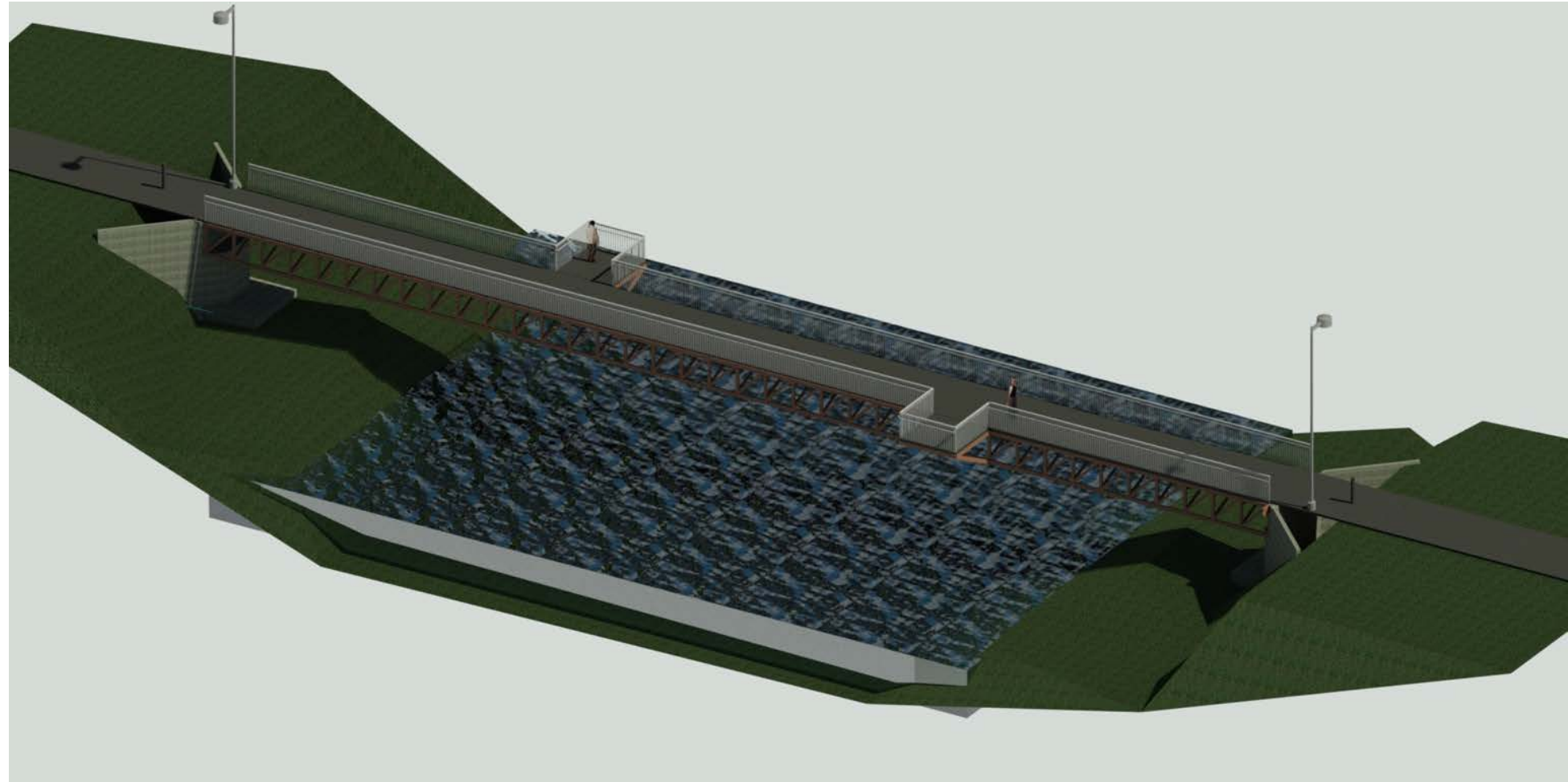


# Don Williams Recreation Area Pedestrian Bridge



# Who We Are

## DCJ Bridge Consultants

Dylan Bolton – Project Manager

Chuanjing Hu – Technology Services

James Scher – Editor



# Outline

Scope of Work

Design Standards & Methods

Location

Constraints & Challenges

Design Alternatives

Final Design

Sustainability

Project Cost Estimate

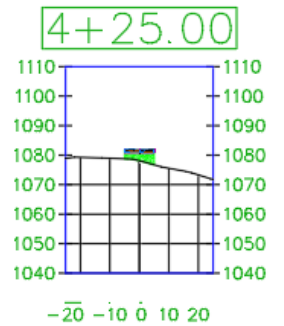
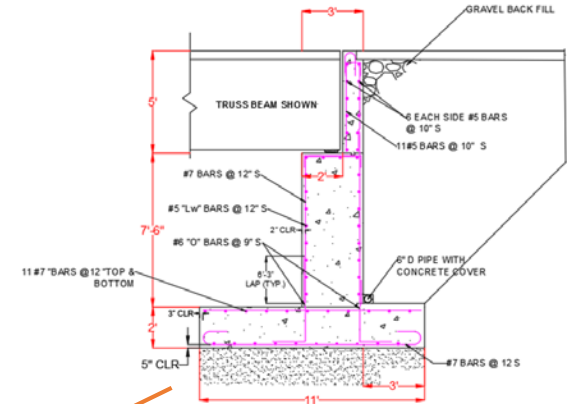
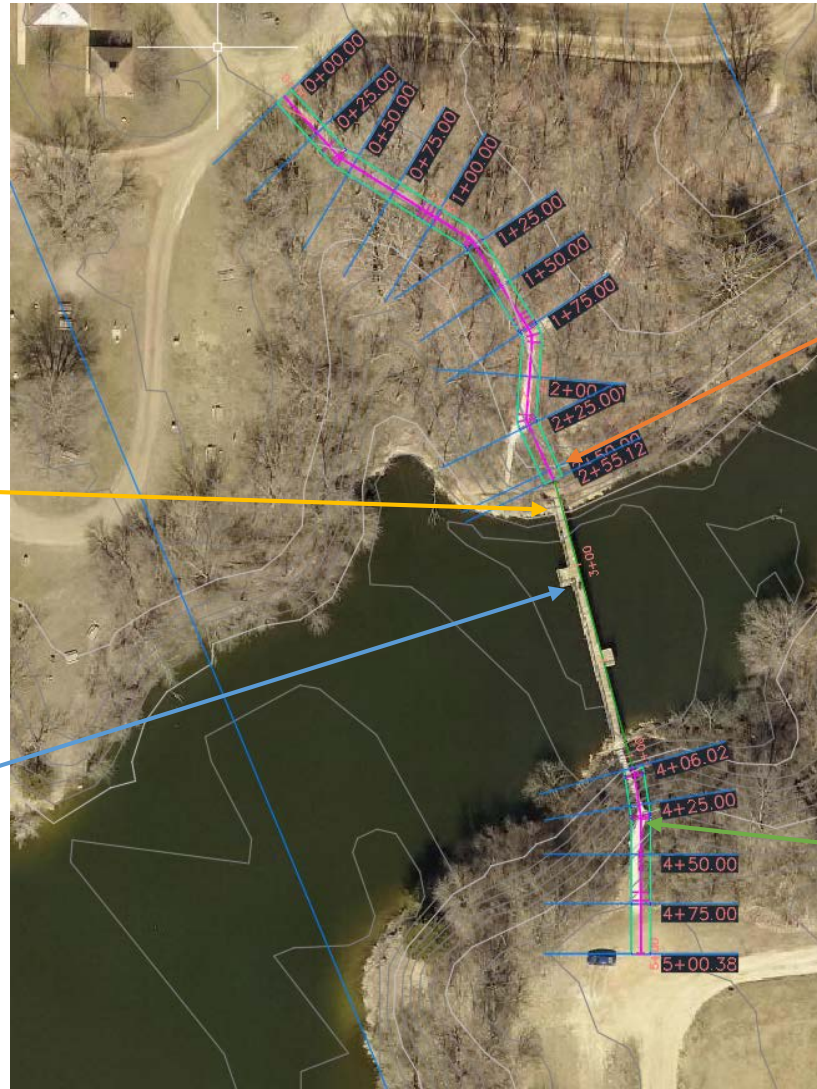
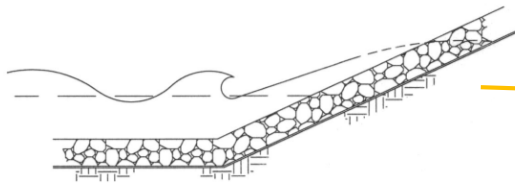
# Scope of Work

