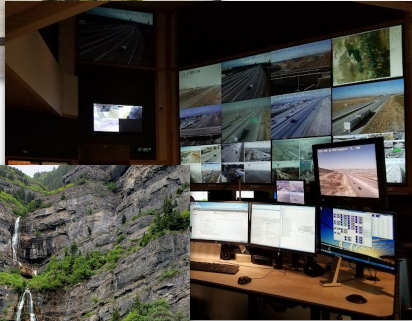




UDOT Traffic Management Division

Annual ITS Report - October 2023

Tyler Laing, P.E., PTOE
UDOT ITS Program Manager



Signals & ITS Device Growth

Signals & ITS Device Growth - Statewide

Signals & Major ITS Device Growth - Statewide		
Fiscal Year End	Total Signals & Major ITS	% Growth
2019	4544	
2020	4732	4.1%
2021	5003	5.7%
2022	5171	3.4%
2023	5462	5.6%
	Average:	4.7%

Signals & ITS Device Growth - Salt Lake Area

Signals & Major ITS Device Growth - UDOT Region Two		
Fiscal Year End	Total Signals & Major ITS	% Growth
2019	2033	
2020	2136	5.1%
2021	2199	2.9%
2022	2259	2.7%
2023	2344	3.8%
	Average:	3.6%

UDOT ITS Projects

Ongoing UDOT ITS Projects

CCTV Camera Upgrades: Analog to Digital



Analog
(Old)



Digital
(New)



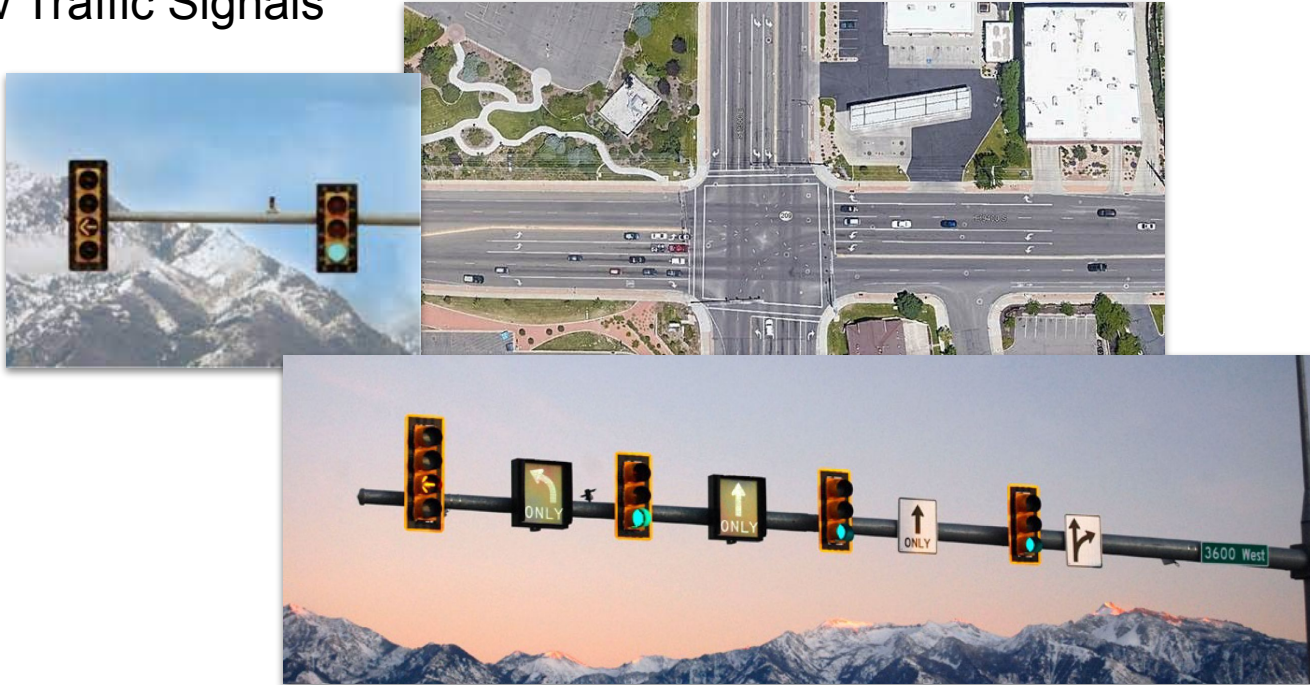
Ongoing UDOT ITS Projects

Variable Message Sign (VMS) Upgrades: Monochrome to Full Color



Ongoing UDOT ITS Projects

Many New Traffic Signals



Ongoing UDOT ITS Projects

New TOC Central Software (ATMS)



ADVANCED TRAFFIC MANAGEMENT SYSTEM



Upcoming UDOT Projects w/ ITS

Bangerter South Interchanges

<https://udot.utah.gov/bangerter/#/>

The screenshot shows the UDOT Bangerter South Interchanges project website. The header includes the UDOT logo and the text "A UDOT PROJECT". The navigation menu has links for HOME, PHASING, INTERCHANGES, FAQ, and CONTACT. The main content area features a section titled "BANGERTER 4100 S. TO CALIFORNIA AVE." with a link to learn more about the Environmental Study and a "Learn More" button. Below this is a section titled "UPCOMING CONSTRUCTION" with a sub-header "Bangerter South" and four buttons representing different interchange locations: 4700 South, 9800 South, 13400 South, and 2700 West. A paragraph at the bottom of this section encourages visitors to learn more about upcoming construction activities. On the right side, there is a "BANGERTER IN THE NEWS" section with links to various news articles from City Journals, Salt Lake Tribune, KSL News Radio, and ABC4.

UTAH DEPARTMENT OF TRANSPORTATION UDOT.UTAH.GOV

BANGERTER

A UDOT PROJECT

HOME PHASING INTERCHANGES FAQ CONTACT

BANGERTER 4100 S. TO CALIFORNIA AVE.

[Click here](#) to learn more about the Environmental Study of Bangerter Highway from 4100 South to California Avenue. [Learn More](#)

UPCOMING CONSTRUCTION

Bangerter South

4700 South 9800 South 13400 South 2700 West

Visit the project websites to learn more about upcoming construction activities for the next round of intersections to be constructed into freeway-style interchanges.

