Design and Environmental Study For

ARLINGTON AVENUE BRIDGES REPLACEMENT

ARLINGTON AVENUE BRIDGES PROJECT

Design Review Committee Meeting #5 | August 9, 2022

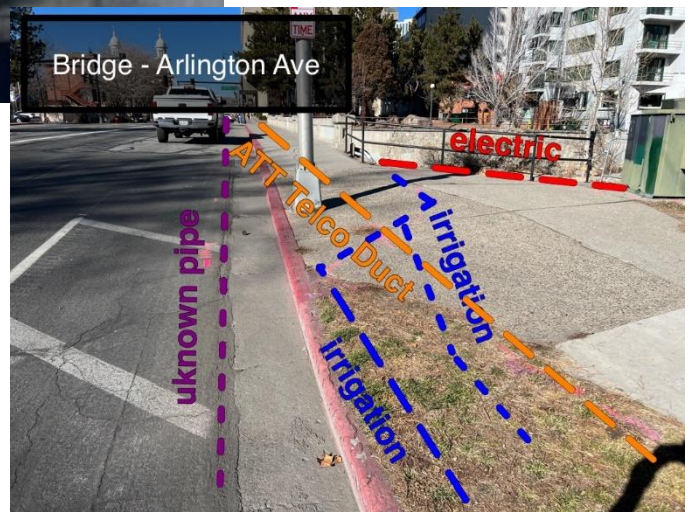
Purpose of Today's DRC Meeting:

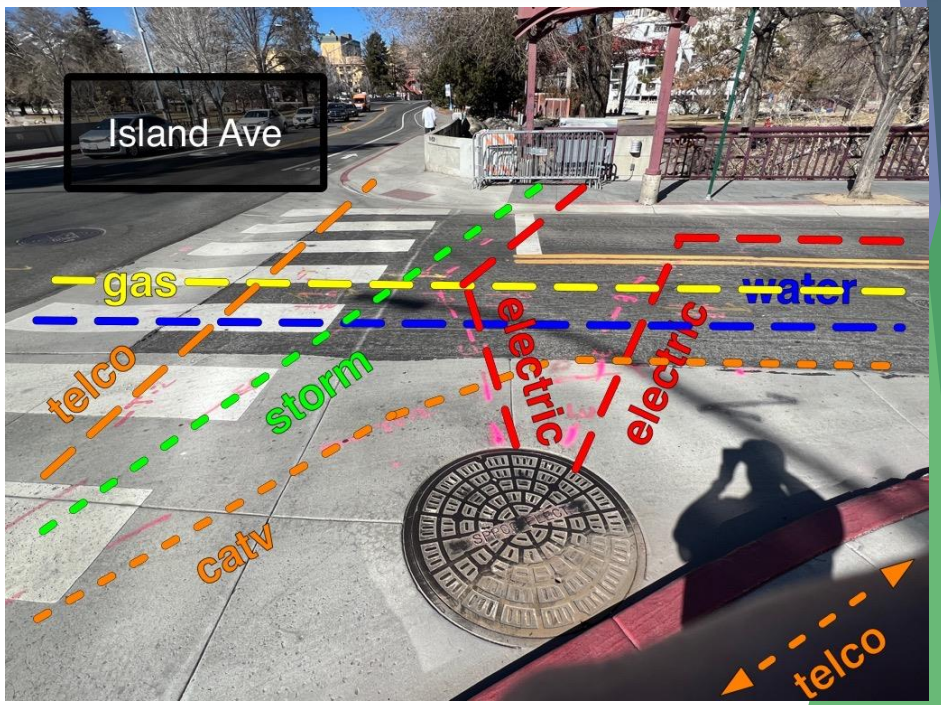
ARLINGTON AVENUE BRIDGES PROJECT

- ✓ Utilities
  - ✓ Review of Existing Utilities
  - ✓ Coordination with New Bridge Structures
- ✓ RRFB Layout
- ✓ Discussion on Select 30% Review Comments
- ✓ Open Questions/Discussion

Utilities

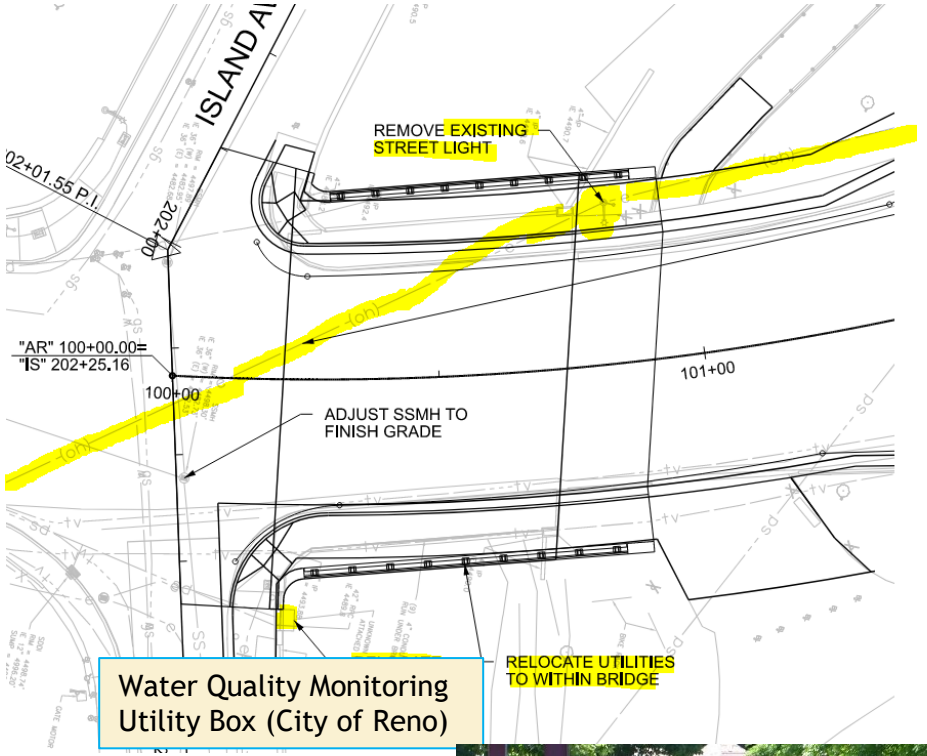
ARLINGTON AVENUE BRIDGES PROJECT



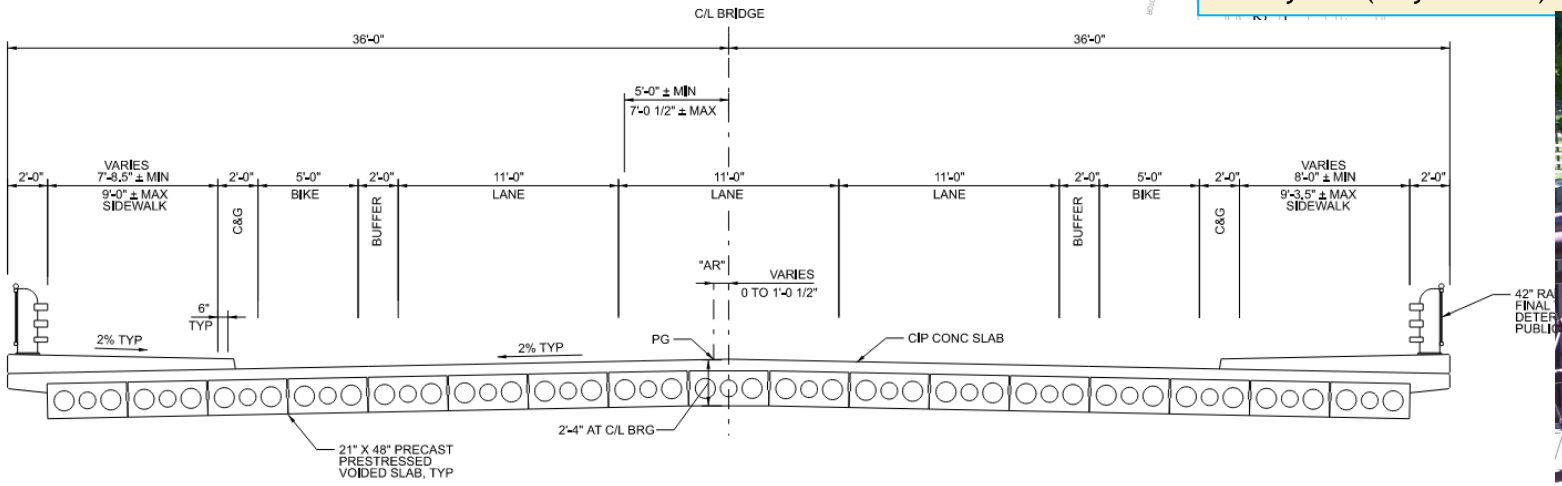


South Bridge

- ✓ Utilities on east side of bridge
- ✓ OH Electric
- ✓ Streetlights
- ✓ Utility Box
- ✓ Island Avenue Street Utilities



Water Quality Monitoring Utility Box (City of Reno)