Pedestrian Bridge

Abutments

Trail

Riprap



# Design Standards

AASHTO LRFD Bridge Specification

Iowa DOT Specifications & Standards

ADA Compliance

NRCS

# Design Methods

Autodesk Robot Structural Analysis

ArcMap GIS

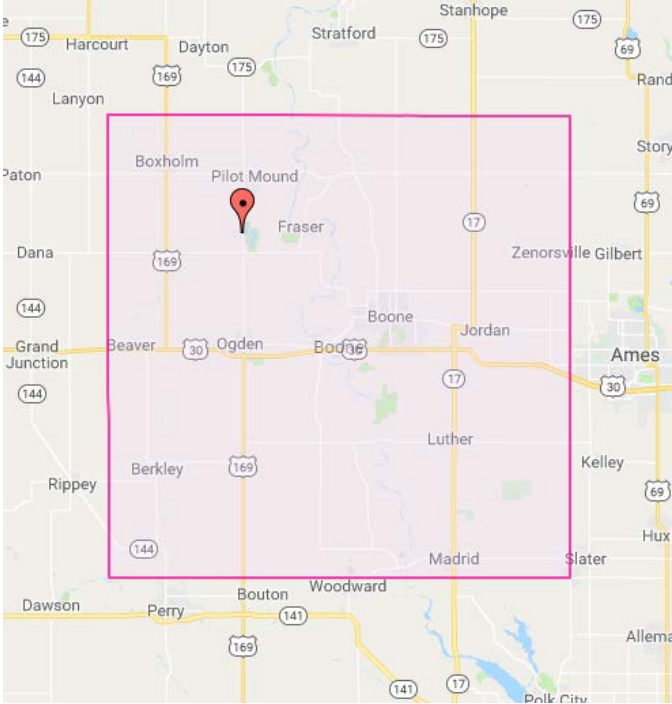
Autodesk Civil 3D 2019

Autodesk Infracore

Autodesk Revit



Location: 610 H Avenue  
Ogden, IA  
Boone County



# Site Plan

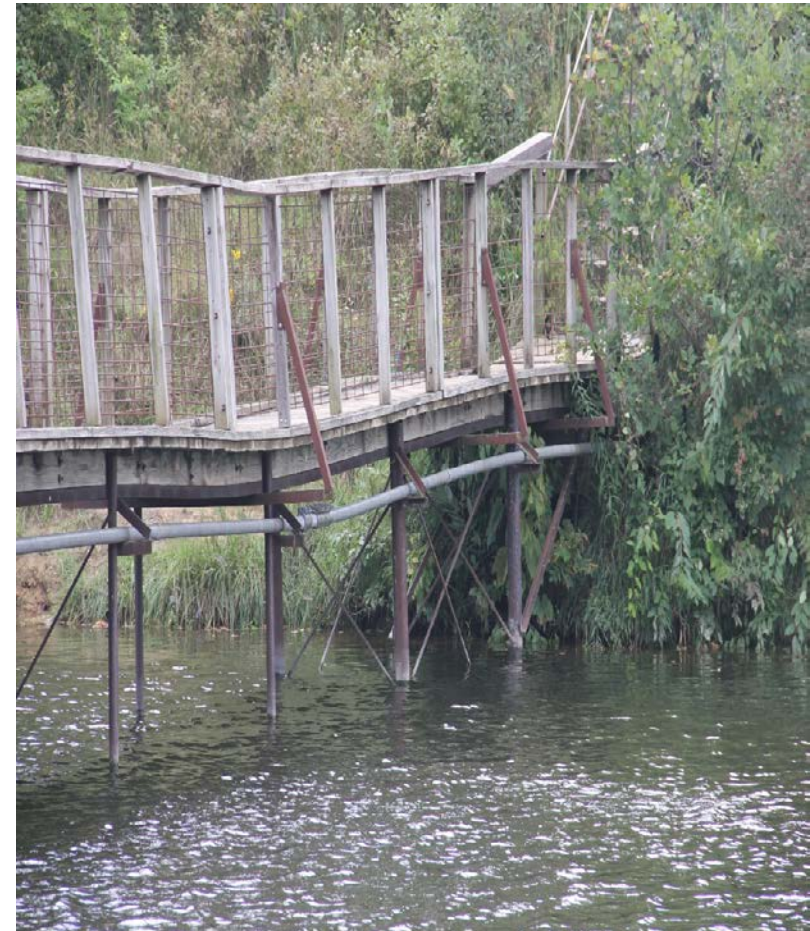
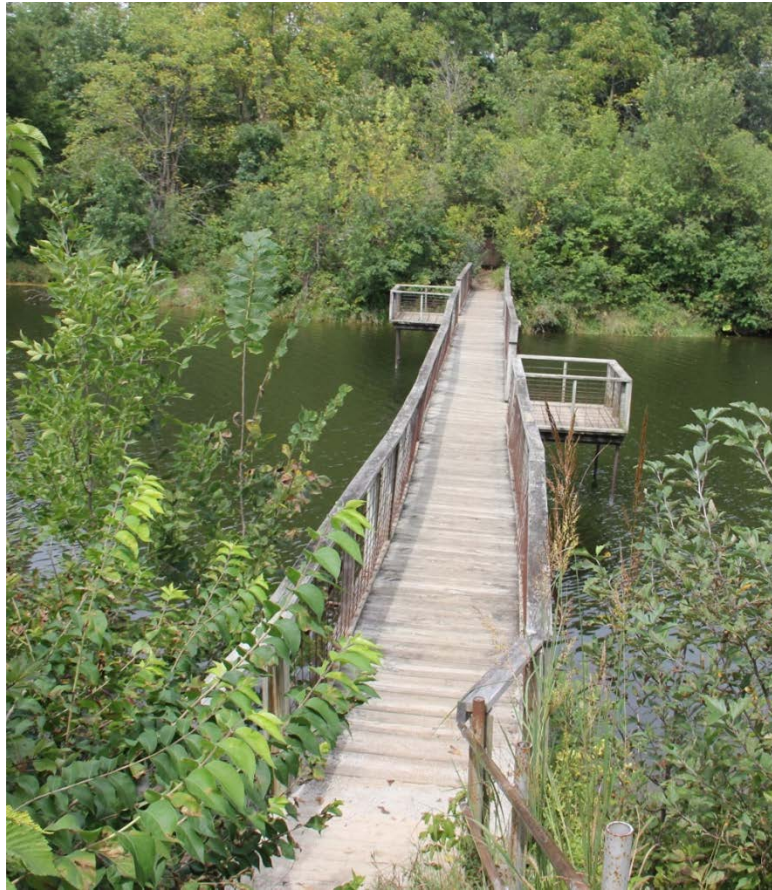


