Project Manager	Project (s)	Contact information
Hugh Davis, Associate Civil Engineer	San Anselmo Flood Risk Reduction Project	hdavis@marincounty.org 415..473.4232
Joanna Dixon, Associate Civil Engineer	Corte Madera Creek Flood Risk Management Project	jdixon@marincounty.org 415.473.7031
Felix Meneau, Assistant Engineer	Lower Corte Madera Creek Levee Evaluation; Rainfall/Stream gage network	fmeneau@marincounty.org 415.473.3223
Carey Lando, Senior Planner	Bridge Project liaison; Program website	clando@marincounty.org 415.473.5078
Bene DaSilva, Creek Maintenance Supervisor	Creek Maintenance Agreements	bdasilva@marincounty.org 415.473.6538

SAN ANSELMO FLOOD RISK REDUCTION FLOOD RISK REDUCTION PROJECT

CURRENT SCHEDULE

Milestone	**Timeline**
60% design plans	January 2020
Permit applications	February 2020
Permit approval	Fall 2020
100% design plans	Winter 2020
Construction bidding and award	Winter 2020/21
Construction start	Spring 2021
Construction ends	Fall 2021 or Summer 2022

Flood Barriers

Glen Dr

Fairfax Creek

Oak Manor Dr

Bothin Creek

Sir Francis Drake Blvd

Diversion Basin

MARIN COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT

Potential Flood Risk Reduction Measures

- Diversion Basin
- Building Removal
- Creek Enhancements and / or Flood Barriers

Fairfax

Bolinas Rd

Butterfield Rd

Sleepy Hollow Creek

San Anselmo Creek

Center Blvd

Sorich Creek

Flood Barrier

Building Removal / Modification

San Anselmo

San Anselmo Creek Improvements / Flood Barriers

Building at 634-636 San Anselmo Ave

Ross Ave

San Anselmo Creek

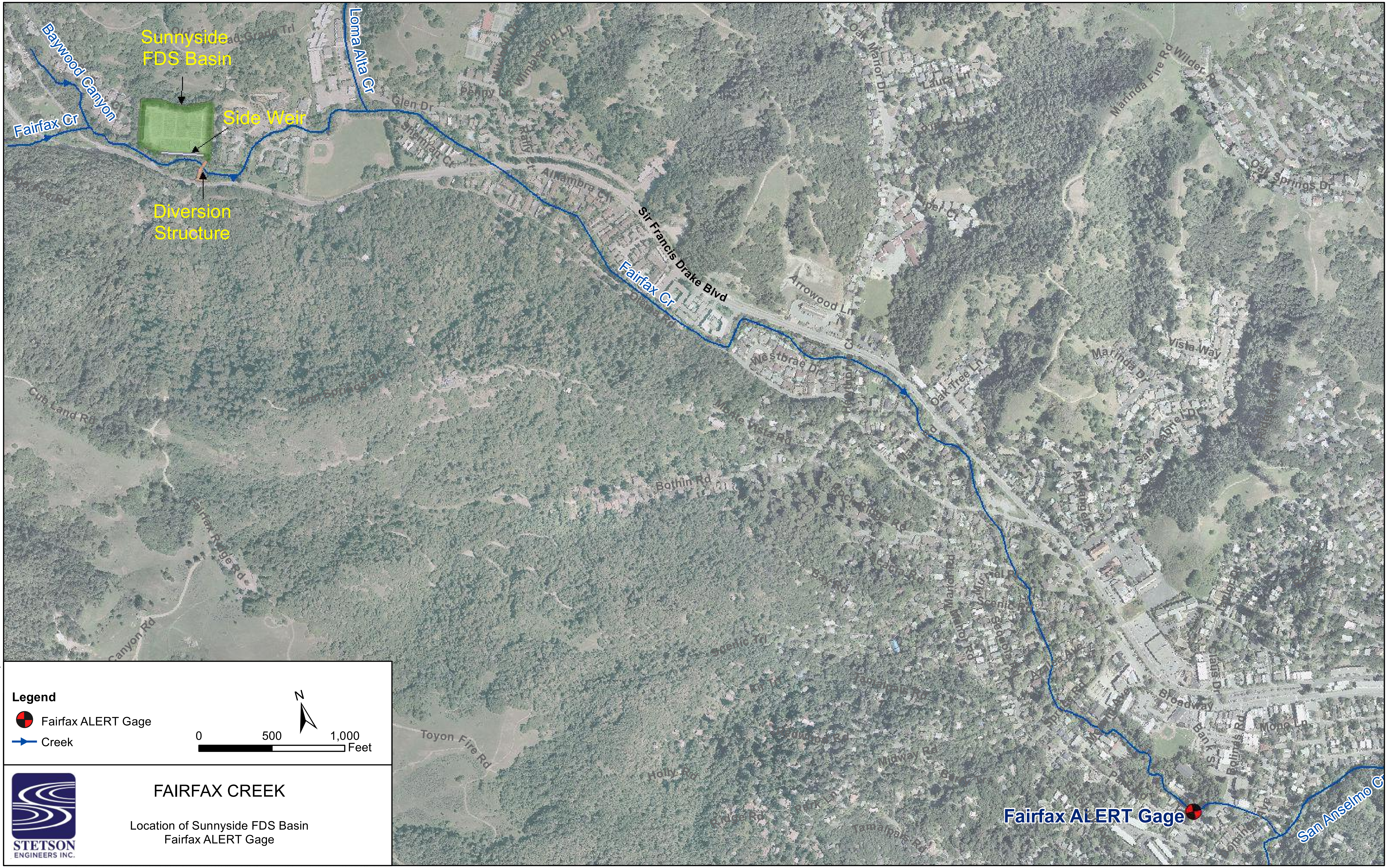
4th St

0 0.5 1 Mi

2017 Hydraulic Model Outcomes for the San Anselmo Flood Risk Reduction Project (31 af basin

Flood Risk Change by Number of Parcels	10-year flood [10% chance]	25-year flood [4% chance]	100-year flood [1% chance]
Removed from Inundated Area	300	20	10
Decreased Inundation Depth	230	615	470
Parcels with New Inundated Area or Increase in Depth	0	18	19
Total with Reduced Flood Risk	530	635	480
Total with Increased Flood Risk	0	18	19

FIGURE 2



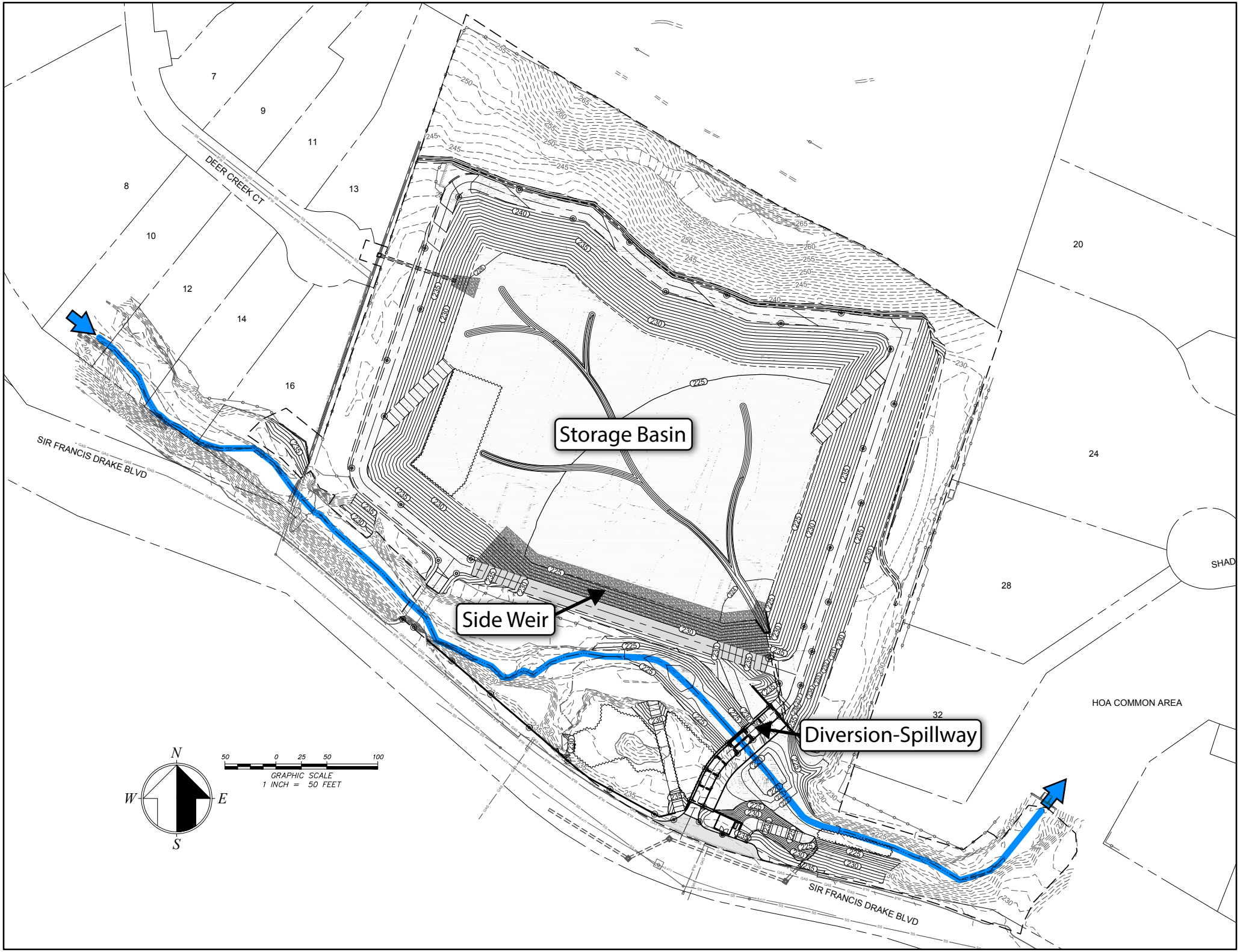
STETSON ENGINEERS INC.

FAIRFAX CREEK

Location of Sunnyside FDS Basin
Fairfax ALERT Gage

C:\DATA\2706\GIS\Fairfax Creek Map3.mxd

9/3/2019


Storage Basin
Side Weir
Diversion-Spillway
DEER CREEK CT
SIR FRANCIS DRAKE BLVD
SIR FRANCIS DRAKE BLVD
HOA COMMON AREA
SHAD
7
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GRAPHIC SCALE
1 INCH = 50 FEET

CLICK HERE FOR LINK TO VIDEO RENDERING SHOWING A CONCEPTUAL DESIGN OF THE FORMER SUNNYSIDE NURSERY INTERIM DETENTION BASIN (CONCEPTUAL DESIGN IS SUBJECT TO CHANGE DURING LATER DESIGN PHASES)

