



## NEW MACOMB COUNTY BRIDGES

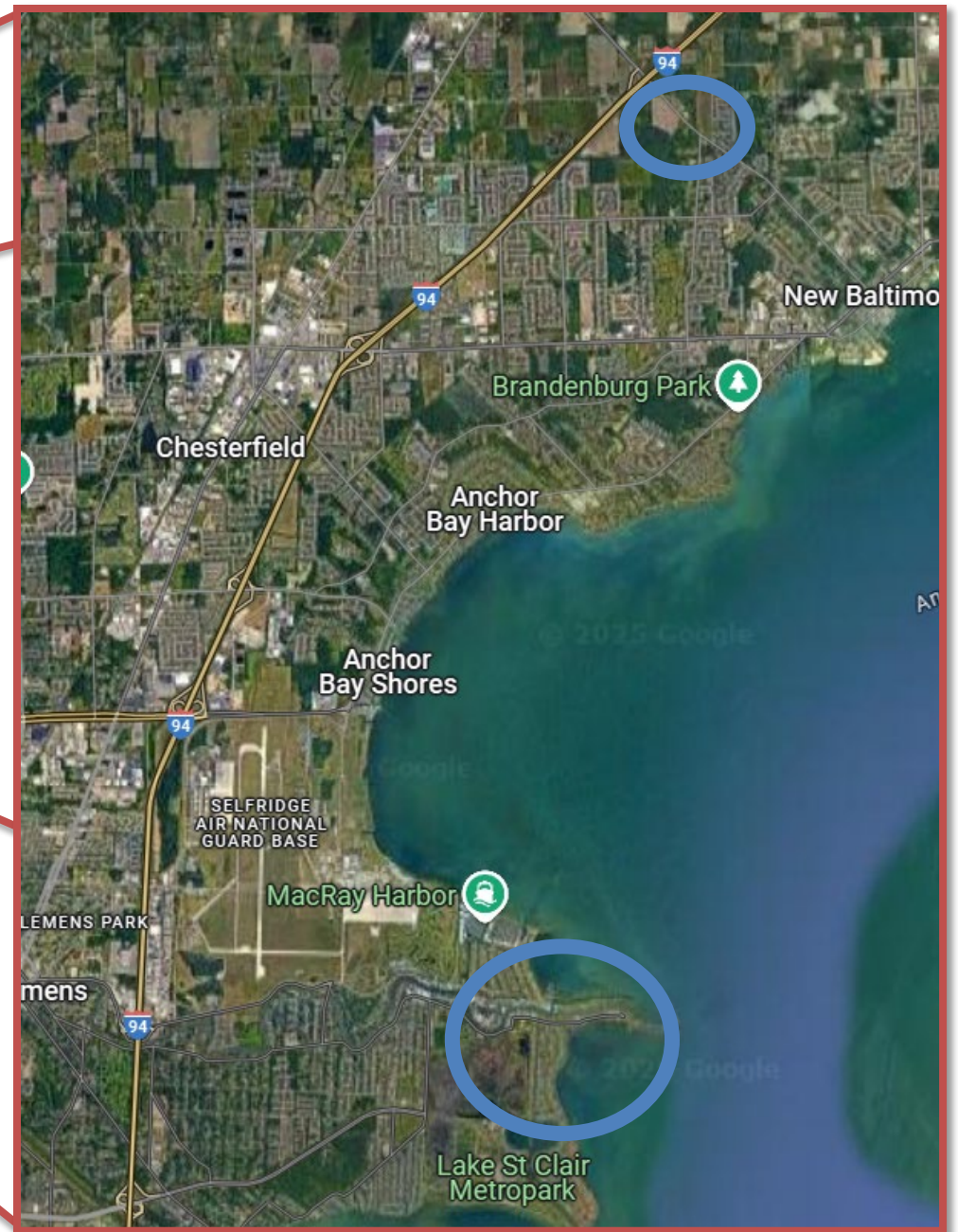
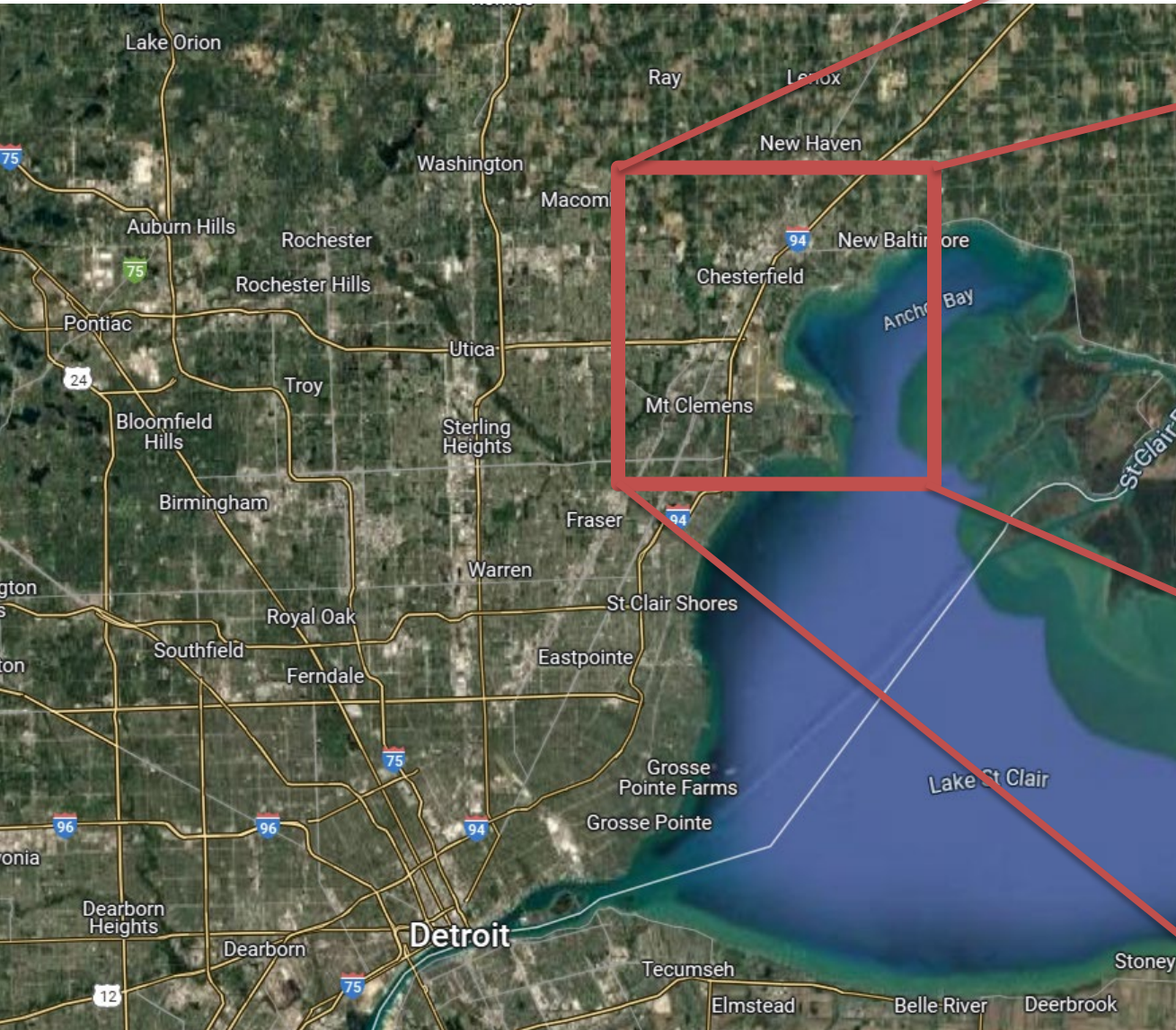
Christal Larkins, PE  
Eric Stone, PE