Recreation Area



Proposed Construction Area

# Current Conditions

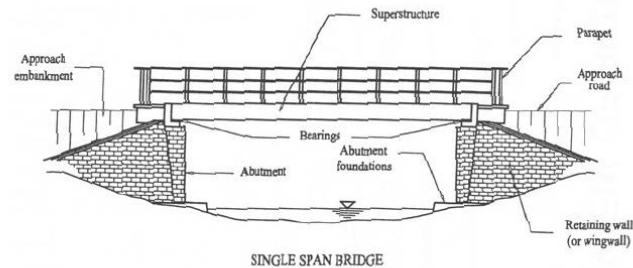




# Constraints & Challenges



**A Typical Single Span Bridge**

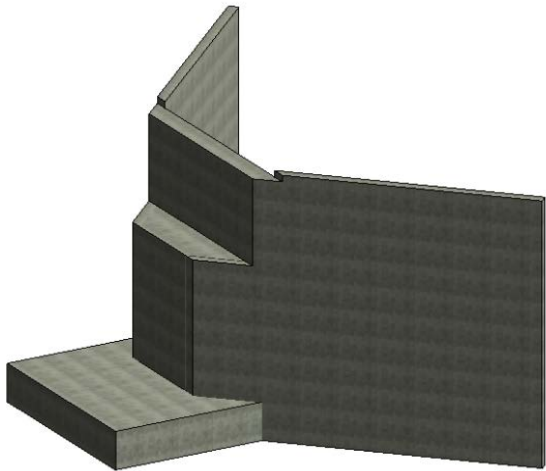
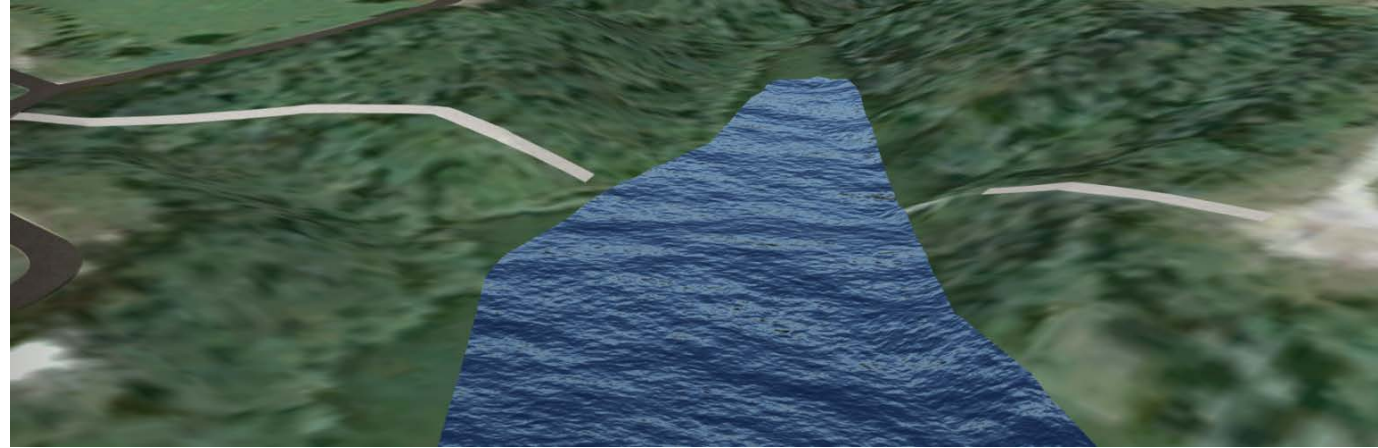
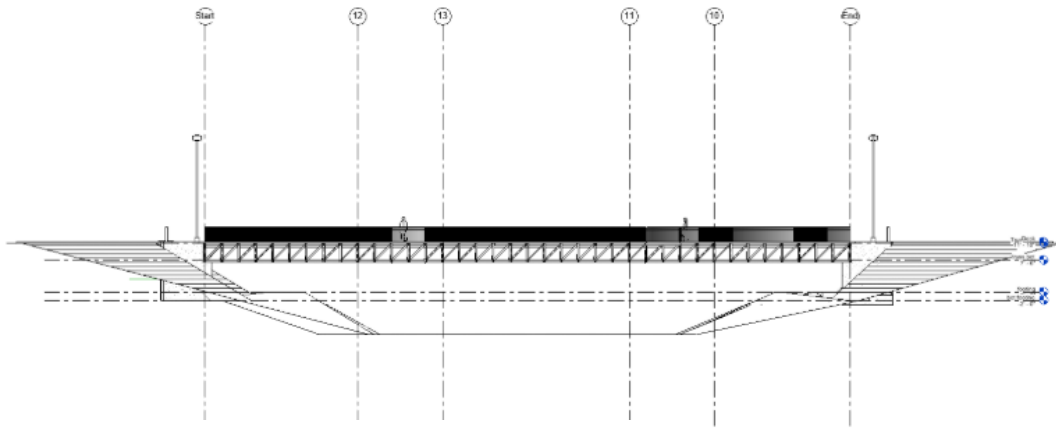