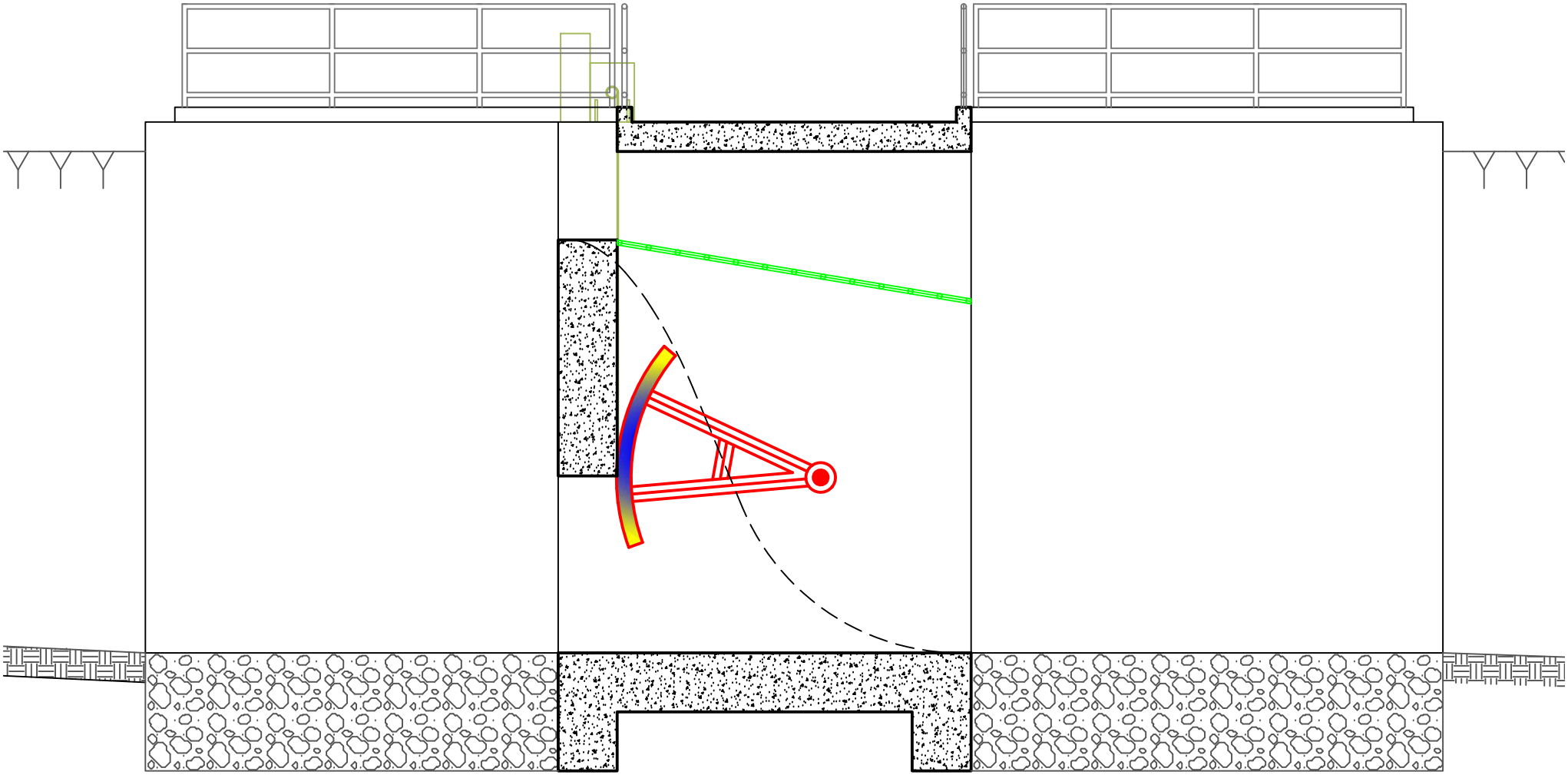
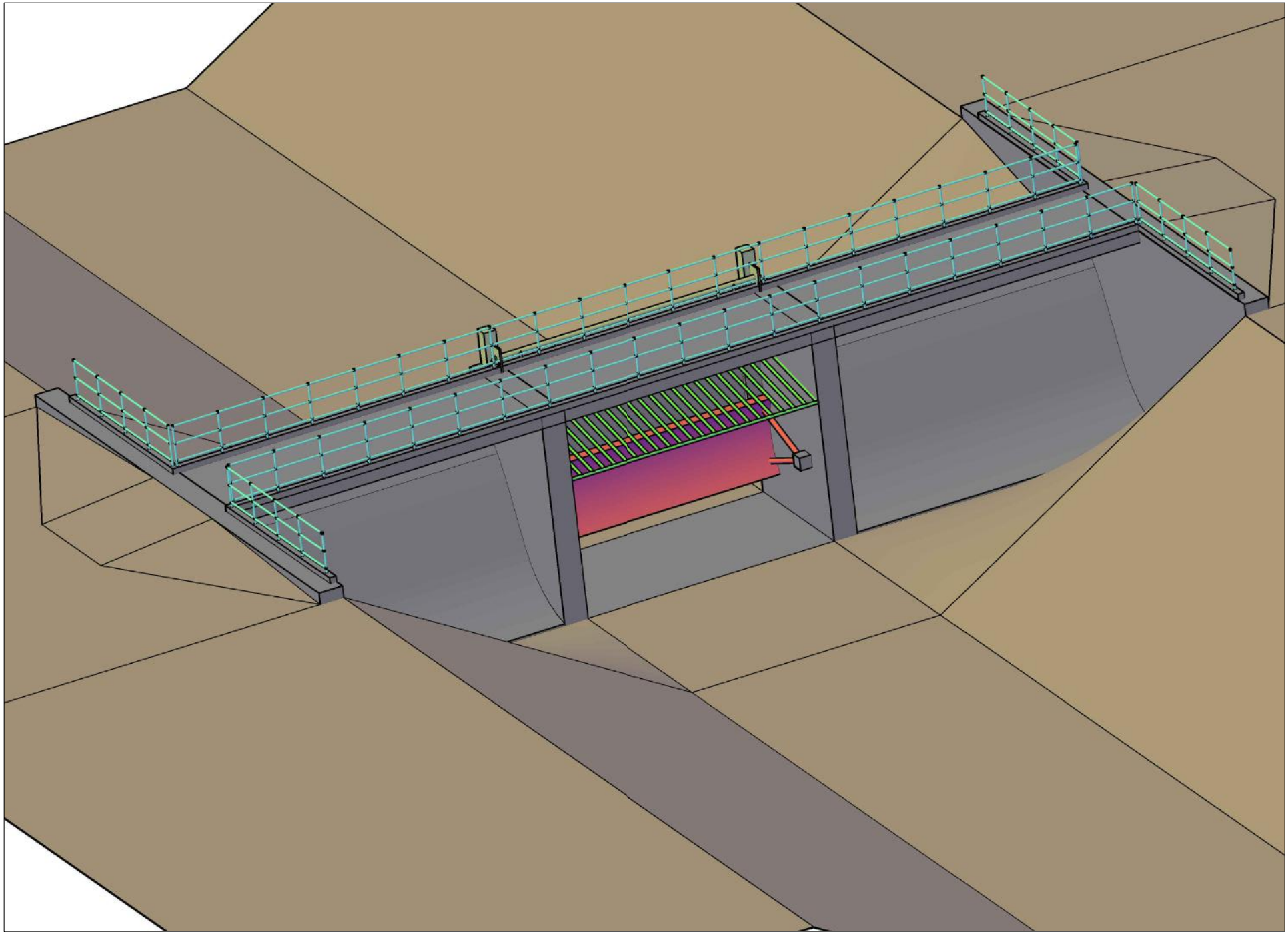
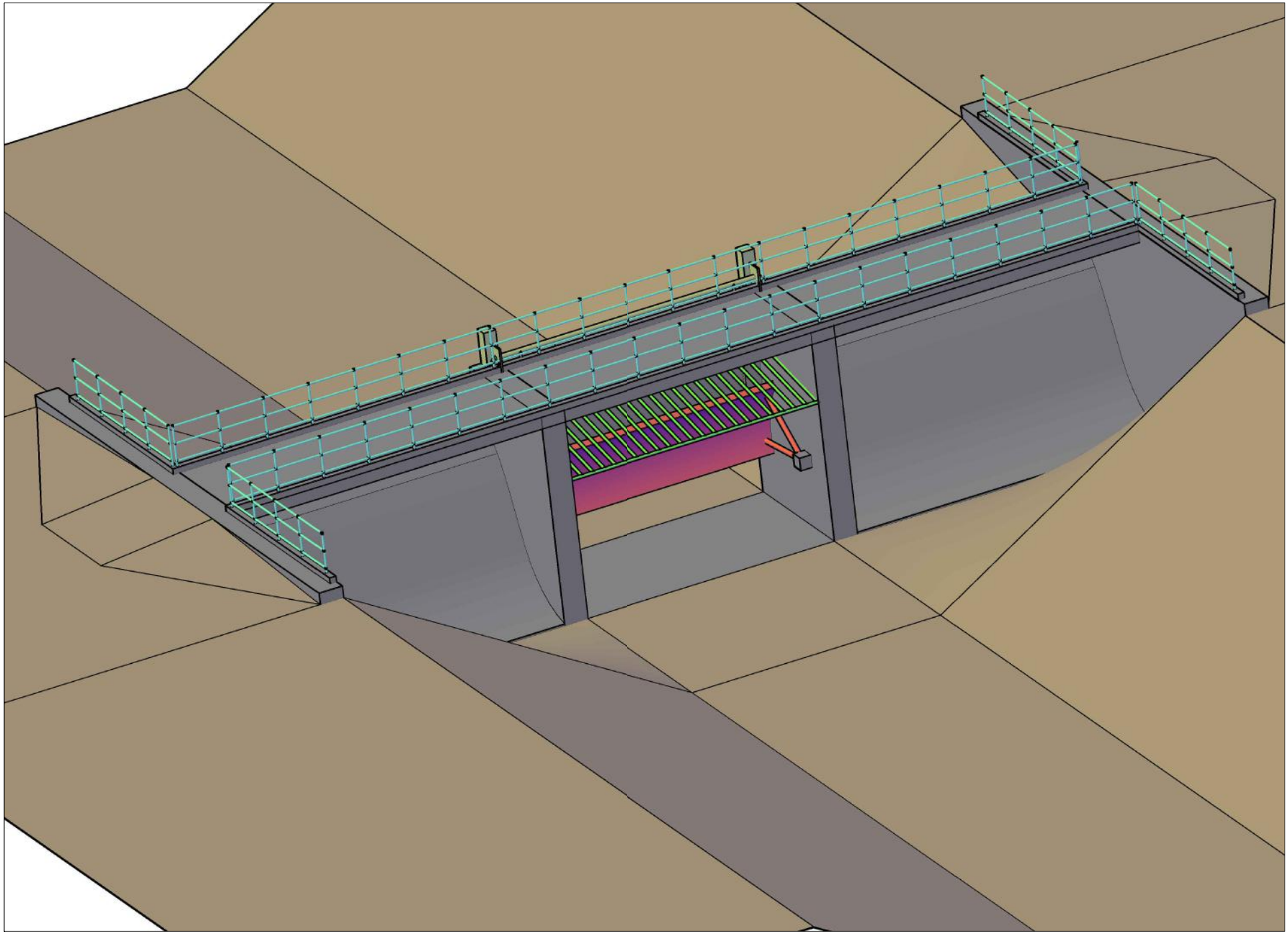


