



## PREFERRED ALTERNATIVE

| Criteria                                   |                                 | No Build Alternatives                   |       |                                                         |       | Build Alternatives                                                                        |       |                                                                                                  |       |
|--------------------------------------------|---------------------------------|-----------------------------------------|-------|---------------------------------------------------------|-------|-------------------------------------------------------------------------------------------|-------|--------------------------------------------------------------------------------------------------|-------|
|                                            |                                 |                                         |       |                                                         |       | Rehabilitation                                                                            |       | Replacement                                                                                      |       |
|                                            |                                 | Alt 1 - No-Action                       | Score | Alt 2 - Transportation System Management and Operations | Score | Alt 4 - Rehabilitation with Beam Strengthening and Alt M1 - Bascule Bridge Rehabilitation | Score | Alt 7 - Arched Beams with T1 - Venetian Railing and Alt M4 - Double Leaf Bascule Bridge          | Score |
|                                            |                                 |                                         |       |                                                         |       |                                                                                           |       |                                                                                                  |       |
| Meets Purpose and Need                     |                                 | No                                      | 0     | No                                                      | 0     | Yes                                                                                       | 3     | Yes                                                                                              | 5     |
| Meets Current Safety Standards             |                                 | No                                      | 1     | No                                                      | 1     | Partially                                                                                 | 3     | Yes                                                                                              | 5     |
| Service Life                               |                                 | 0-3 years                               | 1     | 0-8 years                                               | 1     | 25 years                                                                                  | 2     | 75 years                                                                                         | 5     |
| Typical Sectional Functionality            |                                 | Substandard sidewalks and bicycle lanes | 1     | Substandard sidewalks and bicycle lanes                 | 1     | Substandard sidewalks and bicycle lanes                                                   | 2     | Meets current criteria                                                                           | 5     |
| Structural Capacity                        |                                 | H-15                                    | 1     | H-15                                                    | 1     | HL-93                                                                                     | 5     | HL-93                                                                                            | 5     |
| Hurricane Resistance                       |                                 | Not Satisfied                           | 0     | Not Satisfied                                           | 0     | Satisfied                                                                                 | 5     | Satisfied                                                                                        | 5     |
| Vessel Collision Resistance                |                                 | Not Satisfied                           | 0     | Not Satisfied                                           | 0     | Satisfied                                                                                 | 5     | Satisfied                                                                                        | 5     |
| Bridge Clearances                          |                                 | Remain                                  | 1     | Remain                                                  | 1     | Remain                                                                                    | 1     | Improved (Raised 1')                                                                             | 2     |
| Maintenance of Traffic During Construction |                                 | N/A                                     | 5     | N/A                                                     | 5     | 82 months                                                                                 | 1     | 48 months (phased construction)                                                                  | 3     |
| Utility Services                           |                                 | Remain                                  | 3     | Remain                                                  | 3     | Remain                                                                                    | 3     | Improved                                                                                         | 5     |
| Economic Impact                            |                                 | None                                    | 1     | None                                                    | 1     | None                                                                                      | 3     | Improved                                                                                         | 5     |
| Constructability                           |                                 | No Impact                               | 5     | Minimal                                                 | 4     | Major Impact                                                                              | 1     | Some Impact                                                                                      | 3     |
| Pedestrian and Bicycle Facilities          |                                 | Remain as is                            | 1     | Remain as is                                            | 1     | Pedestrian - Improved<br>Bicycle - Remain as is                                           | 2     | Improved                                                                                         | 5     |
| Environmental Impacts                      |                                 |                                         |       |                                                         |       |                                                                                           |       |                                                                                                  |       |
| NATURAL                                    | Benthic Resources               | no impact                               | 5     | no impact                                               | 5     | impact to corals from scour protection, substructure & beam strengthening                 | 3     | impact to corals from scour protection, substructure replacement, spoil island shoreline         | 2     |
|                                            | Essential Fish Habitat          | no impact                               | 5     | no impact                                               | 5     | minimal impacts from construction means and methods                                       | 4     | minimal impacts from construction means and methods/minimal impact to shoreline of spoil islands | 3     |
|                                            | Threatened & Endangered Species | no impact                               | 5     | no impact                                               | 5     | minimal impacts from construction means and methods                                       | 4     | minimal impacts from construction means and methods                                              | 3     |
|                                            | Water Quality                   | Scuppers discharge to OFW               | 0     | Scuppers discharge to OFW                               | 0     | Scuppers discharge to OFW                                                                 | 0     | temporary impacts during construction/overall benefit                                            | 5     |
| PHYSICAL                                   | Noise Impacts                   | no impact                               | 5     | no impact                                               | 5     | minimal impacts from construction means and methods                                       | 5     | temporary impacts during construction                                                            | 5     |
|                                            | Air Quality                     | no impact                               | 5     | no impact                                               | 5     | minimal impacts from construction means and methods                                       | 5     | temporary impacts during construction                                                            | 5     |
|                                            | Contamination Impacts           | Not Applicable                          | 0     | Not Applicable                                          | 0     | Not Applicable                                                                            | 0     | Not Applicable                                                                                   | 0     |
| CULTURAL AND HISTORIC                      | Historic - Section 106/4(f)     | No Adverse Effect                       | 5     | No Adverse Effect                                       | 5     | Adverse Effect - some impact to resource                                                  | 3     | Adverse Effect - Resource replaced, National Register of Historic Places listing may be affected | 1     |
| SOCIAL AND ECONOMIC                        | Aesthetic/Visual Impacts        | utilities remain                        | 3     | utilities remain                                        | 3     | utilities remain                                                                          | 4     | wider section, bridge aesthetics replicated, utilities hidden, arch and railings remain          | 4     |
|                                            | Recreational Areas              | Not Applicable                          | 0     | Not Applicable                                          | 0     | Not Applicable                                                                            | 0     | Not Applicable                                                                                   | 0     |
|                                            | Community Cohesion              | no impact                               | 3     | no impact                                               | 3     | temporary impact to access during construction                                            | 3     | temporary impact to access during construction                                                   | 5     |
| Project Costs                              |                                 |                                         |       |                                                         |       |                                                                                           |       |                                                                                                  |       |
| Engineering Costs (Bridges only)           |                                 | \$ -                                    | 5     | \$ -                                                    | 5     | \$6.9 Million                                                                             | 3     | \$11.7 Million                                                                                   | 1     |
| Construction Costs (Bridges only)          |                                 | \$ -                                    | 5     | \$ -                                                    | 5     | \$53 Million                                                                              | 3     | \$90 Million                                                                                     | 1     |
|                                            |                                 |                                         |       |                                                         |       |                                                                                           |       |                                                                                                  |       |
| Yearly Maintenance Costs (first 25 years)  |                                 | \$1.4 Million                           | 1     | \$1.4 Million                                           | 1     | \$1.4 Million                                                                             | 1     | \$100,000                                                                                        | 5     |
| Life Cycle Costs over 75 years             |                                 | Unknown                                 | 0     | Unknown                                                 | 0     | \$179 Million                                                                             | 1     | \$96 Million                                                                                     | 3     |
|                                            |                                 |                                         |       |                                                         |       |                                                                                           |       |                                                                                                  |       |
| Total Points                               |                                 |                                         | 67    |                                                         | 66    |                                                                                           | 75    |                                                                                                  | 101   |

