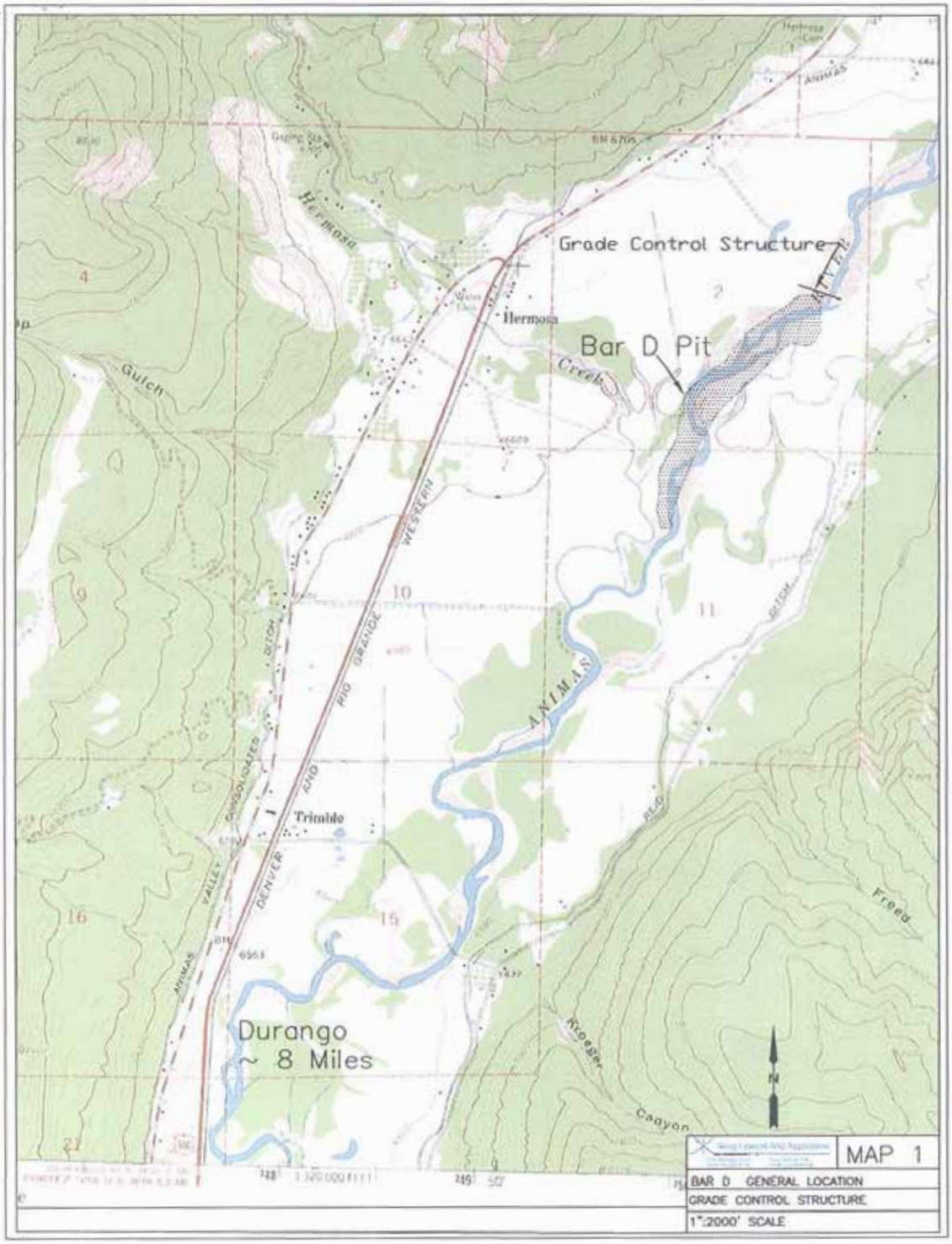