Figure 2c

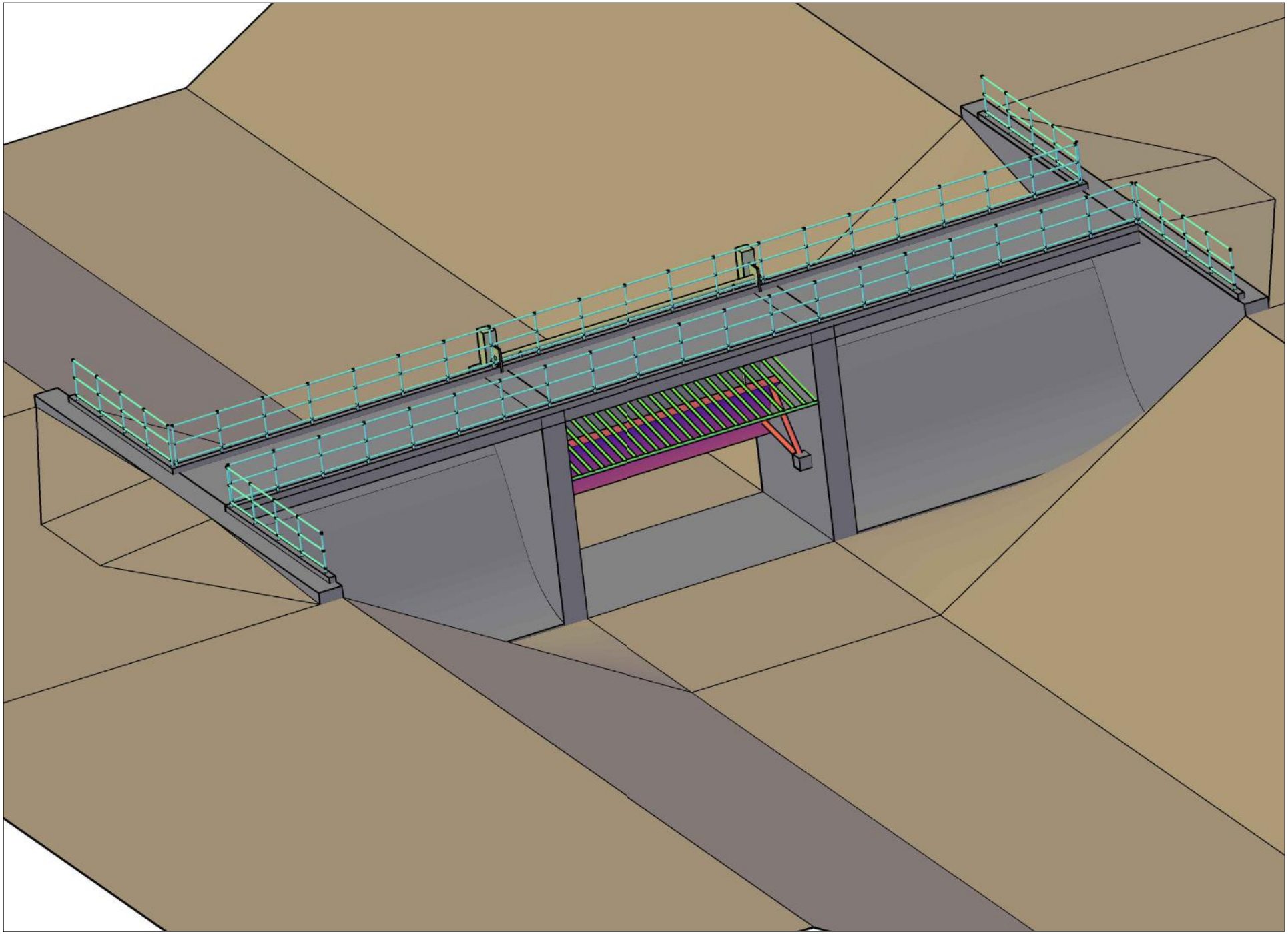
RADIAL GATE SECTION MIDWAY OPENING POSITION