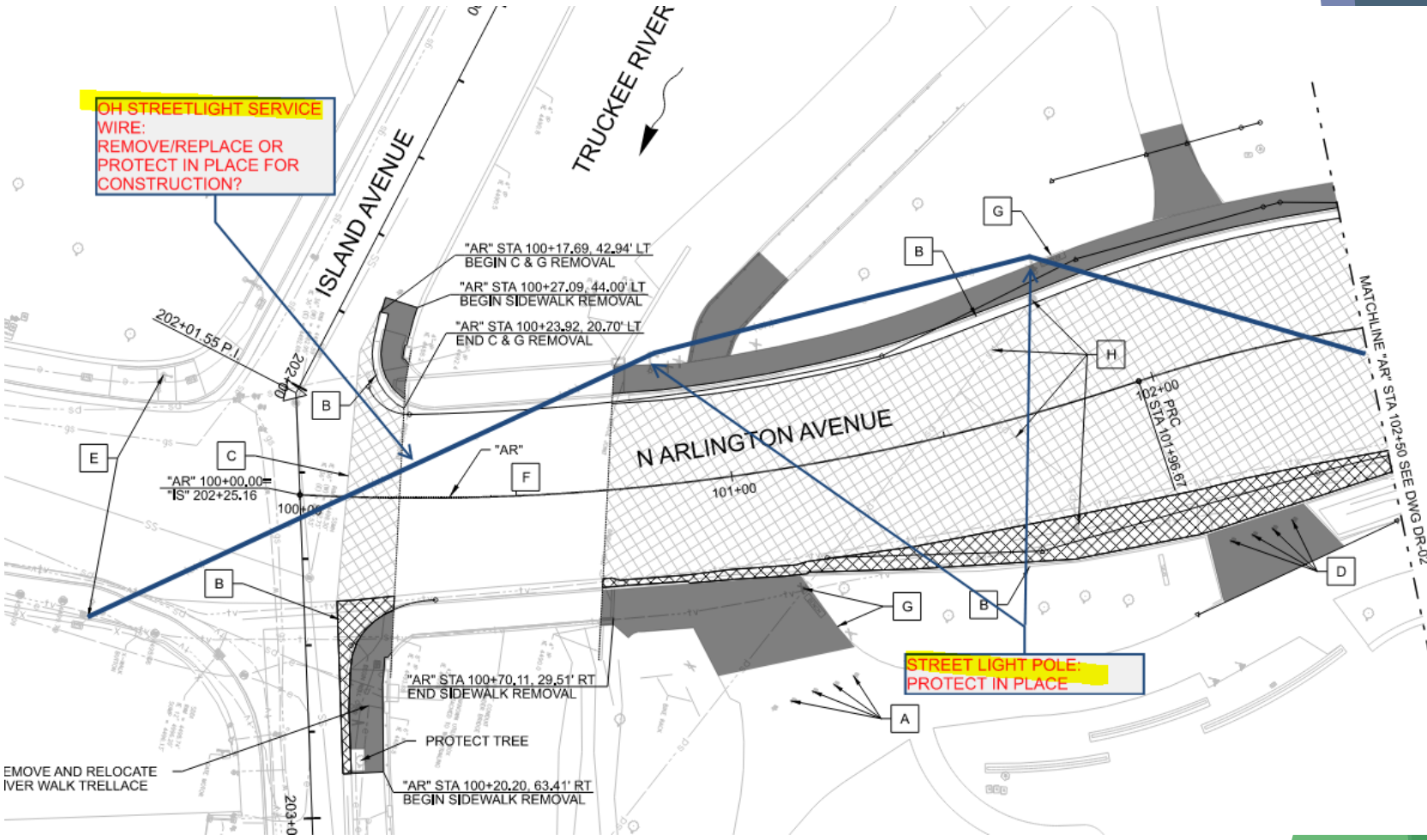


TYPICAL SECTION
1/4"=1'-0"

South Bridge

NVE - ELECTRIC

- Underground the OH-E
- Street Light Poles – replace with Continuous Pedestrian Lighting – To Be Confirmed
- Streetlights and Services in this area directly serve the customer so Apply for Formal Electrical Project: inforeno@nvenergy.com



South Bridge

City of Reno - Water Quality Monitoring Utility Box

- active stormwater sampling equipment

Within River? Or at the RCP outlet?

- any temporary/permanent modifications must be coordinated with CoR Utility Services Dept.

South Bridge

CHARTER

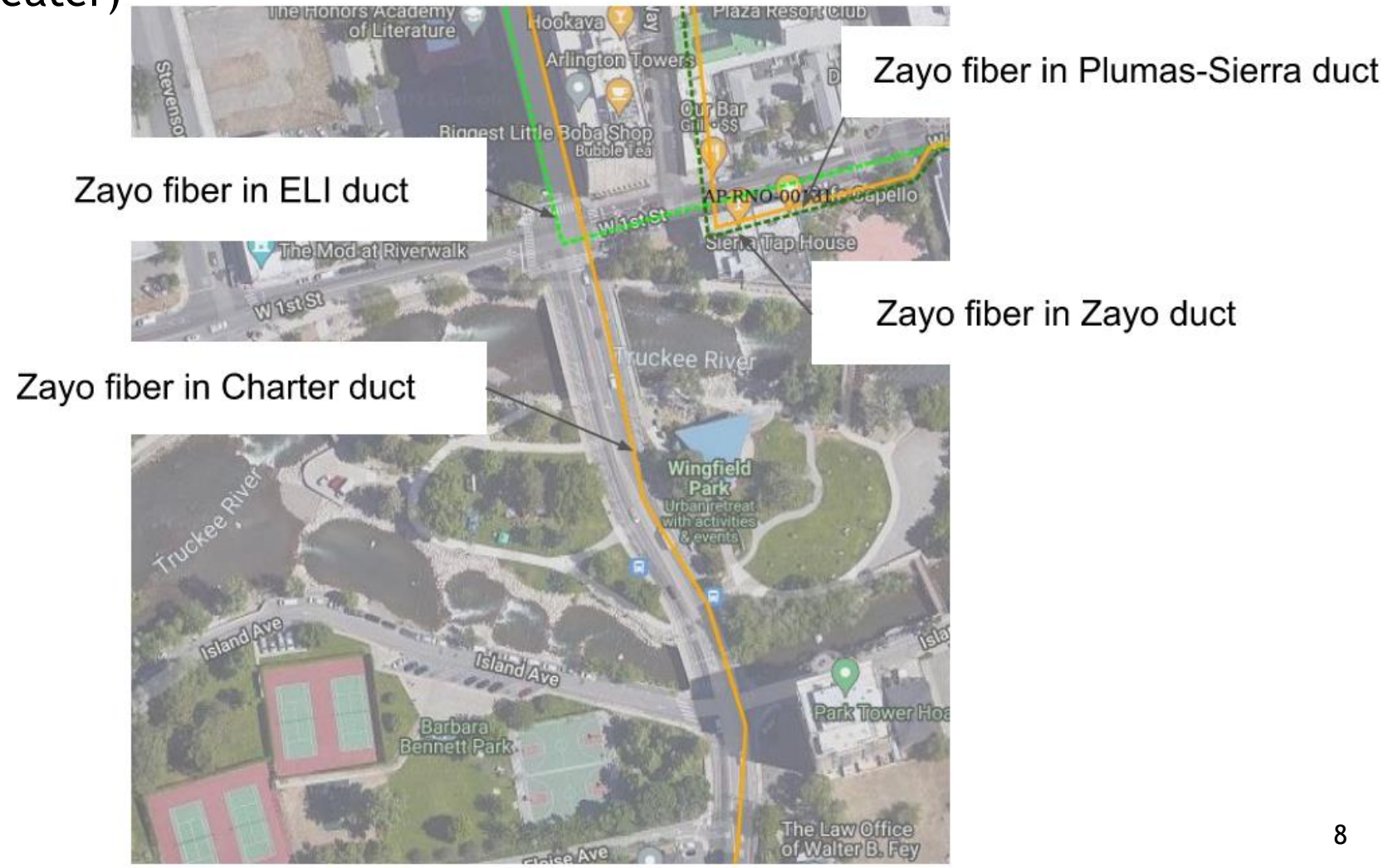
Across South Bridge, continues north along Arlington Avenue to Amphitheater

South Bridge

ZAYO

Fiber in Charter Duct – *To Be Confirmed*

(Per Charter, Ends at Amphitheater)



South Bridge

TMWA

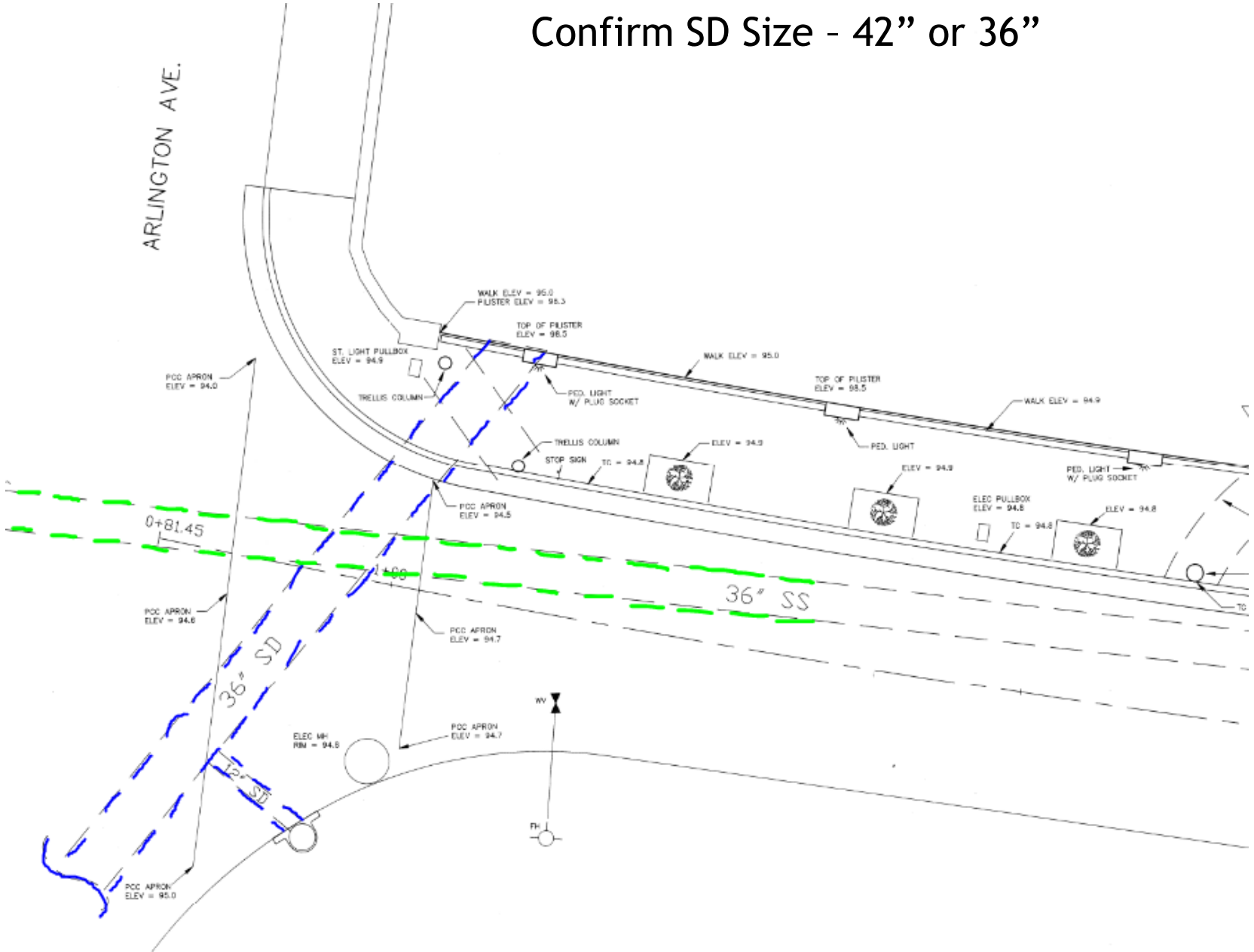
- 8-in C900 Retired in Place within Island Ave intersection
- 8-in Ductile Iron Across Intersection
- West of Intersection– 2 Lines:
  6-in Transite & 8-in C900
- East of Intersection- 1 Line:
  8-in C900
- South of Intersection:
  6-in Clay and 6-in Transite Retired in Place
- Along Arlington:
  6-in Clay retired in place;
  8-in C900 along western side

