AMERICAN RIVER COMMON FEATURES
2016

Sacramento River East Levee, Contract 2
Industry Day

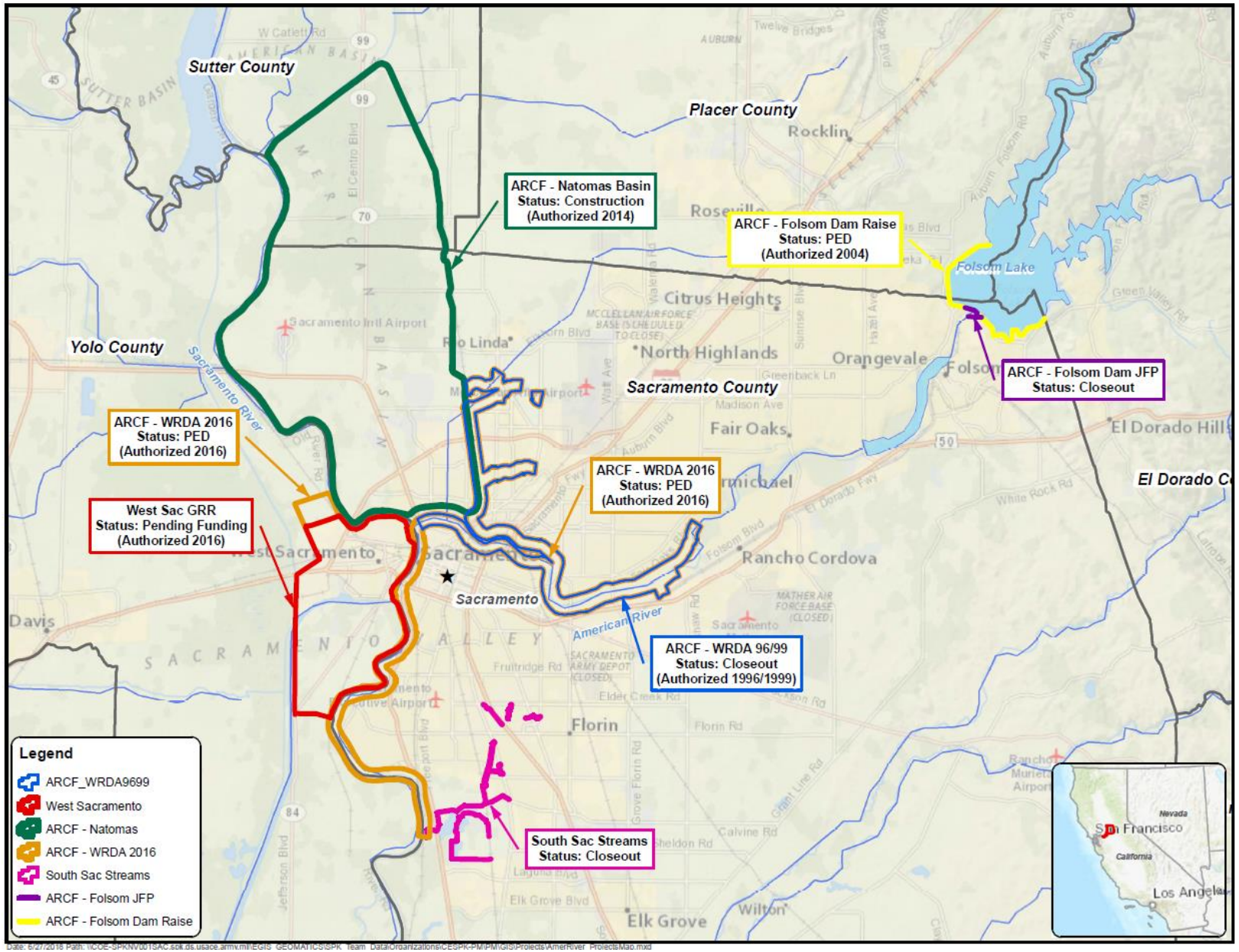
May 6, 2020

US Army Corps of Engineers®

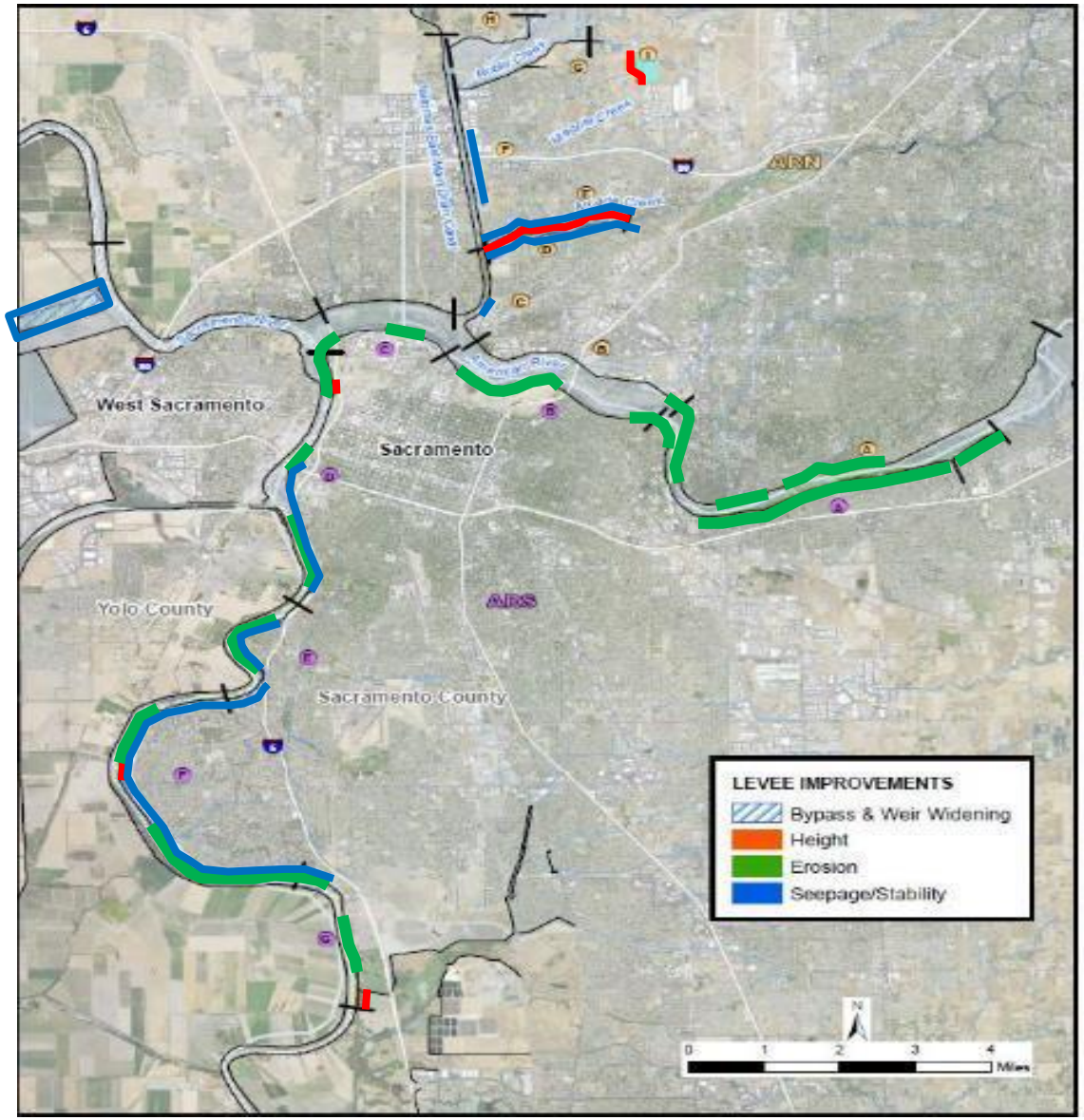
AGENDA

PROGRAM OVERVIEW
Project Background
TECHNICAL OVERVIEW
Overview
Remaining Efforts
Environmental
REGIONAL OVERVIEW
CONTRACTING

SACRAMENTO AREA PROJECTS



AMERICAN RIVER COMMON FEATURES 2016



SUBSTANTIAL COMPLETION TARGET JAN 2024

Authorized Plan	
Features	
Cutoff walls	Up to 13 miles
Bank protection	Up to 21 miles
Levee stabilization	Up to 5 miles
Levee raises	Up to 5 miles
Widen Sacramento Weir and Bypass	Approx. 1500 feet
Environmental Mitigation	Up to 680 acres
Replant Shaded Riverine Habitat	Up to 15.5 miles
Reduces Risk	500,000 People
	125,000 Structures
	$62 Billion

5

SACRAMENTO RIVER EAST LEVEE (SREL) CONTRACT 2 IMPROVEMENTS

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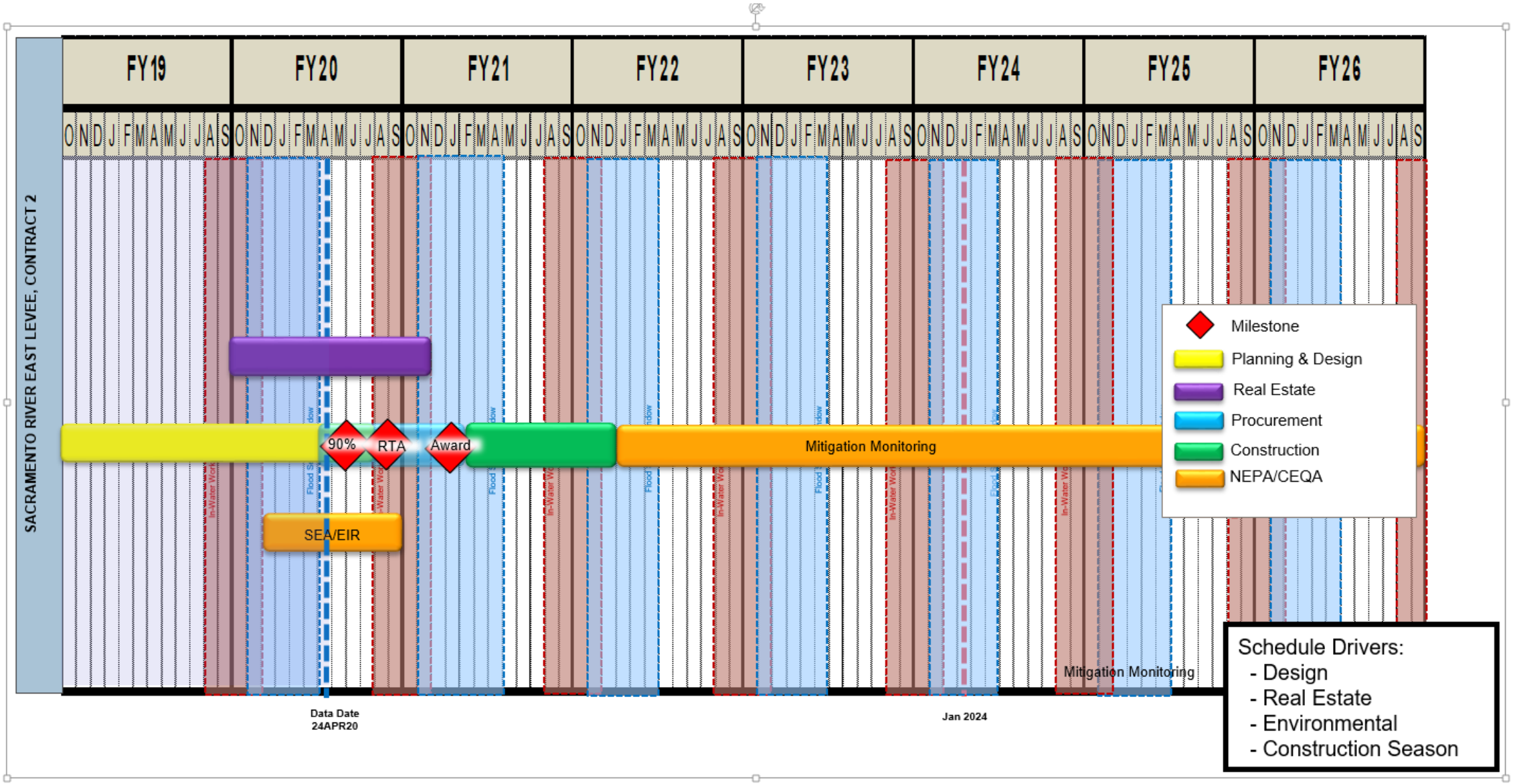
SREL CONTRACT 2 - SCHEDULE

