

STATE OF OHIO  
DEPARTMENT OF TRANSPORTATION

**DEF-15-14.77**

CITY OF DEFIANCE  
DEFIANCE COUNTY

**FINAL PLAN SUBMITTAL**

**PROJECT DESCRIPTION**

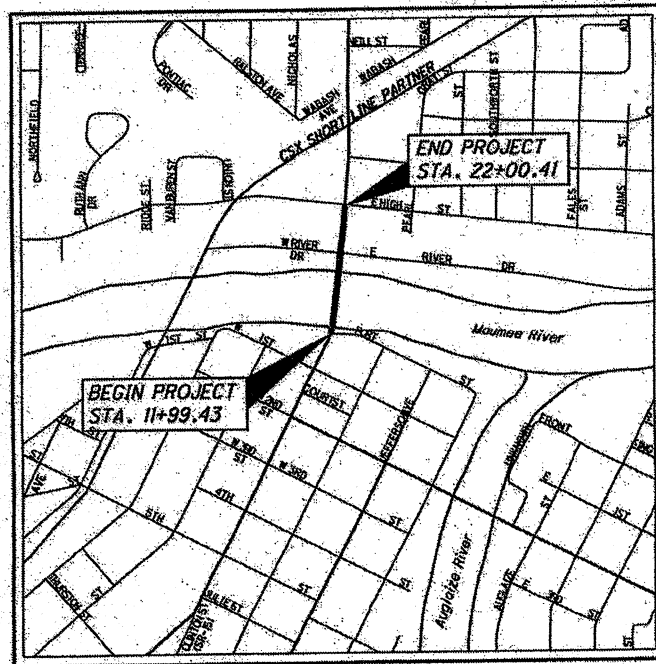
REPLACEMENT OF CLINTON STREET (SR 15) BRIDGE OVER THE MAUMEE RIVER AND RECONSTRUCTION OF CLINTON STREET APPROACHES BETWEEN FIRST STREET AND HIGH STREET. RECONSTRUCTION OF W/E FORT STREET AND W/E RIVER DRIVE TO MEET PROPOSED CLINTON STREET PROFILE. CONSTRUCTION OF SHARED USE PATH ON THE NORTH BANK OF THE MAUMEE RIVER. CONSTRUCTION OF AESTHETIC LOOK-OUTS OVER THE MAUMEE RIVER IN FORT DEFIANCE AND PONTIAC PARKS.

PROJECT EARTH DISTURBED AREA: 2.60 ACRES  
ESTIMATED CONTRACTOR EARTH-DISTURBED AREA: 1.64 ACRES  
NOTICE OF INTENT EARTH DISTURBED AREA: 4.24 ACRES

**2016 SPECIFICATIONS**

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS AND CHANGES LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT DETOURS WILL BE PROVIDED AS INDICATED ON SHEETS 16 - 18



LOCATION MAP

LATITUDE: N41°17'21" LONGITUDE: W84°21'40"

SCALE IN MILES



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

DESIGN DESIGNATION	CLINTON ST (SR 15)	FORT ST	RIVER DR
CURRENT ADT (2019)	27320	300	3020
DESIGN YEAR ADT (2039)	30500	330	3360
DESIGN HOURLY VOLUME (2039)	3280	40	350
DIRECTIONAL DISTRIBUTION	50%	50%	54%
TRUCKS (24 HOUR BRC)	1915	3	34
Td	3%	1%	1%
DESIGN SPEED	25 MPH	25 MPH	25 MPH
LEGAL SPEED	25 MPH	25 MPH	25 MPH
DESIGN FUNCTIONAL CLASSIFICATION:			
04 MINOR ARTERIAL (URBAN) - CLINTON ST (SR-15)			
05 MAJOR COLLECTOR (URBAN) - RIVER DRIVE			
19 LOCAL (URBAN) - FORT ST			
NHS PROJECT	-----	-----	-----

**DESIGN EXCEPTIONS**

NO

**UNDERGROUND UTILITIES**  
CONTACT BOTH SERVICES  
CALL TWO WORKING DAYS  
BEFORE YOU DIG

CALL  
1-800-362-2764  
(TOLL FREE)

OHIO UTILITIES PROTECTION SERVICE  
NON-MEMBERS  
MUST BE CALLED DIRECTLY

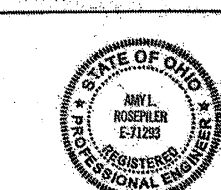
OIL & GAS PRODUCERS UNDERGROUND  
PROTECTION SERVICE CALL: 1-800-925-0988

PLAN PREPARED BY:  
BURGESS & NIPLE, INC.  
5085 REED ROAD  
COLUMBUS, OH 43219

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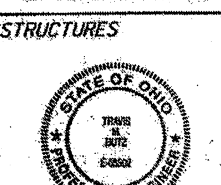
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**ENGINEERS SEAL:**



SIGNED: Amy Rosepiller  
DATE: 6/29/18

**ENGINEERS SEAL:**



SIGNED: James M. Bartz  
DATE: 6/29/18

**STANDARD CONSTRUCTION DRAWINGS**

	STANDARD CONSTRUCTION DRAWINGS	SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS
BP-3.1	7/18/14 RM-1.1 7/18/14 HL-50.21 1/19/18 TC-82.10 7/17/15	800 7/20/18	WATERWAY
BP-4.1	7/19/13 RM-2.1 7/19/13 HL-60.11 7/21/17 TC-83.10 1/19/18	815 1/19/17	PERMIT 11/20/17
BP-5.1	7/19/13 LA-1.1 10/15/10	816 1/20/12	
BP-7.1	7/18/14 LA-1.2 1/16/09	832 1/11/14	
	MT-95.31 7/21/17 TC-85.20 1/15/16	895 4/18/14	
		995 7/17/15	
CB-2.1	1/15/16 AS-1-15 7/17/15 MT-101.60 1/20/17 TC-21.20 1/19/18		
CB-2.2	1/15/16 AS-2-15 7/17/15 MT-101.90 7/21/17 TC-22.10 10/18/13		
CB-2.3	1/15/16 EXJ-4-87 7/19/02 MT-105.10 7/19/13		
CB-4.2	1/18/13 GSD-1-96 7/19/02		
	TC-41.20 10/18/13 DM-1.1 7/21/17		
HW-2.2	7/21/17 HL-10.12 1/20/17 TC-41.40 10/18/13 DM-2.1 1/18/13		
	HL-10.13 1/20/17 TC-42.20 10/18/13		
MH-1.1	1/15/16 HL-20.14 1/19/18 TC-52.10 10/18/13		
MH-1.2	1/15/16 HL-30.11 1/19/18 TC-52.20 1/19/18		
MH-3.1	1/18/13 HL-30.22 1/17/14 TC-71.10 1/19/18		
	HL-30.31 1/17/14 TC-81.21 7/15/15		

APPROVED: *Karl Heub*  
DATE: 7/9/18 DISTRICT DEPUTY DIRECTOR

APPROVED: *James Wragg*  
DATE: 7/24/18 DIRECTOR, DEPARTMENT OF TRANSPORTATION

DEF - SR 15-14.77  
180538 PID - 96605  
Dist 1 10/25/2018

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Contract Proposal Available @  
www.contracts.dot.state.oh.us/home

FEDERAL PROJECT NO.  
**E131528**

PID NO.  
**96605**

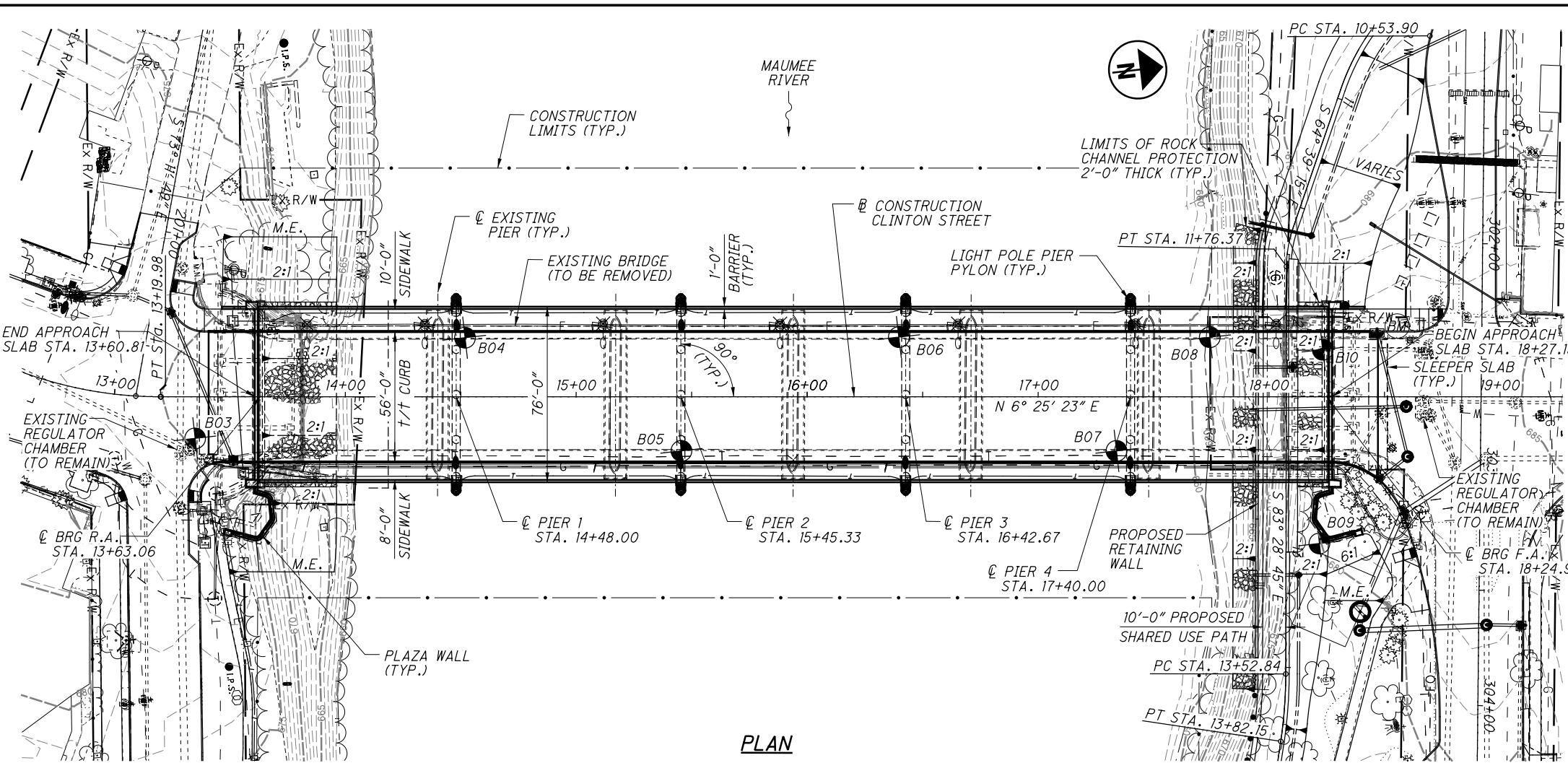
CONSTRUCTION PROJECT NO.

RAILROAD INVOLVEMENT  
**NONE**

**DEF-15-14.77**

1  
231

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**PLAN**

BENCHMARK DATA	
BM #300	STA. 13+46.42, ELEV. 681.28, OFFSET 30.17', RT.
BM #301	STA. 18+55.52, ELEV. 684.52, OFFSET 30.63', LT.

- NOTES**
- EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.
  - REFER TO THE GENERAL PLAN FOR UTILITY INFORMATION AND DISPOSITION.

**DESIGN TRAFFIC:**  
 2019 ADT = 27320      2019 ADTT = 820  
 2039 ADT = 30500      2039 ADTT = 915  
 DIRECTIONAL DISTRIBUTION = 50%

- LEGEND**
- BM = BENCHMARK LOCATION
  - = BORING LOCATION
  - F.A. = FORWARD ABUTMENT
  - M.E. = MATCH EXISTING
  - R.A. = REAR ABUTMENT
  - VC = VERTICAL CURVE
  - T/S = TOP OF SLOPE

SOIL BORING INFORMATION			
BORING	STATION	OFFSET	APPROX. TOP OF ROCK ELEV.
B03	13+34.98	18.04' RT	651.3±
B04	14+51.84	25.58' LT	652.2±
B05	15+45.56	23.45' RT	651.6±
B06	16+39.71	25.82' LT	649.3±
B07	17+33.94	23.45' RT	648.3±
B08	17+74.36	25.78' LT	-
B09	18+21.98	63.54' RT	644.0±
B10	18+23.27	20.38' LT	640.4±

HYDRAULIC DATA	
DRAINAGE AREA =	3060 SQ. MILES
Q (25) =	34600 CFS      V (25) = 4.02 FT/S
Q (100) (FIS) =	41000 CFS      V (100) = 4.17 FT/S
STRUCTURE CLEARS THE 25 YEAR DESIGN HW BY 1.29 FEET.	

**EXISTING STRUCTURE**

TYPE: SIX SPAN PRESTRESSED CONCRETE BOX BEAM BRIDGE ON REINFORCED CONCRETE PIERS AND ABUTMENTS.

SPANS: 60.75'±, 76.97'±, 76.93'±, 76.97'±, 77.01'±, 60.83'±

ROADWAY: 48'-0" ±/± CURB, 5'-6" SIDEWALKS (LT. & RT.)

LOADING: HS20 AND ALTERNATE MILITARY LOADING

SKEW: NONE

APPROACH SLABS: REAR 10'-10"±, FORWARD 15'-0"±

ALIGNMENT: TANGENT

CROWN: 3/16" / FT

WEARING SURFACE: ASPHALT CONCRETE

STRUCTURAL FILE NUMBER: 2000571

DATE BUILT: 1980 (SUPERSTRUCTURE), 1932 (SUBSTRUCTURE)

**PROPOSED STRUCTURE**

TYPE: FIVE SPAN ROLLED STEEL BEAM SUPERSTRUCTURE ON REINFORCED CONCRETE PIERS AND ABUTMENTS

SPANS: 84'-11 1/4", 97'-4", 97'-4", 97'-4", 84'-11 1/4" C/C BEARINGS

ROADWAY: 56'-0" ±/± CURB, 10'-0" SIDEWALK (LT.), 8'-0" SIDEWALK (RT.)

LOADING: HL93 AND 60 PSF FUTURE WEARING SURFACE

SKEW: NONE

APPROACH SLABS: 20'-0" LONG (AS-1-15 MODIFIED) WITH SLEEPER SLAB (AS-2-15)