March 18, 2025



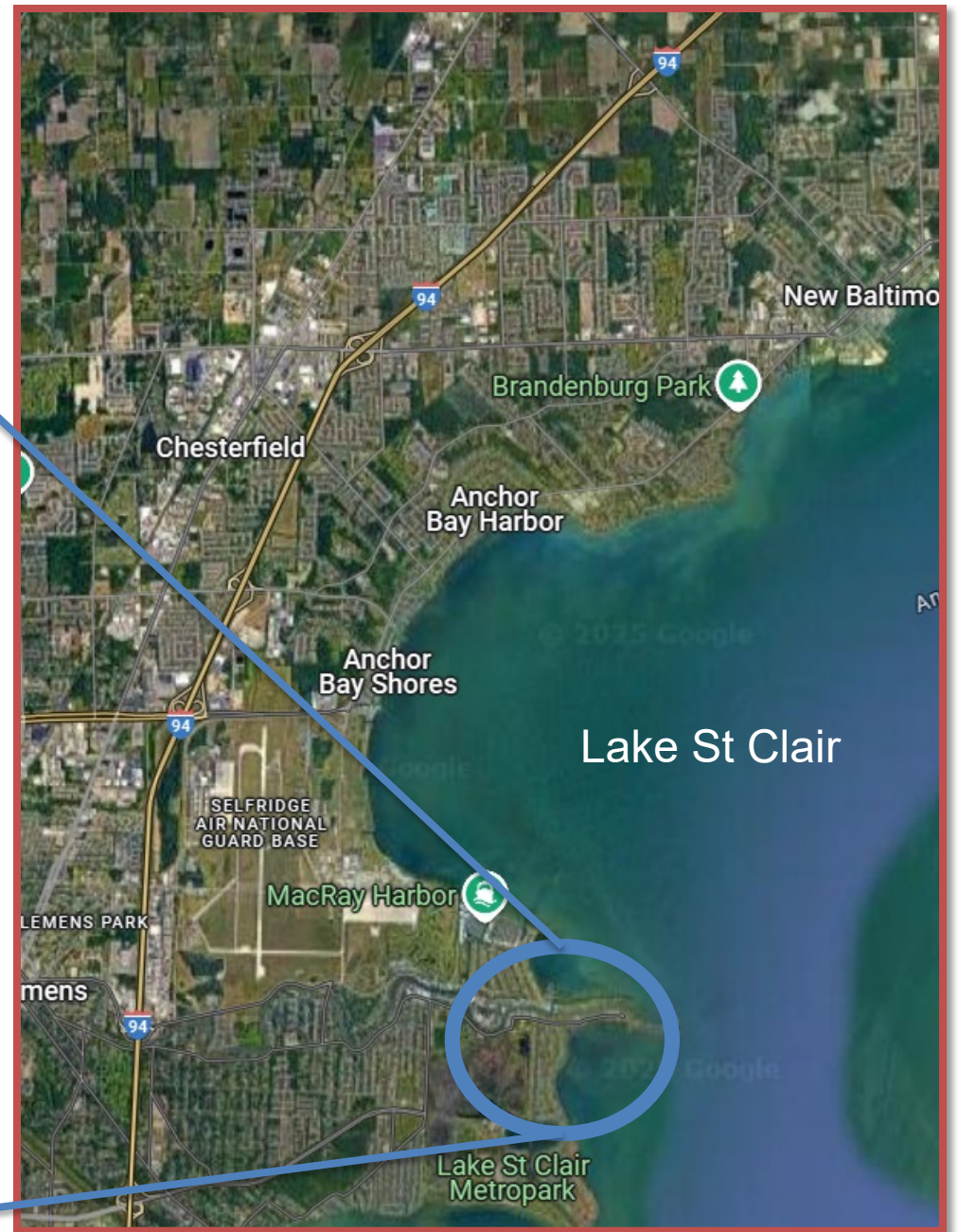


# Project Locations





# Project Locations





# Project Locations

North River



South River

West Archer



# WEST ARCHER





# WEST ARCHER





# BRIDGE CONDITION – WEST ARCHER





# BRIDGE CONDITION – WEST ARCHER



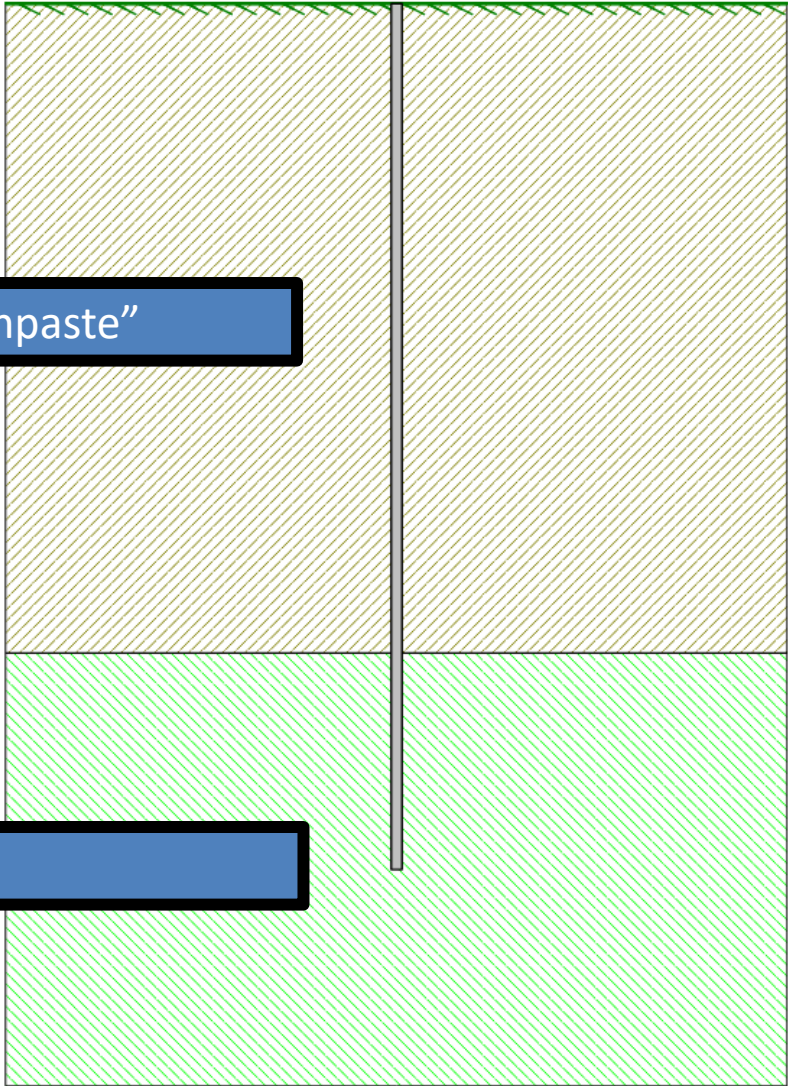


# DESIGN





# DESIGN



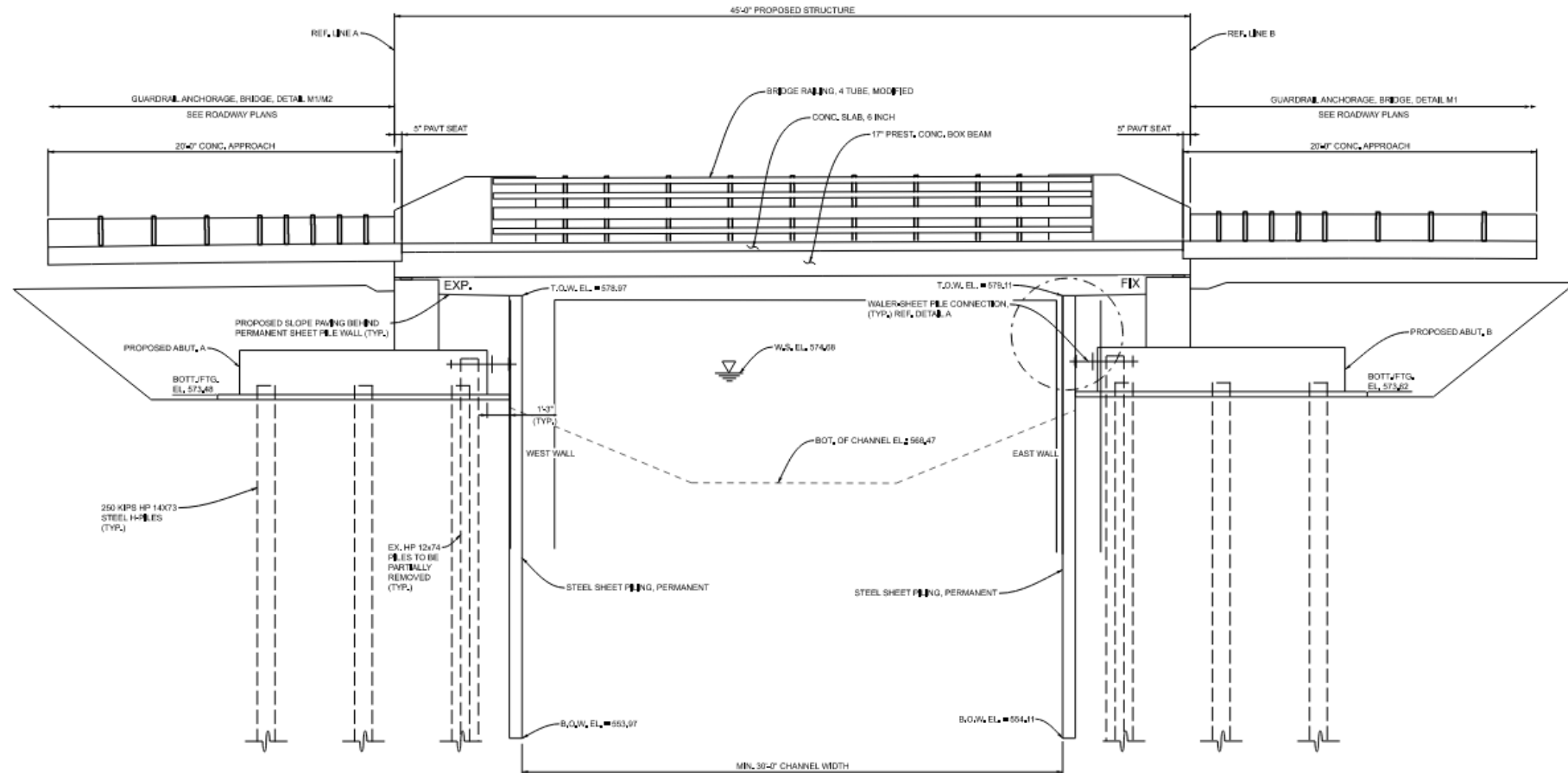
60ft of "Toothpaste"

Hardpan





# DESIGN



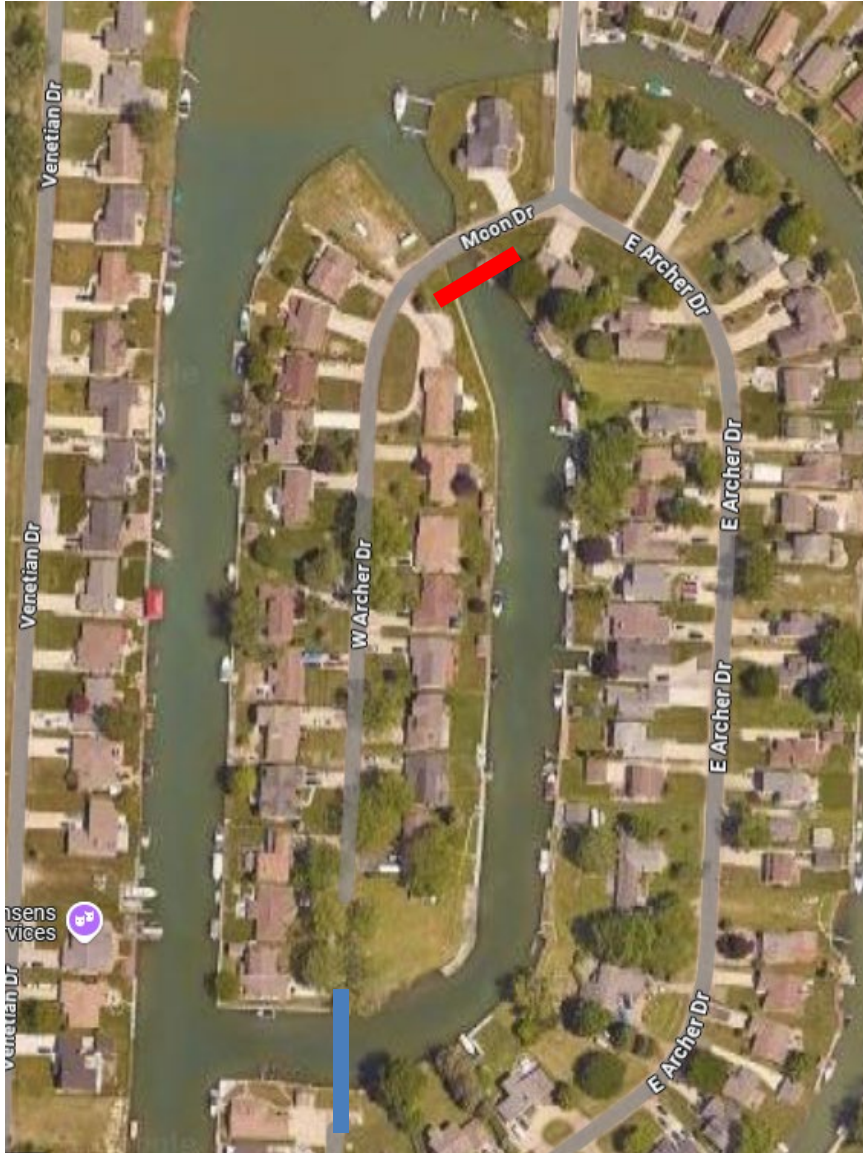
SECTION A

**NOTES:**

- EXISTING PILE LOCATIONS SHOWN ARE APPROXIMATED FROM EXISTING PLANS. ALL EXISTING PILES MUST BE FIELD LOCATED AND AVOIDED.
- EXISTING PILES SHALL BE CUT AND REMOVED TO THE TOP OF PROPOSED TREMIE.