# Design Alternatives

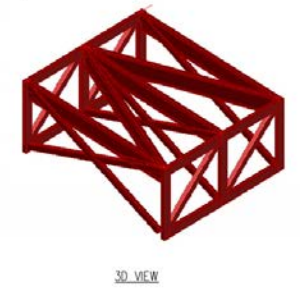
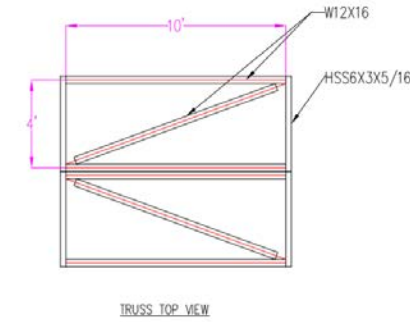
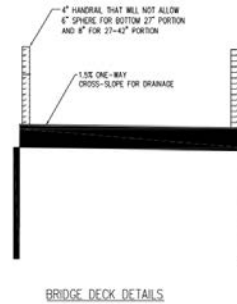
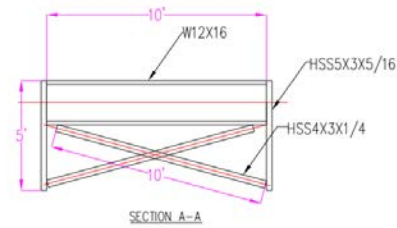
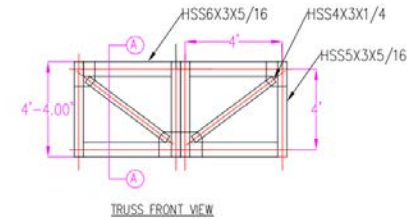
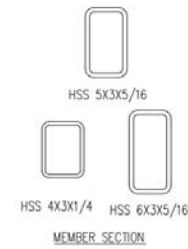
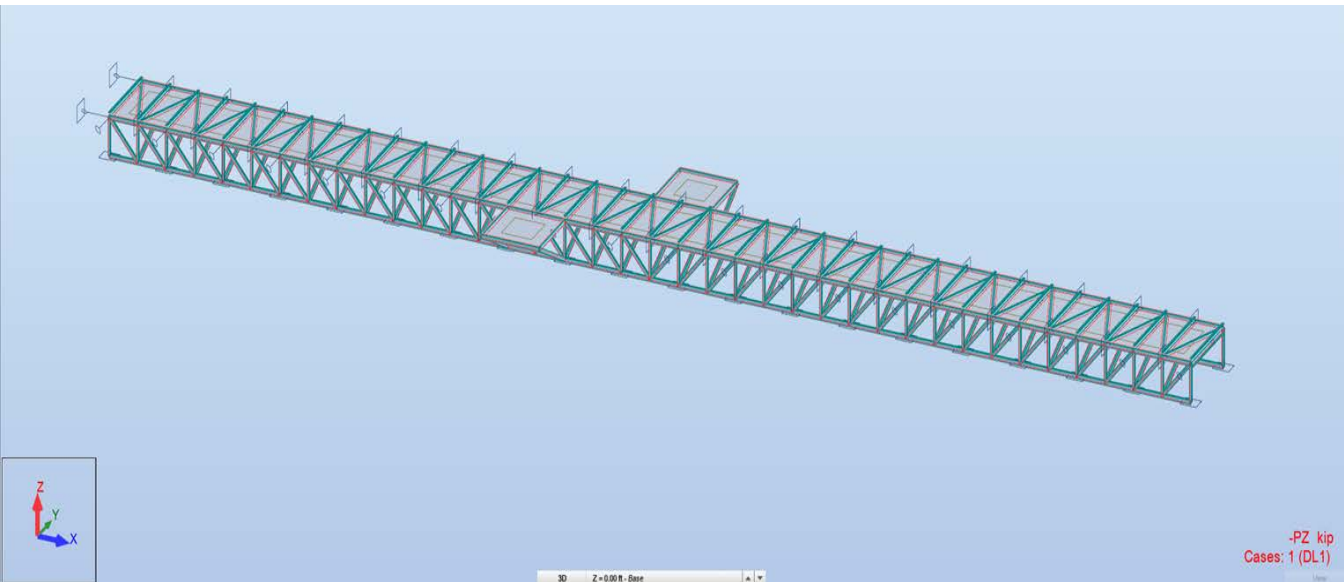