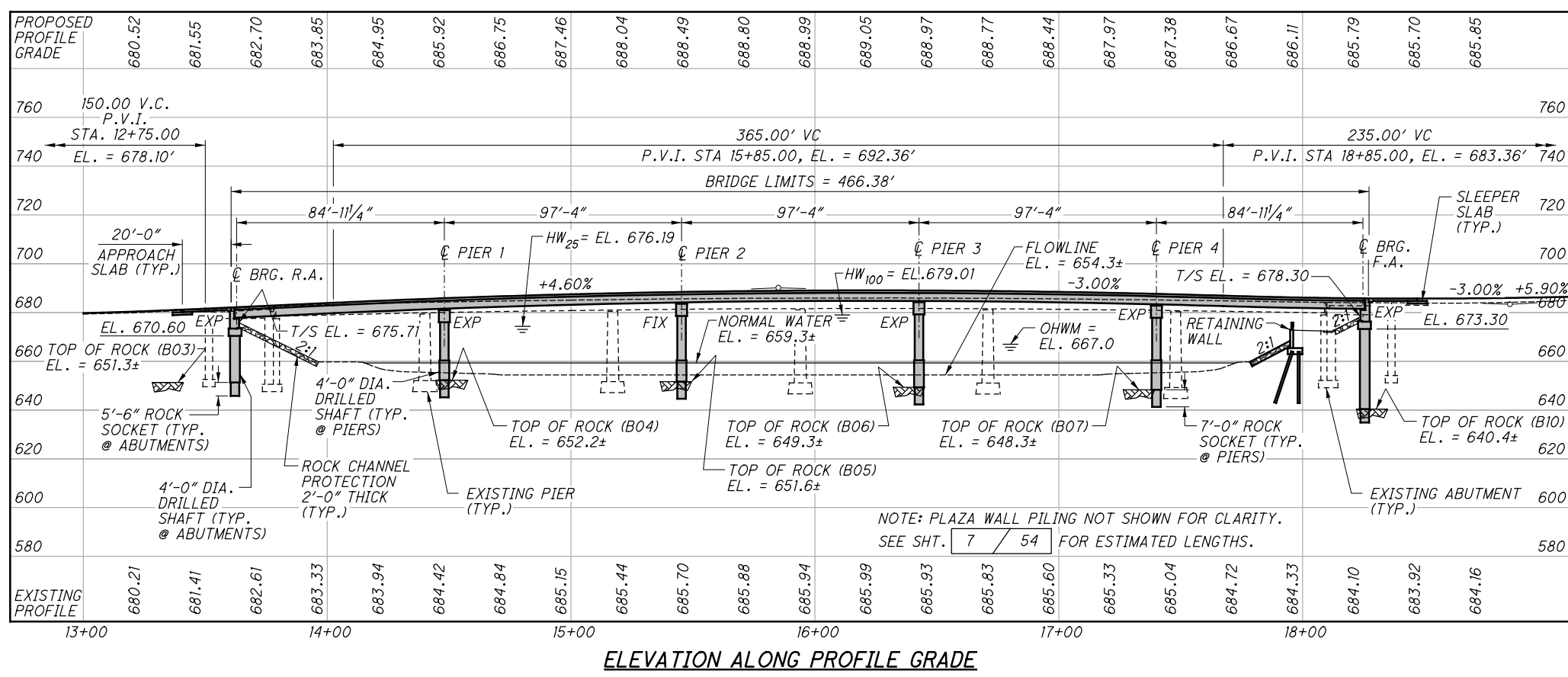
ALIGNMENT: TANGENT

CROWN: 0.016 FT/FT

WEARING SURFACE: 1" MONOLITHIC CONCRETE

STRUCTURAL FILE NUMBER: 2000572

COORDINATES: LATITUDE 41°17'18.91"W LONGITUDE 84°21'38.43"W



**ELEVATION ALONG PROFILE GRADE**

**BURGESS & NIPLÉ**  
 Engineers - Architects - Planners  
 5085 REED ROAD, COLUMBUS, OHIO 43220

DATE 10/25/17  
 REVIEWED JCS  
 DRAWN AAA  
 DESIGNED TMB  
 CHECKED MAB  
 STRUCTURE FILE NUMBER 2000572

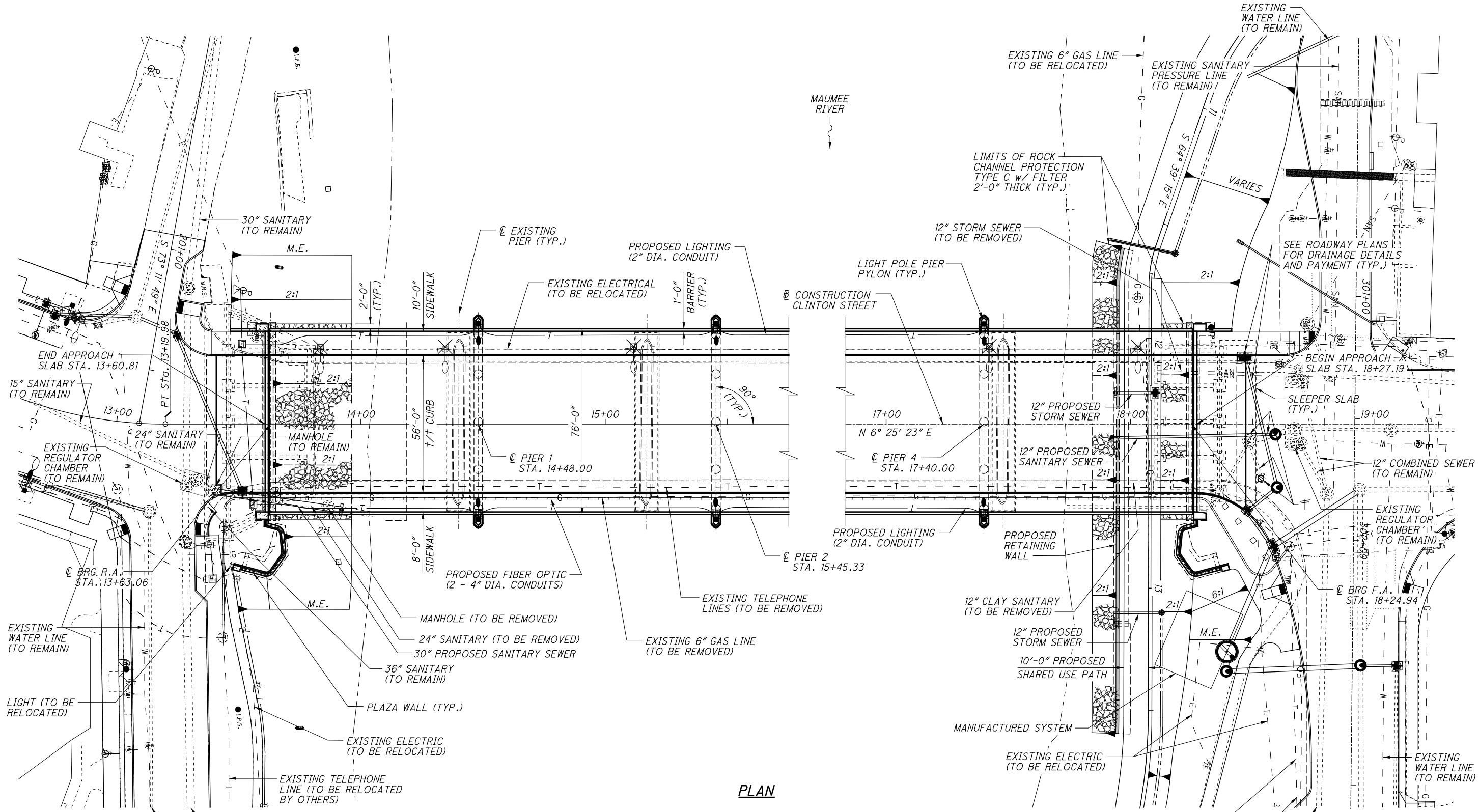
DEFANCE COUNTY  
 STA. 13+60.81  
 STA. 18+27.19

**SITE PLAN**  
 BRIDGE NO. DEF-15-1477  
 CLINTON STREET OVER THE MAUMEE RIVER

**DEF-15-14.77**  
 PID No. 96605

1 / 54  
 161  
 231

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**PLAN**

**LEGEND:**  
 F.A. = FORWARD ABUTMENT  
 M.E. = MATCH EXISTING  
 R.A. = REAR ABUTMENT  
 † = EXISTING CATCH BASIN, MANHOLE AND STORM SEWER PIPES TO BE REMOVED

**NOTE:**  
 1. FOR ADDITIONAL UTILITY DISPOSITIONS NOT SHOWN, SEE ROADWAY PLAN AND PROFILE SHEETS.

**BURGESS & NIPLÉ**  
 Engineers Architects Planners  
 5085 REED ROAD, COLUMBUS, OHIO 43220

DATE 5/18/17  
 REVIEWED JCS  
 STRUCTURE FILE NUMBER 2000572  
 DRAWN AAA  
 CHECKED TTK

**GENERAL PLAN & UTILITY DISPOSITION**  
 BRIDGE NO. DEF-15-1477  
 CLINTON STREET OVER THE MAUMEE RIVER

DEF-15-14.77  
 PID No. 96605

2 / 54

162  
 231

**GENERAL NOTES:**

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS:

AS-1-15 REVISED 7-17-15  
AS-2-15 REVISED 7-17-15  
EXJ-4-87 REVISED 7-19-02  
GSD-1-96 REVISED 7-19-02

DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 7th EDITION 2014, INCLUDING THE 2015 AND 2016 INTERIM SPECIFICATIONS, AND THE ODOT BRIDGE DESIGN MANUAL, 2007 EDITION, INCLUDING REVISIONS THROUGH JANUARY 2017.

OPERATIONAL IMPORTANCE:

A LOAD MODIFIER OF 1.00 HAS BEEN ASSUMED FOR THE DESIGN OF THIS STRUCTURE IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, ARTICLE 1.3.5 AND THE ODOT BRIDGE DESIGN MANUAL, 2007.

DESIGN LOADING:

HL-93  
FUTURE WEARING SURFACE (FWS) = 0.060 KSF  
SIDEWALK LIVE LOAD = 0.075 KSF

DESIGN DATA:

CLASS QC2 CONCRETE - COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)  
CLASS QC1 CONCRETE - COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)  
CLASS QC5 CONCRETE - COMPRESSIVE STRENGTH 4.5 KSI (DRILLED SHAFT)  
REINFORCING STEEL - MINIMUM YIELD STRENGTH 60 KSI  
STRUCTURAL STEEL - ASTM A709 GRADE 50W - YIELD STRENGTH 50 KSI

DECK PROTECTION METHOD:

EPOXY COATED REINFORCING STEEL  
2 1/2" CONCRETE COVER  
CLASS QC2 CONCRETE

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1 INCH THICK.

ITEM 202 - STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN:

THIS LUMP SUM ITEM SHALL INCLUDE ALL EXISTING SUPERSTRUCTURE AND SUBSTRUCTURE REMOVALS AS REQUIRED PER 202, EXCEPT AS THE ABUTMENT REMOVALS ARE DESCRIBED HEREIN.

SEE SHEET 6 / 54 FOR ABUTMENT REMOVAL DETAILS.

THIS ITEM ALSO INCLUDES THE REMOVAL OF THE GAS LINE MOUNTED ON THE EXISTING BRIDGE (TO BE ABANDONED). COORDINATE REMOVAL WITH OHIO GAS.

EXISTING STRUCTURE PLANS:

PLANS MAY BE EXAMINED BY PROSPECTIVE BIDDERS AT THE OHIO DEPARTMENT OF TRANSPORTATION, DISTRICT 1 OFFICES, 1885 N. McCULLOUGH STREET, LIMA, OHIO 45801-0040.  
PHONE: 419-222-9055

ITEM 526, REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=13"), AS PER PLAN:

THE REQUIREMENTS OF CMS 511.03 AND 511.04 SHALL APPLY TO THIS ITEM OF WORK. THIS ITEM SHALL INCLUDE, BUT IS NOT LIMITED TO, THE CONCRETE, STEEL REINFORCEMENT, CURBS AND PEJF NECESSARY TO FORM AND PLACE THE APPROACH SLABS AS SHOWN IN THE PLANS. PAYMENT FOR THIS ITEM SHALL ALSO INCLUDE THE ITEMS LISTED ON STANDARD DRAWING AS-1-15 AND ALL OTHER NECESSARY MATERIALS, LABOR, AND EQUIPMENT AND SHALL BE INCLUDED IN THE UNIT PRICE BID PER SQUARE YARD FOR ITEM 526 - REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=13"), AS PER PLAN.

PILES TO BEDROCK: DRIVE PILES TO REFUSAL ON BEDROCK. THE DEPARTMENT WILL CONSIDER REFUSAL TO BE OBTAINED WHEN THE PILE PENETRATION IS AN INCH OR LESS AFTER RECEIVING AT LEAST 20 BLOWS FROM THE PILE HAMMER. SELECT THE HAMMER SIZE TO ACHIEVE THE REQUIRED DEPTH TO BEDROCK AND REFUSAL.

THE TOTAL FACTORED LOAD IS 92 KIPS PER PILE FOR THE HPI0X42 PILES AT THE REAR AND FORWARD PLAZAS.

REAR ABUTMENT PLAZA PILES:  
7 HPI0X42 PILES, 25 FEET LONG, ORDER LENGTH

FORWARD ABUTMENT PLAZA PILES:  
7 HPI0X42 PILES, 35 FEET LONG, ORDER LENGTH

PILE SPLICES: IN LIEU OF USING THE FULL PENETRATION BUTT WELDS SPECIFIED IN C&MS 507.09 TO SPLICE STEEL H-PILES, THE CONTRACTOR MAY USE A MANUFACTURED H-PILE SPLICER. FURNISH SPLICERS FROM THE FOLLOWING MANUFACTURER:

ASSOCIATED PILE AND FITTING CORPORATION  
8 WOOD HOLLOW RD. PLAZA 1  
PARSIPPANY, NEW JERSEY 07054

INSTALL AND WELD THE SPLICER TO THE PILE SECTIONS IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN ASSEMBLY PROCEDURE SUPPLIED TO THE ENGINEER BEFORE THE WELDING IS PERFORMED.

ITEM 524 - DRILLED SHAFTS, 42" DIAMETER, INTO BEDROCK:  
ITEM 524 - DRILLED SHAFTS, 48" DIAMETER, ABOVE BEDROCK:

INSTALL PIER DRILLED SHAFTS USING THE PERMANENT CASING CONSTRUCTION METHOD AS DEFINED IN CMS 524.

THE MAXIMUM FACTORED LOAD TO BE SUPPORTED BY EACH DRILLED SHAFT IS 380 KIPS AT THE ABUTMENTS AND 1355 KIPS AT THE PIERS. THIS LOAD IS RESISTED BY TIP RESISTANCE. THE FACTORED RESISTANCE PROVIDED BY THE DRILLED SHAFT TIP IS 2500 KIPS

DECK PLACEMENT DESIGN ASSUMPTIONS:

THE FOLLOWING ASSUMPTIONS OF CONSTRUCTION MEANS AND METHODS WERE MADE FOR THE ANALYSIS AND DESIGN OF THE SUPERSTRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF THE FALSEWORK SUPPORT SYSTEM WITHIN THESE PARAMETERS AND WILL ASSUME RESPONSIBILITY FOR SUPERSTRUCTURE ANALYSIS FOR DEVIATION FROM THESE DESIGN ASSUMPTIONS.

AN EIGHT WHEEL FINISHING MACHINE WITH A MAXIMUM WHEEL LOAD OF 2.68 KIPS.

A MINIMUM OUT-TO-OUT WHEEL SPACING AT EACH END OF THE MACHINE OF 103 INCHES.

A MAXIMUM SPACING OF OVERHANG FALSEWORK BRACKETS OF 48 INCHES.

A MAXIMUM DISTANCE FROM THE CENTERLINE OF THE FASCIA GIRDER TO THE FACE OF THE SAFETY HANDRAIL OF 65 INCHES.

ITEM 509 - EPOXY COATED REINFORCING STEEL, AS PER PLAN:

IN ADDITION TO THE PROVISIONS OF ITEM 509, FIELD CUT THE REINFORCING STEEL DESIGNATED ON SHEET 47 / 54 AS NECESSARY TO AVOID THE STRUCTURE JUNCTION BOX. REPAIR ALL DAMAGE TO THE EPOXY COATING, AS A RESULT OF THIS WORK, ACCORDING TO 509.

UTILITY LINES:

THE UTILITY(IES) SHALL BEAR ALL EXPENSE INVOLVED IN RELOCATING (INSTALLING) THE AFFECTED UTILITY LINES. THE CONTRACTOR AND UTILITY(IES) ARE TO COOPERATE BY ARRANGING THEIR WORK IN SUCH A MANNER THAT INCONVENIENCE TO EITHER WILL BE HELD TO A MINIMUM.

STRUCTURE GROUNDING:

SEE STANDARD DRAWING HL-50.21 AND LIGHTING PLANS FOR DETAILS AND PAYMENT.

ITEM 511 - CONCRETE, MISC.: PIER PYLON:

ITEM 517 - RAILING, MISC.: MODIFIED TEXAS CLASSIC TRAFFIC RAILING, TYPE C411:

CONFORM TO ITEM 511 OR ITEM 517 AS MODIFIED HEREIN: SELF COMPACTING CONCRETE (SCC) SHALL BE USED FOR THE CONCRETE DECK RAILING, CONCRETE PLAZA RAILING AND PART OF THE CONCRETE PIER PYLONS. DESIGN A SCC MIX USING ADMIXTURES APPROVED BY THE ODOT OFFICE OF MATERIALS MANAGEMENT (OMM) UNDER 705.12. THE FOLLOWING ADDITIONAL REQUIREMENTS SHALL BE MET:

1. SUBMIT A CONCRETE MIX DESIGN, CONFORMING TO THE REQUIREMENTS OF ACI 301 SECTION 4, HAVING A MINIMUM COMPRESSIVE STRENGTH OF 4500 PSI AT 28 DAYS. PROVIDE THE MIX DESIGN DATA AND PROPORTIONS TO THE ENGINEER FOR REVIEW INCLUDING QUALITY CONTROL LIMITS FOR THE DESIGNED MIX.
2. PROVIDE WRITTEN QUALITY CONTROL PROCEDURES FOR:
  - A. MIXING OF THE SCC CONCRETE INCLUDING
    - I. TIME FROM ADDITION TO COMPLETION OF PLACEMENT
    - II. STATE IF YOU ALLOW REPLASTICIZING AND WHERE
  - B. QC TESTING BY CONTRACTOR OF THE SCC CONCRETE INCLUDING
    - I. TESTS TO BE USED
    - II. TEST RESULTS REQUIRED BEFORE PLACING THE SCC MIX
    - III. AIR CONTENT RANGE
    - IV. SPREAD RANGE
    - V. FREQUENCY OF CONTRACTOR PERFORMING QC TEST
    - VI. LIST ASTM OR TEST PROCEDURES TO BE USED
  - C. REQUIREMENTS FOR PLACING THE CONCRETE
    - I. LIFT HEIGHTS
    - II. ACCEPTABLE DROP DISTANCE
    - III. VIBRATION TIME, FREQUENCY, IF REQUIRED
    - IV. SET TIME
    - V. REQUIREMENTS OF MOVING THE CONCRETE IN THE FORMS
    - VI. OTHER REQUIREMENTS, IF NEEDED

3. RUB ALL SURFACES OF RAILING INCLUDING PILASTERS PER 511.15B WHERE DIRECTED BY THE ENGINEER.

4. AS SOON AS A CONCRETE SAW CAN BE OPERATED WITHOUT DAMAGING THE FRESHLY PLACED CONCRETE, SAWCUT 1/4" DEEP CONTROL JOINTS INTO THE PERIMETER OF THE CONCRETE RAILING AS SHOWN ON SHEET 47 / 54.

USE AN EDGE GUIDE, FENCE, OR JIG TO ENSURE THAT THE CUT JOINT IS STRAIGHT, TRUE AND ALIGNED ON ALL FACES OF THE RAILING. THE JOINT WIDTH SHALL BE THE WIDTH OF THE SAW BLADE, A NOMINAL WIDTH OF 1/4 INCH. SEAL THE PERIMETER OF THE DEFLECTION CONTROL JOINT TO A MINIMUM DEPTH OF 1 INCH WITH A POLYURETHANE OR POLYMERIC MATERIAL CONFORMING TO ASTM C920 TYPE S.