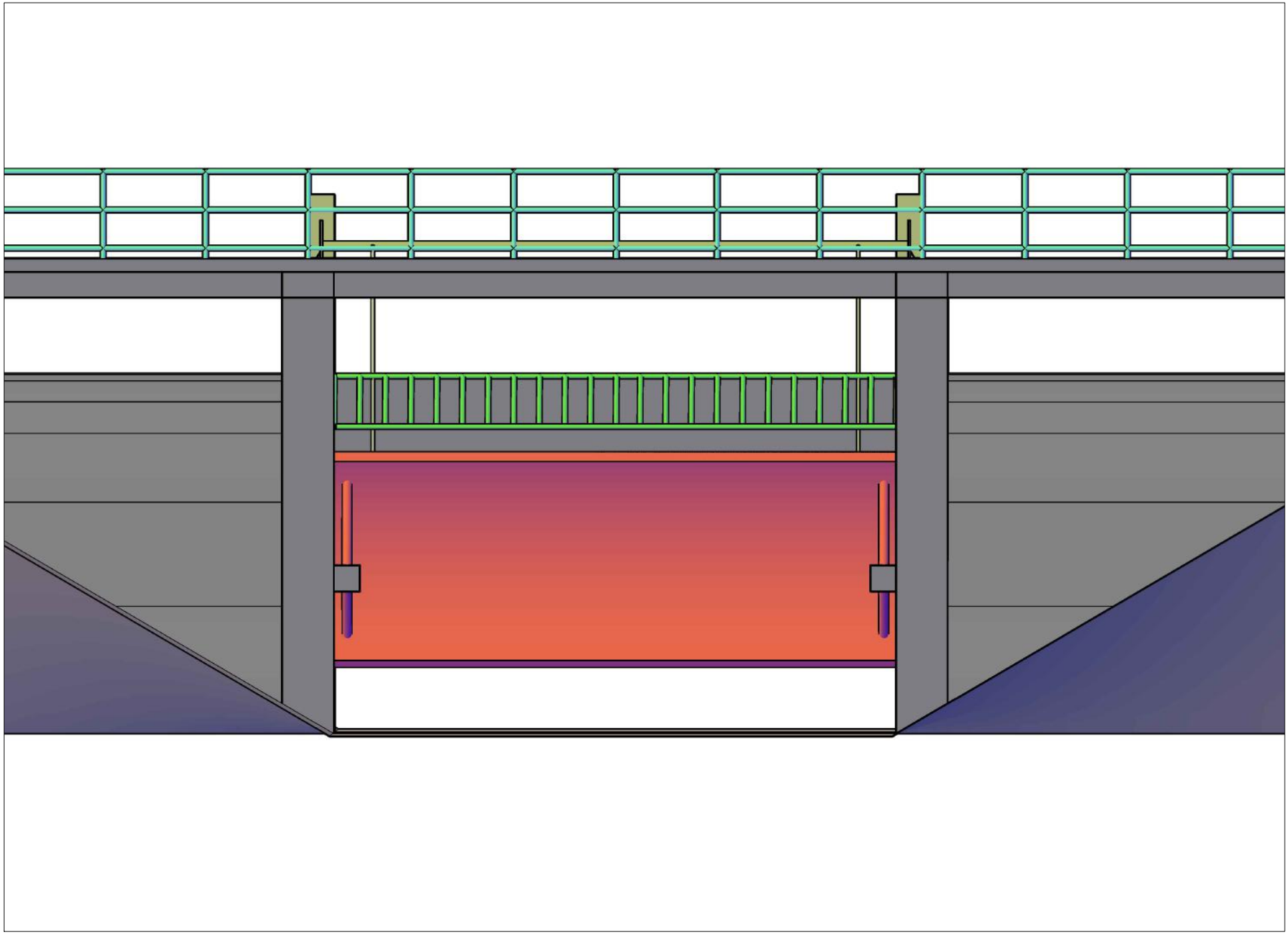
RADIAL GATE PARTIALLY CLOSED POSITION



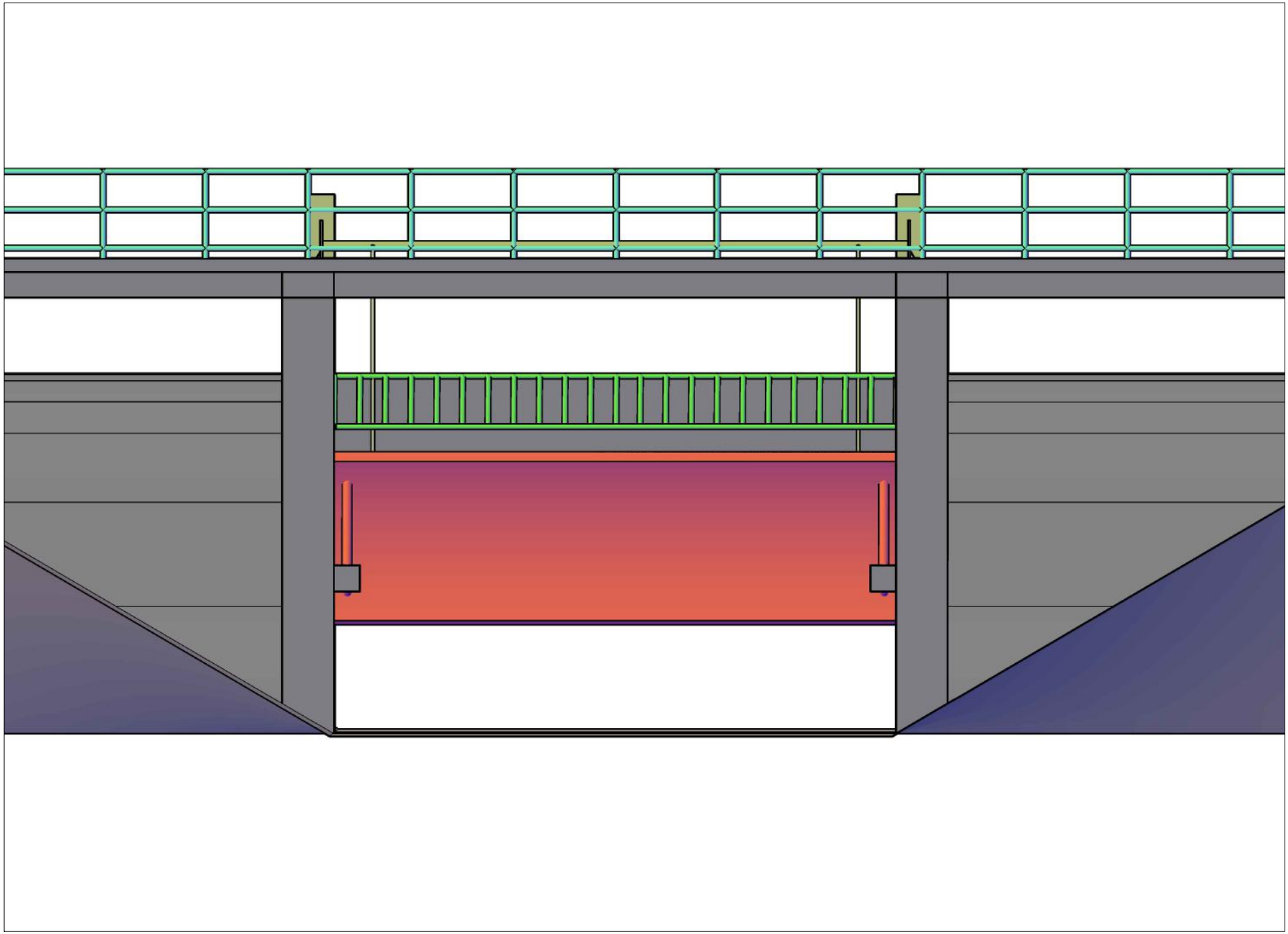
RADIAL GATE MIDWAY OPENING POSITION



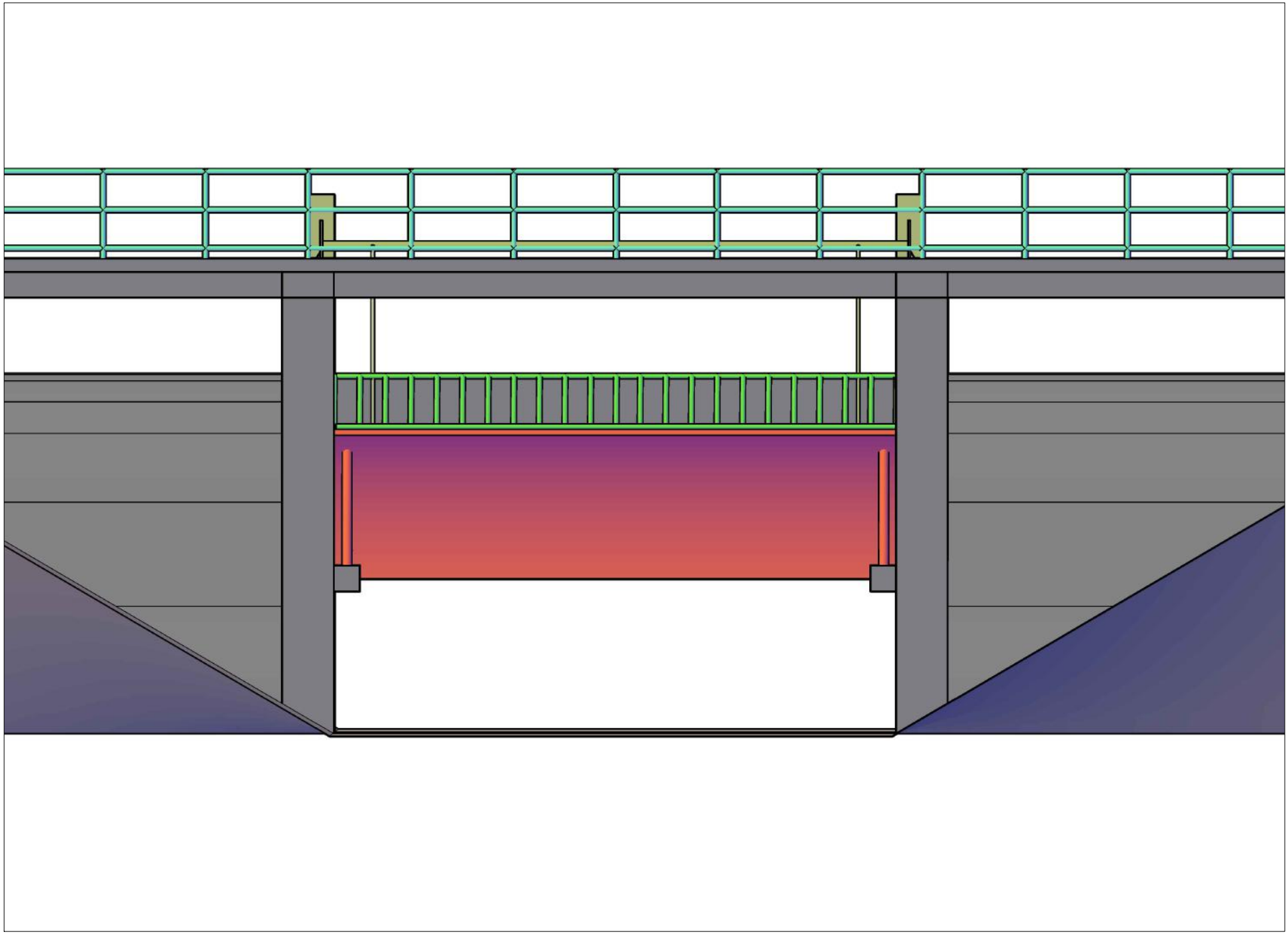
RADIAL GATE OPEN POSITION



RADIAL GATE PARTIALLY CLOSED POSITION



RADIAL GATE MIDWAY OPENING POSITION



RADIAL GATE OPEN POSITION

South Fork Eau Claire River Willard, WI

- Description: A single manually operated radial gate. Designed for ice loads of 5000lb/lf
- Size: 15ft W x 8ft H
- Purpose: Grade/ flow control
- Source:https://www.steelfabinc.com/product/tainter-gates/

Bretch Diversion Altus, Oklahoma

- Description: Bretch Diversion Structure is located on Elk Creek in Kiowa County about 24 miles northeast of Altus, Oklahoma, and about 15 miles northwest of Mountain Park Dam.
- Size: 18-foot-square radial gate
- Purpose: Controlling flows into Bretch Canal, which is designed for a flow of 1,000 cubic feet per second
- Source:https://www.usbr.gov/projects/index.php?id=273

