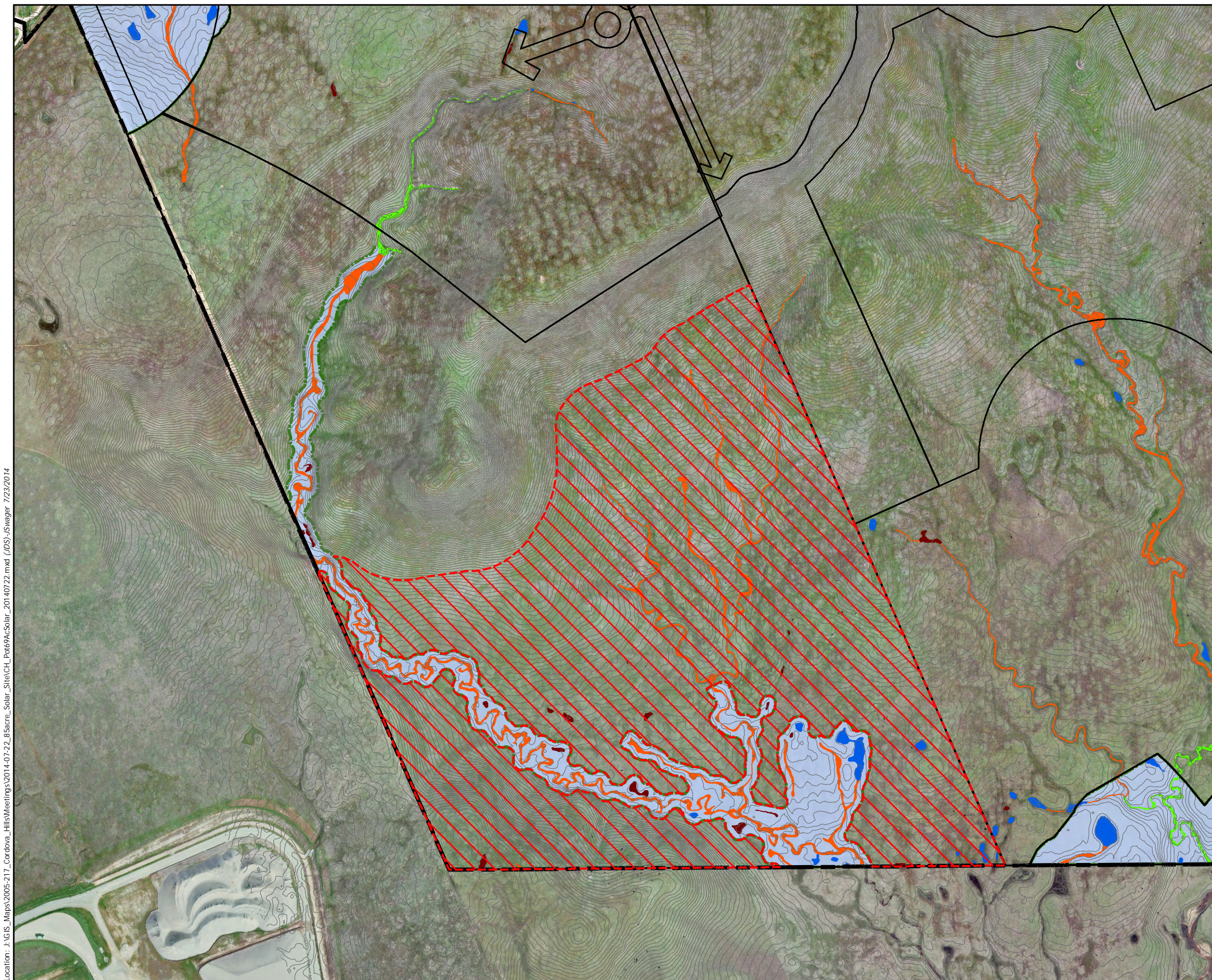
1. Building a 25MW fixed tilt solar system on the existing slope can be done but it will cost at least 12 to 15% more for a cost adder of about **\$5,500,000 to \$6,825,000**, not including environmental mitigation costs. Of the 69 acres in the buffer land, 66.6 acres would be reserved for the solar system and 2.4 acres would be reserved for the Corporation Yard.
2. Separating the arrays will add construction costs to build an additional unit substation to feed a three mile underground transmission line. Costs are estimated to be about **\$3,795,000 to \$4,295,000**.
3. Building distributed generation in the form of roof mounted residential systems will not achieve the generation targets, will incur increased implementation costs, and will have inequity issues.

Respectfully Submitted,





Bob Parkins, PE
Bob Parkins Renewable Energy Consultants
www.bobparkinsconsultants.com
bparkins@comcast.net
916-806-6580 (cell)

Location: J:\GIS_Maps\2005-217_Cordova_Hills\Meetings\2014-07-22_85acre_Solar_Site\CH_Pat69AcSolar_20140722.mxd (JDS)-JSwager 7/23/2014



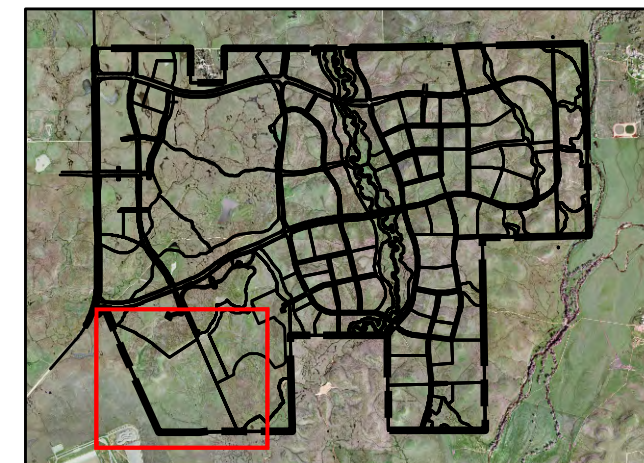
Potential 69 Acre Solar Farm Location

Map Features

-  Project Boundary
-  Potential 69 acre Solar Farm

Wetlands/Waters

-  Vernal Pool
-  Seasonal Wetland
-  Seasonal Wetland Swale
-  Intermittent Drainage



MEMORANDUM

Date: August 4, 2014
To: Whom It May Concern
From: Holger Fuerst, P.E.
Subject: Cordova Hills – Additional Avoidance Areas A-4, A-5, A-6, & A-7

Mackay & Somps was tasked with an analysis of potential additional avoidance of certain drainage swales along the Paseo Central and east thereof within Cordova Hills based the proposed grading master plan as identified in the EIR for the project. Additional avoidance areas considered include the drainage swales identified on the USACE “Additional Avoided Areas” exhibit as A-4 located on the west side of the Paseo Central and extending into University Village, swale A-5 located on the east side of the Paseo Central and extending into East Valley Village half way between North Loop Blvd. and University Blvd., swale A-6 located in the eastern half of East Valley Village and extending in a north to south direction tributary to Carson Creek, and swale A-7 located within the southern half of Creekside Village, also extending in a north to south direction tributary to Carson Creek.

Amongst a number of characteristics that these four additional potential avoidance areas have in common is that they extend into areas designated for development on the applicant’s preferred land use plan. Typical of all the areas designated for development within Cordova Hills east of the plateau is the need for significant earthwork – both cuts and fills – to support the proposed land use densities. In general terms, the higher the proposed density is, the flatter the slope/grade needs to be of the parcel containing said density. Alternative ways of addressing greater slopes require either implementation of retaining walls to allow stepped building areas or lowering of residential densities, thus allowing for non-developable areas of slope banks at 2:1 slopes or less.

It is worth noting that higher density residential structures typically have much larger structural footprints coupled with greater exterior parking requirements, which both call for more or less flat terrain. Furthermore, the aggregate imperviousness of higher density development (vs. lower density development) typically causes the need for greater storm drainage runoff mitigation in the form of larger mitigation facilities to handle runoff volumes and water quality treatment requirements.

It would be difficult (and expensive) to preserve the hydrology of these avoided swales surrounded by development, as runoff volumes and water quality from development areas will generally required treatment prior to being discharged into jurisdictional waters. Preservation of natural hydrology would thus require numerous de-centralized discharge locations with associated treatment facilities. This decentralization of facilities will generally have significant negative impact on their efficiency and cost, in addition to requiring more area for implementation than singular, highly-efficient centralized facilities would. Such decentralized and fragmented facilities would also be exceedingly expensive to maintain, altogether making their implementation rather impracticable.

— Since 1953 —

With this in mind then, MacKay & Soms overlaid the potential additional swale preservation areas onto the previously developed grading concept. This grading concept was developed in order to determine how the proposed land use densities of the Cordova Hills SPA could be implemented without the need for retaining walls throughout the project while at the same token maintaining the rolling characteristics of the natural terrain. Each of the four potential swale preserves was analyzed for its impact on the proposed land use, associated grading, and backbone infrastructure. Where readily apparent, circulation impacts were also addressed.

Additional Avoided Area A-4:

This swale proposed for potential avoidance is located south of University Boulevard on the west side of the Paseo Central. It extends from the un-named Carson Creek Tributary in a westerly direction, overlapping portions of a 0.7-acre detention and water quality treatment basin B12, and then bifurcating a 10-acre medium density residential parcel designated for 75 dwelling units (DU) within the University Village. Additional avoidance associated with this area seeks to protect several clustered jurisdictional waters immediately to the north of the aforementioned swale. These waters cover an area identified for a 1.2-acre drainage detention and water quality treatment basin B11, while also overlapping portions of MDR-designated development area.

The direct loss of otherwise developable acreage due to the overlap of the avoided area coupled with the need to re-locate and bifurcate the drainage mitigation basins out of the R-2 designated open space corridor into lands designated for residential development would cause the elimination of about 5.6 acres of MDR-designated lands and associated 56 DU.

Due to the bifurcation of the original two drainage basins B10 and B11 serving this affected shed area into five separate smaller and less efficient basins discharging into the avoided swale at separate locations for purposes of mimicking the natural hydrology thereof, basin development costs would increase by roughly \$167,000. The additional 0.62 acres of otherwise developable land lost to these less-efficient bifurcated drainage basins is accounted for in the 5.6 acres noted above.

Additional DU may be lost due to steep slope banks necessary to “catch” the proposed grades required for development. Alternatively, it would be necessary to construct approximately 1,600 LF of 5’-tall (+/-) retaining wall at about \$20/SF of wall, for a total cost of \$200,000, incl. construction cost contingencies. Backbone infrastructure would not be significantly impacted by this avoidance area.

Additional Avoided Area A-5:

This swale proposed for additional avoidance is located on the east side of the Paseo Central, about halfway between North Loop Road and University Boulevard. It extends eastward from the Paseo Central, bifurcating the heart and high-density center of East Valley Village and the east side of the Paseo Central open space corridor and adjacent north/south collector road.

Aside from potential land use implications associated with the direct loss of 6.5+/- developable acres with a designated 90+/- DU in the focal point and higher activity center of this mixed-use residential village, this proposed preserve will cross several roadways important to the circulation within this village and project-wide. It would thus be necessary to provide for at minimum two roadway crossings of 80’ and

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60' length, respectively. Assuming that open-bottom arch culverts allowing for natural substrate would be required, the projected cost for these culverts would be about \$290,000.

Water and sanitary sewer trunk facilities crossing this avoided area would need to be sleeved for the entire width of the preserve at an approximate cost of \$72,000.

Due to the bifurcation of the original drainage basin B17 serving this affected shed area into five separate smaller and less efficient basins discharging into the avoided swale at separate locations for purposes of mimicking the natural hydrology thereof, basin development costs would increase by roughly \$320,000. Additional land lost due to these five inefficient bifurcated basins would amount to approximately 1.68 acres with a designated land use potential of about 24 DU.

Due to the high-density character of this village center, massive retaining walls would need to be constructed along the edge of the avoided areas to catch the rather flat terrain required to implement the proposed land uses of this area. In total, an estimated 2,700 lineal feet of 5' to 10' tall retaining walls at a cost of roughly \$505,000 would need to be constructed so as to not loose additional lands totaling another 2+/- acres to slope banks.

Additional Avoided Area A-6:

This swale proposed for additional avoidance bifurcates the more traditional lower-density residential eastern half of East Valley Village. The proposed avoidance area would result in the direct loss of about 9.8+/- developable acres with a designated 50+/- DU, with an additional 0.57 acres of LDR-designated land amounting to another 3+/- DU being lost to having to split detention basin B28 into seven much less efficient basins on either side of the avoided area for preservation of the natural hydrology.

Additional development costs of the resulting seven much less efficient drainage basins amount to approximately \$400,000 over and above the original proposed land use and associated development costs.

Given the much higher marketability of this lower density product, it would be imperative to minimize any additional loss of otherwise developable land to slope banks. Construction of thusly required 5,600 feet of 5' tall to over 20' tall retaining walls would cost an estimated \$2,410,000 (note that the grading plan identifies this area for fills up to 25' deep). Implementation of slope banks in lieu of these costly retaining walls would eat up almost 6 additional acres of prime developable land, which would equate to about 20 DU.

Access via the Loop Road to the eastern Estates Village would need to be maintained across this avoidance area, thus necessitating construction of a roadway crossing in the form of a large open-bottom arch culvert or similar structure estimated to cost \$165,000. Sanitary sewer and water facilities to serve this area would also need to cross this swale, costing an additional \$72,000.

Additional Avoided Area A-7:

The swale at the center of this proposed additional avoidance area splits the southern half of Creekside village into an eastern and a western half. The area encumbered by the avoided area includes about 6 acres of park (R) and detention basin, 3+/- acres of medium density residential land use, and about 4.5+/- acres of low density residential land use. Based on an assumed relocation of the park and split and

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relocation of detention basin B30 into 5 much less efficient basins in order to preserve the natural hydrology of the avoided swale (an additional 0.72-acre loss would be attributable to the inefficiency of the five separate drainage basins), a loss of an estimated 92 dwelling units would be directly attributable to the additional avoided area.

Further reduction of residential units could be avoided with the construction of 3,750+/- feet of retaining walls with a height of up to 15 feet, albeit at a cost of almost \$1,100,000. In lieu of the walls one could build slope banks to catch the grades of the development pads adjacent to the avoided area, but this would eat up another 1.9 acres or so of residential lands.

Additional costs would also be incurred by the split of detention basin B30 into five less efficient basins at an additional \$265,000. Furthermore, two roadway crossings with open-bottom arch culverts at a total cost of about \$250,000 plus two sanitary sewer and water crossings at a total cost of about \$75,000 would be required to implement this additional avoided area.

Summary:

The physical avoidance of proposed drainage swales "A-4", "A-5", "A-6", and "A-7" as identified on the USACE "Additional Avoided Areas" exhibit would have a direct impact on the amount of land available for development as well as on the actual costs associated with development of the remaining lands not identified for preservation. These impacts are summarized in the following table:

WETLAND SWALE AVOIDANCE COST SUMMARY

AVOIDED SWALE DESIGNATION	LOSS OF DEVELOPABLE LAND [ACRES]	LOSS OF DWELLING UNITS [DU]	ADDED DEVELOPMENT COST
Area "A-4" Avoidance	5.6	56	\$367,000
Area "A-5" Avoidance	8.18	114	\$1,187,000
Area "A-6" Avoidance	10.37	53	\$3,047,000
Area "A-7" Avoidance	8.22	92	\$1,440,000
TOTAL IMPACT	32.37	315	\$6,041,000

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APPENDIX D

Development Agreement

**COUNTY OF SACRAMENTO
CALIFORNIA**

BOARD ADDENDUM B

For the Agenda of:
March 12, 2013
Timed: 2:00 p.m.

To: Board of Supervisors

From: Community Development Department

Subject: PLNP2008-00142. Cordova Hills. Request For General Plan Amendment, Zoning Ordinance Amendment, Large Lot Subdivision Map, Affordable Housing Plan, Development Agreement And Additional Approvals Associated With The Adoption Of The Cordova Hills Special Planning Area Ordinance, Which Will Provide Policy Framework To Guide The Future Development Of The Cordova Hills Project Site, Located In The Southeastern Portion Of Sacramento County On Approximately 2,668.7 Acres, Adjacent To The City Of Rancho Cordova. The Area Is Designated By The Sacramento County General Plan As General Agriculture (80 Acres) And Is Currently Zoned For AG-80 Agricultural Uses. Most Of The Project Is Within The Urban Services Boundary (USB), But Outside The Urban Policy Area (UPA). Grant Line Road, A Two-Lane Thoroughfare, Extends Along The Western Project Boundary. The Eastern Side Of The Project Abuts Carson Creek And The Northern Boundary Line Of The Property Is Glory Lane, Which Is A Two-Lane Gravel Road That Intersects Grant Line Road Just South Of Douglas Road. The Kiefer Landfill And The 2,000-Foot Buffer Zone Protecting The Landfill From Urban Encroachment Are Southwest Of The Project In The Cosumnes Community Planning Area. Applicant: Cordova Hills, LLC; APNs: 073-0040-020 Through -026, 073-0040-029, 073-0050-023, And 073-0050-052; Environmental Document: Final Environmental Impact Report

Supervisory District:
District: Don Nottoli

Contact: Tricia Stevens, Principal Planner, 874-2926
Surinder Singh, Senior Planner, 874-5462

Overview

The Board of Supervisors held hearings on the Cordova Hills project were conducted on December 12, 2012 and January 29, 2013. During the second hearing, the Board took action on several entitlements associated with the project. This addendum provides information on the project based on items of discussion from the January 29, 2013 hearing. Documents are included in this addendum for Board of Supervisors final adoption consideration.

Recommendations

- a. ADOPT a Zoning Ordinance Amendment to adopt the Cordova Hills Special Planning Area (SPA) and to incorporate a Master Plan including Design Guidelines and Development Standards. The SPA consists of a total of 2,668.7 acres in three distinct

areas:

- (1) Cordova Hills urban areas – 2,119.7 acres
 - (2) University/College Campus Center – 246.6 acres, including 223 acres for the campus
 - (3) Buffer lands and floodplain outside the Urban Policy Area – 302.4 acres. The areas will be designated Agriculture, Recreation (sports park), and Avoidance in the SPA.
- b. ADOPT an Affordable Housing Plan (provided as Attachment “1”) consisting of on-site construction of affordable units and land dedication.
 - c. ADOPT a Development Agreement (provided as Attachment “2”) by and between the County of Sacramento and the landowners.
 - d. ADOPT a Public Facilities Financing Plan (provided as Attachment “3”) for Cordova Hills that includes a Capital Improvement Program and Financing Plan.
 - e. ADOPT an Urban Services and Governance Plan (provided as Attachment “4”).
 - f. CONTINUE the project to April 23, 2013 to DIRECT staff to prepare documents required for the approval of the Large Lot Tentative Subdivision Map to create 154 large parcels for the purpose of creating legal parcels corresponding to villages within the Cordova Hills SPA and within the approximately 2,668.7-acre SPA.

Note: A meeting of the Sacramento County Water Agency is scheduled for March 26, 2013 in order to consider the adoption of the following water related entitlements associated with the Cordova Hills project:

- a. Zone 40 Boundary: Amend Zone 40 boundary to include the 251 acres of the Cordova Hills project which lies outside of the Urban Services Boundary.
- b. Zone 41 Boundary: Amend Zone 41 boundary to include 251 acres of the Cordova Hills project which lies outside of the Urban Services Boundary.
- c. Adoption of the Cordova Hills Water Supply Master Plan Amendment: Amends the existing Zone 40 Water Supply Master Plan to include provision of water service to Cordova Hills.
- d. Approve the Water Supply Assessment for Cordova Hills: Required by the California Water Code to link land use and water supply planning activities.

Measures/Evaluation

The conditions of approval will be monitored and implemented when construction begins.

Fiscal Impact

Application costs are borne by applicant (see Attachment “5”). No fiscal impact.

I. DISCUSSION

- A. Background: The Board of Supervisors’ heard the following reports during the January 29, 2013 hearing on the Cordova Hills project.

- Revisions to Cordova Hills Air Quality Mitigation Plan and Development Agreement to reflect directions received from the Board during the December 12, 2013 hearing;
- Additional Assurances for Attracting a University to the Cordova Hills area;
- Implications of the Cordova Hills' project to the Sacramento Area Council of Governments (SACOG) Metropolitan Transportation Plan (MTP) and Sustainable Communities Strategy (SCS);
- Flexibility in the implementation and timing of intersection roadway improvements;
- Improvements at the Sunrise Boulevard and Jackson Road intersection;
- Coordination of improvements with adjacent jurisdictions, specifically Chrysanthy Boulevard; and
- General water supply and potential impacts to private wells adjacent to the Excelsior Well Field.

At the conclusion of this hearing, the Board took final action on the following components of the Cordova Hills project: 1) Certified the Final Environmental Impact Report as adequate and complete, 2) Adopted the CEQA Findings of Fact and Statement of Overriding Consideration, and 3) Adopted a General Plan Amendment Resolution to amend the several components of the General Plan. In addition, the Board also tentatively approved entitlements, including a Zoning Ordinance Amendment to adopt a Special Planning Area ordinance for Cordova Hills, Affordable Housing Plan, Development Agreement, Public Facilities Financing Plan, Urban Services and Governance Plan and a Street Resolution.

The Board directed staff to report back on the items which are summarized below.

- Accelerated time schedule for the start up of the lifeline transit shuttle service potentially considering a start at 500 units
- Response to City of Folsom's letter, dated January 28, 2013

This addendum addresses the following new items that arose following the January 29, 2013 hearing:

- Annual status report on large lot tentative subdivision map implementation
- University Escrow Account – residential equivalent unit triggers
- University accreditation requirement
- Street width resolution.

B. External Transit Shuttle Service: The Cordova Hills Development Agreement, as presented to the Board of Supervisors on January 29, 2013, requires the initiation of

an external shuttle service prior to the issuance of the 1,000th residential building permit within the project area which will provide direct service between the Cordova Hills park and ride lot and the Mather Field Road Light Rail Station. During the January 29, 2013 hearing, the Board inquired if the time schedule for the start-up of this shuttle service could be initiated sooner than that described in Development Agreement. The Cordova Hills Development Agreement has been updated to include the following new requirement for the provision of the planned external transit service:

- Upon the issuance of the Five Hundredth (500th) residential building permit, the Cordova Hills Community Service Area (CHCSA) shall evaluate and determine whether providing the external shuttle service during the morning Peak Commute Hours of 6:30 to 9:30 A.M. and during the afternoon P.M. Peak Commute Hours of 3:30 to 6:30 PM would be feasible and appropriate. The following factors will be considered as part of this evaluation: total number of residents, potential ridership, the costs of providing the external shuttle service, and the financial resources available for funding the external shuttle service.
 - The CHCSA, acting through the Board of Supervisors as its governing body, shall have the right to determine whether shuttle service should be commenced at five hundred (500) residential building permits or at a later threshold.
 - Cordova Hills Property Owners reserve their right to participate in any hearings by the CHCSA board concerning commencement of the external shuttle service, but waive any right to protest the CHCSA board's action.
 - In any event, the County and the Property Owners further agree that external shuttle service should be commenced by the CHCSA no later than the issuance of the one thousandth (1,000th) residential building permit within the Project Area.
- C. Response to City of Folsom's January 28, 2013 Letter: As requested by the Board, staff has prepared a written letter dated March 5, 2013 to respond to a January 28, 2013 letter received from the City of Folsom Mayor Stephen Miklos. The response letter is provided as Attachment "6".
- D. Annual Status Update on Large Lot Tentative Subdivision Map: As required by the Board, the Development Agreement has been updated which now includes an annual status update on the implementation of the Cordova Hills Large Lot Tentative Subdivision Map.
- E. University Escrow Account: As discussed during the January 29, 2013 Board hearing, the Development Agreement has been updated to include dwelling unit equivalents as trigger points for the deposit of funds into the university escrow account.
- F. University Accreditation Requirement: Staff has worked with the project applicant to clarify the type of the university or college that will be attracted to the Cordova Hills

project area. The purpose of this additional language is to require an accredited institution of higher education on the site. The Cordova Hills Development Agreement has been updated and now includes the following requirement:

The 223+/- acre site in Cordova Hills Project designated for a university/college campus center or other institution of higher learning shall be used solely for the design, development and operation of an institution(s) of higher education which awards college-level degrees and is accredited, or in the process of obtaining accreditation, or has an established plan to obtain accreditation within a reasonable timeframe from an accrediting agency recognized by the U.S. Department of Education. A reasonable time frame shall be to the satisfaction of the County Executive.

- G. Street Resolution: Pursuant to the State Streets and Highway Code Section 906, the Cordova Hills project description includes a Street Resolution entitlement to allow certain county streets, as identified in the Cordova Hills Master Plan, to be based on less than a 40-foot right-of-way. Cordova Hills' applicant has decided to withdraw this Street Resolution request. Department of Transportation has no concerns regarding this withdrawal since this request can be made and approved at a later date or during the approval of small lot subdivision maps.

II. RECOMMENDED CONDITIONS

Any approval of the Zoning Ordinance Amendment shall be subject to the conditions listed below. New additions and deletions following the January 29, 2012 hearing are presented in **bold** and ~~striketrough~~ text, respectively. **Note that traffic related mitigations (TR-1 through TR-11) will be implemented via the transportation phasing requirements listed in this section.**

FINAL EIR MITIGATION MEASURES

1. The SPA shall be amended to require all lighting applications subject to the 2008 Building Efficiency Standards Section 147 to use fixtures approved by the International Dark Sky Association (*Final EIR Mitigation Measure AE-1*).
2. The applicant shall disclose to all prospective buyers of properties within 500 feet of the northern property boundary ~~shall receive a recorded notice that would appear in the Title Report~~ that they could be subject to inconvenience or discomfort resulting from accepted farming activities as per provisions of the County Right-To-Farm Ordinance and shall include a Note on all final maps disclosing the Right-To-Farm Ordinance (*Final EIR Mitigation Measure AG-1*).
3. The applicant shall enter into an agreement with an agricultural operator to maintain grazing use, or other more intensive use, on the land which is subject to Williamson Act contract 72-AP-109. Agricultural use shall be maintained until Williamson Act contract expiration. Documentation of this agreement shall be submitted to **the**

- Environmental Coordinator prior to approval of the zoning agreement for the Williamson Act contracted property (*Final EIR Mitigation Measure AG-2*).
4. Prior to the approval of improvement plans, building permits, or recordation of the final map, whichever occurs first, the applicant shall offset the loss of 8.6 acres of Unique Farmland and 242.4 acres of Grazing Land through 1:1 preservation of farmland within a permanent conservation easement. Preservation land must be in-kind or of similar resource value (*Final EIR Mitigation Measure AG-3*).
 5. The following language shall be added to the SPA: All individual development projects shall implement Sacramento Metropolitan Air Quality Management District rules and mitigation pertinent to construction-related ozone precursor emissions, as defined by the most current version of the Sacramento Metropolitan Air Quality Management District Guide to Air Quality Assessment (*Final EIR Mitigation Measure AQ-1*).
 6. Comply with the provisions of the Air Quality Management Plan dated June 1, 2011, as updated March 2012 (errata) and as amended January 2013, and incorporate the requirements of this plan into the Cordova Hills Special Planning Area conditions. Also the following text shall be added to the Cordova Hills SPA: "All amendments to the Cordova Hills SPA with the potential to result in a change in ozone precursor emissions shall include an analysis which quantifies, to the extent practicable, the effect of the proposed SPA amendment on ozone precursor emissions. The amendment shall not increase total ozone precursor emissions above what was considered in the AQMP for the entire Cordova Hills project and shall achieve the original 35% reduction in total overall project emissions. If the amendment would require a change in the AQMP to meet that requirement, then the proponent of the SPA amendment shall consult with SMAQMD on the revised analysis and shall prepare a revised AQMP for approval by the County, in consultation with SMAQMD (*Final EIR Mitigation Measure AQ-2*).
 7. The following language shall be added to the SPA: Buffers shall be established on a project-by-project basis and incorporated during permit or project review to provide for buffer separations between sensitive land uses and sources of air pollution or odor. The California Air Resources Board's "Air Quality and Land Use Handbook: A Community Health Perspective", or more current document, shall be utilized when establishing these buffers. Sensitive uses include schools, daycare facilities, congregate care facilities, hospitals, or other places of long-term residency for people (this includes both single- and multiple-family). The buffers shall be applied to the source of air pollution or odor, and shall be established based either on proximity to existing sensitive uses or proximity to the property boundary of land designated for sensitive uses. Buffers current at the time of the establishment of this SPA indicate that sensitive uses should be:
 - a. A least 500 feet from auto body repair services.

- b. At least 50 feet from existing gasoline dispensing stations with an annual throughput of less than 3.6 million gallons and 300 feet from existing gasoline dispensing stations with an annual throughput at or above 3.6 million gallons.
 - c. At least 300 feet from existing land uses that use methylene chloride or other solvents identified as a TAC, including furniture manufacturing and repair services (*Final EIR Mitigation Measure AQ-3*).
 8. Include in the SPA a requirement that the western perimeter of the Sports Park and University/College Campus Center (where these are within 2,000 feet of the Kiefer landfill) include a minimum 25-foot-wide landscaping area. This landscaping area shall include a dense mix of trees and shrubs, to screen the uses from the landfill. Acceptable tree species include those expected to reach minimum heights of 40 feet (*Final EIR Mitigation Measure AQ-4*).
 9. To compensate for the permanent loss of wetlands, the applicant shall perform one or a combination of the following prior to issuance of building permits, and shall also obtain all applicable permits from the Army Corps of Engineers, the U.S. Fish and Wildlife Service, the Central Valley Regional Water Quality Control Board, and the California Department of Fish and Game:
 - a. Where a Section 404 Permit has been issued by the Army Corps of Engineers, or an application has been made to obtain a Section 404 Permit, the Mitigation and Management Plan required by that permit or proposed to satisfy the requirements of the Corps for granting a permit may be submitted for purposes of achieving a no net-loss of wetlands. The required Plan shall be submitted to the Sacramento County Environmental Coordinator, U.S. Army Corps of Engineers, and U.S. Fish and Wildlife Service for approval prior to its implementation.
 - b. If regulatory permitting processes result in less than a 1:1 compensation ratio for loss of wetlands, the Project applicant shall demonstrate that the wetlands which went unmitigated/uncompensated as a result of permitting have been mitigated through other means. Acceptable methods include payment into a mitigation bank or protection of off-site wetlands through the establishment of a permanent conservation easement, subject to the approval of the Environmental Coordinator.
 - c. The Project applicant may participate in the South Sacramento Habitat Conservation Plan if it is adopted, and if the Project area and activities are covered. The applicant shall prepare Project plans in accordance with that Plan and any and all fees or land dedications shall be completed prior to construction (*Final EIR Mitigation Measure BR-1*).
 10. Prior to issuance of building permits, all areas designated within the SPA as Avoided shall be placed within a permanent conservation easement, which shall be reviewed and approved by the Environmental Coordinator. At a minimum, the permanent

conservation easements must cover all areas which are required to be preserved as part of the Section 404 and Section 401 wetland permits (*Final EIR Mitigation Measure BR-2*).

11. If construction, grading, or Project-related improvements are to occur between March 1 and September 15, a focused tree survey for tree-or-ground nesting raptors within 500 feet of the construction site (1/2-mile for Swainson's hawk) and for ground-nesting grasshopper sparrow shall be conducted by a qualified biologist within 14 days prior to the start of construction work (including clearing and grubbing). If active nests are found, the California Department of Fish and Game shall be contacted to determine appropriate protective measures. If no active nests are found during the focused survey, no further mitigation will be required (*Final EIR Mitigation Measure BR-3*).
12. Prior to the approval of improvement plans, building permits, or recordation of the final map, whichever occurs first, implement one of the options below to mitigate for the loss of Swainson's hawk foraging habitat on the Project site; based on current Project designs this is 2,267 acres. Based on current designs, this can be reduced to 2,231 acres of mitigation if the applicant establishes a permanent conservation easement over the areas designated Agriculture on the eastern and southeastern sides of the site (these are areas outside of the Urban Services Boundary). Foraging habitat preserved shall consist of grassland or similar habitat open habitat, not cropland, because this mitigation measure also offsets impacts to other species that do not use cropland habitat.
 - a. The project proponent shall utilize one or more of the mitigation options (land dedication and/or fee payment) established in Sacramento County's Swainson's Hawk Impact Mitigation Program (Chapter 16.130 of the Sacramento County Code).
 - b. The Project proponent shall, to the satisfaction of the California Department of Fish and Game, prepare and implement a Swainson's hawk mitigation plan that will include preservation of Swainson's hawk foraging habitat.
 - c. Should the County Board of Supervisors adopt a new Swainson's hawk mitigation policy/program (which may include a mitigation fee payable prior to issuance of building permits) prior to the implementation of one of the measures above, the Project proponent may be subject to that program instead.

If the design of the primary avoided area on the western plateau (currently 382 acres in size) is increased in size in response to Section 404 wetland permitting requirements, the total amount of mitigation land required may be adjusted downward to reflect this increased avoidance, at the discretion of Environmental Coordinator (*Final EIR Mitigation Measure BR-4*)
13. Prior to construction activity (including site improvements, and building construction) focused surveys shall be conducted by a qualified biologist for burrowing owls in the

construction area and within 500 feet of the construction area. Surveys shall be conducted no less than 14 days and no more than 30 days prior to commencement of construction activities. Surveys shall be conducted in accordance with "Burrowing Owl Survey Protocol and Mitigation Guidelines" published by The California Burrowing Owl Consortium (April 1993). The following shall also apply:

- a. If no occupied burrows are found in the survey area, a letter report documenting survey methods and findings shall be submitted to the County and no further mitigation is necessary.
 - b. If an occupied burrow is found the applicant shall contact the Environmental Coordinator and consult with the California Department of Fish (CDFG), prior to construction, to determine if avoidance is possible or if burrow relocation will be required.
 - c. If owls are to remain on-site, a minimum of 6.5 acres of foraging habitat for each occupied burrow needs to be permanently preserved according to California Department of Fish and Game guidelines. In addition, no activity shall take place within 160 feet of an active burrow from September 1 to January 31 (wintering season) or 250 feet from February 1 through August 31 (breeding season). Protective fencing shall be placed, at the distances above, around the active burrows and no activity shall occur within the protected buffer areas. Permanent improvements shall be a minimum of 250 feet from an occupied burrow.
 - d. Any impact to active owl burrows, relocation of owls, or mitigation for habitat loss shall be done in accordance with the Fish and Game "Staff Report on Burrowing Owl Mitigation" (October 17, 1995) or the version current at the time of construction. Written evidence from Fish and Game staff shall be provided to **the** Environmental Coordinator attesting to the permission to remove burrows, relocate owls, or mitigate for lost habitat, and shall include a plan to monitor mitigation success (*Final EIR Mitigation Measure BR-5*).
14. If construction occurs between March 1 and July 31 pre-construction surveys for nesting tricolored blackbirds shall be performed by a qualified biologist. Surveys shall include the construction site and areas of appropriate habitat within 300 feet of the construction site. The survey shall occur no longer than 14 days prior to the start of construction work (including clearing, grubbing or grading). The biologist shall supply a brief written report (including date, time of survey, survey method, name of surveyor and survey results) to the Environmental Coordinator prior to ground disturbing activity. If no tricolored blackbird were found during the pre-construction survey, no further mitigation would be required. If an active tricolored blackbird colony is found on-site or within 300 feet of the construction site the project proponent shall do the following:

- a. Consult with the California Department of Fish and Game to determine if project activity will impact the tricolored blackbird colony(s), and implement appropriate avoidance and impact minimization measures if so directed. Provide the ~~Division of~~ Environmental Coordinator with written evidence of the consultation or a contact name and number from the California Department of Fish and Game.
 - b. The applicant may avoid impacts to tricolored blackbird by establishing a 300-foot temporary setback with fencing that prevents any project activity within 300 feet of the colony. A qualified biologist shall verify that setbacks and fencing are adequate and will determine when the colonies are no longer dependent on the nesting habitat (i.e. nestlings have fledged and are no longer using habitat), which will determine when the fencing may be removed. The breeding season typically ends in July (*Final EIR Mitigation Measure BR-6*)
15. Presence of California linderiella, midvalley fairy shrimp, vernal pool fairy shrimp and vernal pool tadpole shrimp shall be assumed unless determinate surveys that comply with U.S. Fish and Wildlife protocol conclude that the species are absent. If the protocol surveys are performed and all listed crustacean species are absent, Ricksecker's water scavenger beetle may also be presumed absent, and no further mitigation shall be required for listed vernal pool invertebrates. If species are found, one or a combination of the following shall apply:
 - a. *Total Avoidance: Species are present or assumed to be present.* Unless a smaller buffer is approved through formal consultation with the Fish and Wildlife Service, construction fencing shall be installed a minimum of 250 feet from all delineated vernal pool margins. All construction activities are prohibited within this buffer area. For all vernal pools where total avoidance is achieved, no further action is required.
 - b. *Compensate for habitat removed.* Obtain all applicable permits from the U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, California Department of Fish and Game, and the Central Valley Regional Water Quality Control Board for any proposed modifications to vernal pools and mitigate for habitat loss in accordance with the Biological Opinion and Section 404 permits obtained for the Project. At a minimum, mitigation ratios shall be consistent with County General Plan Policy, which requires no net loss of wetland resources. Any vernal pool loss not mitigated through the permitting process shall be mitigated for by payment into a mitigation bank or protection of off-site wetlands through the establishment of a permanent conservation easement, subject to the approval of the Environmental Coordinator (*Final EIR Mitigation Measure BR-7*).
16. If construction activities encroach within the 250-foot buffer for vernal pools 358, 363, 370, 426 or 511 the applicant shall prepare a pesticide and pollution prevention plan. The plan shall include measures to reduce pollution run-off, pesticide drift, and

other similar potential contaminates, to protect surrounding preserve areas from urban contaminates. Measures shall include the implementation of best management practices (e.g. straw wattles, silt fencing, and soil stabilization) for stormwater control. The plan shall be incorporated in the Operations and Management Plan which is a requirement of the Section 404 permit process (*Final EIR Mitigation Measure BR-8*).

17. The project applicant shall prepare an invasive species removal and prevention plan. The plan shall provide methods to remove invasive species from preservation areas and to restore the affected wetland features. The plan shall include methods for the prevention of the introduction of new invasive species from landscapes associated with the development. Minimum components of such a plan shall include: mapping of existing invasive plant populations within the avoided areas, with the map being updated a minimum of every five years; a description of acceptable methods for removing invasive species, examples of which include hand removal or biological controls (e.g. natural parasites); and a prohibition on the use of non-native plants within either the avoided areas or the Recreation-2 areas. The plan shall be incorporated in the Operations and Management Plan which is a requirement of the Section 404 permit process (*Final EIR Mitigation Measure BR-9*)
18. The following text shall be added to the Cordova Hills SPA: All amendments to the SPA with the potential to change SPA-wide GHG emissions shall include an analysis which quantifies, to the extent practicable, the effect of the Amendment on SPA-wide greenhouse gas emissions. The Amendment shall not increase SPA-wide greenhouse gas emissions above an average 5.80 metric tons per capita (including emissions from building energy usage and vehicles). If the SPA amendment would require a change in the approved GHG Reduction Plan in order to meet the 5.80 MT CO₂e threshold, then the proponent of the SPA amendment shall consult with the SMAQMD on the revised analysis and shall prepare a revised GHG Reduction Plan for approval by the County, in consultation with SMAQMD. (*Final EIR Mitigation Measure CC-1*).
19. If subsurface deposits believed to be cultural or human in origin are discovered during construction, then all work must halt within a 200-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeology, shall be retained at the Applicant's expense to evaluate the significance of the find. If it is determined due to the types of deposits discovered that a Native American monitor is required, the Guidelines for Monitors/Consultants of Native American Cultural, Religious, and Burial Sites as established by the Native American Heritage Commission shall be followed, and the monitor shall be retained at the Applicant's expense.

Work cannot continue within the 200-foot radius of the discovery site until the archaeologist conducts sufficient research and data collection to make a determination that the resource is either 1) not cultural in origin; or 2) not potentially eligible for

listing on the National Register of Historic Places or California Register of Historical Resources.

If a potentially-eligible resource is encountered, then the archaeologist, Environmental Coordinator, and project proponent shall arrange for either 1) total avoidance of the resource, if possible; or 2) test excavations or total data recovery as mitigation. The determination shall be formally documented in writing and submitted to **the** Environmental Coordinator as verification that the provisions of CEQA for managing unanticipated discoveries have been met.

In addition, pursuant to Section 5097.97 of the State Public Resources Code and Section 7050.5 of the State Health and Safety Code, in the event of the discovery of human remains, all work is to stop and the County Coroner shall be immediately notified. If the remains are determined to be Native American, guidelines of the Native American Heritage Commission shall be adhered to in the treatment and disposition of the remains (*Final EIR Mitigation Measure CR-1*).

20. Any structure within the project boundaries (including but not limited to, buildings, subsurface vaults, utilities, or any other areas where potential landfill gas buildup may cause adverse impacts to the public health or safety or the environment) within 1,000 feet of buried waste or proposed buried waste at Kiefer Landfill (refer to Plate HM-2 of the EIR) shall be continuously monitored by the owner/operator of said structure for landfill gas and be designed and constructed to prevent landfill gas accumulation in those structures (*Final EIR Mitigation Measure HM-1*).
21. The location and nature of the Sacramento County Boys Ranch facility shall be disclosed to all prospective buyers of estate-residential properties (*Final EIR Mitigation Measure LU-1*).
22. The location and nature of the Kiefer Landfill facility shall be disclosed to all prospective buyers of properties within one mile of the ultimate active landfill boundary. The disclosure notice shall include:
 - a. A statement substantially consistent with the following: "The landfill will expand in height and land area over time, and thus the visibility and proximity of the landfill from the property at the time of purchase does not reflect how visible or proximate the landfill will be in the future." This statement shall be supplemented with relevant facts about ultimate landfill design, including the distance of the property to the ultimate planned edge of the landfill waste disposal area to the nearest 100 feet and the ultimate planned height of the landfill (as set forth in the Solid Waste Facilities Permit).
 - b. Notification that the landfill operates under a Solid Waste Facilities Permit and is required to control pests, vectors, litter, and odor to the extent practicable, but that it is not possible to eliminate all of these nuisances. For this reason, property owners may experience some of these nuisance conditions.

- c. Notification that the active landfill area is lighted at night. (*Final EIR Mitigation Measure LU-2*).
23. All residential development projects exposed to greater than 65 dB L_{dn} (as identified in Appendix NO-1) at the property line shall be designed and constructed to reduce noise levels to within General Plan Noise Element standards for exterior activity areas. Potential options for achieving compliance with noise standards include, but are not limited to, noise barriers, increased setbacks, and/or strategic placement of structures. An acoustical analysis substantiating the required noise level reduction, prepared by a qualified acoustical consultant shall be submitted to and verified by the Environmental Coordinator prior to the issuance of any building permits for affected sites (*Final EIR Mitigation Measure NO-1*).
24. All residential development projects exposed to greater than 70 dB L_{dn} (as identified in Appendix NO-1) at the property line shall be designed and constructed to achieve an interior noise level of 45 dB L_{dn} or less. Potential options for achieving compliance with noise standards include, but are not limited to, noise barriers, increased setbacks, strategic placement of structures and/or enhanced building construction techniques. An acoustical analysis substantiating the required noise level reduction, prepared by a qualified acoustical consultant, shall be submitted to and verified by the Environmental Coordinator prior to the issuance of any building permits for the site (*Final EIR Mitigation Measure NO-2*).
25. Non-residential development projects such as churches, libraries, meeting halls, and schools exposed to greater than 60 dB L_{dn}, and all non-residential development projects such as transient lodging, hospitals and nursing homes, and office buildings exposed to greater than 65 dB L_{dn} (as identified in Appendix NO-1) at the property line shall demonstrate that interior noise volumes will not exceed General Plan Noise Element standards for non-residential uses exposed to traffic noise. This may be accomplished by providing documentation that the type of use is within acceptable limits based on the location of the identified noise contours and assuming standard exterior-to-interior attenuation of 25 dB. If this cannot be demonstrated, an acoustical analysis substantiating the required noise level reduction, prepared by a qualified acoustical consultant, shall be submitted to and verified by the Environmental Coordinator prior to the issuance of any building permits for affected sites. Potential options for achieving compliance with noise standards include, but are not limited to, noise barriers, increased setbacks, strategic placement of structures and/or enhanced building construction techniques. The measure does not apply to commercial uses (*Final EIR Mitigation Measure NO-3*).
26. All parks exposed to noise volumes in excess of 70 dB (as identified in Appendix NO-1) at the property line shall be designed and constructed to reduce noise levels within park activity areas (benches, play structures, etc.) to within General Plan Noise Element standards for parks. Potential options for achieving compliance with noise standards include, but are not limited to, noise barriers, increased setbacks, and/or

- strategic placement of structures. For barrier and other structural options, an acoustical analysis substantiating the required noise level reduction, prepared by a qualified acoustical consultant shall be submitted to and verified by the Environmental Coordinator prior to the issuance of any building permits for affected sites (*Final EIR Mitigation Measure NO-4*).
27. All non-residential development projects located adjacent to residentially designated properties shall be designed and constructed to ensure that noise levels generated by the uses do not result in General Plan Noise Element standards being exceeded on adjacent properties. An acoustical analysis substantiating the required noise level reduction, prepared by a qualified acoustical consultant shall be submitted to and verified by the Environmental Coordinator prior to the issuance of any building permits for the non-residential projects with the potential to generate substantial noise (e.g. car wash, auto repair, or buildings with heavy-duty truck loading docks) if those uses are adjacent to residentially designated properties. The acoustical analysis shall include, but not be limited to, consideration of potential noise conflicts due to operation of the following items:
- Outdoor playing fields;
 - Mechanical building equipment, including HVAC systems;
 - Loading docks and associated truck routes;
 - Refuse pick up locations; and
 - Refuse or recycling compactor units (*Final EIR Mitigation Measure NO-5*).
28. The following conditions will be required to ensure adequate disclosure of Mather Airport operations:
- a. Notification in the Public Report prepared by the California Department of Real Estate shall be provided disclosing to prospective buyers that the parcel is located within the applicable Airport Planning Policy Area and that aircraft operations can be expected to overfly that area at varying altitudes less than 3,000 feet above ground level.
 - b. Avigation Easements prepared by the Sacramento County Counsel's Office shall be executed and recorded with the Sacramento County Recorder on each individual residential parcel contemplated in the development in favor of the County of Sacramento. All Avigation Easements recorded pursuant to this policy shall, once recorded, be copied to the director of Airports and shall acknowledge the property location within the appropriate Airport Planning Policy Area and shall grant the right of flight and **un**obstructed passage of all aircraft into and out of the appropriate airport (*Final EIR Mitigation Measure NO-6*).