BANGERTER IN THE NEWS

City Journals
[Bangerter improvements mean relocation for some](#)

Salt Lake Tribune
[How a planned Bangerter Highway interchange would affect dozens of property owners](#)

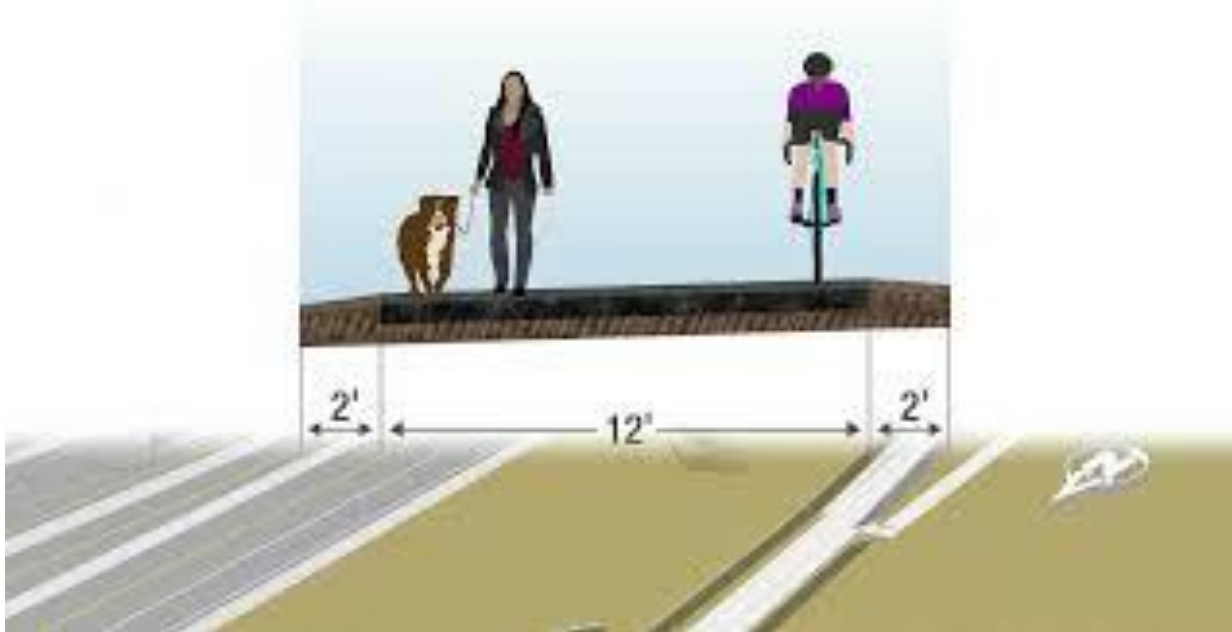
KSL News Radio
[UDOT adds finishing touches to 6200 South project](#)

KSL
[UDOT closing 6200 South at Bangerter Highway after jump in crashes](#)

ABC4
[UDOT closing 6200 South at Bangerter after spike in crashes](#)

Upcoming UDOT Projects w/ ITS

Bangerter 4100 S to California Ave - Preferred Alternative









Mission: To educate the community concerning alternative transportation options, and to promote those options that reduce single occupancy vehicle usage, improve mobility, enhance air quality, and conserve energy.

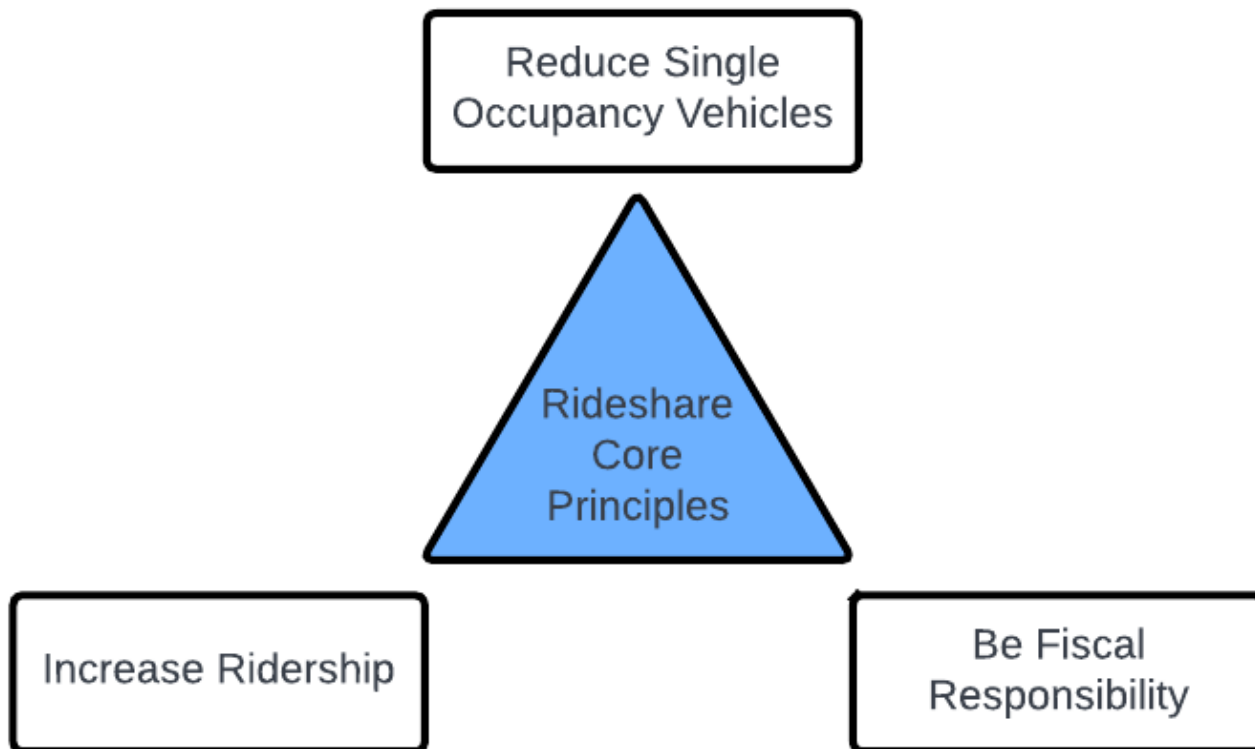
Services

- **Vanpool:** Traditional vanpool, shuttles, Ridevan Plus
- **Commuter Matching:** **Vanpool**, carpool, bicycles
- **Education:** Telework, alternative work hours

UTA Team: 11 people

Customers: Private and federal sector with over 50 major employment centers

UTA Rideshare



SALT LAKE

Qualifying Expenses	\$422,085
Funds Received	\$263,733
<hr/>	
Difference	(\$158,352)

Weber/ Davis

Qualifying Expenses	\$236,756
Funds Received	\$127,130
<hr/>	
Difference	(\$109,626)