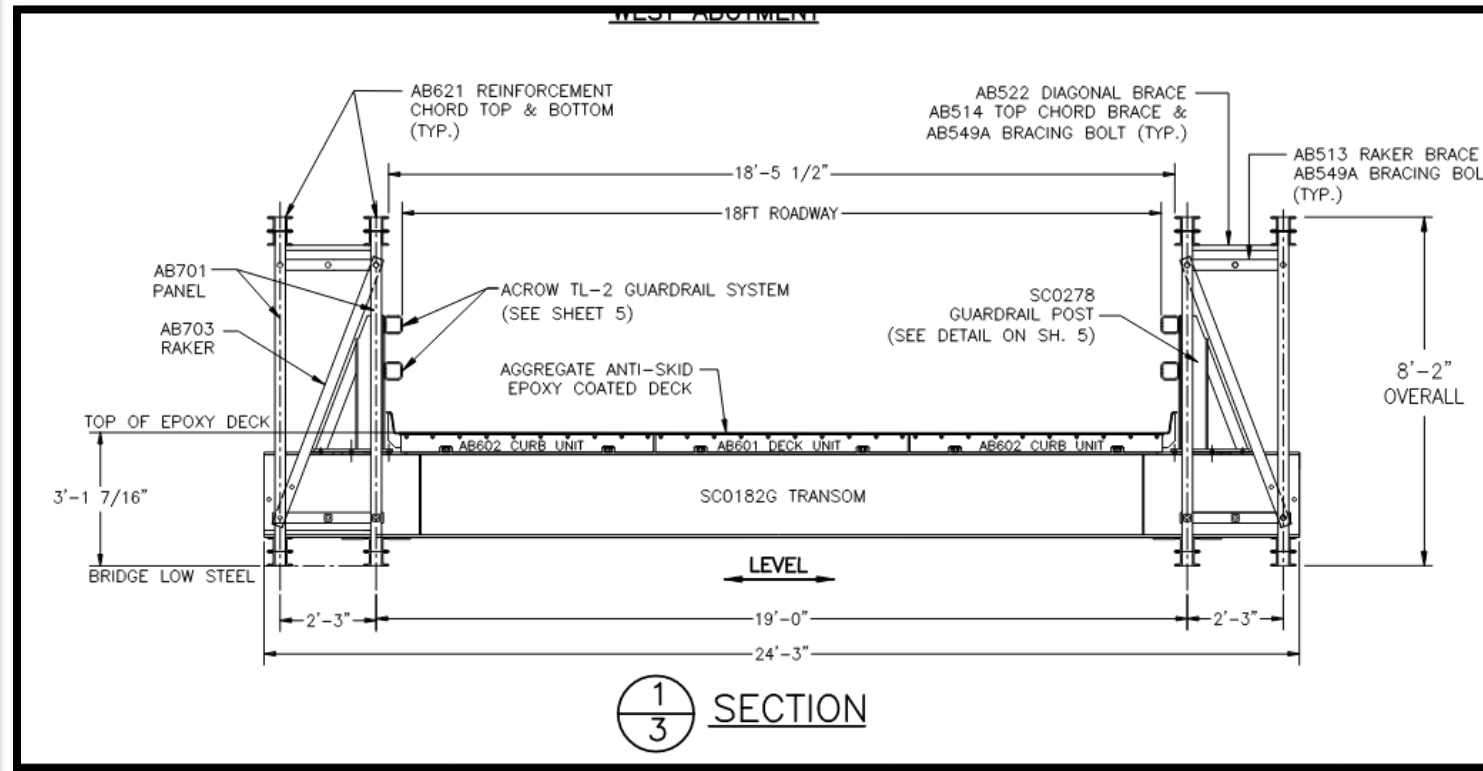
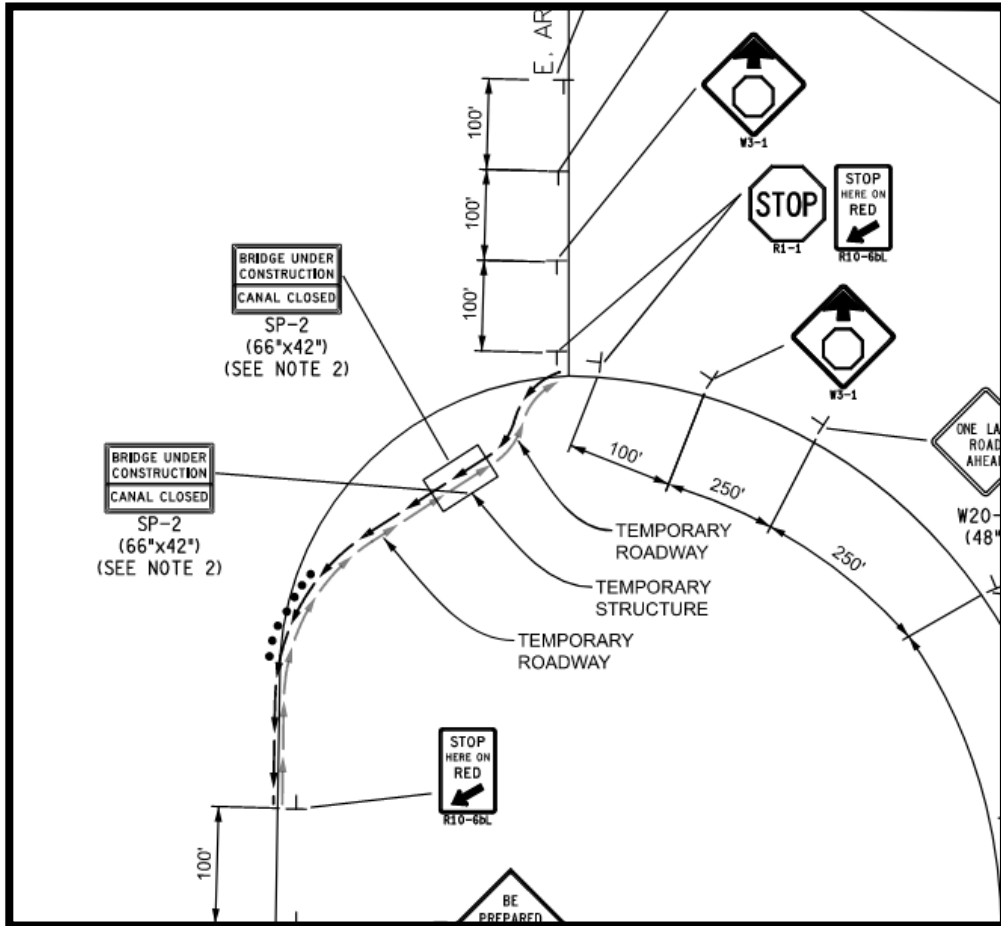


# TEMP BRIDGE LOCATION & ROW CONSTRAINTS





# Temporary Bridge





# Temporary Bridge





# CONSTRUCTION





# CONSTRUCTION





# CONSTRUCTION





# PRE-CONSTRUCTION





# POST-CONSTRUCTION





# POST-CONSTRUCTION



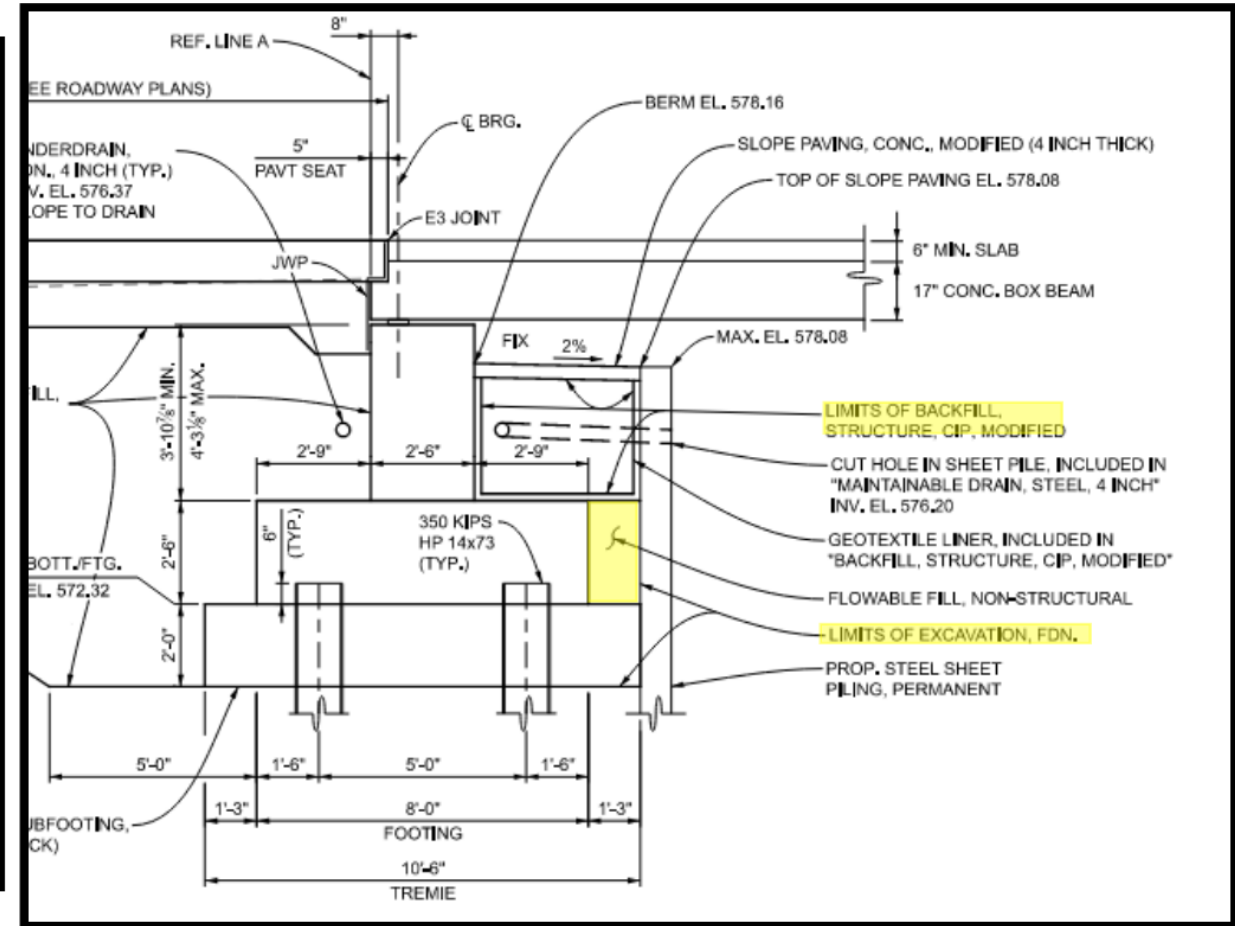
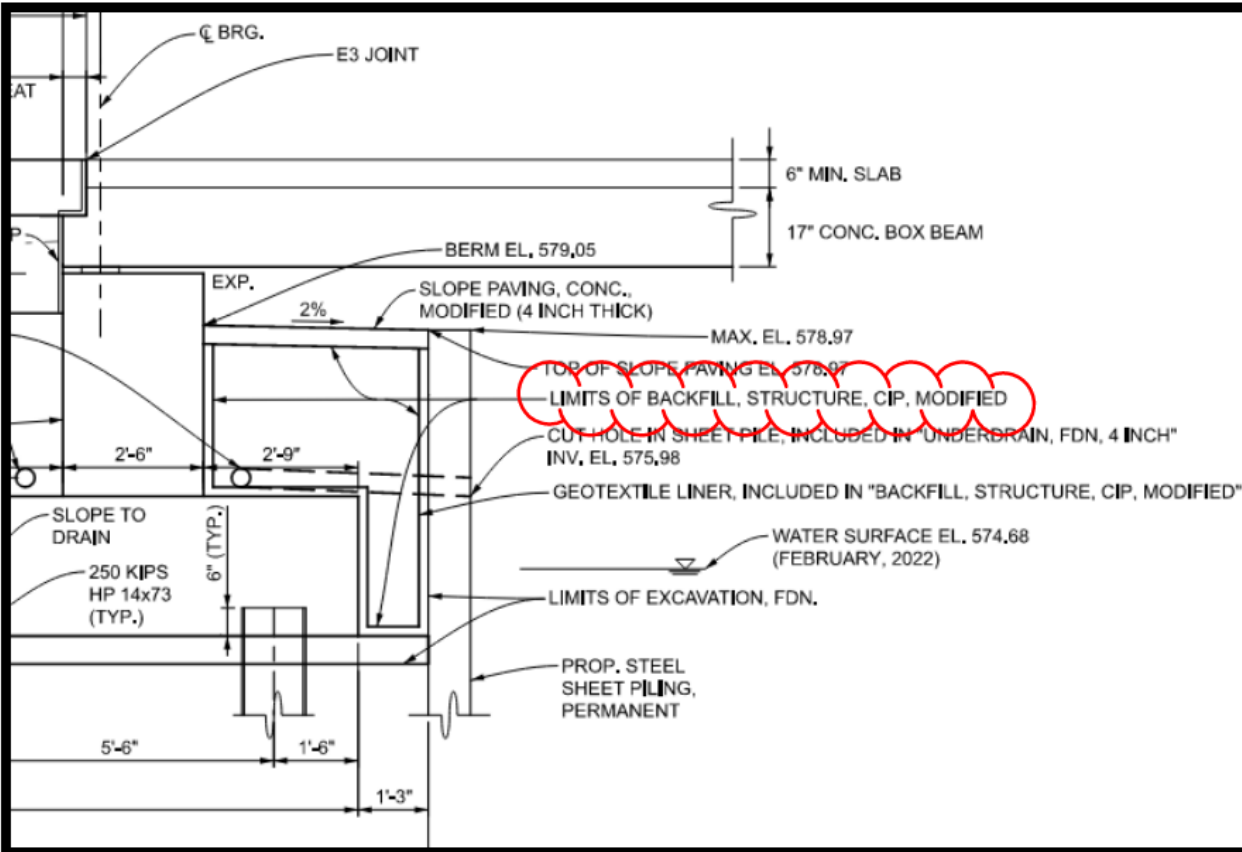