29. The applicant shall construct or fund, as set forth in the phasing and financing plan approved by the Sacramento County Department of Transportation, the below mitigation measures. The phasing and financing plan shall ensure commencement of construction of traffic improvements prior to degradation of LOS below applicable County standards. This mitigation recognizes that should any of the measures below benefit other projects, a reimbursement agreement and/or a fee credit to the applicant may be considered.
 - a. *Bradshaw Road and Jackson Road* – Provide a second westbound through lane.
 - b. *Eagles Nest Road and Jackson Road* – Construct a new traffic signal. Provide a left turn lane and a through-right turn shared lane on the northbound and southbound approaches.
 - c. *Grant Line Road and Sunrise Boulevard* – Provide a separate southbound right turn lane so the southbound approach has one left turn lane, one through lane and one right turn lane.
 - d. *Grant Line Road and White Rock Road* – Modify the intersection and traffic signal to provide dual left turn lanes and a two through lanes on the northbound approach; provide a two through lanes and a separate right turn lane on the southbound approach; and provide two left turn lanes and a separate right turn lane on the eastbound approach. On the western leg of the intersection, two westbound departure lanes are required.
 - e. *School Access and North Loop Road* – Provide dual eastbound left turn lanes. The applicant shall be responsible for a focused access study addressing the internal circulation of the Cordova Hills project to finalize the design of intersection geometries and length of left turn pockets. The scope of work for the analysis shall be submitted to the Sacramento County DOT staff. Upon completion, the analysis shall be submitted to the Sacramento County DOT for approval and recommendations (*Final EIR Mitigation Measure TR-1*).
30. The applicant shall construct or fund, as set forth in the phasing and financing plan approved by the Sacramento County Department of Transportation, and in consultation with the City of Rancho Cordova, the below mitigation measures. The phasing and financing plan shall ensure commencement of construction of traffic improvements prior to degradation of LOS below the applicable County or City standards. This mitigation recognizes that should any of the measures below benefit other projects, a reimbursement agreement may be considered.
 - a. *Zinfandel Drive and White Rock Road* – The applicant shall be responsible for a fair share of this measure. Provide separate dual right turns on the westbound approach so the westbound approach has two left turn lanes, two through lanes and two right turn lanes. The fair share shall be calculated to the satisfaction of Sacramento County Department of Transportation and may be up to 100% of the cost of the improvements.

- b. *Sunrise Boulevard and White Rock Road* – Provide overlap phasing on the eastbound and westbound approaches.
- c. *Sunrise Boulevard and Douglas Road* – Provide overlap phasing on the westbound approach.
- d. *Sunrise Boulevard and Jackson Road* – Provide an eastbound through lane, an eastbound through-right turn shared lane, and an eastbound left turn lane; a northbound left turn lane, two northbound through lanes, and a right turn lane; one westbound through lane, a westbound right turn lane, and a westbound left turn lane; a southbound through lane, a southbound left turn lane, and a southbound right turn lane.
- e. *Grant Line Road and Jackson Road* – The applicant shall be responsible for a fair share of this measure. Provide a left turn lane and a through-right shared turn lane on the eastbound and westbound approaches. Provide a separate left turn lane, a through lane and a separate right turn lane on the northbound and southbound approaches. The fair share shall be calculated to the satisfaction of Sacramento County Department of Transportation and may be up to 100% of the cost of the improvements.
- f. *Grant Line Road and Kiefer Boulevard* – Construct a new traffic signal. Provide a left turn lane, a through lane and a through-right turn shared lane on the northbound and southbound approaches; provide a left turn lane and a through-right turn shared lane on the eastbound and westbound approaches.
- g. *Grant Line Road and Douglas Road* – Construct a new traffic signal. Provide dual left turn lanes and a separate through lane on the northbound, a through lane and a through-right turn shared lane on the southbound approach, and a separate left turn lane and a free-right turn lane on the eastbound approach. Also an extra southbound departure lane is needed for the eastbound free-right movement. To be consistent with the segment mitigations a second northbound through lane is included.
- h. *Grant Line Road and North Loop Road* – Construct a new traffic signal. Provide two through lanes and a separate right turn lane on the northbound approach, dual left turn lanes and one through on the southbound approach, and one left turn lane and one free-right turn lane on the westbound approach. Also an extra northbound departure lane is needed for the westbound free-right movement. To be consistent with the segment mitigations a second southbound through lane is included.
- i. *Grant Line Road and Chrysanthy Boulevard* – Construct a new traffic signal. Provide a through lane and a separate right turn lane on the northbound approach, dual left turn lanes and a through lane on the southbound approach, and dual left turn lanes and one right turn lane on the westbound approach. To be consistent with the segment mitigations a second northbound and southbound

through lane is included. Also provide two westbound through lanes for when Chrysanthy Boulevard is connected through Rancho Cordova.

- j. *Grant Line Road and University Boulevard* – Construct a new traffic signal. Provide a through lane and a separate free-right turn lane on the northbound approach, dual left turn lanes and one through lanes on the southbound approach, and dual left turn lanes and a right turn lane on the westbound approach. Also an extra eastbound departure lane is needed for the northbound free-right movement. To be consistent with the segment mitigations a second northbound and southbound through lane is included (*Final EIR Mitigation Measure TR-2*).
31. The applicant shall construct or fund, as set forth in the phasing and financing plan approved by the Sacramento County Department of Transportation, the below mitigation measures. The phasing and financing plan shall ensure commencement of construction of traffic improvements prior to degradation of LOS below applicable County standards. This mitigation recognizes that should any of the measures below benefit other projects, a reimbursement agreement and/or a fee credit to the applicant may be considered.
- a. *Prairie City Road from US 50 to White Rock Road* – Increase roadway capacity by upgrading the capacity class for this segment from a rural highway without shoulders to a rural highway with shoulders (*Final EIR Mitigation Measure TR-3*).
32. The applicant shall construct or fund, as set forth in the phasing and financing plan approved by the Sacramento County Department of Transportation, and in consultation with the City of Elk Grove, the below mitigation measures. The phasing and financing plan shall ensure commencement of construction of traffic improvements prior to degradation of LOS below the applicable County or City standards. This mitigation recognizes that should any of the measures below benefit other projects, a reimbursement agreement may be considered.
- a. *Grant Line Road from Sheldon Road to Calvine Road* – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity class to an arterial with moderate access control (*Final EIR Mitigation Measure TR-4*).
33. The applicant shall construct or fund, as set forth in the phasing and financing plan approved by the Sacramento County Department of Transportation, and in consultation with the City of Rancho Cordova, the below mitigation measures. The phasing and financing plan shall ensure commencement of construction of traffic improvements prior to degradation of LOS below the applicable County or City standards. This mitigation recognizes that should any of the measures below benefit other projects, a reimbursement agreement may be considered.

- a. *Grant Line Road from Jackson Road to Kiefer Boulevard* – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity class to an arterial with moderate access control.
 - b. *Grant Line Road from Kiefer Boulevard to University Boulevard* – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity class to an arterial with moderate access control.
 - c. *Grant Line Road from University Boulevard to Chrysanthy Boulevard* – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity class to an arterial with moderate access control.
 - d. *Grant Line Road from Chrysanthy Boulevard to North Loop* – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity class to an arterial with moderate access control.
 - e. *Grant Line Road from North Loop to Douglas Road* – Increase roadway capacity by widening this segment to 6 lanes and upgrading the capacity class to an arterial with moderate access control.
 - f. *Grant Line Road from Douglas Road to White Rock Road* – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity class to an arterial with moderate access control.
 - g. *Jackson Road from Sunrise Boulevard to Grant Line Road* – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity class to an arterial with moderate access control.
 - h. *Douglas Road from Rancho Cordova Parkway to Grant Line Road* – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity class to an arterial with moderate access control between Americanos Boulevard and Grant Line Road, and by adding two westbound travel lanes to Douglas between Rancho Cordova Parkway to Americanos Boulevard. Construct interim sidewalk improvements (typically a detached asphaltic concrete path) and bicycle lanes (*Final EIR Mitigation Measure TR-5*).
34. The applicant shall be responsible for funding a fair share of the construction costs of the below mitigation measures. The fair share shall be calculated to the satisfaction of Sacramento County Department of Transportation, in consultation with Caltrans.
- a. *Westbound US 50 from Hazel Avenue to Sunrise Boulevard* – Add an auxiliary lane.
 - b. *Eastbound US 50 from Sunrise Boulevard to Hazel Avenue* – Add an auxiliary lane (*Final EIR Mitigation Measure TR-6*).
35. The applicant shall be responsible for a fair share of the below mitigation measures. The fair share shall be calculated to the satisfaction of Sacramento County

- Department of Transportation and may be up to 100% of the cost of the improvements.
- a. Construct interim sidewalks improvements (typically a detached asphaltic concrete path) and bicycle lanes along Grant Line Road from Douglas Road to White Rock Road and on Douglas Road from Rancho Cordova Parkway to Grant Line Road, to the satisfaction of the Sacramento County Department of Transportation (*Final EIR Mitigation Measure TR-7*).
36. The applicant shall be responsible for a fair share of the below mitigation measures. The fair share shall be calculated to the satisfaction of Sacramento County Department of Transportation and may be up to 100% of the cost of the improvements.
- a. *School Access and North Loop Road* – Provide dual eastbound left turn lanes (*Final EIR Mitigation Measure TR-8*).
37. The applicant shall be responsible for a fair share of the below mitigation measures. The fair share shall be calculated to the satisfaction of Sacramento County Department of Transportation, in consultation with the City of Rancho Cordova, and may be up to 100% of the cost of the improvements.
- a. *Sunrise Boulevard and Douglas Road* – Provide overlap phasing on the eastbound and westbound right turns.
 - b. *Grant Line Road and Douglas Road* – Provide a third southbound through lane and overlap phasing on the eastbound right turn lane. To be consistent with the segment mitigations a third northbound through lane is included.
 - c. *Grant Line Road and North Loop Road* – Provide a westbound free-right turn lane. Also an extra northbound departure lane is needed for the westbound free-right movement.
 - d. *Grant Line Road and University Boulevard* – Provide a northbound free-right turn lane. Also an extra eastbound departure lane is needed for the northbound free-right movement (*Final EIR Mitigation Measure TR-9*).
38. The applicant shall be responsible for a fair share of the below mitigation measures. The fair share shall be calculated to the satisfaction of Sacramento County Department of Transportation and may be up to 100% of the cost of the improvements.
- a. *North Loop Road from Street D to Street F* – Increase roadway capacity by widening this segment to 4 lanes and upgrading the capacity class to an arterial with low access control (*Final EIR Mitigation Measure TR-10*).
39. The applicant shall be responsible for a fair share of the below mitigation measures. The fair share shall be calculated to the satisfaction of Sacramento County

Department of Transportation, in consultation with the City of Rancho Cordova, and may be up to 100% of the cost of the improvements.

- a. *Grant Line Road from Rancho Cordova Parkway to Kiefer Boulevard* – Increase roadway capacity by widening this segment to a 6 lane arterial with moderate access control.
- b. *Grant Line Road from Kiefer Boulevard to University Boulevard* – Increase roadway capacity by widening this segment to a 6 lane arterial with moderate access control.
- c. *Grant Line Road from North Loop to Douglas Road* – Increase roadway capacity by widening this segment to a 6 lane arterial with moderate access control.
- d. *Grant Line Road from Douglas Road to White Rock Road* – Increase roadway capacity by widening this segment to a 6 lane arterial with moderate access control (*Final EIR Mitigation Measure TR-11*).

ROADWAY IMPROVEMENT TRIGGERS (DEPARTMENT OF TRANSPORTATION)

Roadway Improvements

The County Department of Transportation conditions below are based on traffic mitigation measures identified in the Final Environmental Impact Report (FEIR) for the Cordova Hills SPA and on additional traffic analysis to determine the appropriate phasing of roadway improvements associated with development of approved land uses in the Cordova Hills SPA. For a complete description of the mitigation measure improvements, refer to the Cordova Hills SPA FEIR. These conditions apply to all development within the Cordova Hills area and are in addition to any other conditions applied to individual properties within the Cordova Hills SPA.

Conditions of approval may call for partial roadway improvements or the expansion of existing facilities. The County recognizes and allows partial phased improvements. Fee credits or reimbursements for partially constructed, or phased, roadway facilities will be adjusted, at the County's discretion, according to the portion of the cost incurred for permanent improvements eligible for credit or reimbursement under the applicable fee program. The partially phased interim improvements that are not the ultimate facility or are not at the ultimate location are considered a "throw away" item. The costs associated with "throw away" items of the partially phased improvements are non-reimbursable through the SCTDF program.

It is recognized that circumstances may change over time and in cases where the developer of the Cordova Hills Project is obligated to construct or is constructing an item of roadway infrastructure pursuant to any of the below conditions, the County may request that Developer construct an additional item of infrastructure. Developer may construct such

additional infrastructure provided County reimburses the Developer for all additional costs that are incurred by Developer to construct the requested additional infrastructure.

Fair Share Funding/Mitigation Measure: Trigger Adjustments

40. Fair Share Funding/Mitigation Measure: Trigger Adjustments. The developer of the Cordova Hills Project or its successors, at their own expense, may submit an additional traffic analysis along with a request for an adjustment of their fair share funding and/or the improvement trigger requirement for any roadway infrastructure mitigation measures required below. The Director of the County's Department of Transportation may adjust the fair share funding percentage and/or the improvement trigger in his discretion based on the traffic analysis as long as the required level of service is achieved. Whenever the County enters into a reciprocal funding agreement to address cross jurisdictional roadway impacts with an adjacent jurisdiction, the Cordova Hills Project's fair share funding obligation and/or the mitigation measure trigger for such cross jurisdictional roadway impacts shall be adjusted by the County to take into account other new development projects which have cross jurisdictional roadway impacts and an obligation to build or contribute to the cost to build the roadway improvement in question.

Onsite Roadway Improvement Conditions to be constructed by the developer of the Cordova Hills Project:

41. As part of intersection improvements, provide dual eastbound left turn lanes at the intersection of North Loop Road and the proposed school access pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation. (FEIR Mitigation Measures TR-1.G and TR-8.A)
42. On site roadways within the Cordova Hills Project area shall be subject to the requirements of the County policy concerning discontinuous roadway frontage improvements ("sawtooth"). Unless otherwise noted, a specific project subject to these requirements shall install roadway frontage improvements along logical segments of at least one-quarter mile in length, including the specific project's frontage. If the length of the specific project's conditioned on-site frontage improvements on a single roadway is equal to or greater than one-quarter mile in length, then the specific project will be deemed to have satisfied the logical segment condition for that roadway. If the specific project's on-site frontage improvements are less than one-quarter mile, the specific project shall install additional off site frontage improvements within the Cordova Hills SPA in order to satisfy the logical segment condition. The location of limits of such on-site frontage improvements will be determined at the time of improvement plan approval and to the satisfaction of the Department of Transportation. On-site frontage improvements shall include the construction of the outside travel lane, bike lane or NEV lane, finished roadway edge, and a pedestrian walkway, all as per applicable SPA cross section. Specific projects that front on more than one of the roadways listed in Table A-1 (including corner

lots) shall be responsible for meeting the logical segment condition on each fronting roadway.

Table A-1 Cordova Hills Special Planning Area – Roadways Subject to Logical Segments:

- University Boulevard
- Chrysanthy Boulevard
- North Loop Road
- Town Center Boulevard
- Street “A”
- Street “D”

Roadway Improvement Conditions at time of connection to Grant Line Road

43. At the time of connection of North Loop Road to Grant Line Road, install a stop sign on the westbound approach with one left turn lane, one right turn lane, and a 14-foot wide refuge lane for a length of 200 feet for the westbound to southbound movement; on the southbound approach (uncontrolled), install a left turn lane and a through lane; and on the northbound approach (uncontrolled), install a shared through-right turn lane to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City’s jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. Note: pursuant to Title 22 of the Sacramento County Code, developments greater than 40 units shall be served by two points of public access and the streets must be greater than 50 feet in width for 20 or more units.
44. At the time of connection of Chrysanthy Boulevard to Grant Line Road, install a stop sign on the westbound approach with one left turn lane, one right turn lane, and a 14-foot wide refuge lane for a length of 200 feet for the westbound to southbound movement; on the southbound approach (uncontrolled), install a left turn lane and a through lane; and on the northbound approach (uncontrolled), install a shared through-right turn lane to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City’s jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. Note: pursuant to Title 22 of the Sacramento County Code, developments greater than 40 units shall be served by two points of public access and the streets must be greater than 50 feet in width for 20 or more units.
45. At the time of connection of University Boulevard to Grant Line Road, install a stop sign on the westbound approach with one left turn lane, one right turn lane, and a 14-

foot wide refuge lane for a length of 200 feet for the westbound to southbound movement; on the southbound approach (uncontrolled), install a left turn lane and a through lane; and on the northbound approach (uncontrolled), install a shared through-right turn lane to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. Note: pursuant to Title 22 of the Sacramento County Code, developments greater than 40 units shall be served by two points of public access and the streets must be greater than 50 feet in width for 20 or more units.

Roadway Improvement Trigger Conditions for Project Access to Grant Line Road

Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 1,250 Dwelling Unit Equivalents (DUEs) within the Cordova Hills SPA:

46. Commence reconstruction and widening of the intersection of North Loop Road and Grant Line Road pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. Improvements shall include the installation of a traffic signal, providing a u-turn lane and shared through-right turn lane on the northbound approach; two left turn lanes and a through lane on the southbound approach; and a left turn lane and a right turn lane on the westbound approach. Bus turnouts will be required on Grant Line Road and North Loop Road.
47. Commence reconstruction and widening of the intersection of University Boulevard and Grant Line Road pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. Improvements shall include the installation of a traffic signal, providing a u-turn lane and a through lane, and a right turn lane on the northbound approach; one left turn lane and one through lane on the southbound approach; and dual left turn lanes and a right turn lane on the westbound approach. Bus turnouts will be required on Grant Line Road and University Boulevard.

Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 1,800 DUEs within the Cordova Hills SPA:

48. Commence reconstruction and widening of the intersection of North Loop Road and Grant Line Road pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. Improvements shall include a modification to the traffic signal, providing a u-turn lane and two through lanes, and a right turn lane on the northbound approach; two left turn lanes and two through lanes on the southbound approach; and two left turn lanes and a free right turn lane on the westbound approach. For the free-right turn movement, provide sufficient acceleration lane and taper length and grant the right of direct vehicular access to the County of Sacramento along the acceleration lane/taper length to the satisfaction of the Department of Transportation. Bus turnouts will be required on Grant Line Road and North Loop Road.

Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 3,200 DUEs within the Cordova Hills SPA:

49. Commence reconstruction and widening of the intersection of University Boulevard and Grant Line Road pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. Improvements shall include modification of the existing traffic signal, providing a u-turn lane, two through lanes, and a free right turn lane on the northbound approach; two left turn lanes and two through lanes on the southbound approach; and two left turn lanes and a right turn lane on the westbound approach. Note: The two westbound left turn lanes shall be extended to a length based on the queuing analysis and to the satisfaction of the Department of Transportation. For the free-right turn movement, provide sufficient acceleration lane and taper length and grant the right of direct vehicular access to the County of Sacramento along the acceleration lane/taper length to the satisfaction of the Department of Transportation. Bus turnouts will be required on Grant Line Road and University Boulevard. (FEIR Mitigation Measures TR-2.J and TR-9.D)

Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 3,700 DUEs within the Cordova Hills SPA:

50. Commence reconstruction and widening of the intersection of Chrysanthy Boulevard and Grant Line Road pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion

of the improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. Improvements shall include the installation of a traffic signal, providing a u-turn lane and shared through-right turn lane on the northbound approach; a left turn lane and a through lane on the southbound approach; and a left turn lane and a right turn lane on the westbound approach. Bus turnouts will be required on Grant Line Road and Chrysanthy Boulevard.

Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 6,500 DUEs within the Cordova Hills SPA:

51. Commence reconstruction and widening of the intersection of North Loop Road and Grant Line Road pursuant to the latest Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. Improvements shall include modification to the traffic signal, providing a u-turn lane, three through lanes, and a right turn lane on the northbound approach; two left turn lanes and a free right turn lane on the westbound approach; and two left turn lanes and three through lanes on the southbound approach. Note: The two southbound left turn lanes shall be extended to a length based on the queuing analysis and to the satisfaction of the Department of Transportation. For the free-right turn movement, provide sufficient acceleration lane and taper length and grant the right of direct vehicular access to the County of Sacramento along the acceleration lane/taper length to the satisfaction of the Department of Transportation. Bus turnouts will be required on Grant Line Road and North Loop Road. (FEIR Mitigation Measures TR-2.H and TR-9.C)

Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 7,500 DUEs within the Cordova Hills SPA:

52. Commence reconstruction and widening of the intersection of Chrysanthy Boulevard and Grant Line Road pursuant to the latest Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. Improvements shall include modification to the traffic signal, providing a u-turn lane, two through lanes, and a right turn lane on the northbound approach; two left turn lanes and two through lanes on the southbound approach; and two left turn lanes, pavement for future two through lanes, and a right turn lane on the westbound approach. Note: The two southbound left turn lanes shall be extended to a length

based on the queuing analysis and to the satisfaction of the Department of Transportation. Bus turnouts will be required on Grant Line Road and Chrysanthy Boulevard. (FEIR Mitigation Measure: TR-2.I)

Offsite Roadway Improvement Trigger Conditions

Construction of the improvements identified in each phased condition below (by the developer of the Cordova Hills Project or by another entity) must begin prior to the applicable trigger being exceeded. Once construction of the relevant improvement has begun, it is permissible for additional development to proceed beyond the cap identified in the Dwelling Unit Equivalent (DUEs) trigger, provided that construction continues to progress and is completed to the satisfaction of the Department of Transportation prior to reaching the next chronological set of DUE triggers or an additional 500 DUEs (whichever occurs first).

Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 250 Dwelling Unit Equivalents (DUEs) within the Cordova Hills SPA:

53. Commence construction of shoulders on both sides of the existing roadway segment of Grant Line Road from Douglas Road to White Rock Road to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. It is the intent that these shoulders shall be designed and constructed to standard (six foot); however; flexibility in the design and construction of these shoulders will be allowed along the segment to avoid natural resources and their associated buffers.

Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 500 Dwelling Unit Equivalents (DUEs) within the Cordova Hills SPA:

54. Commence reconstruction and widening of the existing intersection of Grant Line Road at Jackson Road (State Route 16) pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County, Caltrans and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Improvements shall include a traffic signal modification to accommodate an eastbound through lane, an eastbound through-right turn shared lane, and an eastbound left turn lane; a westbound through lane, a westbound through-right turn shared lane, and a westbound left turn lane; a northbound through-right lane, and a northbound left turn lane; and a southbound shared through-right turn lane, and a southbound left turn lane. The traffic signal phasing in the north-south on Grant Line Road shall be changed from split phase to provide protected left turn phasing. The east-west phasing on Jackson Road (State Route 16) will remain

protected left turn phasing. Prior to the time of issuance of the first building permit, and again before the issuance of the building permit for the 1,000th DUE, updated intersection analyses shall be performed by County that include this intersection. The timing of this intersection improvement may be revised to preserve the County's LOS E standard, and may increase or decrease the DUE trigger for the construction of this improvement, but shall not require the improvement any sooner than 250 DUEs. If the DUE trigger for the construction of the foregoing intersection improvements is lowered, then Developer shall make commercially reasonable efforts to commence the improvements prior to the lower DUE being exceeded; however, the development of the Cordova Hills Project shall not be suspended or delayed so long as Developer has made reasonable efforts to commence construction prior to exceeding the lower DUE trigger. Developer shall make a contribution to the costs of each updated intersection analyses to be conducted for this and three other intersections in an amount not to exceed \$2,000, with the total Developer contribution for both analyses not to exceed \$4,000.

- 54a. Commence reconstruction and widening of the existing intersection of Sunrise Boulevard at Jackson Road (State Route 16) pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation and Caltrans, provided that the County, Caltrans and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Improvements shall include an eastbound through lane, an eastbound through-right turn shared lane, and an eastbound left turn lane; a northbound left turn lane, two northbound through lanes, and a right turn lane; one westbound through lane, a westbound right turn lane, and a westbound left turn lane; a southbound through lane, a southbound left turn lane, and a southbound right turn lane. Note: The two eastbound and northbound through lanes shall be carried through the intersection.

Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 850 DUEs within the Cordova Hills SPA:

55. Commence reconstruction and widening of the existing intersection of Grant Line Road at Douglas Road to a signalized intersection pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. Improvements shall include dual northbound left turn lanes and a northbound through lane; a southbound u-turn lane, a southbound through lane and a southbound right turn lane; and an eastbound left turn lane and an eastbound right turn lane. Note: Bus turnouts will be required on Grant Line Road and Douglas Road. Prior to the time of issuance of the first building permit, and

again before the issuance of the building permit for the 1,000th DUE, updated intersection analyses shall be performed by County that include this intersection. The timing of this intersection improvement may be revised to preserve the County's LOS E standard, and may increase or decrease the DUE trigger for the construction of this improvement, but shall not require the improvement any sooner than 250 DUEs. If the DUE trigger for the construction of the foregoing intersection improvements is lowered, then Developer shall make commercially reasonable efforts to commence the improvements prior to the lower DUE being exceeded; however, the development of the Cordova Hills Project shall not be suspended or delayed so long as Developer has made reasonable efforts to commence construction prior to exceeding the lower DUE trigger. Developer shall make a contribution to the costs of each updated intersection analyses to be conducted for this and three other intersections in an amount not to exceed \$2,000, with the total Developer contribution for both analyses not to exceed \$4,000.

Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 1,800 DUEs within the Cordova Hills SPA:

56. Commence reconstruction and widening of the Grant Line Road at Douglas Road intersection to modify a signalized intersection pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. Improvements shall include a southbound u-turn lane, two southbound through lanes and a southbound right turn lane; an eastbound left turn lane and an eastbound free right turn lane; and dual northbound left turn lane and two through lanes. For the free-right turn movements, provide sufficient acceleration lane length to the satisfaction of the Department of Transportation. Note: Bus turnouts will be required on Grant Line Road and Douglas Road. The through lanes in the northbound and southbound directions shall be carried through the intersection. Prior to the time of issuance of the first building permit, and again before the issuance of the building permit for the 1,000th DUE, updated intersection analyses shall be performed by County that include this intersection. The timing of this intersection improvement may be revised to preserve the County's LOS E standard, and may increase or decrease the DUE trigger for the construction of this improvement, but shall not require the improvement any sooner than 250 DUEs. If the DUE trigger for the construction of the foregoing intersection improvements is lowered, then Developer shall make commercially reasonable efforts to commence the improvements prior to the lower DUE being exceeded; however, the development of the Cordova Hills Project shall not be suspended or delayed so long as Developer has made reasonable efforts to commence construction prior to exceeding the lower DUE trigger. Developer shall make a contribution to the costs of each updated intersection

analyses to be conducted for this and three other intersections in an amount not to exceed \$2,000, with the total Developer contribution for both **analyses not to exceed \$4,000.**

57. Commence reconstruction and widening of Grant Line Road from an existing two-lane road section to a four-lane thoroughfare section from North Loop Road to Douglas Road based on a 96-foot standard thoroughfare pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. (Note: Bus turnouts will be required on Grant Line Road. Note: Condition number 51 requires improvements to the intersection of North Loop Road and Grant Line Road and Condition number 56 requires improvements to the intersection of Douglas Road and Grant Line Road.)

Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 2,000 DUEs within the Cordova Hills SPA:

58. Modify the existing intersection of Bradshaw Road and Jackson Road (State Route 16) to provide a second westbound through lane pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation and Caltrans. Note: The additional westbound through lane shall be carried through the intersection. (FEIR Mitigation Measure: TR-1.A)
59. Commence reconstruction and widening of the existing intersection of Grant Line Road at Kiefer Boulevard to a signalized intersection pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. Improvements shall include a northbound left turn lane, and a northbound through-right turn shared lane; a westbound left-through-right turns shared lane; a southbound left turn lane, and a southbound through-right turn shared lane; and an eastbound left-through-right turns shared lane. Prior to the time of issuance of the first building permit, and again before the issuance of the building permit for the 1,000th DUE, updated intersection analyses shall be performed by County that include this intersection. The timing of this intersection improvement may be revised to preserve the County's LOS E standard, and may increase or decrease the DUE trigger for the construction of this improvement, but shall not require the improvement any sooner than 250 DUEs. If the DUE trigger for the construction of the foregoing intersection improvements is lowered, then Developer shall make commercially reasonable efforts to commence the improvements prior to the lower DUE being exceeded; however, the development

of the Cordova Hills Project shall not be suspended or delayed so long as Developer has made reasonable efforts to commence construction prior to exceeding the lower DUE trigger. Developer shall make a contribution to the costs of each updated intersection analyses to be conducted for this and three other intersections in an amount not to exceed \$2,000, with the total Developer contribution for both analyses not to exceed \$4,000.

Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 3,200 DUEs within the Cordova Hills SPA:

60. Commence reconstruction and widening of the existing intersection of Grant Line Road and White Rock Road pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation. Improvements shall include dual northbound left turn lanes and two northbound through lanes; two southbound through lanes and one southbound right turn lane; two eastbound left turn lanes, and one eastbound right turn lane. On the western leg of the intersection, two westbound departure lanes are required. Note: A project to widen White Rock Road from two lanes to four lanes between Grant Line Road and Prairie City Road is currently (2012) under construction. (FEIR Mitigation Measure: TR-1.E)
61. *Deleted*
62. Commence reconstruction and widening of the Grant Line Road at Jackson Road (State Route 16) intersection pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation and Caltrans, provided that the County, Caltrans and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. Improvements shall include a traffic signal modification to accommodate dual eastbound left turn lanes, an eastbound through lane, and an eastbound through-right turn shared lane; a westbound left turn lane, westbound through lane and a westbound through-right turn shared lane; a northbound left turn lane, a northbound through lane, and a northbound through-right turn shared lane; and a southbound shared through-right turn lane, a southbound through lane and a southbound left turn lane. (FEIR Mitigation Measure: TR-2.E)
63. Commence reconstruction and widening of the existing intersection of Grant Line Road at Kiefer Boulevard to a signalized intersection pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. Improvements shall include a northbound left turn lane, a northbound through lane, and a northbound through-right turn shared lane; a westbound left turn lane and a westbound through-right turn

- shared lane; a southbound left turn lane, a southbound through lane, and a southbound through-right turn shared lane; and an eastbound left turn lane and an eastbound through-right turn shared lane. (FEIR Mitigation Measure: TR-2.F).
64. Commence reconstruction and widening of Grant Line Road from an existing two-lane road section to a four-lane thoroughfare center section with an interim raised center median (with Type 4 curbs, but no root barrier), interim AC paths (refer to Standard Detail 4-5 for separation requirements of AC path from right-of-way) and six-foot bike lanes from Jackson Road (State Route 16) to Kiefer Boulevard based on a 96-foot standard thoroughfare pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. (FEIR Mitigation Measure: TR-5.A)
65. Commence reconstruction and widening of Grant Line Road from an existing two-lane road section to a four-lane thoroughfare center section with an interim raised center median (with Type 4 curbs, but no root barrier), interim AC paths (refer to Standard Detail 4-5 for separation requirements of AC path from right-of-way) and six-foot bike lanes from Kiefer Boulevard to University Boulevard based on a 96-foot standard thoroughfare pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. Note: Bus turnouts will be required on Grant Line Road. Refer to Condition number 49 that requires improvements to the intersection of University Boulevard and Grant Line Road. (FEIR Mitigation Measure: TR-5.B)
66. Commence reconstruction and widening of Grant Line Road from an existing two-lane road section to four-lane thoroughfare center section with an interim raised center median (with Type 4 curbs, but no root barrier), interim AC paths (refer to Standard Detail 4-5 for separation requirements of AC path from right-of-way) and six-foot bike lanes from Douglas Road to White Rock Road based on a 96-foot standard thoroughfare pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. (FEIR Mitigation Measures: TR-5.F and TR-7.A)

Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 4,500 DUEs within the Cordova Hills SPA:

67. Commence reconstruction and widening of the existing intersection of Eagles Nest Road at Jackson Road (State Route 16) to a signalized intersection pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation and Caltrans. Improvements shall include a left turn lane and a through-right turn shared lane on the all approaches. (FEIR Mitigation Measure: TR-1.C)

Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 5,800 DUEs within the Cordova Hills SPA:

68. Commence reconstruction and widening of the existing intersection of Grant Line Road at Sunrise Boulevard to provide a separate southbound right turn lane so the southbound approach has one left turn lane, one through lane, and one right turn lane pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation. (FEIR Mitigation Measure: TR-1.D).

Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 6,500 DUEs within the Cordova Hills SPA:

69. Commence reconstruction and widening of the Grant Line Road at Douglas Road intersection to a signalized intersection pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. Improvements shall include dual northbound left turn lanes (length of northbound left turn lanes to be determined based on future analysis) and three northbound through lanes; a southbound u-turn lane, three southbound through lanes and a southbound right turn lane; and an eastbound left turn lane and an eastbound free right turn lane. For the free-right turn movements, provide sufficient acceleration lane length to the satisfaction of the Department of Transportation. Note: The through lanes in the northbound and southbound directions shall be carried through the intersection. (FEIR Mitigation Measure: TR-2.G, and TR-9.B)
70. Commence reconstruction and widening of Prairie City Road from a rural highway without shoulders to a rural highway with shoulders from U.S. 50 to White Rock Road pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Folsom have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. (FEIR Mitigation Measure: TR-3.A)

71. Commence reconstruction and widening of Grant Line Road from a four-lane road section to a six-lane thoroughfare section from North Loop Road to Douglas Road based on a 96-foot standard thoroughfare pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. (Note: Bus turnouts will be required on Grant Line Road. Condition number 51 requires improvements to the intersection of North Loop Road and Grant Line Road and Condition number 69 requires improvements to the intersection of Douglas Road and Grant Line Road.) (FEIR Mitigation Measures TR-5.E and TR-11.C)

Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 6,900 DUEs within the Cordova Hills SPA:

72. Commence reconstruction and widening of Jackson Road (State Route 16) from an existing two-lane road section to four-lane thoroughfare center section with an interim raised center median (with Type 4 curbs, but no root barrier), interim AC paths (refer to Standard Detail 4-5 for separation requirements of AC path from right-of-way) and six-foot bike lanes from Sunrise Boulevard to Grant Line Road based on a 96-foot standard thoroughfare pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. (FEIR Mitigation Measure: TR-5.G)

Prior to the recordation of the final maps for residential land uses or issuance of building permits for non-residential land uses (including the University) for 7,500 DUEs within the Cordova Hills SPA:

73. Commence reconstruction and widening of Grant Line Road from an existing two-lane road section to a four-lane thoroughfare center road section with an interim raised center median (with Type 4 curbs, but no root barrier), interim AC paths (refer to Standard Detail 4-5 for separation requirements of AC path from right-of-way) and six-foot bike lanes from University Boulevard to Chrysanthy Boulevard based on a 96-foot standard thoroughfare pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. (FEIR Mitigation Measure: TR-5.C)

74. Commence reconstruction and widening of Grant Line Road from an existing two-lane road section to a four-lane thoroughfare center road section with an interim raised center median (with Type 4 curbs, but no root barrier), interim AC paths (refer to Standard Detail 4-5 for separation requirements of AC path from right-of-way) and six-foot bike lanes from Chrysanthy Boulevard to North Loop Road based on a 96-foot standard thoroughfare pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation, provided that the County and the City of Rancho Cordova have reached agreement for construction of the portion of the improvements within the City's jurisdiction. Performance of this condition shall be held in abeyance pending such agreement and development may continue. (FEIR Mitigation Measure: TR-5.D)

Provide a fair share contribution for the following mitigation measures for roadway and intersection facilities to the satisfaction of the Department of Transportation. If the Southeast Connector Project is adopted into the County General Plan, then the Cordova Hills Project shall only pay its fair share contribution for the cost of the facilities needed for the Connector Project which replaces them, not to exceed the amount that would have been owed as the Cordova Hills Project's fair share contribution for the original improvements.

75. Pay a fair share (21%) contribution towards the reconstruction and widening of Grant Line Road from an existing four-lane thoroughfare center road section to a six-lane thoroughfare section from Douglas Road to White Rock Road pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation. (FEIR Mitigation Measure: TR-11.D)
76. Pay a fair share (34%) contribution towards the reconstruction and widening of Grant Line Road from an existing four-lane thoroughfare center road section to a six-lane thoroughfare section from Rancho Cordova Parkway to Kiefer Boulevard. (FEIR Mitigation Measure: TR-11.A)
77. Pay a fair share (54%) contribution towards the reconstruction and widening of Grant Line Road from an existing four-lane thoroughfare center road section to a six-lane thoroughfare section from Kiefer Boulevard to University Boulevard. (FEIR Mitigation Measure: TR-11.B)

Freeway Improvements located under the jurisdiction of the Caltrans:

Provide a fair share contribution for the following mitigation measures for Caltrans freeway facilities to the satisfaction of the Department of Transportation:

78. Pay a fair share (4%) contribution towards the addition of an auxiliary lane on westbound U.S. 50 from Hazel Avenue to Sunrise Boulevard. (FEIR Mitigation Measure: TR-6.A)
79. Pay a fair share (9%) contribution towards the addition of an auxiliary lane on eastbound U.S. 50 from Sunrise Boulevard to Hazel Avenue. (FEIR Mitigation Measure: TR-6.B)

Roadway Improvements located in the City of Rancho Cordova and the City of Elk Grove:

The roadway improvements located within the adjacent jurisdictions of the City of Rancho Cordova and the City of Elk Grove are not required to be constructed pursuant to development threshold restrictions. The County and Cordova Hills Developer will pursue a reciprocal funding agreement and operational agreement with the respective jurisdictions as discussed in the Development Agreement to address the cross jurisdictional roadway impacts.

Provide a fair share contribution for the following roadway and intersection improvements entirely within the City of Elk Grove to the satisfaction of the Department of Transportation. If the Southeast Connector Project is adopted into the County General Plan, then the Cordova Hills Project shall only pay its fair share contribution for the cost of the facilities needed for the Connector Project which replaces them, not to exceed the amount that would have been owed as the Cordova Hills Project's fair share contribution for the original improvements.

80. Pay a fair share (9%) contribution towards the reconstruction and widening of Grant Line Road from an existing two-lane road section to a four-lane thoroughfare center road section from Sheldon Road to Calvine Road pursuant to the City of Elk Grove Improvement Standards. (FEIR Mitigation Measure: TR-4.A)

Provide a fair share contribution for the following roadway and intersection improvements entirely within the City of Rancho Cordova to the satisfaction of the Department of Transportation:

81. Pay a fair share (18%) contribution towards the modification and associated improvements at the intersection of Sunrise Boulevard and White Rock Road pursuant to the City of Rancho Cordova Improvement Standards or provide overlap phasing on the eastbound and westbound approaches. (FEIR Mitigation Measure: TR-2.B)
82. Pay a fair share (16%) contribution towards the modification and associated improvements at the intersection of Sunrise Boulevard and Douglas Road pursuant to the City of Rancho Cordova Improvement Standards or provide overlap phasing on the eastbound and westbound right turns. (FEIR Mitigation Measure: TR-9.A)
83. Pay a fair share (58%) contribution towards the reconstruction and widening of Douglas Road from an existing two-lane road section to a four-lane arterial section from Americanos Boulevard to Grant Line Road, including a raised center median, interim AC paths and six-foot bike lane pursuant to the City of Rancho Cordova Improvement Standards. Also, pay a fair share (58%) contribution towards construction of a landscape median, two westbound travel lanes (any turn lanes at major intersections as applicable), a westbound six-foot bike lane, and a westbound interim AC path for 5,030 feet on Douglas Road from Rancho Cordova Parkway to Americanos Boulevard. (FEIR Mitigation Measures: TR-5.I and TR-7.A)

84. Pay a fair share (16%) contribution towards the modification and associated improvements at the intersection of Zinfandel Drive and White Rock Road pursuant to the City of Rancho Cordova Improvement Standards in order to provide separate dual right turns on the westbound approach so the westbound approach has two left turn lanes, two through lanes and two right turn lanes. (FEIR Mitigation Measure: TR-2.A)
85. Pay a fair share (16%) contribution towards the modification and associated improvements at the intersection of Sunrise Boulevard and Douglas Road pursuant to the Rancho Cordova Improvement Standards to provide overlap phasing on the westbound approach. (FEIR Mitigation Measure: TR-2.C)

SPECIAL DISTRICTS SECTION

86. No residential final maps, with the exception of large lot final maps, shall be recorded and no residential building permits shall be issued thereon, nor any building permits issued for any other use until the financing mechanisms recommended in the approved Cordova Hills Special Planning Area Public Facilities Financing Plan are implemented. The property owners shall comply with the implementation of financing mechanisms including any future amendments and revisions adopted by the Board of Supervisors
87. Prior to the recordation of a final map or issuance of a building permit, whichever may occur first, the property owner shall annex to County Service Area No. 10 (CSA 10) or establish an equivalent financing mechanism to the satisfaction of the Board of Supervisors, for the purpose of funding a variety of transportation demand management (TDM) services to implement an overall TDM strategy that will contribute to the goal of reducing vehicle trips and shall participate in CSA 10 or an equivalent financing mechanism by approving the levy of annual service charges or special taxes. If the property would to be annexed to CSA 10, to activate annual property related service charges for CSA10, the protest ballot process is required by Proposition 218. If an equivalent financing mechanism is the choice of the development for TDM services, the mechanism needs to be established with approved levy of annual service charges or special taxes prior to the recordation of a final map or issuance of a building permit. In the event the property owners fail to annex to CSA 10, or establish a financing mechanism, or approve a service charge or special tax, no final map shall be recorded or building permits shall be issued. The annexation and protest ballot process for CSA 10 takes approximately three (3) months and the establishment of a new financing district could take six (6) months or longer. The applicants are advised to contact the County of Sacramento Special District Section at (916) 874-6525 at the earliest possible time to initiate the process. In no event shall a building permit be issued prior to the successful completion of protest ballot or election proceedings that approve the levy of annual service charges or special taxes to fund the TDM services.

88. Prior to recordation of final maps, the property shall annex into the County of Sacramento Community Facilities District No. 2005-1 (Police Services). The annexation process takes approximately 6 months and the applicants must contact the County of Sacramento Special Districts Section at (916) 874-6525 at the earliest possible time to initiate the process. As an alternative, the property owner may pay an equivalent cash amount based upon the present value of the maximum special tax to the satisfaction of the Community Development Director.
89. To the extent required by the Biological Opinion issued for the Freeport Regional Water Project, new water service will not be authorized or provided until compliance with the Endangered Species Act is demonstrated. Depending upon the source of water, compliance may be demonstrated by one of the following: participation in the SSHCP if the SSHCP is approved and implemented; a letter from the US Fish and Wildlife Service (USFWS) to the Project proponent and/or federal agency indicating the Project is not likely to adversely affect or result in a take of listed species; incidental take coverage through a biological opinion for the Project; or, incidental take coverage through an Endangered Species Act section 10(a)(1)(B) permit for the Project. Such compliance must be demonstrated to the satisfaction of the Director of the Department of Water Resources before approval of final maps or issuance of the first building permit, whichever occurs first.
90. In accordance with the Cordova Hills Development Agreement, the project shall be required to participate in any future County-wide Storm Water CFD required to fund maintenance of expanded stormwater /stormwater quality/hydromodification basins and facilities required as a result of State or Federal mandates and which are not included in the existing county Storm Water Utility program.

Any approval of the Large Lot Tentative Subdivision Map shall be subject to the conditions listed below. New additions and deletions following the January 29, 2013 hearing are presented in **bold** and ~~strikethrough~~ text, respectively.

SACRAMENTO AREA SEWER DISTRICT

1. Annex the subject property to both the Sacramento Regional County Sanitation District (SRCSD) and the Sacramento Area Sewer District (SASD) prior to recordation of the Final Map or submission of any improvement plans, whichever occurs first. Upon annexation, following conditions will apply to this project.
 - Connection to the SASD's sewer system shall be required to the satisfaction of SASD. SASD Design Standards apply to sewer construction.
 - Each parcel with a sewage source shall have a separate connection to the SASD public sewer system. If there is more than one building in any single parcel and the parcel is not proposed for split, then each building on that parcel shall have a separate connection to a private on-site sewer line or the SASD public sewer line.

- A Level 2 Sewer Study (Master Plan Level) has already been approved by SASD/SRCSD. However, to address a recently developed sewer alternate for the area an addendum to the Level 2 Sewer study will be required before recordation of the large lot map or submission of any improvement plans. A Level 3 Sewer Study (Subdivision Level) will also be required before recordation of small lot maps or submission of the improvement plans. The sewer study shall demonstrate the quantity of discharge and any “flow through sewage” along with the appropriate pipe sizes, elevations, downstream connections(s), upstream responsibilities, etc., and shall be done in accordance with SASD’s most recent “Minimum Sewer Study Requirements”. The study shall be done on a no “Shed-Shift” basis unless approved by SASD in advance and in compliance with the SASD Design Standards.
- To obtain public sewer service, construction of necessary onsite and offsite sewer infrastructure will be required to serve this project.
- Sewer easements may be required. All sewer easements shall be dedicated to SASD, in a form approved by the District Engineer. All SASD sewer easements shall be at least 20 feet in width and ensure continuous access for installation and maintenance. SASD will provide maintenance only in public right-of-ways and in easements dedicated to SASD.
- SASD requires their sewers to be located a minimum of 10 feet (measured horizontally (from edge of pipe to edge of pipe) from all potable water lines. Separation of sewer line from other parallel utilities, such as storm drain and other ‘dry’ utilities (electrical, telephone, cable, etc.) shall be a minimum of 7 feet (measured horizontally from the center of pipe to the center of pipe). Any deviation from the above separation due to depth and roadway width must be approved by SASD on a case by case basis.
- The trunk and collector sewer system for the project will not be accepted for operation and maintenance until the downstream sewer system serving the project is also accepted for operation and maintenance. All sewer facilities shall be accepted for operation and maintenance prior to issuance of a building permit as necessary to serve this project.

SACRAMENTO REGIONAL COUNTY SANITATION DISTRICT

2. Annexation to both SRCSD and the local sewer provider will be required to receive public sewer service.
3. To obtain public sewer service, construction of necessary onsite and offsite sewer infrastructure will be required to serve this project.
4. An approved sewer study will be required prior to recordation of the large lot map or submission of any improvement plans, whichever occurs first. The sewer study will

be done in accordance with SASD's most recent Minimum Sewer Study Requirements and in compliance with SASD's Design Standards.