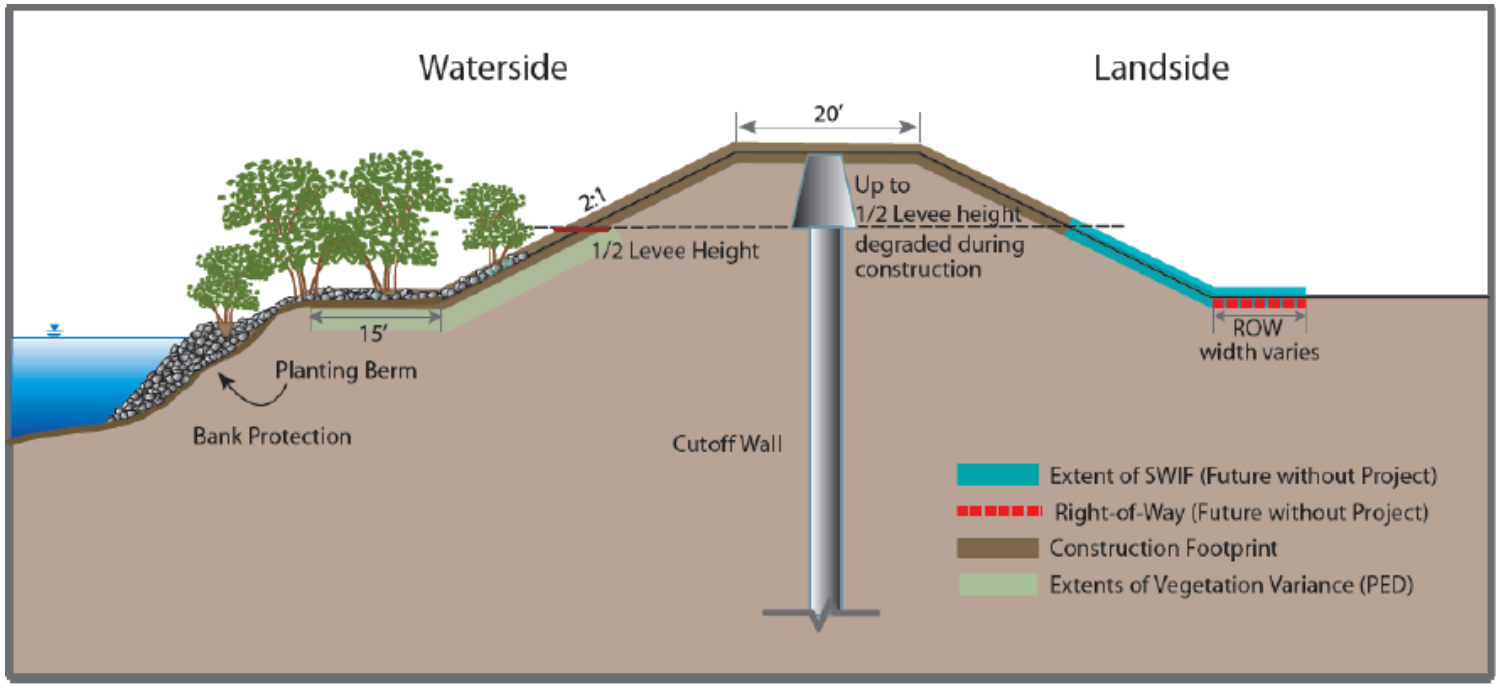


SREL CONTRACT 2 REMAINING EFFORTS

SACRAMENTO RIVER EAST LEVEE SEEPAGE/STABILITY/OVERTOPPING
SREL Contract 2 – 90% and 100%

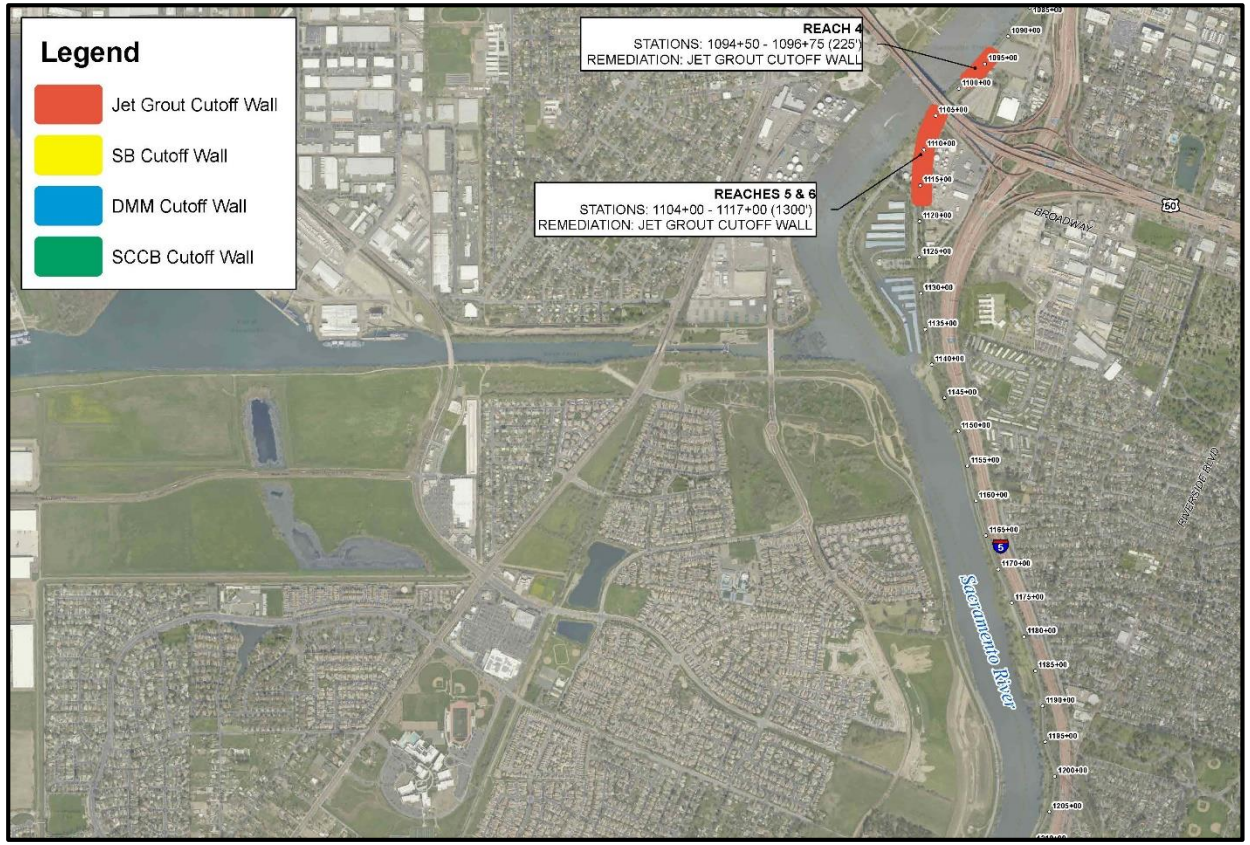
ENGINEERING REVIEWS
Value Engineering Study

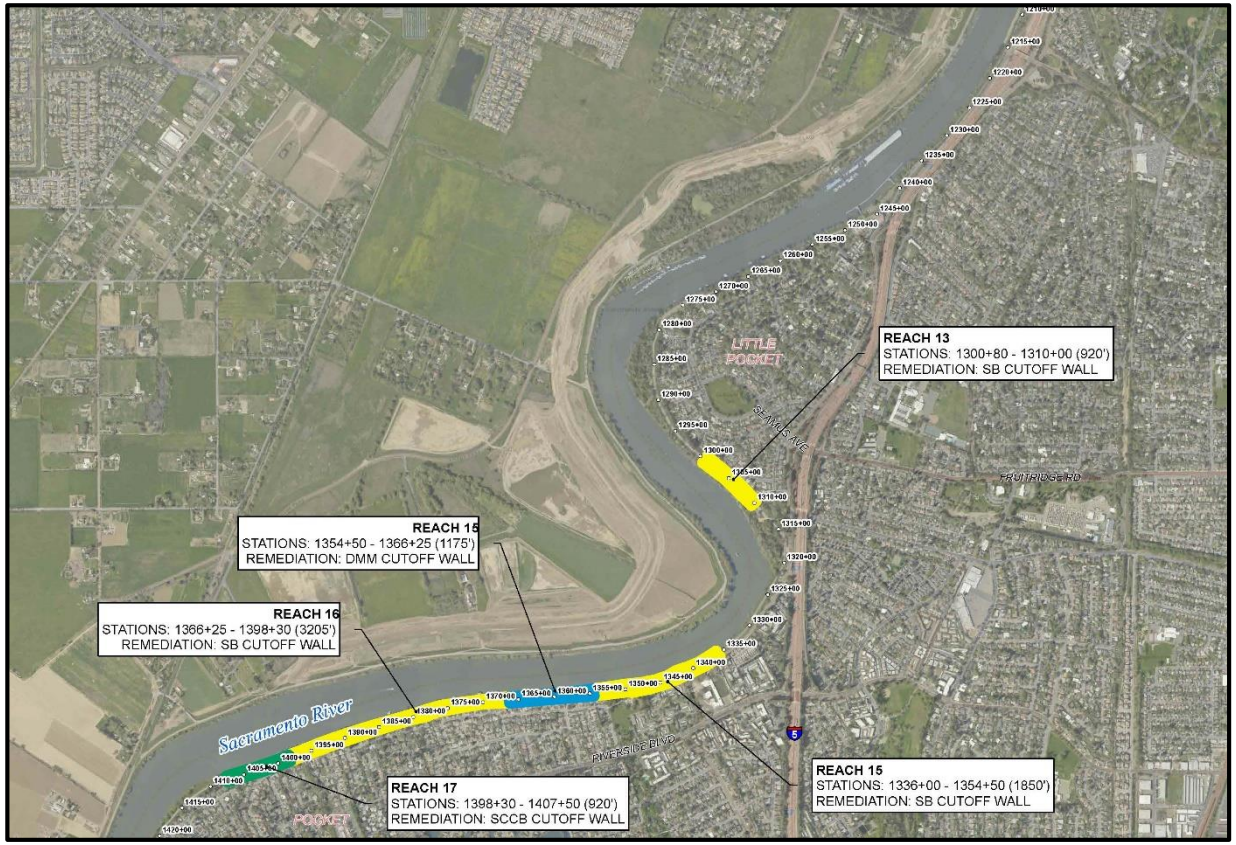
PROCUREMENT PROCESS
20MAY20 – 23JUN20– 90% Draft Solicitation
6MAY20 – Industry Day
FY21 QTR 1 - Solicitation
FY21 QTR 2 - Award