5. SEE SHEETS 22 / 54, 30 / 54 AND 46 / 54 TO 47 / 54 FOR DETAILS AND NOTES. COST OF THE RAILING AND PILASTERS, INCLUDING FURNISHING ALL EQUIPMENT, LABOR, AND MATERIALS NECESSARY TO COMPLETE THE WORK, IS INCLUDED IN THE UNIT PRICE BID PER FOOT FOR ITEM 517 - RAILING, MISC.: MODIFIED TEXAS CLASSIC TRAFFIC RAILING, TYPE C411. COSTS OF THE PIER PYLONS, INCLUDING FURNISHING ALL EQUIPMENT, LABOR, AND MATERIALS NECESSARY TO COMPLETE THE WORK, IS INCLUDED IN THE UNIT PRICE BID PER CUBIC YARD FOR ITEM 511 - CONCRETE, MISC.: PIER PYLON. REINFORCING STEEL IS INCLUDED IN ITEM 509 EPOXY COATED REINFORCING STEEL, AS PER PLAN FOR PAYMENT.

ITEM - SPECIAL MISC.: WORK INVOLVING ASBESTOS CONTAINING MATERIALS:

AN ASBESTOS SURVEY OF THE DEF-15-14.77 BRIDGE STRUCTURE, SCHEDULED FOR REPLACEMENT, WAS CONDUCTED BY A CERTIFIED ASBESTOS HAZARD EVALUATION SPECIALIST. THE SURVEY DETERMINED 13.33 SQUARE FEET OF ASBESTOS-CONTAINING MATERIALS IS PRESENT ON THE STRUCTURE WHICH IS A CATEGORY II NON-FRIABLE MATERIAL AND WILL REQUIRE ABATEMENT PRIOR TO DEMOLITION OF THE BRIDGE. THE QUANTITIES AND LOCATIONS OF THE REGULATED ASBESTOS-CONTAINING MATERIALS ARE PRESENTED WITHIN THE ASBESTOS INSPECTION REPORT THAT WILL BE MADE AVAILABLE BY THE CONSTRUCTION ENGINEER.

A COPY OF THE OHIO ENVIRONMENTAL PROTECTION AGENCY (OEPA) NOTIFICATION OF DEMOLITION AND RENOVATION FORMS, PARTIALLY COMPLETED, WILL BE PROVIDED TO THE SUCCESSFUL BIDDER AT THE PRE-CONSTRUCTION MEETING. THE CONTRACTOR SHALL COMPLETE THE REQUIRED SECTIONS OF THE FORMS AND SUBMIT THE FORMS TO:

OHIO EPA, NWDO  
347 N. DUNBRIDGE ROAD  
BOWLING GREEN, OH 43402  
MARK BUDGE, APC MANAGER  
(419) 352-8461  
FAX: (419) 352-8468

AT LEAST TEN (10) WORKING DAYS PRIOR TO THE START OF THE DEMOLITION, THE CONTRACTOR SHALL PROVIDE A COPY OF THE COMPLETED FORMS AS SUBMITTED TO OHIO EPA TO THE CONSTRUCTION ENGINEER. THE COST OF ANY FEES, LABOR, AND MATERIALS NECESSARY TO COMPLETE AND SUBMIT THE OEPA NOTIFICATION OF DEMOLITION AND RENOVATION FORMS SHALL BE INCLUSIVE TO THE ASSOCIATED DEMOLITION AND REMOVAL BID ITEM.

THE CONTRACTOR SHALL ENSURE THAT THE DEMOLITION, TRANSPORT, AND DISPOSAL OF THE REGULATED ASBESTOS-CONTAINING MATERIALS BE CONDUCTED IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS. THE CONTRACTOR SHALL ENSURE THAT ALL DOCUMENTATION RELATED TO THE DEMOLITION, TRANSPORT, AND DISPOSAL OF REGULATED ASBESTOS-CONTAINING MATERIALS BE SUBMITTED TO THE CONSTRUCTION ENGINEER FOR RECORD KEEPING.

BASIS OF PAYMENT  
THE CONTRACTOR SHALL FURNISH ALL THE LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO PROPERLY DEMOLISH, TRANSPORT, AND DISPOSE OF REGULATED ASBESTOS-CONTAINING MATERIALS IN A LANDFILL LICENSED BY THE LOCAL HEALTH DEPARTMENT AND PERMITTED BY THE OHIO ENVIRONMENTAL PROTECTION AGENCY DIVISION OF AIR POLLUTION CONTROL TO ACCEPT REGULATED ASBESTOS-CONTAINING MATERIALS. PAYMENT FOR THIS WORK SHALL BE MADE AT THE BID PRICE OF LUMP SUM.

USE OF STAY-IN-PLACE DECK FORMS:

THE USE OF STAY-IN-PLACE DECK FORMS IS NOT PERMITTED.

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**ITEM 602 - MASONRY, MISC.: STONE FACING:**

**DESCRIPTION:** THIS ALTERNATE 1 BID ITEM WORK SHALL CONSIST OF FURNISHING ALL MATERIALS, LABOR, AND EQUIPMENT NECESSARY TO PROVIDE ACCEPTABLE STONE FACING AS DESCRIBED IN THE PLANS.

**MATERIALS:** MATERIALS SHALL BE AS FOLLOWS:

**MORTAR:** ASTM C270, TYPE S.

**JOINT SEALANT:** MULTI-COMPONENT POLYURETHANE OR POLYSULFIDE SEALANT AS PER FEDERAL SPECIFICATION TT-S-00227E, TYPE II. THE COLOR SHALL MATCH THE MORTAR COLOR TO THE SATISFACTION OF THE ENGINEER.

**DOVETAIL ANCHORS AND SLOTS:** ASTM A167, TYPE 304 STAINLESS STEEL. SLOTS SHALL BE ONE INCH WIDE (MAXIMUM) BY ONE INCH DEEP AND A MINIMUM OF 26 GAGE. DOVETAIL ANCHORS SHALL BE CORRUGATED, 12-GAGE MINIMUM, AND SHALL EXTEND 4 INCHES BEYOND THE FACE OF FINISHED CONCRETE (5 INCHES TOTAL LENGTH). VERTICAL SLOTS SHALL BE PLACED AT 1'-6" ON CENTERS (MAXIMUM). DOVETAIL ANCHORS SHALL BE PLACED AT EACH HORIZONTAL JOINT IN THE STONWORK.

**STONE:**

1. STONE FACING SHALL BE RANDOM ASHLAR BOND USING NORTH SLOPE LIMESTONE (BUFF TO BLUE VEIN COLOR), QUARRIED IN OHIO, AS SUPPLIED BY NORTH SHORE STONE OF COLUMBUS, OHIO, OR AN APPROVED EQUAL. THE SURFACE FINISH OF THE STONE SHALL BE SPLIT FACE. STONE SHALL BE REASONABLY FINE GRAINED AND UNIFORM IN COLOR, DURABLE, AND FREE OF SEAMS, CRACK, INCLUSIONS, OR OTHER STRUCTURAL DEFECTS. STONE SHALL BE OF SUCH CHARACTER THAT IT CAN BE BROUGHT TO SUCH LINES AND SURFACES, WHETHER CURVED OR PLANE, AS MAY BE REQUIRED. A SUFFICIENTLY LARGE STOCK OF THE SPECIFIED STONE SHALL BE KEPT ON SITE DURING MASONRY WORK TO PERMIT ADEQUATE SELECTION OF STONE BY THE MASONS.

2. THE STONE SIZE FOR RANDOM ASHLAR VENEER SHALL BE 4 TO 5 INCHES DEEP (NORMAL TO FACE) AND THE FACE AREAS SHALL BE BETWEEN 16 AND 250 SQUARE INCHES. STONE HEIGHTS SHALL RANGE FROM 2 TO 8 INCHES EXCEPT THAT NOT MORE THAN 20 PERCENT OF STONES SHALL BE LESS THAN 4 INCHES IN HEIGHT AND APPROXIMATELY 10 PERCENT OF STONES SHALL BE RISERS (JUMPERS) WITH HEIGHTS BETWEEN 10 AND 16 INCHES. STONE LENGTHS SHALL BE RANDOM AND SHALL GENERALLY RANGE FROM 6 TO 24 INCHES, EXCEPT AT CURVED PORTIONS OF PLAZA WALLS WHERE THE MAXIMUM STONE LENGTH SHALL BE 16 INCHES. THE LENGTH OF RISERS (JUMPERS) SHALL BE AT LEAST 10 INCHES AND NOT LESS THAN 75 PERCENT OF THEIR HEIGHT.

**STONE QUALITY ASSURANCE:** MASON HAVING AT LEAST 5 YEARS EXPERIENCE LAYING STONE SHALL CONSTRUCT ALL MASONRY. A SAMPLE 5 FEET BY 10 FEET LAY-UP SHALL BE CONSTRUCTED BY THE CONTRACTOR FOR APPROVAL BY THE ENGINEER PRIOR TO ANY STONE WORK BEING DONE ON THE STRUCTURE. IF REJECTED, THE CONTRACTOR SHALL MAKE ADDITIONAL LAY-UPS UNTIL APPROVED AT NO ADDITIONAL COST TO THE OWNER. STONWORK ON THE STRUCTURE SHALL CLOSELY CONFORM TO THE APPROVED SAMPLE LAY-UP AND BE IN STRICT ACCORDANCE WITH THESE NOTES.

**STONE DRESSING:** ALL JOINTS SHALL BE DRESSED FOR FULL DEPTH OF FACING SUFFICIENTLY ACCURATE FOR THE JOINT THICKNESS CALLED FOR ON THE PLANS. STONES SHALL BE DRESSED BEFORE BEING LAID AND SHALL BE CUT TO LIE ON THE NATURAL BEDS WITH TOP AND BOTTOM TRULY PARALLEL. RISERS (JUMPERS) MAY LIE ON OTHER THAN THEIR NATURAL BEDS EXCEPT THAT COLORED VEINS SHOWING ON EXPOSED FACE(S) SHALL LIE HORIZONTALLY. HOLLOW BEDS WILL NOT BE PERMITTED. THE BOTTOM BED SHALL HAVE AN OVER-HANGING TOP. IN ROCK-FACE CONSTRUCTION THE FACE SIDE OF ANY STONE SHALL NOT PRESENT AN UNDERCUT CONTOUR ADJACENT TO ITS BOTTOM AXIS GIVING A TOP-HEAVY, UNSTABLE APPEARANCE WHEN LAID.

EXPOSED SURFACES OF THE FACE STONE SHALL BE GIVEN THE SURFACE FINISH INDICATED ON THE PLANS, WITH EDGES PITCHED TO TRUE LINES AND EXACT BATTER. THE EXPOSED FACE OF THE STONE SHALL PROJECT 6 INCHES FROM THE FACE OF THE UNDERLYING CONCRETE.

**MIXING MORTAR:** THE MORTAR SHALL BE HAND OR MACHINE MIXED, AS MAY BE REQUIRED BY THE ENGINEER. IN THE PREPARATION OF HAND MIXED MORTAR, THE SAND AND CEMENT SHALL BE THOROUGHLY MIXED TOGETHER IN A CLEAN, TIGHT MORTAR BOX UNTIL THE MIXTURE IS OF UNIFORM COLOR, AFTER WHICH CLEAN WATER SHALL BE ADDED IN SUCH QUANTITY AS TO FORM A STIFF PLASTIC MASS. MACHINED MIXED MORTAR SHALL BE PREPARED IN AN APPROVED MIXER AND SHALL BE MIXED NOT LESS THAN 3 MINUTES OR MORE THAN 10 MINUTES. MORTAR SHALL BE USED WITHIN 1 1/2 HOURS AFTER MIXING AND BEFORE FINAL SET BEGINS. RETEMPERING OF MORTAR SHALL BE DONE AS NECESSARY TO MAINTAIN PROPER CONSISTENCY DURING PLACEMENT.

**STONWORK:** THE BEARING SURFACE OF THE FOUNDATION MASONRY SHALL BE CLEANED THOROUGHLY AND IN A SATURATED-SURFACE DRY CONDITION WHEN THE MORTAR BED IS SPREAD. FACE STONES SHALL BE SET IN RANDOM ASHLAR BOND TO MEET THE FOLLOWING REQUIREMENTS.

PLACEMENT OF STONE SHALL BE DONE SO AS TO PREVENT THE BUNCHING OF SMALL STONES OR STONES OF THE SAME SIZE. WHEN WEATHERED OR COLORED STONES, OR STONES OF VARYING TEXTURE, ARE BEING USED, THE VARIOUS KIND OF STONED SHALL BE UNIFORMLY DISTRIBUTED THROUGHOUT THE EXPOSED FACES OF THE WORK. WHEN VEIN COLORS ARE PRESENT, THEY SHALL RUN HORIZONTALLY. NO HORIZONTAL BED SHALL RUN MORE THAN 6 FEET LONG EXCEPT WHERE A WALL FACE (BETWEEN CORNERS) IS 6 FEET OR LESS, NOT MORE THAN 25 PERCENT OF THE HORIZONTAL BEDS SHALL EXTEND THE FULL LENGTH OF THE FACE. THIS REQUIREMENT SHALL NOT APPLY TO RETURN FACES LESS THAN 3 FEET IN LENGTH. NO VERTICAL JOINT SHALL RUN HIGHER THAN 3 STONES WITHOUT INTERRUPTION. ALL BED JOINTS SHALL BE TRULY HORIZONTAL AND NO MORE THAN 5 PERCENT OF THE UP AND DOWN JOINTS SHALL BE SPLAYED, WITH THE REMAINDER VERTICAL. UNLESS SHOWN OTHERWISE, BEDS AND JOINTS SHALL BE 1/2 TO 3/4 INCHES WIDE.

EACH STONE SHALL BE CLEANED AND THOROUGHLY SATURATED WITH WATER BEFORE BEING SET AND THE BED, WHICH IS TO RECEIVE IT, SHALL BE CLEAN AND WELL MOISTENED. ALL STONES SHALL BE WELL BEDDED AND BACKED IN FRESHLY MADE MORTAR. THE MORTAR JOINTS AND BACKING SHALL BE FULL AND THE STONES CAREFULLY SETTLED IN PLACE BEFORE THE MORTAR HAS SET. COMPLETELY FILL ALL ANCHOR SLOTS AND DOWEL HOLES. NO SPALLS WILL BE PERMITTED IN THE BEDS. NO PINNING UP OF STONES WITH SPALLS WILL BE PERMITTED IN BEDS. STONE SHALL NOT BE DROPPED UPON, OR SLID OVER THE WALL, NOR WILL HAMMERING, ROLLING, OR TURNING OF STONES ON THE WALL BE ALLOWED. THEY SHALL BE HANDLED WITH APPLIANCES THAT WILL NOT CAUSE DISFIGUREMENT.

IN CASE ANY STONE IS MOVED OR THE JOINT BROKEN, THE STONE SHALL BE TAKEN UP, THE MORTAR THOROUGHLY CLEANED FROM BED AND JOINTS, AND THE STONE RESET IN FRESH MORTAR.

LEAD OR PLASTIC SETTING PADS SHALL BE PLACED UNDER HEAVY STONES, COLUMN DRUMS, ETC., IN SAME THICKNESS AS JOINT AND IN SUFFICIENT QUANTITY TO AVOID SQUEEZING MORTAR OUT. HEAVY STONES OR PROJECTING COURSES SHALL NOT BE SET UNTIL MORTAR IN COURSES BELOW HAS HARDENED SUFFICIENTLY TO AVOID SQUEEZING.

TEMPERATURE LIMITATIONS SHALL CONFORM TO CMS 602.03. SPECIAL CARE SHALL BE TAKEN IN PLACING STONE ADJACENT TO EXPANSION JOINTS TO INSURE CLEAR OPENINGS AS SHOWN. IF NECESSARY, THESE STONES SHALL BE CUT, GROUND, OR BUSH-HAMMERED TO AFFECT THE REQUIRED CLEARANCES. STONWORK SHALL PROGRESS OVER CONTRACTION JOINTS IN THE WALL WITHOUT INTERRUPTING NORMAL HORIZONTAL BED AND VERTICAL JOINT PROVISION GIVEN HEREIN.

TIES OR BRACES THAT WOULD PROJECT THROUGH OR OTHERWISE DEFACE STONE WORK WILL NOT BE PERMITTED.

ALL STONE AREAS EITHER PARTIALLY OR TOTALLY HORIZONTAL SHALL BE SET WITH FLUSH VERTICAL MORTAR JOINTS.

**POINTING:** POINTING SHALL NOT BE DONE IN FREEZING WEATHER OR WHEN THE STONE CONTAINS FROST. THE FACE JOINTS SHALL BE PROPERLY POINTED BY RAKING TO DEPTH OF 1/4 INCH, PREFERABLY BEFORE THE MORTAR BECOMES SET. JOINTS THAT CANNOT BE POINTED SHALL BE PREPARED FOR POINTING BY RAKING THEM OUT TO A DEPTH OF 1/2 INCH BEFORE THE MORTAR HAS SET. THE FACE SURFACES OF STONES SHALL NOT BE SMEARED WITH THE MORTAR FORCED OUT OF THE JOINTS OR THAT USED IN POINTING. JOINTS NOT POINTED AT THE TIME THE STONE IS LAID SHALL BE THOROUGHLY WET WITH CLEAN WATER AND FILLED WITH MORTAR USING ALL MASONRY TYPE S CEMENT. THE MORTAR SHALL BE WELL DRIVEN IN TO THE JOINTS AND FINISHED WITH AN APPROVED POINTING TOOL. THE WALL SHALL BE KEPT WET WHILE POINTING IS BEING DONE AND IN HOT OR DRY WEATHER THE POINTED MASONRY SHALL BE PROTECTED FROM THE SUN AND KEPT WET FOR A PERIOD OF AT LEAST 3 DAYS AFTER COMPLETION.

**JOINT SEALING:** PRIMER, WHEN REQUIRED, SHALL BE NON-STAINING AND NON-ACIDIC AND SHALL BE USED AS RECOMMENDED BY MANUFACTURER OF SEALANT, HAVING BEEN TESTED BEFORE FOR STAINING AND DURABILITY ON SAMPLES OF ACTUAL SURFACES TO BE SEALED.