5. The applicant shall provide an area for sewer pump station facilities. The location and size of the area will be in accordance with the applicant's approved sewer study.

SACRAMENTO FIRE PROTECTION DISTRICT

6. The final number and locations of the fire stations is to be determined by the comprehensive District's Standards of Coverage Study covering the Cordova Hills' project site and adjacent development areas where fire response may overlap, at the Developer's expense. The final site selection will also be subject to real property negotiations to acquire property for a fire station. The District's requirements for a fire station site include a minimum of 2.5 net acres of level property with a minimum of 330 feet of frontage and 330 feet of depth complete with utilities adequate to support the fire station. Please contact the District's Chief Administrative Officer, Larry Davis at (916) 708-6377, to determine specific site location(s), and then show the location of the final project plan.
7. The installation of approved traffic control equipment shall be installed on all signal lights installed or modified as a part of this project to allow emergency fire apparatus to activate the traffic signal.
8. Approved fire hydrants capable of providing the required fire flow for the protection of any and all structures shall be located shall be located along the route of the public roadways or fire apparatus access lanes. Hydrants shall be located at 300-foot spacing for commercial areas, and 500-foot spacing for residential areas, or as approved by Sacramento Metropolitan Fire District. Fire hydrants shall not be located in the bulb area of cui-del-sacs. The required fire hydrants shall be installed and operational prior to any construction or on-site storage of combustible materials.
9. Residences located within a high fire hazard severity zone are subject to more stringent requirements that may include wider access roadways, Class A roof coverings, fire sprinklers, and additional clearance from unimproved lands. Such requirements shall be determined with subsequent individual development applications.
10. Residential roof coverings shall consist of materials having a minimum Class C rating.
11. Traffic calming measures, speed bumps, humps, etc. shall not be installed in private fire apparatus access roadways.
12. All residential, commercial, and recreational structures in the proposed subdivision will be connected to the public water supply; private wells shall not be permitted.
13. Fire apparatus access shall be provided into wetland, wild land, unimproved open space areas, and large park and recreation areas for emergency medical and fire

suppression purposes. Access to the aforementioned sites shall comply with the following requirements:

- a. Access roadways designed for vehicle use shall be a minimum of 20 feet in width.
 - b. Pedestrian, bicycle, and non-vehicle recreational trails shall be a minimum of 10 feet in width.
 - c. Class I Trail surfacing materials utilized for bicycle and pedestrian shall be all weather driving surface designed to meet the requirements of Sacramento County Road improvement standards (a minimum of 2 inches of asphalt on 6 inches of aggregate base).
 - d. The Fire District shall approve the number and location of required apparatus access points.
14. Firebreaks shall be provided to separate unimproved areas, wetland (when permitted by federal and state agencies), wild land, open space areas, etc., from adjacent commercial, residential, and recreational development. Firebreaks shall provide a minimum of 30 feet of separation from combustible fences, structures, and ornamental vegetation. When a fire break is not permitted, a minimum of 30 feet of irrigated landscaping or a paved road must separate the unimproved areas. Where non-combustible fencing is provided, fire-resistive plants may be used to reduce or eliminate the firebreak subject to approval by the Fire District.
15. Backyard fencing separating residences from wetland, wild land, unimproved, open space, recreational areas, etc., shall be, constructed of non-combustible materials. New fencing shall be of the metal, open grate variety.

AIRPORT SYSTEM

16. Execution and recordation with the Sacramento County Recorder of an Avigation Easement to Sacramento County and compliance with all other conditions as required by the Sacramento County Board of Supervisors adoption of the Airport Planning Policy Area for Mather Air Field.

SHERIFF

17. Rounded curbs shall be avoided whenever possible.
18. Prior to the recordation of the first final parcel map, Property Owners shall cooperate with the County Sheriff's Department, in consultation with the City of Rancho Cordova, in the creation and implementation of a police services plan approved by the County for providing adequate levels of police services for the needs of the Cordova Hills Project Areas during the early phases of development.

SIPS

19. Grant to the County an IOD for the on-site portion of roadways as shown on the tentative map and consistent with the Cordova Hills SPA to the satisfaction of Municipals Services Agency.
20. Dedicate a Public Utility Easement for underground facilities and appurtenances adjacent to all roadway IODs as shown on the Tentative Map and consistent public utility easements shown on street sections within the Cordova Hills Master Plan.
21. Conduct an assessment ballot to annex into the Enhanced or the Decorative street light benefit categories within CSA1.

WATER RESOURCES

22. Coincident with the approval of the improvement plans, provide drainage easements as needed and pay any fee required by the Sacramento County Water Agency Code. Install facilities pursuant to the Sacramento County Floodplain Management Ordinance, Sacramento County Water Agency Code, approved Drainage Master Plan, and Sacramento County Improvement Standards. All basins and channel alignments are contingent upon development interest. Any SCWA funding is contingent upon a need by SCWA, pursuant to title 2 of the SCWA Code. All drainage studies are subject to alternative analyses. Basin land shall not be credited within the Zone 11A fee program.
23. The Department of Water Resources shall require an approved drainage study incorporating all the items contained in the latest version of the document **“COUNTY OF SACRAMENTO DEPARTMENT OF WATER RESOURCES DRAINAGE DEVELOPMENT AND HYDROLOGY SECTION, Drainage Study Requirements”** and all the requirements listed in the Sacramento County Drainage Improvement Standards, prior to recordation of the large lot map. The study shall describe permanent stormwater quality treatment facilities capable of treating stormwater to the satisfaction of DWR groundwater engineering for infiltration into the Mehrten formation. The study must also identify, to the satisfaction of the Sacramento County DWR, hydromodification mitigation measures and flood detention facilities, to be implemented by the Cordova Hills development, in conformance with applicable County ordinances & standards, and state and federal law.
24. An existing condition (pre-project) Letter of Map Revision, must be approved by FEMA prior to recordation of the first large lot final map, approval of improvement plans, or grading plans, whichever comes first.
25. A CLOMR must be approved by FEMA for proposed development prior to approval of improvement plans, or grading plans, whichever comes first. Afterwards, a submittal to FEMA for a Letter of Map Revision is required prior to final map

- recordation. The development related CLOMR/LOMR process may be tied to the scope of the development phases with DWR approval.
26. An approved Letter of Map Revision for the developed condition shall be required prior to Building Permit issuance.
 27. Prior to the first large lot map recordation, annex to the County of Sacramento Stormwater Utility District pursuant to the Sacramento County Water Agency Code, and the Sacramento County Improvement Standards.
 28. There shall be no net loss of storage for any fill placed within the 100-year floodplain without in-kind excavation, unless documented and approved through the submittal and review of a comprehensive drainage study.
 29. Provide post & cable, split rail, or wrought iron fencing around storm water detention basins consistent with the Cordova Hills Master Plan and to the satisfaction of the Sacramento County Department of Water Resources. Design the basins to be aesthetically pleasant and safe to accessing public.
 30. Provide a permanent concrete stamp, or other permanently applied message to the satisfaction of DWR not including paint, which reads “No Dumping-Flows to Creek” or other approved message at each storm drain inlet in the site improvement plans.

DEPARTMENT OF TRANSPORTATION

31. The developer shall irrevocably offer to dedicate to the County up to 100 feet of right-of-way east of the centerline of Grant Line Road to the satisfaction of the Department of Transportation. The developer shall install frontage improvements along Grant Line Road for the length of the Project’s frontage east of the centerline based on the Design Standards for the proposed Capital Southeast Connector (Connector). Alternatively, the developer may install interim improvements to the satisfaction of the Department of Transportation. Frontage improvements shall be constructed for the full length between major intersections or up to the Project’s boundary at the earlier of the segment widening threshold or development of 50% (by total length of the associated frontage) of the parcels located immediately adjacent to the affected frontage. For instance, the entire frontage along Grant Line Road east of the centerline between Chrysanthy Boulevard and University Boulevard must be constructed once 50% of the Cordova Hills Project’s developable land frontage in this area is developed. This condition in no way precludes trigger conditions due to advancement of projects within the interior of the Cordova Hills plan area. Cash-in-lieu of improvements may be considered as satisfying the frontage improvement requirement.
32. The developer shall dedicate to the County additional right-of-way for at-grade intersection widening at the at-grade intersections of Grant Line Road with University Boulevard, Chrysanthy Boulevard, and North Loop Road pursuant to Sacramento

- County Improvement Standards and to the satisfaction of the Department of Transportation.
33. The developer shall grant the right of direct vehicular access to the County of Sacramento along Grant Line Road to the satisfaction of the Department of Transportation, except at the intersections of University Boulevard, Chrysanthy Boulevard, and North Loop Road.
 34. All subdivision and/or parcel maps with land adjacent to Grant Line Road shall include an irrevocable setback line consistent with a future one hundred foot (100 ft.) right-of-way line to accommodate the Connector project which shall be the basis for development/building setbacks.
 35. If interim access road improvements are deemed appropriate by the County, the developer shall install Class "C" intersection improvements on Grant Line Road at the project entrance streets pursuant to the Sacramento County Improvement Standards and to the satisfaction of the Department of Transportation.
 36. The geometric design of the right turn and left turn pockets, including bay tapers, at the intersections of Grant Line Road with North Loop Road, Chrysanthy Boulevard, and University Boulevard shall be based on an engineering analysis to the satisfaction of the Department of Transportation.
 37. The feasibility of allowing left-turn access and the design of left turn pockets on Chrysanthy Boulevard, Town Center Boulevard, North Loop Road, and University Boulevard at commercial driveways and village entries shall be based on a focused access study that considers the entirety of the median design and the impacts to capacity and safety to the satisfaction of the Department of Transportation.
 38. Prior to the recordation of any final map applicable to the Town Center Village within the Cordova Hills SPA, a focused access study addressing internal Cordova Hills' circulation and roadway design shall be completed. This study shall address the operations of the internal circulation and connections to Grant Line Road, Chrysanthy Boulevard, Town Center Boulevard, North Loop Road, and University Boulevard. A micro-simulation or manual operational analysis shall be conducted to finalize the design of internal circulation and road connections to ensure they operate acceptably. The scope of work for the analysis shall be approved by the Sacramento County Department of Transportation staff. Upon completion, the analysis shall be submitted to the Sacramento County Department of Transportation for approval and recommendations.
 39. The developer shall reserve an additional ten feet (10 ft.) of right-of-way east of the one hundred feet (100 ft.) of right-of-way that is being dedicated east of the centerline of Grant Line Road between Chrysanthy Boulevard and the Project's northern boundary at Glory Lane. County and developer agree that the value of lands subject to the foregoing reservation shall be based upon the value for comparable unentitled lands then being paid by the Connector JPA at the time the land subject to this

reservation is acquired for the Connector project. The foregoing reservation shall state that the developer and the public agency for whose benefit the reservation is being provided shall have a period of five (5) years following approval of the applicable final parcel map or final subdivision map within which to enter into a binding agreement for the acquisition of the reserved land area shown on the map, which area may be acquired in fee title or easement at the discretion of the public agency.

40. The developer shall provide a reservation for the additional land needed for the Connector project interchanges at the at-grade intersections of Grant Line Road with University Boulevard and Chrysanthy Boulevard. County and developer agree that the value of lands subject to the reservation for the proposed Connector project interchanges shall be based upon the value for comparable unentitled lands then being paid by the Connector JPA at the time the land subject to the reservation is acquired for the Connector project. The reservation area limit shall be the basis for development/building setbacks. The foregoing reservation shall state that the developer and the public agency for whose benefit the reservation is being provided shall have a period of five (5) years following approval of the applicable final parcel map or final subdivision map within which to enter into a binding agreement for the acquisition of the reserved land area shown on the map, which area may be acquired in fee title or easement at the discretion of the public agency.

If the Connector is included in the General Plan before a final map is recorded for any portion of the Cordova Hills Project that includes an access point along Grant Line Road, the County shall have the right to require revisions to address the Connector project in final maps so long as the revisions are in substantial compliance with the previously approved tentative maps as allowed by Section 66474.1 of the Government Code (the Subdivision Map Act), and further provided that: (a) the County's revision shall not convert a reservation into an irrevocable offer of dedication; and (b) the County, the Connector JPA and developer shall work together on any redesign of the Grant Line Road access points.

41. The developer shall provide County with an irrevocable offer of dedication for a 76 ft. wide roadway right-of-way with 28 ft. wide landscape maintenance easements on both sides of the roadway right-of-way for that segment of Town Center Boulevard between its intersection with North Loop Road to the northern boundary of the Cordova Hills Project.
42. To the extent required by the Biological Opinion issued for the Freeport Regional Water Project, new water service will not be authorized or provided until compliance with the Endangered Species Act is demonstrated. Depending upon the source of water, compliance may be demonstrated by one of the following: participation in the SSHCP if the SSHCP is approved and implemented; a letter from the US Fish and Wildlife Service (USFWS) to the Project proponent and/or federal agency indicating the Project is not likely to adversely affect or result in a take of listed species;

- incidental take coverage through a biological opinion for the Project; or, incidental take coverage through an Endangered Species Act section 10(a)(1)(B) permit for the Project. Such compliance must be demonstrated to the satisfaction of the Director of the Department of Water Resources before approval of final map or issuance of the first building permit, whichever occurs first.
43. Annex the subject properties to a Community Facilities District approved by the County Municipal Services Agency, Department of Transportation to support the maintenance of the landscaped areas/medians/frontages in accordance with the Cordova Hills Urban Services Plan. Final map recordation will not be approved until the annexation is complete.
 44. Prior to map recordation, annex to the County of Sacramento County Services Area 1 to support maintenance of street and safety lights, in accordance with the Cordova Hills Urban Services Plan, including annual escalation factor, within the project. The applicant must contact the Department of Transportation at (916) 875-5123 to obtain information concerning costs and to initiate the process at the earliest possible time since the process takes about four (4) months to complete.

MEASURES/EVALUATION

The conditions of approval will be monitored and implemented when construction begins.

FINANCIAL ANALYSIS

Application costs are borne by applicant. No fiscal impact.

Respectfully submitted,

LORI A. MOSS, Director
Department of Community Development

APPROVED:

BRADLEY J. HUDSON
County Executive

By: _____
ROBERT B. LEONARD
Chief Deputy County Executive

PLNP2008-00142. Cordova Hills. Request For General Plan Amendment, Zoning Ordinance Amendment, Large Lot Subdivision Map, Affordable Housing Plan, Development Agreement And Additional Approvals Associated With The Adoption Of The Cordova Hills Special Planning Area Ordinance. Applicant: Cordova Hills, LLC; APNS: 073-0040-020 Through - 026, 073-0040-029, 073-0050-023, And 073-0050-052; Environmental Document: Final Environmental Impact Report
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Attachments:

BOS ORD - Zoning Ordinance Amendment, including the Air Quality Mitigation Plan and Green House Gas Reduction Plan – February 2013

BOS ORD Section 613-18.7 – March 2013 Cordova Hills Master Plan Document

BOS ATT 1 - Affordable Housing Plan

BOS ATT 2 - Development Agreement – March 2013

BOS ATT 3 - Financing Plan – March 2013

BOS ATT 4 - Urban Services and Governance Plan – March 2012

BOS ATT 5 - Fiscal Impact Analysis – March 2013

BOS ATT 6 - Response to Letter Received from Mayor Steve Miklos, City of Folsom.

**DEVELOPMENT AGREEMENT
BY AND BETWEEN THE COUNTY OF SACRAMENTO,
CORDOVA HILLS, LLC, CIELO, LLC,
AND GRANT LINE LLC,
RELATIVE TO
THE CORDOVA HILLS PROJECT**

This Development Agreement (hereinafter “Agreement”) is made and entered into this ____ day of _____, 2013, by and between the County of Sacramento, a political subdivision of the State of California (hereinafter “County”), Cordova Hills, LLC, a California limited liability company (hereinafter “Cordova”), and Conwy, LLC, a California limited liability company (hereinafter “Conwy”)., Cordova and Conwy are sometimes collectively referred to as “Property Owners” or individually as a “Property Owner.” This Agreement is made and entered into pursuant to the authority of Sections 65864 through 65869.6 of the California Government Code. The terms “Cordova” and “Conwy” shall include any of their respective successors in interest, assignees and transferees.

RECITALS

A. To strengthen the public land use planning and development process, to encourage private participation in that process, to reduce the economic risk of development, and to provide maximum utilization of resources, the Legislature enacted Government Code Section 65864 *et seq.* which authorizes the County and any other person having a legal or equitable interest in real property to enter into a development agreement establishing certain vested development rights.

B. Property Owners have a legal or equitable interest in that certain real property legally described in Exhibit “A” and depicted on the map set forth in Exhibit “B”, located in the unincorporated area of the County of Sacramento (hereinafter the “Property”) sufficient to enter into this Agreement with County.

C. Property Owners desire to create and develop the Cordova Hills Project (hereinafter the “Project”) on approximately 2,668.7± acres in the southeast portion of Sacramento County adjacent to the eastern city limits of the City of Rancho Cordova, as depicted on the map attached hereto as Exhibit “C” (hereinafter the “Project Area”). The Cordova Hills Project is a large-scale master-planned mixed-use development, including an integrated university, neighborhood and regional commercial uses, residential uses, and their associated infrastructure.

D. Project Approvals. County has granted Property Owners the following land use entitlement approvals (hereinafter “Approvals”) which are incorporated and made a part of this Agreement:

- (1) **A General Plan Amendment** to move the Urban Policy Area (UPA) boundary east to include approximately 2,366.3 +/- acres of the Project Area.
- (2) **A General Plan Amendment** to amend the Land Use Diagram from General Agriculture to Low Density Residential, Medium Density Residential, Commercial and Office, Recreation, Natural Preserve, and Public/Quasi Public for approximately 2,366.3 +/- acres.
- (3) **A General Plan Amendment** to include a new policy in the Land Use Element to address the provision of limited public water service to serve uses potentially allowed by the Cordova Hills Special Planning Area for 251 acres located in proximity to the Kiefer Landfill, and an Amendment to LU-1 to reference this exception.
- (4) Amend **the General Plan Transportation Diagram** to show new thoroughfares and arterials as shown in the Transportation General Plan Amendment Diagram dated October 17, 2011.
- (5) Amend **the Bikeway Master Plan to add on-street and off-street bikeways** as shown in the Bikeways Master Plan Amendment Diagram dated October 17, 2011.
- (6) **A Zoning Ordinance Amendment** to adopt the Cordova Hills Special Planning Area (SPA) to incorporate the Cordova Hills Master Plan including Design Guidelines and Development Standards. The SPA consists of a total of approximately 2,668.7 +/- acres.
- (7) **A Large Lot Tentative Subdivision Map** to create 155 large lot parcels for the purpose of creating legal parcels corresponding to villages within the Cordova Hills SPA and within the approximately 2,668.7 +/- acre SPA. Included on the Map are requests for abandonment of easements.
- (8) **An Affordable Housing Plan** with two options as presented in the Plan consisting of on-site construction of multi-family units or land dedication.

- (9) Adoption of an **Urban Services Plan** which describes urban services that will be required to serve the Cordova Hills Project Area.
- (10) Adoption of a **Public Facilities Financing Plan** for the Cordova Hills Project that includes Capital Improvement Programs and Financing Plan.
- (11) A **Development Agreement** by and between the County of Sacramento and Property Owners.

E. County and Property Owners contemplate that the development of the Property pursuant to this Agreement and the Approvals will result in significant benefits to County and Property Owners. This Agreement accordingly provides assurances to Property Owners that they will have the ability to develop the Property in accordance with this Agreement. This Agreement also provides assurances to County that it will receive certain public benefits. Specifically, Property Owners have voluntarily agreed to enter into this Agreement with the County which provides various Net Gains and Dedications to County and its residents beyond those attainable through conditions of project approval and mitigation measures. Those Net Gains and Dedications are described in Section 2.3 of this Agreement.

NOW, THEREFORE, the Parties hereto agree as follows:

AGREEMENT

ARTICLE 1 **GENERAL PROVISIONS**

Section 1.1 Incorporation of Recitals. Recitals A through E are hereby incorporated herein, including all documents referred to in said Recitals.

Section 1.2 Definitions. As used in this Agreement, the following terms, phrases, and words shall have the meanings and be interpreted as set forth in this Section.

Section 1.2.1 “Adjacent Jurisdiction” or “Adjacent Jurisdictions” means individually the City of Elk Grove, the City of Folsom, or the City of Rancho Cordova, and collectively means all three of them.

Section 1.2.2 “Adopting Ordinance” means Sacramento County Ordinance No. _____ dated _____, 2013 and effective _____, 2013, which approves this Development Agreement as required by Government Code Section 65867.5.

Section 1.2.3 “Agreement” means this Development Agreement by and between the County of Sacramento, Cordova Hills, LLC and Conwy, LLC including all terms of the Approvals.

Section 1.2.4 “Approval Conditions” means the terms and conditions of approval attached to the Approvals by action of the Board of Supervisors.

Section 1.2.5 “Approvals” means the plans, maps and other land use approvals approved as described in Paragraph D of the Recitals.

Section 1.2.6 “Board” means the Board of Supervisors of Sacramento County.

Section 1.2.7 “Commission” means the Planning Commission of Sacramento County.

Section 1.2.8 “Connector” means the Capital Southeast Connector Project proposed by the Capital Southeast Connector Joint Powers Authority.

Section 1.2.9 “Connector JPA” means the Capital Southeast Connector Joint Powers Authority.

Section 1.2.10 “Cordova Hills Finance Plan” or “Finance Plan” means the Cordova Hills Public Facilities Finance Plan adopted by the County for the Project, that includes Capital Improvement Programs and the recommended plan of financing of the identified improvements, as such Capital Improvement Programs and financing may be amended from time to time.

Section 1.2.11 “Cordova Hills County Service Area” or “CHCSA” means the governance structure utilized to provide the municipal services to the Project Area as described in Exhibit “I.” The CHCSA will be a county service area formed for the Project pursuant to the County Service Area Law contained in Government Code Sections 25210 et. seq.

Section 1.2.12 “Cordova Hills Special Financing District” or “Cordova Hills Special Financing Districts” shall mean one or more Mello Roos Community Facilities Districts, special taxing districts, special assessment districts, and/or any fee districts formed in the Project Area to implement and fund the Cordova Hills Finance Plan.

Section 1.2.13 “Cordova Hills Urban Services Plan” means the Urban Services Plan adopted by the County for the Project Area, as it may be amended from time to time.

Section 1.2.14 “County” means the County of Sacramento, a political subdivision of the State of California.

Section 1.2.15 “County Code” means the County Code of Sacramento County.

Section 1.2.16 “Developing Parcel” means a parcel of land in the Project Area that is being developed with a residential or commercial use.

Section 1.2.17 “Development Agreement Statute” means Sections 65864 *et seq.* of the Government Code of the State of California.

Section 1.2.18 “Development Agreement Ordinance” means Chapter 12 of the Sacramento County Zoning Code.

Section 1.2.19 “Development Plan Review” shall mean the review required under the Sacramento County Zoning Code and Cordova Hills SPA for non-residential development projects prior to obtaining a building permit.

Section 1.2.20 “Director” means Director of the Community Development Department, County of Sacramento, or his or her designee.

Section 1.2.21 “Effective Date” means the date of approval of the Adopting Ordinance for this Agreement.

Section 1.2.22 “EIR” means the Final Environmental Impact Report certified for the Project by the Board of Supervisors.

Section 1.2.23 “General Plan” means the General Plan, including text and maps, of the County of Sacramento in effect as of the Effective Date.

Section 1.2.24 “Lender” means the holder of any mortgage or the beneficiary of any deed of trust encumbering all or any portion of the Property.

Section 1.2.25 “MMRP” means the Mitigation, Monitoring and Reporting Plan adopted for the Project by the Board of Supervisors.

Section 1.2.26 “Net Gains and Dedications” means the “non-nexus” or “beyond nexus requirements” types of benefits voluntarily provided to County by Property Owners that are, in whole or in part, in excess of that legally required for the Project as CEQA mitigation, but which are made legally binding by this Agreement. The Net Gains and Dedications are enumerated in Section 2.3 of this Agreement.

Section 1.2.27 “Operational Agreements” means an agreement entered into by the County with an Adjacent Jurisdiction to further define the responsibilities,

obligations, duties and specific financial mechanisms necessary to implement the intent and provisions of a Reciprocal Funding Agreement.

Section 1.2.28 “PDA” or “Park Development Agreement” means an agreement to be entered into by Property Owner with the CHCSA or County for the development and improvement of the public parks described in the Cordova Hills SPA and Finance Plan.

Section 1.2.29 “Project” means development of the Property as described in the certified EIR for the Project, and thereafter approved by action of the Board of Supervisors pursuant to the Approvals, including the incorporated exhibits thereto.

Section 1.2.30 “Project Area” means the real property depicted in Exhibit “C.”

Section 1.2.31 “Property Owners” means Cordova Hills, LLC and Conwy, LLC, and their respective successors in interest, assigns and transferees.

Section 1.2.32 “Property” means the real property described and depicted in Exhibits “A” and “B.”

Section 1.2.33 “R-2 Parcel” means a parcel of land in the Project Area that has been designated for “Recreation-2” land uses by the Cordova Hills SPA.

Section 1.2.34 “Reciprocal Funding Agreement” means an agreement entered into by the County with an Adjacent Jurisdiction to address providing mitigation for the cross jurisdictional roadway impacts created by the new development projects within each jurisdiction’s boundaries.

Section 1.2.35 “Technical Approval” means that all County reviewing bodies have completed their review and the infrastructure improvement plans are ready for the County Engineer’s signature. All necessary signed easements have been reviewed by County staff and have been submitted for recordation prior to signature. Final approval will be granted upon: 1) Twenty (20) working days review by County; 2) The infrastructure improvement plans comply with state or federated mandated standards that may have changed subsequent to technical approval; and 3) consistency with improvement plans with respect to adjacent existing conditions (utilities and development). Applicable County development fees shall be paid at the fee rates at the time of final approval of the infrastructure improvement plans.

Section 1.2.36 “Village” or “Villages” means the villages as depicted and described in the Cordova Hills SPA and/or Master Plan.

Section 1.2.37 “Zoning Code” means the Zoning Code of Sacramento County in effect as of the Effective Date.

Section 1.3 Additional Defined Terms. If any of this Agreement’s capitalized terms are not defined above, then such terms shall have the meaning otherwise ascribed to them in this Agreement.

Section 1.4 Exhibits. This Agreement refers to the following exhibits, which are attached hereto and hereby incorporated into this Agreement by reference.

Exhibit

<u>Designation</u>	<u>Description</u>
A	Legal Description of the Property
B	Map of the Property
C	Map of the Project Area
D-1	Diagram Showing AG-80 Deed Restriction Area
D-2	Form of AG-80 Deed Restriction
E-1	Form of Trail Easement to be dedicated
E-2	Diagram Showing Trail Corridor Parcel
F	Diagram of Project’s Park Sites
G	Form of Kiefer Landfill Notice
H	Form of Avigation Easement for Mather Airport
I	Municipal Public Services to be provided by the Cordova Hills LSD
J	Development Impact Fees, Exactions and Dedications
K	Trail Network Diagram
L	Form of Connector Project Disclosure
M	Map of East Carson Creek Property

Section 1.5 Citation. This Agreement shall be known as and may be cited as the “Cordova Hills Development Agreement.”

Section 1.6 Parties to Agreement. The parties to this Development Agreement are: the County of Sacramento, Cordova Hills, LLC and Conwy, LLC.

Section 1.7 Term of Agreement. This Agreement shall commence upon the Effective Date, and shall be in force for a period of thirty (30) years thereafter (the “Initial Term”), unless extended or terminated as provided herein.

Section 1.7.1 Option to Extend. Property Owner shall have the right to extend this Agreement on its same terms and conditions, taking into account any amendments mutually agreed upon following the Effective Date. Property Owner shall have the right to extend this Agreement for two (2) successive periods of five (5) years each (each an “Extension Term”), upon giving County at least ninety (90) days written notice of each extension of this Agreement prior to the expiration of the Initial Term or the immediately preceding Extension Term, as applicable. Property Owners shall not be in uncured breach under this Agreement at the time they give County a notice of extension of the Agreement.

Section 1.8 Consistency with General Plan. In granting the Approvals described herein, the Board of Supervisors expressly found that the Approvals are consistent with the General Plan, as amended, and further found that this Agreement is also consistent with the General Plan, as amended.

Section 1.9 Amendment to Agreement. This Agreement may be amended from time to time by mutual consent of the parties, provided it is amended in the manner set forth in Government Code Section 65868 and the Development Agreement Ordinance. Either party may propose an amendment to this Agreement at any time. Any amendment to this Agreement shall be in writing and executed by the parties or their successors in interest. If the amendment only applies to a portion of the Property, then the only parties required to the amendment shall be the County and the then current owners of that portion of the Property affected by the amendment, provided that such amendment does not adversely affect the rights and obligations of the then current owners of the remainder of the Property under this Agreement.

Section 1.10 Assignment. Property Owners have the right to sell, assign, or transfer their respective interests in all or portions of the Property subject to this Agreement. The conditions and covenants set forth herein shall run with the land and the benefits and burdens of this Agreement shall bind and inure to the successors of the parties. An individual Property Owner shall provide County with timely written notice of any sale, assignment or transfer of any portion of the Property after such sale, assignment or transfer. So long as a Property Owner provides County with timely written notice of a sale, assignment or transfer, upon any such sale, assignment or transfer that Property Owner shall be released and relieved of and from all further liability and responsibility for the obligations under this Agreement relating to the Property, or any portion thereof,

so sold, assigned or transferred, arising subsequent to the date of the sale, assignment or transfer.

Section 1.11 Private Project. The parties confirm and agree that the development of the Property with the Project is a private project by the Property Owners; County has no interest therein except as authorized in the exercise of its governmental functions.

Section 1.12 No Joint Venture or Partnership. County and Property Owners hereby renounce the existence of any form of joint venture or partnership between County and Property Owners and agree that nothing contained herein or in any document executed in connection herewith shall be construed as making County and Property Owners joint venturers or partners.

Section 1.13 Consideration. The County and Property Owners acknowledge and agree that the County's agreement to perform and abide by the obligations of County set forth herein, including the issuance of the Approvals, is material consideration for Property Owners' agreement to perform and abide by the obligations of Property Owners set forth herein.

Section 1.14 Automatic Termination as to Residential Lots/ Notice of Termination as to Other Parcels. This Agreement shall automatically be terminated, without any further action by any party or need to record any additional document, with respect to any single-family residential lot within a parcel designated by the Approvals for residential use, upon completion of construction and issuance by County of a final occupancy permit for a dwelling unit upon such single-family residential lot and conveyance of such improved residential lot and dwelling unit to a bona-fide good faith purchaser thereof. In connection with its issuance of a final inspection for such single-family residential lot and dwelling unit, County shall confirm that all improvements which are required to serve the residential lot, as determined by County, have been accepted by County and that the dwelling is ready for occupancy by the homebuyer. Termination of this Agreement for any single-family residential lot as provided for in this Section 1.14 shall not in any way be construed to terminate or modify any assessment district, fee district, public financing district, special tax district, tax and/or any Mello Roos Community Facilities District lien affecting such lot at the time of termination. With regard to other parcels or lots which are not improved individual single-family residential lots, upon a Property Owner's request with respect to any such non-single family residential parcel or lot at the Property that has had a building constructed upon it, County shall record a notice of termination that the Agreement has been terminated as to that lot or parcel. The aforesaid notice may specify, and Property Owners agree, that termination shall not affect in any manner any continuing obligation to pay an item specified by this Agreement. Termination of this Agreement as to an individual parcel or lot with a building constructed upon it shall not affect Property Owners' rights or obligations under any of the Approvals applicable to the remainder of the Project at the Property.

ARTICLE 2

PROPERTY OWNERS' OBLIGATIONS

Section 2.1 Property Development. If the Property is developed, it shall be developed according to the Approvals. Except as may be specifically provided elsewhere in this Agreement, Property Owners have no affirmative obligation to commence development of the Property or to develop it at a specified rate once the development has commenced. No modification of the County's ordinances, resolutions, policies, rules or regulations adopted after the Effective Date, which purport to limit the rate of development over time or to govern the sequence of development of land within the Project Area, shall apply to the Property. The provisions of this subparagraph apply to modifications adopted or imposed by the County Board of Supervisors, or through the initiative or referendum process.

Section 2.2 Waiver. Property Owners knowingly and specifically waive their right or rights to challenge by any legal action or other proceeding, at any time during the duration of this Agreement, the question of whether or the extent to which there is any nexus or rough proportionality between any obligation imposed on Property Owners by the Approvals or by this Agreement. Property Owners further agree, and knowingly and specifically waive, their right or rights to challenge by any legal action or other proceeding, at any time during the duration of this Agreement, County's ability to impose any fee, assessment, tax, charge, or land dedication provided for within this Agreement. Property Owners nonetheless reserve their rights to challenge the budget, the method or manner of calculation and amount of any fee, assessment, tax or charge. Notwithstanding the foregoing, the provisions contained in this Section 2.2 shall not apply or be interpreted to preclude or be a waiver of the rights of Property Owners to challenge any financing plan or public financing mechanism created for the proposed Capital Southeast Connector project or any component thereof on the grounds of insufficient nexus or on the method and manner of calculating any fee, tax, assessment or other monetary imposition levied on the land within the Cordova Hills Project or on the Property Owner. Any challenge or protest made pursuant to this Section 2.2 shall not be deemed a breach or an Event of Default (as defined in Section 5.1 below) under this Agreement.

Section 2.3 Net Gains and Dedications. Property Owners have offered, and County has accepted, the Net Gains and Dedications described in this Section. County and Property Owners agree the items described herein are contributions that are in whole or in part of excess of those which County could otherwise require of property Owners as CEQA mitigation. The following Net Gains and Dedications offered by Property Owner are made binding by this Agreement:

Section 2.3.1 University/College Campus Center. The 223+/- acre site in Cordova Hills Project designated for a university/college campus center or other institution of higher learning shall be used solely for the design, development and operation of an institution(s) of higher education which awards college-level degrees and

is accredited, or in the process of obtaining accreditation, or has an established plan to obtain accreditation within a reasonable timeframe from an accrediting agency recognized by the U.S. Department of Education. A reasonable time frame shall be to the satisfaction of the County Executive. If such an institution(s) of higher education does not locate on this land by the end of the thirty (30) year Initial Term of this Development Agreement, then the land shall be transferred at no cost to the County for use consistent with its zoning under the Cordova Hills Master Plan, free of any monetary liens and encumbrances. In addition, Property Owners will reduce the obligation the land has to pay for its share of the onsite and offsite infrastructure improvements that benefit this land at the time its ownership is transferred to County by foregoing their rights to any eligible credits and/or reimbursements outstanding at that time for improvements installed by Property Owners. It is further agreed that any future owners of the university/college campus center land shall not have to pay any development impact fees for any of the infrastructure improvements for which the Property Owners have foregone their rights to credits or reimbursements when the land was transferred to the County.

Section 2.3.1.1 University/College Campus Land Use Designation. Property Owners covenant and agree with County that at no time during the thirty (30) year Initial Term of this Agreement will the Property Owners seek or apply for a change in the land use designation for the real property designated for a university/college campus center land use in the Cordova Hills Master Plan.

Section 2.3.1.2 Reporting on University Development Status. On an annual basis beginning one year after this Agreement becomes effective and continuing each year thereafter, the Property Owners shall provide a written report to the Director of the County Community Development Department and to the Board of Supervisors that describes the progress made each year by the Property Owners to attract an institution of higher education as the user of the university/college campus center property identified in the Cordova Hills Master Plan. This annual reporting requirement shall cease once an institution of higher education has applied for the first building permit to construct a structure on the university/college campus center property identified in the Cordova Hills Master Plan.

Section 2.3.1.3 University Escrow Account. In order to demonstrate their further commitment to obtaining an institution of higher education for the university/college campus center land use at the Project, Property Owners agree that if ownership of the land at the university/college campus center has not been transferred to an institution of higher education and a building permit issued for the first structure thereon by the time building permits for One Thousand (1,000) Dwelling Unit Equivalents (“DUEs”) residential building permits have been issued at the Project, then the Property Owners will deposit the sum of TWO MILLION DOLLARS (\$2,000,000) with County to be held in an interest bearing escrow account (the “Escrow Account”) by County. In the event that the land at the university/college campus center has not been transferred to an institution of higher education and a building permit issued thereon for the first structure by the time building permits for an aggregate total of One Thousand

Seven Hundred Fifty (1,750) DUEs have been issued at the Project, then Property Owners shall deposit the additional sum of TWO MILLION DOLLARS (\$2,000,000) with County to be held in the Escrow Account. In the event that the land at the university/college campus center has not been transferred to an institution of higher education and a building permit issued thereon for the first structure by the time building permits for an aggregate total of Two Thousand Nine Hundred Eighty-Five (2,985) DUEs have been issued at the Project, then Property Owners shall deposit the additional sum of TWO MILLION DOLLARS (\$2,000,000) with County to be held in the Escrow Account. Once the ownership of the university/college campus center land has been transferred to an institution of higher education and that institution has applied for a building permit for the first structure thereon, the Property Owners shall have no obligation to make any further payments into the Escrow Account. The funds then in the Escrow Account (principal plus interest) shall be released by the County to the institution of higher education for its use for campus related operations and development of the land at the university/college campus center at the time the institution applies for a building permit for the first structure at the university/college campus center land. If prior to the expiration of the Initial Term of this Development Agreement the ownership of the university/college campus center land has been transferred to an institution of higher education by the Property Owners, but the institution has not yet applied for a building permit for the first structure on the land, then the County shall retain control of the funds in the Escrow Account and release them to the institution of higher education only when the institution applies for a building permit for that first structure. Should the Initial Term of this Development Agreement expire without the Property Owners transferring ownership of the land at the university/college campus center to an institution of higher education, then the funds in the Escrow Account shall be released to the County when the ownership of the land at the university/college campus center is transferred to the County pursuant to Section 2.3.1 above. The County agrees that in such an event it will utilize the funds from the Escrow Account only for the purpose of attracting an institution of higher education and assisting that institution with locating, constructing and operating at the university/college campus center land and for no other purpose.

Section 2.3.1.4 University/College Campus Center Infrastructure.

Property Owners agree that backbone infrastructure to the frontage of the university/college campus center land will be included within the Phase 1 development of the Project, as depicted on Figure 9.1 in the Cordova Hills Master Plan.

Section 2.3.2 East County Regional Trail System. Property Owners shall offer for dedication to County a public recreational trail easement in the form attached hereto as Exhibit “E-1” through a one hundred fifty feet (150 ft.) wide trail corridor envelope at the real property along the bank of Carson Creek described in Exhibit “E-2.” Property Owners and County acknowledge that County intends to prepare a Trail Alignment Plan for eastern Sacramento County and that a trail corridor is likely to be considered adjacent to the Property, but the width of the public trail and its exact physical location within the real property described in Exhibit E-2 is unknown on the Effective Date of this Agreement. No final trail location can be established by County absent required public

hearings before the Board of Supervisors and the County's compliance with the California Environmental Quality Act in conjunction with said hearings and the future County adoption of a Trail Alignment Plan and the actual determination of the width of the public recreational trail. While the exact size and physical location of the trail is unknown on the Effective Date of this Development Agreement, County and Property Owners agree that the physical location of the trail will generally be adjacent to the east bank of Carson Creek and will follow along the property boundaries of the parcel identified in Exhibit E-2 in the trail corridor envelope so as to avoid dividing the parcel into smaller portions on each side of the trail corridor that would interfere with the ability to utilize the parcel for the agricultural uses allowed under its AG-80 zoning designation. County further agrees and recognizes that the actual grant of the trail easement may, if necessary, include a reservation by the Property Owners of a right of ingress and egress across the easement area for livestock, vehicles, farm equipment and pedestrians in order to facilitate the continued agricultural use of the parcel identified in Exhibit E-2. An offer of dedication for a public trail easement in the trail corridor envelope will be executed by Property Owners and delivered to County once all of the following have occurred: (a) the County and Property Owners have mutually agreed upon the width and specific location of the public recreational trail easement adjacent to the Property (b) the County Board of Supervisors has held public hearings and formally adopted a Trail Alignment Plan and complied with the California Environmental Quality Act with regard to the Trail Alignment Plan; and (c) the public recreational trail easement contemplated by the Trail Alignment Plan includes a connection to the urban trail system at the eastern boundary of the Cordova Hills Project, which connection will be narrower than the width of the public recreational trail within the one hundred fifty feet (150 ft.) wide trail corridor envelope. It is acknowledged by County that only the dedication of an easement for the trail area is being offered by Property Owners pursuant to this Agreement, and that in the event any state and federal permits might be needed for County to construct and maintain a public recreational trail in the trail corridor, then County will be responsible, at its sole cost and expense, for obtaining and complying with the terms and conditions of any necessary permits and then building the trail.

Section 2.3.3 Affordable Housing Ordinance.

a) Property Owners shall comply with the approved Cordova Hills Affordable Housing Plan and the provisions contained therein for affordable housing units. Property Owners agree to construct affordable housing units for rental as set forth in the Affordable Housing Plan in exchange for a ten percent (10%) reduction in the County's design review fees for each affordable housing project intended for rental. The Property Owners and County expressly intend that this financial contribution qualifies as an exception to the Costa-Hawkins Act pursuant to California Civil Code Section 1954.53(a)(1)(B)(2).

b) Property Owners and County agree that the Zoning Code and/or County Code include County's Affordable Housing Ordinance in effect at the time of the Project Approvals. The Parties agree that, in the event said ordinance is repealed

or modified such that Property Owner's affordable housing obligations are reduced, either as to the number of affordable housing units required or the affordable housing fees to be paid, or both, Property Owners may elect to perform to the reduced obligations in effect at the time of development, provided the election must encompass the whole of the lesser obligations and not selected portions thereof. Notwithstanding anything to the contrary contained in this Agreement, if the County's Affordable Housing Ordinance is repealed or is no longer in effect at the time of approval of a small lot subdivision map, the Property Owners shall have no further obligation to comply with the Cordova Hills Affordable Housing Plan.

Section 2.3.4 Transportation Services and Transportation Management Association. Property Owners shall support establishment of a special financing mechanism in the Project Area to fund the transit system and transportation management association services described in, and consistent with, the Cordova Hills SPA, the Cordova Hills Urban Services Plan and the Cordova Hills Public Facilities Financing Plan. Such financing mechanism shall be established and the resulting annual service charge, fee or special tax approved prior to the recordation of the first final small lot subdivision map or issuance of any building permit within the Project Area, whichever may occur first. Notwithstanding the foregoing, grading permits may be issued within the Project Area prior to implementation of the financing mechanism. Property Owner shall cause to be formed a Transportation Management Association ("TMA") prior to the issuance of the first residential building permit within the Project Area. The TMA will be funded and operated by the CHCSA. The following TMA services will be provided to all businesses with the Project:

- Commute Trip Reduction
- Commuter Financial Incentives
- Flextime Support
- Guaranteed Ride Home Services

The TMA services will also be provided to the residents through the CHCSA. These additional services for both residents and businesses may include, but shall not be limited to:

- Marketing and promotion
- Parking management
- Rideshare matching and vanpool coordination
- Shared parking coordination
- Transit services
- Special event transport management
- Telework support
- Transit improvements
- Transportation access guides
- Wayfinding and multi-modal navigation tools

Section 2.3.5 Transit TMA and Special Tax. A special tax or a comparable property related assessment, fee or charge shall be imposed on each residential unit and each commercial property, and a university/college campus center fee shall be established to fund the transit system and TMA services as outlined in the Cordova Hills Urban Services Plan and SPA Master Plan.

Section 2.3.6 Sports Park. Prior to the approval of the first small lot tentative subdivision map within the Project Area, the Property Owners shall enter into a Park Development Agreement (“PDA”) with the CHCSA or County, as applicable, to address the phasing and construction of a 50-acre park site (the “Sports Park”) located in the southwestern portion of the Project Area. The Property Owners will comply with the following stipulations:

- a) Property Owners, or the then current owners of the Sports Park site, shall dedicate a 50 acre site, as shown on the Cordova Hills SPA Land Use Plan, for future use in developing the Sports Park. Prior to the issuance of the 500th residential permit or two (2) years from the issuance of the first residential building permit, whichever comes first, the Property Owners, or the then current owners of such site shall dedicate and convey the Sports Park site to the County or CHCSA, as applicable.
- b) The full cost of improvements of the 50 acre Sports Park site shall be included in the Cordova Hills Finance Plan. The full cost of maintenance shall be included in the Cordova Hills Urban Services Plan. The financing mechanisms for funding the cost of park improvements and maintenance as recommended in the Financing Plan and Urban Services Plan shall be implemented prior to the recordation of the first final small lot subdivision map or issuance of any building permit within the Project Area, whichever may occur first. Notwithstanding the foregoing, grading permits may be issued within the Project Area prior to implementation of the financing mechanisms.
- c) The PDA shall specify all park amenities that will be constructed on the 50-acre site in accordance with the Cordova Hills SPA and Finance Plan, including a Sports Park phasing construction plan. The PDA shall include the following phasing construction stipulations:
 - 1) Ten (10) acres of the 50-acre Sports Park site shall be constructed and ready for general public use prior to the issuance of the 1,500th residential building permit within the Project Area.
 - 2) An additional ten (10) acres of the 50-acre Sports Park site shall be constructed and ready for public use prior to the issuance of the 3,000th residential building permit within the Project Area

- 3) The 50-acre Sports Park shall be fully constructed and in operation prior to the issuance of the 5,500th residential building permit.

Section 2.3.7 Community, Neighborhood and Misc. Parks. Property Owners or their successors and assigns, as applicable, shall enter into individual PDAs with the County or CHCSA, as applicable, to address park site construction within each sub-area prior to recordation of the first final small lot subdivision map in such sub-area. The Project will create a need for a total of 106.9 acres of active parks within the Cordova Hills community. The Cordova Hills Master Plan includes 99.1 acres designated as active parks. Cordova Hills also includes 150.6 acres of land designated as “Recreation-2” that allows parks and passive open space uses. The Property Owners, or their successors and assigns, as applicable, will comply with the following stipulations:

- a) Property Owners or their successors and assigns, as applicable, shall dedicate all park parcels to the County or CHCSA, as applicable, at the time required in Section 2.3.8 below. These parcels include all community parks and neighborhood parks identified in the Cordova Hills SPA Land Use Master Plan for a total of 49.1 acres. Additional park acreage can be provided in the paseo/basin areas.
- b) All parks shall be planned, engineered and constructed by the Property Owners, or their successors and assigns, as applicable, unless the individual owner and the CHCSA or County, as applicable, agree otherwise.
- c) Park conceptualization, master planning, environmental work, construction documentation and development shall adhere to CHCSA or County, as applicable, park design, engineering and development standards.
- d) CHCSA or County, as applicable, shall retain final approval authority for all parks design, engineering, development, maintenance, programming and post-construction operations. The development of each park shall commence no later than upon issuance of 51% of the residential building permits in each individual Village.
- e) CHCSA or County, as applicable, and the individual owner shall establish the owner’s maintenance/warranty obligations and the duration of those in the PDA.
- f) Funding for all maintenance and operations of CHCSA or County owned and maintained properties shall be provided through one or more of the Cordova Hills Special Financing Districts, which shall be established and the associated annual service charges, fees, assessments or special taxes approved prior to the recordation of the first final small lot subdivision map or issuance of any building permit within the Project Area, whichever may occur first. Notwithstanding the foregoing, grading permits may be issued within the Project Area prior to implementation of the financing mechanisms.