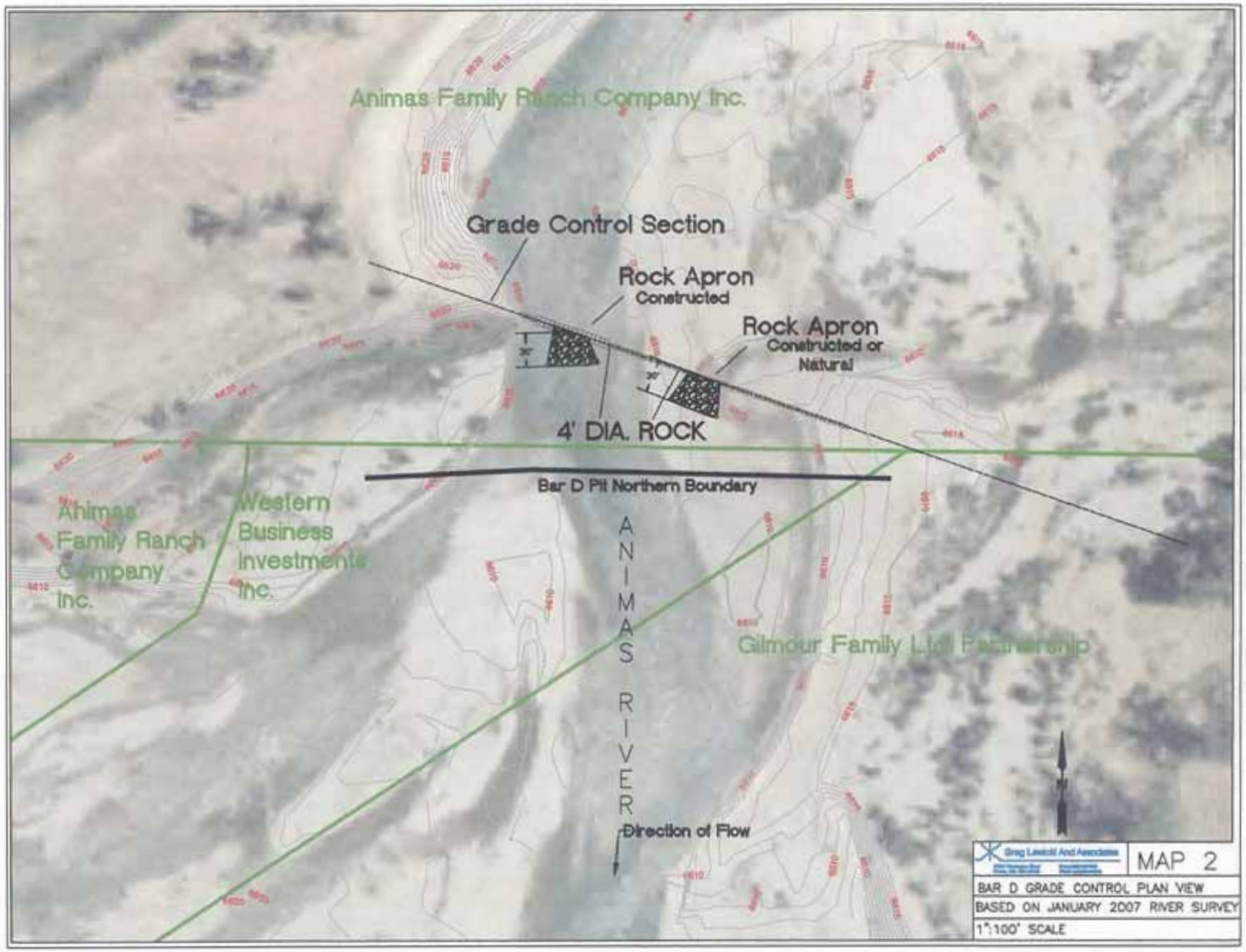
