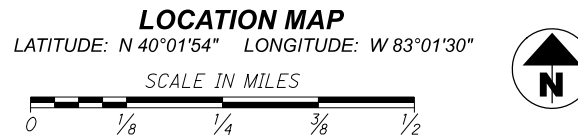
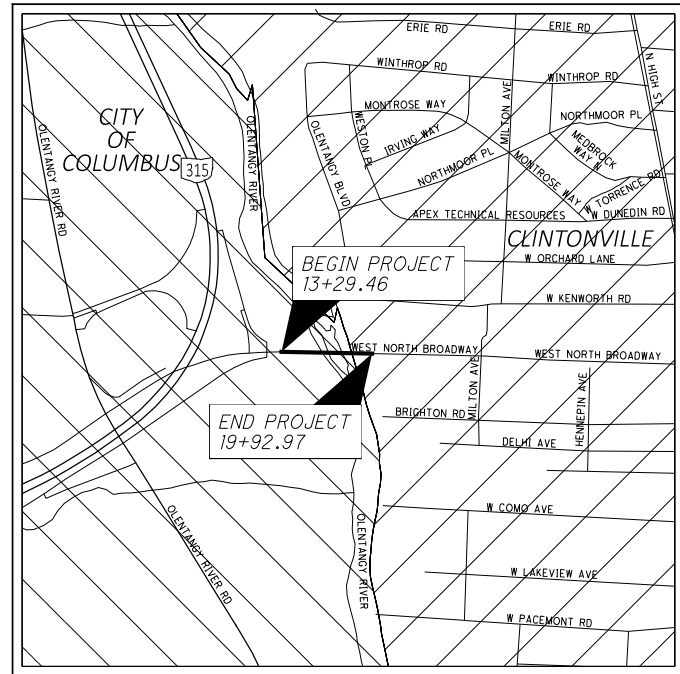


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PORION TO BE IMPROVED	-----
INTERSTATE HIGHWAY	-----
FEDERAL ROUTES	-----
STATE ROUTES	-----
COUNTY & TOWNSHIP ROADS	-----
OTHER ROADS	-----

DESIGN DESIGNATION

CURRENT ADT (2022)	22,578
DESIGN YEAR ADT (2033)	25,234
DESIGN HOURLY VOLUME (2033)	2,602
DIRECTIONAL DISTRIBUTION	58%
TRUCKS (24 HOUR B&C)	3%
DESIGN SPEED	35 MPH
LEGAL SPEED	35 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	URBAN MINOR ARTERIAL

DESIGN EXCEPTIONS

NONE REQUIRED

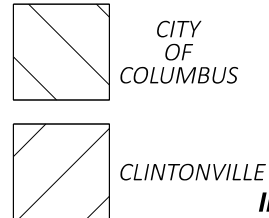


PLAN PREPARED BY:



FRANKLIN COUNTY, OHIO OFFICE OF THE COUNTY ENGINEER WEST NORTH BROADWAY CLI-CR0333-01.18

CITY OF COLUMBUS



INDEX OF SHEETS:

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Disclaimer:
Nothing in these comments should be construed as authorization to perform extra work. Do not perform extra work until/unless a modification has been approved.

REVIEW COMPLETE	
PM	
OVERALL	
ENVIRO	
REAL ESTATE	Dale Mead 04/15/2024 No Comments
UTILITIES	
STRUCTURES	
GEOTECH	
HYDRAULICS	
MOT	
PAVEMENT	
GEOMETRICS	Katie Montoya 03/20/2024
TRAFFIC	
ITS	
RAILROAD	
CONST.	
OTHER	

The 2019 Standard Specifications of the State of Ohio, Department of Transportation, including changes and supplemental specifications listed in the proposal shall govern this improvement unless noted otherwise.

Signatures below shall signify only concurrence with the general purpose and general location of the project. All technical details remain the responsibility of the engineer preparing the plans.

I approve these plans and declare that making this improvement will not require the closing to traffic of the highway and that provisions for the maintenance and safety of traffic will be as set forth in the plans and estimates.

APPROVED _____
DATE _____ FRANKLIN COUNTY ENGINEER

APPROVED _____
DATE _____ FRANKLIN COUNTY CHIEF DEPUTY ENGINEER

APPROVED _____
DATE _____ FRANKLIN COUNTY AUDITOR

We, the Commissioners of Franklin County in F-formal session, hereby approve these plans.

APPROVED _____
DATE _____ FRANKLIN COUNTY COMMISSIONER

APPROVED _____
DATE _____ FRANKLIN COUNTY COMMISSIONER

APPROVED _____
DATE _____ FRANKLIN COUNTY COMMISSIONER

**STAGE 3 SUBMITTAL
04/06/2023**

FIRM Panel Number: 39049C0167K
Effective Date: 6/17/2008
Flood Zones: AE
Base Flood Elevation: 734'

ISSUE RECORD:		
NO.	DATE	DESCRIPTION

3929E
DOW# 22-112

CLI-CR0333-01.180
WEST NORTH BROADWAY (1.18) OVER OLENTANGY RIVER

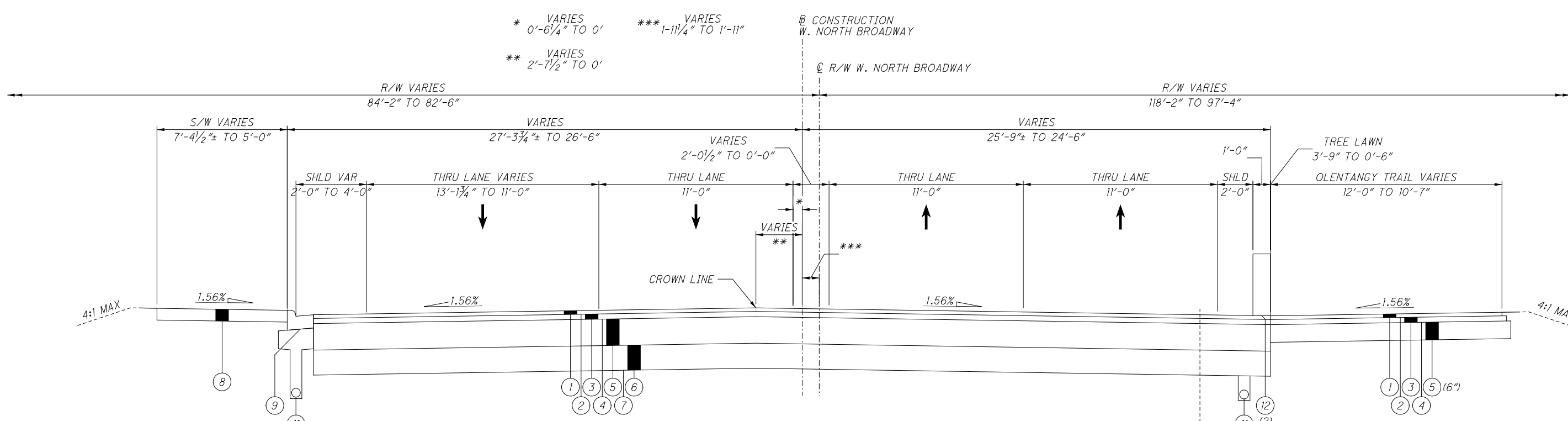
PID NO. 121403
684092

PROJECT NO. 4029
N/A

RAILROAD INVOLVEMENT
NONE

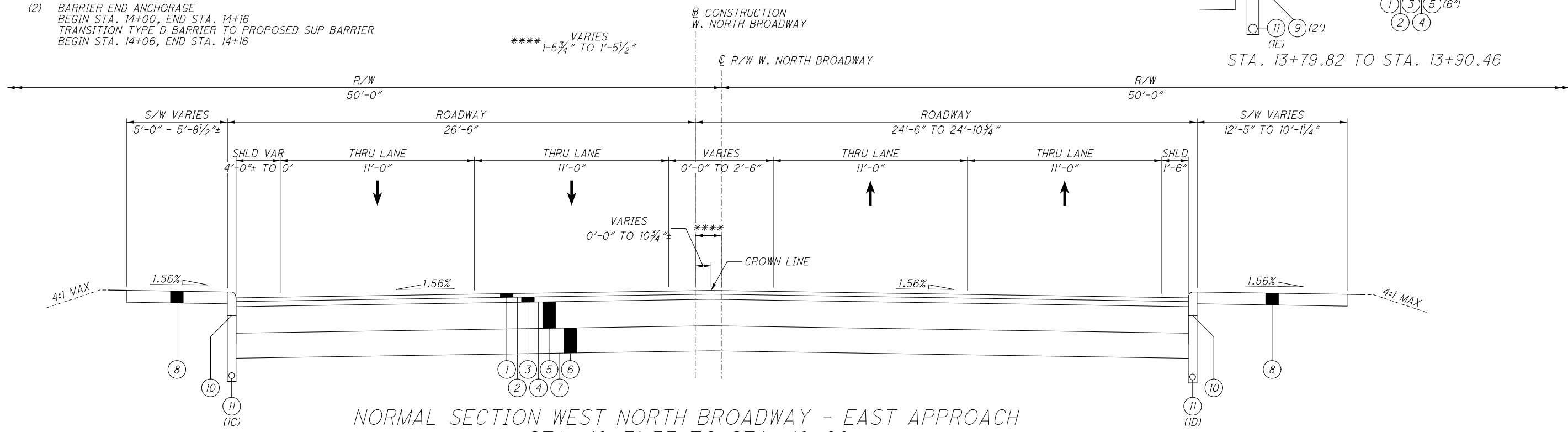
FEDERAL PROJECT NO.
N/A

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NORMAL SECTION WEST NORTH BROADWAY - WEST APPROACH
 STA. 13+79.82 TO STA. 14+06.95

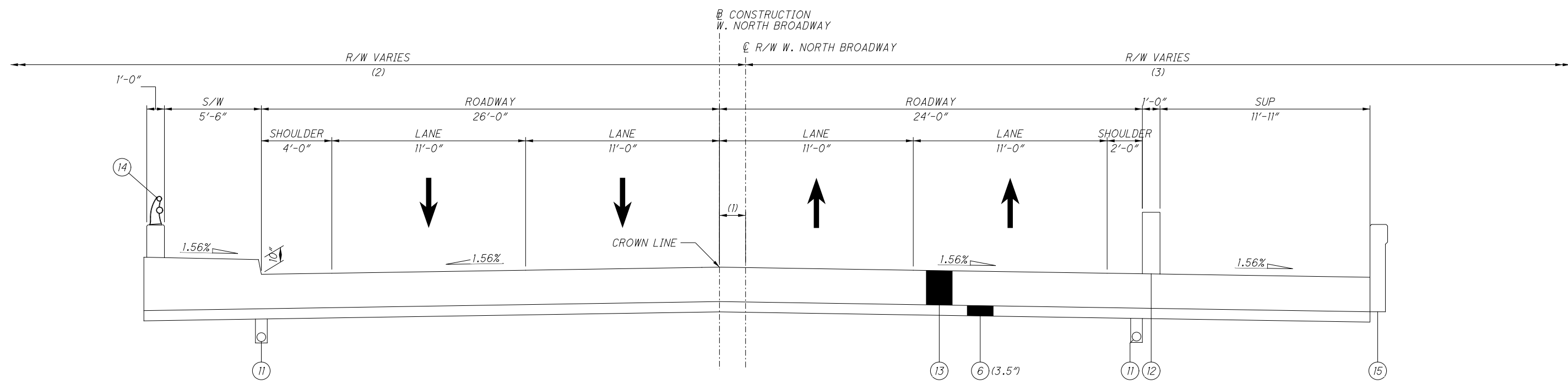
- (1) TIE PROPOSED 4" UD TO EXISTING UD AT:
 (A) STA. 13+70, 25'-6" LT
 (B) STA. 13+89, 25'-9" RT
 (C) STA. 18+89, 25'-3" LT
 (D) STA. 19+58, 31'-6" RT
 (E) 25'-9" RT
- (2) BARRIER END ANCHORAGE
 BEGIN STA. 14+00, END STA. 14+16
 TRANSITION TYPE D BARRIER TO PROPOSED SUP BARRIER
 BEGIN STA. 14+06, END STA. 14+16



NORMAL SECTION WEST NORTH BROADWAY - EAST APPROACH
 STA. 18+71.33 TO STA. 18+98

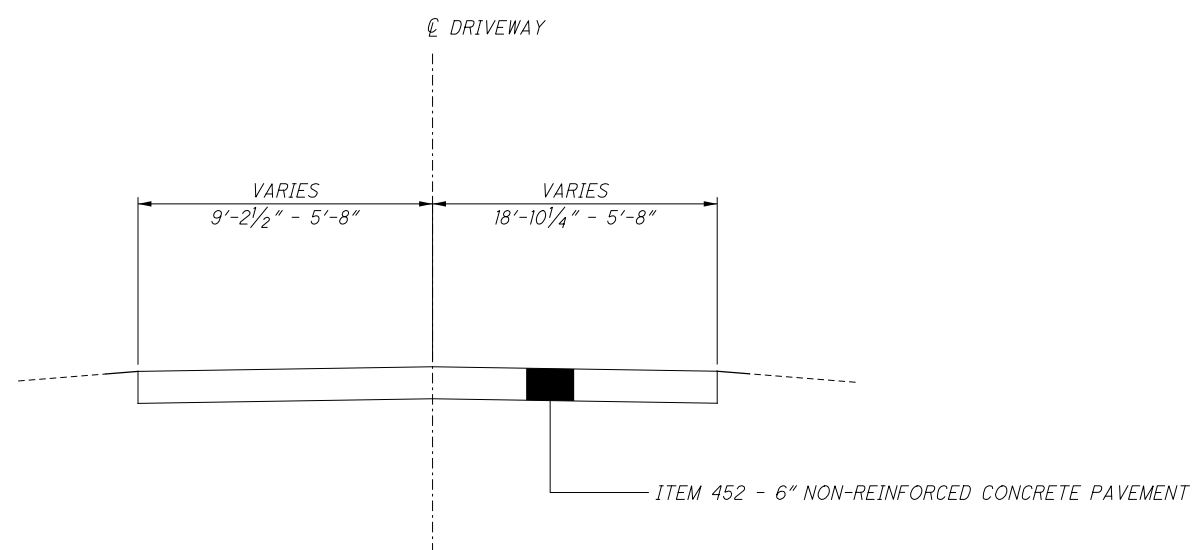
- | | | |
|--|---|---|
| (1) ITEM 441 - 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22 | (6) ITEM 304 - 8.5" AGGREGATE BASE (OR AS SHOWN) | (11) ITEM 605 - 4" PIPE UNDERDRAIN |
| (2) ITEM 407 - NON-TRACKING TACK COAT (APPLICATION RATE PER ODOT CMS 407.06) | (7) ITEM 204 - SUBGRADE COMPACTION | (12) ITEM 622 - SUP PEDESTRIAN BARRIER (APP), SEE SHEET |
| (3) ITEM 441 - 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448) | (8) ITEM 608 - 4" CONCRETE WALK (SEE CITY OF COLUMBUS STD DWG 2300) | (13) ITEM 526 - REINFORCED CONCRETE APPROACH SLABS (T=17'), AS PER PLAN |
| (4) ITEM 407 - NON-TRACKING TACK COAT FOR INTERMEDIATE COURSE (APPLICATION RATE PER ODOT CMS 407.06) | (9) ITEM 609 - 1'-6" (OR AS SHOWN) COMBINATION CURB & GUTTER (TYPE 4) | (14) ITEM 517 - BRIDGE SIDEWALK RAILING, SEE SCD BR-2-82 |
| (5) ITEM 304 - 9" CONCRETE BASE, CLASS QC 1P (OR AS SHOWN) | (10) ITEM 609 - CONCRETE CURB (TYPE 4-C) | (15) ITEM 607 - SIDE MOUNTED DECORATIVE PEDESTRIAN FENCE |

PARSONS
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APPROACH SLAB SECTION WEST NORTH BROADWAY
 WEST APPROACH - STA. 14+06.95 TO STA. 14+34.45
 EAST APPROACH STA. 18+43.83 TO STA. 18+71.33

- (1) WEST APPROACH SLAB - 1'-11" TO 1'-10³/₄"
 EAST APPROACH SLAB - 1'-6¹/₄" TO 1'-5³/₄"
- (2) WEST APPROACH SLAB - 82'-6"
 EAST APPROACH SLAB - 50'-0"
- (3) WEST APPROACH SLAB - 97'-3" TO 74'-9"
 EAST APPROACH SLAB - 50'-0"



DRIVEWAY
 STA. 19+56.49
 29'-6" RT TO 45'-6" RT

- ① ITEM 441 - 1¹/₄" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (4448), PG64-22
- ② ITEM 407 - NON-TRACKING TACK COAT (APPLICATION RATE PER ODOT CMS 407.06)
- ③ ITEM 441 - 1³/₄" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448)
- ④ ITEM 407 - NON-TRACKING TACK COAT FOR INTERMEDIATE COURSE (APPLICATION RATE PER ODOT CMS 407.06)
- ⑤ ITEM 305 - 9" CONCRETE BASE, CLASS QC 1P (OR AS SHOWN)
- ⑥ ITEM 304 - 8.5" AGGREGATE BASE (OR AS SHOWN)
- ⑦ ITEM 204 - SUBGRADE COMPACTION
- ⑧ ITEM 608 - 4" CONCRETE WALK (SEE CITY OF COLUMBUS STD DWG 2300)
- ⑨ ITEM 609 - 1'-6" (OR AS SHOWN) COMBINATION CURB & GUTTER (TYPE 4)
- ⑩ ITEM 609 - CONCRETE CURB (TYPE 4-C)
- ⑪ ITEM 605 - 4" PIPE UNDERDRAIN
- ⑫ ITEM 622 - SUP PEDESTRIAN BARRIER (APP), SEE SHEET 43
- ⑬ ITEM 526 - REINFORCED CONCRETE APPROACH SLABS (T=17'), AS PER PLAN
- ⑭ ITEM 517 - BRIDGE SIDEWALK RAILING, SEE SCD BR-2-82
- ⑮ ITEM 607 - SIDE MOUNTED DECORATIVE PEDESTRIAN FENCE

NOTE: SEE SHEET 48 FOR APPROACH SLAB SIDEWALK DETAIL

SPECIFICATIONS

The 2019 Construction and Material Specifications of the State of Ohio, Department of Transportation, including changes and Supplemental Specifications listed in the proposal, shall govern this improvement, except where noted otherwise.

FRANKLIN COUNTY ENGINEER'S MONUMENTATION

The contractor shall contact the Frankling County Engineer's Office, Survey Department at (614) 525-3050 two working days before disturbing any Franklin County Geodetic Monuments (vertical and/or horizontal) for reference and replacement.

ELEVATION DATUM

All elevations are based on N.A.V.D 1988 Datum.

FCGS Monument No. NW-40

Elev. 743.436

Aluminum disk in NE corner of the East abutment of the WN Broadway Bridge
 Northing: 740478.512
 Easting: 1821678.354

WORK LIMITS

The work limits shown on these plans are for physical construction only. Provide the installation and operation of all work zone traffic control and work zone traffic control devices required by these plans whether inside or outside the work limits.

ITEM 201 CLEARING AND GRUBBING

All trees, fence posts, rocks, brush, stumps and fence within the construction limits of this project shall be removed unless marked "Do Not Disturb". Unless itemized separately, all of these items shall be removed under the lump sum price bid for Item 201, Clearing and Grubbing. Items within the construction limits that are marked "Do Not Disturb" or "DND" shall not be removed or damaged. The County and Cities reserve the right to order the removal of trees or stumps outside of the limits of the right-of-way and/or easement lines but within the work limits. Payment for the removal of these trees or stumps shall be included in the lump sum price bid for Item 201, Clearing and Grubbing.

HOURS OF OPERATION

Contractor's work hours shall be limited to 7:00 A.M. to 9:00 P.M. Monday through Saturday, unless permission is granted by the Engineer in writing. The Contractor shall be required to adhere to all local noise ordinances.

PRECONSTRUCTION MEETING AND EEO-PREVALING WAGE SESSION

The contractor shall meet for a preconstruction meeting scheduled by the County as per Franklin County General Provision 108.02. An EEO-prevaling wage session will be held in conjunction with the general preconstruction meeting discussion of contract documents, affected third party concerns, schedule, proposed subcontractors-suppliers submittals, etc.

PREVALING WAGES

Prevailing Wage paperwork required from of the Prime Contractor and Sub-Contractors shall be current and up-to-date for work performed. Pay Estimates will be considered incomplete and unpayable until the associated Prevailing Wage paperwork is submitted to the Franklin County Engineer's Prevailing Wage Coordinator contact (614) 525-2438 for Federal or State wage rate provision relating to prevailing wages shall reference:
 State: <http://www.com.ohio.gov/dico/>
 Federal: <http://www.wdol.gov/dba.aspx>

NON-COLLUSION AFFADAVIT

In accordance with Title 23 United Sates Code, Section 112 and Ohio Revised Code. Chapter 1331 et. seq: and Sections 2921.11 and 2921.13, the bidder hereby states, under penalty of perjury and other such penalties as the law provides, that he or his agents or employees have not entered either directly or indirectly into any agreement, participated in collusion, or otherwise taken any action in restraint of free competitive bidding in connection with this proposal. Execution of this proposal on the signature portion thereof shall constitute also signature of the Non-Collusion Affidavit as permitted by Title 28 United States Code, Section 1746.

EXISTING PLANS

Existing plans entiled 3403-E may be inspected in the Franklin County Engineer's Office.

UTILITIES

The location of the underground utilities shown on the plans are as obtained from the owners as required by Section 153.64 O.R.C.

Listed below are the utilities located within the project construction limits together with their respective owners:

ELECTRIC
 AEP
 ATTN: Paul Paxton
 (740) 348-5322
 ptpaxton@AEP.com
 777 Hopewell Dr.
 Heath, OH 43056

WATER
 CITY OF COLUMBUS
 DIVISION OF WATER
 (614) 645-7788
 910 Dublin Rd.
 Columbus, OH 43215

ELECTRIC
 AEP (TRANSMISSION)
 ATTN: Michael Carr
 (380) 205-5072
 TL_PublicProjects@AEP.com
 8600 Smiths Mill Rd.
 New Albany, OH 43054

SEWER
 CITY OF COLUMBUS
 SEWER MAINTENANCE
 OPERATIONS CENTER
 (614) 645-7102
 1250 E Fairwood Ave.
 Columbus, OH 43206

OTHER
 AT&T
 ATTN: Donald G. Marshall Jr.
 (614) 216-2396
 dm6119w@att.com
 111 N 4th St.
 Columbus, OH 43215

COLUMBUS FIBER NET
 ATTN: Matt Blackstone
 (614) 921-8524
 Mablackstone@columbusfiber.net
 1600 Walcutt Rd.
 Columbus, OH 43228

GAS
 COLUMBIA GAS
 ATTN: Rob Caldwell
 (614) 818-2104
 rcaldwell@nisource.com
 3550 Johnny Appleseed Ct.
 Columbus, OH 43231

FRANKLIN COUNTY ENGINEER'S OFFICE
 ATTN: Steve Buskirk
 (614) 525-3063
 Sbuskirk@franklincountyengineer.org
 970 Dublin Rd.
 Columbus, OH 43215

TRAFFIC
 CITY OF COLUMBUS TRAFFIC CTSS
 ATTN: Ryan Bollo
 (614) 645-7393
 RJBollo@columbus.gov

INTERNET
 EVERSTREAM
 ATTN: Kann Khay
 (614) 357-7666
 kkhay@everstream.net
 240 N 5th St.
 Columbus, OH 43215

CENTRAL OHIO TRANSIT AUTHORITY (COTA) COORDINATION

The designer shall consult COTA staff cotadesignreview@cota.com for any activities that affects COTA's current and future transit services such as bus stop installation or upgrades, residential and commercial developments along existing COTA routes, and new developments that will be served by transit.

Use COTA Bus Stop Design Guide:
<https://www.cota.com/wp-content/uploads/2016/04/Bus-Stop-Design-Standards.pdf>

SAFETY REQUIREMENTS AND RESPONSIBILITIES

The contractor is responsible for ensuring that all work under this contract meets or exceeds the Occupational Safety & Health Administration (OSHA) standards in addition to complying with the recognized best practice within the construction industry.

1.0 Certification Requirements

The manufacturer of safety systems (shoring, protective systems, fall protection) or a professional engineer (PE) must certify that the design of major or critical facilities, equipment, support structures or systems, embankments, shoring systems, and formwork (false work) is structurally suitable for the intended use. This certification must be in writing and submitted to the FCEO Project Manager, before construction or use of such facilities, equipment, or support systems.

2.0 Required Safety Programs and MSDS Submittals

The contractor must submit a comprehensive written safety program covering all aspects of onsite and applicable offsite operations and activities associated with the contract. In addition, the contractor shall submit Material Safety Data Sheets (MSDS) prior to bringing chemicals on site. The Contractor Written Safety Program will be used to evaluate compliance and ensure that the contractor has a program in place to deal with all safety and health related requirements. The contractor is fully responsible for its content and implementation. Onsite work must not begin until the FCEO Project Manager has received the program or appropriate supplementary submittals. The submission of the program in no way relieves the contractor of the responsibility for providing employees with a safe and healthful work environment or compliance with OSHA standards.

3.0 Required Safety Meetings

3.1 Pre-Construction Safety Program Review

The contractor shall submit the Written Safety Program for review at a Pre-Construction Meeting prior to starting any site activities. The contractor must be prepared to discuss in detail the procedures to control the hazards likely to happen during major phases of the work, and the organizational assignments involved in administering the safety program.

3.2 Progress Meeting Safety

The FCEO Project Manager, the contractor's principal onsite representative, and designated members of respective staffs responsible for safety will review site safety concerns at the Progress Meetings. The safety segment of the meeting will review the contractors safety effort, resolve health and safety problems relating to current operations, and provide a forum for planning safe future activities.

4.0 Safety and Health Responsibility

The contractor must designate, in writing, a Safety Coordinator to administer the safety program on site and who has supervisory authority over the general contractor, subcontractors, and suppliers. This person shall have responsibility of site safety and worker health, and shall have the authority to correct deficiencies and stop work, if necessary, until deficiencies are corrected.

5.0 Accident and Incident Investigating and Reporting

The contractor's Safety Coordinator shall report all injury accidents and incidents to the FCEO Project Manager as they occur. If a death or injury involving a serious medical condition occurs, the incident shall be reported to the FCEO Project Manager and next of kin within 30 minutes by the contractor's Safety Coordinator. Results of accident investigations and corrective actions shall be provided to FCEO Project Manager as soon as practical following the investigation.

6.0 Safety Orientation

The contractor must give employees training containing pertinent provisions of the site safety and health program. Additionally, all sub-contractor and their employees are required to have training before working on the site. The contractor is responsible for the content of the training and shall make available the training for FCEO review.

7.0 Refusal to Comply With Occupational Safety and Health Requirements

The contractor must remove employees who refuse or repeatedly fail to comply with safe work practices and standards, or supervisors who fail to enforce compliance, from the associated work assignments.

EXPOSE NOTE

Where plans provide for a proposed conduit, storm sewer, waterline, or other construction to cross over or under an existing sewer or underground utility, the contractor shall locate the existing pipes or utilities both as to line and grade before starting to lay the proposed conduit, storm sewer, waterline, or other construction. If it is determined that the existing conduit or existing appurtenance to be connected differs from the plan elevation or results in a change in the planned work, the engineer shall be notified before starting construction of any portion of the proposed work which will be affected by the variance in the existing elevations. Payment for all the operations described above shall be included in the contract price for the pertinent items.

MATERIALS

A. All precast concrete pipe and products are subject to inspection during casting at the plant by the County Engineer's agent - City of Columbus, Inspection Division. All precast concrete pipe and products delivered to the job shall have a stamp by the City of Columbus, Inspection Division with their approval marking. All products manufactured off-site must still meet specifications when delivered and installed at the project. All materials and miscellaneous items incorporated into the precast concrete items shall be from stockpiles for which an ODOT approved lab report can be produced. Items in this category not pre-approved will require testing which will delay permitted use of the material and for which the Contractor is not entitled to a time extension. The proposed manufacturer shall be submitted to the Engineer for approval in writing so an inspection can be made of the proposed plant operations to determine if the applicable specifications referenced in the contract will be met. All manufacturing plant operations must continue to meet applicable specifications at all times.

B. Other Materials shall be in accordance to the ODOT-CMS. All materials shall be from stockpiles for which an ODOT (TE 24s, etc.) or City of Columbus Laboratory Report (for City CMS items) can be furnished to the Engineer.

PARSONS
 151 West 4th Street, Box 16
 Cincinnati, OH 45202

CALCULATED
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GENERAL NOTES
 CLI-CRO333-01.180
 WEST NORTH BROADWAY (1.18) OVER OLENTANGY RIVER

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 50

CONCRETE DELIVERY FOR ALL CONCRETE WORK

The use of dump trucks or any other non-agitating vehicles to deliver concrete to the project site is prohibited. Only concrete mixer trucks with agitating bodies specifically designed to haul concrete and approved for use by the Engineer shall be permitted to deliver concrete to the project site. Before delivery, a concrete washout area shall be constructed per Item 832.

CONCRETE PAVEMENTS, WALK, AND CURB RAMPS

All concrete base and finish pavements placed as per Item 305 and Item 451 shall have joints constructed in accordance to the ODOT Standard Drawing BP-2.1 for Longitudinal Pavement Joints and BP-2.2 for Transverse Pavement Joints using the load transfer dowel steel shown in the drawings.

All concrete placed as per Item 452 (driveways) and Item 608 (walks & ramps) shall follow Table 499.03-1 of the ODOT Construction and Materials Specifications with no slag or fly ash allowed.

As per ODOT 451.11 Contractor is responsible for curing, vandalized concrete and other incidentals such as expansion joint placement, expansion material around manholes etc. if within the sidewalk/curb ramp

ITEM 609 COMBINATION CURB & GUTTER, TYPE 4

All curbing for this project shall conform to Item 609 of the current ODOT CMS and to Standard Drawing BP 5.1 (see Typical Sections). Where curb crosses driveway "curb cut" areas the contractor shall use a medium set CLASS MS CONCRETE (CMS 499.03, which refers to Supplement 1126) as directed by the Engineer.

ITEM SPECIAL, CONTINGENCY

This item is a fixed amount for all bidders and is included in the Engineer's Estimate listed on the Bid Blank. It will be utilized for unforeseen conditions and extras encountered during the course of construction. Use of any portion of this item must be approved in writing by the Franklin County Engineer, Chief Deputy Engineer, and Construction Engineer in Change Order format.

THE CITY OF COLUMBUS DIVISION OF WATER

The City of Columbus, Construction and Material Specifications, 2018 edition and all revisions, including all supplements thereto, shall govern all construction items that are a part of this plan, unless otherwise noted.

All water main materials and installations shall be in accordance with the current rules and regulations of the City of Columbus, Division of Water. All City of Columbus, Division of Water Standard Drawings shall apply to the project, unless otherwise noted.

For any emergencies involving the water distribution system, please contact the Division of Water Distribution Maintenance Office at 614-645-7788.

All brass fittings associated with water work, including repairs to the existing system, shall conform to the revised allowable lead extraction limit per the updated NSF/ANSI 61 Standard. The Division of Water's Approved Materials List has been updated to reflect this requirement.

It shall be unlawful for any person to perform any work on City of Columbus water main systems without first securing license to engage in such work, as indicated in Columbus City Code Section 1103.02 and 1103.06. This work includes any attachments, additions to or alterations in any city service pipe or appurtenances (including water service lines and taps).

This requirement may be met by utilization of a subcontractor who holds a City of Columbus Water Contractor License or a Combined Water/Sewer Contractor License to perform this work. Utilization of a subcontractor must meet the licensing requirements of City of Columbus Building Code, in particular Section 4114.119 and 4114.529.

The Contractor shall obtain the proper hydrant permit(s), and pay any applicable fees, for any approved hydrant usage deemed necessary for work under this improvement. Permits may be obtained through the Division of Water Permit Office (614-645-7330). The contractor shall adhere to all rules & regulations governing said permit and must have the original permit on site anytime in which the hydrant is in use. Permits may be obtained by accessing <http://portal.columbus.gov/permits/>. Cost to be included in the various bid items.

Maintain eighteen (18) inches vertical and ten (10) feet horizontal separation between any sanitary or storm sewer piping and all proposed water mains.

When crossing the existing water main, and Low Strength Mortar (Item 613) is to be used as backfill, the Contractor shall provide Size No. 57 Crushed Carbonate Stone (CCS) 1 foot below to 1 foot above the existing water main.

If during excavation, the polyethylene encasement on the existing water main becomes damaged, the contractor shall repair the polyethylene encasement per manufacturer's specifications and DOW Standard Drawings L-1003 and L-1004, at their own expense. Ensure that the entire exposed area is covered with new polyethylene encasement and securely taped, prior to backfilling.

All water main valve boxes, water tap boxes, test stations, pitometer tap structures, meter pit covers, and other surface utility structures within the disturbed area shall be adjusted to grade. Any of these structures located within pavement, driveways, or other traveled areas, whether existing or proposed, shall be equipped with a traffic rated, heavy duty valve box and/or cover in accordance with the Standard Drawings. Existing water tap boxes to remain that are encountered within the project limits shall be cleaned out, centered over the curb stop, and adjusted to the proposed grade.

Riser rings will not be permitted on any newly installed valve boxes to bring valves to final grade. The contractor shall ensure that the boxes are installed at the correct grade for final paving operations and that their paving contractor installs pavement correctly at lids during paving operations. Valve lids are not permitted to set above final grade and shall be a maximum of 1/4" below final grade.

Where new conduit is proposed to cross an existing or proposed water main or water tap/service line, a minimum of 12-inches of vertical clearance shall be maintained between the conduit and the water main or tap/service line. A minimum of 3-feet of horizontal clearance (out to out) is required at locations where the conduit is parallel to the water main and at locations of water main thrust blocks.

A minimum of 3 feet of horizontal clearance (out to out) shall be maintained between all existing water mains and foundations for poles, pull boxes, push button pedestals, and any other miscellaneous electrical structure.

THE CITY OF COLUMBUS DIVISION OF POWER

The Division of Power (DOP) may have underground or overhead Primary Power, Secondary Power, conduit systems and street lighting at this work location. The contractor is hereby required to contact OUPS at 811 or 1-800-362-2764 forty-eight hours prior to conducting any activity within the construction area.

Any required relocation, support, protection, or any other activity concerned with the City's electrical facilities in the construction area is to be performed by the contractor under the direction of DOP personnel and at the expense of the project. DOP shall make all final connections to DOP's existing electrical system at the expense of the project. The contractor shall use material and make repairs to a City of Columbus street lighting system by following DOP's "Material and Installation Specifications" (MIS) and the City of Columbus "Construction and Material Specifications" (CMSC). Any new or re-installed underground streetlight system shall require testing as referred to in section 1001.18 of the CMSC manual. The contractor shall conform to DOP's existing Street Lighting Lockout/Tagout (LOTO) Procedure, MIS-01, copies of which are available from DOP.

If any electric facility belonging to DOP is damaged in any manner by the contractor, its agents, servants, or employees, and requires emergency repairs, the DOP Dispatch Office should be contacted immediately at (614) 645-7627. DOP shall make all necessary repairs, and the expense of such repairs and other related costs shall be paid by the contractor to the Division of Power, City of Columbus, Ohio.

STREET LIGHTING NOTES

The street lighting shall be constructed in accordance with the current City of Columbus, Ohio "Construction and Material Specifications" (2018 Edition, Section 1001, titled "Street Lighting"), including all supplements thereto, in force on the date of the contract, shall govern all materials and workmanship involved in the improvements shown on these plans, except as such specifications are modified by the following specifications or by the construction details set forth herein.

Circuit voltage for all luminaires shall be 480 volt, unless otherwise noted.

Centerline of light pole foundation and conduit trench to be placed in accordance with the plan details.

All proposed luminaires shall be 3000K LED.

No splices shall be made to circuit cables except at noted locations when permitted.

Trench location shall be deflected around obstacles as noted in this plan.

Where the trench is offset from the centerline of the foundations, the conduit shall be erected toward the ell of the foundation at approximately 45 degree angle. The foundation ells may be aimed out of foundation at approximately 45 degree angles to facilitate connection to conduit with the least amount of bends.

The plan details shall be considered supplemental to MIS Specifications.

Light pole foundations shall be located approximately where shown on plans with exact locations to be determined in the field after consideration is given to the location of underground and overhead utilities, pavements and grades.

It shall be the Contractor's responsibility to provide the anchor bolts and ensure that the bolt size, anchor bolt circle and pattern match the light pole.

As Build Record - The Contractor shall maintain a set of project record documents. These documents shall include reviewed shop drawings, change orders, equipment operating instructions, field test records, and as built drawings. The as built drawing shall be marked legibly in red, the actual location of equipment and conduits as constructed. All equipment and underground conduits installed shall have locations marked in distances off a landmark at least every 25 feet and as necessary at bends for location at a later date.