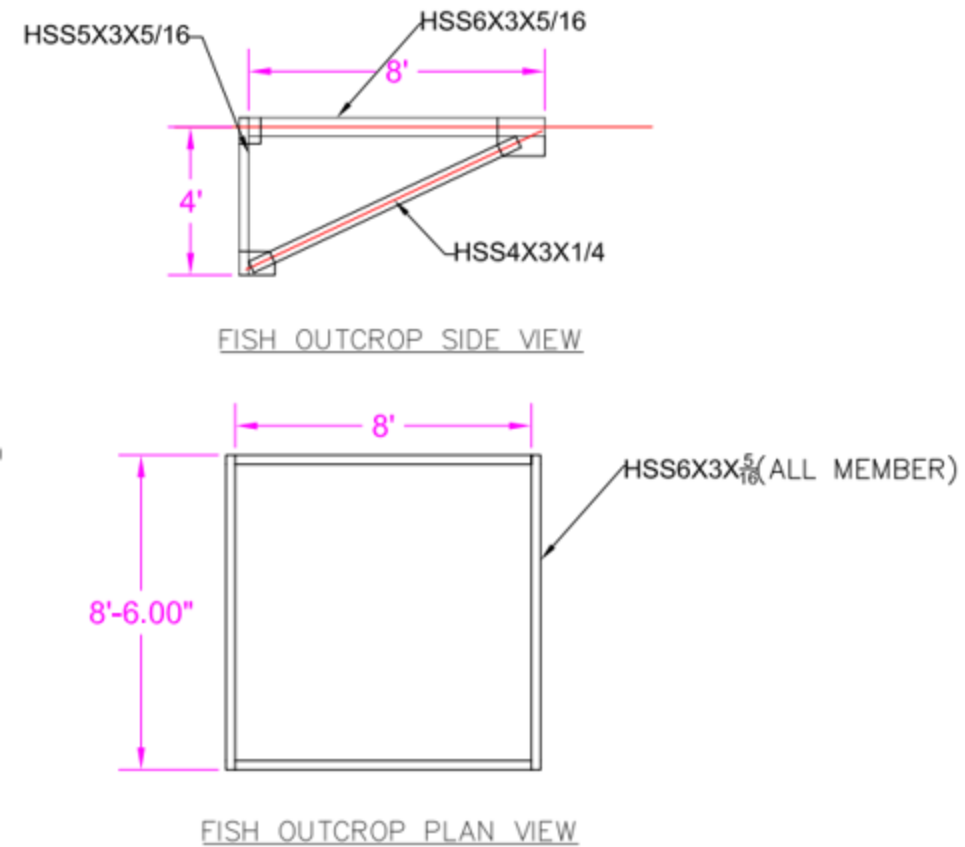
# Final Design



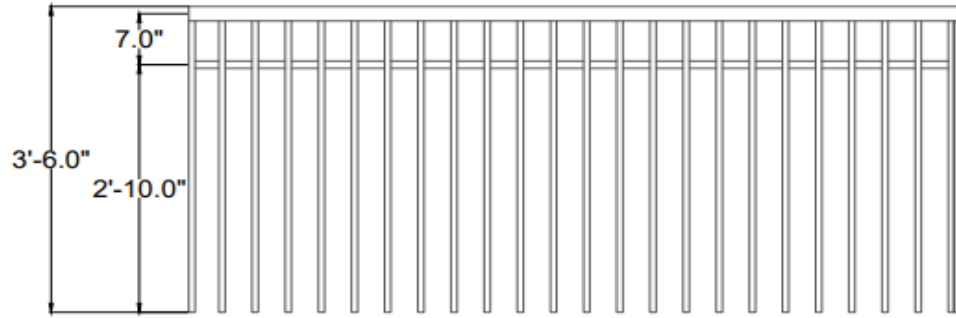
# Truss Bridge is Desirable



# Perfect Place for Fishing



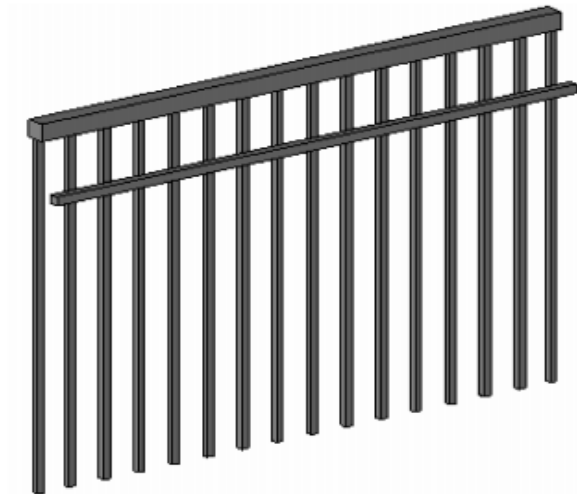
# Handrails



FRONT



SIDE

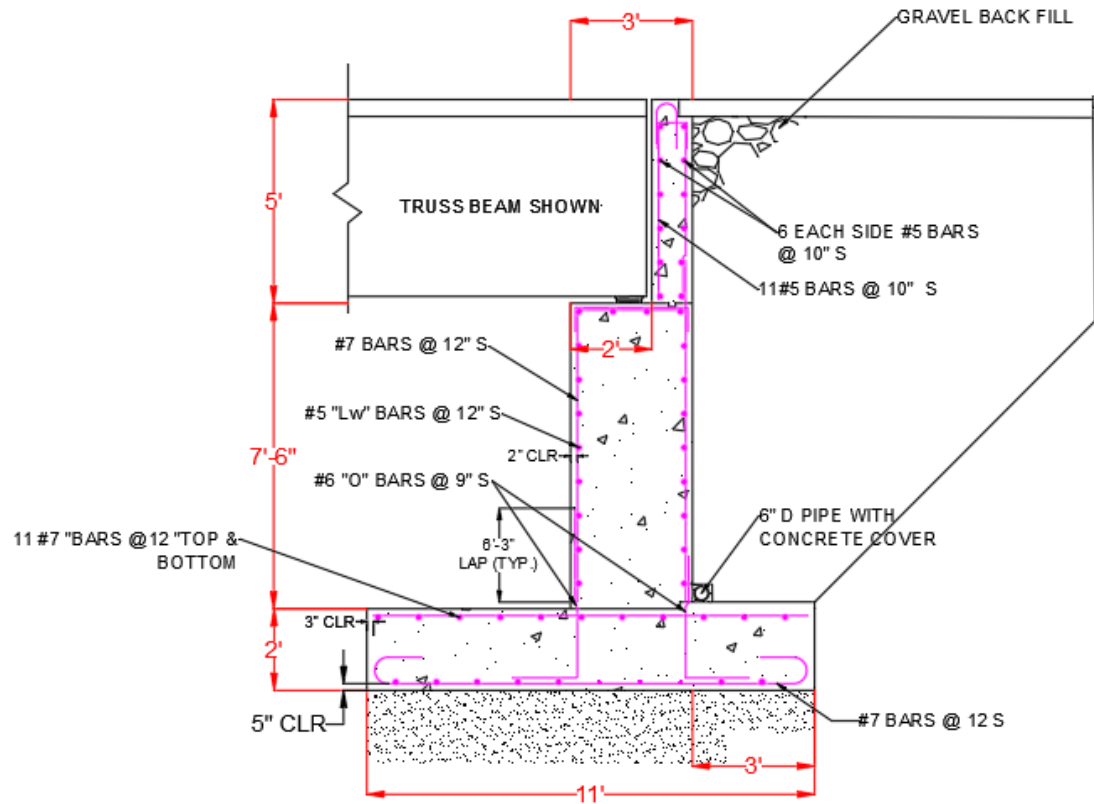


3D VIEW

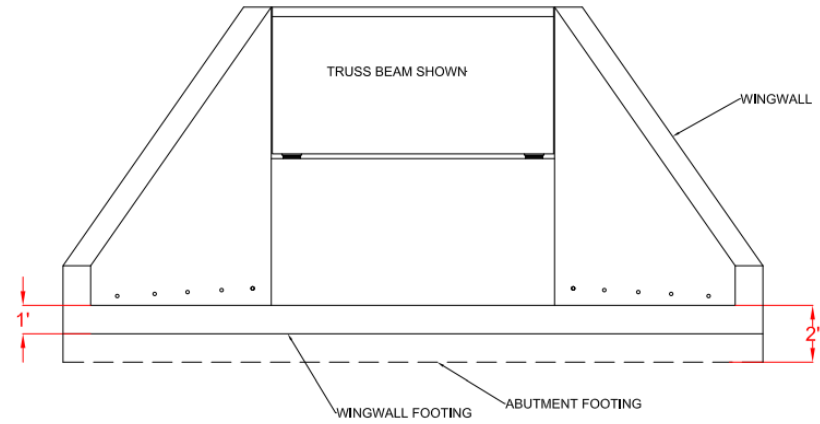
RAILING TABLE

PART	SIZE	MATERIAL SPECIFICATION
TOP RAIL	RECTANGULAR-2"x2"	ASTM A53, GRADE B, TYPE E OR S, OR EQUIVALENT HSS TUBE ASTM A500 GRADE B.
HANDRAIL	CIRCULAR- 1- 1/4"	ASTM A36 OR ASTM A572
VERTICAL RAIL	SQUARE 3/8"	ASTM A276 TYPE 302 STAINLESS STEEL