- Salt Lake

6,161,314

VMT Reduced

10,105 Tons*

Reduced Emissions

- Weber/ Davis

4,323,956

VMT Reduced

5,668 Tons*

Reduced Emissions

*Estimated Figure as percent of Program total

Porter Rockwell Blvd. Bridge

Connecting Communities



The Genesis

- Only one east-west connection within Bluffdale City limits



The Genesis

- **Only one east-west connection within Bluffdale City limits**



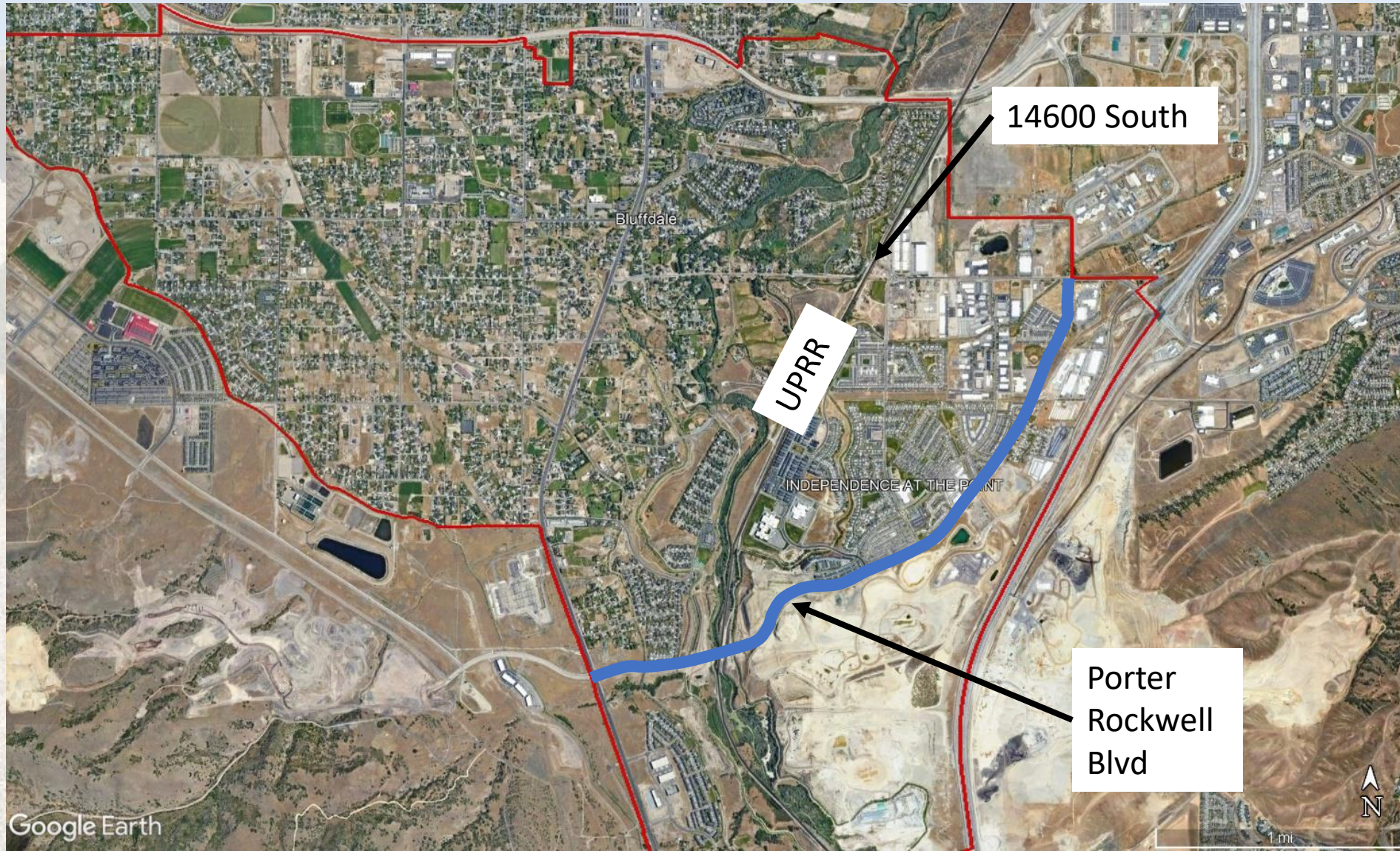
The Solution

- In 2004 the City of Bluffdale commissioned Stantec, an engineering company to study a corridor for a new road that would divert the traffic from west Utah County to I15
- The study proposed an alignment for the brand-new Porter Rockwell Boulevard