All items of work called for on the plans, for which no specific method of payment is provided, shall be performed by the Contractor and the cost of these shall be included in the unit price bid for the various related items. This includes, but is not limited to, such incidental items as relocation of mail boxes, saw cutting and removal and/or relocation of signs, railroad ties, sprinklers, relocating roof or sump drains around light pole foundations, hand digging around underground utilities or other miscellaneous items.

Prior to any painting, the Contractor shall submit paint samples and shop drawings to the City of Columbus. Paint samples shall be representative of the color, type and manufacture that will be used for light pole.

CITY OF COLUMBUS STREET LIGHTING

The general contractor is to contact Scott Wolfe at (614) 724-4351 email: sawolfe@columbus.gov prior to beginning any wiring operations for a review of wiring procedures in the field with the electrical subcontractor. The electrical subcontractor's qualified representative is to be present with the Division of Electricity and Franklin County for a final inspection of the electrical installation. Also, the electrical subcontractor is to fill out the inspection sheets required by the Division of Electricity for inventory and tests of the installation items.

EROSION AND SEDIMENT CONTROL

Land disturbance areas less than one acre and not a part a larger common plan of development are not required to submit to the City of Columbus a full scale erosion and sediment control plan for approval. However, the proposed land disturbing activities must comply with all of the provisions of the division of Sewerage and Drainage Erosion and Sediment Control regulation. All land disturbing activities shall be subject to inspection and site investigation by the City of Columbus to determine compliance with city standards and regulations. Failure to comply with these regulations may subject the site to enforcement action by the City. Questions regarding Erosion and Sediment Control may be referred to the Stormwater Management Office at 614-645-6311.

On-site contact:

Phone:

E-mail:

Site is tributary to :-----
----- (nearest named watercourse)

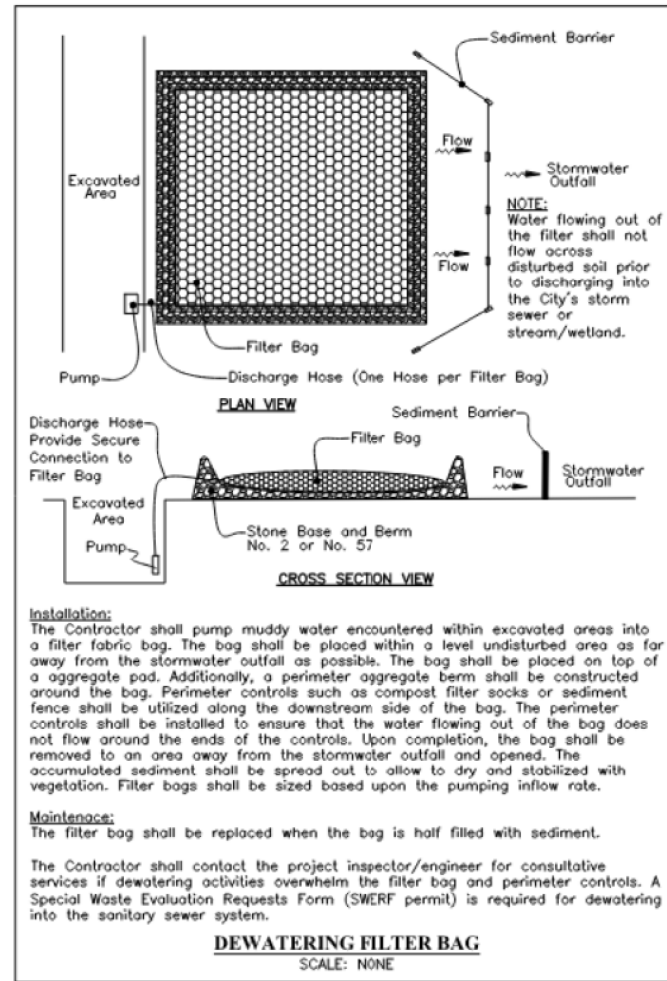
PAVEMENT CUTTING, SAWING, AND EXCAVATION OPERATIONS

All public agencies and private contractors performing pavement-cutting operations on City of Columbus streets and roadways shall protect the environment from discharges created by their pavement cutting operation. Note that the Columbus City Code 1145 prohibits non-stormwater discharge into the City of Columbus sewer system, curb inlets and any part of its MS4 (municipal separate storm sewer system).

The requirement includes but is not limited to wet or dry saw-cutting, jack hammering, excavation equipment use, etc. The public agency and/or private contractor work crews shall recover and dispose of debris, polluted waters, or such discharges resulting from their pavement cutting operations and protect all storm sewer inlets from receiving any discharges from the construction operations. The agency or contractor responsible for each pavement cutting activity shall be solely liable for Notice of Violations (NOV/s) and fines issued by City of Columbus and/or State of Ohio Authorities.

Equipment, materials and methods shall be provided by the responsible public agency and/or private contractor to work crews performing the pavement cutting activity and made available to work crews for use in cleaning up discharges resulting from such cutting activities and preventing runoff. All work crews shall be trained to exercise and employ equipment, materials, and environmental protective measures to prevent polluted discharges from entering the City of Columbus storm sewer system and waters of the State of Ohio.

The public agency and/or private contractors are solely responsible for ensuring that the inlet protection is adequate. The most stringent project plans, notes and/or drawing including Stormwater Pollution Prevention Plan (SWP3) or Spill Prevention/Remediation Plan shall apply to all pavement cutting, sawing or excavation operations.



Installation:
The Contractor shall pump muddy water encountered within excavated areas into a filter fabric bag. The bag shall be placed within a level undisturbed area as far away from the stormwater outfall as possible. The bag shall be placed on top of a aggregate pad. Additionally, a perimeter aggregate berm shall be constructed around the bag. Perimeter controls such as compost filter socks or sediment fence shall be utilized along the downstream side of the bag. The perimeter controls shall be installed to ensure that the water flowing out of the bag does not flow around the ends of the controls. Upon completion, the bag shall be removed to an area away from the stormwater outfall and opened. The accumulated sediment shall be spread out to allow to dry and stabilized with vegetation. Filter bags shall be sized based upon the pumping inflow rate.

Maintenance:
The filter bag shall be replaced when the bag is half filled with sediment.

The Contractor shall contact the project inspector/engineer for consultative services if dewatering activities overwhelm the filter bag and perimeter controls. A Special Waste Evaluation Requests Form (SWERF permit) is required for dewatering into the sanitary sewer system.

SHEET NUM.								PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.
24	25	26	27	44-46			01/NHS/B R	EXT	TOTAL					
							LS	201	11000	LS		CLEARING AND GRUBBING		
187	280						467	202	23000	467	SY	PAVEMENT REMOVED		
33	105						138	202	32000	138	FT	CURB REMOVED		
34							34	202	32500	34	FT	CURB AND GUTTER REMOVED		
	13						13	202	35100	13	FT	PIPE REMOVED, 24" AND UNDER		
110	96						206	202	38000	206	FT	GUARDRAIL REMOVED		
	1						1	202	58300	1	EACH	CATCH BASIN OR INLET REMOVED		
178	163						341	203	10000	341	CY	EXCAVATION		
411	376						787	204	10000	787	SY	SUBGRADE COMPACTION		
173	920						1,093	608	10000	1,093	SF	4" CONCRETE WALK		
1							1	622	25001	1	EACH	CONCRETE BARRIER END SECTION, TYPE D, AS PER PLAN	24	
							5,000	832	30000	5,000	EACH	EROSION CONTROL		
109	157						266	605	06000	266	FT	4" BASE PIPE UNDERDRAINS		
	1						1	611	99500	1	EACH	INLET, MISC.: CITY OF COLUMBUS 60" CURB INLET (AA-S123)		
57	73						130	304	20000	130	CY	AGGREGATE BASE		
32							32	305	10010	32	SY	6" CONCRETE BASE, CLASS QC 1P		
154	184						338	305	13010	338	SY	9" CONCRETE BASE, CLASS QC 1P		
13	14						27	407	20000	27	GAL	NON-TRACKING TACK COAT FOR SURFACE COURSE		
7	7						14	407	20000	14	GAL	NON-TRACKING TACK COAT FOR INTERMEDIATE COURSE		
6	6						12	441	50000	12	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22		
10	9						19	441	50200	19	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448)		
	29						29	452	10010	29	SY	6" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P		
28							28	609	23000	28	FT	COMBINATION CURB AND GUTTER, TYPE 4		
28	71						99	609	24510	99	FT	CURB, TYPE 4-C		
	2						2	638	10800	2	EACH	VALVE BOX ADJUSTED TO GRADE		
			3				3	625	00480	3	EACH	CONNECTION, UNFUSED PERMANENT		
			375				375	625	25400	375	FT	CONDUIT, 2", 725.04		
			33				33	625	25802	33	FT	CONDUIT, CONCRETE ENCASED (2")		
			4				4	625	27600	4	EACH	LUMINAIRE, MISC.: CITY OF COLUMBUS COBRA HEAD LED LUMINAIRE (MIS-800)		
			2				2	625	35010	2	EACH	REMOVE AND REERECT EXISTING LIGHT POLE (CITY OF COLUMBUS STREET LIGHT RELOCATION, STANDARD (MIS-503))		
			4				4	625	75506	4	EACH	LUMINAIRE REMOVED		
			428				428	625	98100	428	FT	LIGHTING, MISC.: CITY OF COLUMBUS 3-WIRE UNDERGROUND CIRCUIT (MIS-404)		
			LS				LS	625	98200	LS		LIGHTING, MISC.: AESTHETIC LIGHTING IN RAIL		
1							1	630	87500	1	EACH	REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL		
1	1						2	630	87520	2	EACH	REMOVAL OF POLE MOUNTED SIGN AND REERECTION		
		0.2					0.2	644	00101	0.2	MILE	EDGE LINE, 4", AS PER PLAN (5")		
		0.16					0.16	644	00201	0.16	MILE	LANE LINE, 4", AS PER PLAN (5")		
		0.14					0.14	644	00301	0.14	MILE	CENTER LINE, AS PER PLAN (5")		
		22					22	644	00700	22	FT	TRANSVERSE/DIAGONAL LINE		
2							2	644	30020	2	EACH	REMOVAL OF PAVEMENT MARKING		
		0.04					0.04	645	00100	0.04	MILE	EDGE LINE, 4", TYPE A1 (5")		
		0.04					0.04	645	00200	0.04	MILE	LANE LINE, 4", TYPE A1 (5")		
		0.02					0.02	645	00300	0.02	MILE	CENTER LINE, TYPE A1 (5")		

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GENERAL SUMMARY
CLI-CR0333-01.180
WEST NORTH BROADWAY (1.18) OVER OLENTANGY RIVER

PARSONS
151 West 4th Street, Box 16
Cincinnati, OH 45202

SHEET NUM.								PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.
13-18	19-22	28	29	30	34	36	37	01/NHS/B R		EXT	TOTAL			
													STRUCTURE OVER 20 FOOT SPAN (CTY-RTE-SECT or SFN)	
								LS	202	11200	LS		PORTIONS OF STRUCTURE REMOVED	
		344						344	202	22900	344	SY	APPROACH SLAB REMOVED	
		3,064						3,064	202	23500	3,064	SY	WEARING COURSE REMOVED	
								LS	503	11100	LS		COFFERDAMS AND EXCAVATION BRACING	
								LS	503	21300	LS		UNCLASSIFIED EXCAVATION	
		25,610						25,610	509	10000	25,610	LB	EPOXY COATED STEEL REINFORCEMENT	
								3,840	509	30020	3,840	FT	NO. 4 DEFORMED GFRP REINFORCEMENT	
								792	510	10000	792	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT	
						1	1	2	511	33501	2	EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE, AS PER PLAN	36
								128	511	34410	128	CY	CLASS QC2 CONCRETE, SUPERSTRUCTURE	
								66	511	34448	66	CY	CLASS QC2 CONCRETE, BRIDGE DECK (PARAPET)	
								12	511	45712	12	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT	
								17	511	53012	17	CY	CLASS QC2 CONCRETE, MISC.: SIDEWALK REPLACEMENT	
								52	512	10050	52	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)	
			3	3				6	512	33000	6	SY	TYPE 2 WATERPROOFING	
								474	SPECIAL	51275500	474	SY	SEALING OF CONCRETE SURFACES (SILANE)	
								148	516	10010	148	FT	ARMORLESS PREFORMED JOINT SEAL	
								145	516	14020	145	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL	
								370	516	25000	370	SF	NYLON REINFORCED NEOPRENE SHEETING	
					24			24	516	44101	24	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN(9" X 16" X 2.83" WITH 10" X 17' X 1.5" PLATE)	34
								LS	516	47001	LS		JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN	30
								510	517	76300	510	FT	RAILING, MISC.:DECORATIVE RAIL	46
		4						4	518	12300	4	EACH	SCUPPERS, INCLUDING SUPPORTS	
								45	518	21200	45	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	
						93	92	185	518	40000	185	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	
								80	518	40010	80	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	
								425	526	30001	425	SY	REINFORCED CONCRETE APPROACH SLABS (T=17"), AS PER PLAN	47
								148	526	90030	148	FT	TYPE C INSTALLATION	
								2,865	848	10200	2,865	SY	SUPERPLASTICIZED DENSE CONCRETE OVERLAY USING HYDRODEMOLITION (THICKNESS 2.5" DECK)	39
								2,865	848	20000	2,865	SY	SURFACE PREPARATION USING HYDRODEMOLITION	39
								LS	848	50100	LS		TEST SLAB	
													Structural Grounding System	
													MAINTENANCE OF TRAFFIC	
2	2							4	614	12394	4	EACH	WORK ZONE IMPACT ATTENUATOR, OVER 24" AND LESS THAN 36" WIDE HAZARDS, (BIDIRECTIONAL)	
0.21	0.18							0.39	614	21200	0.39	MILE	WORK ZONE CENTER LINE, CLASS I, 740.06, TYPE I	
0.46	0.37							0.83	614	22200	0.83	MILE	WORK ZONE EDGE LINE, CLASS I, 4", 740.06, TYPE I	
125	129							254	614	23410	254	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 12", 740.06, TYPE I	
550								550	614	24400	550	FT	WORK ZONE DOTTED LINE, CLASS I, 4", 740.06, TYPE I	
								1	616	10000	1	MGAL	WATER	
473	456							929	622	41100	929	FT	PORTABLE BARRIER, UNANCHORED	
								LS	614	11000	LS		MAINTAINING TRAFFIC	
								LS	624	10000	LS		MOBILIZATION	
													Item 623 - Construction Layout Stake and Surveying?	

PARSONS
 151 West 4th Street, Box 16
 Cincinnati, OH 45202
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GENERAL SUMMARY
 CLI-CR0333-01.180
 WEST NORTH BROADWAY (1.18) OVER OLENTANGY RIVER

REF NO.	SHEET NO.	STATION TO STATION				611	614	614	614	614	614	616	622	622	625	625	625	625	625	625	630	630	625	625	638
		INLET, MISC.: CITY OF COLUMBUS 60" CURB INLET, (AA-S123)	WORK ZONE IMPACT ATTENUATOR, OVER 24" AND LESS THAN 36" WIDE HAZARDS, (BIDIRECTIONAL)	WORK ZONE CENTER LINE, CLASS I, 740.06, TYPE I	WORK ZONE EDGE LINE, CLASS I, 740.06, TYPE I	WORK ZONE CHANNELIZING LINE, CLASS I, 12", 740.06, TYPE I	WORK ZONE DOTTED LINE, CLASS I, 740.06, TYPE I	WATER	PORTABLE BARRIER, UNANCHORED	CONCRETE BARRIER END SECTION, TYPE D, AS PER PLAN	CONNECTION, UNFUSED PERMANENT	CONDUIT, 2", 725.04	CONDUIT, CONCRETE ENCASED (2")	LUMINAIRE, MISC.: CITY OF COLUMBUS COBRA HEAD LED LUMINAIRE (MIS-800)	REMOVE AND REERECT EXISTING LIGHT POLE (CITY OF COLUMBUS STREET LIGHT RELOCATION, STANDARD (MIS-404)	LUMINAIRE REMOVED	REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL	REMOVAL OF POLE MOUNTED SIGN AND REERECTION	LIGHTING, MISC.: CITY OF COLUMBUS 3-WIRE UNDERGROUND CIRCUIT (MIS-404)	LIGHTING, MISC.: AESTHETIC LIGHTING IN RAIL	VALVE BOX ADJUSTED TO GRADE				
TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO	TO
DR-1	25	19+17.00	RT	19+17.00	RT	1																			
IA-1	16	13+85.00	RT	14+06.00	RT		1																		
IA-2	17	18+78.00	RT	18+99.00	RT		1																		
IA-3	21	14+04.00	RT	14+25.00	RT		1																		
IA-4	22	18+80.00	RT	19+00.00	RT		1																		
CL-2	16-18	11+59.00	RT	21+63.00	RT			0.19																	
CL-1	16	13+05.00	RT	13+86.00	RT			0.02																	
CL-3	21-22	11+75.00	RT	21+00.00	RT			0.18																	
EL-1	15	7+88.00	RT	9+95.00	RT			0.04																	
EL-3	16-18	11+61.00	RT	20+17.00	RT			0.16																	
EL-2	16-18	12+04.00	LT	24+21.00	LT			0.23																	
EL-4	17	18+96.00	RT	20+17.00	RT			0.02																	
EL-5	21-23	11+64.00	RT	21+87.00	RT			0.19																	
EL-6	21-22	13+96.00	LT	19+01.00	LT			0.10																	
EL-7	22-23	19+02.00	LT	23+00.00	LT			0.08																	
CH-2	16	11+61.00	LT	12+20.00	LT				60																
CH-1	16	11+61.00	LT	11+98.00	LT				38																
CH-3	16	12+82.00	LT	13+07.00	RT				27																
CH-4	21	11+60.00	RT	12+88.00	LT				129																
DL-2	15-16	9+95.00	RT	11+59.00	RT					162															
DL-1	15-16	9+96.00	RT	11+59.00	RT					162															
DL-3	16	11+98.00	LT	13+25.00	LT					133															
DL-4	16	13+07.00	RT	13+97.00	RT					93															
PB-1	16-17	14+06.00	RT	18+78.00	RT						1		473												
PB-2	21-22	14+25.00	RT	18+80.00	RT								456												
B-1	24	14+00.00	RT	14+16.00	RT									1											
	27	13+65.00	RT	13+65.00	RT										1										
	27	15+97.00	RT	15+97.00	RT										1										
	27	16+98.00	RT	16+98.00	RT										1										
	27	13+97.00	RT	17+99.00	RT											375									
	27	13+97.00	RT	14+30.00	RT												33								
L-1	27	14+96.00	LT	14+96.00	LT													1							
L-2	27	15+97.00	RT	15+97.00	RT													1							
L-3	27	16+98.00	LT	16+98.00	LT													1							
L-4	27	17+99.00	RT	17+99.00	RT														1						
L-3	27	15+97.00	RT	15+97.00	RT													1							
L-4	27	17+99.00	RT	17+99.00	RT													1							
L-1	27	14+96.00	LT	14+96.00	LT														1						
L-2	27	15+97.00	RT	15+97.00	RT														1						
L-3	27	16+98.00	LT	16+98.00	LT														1						
L-4	27	17+99.00	RT	17+99.00	RT														1						
RS-1	26	13+65.00	RT	13+65.00	RT															1					
RSR-1	26	15+97.00	RT	15+97.00	RT																	1			
RSR-2	26	17+99.00	RT	17+99.00	RT																		1		
	27	13+97.00	RT	17+99.00	RT																		428		
	44-46																							LS	
WV-1	25	19+25.00	RT	19+25.00	RT																			1	
WV-2	25	19+43.00	RT	19+43.00	RT																			1	

TOTALS CARRIED TO GENERAL SUMMARY

1 4 0.39 0.83 254 550 1 929 1 3 375 33 4 2 4 1 2 428 LS 2

ESTIMATED QUANTITIES
 CLI-CR0333-01.180
 WEST NORTH BROADWAY (1.18) OVER OLENTANGY RIVER

PARSONS
 151 West 4th Street, Box 16
 Cincinnati, OH 45202

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ITEM 614, MAINTAINING TRAFFIC

A minimum of two 11' lanes of traffic in each direction on W North Broadway during non-working hours and peak periods (7am-9am and 4pm-6pm). by the use of the existing pavement, the completed pavement, Item 502 structure for maintaining traffic, Item 615 Pavement for Maintaining Traffic, Item 615 Roads for Maintaining Traffic, and temporary surfaces using Items 410 and 614. ODOT's Typical Application drawings TA-31 and TA-32(OMUTCD Figures 6H-31 and 6H-32), as well as MT-95.30 shall be used as general guidance for the MOT set-up, as directed by the Engineer.

Length and duration of lane closures and restrictions shall be at the approval of the engineer. It is the intent to minimize the impact to the traveling public. lane closures or restrictions over segments of the project in which no work is anticipated within a reasonable time frame, as determined by the engineer, shall not be permitted. The level of utilization of maintenance of traffic devices shall be commensurate with the work in progress.

All work and traffic control devices shall be in accordance with C&MS 614 and other applicable portion of the specifications, as well as the Ohio Manual of Uniform Traffic Control Devices. Payment for all labor, equipment and materials shall be included in the lump sum contract price for Item 614, Maintaining Traffic, unless separately itemized in the plan.

The following is the suggested sequence of construction for this project:

Phase 1 will be constructing the north side of the bridge by shifting traffic to the existing south side of the bridge. Two 11 ft lanes will be in operation on the bridge.

Phase 2 will be constructing the south side of the bridge by shifting traffic to the newly completed north side of the bridge. Two 11 ft lanes will be in operation on the bridge.

The following devices must meet NCHRP 350 or MASH-08 before the devices are installed on the project: drums, cones, vertical panels and the panel support, portable sign supports, temporary impact attenuators, temporary concrete barrier, and barricades.

All construction signing shall be installed and covered before construction begins. After construction sign installation, the Contractor shall notify the Franklin County Engineer's Office Mobility Department at 614-525-6036 three (3) working days before work begins and request an inspection of all signing.

Faces of construction signs and reflective sheeting on barricades shall be Type H (VIP). All orange construction signs shall be fluorescent orange. All sheeting will be tested for reflectivity per ODOT 730.192. Vertical panels and drum bands shall be reflectorized with Type G (high intensity) sheeting complying with the requirements of 730.19. All signs and barricades, vertical panels, and drums will be like new and in good condition in conformance with "Quality Guidelines for Temporary Traffic Control Devices and Features" published by ATSSA.

ITEM 614, MAINTAINING TRAFFIC (CONT'D)

Maintenance of all Contractor-supplied signs, barricades, vertical panels and drums is the Contractor's responsibility. If the Contractor fails to correct deficiencies within four (4) hours of notification, Franklin County shall correct or hire someone to correct the deficiencies. The Contractor shall then be back charged per ODOT Specification 614. In the case that back charging the Contractor is not applicable, the County will rescind and withhold all permits issued to the Contractor to work within County right-of-way until the issue is settled. These provisions shall not in any way relieve the Contractor of any of their legal responsibilities or liabilities for the safety of the public.

All barricades at closures shall have yellow Type A low intensity flashing warning lights and two flags. Reflective material is required on both sides of all barricades.

Cones are approved for daytime use only. Drums shall be used at night and have yellow Type C steady burn lights. Cones and Drums shall be placed as follows: 25' c/c on tangents, 15' c/c on tapers, and 8' c/c in radii.

All signs nine square feet (36" x 36") and over shall have yellow Type A low intensity flashing warning lights and two flags.

All costs that consist of maintaining and protecting vehicular and pedestrian traffic according to the latest edition of the City of Columbus Construction and Material Specifications, the Ohio Manual of Uniform Traffic Control Devices for Streets and Highways (OMUTCD), and per the requirements designated in the plan including all law enforcement officer (LEO) and flagger hours shall be included in the Lump Sum Item 614.

In addition to the requirements herein, and the latest edition of the Ohio Manual of Uniform Traffic Control Devices, a uniformed law enforcement officer (LEO) shall be provided for controlling traffic under the following conditions:

- Work within a signalized intersection defined as the area bounded by the rear X-walk lines
- When flagging within the intersection of two arterial roadways
- When specified in the Maintenance of Traffic Plan or as when directed by the Project Engineer
- When shifting traffic left of center, through a signalized intersection, without shifting signal heads

A flagger shall be utilized to assist in controlling traffic while equipment is entering or exiting an intersection or work zone. The Contractor may utilize his own flagger or LEO under Pay Item 614 Maintaining Traffic, Lump Sum. Flaggers and LEO's shall be equipped according to the standards for flagging traffic contained in the OMUTCD. Flagging operations performed by LEO's or designated flaggers shall only be permitted as long as all traffic control is in place according to Figure 6H-10 (TA-10) in the Ohio Manual. Patrol cars shall not be used in flagging operations.

If the contractor wishes to utilize LEO's with or without patrol cars for traffic control other than for that required in the plans, they may do so at their own expense. The Contractor shall make arrangement through the Columbus Police Division at (614) 645-4795.

ITEM 614, MAINTAINING TRAFFIC (CONT'D)

LEO's shall be considered to be employed by the Contractor and the Contractor shall be responsible for their actions. Although employed by the Contractor, the City Representative shall have control over their placement. LEO's shall not have the authority to change, edit or modify any maintenance of traffic scheme without the permission of the Temporary Traffic Control Coordinator or Project Engineer unless an emergency develops.

If a safety hazard develops, a LEO may be assigned by the Columbus Public Safety and/or the Public Service Director at the Contractor's expense.

DRUM REQUIREMENTS

In addition to the requirements of the plans, specification, and proposal, drums furnished by the contractor shall be new and unused at the time of arrival on the project. Any drums brought on the project, which have previously been used elsewhere, will not be accepted.

Payment for drums shall be included in the lump sum price bid for maintaining traffic unless separately itemized.

DUST CONTROL

The contractor shall furnish and apply water for dust control as directed by the engineer. The following estimated quantities have been included for dust control purposes:

Item 616, Water 1 M. GAL.

COORDINATION WITH MORPPC PAVING THE WAY (PTWP) AND COTA

Paving The Way projects will be entered into the PTWP system by Franklin County. The Contractor shall notify Franklin County's Senior Mobility Technician, and the COTA Senior Service Planner, of all traffic restrictions and upcoming maintenance of traffic changes on a weekly basis. When detours are planned, the notification shall be reported at least 30 days in advance of any road closures. Lane closures of less than two weeks duration and more than two days shall be reported at least 3 working days in advance. For short-term lane closures (2 days or less) notification shall be made at least one day in advance. The report shall be of a format approved by the Project Engineer or one supplied by the Senior Mobility Technician. The Senior Mobility Technician can be reached by phone at 614-525-6036, or by email at PavingTheWay@franklincountyengineer.org, and COTA at 614-308-4373, or by email at evanspm1@cota.com.

PEDESTRIAN ACCESS

The Contractor shall be responsible for the protection and safe movement of pedestrians through, around, and away from the construction site. The safety of pedestrian traffic shall be considered at all times in the provision of traffic control devices required by these plans and notes. It shall be the Contractor's responsibility to provide lights, signs, barricades, and other warnings to physically separate the pedestrian from hazards incidental to the construction operations such as open excavations, etc. Traffic control for pedestrian movements shall be in accordance with OMUTCD Figure 6H-28 and 6H-29 (TA-28 and TA-29). Pedestrian MOT shall, at all times, be subject to the approval of the Engineer.

LOCAL ACCESS

Ingress and egress shall be maintained to all residential and commercial properties. Driveway closures may be necessary to enable work on, or in front of, a drive. The Contractor will be responsible for notifying owners, residents, or business operators, in writing, at least 48 hours, but not more than 72 hours, prior to closure. The Engineer shall be given a list of the persons that were given notices with the date of notice included. Closure is permitted only during work hours and access must be returned at the end of each working day. Properties with multiple drives may have one drive closed at a time, while work is performed in the area of the closed drive.

Individual drive closures shall be kept to the minimum time needed for construction activities. Every effort must be made to accommodate both residential and commercial property owner's need for access.

EXISTING TRAFFIC SIGN MAINTENANCE

Special care shall be taken to maintain existing street name signs and stop signs. If necessary, the Contractor shall relocate these signs out of the way of construction, but in conformance with OMUTCD. Any damaged sign shall be replaced at the expense of the Contractor.

REMOVAL OF PAVEMENT MARKINGS

Removal of existing or work zone pavement markings from the final surface course using water blasting or grinding is not permitted. Removal of markings shall be by means of full-width milling and overlaying to a depth of 1 1/2" before the permanent markings are applied. All replacement pavement markings shall comply with ODOT Item 644 Thermoplastic Pavement Marking, applied at the widths shown below:

Edge Lines 6" White
 Channelizing Lines 12" White
 Center Lines 6" Yellow

ITEM 614, WORK ZONE IMPACT ATTENUATOR FOR 24" WIDE HAZARDS (UNIDIRECTIONAL OR BIDIRECTIONAL)

This item shall consist of furnishing and installing a non-gating impact attenuator. Furnish an impact attenuator from the office of roadway engineering's approved list for work zone impact attenuators, from the roadway standards approved products web page.

Installation shall be at the locations specified in the plans in accordance with the manufacturer's specifications.

The contractor shall repair or replace a damaged unit within 24 hours of a damaging impact.

When bidirectional designs are specified, the contractor shall supply appropriate transitions.

When gating impact attenuators are desired, the contractor shall submit documentation to the engineer for acceptance.

The cost for the additional barrier required for a gating impact attenuator shall be included in the cost of the the gating impact attenuator.

Payment for the above work shall be made at the unit price bid and shall include all labor, tools, equipment and materials necessary to construct and maintain a complete and functional impact attenuator system, including all related backups, transitions, leveling pads, hardware and grading, not separately specified, as required by the manufacturer.

TEMPORARY TRAFFIC CONTROL

The contractor shall give advance notification (written and verbally) to the Temporary Traffic Control Coordinator at 614-645-0355 or 614-645-5845 & the Division of Refuse Collection's Operation Manager at 614-645-1675, Project Engineer informing them of all upcoming maintenance of traffic changes on a weekly basis. Notification shall include, but not be limited to, what, where, when, and how pedestrian and vehicular traffic will be affected, and the Temporary traffic control procedures the Contractor is planning to use. The type of traffic change shall determine the length of advance notification required:

Type of Change	Advance Notification Needed
Detours/Road Closures 30-Day Notification Prior to Closure	2-Weeks
Lane Closures Lasting 2 Weeks or More	3-Days
Lane Closures of Less Than 2 Weeks	1-Day

Type C steady-burn or Type D 360-degree steady-burn warning lights shall be required on all barricades, drums, and similar traffic control devices in use at night. Only 42" reflectorized channelizing devices (cones) shall be permitted for nighttime work with the approval of the TTC Coordinator at 614-645-0355 or 614-645-5845 per O.D.O.T. Standards.

A flashing arrow panel (48" x 96"-type C) shall be used in lane closures as per the Ohio Manual.

All trenches within the road right of way shall be backfilled or securely plated per (City of Columbus General Policy on Steel Plate Usage dated 11/15/2006 and Std. Dwg. 1441, latest edition) during non-working hours.

The Contractor shall contact the Division of Refuse Collection, Operations Manager Michael Pickard, 614-645-1675.

No excavation shall be made within five (5) feet of any foundation that supports signal poles, traffic signal displays or signs by mast arm or signal span. Excavation within eight (8) feet, but more than five (5) feet shall require additional support (down guy, head guy, base guy, etc.). The Contractor shall contact Signal Operation Personnel at 614-645-0423 (cell 614-419-4501) at least forty-eight (48) hours (excluding Sat. & Sun.) prior to the beginning of such excavation so that the City can approve the stabilization setup by the Contractor. If unable to make contact through above numbers, call 614-645-7393. Stabilization will be done by the Contractor at the owners'/contracting agency's expense.

Signal conduit clearance 3' horizontal and 1' vertical from adjacent utilities shall be maintained at all times.

When any traffic control device, conduit, or cable is damaged, the Contractor shall notify Signal Operation Personnel at 614-645-0423 (cell 614-419-4501) between 7:00 am and 4:00 pm, Monday through Friday. If unable to make contact through the other numbers, call 614-645-7393.

The roadway or any section of roadway shall not be opened to non-construction traffic until all temporary, non-reflective, blackout tape has been completely removed from non-conflicting permanent pavement markings for that area of the roadway, or unless otherwise directed in writing by the Engineer. This is supplemental to City of Columbus, CMS-614.11- G, and shall be paid for through the 614-Lump Sum.

TEMPORARY TRAFFIC CONTROL (CONT'D)

Whenever yellow centerlines or turn-lane lines are paved over, removed, or otherwise unserviceable, the Contractor shall install class II temporary striping (minimum 4' long segments). Temporary paint shall be used on all milled surfaces. Temporary tape shall be used on all final courses of asphalt. Paint or tape may be used on intermediate courses of asphalt. If approved by the Engineer, drums with steady burning Type C or Type D 360 degree warning lights and "keep right" signs may be substituted for centerline markings.

Class II temporary striping (minimum 4' long segments) shall be as per item 614 - Work Zone Pavement Marking and shall be placed within one (1) foot longitudinal tolerance of the permanent stripe(s). All temporary striping not to within one (1) foot tolerance shall be removed and replaced in the proper location by the Contractor. Class II temporary striping shall be of the appropriate color and spaced a maximum of forty (40) feet center to center.

EXISTING PERMANENT TRAFFIC CONTROL

The Contractor shall be responsible for reinstallation and/or replacement of all permanent traffic control devices damaged or removed during construction. Permanent traffic control no longer in conflict with temporary traffic control shall be replaced immediately.

The Contractor shall replace all pavement markings, including raised pavement markers (RPM) shown in conflict, removed due to construction or maintenance of traffic set up, destroyed, or rendered unserviceable by the Project Engineer or the Public Service Pavement Marking Manager. All pavement marking materials shall be replaced in-like kind if not shown in the plan or permit including raised pavement markers. All pavement markings shall be replaced in full. No partial length or sections of pavement markings shall be replaced without removing the entire marking by use of the water blast method. Removal by abrasive wheel grinding shall only be approved by the Public Service Pavement Marking Manager.

All overhead cable, and down guys or back guys shall not block any portion of a traffic signal, traffic control sign, or other traffic control device such that visibility or operation of the traffic control device is impaired.

All permanent pavement markings and traffic control signs as shown on this plan shall be installed by the Contractor at the projects expense. The Project Engineer shall be notified to direct appropriate personnel a minimum of forty-eight (48) hours (excluding Sat. & Sun.) prior to the installation of permanent markings to inspect and approve the pavement marking layout prior to placing the permanent markings.

Permanent striping or Class I temporary striping shall be installed no later than fourteen (14) calendar days after the final paving course is completed. The Paving Contractor shall be responsible to notify the Striping Contractor to insure the permanent striping is installed within the fourteen (14) calendar day limit.

All existing and proposed permanent traffic controls not in conflict with the temporary traffic controls shall be maintained throughout the project by the Contractor. The Contractor shall contact the Franklin County Engineer's Mobility Department at 614-525-6036 prior to disturbing or relocating any existing signing. The Contractor shall assume all liability for missing, damaged, and improperly placed traffic control devices.

WORK ZONE RAISED PAVEMENT MARKERS

Work Zone Raised Pavement Markers (WZRP) shall be placed on all work zone lines shown in the plans. Payments for the WZRPMs placement, replacement, removal, and relocation, including all labor and materials, shall be included in the contract price for Item 614, Maintaining Traffic.

DELINEATION OF PORTABLE AND PERMANENT BARRIER

Barrier reflectors and object markers shall be installed on all portable barrier (pb) used for traffic control and on permanent concrete barrier (including bridge parapets) located within 5 feet of the edge of the adjacent travel lane.

Barrier reflectors shall conform to C&MS 626, except that the spacing shall be as per traffic SCD MT-101.70. Object markers and their installation shall conform to C&MS 614.03 and SCD MT-101.70. When the PB contains glare screen, one set of three vertical stripes of sheeting shall be considered equivalent to an object marker, one-way.

Increased barrier delineation, as specified herein, shall be installed on all PB and concrete permanent barrier located within 5 feet of the edge of the traveled lane under either of the following conditions: along tapers and transition areas and along curves (outside only) with degree of curvature greater than or equal to 3 degrees.

The increased barrier delineation shall consist of either delineation panels or the triple stacking of work zone barrier reflectors.

Delineation panels shall consist of panels of delineation, approximately 34 inches long and 6 inches wide and shall be "crimped." panels shall be installed and spaced per traffic SCD MT-101.70.

Triple-stacked barrier reflectors shall consist of aligning three barrier reflectors vertically, at locations where a single barrier reflector would be otherwise attached. There shall be no open space between the adjacent barrier reflectors. The triple-stacked barrier reflectors shall conform to C&MS 626, except that they shall be spaced and aligned per traffic SCD MT-101.70.