Glenn Colusa Irrigation District Willows, CA

- Description: Three automated radial gates on Glenn Colusa ID main canal. Radio tower and instrumental enclosure for a PLC are in the forefront.
- Size: Three 20ft W x 12ft H
- Purpose: Controlling downstream flow rate in canal for irrigation diversions.
- Source:http://www.itrc.org/reports/pdf/turnouts.pdf

Unknown Location In Idaho

- Description: Three automated radial gates at unknown location in Idaho.
- Size: Three 20ft W x 15ft H
- Purpose: Controlling upstream water level.
- Source: Waterman, USA
- ***Waiting to hear back from them about project details.

Unknown Location/ Project

- Source: Fresno Valves and Castings Website

- ***Waiting to hear back from them about project details.

Figure 10 Simulated 5-Year WSE Profiles under Existing and Project Conditions

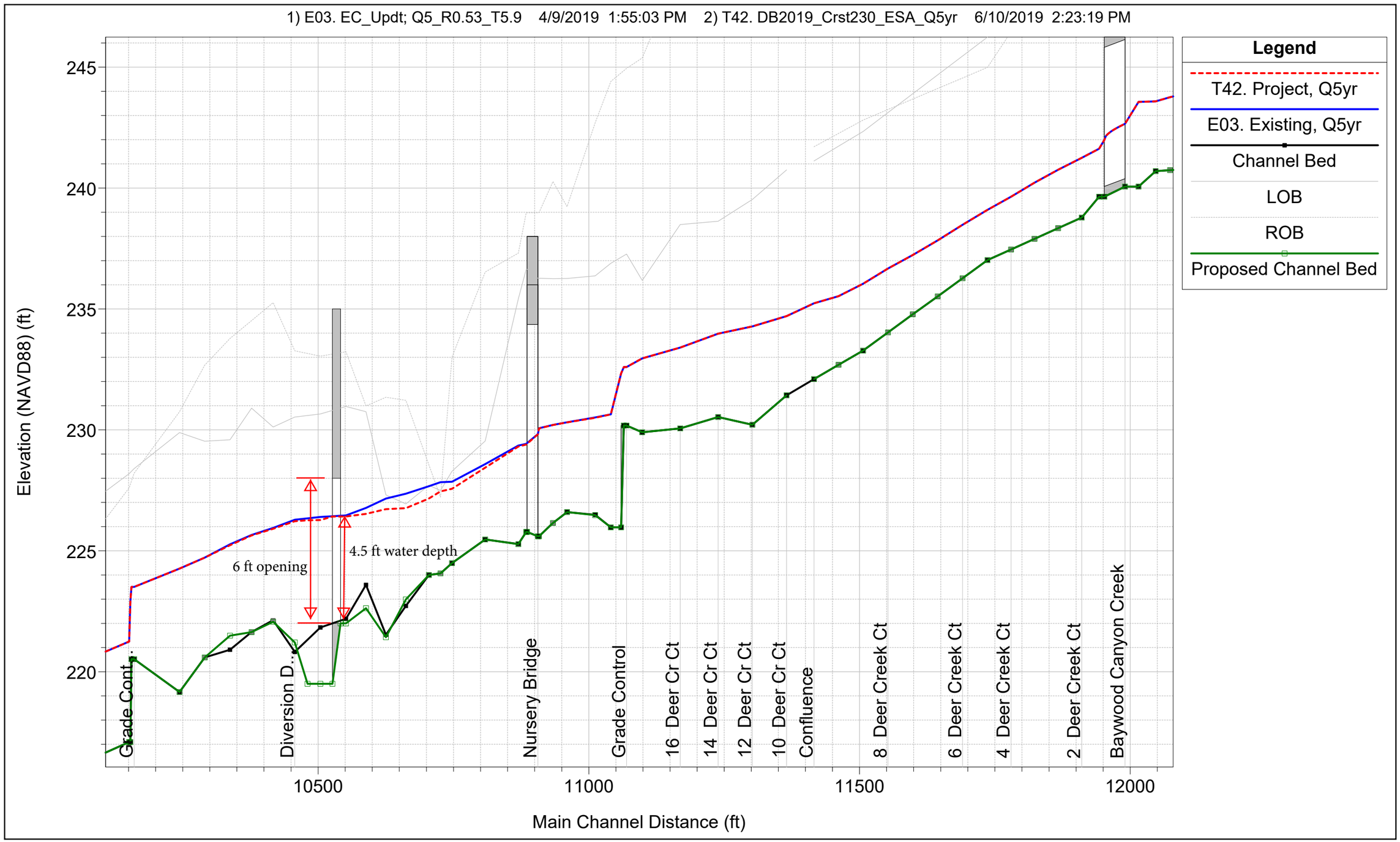
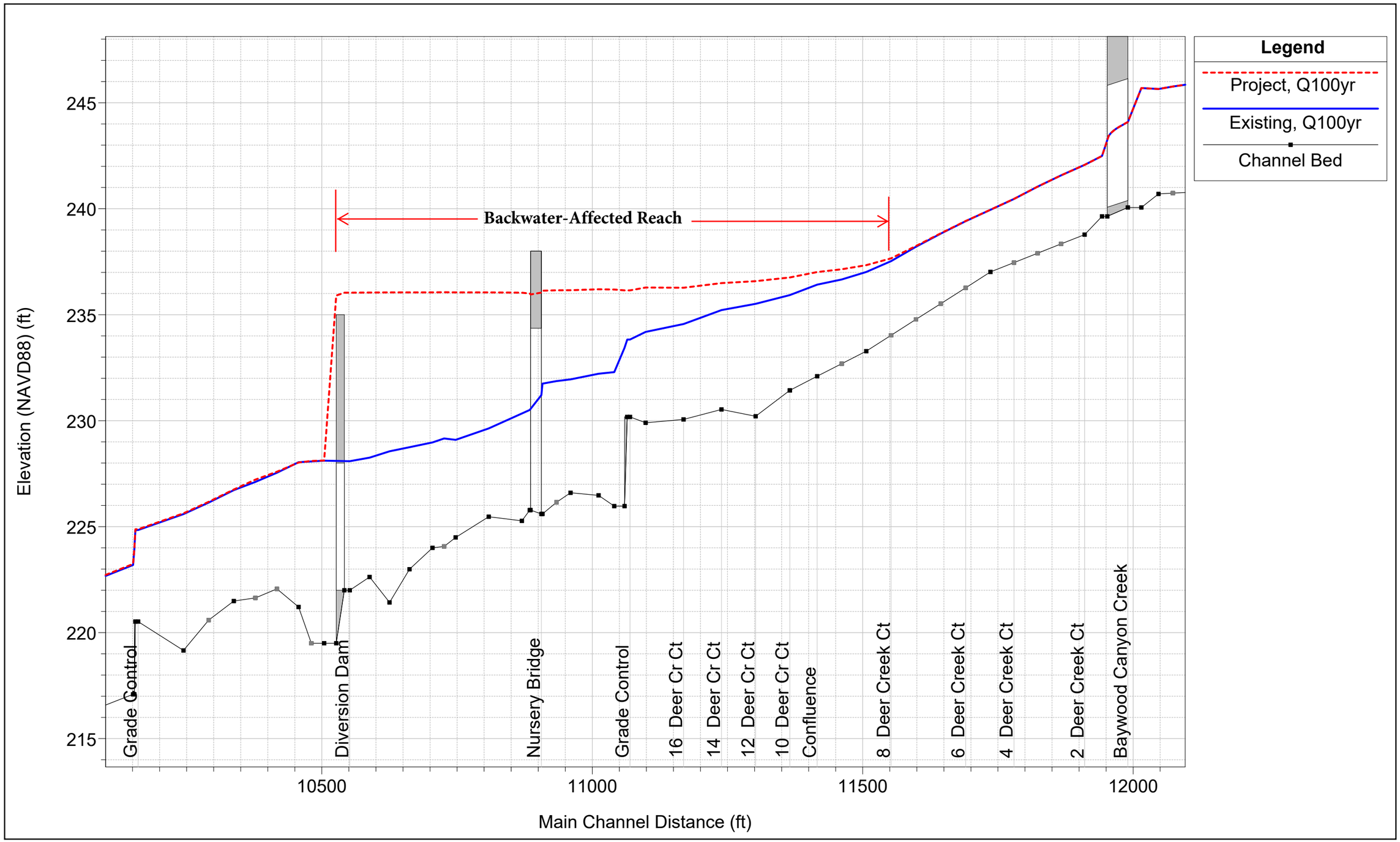
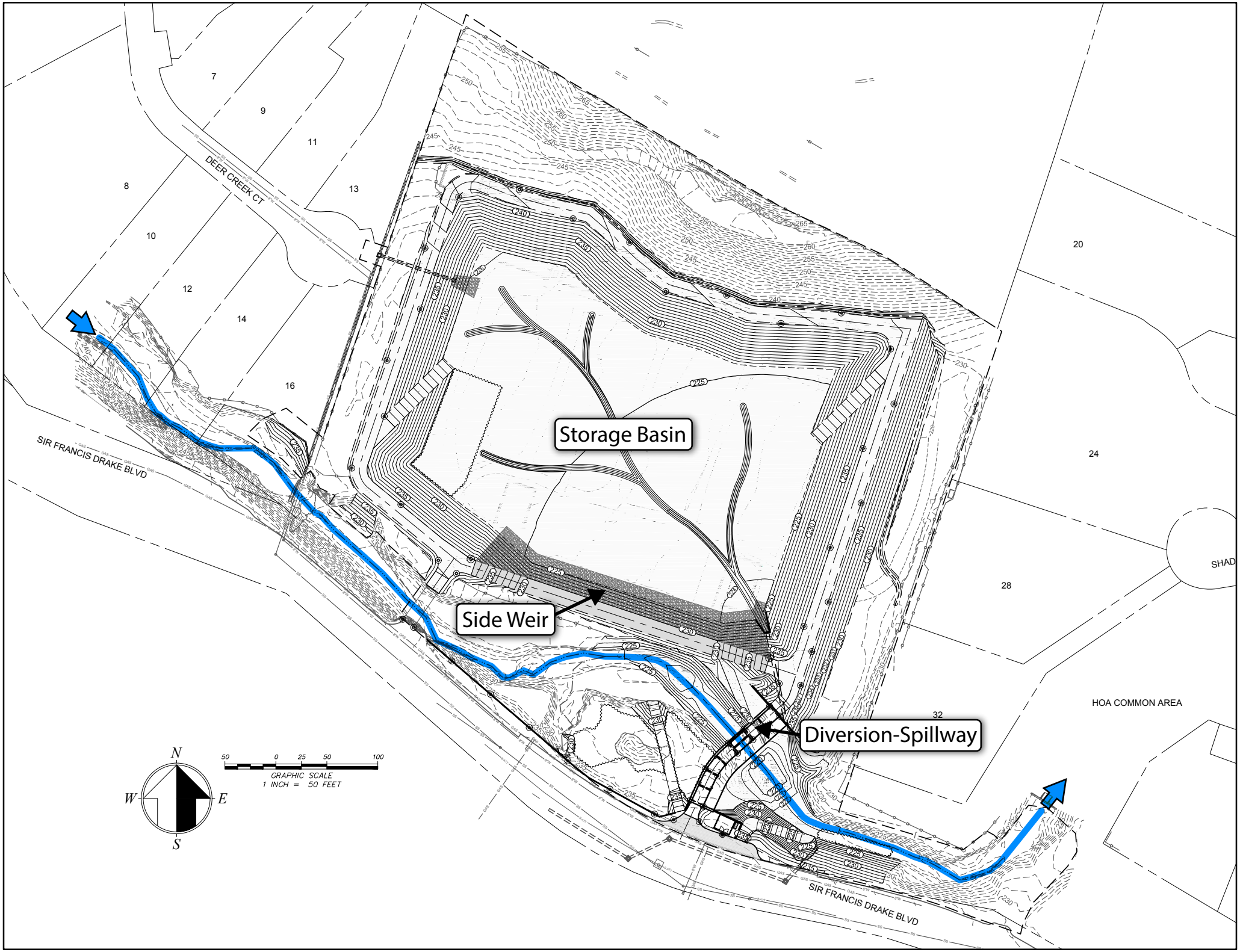