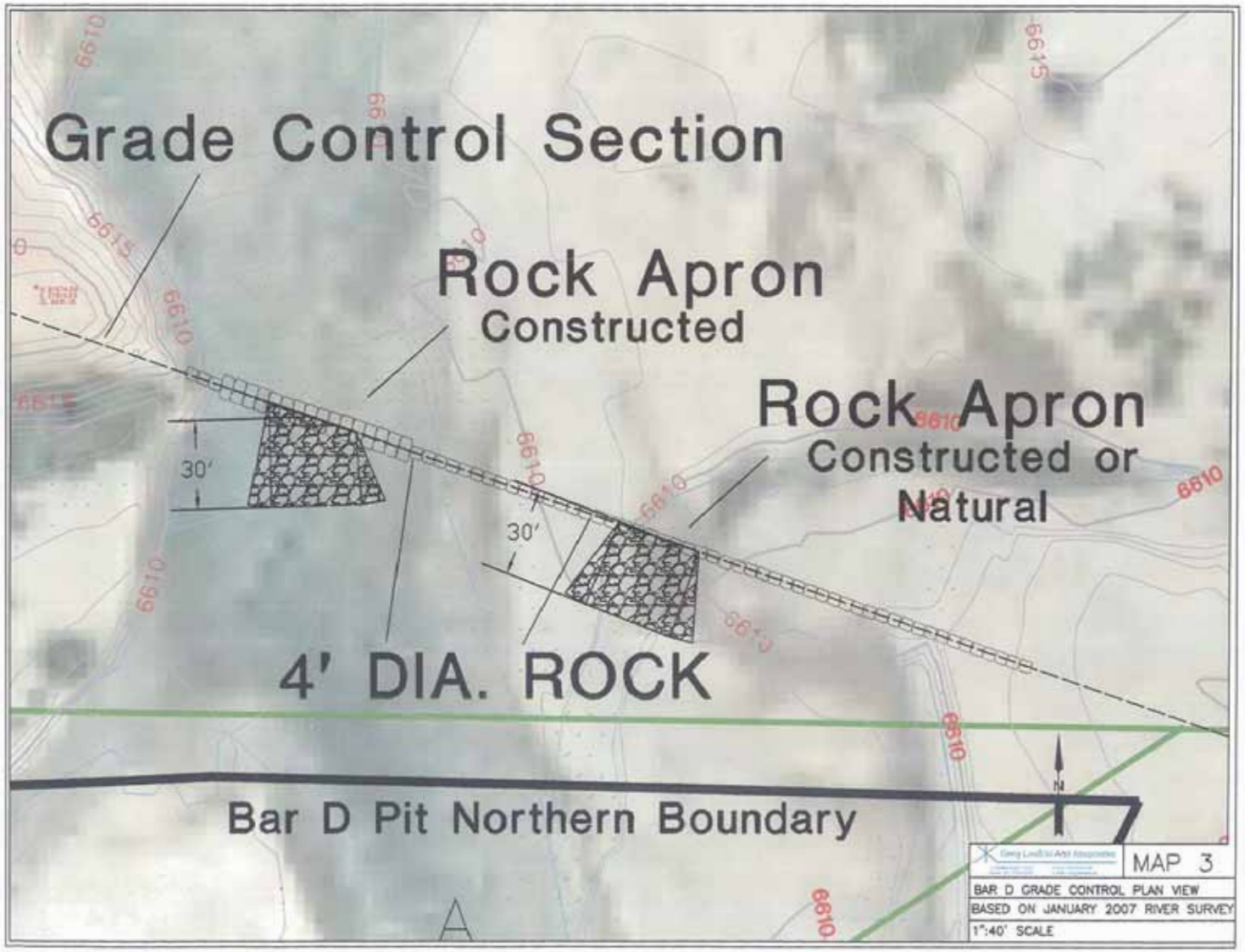