MAINTAINING TRAFFIC DURING HOLIDAYS AND SPECIAL EVENTS

No work shall be performed and all existing lanes shall be open to traffic during designated holidays or special events including the Ohio State football home games. The period of time that the lanes are to be open depends on the day of the week on which the holiday or event falls. Contact the City of Columbus Temporary Traffic Control Coordinator, 614-645-5845 or cell, 614-332-7472 for event dates, locations, and schedule. Holidays will consist of Christmas, New Years, Fourth of July-red, White and Boom Fireworks Night (6:00am-12midnight), Memorial Day, Labor Day, and Thanksgiving. Red, White and Boom, Fireworks Celebration and a minimum of one day prior to FireworksNight shall require all temporary traffic control devices to be removed from the project area and place either in a pre-determined location approved by the Temporary Traffic Control Coordinator or completely removed from the site.

The contractor shall contact the City of Columbus Temporary Traffic Control Coordinator for any additional MOT requirements for special events, including OSU football home games.

MAINTAINING TRAFFIC DURING HOLIDAYS AND SPECIAL EVENTS (CONT'D)

The Contractor shall maintain all permanent traffic controls not in conflict with the temporary traffic controls throughout this project. Permanent traffic controls may be temporarily relocated or covered, as approved by the Engineer. The Contractor shall assume all liability for missing, damaged, or improperly placed signs.

Any work done by the Department of Public Service, including installation, relocation, removal and/or replacement of temporary traffic control devices as a result of work done by the Contractor or as a result of negligence of the Contractor, shall be at the Contractors' expense.

The roadway shall not be opened to non-construction traffic until the critical permanent traffic controls are in place, or until temporary traffic controls approved by the Engineer, are installed. The critical permanent traffic controls are stop, yield, one - way, do not enter, restricted turn signs and all street name signs. Other critical signs may be noted on the plans as well. The Contractor assumes all liability for the premature removal of temporary traffic controls.



LEGEND

- ➔ Direction of Traffic
- ▬ 32" Portable Concrete Barrier
- ▨ Area to be Constructed
- • • Drums Spaced at 25' Center to Center
 Drums Spaced at 15' on Tapers
 Drums Spaced at 8' on Radii





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 WEST NORTH BROADWAY (1.18) OVER OLENTANGY RIVER



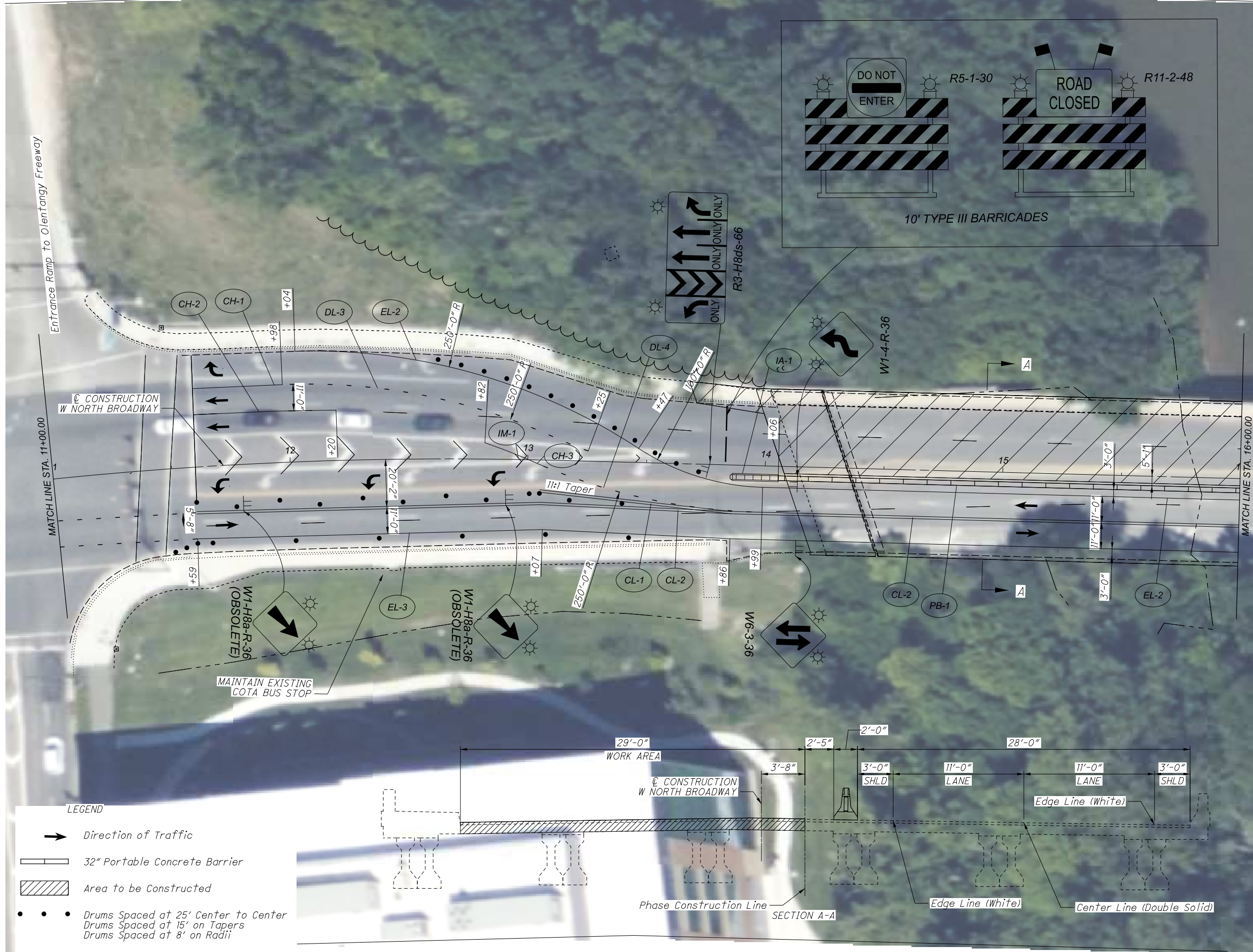
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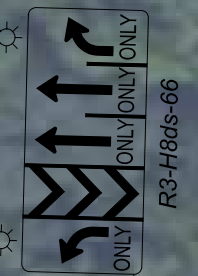
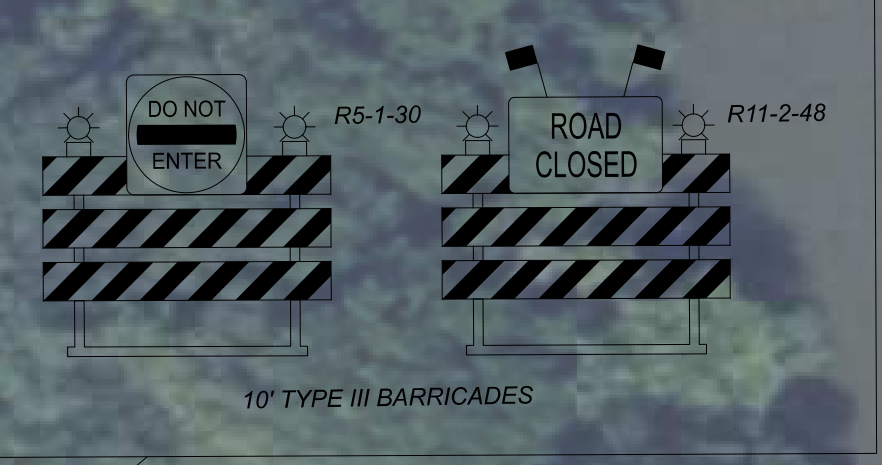
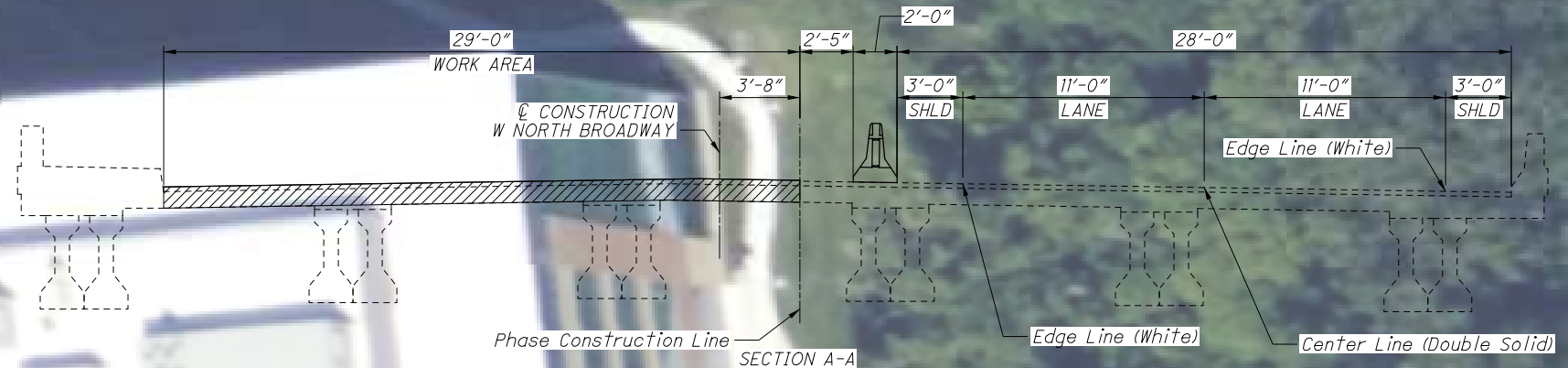
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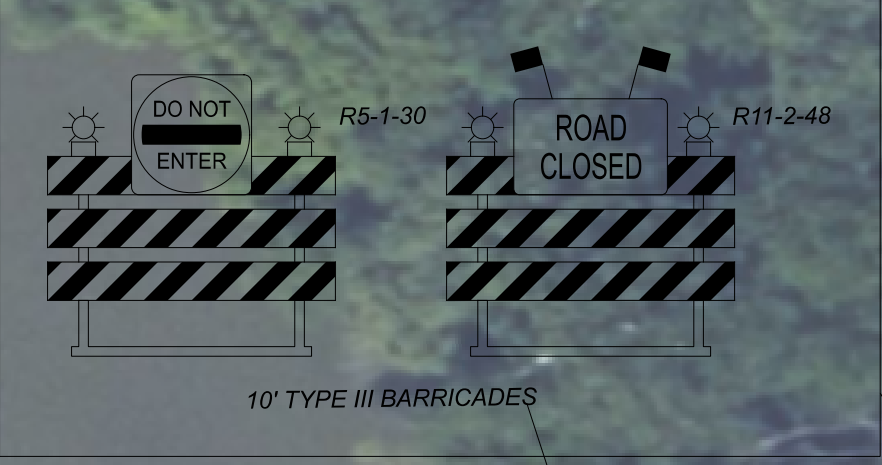
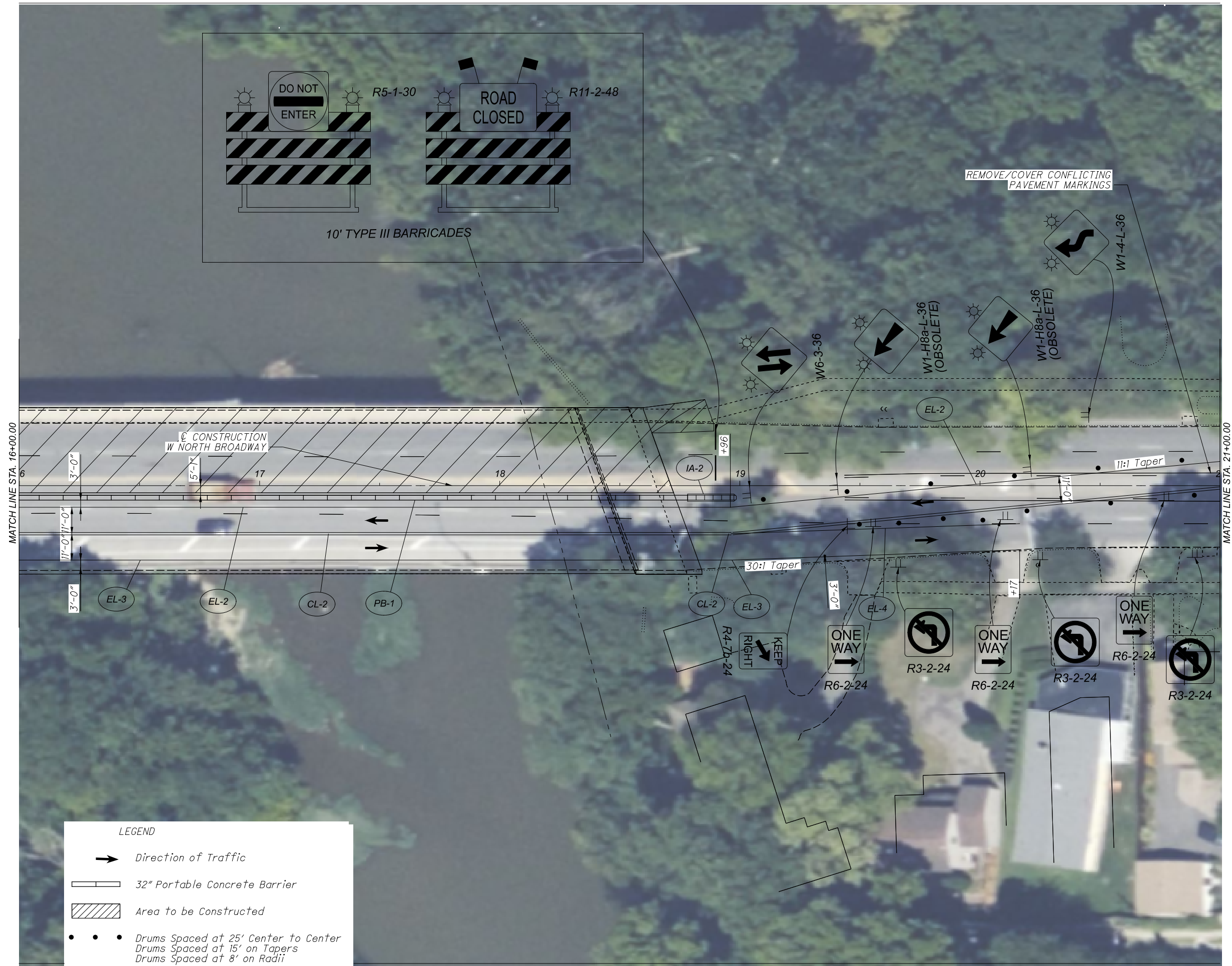
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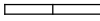

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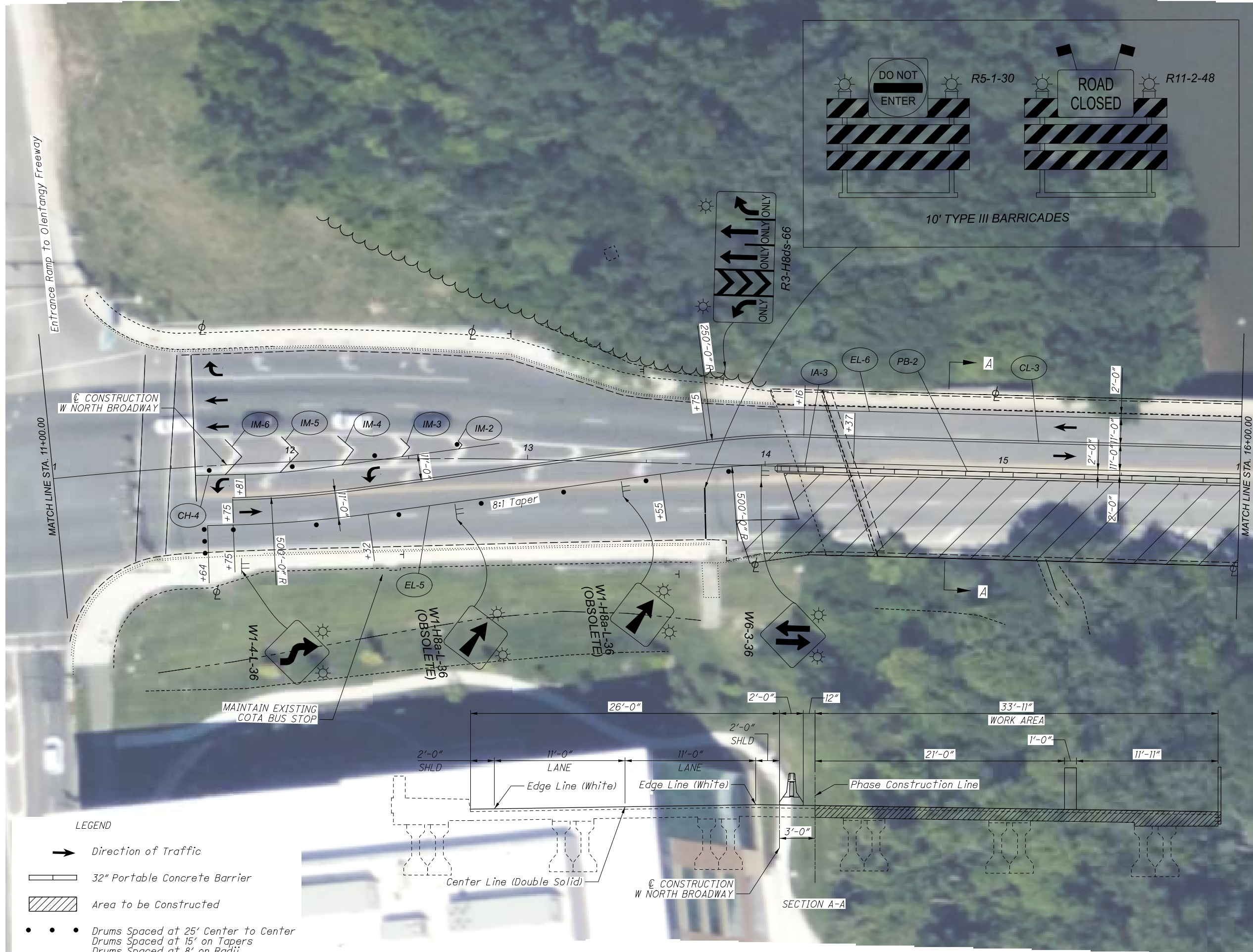
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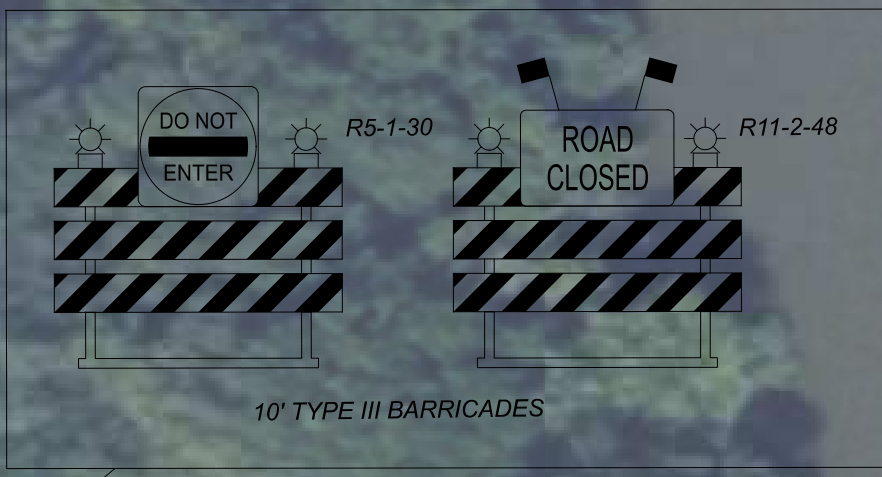
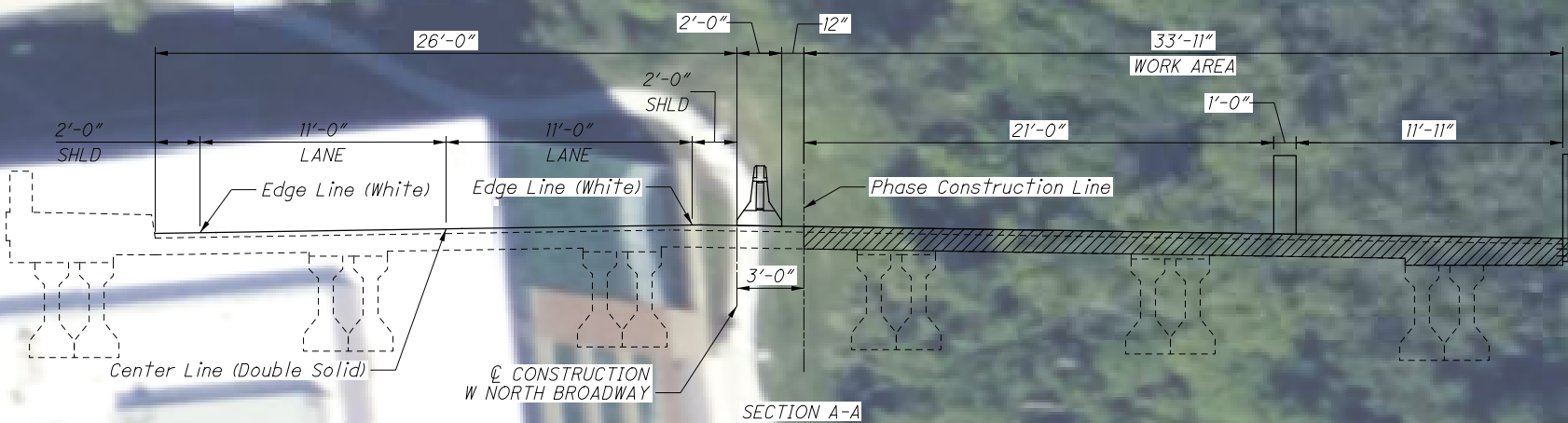
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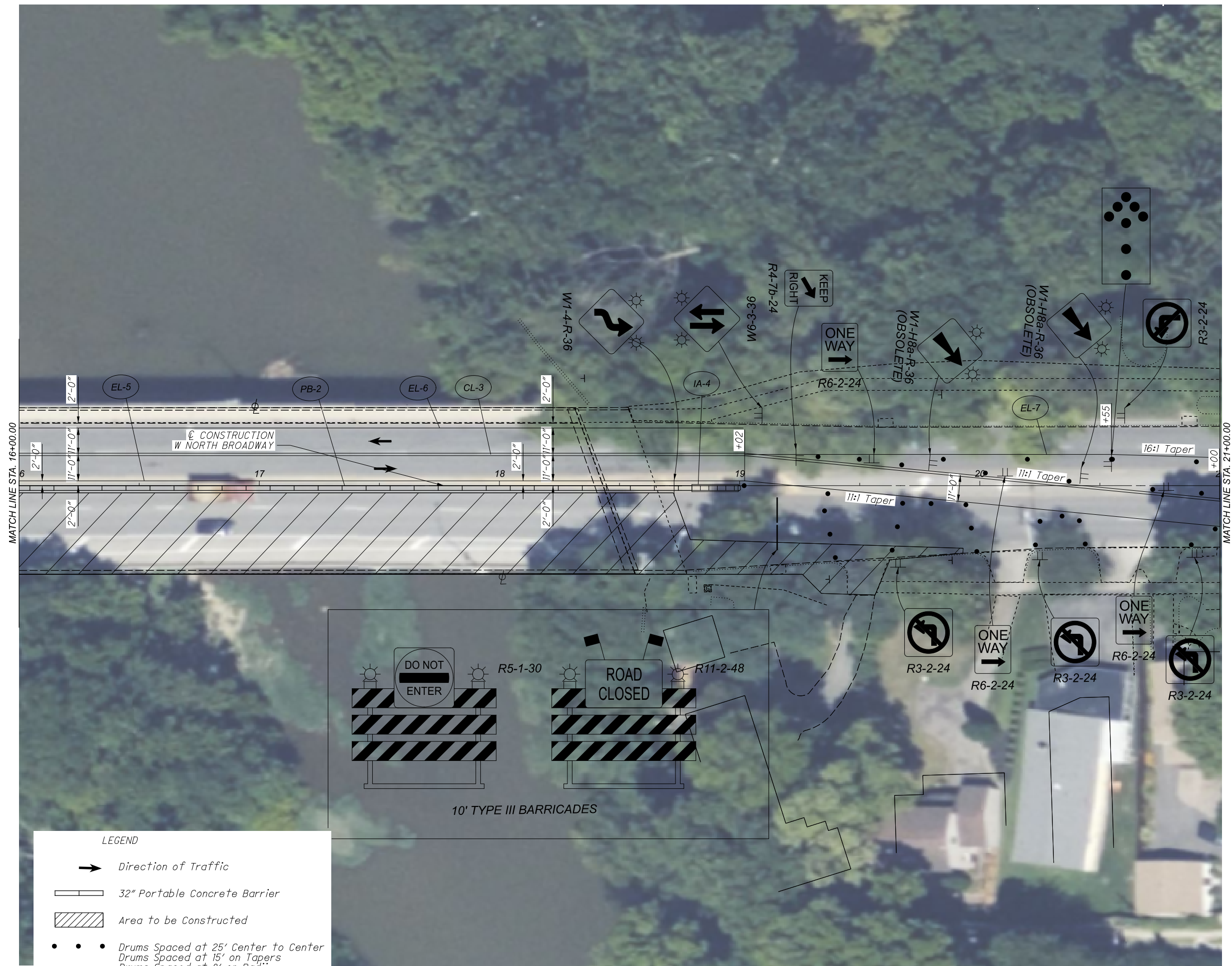
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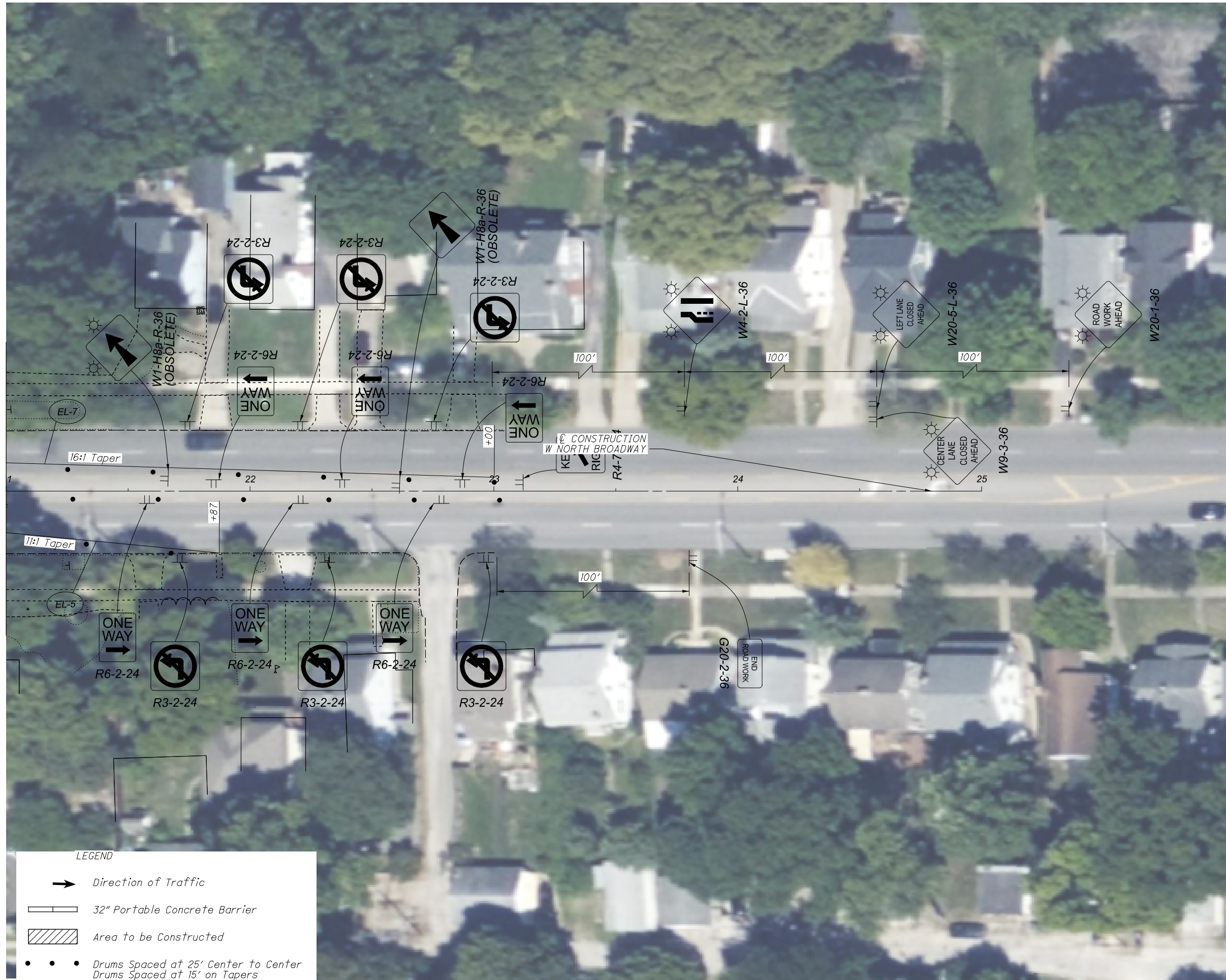




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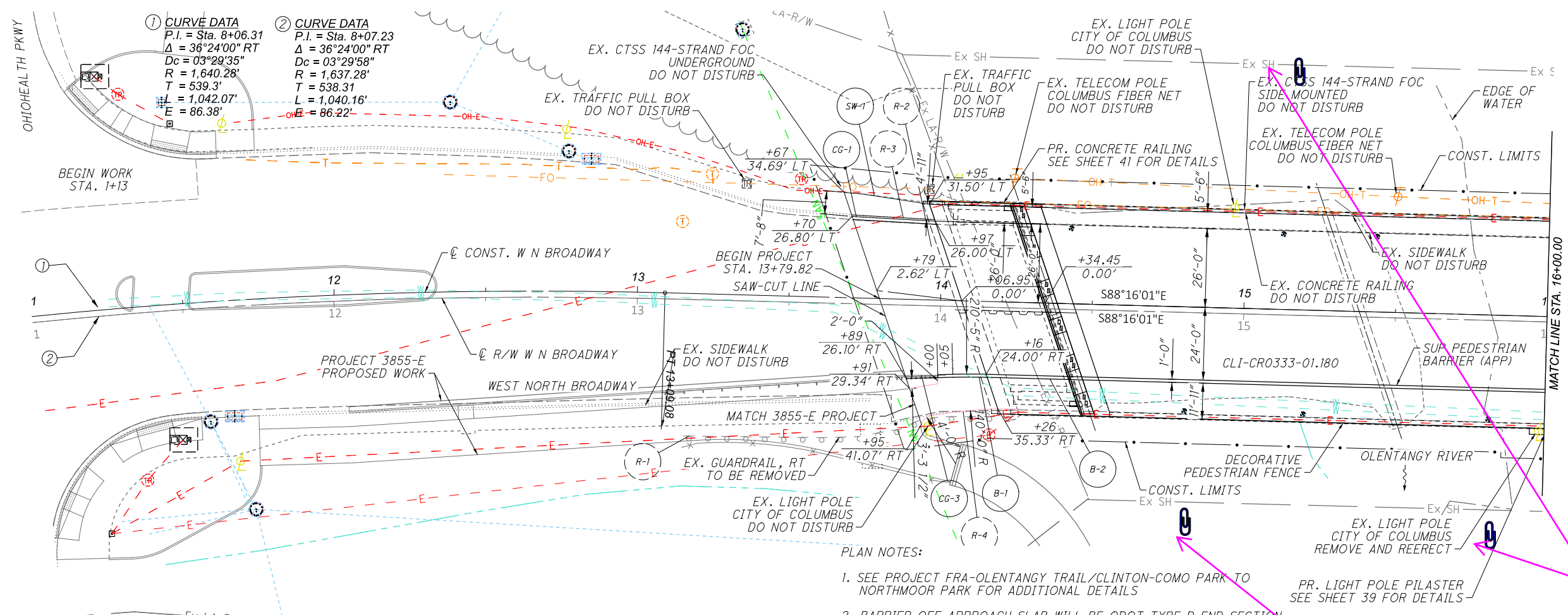
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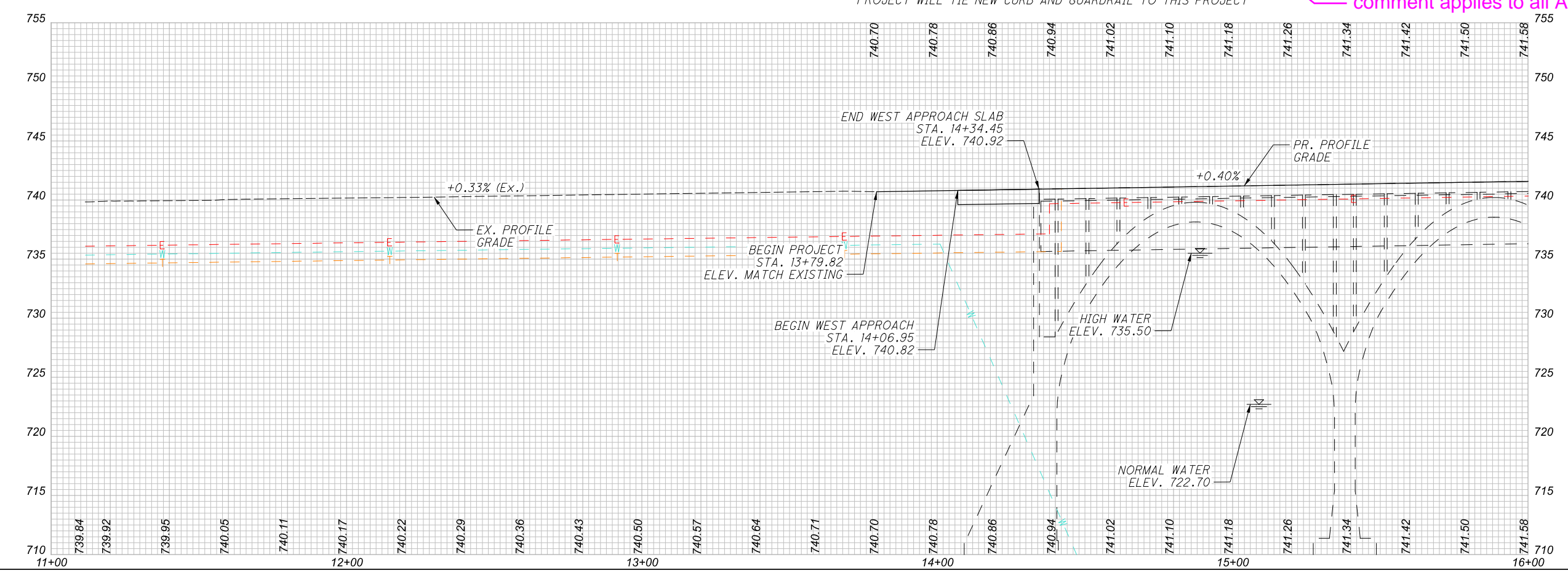
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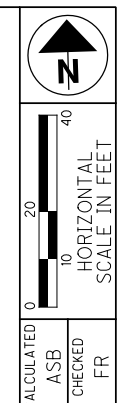
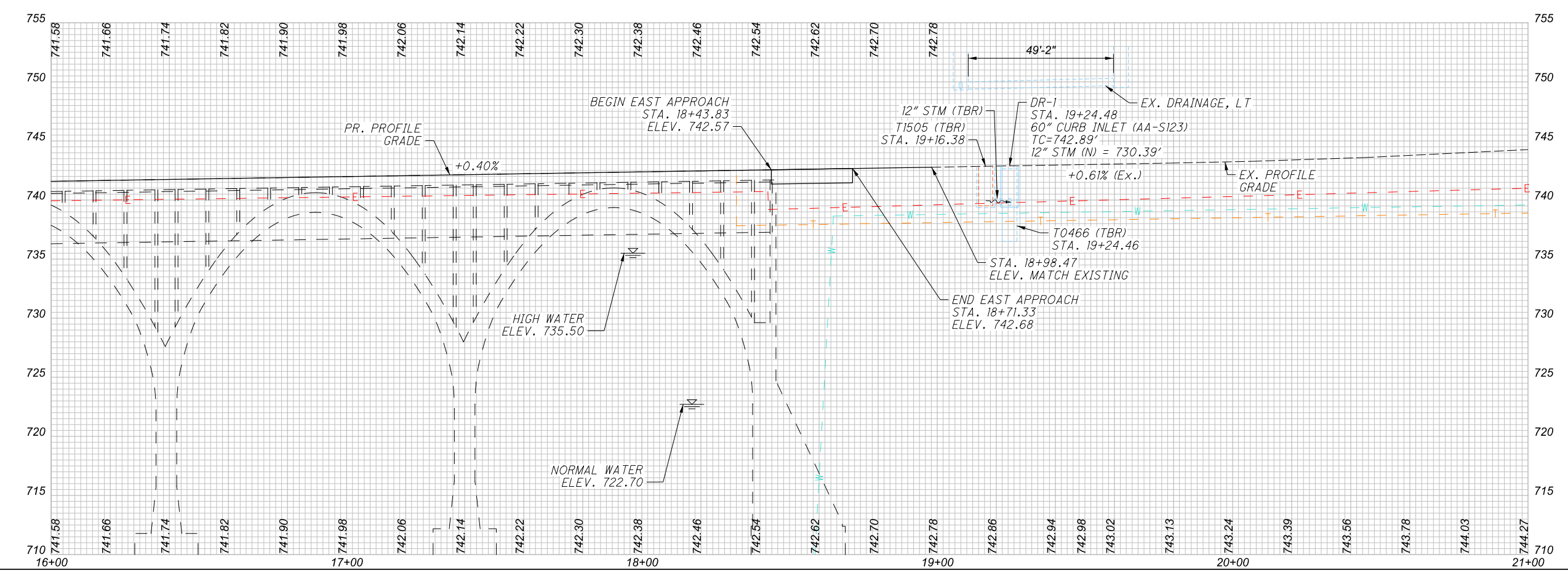
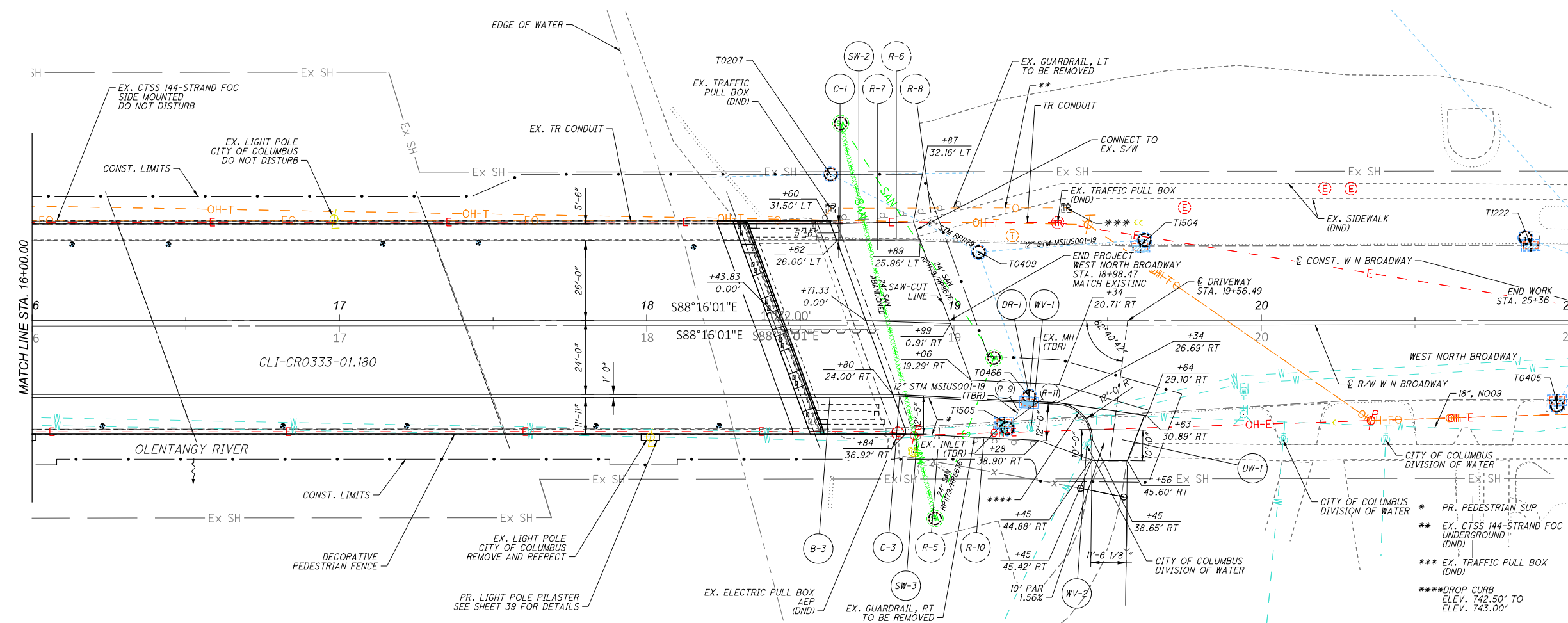
MAINTENANCE OF TRAFFIC PHASE TWO
CLI-CR0333-01.180
WEST NORTH BROADWAY (1.18) OVER OLENTANGY RIVER