# LESSONS LEARNED

- General Overall Past Planning – maybe avoid building islands with only one access point...
- Storm Sewer – evaluate condition and determine if replacement is necessary
- Temporary Bridge vs seawall tiebacks



# LESSONS LEARNED





# LESSONS LEARNED

West Archer Drive: Pump Station Rack when Surveyed

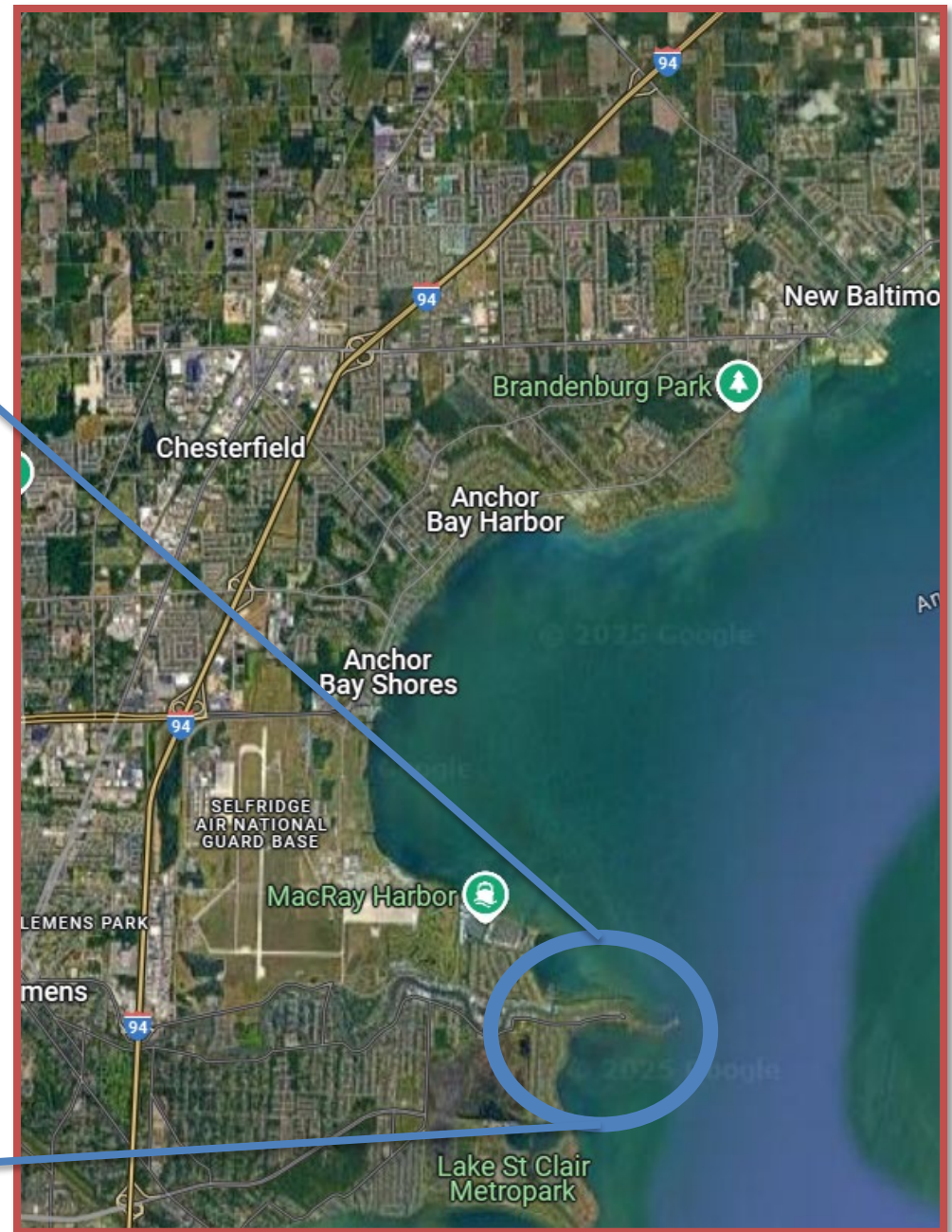
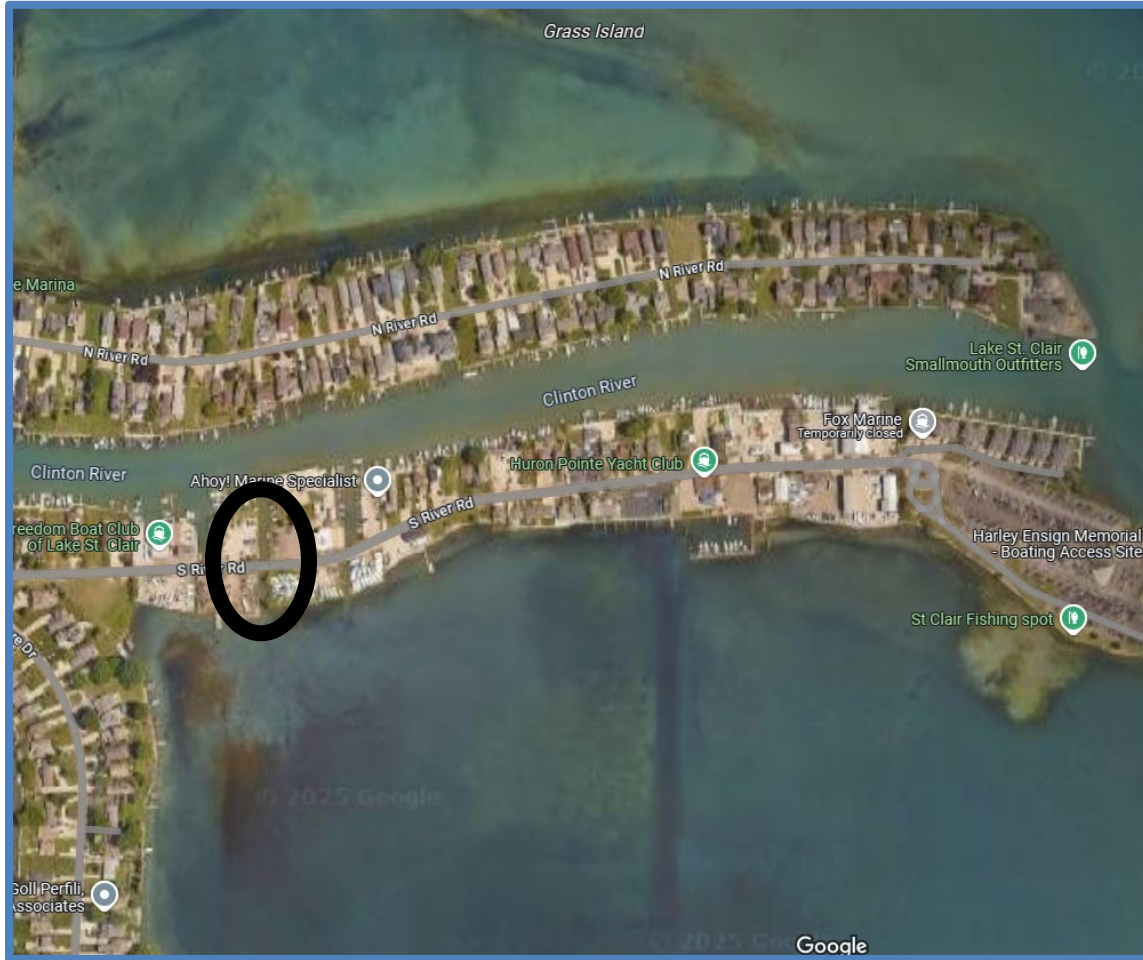