Fixed Bridge Alternative 7 — Arched Beams



Movable Bridge Alternative M4 — Double Leaf Bascule Bridge

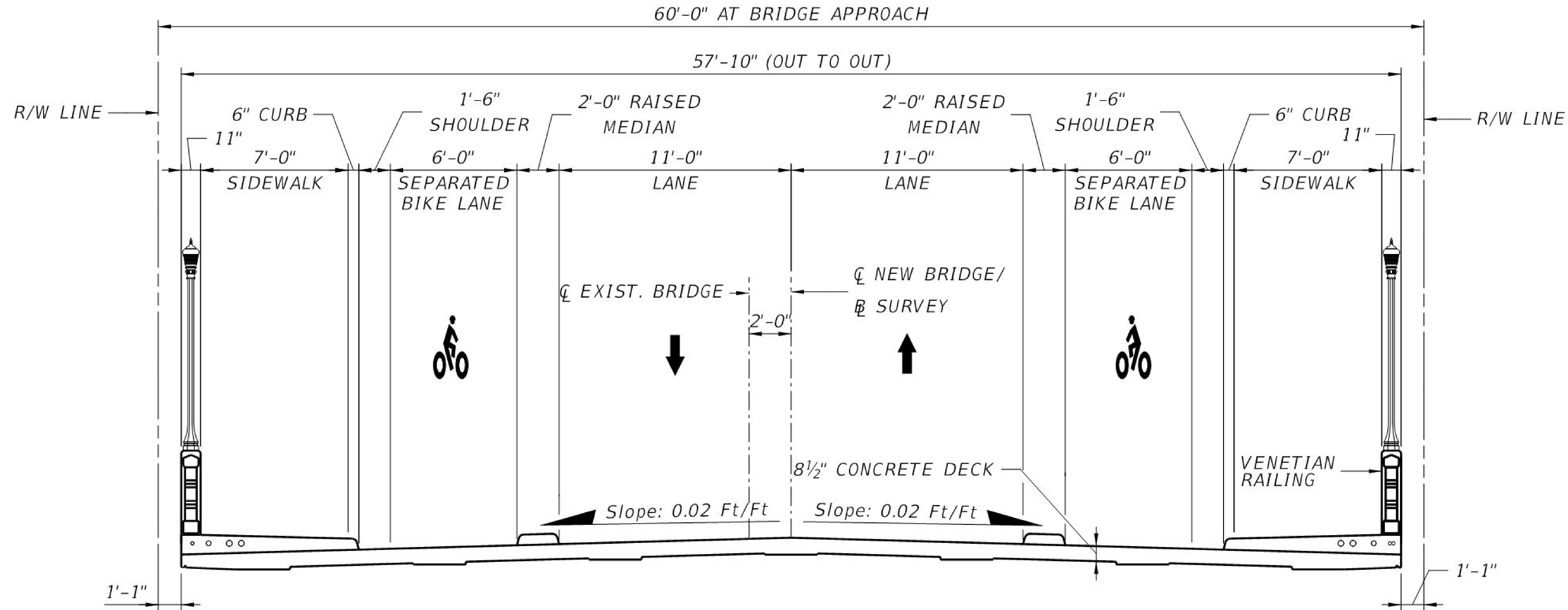


Typical Section Option T1 — Venetian Railing

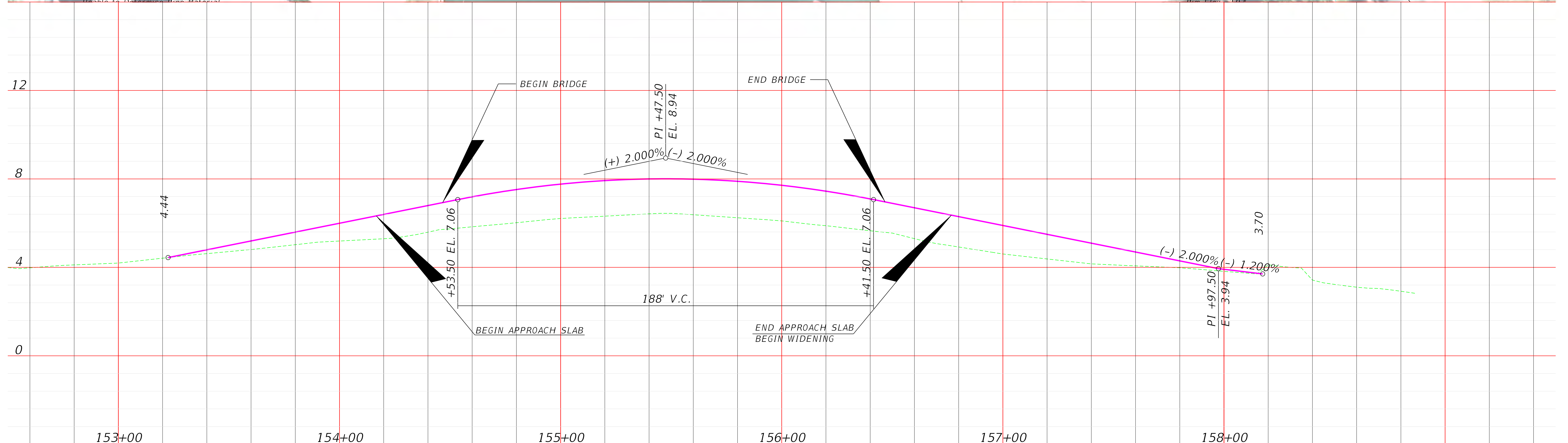
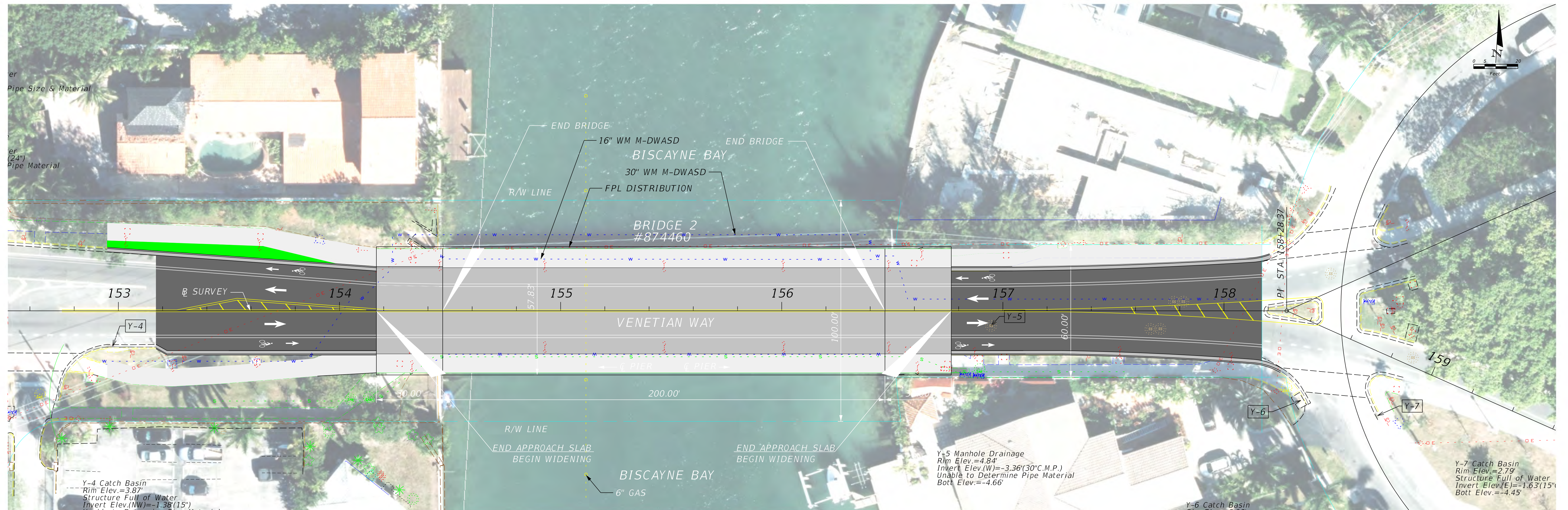


