



Second Public Workshop Presentation for Meadow Way Bridge @ San Anselmo Creek in the Town of Fairfax

Presented by



June 29, 2016



Meadow Way Bridge - Introduction

- ◆ Project overview
- ◆ Bridge replacement and retaining wall selection
- ◆ Environmental constraints
- ◆ Choices, tradeoffs and preferences
- ◆ Next steps
- ◆ Discussion and Q&A





Meadow Way Bridge - Introduction

- Proposed bridge replacement because:
 - It is inadequate and unsafe (Fire can only use Type 3 engine)
 - It has become a maintenance & cost burden
 - It's the only access to the neighborhood and utilities are on the bridge
 - Availability of grant funding
- Workshop (Nov. 2013) and Council meetings to approve CIC agreement (Aug.-Oct. 2013, Apr. 2014, Sept. 2015)
- Follow-up with Caltrans on issues and additional funding





Meadow Way Bridge - Aerial





Meadow Way Bridge - Topside





Meadow Way Bridge – Below Deck





Where Did We Leave Things After the First Workshop

What you asked for

- ◆ Research rehabilitation of existing bridge
- ◆ Limit width to one lanes on the new bridge
- ◆ Finalize right-of-way and property lines
- ◆ Wood bridge
- ◆ Creek access

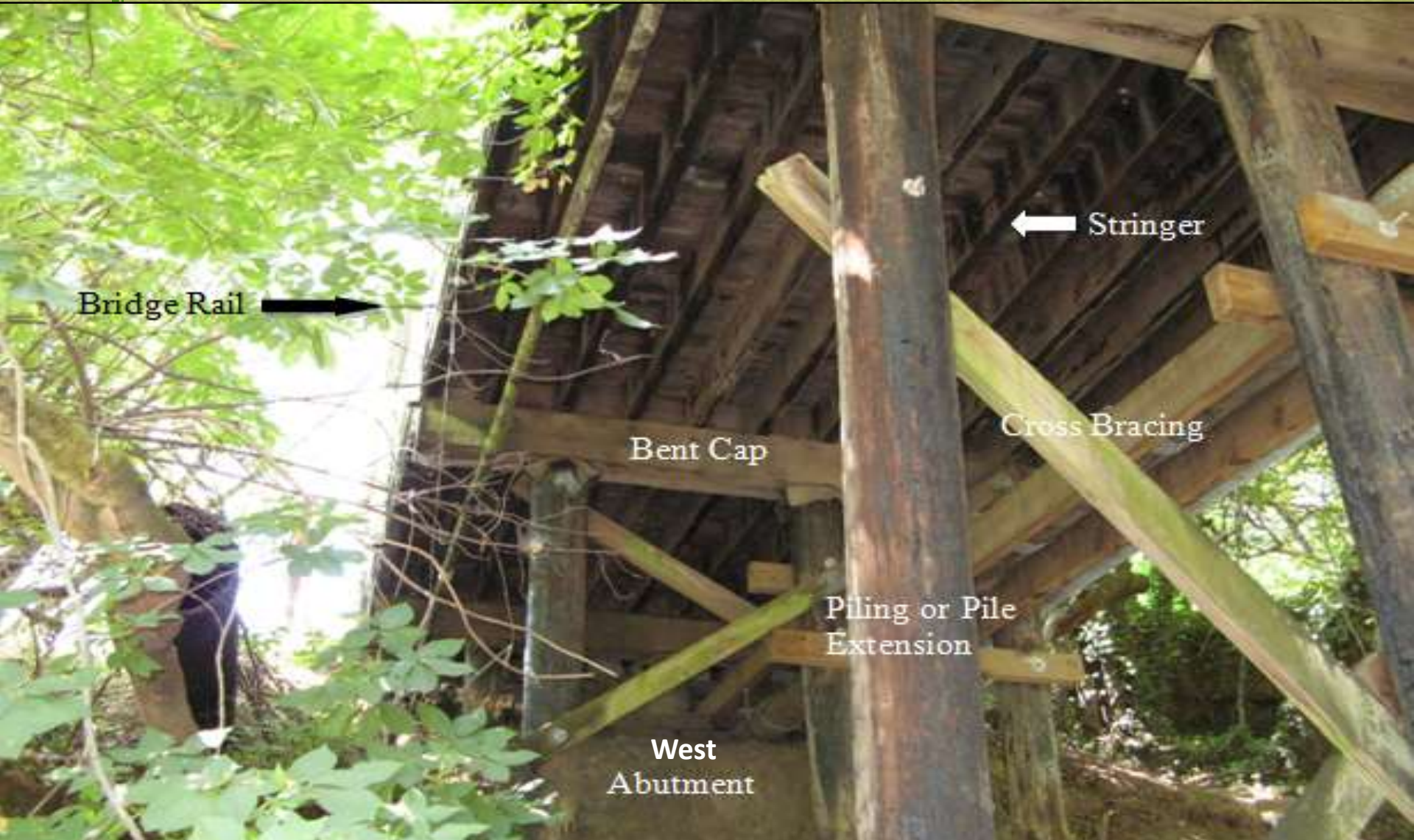
What we promised in addition:

- ◆ Build the bridge on the side & move it to center
- ◆ Creek bank erosion & scour protection





List of Bridge Structural Framing Terms





Additional Bridge Terms Referenced Tonight



Superstructure

**East
Abutment**

Substructure

Scour



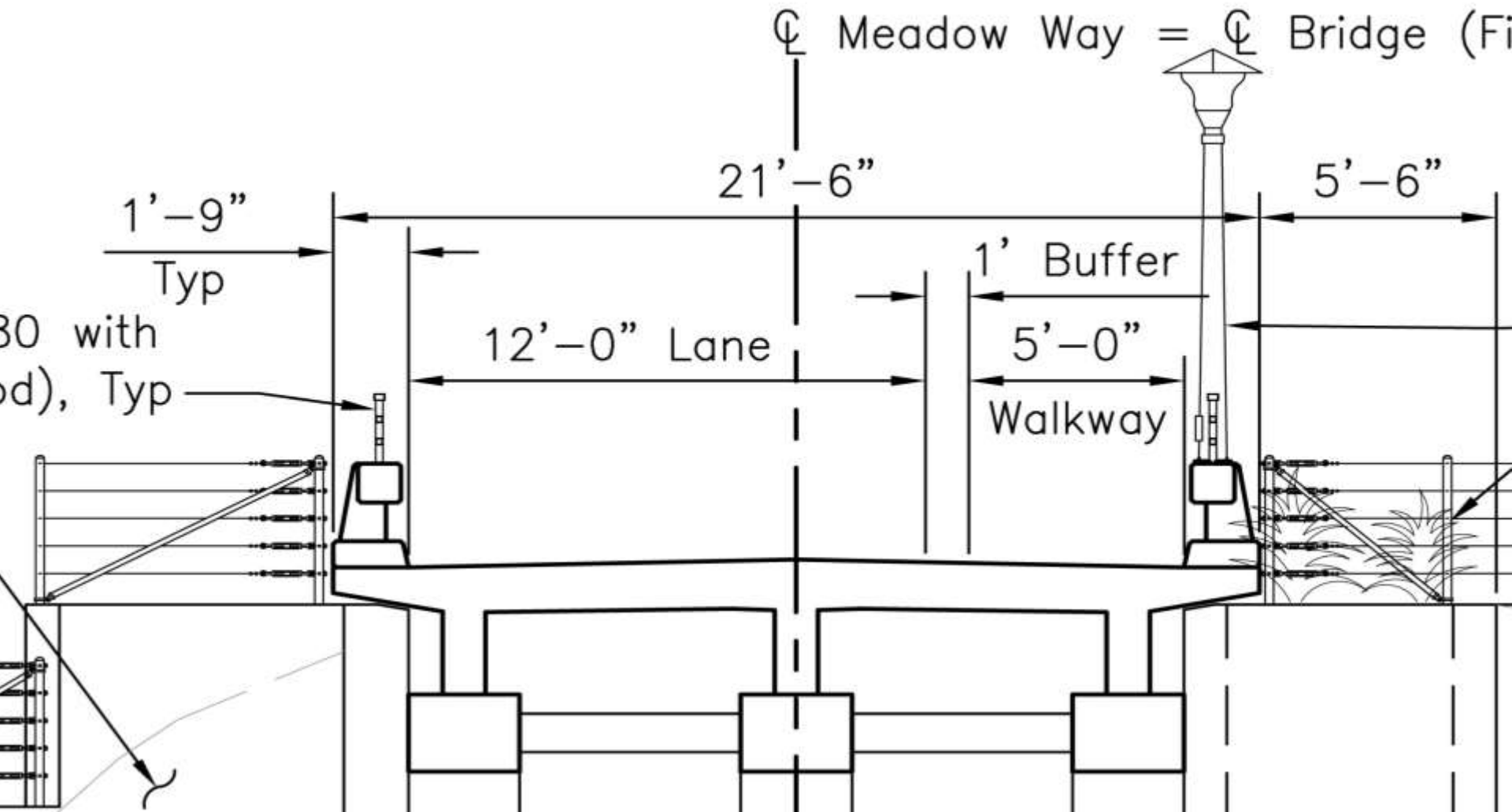
What You Asked For at the First Workshop: Rehabilitation of the Existing Bridge

- ◆ Rehabilitation of the existing bridge
- ◆ Study results
- ◆ Lack of State and Federal support for rehab
- ◆ Ongoing maintenance needs