(IF PRIMERS ARE REQUIRED, THEY SHOULD BE APPLIED TO THE CONFINES OF JOINT SURFACES AFTER STONE IS INSTALLED INTO THE WALL. IN SOME INSTANCES IT MAY BE ADVISABLE TO APPLY PRIMER TO THE STONE BEFORE THE STONE IS INSTALLED INTO THE WALL. APPLICATION PROCEDURES SHOULD BE AS RECOMMENDED BY MANUFACTURER OF SEALANT.)

BACK-UP MATERIALS AND PREFORMED JOINT FILLERS SHALL BE NON-STAINING, COMPATIBLE WITH SEALANT AND PRIMER, AND OF A RESILIENT NATURE, SUCH AS CLOSED CELL RESILIENT FOAM, SPONGE RUBBER, OR OF A SUPPORTING TYPE SUCH AS CLOSED CELL RIGID FOAM, CORK, OR NON-IMPREGNATED FIBERBOARD. MATERIALS IMPREGNATED WITH OIL, BITUMEN, OR SIMILAR MATERIALS SHALL NOT BE USED. SIZE AND SHAPE SHALL BE AS INDICATED BY JOINT DETAIL IN DRAWINGS.

SEALANT SHALL NOT ADHERE TO BACK UP MATERIAL AND SHALL BE AS RECOMMENDED BY SEALANT MANUFACTURER.

BOND BREAKERS, WHEN REQUIRED, SHALL BE AS RECOMMENDED BY MANUFACTURER OF SEALANT.

SOLVENTS, CLEANING AGENTS, AND OTHER ACCESSORY MATERIALS SHALL BE NON-STAINING TO THE STONE AND SHALL BE RECOMMENDED BY MANUFACTURER OF SEALANT.

**PROTECTION OF FINISHED WORK:** RECEIPT, STORAGE, AND PROTECTION OF CUT STONE WORK PRIOR TO, DURING, AND SUBSEQUENT TO INSTALLATION SHALL BE THE RESPONSIBILITY OF THE MASON CONTRACTOR.

DURING CONSTRUCTION, TOPS OF WALLS SHALL BE CAREFULLY COVERED AT NIGHT AND ESPECIALLY DURING ANY PRECIPITATION OR OTHER INCLEMENT WEATHER.

AT ALL TIMES, WALLS SHALL BE ADEQUATELY PROTECTED FROM MORTAR DROPPINGS.

**CLEANING:** FINISHED STONWORK SHALL BE WASHED CLEAN FREE OF DIRT, MORTAR, AND OTHER OBJECTIONABLE ACCUMULATIONS. MORTAR DROPPINGS AND SMEARS SHALL BE REMOVED AS WORK PROGRESSES. FINAL CLEAN DOWN SHALL INCLUDE BRUSHING WITH FIBER BRUSHES AND MILD SOAP OR DETERGENT, AND RINSING WITH CLEAN WATER. NO ACIDS SHALL BE USED WITHOUT PRIOR APPROVAL. STONWORK SHALL BE PROTECTED FROM RUNDOWN OR SPLASH WHEN USING ACID ON ADJACENT MATERIALS

**METHOD OF MEASUREMENT:** THE AREA TO BE PAID FOR SHALL BE THE ACTUAL AREA IN SQUARE FEET OF ALL EXPOSED VERTICAL FACES OF STONE FACING, COMPLETED, AND ACCEPTED.

**BASIS OF PAYMENT:** THE AREA, MEASURED AS PROVIDED ABOVE, SHALL BE PAID AT THE CONTRACT UNIT PRICE PER SQUARE FOOT BID FOR ITEM 602, MASONRY MISC.: STONE FACING. PRICE SHALL CONSTITUTE FULL COMPENSATION FOR FURNISHING AND PREPARING ALL MATERIALS, PLACING, INCLUDING ALL DOVETAIL ANCHORS AND SLOTS, FINISHING AND CLEANING, AND ALL LABOR, EQUIPMENT, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM.

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**ITEM SPECIAL - FORM LINER:**

THIS ALTERNATE 2 BID ITEM USES FORM LINER INSTEAD OF MASONRY, MISC: STONE FACING WHERE SHOWN IN THE PLANS. CONCRETE SHALL BE MONOLITHICALLY PLACED WITH THE ADJACENT CONCRETE TO OCCUPY THE VOLUME OF ALTERNATE 1 STONE FACING SHOWN IN THE PLANS. THE CONCRETE IMMEDIATELY BEHIND THE FORM LINER SHALL BE REINFORCED WITH #3 EPOXY COATED BARS AT 12" SPACING IN EACH DIRECTION AS SHOWN IN THE DIAGRAM AT RIGHT. THE FORM LINED SURFACES SHALL RECEIVE A NON-EPOXY CONCRETE SEALER WHICH SHALL BE IN ACCORDANCE WITH CMS 512.

**PART 1: GENERAL:** THIS WORK INCLUDES CONSTRUCTION OF TEXTURED FORMED CONCRETE SURFACES USING SIMULATED STONE MASONRY MOLDS DESIGNED TO DUPLICATE CLOSELY THE APPEARANCE OF NATURAL STONE.

**DESIGN REQUIREMENTS:** PATTERNING OF SIMULATED STONE MASONRY SHALL APPEAR NATURAL AND NON-REPEATING. SEAM LINES OR MATCH LINES CAUSED FROM TWO OR MORE MOLDS COMING TOGETHER SHALL BE MADE TO FOLLOW THE MORTAR JOINT RELIEF, SHALL NOT PASS THROUGH ANY PART OF THE STANDARD STONE FACE AND SHALL NOT BE APPARENT WHEN VIEWING FINAL WALL.

**SUBMITTAL:** THE CONTRACTOR IS REQUIRED TO SUBMIT A 36" BY 36" SAMPLE OF THE SIMULATED STONE MASONRY FINISH. SAMPLE IS TO DEMONSTRATE THE FINISH DESCRIBED ABOVE. APPROVAL OF SAMPLE PANEL IS REQUIRED BY THE ENGINEER.

**QUALITY ASSURANCE:** THE MANUFACTURER OF SIMULATED STONE MASONRY MOLDS SHALL HAVE FIVE YEARS EXPERIENCE MAKING STONE MASONRY MOLDS TO CREATE FORMED CONCRETE SURFACES TO MATCH NATURAL STONE SHAPES AND SURFACE TEXTURE.

**PRE-INSTALLATION MEETING:** SCHEDULE CONFERENCE WITH MANUFACTURER REPRESENTATIVE AND THE ENGINEER TO ASSURE UNDERSTANDING OF SIMULATED STONE MASONRY MOLDS USE, REQUIREMENTS FOR CONSTRUCTION OF MOCK-UP, AND TO COORDINATE THE WORK.

**PART 2: PRODUCTS**

**MATERIALS:** SIMULATED MASONRY MOLDS: REUSABLE, MADE OF HIGH-STRENGTH URETHANE, EASILY ATTACHABLE TO FORMS. MOLDS SHALL NOT COMPRESS MORE THAN 1/4-INCH WHEN CONCRETE IS POURED AT RATE OF 10 VERTICAL FEET PER HOUR. MOLDS SHALL BE REMOVABLE WITHOUT CAUSING DETERIORATION OF SURFACE OR UNDERLYING CONCRETE. USE MANUFACTURED FORM LINERS FROM THE FOLLOWING OPTIONS:

**PLAZA AND PIER SURFACES:**

**SCOTT SYSTEMS:** #167E ASHLAR STONE  
**ARCHITECTURAL POLYMERS:** #906 ASHLAR STONE HEAVY CUT  
**CUSTOMROCK:** #1501-R2 LARGE SANDSTONE ASHLAR

**ABUTMENT PYLON SURFACES:**

**SCOTT SYSTEMS:** #167B ASHLAR STONE  
**ARCHITECTURAL POLYMERS:** #904A ASHLAR STONE  
**CUSTOMROCK:** #2107 PITCHED ASHLAR STONE SHALLOW

FORMS FOR THE ABUTMENT PYLONS, PIERS AND PLAZA SHALL COME FROM THE SAME MANUFACTURER.

**ACCEPTABLE MANUFACTURERS/ SUPPLIERS:** SCOTT SYSTEMS, INC., 10777 E. 45th AVE., DENVER, CO 80239; ARCHITECTURAL POLYMERS, INC., 1220 LITTLE GAP RD., PALMERTON, PA 18071; CUSTOM ROCK FORMLINER, 2020 WEST 7th ST., ST. PAUL, MN 55116; OR APPROVED EQUAL.

**RELEASE AGENT:** COMPATIBLE WITH SIMULATED STONE MASONRY MOLDS. CONSULT MANUFACTURER.

**FORM TIES:** SHALL BE MADE OF EITHER METAL OR FIBERGLASS. USING METAL TIES WHICH RESULT IN A PORTION OF THE TIE PERMANENTLY EMBEDDED IN THE CONCRETE SHALL BE DESIGNED TO SEPARATE AT LEAST ONE INCH BACK FROM FINISHED SURFACE, LEAVING ONLY A NEAT HOLE THAT CAN BE PLUGGED WITH PATCHING MATERIAL. CONTRACTOR SHALL SUBMIT THE TYPE OF FORM TIES TO THE ENGINEER FOR APPROVAL PRIOR TO USE IN THIS WORK.

**PART 3: EXECUTION**

**ACCEPTABLE INSTALLERS:**

1. **FORMED CONCRETE CONSTRUCTION:** FIVE YEARS EXPERIENCE POURING VERTICALLY FORMED ARCHITECTURAL CONCRETE. INSTALLER SHALL BE TRAINED IN MANUFACTURER'S SPECIAL TECHNIQUES IN ORDER TO ACHIEVE REALISTIC SURFACES.

**CONSTRUCTION: MOCKUP:** BUILD A MOCKUP ON SITE 60 DAYS BEFORE WORK STARTS, USING SAME MATERIALS, METHODS AND WORK FORCE THAT WILL BE USED FOR THE PROJECT. THE MOCKUP SHALL INCLUDE A CURVED CORNER SIMILAR TO THE PIER NOSE CORNER SHOWN IN SECTION F-F ON SHEET 30 / 54. THE ENGINEER WILL DETERMINE SPECIFIC REQUIREMENTS AND LOCATION.

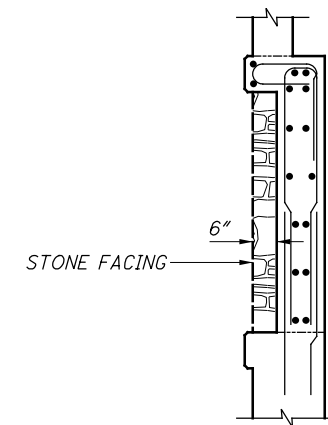
1. **SIZE:** THE MOCKUP SHALL BE 50 SQ. FT., OR LARGER IF NEEDED TO ADEQUATELY ILLUSTRATE THE PATTERN AND TEXTURE SELECTED.
2. **INCLUDE AN AREA TO DEMONSTRATE WALL MOLD BUTT JOINT AND IF APPROPRIATE, CONTINUATION OF PATTERN THROUGH EXPANSION JOINT.**
3. **AFTER THE MOCKUP IS DETERMINED TO BE ACCEPTABLE BY THE ENGINEER, CONSTRUCTION OF PROJECT ITEMS WITH FORM LINED SURFACES MAY PROCEED USING MOCKUP AS THE QUALITY STANDARD.**

**SPECIAL TECHNIQUES - FORMING TEXTURED CONCRETE:**

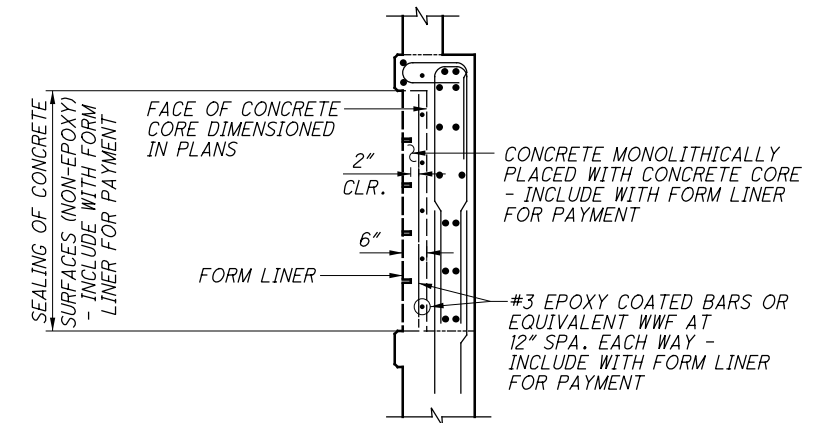
1. **SIMULATED STONE MASONRY MOLDS PREPARATION:** CLEAN AND MAKE FREE OF BUILDUP PRIOR TO EACH POUR. INSPECT FOR BLEMISHES OR TEARS. REPAIR OR REPLACE DAMAGED MOLDS IF NEEDED FOLLOWING MANUFACTURER'S RECOMMENDATIONS AT NO ADDITIONAL COST TO THE CITY.
2. **SIMULATED STONE MASONRY MOLDS ATTACHMENTS:** PLACE STONE MOLDS WITH LESS THAN 1/4-INCH SEPARATION BETWEEN THEM AND TO PRODUCE THE STANDARD MORTAR JOINT WIDTH. ATTACH MOLDS TO FORM SECURELY FOLLOWING MANUFACTURER'S RECOMMENDATIONS.
3. **FORM RELEASE AGENT:** APPLY FOLLOWING MANUFACTURER'S RECOMMENDATIONS.
4. **FORM STRIPPING AND RELATED CONSTRUCTION SHALL AVOID CREATING DEFECTS IN FINISHED SURFACE.**
5. **PLACE FORM TIES AT THINNEST POINTS OF MOLDS (HIGH POINTS OF FINISHED WALL). NEATLY PATCH THE HOLE REMAINING AFTER DISENGAGING THE PROTRUDING PORTION OF THE TIE SO THAT IT WILL NOT BE VISIBLE.**

**PROTECTION:** PROVIDE TEMPORARY COVER OF COMPLETED WORK WHILE PERFORMING PAINTING OF STRUCTURAL STEEL TO PREVENT OVER SPRAY FROM CONTACTING FINISHED SURFACES AND WHERE ADJACENT TO EXPOSED SOIL OR PAVEMENT WORK TO PREVENT SPLATTER OR STAINING OF FINISHED SURFACE.

ALL TOOLS, LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO COMPLETE THIS ITEM OF WORK AS SPECIFIED ABOVE, INCLUDING THE MOCKUP, THE ADDITIONAL CONCRETE WHICH WILL OCCUPY THE VOLUME OF STONE FACING OF ALTERNATIVE 1, THE #3 REINFORCING STEEL BARS AND THE NON-EPOXY CONCRETE SEALER ON FORM LINED SURFACES, SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE BID FOR ITEM SPECIAL - FORM LINER.