- PLAN NOTES:
1. SEE PROJECT FRA-OLENTANGY TRAIL/CLINTON-COMO PARK TO NORTHMOOR PARK FOR ADDITIONAL DETAILS
 2. BARRIER OFF APPROACH SLAB WILL BE ODOT TYPE D END SECTION APP (25' LONG) WITH A 10' LONG TRANSITION TO MATCH THE BARRIER SHAPE ON THE APPROACH SLAB. FRA-OLENTANGY TRAIL PROJECT WILL TIE NEW CURB AND GUARDRAIL TO THIS PROJECT

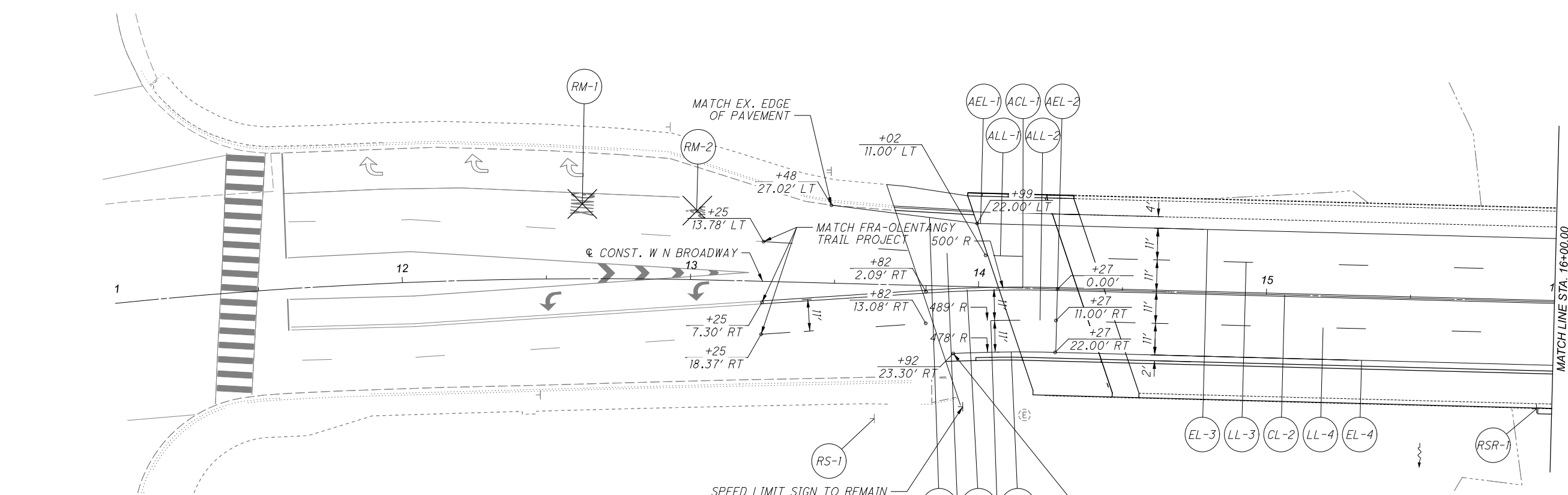
Identify the Warranty Scenic parcel. This comment applies to all Applicable plan sheets





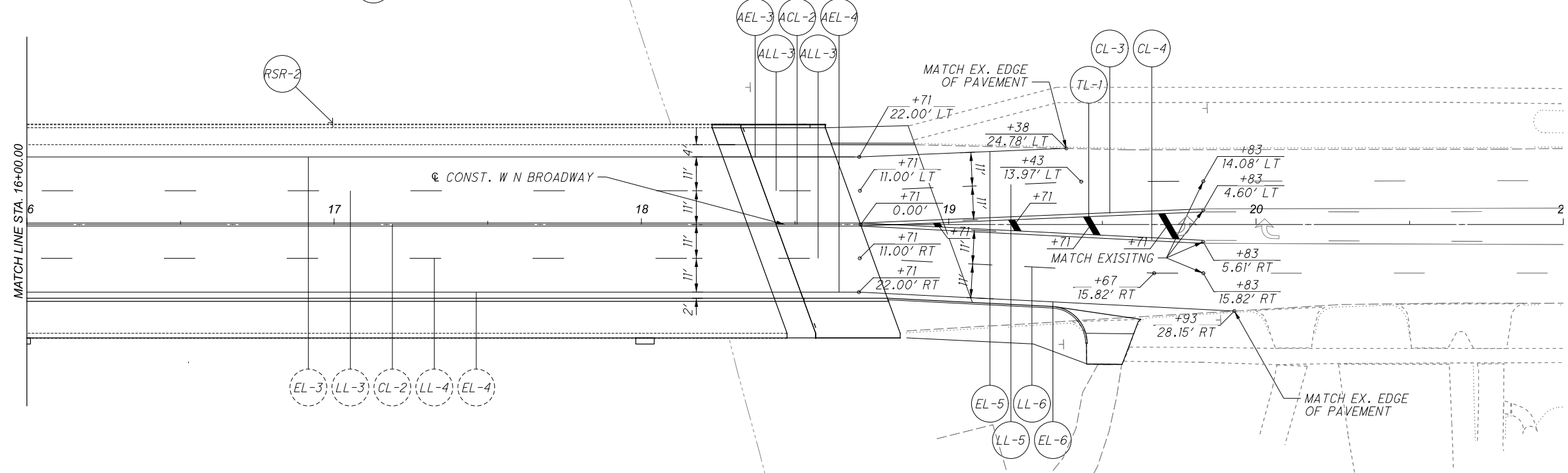
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PLAN & PROFILE
 CLI-CR0333-01.180
 WEST NORTH BROADWAY (1.18) OVER OLENTANGY RIVER



- EL-# ITEM 644 - PROPOSED EDGE LINE, 5", WHITE, TYPE 1
- LL-# ITEM 644 - PROPOSED LANE LINE, 5", WHITE, TYPE 1
- CL-# ITEM 644 - PROPOSED CENTER LINE, 5", YELLOW, TYPE 1
- TL-# ITEM 644 - PROPOSED TRANSVERSE LINES, 24", YELLOW
- RM-# ITEM 644 - REMOVAL OF PAVEMENT MARKING, HYDROBLAST
- AEL-# ITEM 645 - PROPOSED EDGE LINE, 5", WHITE, TYPE 1 *
- ALL-# ITEM 645 - PROPOSED LANE LINE, 5", WHITE, TYPE 1 *
- ACL-# ITEM 645 - PROPOSED CENTER LINE, 5", YELLOW, TYPE 1 *
- RS-# ITEM 630 - REMOVAL OF POLE MOUNTED SIGN AND DPOSAL
- RSR-# ITEM 630 - REMOVAL OF POLE MOUNTED SIGN AND REERECTION

* PER CITY OF COLUMBUS STD DWG 1645



PARSONS
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ESTIMATED QUANTITIES

1001* (625E98100**)	428	CKT FT	3-WIRE UNDERGROUND CIRCUIT (MIS-404)
1001* (625E35010**)	2	EACH	STREET LIGHT RELOCATION, STANDARD (MIS-503)
1001* (625E25802**)	33	FT	2-INCH CONDUIT, CONCRETE ENCASED (MIS-700)
1001* (625E27600**)	4	EACH	COBRA HEAD LED LUMINAIRE (MIS-800)
625E00480**	3	EACH	CONNECTION, UNFUSED, PERMANENT
625E25400**	375	FT	CONDUIT, 2", 725.04
625E75506**	4	EACH	LUMINAIRE REMOVED

* - CITY OF COLUMBUS ITEM NUMBER
 ** - ODOT ITEM NUMBER

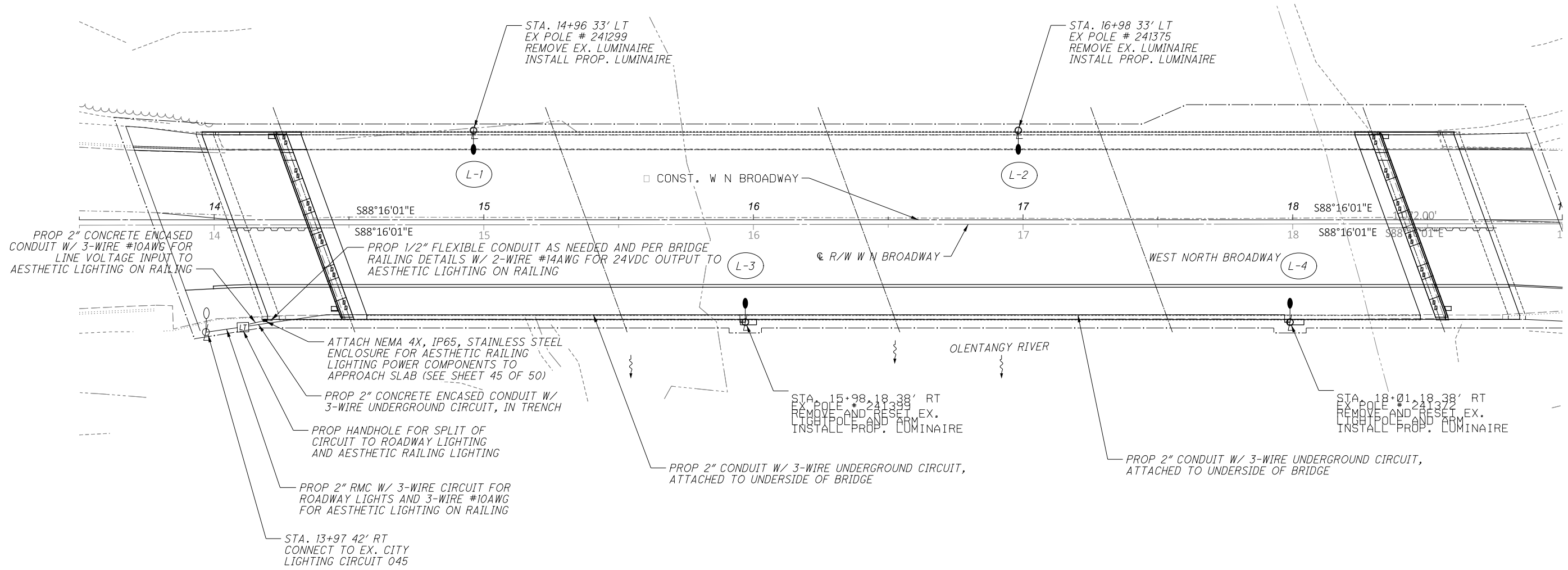
NON-PAYMENT MIS SPECIFICATIONS

MIS	ITEM DESCRIPTION
1	STREET LIGHT LOCKOUT/TAGOUT (LOTO)
2	GUIDELINES FOR INSPECTION & ACCEPTANCE OF STREET LIGHT SYSTEMS
3	GUIDELINES FOR STREET LIGHTING "MATERIALS APPROVED" SUBMITTAL PACKAGES
4	INSPECTION CHECKLIST

LUMINAIRE SCHEDULE						
Manufacturer	Luminaire Model	Catalog Number	Description	Lamp	File	Lumens LLF Watts
American Electric	Autobahn	ATB0-P203-480-R2/R3-3K	ATB0 Series Cobrahead		Varies	9471 MIS-800 70
Eaton/Cooper	Verdeon	VERD-C028-D-U-T2-7030-4N7	C-Series Cobrahead	2 LED's, 80% Output	Varies	9095 MIS-800 70
General Electric	Evolve	ERL1-5-09-B5/CS-30-A	ERL1 Cobrahead		Varies	8600 MIS-800 68

Three luminaires listed are an attempt to equalize Lumen output and be equivalent to 150 Watt HPS luminaires. Actual Catalog number, performance (lumen) package, and Watts may vary based on photometric modeling to satisfy design criteria and MIS-800.

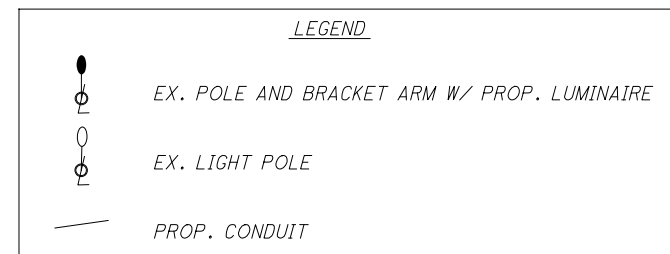
NOTE:
 PROP. ROADWAY LUMINAIRES SHALL BE 150W HPS EQUIVALENT, 480 VOLT, TYPE II DISTRIBUTION AND MEET CITY OF COLUMBUS MIS-800



NOTE:
 AESTHETIC LIGHTING IN RAILING SHALL BE WAGNER, LUMENLINEAR LUMINAIRES PART NO. LULS40K20120TS6. EACH LUMINAIRE SHALL INCLUDE SPACERS, MOUNTING CLIPS, GASKETS, WIRING, CONNECTORS, ETC. TO MAKE AESTHETIC LIGHTING OPERATIONAL. NEMA 4X, IP62 STAINLESS STEEL ENCLOSURE TO HOUSE LUMENLINEAR DRIVER AND POWER COMPONENTS AS RECOMMENDED BY MANUFACTURER TO MAKE AESTHETIC LIGHTING OPERATIONAL.

ALL COSTS ASSOCIATED WITH FURNISHING AND INSTALLING THIS AESTHETIC LIGHTING SHALL BE PAID FOR AT THE CONTRACT PRICE FOR ITEM 625, LIGHTING MISC.: AESTHETIC LIGHTING RAIL.

NOTE:
 THE LIGHTING SYSTEM ON THE SIDE OF THE ROADWAY THAT IS OPEN TO TRAFFIC SHALL REMAIN OPERATIONAL AT THE END OF EACH WORK DAY. THE CONTRACTOR SHALL ENSURE THAT ALL EXISTING OR RELOCATED LIGHTS ARE OPERATIONAL AND ROADWAY IS PROPERLY ILLUMINATED AT THE END OF THE DAY OR TEMPORARY LIGHTING SHALL BE PROVIDED.

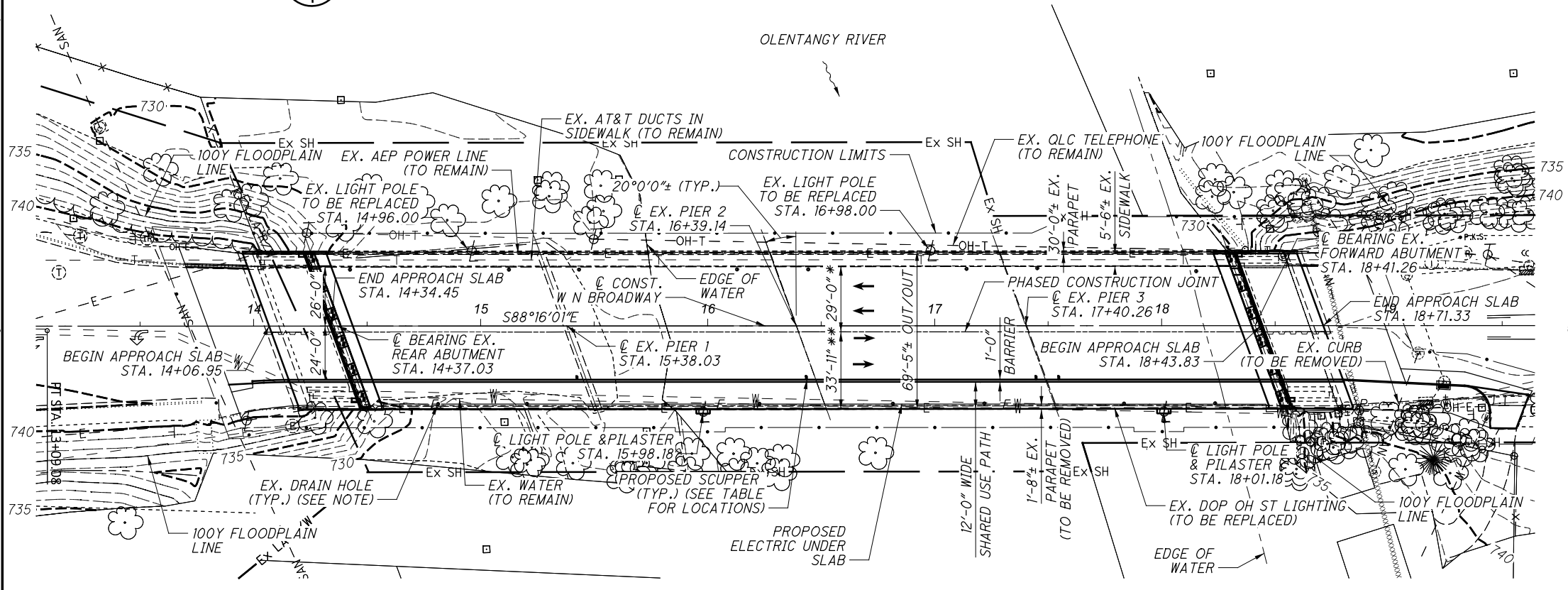


NOTE:
 LIGHT POLE PILASTER DETAILS AND CONDUIT ATTACHMENT DETAILS ARE SHOWN IN BRIDGE PLANS



CALCULATED
 RAW
 CHECKED
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LIGHTING PLAN
 CLI-CR0333-01.180
 WEST NORTH BROADWAY (1.18) OVER OLENTANGY RIVER



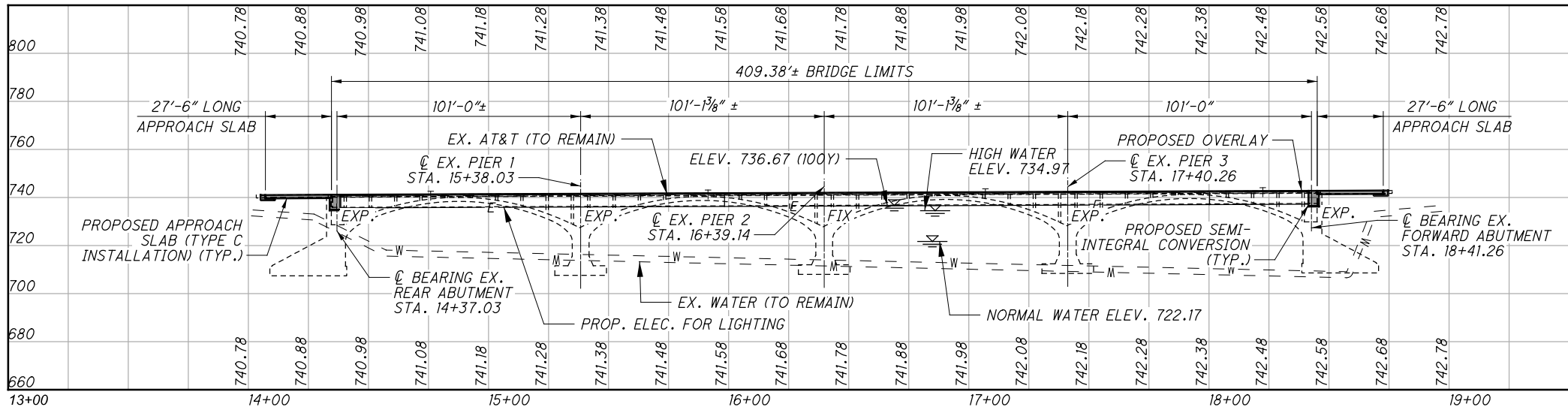
DESIGN TRAFFIC:
 2022 ADT = 22,578
 2033 ADT = 25,234
 DIRECTIONAL DISTRIBUTION = 58%

LEGEND
 * - PHASE 1 CONSTRUCTION
 ** - PHASE 2 CONSTRUCTION

SCUPPER LOCATIONS	
15+42.45	24' RT
16+43.54	24' RT
17+44.69	24' RT
17+54.69	24' RT

NOTE: EXISTING SCUPPERS ON SOUTH SIDE SHALL BE PLUGGED AND PAVED OVER WITH THE PROPOSED OVERLAY.

PLAN



PROFILE ALONG C CONST. W N BROADWAY

EXISTING STRUCTURE

TYPE: HYBRID ARCH STRUCTURE WITH PRESTRESSED CONCRETE I-BEAM WITH COMPOSITE REINFORCED CONCRETE DECK ON EXISTING ARCH FOUNDATIONS

SPANS: 101'-0"±, 101'-1 1/8"±, 101'-1 1/8"±, 101'-0"±

ROADWAY: 61'-5" F/F CURB, WITH 5'-6" SIDEWALK ON NORTH SIDE

LOADING: HS20-44 & THE ALT. MILITARY LOADING

SKEW: 20° RIGHT FORWARD

APPROACH SLABS: SPECIAL, LENGTH VARIES

ALIGNMENT: TANGENT

CROWN: 3/16" PER FT.

STRUCTURAL FILE NUMBER: 2531496

DATE BUILT: ARCH: 1939, PRESTRESSED BEAMS 1978

DISPOSITION: REHABILITATION

PROPOSED STRUCTURE

TYPE: HYBRID ARCH STRUCTURE WITH PRESTRESSED CONCRETE I-BEAM WITH COMPOSITE REINFORCED CONCRETE DECK ON CONVERTED SEMI-INTEGRAL SUBSTRUCTURE

SPANS: 101'-0"±, 101'-1 3/8"±, 101'-1 3/8"±, 101'-0"±

ROADWAY: 50'-0" F/F CURBS, WITH 5'-6" SIDEWALK ON NORTH SIDE AND 12'-0" WIDE SHARED USE PATH ON SOUTH SIDE

LOADING: HS20-44 & THE ALT. MILITARY LOADING

SKEW: 20° RIGHT FORWARD

APPROACH SLABS: 27'-6" FOOT LONG (T=17") (AS-1-81) (TYPE C INSTALLATION)

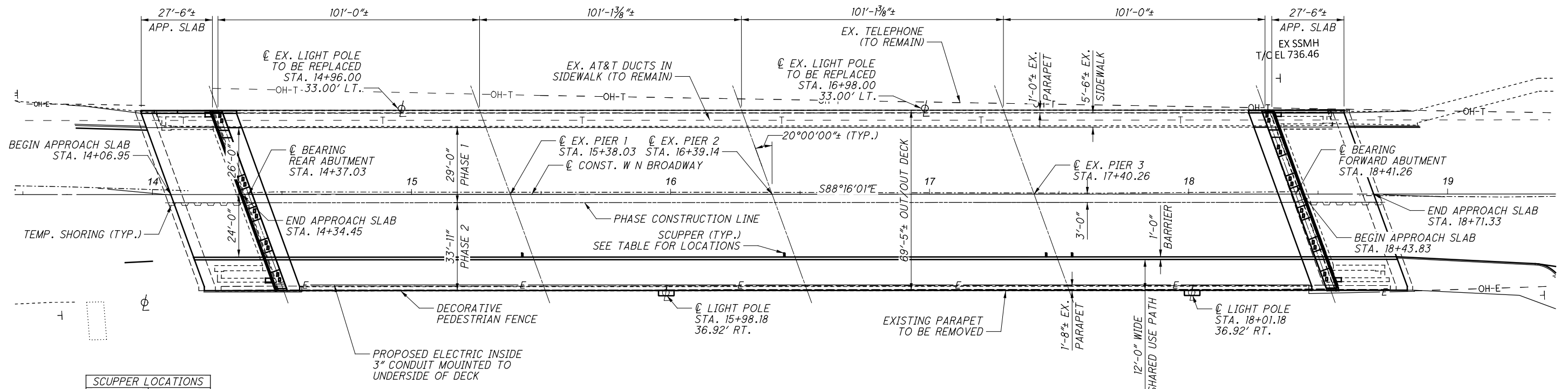
ALIGNMENT: TANGENT

CROWN: 3/16" PER FT.

COORDINATES: LATITUDE 40° 01' 54.33"
 LONGITUDE -83° 01' 28.86"



OLENTANGY RIVER



SCUPPER LOCATIONS	
15+42.45	24' RT
16+43.54	24' RT
17+44.69	24' RT
17+54.69	24' RT

DESIGNED	JAT	CHECKED	RWB
DRAWN	JAT	REVISED	
REVIEWED	TES	STRUCTURE FILE NUMBER	2531496
DATE	10/11/22		

GENERAL PLAN
CLI-CO333-01.180
WEST NORTH BROADWAY 1.18 OVER OLENTANGY RIVER

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GENERAL NOTES:

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS:

AS-1-15	REVISED	7-17-15
AS-2-15	REVISED	1-18-19
PCB-91	REVISED	7-17-20
SICD-1-21	REVISED	1-21-22
SICD-2-14	REVISED	1-15-21

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS:

None

DESIGN SPECIFICATIONS:

This structure conforms to the "Standard Specification for Highway Bridges" adopted by the American Association of State Highway and Transportation Officials (AASHTO), 17th Edition, 2002 and the ODOT Bridge Design Manual, 2020 Edition with Revisions through July 2022, except as noted elsewhere in the plans.

DESIGN LOADING:

HS20-44 and the Alternate Military Loading

DESIGN DATA:

Concrete Class QC2 - Compressive Strength 4.5 ksi
(Superstructure)
Epoxy Coated Reinforcing Steel - Minimum yield strength
60 ksi

DECK PROTECTION METHOD:

Variable thickness superplasticized dense concrete overlay.

MAINTENANCE OF TRAFFIC:

Maintenance of traffic for the structure work shall be coordinated with the overall project. Refer to maintenance of traffic notes and details elsewhere in the plans.

EXISTING STRUCTURE VERIFICATION:

Details and dimensions shown on these plans pertaining to the existing structure have been obtained from plans of the existing structure and from field observations and measurements. Consequently, they are indicative of the existing structure and the proposed work but they shall be considered tentative and approximate. The Contractor is referred to CMS sections 102.05 and 105.02. Base contract bid prices upon a recognition of the uncertainties described above and upon a prebid examination of the existing structure. However, the County will pay for all project work based upon actual details and dimensions that have been verified in the field.

EXISTING BRIDGE PLANS:

Existing and rehabilitation bridge plans have been provided by the Franklin County Engineer's office.

ITEM 202, PORTIONS OF STRUCTURE REMOVED:

The proposed work consists of removing portions of the existing structures as shown in the plans.

All requirements of ODOT CMS 202.03 shall apply with the following additions. This work shall include the phased removal of the existing structures as indicated in the plans and general notes. The structure will be carefully removed by phased construction methods as further described in the following sections.

Phased concrete deck removal:

When no longer required to maintain traffic, remove portions of the the concrete deck in accordance with the sequence of construction shown in the plans. Perform the work carefully during removal operations to avoid any damage to the existing reinforcing steel to remain.

Phased concrete abutment removal:

When no longer required to maintain traffic, portions of the existing abutment shall be removed by means of approved pneumatic hammers employing pointed and blunt chisel tools. Hydraulic hoe-ram type hammers will not be permitted. The weight of the hammer shall not be more than 24 pounds for removal within 18" of portions to be preserved. Outside the 18 inch limit, the contractor may use hammers not exceeding 90 pounds. Do not place the pneumatic hammers in direct contact with reinforcing steel that is to be retained in the rebuilt structure.

ITEM 516 - JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN:

This work consists of raising or re-positioning existing structures to the dimensions and requirements defined in the project plans. Submit construction plans in accordance with CMS 501.05. If, during the jacking operations, cracking of the concrete superstructure, separation of the concrete deck from the concrete beams, or other damage to the structure is visually observed, immediately cease the jacking operation and install supports to the satisfaction of the Engineer. Analyze the damage and submit a method of correction to the Engineer for approval. Epoxy inject all beams that separate from the deck for the distance of the separation in accordance with CMS 512.07. The County will not pay for the cost of this epoxy injection or other required repairs. The bridge bearings shall be fully seated at all contact areas. If full seating is not attained, submit a repair plan to the Engineer. The County will not pay for the repair costs to ensure full seating on bearings. The County will measure this work on a lump sum basis. The County will pay for the accepted quantities at the contract price for Item 516, jacking and temporary support of superstructure, as per plan.

ITEM 517 - RAILING, MISC.: DECORATIVE RAILING:

This work consists of the fabrication and construction of the pedestrian rail, including the materials, dowel holes with non-shrink, non-metallic grout and hardware. All applicable sections of CMS section 517 shall apply. The County will measure this work on a lineal foot basis. The County will pay for the accepted quantities at the contract price for Item 517, Railing, Misc.: Decorative Railing.

PROPOSED WORK:

1. Remove existing wearing surface by hydro-demolition.
2. Remove portions of deck and abutments.
3. Construct proposed abutments.
4. Replace bearings at abutments.
5. Construct proposed semi-integral diaphragms.
6. Reconstruct portions of deck removed, level to the existing deck.
7. Replace approach slab and approach slab pavement.
8. Construct variable thickness concrete overlay over the existing deck and reconstructed deck sections.
9. Construct proposed concrete barrier.
10. Seal concrete surfaces, as shown in plans.
11. Repeat for Phase 2.

TEMPORARY SHORING:

All temporary shoring design will be performed in accordance with CMS 501 and submitted prior to construction.