South Bridge

SE Corner Storm Drain

ARLINGTON AVENUE BRIDGES PROJECT

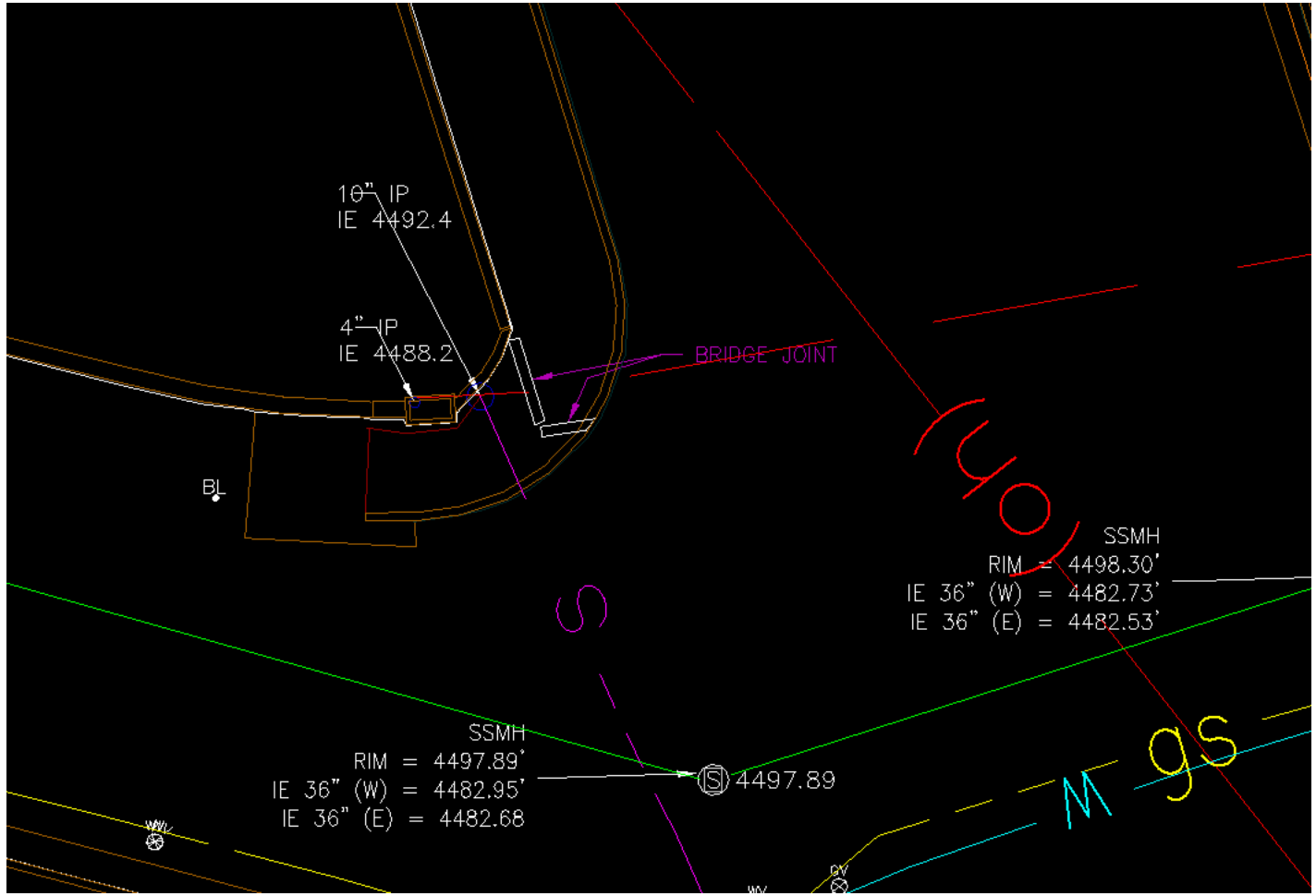
Confirm SD Size – 42” or 36”



South Bridge

SW Corner Storm Drain

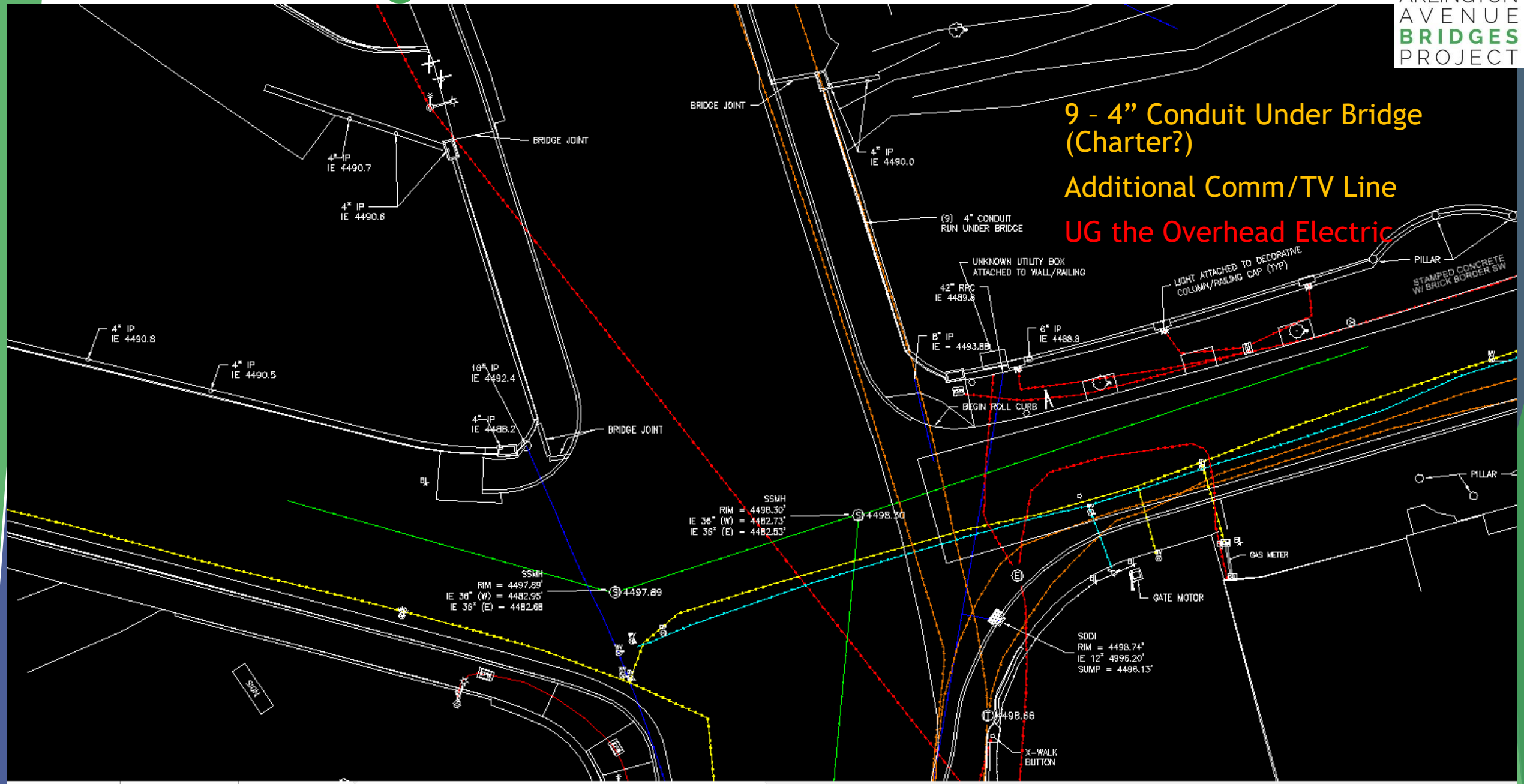
Confirm SD Size – 10”



South Bridge

Overview

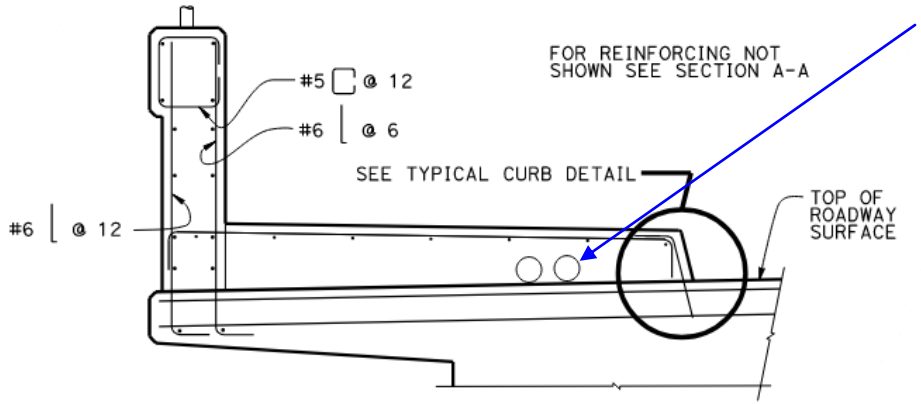
ARLINGTON AVENUE BRIDGES PROJECT



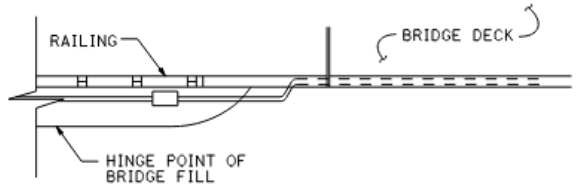
South Bridge

Potential Utility Routing Detail

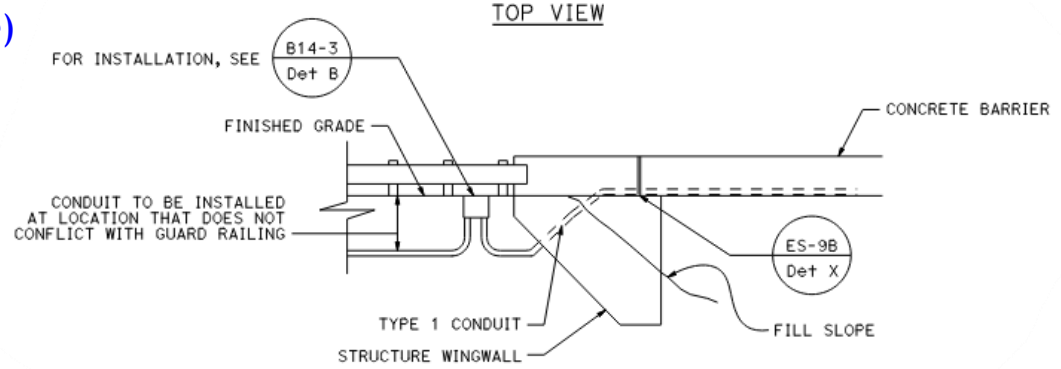
Up to 7-4” Conduits can be run on each side of the bridge (between curb and barrier face)