- g) In cases where the individual developer is responsible for improving the dedicated properties, CHCSA or County, as applicable will assume ownership of dedicated properties only after they are improved by the individual developer per CHCSA or County Guidelines, and have been accepted by CHCSA or County. In cases where the CHCSA or County is making the park improvements itself, then the CHCSA or County, as applicable, will accept ownership of the dedicated properties prior to their improvement. In addition, prior to acceptance of any dedicated properties, funding for the maintenance for that dedicated property shall be funded in full by an adopted Mellor Roos Community Facilities District or another public finance mechanism.
- h) A cumulative total of 7.8 acres of the “Recreation-2” acres suitable to serve as active park space shall be identified to the satisfaction of the County or CHCSA, as applicable, and included in the PDA for improvement as active parks. The Cordova Hills Finance Plan includes funding for the park development costs of the 7.8 acres of the “Recreation-2” land that will be developed as active parks.

Section 2.3.8 Recreation Facilities. As final small lot subdivision maps are recorded for the areas containing a park site as shown on Exhibit F attached hereto, Property Owners shall dedicate the park site(s) shown on each such final map. Notwithstanding the foregoing, upon recordation of the first final map, Property Owners shall offer to dedicate the site identified as the “Sports Park” on Exhibit F.

Section 2.3.9 Kiefer Landfill and Recycling Facility. Property Owners shall disclose to the purchasers of land in the Project the existence and operation of the Kiefer Landfill in the form attached hereto as Exhibit “G.”

Section 2.3.10 Recycling. Property Owners shall provide adequate space on all commercial parcels and multi-family residential parcels for the separate collection of recyclable material in the solid waste collection areas and otherwise comply with the business recycling ordinance of the Sacramento Regional Solid Waste Authority.

Section 2.3.11 Avigation Easement. Upon recordation of each final large lot map, Property Owners shall grant County an avigation easement for the operation of the Mather Airport in the form attached hereto as Exhibit “H” over the land shown on the applicable final large lot final map.

Section 2.3.12 Capital Southeast Connector Project. At the time of entering into this Agreement, the Capital Southeast Connector Project (the “Connector”) has not yet been incorporated into the Transportation and Circulation Element of the County General Plan and no finance plan and no construction schedules have been adopted for the Connector. Should the Board of Supervisors amend the General Plan to incorporate the Connector, then the following provisions shall take effect:

Section 2.3.12.1 Roadway, Traffic Signal and Intersection Improvements. The Connector shall not delay, or otherwise interfere in any manner, with the timing or phasing of construction of the Cordova Hills Project. Notwithstanding the status of the Connector, the Property Owners may construct any required roadway, traffic signal and/or intersection improvements for the Cordova Hills Project consistent with the Mitigation and Monitoring Plan adopted for the Cordova Hills Project. However, if an improvement required for the Connector has been determined to constitute appropriate substitute CEQA mitigation for an improvement required for the Cordova Hills Project and construction of the Connector improvement is commenced prior to the commencement of construction of the Cordova Hills improvement, then Property Owners shall not be required to construct the Cordova Hills improvement.

Section 2.3.12.2 Connector Cooperation. Property Owners agree to participate on a fair share basis in any finance plan or public financing mechanism enacted by County or by the Capital Southeast Connector Joint Powers Authority in their future implementation of the Connector, provided that the development of the Cordova Hills Project is not delayed or restricted thereby and that the Property Owners are given a full credit against any fees, charges, taxes or assessments imposed by any Connector finance plan or public funding mechanism enacted by the County or Capital Southeast Connector Joint Powers Authority. The credit shall be for the total dollar amount of the design and construction costs Property Owners have expended or funded for roadway, traffic signal and intersection improvements along the route of the Connector that were designed and/or built to Connector standards and benefit the alignment of the Connector as incorporated in the County's General Plan. If, for any reason, the Property Owners are not provided with such a credit, then County shall not collect any fee, charge, tax or assessment from Property Owners required for the Connector and Property Owners shall be allowed to continue the development of the Property. Property Owners reserve their rights to challenge the method or manner of calculation and the amount of any fee, assessment, tax or charge enacted to fund the Connector. The waiver provisions contained in Section 2.2 of this Agreement shall not apply or be interpreted to preclude or be a waiver of the rights of Property Owners to challenge any financing plan or public financing mechanism created to fund the Connector or any component thereof on the grounds of insufficient nexus or on the method and manner of calculating any fee, tax, assessment or other monetary imposition levied on the land within the Cordova Hills Project or on the Property Owners to fund the Connector.

Section 2.3.12.3 Connector Frontage Improvements. Property Owners shall irrevocably offer to dedicate to the County up to 100 feet of right-of-way east of the centerline of Grant Line Road to the satisfaction of the Department of Transportation. Property Owners shall install frontage improvements along Grant Line Road for the length of the Project's frontage east of the centerline based on the Design Standards for the Connector. Alternatively, the Property Owners may install interim improvements to the satisfaction of the Department of Transportation. Frontage improvements shall be constructed for the full length between major intersections or up

to the Project's boundary at the earlier of the segment widening threshold or development of 50% (by total length of the associated frontage) of the parcels located immediately adjacent to the affected frontage. For instance, the entire frontage along Grant Line Road east of the centerline between Chrysanthy Boulevard and University Boulevard must be constructed once 50% of the Cordova Hills Project's developable land frontage in this area is developed. This condition in no way precludes trigger conditions due to advancement of projects within the interior of the Cordova Hills Project Area. Cash-in-lieu of improvements may be considered as satisfying the frontage improvement requirement.

Section 2.3.12.4 Connector Setback Line. All subdivision and/or parcel maps with land adjacent to Grant Line Road shall include an irrevocable setback line consistent with a future one hundred foot (100 ft.) right-of-way line to accommodate the Connector project. That dedication area shall be the basis for development/building setbacks along the segment of Grant Line Road from the Project's southerly boundary to Chrysanthy Boulevard. In addition, the Property Owners shall reserve an additional ten feet (10 ft.) of right-of-way east of the one hundred feet (100 ft.) of right-of-way that is being dedicated east of the centerline of Grant Line Road between Chrysanthy Boulevard and the Project's northern boundary at Glory Lane, which combined dedication area and reservation area shall be the basis for development/building setbacks along the segment of Grant Line Road from Chrysanthy Boulevard to Glory Lane. County and Property Owners agree that the value of lands subject to the foregoing reservation shall be based upon the value of comparable unentitled lands then being paid by the Connector JPA at the time the land subject to this reservation is acquired for the Connector project. The foregoing reservation shall state that the Property Owners and the public agency for whose benefit the reservation is being provided shall have a period of five (5) years following approval of the applicable parcel map or final subdivision map within which to enter into a binding agreement for the acquisition of the reserved land area shown on the map, which area may be acquired in fee title or easement at the discretion of the public agency. County shall designate the public agency in whose favor the reservation is to be provided at the time of County approval of the final parcel map or final subdivision map, otherwise the reservation shall be made in favor of the County.

Section 2.3.12.5 Connector Access. Property Owners acknowledge that the proposed access for the Cordova Hills Project to Grant Line Road via University Avenue and Chrysanthy Boulevard may be modified in the future with grade separated interchanges by the Connector, while the access to Grant Line Road at North Loop Road may be modified in the future with implementation of the Connector via an extension of Town Center Boulevard from North Loop Road to Douglas Road, provided that a right-turn in to North Loop Road from Grant Line Road and a right-turn out from North Loop Road to Grant Line Road shall always be provided. Any potential future changes to the access points to and from Grant Line Road at University Avenue, Chrysanthy Boulevard and North Loop Road, and any extension of Town Center

Boulevard, are not a part of the Cordova Hills Project and will be subject to future CEQA review and approval by the appropriate authority.

Section 2.3.12.6 Access Coordination. The Property Owners shall have the right to coordinate with the Capital Southeast Connector Joint Powers Authority (“Connector JPA”) and the Sacramento County Department of Transportation in the development of any grade separated interchanges at University Boulevard and Chrysanthy Boulevard and any alternative access design for the North Loop Road intersection with Grant Line Road. Prior to physical implementation of the Connector with grade separated interchanges at University Boulevard and Chrysanthy Road and any alternative access configuration at North Loop Road and Grant Line Road, full at-grade access to Grant Line Road may be maintained at all three intersections.

Section 2.3.12.7 Connector Interchanges. The Property Owners shall provide a reservation for the additional land needed for the Connector project interchanges at the at-grade intersections of Grant Line Road with University Boulevard and Chrysanthy Boulevard. County and Property Owners agree that the value of lands subject to the reservation for the proposed Connector project interchanges shall be based upon the value for comparable unentitled lands then being paid by the Connector JPA at the time the land subject to the reservation is acquired for the Connector project. The reservation area limit shall be the basis for development/building setbacks. The foregoing reservation shall state that the Property Owners and the public agency for whose benefit the reservation is being provided shall have a period of five (5) years following approval of the applicable final parcel map or final subdivision map within which to enter into a binding agreement for the acquisition of the reserved land area shown on the map, which area may be acquired in fee title or easement at the discretion of the public agency. County shall designate the public agency in whose favor the reservation is to be provided at the time of County approval of the final parcel map or final subdivision map, otherwise the reservation shall be made in favor of the County.

If the Connector is included in the General Plan before a final map is recorded for any portion of the Cordova Hills Project that includes an access point along Grant Line Road, the County shall have the right to require revisions to address the Connector project in final maps so long as the revisions are in substantial compliance with the previously approved tentative maps as allowed by Section 66474.1 of the Government Code (the Subdivision Map Act), and further provided that: (a) the County’s revision shall not convert a reservation into an irrevocable offer of dedication; and (b) the County, the Connector JPA and Property Owners shall work together on any redesign of the Grant Line Road access points.

Section 2.3.12.8 Disclosure of Connector Project. Should the County amend the General Plan to include the Connector project, then Property Owners shall disclose to the purchasers of land in the Project Area the future Capital Southeast Connector Project in the form attached hereto as Exhibit “L” and shall

advise their successors-in-interest to disclose the Connector Project to subsequent purchasers of land in the Project Area.

Section 2.3.13 Neighborhood Electric (or comparable) Vehicle Program (NEV). The infrastructure for the NEV program will be built out as the community builds out. NEV lanes along University Blvd and North Loop Road shall be built as these roadways are built. NEVs (or comparable technologically appropriate vehicles) shall comprise at least ten percent (10%) of the fleet vehicles used by the CHCSA. The University/College Campus Center will be encouraged to attain the same level of commitment.

Section 2.3.14. AG-80 Deed Restriction. Prior to the recordation of the first final small lot subdivision map, Property Owners shall record a deed restriction on certain lands situated in the floodplain along Carson Creek at the eastern boundary of the Property as more particularly described in Exhibit “D-1” attached hereto, in the form set forth in Exhibit “D-2” attached hereto. Such deed restriction shall be enforceable by County and will preclude all uses other than those allowable under the AG-80 zoning in the area subject to the deed restriction. County and Property Owners acknowledge and agree that unique situations may occur where future property lines require minor variations from the legal description contained in Exhibit D-1. For that reason, future property lines created with development of the Project may include minor variations from the legal description contained in Exhibit D-1. Any such minor variations shall be reviewed by County as part of the mapping or development review process and shall be found acceptable to the County in the exercise of its reasonable discretion.

Section 2.3.15 External Shuttle Service. Property Owners and County acknowledge that a shuttle service is an important part of both the Cordova Hills Master Plan and its Air Quality Mitigation Plan (which is enforceable through the MMRP), and that the Cordova Hills Financing Plan provides the necessary funding needed by the CHCSA to implement and operate the external shuttle service between the Project Area and the Mather Field/Mills Light Rail Station in Rancho Cordova. County and Property Owners agree that at the time the Five Hundredth (500th) residential building permit has been issued, the CHCSA should evaluate and determine whether providing the external shuttle service during the morning Peak Commute Hours of 6:30 AM to 9:30 A.M. and during the afternoon P.M. Peak Commute Hours of 3:30 P.M. to 6:30 PM would be feasible and appropriate. Matters to be evaluated should include the total number of residents in the Project Area, the potential ridership at the Project Area, the costs of providing the external shuttle service, and the financial resources available for funding the external shuttle service. The CHCSA, acting through the Board of Supervisors as its governing body, shall have the right to determine whether shuttle service should be commenced at Five Hundred (500) residential building permits or at a later threshold. Property Owners reserve their right to participate in any hearings by the CHCSA board concerning commencement of the external shuttle service, but waive any right to protest the CHCSA board’s action. In any event the County and the Property Owners further agree that external shuttle service should be commenced by the CHCSA no later than the

issuance of the One Thousandth (1,000th) residential building permit within the Project Area. This external shuttle service will provide direct service between the Cordova Hills park and ride lot (as shown on the land use plan) and the Mather Field/Mills Light Rail Station. The operating specifications for the frequency of this external shuttle service are listed below once the One Thousandth (1,000th) residential building permit has been issued at the Project Area:

Hours of Operation: 6AM – 7PM
Days of Operation: Weekdays
Peak Frequency: 60 minutes
Off Peak Frequency: 60 minutes
Scheduling: Timed transfers with LRT & RT service

(a) Prior to the issuance of the Three Thousandth (3,000th) residential building permit within the Project Area, the Property Owners and the County agree that the CHCSA should increase the frequency of operation of the external shuttle service during the a.m. and p.m. peak commuting hours between the Cordova Hills park and ride lot (as shown on the land use plan) and Mather Field/Mills Light Rail Station. The transit service should be maintained for the life of the Project. The operating specifications of this external shuttle service are listed below:

Hours of Operation: 6AM – 7PM
Days of Operation: Weekdays
Peak Frequency: 15 minutes
Off Peak Frequency: 60 minutes
Scheduling: Timed transfers with LRT & RT service

Section 2.3.16 Internal Shuttle Service. The Property Owners and County acknowledge that an internal shuttle service also is an important part of both the Cordova Hills Master Plan and Air Quality Mitigation Plan, and that the Cordova Hills Financing Plan provides the necessary funding needed by the CHCSA to implement and operate the internal shuttle service at its discretion. Prior to issuance of the Three Thousandth (3,000th) residential building permit within the Project Area, the County and Property Owners agree that the CHCSA should commence operation of the internal shuttle service between the Project's Transit Center off the planned extension of Chrysanthy Boulevard, and loop around the developed portions of phases 1 and 2 of the Project in a single direction on the following schedule:

Hours of Operation 6AM – 9PM
Days of Operation: Everyday
Peak Frequency: 15 minutes
Off Peak Frequency: 30 minutes.
Length of Route: Approximately 4.3 miles (70% of final route)

(a) Prior to the issuance of the Five Thousandth (5,000th) residential building permit within the Project Area, the Property Owners and County agree that the CHCSA should increase the length of the internal shuttle service route to the final planned internal route length around the developed portions of phases 1 and 2 of the Project in a single direction on the following schedule:

Hours of Operation: 6AM – 9PM
Days of Operation: Everyday
Peak Frequency: 15 minutes
Off Peak Frequency: 30 minutes
Directions Vehicles Run: 1

(b) Prior to the issuance of the Seven Thousand Five Hundredth (7,500th) residential building permit within the Project Area, the Property Owners and County agree that the CHCSA should expand the internal shuttle service to run vehicles in both directions of the internal loop around the developed portions of phases 1 and 2 of the Project on the following schedule:

Hours of Operation: 6AM – 9PM
Days of Operation: Everyday
Peak Frequency: 15 minutes
Off Peak Frequency: 30 minutes
Directions Vehicles Run: 2
Length of Route: Approximately 6.1 miles (final planed route)

(c) Ongoing transit operations and maintenance costs are assumed to be partially funded through a University/College Campus Center subsidy. Until a university or other institution of higher learning develops, the special tax on residential and non-residential development allotted to pay for transit costs would increase above what is shown in the Cordova Hills Urban Services Plan.

Section 2.3.17 Park and Ride Lot. Property Owners shall dedicate the joint sports park parking lot/park and ride lot as depicted in the SPA to the CHCSA or County prior to the issuance of the One Thousandth (1,000th) residential building permit. The park and ride lot, as shown in the Cordova Hills SPA Land Use Plan and required by the Approval Conditions shall be constructed and fully operational no later than the issuance of the One Thousand Five Hundredth (1,500th) residential building permit. However, the construction of the park and ride lot's sixty-four (64) parking spaces may be phased subject to the approval of the County and/or the CHCSA.

Section 2.3.18 Trail Network. The Cordova Hills Project contains a comprehensive trail network with trails that are located in a variety of areas, including along roadway frontages, in open space areas, and in areas designated for development. A general depiction of the overall pedestrian and bike trail network is shown on Exhibit "K" attached hereto.

(a) Trails as part of roadway frontage improvements.

(1) Dedication of Trails within roadway frontage improvements.

As shown on Exhibit K, a number of segments of the trail system are situated within or adjacent to the right-of-way of roadways. Those trail segments shall be dedicated to the County or the CHCSA, as applicable, concurrently with an irrevocable offer of dedication for the applicable roadway segment.

(2) Construction of Trails as part of the roadway frontage improvements. Trails situated within or adjacent to roadway segments shall be improved and constructed concurrently with, and as part of, the construction of the frontage improvements for the roadway segment.

(3) Funding for Trails within roadway frontages. Property Owners who build trails situated within the frontage of roadway right of way shall receive a fee credit or reimbursement for their construction costs if the trail was included as part of the fee credit or reimbursement program adopted for the applicable roadway segment. If there is no reimbursement program for the trail within the frontage of a roadway segment, then the Property Owners responsible for building the roadway frontage improvements shall bear the cost of the trail.

(b) Trails within R-2 Parcels.

(1) Dedication of Trails within R-2 Parcels. As shown on Exhibit K, a number of segments of the trail system are situated within land that is designated for “Recreation-2” uses by the Cordova Hills SPA (“R-2 Parcels”). Property Owners agree that fee title to R-2 Parcels shall be transferred to the County or CHCSA, as applicable, at the time the first final small lot subdivision map for an adjacent Developing Parcel is recorded, or upon the County’s completion of Development Plan Review for an adjacent Developing Parcel that does not need to be further subdivided. Consequently, there will be no need to separately offer to dedicate a trail area within an R-2 Parcel because it is already on lands in public ownership. No subdivision infrastructure improvements shall be required as a condition to the recordation of a final map for any R-2 Parcel.

(2) Construction of Trails within R-2 Parcels. Trails situated within R-2 Parcels shall be constructed by the first Property Owner(s) with a Developing Parcel that begins development adjacent to the R-2 Parcel. The trail segment to be constructed must be for the length of the Developing Parcel’s common boundary with the R-2 Parcel. Other conditions for the construction of the trail within the neighboring R-2 Parcel shall be as set forth in the tentative map conditions of approval for the Developing Parcel. Notwithstanding the foregoing, in cases where a Property Owner has to construct a drainage detention basin within an R-2 Parcel, that Property Owner shall also build the trail segment associated with that drainage detention basin. Property Owners shall have the right to post a bond for the completion of trails within R-2 Parcels.

(3) Funding for Trails within R-2 Parcels. Funding for the construction of trails within R-2 Parcels shall come from the fee imposed on the Project Area under the Cordova Hills Financing Plan, as described and identified in Chapter 11 thereof. Where Property Owners construct a trail within an R-2 Parcel, they shall be entitled to a cash reimbursement or a fee credit against the fee imposed by the Cordova Hills Financing Plan for the construction cost of trails, subject to the credit and reimbursement policies of the fee program adopted to fund trail construction by the County or CHCSA, as applicable.

(c) Trails within Developing Parcels.

(1) Dedication of Trails within Developing Parcels. Portions of the trail network are also situated within lands that are designated for residential or commercial types of uses by the Cordova Hills SPA (“Developing Parcels”), as depicted on Exhibit K. The locations of trails situated within Developing Parcels that are not going to be further subdivided shall be identified during the Development Plan Review process. At Developing Parcels which are going to be further subdivided, then the location of trails shall be identified no later than upon approval of an individual small lot tentative map. Fee title for the trail area shall be irrevocably offered for dedication by Property Owners to the County or CHCSA, as applicable, at the time of recordation of the first final small lot subdivision map for the Developing Parcel, or portion thereof, that contains the trail. In cases where a Developing Parcel does not need to be further subdivided for development purposes, Property Owners shall be responsible for identifying the trail area during the County’s Development Plan Review process for that Developing Parcel and irrevocably offering to dedicate fee title for the trail area to the County or CHCSA, as applicable, at the time of County’s completion of its Development Plan Review for such Developing Parcel.

(2) Construction of Trails within Developing Parcels. Trails within Developing Parcels shall be constructed by Property Owners and commenced no later than upon issuance of the first building permit if no further subdivision map is required for that Developing Parcel. At Developing Parcels where further subdivision mapping is necessary, then the trail construction shall be as set forth in the tentative small lot map conditions of approval for such a Developing Parcel. Property Owners shall have the right to post a bond for the completion of trails within Developing Parcels.

(3) Funding for Trails within Developing Parcels. Funding for the construction of trails within Developing Parcels shall come from the fee imposed on the Project Area under the Cordova Hills Financing Plan, as described and identified in Chapter 11 thereof. Where Property Owners construct a trail within a Developing Parcel, they shall be entitled to a cash reimbursement or a fee credit against the fee imposed by the Cordova Hills Financing Plan for the construction cost of trails, subject to the fee credit and reimbursement policies of the fee program adopted to fund trail construction by the County or CHCSA, as applicable.

(d) Paseos.

(1) Paseo dedication not required. The paseos described in the Cordova Hills SPA are not part of the trail network and therefore are not shown on Exhibit K. Locations of the paseos within Developing Parcels that are not going to be further subdivided shall be identified by Property Owners during the Development Plan Review process. At Developing Parcels which are going to be further subdivided, the locations of paseos shall be identified no later than upon approval of each individual small lot tentative subdivision map. Property Owners may elect to make an irrevocable offer of dedication for paseos to the County or the CHCSA, as applicable, or the Property Owners may elect to transfer a paseo's fee title to a homeowners' association or other appropriate entity in situations where maintenance of the paseo will be the obligation of the homeowners' association or other entity. In the event fee title to a paseo is transferred to a homeowners' association or other entity instead of to the County or CHCSA, then a right of public use of the paseo shall be provided by the Property Owners.

(2) Construction of Paseos within Developing Parcels. Property Owners shall have the obligation to construct the paseos in Developing Parcels as described in the conditions of approval for the applicable tentative small lot subdivision maps that will contain the individual paseos.

(3) Funding for Paseos within Developing Parcels. Property Owner shall bear the cost of construction for the paseos within Developing Parcels.

Section 2.3.19 Conservation Easement at East Carson Creek Property. County and Property Owners agree that prior to the time the first building permit to construct any type of building within the Project Area is issued, the Property Owners shall have previously acquired ownership of that parcel of real property located adjacent to the east side of the Project Area commonly identified as Sacramento County Assessor's Parcel Number 073-0050-051 (the "East Carson Creek Property") and encumbered it with a recorded conservation easement in favor of County. The County and Property Owners shall reasonably agree upon the form and contents of such conservation easement, and further acknowledge and agree that the conservation easement shall specifically allow Property Owners to use the East Carson Creek Property for purposes of mitigating the environmental impacts of the Project, including, but not limited to, mitigation for the loss of agricultural lands, for the loss of Swainson's Hawk habitat, for the loss of open space, and for the loss of wetlands and other jurisdictional waters of the United States under the federal Clean Water Act. The geographic location of the East Carson Creek Property is generally shown on Exhibit "M" attached hereto and incorporated herein by reference.

Section 2.4 Cross Jurisdictional Roadway Impacts. County will attempt to negotiate and enter into reciprocal funding agreements and operational agreements with

the City of Rancho Cordova, the City of Folsom and the City of Elk Grove (individually an “Adjacent Jurisdiction” and collectively the “Adjacent Jurisdictions”) so that land development projects in the County or in the Adjacent Jurisdictions that have California Environmental Quality Act (CEQA) identified impacts and associated mitigation measures for transportation facilities located entirely within the other jurisdiction (“cross jurisdictional roadway impacts”) shall be required to participate on a fair share basis in funding to address and mitigate for those cross jurisdictional roadway impacts.

Property Owners shall identify and incorporate into the financing mechanisms of the Cordova Hills Financing Plan the fair share funding necessary to address and mitigate for the Project’s cross jurisdictional roadway impacts. County and Property Owners agree and acknowledge that such fair share funding may be subject to change and adjustment depending on the terms of the Reciprocal Funding Agreements and Operational Agreements the County may eventually enter into with each of the Adjacent Jurisdictions for cross jurisdictional roadway impacts.

Property Owners and County acknowledge that at the time of entering into this Development Agreement, the County and the Adjacent Jurisdictions have not yet entered into any Reciprocal Funding Agreements or Operational Agreements in order to address and mitigate for cross jurisdictional roadway impacts. The Property Owners will not be required to fund, nor shall the County collect, any roadway impact fees for cross jurisdictional roadway impacts (“Fees” or “Fee”) proposed in the Cordova Hills Financing Plan for transportation facilities located entirely within the other jurisdiction until such time as the County and the Adjacent Jurisdiction enter into a Reciprocal Funding Agreement and Operational Agreement as further defined in this Section of the Development Agreement. County agrees that the development of the Cordova Hills Project will not be delayed, limited or otherwise restricted for reasons associated with the County’s negotiation of the terms and provisions of Reciprocal Funding Agreements and Operational Agreements with the Adjacent Jurisdictions.

When determining a Cordova Hills plan area fee for impacts in other jurisdictions and, contingent upon the outcome of any Reciprocal Funding Agreements and Operational Agreements, County shall take into account funding that may be received by the County from the Adjacent Jurisdictions for the mitigation of their CEQA identified impacts on the onsite internal roadway system being provided to serve the Cordova Hills Project that are not included in the Sacramento County Transportation Development Fee (“SCTDF”) and adjust the Cordova Hills plan area fee accordingly.

Section 2.4.1 Timing of Agreement. Within eighteen (18) months after the County Board of Supervisors approves the Approvals for the Cordova Hills Project, the County Department of Transportation shall make a progress report to the Board of Supervisors concerning the status of its efforts to enter into Reciprocal Funding Agreements and Operational Agreements with the Adjacent Jurisdiction(s) for roadway improvements located entirely within the Adjacent Jurisdiction(s). The County and the respective Adjacent Jurisdiction(s) shall have until July 1, 2015 to enter into Reciprocal

Funding Agreement(s) and Operational Agreement(s) for the improvement of roadways wholly within the Adjacent Jurisdiction(s). The County shall have the right to extend that July 1, 2015 completion date for up to an additional six (6) months if the County determines that adequate progress has been made on negotiating the terms and provisions of the Reciprocal Funding Agreement(s) and Operational Agreement(s) with the Adjacent Jurisdiction(s) and the County Department of Transportation believes the agreements can be consummated within said additional six (6) month period. If the County and Adjacent Jurisdiction(s) do not enter into Reciprocal Funding Agreement(s) and Operational Agreement(s) between the County and the Adjacent Jurisdiction(s) prior to the expiration of the aforementioned timeframe, then the Property Owners will not be required to fund, nor shall the County collect, any Fees for cross jurisdictional roadway impacts within the Adjacent Jurisdiction. In such an event, the Property Owners will be relieved of any obligation to fund the original roadway improvement and the development of the Project may proceed without the roadway improvement.

Section 2.4.2 Agreements and Cost Sharing. Property Owners acknowledge that if an Adjacent Jurisdiction enters into a Reciprocal Funding Agreement with the County, then a separate Operational Agreement between the County and the Adjacent Jurisdiction is also required to further define the responsibilities, obligations, duties, and specific financial mechanisms to implement the intent and provisions of the Reciprocal Funding Agreement. If Reciprocal Funding Agreements and Operational Agreements are not approved by the time development of the Cordova Hills Project commences, any resulting shortfall or funding deficit shall not be made an obligation of the Property Owners or any subsequent future developer of the Cordova Hills Project, and the development of the Project may continue unimpeded.

The Property Owners agree to cooperate with the County and the Adjacent Jurisdictions. Property Owners shall pay their fair share of the cost of any consultants retained by County and Property Owners' fair share of the County's labor costs associated with the process, preparation, and execution of such Reciprocal Funding Agreements and Operational Agreements. County agrees that all such costs paid by Property Owners shall be a component of the costs to be identified for potential reimbursement in the Cordova Hills Special Planning Area fee program.

Section 2.5 Compliance with Conditions. The Property Owners shall comply with all conditions adopted by ordinance for the rezoning of the property to the Cordova Hills Special Planning Area (SPA). Amendments to the conditions of approval adopting the Cordova Hills Special Planning Area (SPA) zoning ordinance and/or amendments to the SPA zoning ordinance shall not automatically trigger an amendment to the Development Agreement, unless the Board of Supervisors determines that the amendment requires modifications to the Development Agreement.

Section 2.6 Police Services Plan. Prior to the recordation of the first final parcel map, Property Owners shall cooperate with the County Sheriff's Department, in consultation with the City of Rancho Cordova, in the creation and implementation of a

police services plan approved by the County for providing adequate levels of police services for the needs of the Cordova Hills Project Area during the early phases of development.

Section 2.7 Sunrise/Jackson Intersection. County and Property Owners agree that Property Owners shall be responsible for modifying and improving the intersection of Sunrise Boulevard and the Jackson Highway (State Route 16) so as to preserve its Level of Service “E” condition in the manner and at the time set forth in the Approval Conditions by providing an eastbound through lane, an eastbound through-right turn shared lane, and an eastbound left turn lane; a northbound left turn lane, two northbound through lanes, and a right turn lane; one westbound through lane, a westbound right turn lane, and a westbound left turn lane; a southbound through lane, a southbound left turn lane, and a southbound right turn lane. In addition, County and Property Owners agree that County will be responsible for processing and obtaining all state and federal permits necessary for the construction of the intersection improvements, while Property Owners will be responsible for providing and paying for all mitigation required by those permits. County and Property Owners further agree that the County will contribute Eight Hundred Thousand Dollars (\$800,000) from the Sacramento County Transportation Development Fee (“SCTDF”) revenues derived from the Project Area to assist with the construction costs of the intersection improvements, with the Property Owners being responsible for paying all construction costs in excess of the amount being provided by County from the SCTDF revenues. It is also agreed that there shall be no delay or suspension of the development of the Cordova Hills Project if the County is unable to obtain any of the necessary federal and state permits by the time the construction of this intersection improvement is required to commence by the Approval Conditions. Property Owners shall have a right to reimbursement or fee credits consistent with Section 4.20 of this Development Agreement.

ARTICLE 3

COUNTY OBLIGATIONS

Section 3.1 Vested Rights of Property Owners. County agrees that the right to develop the Project Area at the Property in a manner consistent with the Approvals is vested in the Property Owners by this Agreement without further action by Property Owners for the duration of this Agreement, and any extensions thereof. The permitted development shall be as set forth in the Approvals. After this Agreement expires, Property Owners’ vested rights, as described herein, shall expire, whether or not the permitted uses allowed by the Approvals have been fully exercised.

Section 3.2 Cooperation Between County and Property Owners. County shall cooperate in good faith with Property Owners in securing all state and federal permits that may be required for the development of the Project. Property Owners shall be responsible for applying for and obtaining approvals and permits required from other governmental agencies having jurisdiction over, or providing services to, the Project Area.

Section 3.3 Inspections. County shall have the right to inspect the Property at any time without prior notice in order to ensure compliance with applicable regulations and this Agreement.

Section 3.4 Inapplicability of Subsequent Legislation. Except for any referendum of the Adopting Ordinance, if an ordinance, resolution or other measure is enacted, whether by action of the Board, by voter initiative, or otherwise, that would prevent the development of the Property consistent with the Approvals and this Agreement, including moratoria, County herein agrees that such ordinance, resolution or other measures shall not apply to the Property or limit the development of the Property as set forth in this Agreement and in the Approvals.

Section 3.5 Cordova Hills Local Services District. In light of the size of the Project, the magnitude of the infrastructure to be provided, and the wide range of ongoing municipal services, many of which are unique to the Project Area, the County and the Property Owners acknowledge the necessity to implement a distinct municipal governance structure for the Project Area. County covenants and agrees that it will apply for and diligently pursue the necessary approvals from the Sacramento Local Agency Formation Commission for the establishment of a county service area to the mutual satisfaction of Property Owners and County (the “CHCSA”) for the purpose of supporting urban development pursuant to the Cordova Hills SPA and providing ongoing municipal public services at the Project Area consistent with the Cordova Hills Urban Services Plan and as described in Exhibit “I” attached hereto and incorporated herein by reference.

Section 3.5.1 Formation of CHCSA. Property Owners shall advance funds and cooperate with County’s efforts to form and implement the CHCSA at the Project Area.

Section 3.5.2 Timing of CHCSA Financing Mechanisms. The financing mechanisms required to fund the services provided by the CHCSA as outlined in the Cordova Hills Urban Services Plan and described in Exhibit “I” shall be implemented and the resulting annual special taxes, fees, and/or service charges shall be approved prior to the recordation of the first final small lot subdivision map or issuance of any building permit within the Project Area, whichever may occur first. Notwithstanding the foregoing, grading permits may be issued within the Project Area prior to implementation of the financing mechanisms.

Section 3.5.3 Funding for Initial Operation of CHCSA. Property Owners shall provide funding for the establishment of the CHCSA and its initial costs of operation and services until the CHCSA collects revenues within the Cordova Hills Special Financing Districts, which, if such revenues are being collected through the levy of special taxes or assessments, shall be deemed to have occurred upon payment of the

second installment of such taxes and/or assessments in the fiscal year in which service costs are first fully funded through such levy.

ARTICLE 4

PROJECT DEVELOPMENT

Section 4.1 Permitted Uses and Development Standards. The permitted uses, density or intensity of use, height and size of buildings and provisions for reservation and dedication of land for public purposes shall be those set forth in the Cordova Hills SPA ordinance and this Agreement.

Section 4.2 Vested Rights. During the Initial Term of this Agreement, and any extensions thereof, County grants Property Owners the vested right (“Vested Right”) to develop the Project in a manner that is consistent with the Approvals, and all development rights, obligations, terms and conditions specified therein. There shall be no change, modification, amendment or addition to the rules, regulations and official policies, including the County General Plan in effect on the Effective Date of this Agreement, the County Zoning Code in effect on the Effective Date of this Agreement, the County Code, and all other relevant codes, ordinances, resolutions, programs, policies, rules, and regulations in effect as of the Effective Date of this Agreement (collectively the “Collective Standards”) that govern the development of the Project Area. Notwithstanding the foregoing, the County Building Code and the County Improvement Standards for public infrastructure applicable to the Project shall be those in effect at the time of development of the parcel or building or item of public infrastructure in question. The design standards for the development of the Project Area shall be those set forth in the Cordova Hills SPA Ordinance enacted as part of the Approvals. The Property Owners’ Vested Rights may not be changed or modified by the County except as may be expressly permitted by, and in accordance with, the terms and conditions of this Agreement, unless otherwise expressly consented to in writing by Property Owners. Nothing set forth above in this Section 4.2 shall be interpreted to preclude or prohibit future changes and/or amendments to the County Code for the purpose of enacting and implementing any of the future County fees, assessments and taxes identified on Exhibit “J” attached hereto.

Section 4.2.1 Vesting of Approved Maps. All approved parcel maps, vesting parcel maps, tentative subdivision maps, vesting tentative subdivision maps, final maps, or any re-subdivision or any amendment to any such map shall be valid for the Initial Term of this Agreement, and any extensions thereof, as provided for in Government Code Section 66452.6.

Section 4.2.2 Rules Regarding Permitted Uses. Except as may be provided otherwise in this Agreement, the County’s ordinances, resolutions, rules, regulations and official policies governing the permitted uses of the Property, the density and intensity of use, the rate, timing and sequencing of development, the maximum

height, size, and design of proposed buildings, and the provisions for reservation and dedication of land, shall be those set forth in the Collective Standards.

Section 4.2.3 Changes in State or Federal Law. Except as provided in Section 4.7.1 below, this Agreement shall not preclude the application of changes in County laws, regulations, plans or policies to the Project, provided the terms of such changes are specifically mandated and required by changes in State or Federal laws or regulations.

Section 4.2.4 Building and County Codes Applicable. Unless otherwise expressly provided in this Agreement, the Project shall be constructed in accordance with the provisions of the California Building, Mechanical, Plumbing, Electrical and Fire Codes, County standard construction specifications, and Title 24 of the California Code of Regulations relating to Building Standards, in effect at the time of the approval of the appropriate building, grading, encroachment, or other construction permits for the Project. If no permits are required for infrastructure improvements, such improvements will be constructed in accordance with the provisions of the California Building, Mechanical, Plumbing, Electrical and Fire Codes, County standard construction specifications, and Title 24 of the California Code of Regulations, relating to Building Standards, in effect at the start of construction of such infrastructure.

Section 4.2.5 Existing and Subsequently Enacted Fees, Charges, Exactions, Dedications, Taxes and Assessments.

Section 4.2.5.1 Processing Fees or Charges. Application, processing, plan review, permitting and inspection fees that are revised during the Initial Term of this Agreement, and all renewals thereof, shall apply to the Project provided that (a) such revised fees apply generally to all similar private projects or works within the County, and (b) the application of such fees to development of the Property is prospective only.

Section 4.2.5.2 Development Impact Fees, Exactions and Dedications. County agrees that Property Owners shall be required to pay only those development impact fees, connection or mitigation fees, or offer dedications of land, or other exactions required by County to support the construction of any public facilities and improvements or the provision of public services in relation to development of the Project that are enumerated in Exhibit J to this Agreement. The County and Property Owners agree to meet every five (5) years commencing from the date of issuance of the first Certificate of Occupancy in the Project area to review the list of fees and fee programs specified in Exhibit J and consider the mutual benefit, if any, of amending same. The list of fees and fee programs may only be amended by mutual, written consent of the County and Property Owners.

Section 4.2.5.3 Taxes and Assessments. Unless otherwise provided in this Agreement, the Project shall be subject to all taxes and assessments to be applied on a County-wide basis resulting from a vote of the public.

Section 4.3 Binding Effect. To the extent permitted by law, this Agreement shall be binding on any existing city, county or governmental agency or newly incorporated city or newly created governmental agency with jurisdiction over the Property during the Initial Term of this Agreement and any extensions thereof.

Section 4.3.1 Subsequent Incorporations or Annexations. County and Property Owners acknowledge that under current provisions of state law (i.e., Government Code Section 65865.3), the Initial Term of this Agreement and any extensions thereof may be affected by a subsequent incorporation or annexation of all or any portion of the Project Area into the jurisdictional boundaries of an existing or future city. County agrees to (a) notify Property Owners of any inquiries to include all or any portion of the Project within the jurisdictional boundaries of an existing incorporated city or a proposed new city; (b) assist Property Owners' efforts, if any, to meet with representatives of applicable agencies or individuals (as in the case of a proposal for incorporation) to discuss the impact of a proposed incorporation or annexation on the Initial Term of this Agreement and any extensions thereof; and (c) to use County's best efforts to include all material terms and provisions of this Agreement into any memoranda of understanding or conditions of approval pertaining to an annexation or incorporation of all or any portion of the Project Area into an existing city or into the boundaries of a proposed city. In the event this Agreement is terminated early pursuant to the provisions of Government Code Section 65865.3, the County agrees that extension of the duration of approved tentative maps up to the maximum period allowed by state law is a material term and provision of this Agreement. County and Property Owners intend that the exceptions to limiting the duration of a development agreement in the event of an incorporation or annexation provided for in Government Code Section 65865.3) or any later amendments thereto, including but not limited to any repeal of said statute or portions thereof) shall be fully applicable and, if any such exceptions apply, County will assist Property Owners in asserting that the duration of this Agreement is unaffected by any annexation or incorporation.

Section 4.4 Minor Deviations. The Director and Property Owners may agree to minor deviations from the terms of this Agreement without formally amending this Agreement. The Director may approve minor deviations, as provided in the County Zoning Code, from the Approvals as requested by Property Owners without amending this Agreement. As used herein, minor deviations are those modifications that as a whole do not increase the environmental impacts of the Project as determined in the EIR or increase the intensity of use of the Property, and may, for instance, relate to phasing. A description of the deviation(s) shall be reduced by County to writing and a copy placed in County's official file of this Agreement. County shall provide a copy to Property Owners.

Section 4.5 Application, Processing and Inspection Fees. The County may revise application fees, processing fees and inspection fees during the Initial Term or any extension of this Agreement, and the revised fee shall apply to the development of the Project if: (a) such revised fee is generally applicable County-wide to all similar private projects or works, and (b) the application of such fee is prospective only. Provided that Property Owners have paid all required application and processing fees, County shall, to the fullest extent practicable, process all applications and/or permits pursuant to the timelines set forth in this Section 4.5. County shall inform Property Owners in writing of the requirements for each such application to be considered to be complete and, upon request of Property Owners, County shall also meet with Property Owners prior to Property Owners' submission of any application for ministerial or discretionary permits or subsequent Approvals for the purpose of ensuring that all information that will be required by the County is conveyed to and understood by Property Owners. After County's receipt from Property Owners of an application for a permit or subsequent entitlement, the County shall provide full and complete comments on such application from all necessary County departments within thirty (30) days of submission by Property Owners.

a. Discretionary Approvals. Applications shall be deemed complete upon Property Owner's satisfaction of the standards and requirements of the applicable County Code and Zoning Code and such other written requirements of County not in conflict with the provisions of this Agreement. County shall use its best efforts to submit for scheduling for final action before appropriate authority within one hundred twenty (120) days of an application being deemed complete for tentative subdivision maps, conditional use permits, special development permits and variances, and within ninety (90) days of filing an application for parcel maps, improvement plans, design review permits and minor deviations, and within thirty (30) days of filing any application for boundary line adjustments and similar matters requiring only staff review and approval.

b. Final Maps/Improvement Plans. County shall use its best efforts to complete and approve plan checks for final maps and improvement plans within forty-five (45) working days of submission of such maps and plans, and with no more than three (3) rounds of submission and revision, as further explained below, provided Property Owners address all reasonable County comments within each resubmission:

(i) First (1st) plan review shall be completed within twenty (20) working days of such maps or plans being accepted as complete by County;

(ii) Second (2nd) plan review within ten (10) working days of receipt of revised maps or plans;

(iii) Prior to initiation of a third (3rd) plan review, if needed, the County and Property Owner shall meet to resolve outstanding issues related to the maps or plans. A third (3rd) plan review, if necessary, shall be completed within ten (10) days of receipt by County of revised maps or plans.

(iv) Within one (1) week of County's receipt of completed plans and maps which are deemed ready for approval, plans shall be signed by the County Engineer and County staff shall place such maps on the next available County Board of Supervisors' hearing agenda.

c. Building Permit Issuance. County shall process and review all complete residential and commercial building permit applications and plans within twenty (20) days of submittal by Property Owners. If plan corrections or changes are required by the plan reviewer, and then performed by the Property Owners' representative, additional processing and plan review cycles will occur until plans are fully approved for permit issuance.

d. Field Building Inspections. County shall use its best efforts to perform all required inspections requested by Property Owners within one (1) working day following the request for inspection being made by Property Owners.

e. Infrastructure Improvement Plan Approval. No plans for infrastructure improvements will be approved nor construction authorized until the County Engineer signifies approval by signing the cover sheet of the set of plans. Plans shall be deemed ready for the County Engineer's signature once all reviewing departments and agencies have issued a Technical Approval of said plans. County agrees with Property Owners that all such department reviews will occur in a timely manner. The Technical Approvals of improvement plans shall be valid for a period of twelve (12) months from the time of receipt of the last Technical Approval issued, unless the then current County policy or ordinance provides for a longer time period.

Section 4.6 Failure to Meet Timelines. County's failure to meet any of the timelines set forth in this Article shall not be deemed to be a breach of this Agreement by County absent a showing of willful misconduct, and shall not relieve Property Owners of any obligations under this Agreement, provided that County is not otherwise in breach of this Agreement. County shall, upon request by Property Owners and at the sole expense of Property Owners, engage outside consultants, to the extent same is permitted by County policy and the County Charter, to assist in the efforts to complete such processing within the timelines described herein.

Section 4.7 Subsequently Enacted State or Federal Laws or Regulations. Nothing stated herein is intended to abridge the effect of Government Code section 65869.5, and its provision that subsequently enacted state or federal laws or regulations may require modification or suspension of provisions of this Agreement that are in conflict with such Subsequently Enacted Laws.

Section 4.7.1 Actions of State or Federal Agencies. To the extent that any actions of federal or state agencies (or actions of regional and local agencies, including County, required by federal or state agencies or actions of County taken in

good faith in order to prevent adverse impacts upon County by state or federal actions) have the effect of preventing, delaying or modifying development of the Project or any area therein, County shall not in any manner be liable for such prevention, delay or modification of said development. Such actions may include, but are not limited to, flood plain or wetlands designations and actions of County or regional agencies as a result thereof and the imposition of air quality measures or sanctions and actions of County or regional and local agencies as a result thereof. In such a situation, County's actions shall not be arbitrary or capricious, and the parties shall meet and endeavor to achieve solutions which preserve the integrity of the Cordova Hills SPA ordinance, while to the extent feasible allow development of the Property in the manner contemplated by this Agreement. Until a determination is reached, the running of the Term of this Agreement and the Property Owners' obligations hereunder shall be tolled.