DESIGNED	JAT	CHECKED	RWB
DRAWN	JAT	REVISED	
REVIEWED	TES	DATE	10/11/22
STRUCTURE FILE NUMBER	2531496		

GENERAL NOTES
CLI-C0333-01.180
WEST NORTH BROADWAY 1.18 OVER OLENTANGY RIVER

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ESTIMATED QUANTITIES							CALC.	DATE	CHECKED	DATE
ITEM	ITEM EXT.	UNIT	DESCRIPTION	ABUTMENTS	PIERS	SUPERSTR.	JAT	9/8/2022	RWB	12/29/2022
							GENERAL	TOTAL	PARTICIPATION 11/IMS/BR	SHEET REF.
202	11200	LS	PORTIONS OF STRUCTURE REMOVED							LS
202	11201	LS	PORTIONS OF STRUCTURE REMOVED, AS PER PLAN							LS
202	22900	SY	APPROACH SLAB REMOVED				344	344		7/23
202	23500	SY	WEARING COURSE REMOVED			2759	305	3064		
503	11100	LS	COFFERDAMS AND EXCAVATION BRACING							LS
503	21300	LS	UNCLASSIFIED EXCAVATION				189	189		
509	10000	LB	EPOXY COATED STEEL REINFORCEMENT	3570		20600	1440	25610		
509	30020	FT	NO. 4 DEFORMED GFRP REINFORCEMENT			3400	440	3840		
510	10000	EA	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT	24		768		792		
511	33501	EA	SEMI-INTEGRAL DIAPHRAGM GUIDE, AS PER PLAN	2				2		11/23
511	34410	CY	CLASS QC2 CONCRETE, SUPERSTRUCTURE			128		128		
511	34448	CY	CLASS QC2 CONCRETE, BRIDGE DECK (PARAPET)			55	11	66		
511	45710	CY	CLASS QC1 CONCRETE, ABUTMENT	12				12		
511	53012	CY	CLASS QC2 CONCRETE, MISC.: SIDEWALK REPLACEMENT			5	12	17		
512	10050	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)			13	39	52		
512	75500	SY	SPECIAL - SEALING OF CONCRETE SURFACES (SILANE)			396	78	474		
512	33000	SY	TYPE 2 WATERPROOFING				6	6		
516	10010	FT	ARMORLESS PREFORMED JOINT SEAL				148	148		
516	14020	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL				145	145		
516	25000	SF	NYLON REINFORCED NEOPRENE SHEETING				370	370		
516	44101	EA	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (9" x 16" x 2.83" WITH 11" x 17" x 1.5" PLATE)			24		24		
516	47001	LS	JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN					LS		3/23
517	76300	FT	RAILING, MISC.: DECORATIVE RAILING			410	100	510		
518	12300	EA	SCUPPERS, INCLUDING SUPPORTS			4		4		
518	21200	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC				45	45		
518	40000	FT	6" PERFORATED CORRUGATED PLASTIC PIPE				185	185		
518	40010	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS				80	80		
526	30001	SY	REINFORCED CONCRETE APPROACH SLABS (T=17"), AS PER PLAN				425	425		20/23
526	90030	FT	TYPE C INSTALLATION				148	148		
847	20200	SY	SUPERPLASTICIZED DENSE CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY			2865		2865		
848	20000	SY	SURFACE PREPARATION USING HYDRO DEMOLITION			2865		2865		
848	50100	LS	TEST SLAB					LS		

PARSONS
29 Alpha Park Drive
Highland Heights OH 44143

REVIEWED DATE 10/11/22
TES
STRUCTURE FILE NUMBER 2531496

DRAWN JAT
JAT
REVISOR

DESIGNED JAT
JAT
CHECKED RWB

ESTIMATED QUANTITIES
CLI-C0333-01.180
WEST NORTH BROADWAY 1.18 OVER OLENTANGY RIVER

4 / 23
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FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS

17
33

FRANKLIN COUNTY
WEST NORTH BROADWAY

PARSONS
29 Alpha Park Drive
Highland Heights OH 44143

DATE 10/11/22
REVIEWED TES
DRAWN JRE
DESIGNED JRE

STRUCTURE FILE NUMBER 2531496
CHECKED RWB

ABUTMENT PLAN AND ELEVATION - REMOVAL DETAILS
CLI-C0333-01.180

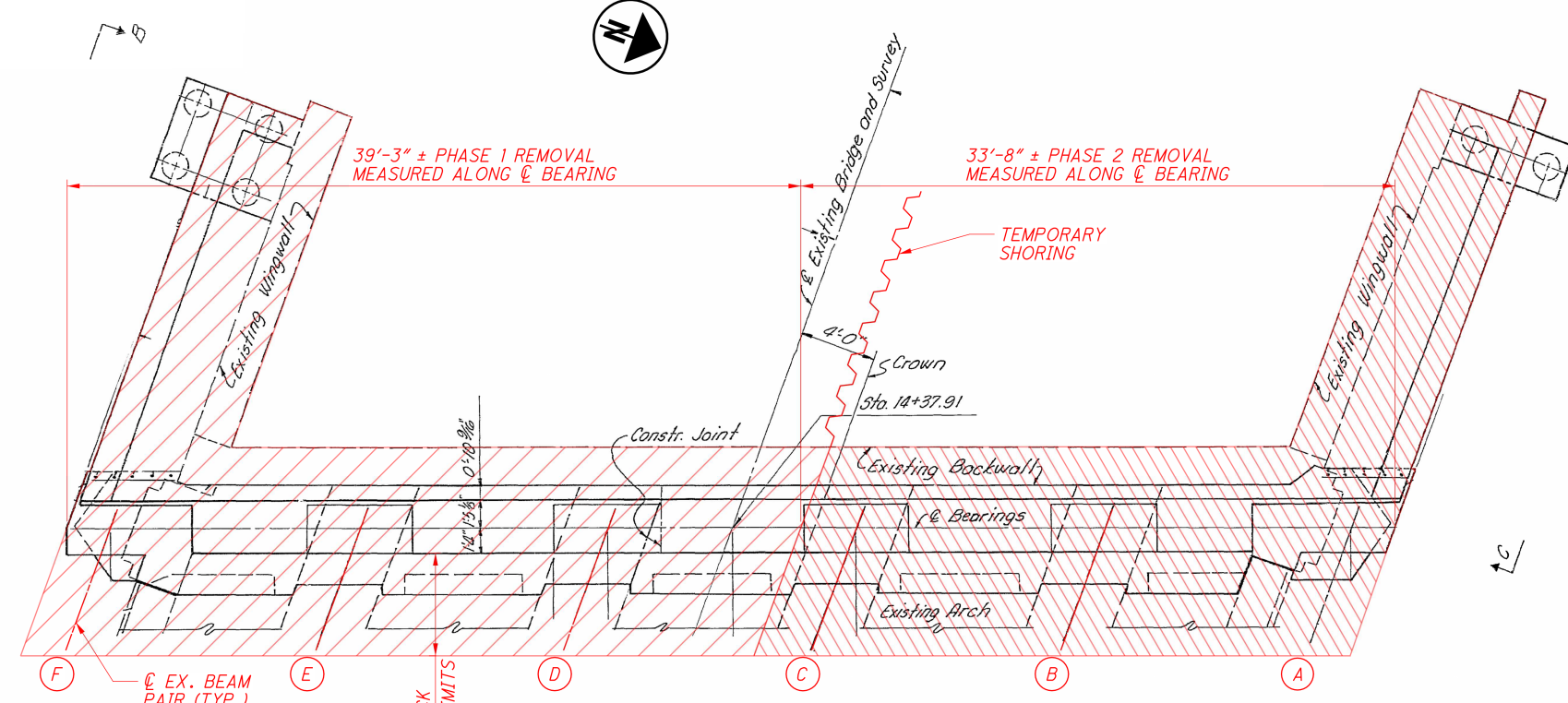
WEST NORTH BROADWAY 1.18 OVER OLENTANGY RIVER

ERIKSSON ENGINEERING
COLUMBUS OHIO
WEST ABUTMENT
WEST NORTH BROADWAY
OVER
OLENTANGY RIVER

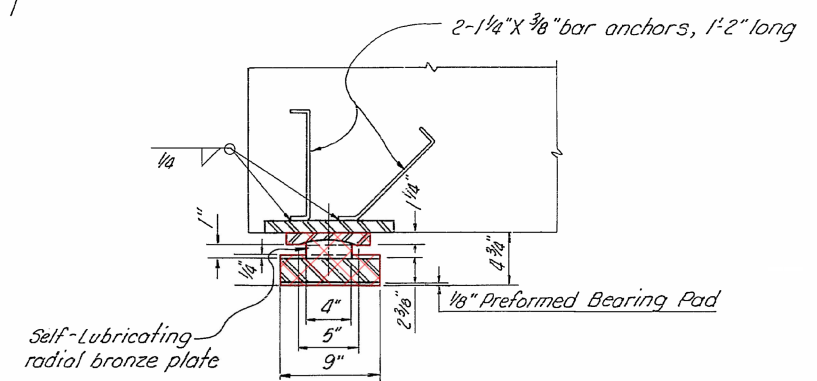
FRANKLIN COUNTY
Designed Drawn Checked Reviewed Date Revised
V.K. J.D. G.E. *ME* 2/22/78

6 / 23

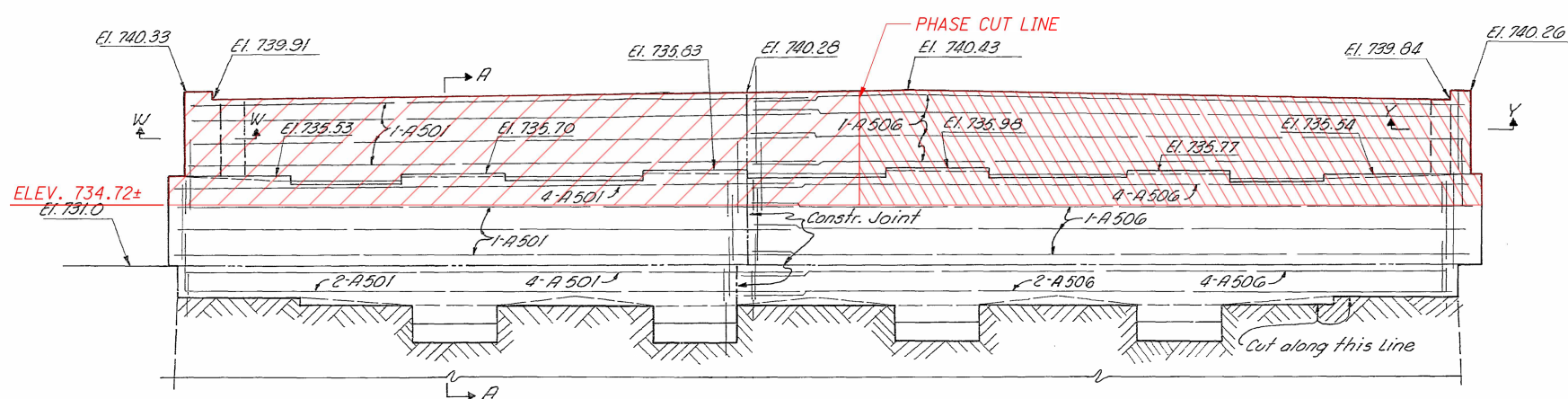
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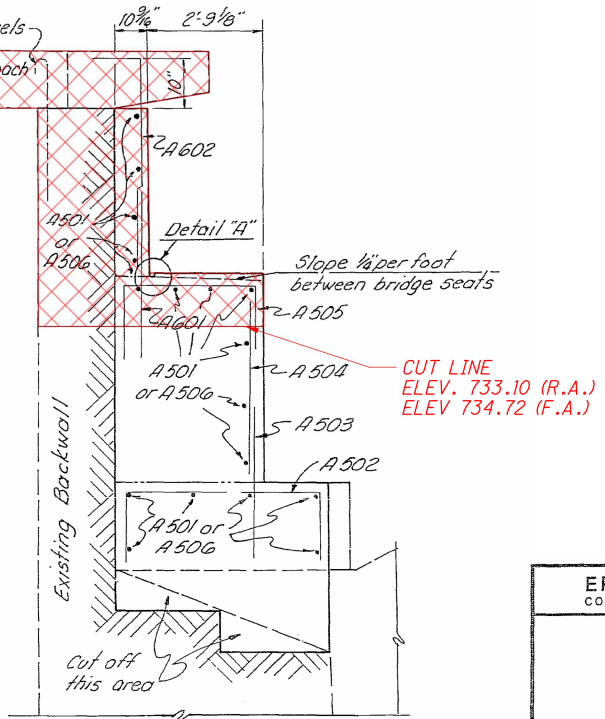
PLAN



SECTION A-A
BEARING REMOVAL DETAIL



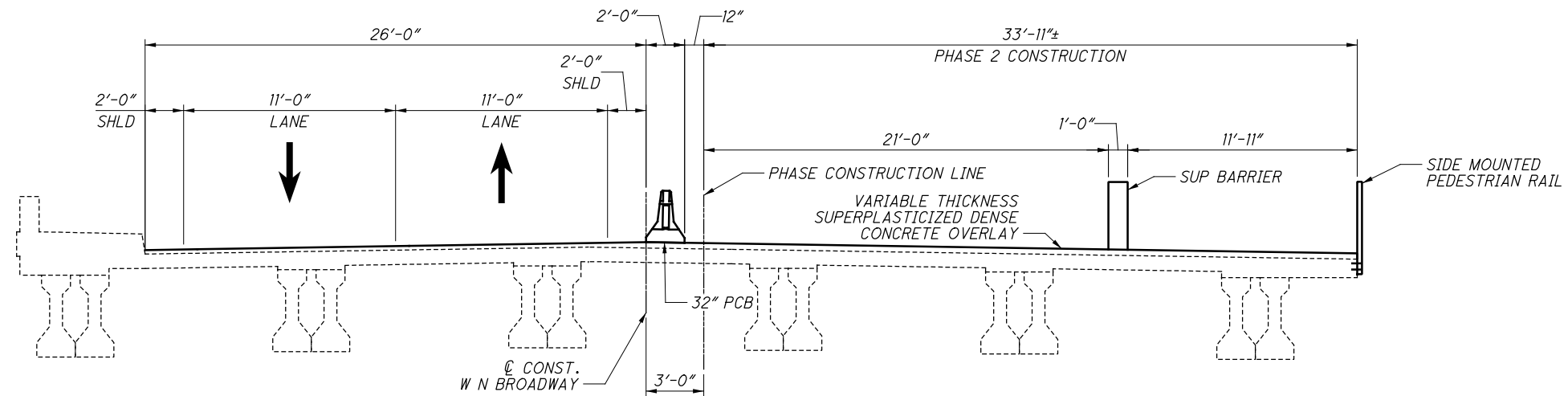
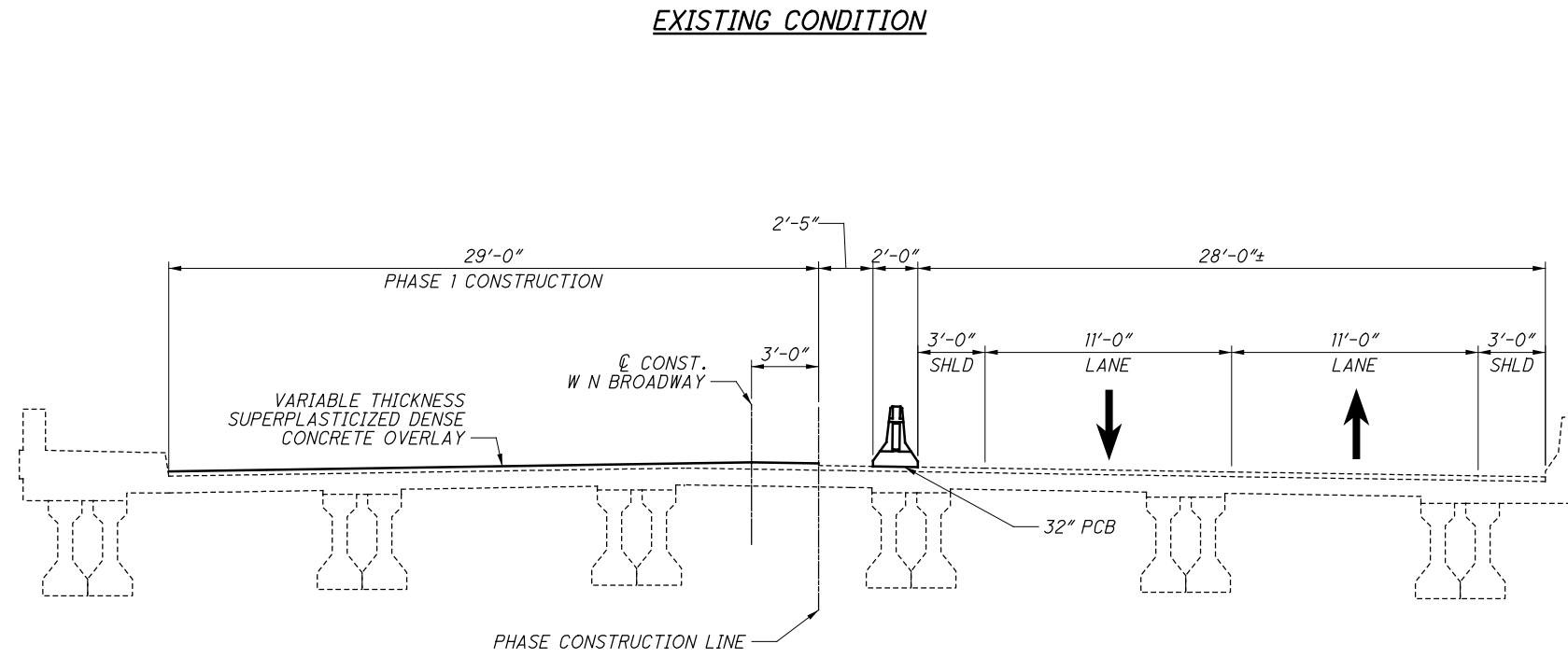
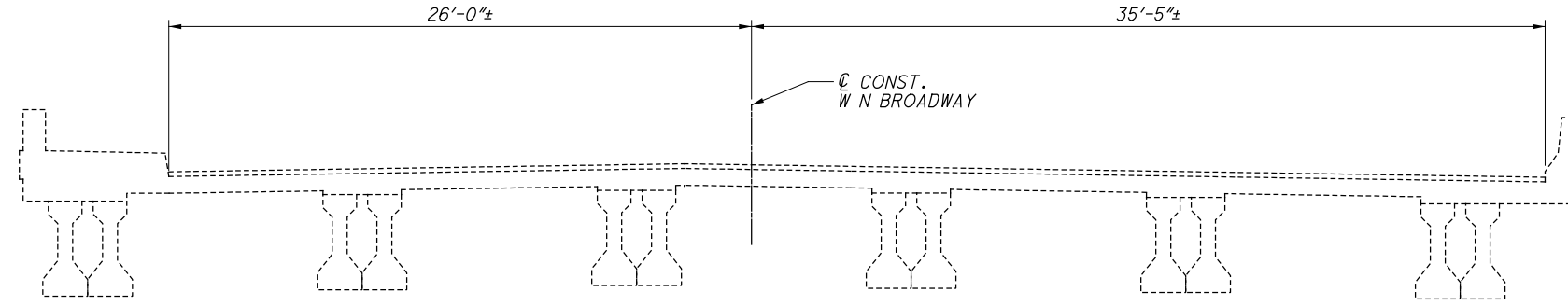
ELEVATION AT & BEARINGS



SECTION "A-A"

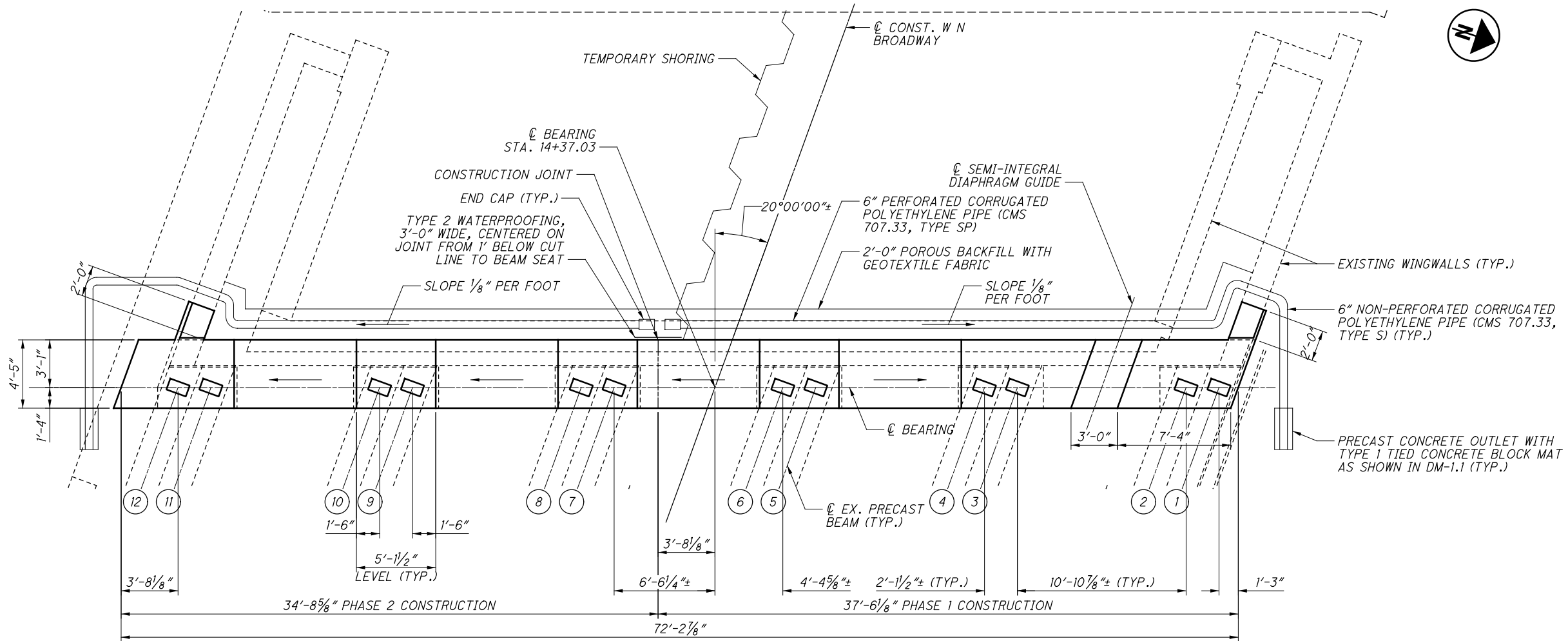
- LEGEND:**
- INDICATES AREA OF CONCRETE TO BE REMOVED DURING PHASE 1
 - INDICATES AREA OF CONCRETE TO BE REMOVED DURING PHASE 2
 - INDICATES AREA OF CONCRETE TO BE REMOVED

5000 010 WEST ABUTMENT 01/18 1978 01/70 060

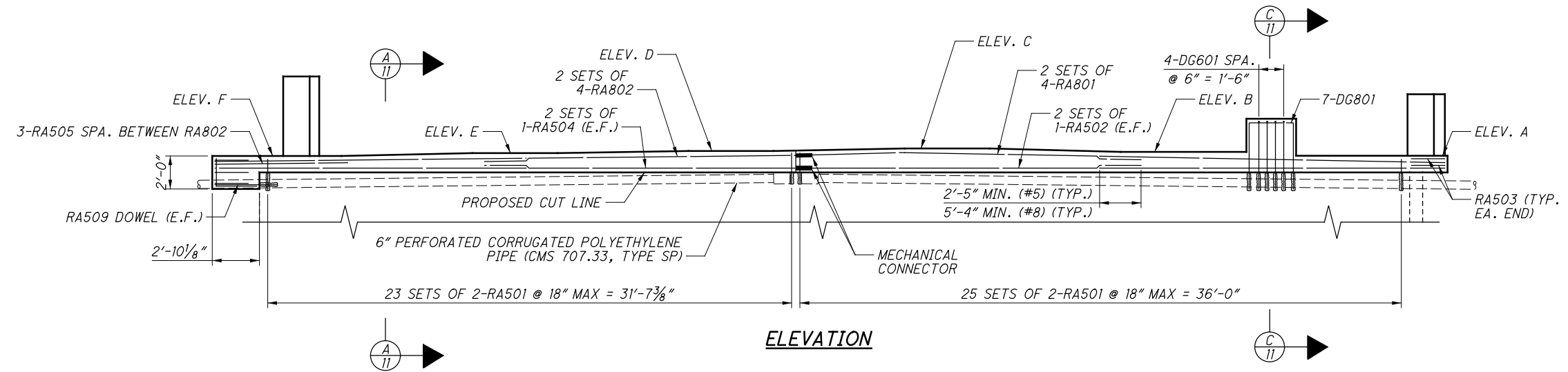


DESIGNED	JAT	CHECKED	RWB
DRAWN	JAT	REVISED	
REVIEWED	TES	DATE	10/11/22
STRUCTURE FILE NUMBER	2531496		

PHASED CONSTRUCTION DETAILS
CLI-C0333-01.180
WEST NORTH BROADWAY 1.18 OVER OLENTANGY RIVER



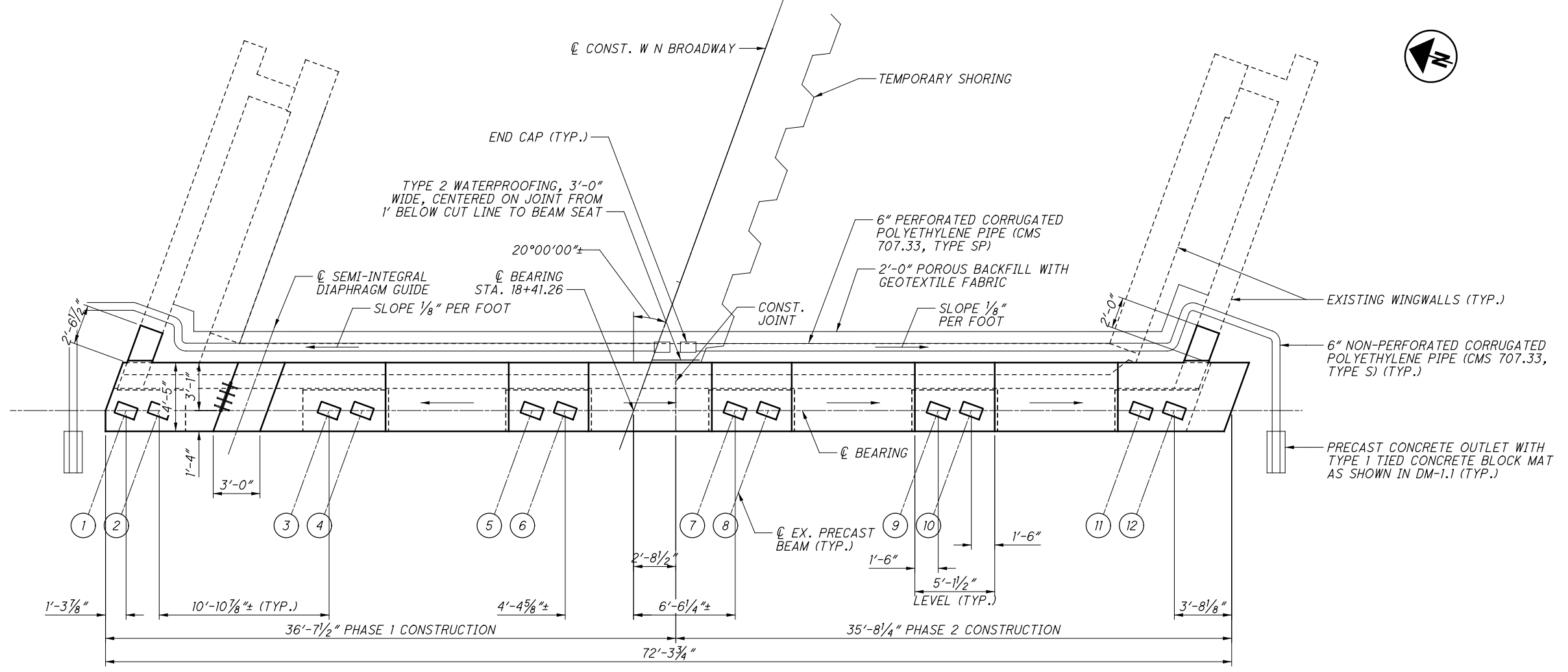
PLAN



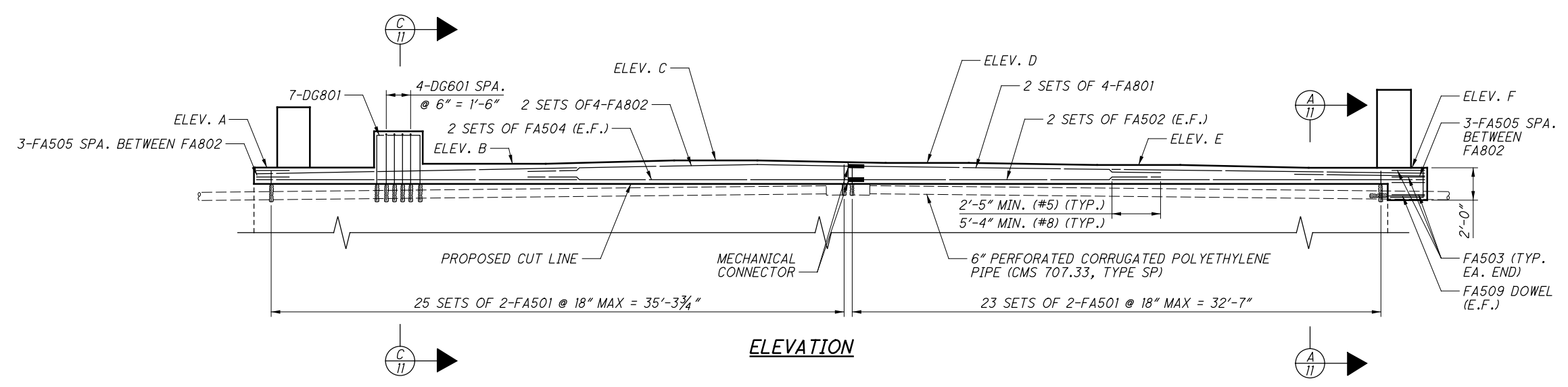
ELEVATION

REAR ABUTMENT BEAM SEAT ELEVATIONS	
ELEV. A	734.10
ELEV. B	734.45
ELEV. C	734.66
ELEV. D	734.54
ELEV. E	734.41
ELEV. F	734.24

- NOTES:**
- FOR REMOVAL PLANS, SEE SHEET 6/23.
 - FOR SECTION A-A, SEE SHEET 11/23.



PLAN

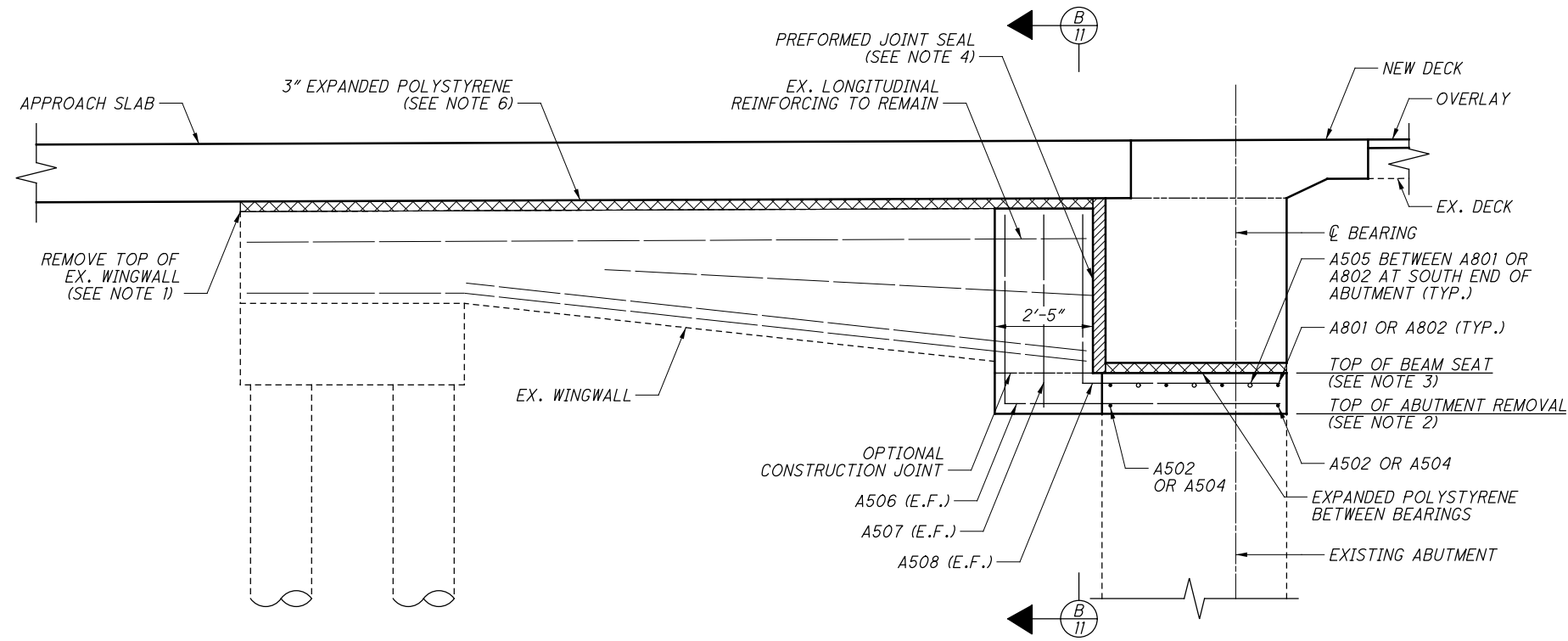


ELEVATION

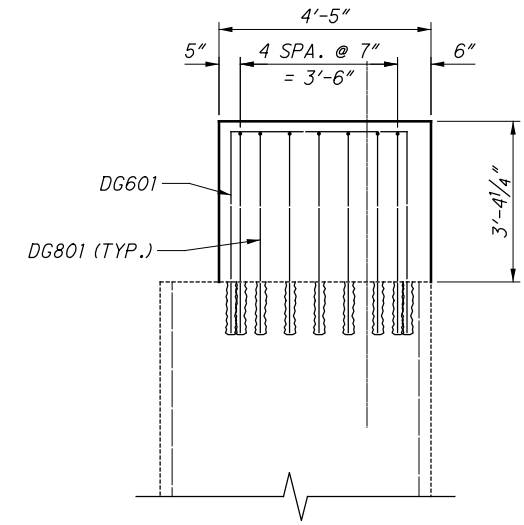
FORWARD ABUTMENT BEAM SEAT ELEVATIONS	
ELEV. A	735.72
ELEV. B	736.07
ELEV. C	736.28
ELEV. D	736.16
ELEV. E	736.03
ELEV. F	735.85

- NOTES:**
- FOR REMOVAL PLANS, SEE SHEET **6/23**.
 - FOR SECTION A-A, SEE SHEET **11/23**.

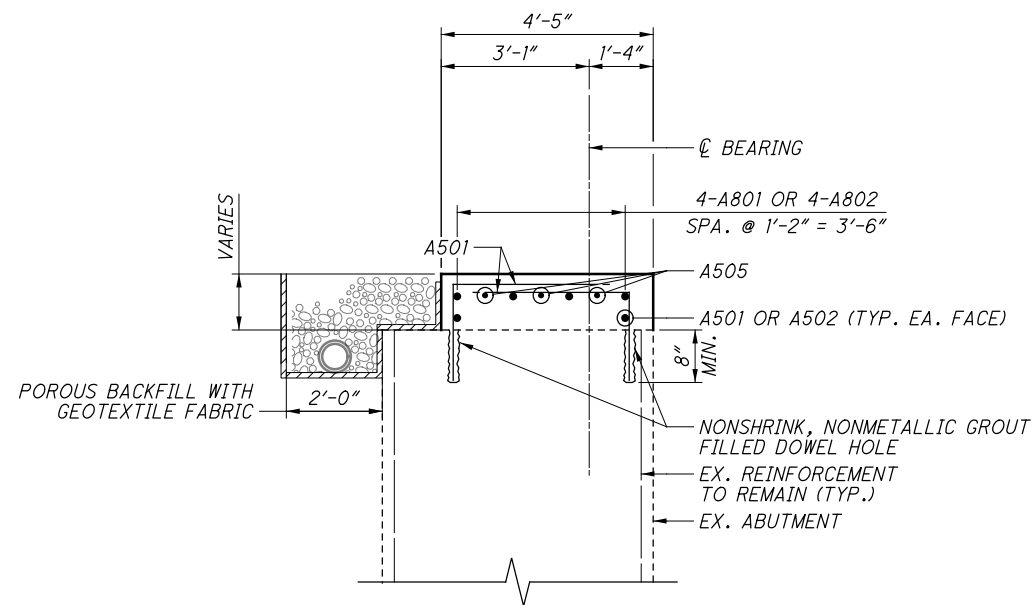
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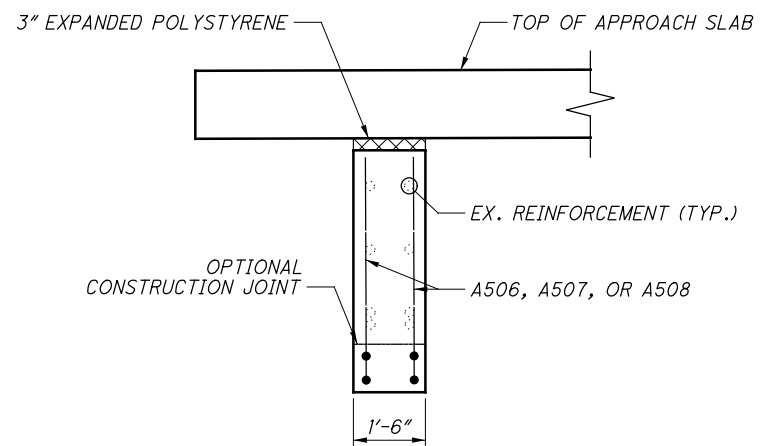
TYPICAL WINGWALL ELEVATION