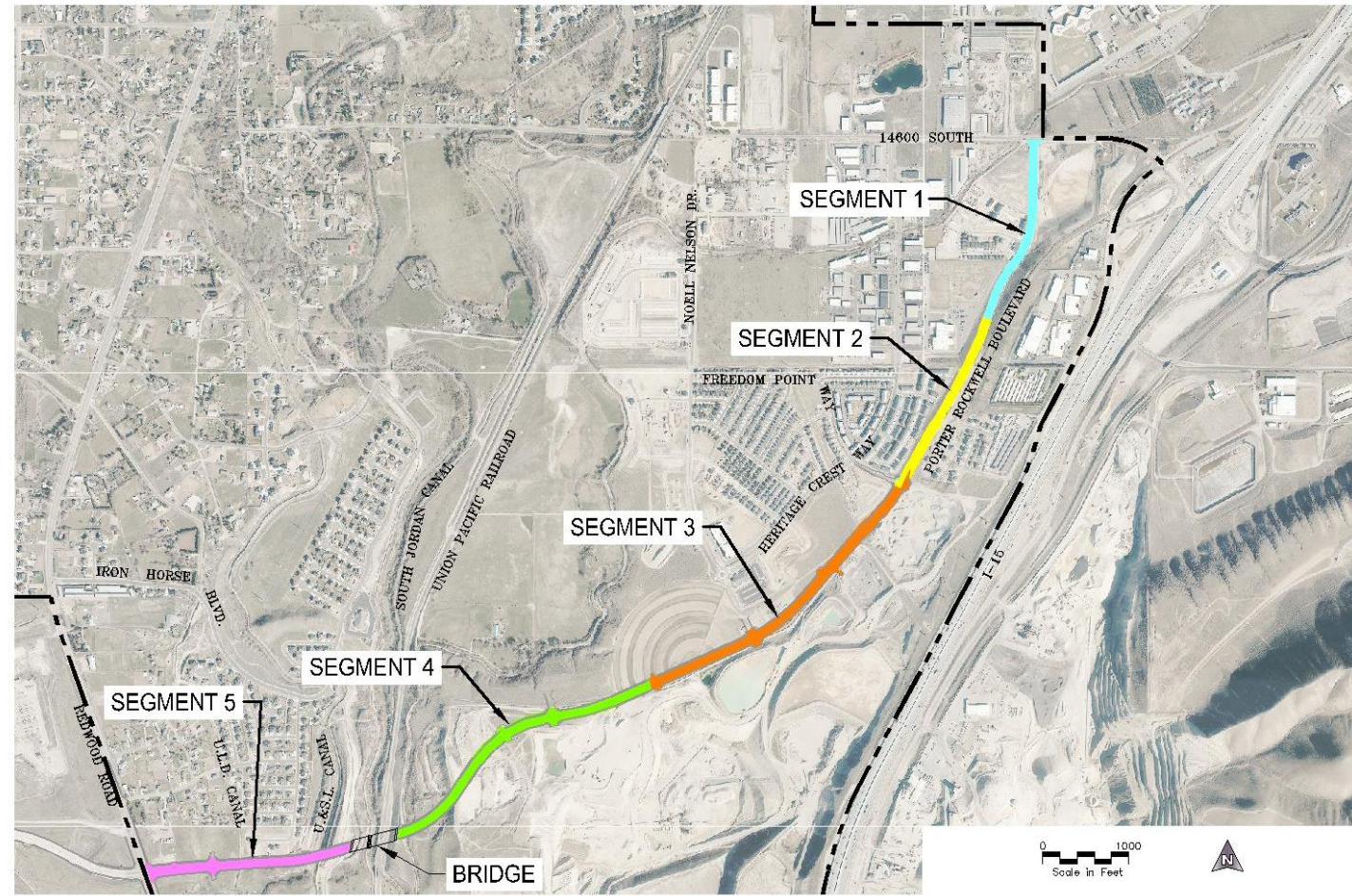
The Solution

- Add another east-west connection



Brief timeline

- 2011: Michael Fazio came to work at Bluffdale and given the assignment to build Porter Rockwell Boulevard
- 2012: Presented the proposed alignment and divided in 5 segments plus a bridge segment, from 14600 South to Redwood Road/Porter Rockwell Boulevard (Herriman segment)
- 2012: Purchased right of way (property) for segment 5
- 2012: Built portion of segment 1
- 2013: Built segment 1 and 2, got funding for segment 4
- 2014: Got funding for the environmental document and segment 5
- 2015: Completed the environmental document and segment 3
- 2018: Began construction of segment 5
- 2018: Requested and got funding for the bridge segment (\$72M)
- 2019 begin construction of segment 4, awarded Wadsworth Brothers the Porter Rockwell Bridge (Design-built) (\$27M)
- August 2022 completed the bridge



Challenges

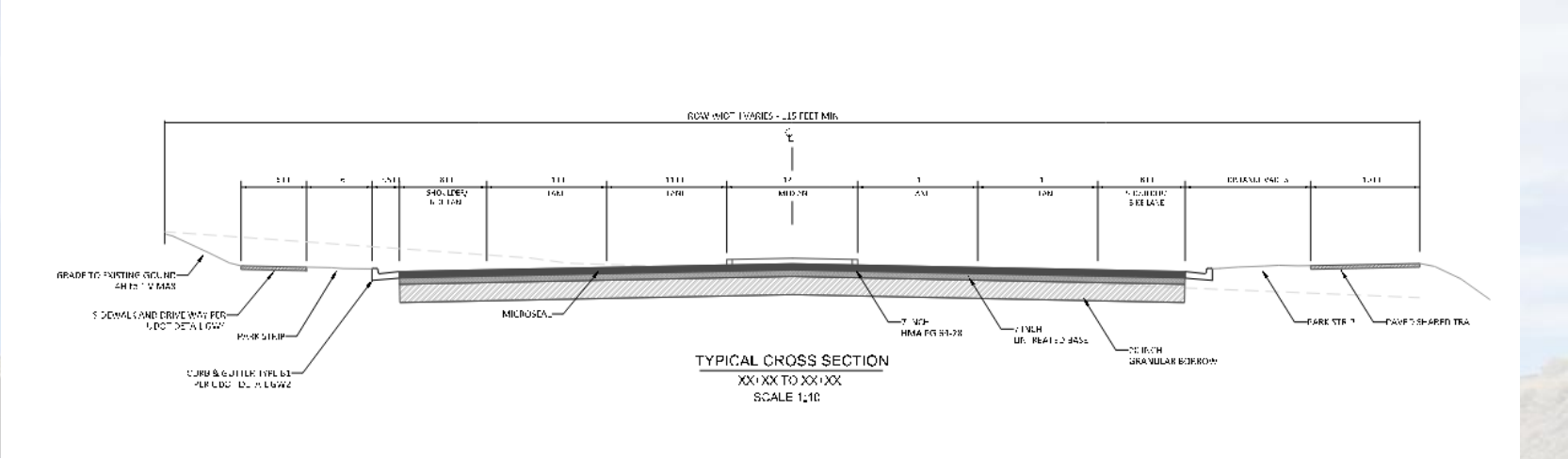
- Jordan River
- Two active railroad tracks (Union Pacific, UTA Frontrunner)
- Three active irrigation canals
- Jordan River Parkway Trail
- Jordan Valley Water Conservancy District (JVWCD) aqueduct (96-inch?)
- Power corridor
- 700 feet to span
- 80 feet height



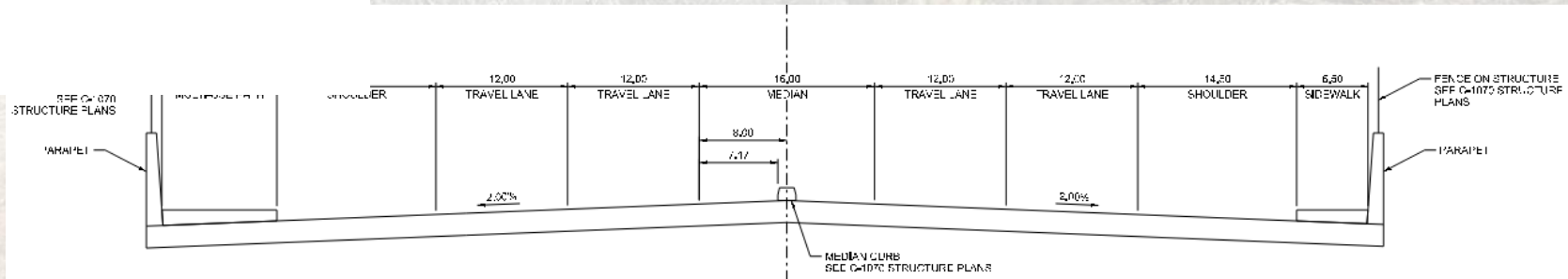
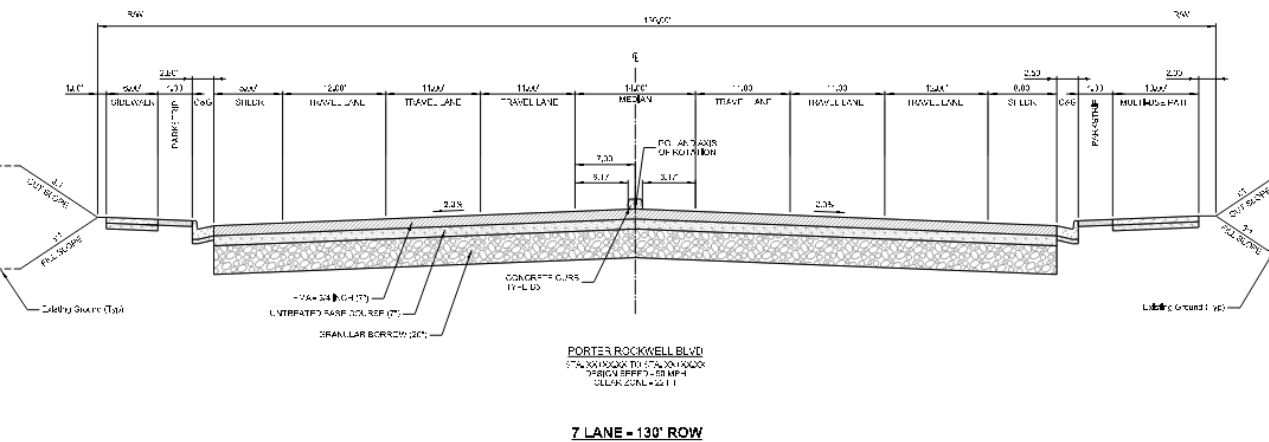
Preliminary Design