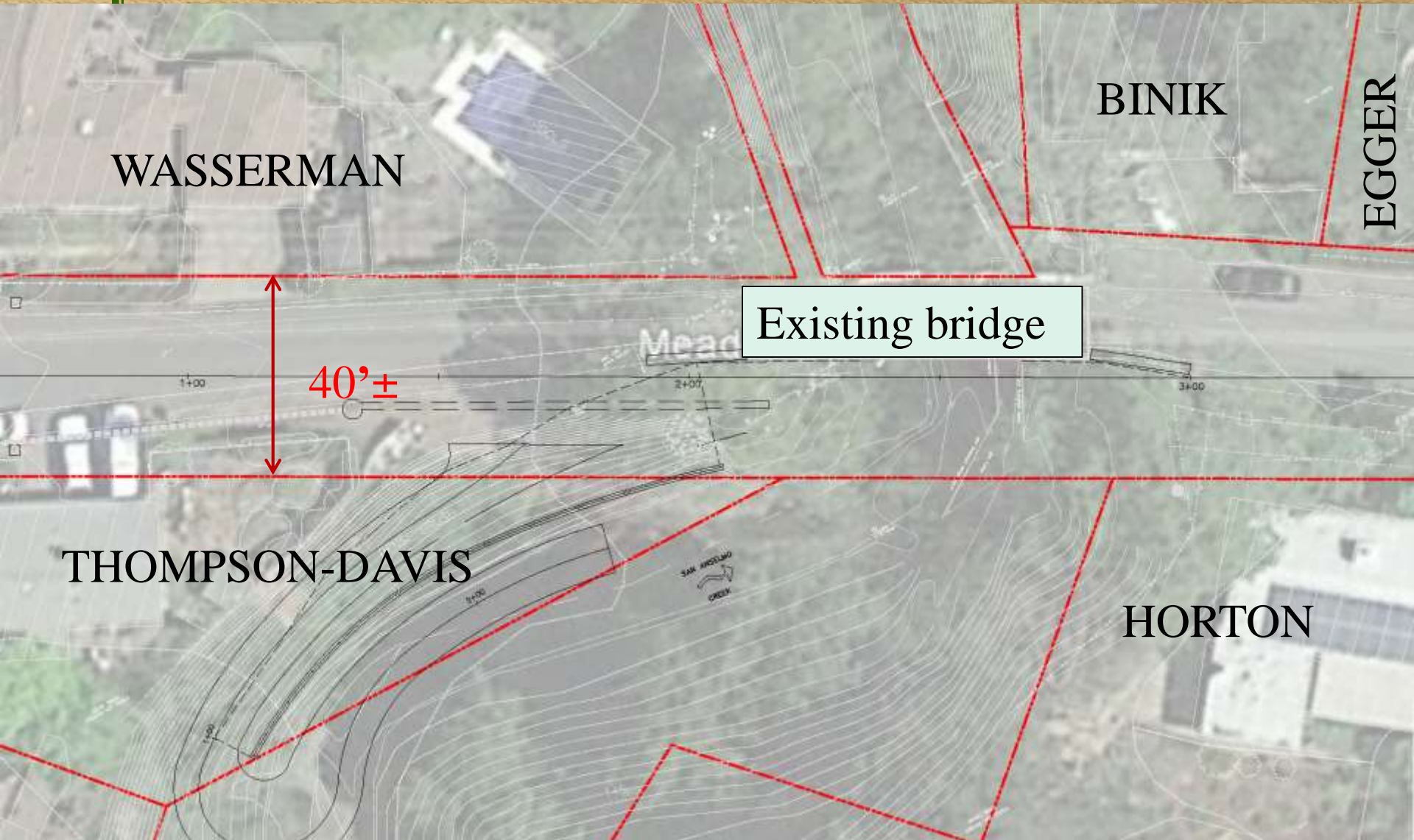


What You Asked For at the First Workshop: Lanes on the New Bridge and Bridge Width





What You Asked For at the First Workshop: Right-of-Way and Property Records Research





What You Asked For at the First Workshop:

- ◆ Wood bridge as one of the alternates
- ◆ Creek access

Summary of what we learned

- Must replace the bridge
- Can be one lane (if 18' clear curb to curb)
- Can be Wood
- 40' \pm Town right-of-way through Meadow way





Workshop Objectives

- ◆ Identify environmental constraints
- ◆ Replace the existing bridge
 - Decide replacement bridge type
- ◆ Construct walls to protect the banks
 - Decide wall type and finish
- ◆ Show construction access scheme
- ◆ Show Construction staging
- ◆ Explain construction schedule





Workshop Objectives - Identify Environmental Studies

- ◆ Caltrans Preliminary Environmental Scoping (PES) Identified the following to be addressed
 - Staging, Traffic, Noise, Hazardous Materials, Water Quality, Floodplain and Biological Resources
- ◆ Completion of these technical reports will allow Caltrans to file a Categorical Exclusion under the National Environmental Policy Act (NEPA)





Workshop Objectives - Identify Environmental Studies

- ◆ Compliance with the California Environmental Quality Act (CEQA) will be met by preparing an Initial Study/Mitigated Negative Deceleration
- ◆ Natural resources permits will include Clean Water Act and California Department of Fish and Wildlife agreement
- ◆ The project will include measures to protect plant, fish and wildlife Special-Status Species listed under federal or California Endangered Species Acts