Section 4.8 Extension of Approvals. Pursuant to Government Code Section 66452.6, all vesting tentative subdivision maps, master parcel tentative maps, parcel maps, subdivision tentative maps, planned unit development permits, special permits, or any other maps, or land use entitlements of potentially limited duration previously, contemporaneously or subsequently approved for the Property subject to this Agreement shall be valid for a minimum term equal to the full term of this Agreement (including the Initial Term, and any renewal period resulting from exercise by Property Owners of the options provided for in Section 1.7.1 hereof), or for a period of thirty-six (36) months, whichever is longer, but in no event for a shorter period than the maximum period of time permitted by the Subdivision Map Act or the Government Code for such land use entitlements. The provisions of this Agreement relating to estoppel certificates shall apply to any request made by Property Owners to County with respect to the life of any entitlement covered by this section. Nothing in this section shall be construed to, or operate to extend the duration of this Agreement.

Section 4.9 Allocation of Building Square Footage. The allocation of building square footage identified in the Cordova Hills SPA Ordinance shall be as identified in subsequent entitlements for the Property, including but not limited to parcel maps, subdivision maps, planned unit development schematic plans and development guidelines. The appropriate entitlement to address the allocation of building square footage for the parcel or lot in question shall be determined by County in such subsequent entitlements. Allocations for residential development shall be determined in the subdivision mapping process, unless County determines that some other method is appropriate under the circumstances.

Section 4.10 Reconfiguration of Parcels. Property Owners shall have the right to file applications with County for subdivision, lot line adjustment, or for master parcelization of all or part of the Property, for the purpose of reconfiguration of the Property. Such applications shall be processed and determined in accordance with the provisions of Section 3.2, and all other applicable provisions of this Agreement. Where reconfiguration requires a special permit, or a planned unit development designation, or other land use entitlement applicable to the Property or portion thereof which is subject to

the application, County reserves the right to require such Approvals as a condition of granting the application.

Section 4.11 Residential Unit Transfers. The total number of residential units within any individual Village of the Project may increase or decrease from the number of residential units shown for that particular Village in the Approvals for the Project. Increases or decreases in the total number of residential units within a Village as provided for in the Cordova Hills SPA are allowed as of right. Increases or decreases that deviate from those allowed in the Cordova Hills SPA are subject to the review and approval of the Director. The request for such a residential unit transfer must identify the total number of units being adjusted, including a unit summary of the affected area including original and proposed unit allocations. The Director's approval or denial of any requested residential unit transfer resulting in an increase or decrease in residential units shall be based solely on the following criteria:

(i) The increase or decrease does not result in significant modification to the conditions of approval of an approved tentative subdivision map at the Project.

(ii) The increase does not result in an average density within any residential Village in excess of the maximum allowable range of approved densities assigned by the General Plan's land use classification for the parcel and the Cordova Hills SPA ordinance.

(iii) The increase does not result in the total number of residential units for all residential Villages at the Project exceeding the maximum number of residential units approved for the Project.

Section 4.12 Health and Safety Measures. Notwithstanding anything to the contrary contained in this Agreement, nothing herein shall be construed to limit the County's general police power to implement, based upon appropriate and adequate findings, specific measures necessary to alleviate legitimate and bona fide harmful and noxious uses, or protect against real, actual, and dangerous threats to the health and safety of County residents, in which event any rule, regulation or policy imposed on the development of the Project shall be done to the minimum extent necessary to correct such bona fide harmful and noxious uses or protect against any such real, actual and dangerous threats to the health and safety of County residents.

Section 4.13 Development Timing. This Agreement contains no requirement that Property Owners must initiate or complete development of any phase of the development of the Property or any portion thereof within any period of time set by County. It is the intention of this provision that Property Owners be able to develop the Property in accordance with Property Owners' own schedule; provided, however, that to the extent phasing is required by the Project's Approvals or the Cordova Hills SPA ordinance, such provision shall govern. No future modification of the County Code or

any ordinance or regulation which limits the rate of development over time shall be applicable to the Property.

Section 4.14 Cordova Hills Finance Plan. A comprehensive financing plan was approved concurrent with the Project Approvals for the provision of the necessary major public infrastructure and facilities through a variety of public financing mechanisms, including, but not limited to, the formation of new community facilities districts and establishment of development impact fees. The Property Owners will work with the County to create and implement various financing mechanisms as identified in the Finance Plan. Said financing mechanisms shall be implemented prior to recordation of final small lot subdivision map(s) or the issuance of building permits, whichever occurs first. Because of the size of the Project, the magnitude of the infrastructure and facilities to be provided, the County and the Property Owners acknowledge the necessity to review the Capital Improvement Programs established for the Project Area to ensure that the funding for the required major infrastructure and facilities is adequately provided. The Property Owners and the County shall periodically review and evaluate the Capital Improvement Programs, with the first such review taking place at the implementation and initial adoption of the financing mechanisms. Following the first such initial review, the Capital Improvement Programs shall be periodically reviewed and updated thereafter at least every five (5) years.

Section 4.15 Cordova Hills Urban Services Plan. Concurrent with the Project Approvals, the Cordova Hills Urban Services Plan was approved for the provision of ongoing municipal services for the Project Area. Because of the size of the Project and the magnitude of the wide range of ongoing municipal services, many of which are unique to the Project Area, the County and the Property Owners acknowledge the necessity to review the performance of the Cordova Hills Urban Services Plan and the proposed financing to ensure that it is functioning as intended. The Property Owners and the County shall periodically review and evaluate the Cordova Hills Urban Services Plan and the proposed financing to determine if it is effectively providing the ongoing municipal services necessary for the Project Area, with the first such review taking place concurrent with the establishment of the CHCSA. Following such initial review, the Cordova Hills Urban Services Plan and the financing mechanism shall be periodically reviewed and updated thereafter at least every five (5) years.

Section 4.16. Formation of Public Financing Mechanisms. County acknowledges that Property Owners intend to finance all or portions of the Project's infrastructure costs and on-going municipal services costs using Mello-Roos Community Facilities District(s) ("CFD") or other public financing mechanisms, such as a development impact fee program or special assessment district, or any combination thereof, as described in the Cordova Hills Finance Plan and in the Urban Services Plan. County agrees, at the request of Property Owners, to cooperate and to use its best efforts in the formation of any special financing district, the establishment of special taxes or assessments and the issuance of CFD bonds consistent with the Amended and Restated County of Sacramento Special Assessment and Community Facilities District Financing

Program Policies (“County Financing Policies”) and the establishment of development impact fees and other planning area fees to the extent permitted by law, provided Property Owners agree to advance-fund County staff and consultant costs. The final action to form any district or enact a fee program within the County’s jurisdiction shall be taken by the Board of Supervisors. Consequently, Property Owners and County agree as follows:

- a) No final maps may be recorded and no building permits may be issued at the Project Area prior to the formation of the Cordova Hills Special Financing Districts necessary to implement the Cordova Hills Finance Plan and Urban Services Plan.
- b) The capacity to finance public infrastructure and facilities will be determined after consideration of the special taxes and assessments to which the Project will be committed by this Agreement in order to fund public services, including maintenance and operations of the Project’s facilities and programs.
- c) In the event one or more CFDs are formed, a full or partial prepayment of the special taxes imposed by the CFDs may be permitted pursuant to Government Code Sections 53321 and 53344.

Section 4.16.1 Acquisition and Payment. County and the Property Owners anticipate entering into one or more Acquisition Agreements for improvements to be funded by the Cordova Hills Special Financing Districts in order to clearly identify the appropriate steps and requirements associated with bid procedures, prevailing wage, the acquisition of the public improvements and/or discrete portions and such other issues as the parties believe warrants inclusion (the “Acquisition Agreements”). The Acquisition Agreements shall include a covenant by the County to use any CFD tax and bond proceeds to acquire such improvements or portions thereof from the person or entity constructing the public infrastructure consistent with County Financing Policies and state law.

Section 4.16.2 Participating Agencies. To the extent that the financing of any of the public infrastructure improvements, or portions thereof, needed for the development of the Project requires the action or cooperation of one or more other public agencies (a “Participating Agency”), if required and as determined by County, County will consider the financing of such facilities through a CFD consistent with the County Financing Policies and will enter into a joint community facilities agreement (“JCFA”) by and between the County and the Participating Agency for such purposes.

Section 4.16.3 Project Area Fee Programs. Prior to recordation of the first final small lot subdivision map or the issuance of building permits, whichever occurs first, the County shall adopt one or more fee ordinances which impose fees upon all lands within the Project Area to fund the infrastructure, planning, engineering, and related costs

(including but not limited to County staff time), as well as fees for the construction of public infrastructure and public facilities as contemplated by the Cordova Hills Finance Plan. The fees shall be spread across lands within the Project Area. The Property Owners shall cooperate with County and the CHCSA in the implementation of the fee program, and advance fund County staff and consultant costs. Credits toward the fee(s) imposed by the fee program shall be given to those Property Owners who have advanced some or all of their share of said costs subject to the provisions of the fee programs.

Section 4.16.4 Private Financing. Nothing in this Agreement shall be construed to limit Property Owners' discretion to install all or a portion of the Project's public infrastructure through the use of private financing.

Section 4.16.5 Urban Services Plan Funding Shortfalls. The Approvals for the Project include the Cordova Hills Urban Services Plan. County and Property Owners acknowledge that there may be years when funding shortfalls arise under the Urban Services Plan because special taxes and/or assessments on developed property within the Project Area do not fully cover the costs of the services being provided in the Project Area under the Urban Services Plan. Property Owners agree to cooperate in the formation of the Cordova Hills Special Financing Districts at the Cordova Hills Project Area that imposes a special tax and/or assessment on undeveloped land only when there is a funding shortfall after the maximum special tax and/or assessment authorized in the Cordova Hills Special Financing District has been levied on developed property in the Project Area. In such an event, the special tax and /or assessment to be levied on undeveloped property shall be applied in the priorities set forth in subsections (a), (b), (c) and (d) below. The special tax and/or assessment on the types of undeveloped land described in subsections (c) and (d) below can only be applied to assure that the service levels under the Urban Services Plan are provided by the CHCSA.

(a) The special tax and/or assessment shall first be levied on undeveloped lots shown on recorded final small lot subdivision maps. The maximum special tax and/or assessment that can be levied on undeveloped lots within recorded final small lot subdivision maps shall be equal to the maximum special tax and/or assessment on developed property with the same zoning within the Project Area.

(b) If the additional revenue from the undeveloped lots being taxed and/or assessed under subsection (a) above is not adequate to cover the funding shortfall, then lands with an approved tentative small lot subdivision map can be taxed and/or assessed. In such an event, the maximum special tax and/or assessment that could be levied on undeveloped land with an approved tentative small lot subdivision map will be equal to the maximum special tax and/or assessment on developed property with the same zoning within the Project Area.

(c) If the additional revenue from the lands being taxed/assessed under subsections (a) and (b) above is not adequate to cover the funding shortfall, then lands with recorded final parcel maps can be levied upon. In such an

event, the maximum special tax and/or assessment that could be levied on undeveloped land with recorded final parcel maps will be equal to the estimated average amount of maximum special tax and/or assessment that could be levied on an acre of developed property with the same zoning within the Project Area.

(d) If the additional revenue from the lands being taxed/assessed under subsections (a), (b) and (c) above is still not adequate to cover the funding shortfall, then undeveloped lands with tentative large lot parcel maps can be levied upon. In such an event, the maximum special tax and/or assessment that could be levied on undeveloped land with tentative large lot parcel maps will be equal to the estimated average amount of maximum special tax and/or assessment that could be levied on an acre of developed property with the same zoning within the Project Area.

(e) If the additional revenue from the lands being taxed/assessed under subsections (a), (b), (c) and (d) above is still not adequate to cover the funding shortfall, then undeveloped lands that have yet to be included in any approved tentative or final maps can be levied upon. In such an event, the maximum special tax and/or assessment that could be levied on such undeveloped land will be equal to the estimated average amount of maximum special tax and/or assessment that could be levied on an acre of developed property with the same zoning within the Project Area.

(f) If the Property Owner of any individual parcel should fail to pay the special tax and/or assessment imposed pursuant to the provisions described in subsections (a) through (d) above within one hundred eighty (180) days after it was due with regard to any particular parcel of land within the Project Area, then such failure to pay would be an Event of Default under Section 5.1 of this Agreement with respect to that particular parcel of land, and only that particular parcel. If such an event of Default should occur, County may exercise all remedies available at law for nonpayment of a special tax and/or assessment, and, in addition, may terminate this Agreement with regard to the particular parcel of land, and only that parcel, for which the special tax and/or assessment was not paid within one hundred eighty (180) days when due.

Section 4.17 Right-of-Way Acquisition. With respect to the acquisition of any off-site interest in real property required by Property Owners in order to fulfill any condition required by the Approvals, Property Owners shall make a good faith effort to acquire the necessary interest by private negotiations at the fair market value of such interest. If, after such reasonable efforts, Property Owners have been unable to acquire such interest and provided that Property Owners (i) provide evidence of a good faith effort to acquire the necessary property interest to the reasonable satisfaction of the County and (ii) agree to pay the reasonable cost of such acquisition, including reasonable attorneys' fees, County shall use its best efforts to acquire the necessary property interest at its fair market value. If such offer has not been accepted within 60 days, County agrees, to the extent permitted by law, to cooperate and assist Property Owners in efforts to obtain such necessary property interest. Any acquisition by County instead of by the Property Owners shall be subject to County's discretion, which is expressly reserved by

County, to make the necessary findings, including a finding thereby of public necessity, to acquire such interest. Subject to the reservation of such discretion, the County shall use its best efforts to schedule the necessary hearings, and if approved by County, thereafter prosecute to completion the proceedings and action to acquire the necessary property interests by power of eminent domain for their fair market value. County agrees that any settlement for the acquisition of such necessary property interests shall be for an amount mutually approved by Property Owners and County if Property Owners are being required to fund the costs of the acquisition of such necessary property interests, including reasonable attorneys' fees and court costs in the event that such acquisition and/or condemnation is necessary. Property Owners agree to provide funding to the County for the costs of acquiring such properties. In accordance with Government Code section 66462.5, County shall not postpone or refuse approval of a final map at the Project because a Property Owner has failed to satisfy a tentative map condition because the Property Owner has been unable to construct or install an offsite improvement on land not owned or controlled by the Property Owner or County at the time the final map is filed with County for approval.

Section 4.18 Building Permits/Model Homes. County shall make a determination regarding the construction drawing master plans for each model home ("Master Plan") within thirty (30) days after any application for same is deemed complete by County. The term "determination" is defined as payment of plan check fees by the Property Owners, a full review by County of the building permit submittal package (application and plans) and the County's delivery to Property Owners of either a list of corrections required for resubmittal or County approval of the submitted package for issuance of building permits. Recordation of a final map shall not be required prior to issuance of a building permit for model homes. Upon County approval of a Master Plan, and subject to receiving any necessary design review approvals from the County, County shall issue building permits for homes subject to that Master Plan within one (1) work week of County's acceptance of each ensuing and related building permit application with payment by Property Owners of County's then current permit fees. In the event that an amendment to the County Building Code results in the need to change the Master Plan, construction of residential units pursuant to the Master Plan shall be allowed to continue for a period of three (3) months from the date County notifies Property Owners of the change to the County Building Code and corresponding need for changes to the Master Plan. The Statewide triennial adoption and enforcement of the California Building Codes shall occur on the date as determined by the State of California and shall be applied to those Master Plan building permits that have not been issued prior to the date set for such enforcement.

Section 4.19 Parks and Open Space.

Section 4.19.1 Park and Open Space Dedication. County requires Property Owners to provide 99.1 acres of active park land for recreational activities ("Parks and Open Space"), and 150 acres of "R2" recreation and open space areas based upon the conditions of approval for the Project and the Cordova Hills SPA. The parkland

dedication requirement may be satisfied through the dedication of improved parkland, the payment of park-in-lieu fees, or any combination thereof.

(a) All improvement costs associated with the park and open space areas on the approved park plans shall be eligible for fee credits or reimbursements, so long as a fee program is implemented to cover those costs. Credits and reimbursements are further subject to the credit/reimbursement provisions of the program that include the funding in its capital improvement program.

(b) County covenants and agrees that, consistent with the Project's Conditions of Approval, the total overall Quimby Act requirement for parkland dedications is 106.9 acres. County confirms and agrees that the Quimby Act requirement will be satisfied by a combination of the 99.1 acres of traditional active park lands and that the County will give Property Owners 7.8 acres of Quimby Act credit for the recreation and open space/trails provided in the "R2" open space areas that contain trails, informal play areas, picnic areas, or drainage basins suitable for recreational uses in order to satisfy the Project's overall Quimby Act requirement. Insofar as there are 150.6 acres of "R2" areas in the Project, County confirms and agrees that the Quimby Act requirement will be more than satisfied by the foregoing, and the Project will not be required to pay any Quimby Act fees.

Section 4.20 Reimbursements from Others Benefited. County and Property Owners acknowledge that in order to facilitate orderly development, Property Owners may be required to pay or contribute funds, dedicate certain lands, and/or construct certain improvements or infrastructure, including but not limited to neighborhood parks, County facilities, and other public facilities which might otherwise be financed through County fee programs. Property Owners may be entitled to either reimbursement or fee credit for those costs in excess of the Property Owners' obligation, consistent with the credit/reimbursement provisions in the program that includes a particular item of infrastructure in its capital improvement program.

a. Terms of Credit and Reimbursement. The specific terms of the credit and reimbursement agreements will be subject to future negotiation between the County and Property Owners, and Property Owners and County presently anticipate entering into credit and reimbursement agreements with the following departments and agencies for the Project:

(1) County Department of Transportation ("DOT"). The Property Owners and County will enter into a credit and reimbursement agreement consistent with the terms of this Agreement and County development impact fee programs that include transportation facilities. The actual amount the County shall provide the Property Owners in fee credit or reimbursement will be pursuant to the provisions of the applicable fee programs for which Property Owners constructed facility(ies) is included in the program's capital improvement program.

(2) County will meet with Property Owners and assist in negotiating credit and/or reimbursement agreements with other agencies or departments when circumstances warrant such agreements.

b. Election between Credit and Reimbursement. Property Owners shall receive County credits or reimbursements as identified within the policies of the applicable fee program.

c. No Limitations. Nothing in this Section is intended to or shall be construed to limit Property Owners from receiving any other credits, reimbursements or contributions of any kind or nature whatsoever that may arise after the Effective Date and be available to pay for all or a portion of the costs of public infrastructure improvements, to the extent that the combined total value of the credit, reimbursement, and/or contribution does not exceed actual cost of constructing the public infrastructure improvement.

Section 4.21. Attribution of County Fee Credits. County and Property Owners agree and understand that any fee credits obtained by a Property Owner as a result of expenditures of the Property Owner on public infrastructure improvements may be transferred or assigned by a Property Owner to another subsequent landowner within the Project Area, but only in the manner provided for in each County reimbursement program that provided for the credit. The transfer of credits shall be in compliance with the requirements and provisions of the credit agreements entered into between the County and Property Owners that granted the fee credits in the first instance.

ARTICLE 5

BREACH OF AGREEMENT, ENFORCEMENT, TERMINATION, INDEMNIFICATION, CHALLENGES, TOLLING, RELEASE

Section 5.1 Breach/Time for Cure. Failure or delay by any Party to perform any provision of this Agreement shall constitute an event of default (“Event of Default”), provided, however, that any Event of Default by an individual Property Owner or a successor-in-interest shall not be considered an Event of Default by the other non-defaulting Property Owners or any other non-defaulting successor-in-interest of a Property Owner. For purposes of this Agreement, a party claiming that another party is in default shall be referred to as the “Complaining Party,” and the party alleged to be in default shall be referred to as the “Party in Default.” A Complaining Party shall not exercise any of its remedies as the result of an Event of Default unless such Complaining Party first gives written notice to the Party in Default and the Party in Default fails to cure such Event of Default within the applicable cure period. A Complaining Party shall give the Party in Default written notice specifying all factual grounds for the allegation of an Event of Default. If the Event of Default is reasonably capable of being cured within thirty (30) days, the Party in Default shall have such period to effect a cure prior to the exercise of any remedies by the Complaining Party. If the nature of the alleged Event of

Default is such that it cannot practicably be cured within such thirty (30) day period, the cure shall be deemed to have occurred within such thirty (30) day period if (1) the cure is commenced at the earliest practicable date following receipt of the notice; (2) the cure is diligently prosecuted to completion at all times thereafter; (3) at the earliest practicable date (in no event later than thirty (30) days after the Party in Default has received the notice) the Party in Default provides written notice to the Complaining Party that the cure cannot be practicably completed within such thirty (30) day period; and (4) the cure is completed at the earliest practicable date. In no event shall the Complaining Party be precluded from exercising remedies if a default is not cured within ninety (90) days after the first notice of default is given. Property Owners shall have the right to appeal any County staff level determination that there has been an Event of Default by the Property Owners to the County Board of Supervisors. Any such appeal to the Board of Supervisors must be filed within ten (10) days of Property Owners' receipt of the notice of default given by County staff. If no resolution of the matter is reached, the party alleging the Event of Default may institute legal proceedings to cure or remedy the Event of Default or may commence proceedings to terminate this Agreement in the event of a material default. If this Agreement is terminated following any Event of Default, such termination shall not affect the use or occupancy of any building or improvement within the Project which is completed as of the date of the termination, provided that such building or improvement has been constructed pursuant to a valid building permit issued by County. Furthermore, no termination of this Agreement shall prevent Property Owners from completing or occupying the building or other improvement authorized pursuant to a valid building permit previously issued by County that is under construction at the time of termination, provided that any such building or other improvement is completed in accordance with said building permit.

Section 5.2 Enforcement of Approvals Provisions. Nothing in this Agreement shall limit County's ability to enforce the provisions of the Approvals or this Agreement, as provided in Government Code Section 65865.4.

Section 5.3 Enforced Delay; Extension of Times of Performance. No party shall deem performance of the terms of this Agreement to be in breach where delays or defaults are due to war, insurrection, strikes, walkouts, riots, acts of terrorism, floods, earthquakes, fires, casualties, acts of God, actions of other government agencies, energy shortages, fuel shortages, or enactment of conflicting state or federal laws or regulations, or new or supplementary environmental regulation enacted by the state or federal government. For such cause, County shall not unreasonably withhold a grant of an extension of time for the period of the enforced delay or longer, as may be mutually agreed.

Section 5.4 Indemnification. Each Property Owner shall indemnify, defend, and hold harmless County and each of County's officers, employees, representatives, agents, successors and assigns, from and against any and all loss, cost, expense (including but not limited to, attorneys' fees and court costs), damage, injury, liability, cause of action, or claim of any kind or character to any person or property (collectively,

“Losses”) related to, arising out of, or resulting from, directly or indirectly, any act, negligence, willful misconduct, or breach of any agreement of that Property Owner or its officers, directors, affiliates, employees, agents, licensees, invitees, contractors, or subcontractors, or by any one or more persons directly or indirectly employed by, or acting on behalf of or as agent for that Property Owner or any of that Property Owner’s contractors or subcontractors (“Property Owner’s Related Parties”) relating to, directly or indirectly, development of the Property pursuant to this Agreement, including, but not limited to, any losses arising from or caused by: (i) the approval of this Agreement; (ii) any use of the Property; (iii) any construction on the Property by the Property Owner or Property Owner’s Related Parties; (iv) any defect in the design or construction of, or materials used in, the development of the Property pursuant to this Agreement; (v) any defect in soils or in preparation of soils or in the design and accomplishment of grading; (vi) any contamination of the soils, surface water, or groundwater on or below the Property by any Hazardous Substance, or any other impact or contamination that results in, or is alleged to result in, a nuisance; (vii) any violation or alleged violation by the Property Owner or by the Property Owner’s Related Parties of any law existing as of the Effective Date of this Agreement or hereinafter enacted; or (viii) the breach of any covenant or the inaccuracy or incorrectness of any representation and warranty of the Property Owner to County under this Agreement.

Section 5.6 Challenge to Agreement or Approvals. In the event of any legal action instituted by a third party challenging the validity of any portion of this Agreement or the Approvals, including the proceedings taken for approval (including the requirements of the California Environmental Quality Act), or any other act undertaken by the parties hereto in furtherance of this Agreement or its terms, the parties agree to cooperate in the defense of the action. In all such litigation, County shall either defend such litigation or tender its defense to Property Owners. In the event County determines to defend the action itself, Property Owners shall be entitled, subject to court approval, to join in or intervene in the action on their own behalf, or to advocate in favor of the validity of this Agreement or the Approvals. In such an event, each party shall bear its own attorneys’ fees and costs. In the event County determines to tender the defense of the action to Property Owners, Property Owners shall defend the action on their behalf and on behalf of the County, and shall bear all attorneys’ fees and costs associated with such defense from and after the date of the tender. County, however, may at any time elect to assume representation of itself, and in that event, from and after the date the County gives notice of its election to do so, County shall be responsible for its own attorneys’ fees and costs incurred thereafter. The filing of such third party legal action shall not delay or stop the development of the Property pursuant to this Agreement, unless the third party obtains a court order preventing the activity or unless Property Owners elect not to develop pursuant to Section 5.7 below. The County shall not stipulate to the issuance of such order without first obtaining consent from Property Owners, which may be withheld in Property Owners’ absolute discretion. If any such injunction or temporary restraining order is issued, the term of this Agreement and the Approvals shall automatically be extended for a period equal to the duration of such injunction and temporary restraining order.

Section 5.7 Tolling of Term of Agreement. In the event litigation is initiated by any party other than Property Owners that challenges any of the approvals for the Project or the environmental document for those approvals and an injunction or temporary restraining order is not issued, Property Owners may elect to have the term of this Agreement tolled, i.e., suspended, during the pendency of said litigation, upon written notice to County from Property Owners. The tolling shall commence upon receipt by the County of written notice from Property Owners invoking this right to tolling. The tolling shall terminate upon the earliest date on which either a final order is issued upholding the challenged approvals or said litigation is dismissed with prejudice by all plaintiffs. In the event a court enjoins either the County or the Property Owners from taking actions with regard to the Project as a result of such litigation that would preclude any of them from enjoying the benefits bestowed by this Agreement, then the term of this Agreement shall be automatically tolled during the period of time such injunction or restraining order is in effect. In addition, in the event the action of a government agency prevents or delays the development of the Project, the term of this Agreement shall be tolled for a period of time equal to the time period during which the development of the Project was prevented or delayed by the action of such government agency.

Section 5.8 Release. Property Owners, on behalf of themselves and their successors and assigns, waive their right to recover from, and forever release and discharge, County and County's agents from any and all demands, claims, legal or administrative proceedings, losses, liabilities, damages, penalties, fines, liens, judgments, costs or expenses whatsoever (including, without limitation, attorneys' fees and costs), whether direct or indirect, known or unknown, foreseen or unforeseen, that may arise on account of or in any way be connected with : (i) the physical condition of the Property (including without limitation, the grading and slope conditions thereof and any drainage problems, whether caused by flood, surface or underground water, or any other condition, affecting or relating to the Property); and (ii) the presence in, on, or about the Property or any surrounding property of any Hazardous Substances caused by Property Owners' permitted activities. As used herein, Hazardous Substances means any substance, material or waste that is designated, classified, or regulated as being "toxic" or "hazardous" or a "pollutant," or which is similarly designated, classified, or regulated, under any law regulating Hazardous Substances.

ARTICLE 6

REVIEW

Section 6.1 Annual Report and Review. Property Owners shall, on each anniversary of the Effective Date, submit evidence to County of compliance with all terms of this Agreement pursuant to Government Code Section 65865.1. This annual report shall be required for compliance with the Approval Conditions and compliance with the adopted CEQA mitigation measures. Such report shall be in a form specified by County or otherwise agreed to by the parties. Based on that report and any inspections

conducted by County, the County shall every twelve (12) months during the term of this Agreement make findings specifically as to the extent of good faith compliance by Property Owners. At least ten (10) days prior to any Planning Commission and Board of Supervisors' meetings held in connection with said annual review, the County shall provide Property Owners with a copy of the County staff report concerning Property Owners' compliance with the terms and provisions of this Agreement. A finding of failure to comply shall be cured by Property Owners within a reasonable timeframe agreed to by the County and Property Owners. If such failure amounts to a failure to comply with this Agreement, then the provisions of Section 5.1 shall be applied. Failure by County in any given calendar year to undertake and complete its annual review of the Agreement shall constitute a finding by County that Property Owners are in compliance with all of the terms and conditions of this Agreement for that calendar year.

ARTICLE 7

NOTICES & TERMINATION UPON COMPLETION OF DEVELOPMENT

Section 7.1 Notices. Notices, demands, correspondence, and other communication between County and Property Owners shall be given if dispatched by prepaid first class mail as follows:

To County: County of Sacramento
Planning and Community Development Dept.
827 7th Street, Rom 230
Sacramento, California 95814
Attn: Planning Director

To Property Owner: Cordova Hills, LLC and Conwy, LLC
5241 Arnold Avenue
McClellan, California 95652
Attn: Mr. Ron Alvarado

With a copy to: Law Offices of Gregory D. Thatcher
1730 "I" Street, Suite 220
Sacramento, California 95811
Attn: Gregory D. Thatcher

A party may, from time to time, advise the other party of a new address for notices, demands, or correspondence. Notwithstanding anything to the contrary contained in this Section 7.1, all notices of a Breach of this Agreement being given pursuant to the provisions of Section 5.1 shall only be given to the other party or parties by first class prepaid certified United States mail, with return receipt requested. No party shall refuse or evade delivery of any notice.

Section 7.2 Termination Upon Completion of Development. This Agreement shall terminate contemporaneously with the Approvals in accordance with the provisions

of Section 1.7 of this Agreement, and the Property Owners' vested rights to continue development of the Property pursuant to the Approvals shall thereupon cease.

ARTICLE 8

MISCELLANEOUS PROVISIONS

Section 8.1 Representation by Legal Counsel. Each party hereto specifically affirms that it has received and read a complete copy of this Agreement and that each party was represented by legal counsel of its own choosing, and that each party fully understands the provisions of this Agreement. In addition, the drafting of this Agreement has been the joint effort and the result of negotiation between the parties and their legal counsel. Any rule or principle that a document should be strictly construed against the drafting party will therefore be inapplicable. Accordingly, this Agreement shall not be construed against any party hereto.

Section 8.2 Construction of Agreement. The language in all parts of this Agreement shall, in all cases, be construed as a whole and in accordance with its fair meaning. The captions of the paragraphs and subparagraphs of this Agreement are for convenience only and shall not be considered or referred to in resolving questions of construction. This Agreement shall be governed by the laws of the State of California.

Section 8.3 Entire Agreement. This Agreement, together with the documents incorporated by reference and the exhibits, constitutes the entire agreement between the parties with respect to the subject matter of this Agreement.

Section 8.4 Further Actions and Instruments. Each of the parties shall cooperate with and provide reasonable assistance to the other to the extent contemplated hereunder in the performance of all obligations under this Agreement and the satisfaction of the conditions of this Agreement. Upon the request of any party at any time, the other party or parties shall promptly execute, file or record any required instruments and writings reasonably necessary to evidence or consummate the transactions contemplated by this Agreement, and take any actions as may be reasonably necessary under the terms of this Agreement to carry out the intent and to fulfill the provisions of this Agreement.

Section 8.5 Covenant of Good Faith and Fair Dealing. No party shall do anything which shall have the effect of harming or injuring the right of the other party to receive the benefits of this Agreement. Each party shall refrain from doing anything which would render its performance under this Agreement impossible, and each party shall do everything which this Agreement contemplates that such party shall do to accomplish the objectives and purposes of this Agreement. Whenever the consent or approval of a party is required or necessary under this Agreement, such consent or approval shall not be unreasonably withheld, conditioned or delayed.

Section 8.5 No Waiver. No delay or omission by a party in exercising any right or power accruing upon a non-compliance or failure to perform by another party

under the provisions of this Agreement shall impair any such right or power or be construed to be a waiver thereof. A waiver by any party of any of the covenants or conditions to be performed by another party shall not be construed as a waiver of any succeeding breach or non-performance of the same or other covenants and conditions hereof.

Section 8.7 Applicable Law and Jurisdiction. This Agreement shall be construed and enforced in accordance with the laws of the State of California. Notwithstanding the provisions of Code of Civil Procedure Section 394, Property Owners and County agree that the jurisdiction for any legal proceeding involving this Agreement shall be the Superior Court of the State of California in and for the County of Sacramento.

Section 8.8 Recording. The County shall cause a copy of this Agreement to be recorded with the County of Sacramento Recorder no later than ten (10) days following execution of this Agreement by County, which execution by County will take place no sooner than the Effective Date of the Adopting Ordinance.

Section 8.9 Invalidity of Agreement. If this Agreement, in its entirety, is determined by a court to be entirely invalid or unenforceable, then this Agreement shall be deemed terminated as of the date of entry of final judgment by the court with no further right of appeal.

Section 8.10 Invalidity of Provisions of Agreement. If any provision of this Agreement shall be finally adjudicated by a court to be invalid and unenforceable, the parties shall promptly meet to attempt to revise this Agreement and, as appropriate, other documents executed pursuant to this Agreement, in order to give effect to the parties' intentions in entering into this Agreement; the remainder of the Agreement shall stay in effect.

Section 8.11 Future State and Federal Laws. If future state and federal laws or regulations render any provision of this Agreement invalid or unenforceable, such provisions shall, in the discretion of the Board of Supervisors, be modified or suspended as may be necessary to comply with such state or federal laws and regulations, and the remainder of the Agreement shall continue in full force and effect.

Section 8.12 No Third Party Beneficiary. No person or entity other than the parties to this Agreement shall have any right of action based upon any provision in this Agreement.

Section 8.13 Additional Rights of Parties. In addition to any other rights or remedies specified herein, either party may institute legal proceedings to cure, correct or remedy any breach, or to specifically enforce any covenant or agreement herein, or to enjoin any threatened or attempted violation of the provisions of this Agreement, in accordance with Government Code Section 65865.4.

Section 8.14 Authority to Execute. The person or persons executing this Agreement on behalf of the Property Owners warrant and represent that they have the authority to execute this Agreement on behalf of such parties and represent that they have the authority to bind such parties to the performance of their obligations hereunder.

Section 8.15 Attorneys' Fees. Should any legal action be brought by any party for breach of this Agreement or to enforce any provisions herein, the prevailing party shall be entitled to reasonable attorneys' fees, court costs and other costs as may be fixed by the Court. Attorneys' fees shall include attorneys' fees on any appeal, and in addition a party entitled to attorneys' fees shall be entitled to all other reasonable costs for investigating such actions, taking depositions and discovery, and all other necessary costs incurred in the litigation.

Section 8.16 Time is of the Essence. Time is of the essence of each and every provision of this Agreement.

Section 8.17 Several Obligations of Property Owners. Notwithstanding anything to the contrary contained herein, no default in the performance of a covenant or obligation in this Agreement with respect to a particular portion of the Property shall constitute a default applicable to any other portion of the Property, and any remedy arising by reason of such default shall be applicable solely to the portion of the Property where the default has occurred. Similarly, the obligations of Property Owners and their respective successors in interest shall be several and no default hereunder in performance of a covenant or obligation by any one of them shall constitute a default applicable to any other owner, and any remedy arising by reason of such default shall be solely applicable to the defaulting owner and the portion of the Property owned by such defaulting owner.

Section 8.18 Estoppel Certificate. Any party to this Agreement and any Lender may, at any time, and from time to time, deliver written notice to a party requesting such party to certify in writing that, to the knowledge of the certifying party, (i) the Agreement is in full force and effect and a binding obligation on the parties, (ii) the Agreement has not been amended or modified, either orally or in writing, and if so amended or modified, identifying the amendments or modifications, and (iii) as of the date of the estoppel certificate, the requesting party (or any party specified by a Lender) is not in breach in the performance of its obligations under the Agreement, or if in breach to describe therein the nature of any such breach and the steps or actions to be taken by the other party reasonably necessary to cure any such alleged breach. A party receiving a request hereunder shall execute and return such certificate or give a written detailed response explaining why it will not do so within thirty (30) days following the receipt of such request. Each party acknowledges that such an estoppel certificate may be relied upon by third parties acting in good faith. An estoppel certificate provided by County establishing the status of this Agreement shall be in recordable form and may be recorded at the expense of the recording party.

Section 8.19 Definition of County's Successors. For the purposes of this Agreement, the County's successors and assigns shall include any existing or new city in which all or a portion of the Property subsequently becomes a part. The respective rights and obligations of the Property Owners and any successor city shall be consistent with the provisions of Government Code Section 65865.3.

Section 8.20 Meaning of Terms. Where the context so requires, the use of the masculine gender shall include the feminine and the neuter gender, and the singular shall include the plural and vice versa.

Section 8.21 Liberal Construction. This Agreement shall be liberally construed to accomplish the purposes of this Agreement.

Section 8.22 Reasonable Discretion. Whenever a party to this Agreement is to exercise any right granted hereunder in its discretion, such exercise of discretion shall be in a reasonable manner, unless the agreement specifically describes that a different standard of exercising that discretion shall apply.

Section 8.23 Priority of Enactment. In the event of conflict between this Agreement, the Approvals, the Cordova Hills Special Planning Area ordinance, and the Zoning Code, the parties agree that the following sequence of approvals establishes the relative priority of approvals, each approval superior to the approvals listed thereafter: (1) this Agreement (2) the Approvals (3) the Cordova Hills Special Planning Area ordinance, and (4) the Zoning Code.

ARTICLE 9

PROVISIONS RELATING TO LENDERS

Section 9.1 Lender Rights and Obligations.

Section 9.1.1 Prior to Lender Possession. No Lender shall have any obligation or duty under this Agreement prior to the time the Lender obtains possession of all or any portion of the Property to construct or complete the construction of improvements, or to guarantee such construction or completion, and shall not be obligated to pay any fees or charges which are liabilities of Property Owners or Property Owners' successors-in-interest, but such Lender shall otherwise be bound by all of the terms and conditions of this Agreement which pertain to the Property or such portion thereof in which Lender holds an interest. Nothing in this Section shall be construed to grant to a Lender rights beyond those of the Property Owners hereunder or to limit any remedy County has hereunder in the event of a breach by Property Owners, including termination or refusal to grant subsequent additional land use Approvals with respect to the Property.

Section 9.1.2 Lender in Possession. A Lender who comes into possession of the Property, or any portion thereof, pursuant to foreclosure of a mortgage

or deed of trust, or a deed in lieu of foreclosure, shall not be obligated to pay any fees or charges which are obligations of Property Owners and which remain unpaid as of the date such Lender takes possession of the Property or any portion thereof. Provided, however, that a Lender shall not be eligible to apply for or receive Approvals with respect to the Property, or otherwise be entitled to develop the Property or devote the Property to any uses or to construct any improvements thereon other than the development contemplated or authorized by this Agreement and subject to all of the terms and conditions hereof, including payment of all fees (delinquent, current and accruing in the future) and charges, and assumption of all obligations of Property Owners hereunder; provided, further, that no Lender, or successor thereof, shall be entitled to the rights and benefits of the Property Owners hereunder or entitled to enforce the provisions of this Agreement against County unless and until such Lender or successor in interest qualifies as a recognized assignee of this Agreement and makes payment of all delinquent and current County fees and charges pertaining to the Property.

Section 9.1.3 Notice of Property Owner's Breach Hereunder. If County receives notice from a Lender requesting a copy of any notice of breach given to Property Owners hereunder and specifying the address for notice thereof, then County shall deliver to such Lender, concurrently with service thereon to Property Owners, any notice given to Property Owners with respect to any claim by County that Property Owners have committed a breach, and if County makes a determination of non-compliance, County shall likewise serve notice of such non-compliance on such Lender concurrently with service thereof on Property Owners.

Section 9.1.4 Lender's Right to Cure. Each Lender shall have the right, but not the obligation, for the same period of time given to Property Owners to cure or remedy, on behalf of Property Owners, the breach claimed or the areas of non-compliance set forth in County's notice. Such action shall not entitle a Lender to develop the Property or otherwise partake of any benefits of this Agreement unless such Lender shall assume and perform all obligations of Property Owners hereunder.

Section 9.1.5 Other Notices by County. A copy of all other notices given by County to Property Owners pursuant to the terms of this Agreement shall also be sent to any Lender who has requested such notices at the address provided to County pursuant to Section 9.1.3 above.

Section 9.2 Right to Encumber. County agrees and acknowledges that this Agreement shall not prevent or limit the owner of any interest in the Property, or any portion thereof, at any time or from time to time in any manner, at such owner's sole discretion, from encumbering the Property, the improvements thereon, or any portion thereof with any mortgage, deed of trust, sale and leaseback arrangement or other security device. County acknowledges that any Lender may require certain interpretations of the agreement and County agrees, upon request, to meet with the owner(s) of the property and representatives of any Lender to negotiate in good faith any such request for interpretation. County further agrees that it will not unreasonably

withhold its consent to any interpretation to the extent such interpretation is consistent with the intent and purpose of this Agreement.

IN WITNESS WHEREOF, the parties have executed this Agreement as set forth below.

PROPERTY OWNERS:
CORDOVA HILLS, LLC,
A California limited liability company

By: _____
Charles Somers
Its: Manager

CONWY, LLC,
A California limited liability company

By: _____
Charles Somers
Its: Manager

COUNTY:
COUNTY OF SACRAMENTO
A political subdivision of the State of California

By: _____

Name: _____

Title: Chair, Board of Supervisors

ATTEST:

By: _____
Cyndi Lee, Clerk
Board of Supervisors

Approved as to Form:

By: _____

Name: _____

Title: Deputy County Counsel

STATE OF _____)
) ss.
COUNTY OF _____)

On _____ before me, _____, (here
insert name and title of the officer), personally appeared
_____, who proved to me on the basis of satisfactory
evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to
me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their
signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted,
executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing
paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____ (Seal)

STATE OF _____)
) ss.
COUNTY OF _____)

On _____ before me, _____, (here
insert name and title of the officer), personally appeared
_____, who proved to me on the basis of satisfactory
evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to
me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their
signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted,
executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing
paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____ (Seal)

EXHIBIT A

LEGAL DESCRIPTION OF THE PROPERTY

Being a portion of Sections 13, 14, 22, & 23, Township 8 North, Range 7 East & a portion of Section 18, Township 8 North, Range 8 East, Mount Diablo Meridian, County of Sacramento, State of California, being more particularly described as follows:

Beginning at the Northwest corner of said Section 14, said corner being the TRUE POINT OF BEGINNING;

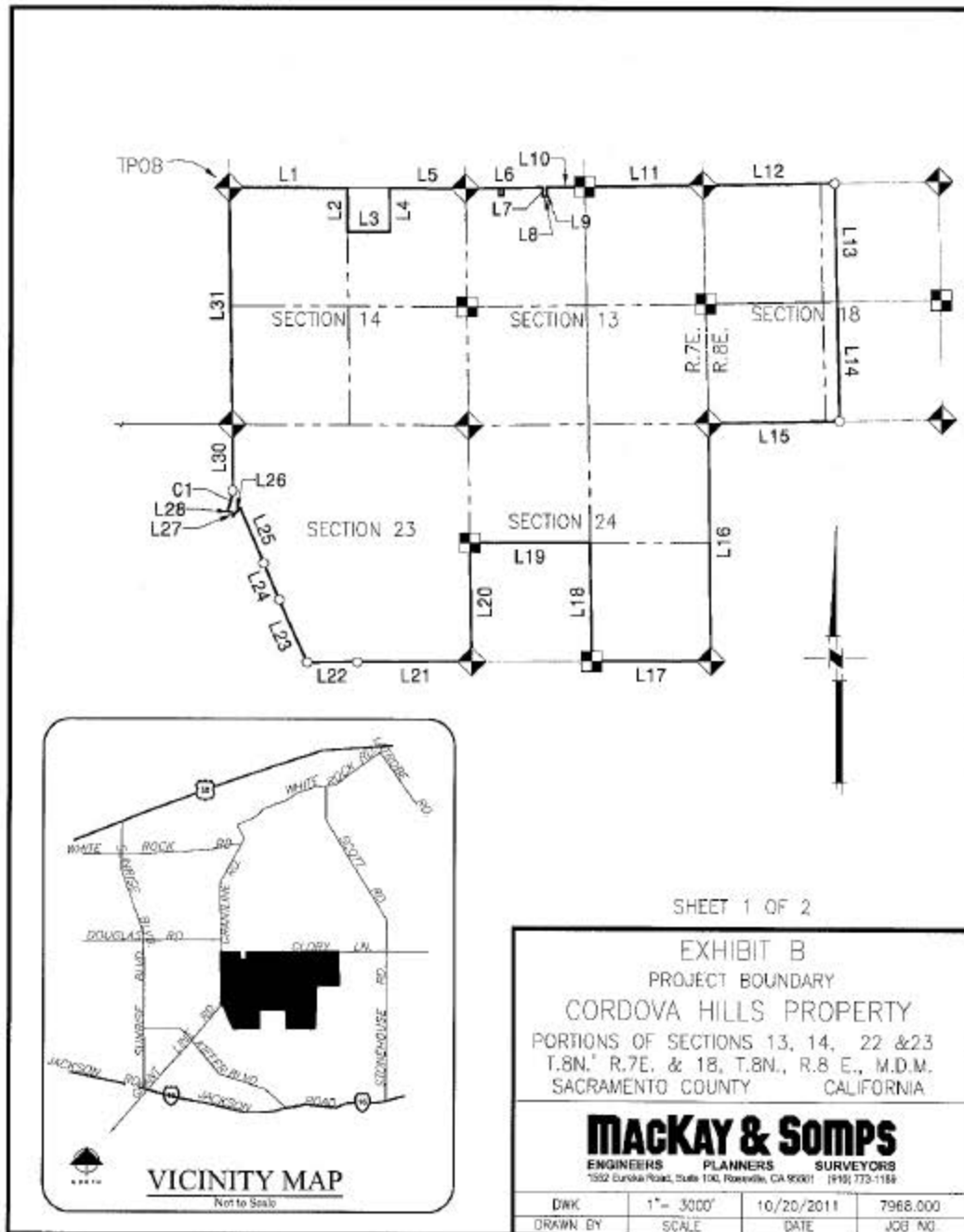
1. thence South 89°53'53" East along the North line of said Section 14 a distance of 2648.35 feet;
2. thence leaving said North line South 00°41'41" East along the West line of the Kellett property a distance of 987.11 feet;
3. thence South 89°43'47" East along the South line of said Kellett property a distance of 932.73 feet;
4. thence North 00°42'22" West along the East line of said Kellett property a distance of 981.05 feet to a point on the North line of said Section 14;
5. thence South 89°53'53" East along said North line a distance of 1694.42 feet to the Northeast corner of said Section 14;
6. thence North 89°04'12" East along the North line of said Section 13 a distance of 1706.57 feet;
7. thence leaving said North line South 00°55'48" East along the West line of Well Site #4 as described in Book 20090205, Page 0974 Official Records Sacramento County a distance of 200.00 feet;
8. thence North 89°04'12" East along the South line of said Well Site #4 a distance of 100.00 feet;
9. thence North 00°55'48" West along the East line of said Well Site #4 a distance of 200.00 feet to the North line of said Section 13;
10. thence North 89°04'12" East along said North line a distance of 839.33 feet to the North 1/4 corner of said Section 13;
11. thence continuing along said North line North 89°06'59" East a distance of 2630.68 feet to the Northeast corner of Said Section 13;
12. thence North 88°53'52" East along the North line of said Section 18 a distance of 2933.82 feet ;
13. thence leaving said North line South 01°14'05" East along the West line of that certain real property as described in Book 3660, Page 633 Official Records Sacramento County a distance of 2639.82 feet to the Southwest corner of said property;
14. thence continuing South 01°14'05" East along the West line of that certain real property as described in Book 20080930, Page 0331, Official Records

- Sacramento County a distance of 2641.07 feet to the Southwest corner of said property coincident with the South line of said Section 18;
15. thence South 88°53'27" West along said South line a distance of 2917.90 feet to the southwest corner of said Section 18;
 16. thence leaving said West line South 00°43'33" East along the East line of said Section 24 a distance of 5297.55 feet to the Southeast corner of said Section 24;
 17. thence South 89°42'30" West along the South line of said Section 24 a distance of 2656.25 feet to the South ¹/₄ corner of said Section 24;
 18. thence North 00°48'17" West along the West line of the Southeast ¹/₄ of said Section 24 a distance of 2634.97 feet to the Northwest corner of said Southeast ¹/₄
 19. thence South 89°49'29" West along the South line of the northwest ¹/₄ of said Section 24 a distance of 2662.82 feet to the West 'A corner of said Section 24;
 20. thence South 00°56'45" East along the East line of said Section 23 a distance of 2640.45 to the ;
 21. thence South 89°34'49" West a distance of 2542.76 feet to the South ¹/₄ corner of said Section 23;
 22. thence South 89°32'16" West a distance of 1128.58 feet;
 23. thence North 23°48'54" West a distance of 1525.00 feet;
 24. thence North 23°24'29" West a distance of 875.00 feet;
 25. thence North 23°37'04" West a distance of 1345.77 feet;
 26. thence South 40°32'21" West a distance of 246.75 feet;
 27. thence North 00°35'59" West a distance of 73.89 feet;
 28. thence North 71°23'31" West a distance of 118.02 feet;
 29. thence in a northerly direction with a non-tangent curve turning to the left with a radius of 2540.00 feet, having a chord bearing of North 13°20'05" East and a chord distance of 462.81, having a central angle of 10°27'16" and an arc length of 463.46;
 30. thence North 00°35'59" West a distance of 1479.04 feet;
 31. thence North 00°52'14" West a distance of 5273.59 feet; to the point of beginning.