- Prepared a typical cross-section for the road (5 lanes divided highway)
- Fixed ends for the whole alignment (14600 South and Redwood Road)
- Fixed boundaries for segments 1,2 and 3
- Walked and studied possible locations for a crossing
- Used a three-dimensional model of the ground (LiDAR land survey) to model the whole road and the crossing
- Bridge required min. height from the bottom of girder to top of rail is 34 feet

Cross-sections



PORTER ROCKWELL BOULEVARD



100%
NOT FOR CONSTRUCTION

TYPICAL SECTION 2
PORTER ROCKWELL BOULEVARD

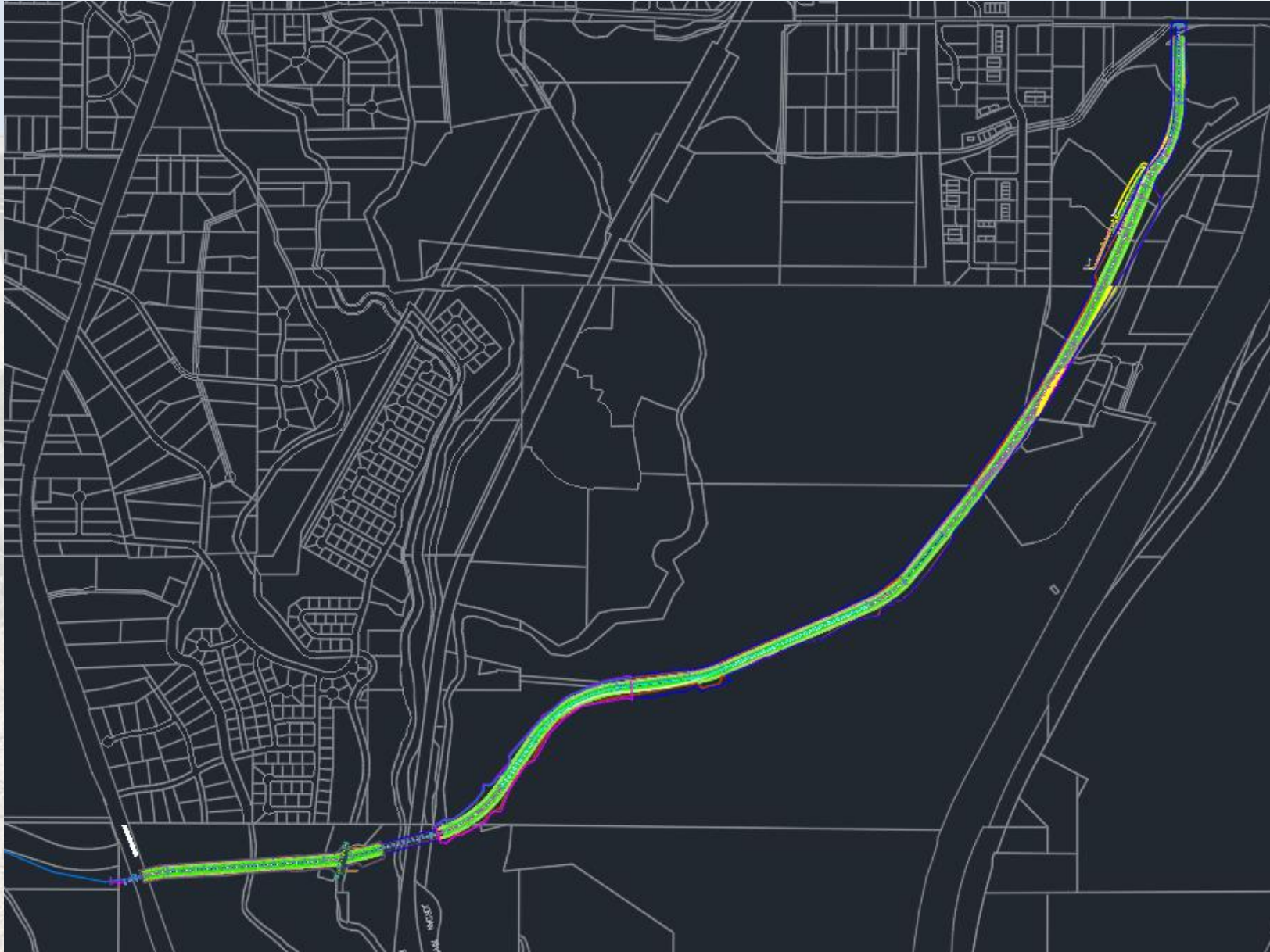
124+40.88 TO 125+28.11
DESIGN SPEED 45 MPH
CLEAR ZONE 25 FT