Workshop Objectives - Replace Existing Bridge

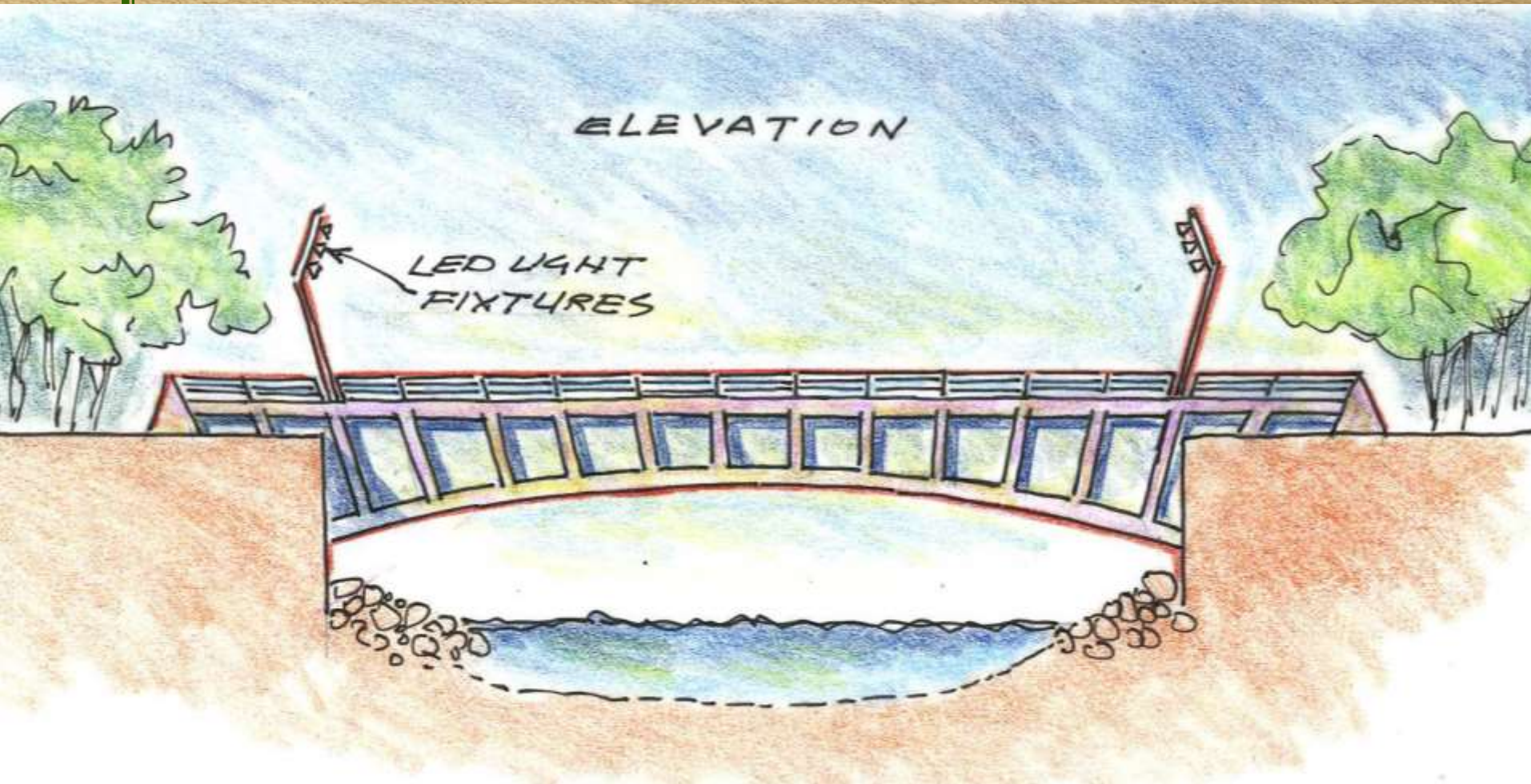
Bridge Types Considered

- ◆ Concrete
- ◆ Steel
- ◆ Wood





Workshop Objectives – Concrete Arch Bridge



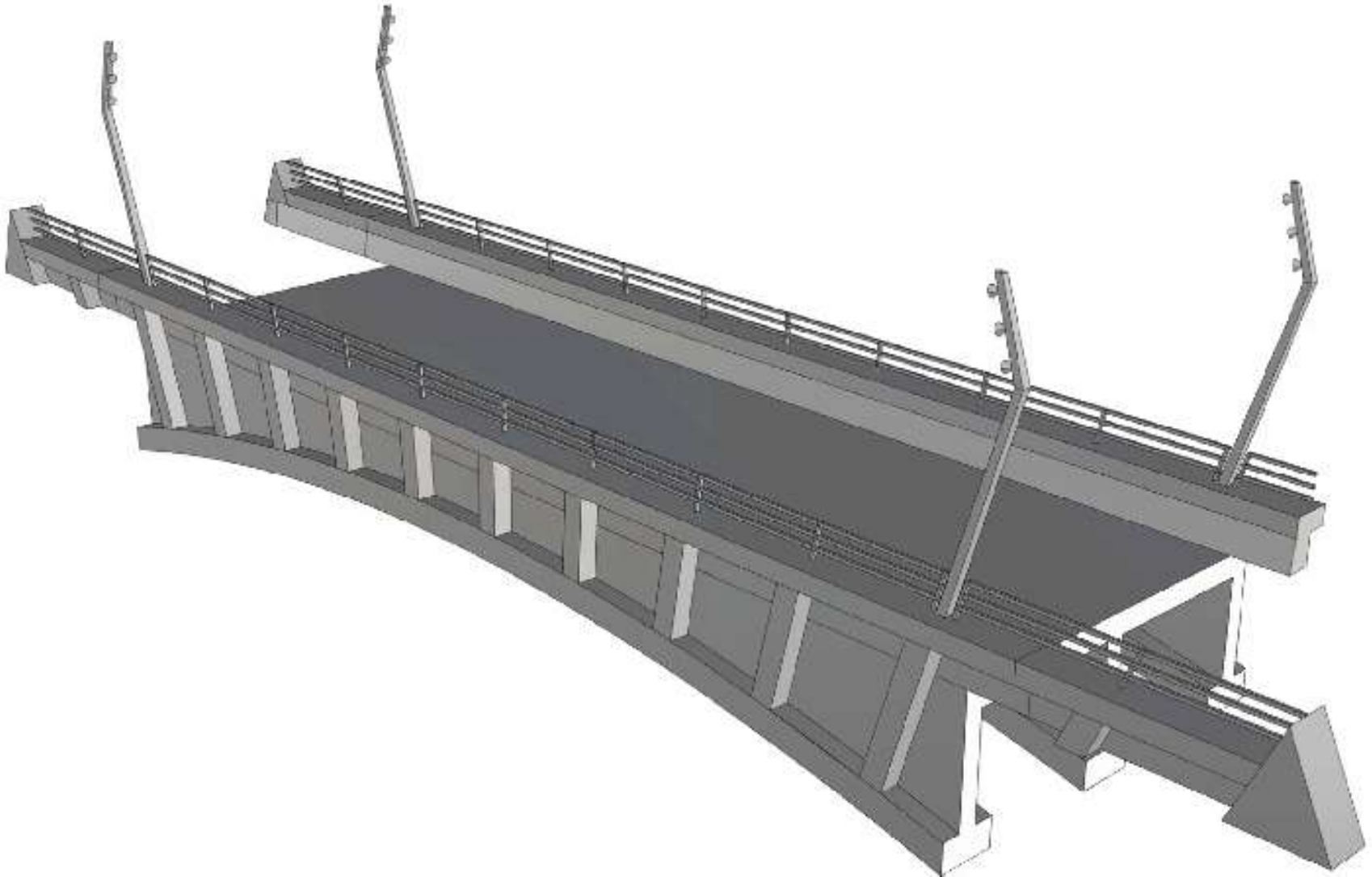


Workshop Objectives – Concrete Arch Bridge



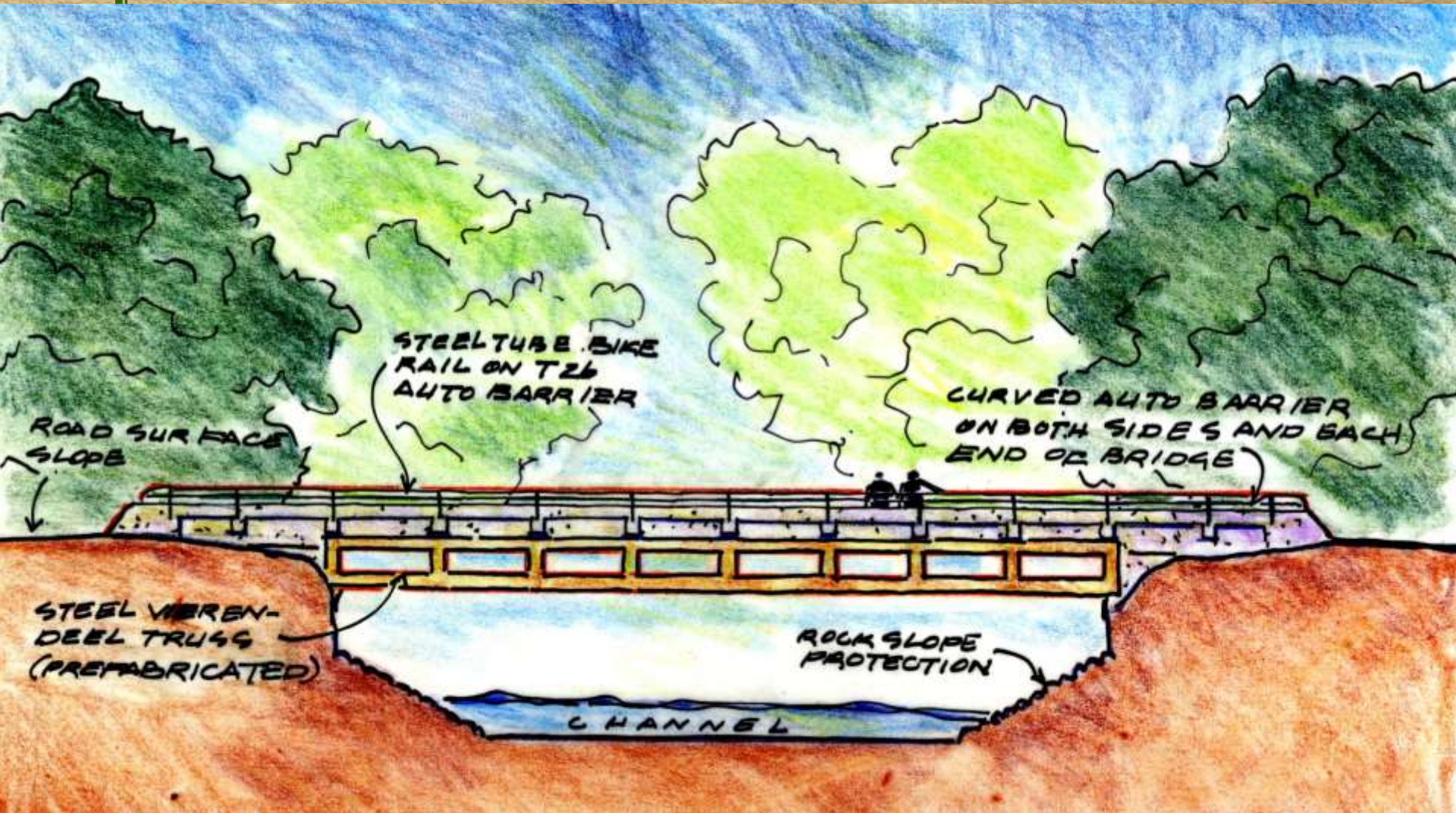


Workshop Objectives – Concrete Arch Bridge



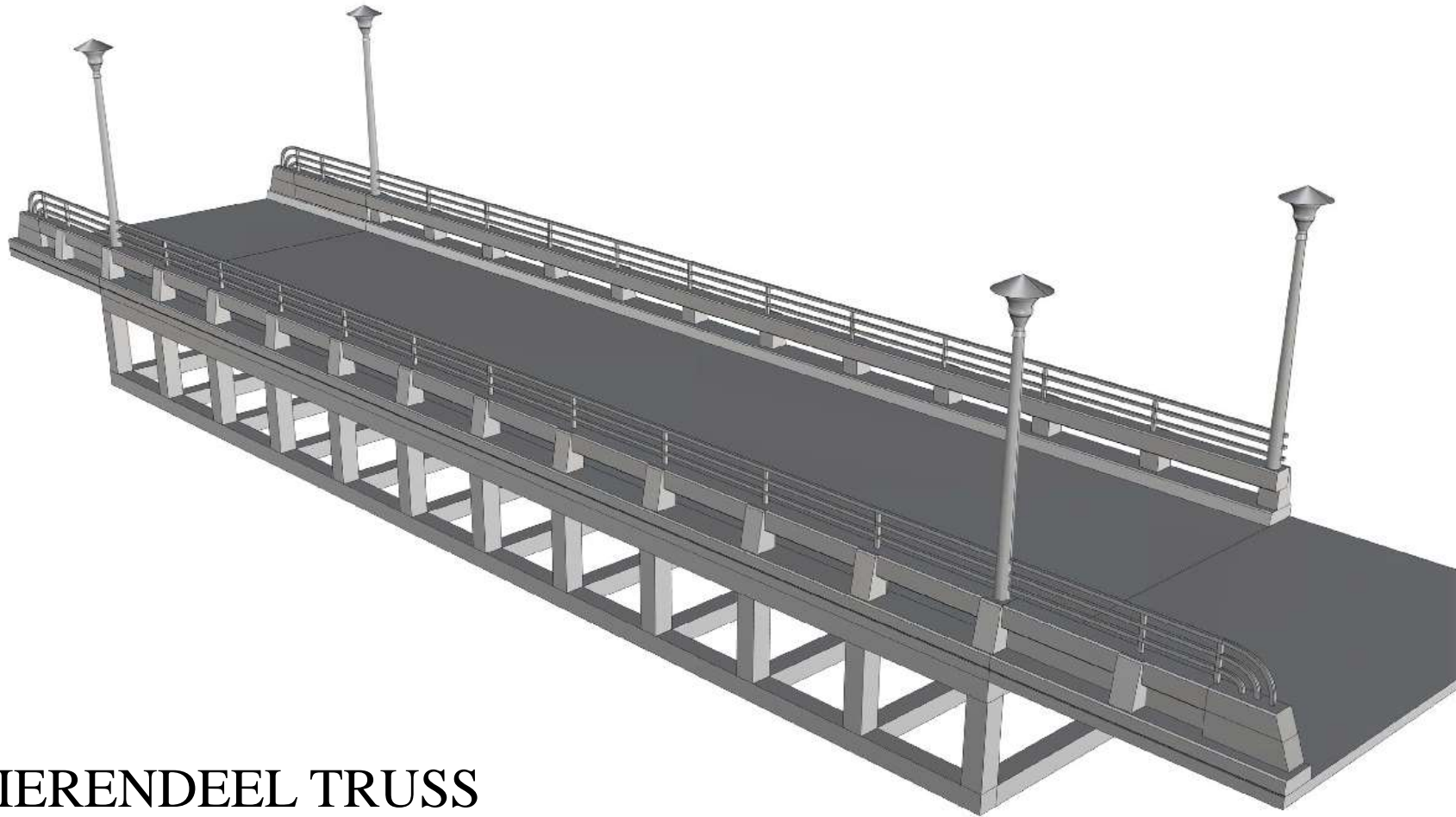


Workshop Objectives – Steel Truss Bridge





Workshop Objectives - Steel Truss Bridge



VIERENDEEL TRUSS

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Workshop Objectives – Vierendeel Steel Truss



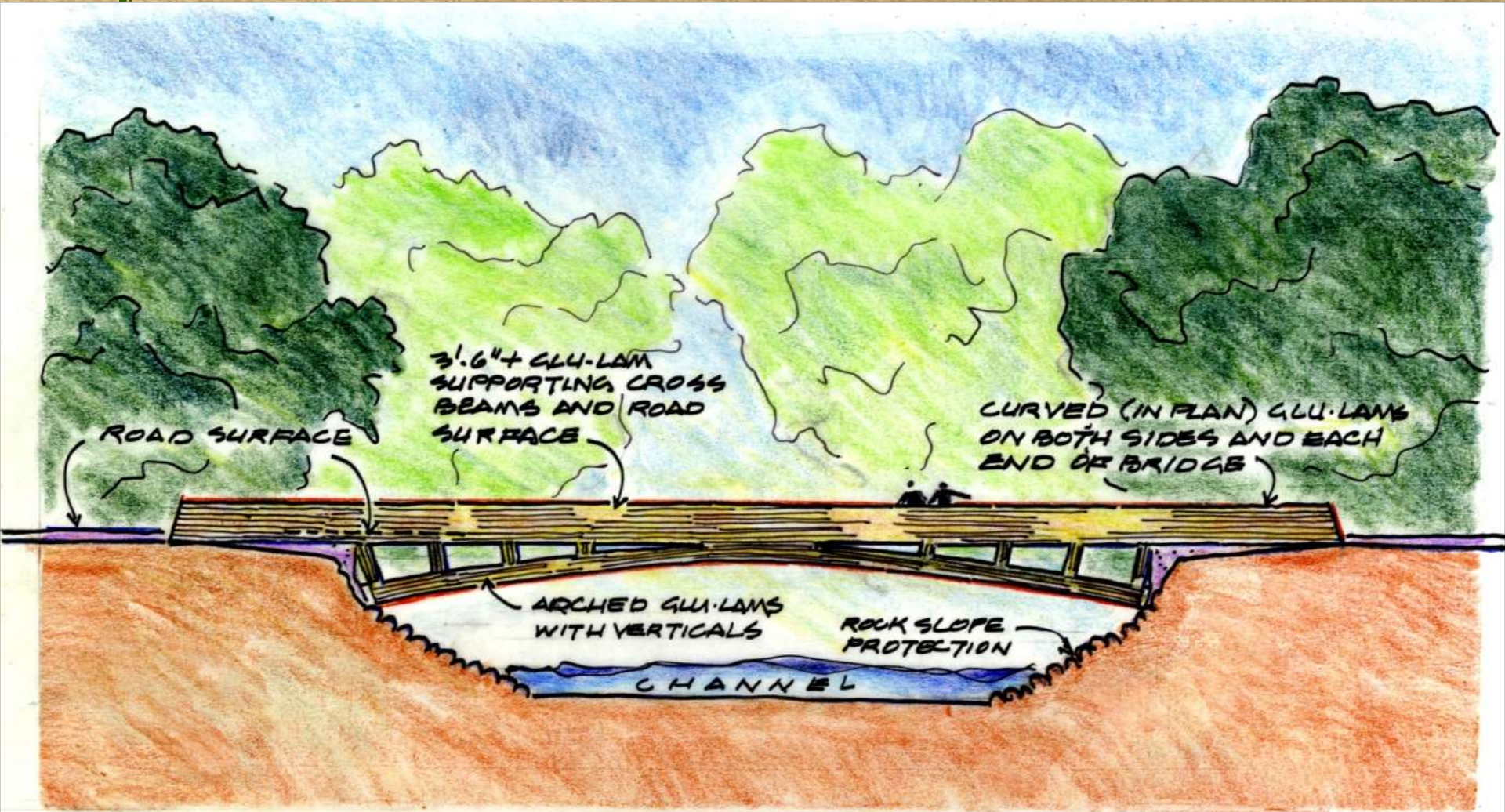


Workshop Objectives – CORTEN Steel





Workshop Objectives - Arch Glulam Wood Bridge



OPTION ONE MEADOW WAY BRIDGE (WOODEN)