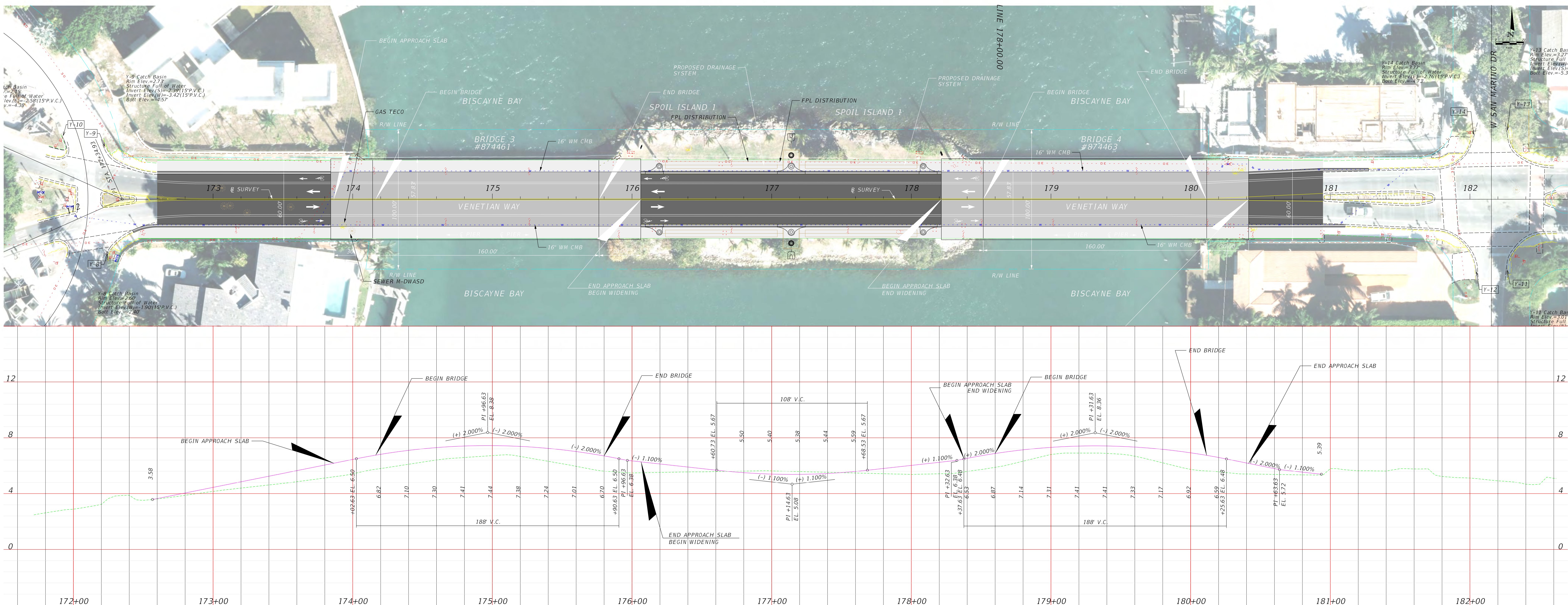


FIXED BRIDGE TYPICAL SECTION



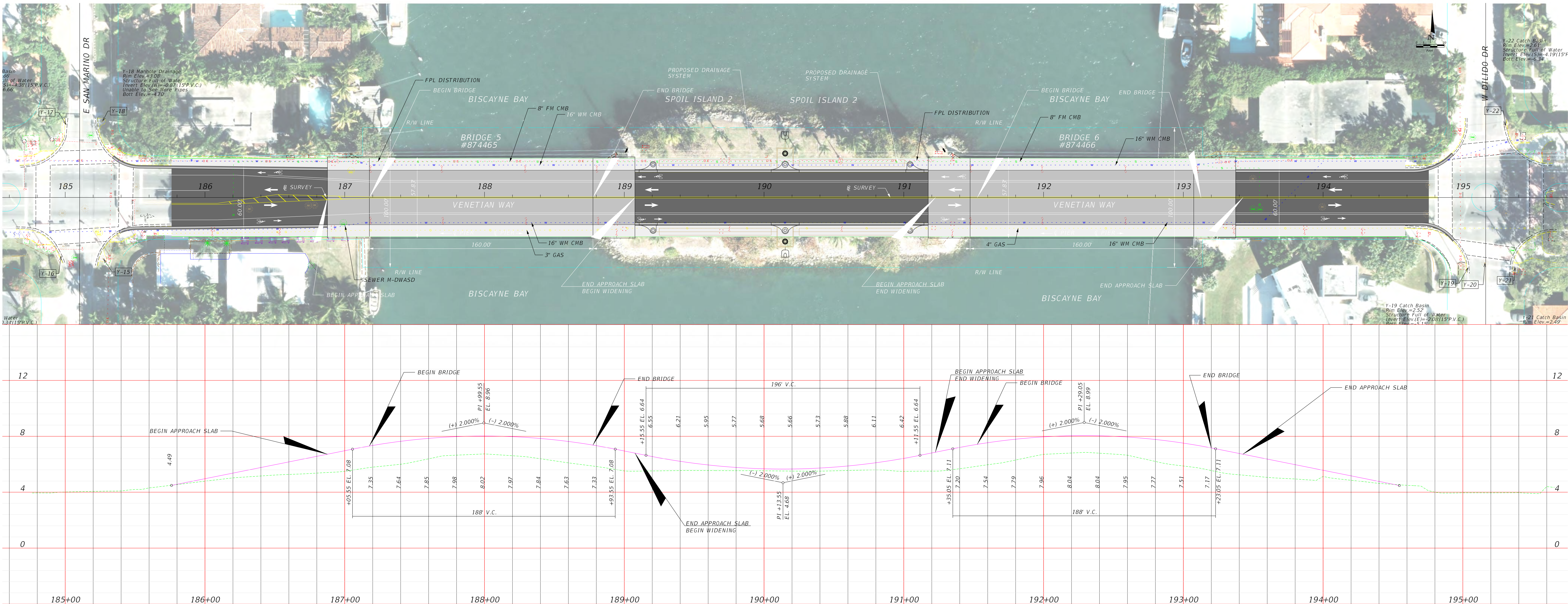
**BRIDGE TYPICAL SECTION - SEPARATED BIKE LANE ALTERNATIVE**  
(FIXED BRIDGES 2-9, 11 AND 12)