**STONE FACING ALTERNATIVE 1 BID DIAGRAM**



**FORM LINER ALTERNATIVE 2 BID DIAGRAM**

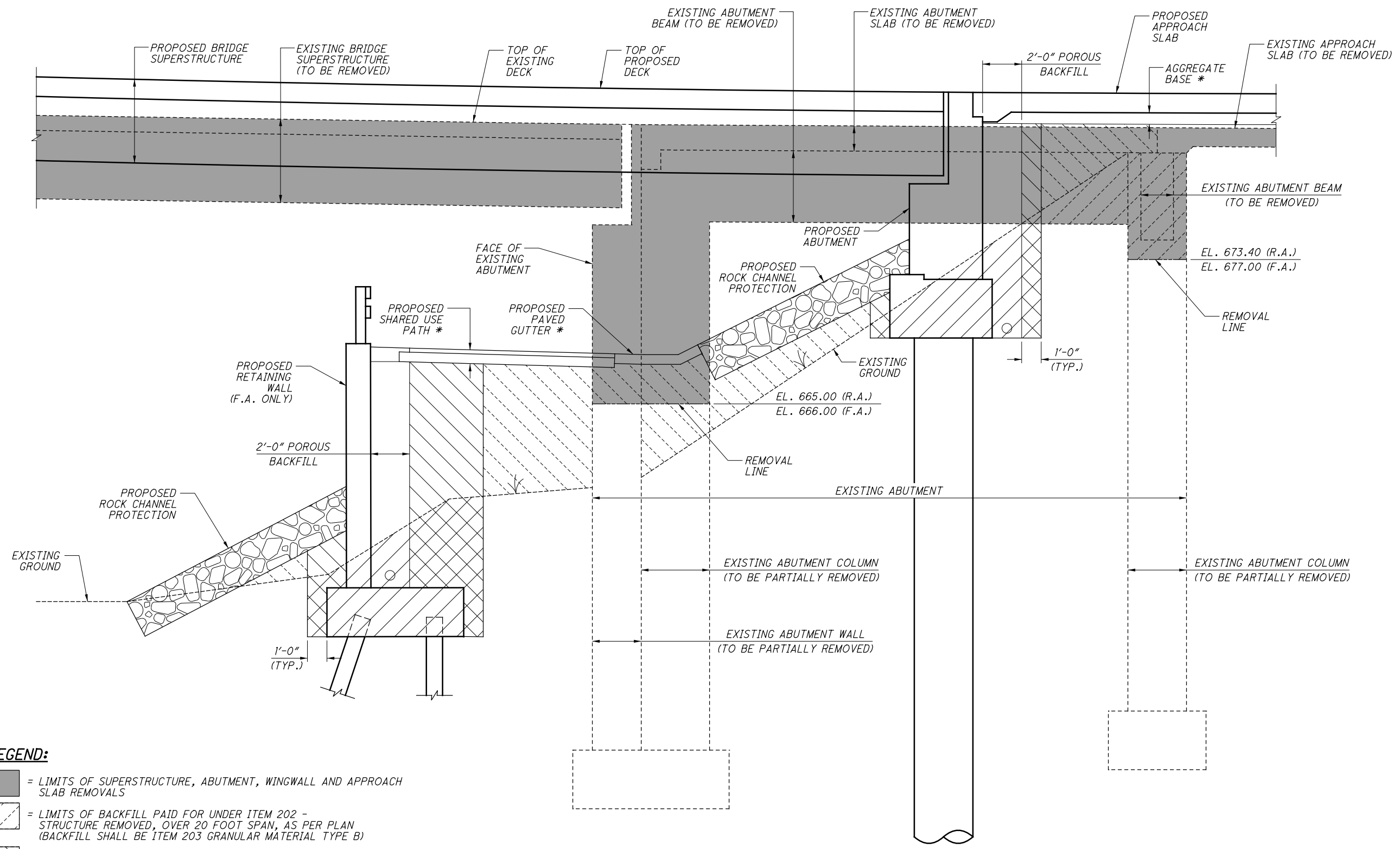
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ESTIMATED QUANTITIES							CALC.	DATE	CHK'D	DATE
ITEM	ITEM EXT.	UNIT	DESCRIPTION	ABUT.	PIER	SUPERSTR.	PLAZA	GENERAL	TOTAL	SHT. REF.
202	11003		STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN						LS	3, 6 / 54
202	22900	SY	APPROACH SLAB REMOVED					180	180	
202	23500	SY	WEARING COURSE REMOVED			2746			2746	
503	11100		COFFERDAMS AND EXCAVATION BRACING						LS	
503	21300		UNCLASSIFIED EXCAVATION						LS	
505	11100		PILE DRIVING EQUIPMENT MOBILIZATION						LS	
507	00100	FT	STEEL PILES HP10X42, FURNISHED				420		420	
507	00150	FT	STEEL PILES HP10X42, DRIVEN				350		350	
509	10001	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	29351	95321	338771	13544		476987	3 / 54
511	34446	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK			1136			1136	
511	41012	CY	CLASS QC1 CONCRETE WITH QC/QA, PIER ABOVE FOOTINGS		506				506	
511	43512	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT INCLUDING FOOTING	271					271	
511	46012	CY	CLASS QC1 CONCRETE WITH QC/QA, RETAINING/WINGWALL NOT INCLUDING FOOTING				45		45	
511	46512	CY	CLASS QC1 CONCRETE WITH QC/QA, FOOTING				40		40	
511	51512	CY	CLASS QC2 CONCRETE WITH QC/QA, SIDEWALK			289			289	
511	71100	CY	CONCRETE, MISC.: PIER PYLON		34				34	3 / 54
512	10050	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)	229	1261	2133	115		3738	
512	33000	SY	TYPE 2 WATERPROOFING	7			6		13	
513	10260	LB	STRUCTURAL STEEL MEMBERS, LEVEL 3			856200			856200	
513	20000	EACH	WELDED STUD SHEAR CONNECTORS			12075			12075	
513	95030	EACH	STRUCTURAL STEEL, MISC.: BEAM BRACING			24			24	32 / 54
514	00060	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT			6865			6865	
514	00066	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT			6865			6865	
516	11210	FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL			152			152	
516	13200	SF	1/2" PREFORMED EXPANSION JOINT FILLER	17					17	
516	13600	SF	1" PREFORMED EXPANSION JOINT FILLER	61			29		90	
516	13900	SF	2" PREFORMED EXPANSION JOINT FILLER				2		2	
516	44201	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (1'-6" x 1'-5" x 3 1/2")			7			7	36 / 54
516	44400	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (1'-1 1/2" x 1'-0" x 5 1/16")			14			14	
516	44400	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (1'-8" x 1'-6" x 5")			21			21	
517	76300	FT	RAILING, MISC.: MODIFIED TEXAS CLASSIC TRAFFIC RAILING, TYPE C411			927	90		1017	3 / 54
518	21200	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	115			69		184	
518	40000	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	154			84		238	
518	40010	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	37			28		65	
524	94804	FT	DRILLED SHAFTS, 42" DIAMETER, INTO BEDROCK	77	140				217	
524	94902	FT	DRILLED SHAFTS, 48" DIAMETER, ABOVE BEDROCK	366	174				540	
526	15011	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=13"), AS PER PLAN					255	255	3 / 54
526	90010	FT	TYPE A INSTALLATION					110	110	
601	32200	CY	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER					479	479	
SPECIAL	69098400	LS	MISC.: WORK INVOLVING ASBESTOS CONTAINING MATERIALS						LS	3 / 54

ALTERNATE BID ITEMS ESTIMATED QUANTITIES							CALC.	DATE	CHK'D	DATE
ITEM	ITEM EXT.	UNIT	DESCRIPTION	ABUT.	PIER	SUPERSTR.	PLAZA	GENERAL	TOTAL	SHT. REF.
SPECIAL	53013000	SF	FORM LINER (ALTERNATE 2)	118	823		419		1360	4A / 54
602	97000	SF	MASONRY, MISC.: STONE FACING (ALTERNATE 1)	118	823		419		1360	4 / 54

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**LEGEND:**

- = LIMITS OF SUPERSTRUCTURE, ABUTMENT, WINGWALL AND APPROACH SLAB REMOVALS
- = LIMITS OF BACKFILL PAID FOR UNDER ITEM 202 - STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN (BACKFILL SHALL BE ITEM 203 GRANULAR MATERIAL TYPE B)
- = LIMITS OF BACKFILL PAID FOR UNDER ITEM 203 - EMBANKMENT, AS PER PLAN (BACKFILL SHALL BE ITEM 203 GRANULAR MATERIAL TYPE B) (SEE ROADWAY PLANS FOR PAYMENT AND ADDITIONAL INFORMATION)
- = LIMITS OF EXCAVATION PAID FOR UNDER ITEM 503 - UNCLASSIFIED EXCAVATION
- = LIMITS OF BACKFILL PAID FOR UNDER ITEM 503 - UNCLASSIFIED EXCAVATION (BACKFILL SHALL BE ITEM 203 GRANULAR MATERIAL TYPE B)

\* = SEE ROADWAY PLANS FOR DETAILS & PAYMENT

F.A. = FORWARD ABUTMENT  
R.A. = REAR ABUTMENT

**ABUTMENT SECTION**

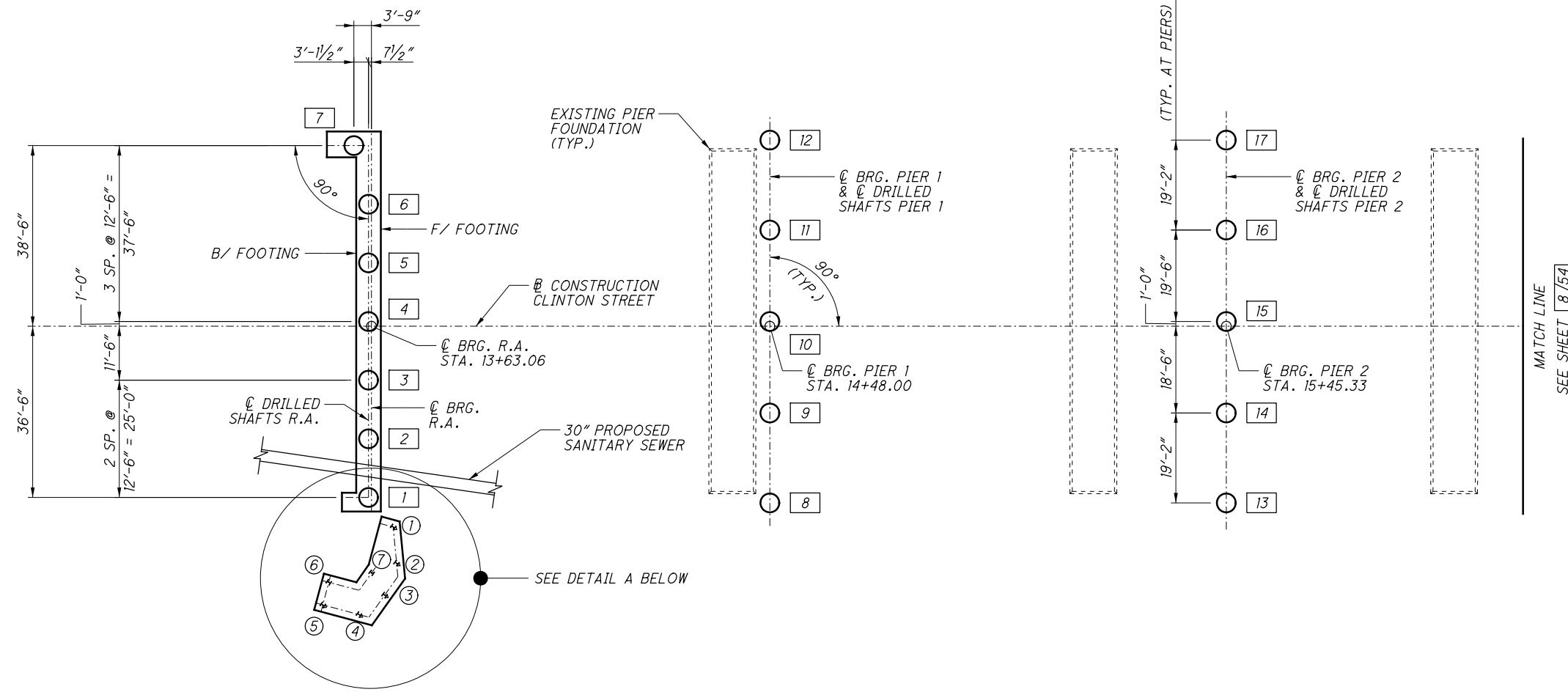
(FORWARD ABUTMENT SHOWN, REAR ABUTMENT SIMILIAR)

**NOTES:**

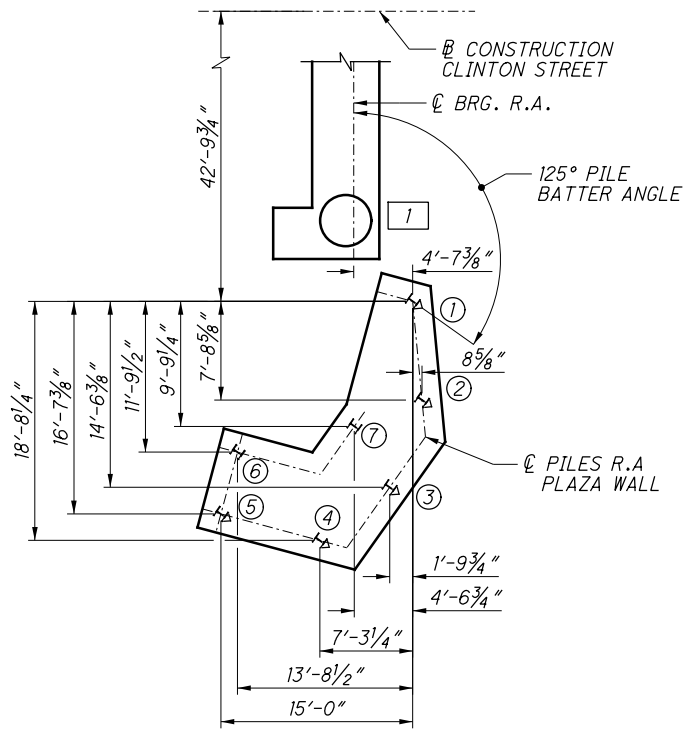
1. SEE EXISTING BRIDGE PLANS FOR ADDITIONAL ABUTMENT DETAILS AND DIMENSIONS NOT SHOWN.
2. SEE GENERAL NOTES FOR ADDITIONAL REMOVAL NOTES.
3. ABUTMENT TURNBACK WINGWALLS SHALL BE REMOVED TO THE SAME ELEVATION AS THE FACE OF THE ABUTMENT.



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**FOUNDATION PLAN**



**DETAIL A**

**LEGEND:**

- APPROX. - APPROXIMATE
- SP. - SPACES
- F.A. - FORWARD ABUTMENT
- R.A. - REAR ABUTMENT
- B/ - BACK
- F/ - FRONT
- STA. - STATION
- TYP. - TYPICAL
- BRG. - BEARING
- EL. - ELEVATION
- DIA. - DIAMETER
- ① - SHAFT NUMBER
- ⓪ - PILE NUMBER
- ⊥ - HP10x42 STEEL PILE (VERTICAL)
- ↘ - HP10x42 STEEL PILE (BATTERED 1:3)

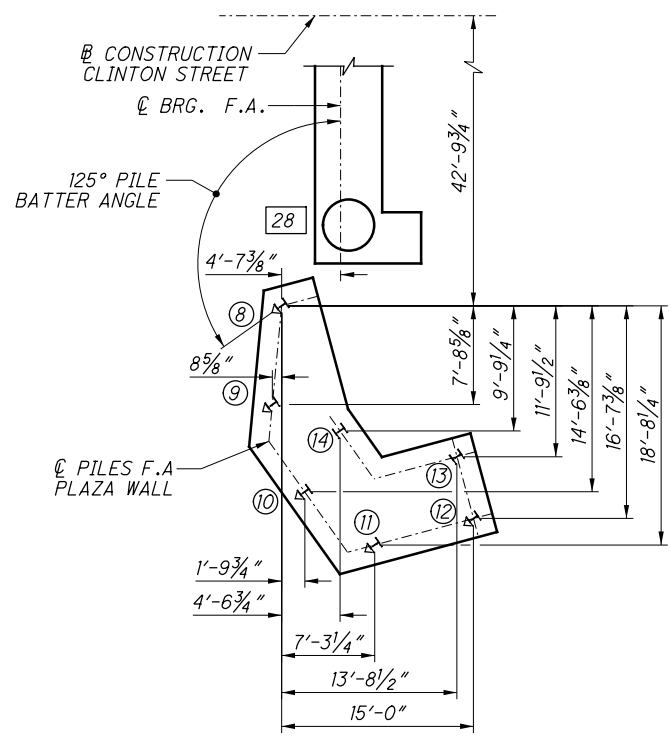
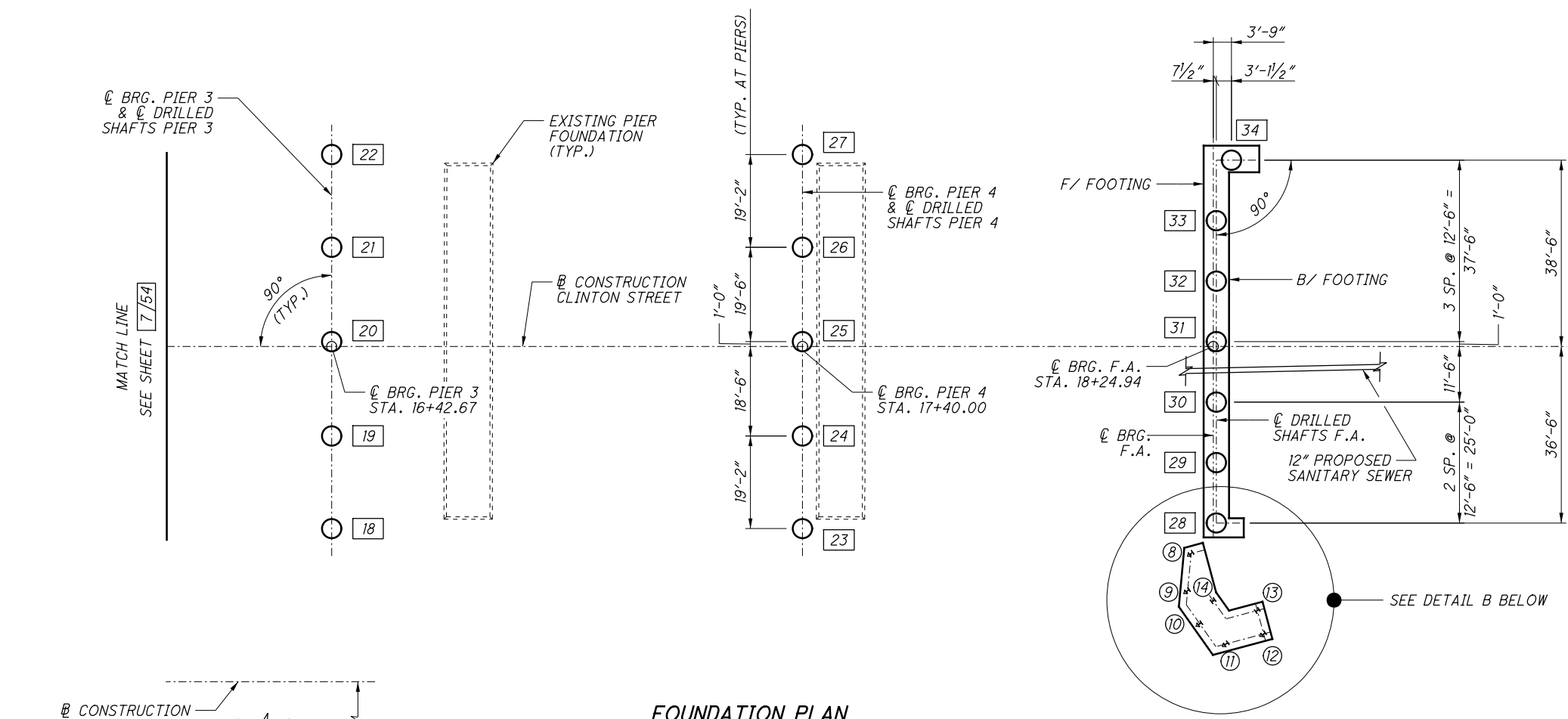
**NOTES:**