Workshop Objectives - Arch Glulam Wood Bridge



MEADOW WAY BRIDGE
SCHEME 4 GLULAM OPTION 2
perspective 01



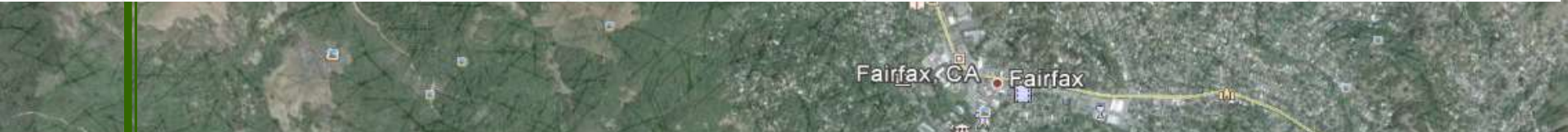
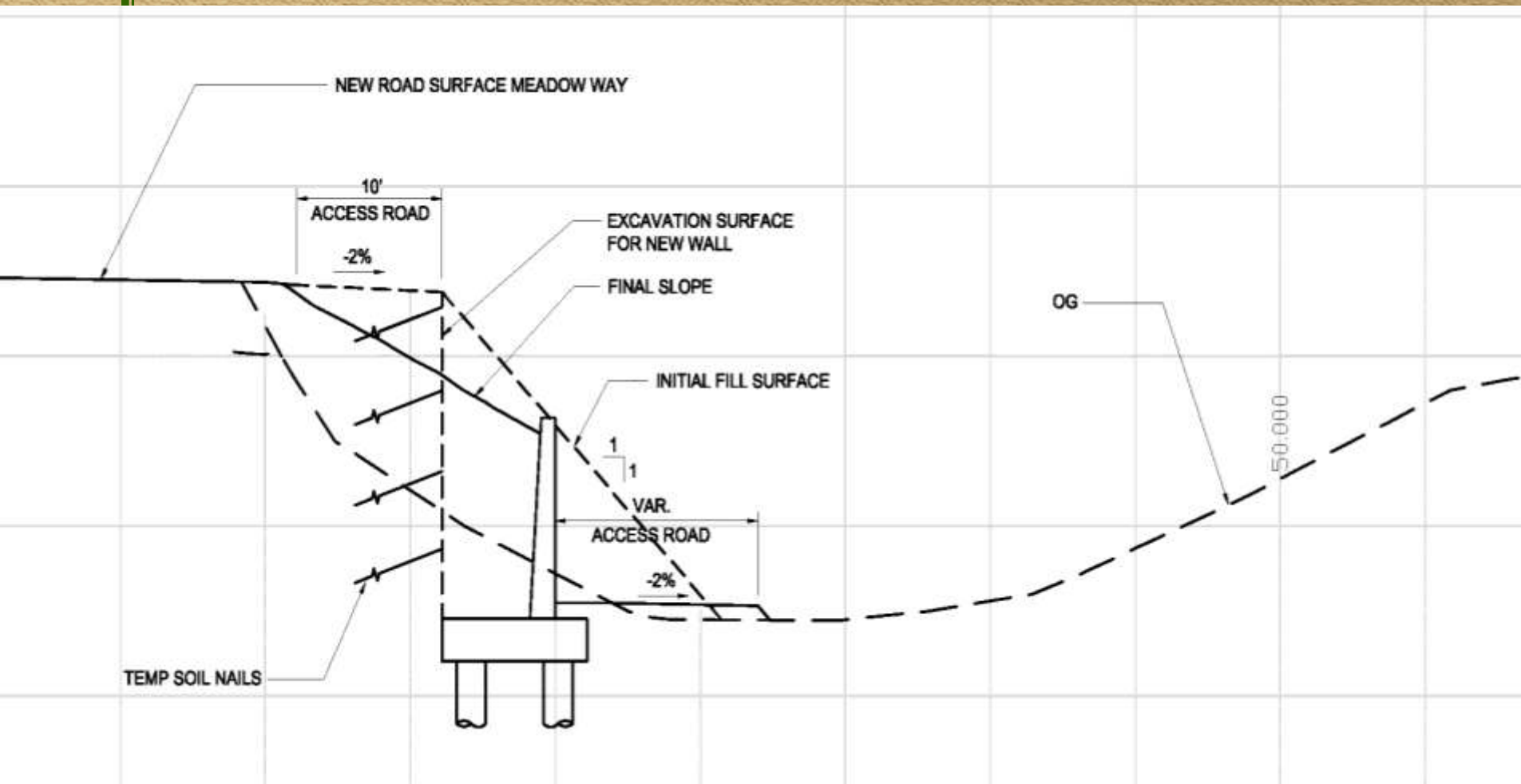


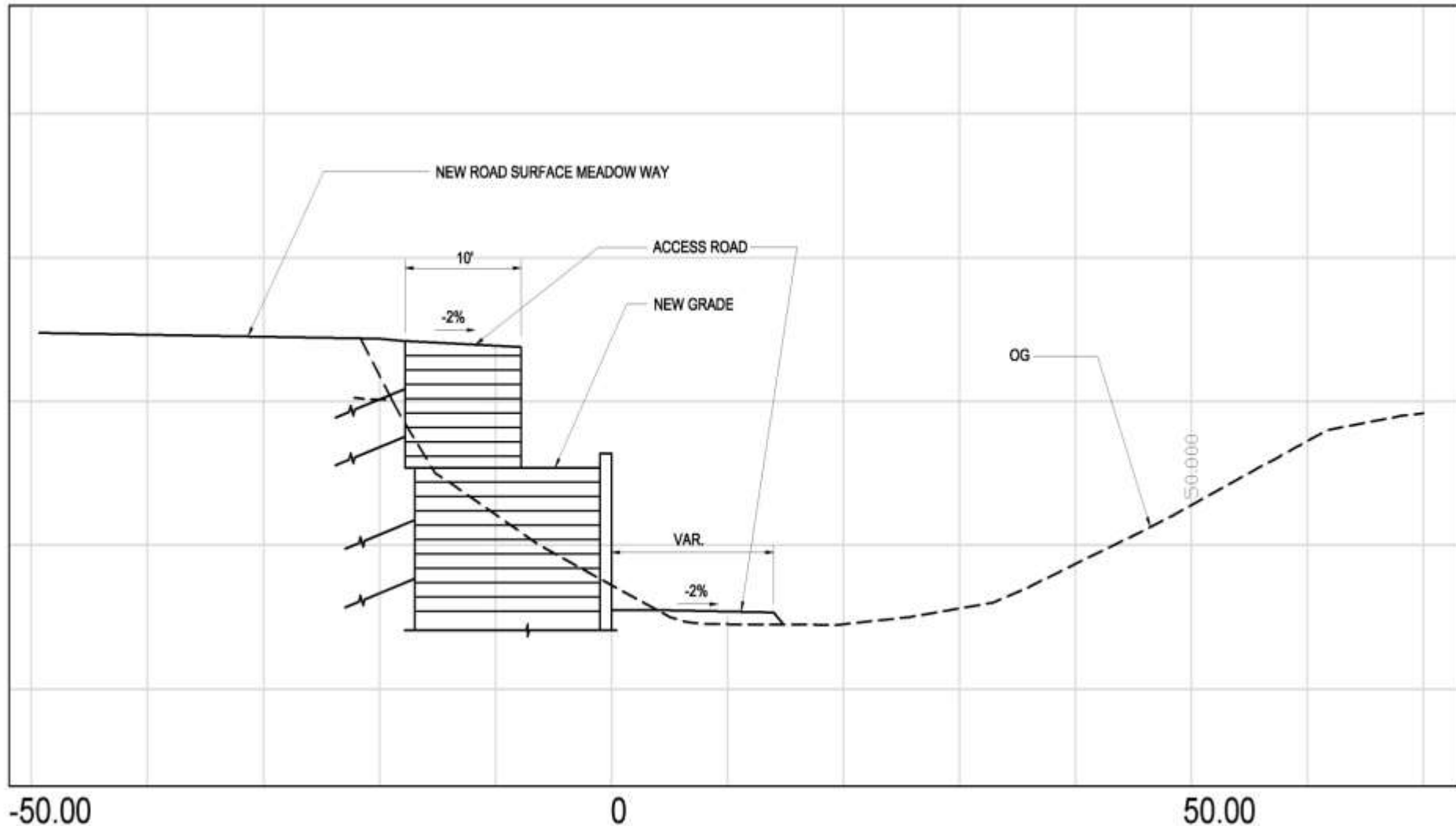
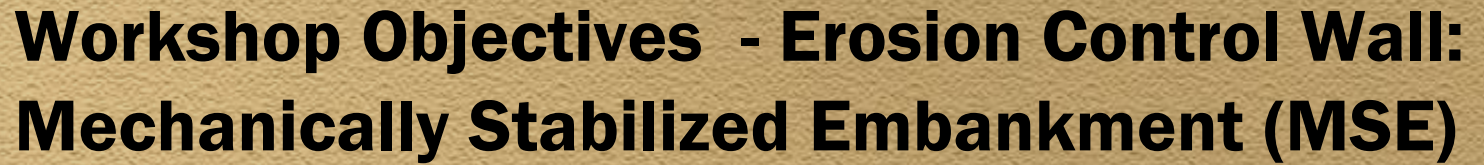
Workshop Objectives - Arch Glulam Wood Bridge