Cross-sections

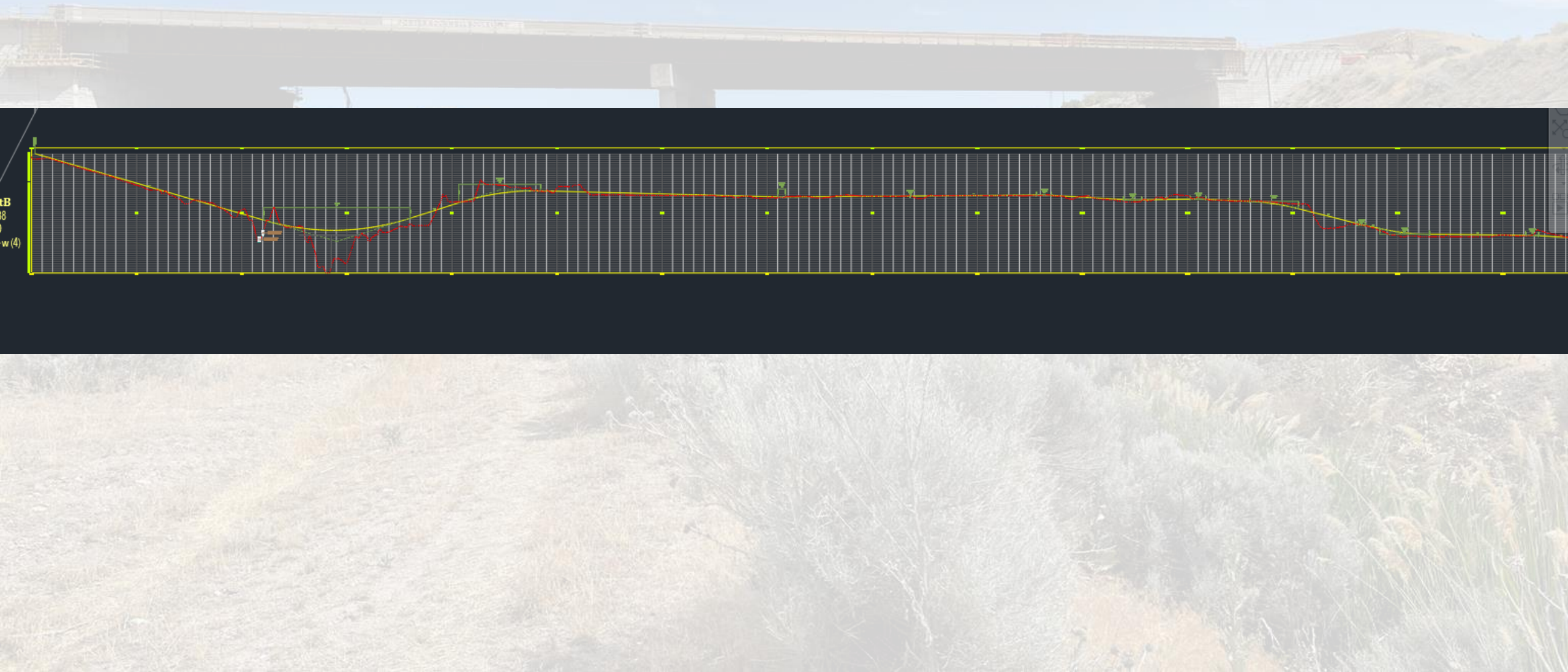




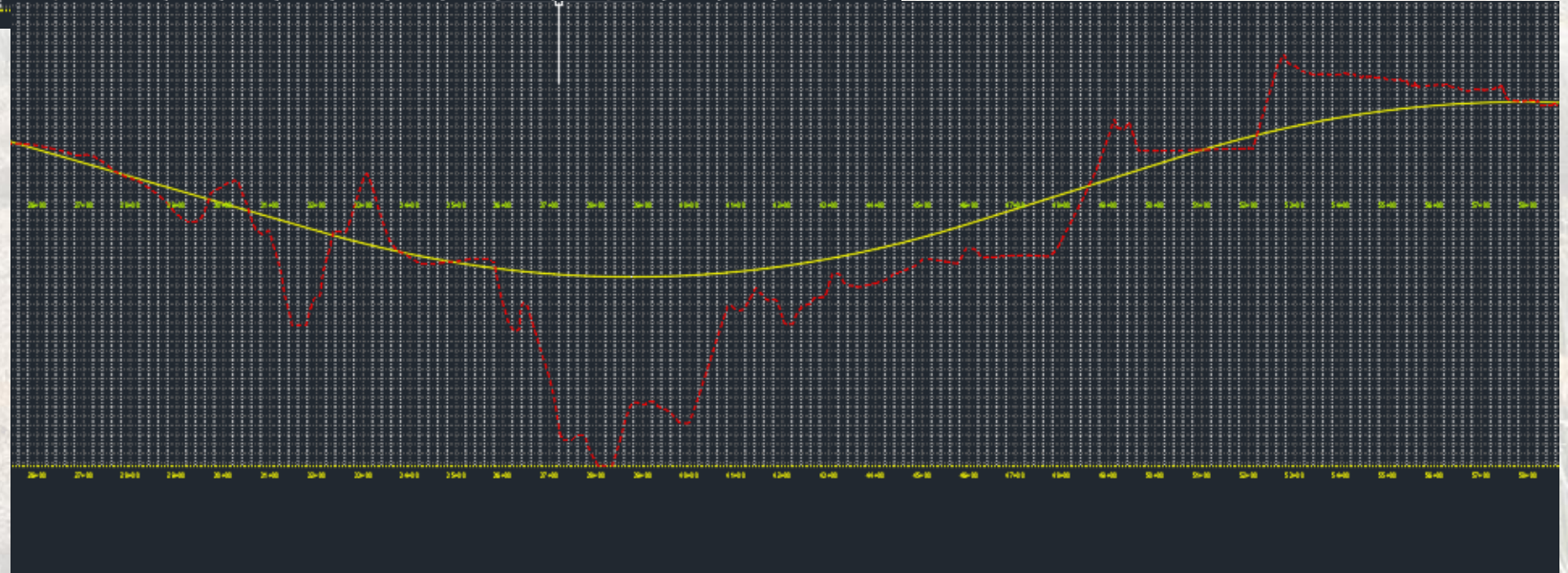
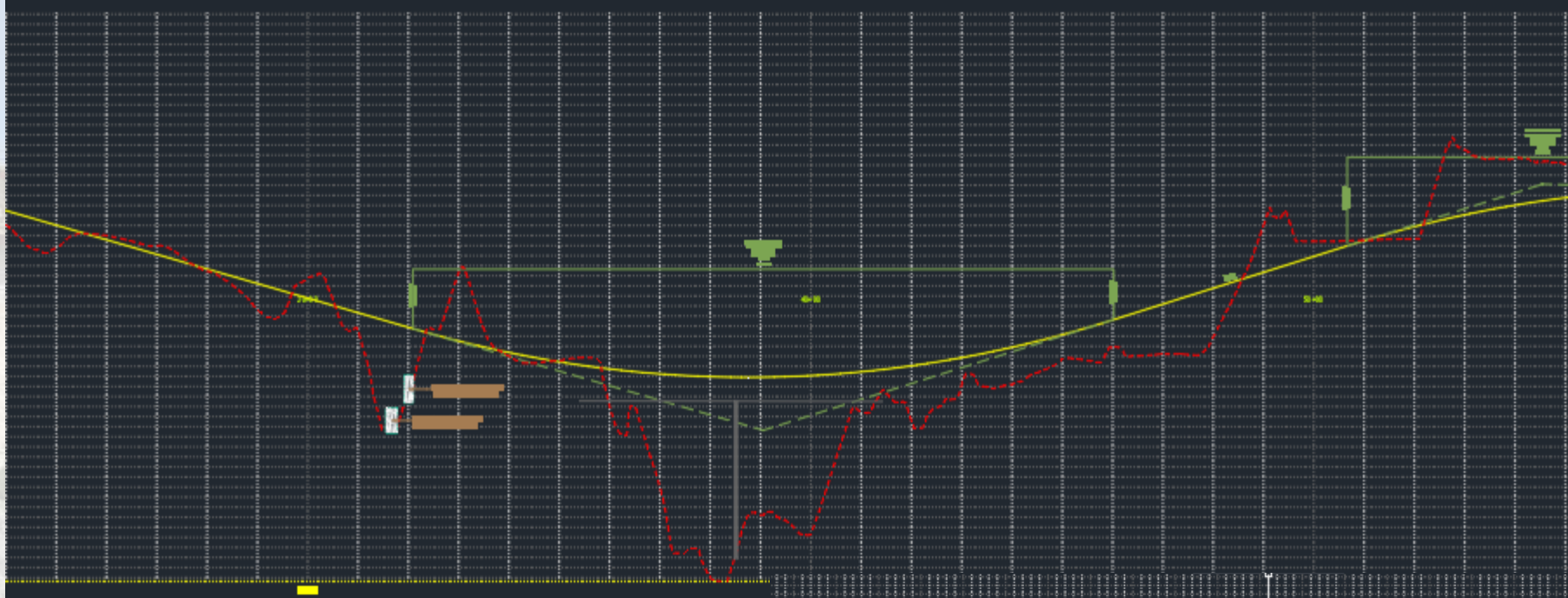
Road 3-D model (plan)