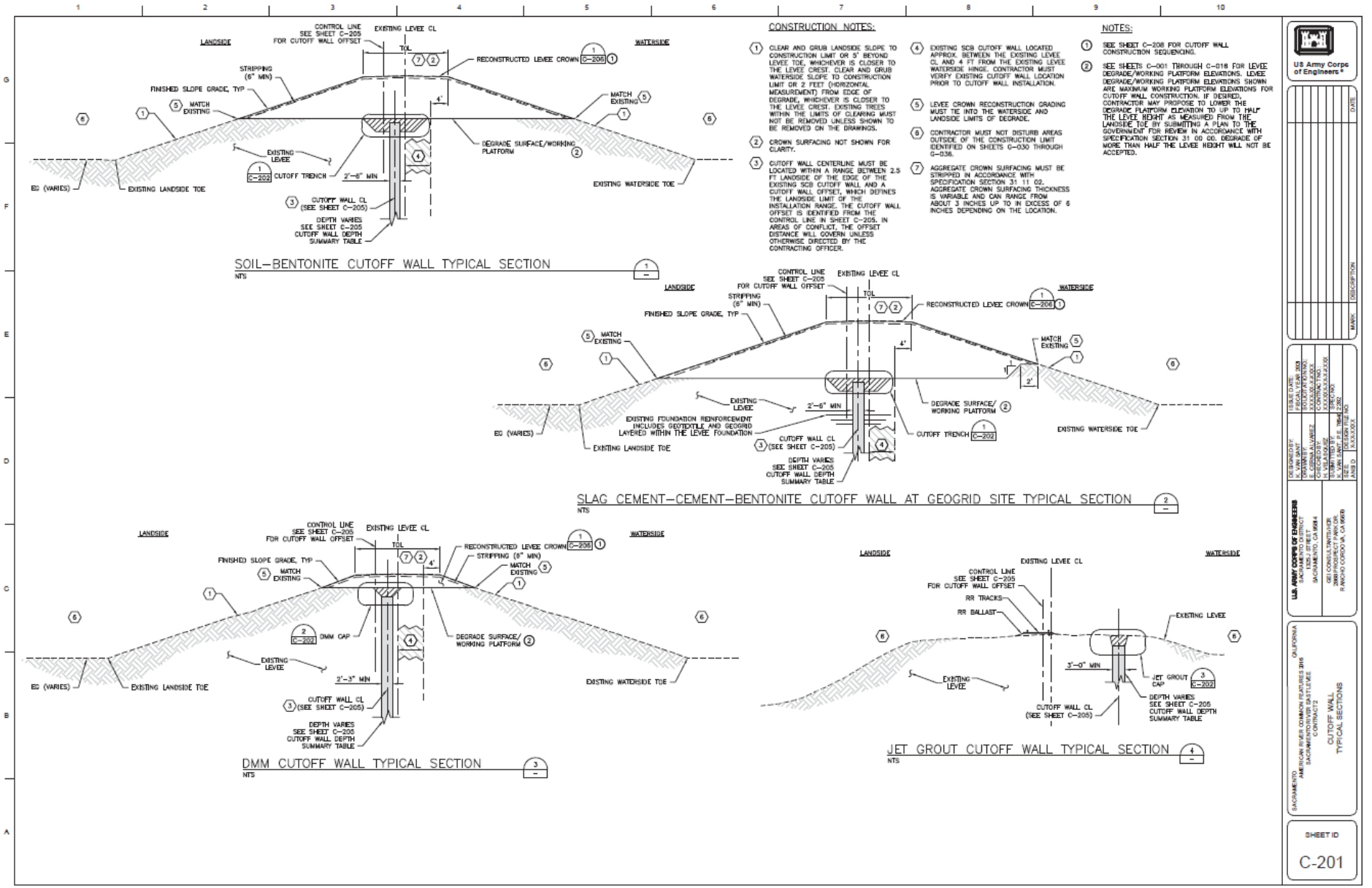
CONSTRUCTION
NLT 30 SEPT 2021 – Cutoff Wall and Levee Reconstruction Complete
NLT DEC 2021 – Construction Complete

SREL CONTRACT 2 OVERVIEW



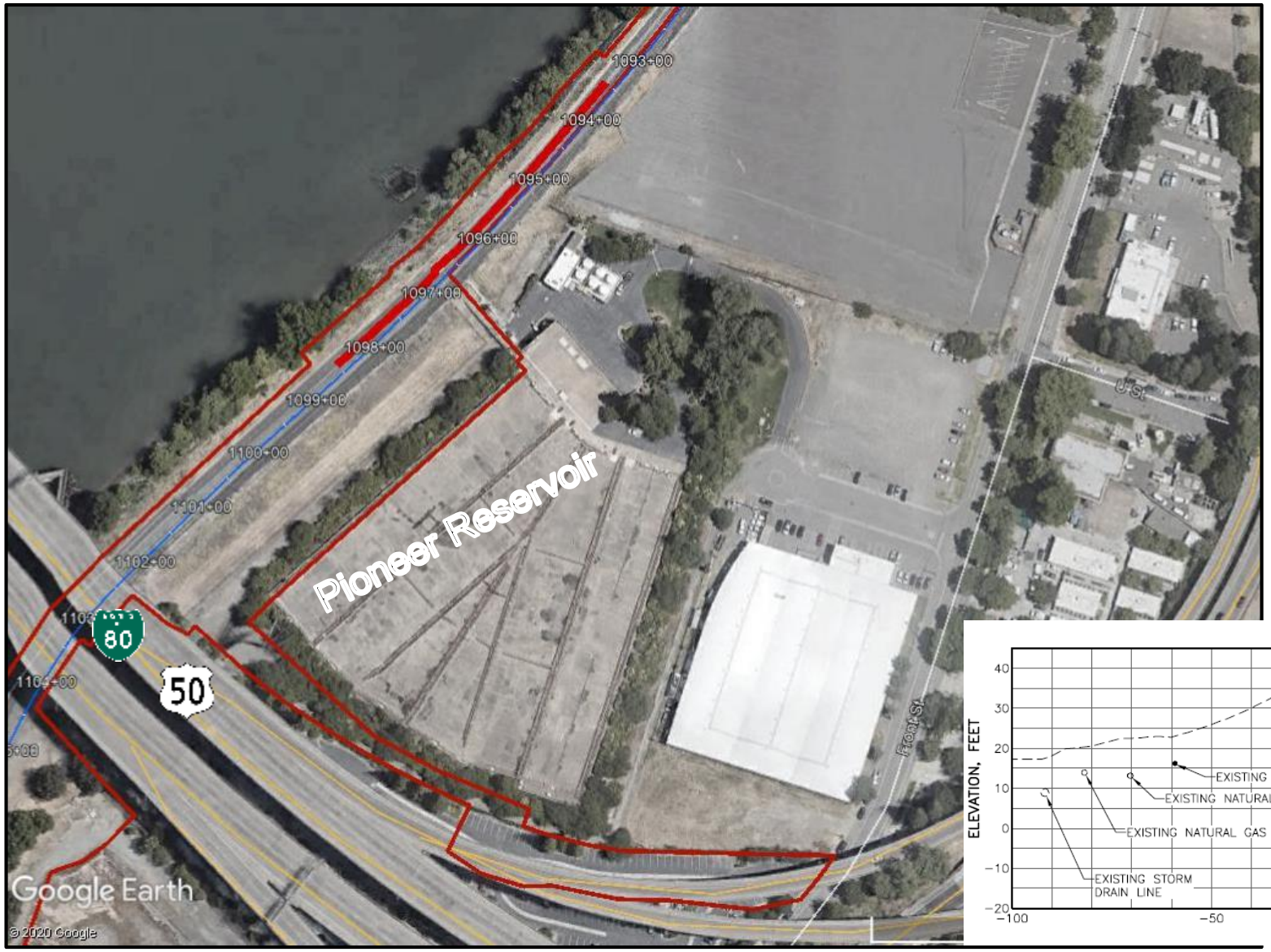


SREL CONTRACT 2 OVERVIEW



65% SUBMITTAL

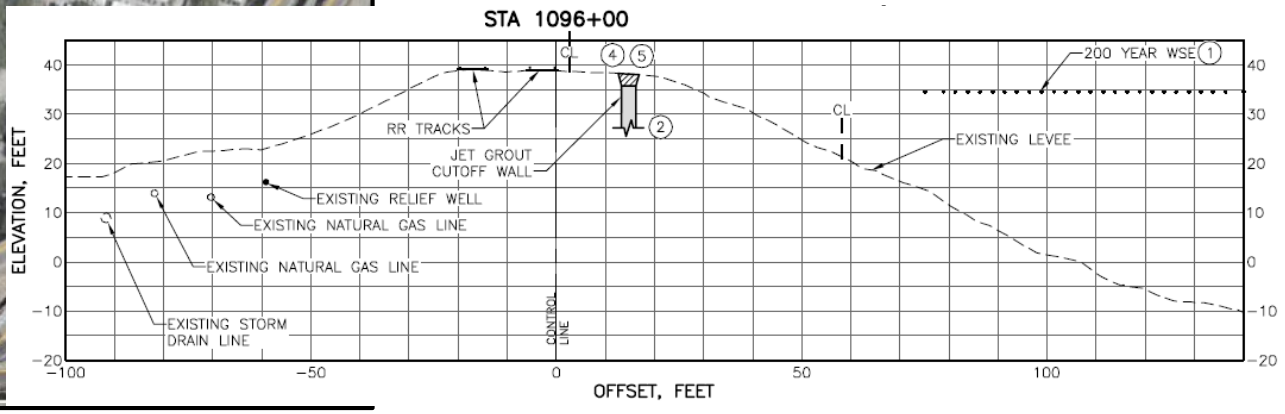
REACH 4 JET GROUT CUTOFF WALL



Cutoff Wall
- 108 FT Depth
- 500 FT Length
- No Levee Degrade

Levee Crest Railroad
- State Park's Owned
- Two tracks – Limited Use for Public Tours. Will run on weekends only.