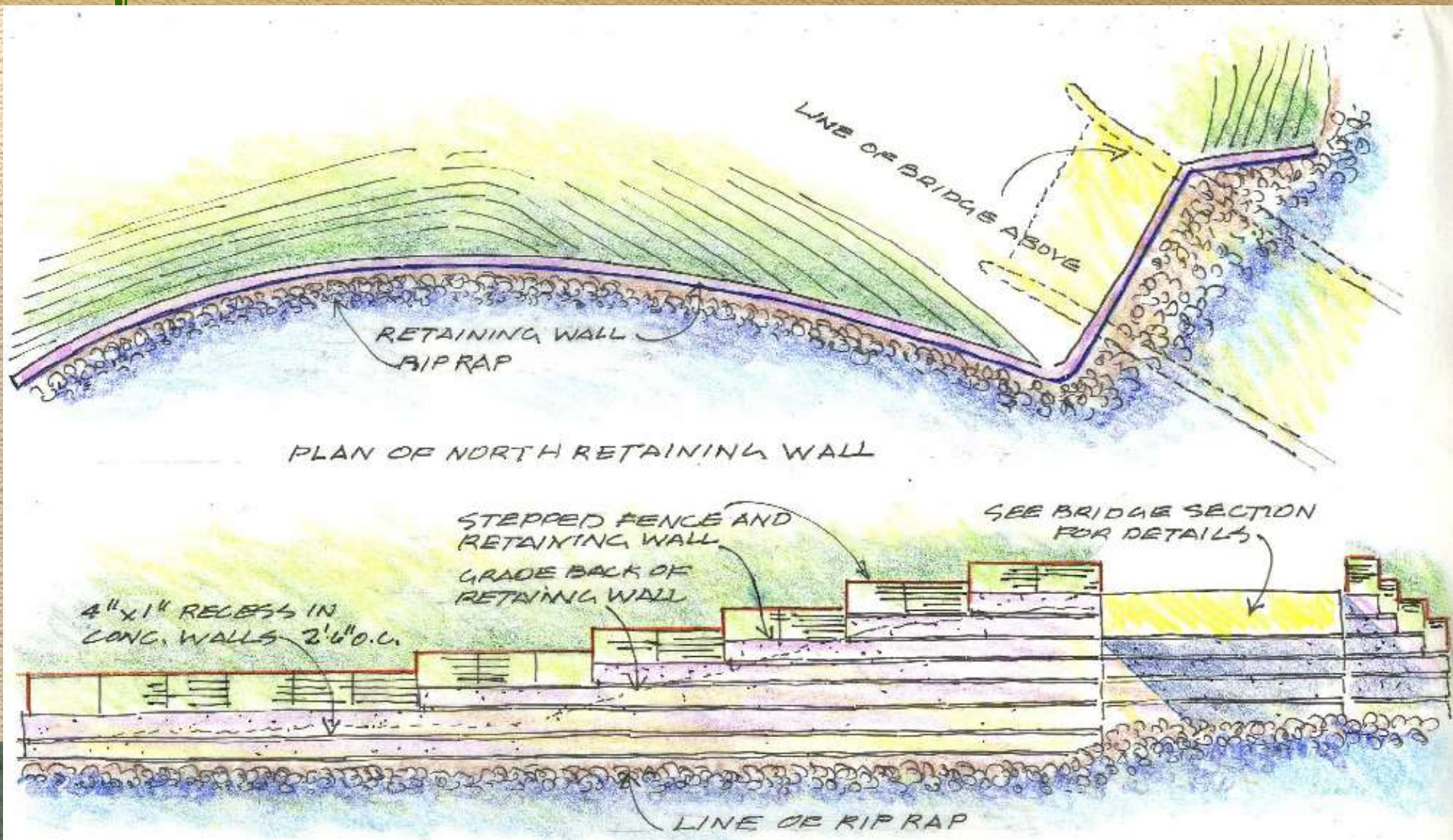
Workshop Objectives - Erosion Control Wall: Conventional