Containing 2667.835 acres, more or less..

EXHIBIT B

MAP OF THE PROPERTY



Curve Table

Curve #	Length	Radius	Delta	Chord Direction	Chord Length
C1	463.46	2540.00	10.45	N13° 20' 05"E	462.81

Line Table

Line #	Direction	
L1	S89° 53' 53"E	2648.35'
L2	S0° 41' 41"E	987.11'
L3	N89° 43' 47"E	932.73'
L4	N0° 42' 22"W	981.05'
L5	S89° 53' 53"E	1694.42'
L6	N89° 04' 12"E	1706.57'
L7	S0° 55' 48"E	200.00'
L8	N89° 04' 12"E	100.00'
L9	N0° 55' 48"W	200.00'
L10	N89° 04' 12"E	839.33'
L11	N89° 05' 59"E	2630.68'
L12	N88° 53' 52"E	2933.82'
L13	S1° 14' 05"E	2639.82'
L14	S1° 14' 05"E	2641.07'
L15	S88° 53' 27"W	2917.90'
L16	S0° 43' 33"E	5297.55'
L17	S89° 42' 30"W	2656.25'
L18	N0° 48' 17"W	2634.97'
L19	S89° 49' 29"W	2662.82'

L20	S0° 56' 45"E	2640.45'
L21	S89° 34' 49"W	2542.76'
L22	S89° 32' 16"W	1128.58'
L23	N23° 48' 54"W	1525.00'
L24	N23° 24' 29"W	875.00'
L25	N23° 37' 04"W	1345.77'
L26	S40° 32' 21"W	246.75'
L27	N0° 35' 59"W	73.89'
L28	N71° 23' 31"W	118.02'
L30	N0° 35' 59"W	1479.04'
L31	N0° 52' 14"W	5273.59'

SHEET 1 OF 2

EXHIBIT B
PROJECT BOUNDARY
CORDOVA HILLS PROPERTY
PORTIONS OF SECTIONS 13, 14, 22 & 23
T.8N., R.7E. & 18, T.8N., R.8 E., M.D.M.
SACRAMENTO COUNTY CALIFORNIA

MacKay & Somp

ENGINEERS PLANNERS SURVEYORS
1352 Durbin Road, Suite 100, Roseville, CA 95661 (916) 773-1100

DNK	1"= 3000'	10/20/2011	7968.000
DRAWN BY	SCALE	DATE	JOB NO.

EXHIBIT C

MAP OF THE PROJECT AREA

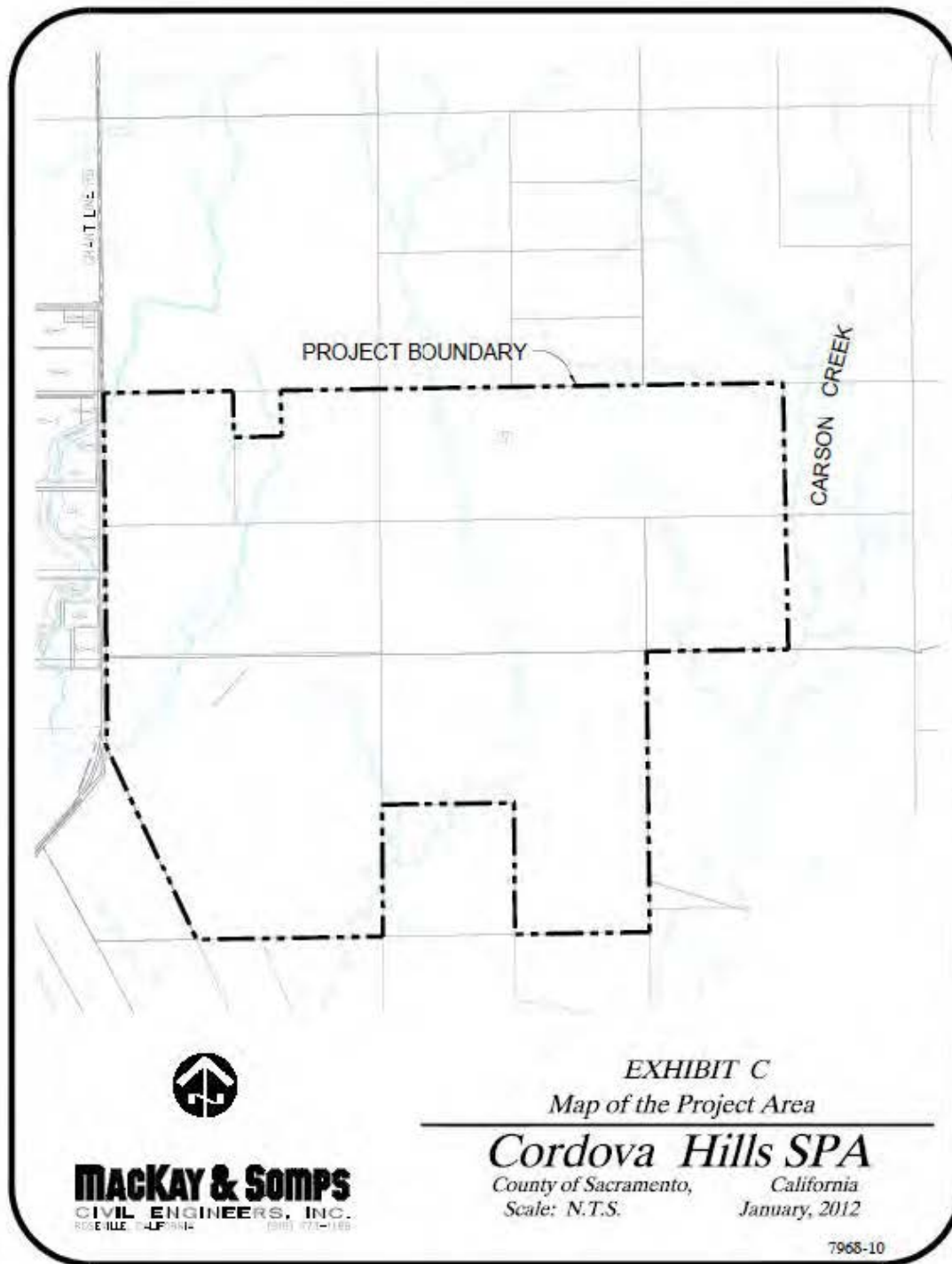


EXHIBIT D-1

DIAGRAM SHOWING AG-80 DEED RESTRICTION AREA

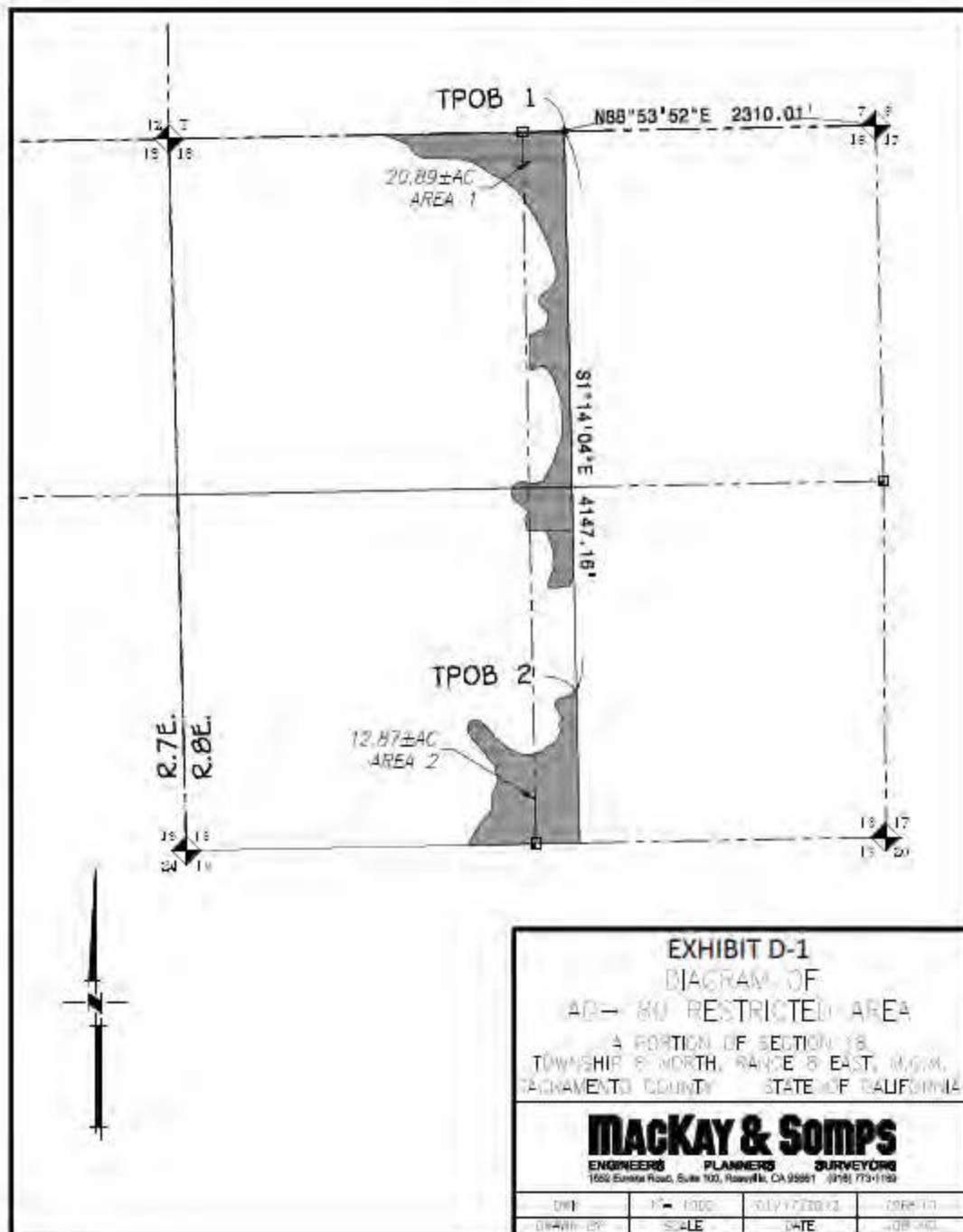


EXHIBIT D-2

FORM OF AG-80 DEED RESTRICTION

RECORDING REQUESTED BY:

MAIL TO;

Attn: _____

DECLARATION OF RESTRICTIONS

This DECLARATION OF RESTRICTIONS (the "Declaration") is made this ____ day of _____, by _____ and _____ (collectively the "Declarants") to restrict the uses that may be made at a portion of the real property within the Cordova Hills Project described in Exhibit One attached hereto and incorporated herein by reference (the "Restricted Property").

1. Purpose. This Declaration is intended to implement the provisions of the Development Agreement by and between the Declarants and the County of Sacramento recorded at Book _____ Page _____ of the Official Records of the Sacramento Recorder on _____ requiring a restrictive covenant on the Restricted Property.

2. Covenant Running with Land. The Declarants do hereby covenant and agree to restrict, and do by this instrument intend to restrict, the future use of the restricted Property as set forth below, by the establishment of this covenant running with the land, which shall also be an equitable servitude for the purpose of regulating the future uses of the Restricted Property.

3. Restrictions Concerning the Restricted Property. No person or entity shall engage in any use of the Restricted Property that is not consistent with the uses allowed

in Sacramento County's "AG-80" zoning designation as specified on Exhibit Two attached hereto and hereby incorporated herein by reference.

4. Not An Offer to Dedicate: No Rights of Public Use. The provisions of this Declaration do not constitute an offer for public use. This instrument does not constitute an irrevocable offer to dedicate, and shall not be so construed or interpreted.

5. Successors and Assigns Bound. Declarants hereby agree and acknowledge that the Restricted Property shall be held, sold, conveyed, owned and used subject to the applicable terms, conditions and obligations imposed by this Declaration relating to the use and improvement of the Restricted Property, and matters incidental thereto. Such terms, conditions and obligations are a burden and restriction on the use of the Restricted Property.

6. Equitable Servitude. The provisions of this Declaration shall be enforceable by the County of Sacramento as an equitable servitude and conditions, restrictions and covenants running with the land, and shall be binding on the Declarants and upon each and all of their respective heirs, devisees, successors, transferees, and assigns, beneficiaries and administrators, and upon future owners of the Restricted Property.

7. Severability. The provisions of the Declaration are severable and the invalidation of any of the provisions of this Declaration by a court of competent jurisdiction shall not affect any of the other provisions which shall remain in full force and effect.

8. Enforcement. It is the express intent of the Declarants that the terms and provisions of this Declaration shall be enforceable as an equitable servitude by the County of Sacramento, a political subdivision of the State of California, and its successors and assigns, and Declarants hereby confer and assign the right to enforce the terms and provisions of this Declaration to it.

9. Amendment/Termination. This Declaration may not be amended, modified, rescinded, or terminated without the prior written consent of the County of Sacramento.

IN WITNESS WHEREOF, the Declarants have executed this Declaration as set forth below.

By: _____
Name: _____
Title: _____

By: _____
Name: _____
Title: _____

EXHIBIT E-1

FORM OF TRAIL EASEMENT

RECORDING REQUESTED BY:

AND WHEN RECORDED RETURN TO:

Attn: _____

**GRANT OF
PUBLIC RECREATIONAL TRAIL EASEMENT**

CORDOVA HILLS, LLC, a California limited liability company, and CONWY, LLC, a California limited liability company (collectively the “GRANTORS”), hereby grant a PUBLIC RECREATIONAL TRAIL EASEMENT (the “EASEMENT”) this _____ day of _____, to the COUNTY OF SACRAMENTO, a political subdivision of the State of California (the “GRANTEE”) upon the following terms and conditions:

TERMS AND CONDITIONS

In consideration of the mutual covenants, terms and conditions contained herein, GRANTORS hereby voluntarily grant and convey to GRANTEE a public recreational trail easement of the nature and character and to the extent hereinafter set forth below across that certain real property in the unincorporated area of Sacramento County as more particularly described in Exhibit One attached hereto and incorporated herein by reference (the “EASEMENT AREA”).

1. PURPOSE

It is the purpose of this EASEMENT to assure that the EASEMENT AREA will be utilized solely by GRANTEE and its successors, transferees and assigns as a public recreational trail. GRANTORS intend that this EASEMENT will assure that the EASEMENT AREA will be used for such activities as are consistent with the provisions of this EASEMENT.

2. RIGHTS OF GRANTEE

To accomplish the purpose of this EASEMENT, the following rights are conveyed to GRANTEE by this EASEMENT:

(a) To construct, install, maintain, repair and replace a public recreational trail and related facilities in the EASEMENT AREA, including, but not limited to: a gravel, decomposed granite or paved trail surface; restrooms; drinking fountains; benches; picnic tables; fences; gates; and refuse disposal containers, to serve users of the EASEMENT AREA.

(b) To enter upon and traverse all portions of the EASEMENT AREA;
and

(c) To prevent any activity on or use of the EASEMENT AREA that is inconsistent with the provisions of this EASEMENT.

3. PROHIBITED USES

Subject to the provisions of Paragraph 4 herein, any activity on or use of the EASEMENT AREA inconsistent with the provisions of this EASEMENT is prohibited. Without limiting the generality of the foregoing, GRANTEE and its successors, transferees and assigns, shall not use the EASEMENT AREA, and shall be responsible for prohibiting all users of the public recreational trail from using the EASEMENT AREA, for any of the following activities:

(a) Camping;

(b) Hunting;

(c) Depositing any trash, ashes, garbage, waste and/or abandoned vehicles, at or in the EASEMENT AREA;

(d) Excavating, dredging or removing loam, gravel, soil, rock, or sand materials from the EASEMENT AREA, except in connection with the GRANTEE'S installation of the public recreational trail and related facilities;

(e) Removing, destroying, or cutting of trees, shrubs, or other vegetation, except as required for fire protection activities, and as required for the GRANTEE'S installation, repair and maintenance of trails, bridges, flood control activities, and performance of fire prevention activities in the EASEMENT AREA.

(f) Performing any surface and subsurface exploration and/or extraction of sand, gravel, rock and similar mineral resources at the EASEMENT AREA; provided, however, that GRANTORS, their successors, transferees and assigns shall retain all ownership rights in and to the sand, gravel, rock and mineral resources at the EASEMENT AREA. GRANTEE shall have no rights to explore or extract sand, gravel, rock and mineral resources at the EASEMENT AREA or to grant others a right of entry, license, easement, lease or other type of authorization to do so.

4. RESERVED RIGHTS

Notwithstanding anything to the contrary that may be contained elsewhere in this EASEMENT, GRANTORS reserve to themselves, and to their personal representatives, heirs, successors, assigns, agents and present and potential future lessees, all rights accruing from GRANTORS' ownership of the land underlying the EASEMENT

AREA, including, but not limited to the rights to: utilize the EASEMENT AREA for purposes of pedestrian, vehicle, equipment and livestock ingress and egress to adjoining properties; install maintain, repair and replace bridges across the creek at the EASEMENT AREA for the passage of pedestrians, vehicles, equipment and livestock; install, repair maintain and replace drainage structures and water outfall structures at the creek that runs through the EASEMENT AREA; enter upon the EASEMENT AREA in order to perform excavation and installation, repair and replacement of such facilities as may be needed to implement the drainage plan approved by the County of Sacramento for the adjacent Cordova Hills Project; and engage in or permit or invite others to engage in all other uses of the EASEMENT AREA that are not expressly prohibited in this EASEMENT.

5. INDEMNIFICATION

GRANTEE and its successors, transferees and assigns shall hold harmless, indemnify, and defend the GRANTORS and their respective officers, directors, members, partners, shareholders, employees, and agents (collectively "Indemnified Parties") from and against all liabilities, penalties, costs, losses, damages, expense, causes of action, claims, demands, or judgments, including without limitation, reasonable attorneys' fees, arising from or in any way connected with an injury to or the death of any person, or physical damages to any property, resulting from any act, omission, condition or other matter occurring at the EASEMENT AREA, unless caused by the acts or omissions of the Indemnified Parties.

6. ASSIGNMENT OR TRANSFER BY GRANTEE

This EASEMENT is transferable, but GRANTEE shall give GRANTORS at least thirty (30) days prior written notice of the transfer. GRANTEE may assign or transfer its rights and obligations under this EASEMENT only to another governmental entity. As a condition of the effectiveness of any such assignment or transfer, notice of such assignment or transfer shall be recorded in the Official Records of the Sacramento County Recorder by the assignee or transferee at its own cost and expense.

7. NOTICES

Any notice, demand, request, consent, approval, or communication that the parties desire or is required to give to the other shall be in writing and either served personally or sent by first class mail, postage prepaid, addressed as follows:

To Grantors: Cordova Hills Ownership Group
5241 Arnold Avenue
McClellan, California 95652
Attn: Mr. Ron Alvarado

With a copy to: Law Offices of Gregory D. Thatch
1730 "I" Street, Suite 220
Sacramento, CA 95811

To Grantee: County of Sacramento
Planning and Community Development Dept.
827 7th Street, Rom 230
Sacramento, California 95814
Attn: Planning Director

or to such other address or the attention of such other person from time to time as a party may designate by written notice to the other.

8. RECORDATION

GRANTEE shall promptly accept and then record this instrument in the Official Records of the Sacramento County Recorder.

9. GENERAL PROVISIONS

(a) Controlling Law. The interpretation and performance of this EASEMENT shall be governed by the laws of the State of California.

(b) Construction. Any general rule of construction to the contrary notwithstanding, this EASEMENT shall be construed in favor of the grant to effectuate the purposes of this EASEMENT. If any provision in this instrument is found to be ambiguous, an interpretation consistent with the purposes of this EASEMENT that would render the provision valid shall be favored over any interpretation that would render it invalid.

(c) Severability. If any provision of this EASEMENT, or the application thereof to any person or circumstances, is found to be invalid, the remainder of the provisions of this EASEMENT, or the application of such provision to persons or circumstances other than those as to which it is found to be invalid, as the case may be, shall not be affected thereby.

(d) Entire Agreement. This instrument sets forth the entire agreement of the parties with respect to the EASEMENT and all exhibits and supersedes all prior discussions, negotiations, understandings, or agreements relating to the EASEMENT.

(e) No Forfeiture. Nothing contained herein will result in a forfeiture of GRANTORS' title in any respect.

(f) Successors. The covenants, terms, conditions, and restrictions of this EASEMENT shall be binding upon, and inure to the benefit of, the parties hereto and their respective personal representatives, heirs, successors, transferees and assigns.

(g) Captions. The captions in this EASEMENT have been inserted solely for convenience of reference and are not a part of this EASEMENT and shall have no effect upon its construction or interpretation.

(h) Counterparts. The parties may execute this EASEMENT in two or more counterparts, which shall, in the aggregate, be signed by all parties; each counterpart shall be deemed an original instrument as against any party who has signed it. In the event of any disparity between the counterparts produced, the recorded counterpart shall be controlling.

(i) Permits or Approvals. It is acknowledged by GRANTEE that only the dedication of this EASEMENT for the public recreational trail is being offered by GRANTORS pursuant to this instrument, and that in the event any permits or approvals are needed under the Federal Clean Water Act, State and federal Endangered Species Acts, or other laws and regulations of any government agency for GRANTEE to construct, repair, install and maintain a public recreational trail in the EASEMENT AREA, then GRANTEE will be responsible, at its sole cost and expense, for obtaining and complying with the terms and conditions of any and all necessary permits or approvals and then building, installing, maintaining and repairing the public recreational trail and related facilities at GRANTEE'S sole cost and expense.

IN WITNESS WHEREOF, GRANTORS and GRANTEE have entered into this EASEMENT the day and year first above written.

GRANTORS:

CORDOVA HILLS, LLC,
A California limited liability company

By: _____

Charles Somers

Its: Manager

CONWY, LLC,
a California limited liability company

By: _____

Charles Somers

Its: Manager

GRANTEE:

COUNTY OF SACRAMENTO
A political subdivision of the State of California

By: _____

Name: _____

Title: Chair, Board of Supervisors

ATTEST:

By: _____
Cyndi Lee, Clerk
Board of Supervisors

Approved as to Form:

By: _____

Name: _____

Title: Deputy County Counsel

EXHIBIT E-2

DIAGRAM SHOWING TRAIL
CORRIDOR PARCEL

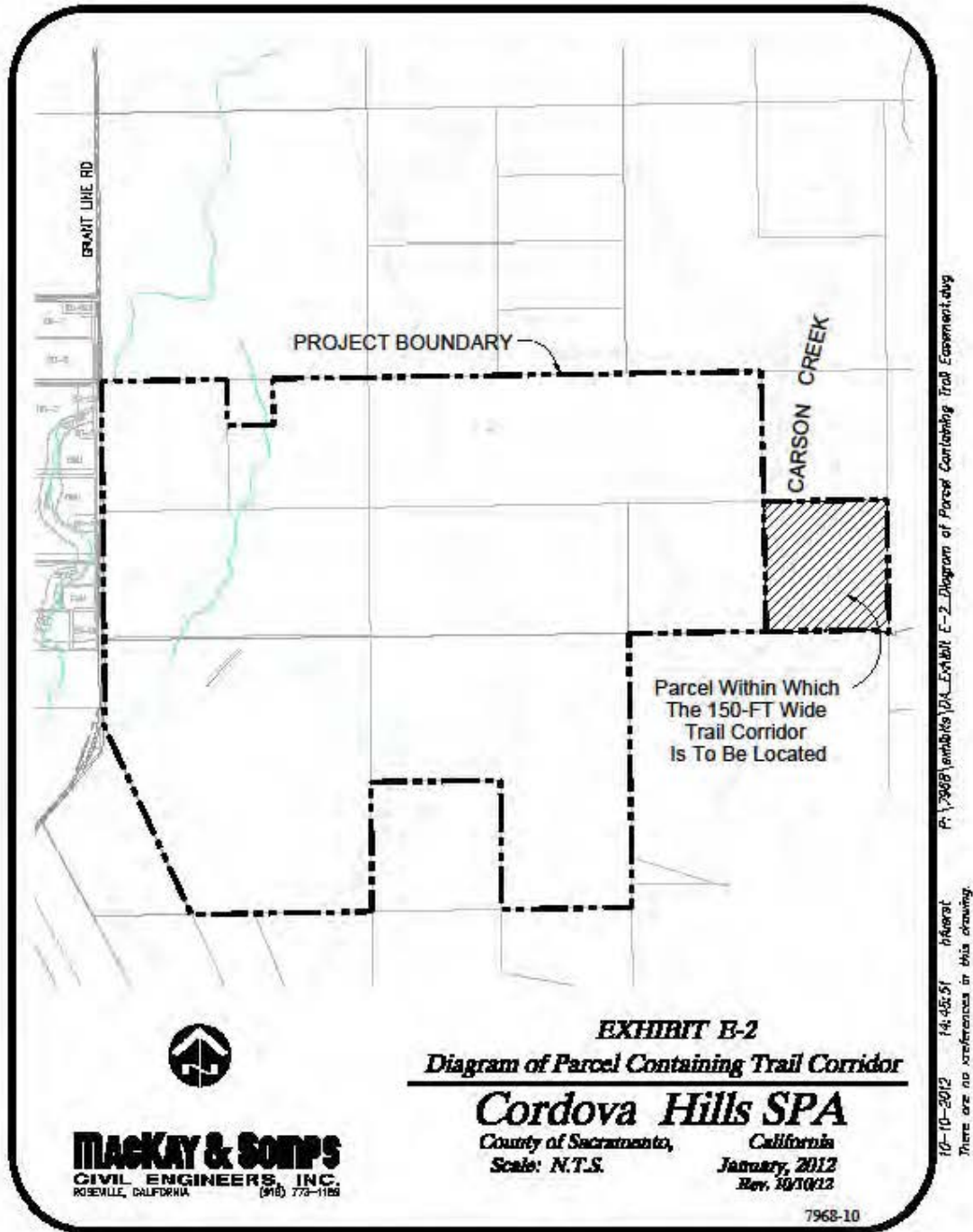


EXHIBIT F
DIAGRAM OF PROJECT'S PARK SITES

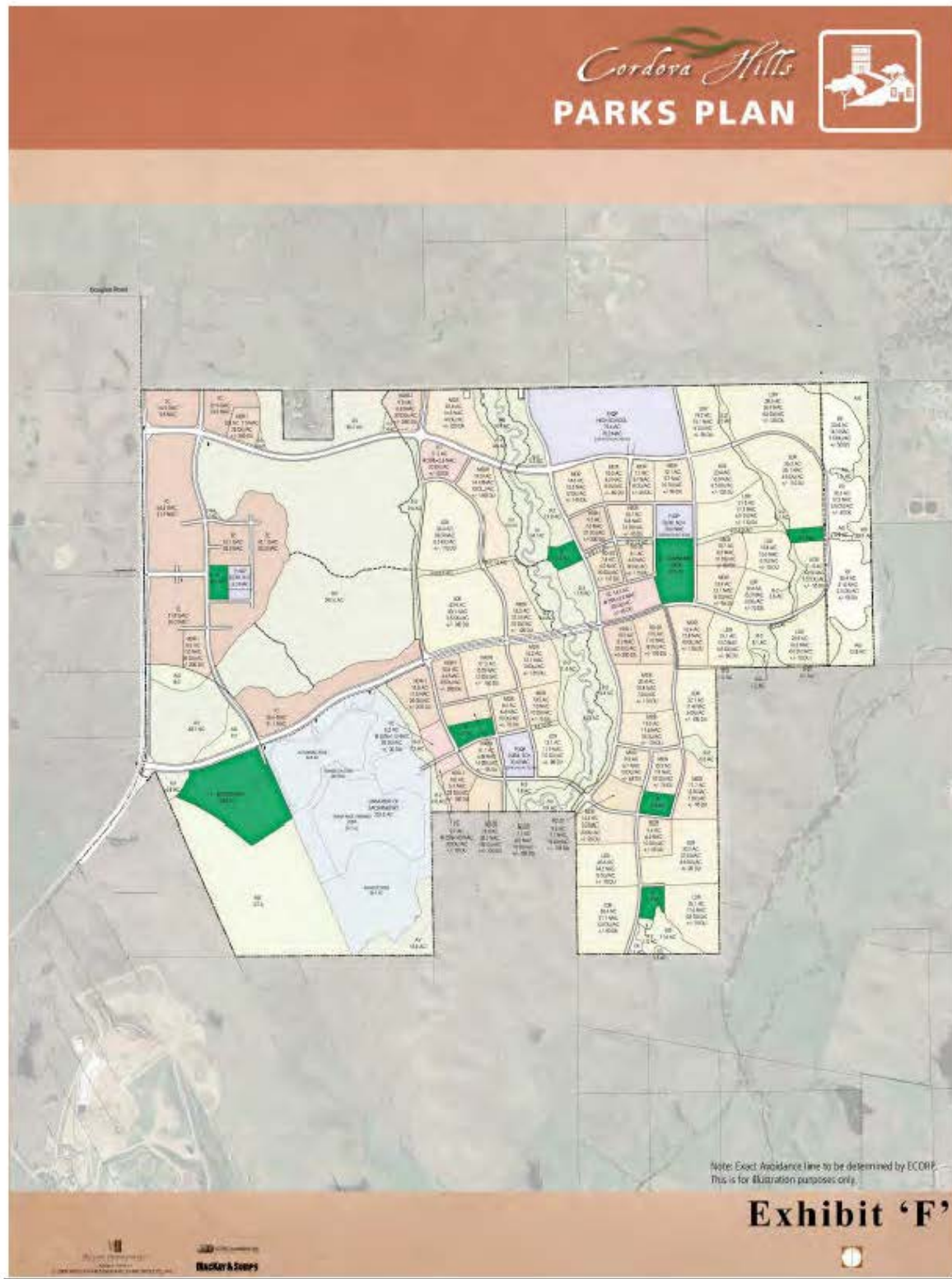


EXHIBIT G

FORM OF KIEFER LANDFILL NOTICE

DISCLOSURE OF KIEFER LANDFILL OPERATIONS AND ACTIVITIES

This DISCLOSURE OF KIEFER LANDFILL OPERATIONS AND ACTIVITIES (the “Notice”) is made this ____ day of _____ by CORDOVA HILLS, LLC, a California limited liability company, and CONWY, LLC, a California limited liability company (collectively the “Declarants”) to inform the future owners, tenants, occupants and users of any portion of the real property within the Cordova Hills Project described in Exhibit One attached hereto and incorporated herein by reference (the “Property”) of the presence and operation of the Kiefer Landfill by the County of Sacramento.

1. Disclosure. Declarants hereby give notice of and discloses the following (the “Disclosure”): the Kiefer Landfill operations described below are occurring, will continue and could be expanded, and may be carried out on any of the land generally bordering the Property to the south and to the southwest in order to dispose of solid waste, produce energy from landfill gases, compost green waste and food waste, and recycle numerous types of materials at the Kiefer Landfill. Declarants have been informed by the County of Sacramento that the Landfill Operations generally consist of (i) the activities described in the remainder of this Section 1 and (ii) other activities and uses that may be necessary for present and future development and operation of the Kiefer Landfill that may differ from the descriptions below due to technological, legal or other changes that may occur after the date first set forth above (collectively the “Landfill Operations”).

A. Kiefer Landfill. The Kiefer Landfill property is approximately 1,084 acres in size and located at the northeast corner of the intersection of Kiefer Boulevard and Grant Line Road. Declarants are informed that the Kiefer Landfill currently has State of California permits that allow a solid waste landfill of 660 acres in size. It also contains the existing Kiefer Landfill Gas-to-Energy Plant and is the site of the proposed Sacramento GreenCycle facility that will compost residential green waste (garden refuse) and food waste. There is a 2,000 foot wide buffer area surrounding the Kiefer Landfill.

B. Landfill Activities. Kiefer Landfill is the primary municipal solid waste disposal facility in Sacramento County. Operation of the Kiefer Landfill involves

the disposal of solid waste generated by the general public, businesses, and private waste haulers. Physical activities at the Landfill Operations involve the clearing of vegetation, excavation, filling and grading in order to bury solid waste in mounds. It includes the operation, repair and maintenance of heavy earth moving equipment such as bulldozers, front-end loaders, grader/scrapers, rollers, water trucks, garbage trucks and pneumatic tools. Landfill Operations involve activities and equipment that will typically produce, but will not in all instances be limited to: dust, vibrations, odors, noise, light, views that some may consider unaesthetic, and the ingress and egress of people, construction vehicles, garbage trucks, passenger vehicles, pickup trucks, and other vehicles at the Kiefer Landfill property.

C. Solid Waste Disposal. The Kiefer Landfill accepts and disposes of solid waste generated by the general public, businesses, and private waste haulers. That solid waste typically consists of, but is not limited to: appliances (refrigerators, freezers, air conditioners, dryers, and washing machines); car, truck and tractor tires; electronic waste (such as televisions, computers, monitors, fax machines); scrap metal; wood and yard waste (wood, brush and tree trimmings); construction and demolition debris (including, but not limited to, asphalt, brick, clay tiles, concrete tiles, concrete products, rocks, gravel, asphalt and concrete grindings; special handling materials (including, but not limited to, animal parts/carcasses, grit and screening material, pesticide containers, non-friable asbestos, dated and/or contaminated food products, law enforcement evidence, saw dust, large rocks, concrete and asphalt chunks in excess of 3 feet in diameter, large tree trunks and stumps, mobile homes, baled material, wood crates, wire rope spools, metal railings, tanks, metal crates, large/commercial refrigeration units, air conditioners and storage units, commercial loads containing 50% car seats or furniture, automobile frames/parts, boats, trailers, campers and camper shells, treated wood waste, non-whole mattress parts), antifreeze, vehicle batteries, latex paint, fluorescent tubes, home generated needles and syringes, household batteries, transmission fluid, used motor oil and filters, and cooking oil.

D. Odors. The Kiefer Landfill also produces odors of such a duration and intensity as are normally produced by Landfill Operations conducted per industry custom and consistent with local, regional, state and federal laws and regulations, if any, which regulate odors produced by Landfill Operations. The proposed GreenCycle facility will involve the biologic decomposition of organic matter. The byproducts of that biologic decomposition are heat, carbon dioxide, water vapor and odorous compounds, including methane gas, carbon dioxide, and sulfur compounds. Many persons find such odors objectionable, annoying and unpleasant. Prevailing winds blow from the Kiefer Landfill toward the Property approximately half the time. Consequently, such odors may be noticeable at the Property.

E. View Impacts. View impacts will occur of a duration and intensity as are associated with and that result from the placement and use of heavy construction equipment for Landfill Operations conducted per industry custom and consistent with local, regional, state and federal laws and regulations, if any, which

govern the placement and use of such heavy construction equipment. View impacts will also result from the mounds that are created by the disposal of solid waste materials at the Kiefer Landfill that could break up the natural views from some areas at the Property. Consequently, such view impacts may be noticeable at the Property.

F. Birds, Animals and Insects. Landfill Operations at the Kiefer Landfill also tend to attract birds (such as seagulls and other avian species), animals (such as rodents and other animal species) and insects (such as flies, cockroaches and other insect species) that are drawn to the Kiefer Landfill in search of feeding opportunities, and whose persistent presence, noise and reproductive activities are found to be disagreeable and annoying to humans. The presence, noise and reproductive activities of such birds, animals and insects may be noticeable at the Property.

G. Landfill Gas-to-Energy Plant. The Kiefer Landfill also includes the operation of a landfill gas-to-energy plant that uses the landfill gases created from the decomposition of the waste at the landfill as a source of fuel for internal combustion engines that power electrical generators. The landfill gas is composed of approximately 50% methane and 40% carbon dioxide, with traces of other gases.

H. Light and Glare Impacts. Nighttime light and glare impacts occur from the Landfill Operations during nighttime hours. These impacts are of a duration and intensity as are associated with and that result from the placement and use of heavy construction equipment for Landfill Operations conducted per industry custom and consistent with local, regional, state and federal laws and regulations, if any, which govern the placement and use of such heavy construction equipment; the operation of garbage trucks that deliver waste materials to the Kiefer Landfill for disposal; the operation of nighttime security lighting at the Kiefer Landfill; the performance of repairs on heavy construction equipment and trucks that may involve the use of pneumatic tools; and the use of nighttime work lighting when Landfill Operations are conducted during nighttime hours.

2. Future Owners/Residents/Occupants. Declarants intend that this Disclosure document will inform all future owners, residents, tenants and occupants of any part of the Property, including but not limited to homeowners associations, such that they will have notice of the present and future Landfill Operations and the potential impacts from such Landfill Operations, and will be prevented from stating or claiming at any point that they were uninformed or unaware of the potential for the Landfill Operations impacts to occur.

3. Reliability of Information. The information contained in this Disclosure was compiled from a number of sources, including government agencies and other parties. While an attempt has been made to obtain the most recent and accurate information possible as of the date of this Disclosure, the Declarants cannot be responsible for the accuracy of information provided by third parties or government agencies.

EXHIBIT H

FORM OF AVIGATION EASEMENT FOR MATHER AIRPORT

RECORDING REQUESTED BY:

County of Sacramento

WHEN RECORDED MAIL TO:

Real Estate Division

County of Sacramento

10545 Armstrong Ave., Suite 202D

Mather, California 95655

MAIL CODE: 55-202D

NO FEE DOCUMENT

Per Govt. Code 6103

GRANT OF AVIGATION AND NOISE EASEMENT

This GRANT OF AVIGATION AND NOISE EASEMENT is made on _____, 2012 by and between CORDOVA HILLS, LLC, a California limited liability company and CONWY, LLC, a California limited liability company (collectively the “Grantors”) and the COUNTY OF SACRAMENTO (the “Grantee”), a Political Subdivision of the State of California, acting by and through its Board of Supervisors with reference to the following facts:

A. Grantor owns the legal and equitable interests in certain real property in Sacramento County, California (“Grantors’ Property”). The legal description for Grantors’ Property is attached hereto as Exhibit “A.” Grantors’ Property includes the air space above it.

B. The County of Sacramento owns and operates the Mather Airport in Sacramento County, California (the “Airport”). The description for the Airport is attached as Exhibit “B.”

C. The Airport is a passenger, cargo and general aviation airport for the region and also has other aviation related activity. Grantors and Grantee recognize and agree that the Airport will grow and traffic will increase over time.

D. Grantors have agreed to give the County of Sacramento the easement and right of way described below.

NOW, THEREFORE, the parties agree as follows:

Section 1. Grant of Easement

A. For a valuable consideration, Grantors grant to the County of Sacramento a perpetual, nonexclusive, assignable avigation and noise easement (the "Easement") in and over Grantors' Property for noise and other negative impacts resulting from aircraft flying to and from, and other operations at the Airport ("Airport Operations") and a right of way for the free and unrestricted passage of aircraft of any and all kinds now or hereafter known in, through, across and about the airspace above the surface of said Grantors' Property in compliance with state and federal laws and statutes, including, but not limited to, the rules and regulations of the Federal Aviation Administration and all other state and federal agencies controlling and regulating the flight of aircraft. This Easement specifically permits the imposition of light, smoke, air currents, electronic or other emissions, vibrations, discomfort, inconvenience, and interference with use and enjoyment resulting from Airport Operations producing noise. This Easement is fully effective as of the date set forth above.

B. Such Easement and right of way includes, but is not limited to:

1. The Easement and right of way is for the use and benefit of the public and includes the continuing right to fly, or cause or permit the flight by any and all persons, of aircraft, of any and all kinds now or hereafter known, in, through, across or about any portion of the airspace above Grantors' Property in compliance with state and federal laws and statutes, including, but not limited to, the rules and regulations of the Federal Aviation Administration and all other state and federal agencies controlling and regulating the flight of aircraft.

C. Grantors, on behalf of themselves, their respective successors, transferees and assigns, hereby covenant with the County of Sacramento and for the direct benefit of the real property constituting Mather Airport described in Exhibit "B" as follows:

1. That Grantors, their respective successors, transferees and assigns will not construct, install, permit or allow any building, structure, improvement, tree, or other object on the Grantors' Property described herein, to extend into or above the airspace in violation of any rules, regulations or height restrictions of the Federal Aviation Administration and all other state and federal agencies controlling and regulating the flight of aircraft, or to constitute an obstruction to air navigation, or to obstruct or interfere with the use of the Easement and right of way herein granted; and

2. That Grantors, their respective successors, transferees and assigns, will not hereafter use or permit the use of said Grantors' Property in such a manner as to create electrical, electronic or other airwave interference with radio, radar or

other communications operation between a Federal Aviation Administration control tower upon Mather Airport and any aircraft.

D. The Easement and right of way granted herein shall be deemed both appurtenant to and for the direct benefit of that real property which constitutes the Mather Airport as described in Exhibit "B," and shall further be deemed in gross, being conveyed to the Grantee for the benefit of the Grantee and any and all members of the general public who may use said Easement or right of way or derive benefit from the taking off from, landing upon or operating such aircraft in or about the said Mather Airport, or in otherwise flying through said airspace over Grantors' Property.

E. Notwithstanding anything to the contrary contained elsewhere in this Easement and right of way and the Release contained below in Section 2, this Easement and the Release shall not operate to deprive the Grantors, their respective successors, transferees or assigns, of any rights which they may from time to time have against the County of Sacramento and any air carrier or private operator for negligent or unlawful operation of aircraft and the Grantors and their respective successors, transferees and assigns retain all rights to assert, make claims and receive compensation for losses, liabilities and expenses arising as a result of the negligent or unlawful operation of aircraft against the County of Sacramento, any air carrier, or any private operator for the negligent or unlawful operation of aircraft.

F. These covenants and agreements run with the land and are binding upon the heirs, administrators, executors, successors, transferees and assigns of the Grantors, and for the purpose of this instrument, the Grantor's Property as described in Exhibit "A" is the servient tenement and said Mather Airport is the dominant tenement.

Section 2. Release

Grantors release the County of Sacramento and aircraft operators using the Airport from any claims, losses, liabilities or expenses (collectively "Losses") arising from the impositions permitted by this Easement, as well as from noise and other negative impacts resulting from Airport Operations prior to the date of this Easement. This Release covers all past, present and future Losses, whether known or unknown. This Release includes damages for physical or emotional injuries, nuisance or any taking of Grantor's Property. Grantors specifically waive application of California Civil Code, Section 1542, which provides as follows:

"A general release does not extend to claims which the creditor does not know or suspect to exist in his favor at the time of executing the release, which if known by him must have materially affected his settlement with the debtor."

Grantors shall not sue for damages in connection with Losses released by this Easement, nor seek to enjoin the impositions permitted by this Easement. The County of Sacramento will not have to set aside buffer lands, re-route air traffic, erect sound or

other barriers, establish curfews, relocate Airport Operations or take other measures to eliminate or lessen the impositions permitted by this Easement.

Section 3. Continuous Benefits and Burdens

This Easement burdens the Grantors' Property for the benefit of the Airport. It runs with the land under California Civil Code Section 1468. The benefits and burdens created by this instrument apply to and bind the parties' successors, heirs and assigns.

Grantors agree that in any marketing material regarding transfers, in whole or in part, of the Grantors' Property, this Easement and the terms thereof, shall be disclosed. In addition, Grantors agree that they will inform all interested parties including, but not limited to, those holding liens or encumbrances on all or a portion of the Property, about this Easement and shall provide a copy of this Easement if they so request.

Section 4. Recordation

The County of Sacramento shall record this document in the Official Records of Sacramento County.

Section 5. Counterparts

This Grant of Easement may be executed in multiple counterparts, each of which shall be deemed an original, but all of which, together, shall constitute one and the same instrument.

GRANTORS:

CORDOVA HILLS, LLC,
A California limited liability company

By: _____

Name: _____

Its: _____

CONWY LLC,
A California limited liability company

By: _____

Name: _____

Its: _____

EXHIBIT I

MUNICIPAL PUBLIC SERVICES **TO BE PROVIDED BY THE** **CORDOVA HILLS COUNTY SERVICE AREA**

Outlined below is the conceptual plan agreed upon by County and Property Owners for the provision of municipal public services to the Project Area by Sacramento County and the proposed Cordova Hills County Service Area (“CHCSA”) that will be formed following County’s approval of the Cordova Hills Project.