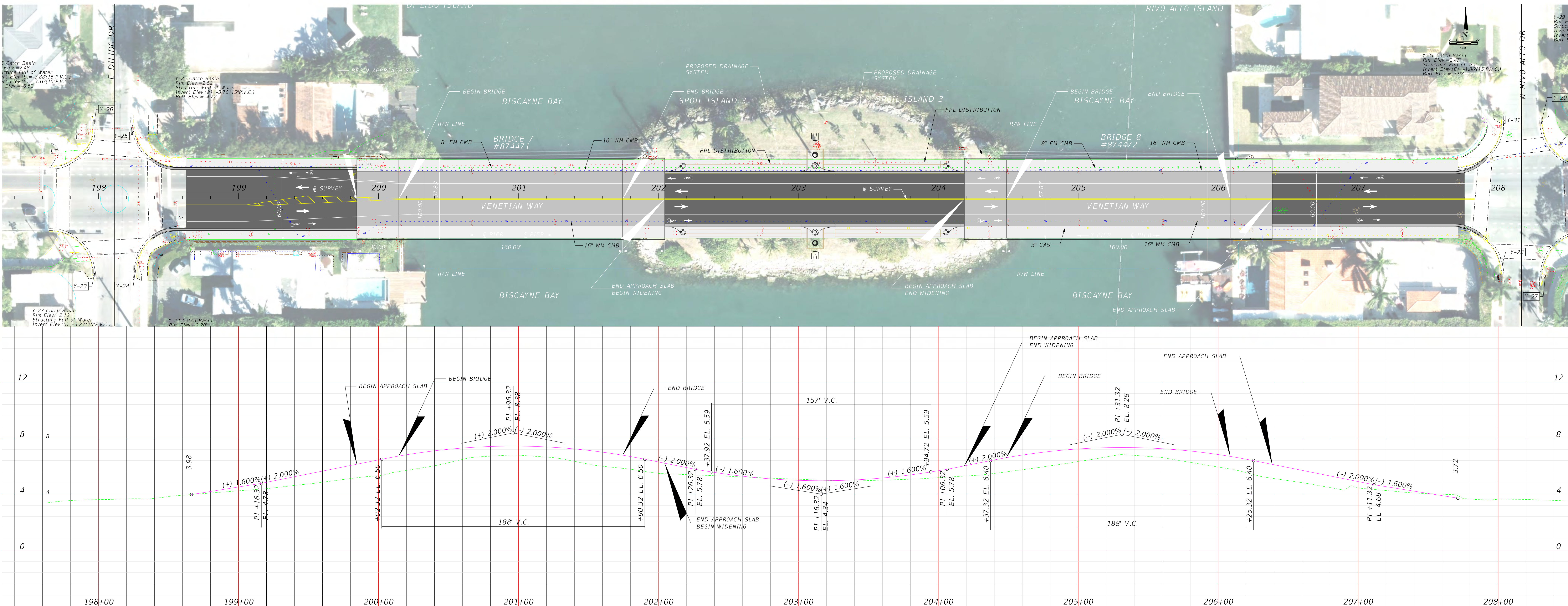


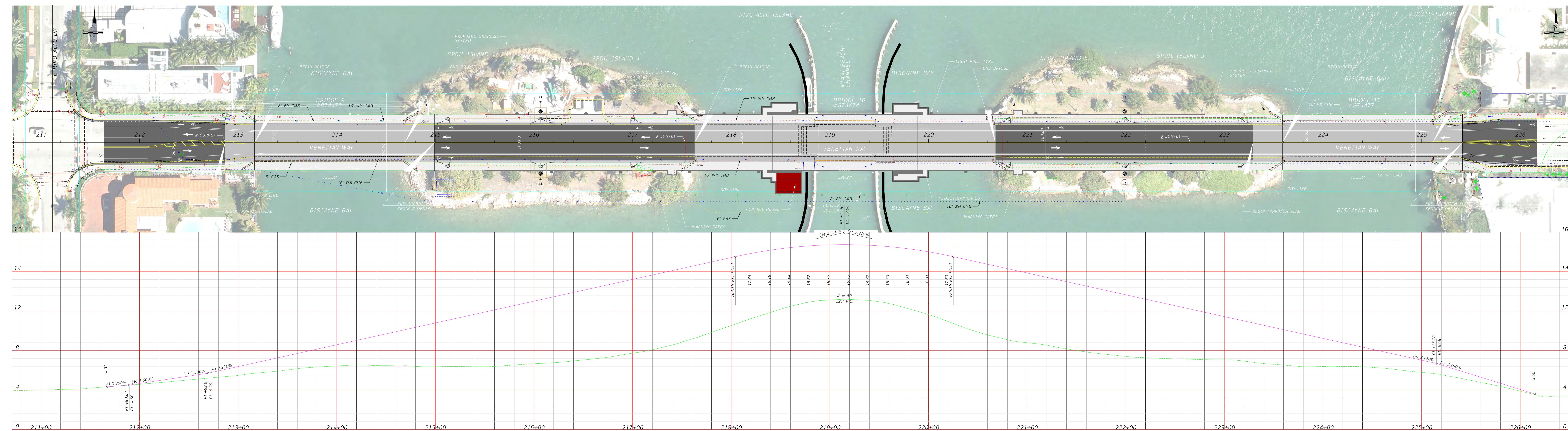