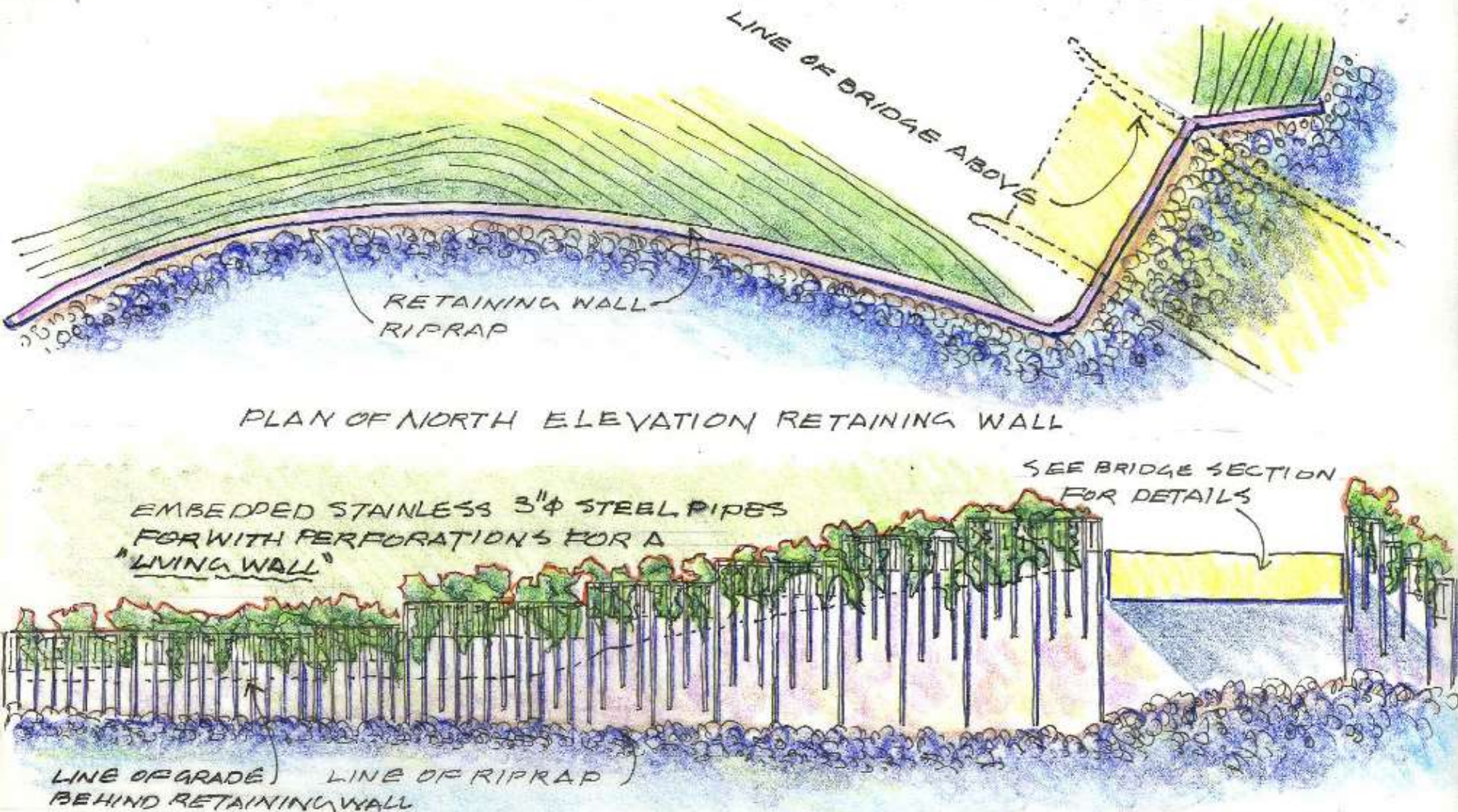


Workshop Objectives - Architectural Wall No. 1



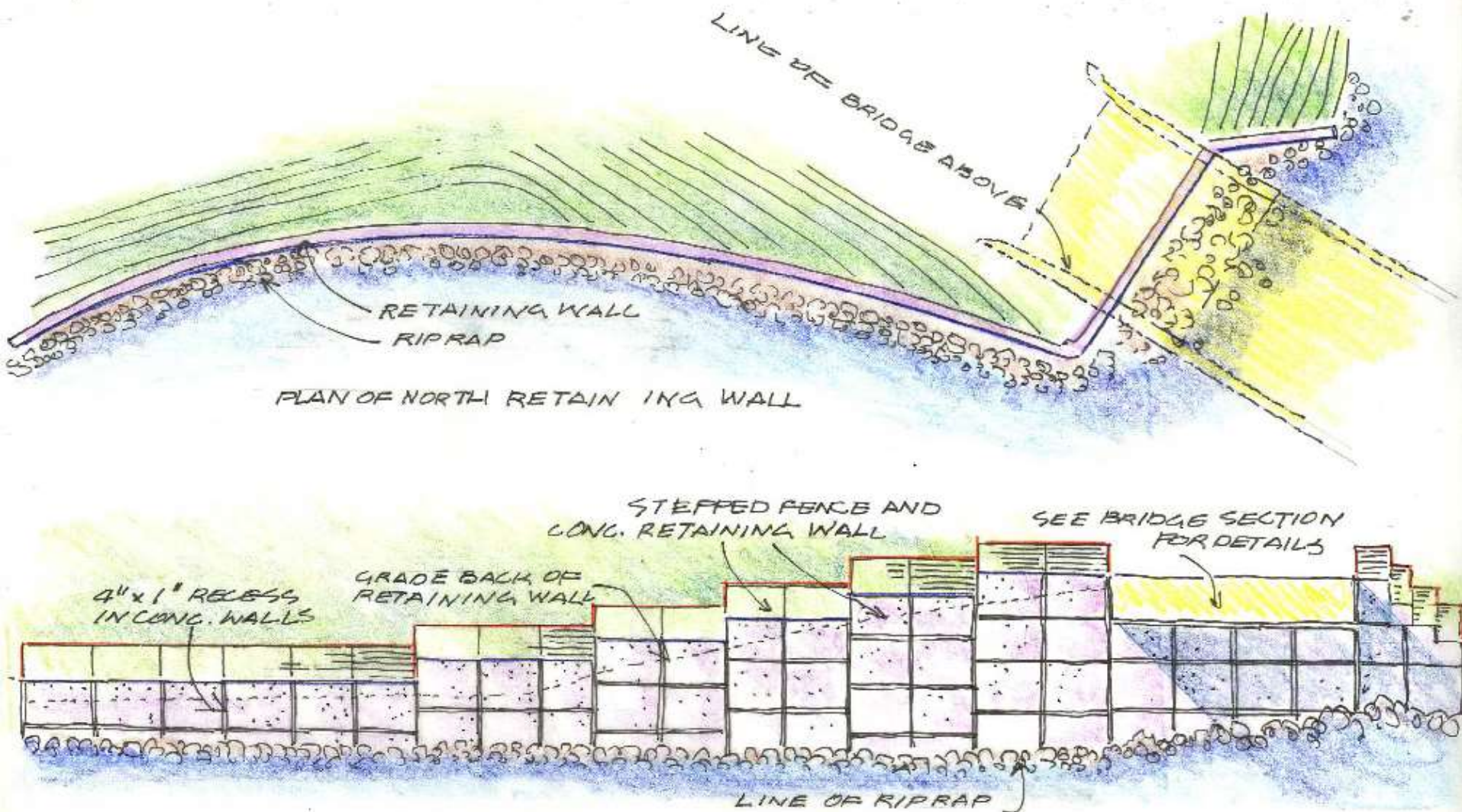


Workshop Objectives - Architectural Wall No. 2



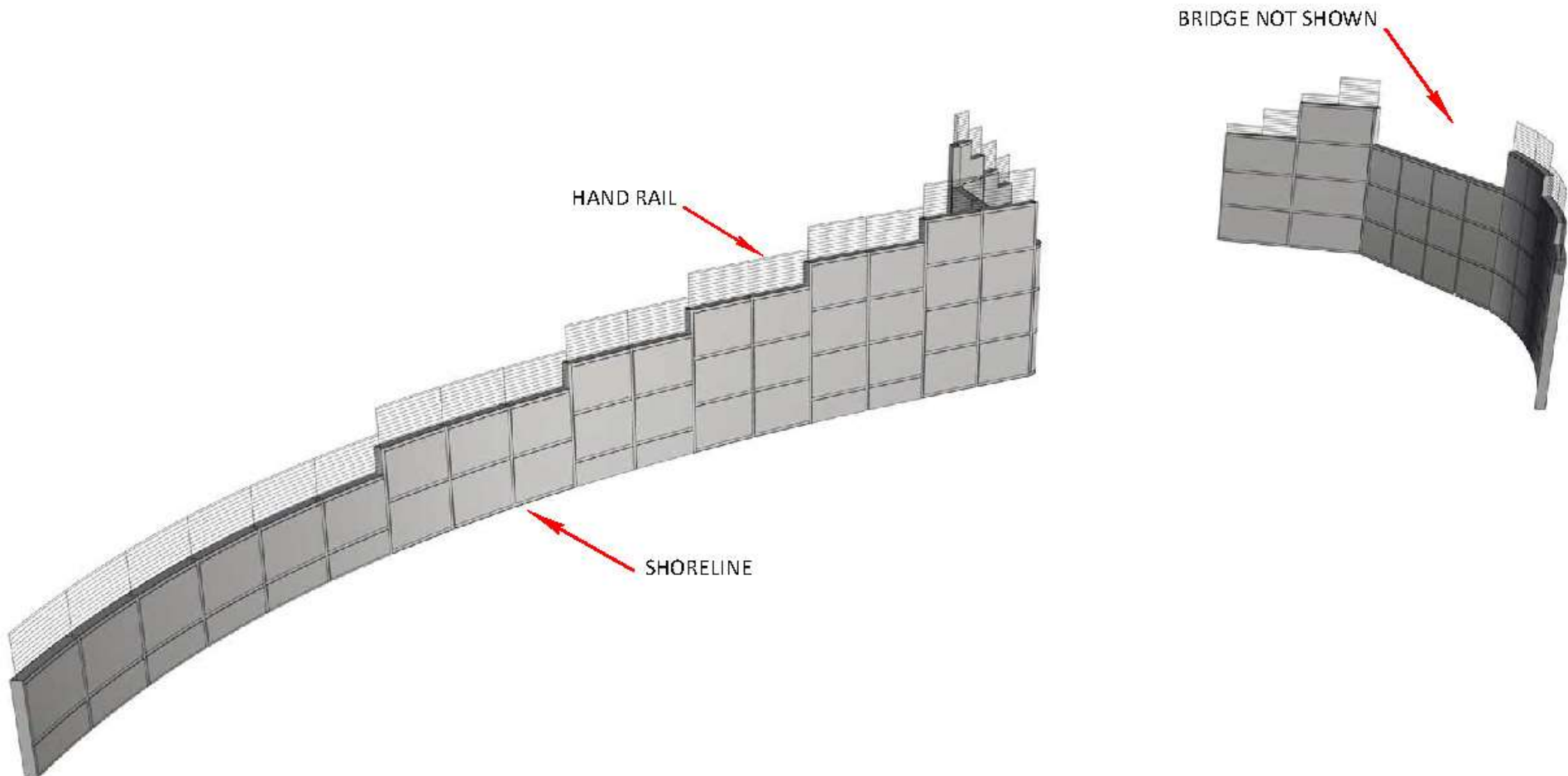


Workshop Objectives - Architectural Wall No. 3





Workshop Objectives - Wall Perspective





Workshop Objectives - Green Walls





Workshop Objectives - Green Walls

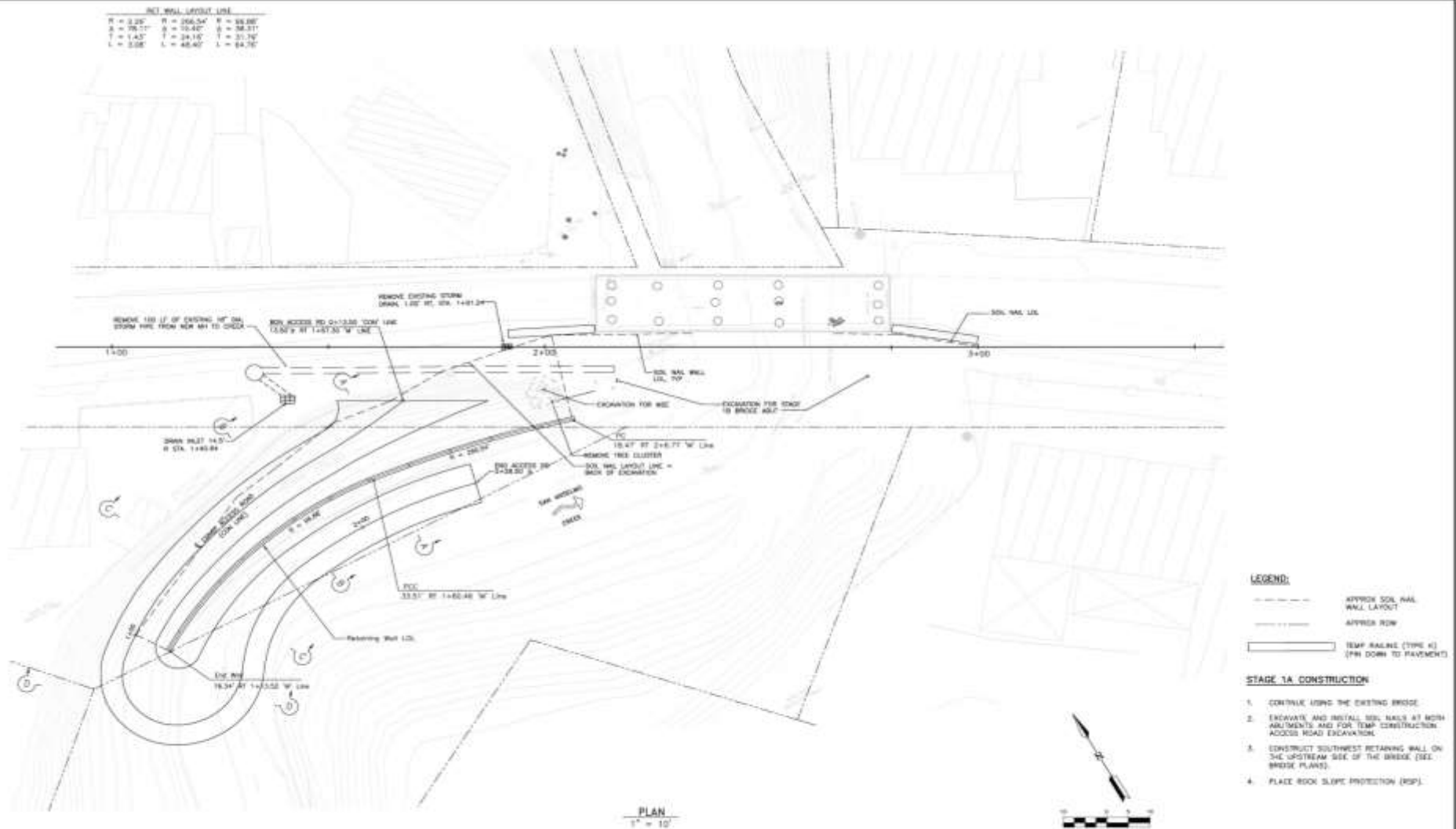
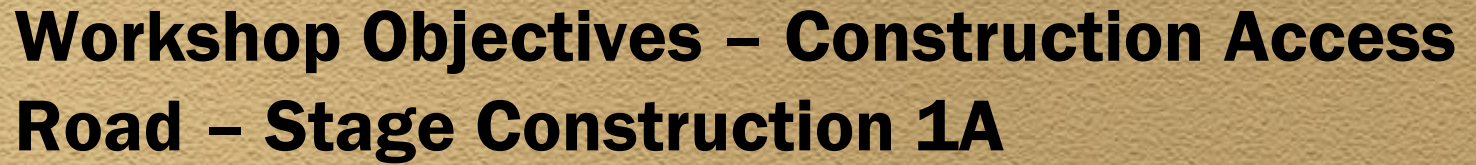




Workshop Objectives – Construction

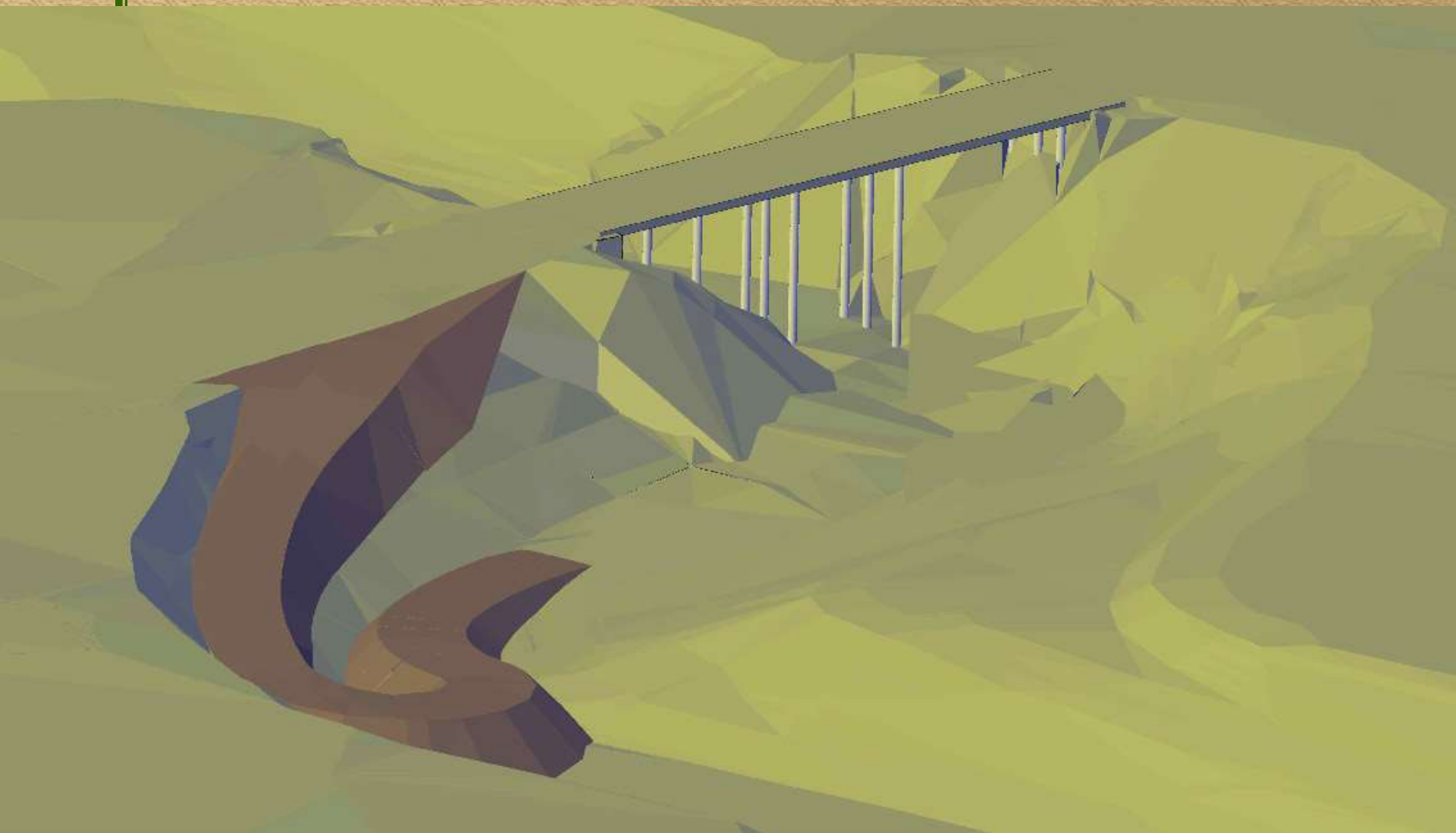
- ◆ Access road
- ◆ Stage construction
- ◆ Construction schedule