TYPES OF MUNICIPAL SERVICES

1. Governing Board:

County: Supervisors oversee contracts with CHCSA for municipal services provided by County departments. Supervisors continue responsibility for countywide services.

CHCSA: A county service area will be created, with the County Board of Supervisors as the governing body of the county service area and will be responsible for setting CHCSA policies and for management of the services to be provided by the county service area.

2. Administration, legal, personnel and finance services and other overhead:

County: Administration, legal, personnel and finance services and other overhead costs will be provided by County staff.

CHCSA: When a county service area is created, all services would be provided by the County through the county service area, with use of third party service providers as allowed by applicable law and as determined by the County Board of Supervisors.

3. Public Protection:

Law Enforcement.

County: County Sheriff provides municipal level of service.

CHCSA: No responsibilities.

Traffic Control/Accident Investigation.

County: California Highway Patrol

CHCSA: The CHCSA recommends traffic regulations for community roadways and regional roadways within the Project area for adoption by the County (subject to State law).

Fire Protection.

County: No responsibilities.

CHCSA: No responsibilities.

Sacramento Metropolitan Fire District: Project area is within the Fire District. Fire District will continue to provide fire protection services in the Project area.

Ambulance.

County: No responsibilities.

CHCSA: No responsibilities.

Sacramento Metropolitan Fire District: Project area is within the Fire District that will continue to provide ambulance services.

Animal Control.

County: County will provide animal control services.

CHCSA: No responsibilities.

Vector Control and Mosquito Abatement.

County: No responsibilities.

CHCSA: No responsibilities.

4. Land Use and Planning:

Regulation & Planning; Plan Check, Building Inspection and Code Enforcement.

County: County continues to provide land use planning, plan check, building inspection and code enforcement.

CHCSA: No responsibilities.

5. Community Services:

Recreation Programs.

County: No responsibilities.

CHCSA: The CHCSA is responsible for recreation programming and operation using County staff, except to the extent applicable law may allow use of third party contractors and as determined appropriate by the County Board of Supervisors.

Parks.

County: No responsibilities.

CHCSA: The CHCSA would be responsible for construction, repair, replacement and maintenance of all parks, consisting of the sports park, community park, and neighborhood parks.

Open Space and Trails.

County: No responsibilities.

CHCSA: The CHCSA would be responsible for construction, repair, replacement and maintenance of all open space and trail systems in the Project area.

Habitat and Wetland Preserves.

County: No responsibilities.

CHCSA: The CHCSA would be responsible for construction, repair, replacement and maintenance of habitat and wetland preserves in the project area. The CHCSA, when allowed by applicable law, may choose to perform the services itself or contract with an approved habitat conservation organization or other approved third party entity to do so.

Library.

County: No responsibilities.

CHCSA: No responsibilities. Might lease 15,000 sq.ft. of space in Project's Town Center for use as a library to SPLA.

Sacramento Public Library Authority: SPLA responsible for providing all library services to Project area.

K thru 12 Schools.

County: No responsibilities.

CHCSA: No responsibilities.

Elk Grove Unified School District: EGUSD will be responsible for all construction, repair, replacement and maintenance of K thru 12 school facilities in the Project area.

6. Public Works/Pubic Utilities:

Administration and Maintenance of Roads, Bridges, Signals, Drainage, Landscaping, and Other Infrastructure.

Street and Landscape Maintenance	Responsibility
Landscape corridor lot - without wall	CHCSA
Landscape corridor lot - with wall	CHCSA
ROW to back of walk - Commercial frontage	Privately Maintained
ROW to back of walk - Densities MDR and above (apts., condos, HOA)	Privately Maintained
ROW to back of walk - LDR (single family frontage backbone and in tract)*	CHCSA for Sidewalks (both attached and detached) and Privately maintained landscaped planter strip (if it occurs next to detached sidewalk).
ROW to back of walk - School or park frontage	Privately Maintained
Row to back of walk - R-2 open space frontage	CHCSA
Medians - both wide and narrow	CHCSA for all a landscaping/LID areas and Sacramento County DOT for paved concrete areas.

Supplemental streetscape maintenance	CHCSA will provide supplemental street sweeping and litter control within and along streetscapes.
Maintain gateways, decorative water features, and other landscaping areas outside of public ROW	CHCSA
Vandalism and Graffiti abatement	County for within public ROW. CHCSA will provide vandalism and graffiti abatement in all other public areas.

Corporation Yard.

County: No responsibilities.

CHCSA: CHCSA will be responsible for construction, repair, replacement and maintenance of the corporation yard facilities in the Project area.

Street Lighting.

County: CSA-1 will provide maintenance service to all safety lights and streets lights located along all streets and intersections that are part of the public ROW. Park and Ride lots are also maintained by CSA-1.

CHCSA: CHCSA may provide lighting service in all other areas or pay a supplemental fee for CSA-1 to maintain the safety lights located along paths and paseos that are not adjacent to streets or intersections and are outside of the public ROW. The service charge for parcels that benefit from both street lights and safety lights are apportioned to each benefiting parcel within a zone in proportion to the benefits received. Benefiting parcels are classified as residential or non-residential parcels with separate charges for each. The service charge for residential parcels is a flat rate per parcel per year. The service charge for non-residential parcels is calculated by multiplying the applicable front foot charge by the length of the parcel's public street frontage. Service charges for parcels that benefit only from safety lights are apportioned to all benefiting parcels within a zone in proportion to the benefits received. The service charge per parcel is a flat rate per year, regardless of whether the parcel is residential or non-residential.

Domestic Potable Water.

County: No responsibilities.

CHCSA: No responsibilities.

Sacramento County Water Agency: Provides by way of SCWA's Zone 40 and Zone 41 potable water supply program. SCWA Zone 13 will carry out long-range region-wide water resources, water supply management and water conservation planning activities.

Wastewater Collection/Treatment/Disposal.

County: No responsibilities.

CHCSA: No responsibilities.

Sacramento Area Sewer District: Provides Project area's wastewater collection and conveyance to the SCRSD facilities

Sacramento County Regional Sewer District: Provides regional collector system, wastewater treatment and disposal.

Solid Waste Collection and Disposal.

County: County may or may not provide solid waste collection and disposal.

CHCSA: The CHCSA will contract with the County or with a third party entity for solid waste collection and disposal services.

Flood Control and Conveyance/ Drainage.

County: Project Area will be annexed into the Sacramento County Storm Water Utility (SWU) and receive County SWU services subject to existing County SWU program standards. Project will participate in any County Storm Water CFD required to fund maintenance of expanded stormwater/stormwater quality/hydromodification basins and facilities required as a result of State or Federal mandates and which are not included in the existing County SWU program.

SCWA: SCWA Zone 13 will provide long-range, regional planning/engineering studies for hydrology, drainage and flood control.

CHCSA: The CHCSA will maintain Low Impact Development (LID) swales in medians, shoulders, and other public areas.

Transit:

County: No responsibilities.

CHCSA: The CHCSA, in conjunction with the Cordova Hills Transportation Management Association, would be responsible to provide the Project area with internal and external transit service to connect the Project area to Sacramento Regional Transit District's light rail line station at Mather Field Road. The CHCSA would be responsible for construction, repair, replacement and maintenance of 20 bus stop shelters in the Project area and one transit center in the Project area.

Sacramento Regional Transit District: No responsibility.

EXHIBIT J

DEVELOPMENT IMPACT FEES, EXACTIONS AND DEDICATIONS

A. The Cordova Hills Project shall be subject to the below Cordova Hills Project related districts and programs:

- Cordova Hills Special Plan Area Fee Program.
- Future districts to be established to fund the services identified in the Cordova Hills Urban Services Plan.

B. In addition to the items identified in Section A, the Cordova Hills Project shall only be subject to the below County fee programs and districts to the extent that: i) the fee program or district is in effect at the time of such development approval (e.g., building permit, rezone, tentative map), as specified in each district or program; and ii) the fee program or assessment is applicable to the Cordova Hills Project.

1. The Cordova Hills Project shall be subject to the following County Development Impact fee programs, as they may be adjusted or amended from time to time:

- Sacramento County Transportation Development Fee Program (SCTDF) District 3 Roadway and Transit Fee Program.
- Sacramento Public Library Authority Development Impact Fee Program
- Very Low Income Housing Fee on non-residential properties pursuant to Chapter 16.89 of the Sacramento County Code

2. The Cordova Hills Project shall be subject to the following County special taxes, assessment districts, and utility services or equivalent replacement mechanisms to the satisfaction of the County:

- Sacramento County Police Services CFD No. 2005-1.
- CSA-1 (Safety and Street Lighting).
- Sacramento County Storm Water Utility District.
- CSA-11 (Police Protection and latent Animal Control Services).

3. The Cordova Hills Project shall be subject to the following financing programs or equivalent mechanisms to the satisfaction of the County:

- Any future County-wide Storm Water CFD required to fund maintenance of expanded stormwater/stormwater

quality/hydromodification basins and facilities required as a result of State or Federal mandates and which are not included in the existing County Storm Water Utility program.

- Any future County-wide Roadway Maintenance Financing Mechanism.
- Any future Financing Mechanism adopted by the County on a regional or sub-regional benefit basis related to the Southeast Connector.
- Any future County-wide Regional Park Financing Mechanism.
- Any future County-wide fee programs that are a result of a Federal or State mandate.

EXHIBIT K

TRAIL NETWORK DIAGRAM

Exhibit K

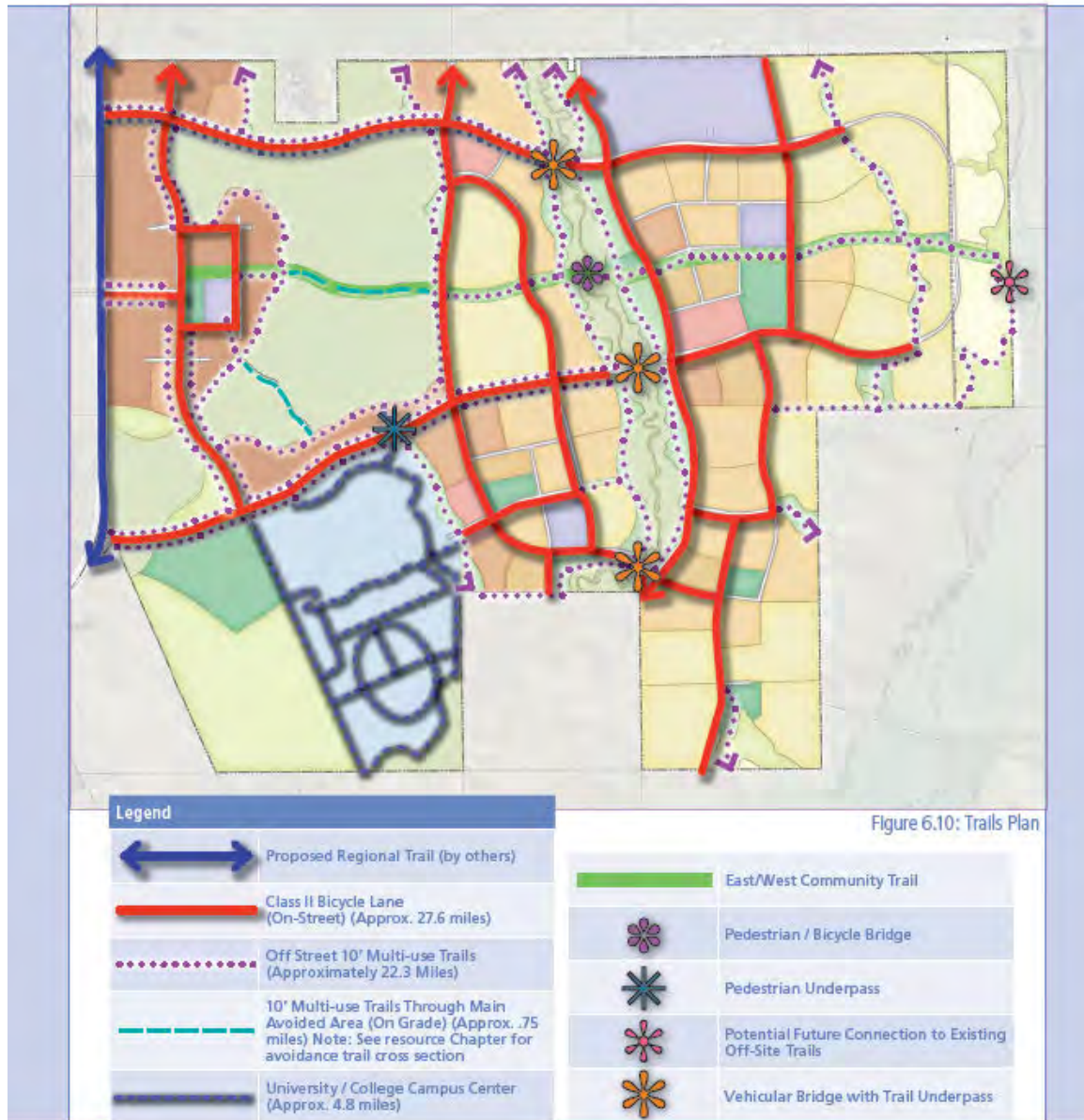


EXHIBIT L

DISCLOSURE CONCERNING THE CAPITAL SOUTHEAST CONNECTOR PROJECT

This DISCLOSURE CONCERNING THE CAPITAL SOUTHEAST CONNECTOR PROJECT (the “Disclosure”) is made this ____ day of _____ by CORDOVA HILLS, LLC, a California limited liability company and CONWY, LLC, a California limited liability company (collectively the “Declarants”) to inform the future owners, tenants, occupants and users of any portion of the real property within the Cordova Hills Project of the future Capital Southeast Connector Project. Declarants hereby give notice of and disclose the following:

1. History. In December 2006, the Cities of Elk Grove, Rancho Cordova, and Folsom, and Sacramento and El Dorado Counties (member agencies), collaborated to form the Capital Southeast Connector Joint Powers Authority (“JPA”) to facilitate the planning, environmental review, engineering design, and development, and construction of the Capital Southeast Connector Project (also known as the Connector, or proposed project). The proposed project is a 35-mile-long multi-modal transportation facility that will link communities in Sacramento and El Dorado Counties, including Elk Grove, Rancho Cordova, Folsom, and El Dorado Hills. The project limits extend from the Interstate 5/Hood Franklin Road interchange in southwest Sacramento County to approximately 35 miles northeastward, terminating at U.S. Highway 50 in the community of El Dorado Hills, near Silva Valley Parkway approximately 3 miles east of the Sacramento County/El Dorado County line.

2. Purpose. The Connector is envisioned to link residential areas and employment centers in the project corridor, serving both local and regional travel needs and substantially reducing the excessive traffic volumes that currently overburden existing two-lane roadways, which were never intended to serve as major commuter routes. When completed, the proposed project would be a road of four to six traffic lanes with limited access points that would accommodate a variety of regional transportation needs. The Connector will provide options for a variety of travel modes throughout the project corridor.

3. Roadway Improvements. The JPA has developed the proposed Connector project to meet the project objectives and address the underlying transportation needs in the region. According to the Environmental Impact Report approved for the Connector project, the Connector includes improvements to the following roadway segments along the 35-mile-long project corridor:

- A four-lane expressway segment from the I-5/Hood Franklin Road interchange east along an extension of Kammerer Road to the existing Kammerer Road/Bruceville Road intersection, with at-grade signalized intersections (spaced

at a minimum of one mile apart) at Franklin Boulevard, Willard Parkway and Bruceville Road. These intersections would be converted to grade-separated interchanges as required by traffic volumes and LOS conditions. An optional alignment for Kammerer Road also has been identified;

- A four-to six-lane thoroughfare segment east of Kammerer Road from its intersection with Bruceville Road and then north on Grant Line Road to its intersection with Bond Road, with at grade signalized intersections spaced 0.5 mile apart where feasible;
- A four- to six-lane expressway segment on Grant Line Road from its intersection with Calvine Road to White Rock Road, and on White Rock Road from Grant Line Road to the Sacramento County/El Dorado County line, with directional grade-separated interchanges at most major cross streets when warranted by LOS conditions;
- A four- lane thoroughfare segment on White Rock Road from the Sacramento County/El Dorado County line to the US 50/Silva Valley Parkway interchange; and
- Non-motorized multi-modal facilities.

Most of the improvements in the Connector project corridor would occur on the centerline of existing roadways, with the following exceptions, where the alignment would venture to either side of the centerline or would be located completely outside the existing road right-of-way:

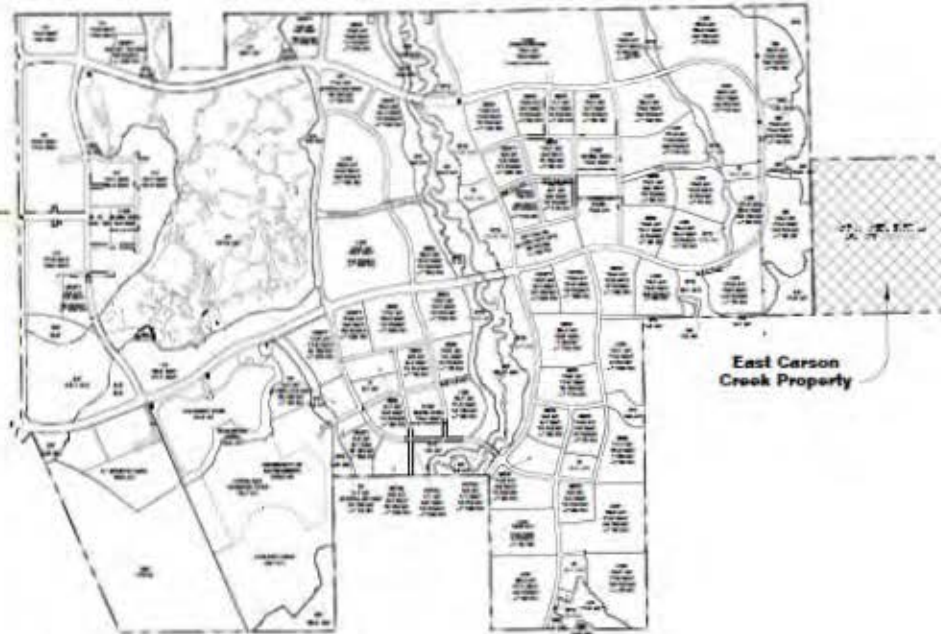
- An approximately 3-mile-long extension of Kammerer Road between Hood Franklin Road and Bruceville Road (3 miles);
- A potential bypass of Kammerer Road east of Bruceville Road (1.5 miles);
- A second potential bypass of Kammerer Road west of Bruceville Road (1.3 miles);
- A potential bypass of Grant Line Road through Sheldon (9.0 miles);
- A second potential bypass of Grant Line Road through Sheldon (8.0 miles);
- A short segment from Silva Valley Parkway to US 50 (0.3 mile); and
- If selected as an alternate option as opposed to an enhanced in-corridor multi-use path, an off-corridor multi-use path with new trail segments linking to an existing trail system between the southwestern and northeastern project limits (approximately 25 miles of new trail).

For these segments where the new road would not be located along the proposed centerline of existing roadways, more right-of-way acquisition would be required and more extensive conversion of ground resources (e.g., biological communities, agricultural lands) would occur.

4. Grant Line Road. In the case of Grant Line Road in the vicinity of the Cordova Hills Project, the Cordova Hills Project has been conditioned to irrevocably offer to dedicate a right of way 100 feet wide on the eastside of the centerline of the existing Grant Line Road to accommodate the future widening of Grant Line Road and the potential construction of the Connector project as a four-lane expressway. The proposed access for the Cordova Hills Project to Grant Line Road, via University Avenue, Chrysanthy Boulevard, and North Loop Road, may be modified in the future with the implementation of the Connector project. It is anticipated that full roadway access to and from Grant Line Road at University Boulevard and Chrysanthy Boulevard may be accommodated with grade separated interchanges. Access to and from Grant Line Road at North Loop Road may be limited and/or accommodated with an extension of Town center Boulevard from North Loop Road to Douglas Road, with a right turn-in to North Loop Road from Grant Line Road and a right turn-out from North Loop Road to Grant Line Road being provided. Any future changes to the Cordova Hills Project's access points to and from Grant Line Road will be a part of the Connector project and will be subject to future CEQA review and approval by the appropriate authority.

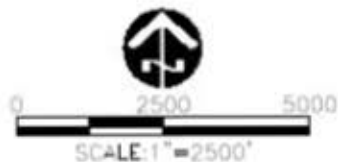
EXHIBIT M

MAP OF EAST CARSON CREEK PROPERTY



**CORDOVA HILLS
LAND USE SUMMARY**

PUBLIC/PRIVATE PUBLIC SPACE	108.8 AC
RECREATION (R)	88.1 AC
RES. 2 (1-100% PARK CREDIT, R-1)	180.9 AC
SPURVED LAY	88.1 AC
SECTOR RES. (R) 1 - 4 DU/AC	84.7 AC
LOW DENSITY RES. (R) 4 - 7 DU/AC	443.6 AC
MED. DENSITY RES. (R) 7 - 15 DU/AC	515.8 AC
RESIDENTIAL - (R) (R) 15 - 25 DU/AC	94.9 AC
HIGH DENSITY RES. 1 (R) 25 - 50 DU/AC	79.9 AC
PLAZA COMMERCIAL (PC)	24.8 AC
TOWN CENTER (TC)	206.7 AC
UNIVERSITY OF SACRAMENTO	323.8 AC
AGRICULTURE (A)	188.9 AC
WIND FARM & OPEN SPACE	210.8 AC
TOTAL GROSS ACRES	2,468.8 AC



MACKEY & SOMPS
CIVIL ENGINEERS, INC.
1111 E. 11th St., Suite 100
Sacramento, CA 95811
916.441.1111

Exhibit M
East Carson Creek Property
Cordova Hills SPA
Sacramento County, California

7965-10

APPENDIX E

Air Quality Modeling Results

Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: H:\PROJECTS\Cordova Hills\Cordova Hills Area Sources.urb924

Project Name: Cordova Hills Operational

Project Location: Sacramento County AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	78.76	15.78	8.81	0.00	0.03	0.03	20,002.46

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	78.76	15.78	8.81	0.00	0.03	0.03	20,002.46

Page: 2

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
Natural Gas	1.21	15.74	7.37	0.00	0.03	0.03	19,971.50
Hearth	0.02	0.02	0.01	0.00	0.00	0.00	28.49
Landscape	0.17	0.02	1.43	0.00	0.00	0.00	2.47
Consumer Products	65.91						
Architectural Coatings	11.45						
TOTALS (tons/year, unmitigated)	78.76	15.78	8.81	0.00	0.03	0.03	20,002.46

Area Source Changes to Defaults

Percentage of residences with wood stoves changed from 35% to 0%

Percentage of residences with natural gas fireplaces changed from 65% to 100%

Single family natural gas stove/fireplace days per year changed from 90 days per year to 30 days per year

Single family natural gas stove/fireplace days per year changed from 90 days per year to 30 days per year

Cordova Hills
Operational Emissions

Emissions Source	Pollutant (tons)					MT CO ₂
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}	
Mobile Source	12.35	20.85	111.42	5.14	2.12	45,350
Area Sources	78.76	15.78	8.81	0.03	0.03	18,146
Total Annual	91.11	36.63	120.23	5.17	2.15	63,496

Annualization Factor	347
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Group	Area	Scenario	Sub-Area	Calendar Year	Season	Title	Vehicle Population	VMT	Trips	Total TOG	Total ROG	Total CO	Total NOx	Total CO2	Total CO2 (Pavley 1+ LCFS)	Total PM10	Total PM2.5	Total SOx	Fuel GAS (1000 gal)	Fuel DSL (1000 gal)
1 Sacramento		0 ALL		2035	Annual	Sacramento (ALL) 2035 Annual	6,878.37	269,280.00	43,993.36	0.04	0.04	0.32	0.06	144.06	100.51	0.01	0.01	0.00	13.12	1.92
1 Sacramento		1 Sacramento (SV)		2035	Annual	Group #1 (Sacramento), Scenario #1 - Sacramento (SV)	6,878.37	269,280.00	43,993.36	0.04	0.04	0.32	0.06	144.06	100.51	0.01	0.01	0.00	13.12	1.92

APPENDIX F

Air Quality Mitigation Plan



**OPERATIONAL AIR QUALITY
MITIGATION PLAN
(AQMP)**

JUNE 1, 2011

**UPDATED MARCH 2012
(ERRATA)**

AMENDED JANUARY 2013

William Hezmalhalch Architects, Inc.

2850 Redhill Avenue

Santa Ana, CA 92705

949.250.0607

AIR QUALITY MITIGATION PLAN

Verification of Stated Emission Benefits

The amended operational air quality mitigation plan for the project known as Cordova Hills (SAC200600987) has been found by the Sacramento Metropolitan Air Quality Management District to be consistent with the District's *Recommended Guidance for Land Use Emission Reductions v2.5* and is anticipated to reduce the operational criteria emissions associated with the project.

The District anticipates that implementation of the reduction measures described in the plan as amended will lead to a 35 percent or greater reduction in operational oxides of nitrogen emissions.

Verified this 17th day of January, 2013.



Paul Philley
Sacramento Metropolitan Air Quality Management District
777 12th Street, 3rd Floor
Sacramento, CA 95814
pphilley@airquality.org
916-874-4882

AMENDMENT # 1

Background

The Cordova Hills Operational Air Quality Mitigation Plan (AQMP) dated June 1, 2011 and endorsed by the Sacramento Metropolitan Air Quality Management District (SMAQMD) on June 2, 2011, achieved an overall 35.29% reduction as noted below in Table A-1.

Table A-1: Endorsed AQMP Measures and Mitigation Points

Measure #	Measure	Mitigation Points
SMAQMD 28	Onsite Renewable Energy (for 20% of Project Needs)	3.0
SMAQMD 29	Exceed Year 2008 Title 24 Requirements by 20%:	1.0
SMAQMD 33	Transportation Management Association:	5.0
SMAQMD 99B	Roundabouts:	1.0
SMAQMD 99A	VMT Reductions:	25.29
Grand Total:		35.29

Prior to and during the December 12, 2012 Board of Supervisors hearing regarding the Cordova Hills project, SMAQMD expressed concern regarding air quality impacts if there was no University user. SMAQMD reported at the hearing the 35% reduction would be a 20% reduction if there were no University user. SMAQMD suggested

additional air quality mitigation measures in order to achieve a 35% reduction under a hypothetical scenario where there was no University user.

Cordova Hills agreed to SMAQMD's suggested mitigation measures and the AQMP is being amended to add the following additional three measures noted in Table A-2 below for an additional 16.18% emission reduction. These additional measures will be incorporated as mitigation measures in the Project's environmental impact report and be enforced by the County of Sacramento.

While the values for the mitigation points for each measure in this amendment are based on a hypothetical "No University User" scenario, the County of Sacramento, SMAQMD, and Cordova Hills agree that the additional mitigation is feasible and will occur for all aspects of the Cordova Hills project regardless of the status of a University user during the build out of the project. They also agree that under a hypothetical "No University User" scenario there would be a 36.18% emissions reduction achieved with these additional measures. SMAQMD has also concluded that a combination of the additional mitigation and the mitigation in the original AQMP will more than achieve the 35% emissions reduction goal set for the Cordova Hills project. **When this amendment is combined with the measures in the endorsed AQMP, Cordova Hills will substantially exceed the 35% reduction target.**

Table A-2: Summary of Additional Air Quality Impact Mitigation Measures Used in Cordova Hills

Measure #	Title	Use	Description	Mitigation Points
SMAQMD 99C	Natural gas emission reductions	R, C, M	Project provides tankless water heaters, low-emission furnaces, electrical outlets for appliances, and other energy reduction technologies	13.68
SMAQMD 99D	Exceed Year 2013, Title 24 Energy Star Roofs and Tankless Water Heaters	R, C, M	Project will exceed the 2013 Title 24 requirements by 20% and will include energy star cool roofs and tankless water heaters.	1.0
SMAQMD 99E	Enhanced on-site renewable energy system	R, C, M	Project provides on-site renewable energy system(s) of at least 20% of the project's energy needs.	1.5
Total				16.18

AIR QUALITY MITIGATION PLAN

SMAQMD 99C: Natural Gas Emission Reduction (R, C, M 19.36)

NO_x is considered an Ozone and Fine Particle Matter (PM-2.5) precursor. It combines with Volatile Organic Compounds in the presence of sunlight to create Ozone. NO_x also combines with Ammonia to create Ammonium Nitrate, which, through secondary reactions, results in PM-2.5. Version 2.5 of the SMAQMD's Guidance for Land Use Emission Reductions awards projects points for implementing enforceable measures that reduces a project's air quality impacts. Each point is roughly equivalent to one percent of the project's anticipated NO_x emissions from mobile sources. In addition to reducing emissions from mobile sources, project proponents may elect to reduce other in-basin NO_x sources. One such source is emissions from the combustion of natural gas in the project.

To determine the actual point value for area natural gas mitigation points, the unmitigated mobile sources for the project must be estimated. In the year 2035, 174.47 pounds of NO_x per day would be emitted by the mobile sources associated with Cordova Hills (without a University user, under a business as usual scenario). As such, one point is roughly equivalent to a one percent reduction of these emissions, which is a reduction of 1.74 lb/NO_x per day in the year 2035.

Table A-3: 2035 Operational NO_x Emissions from a No University Scenario

Emission	Tons/year	Tons/day	lb/day
NO _x	31.84	0.0872329	174.4658
1 Point (1% reduction) =		1.744658	lb NO _x /day
Source: Total daily trips from Table C of June 1 2011 Cordova Hills AQMP without the University run through the Urbemis 9.2.4 model to obtain NO _x emissions (Refer to Attachment A)			

In 2035, the daily emission by Cordova Hill's combustion of natural gas is estimated to be 128.16 lb/NO_x. Since 1.36% of 128.16 lb/NO_x is 1.74 lb/NO_x, each 1.36% reduction in the project's emissions

from natural gas is equivalent to one point (or each 1% reduction in natural gas emissions is worth approximately 0.73 point).

Table A-4: 2035 NO_x Emissions from Natural Gas Area Sources

Emission	Tons/year	Tons/day	lb/day
NO _x	23.39	0.0640822	128.1644
Natural Gas Reduction in Points			
(1.74 / 128.16) =		1.36%	
1.36% reduction in emissions from project's natural gas use = 1 point			
Source: Land Uses from Table C of June 1 2011 Cordova Hills AQMP without the University run through the Urbemis 9.2.4 model to obtain NO _x emissions (Refer to Attachment A)			

The SMAQMD guidance document requires measures that do not apply equally to all land uses to be scaled so that each point or fraction thereof associated with a particular measure corresponds to an equal percent of emission reductions. Most of the reductions in natural gas emissions are relate only to residential uses. Residential only natural gas emissions are estimated to be 110.12 lbs of NO_x per day, or approximately 85.98% of all natural gas emissions at Cordova Hills. Therefore, natural gas emission reduction points must be scaled to 85.98% for residential and 14.02% for non-residential uses.

Table A-5: 2035 NO_x Emissions from RESIDENTIAL Only Natural Gas Area Sources

Emission	Tons/year	Tons/day	lb/day
NOx	20.11	0.0550959	110.1918
Scaling Factors			
85.98%	is the scaling factor for residential only natural gas measures		
14.02%	is the scaling factor for non-residential natural gas measures		
Source: Land Uses from Table C of June 1 2011 Cordova Hills AQMP without the University using only residential uses run through the Urbemis 9.2.4 model to obtain NOx emissions (Refer to Attachment A)			
Scaling factors rounded			

AMENDMENT # 1

Cordova Hills generates emissions from the on-site combustion of natural gas. The project can gain 0.73 point for every 1.0% reduction in the use of natural gas. As mitigation measures do not reduce all sectors of use evenly, an inventory for natural gas uses in Cordova Hills was estimated using the 2009 California Air Resources Board Almanac of Emissions Projection Data. Refer to Table A-6: Natural Gas Emissions in Sacramento County for an estimate on a countywide basis. Only factors that reduce natural gas were considered.

Table A-6: Natural Gas Emissions in Sacramento County

Source: Almanac Emission Projection Data, 2008 Estimated Annual Average Emissions, SACRAMENTO METROPOLITAN AQMD. Published by the California Air Resources Board in 2009

EMISSIONS INVENTORY CATEGORY	NOx (tons/day)	% of Natural Gas Emissions
Residential¹		
600-Wood Combustion-Wood Stoves	0.07	
602-Wood Combustion-Fireplaces	0.33	
606-Fuel Combustion-Space Heating-Natural Gas	0.75	29.64%
606-Fuel Combustion-Space Heating-Distillate Oil	0.01	
608-Fuel Combustion-Water Heating-Natural Gas	1.44	56.92%
610-Fuel Combustion-Cooking-Natural Gas	0.08	3.16%
0110-Other-Natural Gas	0.26	10.28%
0120-Other-Liquefied Petroleum Gas (LPG)	0.03	
Total Natural Gas Emissions Residential (tons/day)	2.53	100.00%
Non-Residential²		
005-Boilers-Natural Gas	0.01	0.89%
005-Boilers-Sewage Gas	0.00	
005-Boilers-Distillate Oil	0.00	
012-Oven Heaters (force drying surface coatings)-Natural Gas	0.00	0.00%
020-Space Heating-Natural Gas	0.30	26.79%
030-Water Heating-Natural Gas	0.30	26.79%
040-I.C. Reciprocating Engines-Distillate Oil	0.02	
995 Other-Natural Gas	0.51	45.54%
995-Other-Liquefied Petroleum Gas (LPG)	0.01	
995-Other Distillate Oil	0.00	
Total Natural Gas Emissions Non-Residential (tons/day)	1.12	100.00%
¹ Residential: http://www.arb.ca.gov/app/emsinv/emseic_query.php?F_YR=2008&F_DIV=-4&F_SEASON=A&SP=2009&SPN=2009_Almanac&F_AREA=DIS&F_DIS=SAC&F_EICSUM=610		
² Non-residential: http://www.arb.ca.gov/app/emsinv/emseic_query.php?F_YR=2008&F_DIV=-4&F_SEASON=A&SP=2009&SPN=2009_Almanac&F_AREA=DIS&F_DIS=SAC&F_EICSUM=60		

AIR QUALITY MITIGATION PLAN

The project's compliance with SMAQMD 29 and SMAQMD 99D is expected to reduce natural gas use and associated emissions from Title 24 sources by 17%, according to a memo prepared for SMAQMD by Tiax dated December 12, 2012, (refer to Attachment B). Since tankless water heaters are also required and they are estimated to be 22% more efficient than typical water heater, water heating can be reduced by 22%. This measure is expected to reduce overall residential natural gas use and associated emissions by 17.56%, resulting in a credit of 11.09 points.

All residential furnaces that have a heat capacity less than 155,000 British Thermal Units (BTUs) will be required to be low-NOx emission furnaces, defined as furnaces that emit no more than 40 nanograms

of NOx per joule. This measure is expected to reduce emissions by 10.6 percent according to a Yolo-Solano Air Quality Management District staff report (refer to Attachment C). The use of low-emission furnaces is expected to reduce residential natural gas emissions from the project by 2.61 percent, resulting in a credit of 1.65 points.

Electrical outlets shall be provided for all home appliances. This measure does not preclude the provision of natural gas connections, but will provide consumers an option of using either energy source.

Overall a total of 12.74 points are achieved through the residential natural gas reduction measures.

Table A-7: Residential Natural Gas Emission Reduction Calculations

% of Residential Natural Gas Emissions		Title 24 Reductions		Low NOx Furnaces	
Space Heating	29.64%	17% less ¹	24.60%	10.60% less ²	22.00%
Water Heating	56.92%	22% less ³	44.44%	Unchanged	44.40%
Cooking	3.16%	Unchanged	3.16%	Unchanged	3.16%
Other	10.28%	Unchanged	10.28%	Unchanged	10.28%
		Reduction	17.56%	Reduction	2.61%
		Unscaled Points	12.90	Unscaled Points	1.92
		Scaled Points	11.09	Scaled Points	1.65

¹ Tiax Memo: Analysis of 2008 and 2013 California Title 24 Building Energy Efficiency Standards for the Cordova Hills Projects (Attachment B)

² Reduction percentage from Yolo-Solano AQMD report (Attachment C):

³ Reduction percentage from Consumer Reports: <http://www.consumerreports.org/cro/appliances/heating-cooling-and-air/water-heaters/tankless-water-heaters/overview/tankless-water-heaters-ov.htm>

AMENDMENT # 1

For non-residential uses, the project's compliance with SMAQMD 29 and SMAQMD 99D would reduce natural gas use and associated emissions from Title 24 sources by 17% as stated previously and no tankless water heaters are assumed. None of the other measures affect non-residential natural gas use. This measure is expected to reduce overall non-residential natural gas use and associated emissions by 9.11%, resulting in a credit of 0.94 points after scaling the points for the non-residential land use.

Table A-8: Non-Residential Natural Gas Emission Reduction Calculations

% of Non-Residential Natural Gas Emissions		Title 24 Reductions	
Boilers	0.89%	Unchanged	0.89%
Ovens	0.00%	Unchanged	0.00%
Space	26.79%	17% less ¹	26.79%
Water	26.79%	17% less ¹	26.79%
Other	45.54%	Unchanged	45.54%
Total Reduction	9.11%		
Unscaled Points for Non-Residential Natural Gas Reductions			6.69
Total Scaled Points for Non-Residential Natural Gas Reductions			.94
¹ Tiax Memo: Analysis of 2008 and 2013 California Title 24 Building Energy Efficiency Standards for the Cordova Hills Projects (Attachment B)			

Overall 13.68 points are achieved for the residential and the non-residential natural gas usage reductions resulting from Measure 99C.

SMAQMD 99D: Exceed Year 2013 Title 24, Energy Star Roofs and Tankless Water Heaters. (R, C, M 1.0)

SMAQMD Measure 99D now requires all buildings to be constructed to exceed the Year 2013 Title 24 building standards by 20%. All builders shall provide information demonstrating compliance with measure requirements including, but not limited to, a copy of the Title 24 compliance sheet. As this measure is intended to be additive, builders at Cordova Hills may not also claim credit for the on-site renewable energy systems provided by Measure 99E in this AQMP when meeting Measure 99D with respect to the Year 2013 Title 24 requirement. Measure 99E already credits reductions achieved by reducing emissions associated with the generation of electricity. In addition, this measure requires the use of energy star rated roofing materials on all buildings in order to achieve the Title 24 reduction.

This measure also requires all homes to include tankless water heaters. Tankless water heaters are estimated to be 22 percent more efficient than traditional water heaters according to Consumer Reports.

The Title 24 compliance documentation will serve as verification of implementation of this measure.

AIR QUALITY MITIGATION PLAN

SMAQMD 99E: Enhanced on-site renewable energy system. (R, C, M 1.5)

The Cordova Hills project has committed that 20% of the project's electricity will be generated from renewable sources that do not add NO_x to the Sacramento Air Basin. The SMAQMD awards one point for projects that provide at least 2.5% of energy needs through renewable energy and one additional point for every 5% thereafter. By providing 20% of the project's energy needs through on-site renewable sources that do not generate NO_x within the Sacramento Air Basin, the project is eligible for 1.5 points beyond the 3 points achieved through measure SMAQMD 28 as described on page 4 of this AQMP.

The successful implementation of this measure will be verified by a site review of the installation to confirm that components and devices match the renewable energy system described in SMAQMD 28 of this plan.

Attachments

- Attachment A:** Urbemis Outputs
- Attachment B:** Title 24 Analysis - TIAX Memo – Analysis of 2008 and 2013 California Title 24 Building Energy Efficiency Standards for the Cordova Hills Project
- Attachment C:** Yolo-Solano Air Quality Management District Final Staff Report on Proposed Rule 2.44, Central Furnaces, April 30, 2009

AIR QUALITY MITIGATION PLAN

Attachment A: Urbemis Outputs

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Urbemis 2007 Version 9.2.4

Detail Report for Annual Operational Unmitigated Emissions (Tons/Year)

File Name: V:\GraphicsArchive\2006\2006352\Source_General\Correspondence\From_SMAQMD\01-12-13\BAU-SACOG-Custom.urb924

Project Name: BAU-SACOG-Custom

Project Location: Sacramento County AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

OPERATIONAL EMISSION ESTIMATES (Annual Tons Per Year, Unmitigated)

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Blank (Edit this description)	40.55	31.84	462.86	1.19	198.81	37.91	119,267.64
TOTALS (tons/year, unmitigated)	40.55	31.84	462.86	1.19	198.81	37.91	119,267.64

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2035 Season: Annual

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Blank (Edit this description)		93.25	1000 sq ft	1,000.00	93,250.00	634,100.02
					93,250.00	634,100.02

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	47.6	0.0	100.0	0.0

Attachment A: Urbemis Outputs

1/4/2013 3:26:47 PM

Urbemis 2007 Version 9.2.4

Detail Report for Annual Area Source Unmitigated Emissions (Tons/Year)

File Name: \\Netappns\larchive\Santa Ana\Projects\2006\2006352\Admin\Urbemis\Urbemis analysis no universityrun usingAQMDdata1-3-13.urb924

Project Name: Cordovahills-2012-10-4

Project Location: Sacramento County AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

AREA SOURCE EMISSION ESTIMATES (Annual Tons Per Year, Unmitigated)

<u>Source</u>	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
Natural Gas	1.79	23.39	11.31	0.00	0.04	0.04	29,605.99
Hearth	29.77	5.30	270.02	0.88	44.05	42.40	7,512.53
Landscape	4.11	0.28	24.37	0.00	0.07	0.07	39.76
Consumer Products	65.91						
Architectural Coatings	19.22						
TOTALS (tons/year, unmitigated)	120.80	28.97	305.70	0.88	44.16	42.51	37,158.28

Area Source Changes to Defaults

AIR QUALITY MITIGATION PLAN

Attachment A: Urbemis Outputs

1/3/2013 3:57:45 PM

Urbemis 2007 Version 9.2.4

Detail Report for Annual Area Source Unmitigated Emissions (Tons/Year)

File Name: \\Netappns\archive\Santa Ana\Projects\2006\2006352\Admin\Urbemis\Urbemis analysis no universityrun usingAQMDdata1-3-13RESIDENTIALONLY.urb924

Project Name: Cordovahills-2012-10-4

Project Location: Sacramento County AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

AREA SOURCE EMISSION ESTIMATES (Annual Tons Per Year, Unmitigated)

<u>Source</u>	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
Natural Gas	1.55	20.11	8.56	0.00	0.04	0.04	25,665.99
Hearth	29.77	5.30	270.02	0.88	44.05	42.40	7,512.53
Landscape	3.89	0.24	21.59	0.00	0.06	0.06	34.70
Consumer Products	65.91						
Architectural Coatings	17.12						
TOTALS (tons/year, unmitigated)	118.24	25.65	300.17	0.88	44.15	42.50	33,213.22

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Memorandum

Date: December 12, 2012

To: Tim Taylor, Larry Robinson, Paul Philley
Sacramento Metropolitan Air Quality Management District

From: Karen Law

Subject: Analysis of 2008 and 2013 California Title 24 Building Energy Efficiency Standards for Cordova Hills Project

To support the efforts of the Sacramento Metropolitan Air Quality Management District (SMAQMD) in evaluating the emissions reductions associated with air quality mitigation plans (AQMPs), TIAX conducted an analysis of the 2008 and 2013 California Title 24 Building Energy Efficiency Standards. Specifically, we compared the standards as they relate to the Cordova Hills project, a proposed master planned community, to answer the following questions:

1. If exceeding the 2008 Title 24 standards by 20% is worth 1 point, how many additional points would exceeding the 2013 standards by 20% yield for the Cordova Hills project?
2. Assuming the standards are exceeded by 20% with a "business as usual" roof, how many points would adding an Energy Star roof to the project be worth?
3. Noting that the points assigned for Questions #1 and #2 are just related to reducing electricity use and thus the associated Sacramento Municipal Utility District (SMUD) emissions, by what percentage would the project's natural gas use be reduced?

To answer these questions, our methodology consisted of reviewing the changes made to the 2013 standards¹ from the earlier 2008 standards.² We examined major changes that substantively affect energy consumption in new buildings; issues of permitting, installation, certification, and alterations to existing buildings were excluded from our review. By comparing the two sets of standards, TIAX established the "points" equivalent of energy improvements relative to the standards. We assumed that the points assigned by SMAQMD for NO_x emission reductions (approximately one point per 1% reduction of anticipated NO_x emissions generated by the project) are proportional to energy consumption as prescribed by the Title 24 building energy

¹ California Energy Commission. "Proposed 2013 Building Energy Efficiency Standards: Title 24, Part 6, and Associated Administrative Regulations in Part 1." CEC-400-2012-004-15DAY.
<http://www.energy.ca.gov/2012publications/CEC-400-2012-004/CEC-400-2012-004-15DAY.pdf>. May 2012.

² California Energy Commission. "2008 Building Energy Efficiency Standards for Residential and Nonresidential Buildings." CEC-400-2008-001-CMF. <http://www.energy.ca.gov/2008publications/CEC-400-2008-001/CEC-400-2008-001-CMF.PDF>. December 2008.

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efficiency standards. Our calculations are presented and discussed below for each of the three questions.

Question #1: If exceeding the 2008 Title 24 standards by 20% is worth 1 point, how many additional points would exceeding the 2013 standards by 20% yield for the Cordova Hills project?

The California Energy Commission (CEC) highlights the major energy improvements in the 2013 California Title 24 Building Energy Efficiency Standards:³

Residential:

- Insulated hot water pipes
- Improved window performance
- Whole house fans
- Solar ready roofs

Non-residential:

- High performance windows, sensors, and controls for daylighting
- Efficient process equipment in grocery stores, commercial kitchens, data centers, laboratories, and parking garages
- Advanced lighting controls
- Solar ready roofs
- Occupant controlled smart thermostats
- Cool roof technologies

According to the CEC, the improvements associated with the 2013 standards are estimated to use 25% less energy than the 2008 standards.⁴ Hence, if the Cordova Hills project exceeds the 2013 standards by 20%, its energy consumption relative to the 2008 standards is shown in the Figure below and calculated as:

$$\begin{aligned} \text{Exceeding 2013 standards by 20\%} &= (100\% - 25\%) \times (100\% - 20\%) \text{ of 2008 standards} \\ &= 60\% \text{ of 2008 standards} \end{aligned}$$

³ California Energy Commission. "Building Energy Efficiency Standards: Frequently Asked Questions." http://www.energy.ca.gov/title24/2013standards/rulemaking/documents/2013_Building_Energy_Efficiency_Standards_FAQ.pdf. May 2012.