West Archer Drive: Pump Station Racks during construction





# Project Location: South River Rd over Channel





# SOUTH RIVER





# BRIDGE CONDITION – SOUTH RIVER





# BRIDGE CONDITION – SOUTH RIVER





# BRIDGE CONDITION – SOUTH RIVER



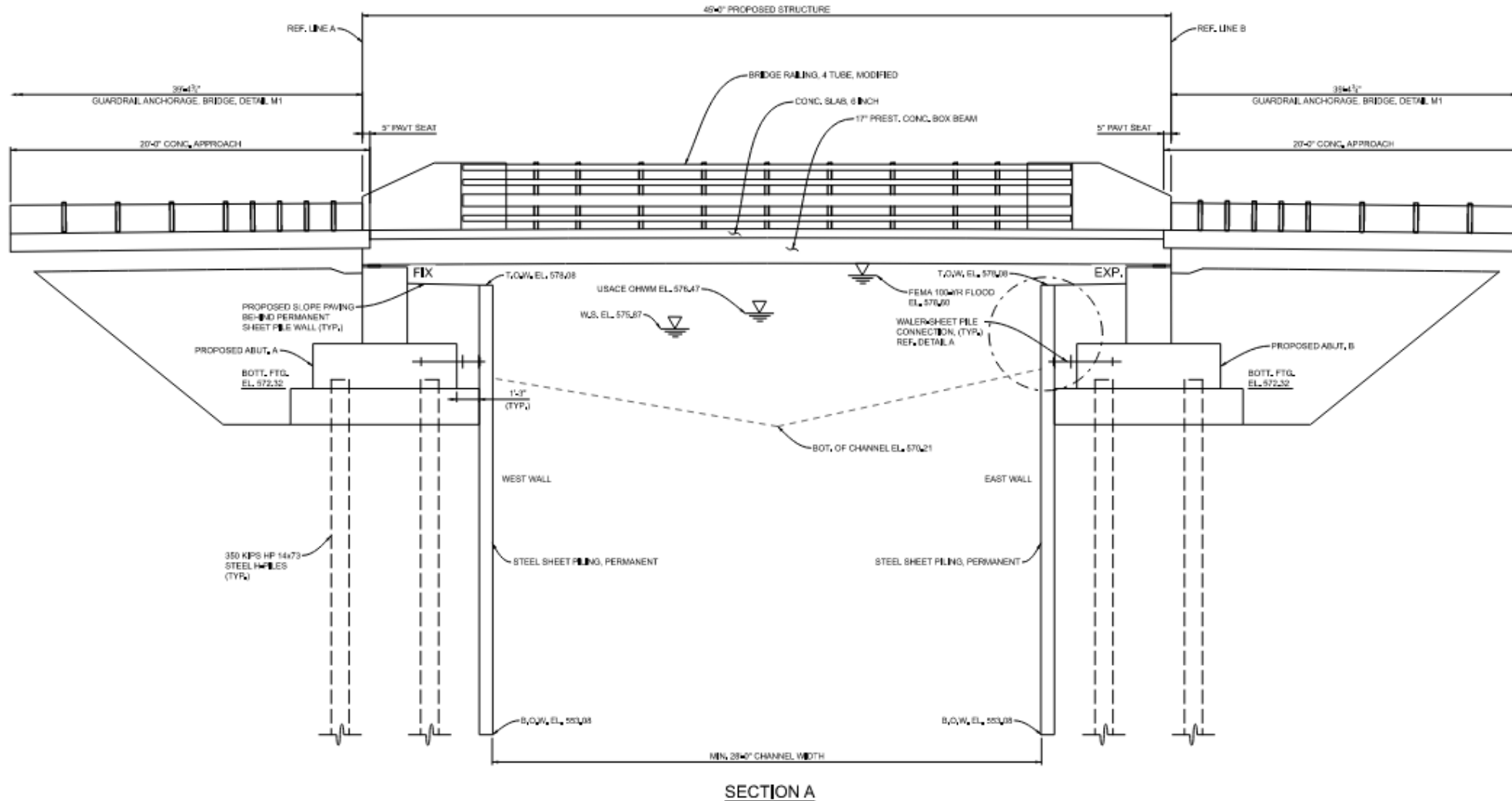


# ROW CONSTRAINTS – SOUTH RIVER





# DESIGN – Very similar to West Archer





# DESIGN



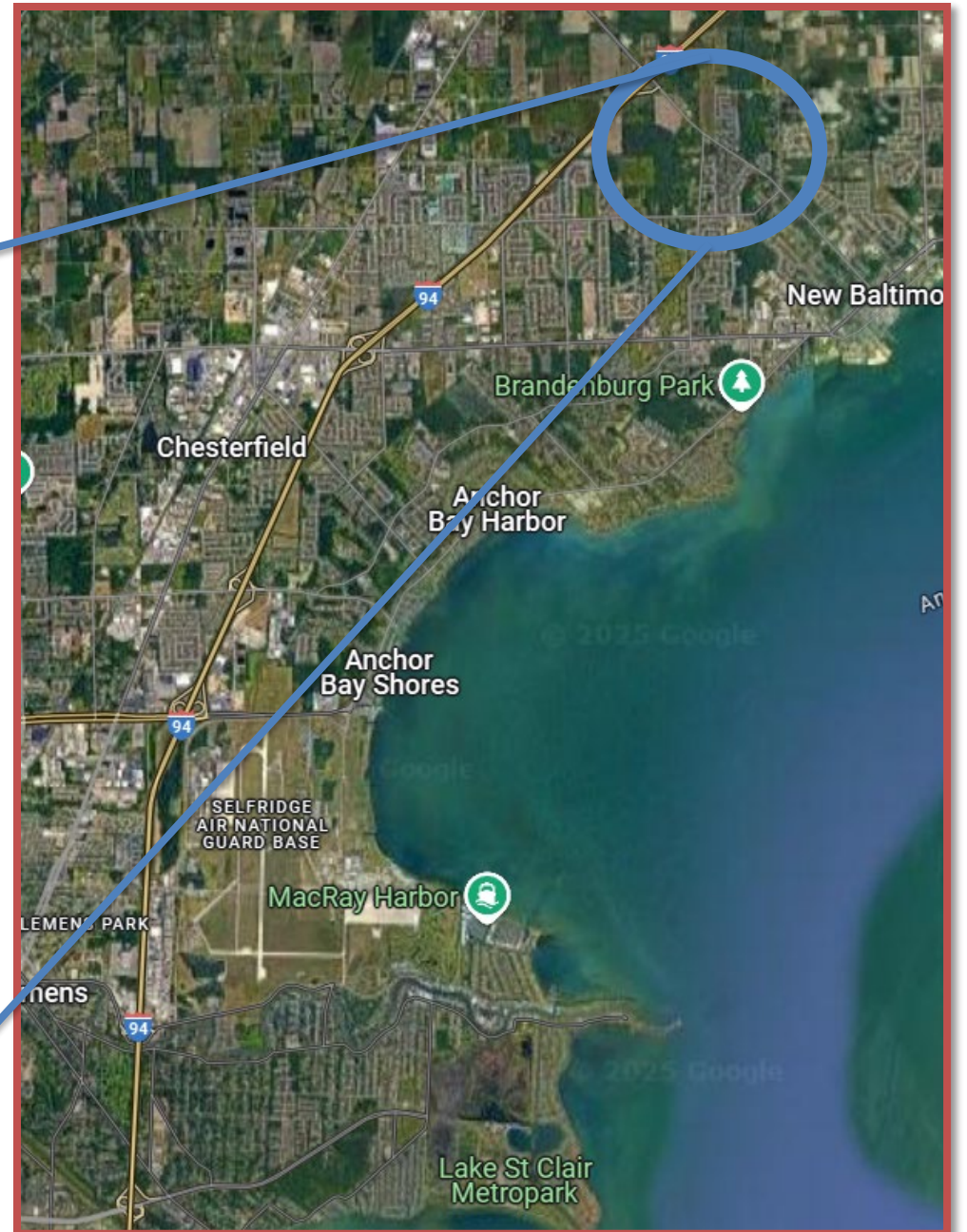


# CONSTRUCTION .... IN PROGRESS





# Project Location: Washington Rd over Salt River





# WASHINGTON



54209 Washington St



# BRIDGE CONDITION – WASHINGTON





# BRIDGE CONDITION – WASHINGTON



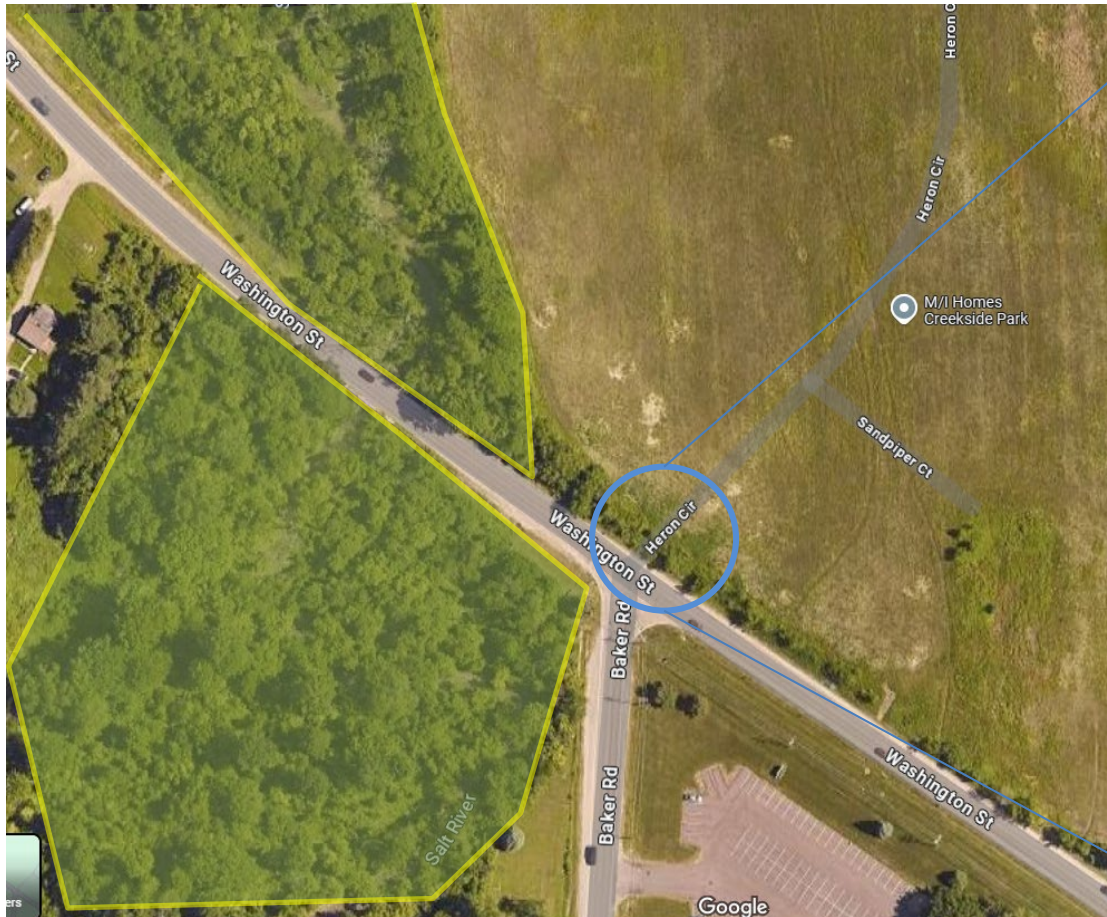