Figure 17 Comparison of 100-Year Water Surface Profiles Upstream of the Diversion Structure between Existing and Project Conditions




Storage Basin
Side Weir
Diversion-Spillway
DEER CREEK CT
SIR FRANCIS DRAKE BLVD
SIR FRANCIS DRAKE BLVD
HOA COMMON AREA
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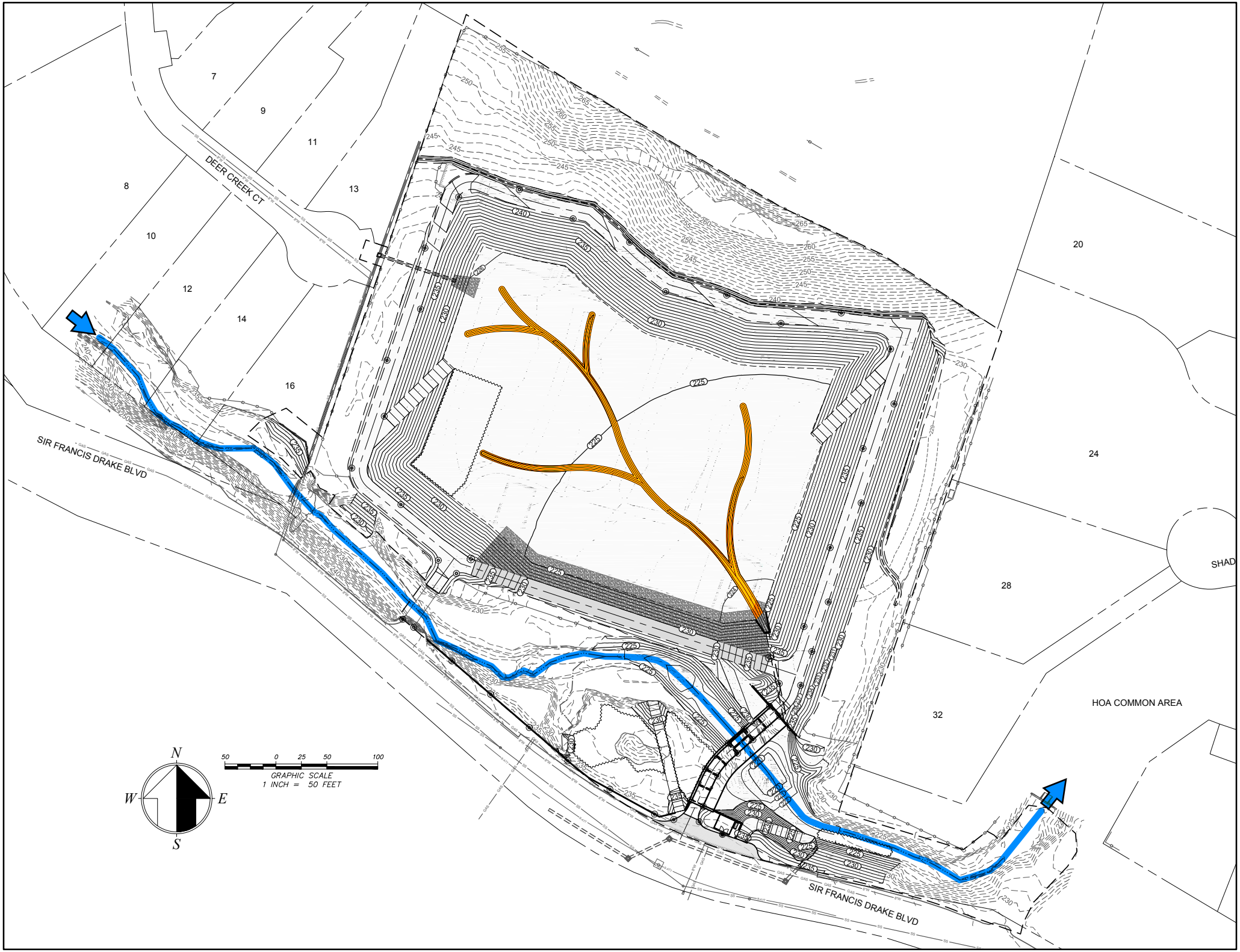
GRAPHIC SCALE
1 INCH = 50 FEET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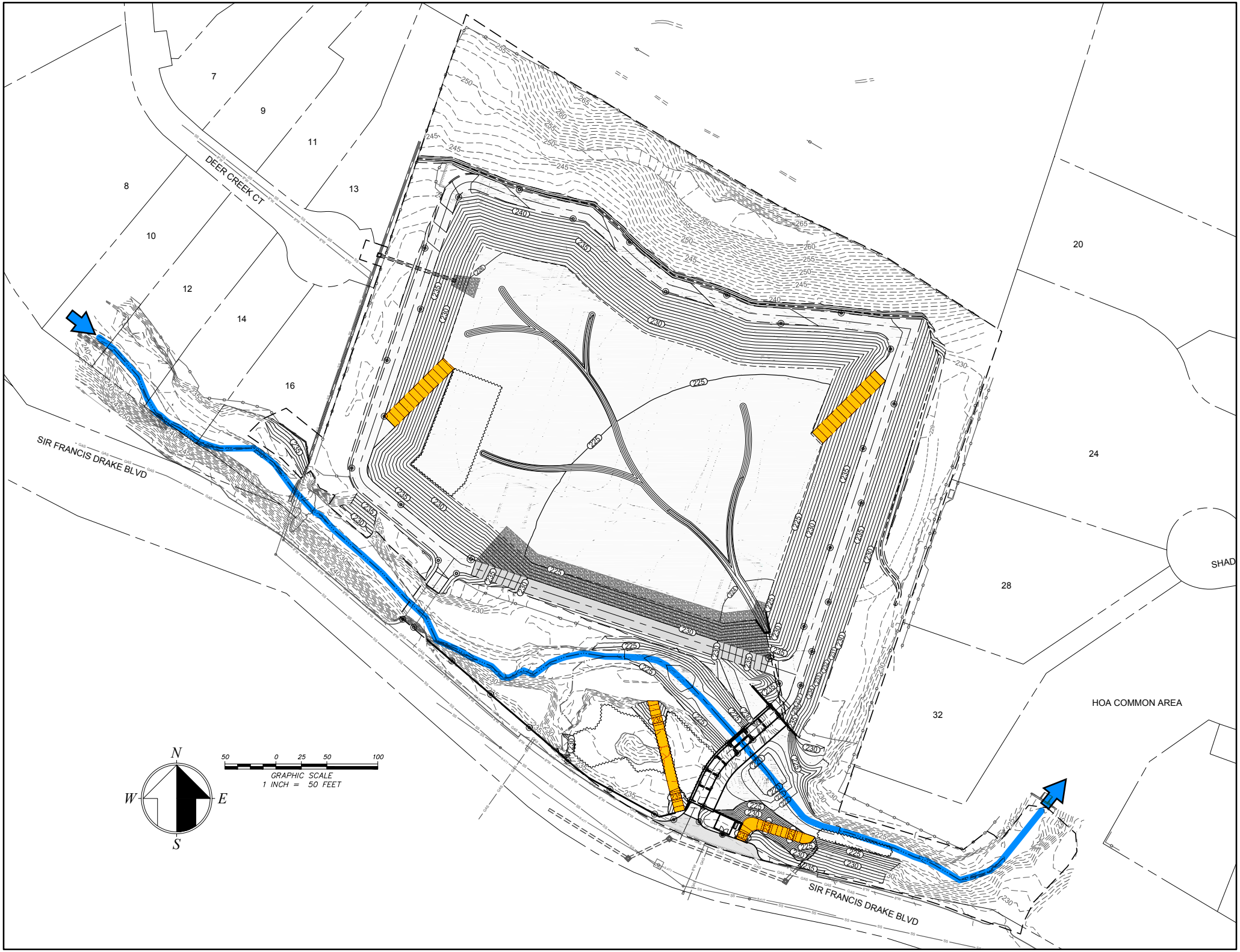
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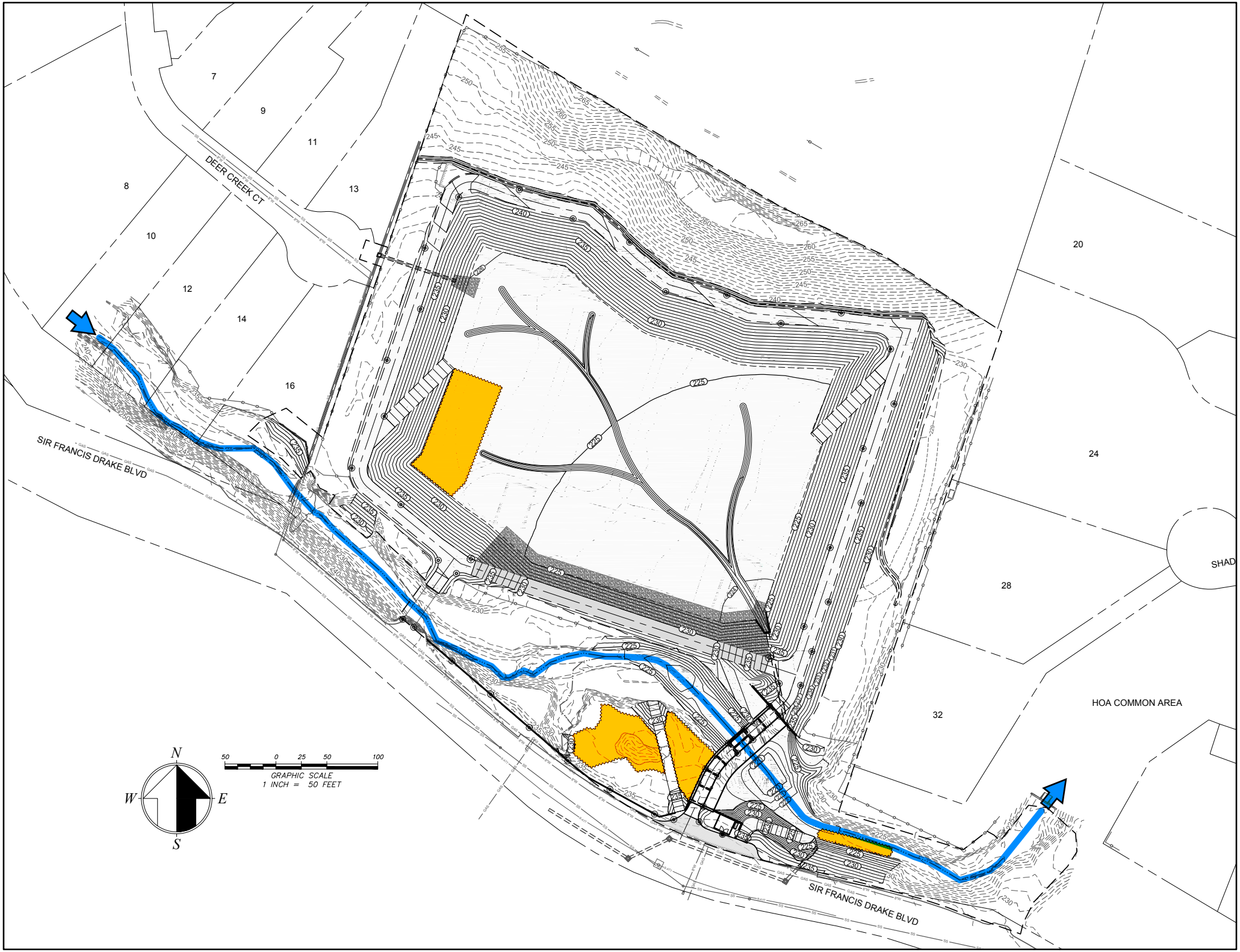
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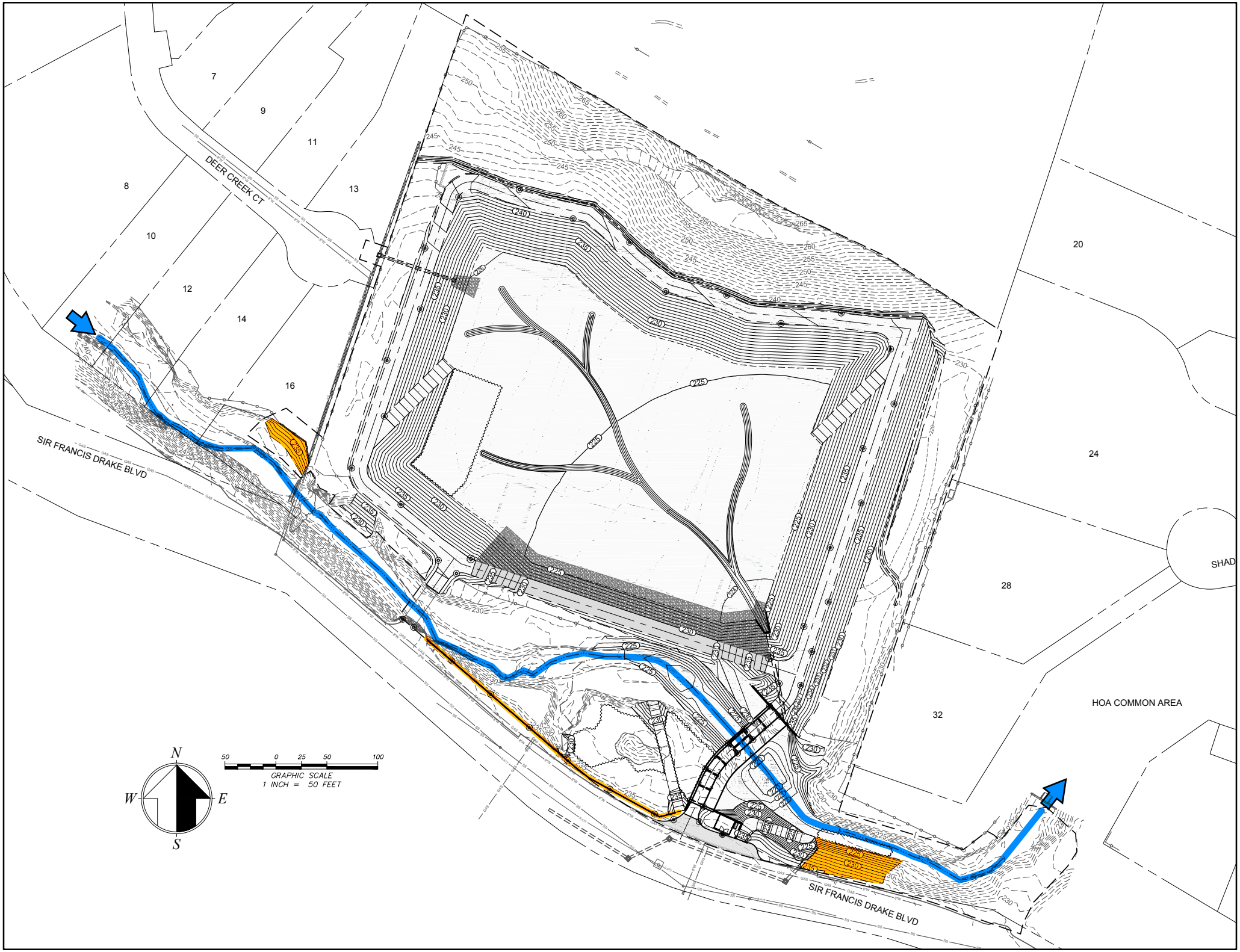
DEER CREEK CT
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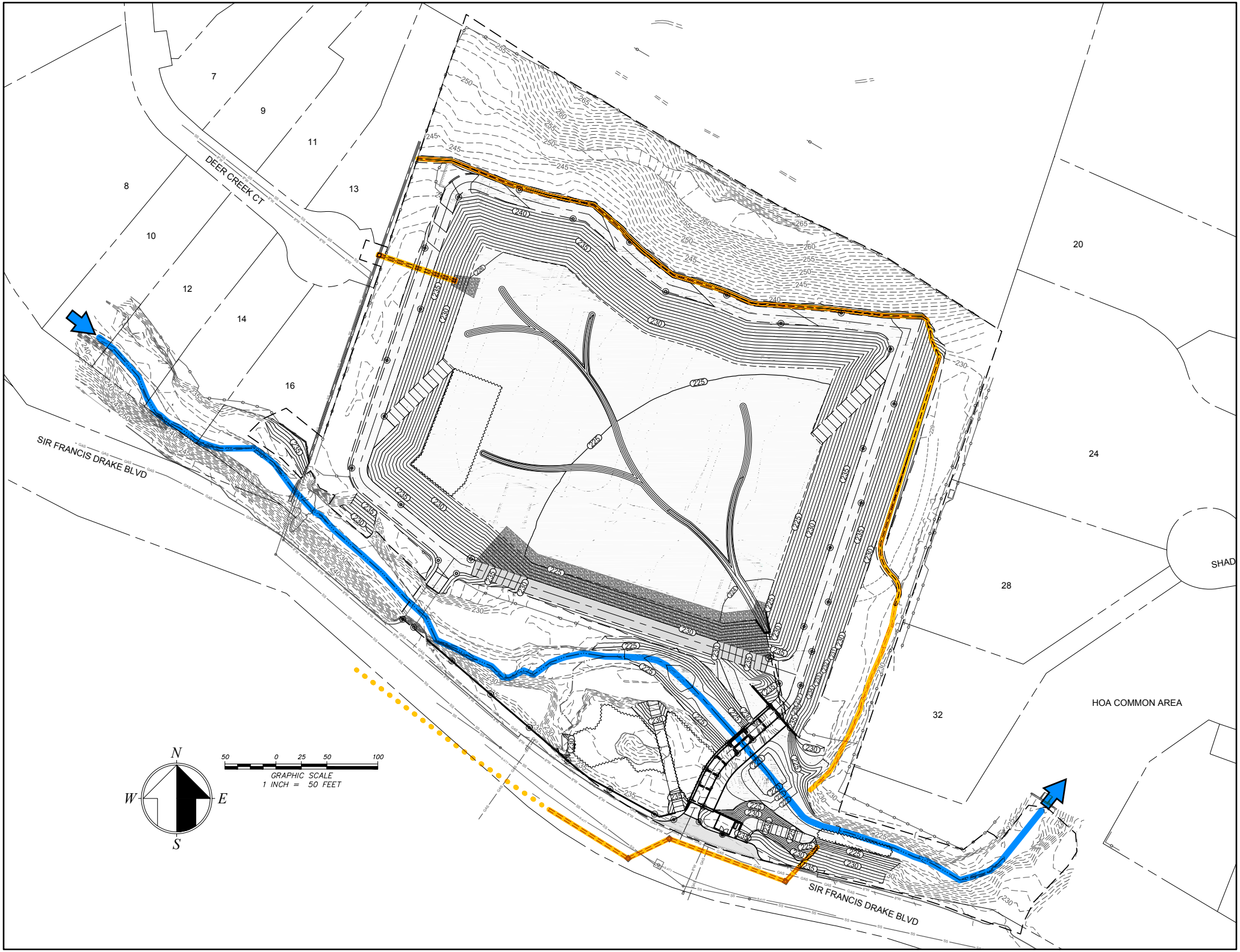
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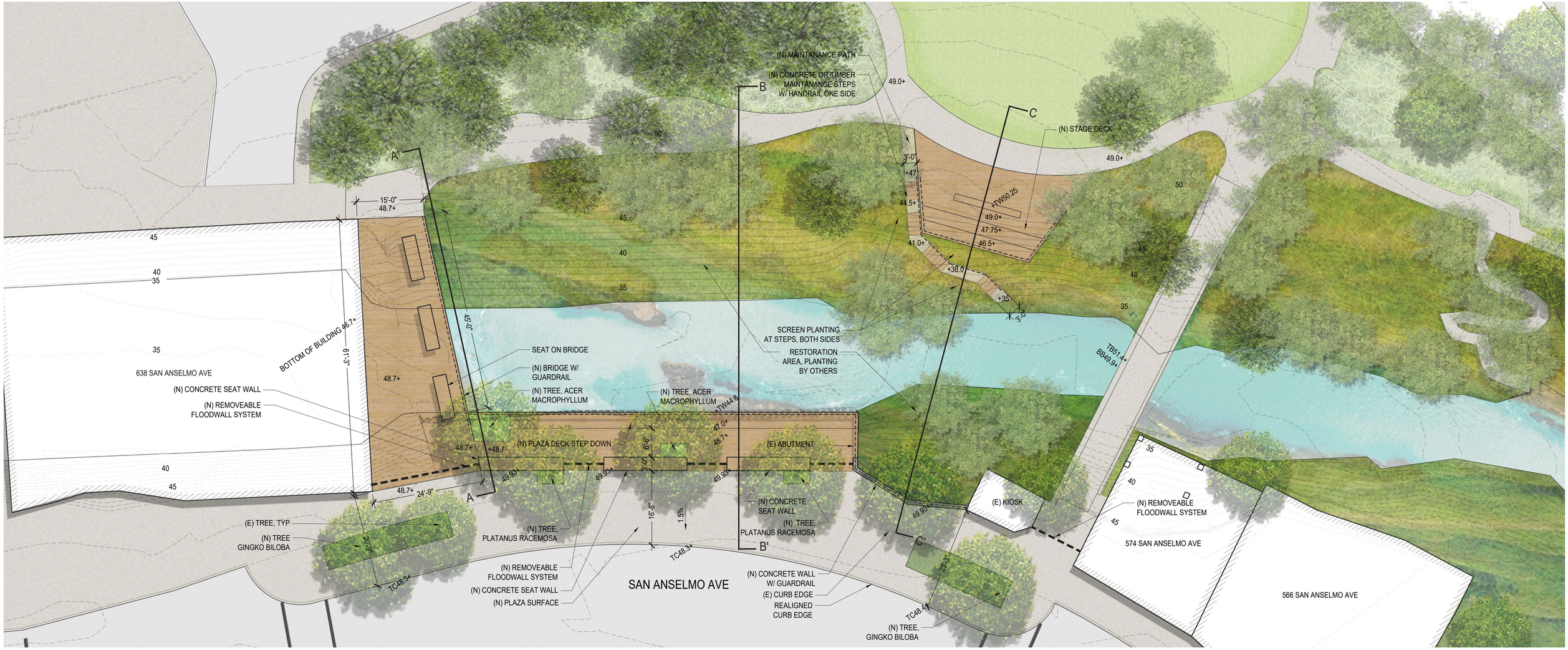
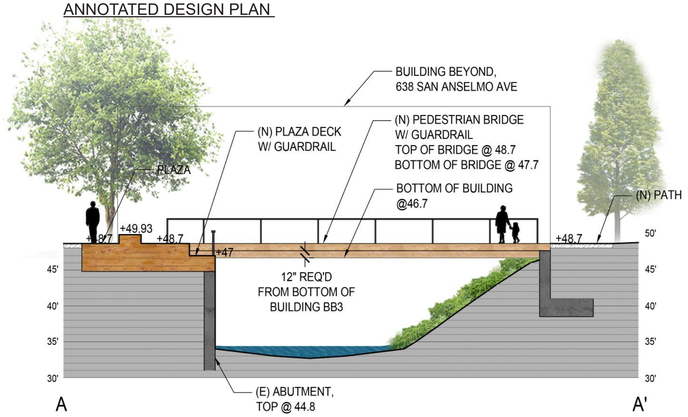
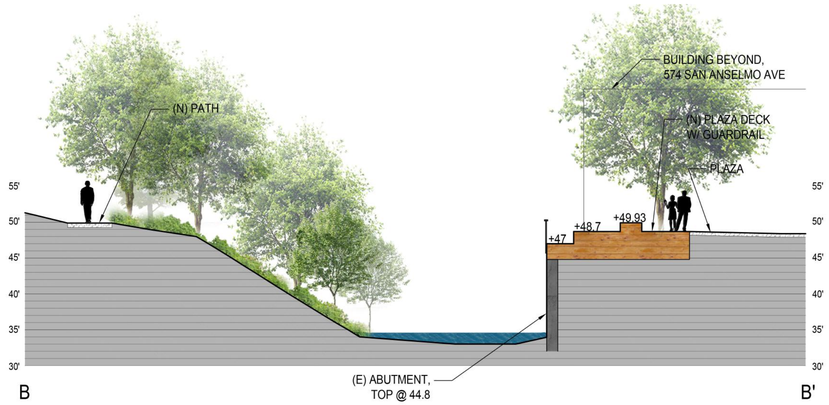