SECTION B-B
TYPICAL SECTION AT JOINTS



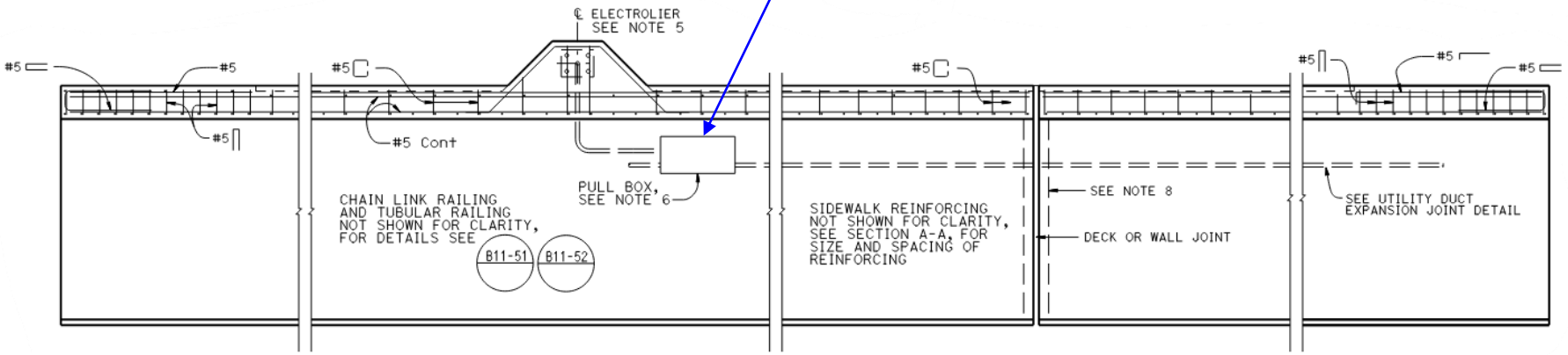
TOP VIEW



SIDE VIEW

CONDUIT TERMINATION
DETAIL I

Pull box at geometry change locations and at ends of bridge



PLAN

Mid-Block
Arlington Avenue

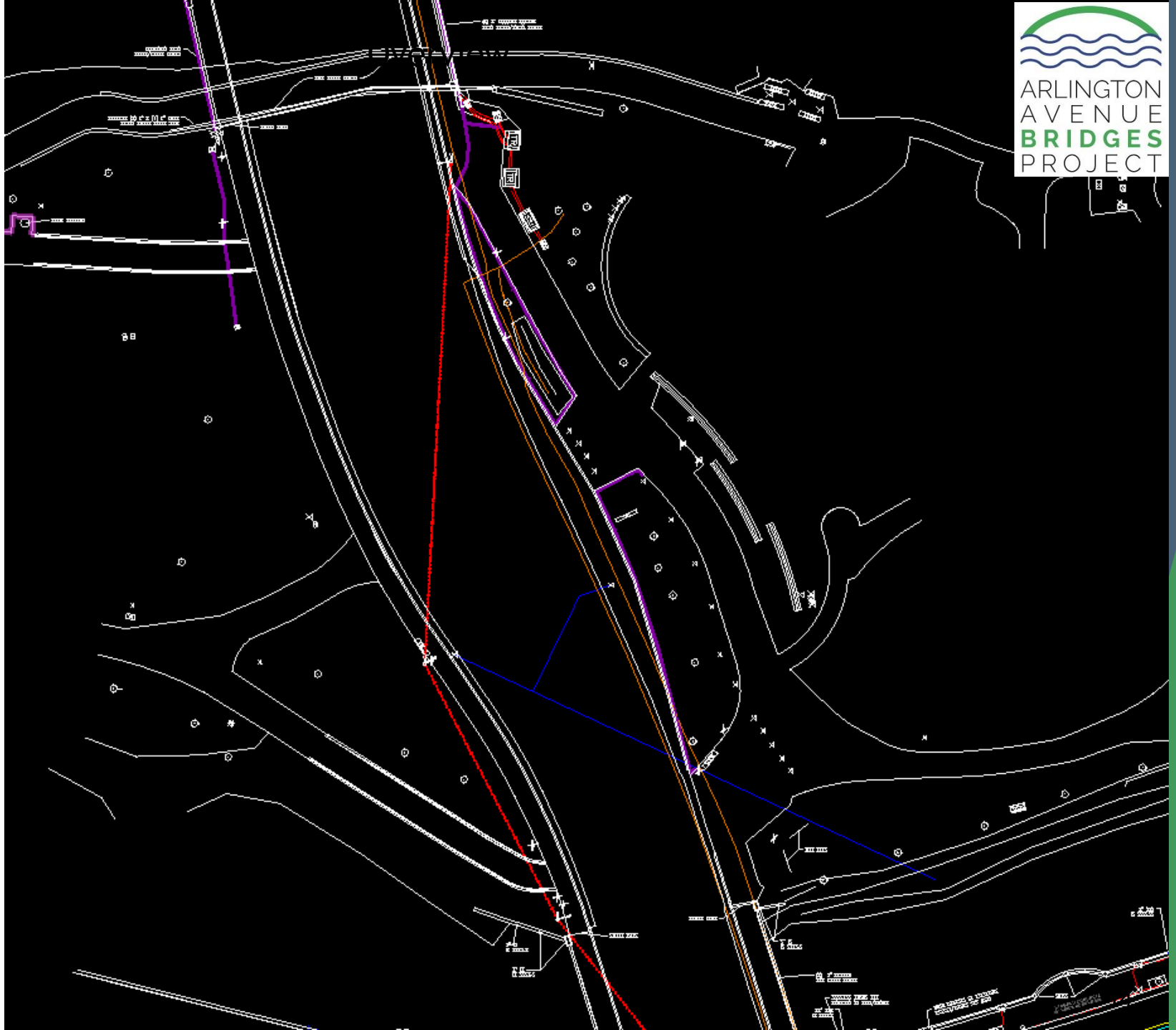
Comm/TV/Fiber Lines

Ext. Overhead Electric

Ext. Underground Power

Storm Drain

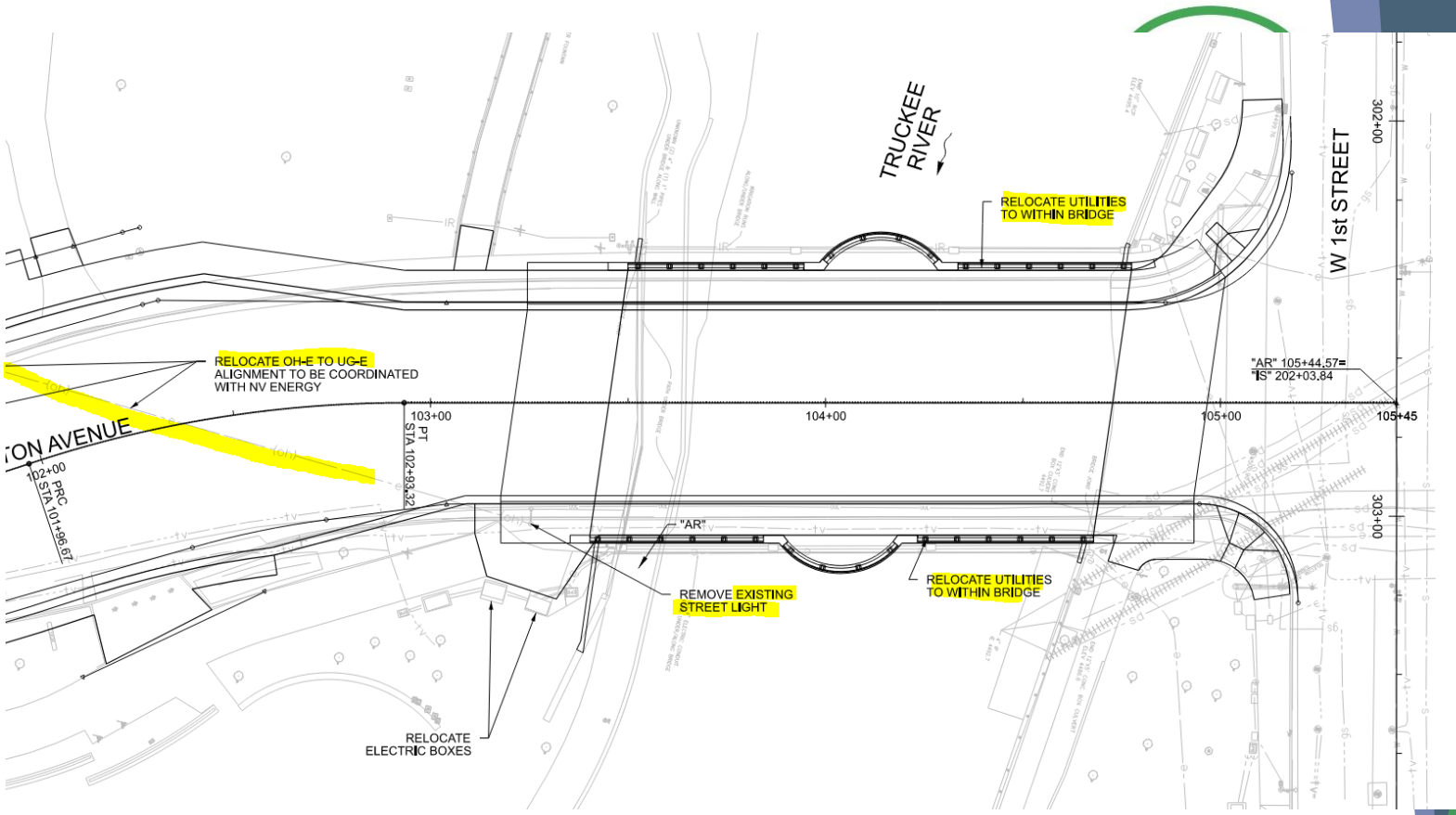
Irrigation

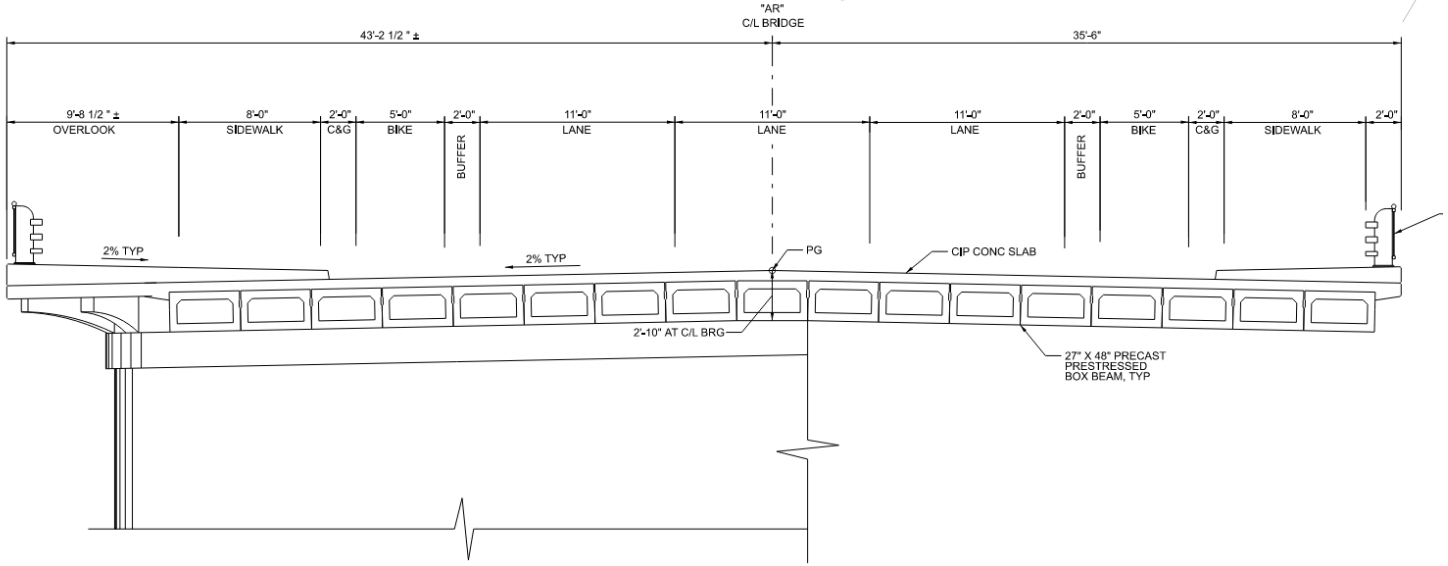