Grade Control Structure
Bar D Pit
Hermosa
Creek
Gulch
Trimble
Durango
~ 8 Miles
ANIMAS
RIO GRANDE
WESTERN
DENVER
Freed
Kroeger
Canyon
N
MAP 1
BAR D GENERAL LOCATION
GRADE CONTROL STRUCTURE
1":2000' SCALE


Animas Family Ranch Company Inc.
Grade Control Section
Rock Apron
Constructed
Rock Apron
Constructed or
Natural
4' DIA. ROCK
Bar D Pit Northern Boundary
Animas
Family Ranch
Company
Inc.
Western
Business
Investments
Inc.
ANIMAS RIVER
Direction of Flow
Gilmour Family Ltd Partnership
Greg Lewicki And Associates
MAP 2
BAR D GRADE CONTROL PLAN VIEW
BASED ON JANUARY 2007 RIVER SURVEY
1":100' SCALE


Grade Control Section
Rock Apron
Constructed
Rock Apron
Constructed or
Natural
30'
30'
4' DIA. ROCK
Bar D Pit Northern Boundary
6610
6615
MAP 3
BAR D GRADE CONTROL PLAN VIEW
BASED ON JANUARY 2007 RIVER SURVEY
1":40' SCALE

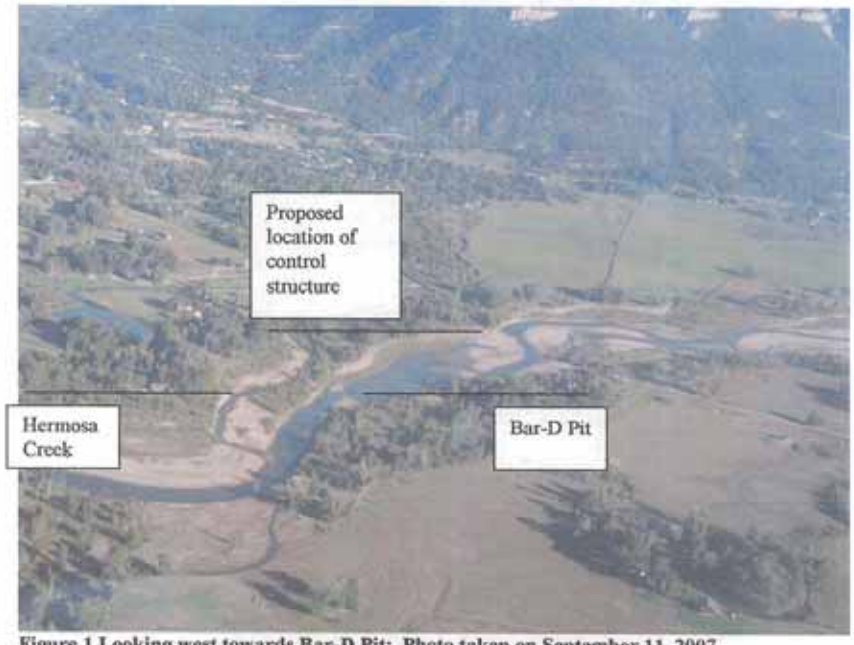


Figure 1 Looking west towards Bar-D Pit: Photo taken on September 11, 2007

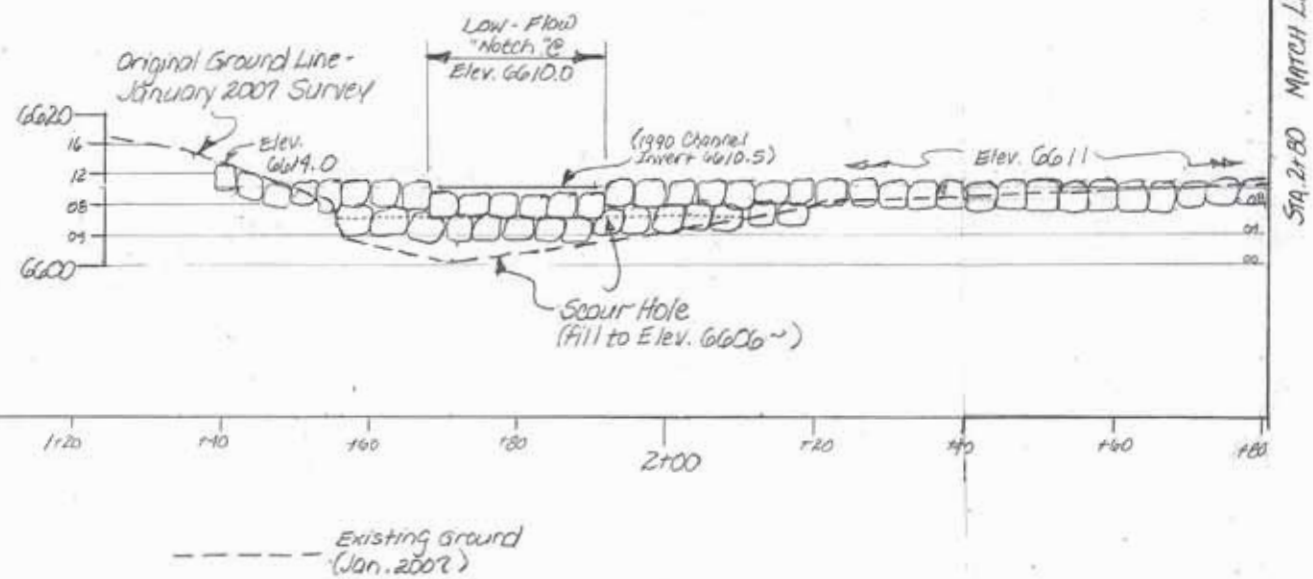
Figure 2 Looking west towards proposed location of the control structure. Photo taken on September 11, 2007.

MAP 4

THE BAR-D PIT (UPSTREAM GRADE CONTROL STRUCTURE)

Open Channel Flow Calculations

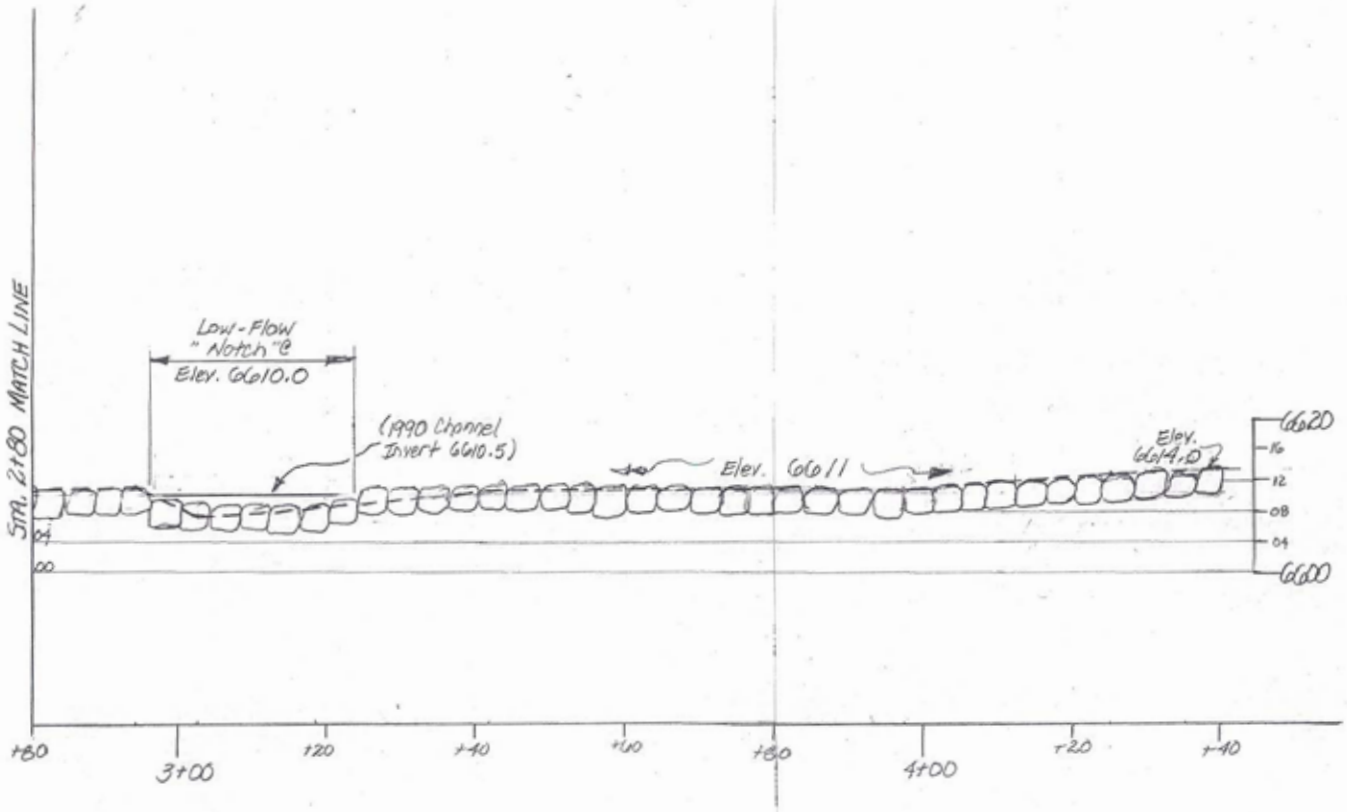
Slope of Channel = 0.007 ft/ft.
Channel Width (Top) = 300' (Elev. 6614.0)
Channel Width (Bottom) = 260' (Elev. 6611.0)
Manning's "n" value = 0.025
Flow Depth = 2.85'
Flow = 8,000 cfs