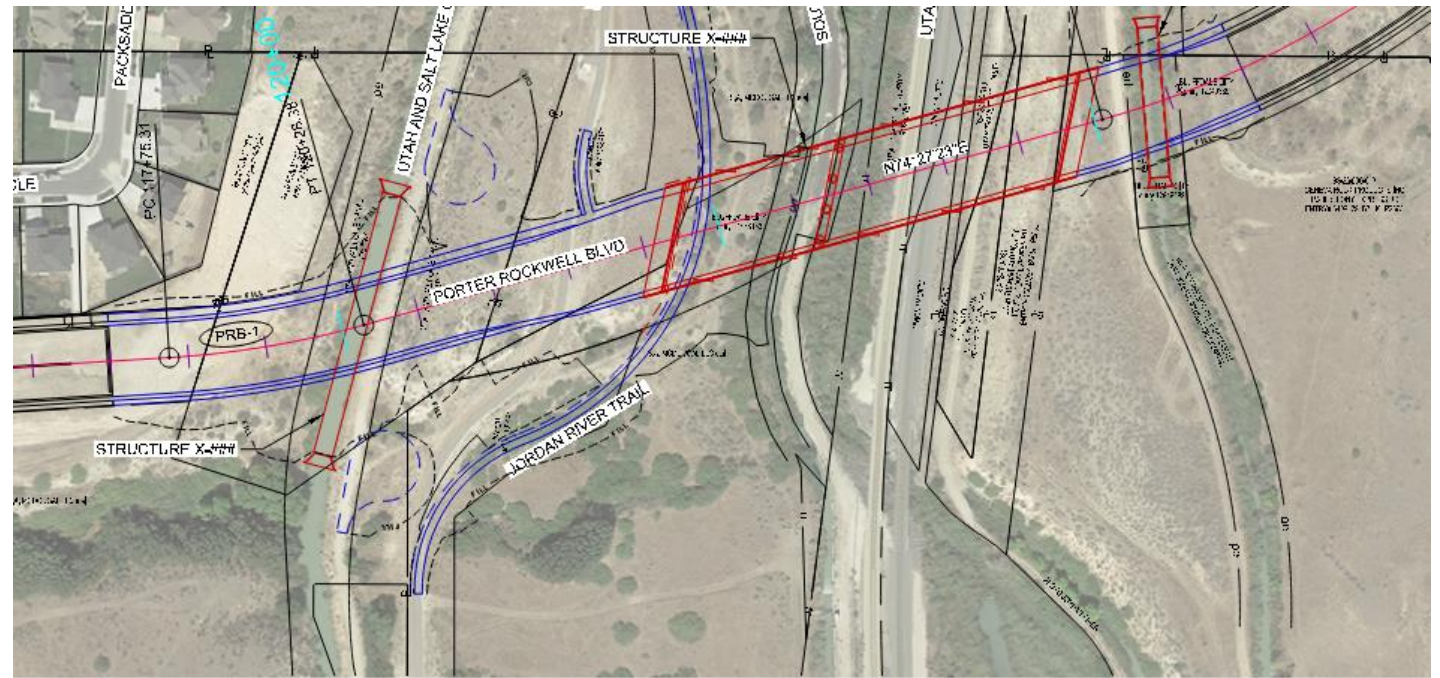
3-D Model (profile)