ARLINGTON AVENUE BRIDGES PROJECT

North Bridge

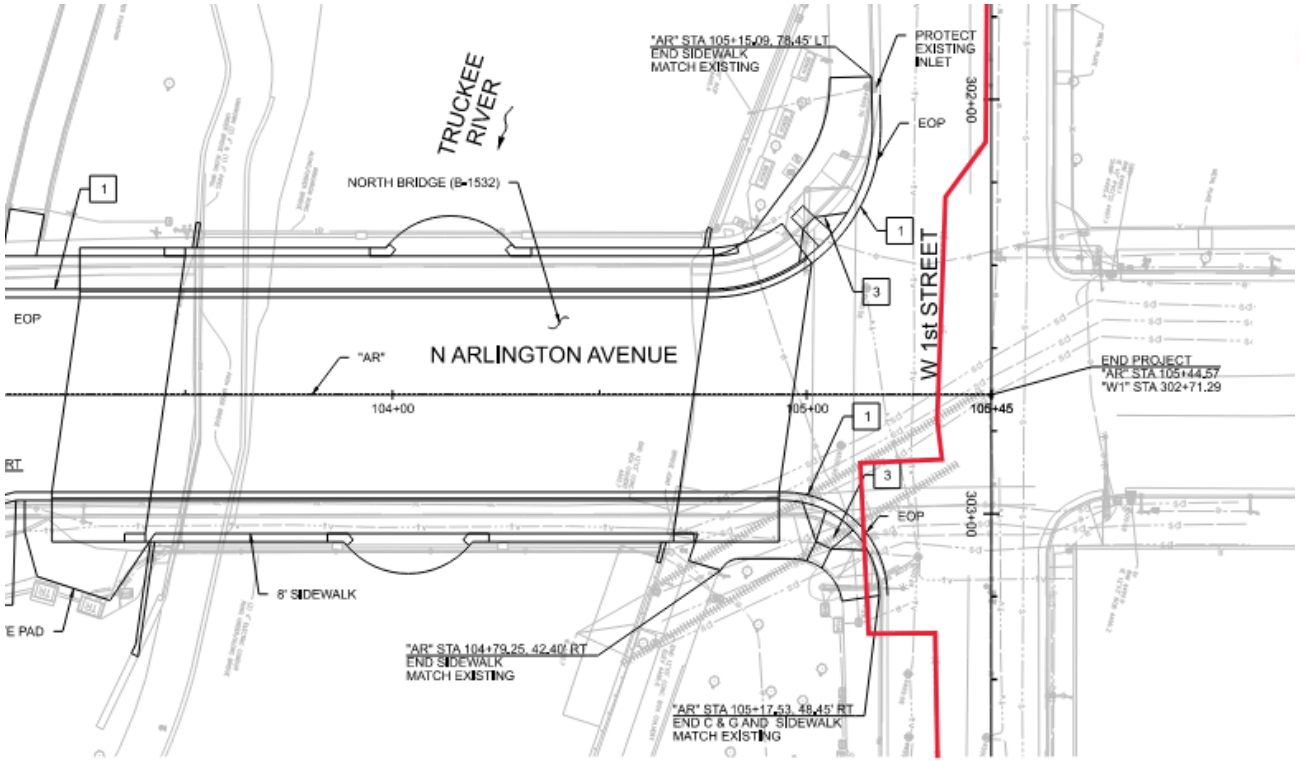
- ✓ Utilities on east and west sides of bridge
- ✓ Utilities along path at south abutment face
- ✓ OH Electric
- ✓ Streetlight
- ✓ Utility Vaults/Boxes
- ✓ W. 1st Street intersection utilities
- ✓ Traffic Signal Poles

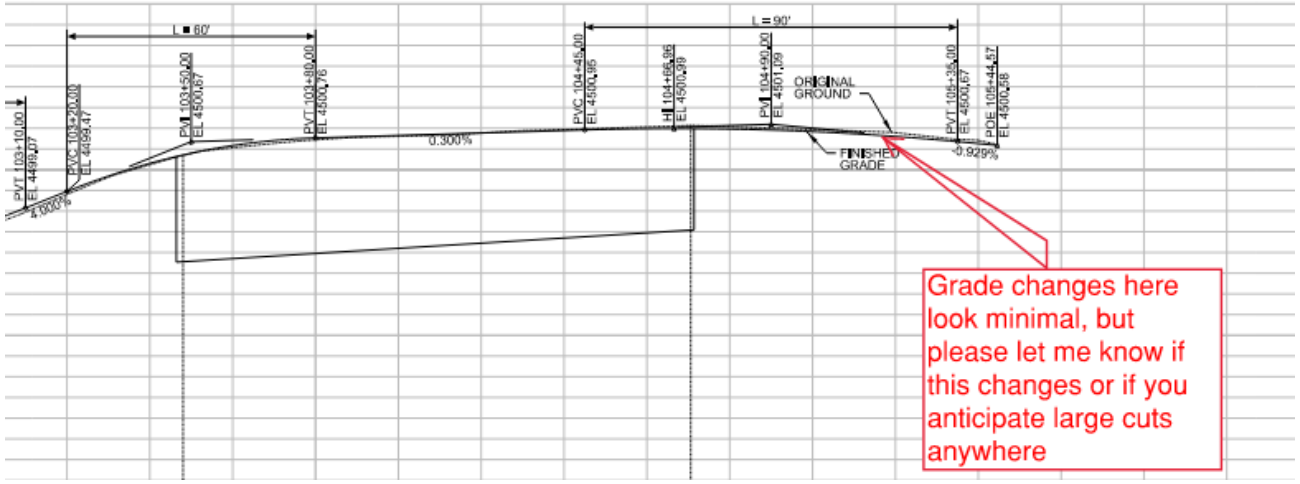




North Bridge

- ✓ **NVE - GAS**
  - ✓ Existing along W. 1st St.
  - ✓ Excavation for Bridge Abutment
  - ✓ Sidewalk Construction