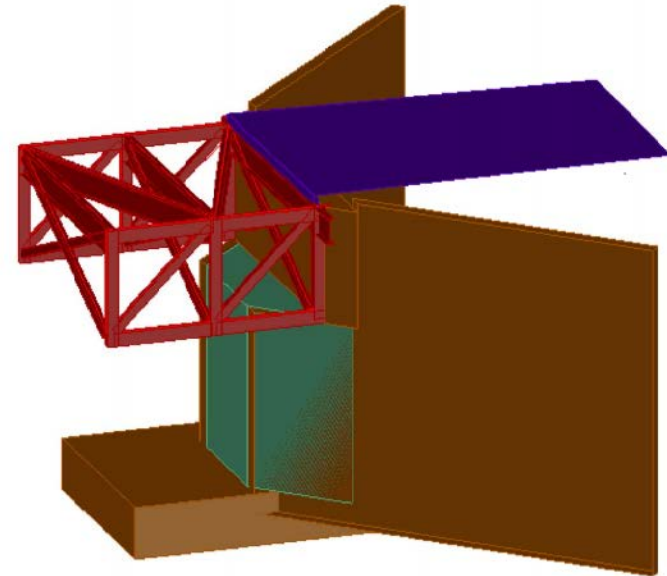
# Abutments



ABUTMENT DETAIL



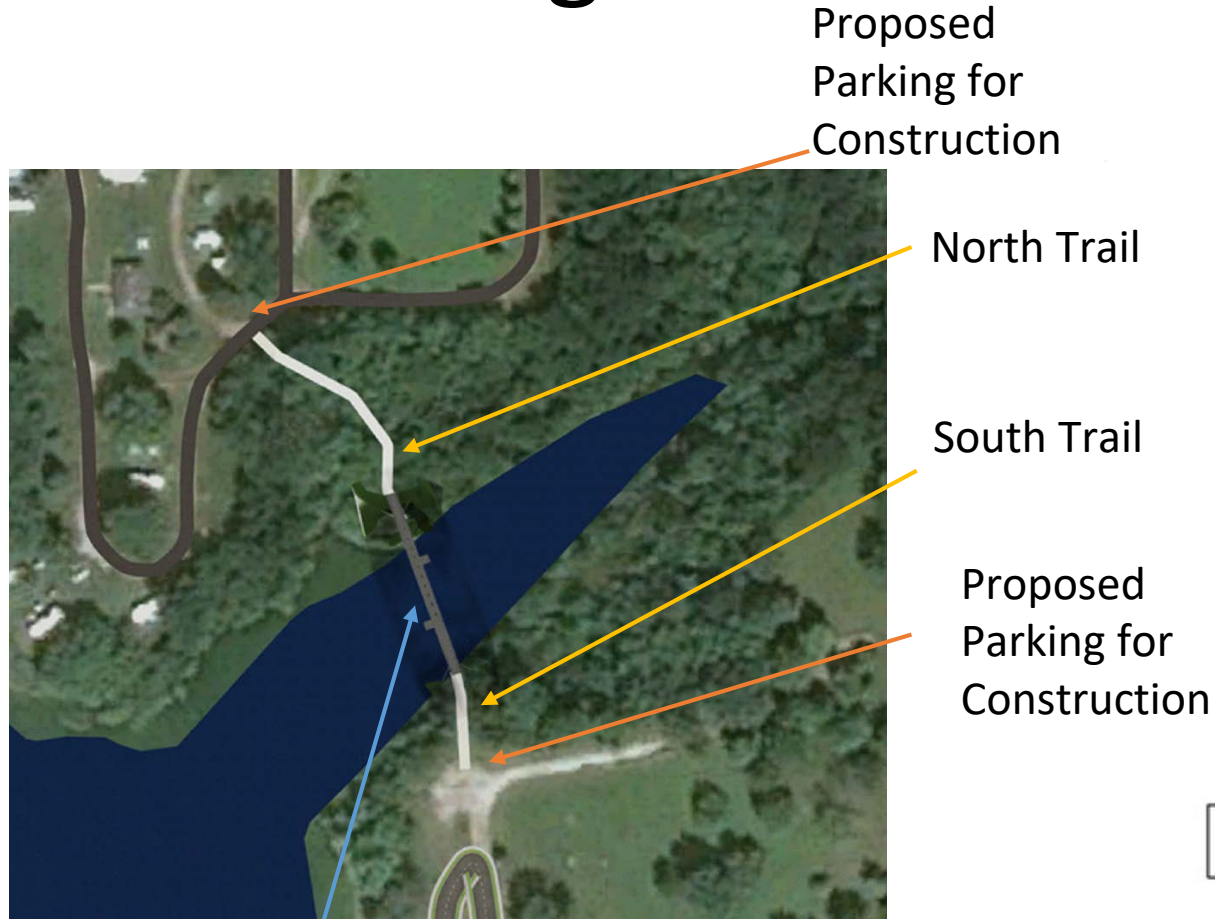
WINGWALL



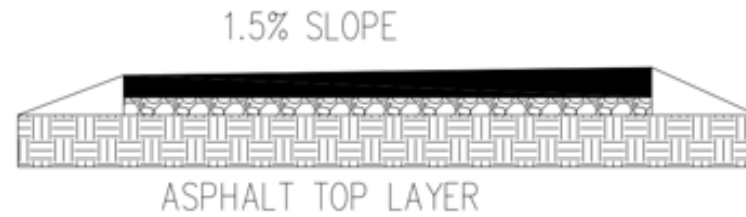
3D VIEW



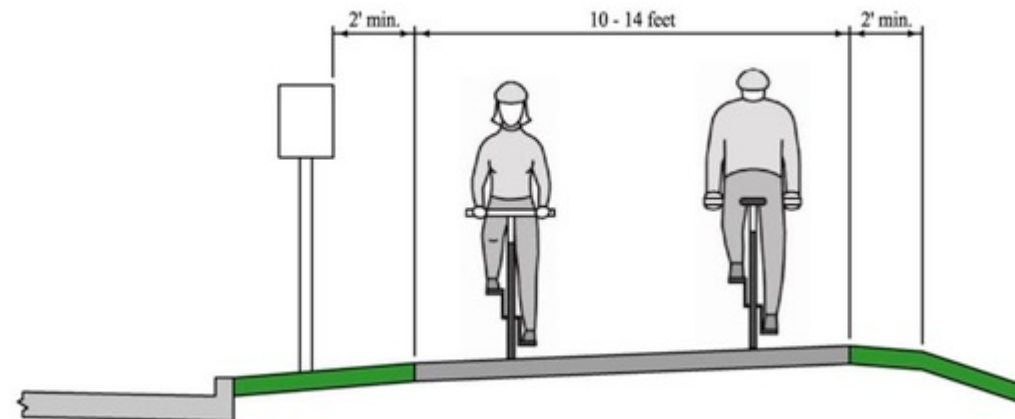
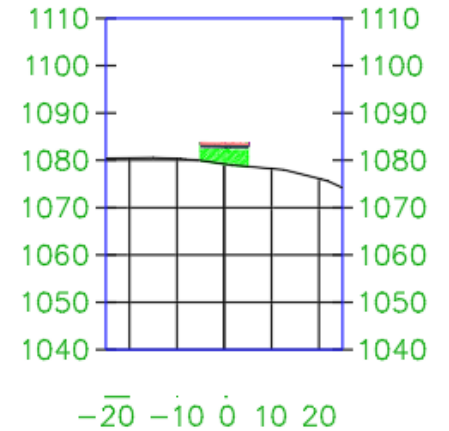
# Trail Design



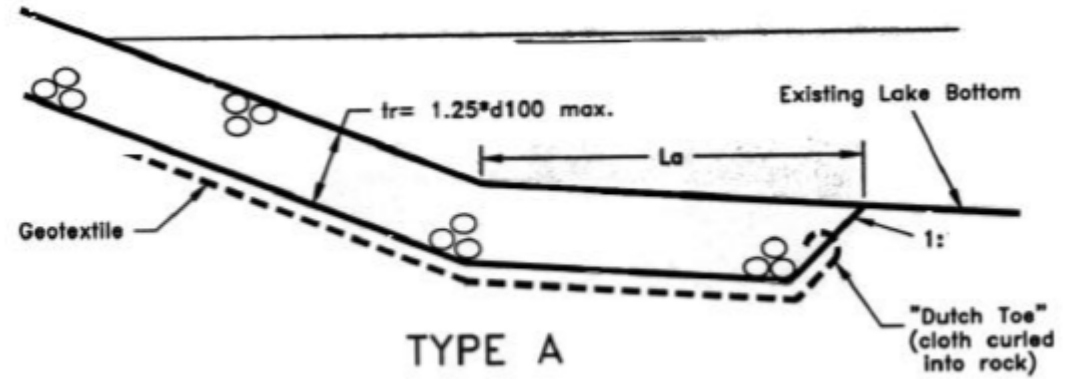
Pedestrian Bridge



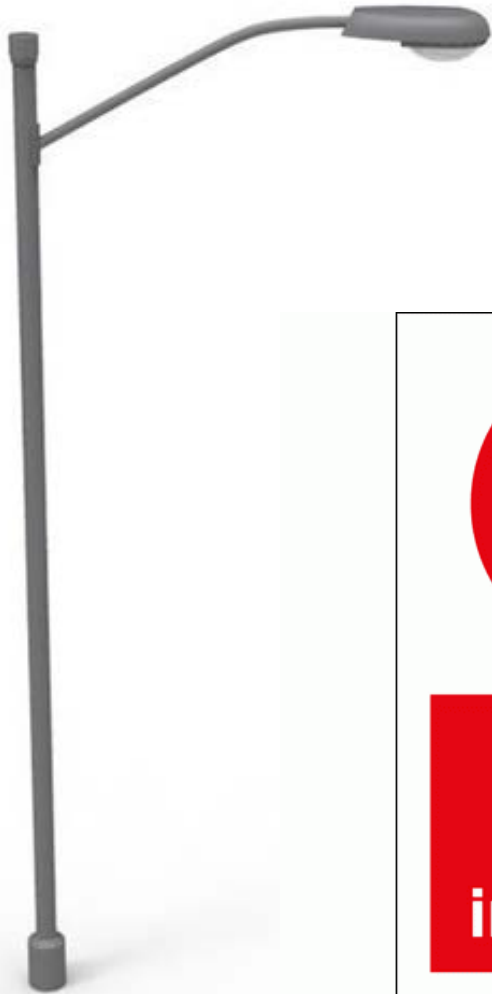
2+50.00



# Design of Riprap



# Additional Utilities



# Sustainability Plans



# Project Cost Estimate

Total Project Cost	
Project Item	Total
Demolition with Clean Up	\$ 37,524.30
Bridge Material	\$139,752.06
Asphalt Trails	\$ 3,844.50
Concrete Abutments with Rebar	\$ 17,376.39
Riprap	\$ 3,663.88
Additional Utilities	\$ 28,970.74
Shipping Costs	\$ 31,425.90
<b>Total</b>	<b>\$262,557.77</b>



CONTACT | Dylan Bolton  
 COMPANY | Pricate  
 EMAIL | dbolton2009@gmail.com  
 PHONE | (217) 430-0400

## BRIDGE DETAILS

Bridge Length	152'	Bridge Inside Width	10'
Vehicle Loading	5,000lbs	Live Load	90psf
Truss Style	Pratt	Splice(s)	<input checked="" type="checkbox"/>
Decking Type	Grating	Elevation Change	<input checked="" type="checkbox"/>

## ATTRIBUTES

Railing Style	Horizontal	Railing Height	54"
Weight	95,750 lbs	Rubrail	N/A
Bridge Finish	Galvanized	AASHTO Design	<input checked="" type="checkbox"/>
Abutment Design	<input type="checkbox"/>	Anchor Design	<input type="checkbox"/>

Freight Cost	\$ 18,000.00	<b>BRIDGE ESTIMATE</b>
Material Cost	\$ 391,414.00	
		<b>\$ 409,414.00</b>