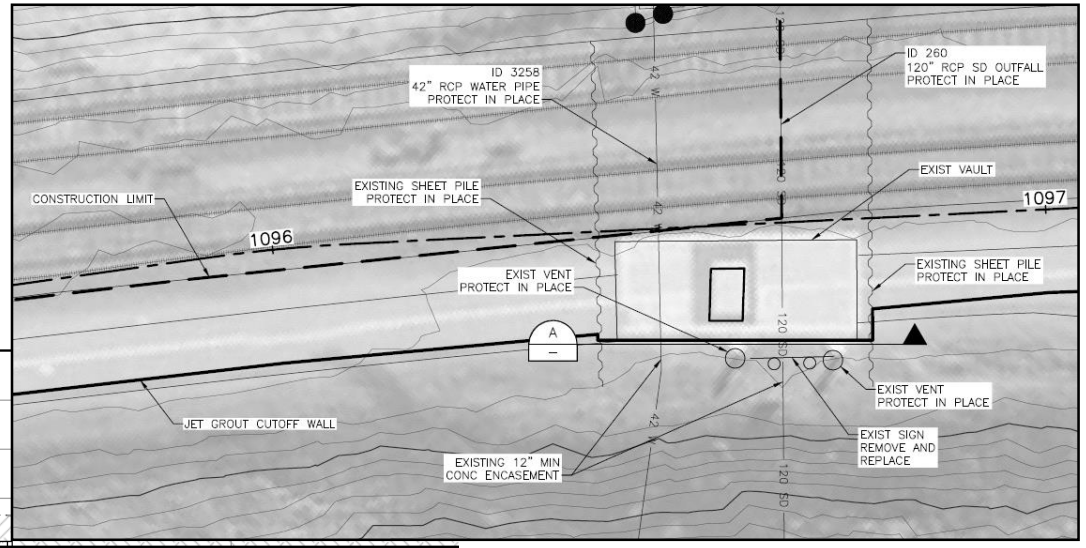
Utility Conflicts
- Directional Jet Grouting (Panels) Required
  - 120" Pipe – Protect in Place
  - 42" Pipe – Protect in

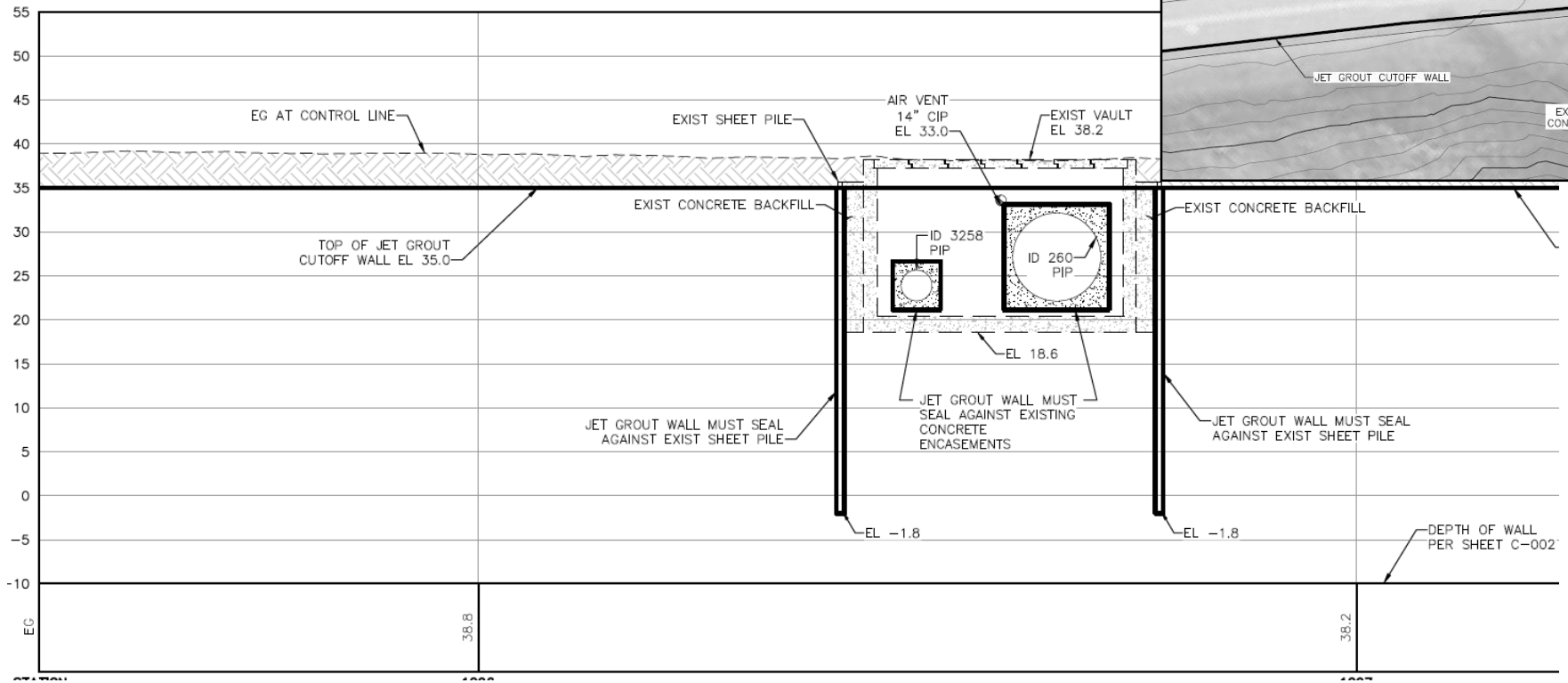


REACH 4 JET GROUT CUTOFF WALL

120” and 42” Pipe Utility Vault

- Wall Alignment Jogs to Waterside limit of Vault
- Panel Construction Required for Crossing Pipes





REACH 5 & 6: JET GROUT CUTOFF WALL

Cutoff Wall

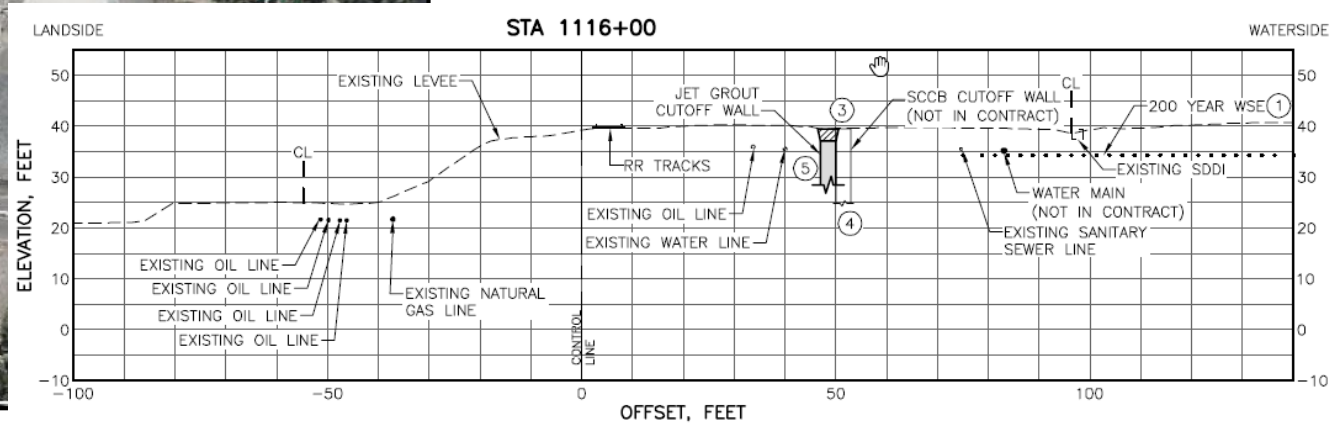
- 50 FT Depth
- 1,300 FT Length
- No Levee Degrade

Levee Crest Railroad

- One Set of Tracks – Limited Use for Public Tours. Will run on weekends only.

Utility Conflicts

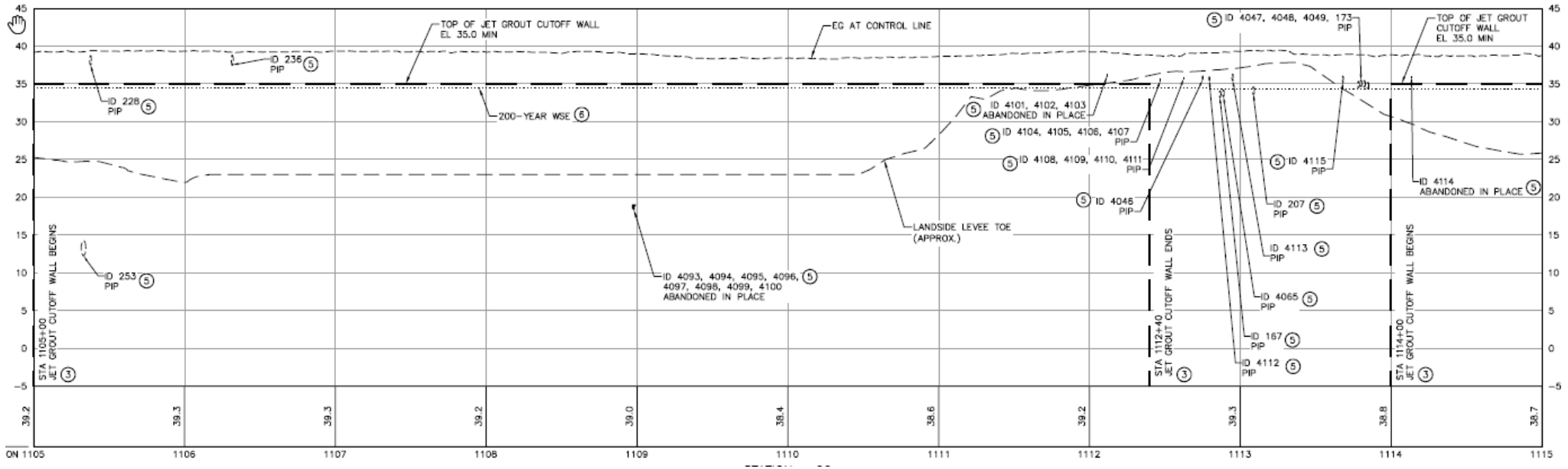
- Various – Petroleum/Gas/Com/ Water/ Overhead Electrical