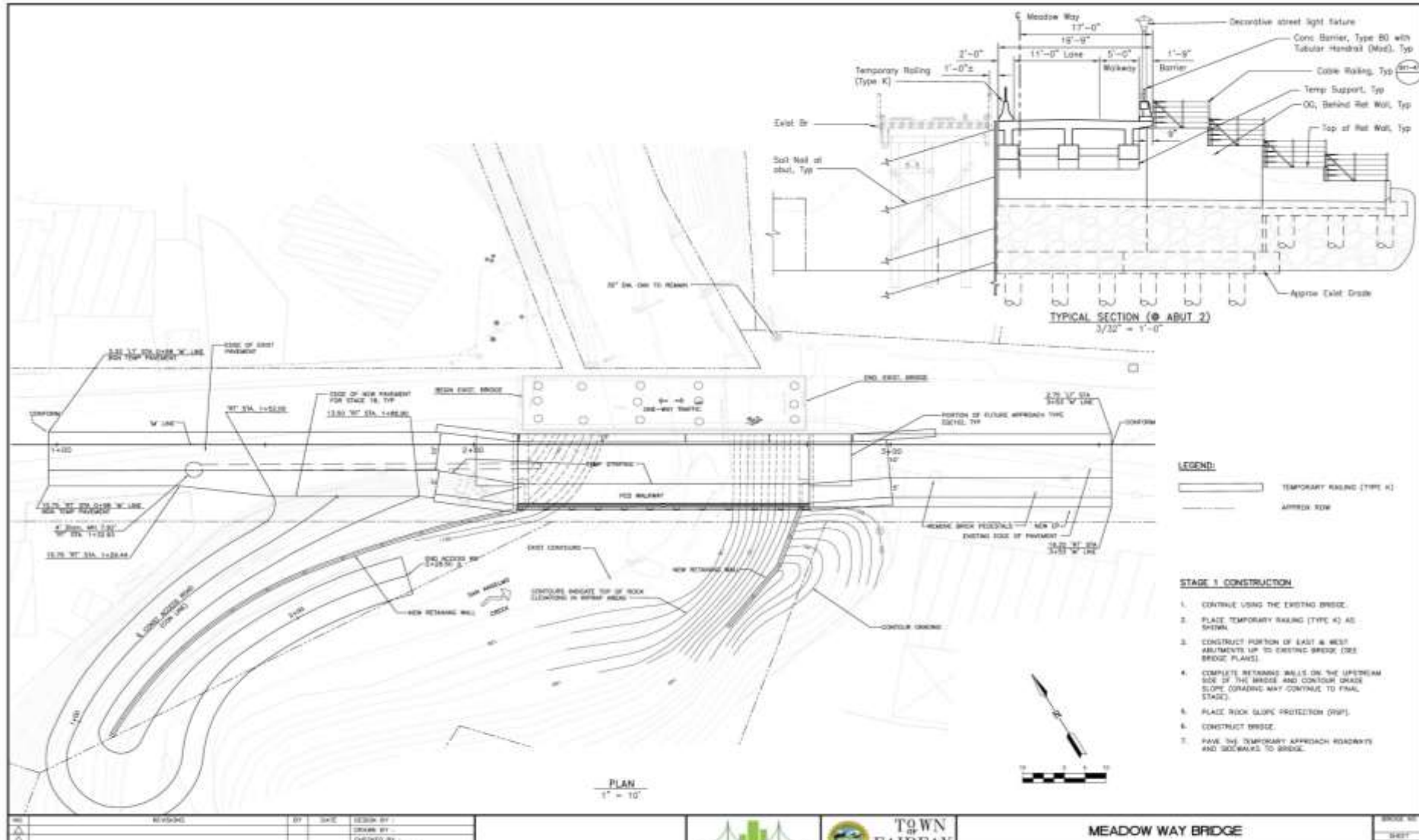


Workshop Objectives –Stage Construction 1A



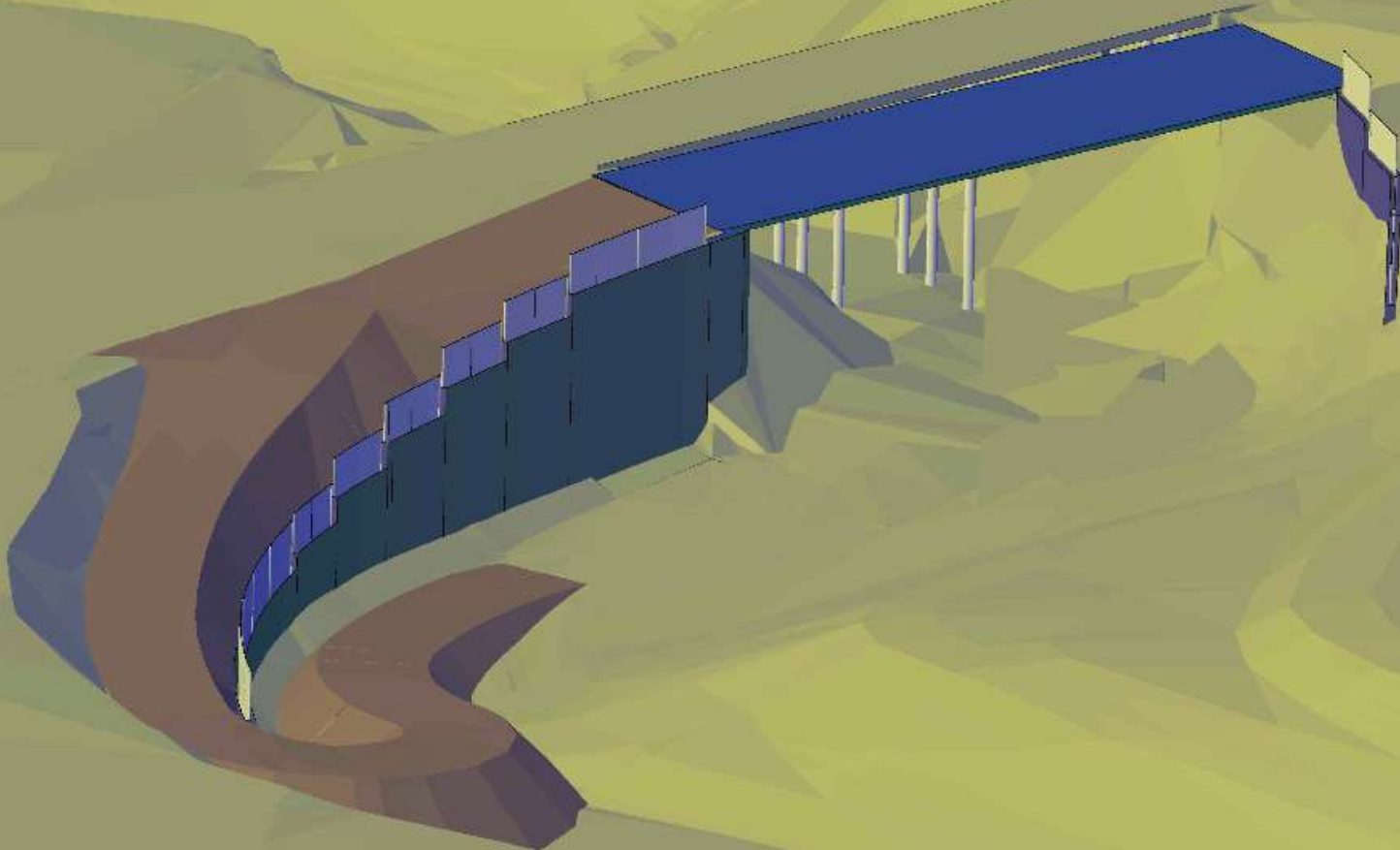


Workshop Objectives – Stage Construction 1B



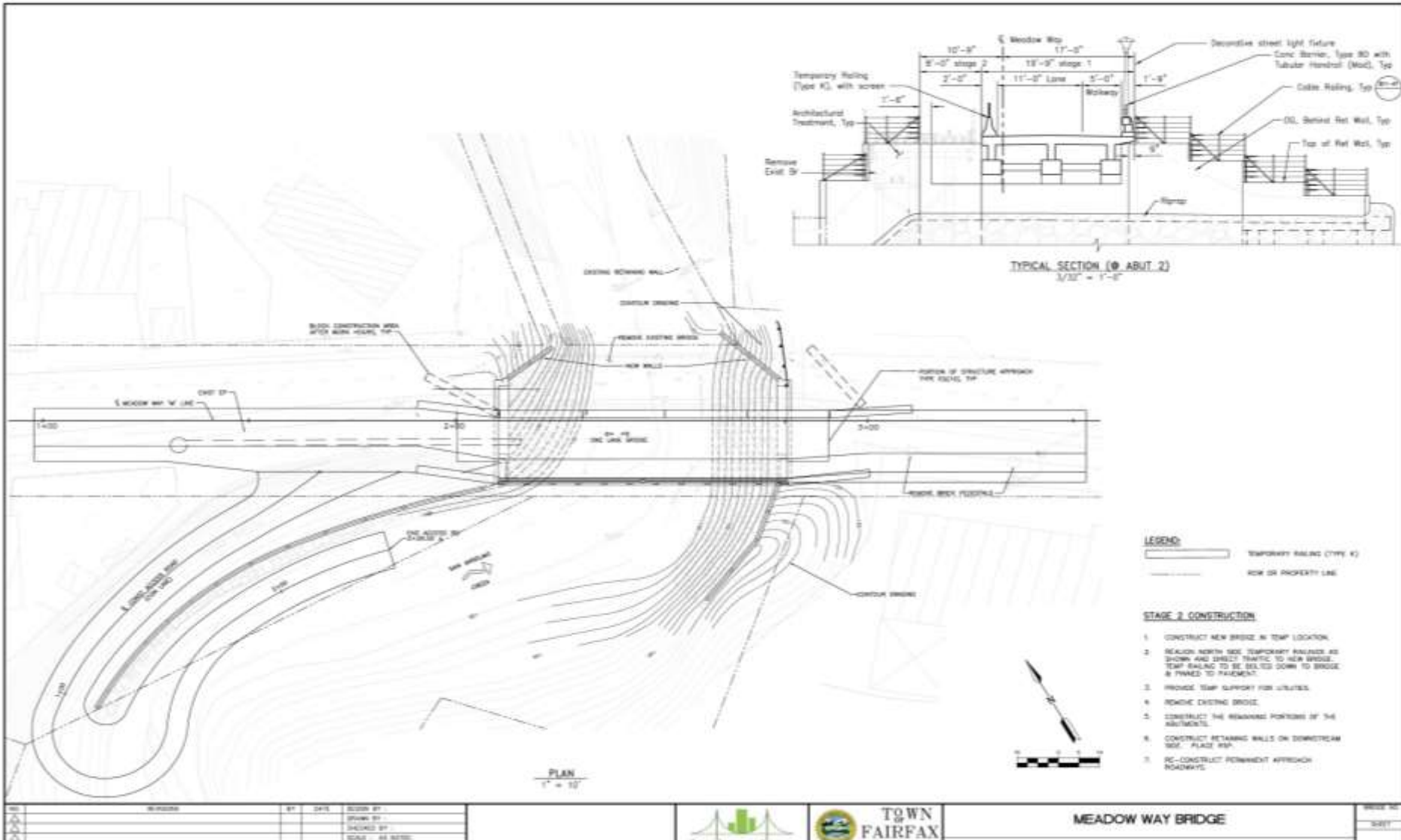


Workshop Objectives - Construction Phase 1B



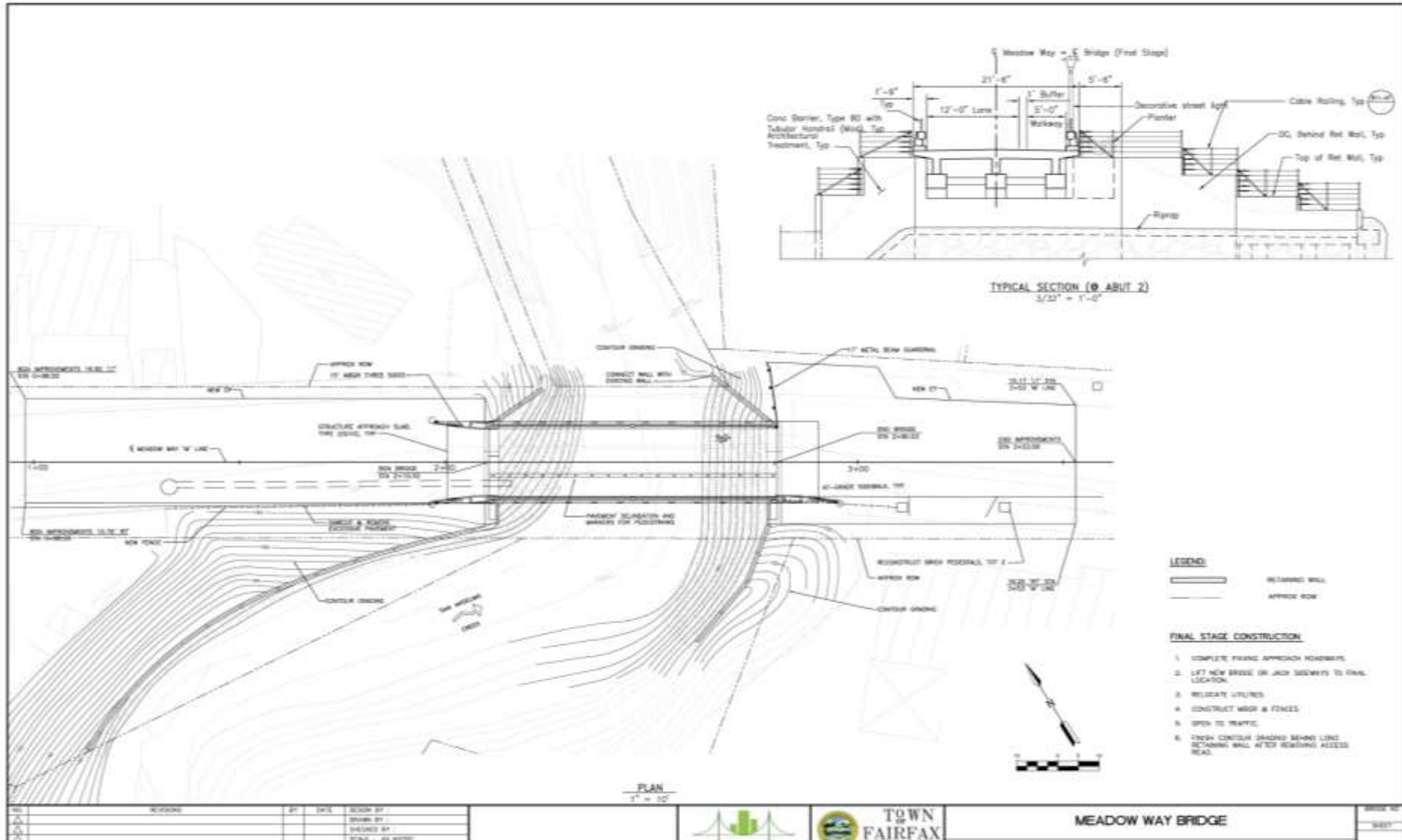


Workshop Objectives – Stage Construction 2



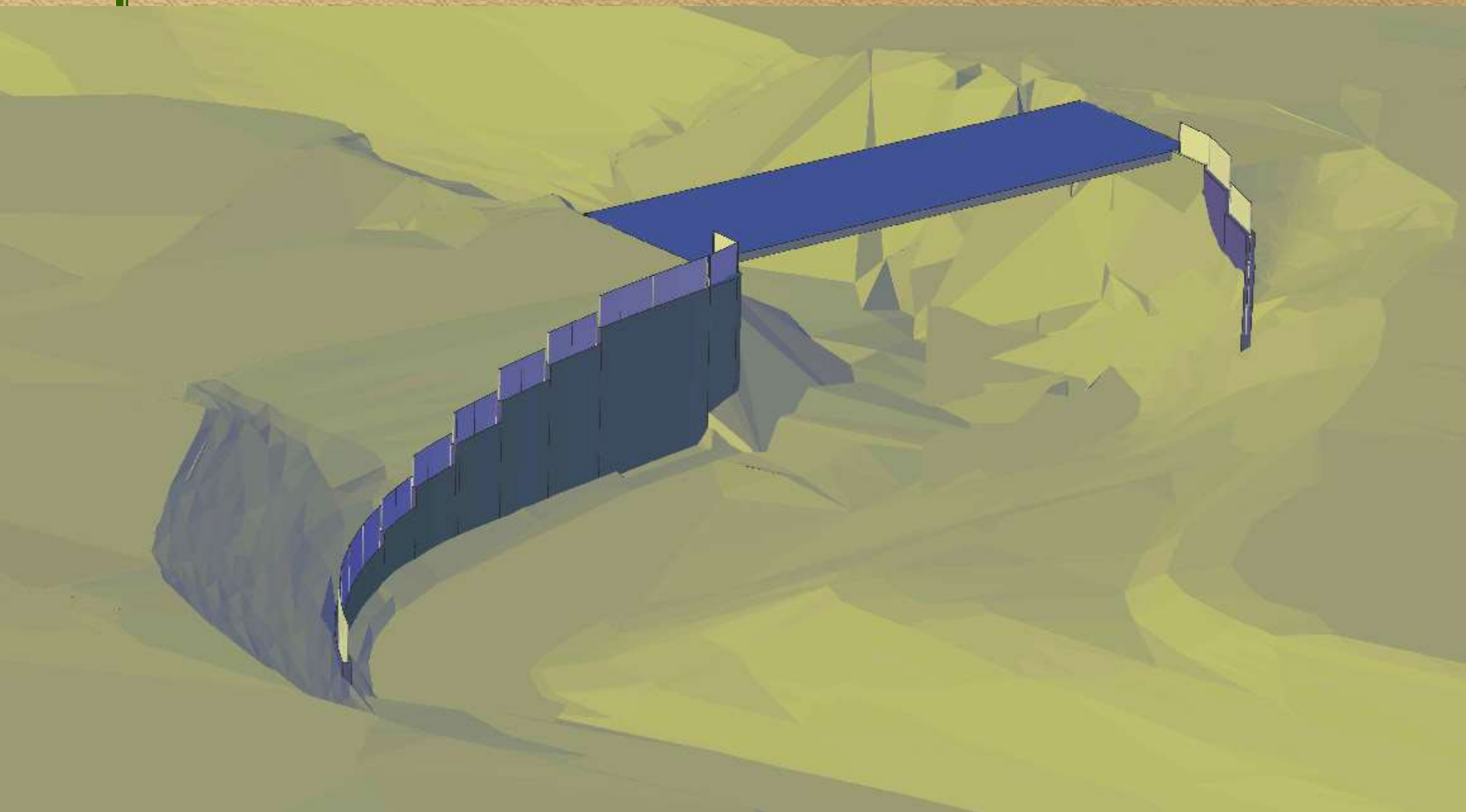


Workshop Objectives – Final Stage Construction

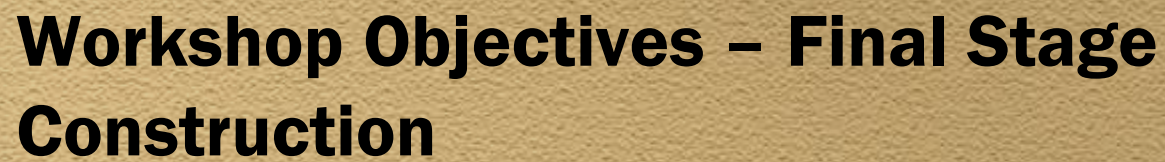




Workshop Objectives – Final Stage Construction



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Scoring of Bridge Alternates

Bridge Type	Initial Cost	Lifecycle Cost	Ease of Construction	Temporary Site Impacts	Longevity	Aesthetics	Total Score
Concrete Arch	10	10	8	8	10	10	56
Steel Truss	9	8	10	10	9	10	56
Glulam Arch	8	8	9	9	8	10	52

Maximum score is 60



Scoring of Wall Alternates

Wall Type	Initial Cost	Lifecycle Cost	Ease of Construction	Temporary Site Impacts	Longevity	Aesthetics	Total Score
MSE Wall with Architectural Treatment	10	9	9	8	9	9	56
Green MSE Wall	9	8	9	8	9	10	53
Conventional Wall with Architectural Treatment	9	10	10	10	10	9	58
Green Conventional Wall	8	9	9	10	10	10	56

Maximum score is 60



Your Choice of Bridge and Wall

- ◆ Bridge Type?
 - If steel bridge, what finish?
- ◆ Wall Type, MSE or Conventional?
 - Green or architectural concrete?





Next Steps

- ◆ Prepare minutes of workshop, post to web site
- ◆ Receive your input and achieve consensus
- ◆ Receive project concept approval from Council
- ◆ Continue the environmental and 65% design
- ◆ Hold another public workshop
- ◆ Receive Council approval on final design
- ◆ Finalize design and bid package
- ◆ Advertise
- ◆ Construct

Questions & Answers

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