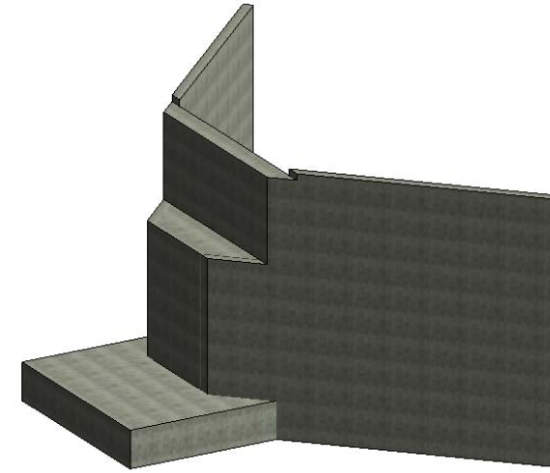
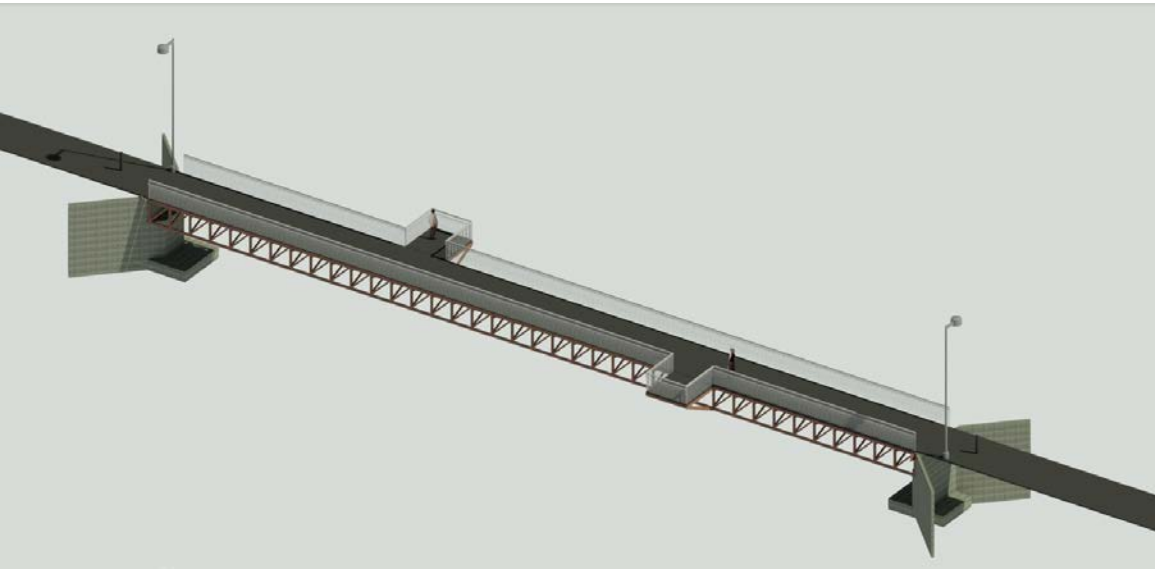
### Additional Info:

IA PE stamped bridge design, manufacturing and delivery. Galvanized steel bridge with galvanized grating, fishing outcrop in center 10' long x 5' deep on each side. Price does not include tax, construction or installation.

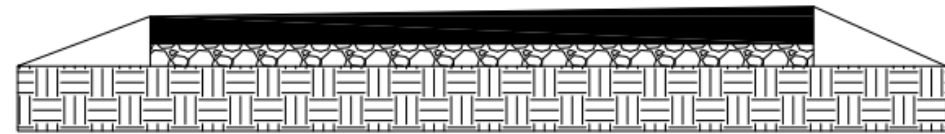
This proposal does not include sales tax, unloading cost, bridge erection or construction cost. This proposal is based on the information provided.

Design & Engineering - 3 Weeks  
 Manufacturing & Delivery - 10 Weeks

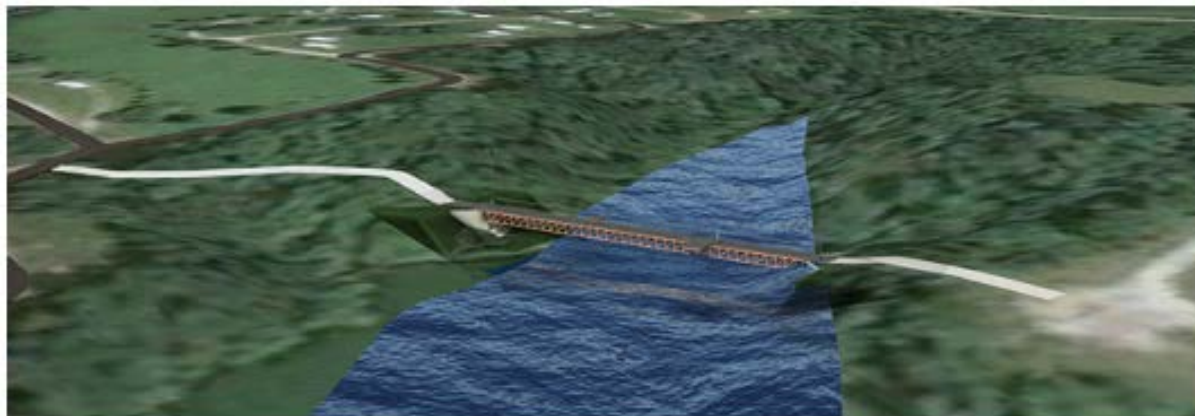
# Recap



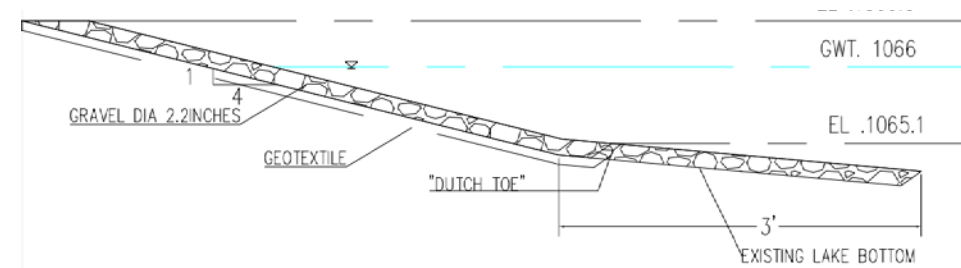
1.5% SLOPE



ASPHALT TOP LAYER



PROPOSED CONDITION 3D VIEW



RIPRAP CROSS SECTION

# Questions