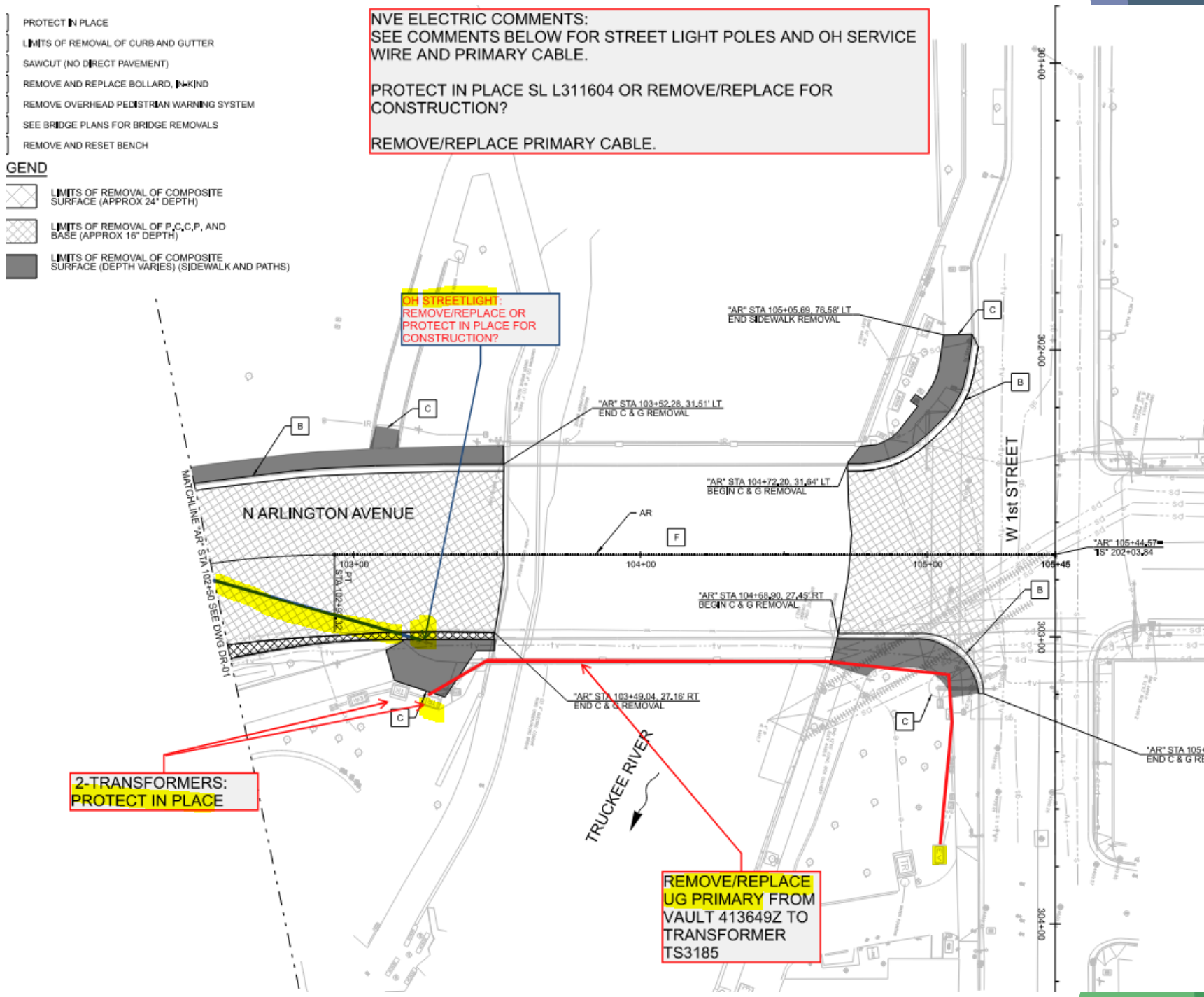




North Bridge

NVE – ELECTRIC

- Underground the OH-E
- Street Light Poles – replace with Continuous Pedestrian Lighting – To Be Confirmed
- Remove/Replace UG Primary from Vault to Transformer Through New Bridge (2-4” Conduits)
- Streetlights and Services in this area directly serve the customer – Apply for Formal Electrical Project: inforeno@nvenergy.com

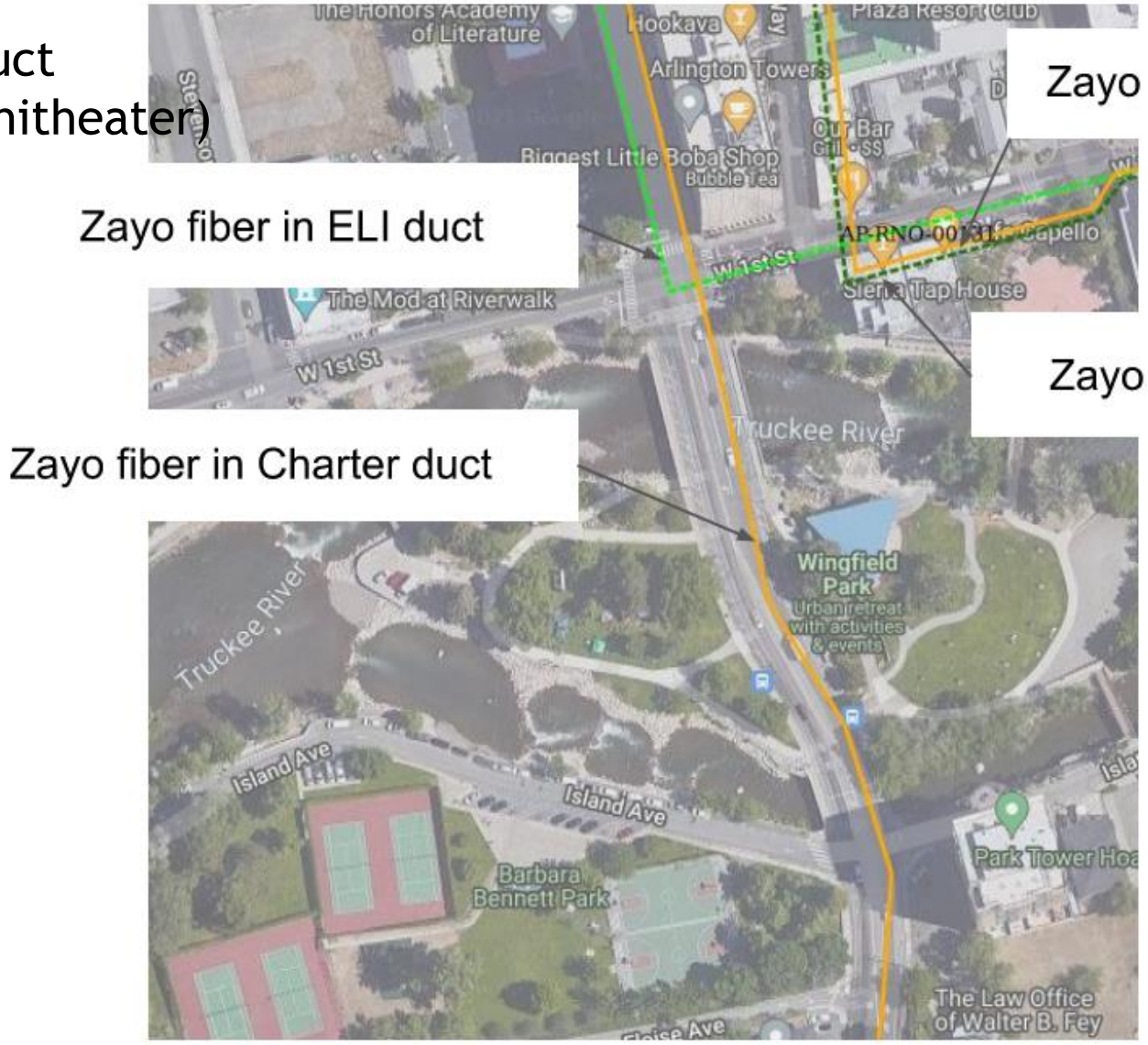


North Bridge

ZAYO

* Zayo Fiber in ELI Duct

* Zayo Fiber in Charter Duct
(Per Charter, Ends at Amphitheater)



North Bridge

TMWA

- 8-in Clay within W. 1st Street intersection
- West of Intersection:
  8-in Ductile Iron
  w/ 2-in HDPE lateral
- East of Intersection:
  8-in Transite
- North of Intersection:
  8-in Clay along west side
- Assume Park Irrigation Line from this 2-in HDPE lateral

North Bridge

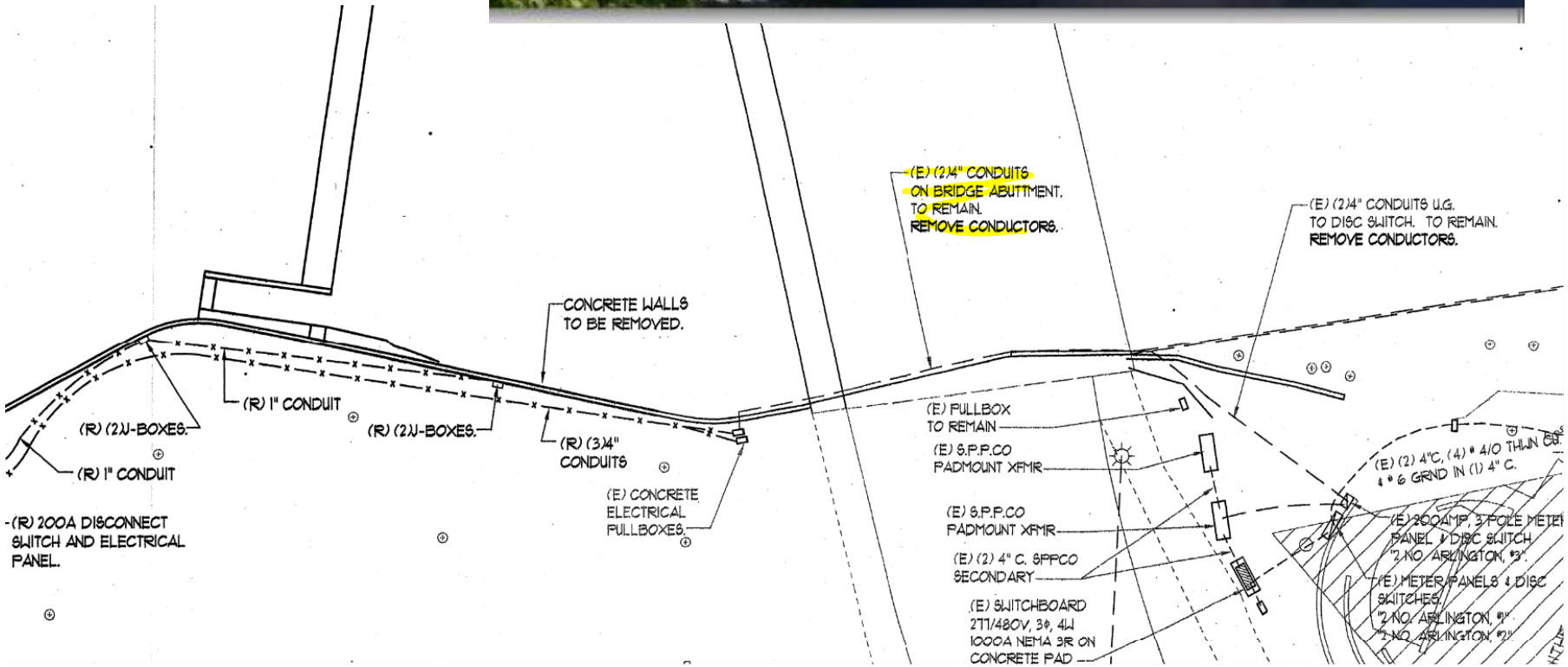
Park Irrigation

- Across West Face of Bridge – 2 Pipes
- Assume 1 for H_2O and 1 electric for sprinkler system?