1. FOR DRILLED SHAFT REINFORCEMENT SEE SHEETS 15/54, 22/54 & 25/54 - 29/54.

DRILLED SHAFT DATA						
LOCATION	SHAFT NO.	TOP OF SHAFT EL.	APPROX. TOP OF ROCK EL.	ROCK SOCKET DEPTH	SHAFT DIA.	ROCK SOCKET DIA.
R.A.	1-7	670.60	651.3±	5'-6"	4'-0"	3'-6"
PIER 1	8 & 12	657.11	652.2±	7'-0"	4'-0"	3'-6"
PIER 1	9-11	660.30	652.2±	7'-0"	4'-0"	3'-6"
PIER 2	13 & 17	657.11	651.6±	7'-0"	4'-0"	3'-6"
PIER 2	14-16	660.30	651.6±	7'-0"	4'-0"	3'-6"
PIER 3	18 & 22	657.11	649.3±	7'-0"	4'-0"	3'-6"
PIER 3	19-21	660.30	649.3±	7'-0"	4'-0"	3'-6"
PIER 4	23 & 27	657.11	648.3±	7'-0"	4'-0"	3'-6"
PIER 4	24-26	660.30	648.3±	7'-0"	4'-0"	3'-6"
F.A.	28-34	673.30	640.4±	5'-6"	4'-0"	3'-6"

PILING DATA				
LOCATION	PILE NO.	TOP OF PILE EL.	APPROX. TOP OF ROCK EL.	PILE ESTIMATED LENGTH (FT.)
R.A. PLAZA	1-7	669.80	651.3±	20
F.A. PLAZA	8-14	672.50	644.0±	30

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**FOUNDATION PLAN**

**DETAIL B**

**NOTE:**

1. SEE SHEET 7/54 FOR NOTES, LEGEND, AND DRILLED SHAFT DATA TABLE.

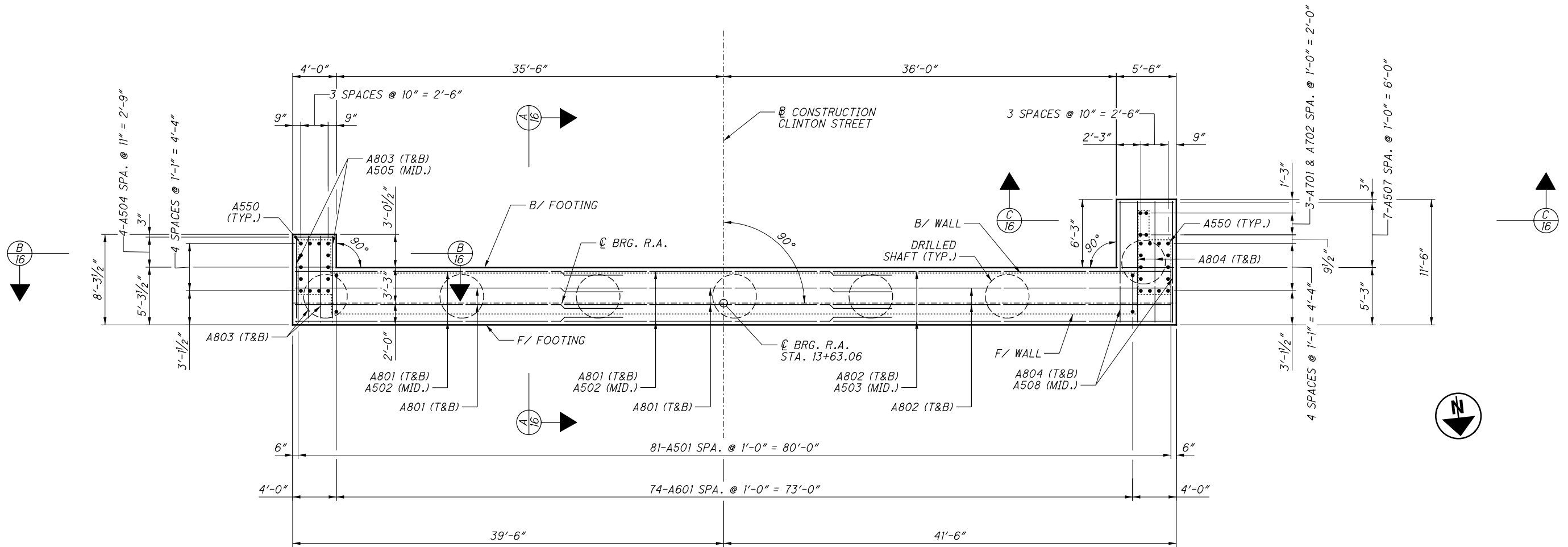
<b>DEF-15-14.77</b> PID No. 96605	<b>FOUNDATION PLAN 2</b> BRIDGE NO. DEF-15-1477 CLINTON STREET OVER THE MAUMEE RIVER		DESIGNED BES/RMK	CHECKED TTK/TMB	DRAWN BES	REVISOR REVISED	REVIEWED JCS	DATE 5/18/17	STRUCTURE FILE NUMBER 2000572	<b>BURGESS &amp; NIPLÉ</b> Engineers - Architects - Planners 5085 REED ROAD, COLUMBUS, OHIO 43220
	8 / 54	168 231								

**LEGEND**

SPA. - SPACED  
 T&B - TOP AND BOTTOM  
 MID. - MIDDLE  
 BRG. - BEARING  
 F/ - FRONT  
 B/ - BACK  
 R.A. - REAR ABUTMENT  
 STA. - STATION  
 TYP. - TYPICAL

**NOTES:**

- FOR DRILLED SHAFT REINFORCEMENT SEE SHEET 15/54 .
- MINIMUM BAR LAPS:  
 LAP HORIZONTAL NO. 5 BARS 3'-1"  
 LAP HORIZONTAL NO. 8 BARS 5'-4"



**REAR ABUTMENT FOOTING PLAN**

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DESIGN AGENCY  
 NORTHWEST CONSULTANTS, INC  
 3220 CENTRAL PARK WEST  
 TOLEDO, OHIO 43617  
 PHONE(419) 841-4704 FAX(419) 841-2879

REVIEWED DATE 3/30/18  
 JBD  
 STRUCTURE FILE NUMBER 2000572

DRAWN APM  
 REVISIONS  
 CHECKED TTN

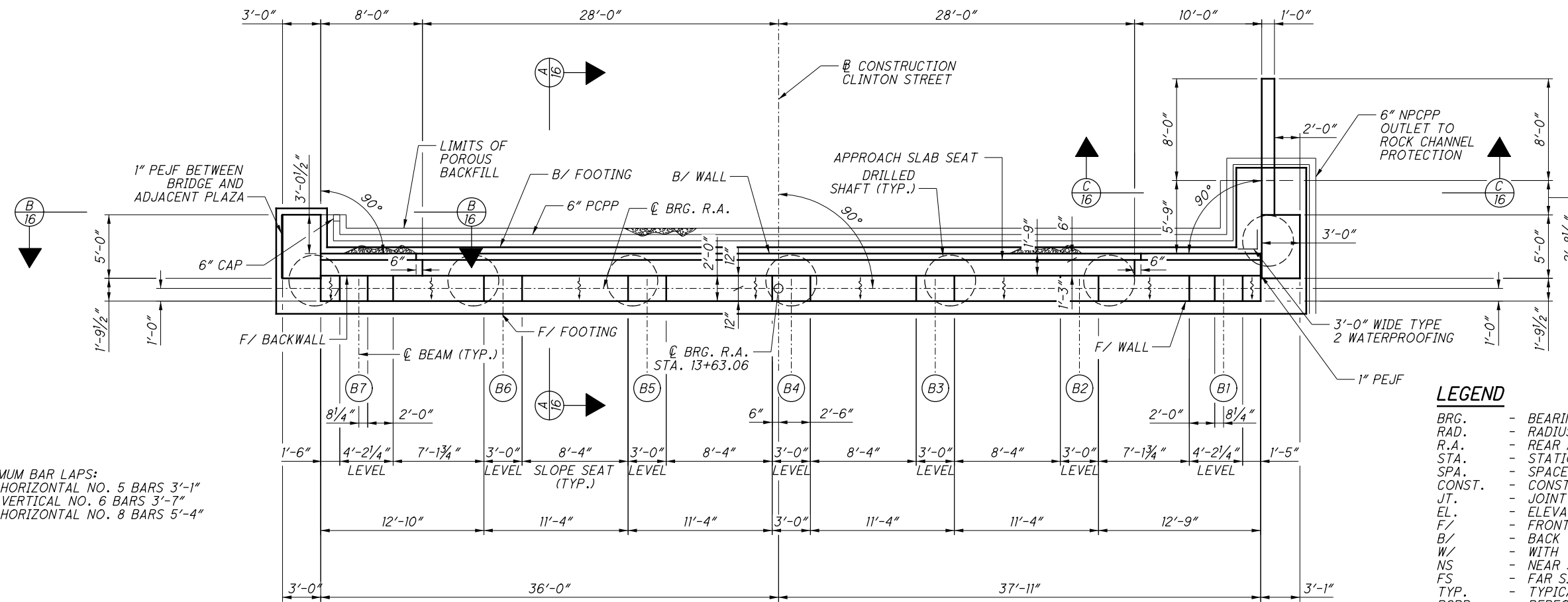
**REAR ABUTMENT FOOTING PLAN**  
 BRIDGE NO. DEF-15-1477  
 CLINTON STREET OVER THE MAUMEE RIVER

DEF-15-14.77  
 PID No. 96605

9 / 54

169  
 231

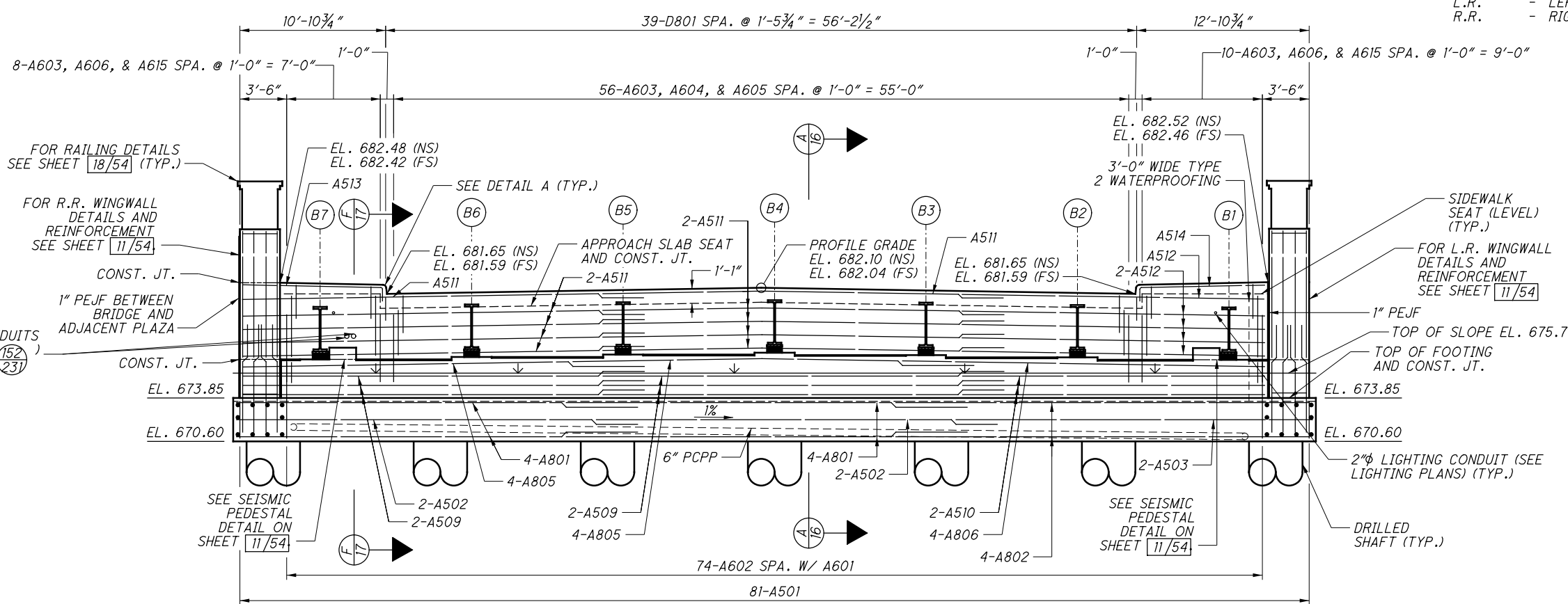
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- NOTES:**
- MINIMUM BAR LAPS:  
 LAP HORIZONTAL NO. 5 BARS 3'-1"  
 LAP VERTICAL NO. 6 BARS 3'-7"  
 LAP HORIZONTAL NO. 8 BARS 5'-4"

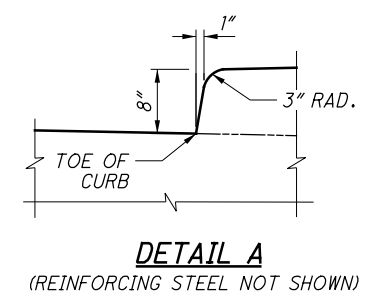
- LEGEND**
- BRG. - BEARING
  - RAD. - RADIUS
  - R.A. - REAR ABUTMENT
  - STA. - STATION
  - SPA. - SPACED
  - CONST. - CONSTRUCTION
  - JT. - JOINT
  - EL. - ELEVATION
  - F/ - FRONT
  - B/ - BACK
  - W/ - WITH
  - NS - NEAR SIDE
  - FS - FAR SIDE
  - TYP. - TYPICAL
  - PCPP - PERFORATED CORRUGATED PLASTIC PIPE
  - NPCPP - NON-PERFORATED CORRUGATED PLASTIC PIPE
  - PEJF - PREFORMED EXPANSION JOINT FILLER
  - L.R. - LEFT REAR
  - R.R. - RIGHT REAR

**REAR ABUTMENT PLAN**



**BEAM SEAT ELEVATION TABLE**

Beam	Elevation
B1	676.71
B2	676.89
B3	677.07
B4	677.25
B5	677.10
B6	676.92
B7	676.74



**REAR ABUTMENT ELEVATION**

DESIGN AGENCY: NORTHWEST CONSULTANTS, INC.  
 3220 CENTRAL PARK WEST  
 TOLEDO, OHIO 43617  
 PHONE(419) 841-4704 FAX(419) 841-2878

DATE: 3/30/18  
 REVIEWED: JBD  
 STRUCTURE FILE NUMBER: 2000572

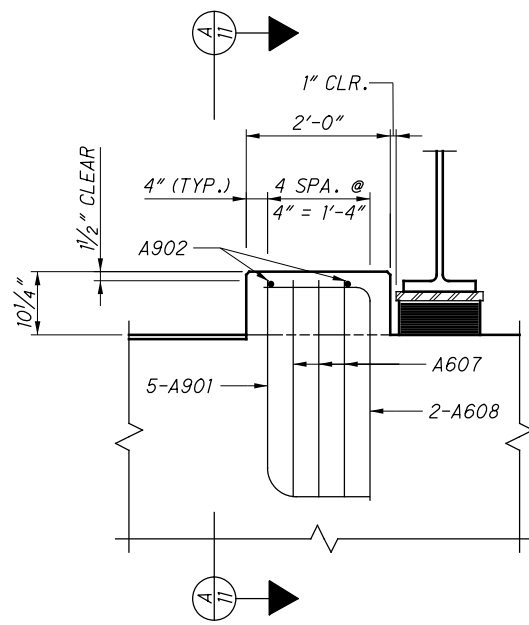
DRAWN: APM  
 CHECKED: TTN

**REAR ABUTMENT DETAILS**  
 BRIDGE NO. DEF-15-1477  
 CLINTON STREET OVER THE MAUMEE RIVER

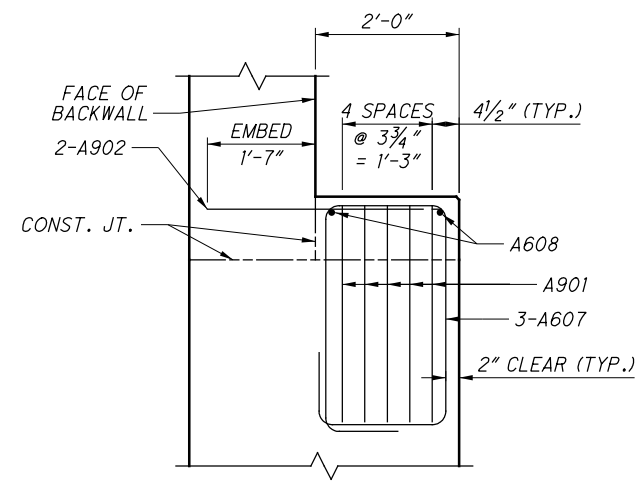
**DEF-15-14.77**  
 PID No. 96605

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 170  
 231

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**SEISMIC PEDESTAL DETAIL**  
(4 REQUIRED)