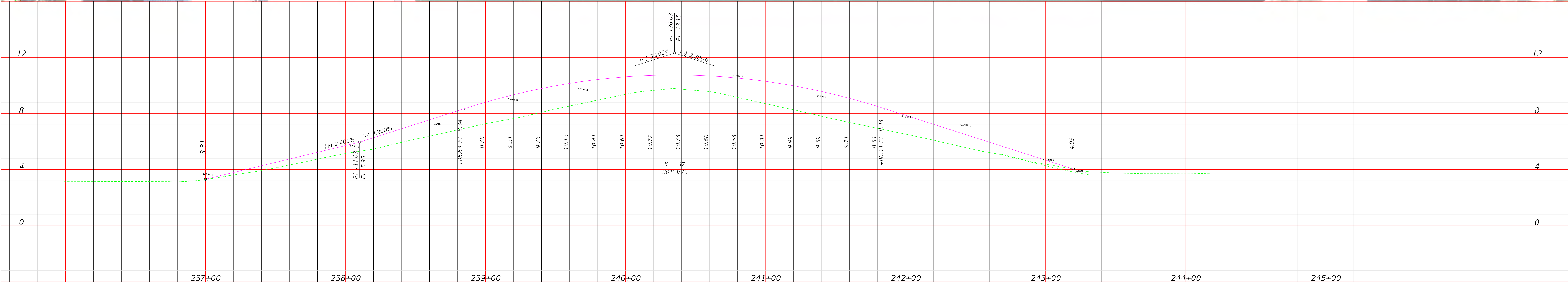
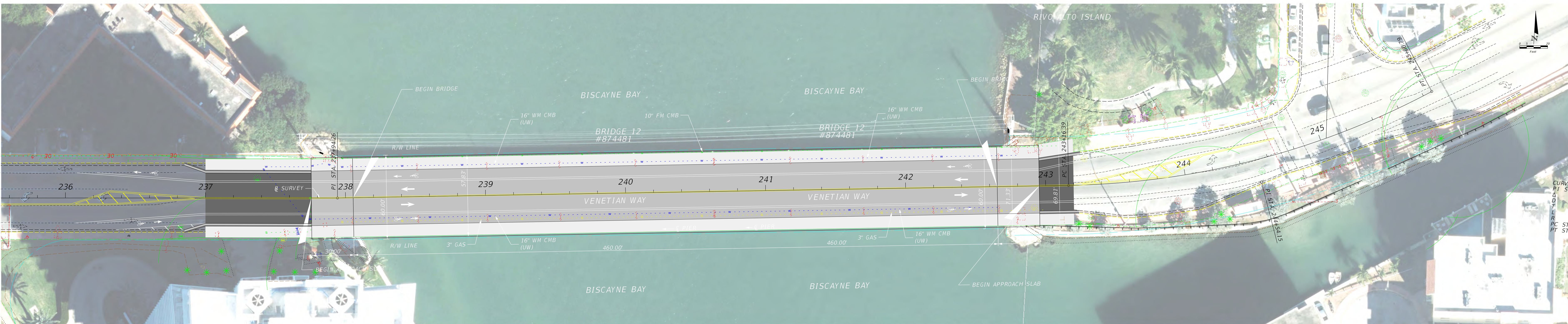