REACH 5 & 6: JET GROUT CUTOFF WALL

Various Utility penetrations through out levee within Cutoff Wall Extents

- All are 24” or less in diameter
  - 17 to be Abandoned in Place
  - 14 to be Protected in Place



REACH 4, 5, & 6 STAGING AREAS

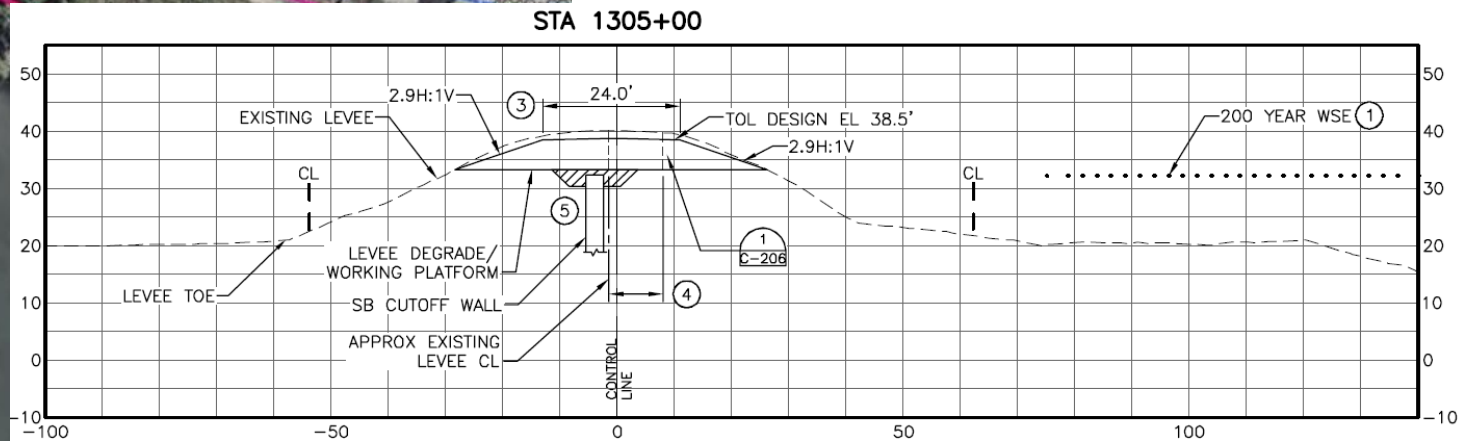
REACH 13 SB CUTOFF WALL

Cutoff Wall

- 63 FT Depth
- 920 FT Length
- ~5 FT of Levee Degrade

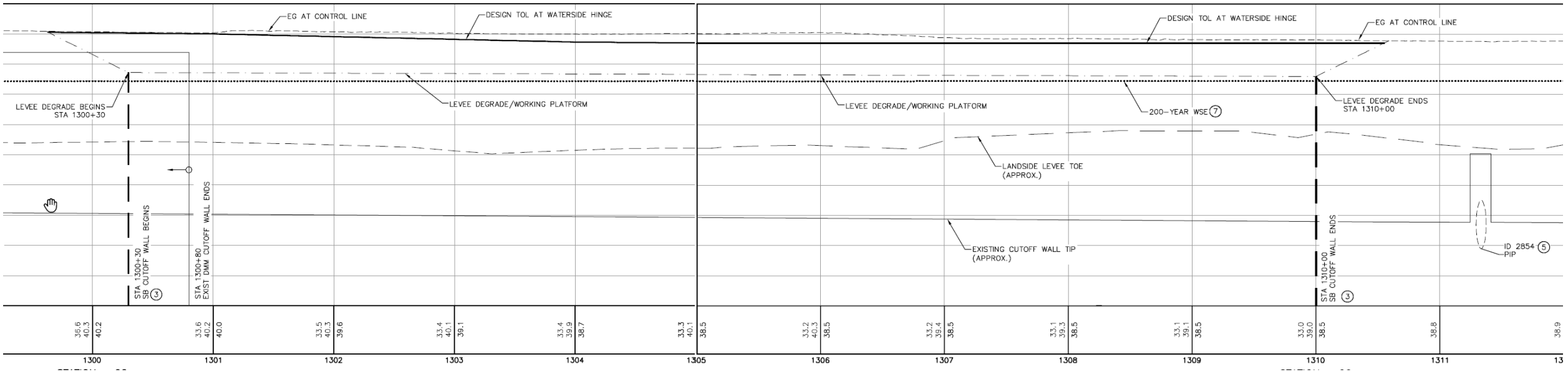
Utility Conflicts

- 1 Piezometer Removal and Disposal
- 1 Pipe Removal and Disposal

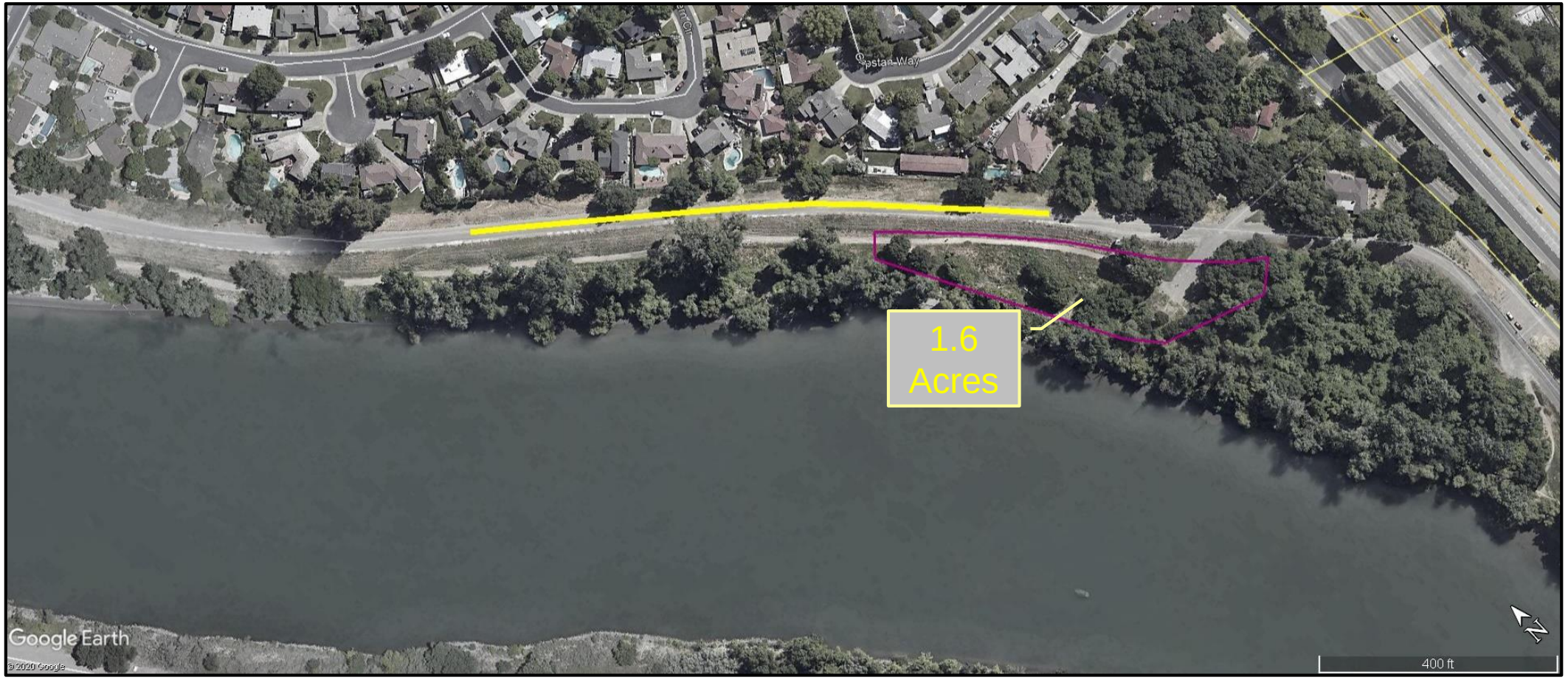


REACH 13 SB CUTOFF WALL

- Tie-in into SREL Contract 1 DMM Wall at U/S end
- 2 Protect in Place penetrations D/S of Wall end



REACH 13 STAGING AREA

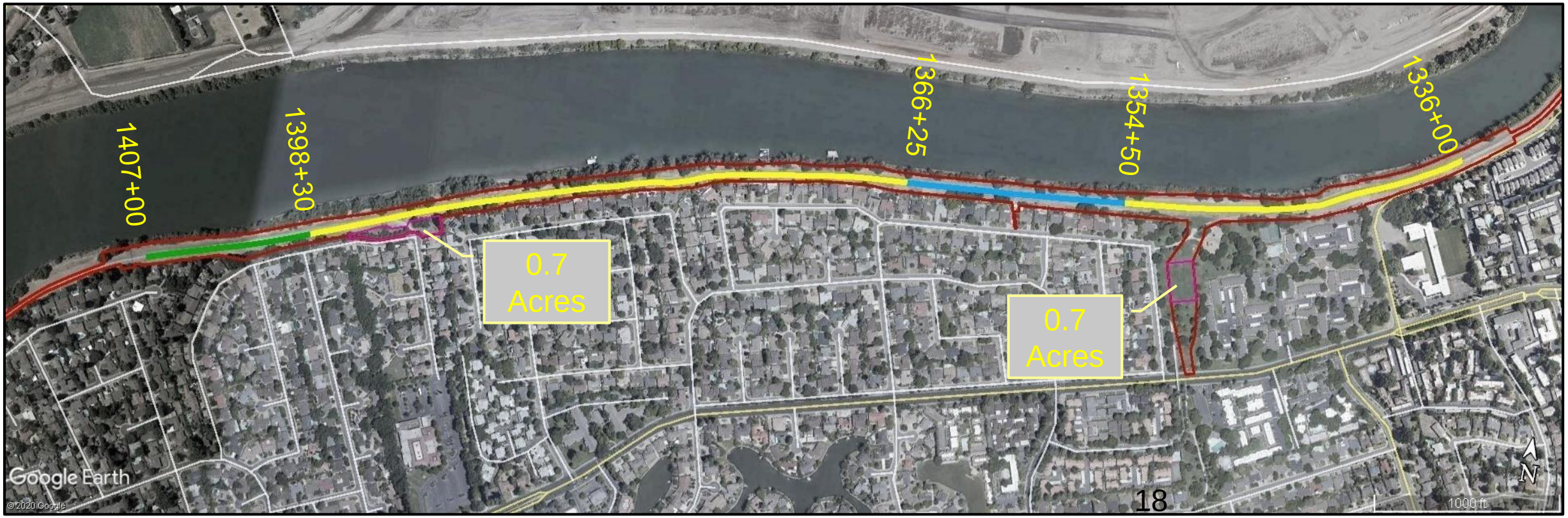


REACH 15, 16, & 17 CUTOFF WALL

- Cutoff Wall
  - Combined 1.3 Miles of SB(Yellow) / SCCB(Green) / DMM(Blue) Cutoff Wall
  - Degrade
  - Wall depths: 72 - 118 ft