SECTION THRU DIAPHRAGM GUIDE
SEE NOTE 7
9, 10



SECTION THRU ABUTMENT
9, 10



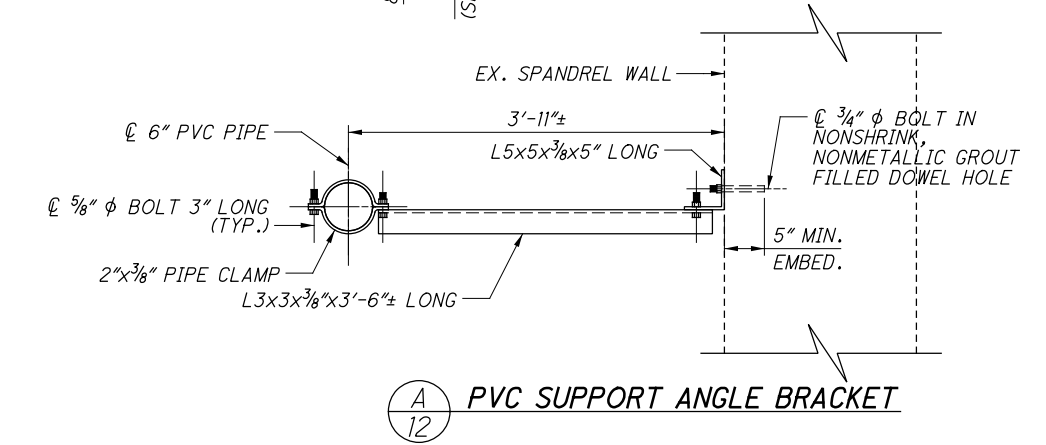
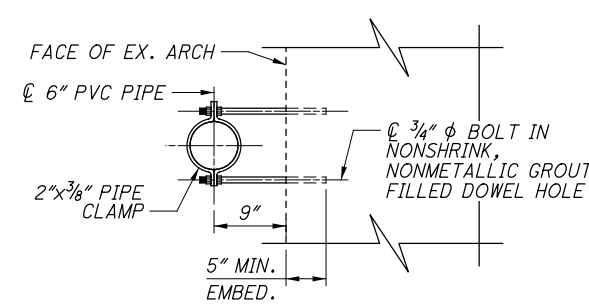
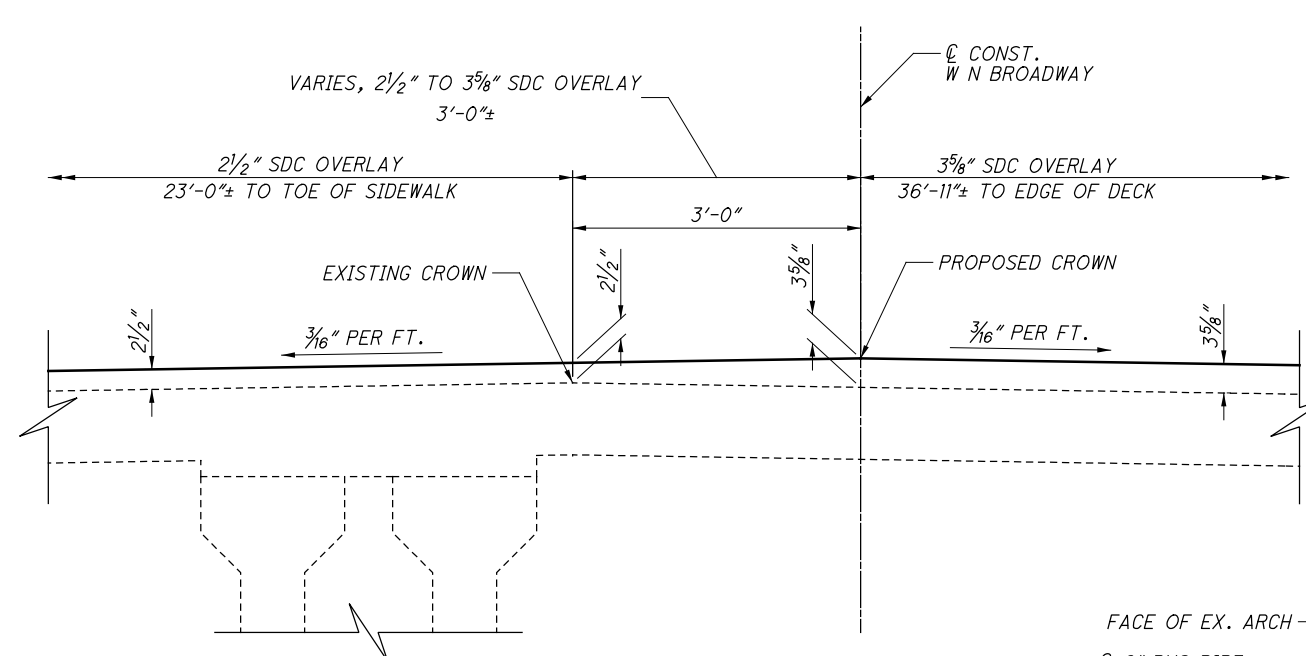
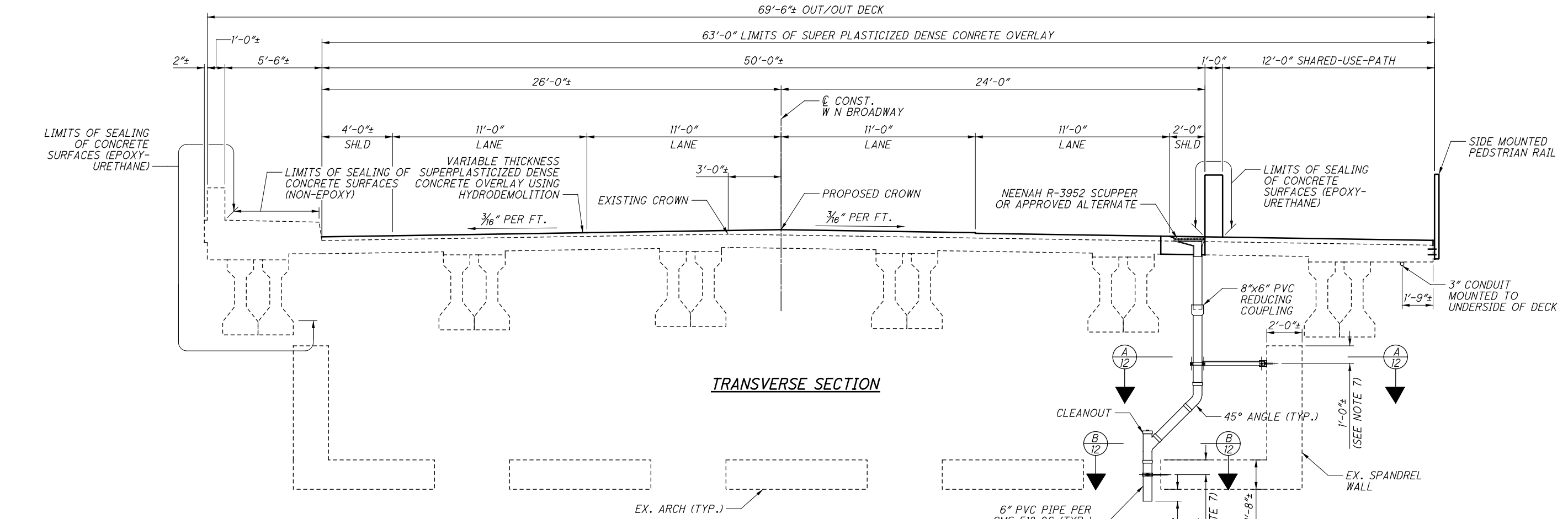
SECTION THRU WINGWALL
11

NOTES:

1. FOR TOP OF EX. WINGWALL REMOVAL ELEVATIONS, SEE SHEET 6/23.
2. FOR TOP OF EX. ABUTMENT REMOVAL ELEVATIONS, SEE SHEET 5/23.
3. FOR TOP OF BEAM SEAT ELEVATIONS, SEE SHEETS 9/23 THRU 10/23.
4. INSTALL WABO XPE 5000 (5" X 3 1/2") PREFORMED JOINT SEAL BY WATSON BOWMAN ACME OR APPROVED EQUAL FROM BOTTOM OF APPROACH SLAB TO TOP OF REBUILT BEAM SEAT.
5. BAR PREFIX "A" CORRESPONDS TO PREFIXES "RA" AND "FA" FOR THE REAR ABUTMENT AND FORWARD ABUTMENT, RESPECTIVELY.
6. 3" EXPANDED POLYSTYRENE TO BE INCLUDED WITH PAY ITEM 526E30001, REINFORCED CONCRETE APPROACH SLAB (T=17"), AS PER PLAN.
7. THE DG601 AND DG801 BARS IN THE DIAPHRAGM GUIDE ARE INCLUDED IN THE CONTRACT PRICE FOR ITEM 511, SEMI-INTEGRAL DIAPHRAGM GUIDE, AS PER PLAN.

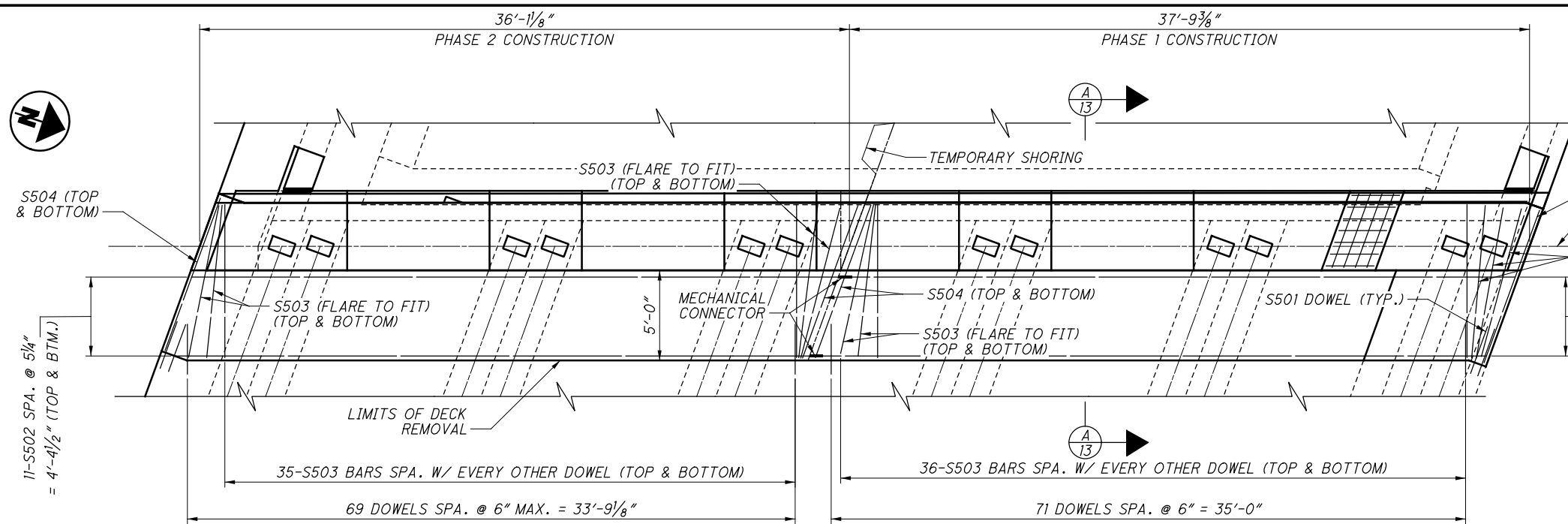
PARSONS	
29 Alpha Park Drive Highland Heights, OH 44143	
DATE 10/11/22	REVIEWED TES
STRUCTURE FILE NUMBER 2531496	DRAWN JRE
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ABUTMENT DETAILS	
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WEST NORTH BROADWAY 1.18 OVER OLENTANGY RIVER	
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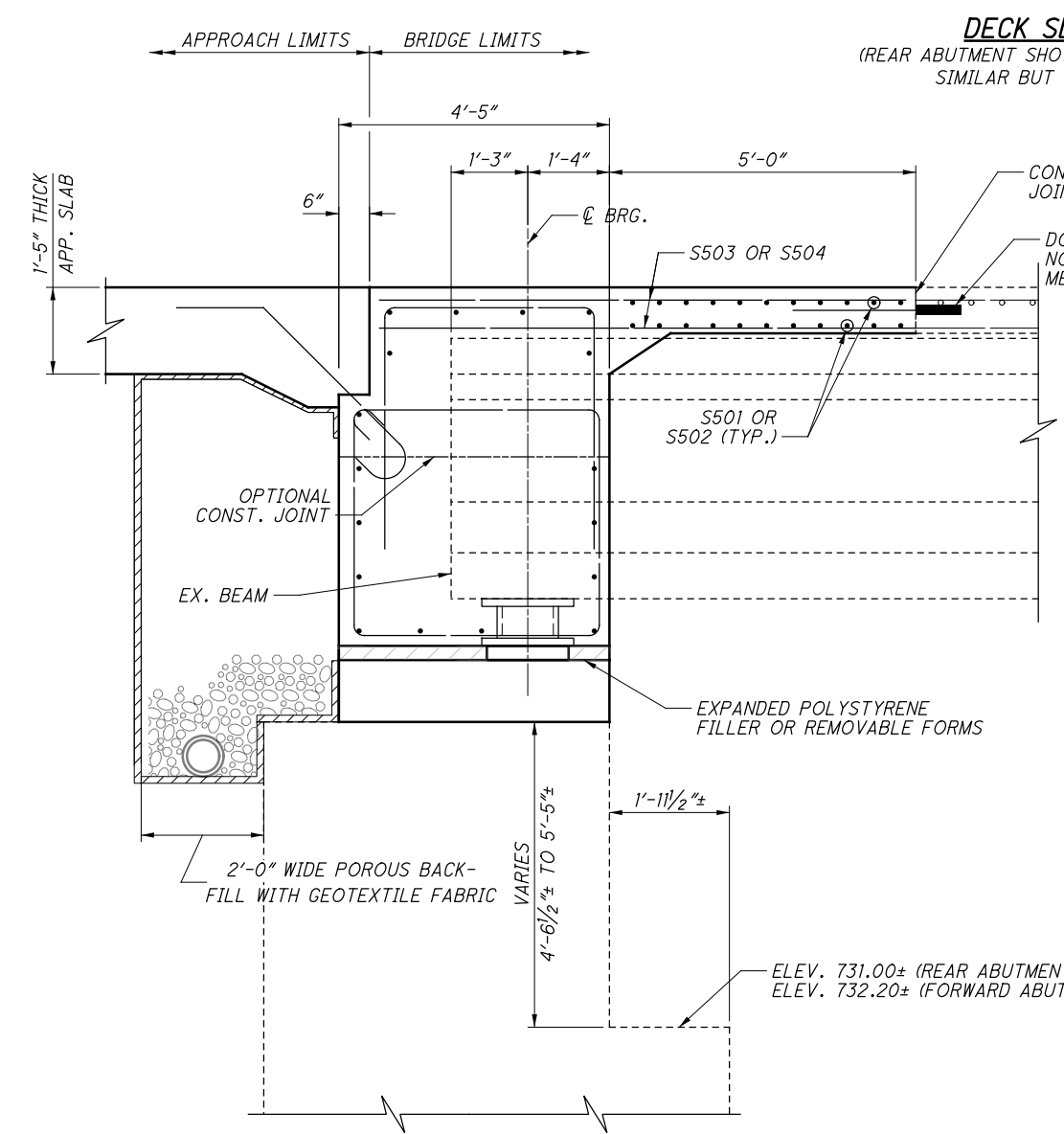


- NOTES:**
- FOR SUP BARRIER DETAILS, SEE SHEET [16/23].
 - FOR SIDE MOUNTED PEDESTRIAN RAIL ELEVATION, SEE SHEET [17/23].
 - FOR LIGHT POLE PILASTER DETAILS SEE SHEET [19/23].
 - FOR RAILING DETAILS, SEE SHEET [19/23].
 - FOR SCUPPER LOCATIONS, SEE SHEET [2/23].
 - MINIMUM EMBEDMENT FOR ANCHOR BOLTS INTO EXISTING CONCRETE IS MINIMUM EMBEDMENT INTO SOUND CONCRETE. CONTRACTOR SHALL REMOVE SPALLED OR DAMAGED CONCRETE TO REACH SOUND CONCRETE FOR MINIMUM ANCHOR EMBEDMENT TO THE SATISFACTION OF THE ENGINEER.
 - ALL MEASUREMENTS ARE ASSUMED BASED ON RECORD PLANS AND FIELD INVESTIGATION. HOWEVER, CONDITIONS MAY HAVE DETERIORATED SINCE FIELD VISIT. THEREFORE, CONTRACTOR SHALL FIELD VERIFY ALL MEASUREMENTS FOR SCUPPER DRAINS PRIOR TO ORDERING PARTS. CHANGES BASED ON FAILURE TO MEASURE CORRECTLY PRIOR TO ORDERING WILL NOT BE PAID FOR BY THE COUNTY.
 - PIPE COLLAR LOCATIONS MAY BE ADJUSTED TO ALLOW ANCHOR EMBEDMENT INTO SOUND CONCRETE. THE MINIMUM EDGE CLEARANCE FOR ANCHOR BOLTS SHALL BE 6".
 - PRIOR TO FINAL INSTALLATION, CONTRACTOR SHALL CONDUCT A DRY FITUP OF ALL DRAIN COMPONENTS.

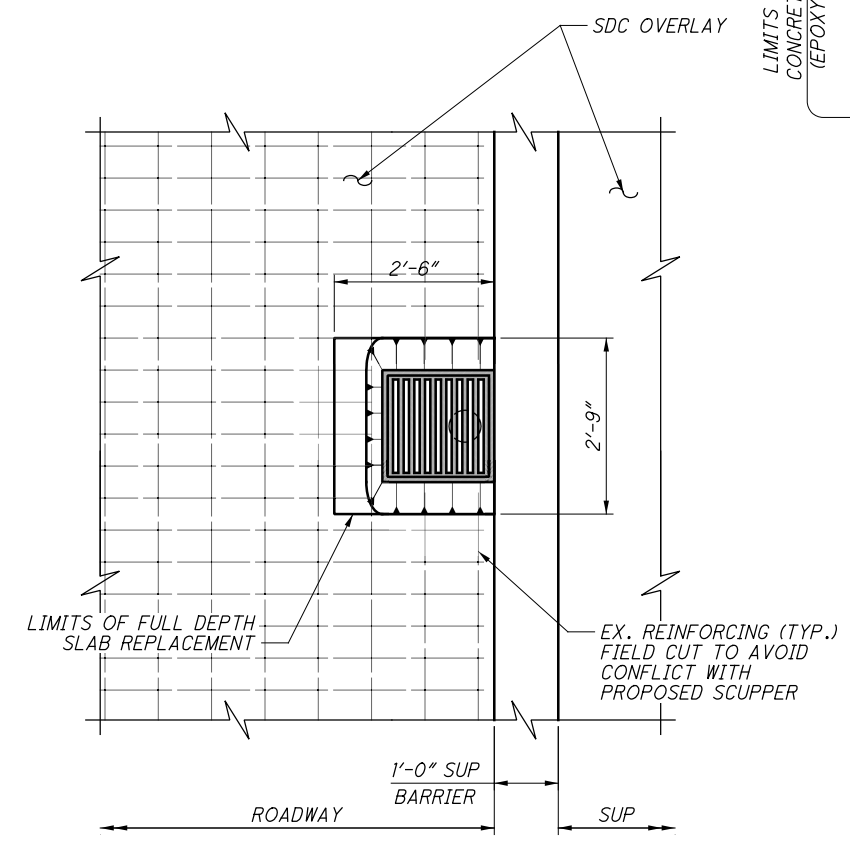
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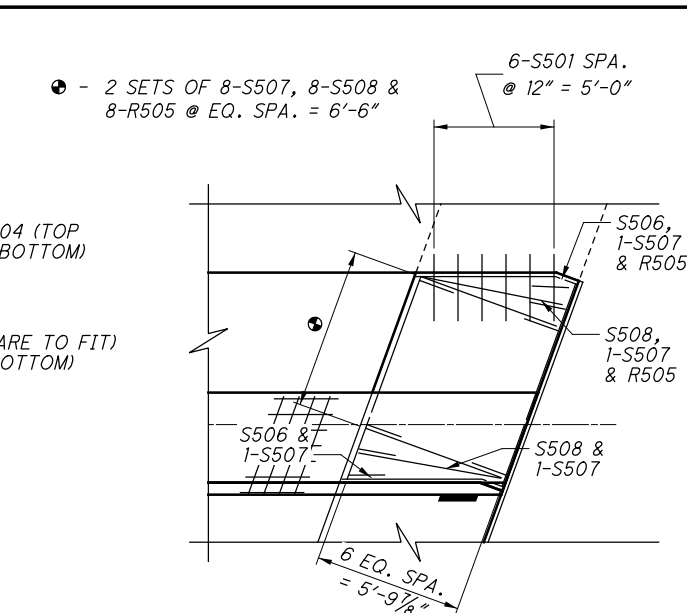
DECK SLAB PLAN
(REAR ABUTMENT SHOWN, FORWARD ABUTMENT SIMILAR BUT OPPOSITE HAND)



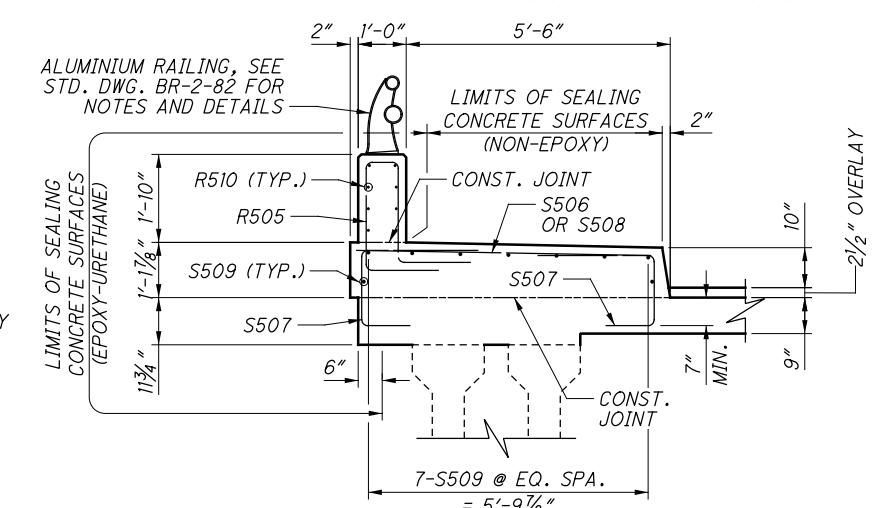
SECTION THRU DECK



PARTIAL SLAB PLAN AT PROPOSED SCUPPER LOCATIONS



SIDEWALK PLAN
(FORWARD ABUTMENT SHOWN, REAR ABUTMENT SIMILAR BUT OPPOSITE HAND)



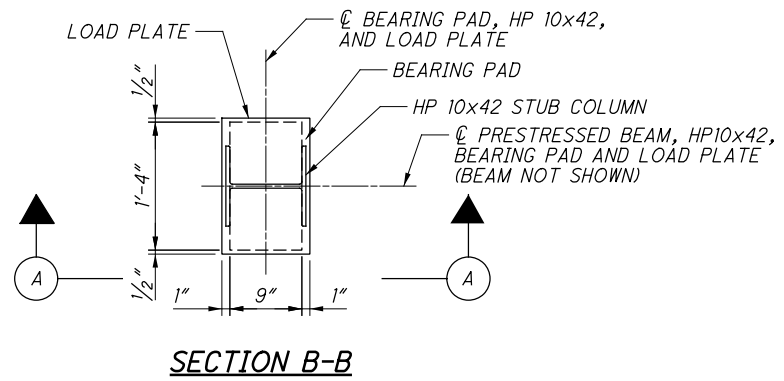
SIDEWALK SECTION
(FORWARD ABUTMENT SHOWN, REAR ABUTMENT SIMILAR BUT OPPOSITE HAND)

- NOTES:**
- WITH APPROVAL FROM THE ENGINEER, THE CONTRACTOR MAY DECIDE TO CUT CONSTRUCTION ACCESS HOLE(S) BETWEEN BEAMS IN LIEU OF THE FULL WIDTH OF THE BRIDGE. FOR THIS CASE, DETAILED DOWEL AND REBAR SPACING, CLEARANCES AND ORIENTATION SHALL BE FOLLOWED, BUT ADJUSTED FOR THE REMOVAL LIMITS. PROPOSED CHANGES TO THE REBAR SHALL BE APPROVED BY THE ENGINEER.
 - FOR SEMI-INTEGRAL DIAPHRAGM DETAILS, SEE SHEET 15/23.
 - FOR REMOVAL DETAILS, SEE SHEETS 5/23 THRU 7/23.

PARSONS	
29 Alpha Park Drive Highland Heights, OH 44143	DATE: 10/11/22
DESIGNED: JAT	REVIEWED: TES
CHECKED: RWB	STRUCTURE FILE NUMBER: 2531496
DECK SLAB DETAILS CLI-C0333-01.180 WEST NORTH BROADWAY 1.18 OVER OLENTANGY RIVER	
13 / 23	40 / 50

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BEARING SCHEDULE									STEEL LOAD PLATE L x W x T	STEEL PEDESTAL PLATE L x W x T
LOCATION	TYPE	NO. OF BEARINGS	SIZE L x W x T	NO. OF STEEL LAMINATES	t_i	No. OF t_i LAYERS	t_e	No. OF t_e LAYERS		
REAR ABUT.	EXP.	12	9" x 1'-4" x 2 ¹³ / ₁₆ "	6 ($t=0.0747"$)	0.375"	5	0.25"	1	11" x 1'-5" x 1 ¹ / ₂ "	1'-6" x 1'-6" x 1 ¹ / ₂ "
FWD. ABUT.	EXP.	12	9" x 1'-4" x 2 ¹³ / ₁₆ "	6 ($t=0.0747"$)	0.375"	5	0.25"	1	11" x 1'-5" x 1 ¹ / ₂ "	1'-6" x 1'-6" x 1 ¹ / ₂ "



SECTION B-B

NOTES:

ELASTOMERIC BEARING PAD:

THE ELASTOMER SHALL HAVE A HARDNESS OF 60 DUROMETER. THE BEARINGS WERE DESIGNED IN ACCORDANCE WITH SECTION 14.7.6 (METHOD A) OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS. THE LONG-TERM COMPRESSION PROOF LOAD TEST (AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, DIVISION II, SECTION 18.7.2.6) IS NOT REQUIRED.

THE TOP ELASTOMER LAYER SHALL BE VULCANIZED TO THE LOAD PLATE.

STEEL LOAD AND PEDESTAL PLATES:

THE STEEL LOAD AND PEDESTAL PLATES AND HP SECTIONS FOR ELASTOMERIC BEARINGS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A 709, GRADE 50. THE LOAD PLATE SHALL BE BONDED BY VULCANIZATION TO THE ELASTOMER DURING THE MOLDING PROCESS. WELDING SHALL BE CONTROLLED SO THAT THE STEEL LOAD PLATE TEMPERATURE AT THE ELASTOMER BONDED SURFACE DOES NOT EXCEED 300°F AS DETERMINED BY THE USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE MONITORING DEVICES.

GALVANIZING:

GALVANIZE ALL STRUCTURAL STEEL, STUDS, AND BEARING LOAD PLATES ACCORDING TO 711.02.

MEASUREMENT AND PAYMENT:

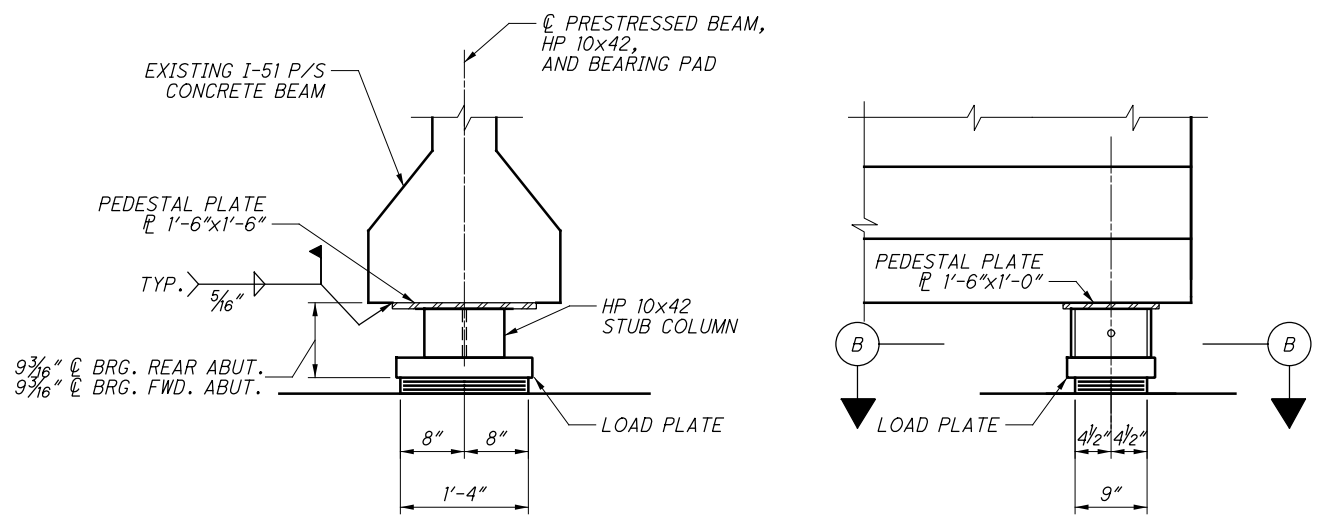
PER ITEM 516, ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN, SHALL INCLUDE ALL LABOR, MATERIALS, FABRICATION, PEDESTAL PLATE, HP SHAPE, AND EQUIPMENT NECESSARY TO COMPLETE THE BEARINGS IN PLACE.

BEARING MARKING AND PAINTING:

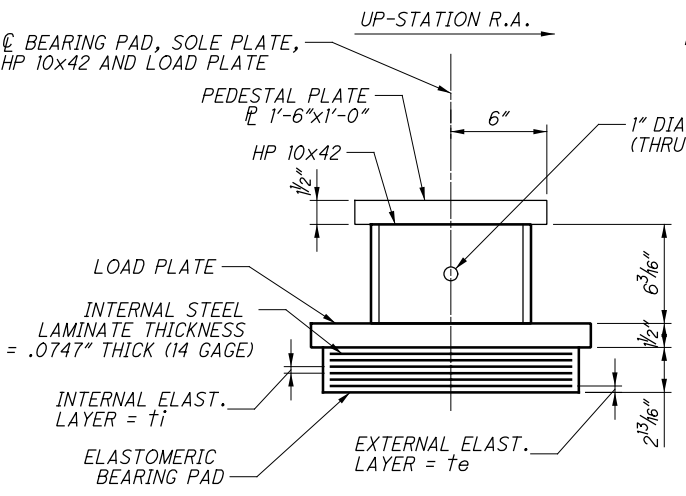
ALL BEARINGS SHALL BE MARKED PRIOR TO SHIPPING. THE MARKS SHALL INCLUDE THE BEARING LOCATION ON THE BRIDGE AND A DIRECTION ARROW THAT POINTS UP-STATION. ALL MARKS SHALL BE PERMANENT AND BE VISIBLE AFTER THE BEARING IS INSTALLED.

UNFACTORED ELASTOMERIC BEARING LOADS:

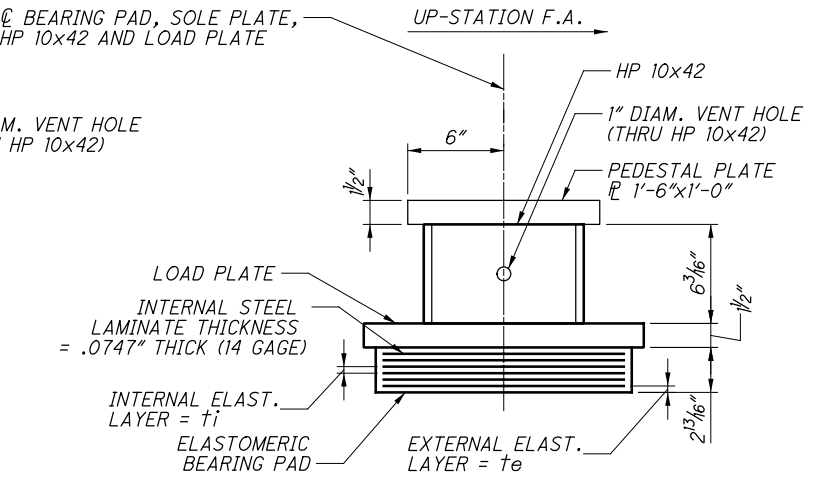
DEAD LOAD	=	105.5 KIPS
LIVE LOAD	=	65.5 KIPS
TOTAL LOAD	=	171.0 KIPS



EXPANSION BEARINGS AT ABUTMENTS

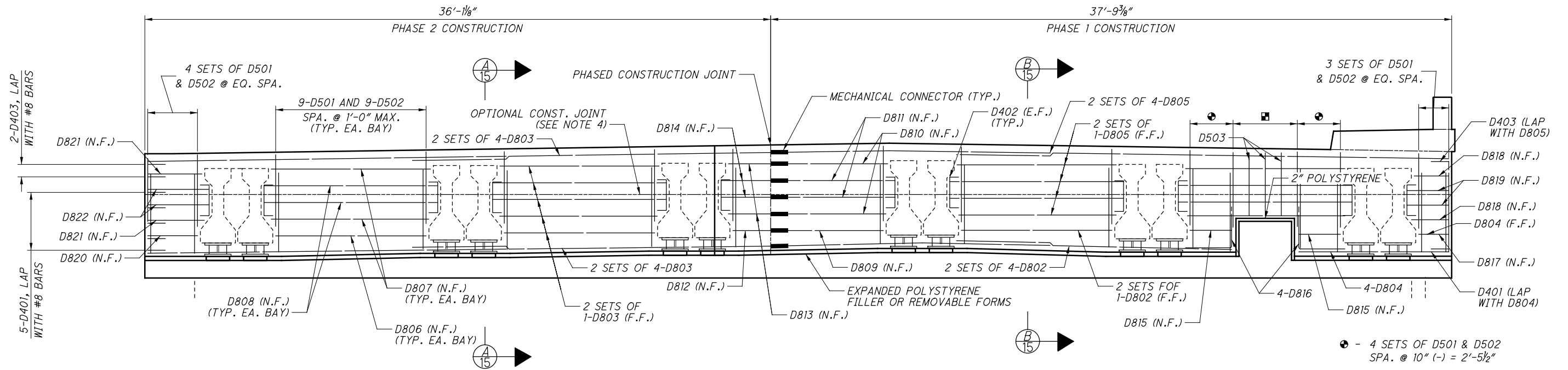


SECTION A-A



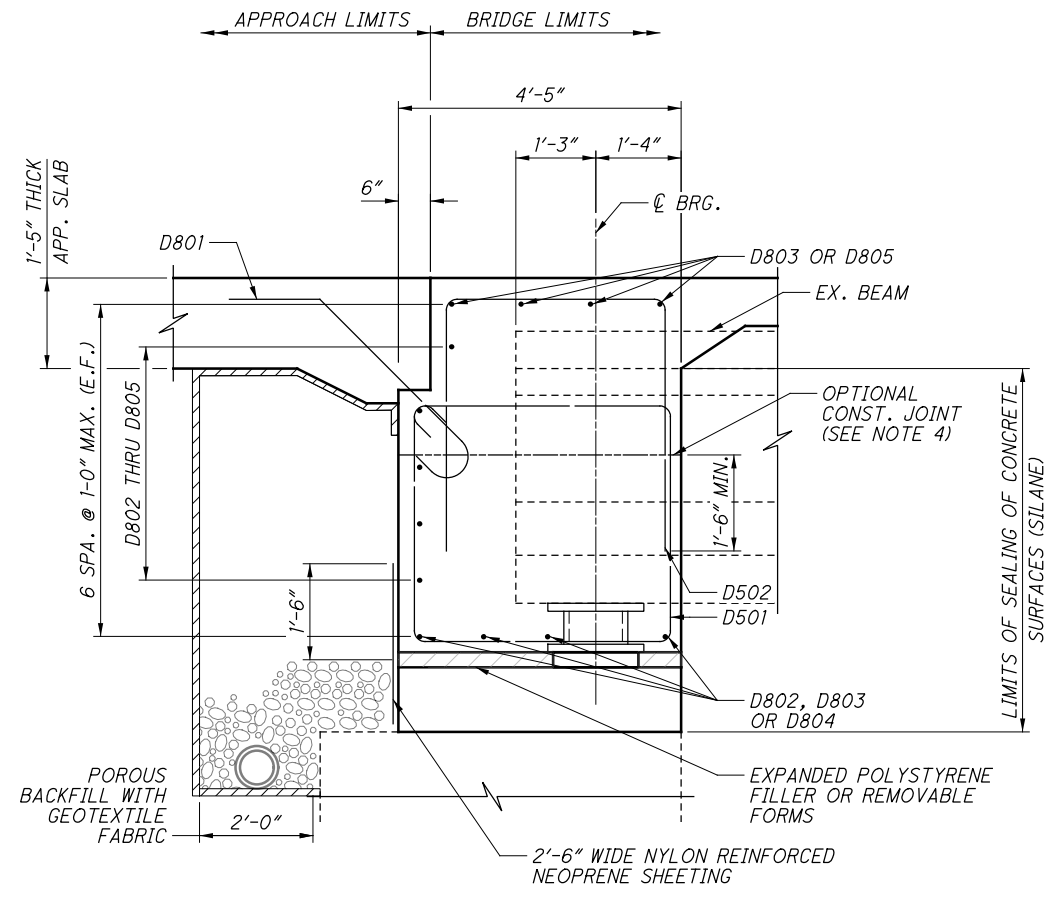
SECTION A-A

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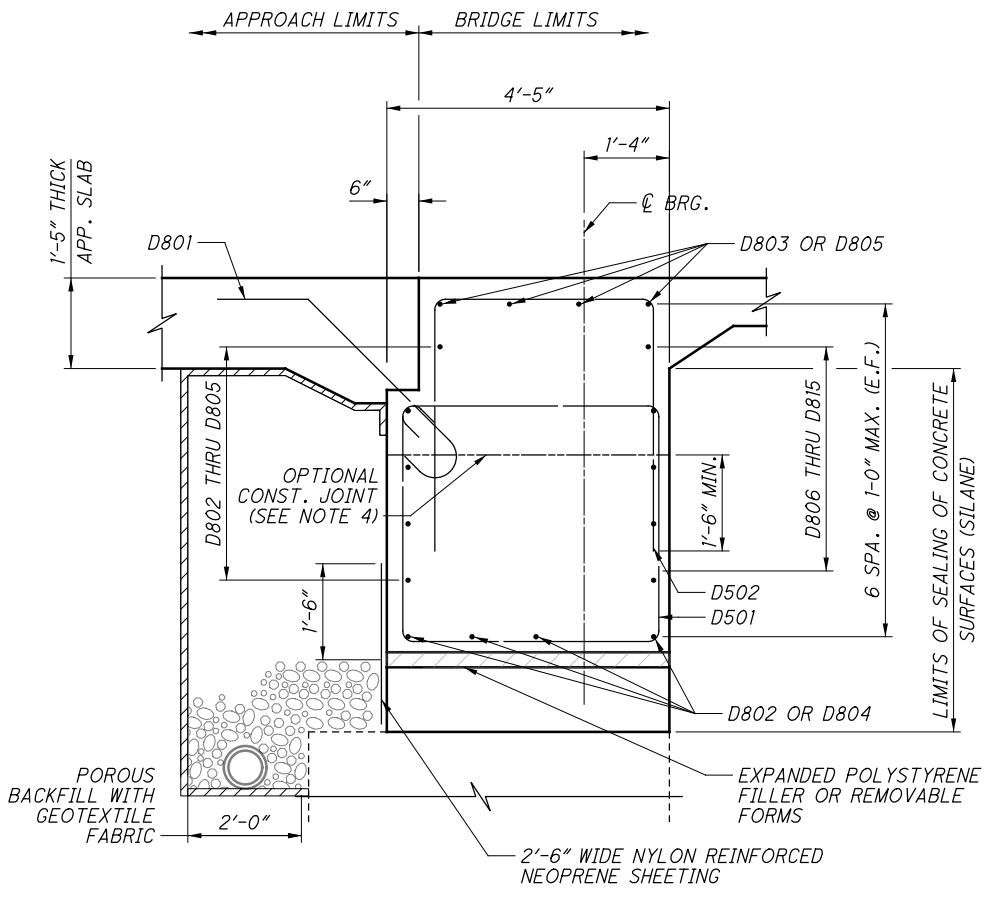