# BRIDGE CONDITION – WASHINGTON





# ROW CONSTRAINTS – WASHINGTON



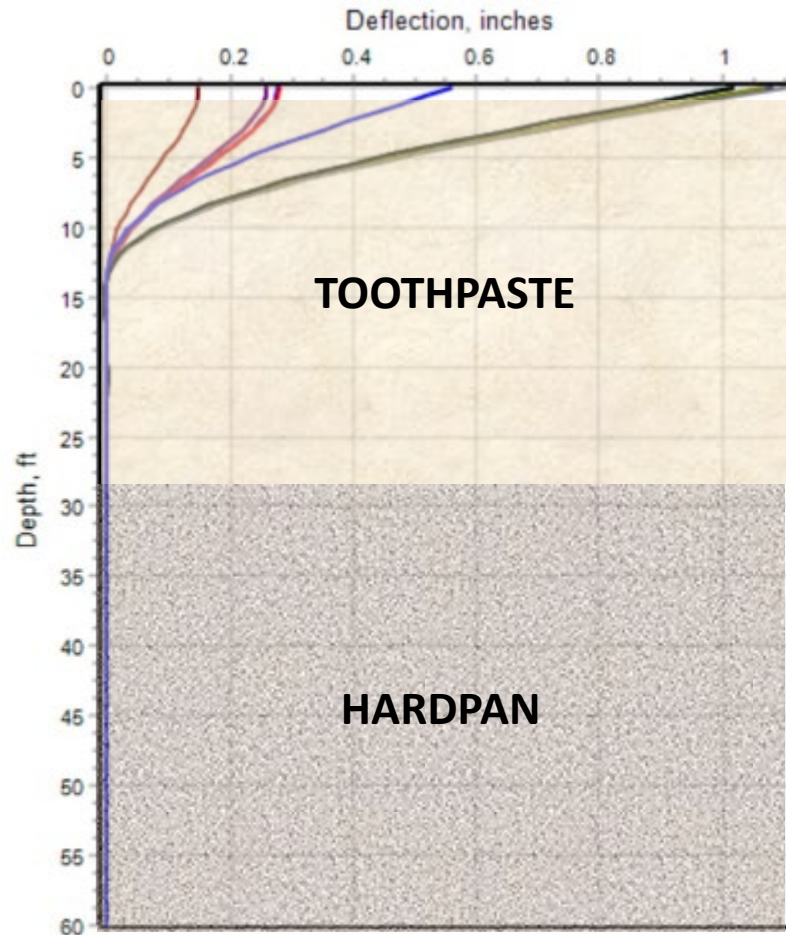


# DESIGN

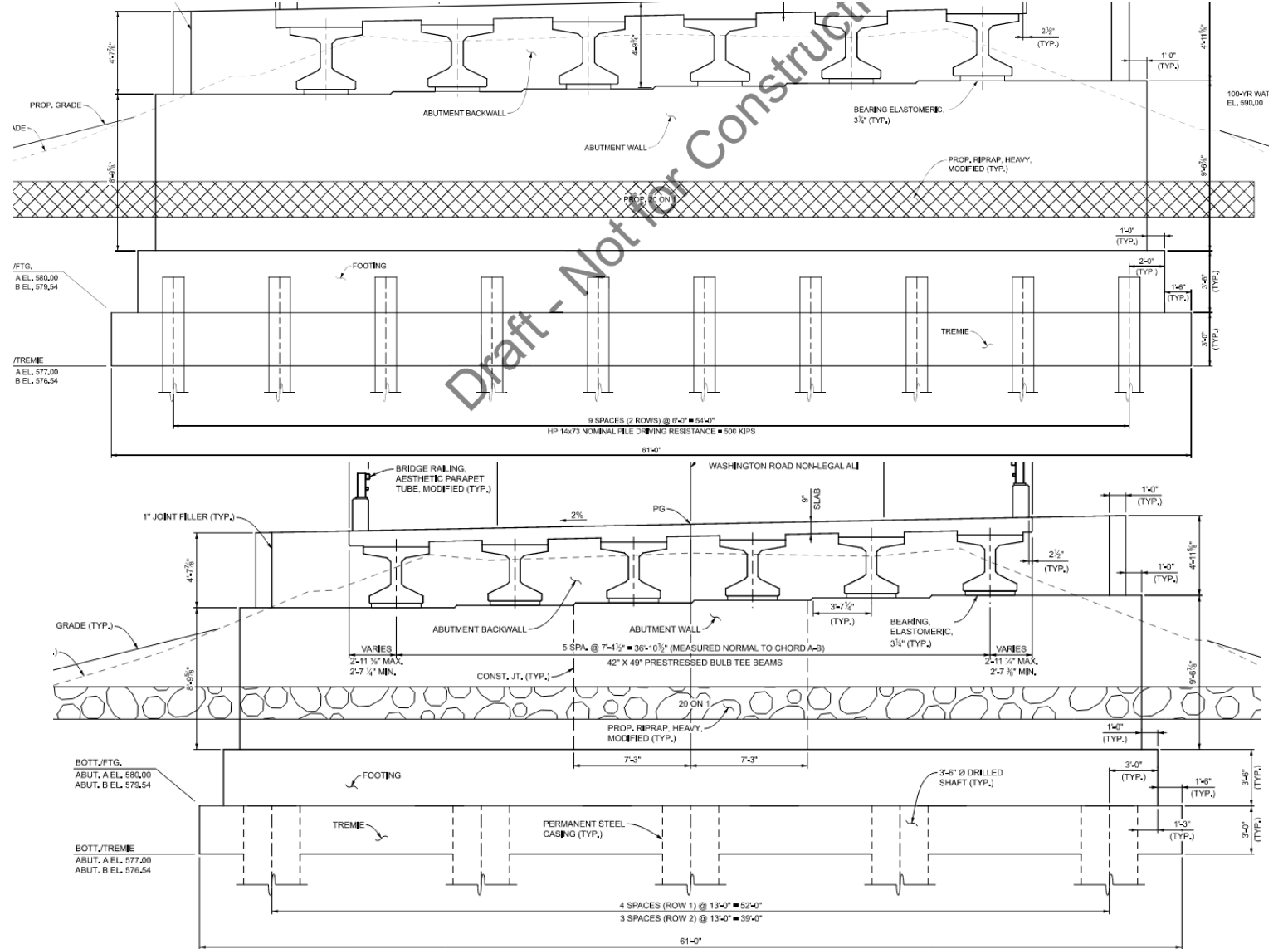




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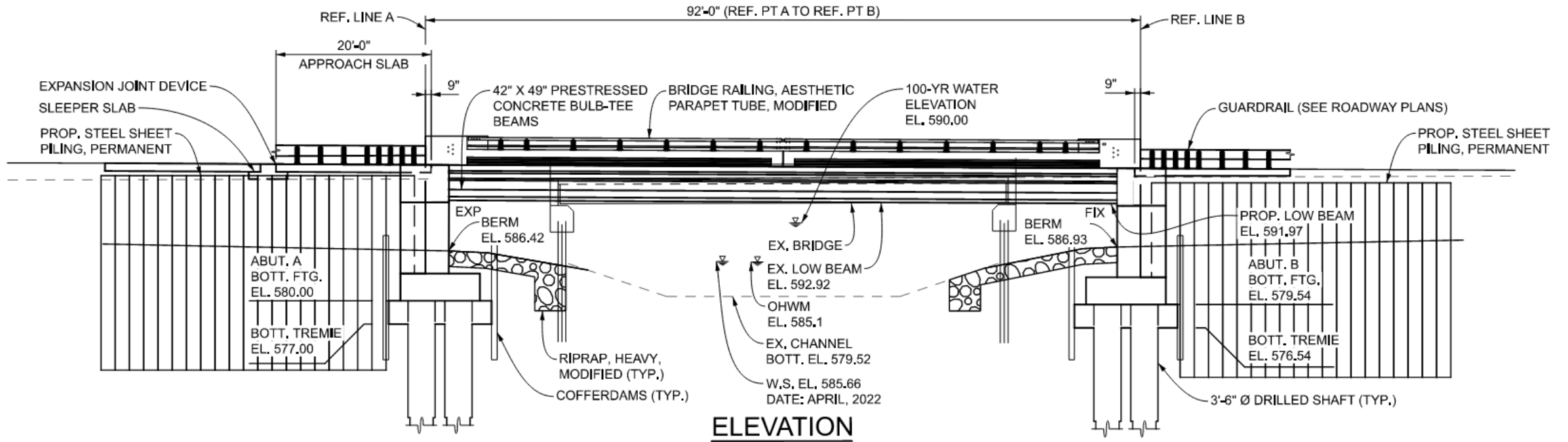


- |                   |                   |                   |
|-------------------|-------------------|-------------------|
| — Loading Case 1  | — Loading Case 2  | — Loading Case 3  |
| — Loading Case 4  | — Loading Case 5  | — Loading Case 6  |
| — Loading Case 7  | — Loading Case 8  | — Loading Case 9  |
| — Loading Case 10 | — Loading Case 11 | — Loading Case 12 |