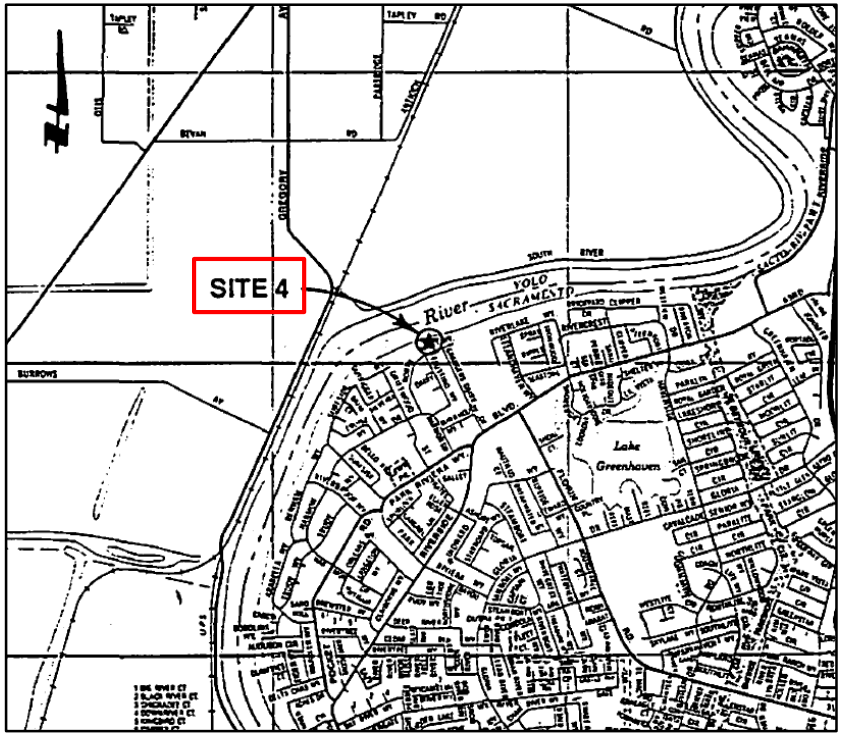
Utility Conflicts

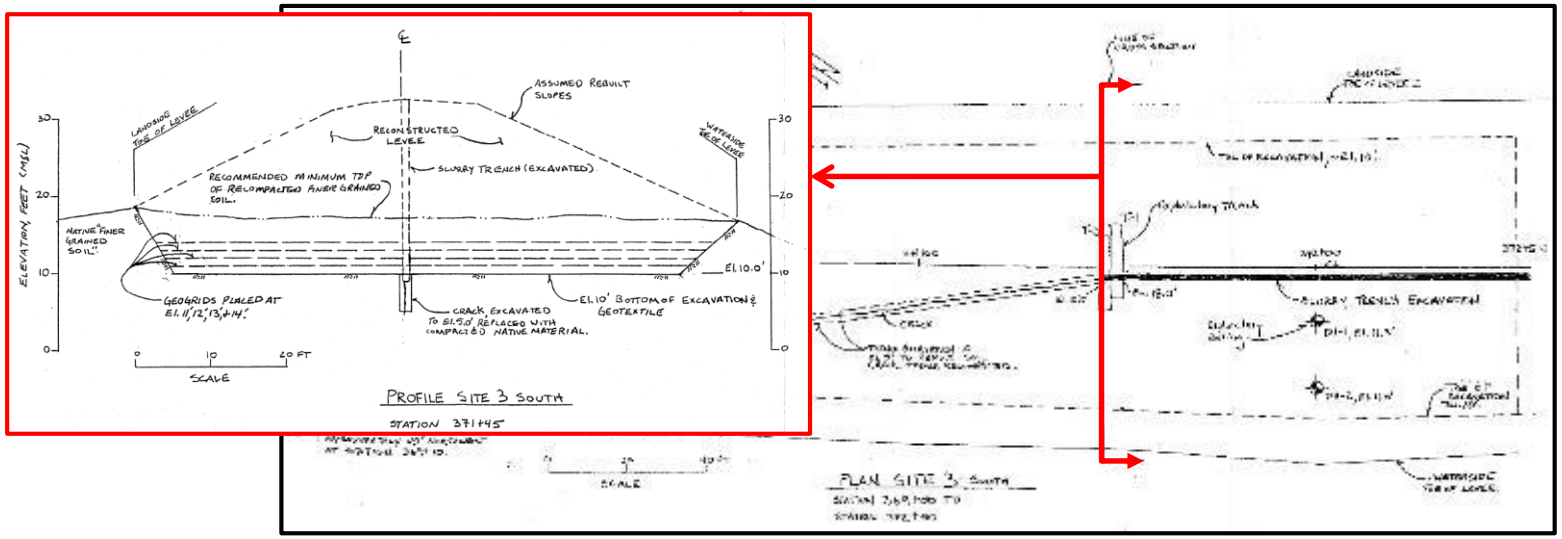
- 12 Removal and Disposals – Small diameter (≤12” Waterlines/Electrical Conduits/Misc)
- Sump 63 Vault and Discharge Pipes (4) Removal and Replacement



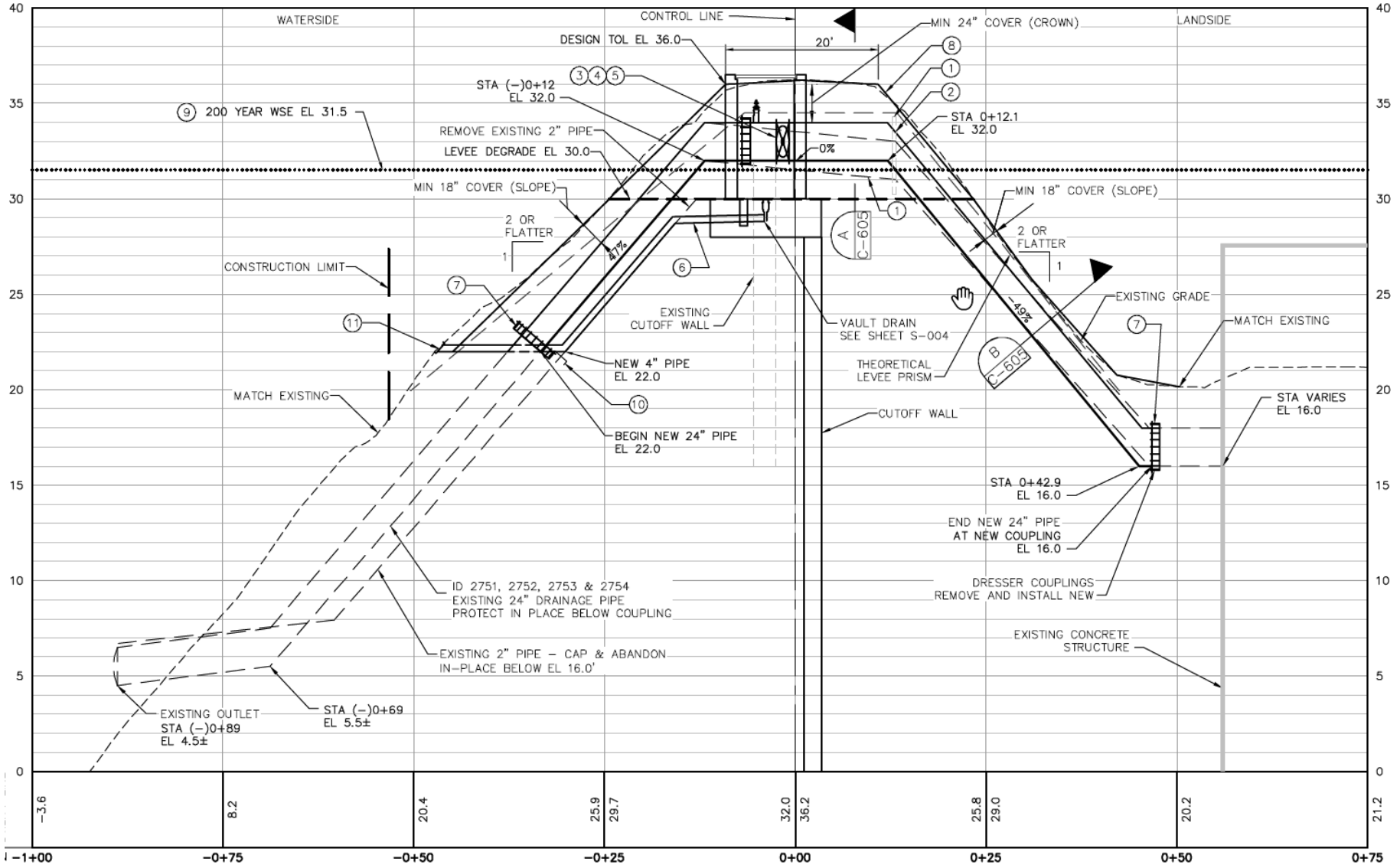
PHASE II CUTOFF WALL TRENCH STABILITY

- Cracking of levee and foundation and loss of slurry occurred at five locations during construction of USACE Phase II SCB walls in 1992.
- Trench failures occurred while the trenches were supported by bentonite slurry, and prior to or during placement of final backfill material.
- All five sites are located within extents where SRELIP cutoff wall is proposed.
- Levee and foundation were excavated to about El. 7.5-13.5, followed by placement of geotextile and geogrid layers, reconstruction of levee, and reconstruction of cutoff wall.