END DIAPHRAGM ELEVATION
 (REAR ABUTMENT SHOWN, FORWARD ABUTMENT SIMILAR BUT OPPOSITE HAND)

- - 4 SETS OF D501 & D502 SPA. @ 10" (-) = 2'-5 1/2"
- - 4 SPA. @ 11" = 3'-8"



A SECTION THRU DIAPHRAGM

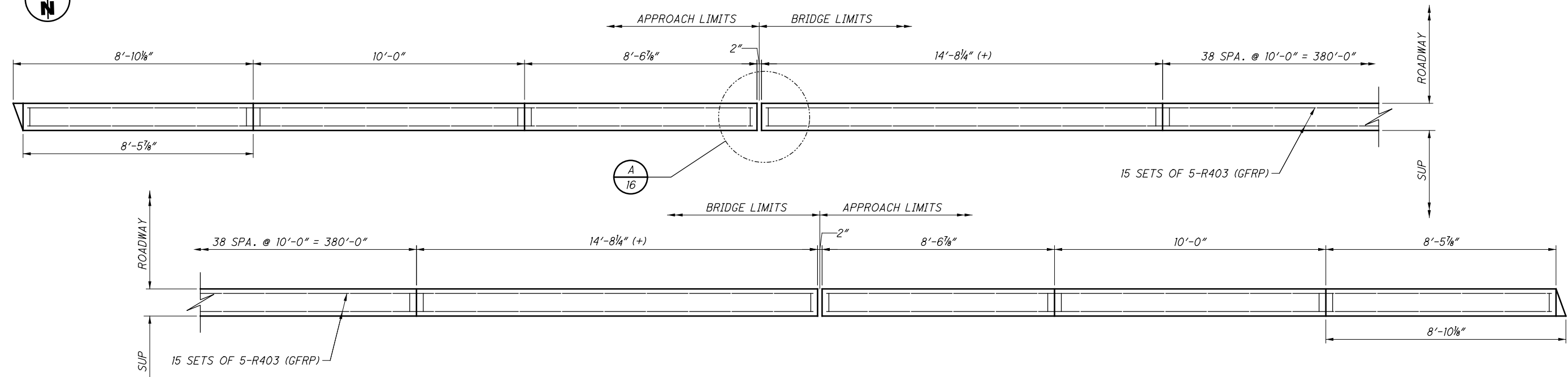


B SECTION THRU DIAPHRAGM

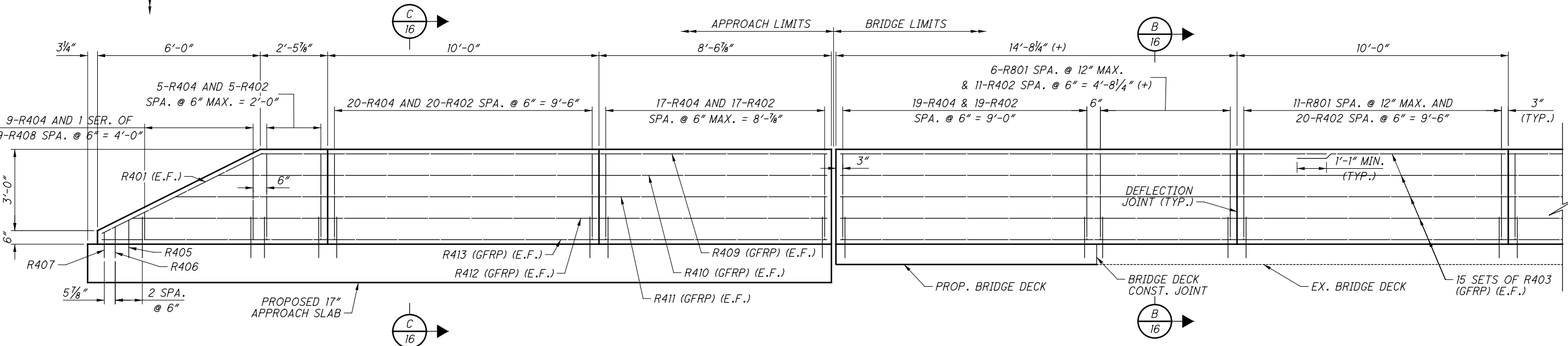
- NOTES:**
1. SEE STD. DWG. SICD-1-96 FOR ADDITIONAL DETAILS.
 2. ALL DIMENSIONS ARE GIVEN ALONG $\text{\textcircled{C}}$ BEARING.
 3. PLACE REINFORCING PARALLEL TO GIRDERS.
 4. ABUTMENT DIAPHRAGM CONCRETE, PHASED CONSTRUCTION: PLACE THE DIAPHRAGM CONCRETE ENCASEING THE STRUCTURAL MEMBER ENDS OF AN INDIVIDUAL PHASE WITH THE DECK CONCRETE OR AT LEAST 48 HOURS BEFORE PLACEMENT OF THE DECK CONCRETE. IF PLACED SEPERATELY, LOCATE A HORIZONTAL CONSTRUCTION JOINT IN THE DIAPHRAGM AS SHOWN ON PSID-1-13, SHEET 7 OF 10 AND PLACE REMAINING DIAPHRAGM CONCRETE WITH THE DECK.

DESIGNED	JAT	CHECKED	RWB
DRAWN	JAT	REVISED	
REVIEWED	TES	STRUCTURE FILE NUMBER	2531496
DATE	10/11/22		

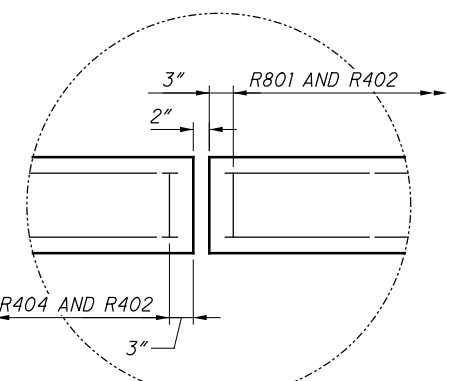
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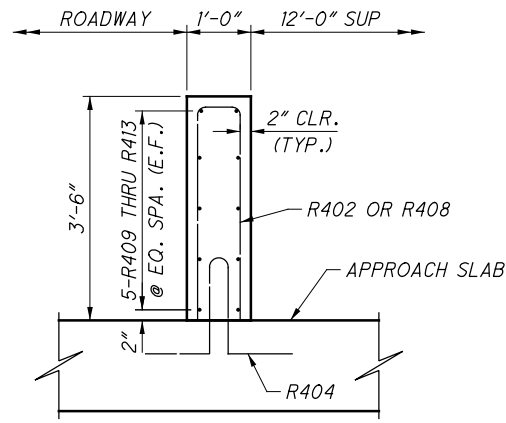
BARRIER WALL DEFLECTION JOINT SPACING



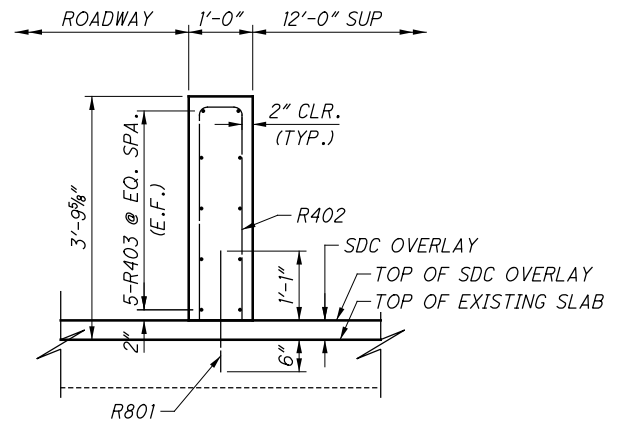
TYPICAL ELEVATION



A
16
DETAIL A



C
16
SECTION THRU BARRIER
APPROACH LIMITS

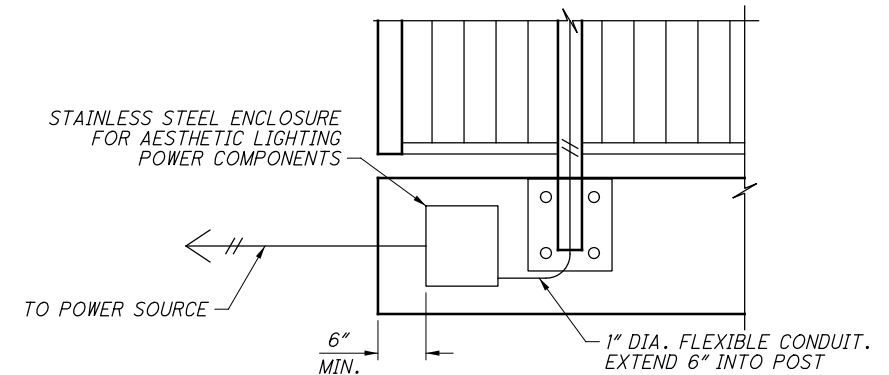
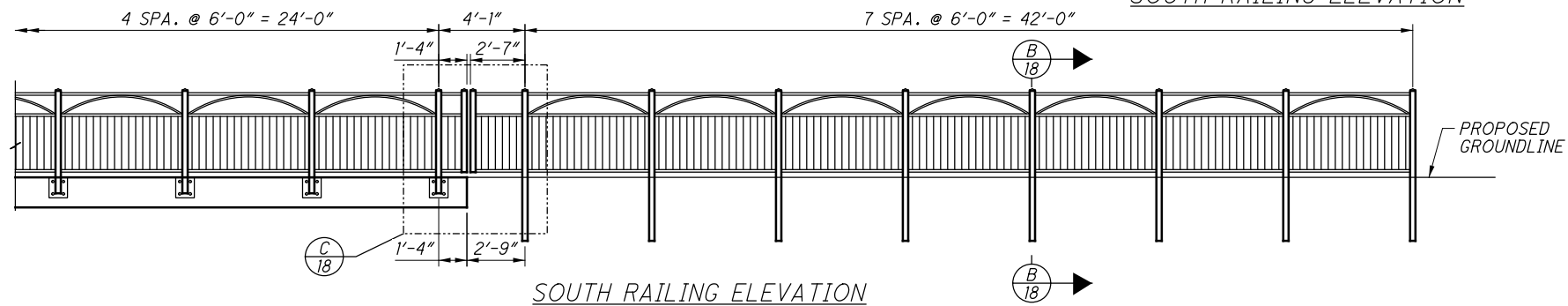
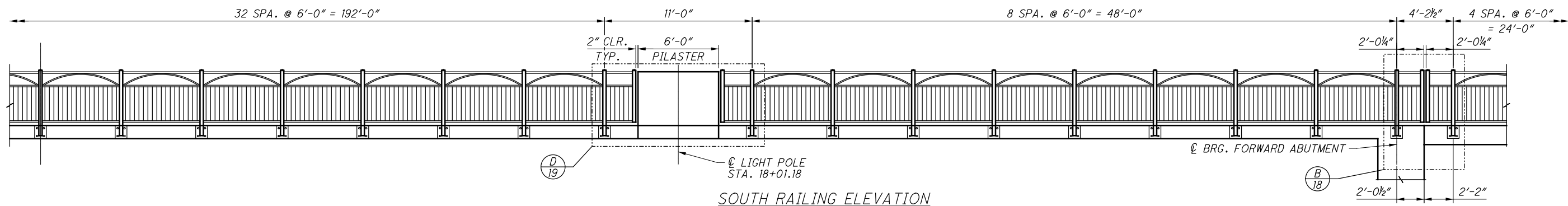
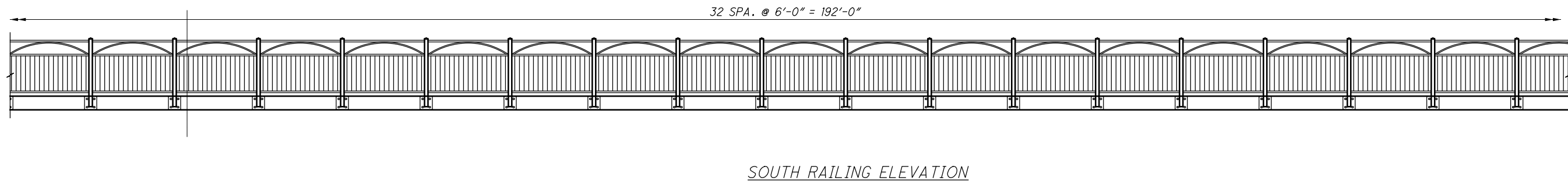
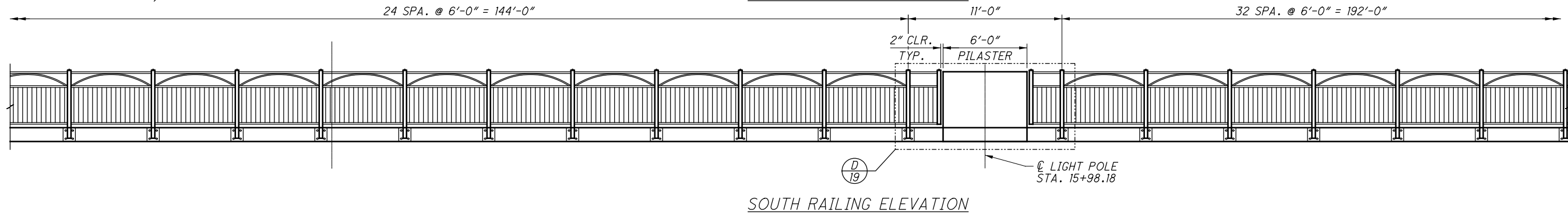
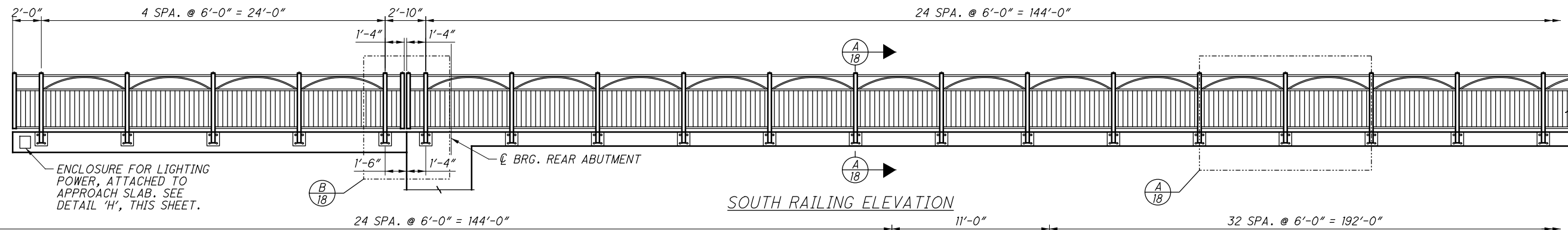


B
16
SECTION THRU BARRIER
BRIDGE LIMITS

MINIMUM LAP LENGTHS	
BAR SIZE	LENGTH
#4 GFRP	1'-1"

- NOTES:**
1. PLACE BARS R404 THRU R407 PRIOR TO POURING THE APPROACH SLAB.

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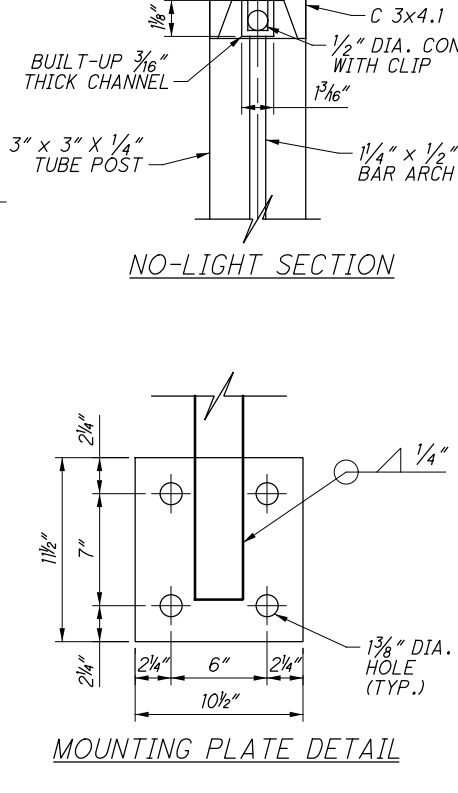
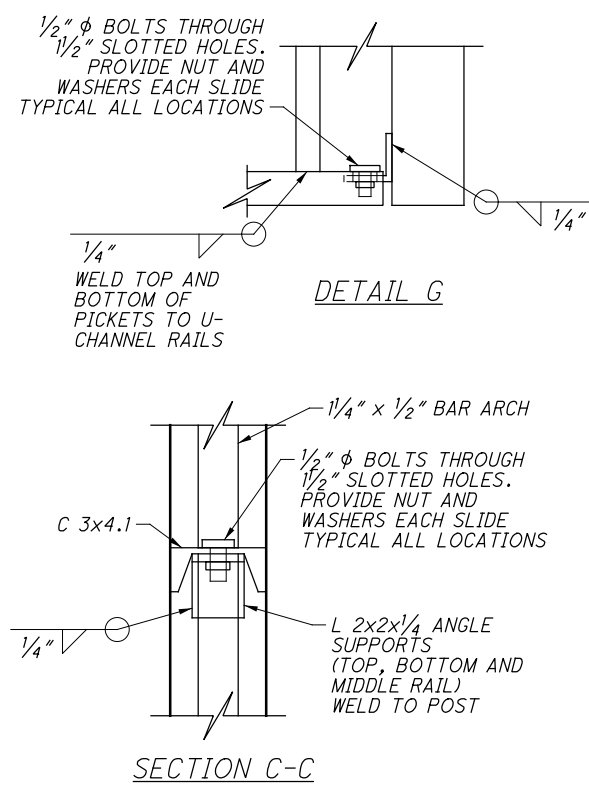
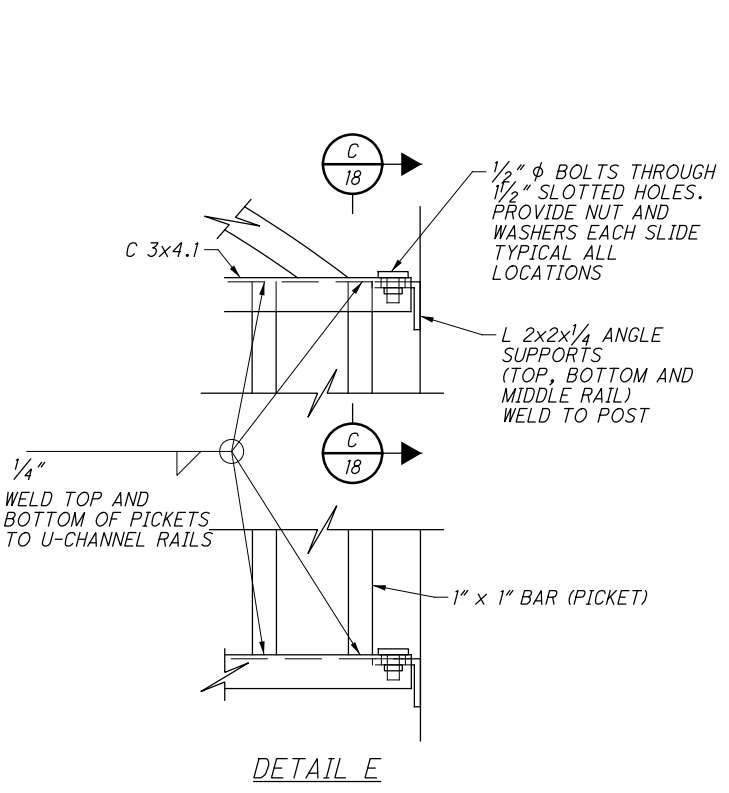
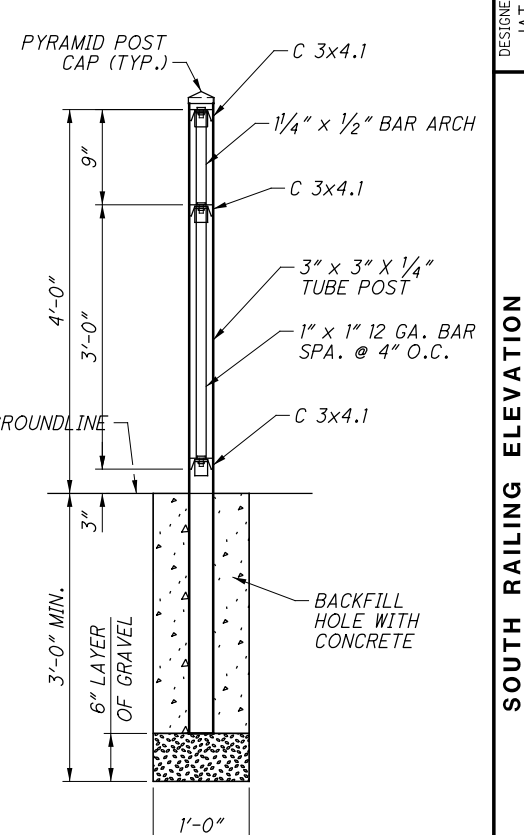
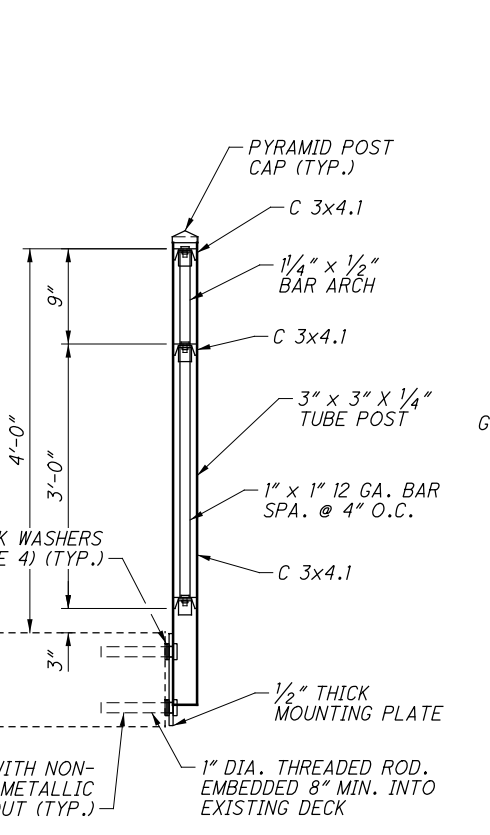
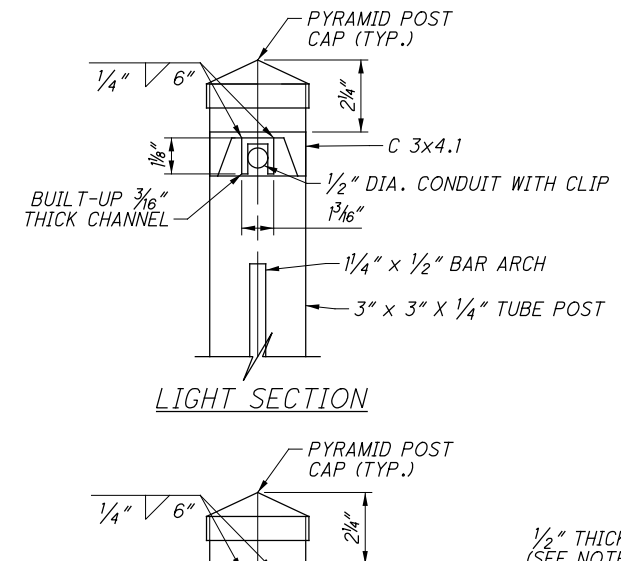
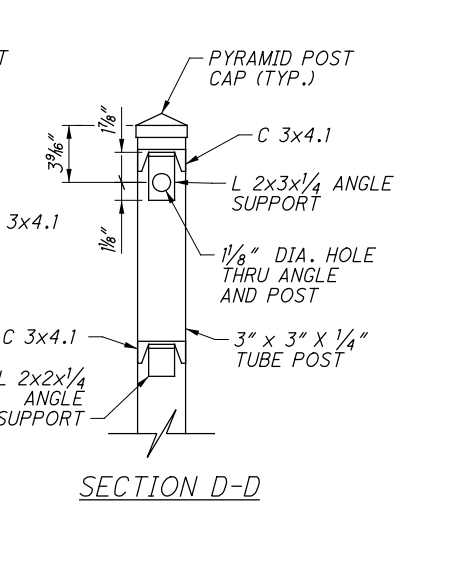
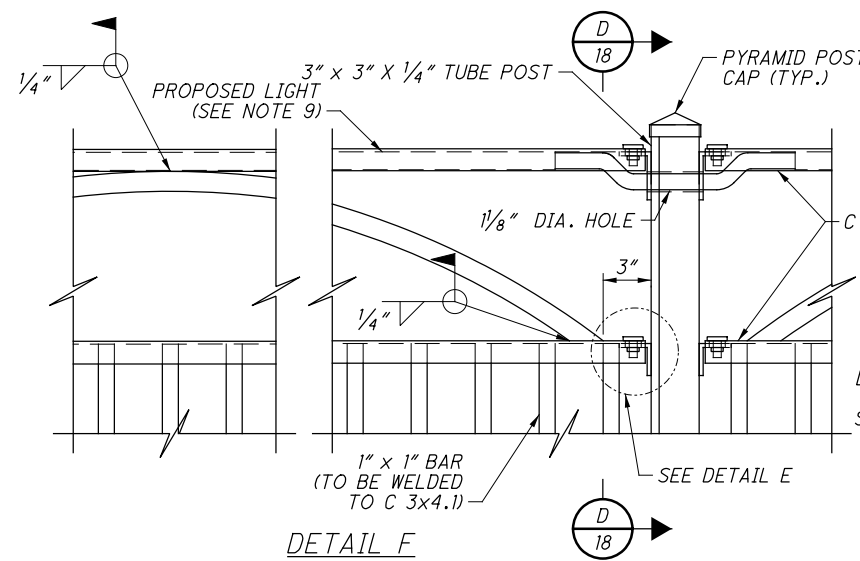
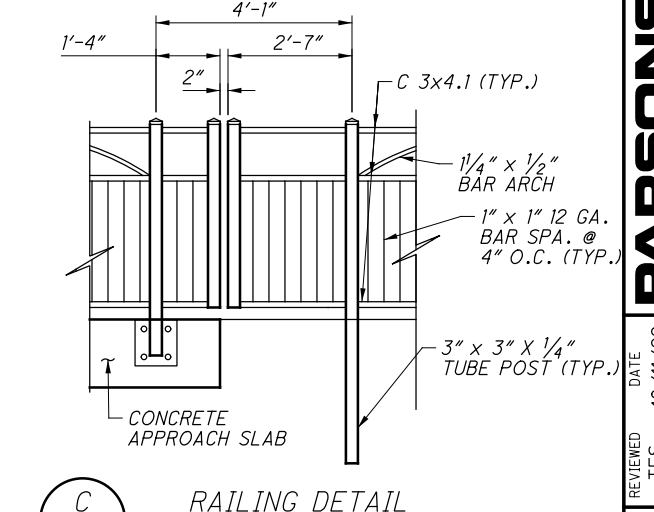
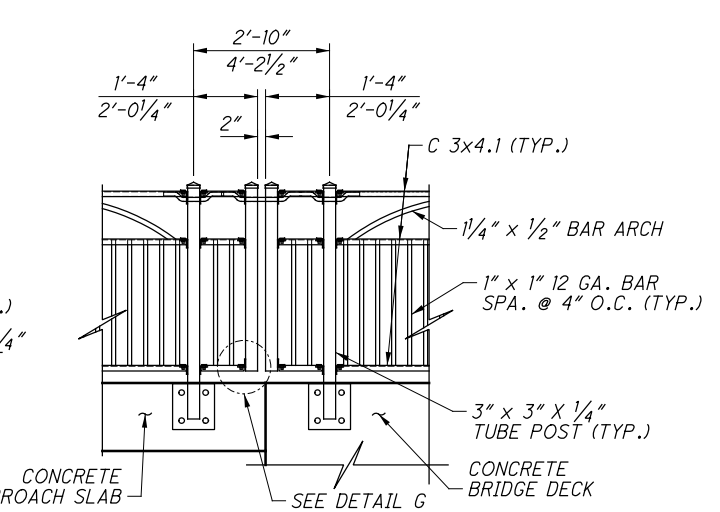
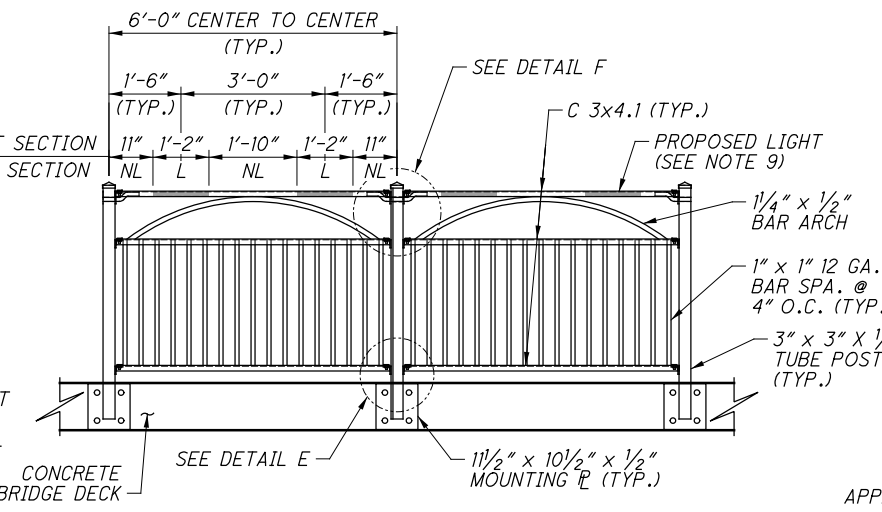
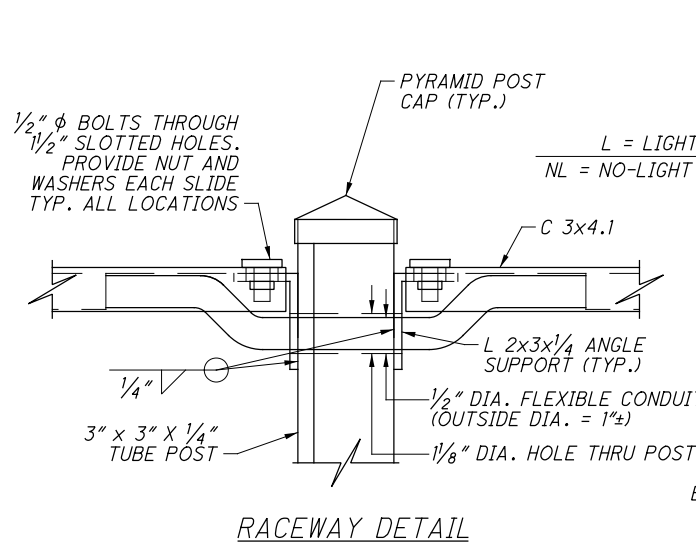
SEE LIGHTING PLAN, SHEET 27 OF 50 FOR ADDITIONAL INFORMATION

NOTES:

- FOR SECTIONS A-A AND B-B AND DETAILS 'A', 'B', 'C' AND 'D', SEE SHEET 18/23.
- FOR LIGHT POLE PILASTER DETAILS AND DETAIL E, SEE SHEET 19/23.

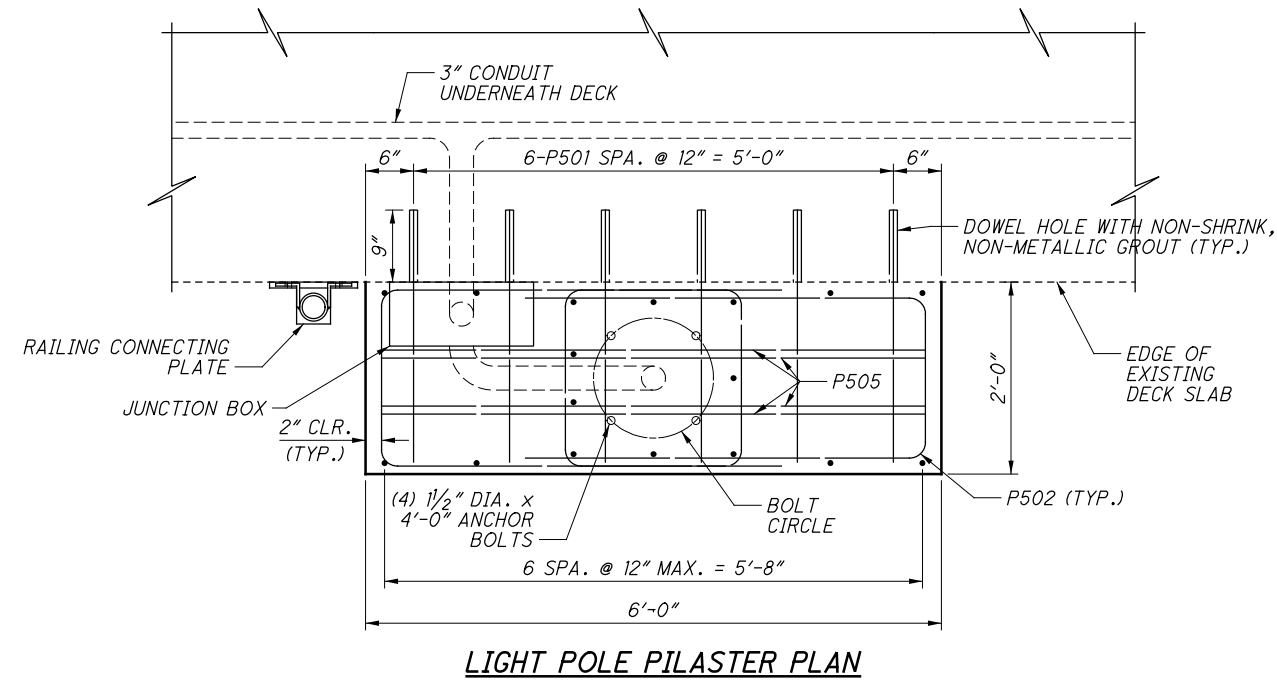
PARSONS	
29 Alpha Park Drive Highland Heights OH 44143	DATE: 10/11/22
DESIGNED: JAT	REVIEWED: TES
CHECKED: RWB	STRUCTURE FILE NUMBER: 2531496
SOUTH RAILING ELEVATION CLI-C0333-01.180 WEST NORTH BROADWAY 1.18 OVER OLENTANGY RIVER	
17 / 23	44 50

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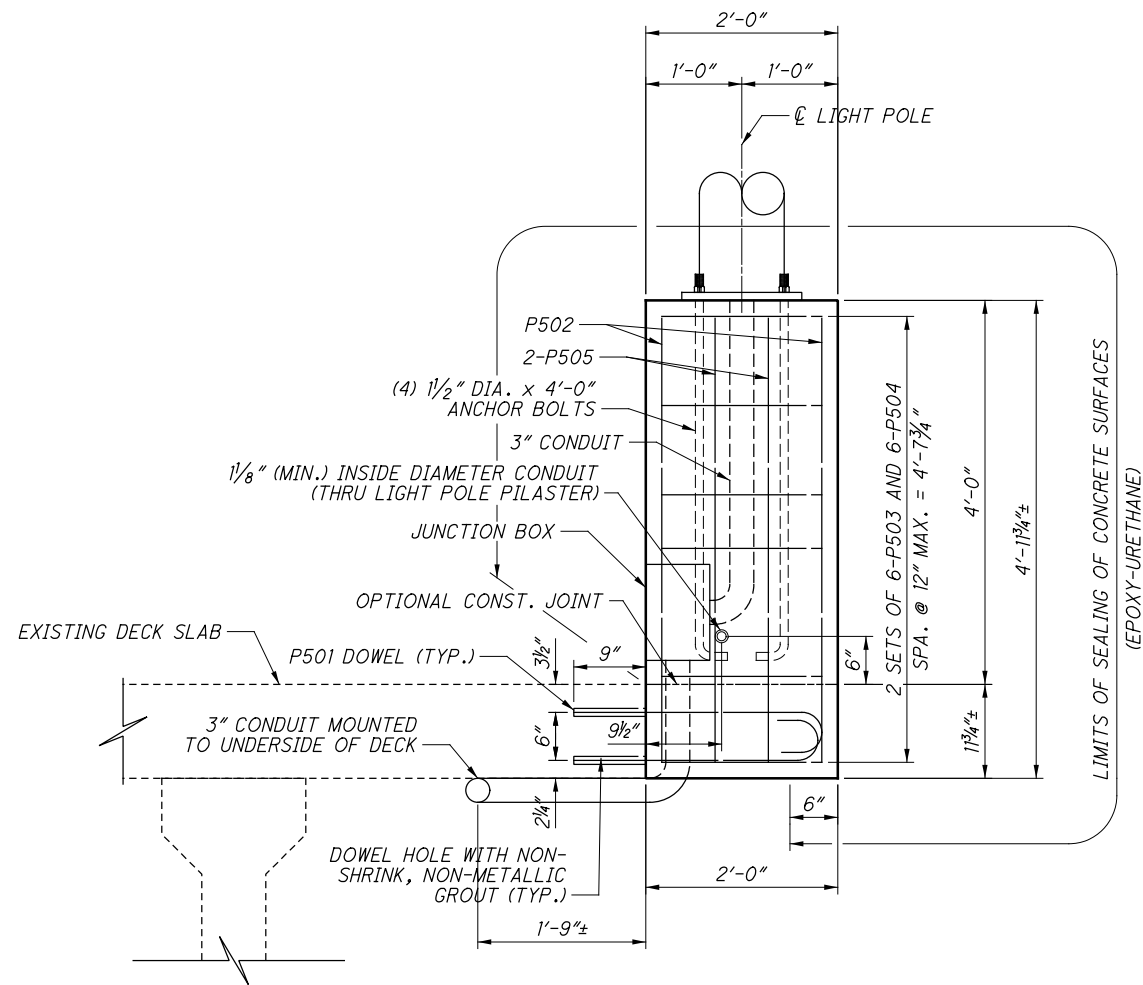


- NOTES:**
- ALL STRUCTURAL STEEL SHALL HAVE A MINIMUM YIELD STRENGTH OF 50,000 PSI.
 - FURNISH STRUCTURAL STEEL SHAPES AND PLATES ACCORDING TO ODOT CMS 711.01.
 - ALL ANCHOR BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A44.
 - ALL EXPOSED STEEL SHALL BE POWDER COATED BLACK.
 - STEEL BAR ARCH SHALL BE FIELD WELDED TO TOP AND BOTTOM U-CHANNEL RAILS AT POINTS OF CONTACT. USE 1/2" DIAMETER BOLTS TO ATTACH U-CHANNEL RAILS TO POST SUPPORT ANGLES.
 - MULTIPLE WASHERS MAY BE USED TO REACH THE THICKNESS OF 1/2".
 - ALL CONDUIT TO MATCH RAILING COLOR.
 - FOR ADDITIONAL RAILING DETAILS, SEE SHEET 19/23.
 - PROPOSED LIGHT SHALL BE WAGNER LULS-LUMELINEAR, 6" NOMINAL LENGTH OR APPROVED EQUAL. SEE ADDITIONAL DETAILS IN LIGHTING PLANS.