⁴ California Energy Commission. "Building Energy Efficiency Standards: Frequently Asked Questions." http://www.energy.ca.gov/title24/2013standards/rulemaking/documents/2013_Building_Energy_Efficiency_Standards_FAQ.pdf. May 2012.

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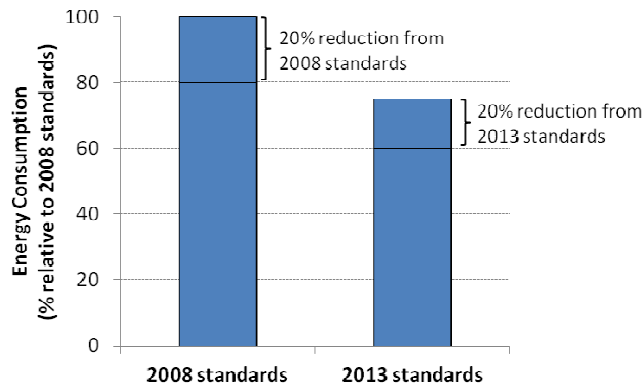


Figure. Comparison of 2008 and 2013 Standards

In other words, if the project exceeds 2013 standards by 20%, it exceeds 2008 standards by 40%. Assuming that points are directly proportional to the reduction in energy consumption as described earlier, based on SMAQMD's assignment of 1 point for a 20% reduction from 2008 standards, this 40% reduction (i.e., exceeding 2013 standards by 20%) from 2008 standards is equivalent to a total of 2 points, or 1 point in addition to the value assigned for the original AQMP.

Question #2: Assuming the standards are exceeded by 20% with a "business as usual" roof, how many points would adding an Energy Star roof to the project be worth?

A "business as usual" roof may be defined by Section 140.3(a)1A of the 2013 Title 24 standards:
Non-residential:

- Minimum aged solar reflectance of 0.63 for low-sloped roofs in climate zones 1-16
- Minimum aged solar reflectance of 0.20 for steep-sloped roofs in climate zones 1-16

High-rise residential and hotels and motels:

- Minimum aged solar reflectance of 0.55 for low-sloped roofs in climate zones 10, 11, 13, 14, and 15
- Minimum aged solar reflectance of 0.2 for steep-sloped roofs in climate zones 2-15

According to the 2013 standards, the Cordova Hills project is located in climate zone 12.⁵ Because the master planned community is designed for mixed use and combinations of residential and non-residential spaces, the minimum reflectance values above are assumed to apply to the project.

⁵ California Energy Commission. "Proposed 2013 Building Energy Efficiency Standards: Title 24, Part 6, and Associated Administrative Regulations in Part 1." CEC-400-2012-004-15DAY.
<http://www.energy.ca.gov/2012publications/CEC-400-2012-004/CEC-400-2012-004-15DAY.pdf>. May 2012.

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Energy Star qualified roof products are also defined by their ability to offer increased solar reflectance. Partner commitments for Energy Star roof products⁶ require:

- Solar reflectance greater than or equal to 0.50 three years after installation for low-slope roof products
- Solar reflectance greater than or equal to 0.15 three years after installation for steep-slope roof products

A comparison of the 2013 standards with the Energy Star requirements shows that minimum solar reflectance requirements under the 2013 standards are more stringent than those of the Energy Star program. While there are Energy Star roof products with solar reflectance greater than the minimum values prescribed in the 2013 standards, the product list⁷ also contains roof products with reflectance less than that required by the 2013 standards. Therefore, points cannot be conclusively attributed to the addition of an Energy Star roof, particularly because its reflectance benefits may already be used to meet the Title 24 standards.

Question #3: Noting that the points assigned for Questions #1 and #2 are just related to reducing electricity use and thus the associated SMUD emissions, by what percentage would the project's on-site natural gas use be reduced?

The baseline for assessing on-site natural gas use is assumed to be the 2008 Title 24 standards. In exceeding the 2013 standards by 20%, the building is more efficient and reduces natural gas use primarily by lowering building heating requirements. The Table below compares the 2013 standards to the 2008 standards and indicates whether changes from the 2008 baseline are likely to affect on-site natural gas use. As shown, building efficiency improvements in the 2013 standards that affect natural gas use include: insulation of walls, ceilings, and floors (Sections 120.3, 120.6, 120.7, 140.3, 150.0, and 150.1); less leakage of the building envelope (Section 150.0); more efficiency heating equipment (Section 110.2); and controls that decrease heating demand (Section 120.2).

Table. Comparison of Key 2008 and 2013 Title 24 Standards

Title 24 Requirement*	2013 Changes from 2008 Baseline	Do Changes Likely Affect On-Site Natural Gas Use?
Section 110.1 Mandatory Requirements for Appliances	Minimal	-

⁶ Energy Star. "Energy Star Program Requirements for Roof Products: Partner Commitments." http://www.energystar.gov/ia/partners/product_specs/program_reqs/Roof_Products_Program_Requirements.pdf. Accessed December 11, 2012.

⁷ Energy Star. "Energy Star Roof Product List." http://downloads.energystar.gov/bi/qplist/roofs_prod_list.pdf?0a6c-0497. December 10, 2012.

AMENDMENT # 1

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Title 24 Requirement*	2013 Changes from 2008 Baseline	Do Changes Likely Affect On-Site Natural Gas Use?
Section 110.2 Mandatory Requirements for Space-Conditioning Equipment	<ul style="list-style-type: none"> Added minimum efficiency requirements for water cooled and evaporatively cooled air conditioners under 240,000 Btu/h Added minimum efficiency requirements for heat pumps: water source, groundwater source, ground source, water source water-to-water, groundwater source water-to-water, ground source brine-to-water Revised minimum efficiency requirements for water chilling packages Added new minimum efficiency requirements for packaged terminal air conditioners and packaged terminal heat pumps after October 8, 2012 Revised performance requirements for heat rejection equipment, added equipment using closed-circuit cooling towers Specified minimum efficiency requirements for electrically operated variable refrigerant flow (VRF) air conditioners; electrically operated VRF air-to-air and applied heat pumps; warm-air furnaces and combination warm-air furnaces/air-conditioning units, warm-air duct furnaces, and unit heaters; gas- and oil-fired boilers 	Yes
Section 110.3 Mandatory Requirements for Service Water-Heating Systems and Equipment	Minimal	-
Section 110.4 Mandatory Requirements for Pool and Spa Systems and Equipment	Minimal	-
Section 110.6 Mandatory Requirements for Fenestration Products and Exterior Doors	Minimal	-
Section 110.7 Mandatory Requirements to Limit Air Leakage	Minimal	-
Section 110.8 Mandatory Requirements for Insulation, Roofing Products and Radiant Barriers	<ul style="list-style-type: none"> Added values of soiling resistance 	No
Section 110.9 Mandatory Requirements for Lighting Control Devices and Systems, Ballasts, and Luminaires	<ul style="list-style-type: none"> Revised to refer to separate Title 20 Appliance Efficiency Regulations for time switch control devices, occupant sensors, motion sensors, vacancy sensors, daylighting controls, dimmers 	No

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Title 24 Requirement*	2013 Changes from 2008 Baseline	Do Changes Likely Affect On-Site Natural Gas Use?
Section 110.10 Mandatory Requirements for Solar Ready Buildings	Minimal	-
Section 120.1 Requirements for Ventilation	<ul style="list-style-type: none"> Added requirements for occupant sensor ventilation control devices 	No
Section 120.2 Required Controls for Space-Conditioning Systems	<ul style="list-style-type: none"> Added thermostat setpoint stops for hotel/motel guest rooms Added shut-off and reset controls for space-conditioning systems in multipurpose rooms, classrooms, conference / convention / auditorium / meeting center rooms Added requirements for Fault Detection and Diagnostics systems for air-cooled unitary direct expansion units 	Yes
Section 120.3 Requirements for Pipe Insulation	<ul style="list-style-type: none"> Revised required insulation thickness 	Yes
Section 120.4 Requirements for Air Distribution System Ducts and Plenums	Minimal	-
Section 120.6 Mandatory Requirements for Covered Processes	<ul style="list-style-type: none"> Revised minimum R-values for refrigerated warehouse insulation Added minimum efficiency requirements for fan-powered condensers Added requirements for infiltration barriers Added requirements for commercial refrigeration Added requirements for enclosed parking garages Added requirements for process boilers Added requirements for compressed air systems 	Yes
Section 120.7 Mandatory Insulation Requirements	<ul style="list-style-type: none"> Added insulation requirements for roofs/ceilings, walls, floors and soffits 	Yes
Section 120.9 Mandatory Requirements for Commercial Boilers	<ul style="list-style-type: none"> Added requirements for commercial boilers 	No
Section 130.1 Indoor Lighting Controls That Shall Be Installed	<ul style="list-style-type: none"> Added multi-level lighting controls and uniformity requirements 	No
Section 130.2 Outdoor Lighting Controls and Equipment	<ul style="list-style-type: none"> Added uplight rating (maximum zonal lumens) Added glare ratings (maximum zonal lumens) 	No
Section 130.3 Sign Lighting Controls	Minimal	-

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Title 24 Requirement*	2013 Changes from 2008 Baseline	Do Changes Likely Affect On-Site Natural Gas Use?
Section 130.5 Electrical Power Distribution Systems	<ul style="list-style-type: none"> Added requirements for service metering Added requirements for disaggregation of electrical circuits Added requirements for voltage drop Added requirements for circuit controls for 120-volt receptacles Added requirements for demand responsive controls and equipment Added requirements for Energy Management Control Systems (EMCS) Added minimum requirements for metering of electrical load Added minimum requirements for separation of electrical load 	No
Section 140.3 Prescriptive Requirements for Building Envelopes	<ul style="list-style-type: none"> Revised minimum solar reflectance, thermal emittance, and Solar Reflectance Index for roofing products Added roof/ceiling insulation tradeoff for aged solar reflectance Added minimum requirements for area-weighted Visible Transmittance for windows and skylights Added requirements for air barriers 	Yes
Section 140.4 Prescriptive Requirements for Space Conditioning Systems	<ul style="list-style-type: none"> Revised economizer requirements for cooling systems Added direct expansion unit requirements for cooling stages and compressor displacement 	No
Section 140.5 Prescriptive Requirements for Service Water Heating Systems	Minimal	-
Section 140.6 Prescriptive Requirements for Indoor Lighting	<ul style="list-style-type: none"> Revised lighting power density values 	No
Section 140.7 Requirements for Outdoor Lighting	<ul style="list-style-type: none"> Revised lighting power allowance 	No
Section 140.8 Requirements for Signs	Minimal	-
Section 140.9 Prescriptive Requirements for Covered Processes	<ul style="list-style-type: none"> Added requirements for computer rooms Added requirements for commercial kitchens Added requirements for laboratory exhaust systems 	No

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Title 24 Requirement*	2013 Changes from 2008 Baseline	Do Changes Likely Affect On-Site Natural Gas Use?
Section 150.0 Mandatory Features and Devices	<ul style="list-style-type: none"> Revised required R-values Revised requirements for piping Added requirements for duct system sealing and leakage testing Added requirements for air filtration Added requirements for duct system sizing and air filter grille sizing Added requirements for zonally controlled central forced air systems Added maximum U-factors for fenestration products Revised minimum requirements for light sources to qualify as high efficacy 	Yes
Section 150.1 Performance and Prescriptive Compliance Approaches for Newly Constructed Residential Buildings	<ul style="list-style-type: none"> Added requirements for ventilation cooling Added requirements for HVAC system bypass ducts Revised requirements for R-values, U-factors, aged solar reflectance 	Yes

*Listed by section name corresponding to 2013 standards

As determined in Question #1 above, if the Cordova Hills project exceeds 2013 standards by 20%, it exceeds 2008 standards by 40%. Because there is insufficient information to identify which energy efficiency improvements are associated with this 40% reduction from 2008 standards, the reduction in on-site natural gas use can be estimated by three cases. In the “worst” case, the 40% reduction is derived solely from improvements that do not affect on-site natural gas use (e.g., lighting and electrical metering) and therefore natural gas use is reduced by 0%. In the “best” case, the 40% reduction is derived solely from improvements that are fully related to on-site natural gas use (e.g., heating equipment efficiency) and therefore natural gas use is reduced by 40%. However, as neither of these extremes likely reflects the actual case, a third alternative is to identify the substantive 2013 changes from the 2008 baseline, attribute equal efficiency benefits to each area of improvement, then sum up the areas that affect on-site natural gas use. Of all the key elements of Title 24 that define energy consumption, the Table above identifies 19 sections that substantively changed from the 2008 baseline. Of those 19 sections, 8 sections are likely to affect on-site natural gas consumption:

$$40\% \text{ reduction} \times (8 / 19) = 17\% \text{ reduction in on-site natural gas use}$$

By allocating the 40% reduction of 2008 standards across the areas of Title 24 that changed in the 2013 standards, an estimated 17% reduction in on-site natural gas use may accompany the project’s Title 24 utility-level improvements.

AMENDMENT # 1

Attachment C: Yolo-Solano Air Quality Management District Final Staff Report

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PROPOSED RULE 2.44, CENTRAL FURNACES

FINAL STAFF REPORT

April 30, 2009

Prepared by:

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Reviewed by:

Matt Jones, Supervising Air Quality Planner
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AIR QUALITY MITIGATION PLAN

Attachment C: Yolo-Solano Air Quality Management District Final Staff Report

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AMENDMENT # 1

Attachment C: Yolo-Solano Air Quality Management District Final Staff Report

Final Staff Report - Rule 2.44, Central Furnaces

April 30, 2009

I. EXECUTIVE SUMMARY

On May 13, 2009, the Yolo-Solano Air Quality Management District (District) Board of Directors will consider the proposed new Rule 2.44 for Central Furnaces.

The District is proposing the rule to fulfill a previous District commitment made pursuant to Senate Bill (SB) 656. SB 656 focuses on reducing both directly emitted particulate matter (PM) and secondary PM by implementing a list of control measures adopted by our Board in 2005. SB 656 required the District to assess and prioritize the measures based on the nature and severity of the PM problem in the District. The adoption of this rule focuses on reducing oxides of nitrogen (NO_x) emissions that form secondary PM.

As proposed, the main rule requirement of Rule 2.44 is:

1. Establish a NO_x emissions limit of 40 nanograms per Joule (ng/J) of heat output for natural gas-fired fan type central furnaces with a rated heat input capacity of less than 175,000 British Thermal Units (Btu) per hour (hr) or for combination heating and cooling units that have a cooling rate of less than 65,000 Btu/hr.

Several air districts in the state have adopted rules regulating NO_x emissions from natural gas-fired fan type central furnaces with the same unit applicability and NO_x limit proposed with this rule. Some of those air districts and their rule adoption dates are as follows: Bay Area Air Quality Management District (BAAQMD) Regulation 9, Rule 4, December 1983; San Joaquin Valley Air Pollution Control District (SJVAPCD) Rule 4905, October 2005; South Coast Air Quality Management District (SCAQMD) Rule 1111, December 1978, Amended July, 1983; and Ventura County Air Pollution Control District (VCAPCD) Rule 74.22, November 1993.

Since the District does not require permits for installation of central furnaces, enforcement of the rule will be done as a "point of sale" regulation with requirements on manufacturers, retailers, and installers. The District will also request assistance from local city and county building departments, which require building permits for these types of units. The proposed rule does not require retrofits to existing units.

The proposed rule will have neither a significant nor detrimental effect on the environment. Therefore, staff has prepared a Notice of Exemption to satisfy the requirements of the California Environmental Quality Act (CEQA). The notice states that the proposed rule is exempt from the requirements of CEQA pursuant to Section 15308, Actions by Regulatory Agencies for Protection of the Environment.

A. BACKGROUND

In an effort to reduce public exposure to Particulate Matter less than 10 microns (PM₁₀) and Particulate Matter less than 2.5 microns (PM_{2.5}), SB 656 was proposed

AIR QUALITY MITIGATION PLAN

Attachment C: Yolo-Solano Air Quality Management District Final Staff Report

Final Staff Report - Rule 2.44, Central Furnaces

April 30, 2009

and passed by the state legislature in 2003. Later codified as California Health and Safety Code (CH&SC) Section 39614, SB 656 required CARB to compile a list of the most readily available, feasible, and cost effective PM control measures. As part of SB 656, Districts were required to evaluate the CARB list, determine which measures were appropriate to implement in their District and propose a schedule for the implementation. The District Board considered and adopted an SB 656 plan on July 13, 2005. The plan committed the District to evaluate increased controls on fuel combustion from central furnaces.

Overview of source category

The central furnace measure selected by the District for implementation proposes to establish a 40 ng/J NO_x emissions limit for natural gas-fired fan type central furnaces. Central furnaces operate by burning fuel (natural gas) ignited by a pilot light and mixing it with air in a burner. In turn, the warm air that is created from the combustion process fills a heat exchanger chamber. As the temperature of the chamber increases, the ambient air surrounding the chamber absorbs the heated air and is then distributed through the ducting system using a blower to disperse the air to other locations in the home. Exhaust gases resulting as a byproduct of the combustion process are expelled through the vent to the outdoors.

In 1987, the National Appliance Energy Conservation Act was passed which established energy efficiency standards for various appliances in the residential and commercial markets. One of these standards set an efficiency requirement (also referred to as Annual Fuel Utilization Efficiency (AFUE)) for central furnaces with a rated heat input capacity of less than 225,000 Btu/hr. At the state level, the California Energy Commission (CEC) modified and strengthened these efficiency standards. The California Code of Regulations established efficiency standards for central furnaces with 3 phase electrical supply less than 225,000 Btu/hr in Title 20, Division 2, Chapter 4, Article 4, Section 1605.3. This regulation set a minimum AFUE of 75% for mobile homes and 78% AFUE or 80% thermal efficiency for all others. Thermal efficiency was defined as a measure of the percentage of heat from the combustion of gas that is transferred to the space being heated.

According to the CEC's Natural Gas Assessment Update Staff Report dated February 2005, an estimated 23% of the total natural gas consumed in California is attributed to use by the residential sector based on consumption averages for the years 1997 - 2002. In that residential sector, 54.26% of the natural gas consumed was found to be attributed to space heating according to the CARB Emissions Inventory for Residential Fuel Combustion Methodology, Section 7.2 dated November, 1998. Table 1 demonstrates the heating gas consumption and relative NO_x emissions attributed to our jurisdiction:

AMENDMENT # 1

Attachment C: Yolo-Solano Air Quality Management District Final Staff Report

Final Staff Report - Rule 2.44, Central Furnaces

April 30, 2009

Table 1: Source Description						
County	Residential energy gas sales (therms per year) ^B	Conversion factor (therms to Btu to standard cubic foot) ^C	Gas Consumption (million ft ³ /yr)	% Natural Gas Used for Space heating ^D	NOx Emission Factor (ppm / million ft ³) ^E	2006 NOx Emissions (tons/yr) ^F
Yolo	25,316,838	95.24	2,411.1	54.26	94	61.49
Solano ^A	19,012,105	95.24	1,810.7	54.26	94	46.18
Total	44,328,943		4,221.8			107.67 ^G

A Numbers shown for Solano County are representative of the portion of the county that is in YSAQMD's jurisdiction

B California Air Resources Board, Emissions Inventory, Residential Fuel Combustion (Emissions Inventory Category 610-606-0110, Fuel Combustion - Space Heating, Methodology, Section 7.2, Residential Natural Gas Combustion), Table I

C Conversion factor = 100,000 Btu/therm x standard cubic foot/1,050 Btu = standard cubic foot/year

D California Air Resources Board, Emissions Inventory, Residential Fuel Combustion (Emissions Inventory Category 610-606-0110, Fuel Combustion - Space Heating, Methodology, Section 7.2, Residential Natural Gas Combustion), Table II

E California Air Resources Board, Emissions Inventory, Residential Fuel Combustion (Emissions Inventory Category 610-606-0110, Fuel Combustion - Space Heating, Methodology, Section 7.2, Residential Natural Gas Combustion)

F Calculations are converted to tons per year from pounds per year

G California Air Resources Board, 2006 Emissions Inventory, Residential Fuel Combustion, Fuel Combustion - Space Heating, Natural Gas value was 0.273 tons per day (tpd) (99.6 tons per year tpy) and the Fuel Combustion - Other, Natural Gas value was 0.04 tpd (14.6 tpy). The total tons (space heating + other) is 114.2 tpy. Average is 106.9 tpy (99.6 + 114.2/2) which is a less than 1% difference than value shown in table.

II. DISCUSSION OF PROPOSED RULE 2.44 REQUIREMENTS

Listed below are descriptions of the proposed requirements of Rule 2.44 - Central Furnaces:

Section 101 Purpose

The purpose of this Rule is to limit the emissions of NOx from the use of natural gas-fired fan type central furnaces.

Section 102 Applicability

As proposed, the provisions of the rule shall apply to any person that manufactures, offers for sale, sells, or installs any natural gas-fired fan type central furnace with a rated heat input capacity of less than 175,000 Btu/hr, and for combination heating and cooling units, a cooling rate of less than 65,000 Btu/hr.

Section 103 Severability

This section was added for administrative purposes.

AIR QUALITY MITIGATION PLAN

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Final Staff Report - Rule 2.44, Central Furnaces

April 30, 2009

Section 110 Exemptions

The provisions of the rule shall not apply to units installed in manufactured homes or to units using fuels other than natural gas.

Section 200 Definitions

The rule proposes to define a total of six (6) terms in order to adequately describe all aspects of the rule and its requirements. As defined in this section, a natural gas-fired fan type central furnace is described as a self contained space heater that provides circulation of heated air at pressures other than atmospheric through ducts more than 10 inches in length.

Section 300 Standards

Staff proposes effective January 1, 2010, that no person shall manufacture, offer for sale, sell, or install any natural gas-fired central furnace for use within the District that emits more than 40 ng/J of NOx of heat output.

Section 400 Administrative Requirements

Staff proposes that the manufacturer submit a compliance report to the Air Pollution Control Officer (APCO) demonstrating equipment compliance with the standards section of the proposed rule including new compliance reports for any model whose design has changed in a manner that may alter NOx emissions. The report must be submitted at least 30 days prior to the unit becoming accessible for use in the District. Compliance reports authorized by the BAAQMD or SCAQMD will be acceptable in lieu of requiring duplicative testing. The manufacturer shall display proper labeling on the appliance and the shipping carton in compliance with subsection 301 - Prohibitions, of the proposed rule.

Section 500 Monitoring and Records

Staff proposes that testing procedures be conducted in accordance with CARB Method 100 or other EPA approved method for NOx. Manufacturers are also required to keep compliance reports and testing documents for five (5) years or for the duration of time the equipment is available for purchase or installation in the District, whichever is longer.

III. COMPARISON WITH OTHER APPLICABLE REGULATIONS AND REQUIREMENTS

CH&SC Section 40727.2 requires districts to perform a comparative alternative analysis of any new control standard. Specifically, the District is required to prepare a written analysis (usually in the form of a matrix) that identifies all existing federal air pollution control requirements including, but not limited to, emission control standards constituting Best Available Control Technology (BACT) that apply to the same equipment or source type as the rule or regulation proposed for adoption or modification by the District. In addition, the analysis shall identify any other District rule or regulation that applies to the same equipment or source type.

There are no federal regulations, such as National Emission Standards for Hazardous Air Pollutants (NESHAPs) or New Source Pollution Standards (NSPSs), that apply to

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this source category. In addition, by definition and applicability thresholds, units which are subject to this rule will never be subject to BACT. Therefore, the 40727.2 analysis cannot be performed.

However, for reference, the several other air districts that have rules that apply to similar sources will be compared in Table 2.

Table 2: Rule Comparison to Other Districts			
Comparison Element	Proposed Rule 2.44	BAAQMD Reg 9 Rule 4	SJVAPCD Rule 4905
Effective Date	rule proposed to be adopted 5/2009 with an implementation date of 1/2010	rule adopted 12/1983; applicable to units manufactured after 1/1984	rule adopted 10/2005 with an implementation date of 1/2007
Emission Limit	40 ng/J NO _x	40 ng/J NO _x	0.093 lbs of NO _x per million Btu (or 55ppm NO _x at 3% O ₂ dry)
Monitoring, reporting, and record keeping requirements	<p>manufacturer submits compliance report to APCO</p> <p>maintain reports for five years or until unit is no longer available in the District</p> <p>must display model number of appliance complying with rule on shipping carton and rating plate</p> <p>test procedures shall be in accordance with methods approved by APCO with operation procedures consistent with 10 CFR 430, Subpart B, Appendix N</p>	<p>manufacturer submits compliance statement to APCO</p> <p>must display model number of appliance complying with rule on shipping carton and rating plate</p> <p>test procedures shall be in accordance with methods approved by APCO with operation procedures consistent with 10 CFR 430, Subpart B, Appendix N</p>	<p>manufacturer submits compliance statement to APCO</p> <p>maintain reports for five years</p> <p>must display model number of appliance complying with rule on shipping carton and rating plate</p> <p>test procedures shall be in accordance with methods approved by APCO with operation procedures consistent with 10 CFR 430, Subpart B, Appendix N</p>

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IV. IMPACTS OF THE PROPOSED RULE

Emissions Impacts

As referenced in Table 1, staff used the CARB Emissions Inventory to obtain NOx emissions information for natural gas consumption by the residential sector for space heating. For the District, a total of 107.67 tons per year of NOx emissions were attributed to space heating in the residential sector. Estimated emissions reductions through adoption of this rule are minimal and are calculated as shown in Table 3. The minimal emission benefits (estimated at approximately 0.026 tpd) may be attributed to 20 years of the industry being regulated by other districts at the same NOx emission limit proposed in this rule.

The following assumptions are used to estimate the NOx emissions for residential central furnaces after adoption of the proposed rule. Using the assumptions, the emission reductions for the proposed rule are shown in Table 3.

- 1) The average life cycle of a furnace is estimated at 20 years (approximately a 5% change-out rate).
- 2) The compliance rate is 95% to account for units that may be purchased outside of the District.
- 3) In 2009, 45% of the central furnace units in use emitted 40ng/J of NOx.
- 4) The rule regulations will be fully implemented for the source category by 2020 which accounts for equipment turnover and 45% compliance in 2009.

Table 3: NOx Emissions Estimate

	2006	2007	2008	2009	2010	2015	2020
Control Penetration ¹ , %	0	0	0	0	100	100	100
Uncontrolled E.F. ² , lb NOx/MM Btu	0.104	0.104	0.104	0.104	0.104	0.104	0.104
Controlled E.F. ³ , lb NOx/MM Btu	0.093	0.093	0.093	0.093	0.093	0.093	0.093
Control Efficiency ⁴ , %	10.6	10.6	10.6	10.6	10.6	10.6	10.6
Compliance Rate, %	0	0	0	0	95	95	95
Implementation of rule, %	0	0	0	45	50	75	100

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	2006	2007	2008	2009	2010	2015	2020
Control Factor ⁵	1	1	1	1	0.955	0.924	0.899
Uncontrolled Emissions ⁶ , tpd	0.274	0.273	0.272	0.272	0.271	0.264	0.253
Controlled Baseline Emissions ⁷ , tpd	0.274	0.273	0.272	0.272	0.259	0.244	0.227
Emission Reduction, tpd ⁸	0	0	0	0	0.012	0.020	0.026

- 1 Control Penetration is at 100% since all residences with natural gas-fired fan-type central furnaces (excluding manufactured homes) are subject to the rule.
- 2 Uncontrolled emission factor (E.F.) is estimated at 0.10 lb of NOx/million (MM) Btu (45ng/J) based on US EPA-450/3-92-004 report which stated that conventional units typically emit from 28 to 45 ng/J of heat input.
- 3 Controlled emission factor (E.F.) is estimated at 0.093 lb of NOx/million (MM) Btu (40 ng/J) as proposed in the rule.
- 4 Control Efficiency, % = $[1 - (\text{Controlled E.F.} / \text{Uncontrolled E.F.})] \times 100$
- 5 Control Factor = $[1 - (\text{Control Penetration} / 100)(\text{Control Efficiency} / 100)(\text{Compliance rate} / 100)(\text{Imp of rule} / 100)]$
- 6 California Air Resources Board, Emissions Inventory, Oxides of Nitrogen, Grown and Controlled, Annual Average, Miscellaneous Processes, Residential Fuel Combustion, Fuel Combustion - Space Heating, Natural Gas for years 2005, 2006, 2010, 2015, 2020
- 7 Controlled Baseline Emissions = (Uncontrolled Emissions) x (Control Factor)
- 8 Emission Reduction = Uncontrolled Emissions - Controlled Emissions

Cost Effectiveness

CH&SC Section 40703 requires the District, in the process of the adoption of any regulation, to consider and make public its findings related to the cost effectiveness of a control measure. Cost effectiveness for rule-making purposes is calculated by dividing the cost of air pollution controls required by the rule by the amount of air pollution reduced.

Due to current market availability of products capable of reaching the recommended AFUE ratings since adoption of the 1978 SCAQMD Rule 1111, the incurred additional costs for implementing the proposed rule are minimal.

Based on industry feedback, the average price range for a furnace depending on its efficiency is \$450 - \$1,900 with the more efficient units being on the latter of the scale. The additional costs for the higher efficient units can be offset by manufacturer and/or utility company rebates in addition to energy use savings on monthly service bills.

Socioeconomic Impacts

CH&SC Section 40728.5 (a) requires the District, in the process of the adoption of any rule or regulation, to consider the socioeconomic impact if the regulation will significantly affect air quality or emissions limitations. However, districts with a population of less than 500,000 persons are exempt from the provisions of Section

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40728.5 (a). The District's population is estimated to be approximately 310,000 and well below the 500,000 person threshold. Therefore, a socioeconomic analysis for this rule-making is not required.

Incremental Cost Effectiveness

CH&SC Section 40920.6 requires an assessment of the incremental cost-effectiveness for proposed regulations relative to ozone, Carbon Monoxide (CO), Sulfur Oxides (SO_x), NO_x, and their precursors. Incremental cost-effectiveness is defined as the difference in control costs divided by the difference in emission reductions between two potential control options that can achieve the same emission reduction goal of a regulation.

Since compliant units have been available for 20 years, the initial costs for development of low NO_x burners have been recovered. Additionally, because of the practice of the industry to maintain and improve AFUE and CEC standards for energy and thermal efficiency ratings, there are a variety of units capable of achieving the low NO_x levels with varying efficiencies. Because the variation between available units is the efficiency rating, performing an incremental cost analysis for available units is beyond the scope of the proposed rule.

Impacts to the District

The proposed amendments are not expected to result in any significant increase in workload for District staff since the proposed regulation is at the "point of sale" level and will be implemented by manufacturers, retailers, and city/county building permit processors and inspectors. Occasional compliance checks at local distributors and retailers by District staff to enforce that the equipment available to the public is in compliance with the proposed rule are expected. Staff believes this will not create an undue burden on District resources and that this increase in work load can be absorbed.

V. ENVIRONMENTAL IMPACTS OF METHODS OF COMPLIANCE

California Public Resource Code Section 21159 requires the District to perform an environmental analysis of the reasonably foreseeable methods of compliance. The analysis must include the following information for the proposed adoption of Rule 2.44:

- a. An analysis of the reasonably foreseeable environmental impacts of the methods of compliance.
- b. An analysis of the reasonably foreseeable mitigation measures.
- c. An analysis of the reasonably foreseeable alternative means of compliance with the rule or regulation.

Table 4 lists all reasonably foreseeable compliance methods, the environmental impacts of those methods, and measures that could be used to mitigate the environmental impacts.

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Table 4: Environmental Impacts, Mitigation Measures, and Alternatives		
Compliance Methods	Reasonably Foreseeable Environmental Impacts	Reasonably Foreseeable Mitigation Measures
Lower NOx emission limits	Air Quality Impacts: All compliance methods are aimed at lowering NOx emission levels from a point of sale regulation	No mitigation necessary
	Water Impacts: Compliance methods will not contribute to potential water impacts.	
	Human Health Impacts: Compliance methods will not contribute to potential human health impacts.	
	Solid Waste Disposal Impacts: Compliance methods will not contribute to potential solid waste impacts. Product turnover is estimated at 20 years and the compliance methods proposed do not require retrofitting equipment to meet new NOx emission standards.	

This analysis demonstrates that the adoption of Rule 2.44 will not have a significant effect on the environment or humans due to unusual circumstances. In addition, the proposed Rule 2.44 is an action taken to protect the environment. Therefore, staff has determined that the project is categorically exempt from the requirements of CEQA pursuant to Section 15308, Actions by Regulatory Agencies for Protection of the Environment. Staff prepared a Notice of Exemption (NOE) to meet the CEQA Guidelines (Attachment B).

VI. REGULATORY FINDINGS

Section 40727(a) of the CH&SC requires that prior to adopting or amending a rule or regulation, an air district's board make findings of necessity, authority, clarity, consistency, non-duplication, and reference. The findings must be based on the following:

1. Information presented in the District's written analysis, prepared pursuant to CH&SC Section 40727.2;
2. Information contained in the rule-making records pursuant to CH&SC Section 40728; and
3. Relevant information presented at the Board's hearing for adoption of the rule.

The required findings are:

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Necessity: The rule amendment is required in order to meet the our commitment to SB 656 and "every feasible measures" requirement (Section 40914 of the CH&SC) for reducing NOx emissions from natural gas-fired central furnaces. (CH&SC Section 40727 (b)(1)).

Authority: The District is authorized to adopt rules and regulations by CH&SC Sections 40001, 40702, 40716, 41010 and 41013. (H&SC Section 40727 (b)(2)).

Clarity: District staff have reviewed the proposed rule and determined that it can be easily understood by the affected industry. In addition, the record contains no evidence that the persons directly affected by the rule cannot understand the rule. (CH&SC Section 40727(b)(3)).

Consistency: The proposed rule does not conflict with and is not contradictory to, existing statutes, court decisions, or state or federal regulations. (CH&SC Section 40727(b)(4)).

Non-Duplication: The proposed rule does not duplicate any state laws or regulations, regarding the attainment and maintenance of state and federal air quality limits. (CH&SC Section 40727(b)(5)).

Reference: The District must refer to any statute, court decision, or other provision of law that the District implements, interprets, or makes specific by adopting, amending or repealing the rule.

VII. PUBLIC COMMENTS AND STAFF RESPONSES

Staff held a public workshop on March 11, 2009, to discuss the proposed Rule 2.44. Notification was sent to surrounding Air Districts, City Managers within the District, building/planning/community development departments within the District, all city and county libraries within the District, all Board members, and central furnace retailers and manufacturers in the District. The workshop notice was published in the local newspapers in the District.

A copy of the public workshop notice, the draft staff report, and draft rule language was posted on the District's web page. Additionally, a copy of the proposed staff report, proposed rule language and public hearing notice have also been posted on the District's web page. Attachment D includes written comments the District received during the rule development process.

A. Public Workshop:

The March 11, 2009, public workshop was held at the District office and did not have any attendants.

B. Written comments:

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April 30, 2009

Andrew Steckel of the United States Environmental Protection Agency (EPA) issued a written comment via email on February 25, 2009. The comment and district response is listed below:

Comment 1: Section 501.1: This section does not establish specific and clear compliance testing requirements. Please specify approved test methods that should be used, as well as any relevant testing procedures, such as averaging times.

Response 1: Subsections in Section 501 were renumbered to incorporate specific testing requirements as described in Section 501.3 of the proposed rule language (ARB Method 100 or other EPA approved test method for NOx). including specific instructions regarding sampling methods in accordance with Section 3.1 of Code of Federal Regulations, Title 10, Part 430, Subpart B, Appendix N.

VIII. REFERENCES

1. Bay Area Air Quality Management District, Regulation 9 Inorganic Gaseous Pollutants Rule 4 Nitrogen Oxides from Fan Type Residential Central Furnaces, December 1983.
2. California Energy Commission, Natural Gas Market Assessment Update Staff Report, February 2005, CEC-600-2005-003.
3. San Joaquin Valley Air Pollution Control District, Staff Report, Rule 4905 Natural Gas-Fired, Fan-Type Residential Central Furnaces, October 2005.
4. San Joaquin Valley Air Pollution Control District, Rule 4905 Natural Gas-Fired, Fan-Type Residential Central Furnaces, October 2005.
5. South Coast Air Quality Management District, Rule 1111, NOx Emissions from Natural-Gas-Fired, Fan-Type Central Furnaces, July 1983.
6. State of California, California Air Resources Board, Emissions Inventory, Residential Fuel Combustion Emissions Inventory Category, Methodology, Section 7.2, Residential Natural Gas Combustion, November 1998.
7. State of California. California Air Resources Board, 2006 Emission Inventory.
8. Yolo-Solano Air Quality Management District Final Staff Report, Proposed Implementation of Senate Bill 656, Sher 2003 (June 2005).

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ATTACHMENT A

PROPOSED RULE 2.44, CENTRAL FURNACES

AMENDMENT # 1

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RULE 2.44. CENTRAL FURNACES

Adopted May 13, 2009

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100 GENERAL

101 **PURPOSE:** The purpose of this Rule is to limit the emissions of oxides of nitrogen (NOx) from the use of natural gas-fired, fan-type central furnaces.

102 **APPLICABILITY:** The provisions of this Rule shall apply to any person that manufactures, offers for sale, sells, or installs any natural gas-fired, fan-type central furnace with a rated heat input capacity of less than 175,000 British thermal units per hour (Btu/hr) and for combination heating and cooling units with a cooling rate of less than 65,000 Btu/hr.

103 **SEVERABILITY:** If any provision, clause, sentence, paragraph, section or part of this rule for any reason is judged to be unconstitutional or invalid, such judgement shall not affect or invalidate the remainder of the rule.

110 **EXEMPTIONS:** The provisions of this rule shall not apply to the following:

110.1 Units installed in manufactured homes.

110.2 Units using fuels other than natural gas.

200 DEFINITIONS

201 **ANNUAL FUEL UTILIZATION EFFICIENCY (AFUE):** The efficiency as defined in Section 430.2 of the Code of Federal Regulations, Title 10, Part 430, Subpart A.

202 **BRITISH THERMAL UNITS (Btu):** The amount of heat required to raise the temperature of one pound of water from 59° F to 60° F at one atmosphere.

203 **FAN-TYPE CENTRAL FURNACE:** A self contained space heater that provides circulation of heated air at pressures other than atmospheric through ducts more than 10 inches in length.

204 **HEAT OUTPUT:** The product obtained by multiplying the annual fuel utilization efficiency (AFUE) by the rated heat input capacity of the natural gas-fired central furnace.

205 **MANUFACTURED HOME:** As defined in 42 United States Code Section 5402 and California Health and Safety Code Section 18007.

206 **RATED HEAT INPUT CAPACITY:** The heat input capacity specified on the

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nameplate of the combustion unit.

300 STANDARDS

301 PROHIBITIONS: Effective January 1, 2010, no person shall manufacture, offer for sale, sell, or install any unit as described in Section 102 of this rule that emits more than 40 nanograms (ng) per joule (J) of heat output of oxides of nitrogen (NOx).

400 ADMINISTRATIVE REQUIREMENTS

401 COMPLIANCE REPORT: Each manufacturer subject to the provisions of this Rule shall submit to the Air Pollution Control Officer (APCO) a Compliance Report that demonstrates compliance with Section 301 above. A manufacturer shall submit a new Compliance Report for any natural gas-fired, fan-type central furnace model whose design is changed in any manner which may alter NO_x emissions. These Compliance Reports, for either new or altered models, shall be submitted to the District at least 30 days before the model is offered for sale, sold, or installed within the District. The Compliance Report shall contain all of the following information:

401.1 General Information:

- a. Name and address of manufacturer;
- b. Brand name and model;
- c. Model number as it appears on the rating plate of each unit;
- d. Description of each natural gas-fired fan-type central furnace model being certified; and
- e. Heat input rating.

401.2 Test Report:

- a. All compliance test procedures and results for each natural gas-fired, fan-type central furnace model.
- b. All calculations used in determining compliance for each natural gas-fired, fan-type central furnace model.
- c. The manufacturer may submit to the District an approved Bay Area AQMD Regulation 9 Rule 4 or South Coast AQMD Rule 1111 certification in lieu of conducting duplicative compliance tests.

401.3 Compliance Statement: A signed and dated statement attesting to the accuracy of all statements and information in the Compliance Report.

402 LABELING: The manufacturer shall display the model number of the natural gas-fired, fan-type central furnace complying with the requirements specified in Section 301 of this Rule on the unit's shipping carton and rating plate.

AIR QUALITY MITIGATION PLAN

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500 MONITORING AND RECORDS

501 TEST METHODS: The manufacturer shall have each natural gas-fired, fan-type central furnace model tested in accordance with the following:

501.1 NOx measurements, test equipment, and other required test procedures shall be in accordance with methods approved by the APCO.

501.2 Operation of the furnace shall be in accordance with the procedures specified in Section 3.1 of the Code of Federal Regulations, Title 10, Part 430, Subpart B, Appendix N.

501.3 Compliance with the emission requirements in Section 301 shall be determined using ARB Method 100, or other EPA approved method for NOx. NOx samples shall be taken simultaneously with the CO₂ sample specified in Section 3.1 of Code of Federal Regulations, Title 10, Part 430, Subpart B, Appendix N.

501.4 The following calculation shall be used to determine the nanograms of NOx per Joule of heat output:

$$N = \frac{4.566 \times 10^4 \times P \times U}{H \times C \times E}$$

Where:

N = nanograms (ng) of emitted NOx per Joule of heat output.

4.566 x 10⁴ = unit conversion factor (ppm to ng and Btu to Joules)

P = concentration (expressed in parts per million) of NOx in the flue gas as tested.

U = volume percent of carbon dioxide in water-free flue gas for stoichiometric combustion

H = gross heating value of the fuel, Btu/ft³ (60°F, 30-inches Hg)

C = measured volume percent of carbon dioxide in water-free flue gas, assuming complete combustion and no carbon monoxide present

E = AFUE (percentage)

502 RECORDS: A manufacturer shall keep Compliance Reports, test reports, and compliance statements for as long as the natural gas-fired, fan-type central furnace model is offered for sale, sold, or installed within the District, or for five years, whichever is longer.

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ATTACHMENT B

NOTICE OF EXEMPTION FROM CEQA GUIDELINES

AIR QUALITY MITIGATION PLAN

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ATTACHMENT C

RESOLUTION NO. 09-07

AMENDMENT # 1

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ATTACHMENT D WRITTEN COMMENTS RECEIVED

AIR QUALITY MITIGATION PLAN

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**STATE OF CALIFORNIA
ENVIRONMENTAL PROTECTION AGENCY
AIR RESOURCES BOARD**



P. O. Box 2815
Sacramento, California 95812

February 26, 2009

ARB Staff Rule Review Results

To: Ms. Tiffany Lathrop
Air Quality Planner
Yolo Solano Air Quality Management District
Telephone Number: (530) 757-3677
e-mail: TLathrop@ysaqmd.org

From: Alex Krichevsky, (916) 324-6222
e-mail: akrichev@arb.ca.gov

The following draft rule, which is scheduled for workshop to be held by your District staff on March 11, 2009, was received by us on February 6, 2009, for our review:

Rule 2.44 Central Furnaces

The Air Resources Board staff has reviewed the rule and, based on the information available to us at this time, we have no comments.

If you have any questions, please contact me by e-mail or at the telephone number above.

AMENDMENT # 1

Attachment C: Yolo-Solano Air Quality Management District Final Staff Report

Tiffany Lathrop - EPA comment on Yolo-Solano 2.44

From: <Steckel.Andrew@epamail.epa.gov>
To: Matt Jones <MJones@ysaqmd.org>, <mguzzett@arb.ca.gov>
Date: 2/25/2009 1:18 PM
Subject: EPA comment on Yolo-Solano 2.44
CC: <Perez.Idalia@epamail.epa.gov>



United States Environmental Protection Agency

Region IX
75 Hawthorne Street
San Francisco, CA 94105-3901

February 25, 2009

Transmittal of EPA Rule Review Comments

To: Matt Jones, Yolo-Solano Air Quality Management District

mjones@ysaqmd.org

Mike Guzzetta, California Air Resources Board

mguzzett@arb.ca.gov

From: Andrew Steckel, Rulemaking Office Chief
steckel.andrew@epa.gov

Re: Rule 2.44; Central Furnaces

We are providing a comment based on our preliminary review of the draft rule identified above. Please direct any questions about this comment to me at (415) 947-4115 or to Idalia Perez at (415) 972-3248.

Section 501.1 does not establish specific and clear compliance testing requirements. Please specify approved test methods that should be used, as well as any relevant testing procedures, such as averaging times.

AIR QUALITY MITIGATION PLAN

Attachment C: Yolo-Solano Air Quality Management District Final Staff Report

**STATE OF CALIFORNIA
ENVIRONMENTAL PROTECTION AGENCY
AIR RESOURCES BOARD**



P. O. Box 2815
Sacramento, California 95812

April 30, 2009

ARB Staff Rule Review Results

To: Ms. Tiffany Lathrop
Air Quality Planner
Yolo Solano Air Quality Management District
Telephone Number: (530) 757-3677
e-mail: TLathrop@ysaqmd.org

From: Alex Krichevsky, (916) 324-6222
e-mail: akrichev@arb.ca.gov

The following proposed rule, which is scheduled for hearing to be held by your District Board on May 13, 2009, was received by us on April 1, 2009, for our review:

Rule 2.44 Central Furnaces

The Air Resources Board staff has reviewed the rule and, based on the information available to us at this time, we have no comments.

If you have any questions, please contact me by e-mail or at the telephone number above.

AMENDMENT # 1

Attachment C: Yolo-Solano Air Quality Management District Final Staff Report

Tiffany Lathrop - EPA no comment on Yolo-Solano 2.44

From: <Steckel.Andrew@epamail.epa.gov>
To: Matt Jones <MJones@ysaqmd.org>, <mguzzett@arb.ca.gov>
Date: 4/2/2009 3:17 PM
Subject: EPA no comment on Yolo-Solano 2.44
CC: <Perez.Idalia@epamail.epa.gov>



United States Environmental Protection Agency

Region IX
75 Hawthorne Street
San Francisco, CA 94105-3901

April 02, 2009

Transmittal of EPA Rule Review Comments

To: Matt Jones, Yolo-Solano Air Quality Management District
mjones@ysaqmd.org

Mike Guzzetta, California Air Resources Board
mguzzett@arb.ca.gov

From: Andrew Steckel, Rulemaking Office Chief
steckel.andrew@epa.gov

Re: Proposed Rule 2.44, Central Furnaces (Proposed March 31, 2009)

We have reviewed the proposed revisions to Yolo-Solano Rule 2.44 and have no comments at this time. Please direct any questions in this regard to me at (415) 947-4115 or to Idalia Perez at (415) 972-3248.