REACHES 15-17 SUMP 63



SUMP 132 STAGING AREA

Owner: City of Sacramento

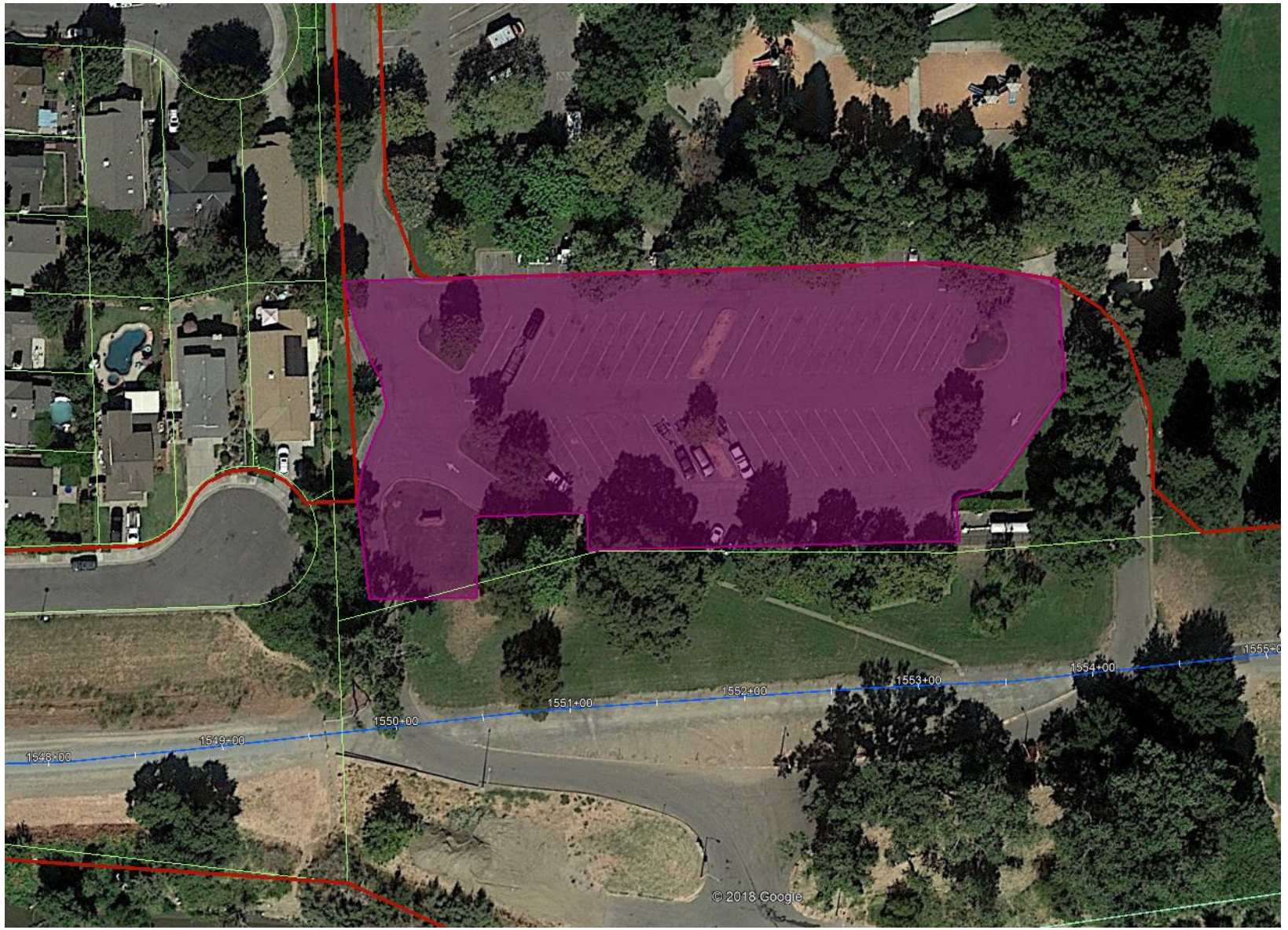
Approx. 1.3 acres

Within Sump 132 facility

Special considerations

- *Operational facility and access must be maintained for City personnel.*
- *Existing utilities throughout facility*

GARCIA-BEND PARK STAGING AREA



- Owner: City of Sacramento
- Approx. 1.4 acres
- Within Garcia-Bend Park boat launch parking lot

- Special Considerations:
  - ➢ Existing utilities throughout facility

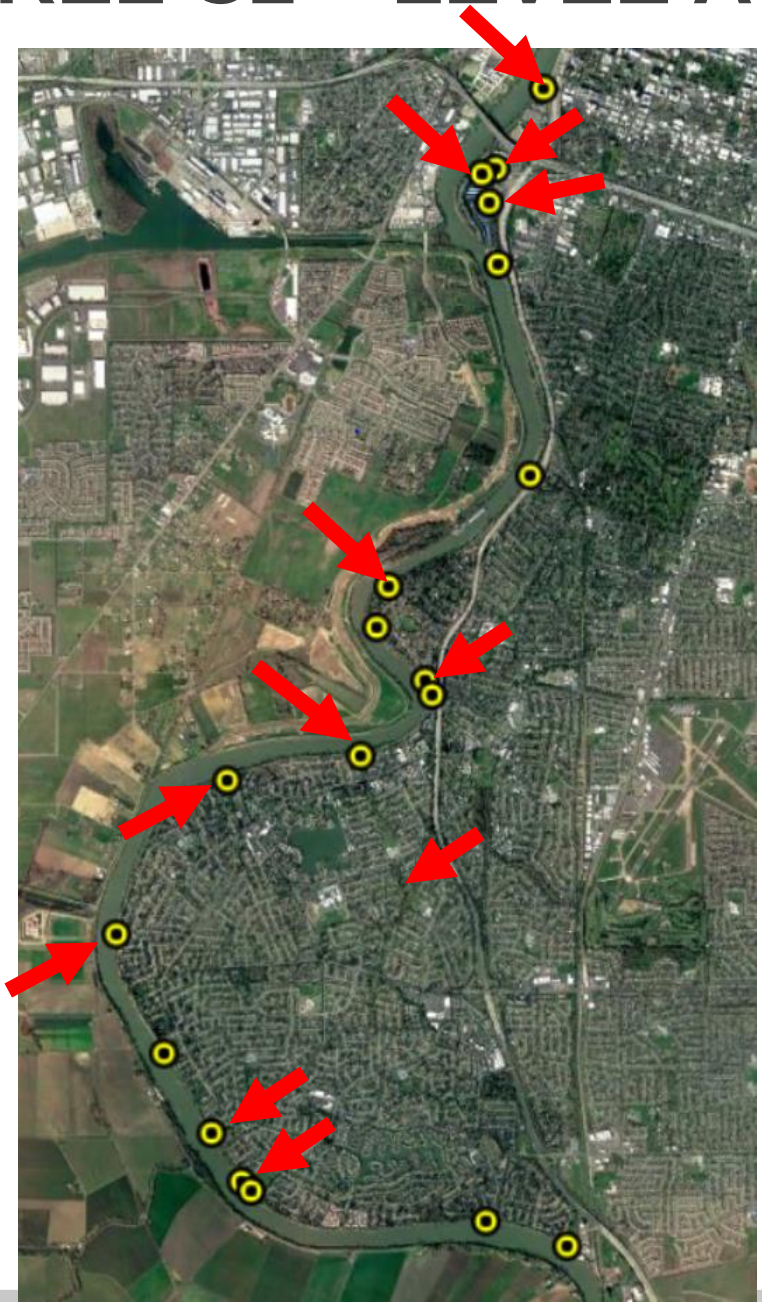
SREL C2 - HAUL ROUTES

Limit impact to residential communities by traveling on highways, major streets, and levee crown to extent practical.

Highways and major streets include:

- Interstate 5
- Front Street
- Broadway
- Riverside Drive
- Seamas Avenue
- 43rd Avenue
- Riverside Boulevard
- Florin Road
- Pocket Road

SREL C2 – LEVEE ACCESS POINTS



- Access is limited due to residential areas
- 14 designated access points to levee crown

POTENTIAL BORROW AND DEGRADE MATERIALS

Borrow Material (Type 1 Fill)

– Potential Source: Sacramento Regional Wastewater Treatment Plant
  - Echo Water Project Spoil Stockpiles

Reuse of Excavated Materials

– Levee crown degrade is typically a sandier fill that does not meet levee fill (Type 1) requirements

– Unused degrade material can potentially be transported to the Railyards project

APPROXIMATE QUANTITIES

Levee Degrade (CY)	Levee Fill (Type 1) (CY)	SB Cutoff Wall (SF)	SCCB Cutoff Wall (SF)	DMM Cutoff Wall (SF)
85,000	85,000	420,000	70,000	140,000

- Levee Fill Type 1 is for levee reconstruction

- All NEPA/CEQA/Section 106 documentation is required contractor proposed borrow/disposal
  - USACE Environmental Documentation –Covered in Spec
  - Commercial Source with Mining Permit

NEEDED: MEET OR EXCEED EXPECTATIONS ON ALL ACCOUNTS

SS&O ENVIRONMENTAL

CONSTRAINTS			
Impacts to Elderberries: Elderberries in Project Footprint to protect in place			
Impacts to Migratory Birds and Raptors			
Impacts to Air/Noise Pollution			
Impacts to Recreation (Bike/Pedestrian Paths, Boat Launches, Etc.)			
WORKING HOURS & WINDOWS			
WORK HOURS	**FLOOD SEASON**	**CLEARING AND TREE TRIMMING**	**IN-WATER-WORK**
Monday – Friday 7am – 7pm	15 April – 31 October	1 November – 15 February	1 August – 31 October
Saturday 7am – 6pm			
Sunday 8am – 6pm			

- Tree Removal will be completed via separate contract starting in Fall 2020.
  - SREL Contract 2 will be responsible for tree stump removal.
- Tree Trimming may be necessary
- Elderberries will be transplanted via separate contract starting Fall 2020