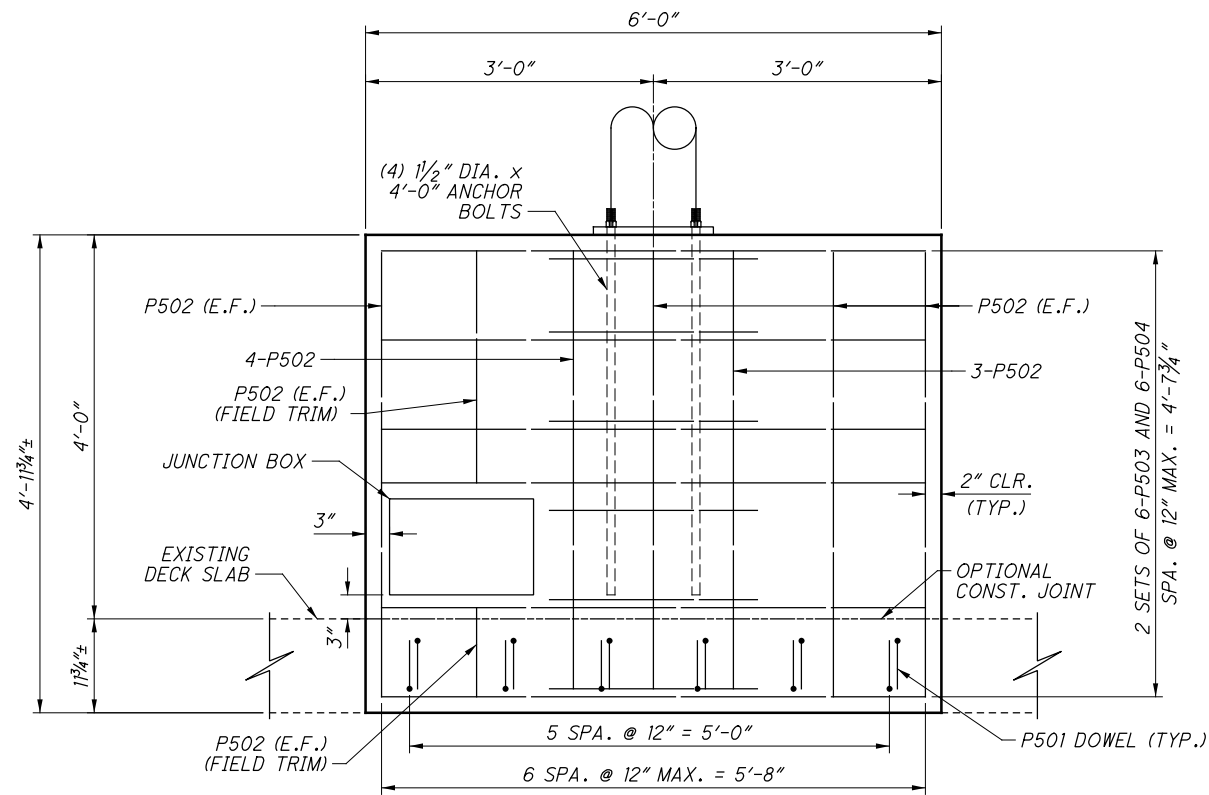
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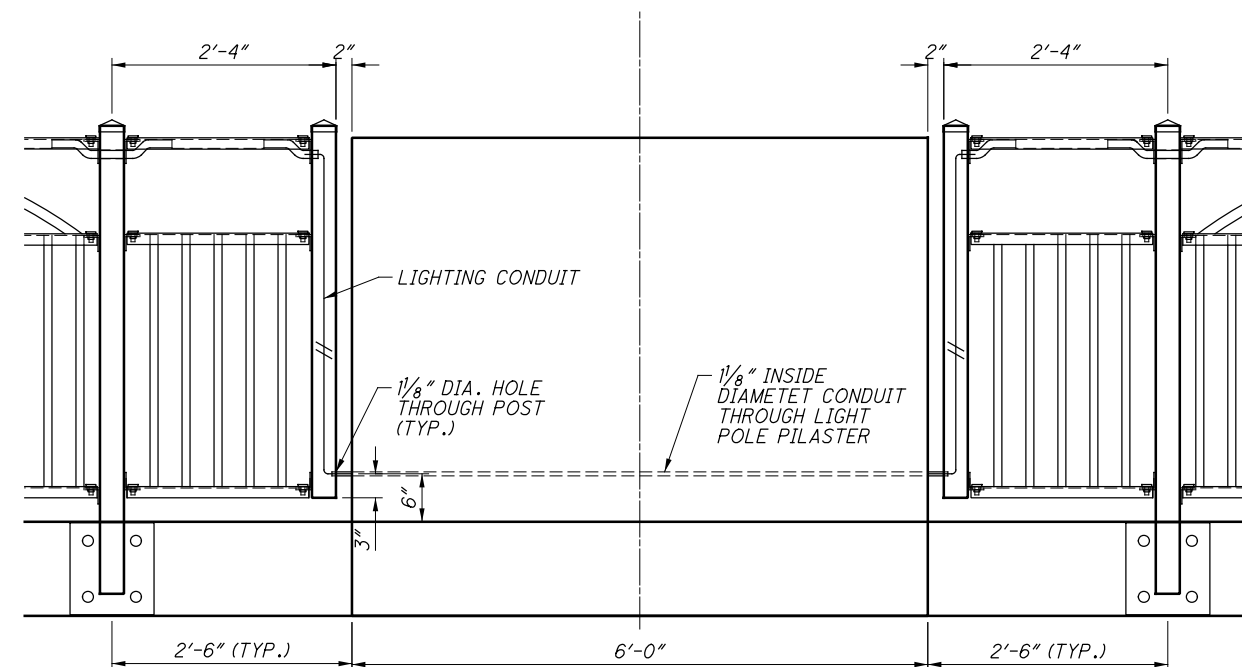
LIGHT POLE PILASTER PLAN



SECTION THRU PILASTER



LIGHT POLE PILASTER ELEVATION

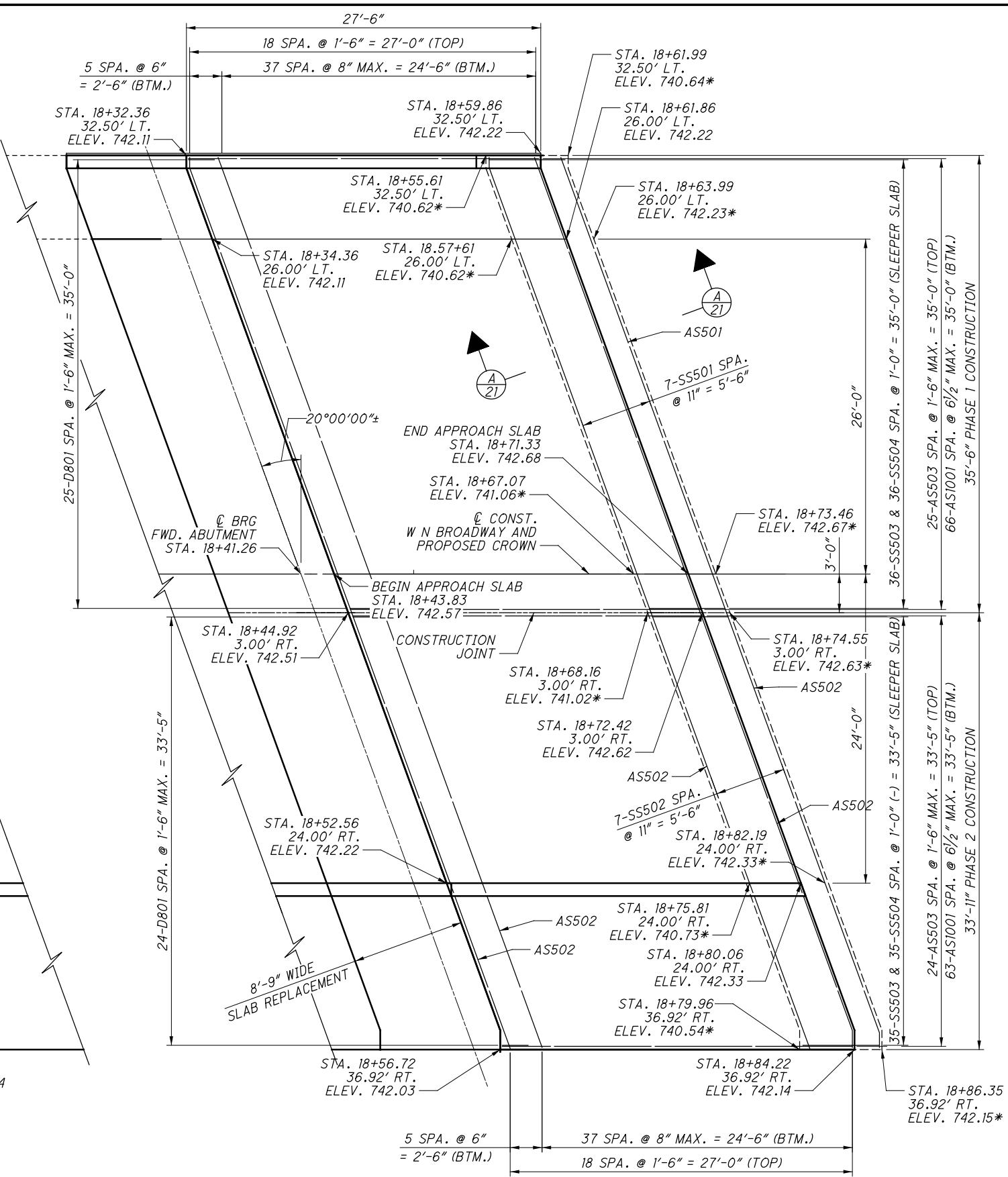
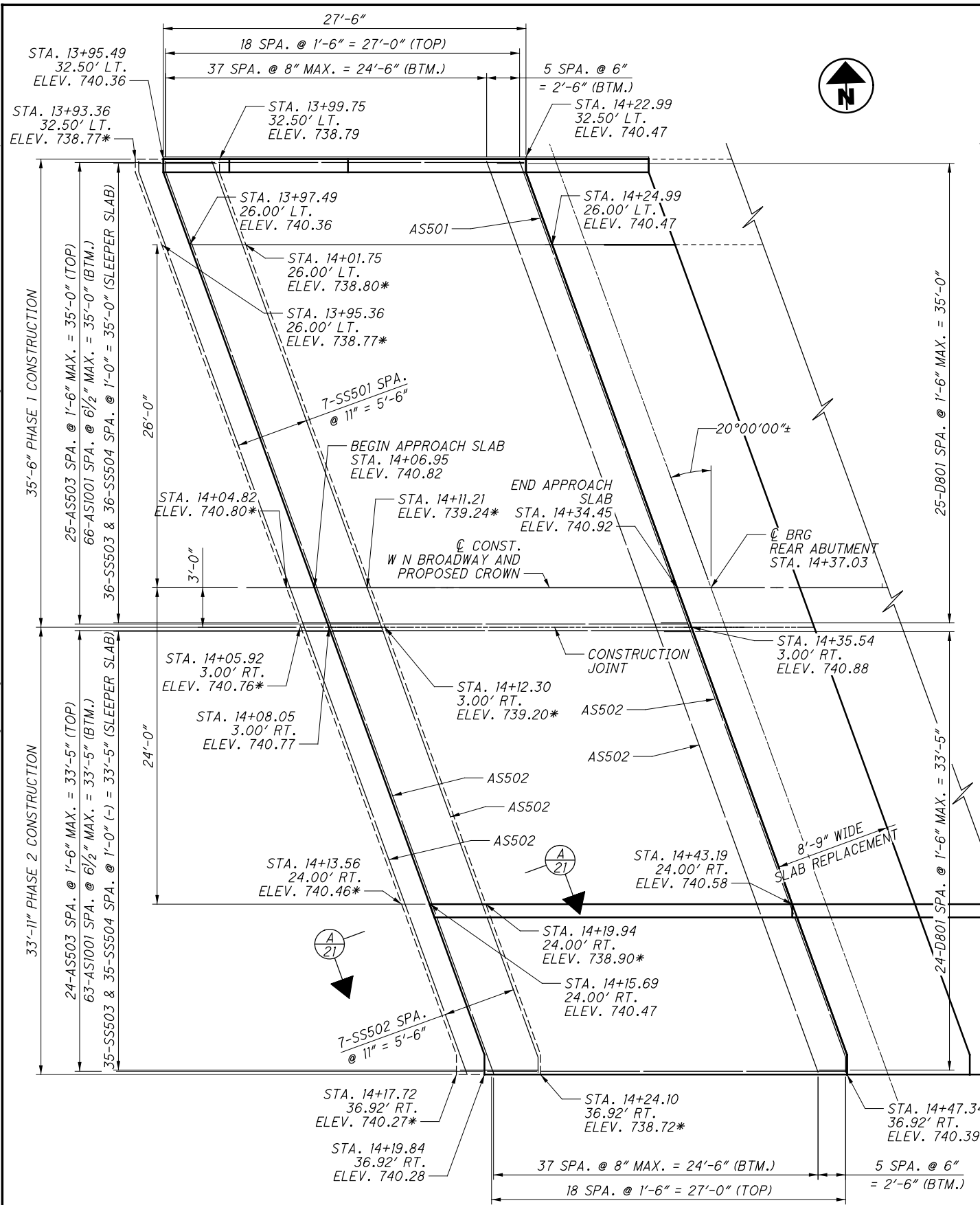


F RAIL DETAIL AT PILASTER

NOTE:
1. FOR PILASTER LOCATIONS, SEE SHEET 17/23.

DESIGNED	JAT	CHECKED	RWB
DRAWN	JAT	REVISED	
REVIEWED	TES	DATE	10/11/22
STRUCTURE FILE NUMBER	2531496		

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REAR APPROACH SLAB

FORWARD APPROACH SLAB

- NOTES:**
- SEE STD. DWG. AS-1-15 AND AS-2-15 FOR ADDITIONAL NOTES AND DETAILS.
 - FOR SEMI-INTEGRAL END DIAPHRAGM DETAILS, SEE SHEET 15/23.

* - INDICATES POINT ON SLEEPER SLAB

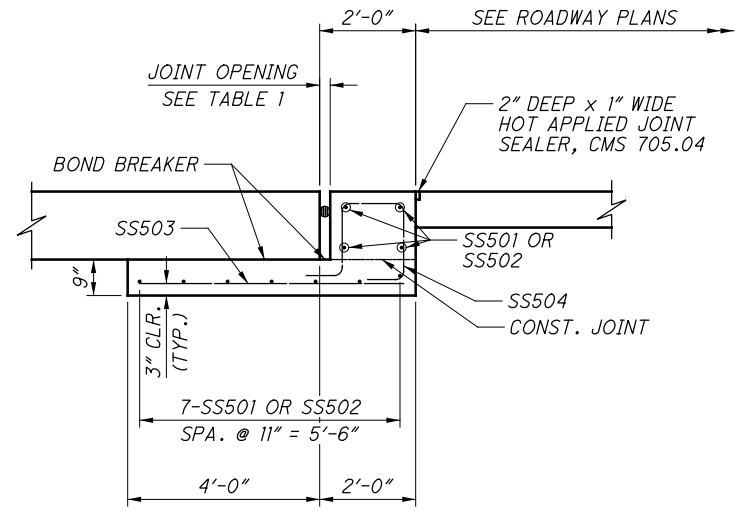
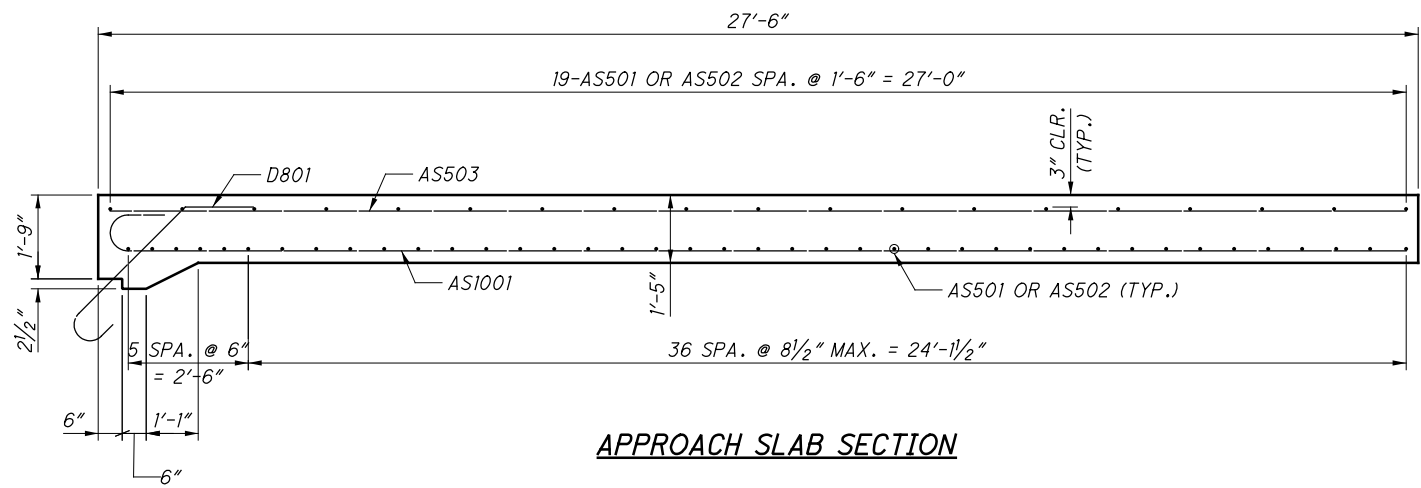
PARSONS
29 Alpha Park Drive
Highland Heights, OH 44143

DESIGNED	JAT	CHECKED	RWB
DRAWN	JAT	REVISED	
REVIEWED	TES	STRUCTURE FILE NUMBER	2531496
DATE	10/11/22		

APPROACH SLAB DETAILS
CLI-C0333-01.180
WEST NORTH BROADWAY 1.18 OVER OLENTANGY RIVER

20 / 23

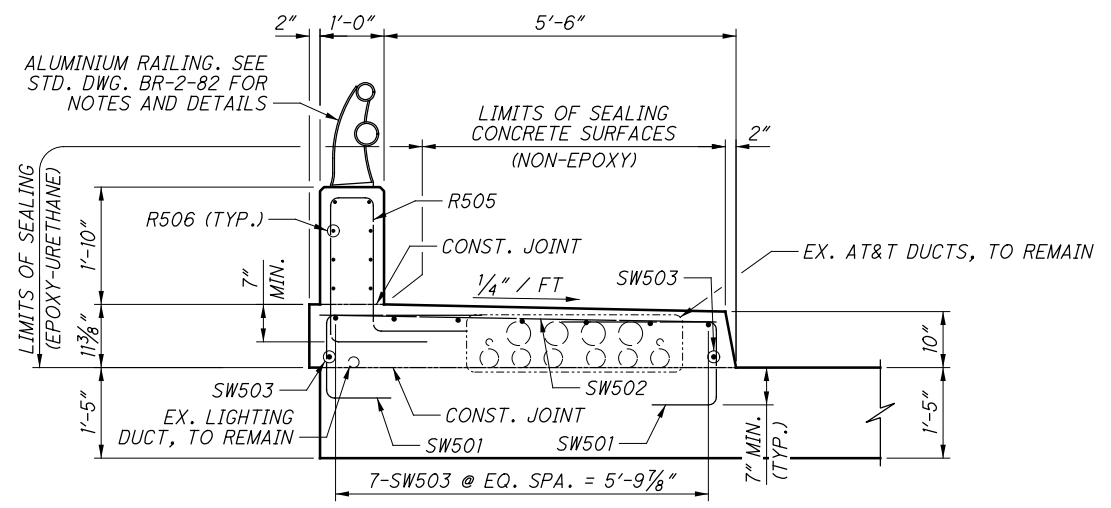
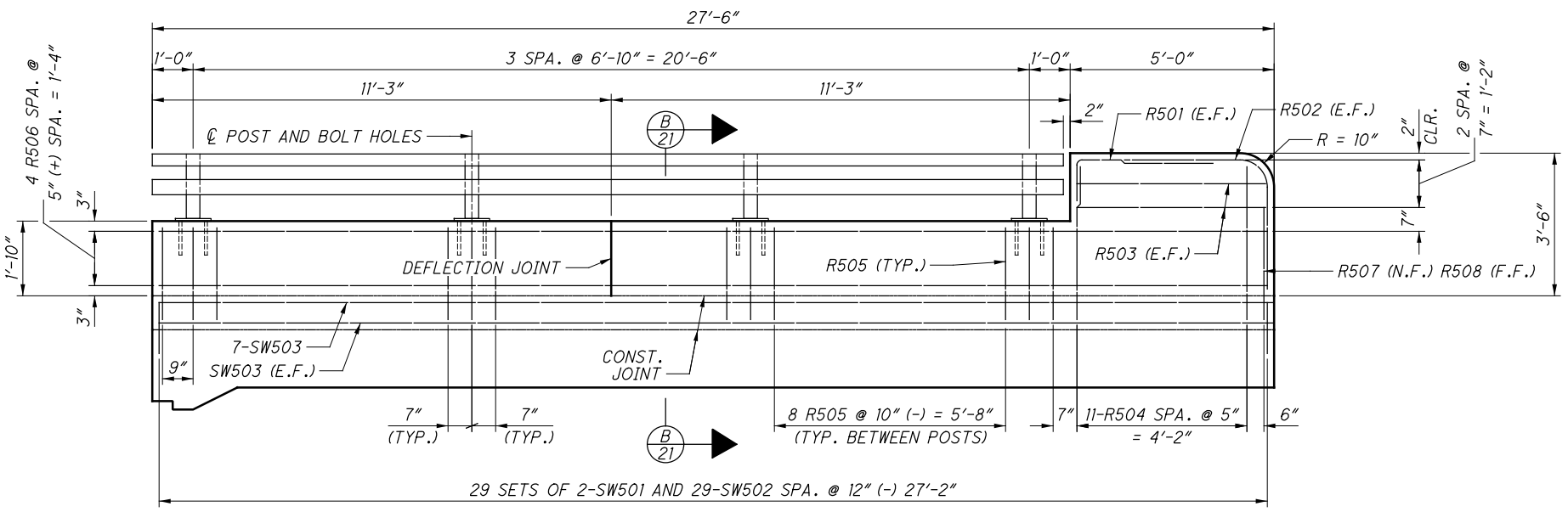
47 / 50



A SECTION THRU SLEEPER SLAB

TABLE 1

TEMPERATURE (°F)	JOINT OPENING (IN)
30°F	3 3/8"
40°F	3 1/8"
50°F	2 7/8"
60°F	2 5/8"
70°F	2 5/16"
80°F	2 1/16"
90°F	1 3/16"



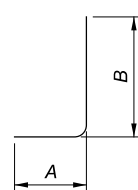
B SECTION THRU APPROACH SIDEWALK (NORTH SIDE OF BRIDGE)

- NOTES:**
- SEE STD. DWG. BR-2-15 FOR ADDITIONAL DETAILS AND NOTES ON THE BULL-NOSE END AND ARCHIVED STD. DWG. BR-2-82 FOR ADDITIONAL NOTES AND DETAILS FOR THE ALUMINIUM RAILING.
 - SEE STD. DWG. AS-1-15 AND AS-2-15 FOR ADDITIONAL NOTES AND DETAILS ON THE APPROACH AND SLEEPER SLAB.
 - SW501 BARS TO BE PLACED PRIOR TO POURING OF APPROACH SLAB CONCRETE.

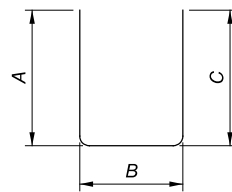
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MARK	NUMBER			LENGTH	WEIGHT	TYPE	DIMENSIONS					
	PHASE 1	PHASE 2	TOTAL				A	B	C	D	E	R
REAR ABUTMENT												
RA501*			96	5'-3"	526	1	1'-4"	4'-1"				
RA502**			4	20'-5"	85	STR						
RA503			4	8'-11"	37	2	2'-5"	4'-4"	2'-5"			
RA504			4	19'-0"	79	STR						
RA505			3	8'-0"	25	STR						
RA506			4	11'-1"	46	1	5'-3"	6'-6"				
RA507			4	5'-3"	22	STR						
RA508			4	9'-10"	41	1	5'-7"	4'-5"				
RA509*			5	3'-2"	17	STR						
RA801**			8	21'-11"	468	STR						
RA802			8	20'-6"	438	STR						
SUB-TOTAL					1784							
FORWARD ABUTMENT												
FA501*			96	5'-3"	526	1	1'-4"	4'-1"				
FA502**			4	19'-6"	81	STR						
FA503			4	8'-11"	37	2	2'-5"	4'-4"	2'-5"			
FA504			4	20'-0"	83	STR						
FA505			3	8'-0"	25	STR						
FA506			4	11'-1"	46	1	5'-3"	6'-6"				
FA507			4	5'-3"	22	STR						
FA508			4	9'-10"	41	1	5'-7"	4'-5"				
FA509*			5	3'-2"	17	STR						
FA801**			8	21'-0"	449	STR						
FA802			8	21'-5"	457	STR						
SUB-TOTAL					1784							

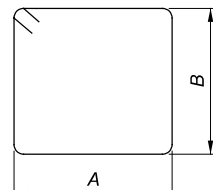
(*) INDICATES DOWEL BAR
 (**) INDICATES MECHANICAL CONNECTOR IS ATTACHED TO BAR



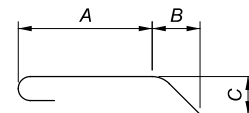
TYPE-1



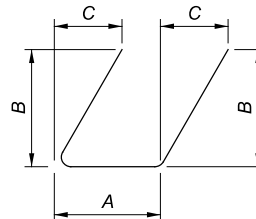
TYPE-2



TYPE-3



TYPE-18



TYPE-X

MARK	NUMBER			LENGTH	WEIGHT	TYPE	DIMENSIONS					
	PHASE 1	PHASE 2	TOTAL				A	B	C	D	E	R
DIAPHRAGMS												
D401			6	5'-10"	23	2	1'-0"	4'-1"	1'-0"			
D402			48	2'-7"	80	2	6"	1'-9"	6"			
D403			12	5'-4"	43	2	1'-0"	3'-7"	1'-0"			
D501			102	16'-8"	1773	3	3'-8"	4'-4"				
D502			102	12'-0"	1277	2	4'-4"	3'-7"	4'-4"			
D503			6	17'-0"	106	3	4'-4"	3'-10"				
D801			98	4'-11"	1286	18	2'-9"	1'-0"	1'-0"			
D802**			20	16'-8"	598	STR						
D803			52	20'-7"	2522	STR						
D804			10	7'-8"	164	STR						
D805**			32	22'-2"	1663	STR						
D806			6	8'-6"	136	STR						
D807			12	8'-11"	286	STR						
D808			12	9'-7"	307	STR						
D809**			2	6'-5"	34	STR						
D810**			4	6'-7"	70	STR						
D811**			4	6'-10"	73	STR						
D812			2	2'-2"	12	STR						
D813			4	2'-5"	26	STR						
D814			4	2'-10"	30	STR						
D815			4	2'-4"	25	STR						
D816			16	4'-5"	189	1	2'-4"	2'-4"				
D817			2	5'-0"	27	X	4'-1"	2½"	7½"			
D818			4	6'-4"	68	X	4'-1"	5"	1'-3"			
D819			4	5'-6"	59	X	4'-1"	3½"	10"			
D820			2	2'-10"	15	STR						
D821			4	3'-1"	33	STR						
D822			4	3'-6"	37	STR						
SUB-TOTAL					10962							

(**) INDICATES MECHANICAL CONNECTOR IS ATTACHED TO BAR

NOTES:

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- BAR SIZE: THE BAR SIZE IS INDICATED IN THE BAR MARK. THE MARK BEGINS WITH TWO OR THREE LETTERS OR NUMBERS THAT IDENTIFY THE BAR LOCATION. THE NEXT ONE OR TWO DIGITS INDICATE THE BAR SIZE, AND THE REMAINING TWO DIGITS ARE THE SEQUENCE NUMBER.

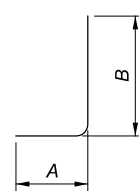
EXAMPLE: SA1001
 SA = SUPERSTRUCTURE BAR
 10 = #10 BAR
 01 = BAR SEQUENCE NUMBER 1

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- STR. IN THE BAR TYPE COLUMN INDICATES A STRAIGHT BAR.
- RAD INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED.
- INCR. INDICATES THE LENGTH INCREMENT FOR SERIES BARS.
- STD. WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF A BAR.

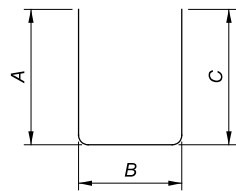
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MARK	NUMBER			LENGTH	WEIGHT	TYPE	DIMENSIONS					
	PHASE 1	PHASE 2	TOTAL				A	B	C	D	E	R
SLAB REPLACEMENT												
S501**			288	1'-6"	451	STR						
S502			44	35'-11"	1650	STR						
S503			308	9'-3"	2972	STR						
S504			16	9'-10"	164	STR						
S505*			44	37'-7"	1725	STR						
S506			4	6'-5"	27	19	5'-7"	0'-10"	0'-3 1/2"			
S507			40	4'-7"	191	2	1'-0"	1'-5"	2'-5"			
S508			20	6'-2"	129	STR						
S509			18	9'-0"	169	STR						
SUB-TOTAL					782							
SIDEWALK RAILING												
R501			4	4'-1"	17	1	0'-10"	3'-5"				
R502			4	6'-2"	26	1	2'-11"	3'-5"				
R503			8	4'-7"	38	STR						
R504			22	10'-10"	249	30	1'-6"	0'-8"	3'-11"	3'-9"		
R505			60	7'-10"	490	30	1'-6"	0'-8"	2'-5"	2'-3"		
R506			16	27'-2"	453	STR						
R507			2	4'-5"	9	1	1'-6"	3'-1"				
R508			2	4'-3"	9	1	1'-6"	2'-11"				
SUB-TOTAL					1291							
SHARED-USE-PATH RAILING												
R401			4	6'-8"	18	STR						
R402			904	6'-10"	4126	2	3'-2"	8"	3'-2"			
R403			150	28'-4"	GFRP	STR						
R404			140	4'-2"	390	X	6"	1'-7"	6"		3"	
R405			2	3'-9"	5	X	6"	1'-4 1/2"	6"		3"	
R406			2	2'-11"	4	X	6"	11 1/2"	6"		3"	
R407			2	2'-4"	3	X	6"	8"	6"		3"	
R408			2 SR	2'-6"			1'-0"		1'-0"			
R408			OF	TO	54	2	TO	0'-8"	TO			0'-3"
R409			9	6'-6"			3'-0"		3'-0"			
R410			4	20'-9"	GFRP	STR						
R410			4	22'-4"	GFRP	STR						
R411			4	23'-11"	GFRP	STR						
R412			4	25'-6"	GFRP	STR						
R413			4	26'-8"	GFRP	STR						
R801*			430	1'-11"	2201	STR						
SUB-TOTAL					6801							

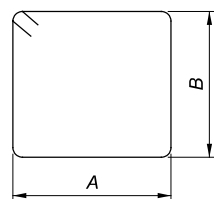
GFRP = 655'-0"
 (*) INDICATES DOWEL BAR
 (**) INDICATES MECHANICAL CONNECTOR IS ATTACHED TO BAR



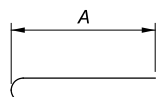
TYPE-1



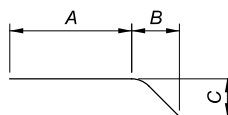
TYPE-2



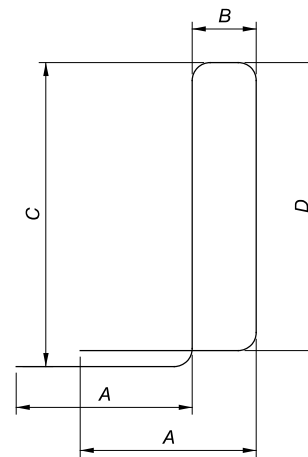
TYPE-3



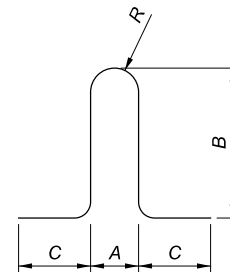
TYPE-16



TYPE-19



TYPE-30



TYPE-X

MARK	NUMBER			LENGTH	WEIGHT	TYPE	DIMENSIONS					
	PHASE 1	PHASE 2	TOTAL				A	B	C	D	E	R
LIGHT POLE PILASTER												
P501**			24	3'-1"	77	16	2'-6"					
P502			34	4'-7"	163	STR						
P503			24	12'-9"	319	2	5'-8"	1'-8"	5'-8"			
P504			12	7'-4"	92	3	1'-8"	1'-8"				
P505			8	13'-5"	112	2	4'-0"	5'-8"	4'-0"			
SUB-TOTAL					763							
APPROACH SLAB												
AS501**			122	37'-7"	4782	STR						
AS502			122	35'-11"	4570	STR						
AS503			98	27'-2"	2777	STR						
AS1001			258	28'-7"	31732	16	27'-2"					
SUB-TOTAL					43861							
SLEEPER SLAB												
SS501**			22	37'-7"	862	STR						
SS502			22	35'-11"	824	STR						
SS503			142	5'-10"	864	STR						
SS504			142	6'-0"	889	30	0'-10"	1'-5"	1'-9"	1'-9"		
SUB-TOTAL					3439							
SIDEWALK ON APPROACH SLAB												
SW501			116	4'-6"	544	2	1'-0"	1'-3"	2'-6"			
SW502			58	6'-2"	373	STR						
SW503			18	27'-2"	510	STR						
SUB-TOTAL					1437							

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 (**) INDICATES MECHANICAL CONNECTOR IS ATTACHED TO BAR
 ⊕ INDICATES REINFORCEMENT IS FOR INFORMATION ONLY. PAYMENT FOR REINFORCEMENT INCLUDED WITH ITEM 526, REINFORCED CONCRETE APPROACH SLAB.

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