North Bridge

Conduit Along Path

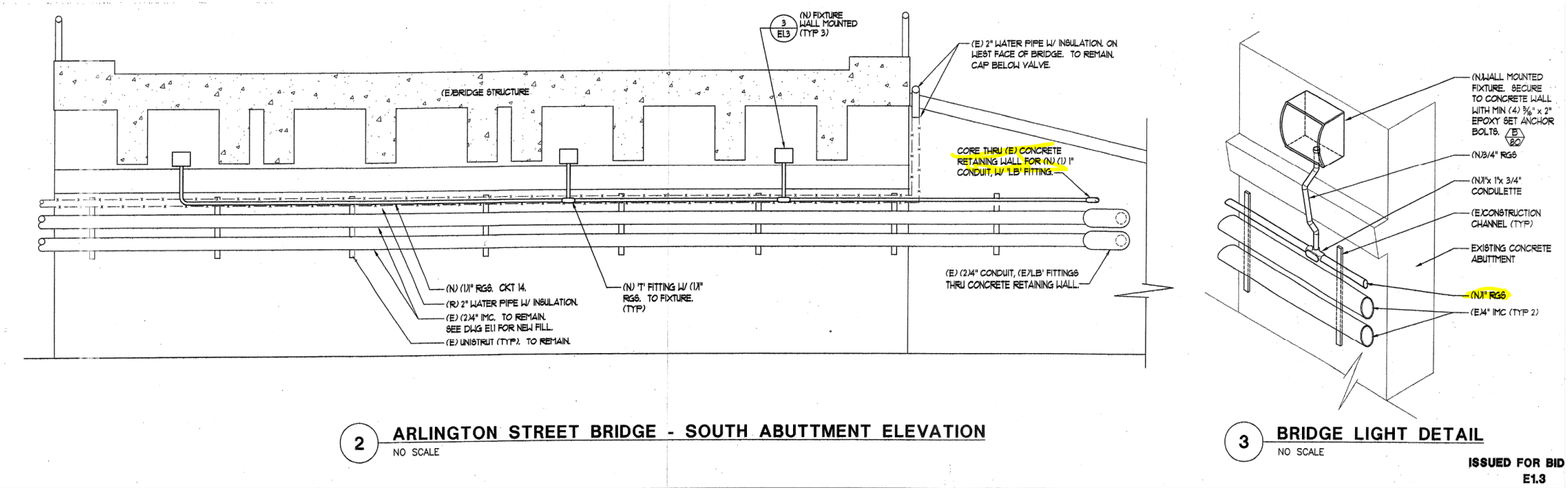
- 2 – 4” Electrical Conduits
- Conductors removed?



North Bridge

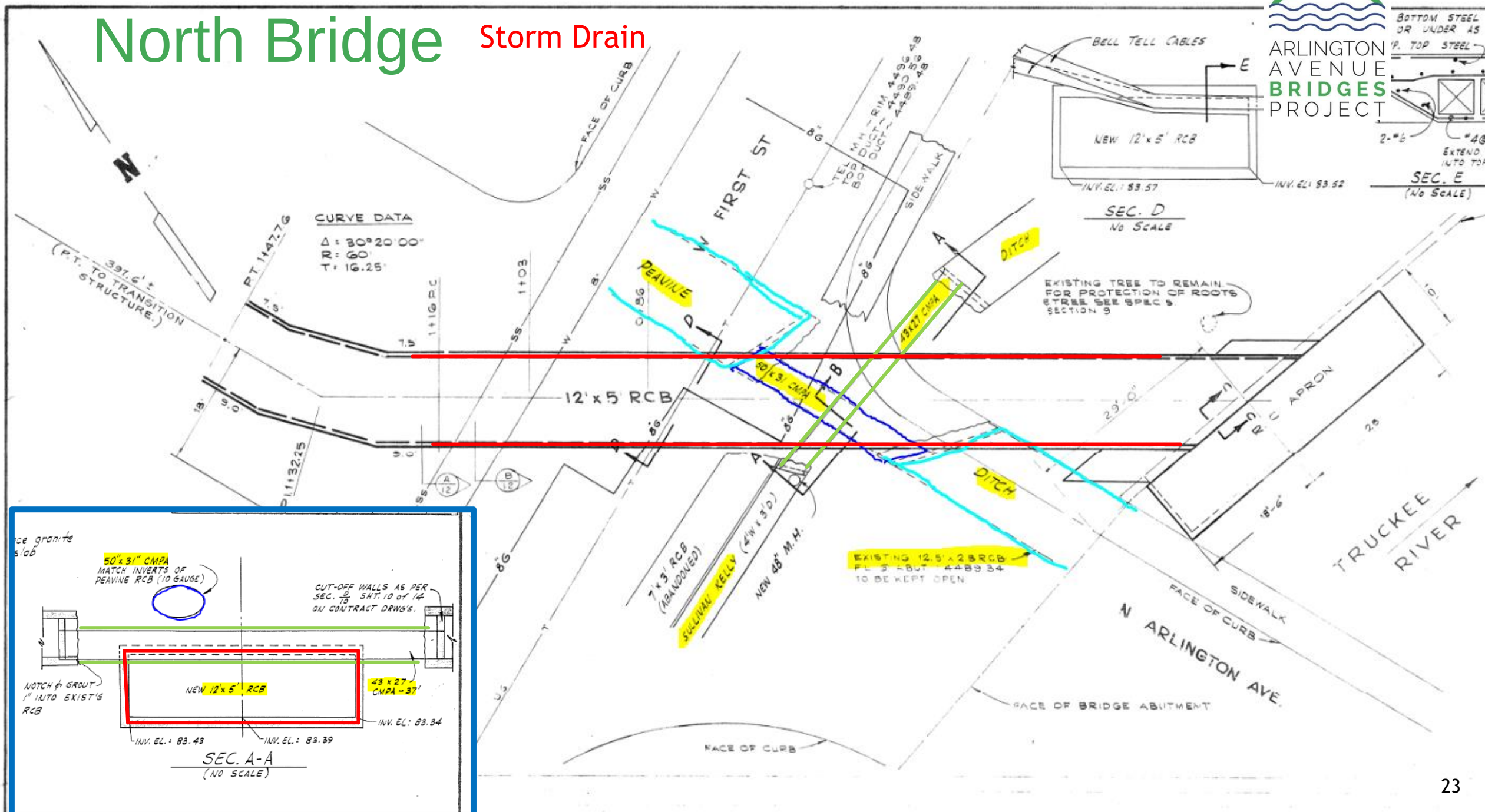
Conduit Along Path

- 1 – 1” Electrical Conduit: Under bridge lighting?



North Bridge

Storm Drain



North Bridge

Overview

Comm/TV/Fiber Lines

Ext. Overhead Electric

Ext. Underground Power

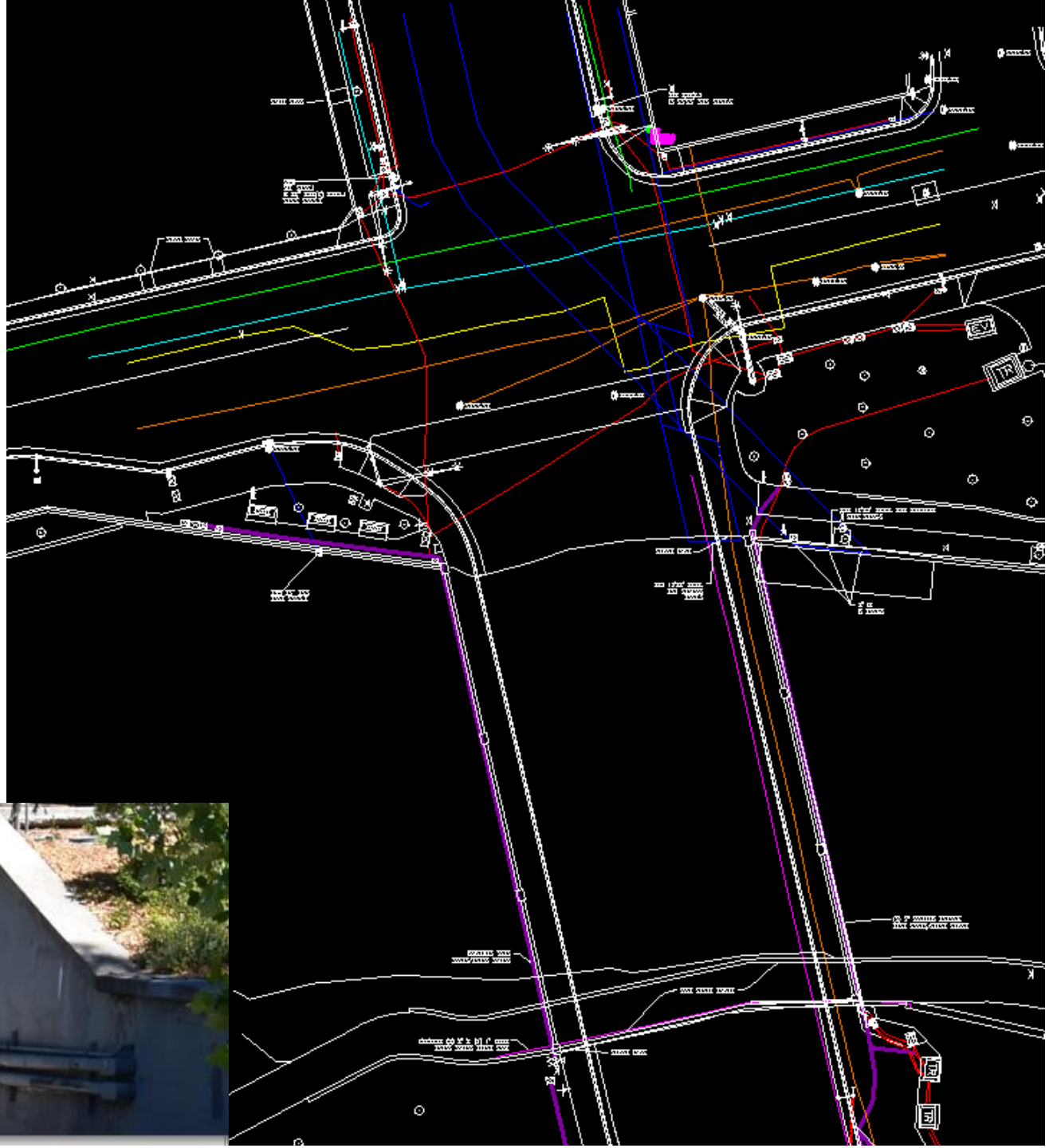
Storm Drain

(including Sullivan Kelly Ditch Box/Pipe)