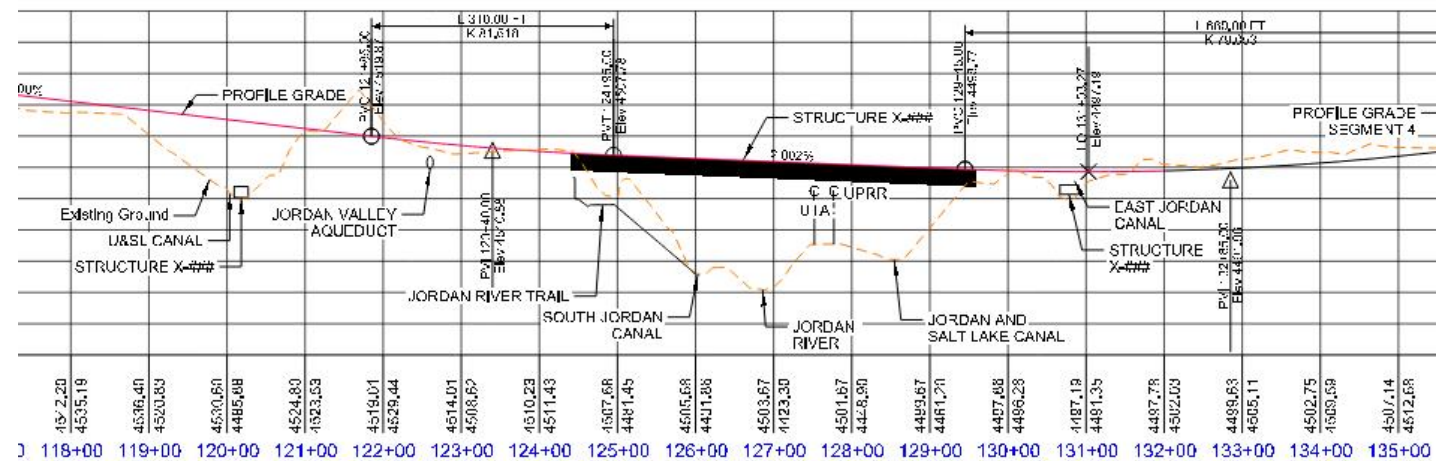
Bridge Section Profile



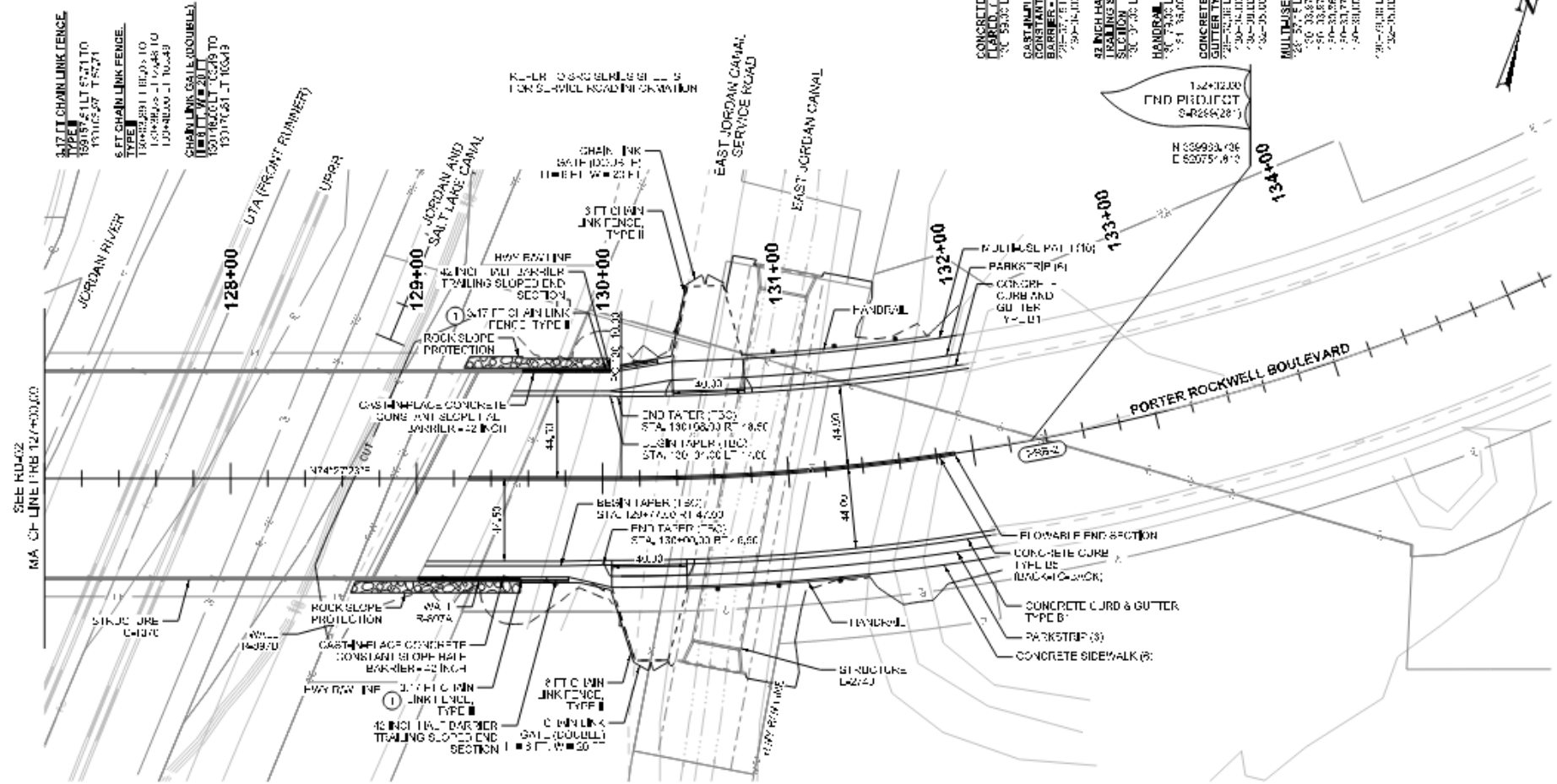
Final concept for construction



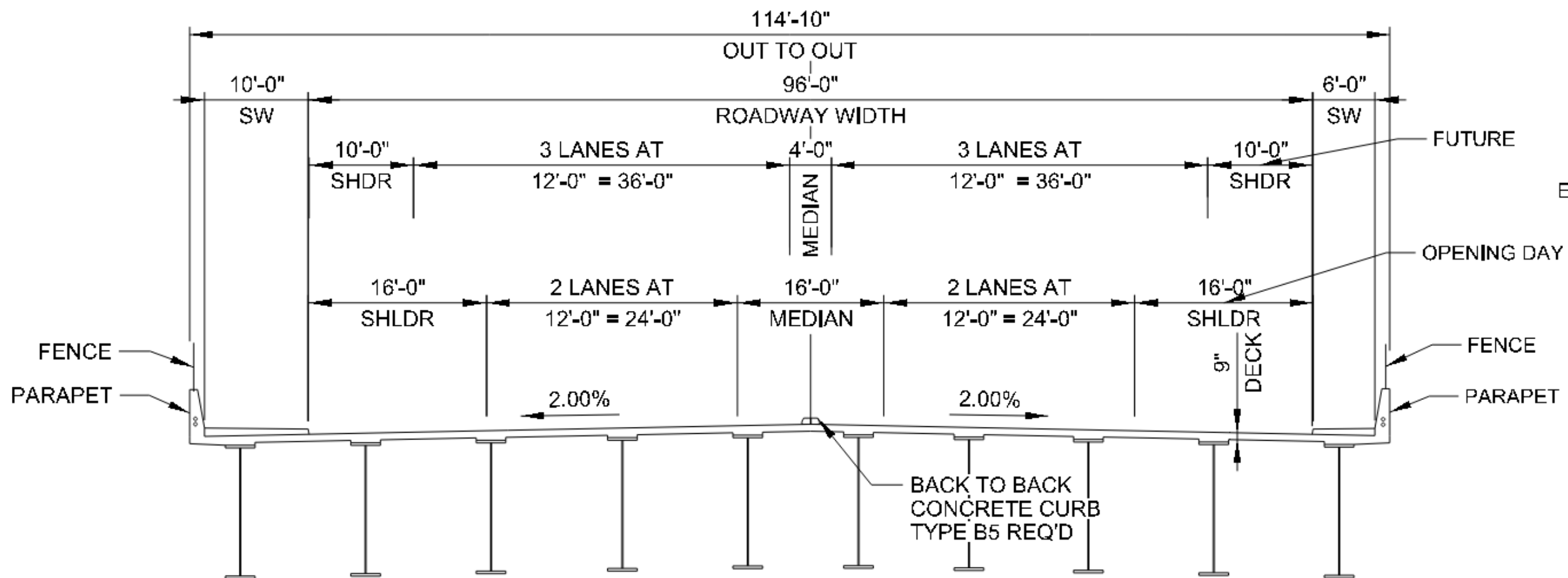
PORTER ROCKWELL BLVD



① SEE U-42 FOR FENCE TRANSITION.

[illegible]

PORTER ROCKWELL - (BRIDGE)		UTAH DEPARTMENT OF TRANSPORTATION AVENUE CONSULTANTS					
		AS-BUILT		DATE		DRAWN BY	
S-R-200(201)		1807C		NOV 11 11:11 AM		A-E	
ROADWAY				SCALE		SHEET NO.	
				PROJECT NO. UTAH DOT 11111		SHEET NO.	



TYPICAL SECTION 2

PORTER ROCKWELL BLVD

BRIDGE LIMITS
DESIGN SPEED 45 MPH
CLEAR ZONE 20 FT









31 January 22





Precast concrete deck panels

- Accelerate construction
- No need to place forms
- Mechanical Stabilized Soil Retaining Wall
- Reduced span with taller abutments

Cast in placed reinforced concrete deck

- Placed steel epoxy coated rebars
- Poured Portland Cement Concrete for deck pavement





June 23





August 16