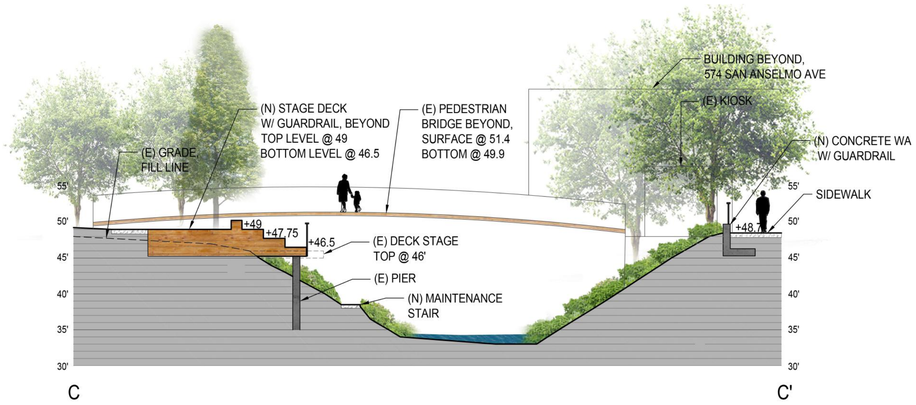
ANNOTATED DESIGN PLAN



UPSTREAM CREEK SECTION: A-A'



DOWNSTREAM CREEK SECTION: B-B'



DOWNSTREAM CREEK SECTION: C-C'

San Anselmo Creek Park Flood Control Project

San Anselmo, CA | October 30, 2019

0 5' 10' 20'
Scale: 1" = 10'-0"

N

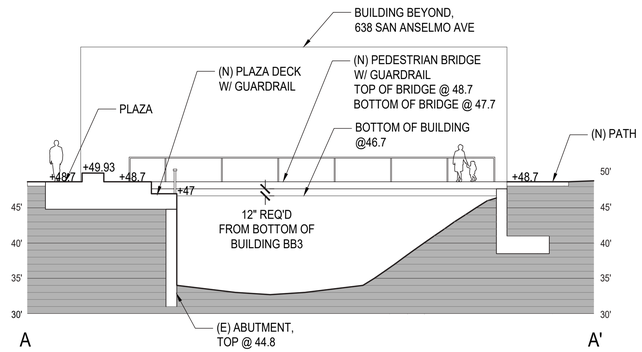
rhaa
LANDSCAPE ARCHITECTURE + PLANNING

LEGEND

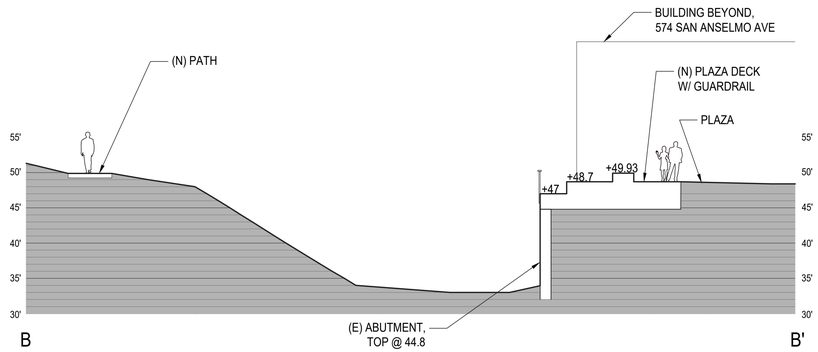
- PREVIOUS CREEK COVERAGE
- NEW CREEK COVERAGE
- OPEN CREEK
- FLOOD CONTROL REVEGETATION ZONE
- EXISTING ABUTMENT
- NEW ABUTMENT
- EXISTING STAGE/DECK LOCATION
- REMOVED BUILDING BB2
- NEW GUARDRAIL
- FLOODWALL ALIGNMENT (CONCRETE SEAT WALL & REMOVEABLE FLOODWALL SYSTEM)

(E) BUILDING BB2 TO BE REMOVED
(E) FENCELINE TO BE REMOVED
(N) MAINTANANCE PATH
(N) CONCRETE OR TIMBER MAINTANANCE STEPS W/ HANDRAIL ONE SIDE
(E) STAGE PIER, TYP
(E) STAGE DECK LOCATION
(N) STAGE DECK
(N) ABUTMENT
(E) ABUTMENT
BOTTOM OF BUILDING 46.7+
638 SAN ANSELMO AVE
SEAT ON BRIDGE
(N) BRIDGE W/ GUARDRAIL
SCREEN PLANTING AT STEPS, BOTH SIDES
RESTORATION AREA, PLANTING BY OTHERS
(N) CONCRETE SEAT WALL
(N) REMOVEABLE FLOODWALL SYSTEM
(N) PLAZA DECK STEP DOWN
(N) CONCRETE SEAT WALL
(N) CONCRETE WALL W/ GUARDRAIL
(E) KIOSK
(N) REMOVEABLE FLOODWALL SYSTEM
574 SAN ANSELMO AVE
566 SAN ANSELMO AVE
(E) TREE, TYP
(N) TREE, TYP
(N) REMOVEABLE FLOODWALL SYSTEM
(N) CONCRETE SEAT WALL
(N) PLAZA SURFACE
SAN ANSELMO AVE
'BRIDGED' FOOTING @ TREE
(E) CURB EDGE
REALIGNED CURB EDGE

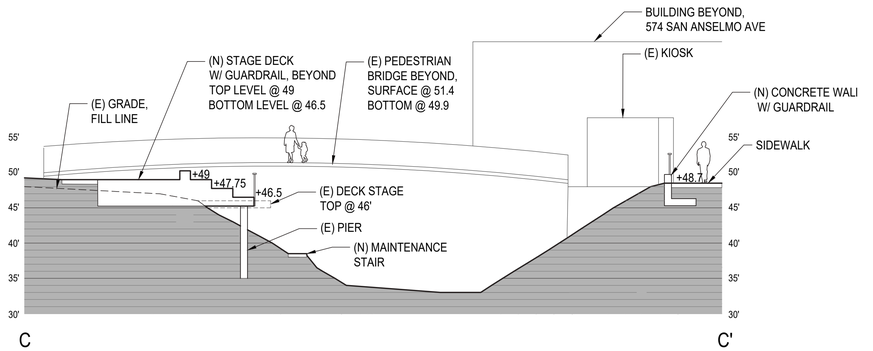
ANNOTATED SITE PLAN & CREEK COVERAGE DIARAM



UPSTREAM CREEK SECTION: A-A'



DOWNSTREAM CREEK SECTION: B-B'