Irrigation

Gas

Existing Conduit Along Path



ARLINGTON AVENUE BRIDGES PROJECT

W. 1st Street Intersection Utilities

Traffic Signal Poles

ARLINGTON AVENUE BRIDGES PROJECT

Utilities

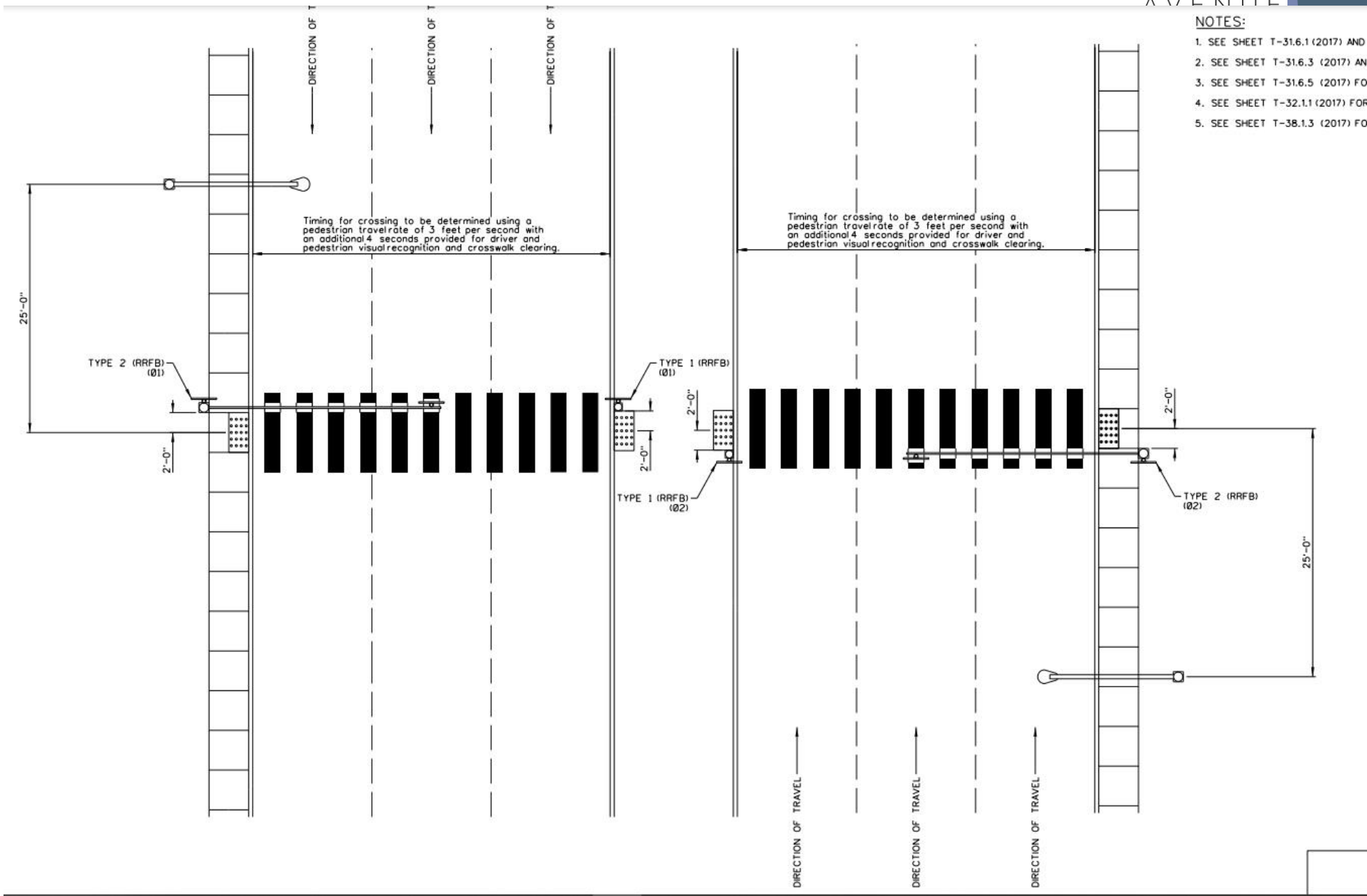
Any Additional Utility Input?

ARLINGTON AVENUE BRIDGES PROJECT

Rectangular Rapid-Flashing Beacon (RRFB)

Design Criteria for location of flashers w/ respect to crosswalk

Ability to reuse existing poles?

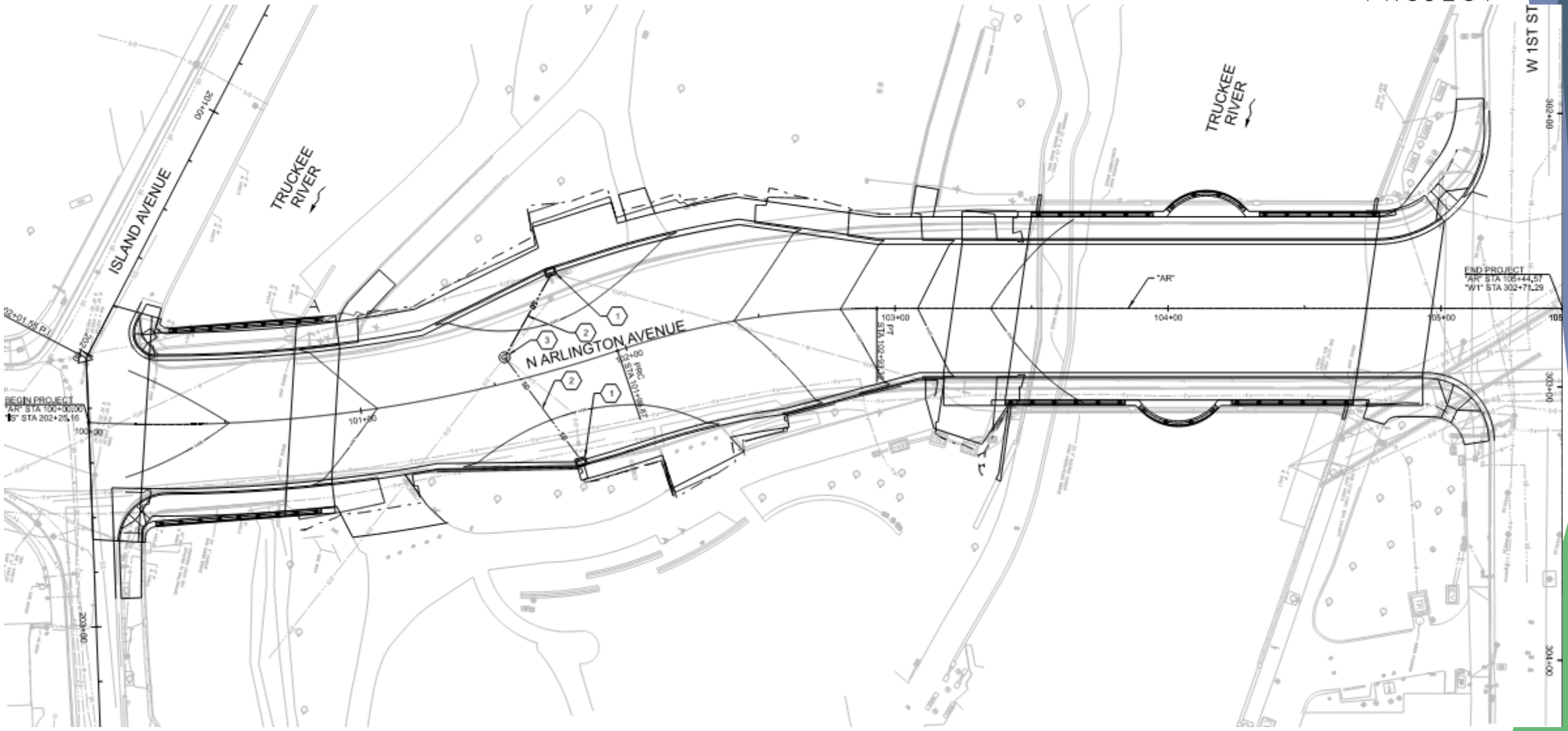


Rectangular Rapid-Flashing Beacon (RRFB)


change to RRFB
hand act. button
xing
push button

30% Submittal - Questions/Discussion

ARLINGTON AVENUE BRIDGES PROJECT



30% Submittal - Questions/Discussion

ARLINGTON AVENUE BRIDGES PROJECT

RD-01 / RD-02	Alex Wolfson / Capital Projects	For further discussion: Maintenance and RPD have requested removable bollards be installed on Arlington at the 1st and Island intersections to be used for future special events. Bollards would be installed in accordance with Reno standard detail R-603A. I can assist with determining placement and spacing.	Group Discussion	

GR-01	Sara Going/RTC	Concerned existing pedestrian pathway alignments from park on east and west side of Arlington near Island Ave promote jaywalking. Consider ped rail (if bus stop is moved to loading zone) to promote use of marked crossing at Island Ave.	DRC Group Discussion	If place a small portion, pedestrians just go to where rail ends; won't prevent jaywalking; just creates hazard for traffic and pedestrians during special events when Arlington closed

Traffic Analysis Report	Hutchinson/Traffic Engineering	We may want to discuss the NB shared/through lane configuration further. It appears that the 2050 northbound 95th percentile queues at the intersection of Arlington at First will spill back through the intersection and crosswalk at Island Ave. I don't believe the Synchro analysis takes into consideration that the northbound right turning vehicles will need to wait for pedestrians to clear before they can proceed. Given the high number of pedestrians using the crosswalk on the east leg of the intersection, this will most likely make delay and queues much worse.	Sharan	The critical (maximum for the AM and PM peak hour) 95th percentile queue length for the northbound through/right-turn movement at Arlington Avenue and W 1st Street is expected to be approximately 500 feet for year 2050 conditions. This would be close to the available storage length between the next upstream (Island Avenue) intersection. However, it is noted that this queue length is expected for only the critical peak hour of a typical weekday, for year 2050 conditions. The 95th percentile queues also imply that this queue length is expected only for a few cycles within that critical peak hour. Furthermore, conservative assumptions were used in every step of the analysis (developing the year 2050 forecast volumes, Synchro traffic analysis, and queue length calculation). Therefore, it is highly likely that for most of the design life of the facility, the queues will be accommodated without any spillback to the next adjacent upstream intersection.

Thank You for Participating!

ARLINGTON AVENUE BRIDGES PROJECT

jtortelli@rtcwashoe.com

RENO

NEVADA DOT SAFE AND CONNECTED

U.S. Department of Transportation
Federal Highway Administration

US Army Corps of Engineers

Truckee Water Conservancy District of Nevada

RTC

Building A Better Community
Through Quality Transportation.
rtcwashoe.com

YouTube

Jacobs

Stantec

CME

Taylor Made Solutions

PK Electrical, Inc.

CIVILFX NOW A DIVISION OF Parametrix

PCSG