# PREFERRED ALTERNATIVE ROADWAY PLAN AND PROFILE – BRIDGES 5 & 6

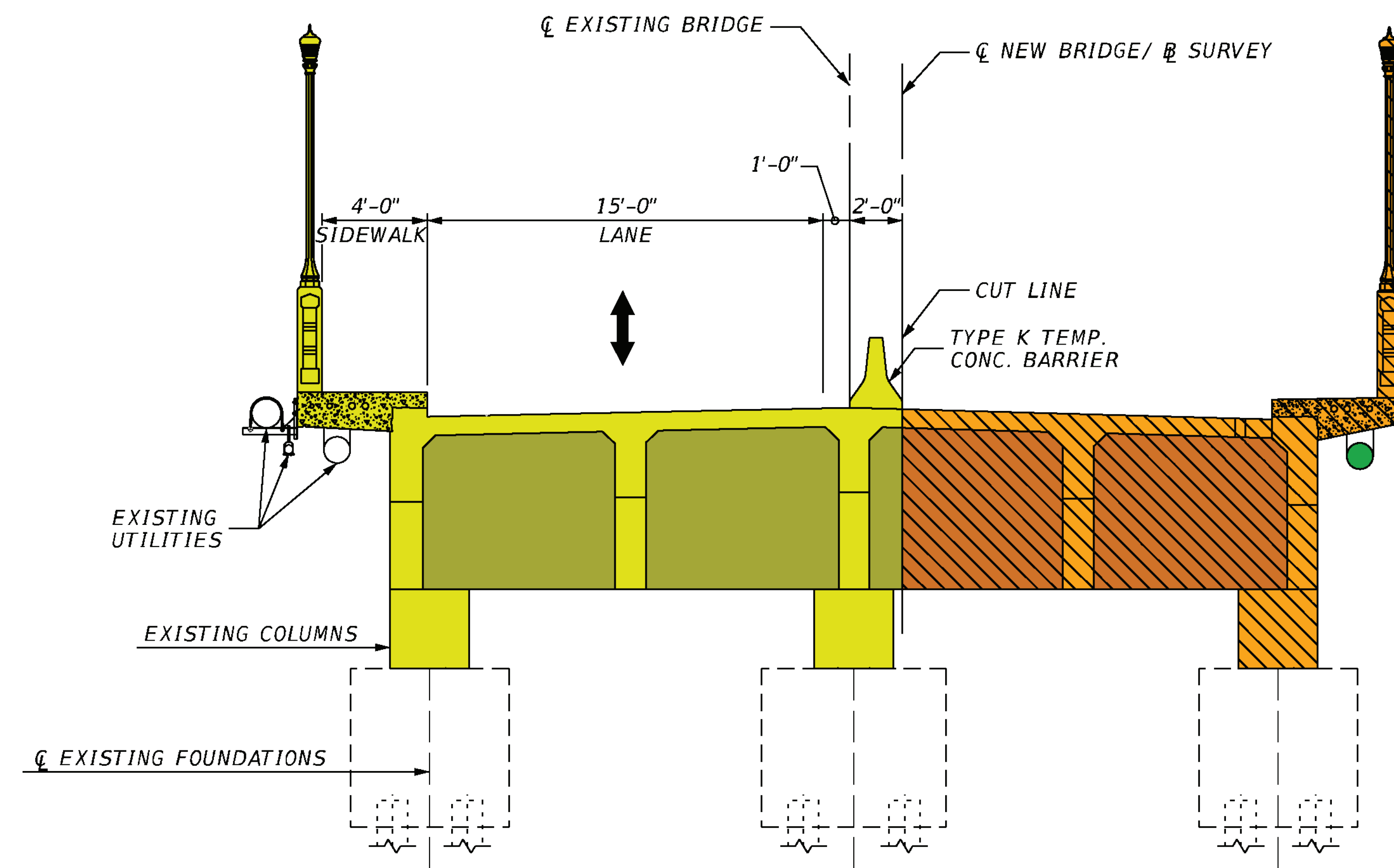




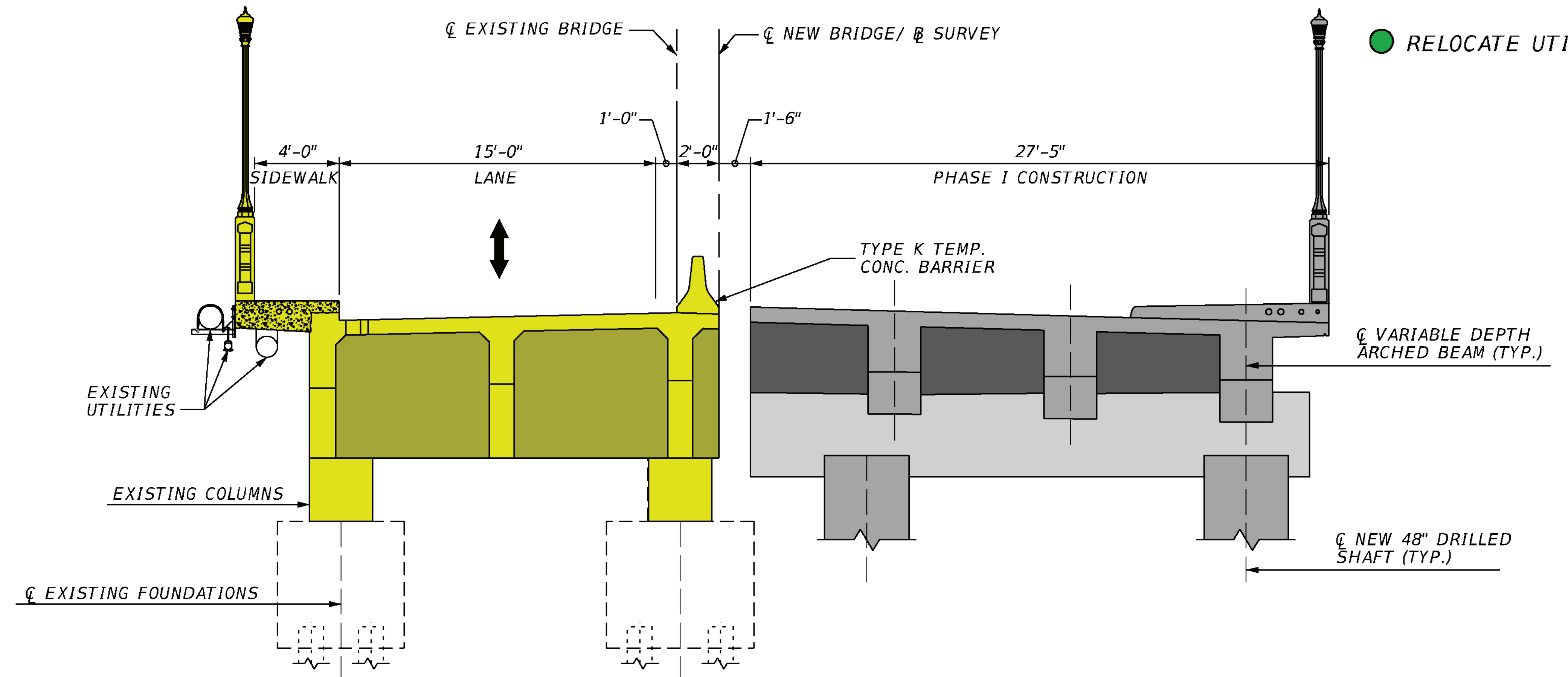




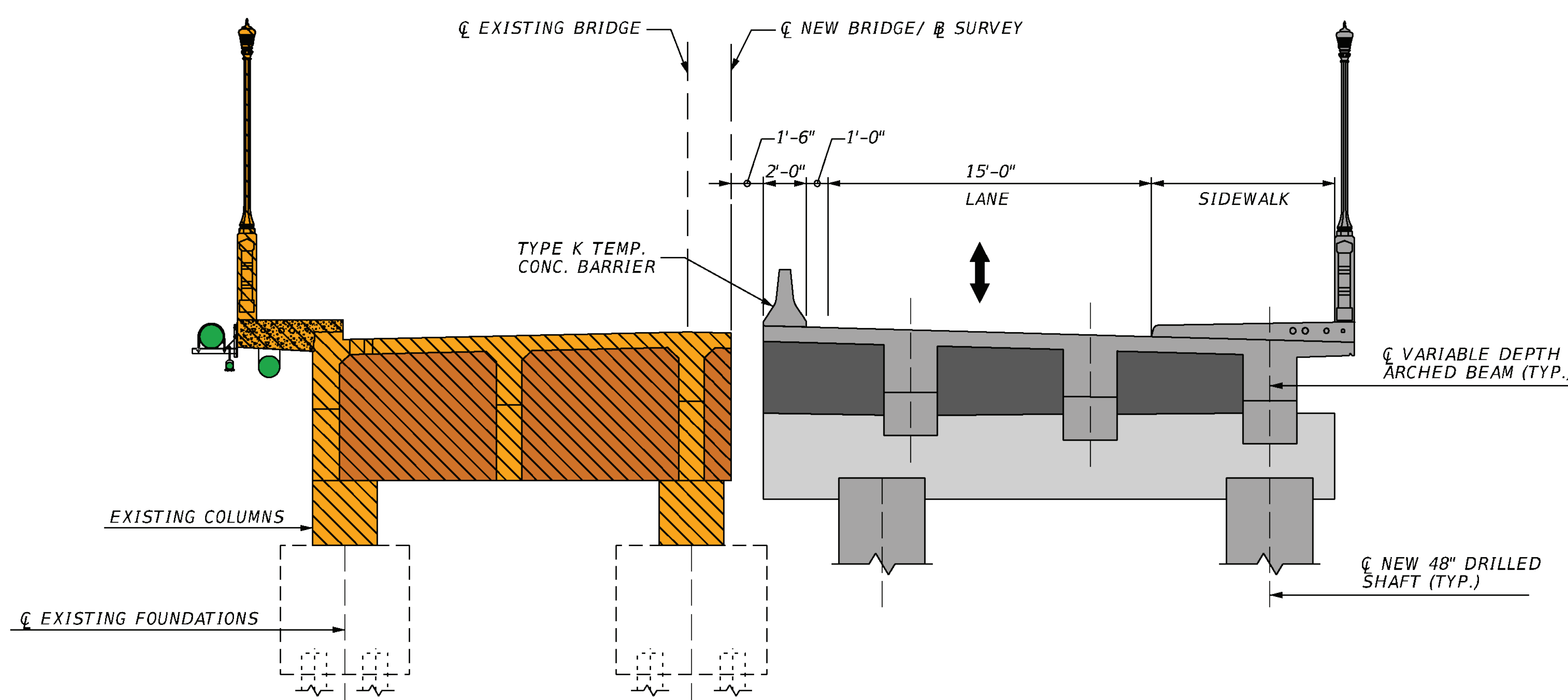
- DEMOLITION