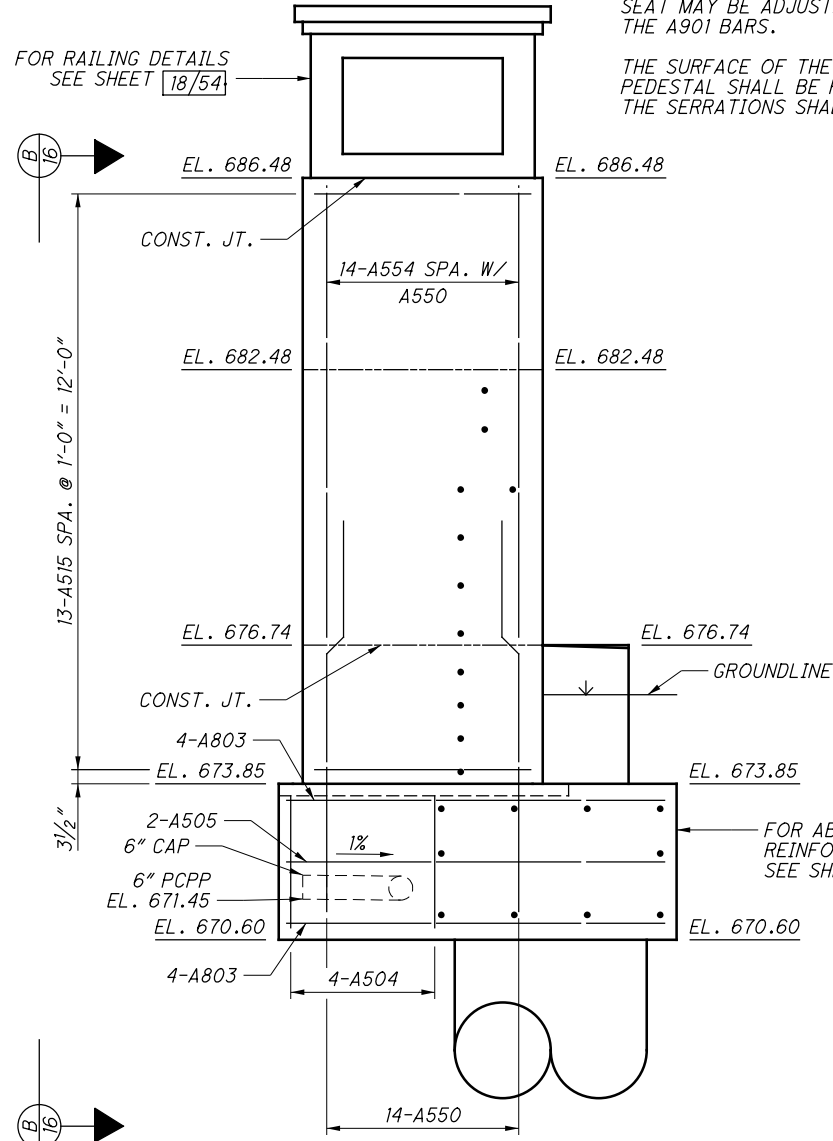


**SECTION A-A**

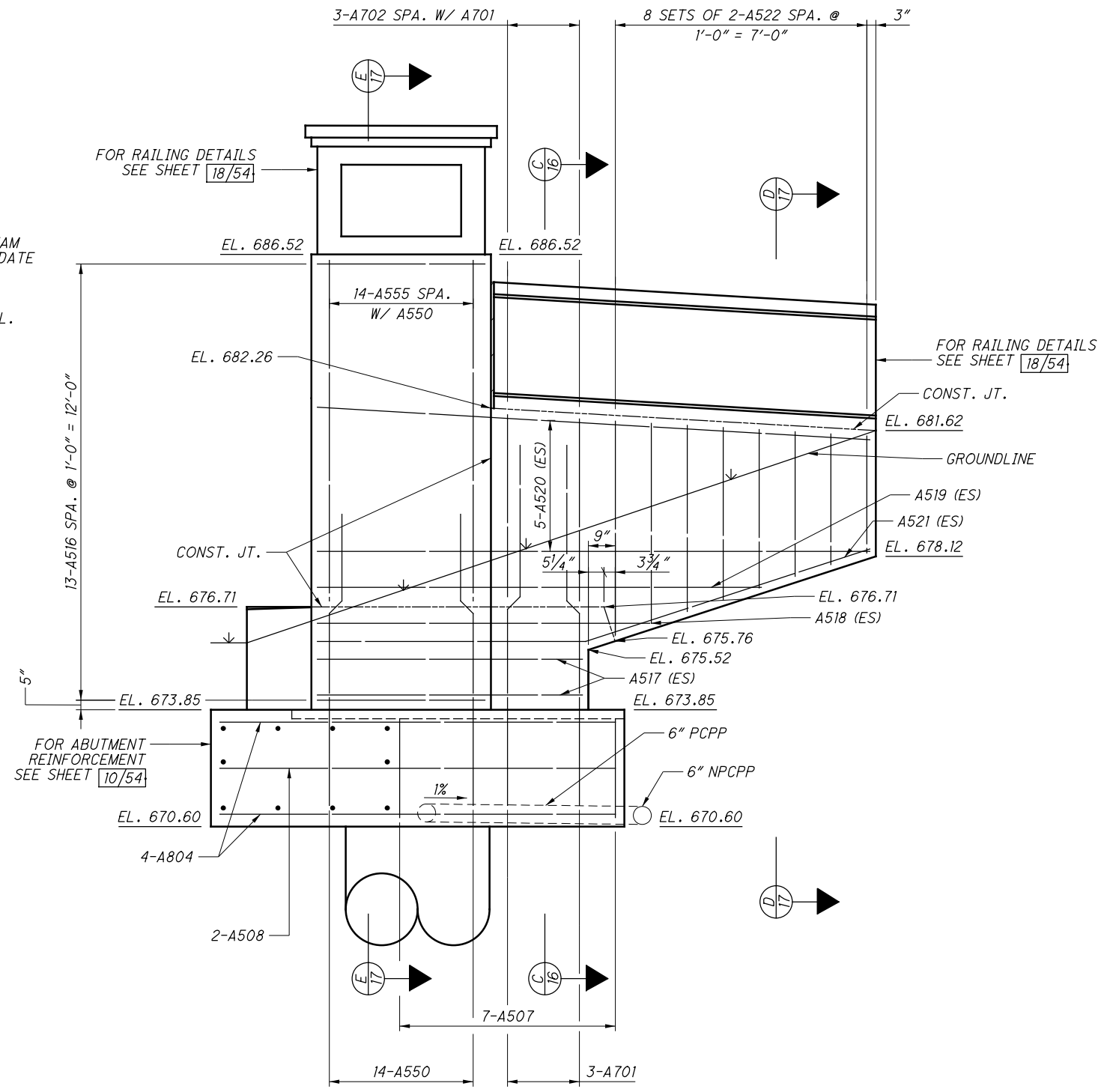
**NOTES:**  
1. MINIMUM BAR LAPS:  
LAP VERTICAL NO. 5 BARS 2'-5"  
LAP VERTICAL NO. 7 BARS 4'-2"

**LEGEND**  
TYP. - TYPICAL  
SPA. - SPACED  
CLR. - CLEAR  
CONST. - CONSTRUCTION  
JT. - JOINT  
EL. - ELEVATION  
W/ - WITH  
PCPP - PERFORATED CORRUGATED PLASTIC PIPE  
L.R. - LEFT REAR  
R.R. - RIGHT REAR  
ES - EACH SIDE

**SEISMIC PEDESTAL NOTES:**  
THE LOCATION OF THE MAIN REINFORCEMENT IN THE BEAM SEAT MAY BE ADJUSTED HORIZONTALLY ±1" TO ACCOMMODATE THE A901 BARS.  
THE SURFACE OF THE BEAM SEAT UNDER THE SEISMIC PEDESTAL SHALL BE FINISHED WITH A SERRATED TROWEL. THE SERRATIONS SHALL BE 1/4" DEEP MINIMUM.



**R.R. WINGWALL ELEVATION**



**L.R. WINGWALL ELEVATION**

DESIGN AGENCY: NORTHWEST CONSULTANTS, INC  
3220 CENTRAL PARK WEST  
TOLEDO, OHIO 43617  
PHONE(419) 841-4704 FAX(419) 841-2879

DATE: 3/30/18  
REVIEWED: JBD  
STRUCTURE FILE NUMBER: 2000572

DRAWN: APM  
CHECKED: TTN

**REAR ABUTMENT DETAILS**  
BRIDGE NO. DEF-15-1477  
CLINTON STREET OVER THE MAUMEE RIVER

DEF-15-14.77  
PID No. 96605

11 / 54

171  
231

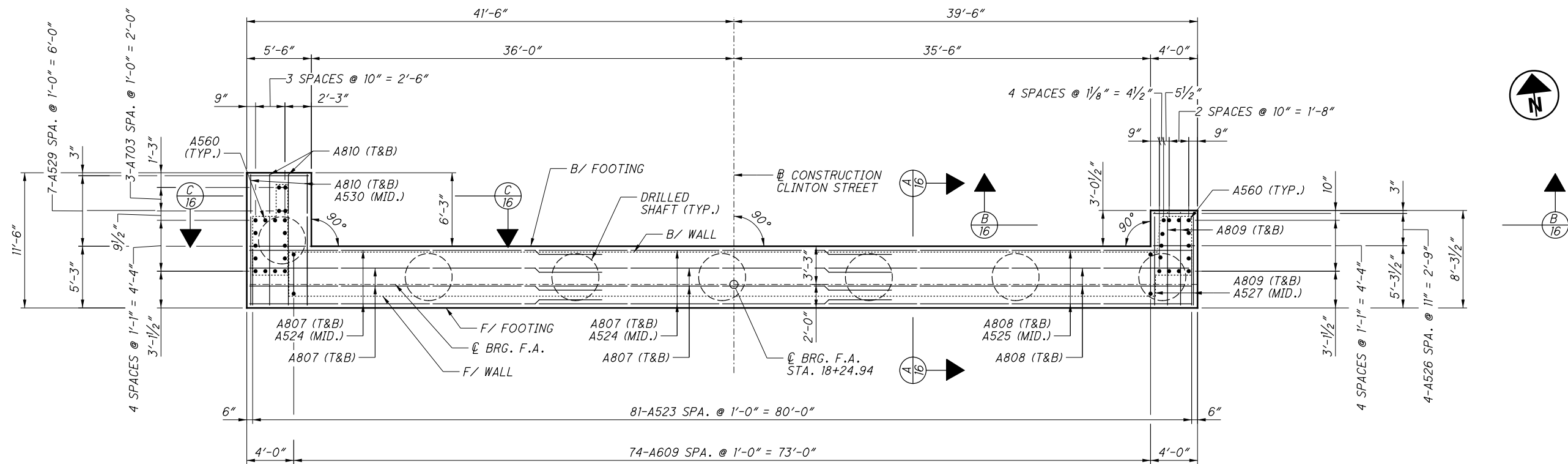
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**LEGEND**

- SPA. - SPACED
- T&B - TOP AND BOTTOM
- MID. - MIDDLE
- BRG. - BEARING
- F/ - FRONT
- B/ - BACK
- F.A. - FORWARD ABUTMENT
- STA. - STATION
- TYP. - TYPICAL

**NOTES:**

1. FOR DRILLED SHAFT REINFORCEMENT SEE SHEET 15/54.
2. MINIMUM BAR LAPS:  
LAP HORIZONTAL NO. 5 BARS 3'-1"  
LAP HORIZONTAL NO. 8 BARS 5'-4"



**FORWARD ABUTMENT FOOTING PLAN**

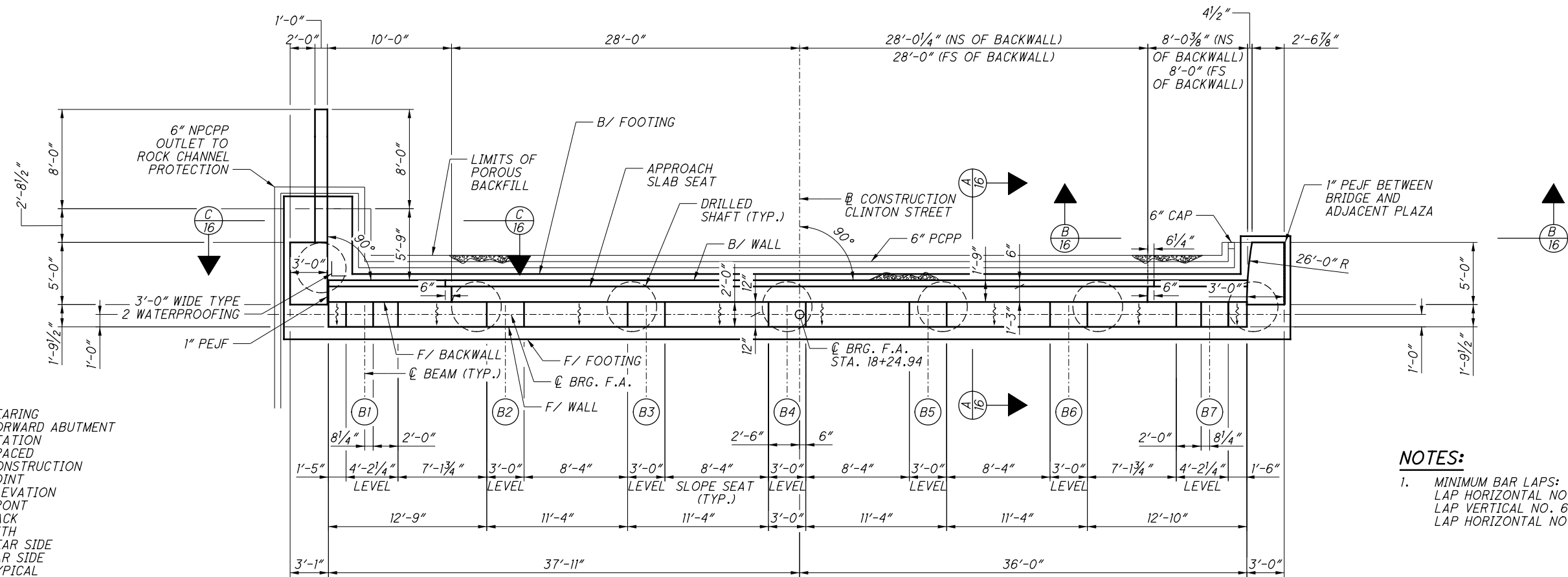
<p><b>DEF-15-14.77</b> PID No. 96605</p>	<p><b>FORWARD ABUTMENT FOOTING PLAN</b> BRIDGE NO. DEF-15-1477 CLINTON STREET OVER THE MAUMEE RIVER</p>	<p>DESIGNED APM</p> <p>CHECKED TTN</p>	<p>DRAWN APM</p> <p>REVISIED</p>	<p>REVIEWED JBD</p> <p>STRUCTURE FILE NUMBER 2000572</p>	<p>DATE 3/30/18</p>	<p>DESIGN AGENCY NORTHWEST CONSULTANTS, INC 3220 CENTRAL PARK WEST TOLEDO, OHIO 43617 PHONE(419) 841-4704 FAX(419) 841-2879</p>
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**LEGEND**

- BRG. - BEARING
- F.A. - FORWARD ABUTMENT
- STA. - STATION
- SPA. - SPACED
- CONST. - CONSTRUCTION
- JT. - JOINT
- EL. - ELEVATION
- F/ - FRONT
- B/ - BACK
- W/ - WITH
- NS - NEAR SIDE
- FS - FAR SIDE
- TYP. - TYPICAL
- PCPP - PERFORATED CORRUGATED PLASTIC PIPE
- NPCPP - NON-PERFORATED CORRUGATED PLASTIC PIPE
- PEJF - PREFORMED EXPANSION JOINT FILLER
- R.F. - RIGHT FORWARD
- L.F. - LEFT FORWARD
- R - RADIUS

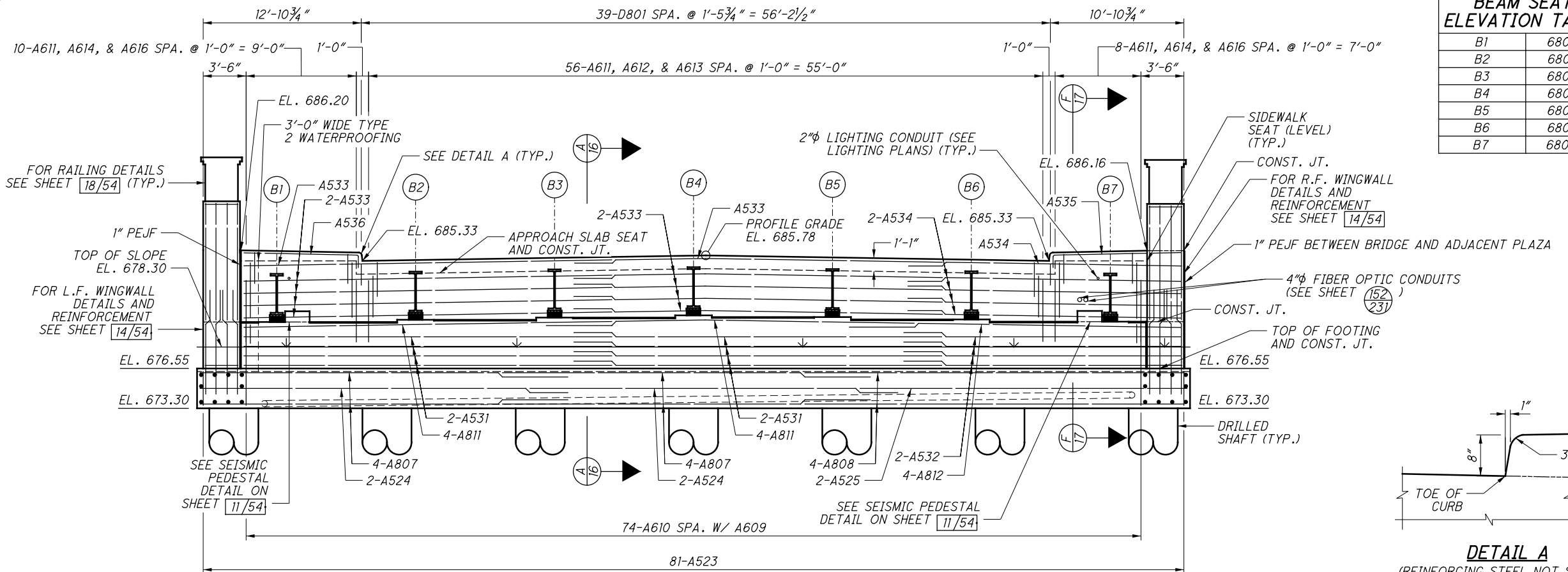


**FORWARD ABUTMENT PLAN**

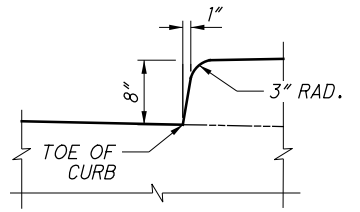
**NOTES:**

1. MINIMUM BAR LAPS:  
 LAP HORIZONTAL NO. 5 BARS 3'-1"  
 LAP VERTICAL NO. 6 BARS 3'-7"  
 LAP HORIZONTAL NO. 8 BARS 5'-4"