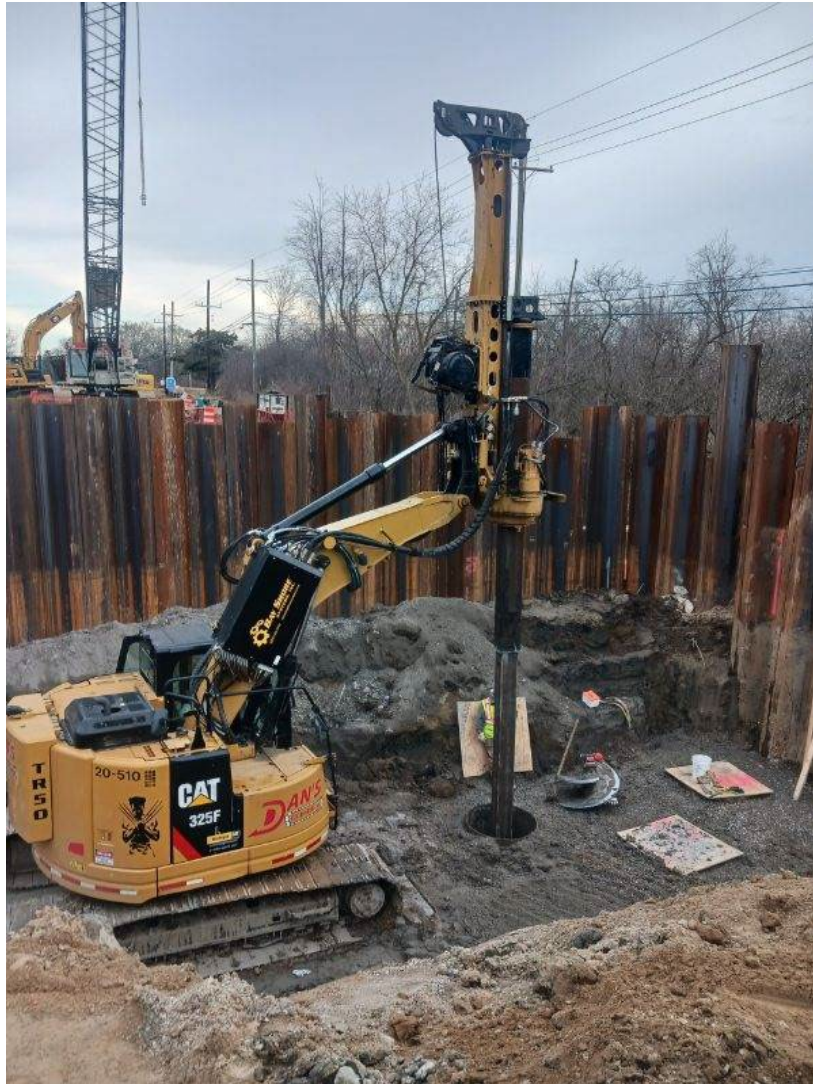


# DESIGN





# CONSTRUCTION





# CONSTRUCTION





# CONSTRUCTION





# CONSTRUCTION





# CONSTRUCTION



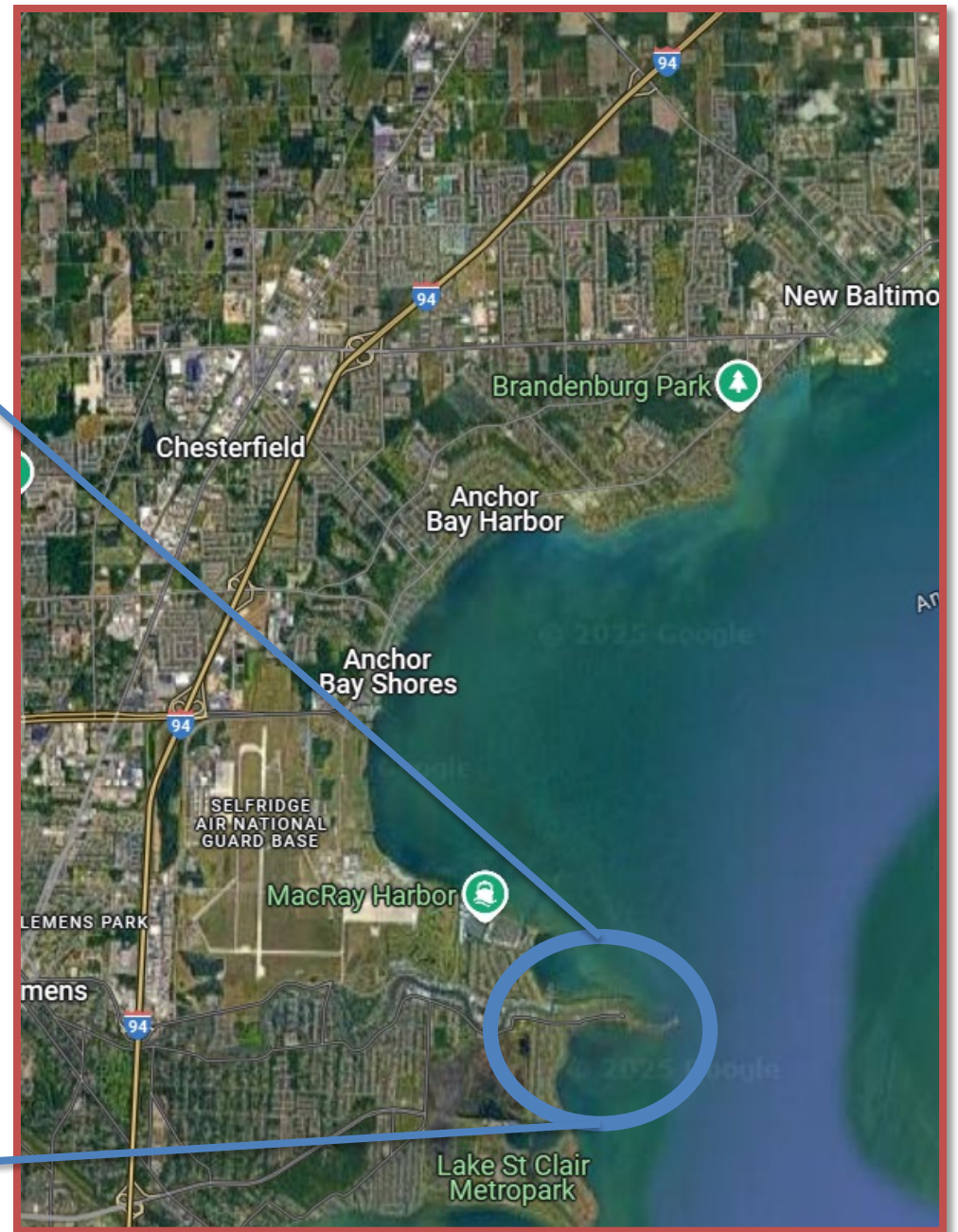
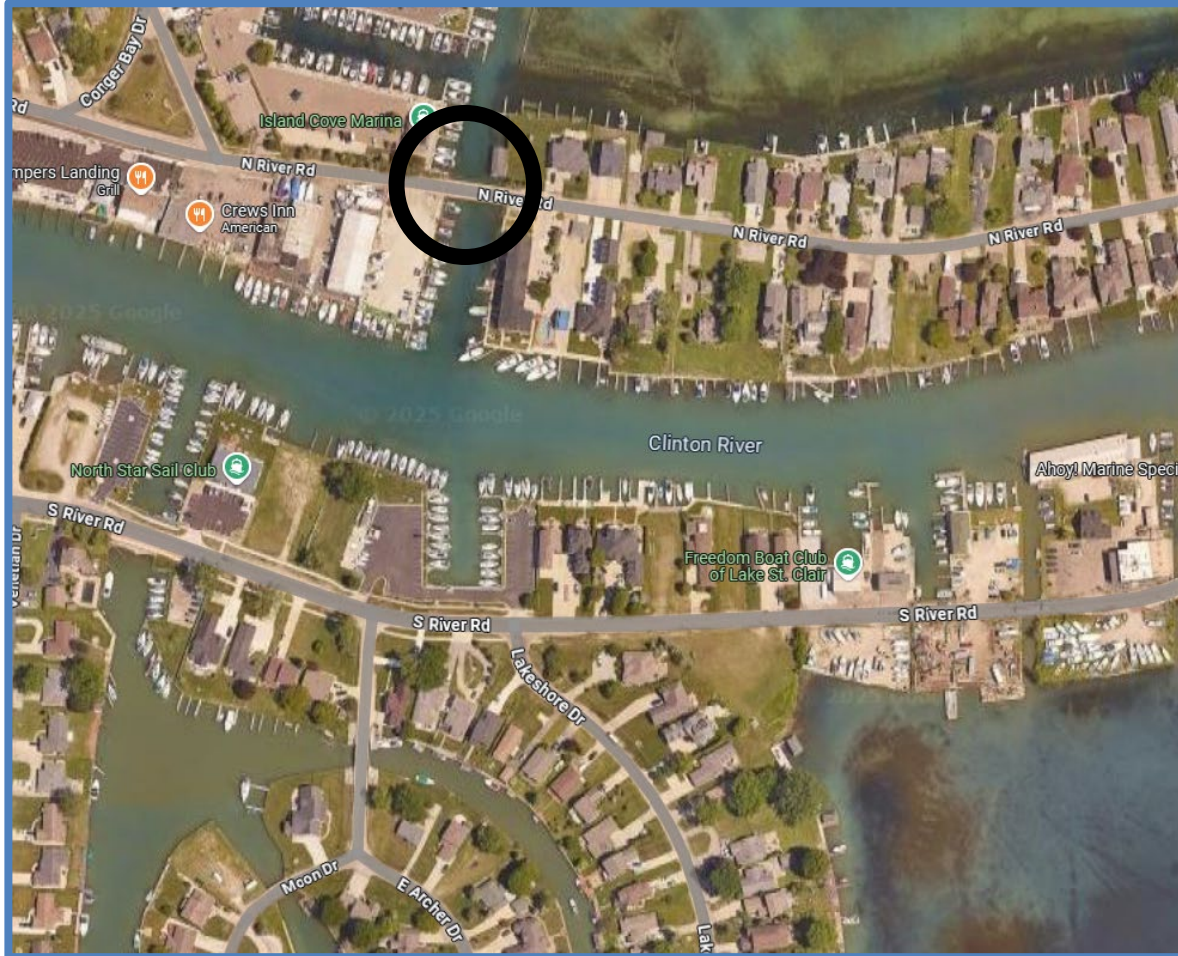