Existing Ground (Jan. 2007)

FIGURE 1
Sheet 1 of 2
SEPT. 2007

THE BAR-D PIT (UPSTREAM GRADE CONTROL STRUCTURE)

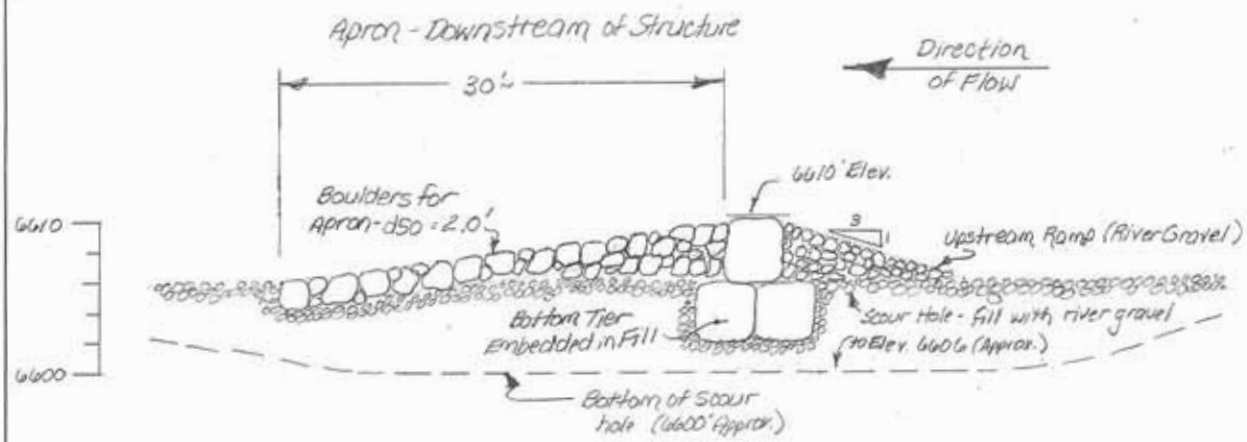


Original Scale: 1" = 20' Horizontal & Vertical

0 20 40

FIGURE 1-
Sheet 2 of 2
SEPT 2007

THE BAR-D PIT (UPSTREAM GRADE CONTROL STRUCTURE)



Grade Control Structure Cross Section
Sta. 1+80 ~

Original Scale: 1" = 10' ~

0 10' 20'

Horizontal & Vertical

FIGURE 2
SEPT. 2007