- EXISTING BRIDGE
- PROPOSED BRIDGE
- RELOCATE UTILITIES



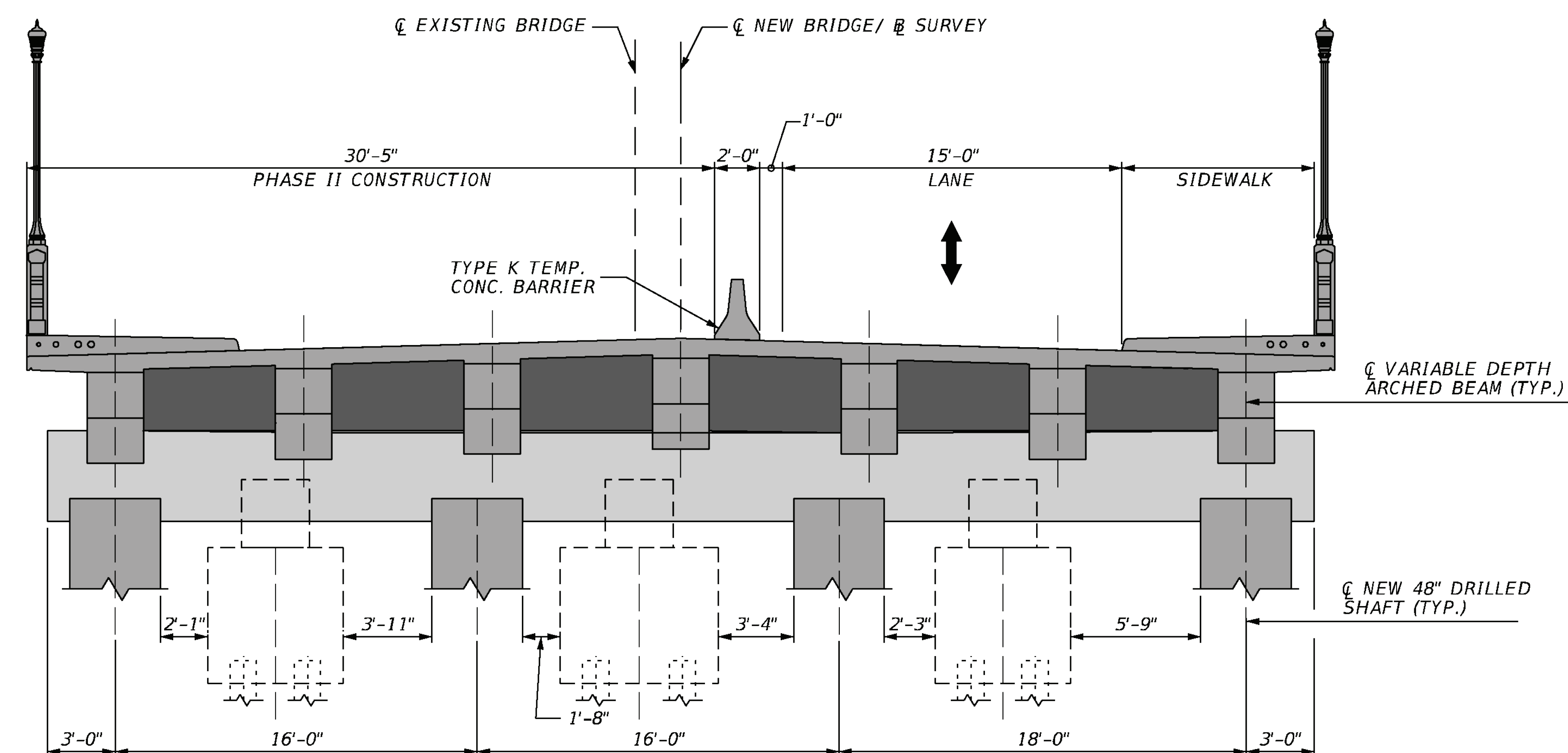
PHASE I - STAGE I



PHASE I - STAGE II



PHASE II - STAGE I



PHASE II - STAGE II



## REPLACEMENT PHASED CONSTRUCTION WITH TEMPORARY BRIDGE **48 MONTHS**

- Temporary Bridge at East Bascule with 1 Lane 2-Way (*Pedestrians & Bicycle Access*)
- Limit Access Impacts to One Island at a Time

- DETOUR
- 1-LANE /2-WAY
- BRIDGE NUMBER