# POST-CONSTRUCTION





# Project Location: North River Rd over Catfish Channel





# NORTH RIVER





# BRIDGE CONDITION – NORTH RIVER





# BRIDGE CONDITION – NORTH RIVER





# BRIDGE CONDITION – NORTH RIVER





# ROW CONSTRAINTS – NORTH RIVER



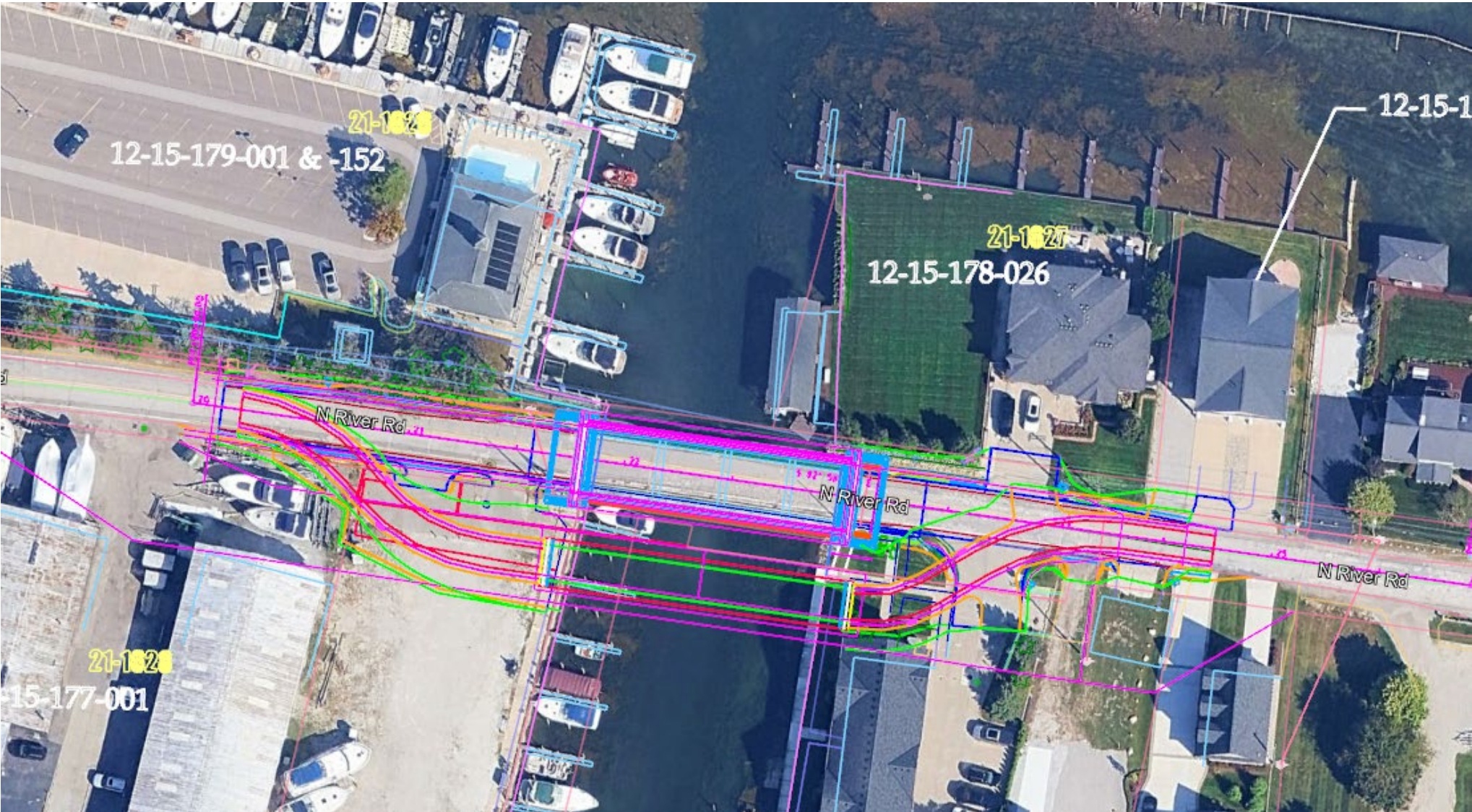


# ROW CONSTRAINTS – NORTH RIVER



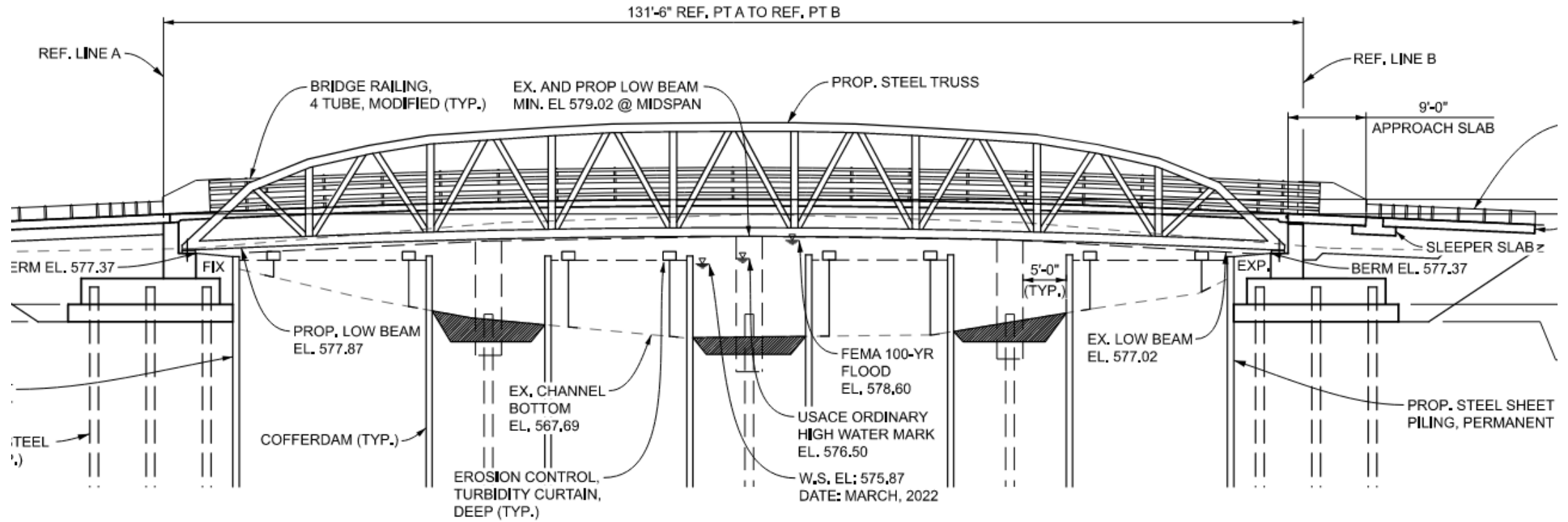


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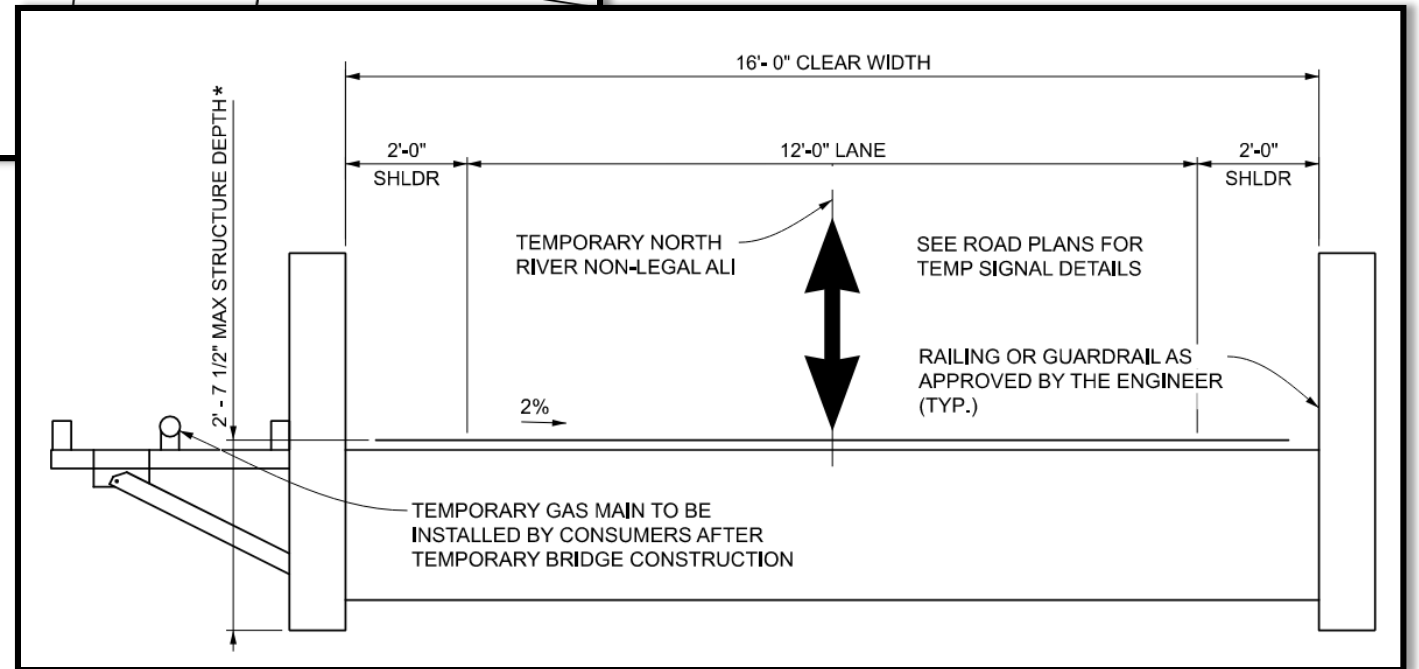
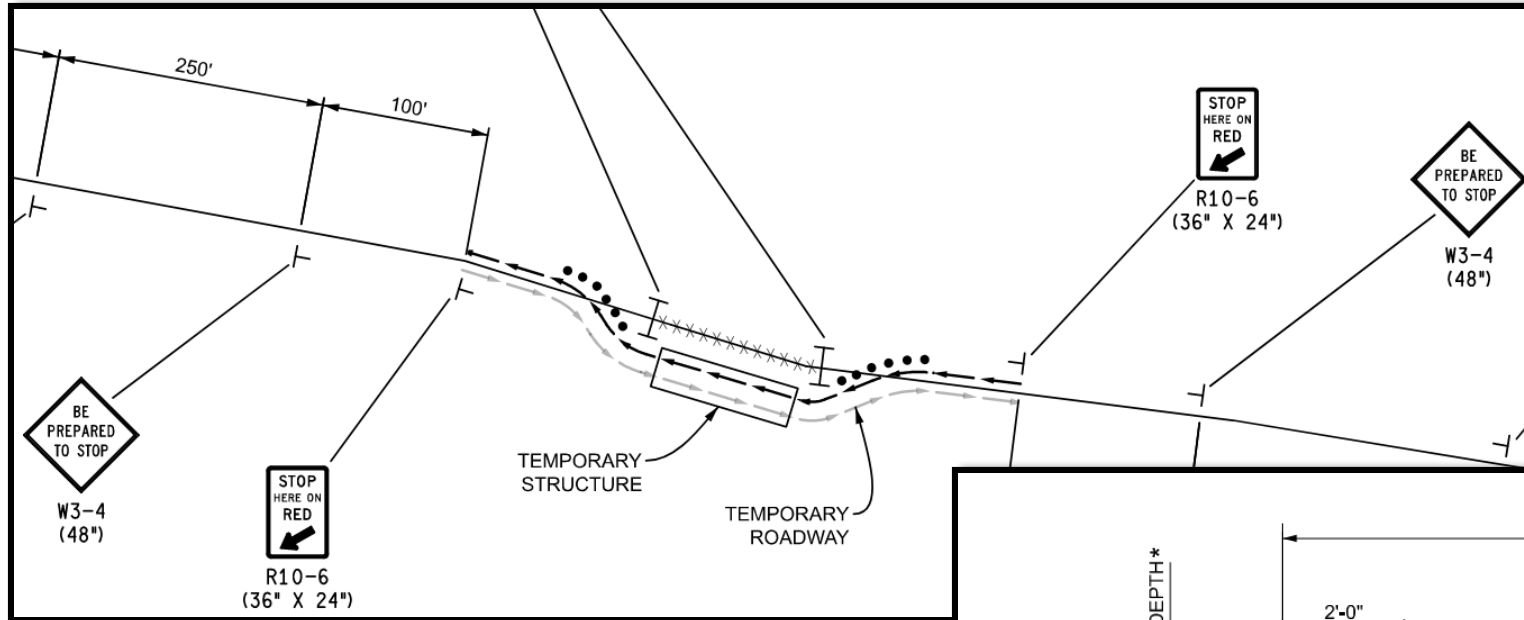
# DESIGN



**ELEVATION**



# TEMPORARY BRIDGE





# CONSTRUCTION - COMING SOON







Thank-you to Adam Newton



ANY QUESTIONS