REGIONAL OVERVIEW

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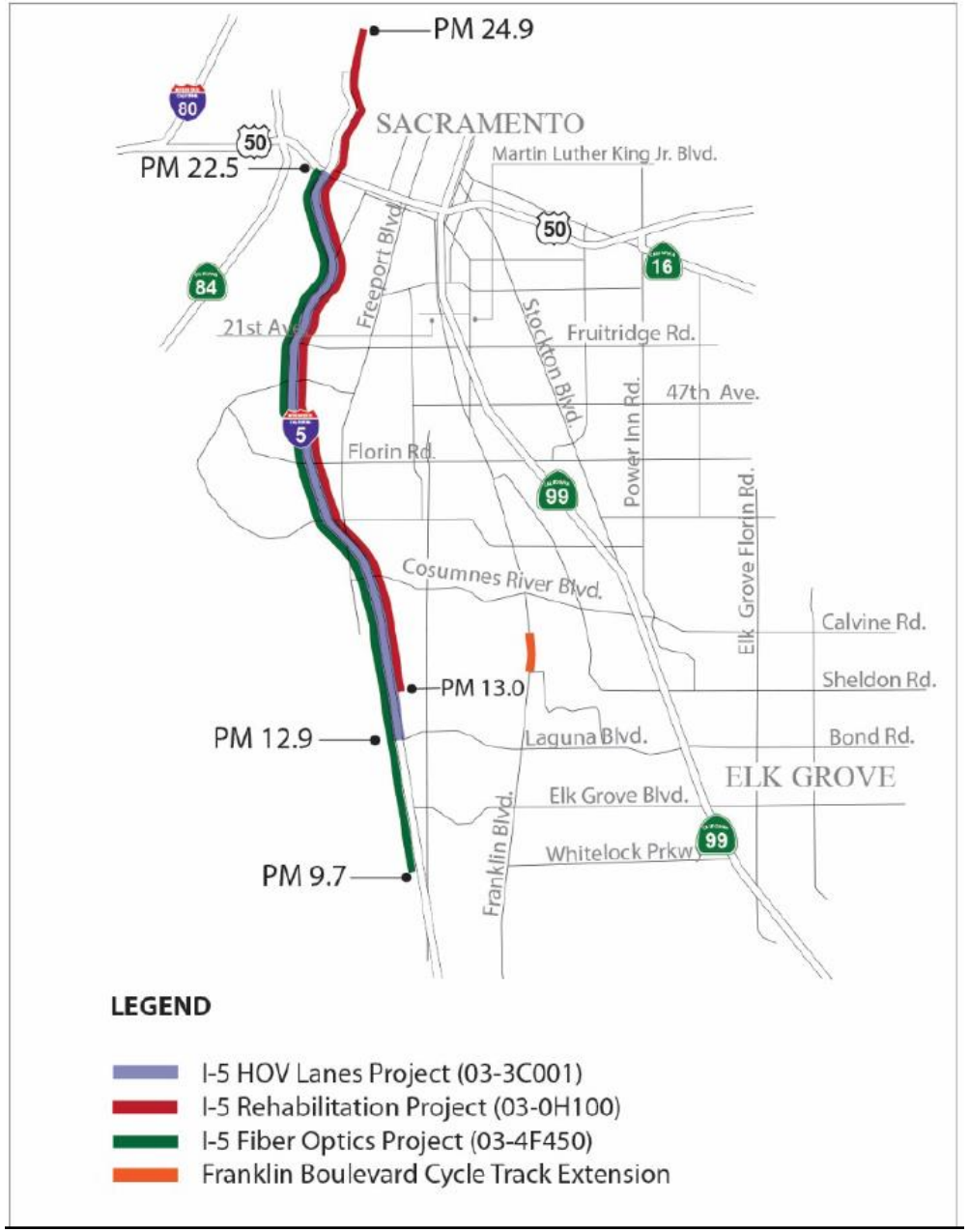
SYSTEMATIC OVERVIEW

Project	Anticipated Construction Schedule	Description
NATOMAS		
Reach I Contract 1	2019-2020	~ 4 miles Levee Improvements - Cut-Off Wall
Reach H	2019-2020	~ 4 miles Levee Improvements - Cut-Off Wall
Reach B	2020-2021	~ 2 miles Levee Improvements - Seepage berm, Relocation of Riverside Canal
Reach E	2021-2022	~ 3 miles Levee Improvements – possible cut-off wall
Reach A	2022-2023	~ 4 miles Levee Improvements – possible cut-off wall & numerous Utility Relocations
Reach F&G	2023-2024	~ 4 miles Levee Improvements – possible cut-off wall
FOLSOM DAM RAISE		
Dike Raise	2019-2024	~ 5 miles of 3.5’ Dike Raise and related work in various packages
Main Dam	2022-2025	Retrofit of up to 8 gates on the Main Dam
HAMILTON CITY	2019-2020	Mitigation and Planting
TULE RIVER	2020-2024	10’ Spillway Raise, utility relocations, environmental mitigation
ARCF 2016		
Sac River Levees	2019-2024	Up to 9 miles of cut-off wall and other seepage control features
Sac River Erosion	2021-2024	Up to 10 miles of bank protection work
Amr River Erosion	2021-2024	Up to 11 miles of bank protection work
Sac Weir/Bypass	2022-2024	1,500 lf expansion of existing gated weir at Sac Bypass
Mitigation	2019-2024	Tree cutting, planting, maintenance, etc.
ISABELLA		
Dams & Spillways	Ongoing	Construction of 16’ dam raise, new emergency spillway, and various improvements
Site Restoration	2020-2022	Construction of permanent operations building, site restoration and misc. construction
YUBA RIVER BASIN		
Phase 2C	2019-2020	~ 1,000 lf DSM wall construction
Phase 2B/3	2020-2023	~ 13,000 LF Cut-off wall construction
Phase 4B	2022-2023	Rock Slope Protection installation
PL 84-99	2018-2020	Various repairs in response to 2017 Flood Event
SUTTER BASIN	2019-2020	~ 5 miles of Levee Improvements including cut-off wall
LOWER SAN JOAQUIN	Unknown	Project is entering design phase and may have a contract as early as 2021
WEST SACRAMENTO	Unknown	Project is seeking to enter design phase and may have a contract as early as 2022

SYSTEMATIC OVERVIEW – CALTRANS PROJECT



I-5 Corridor Enhancement Project/I-5 HOV Lanes

On Interstate 5 (I-5) from 1.1 mile south of Elk Grove Boulevard Over crossing (PM 9.7) to American River Viaduct (PM 24.9) will rehabilitate pavement and other related assets, construct new High Occupancy Vehicle (HOV) lanes, install new fiber optic lines and extend the I-5 northbound #1 lane to improve the on ramp merge and weave movement

Total Project Cost: $370 million

Construction: Summer 2019 – Fall 2022

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HOW TO OBTAIN SOLICITATIONS

HOW TO OBTAIN SOLICITAITONS
SAMbeta - Beta.sam.gov
Search by Solicitation Number
View Interested Vendors List and register as an interested vendor
Requirements to download Technical Data Package:Beta.sam.gov
Register to receive notifications and updates/amendments
Technical information will be posted on the BetaSam website

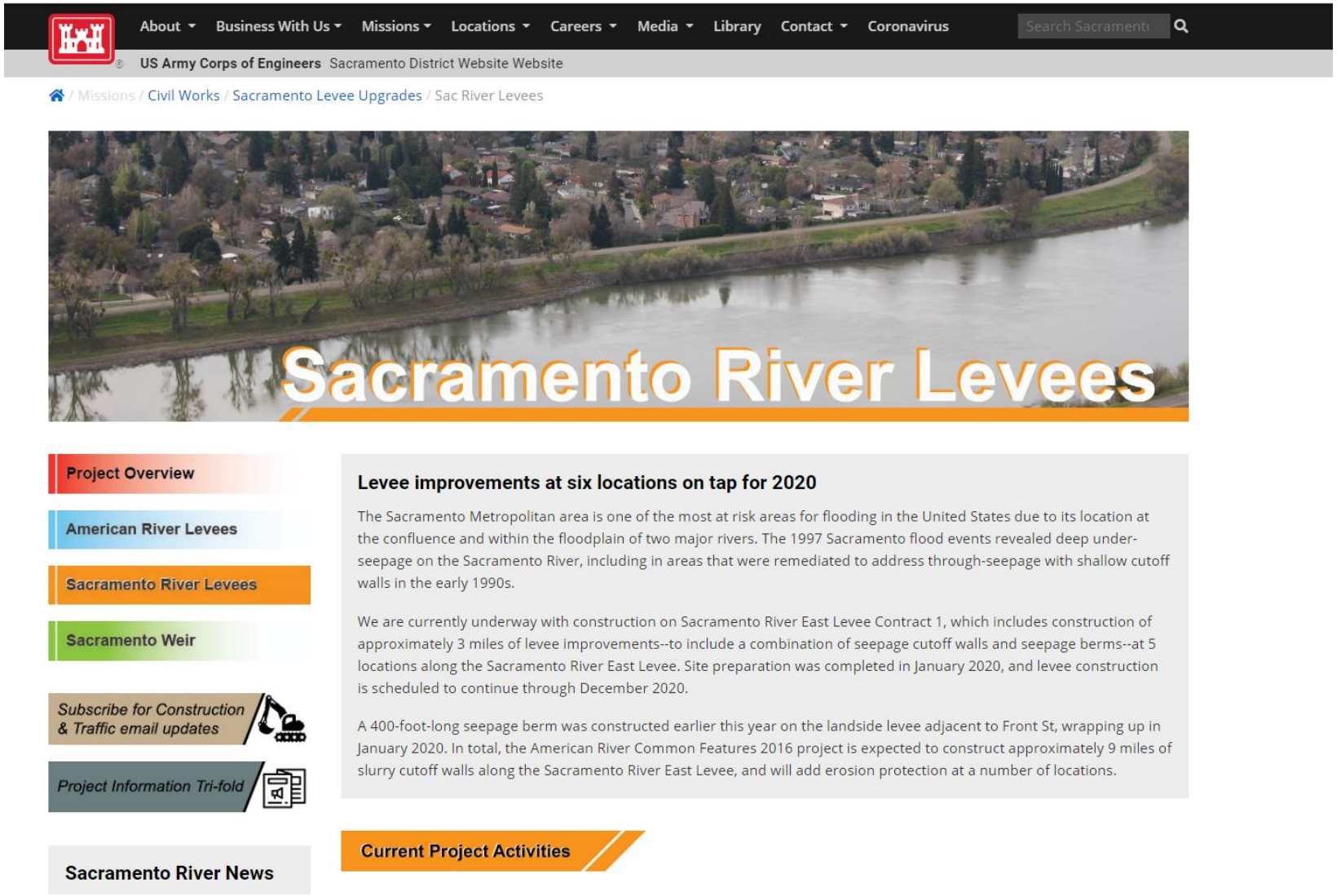
SMALL BUSINESS GOALS CATEGORY	GOAL
Small Business (SB)	25%
Small Disadvantaged Business (SDB)	20%
Woman Owned Small Business (WOSB)	4%
Service Disabled Veteran Owned Small Business (SDVOSB)	3%
Historically Underutilized Business Zone (HUBZone)	3%

CONTRACT ADMINISTRATION
USACE Safety Manual, EM 385-1-1
Quality Assurance Surveillance Plan for Services
USACE Resident Management System (RMS) & Quality Control System (QCS) will be used for construction
Government is committed to partnering process at all levels

INDUSTRY FEEDBACK

PROJECT CHALLENGES
Production/Productivity Rates (Efficiency/Effectiveness, Constraints, Innovations)
Material/Equipment Availability – Number of rigs operating in the US
Air Quality (Availability of higher tiered equipment/barges, recent model year equipment, innovations)
Contract Process Innovations/Improvements
REQUESTED AREAS OF FOCUS
Specified requirements for column diameter; air, water and grout injection pressures and flow rates; grout water/cement ratio.
Requirements for settlement and heave monitoring and control for existing railroad track and pipelines that are adjacent or cross the work.
Quality control requirements.
Ability to install jet grout columns and panel to depths of at least 115 feet
Typical production rates at depths of 115 feet
Working hours; preferences for working multiple shifts versus multiple rigs working one shift
WHAT'S NEXT
Draft Plans and Specifications https://beta.sam.gov/opp/dfd2aaa1a57f423aba47d8b33304b0b1/view?keywords=%22Sacramento%20River%20East%20Levee%22&sort=-relevance&index=&is_active=true&page=1
Contract Specific Industry Days

QUESTIONS/COMMENTS/CONCERNS…



www.sacleveeupgrades.com