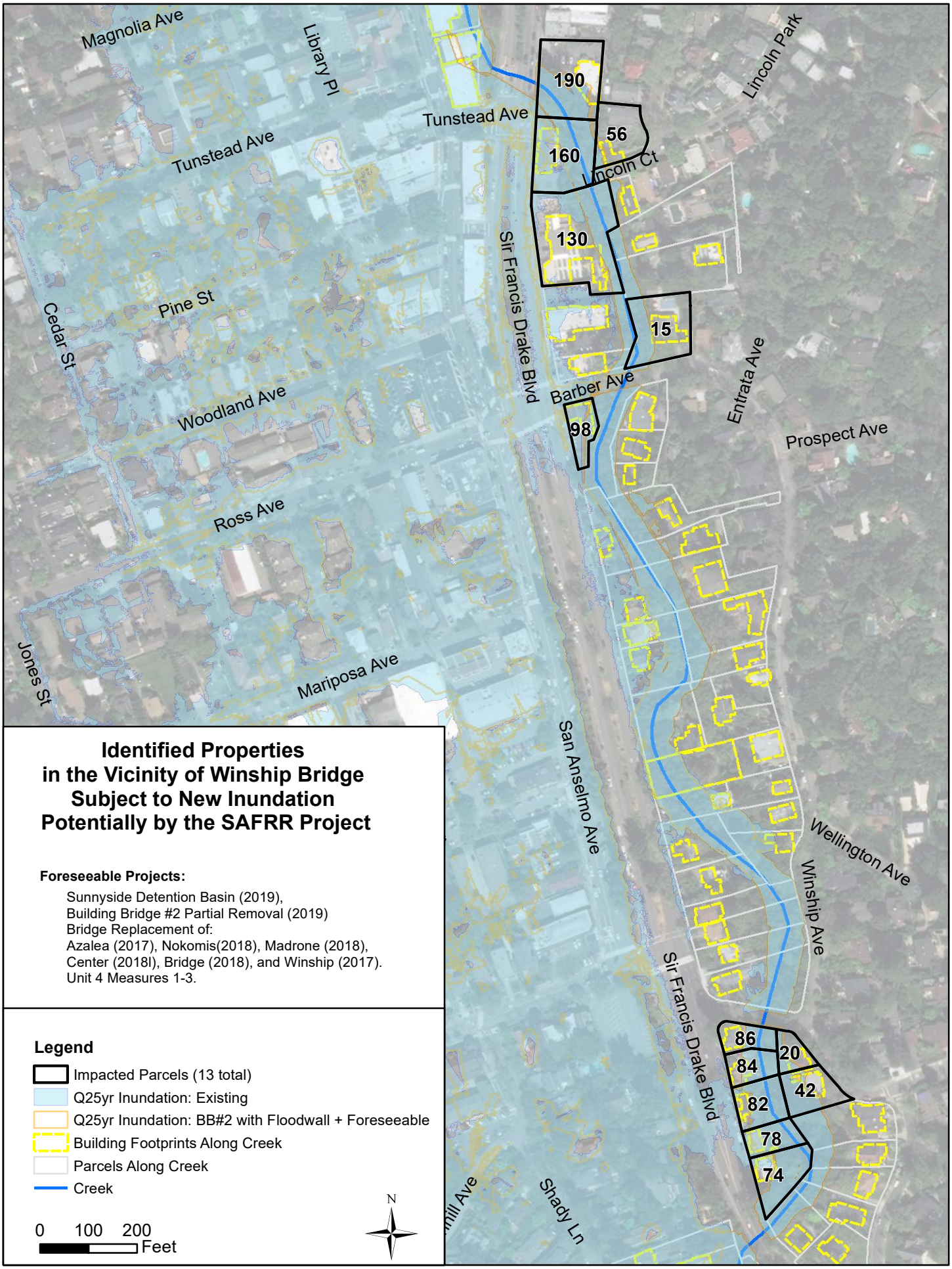
DOWNSTREAM CREEK SECTION: C-C'

San Anselmo Creek Park Flood Control Project

San Anselmo, CA | October 30, 2019

Scale: 1" = 10'-0"

rhaa
LANDSCAPE ARCHITECTURE + PLANNING



Identified Properties in the Vicinity of Winship Bridge Subject to New Inundation Potentially by the SAFRR Project

Foreseeable Projects:

Sunnyside Detention Basin (2019),
Building Bridge #2 Partial Removal (2019)
Bridge Replacement of:
Azalea (2017), Nokomis(2018), Madrone (2018),
Center (2018l), Bridge (2018), and Winship (2017).
Unit 4 Measures 1-3.

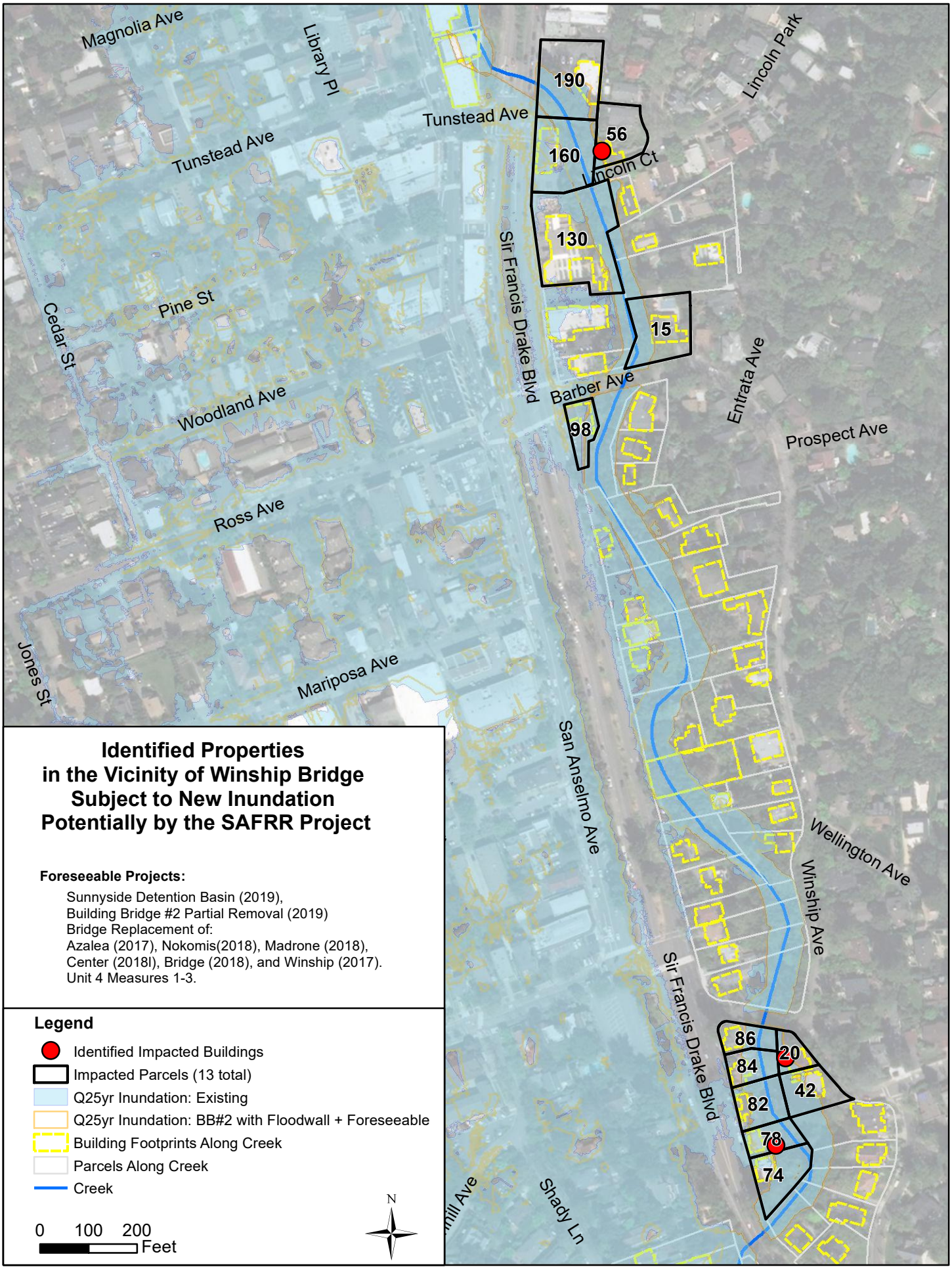
Legend

- Impacted Parcels (13 total)
- Q25yr Inundation: Existing
- Q25yr Inundation: BB#2 with Floodwall + Foreseeable
- Building Footprints Along Creek
- Parcels Along Creek
- Creek

0 100 200 Feet

N

Document Path: C:\DATA\2738\GIS\FIGURE -13 Properties - a.mxd



Identified Properties in the Vicinity of Winship Bridge Subject to New Inundation Potentially by the SAFRR Project

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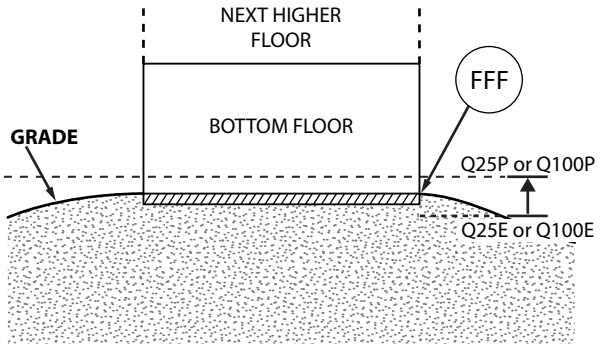
Legend

- Identified Impacted Buildings
- Impacted Parcels (13 total)
- Q25yr Inundation: Existing
- Q25yr Inundation: BB#2 with Floodwall + Foreseeable
- Building Footprints Along Creek
- Parcels Along Creek
- Creek

Document Path: C:\DATA\2738\GIS\FIGURE -13 Properties - a.mxd

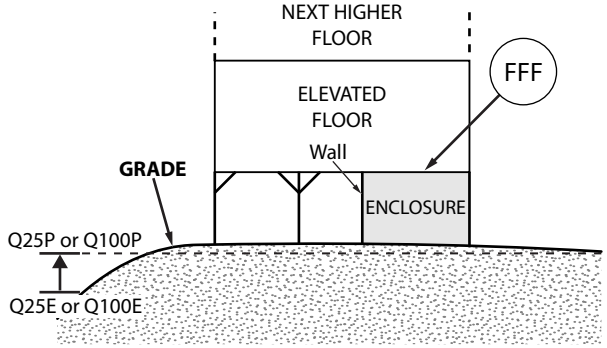
Building Type Diagrams and Corresponding Applicable Properties

A. Building on slab on grade



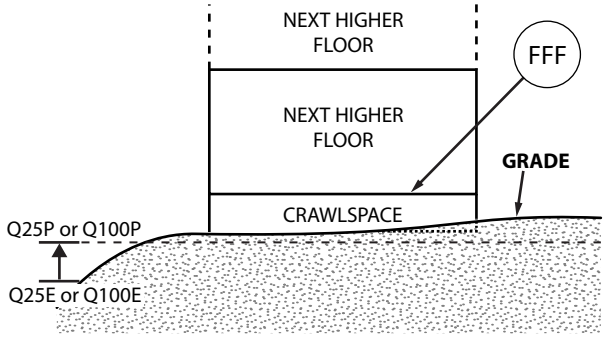
56 Lincoln Park (Office), San Anselmo
20 Winship (Garage), Ross
78 Sir Francis Drake (Office), Ross

B. Building partially or totally elevated on supports



190 Sir Francis Drake, San Anselmo
160 Sir Francis Drake, San Anselmo
130 Sir Francis Drake, San Anselmo
98 Sir Francis Drake, San Anselmo
86 Sir Francis Drake, Ross
84 Sir Francis Drake, Ross

C. Building elevated on crawl space



82 Sir Francis Drake, Ross
42 Winship, Ross
78 Sir Francis Drake (Main), Ross
74 Sir Francis Drake, Ross
15 Barber, San Anselmo