BEAM SEAT ELEVATION TABLE	
B1	680.34
B2	680.52
B3	680.70
B4	680.88
B5	680.74
B6	680.55
B7	680.37

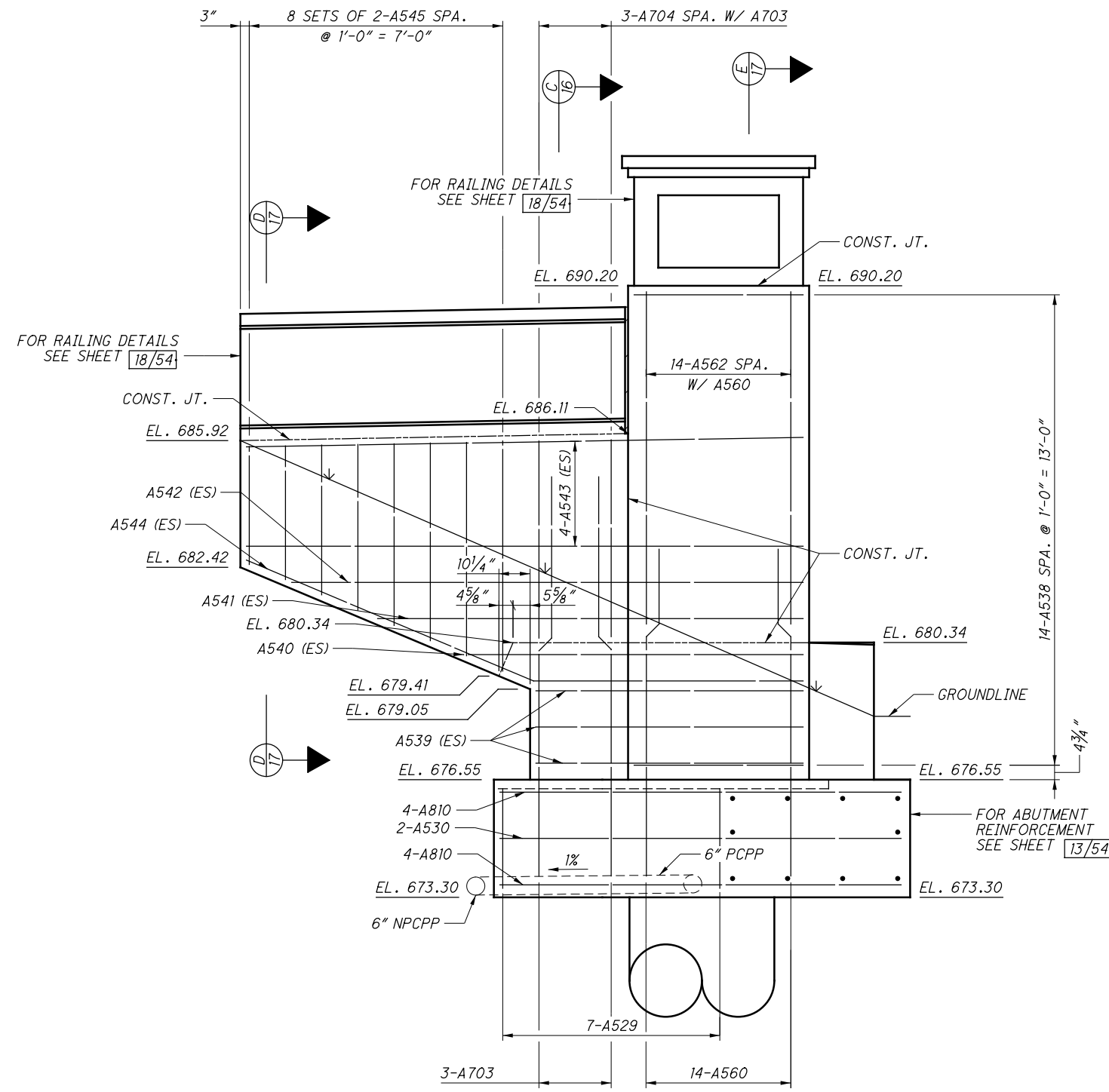


**FORWARD ABUTMENT ELEVATION**

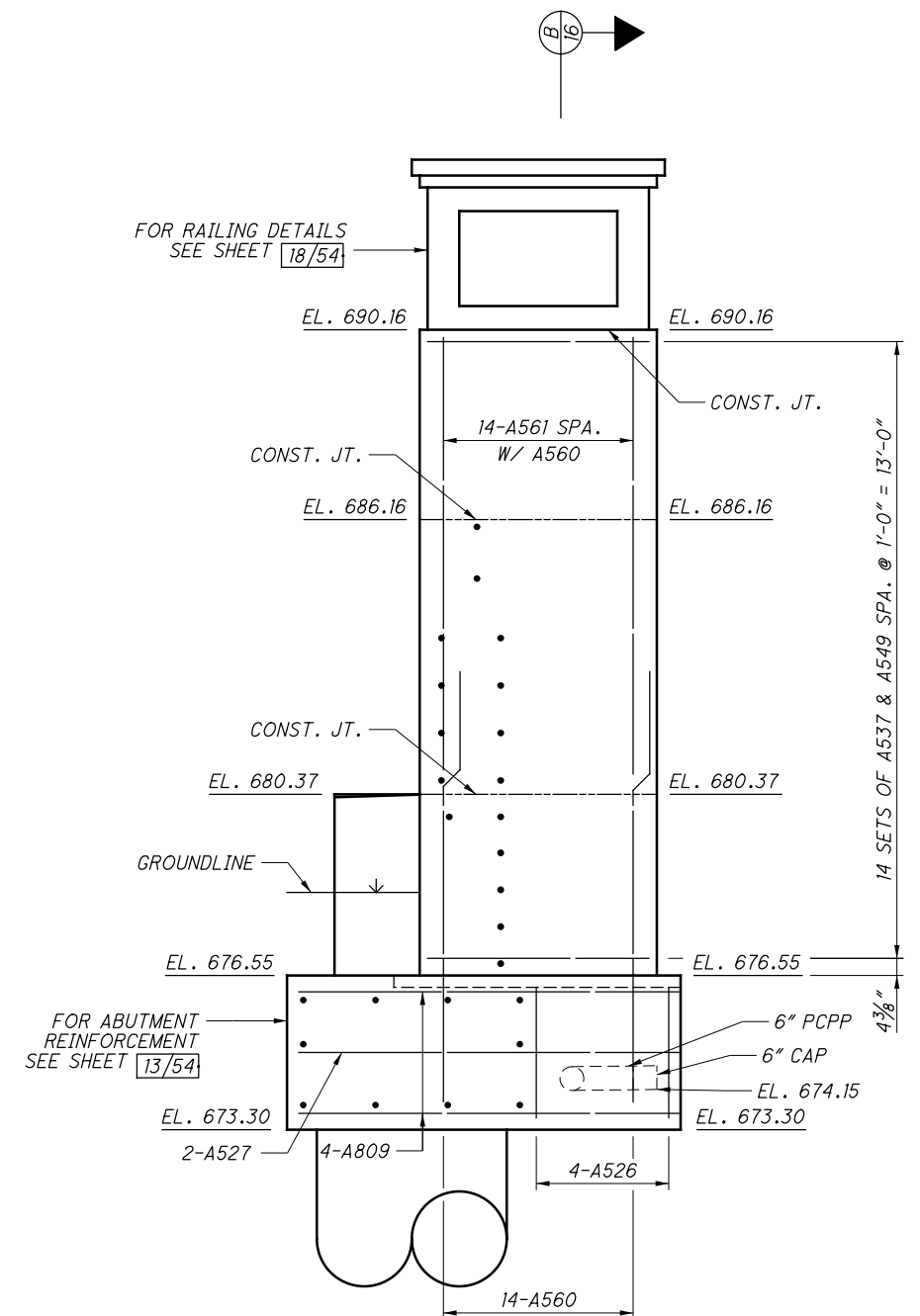


**DETAIL A**  
(REINFORCING STEEL NOT SHOWN)

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**L.F. WINGWALL ELEVATION**



**R.F. WINGWALL ELEVATION**

**LEGEND**

- SPA. - SPACED
- CONST. - CONSTRUCTION
- JT. - JOINT
- EL. - ELEVATION
- ES - EACH SIDE
- W/ - WITH
- PCPP - PERFORATED CORRUGATED PLASTIC PIPE
- NPCPP - NON-PERFORATED CORRUGATED PLASTIC PIPE
- L.F. - LEFT FORWARD
- R.F. - RIGHT FORWARD

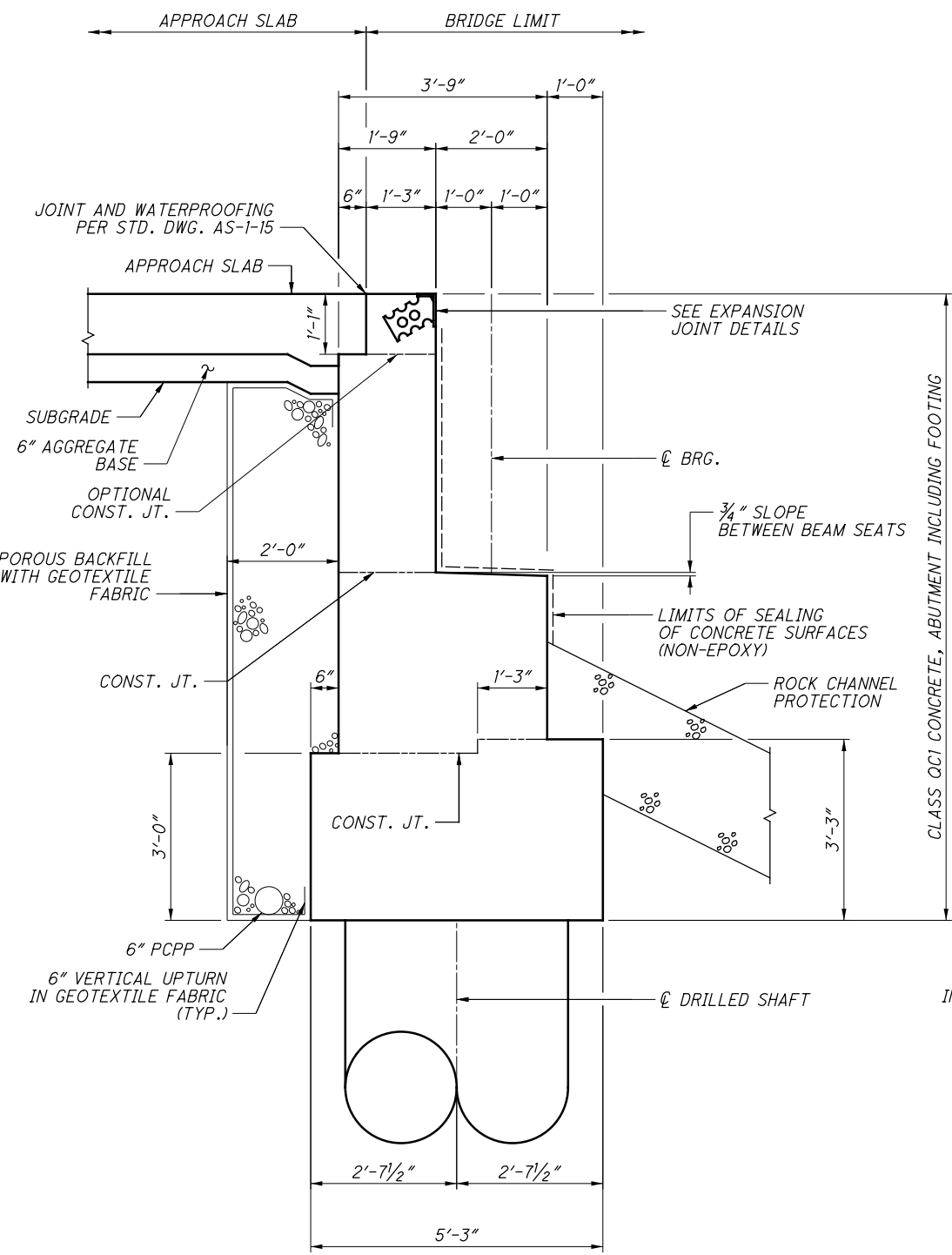
**NOTES:**

1. MINIMUM BAR LAPS:  
 LAP VERTICAL NO. 5 BARS 2'-5"  
 LAP VERTICAL NO. 7 BARS 4'-2"

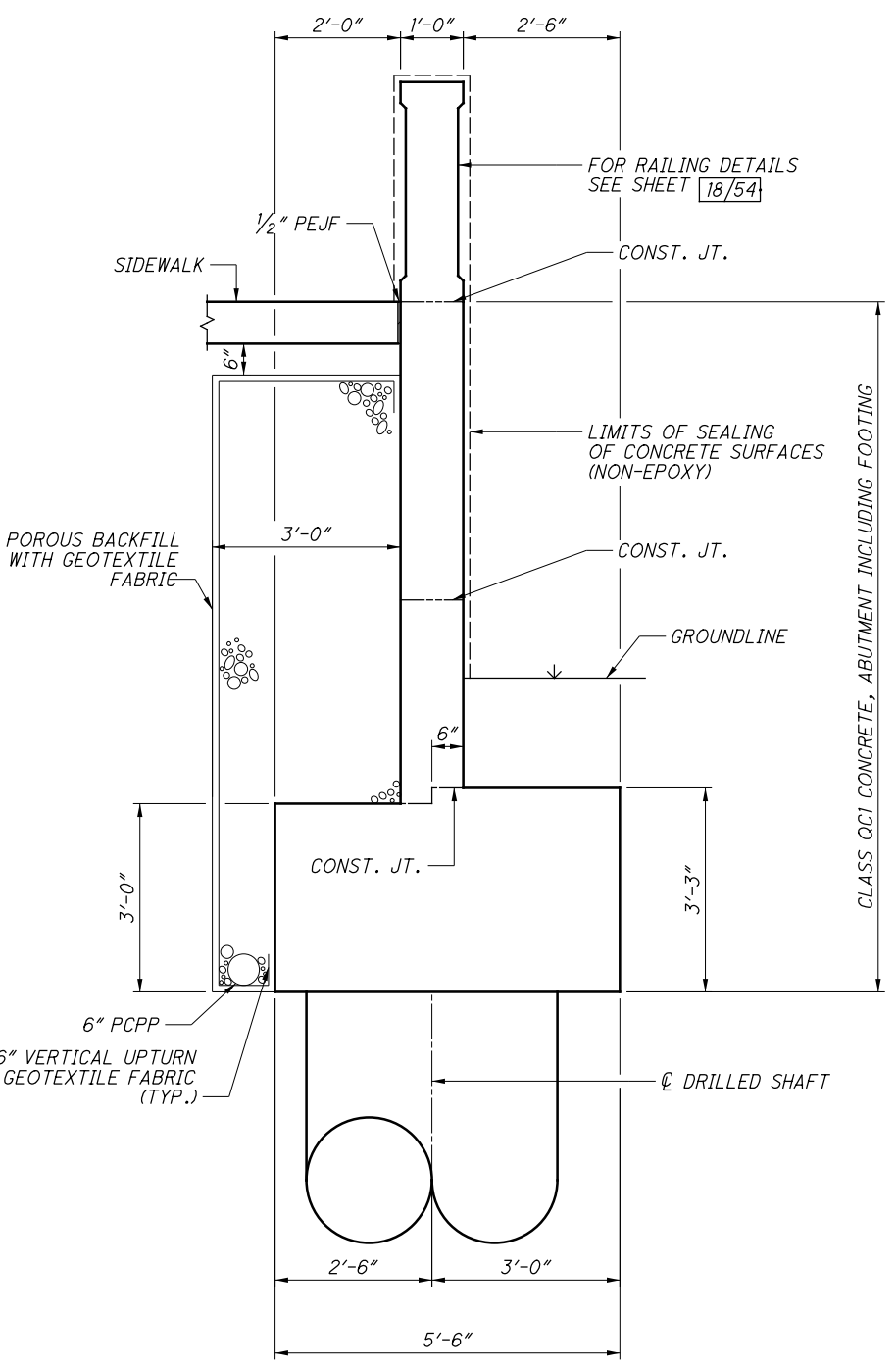
<b>DEF-15-14.77</b>	<b>PID No. 96605</b>	BRIDGE NO. DEF-15-1477 CLINTON STREET OVER THE MAUMEE RIVER	FORWARD ABUTMENT DETAILS	DESIGN AGENCY NORTHWEST CONSULTANTS, INC 3220 CENTRAL PARK WEST TOLEDO, OHIO 43617 PHONE(419) 841-4704 FAX(419) 841-2879
14/54	174 231			DATE 3/30/18 REVIEWED JBD STRUCTURE FILE NUMBER 2000572 DRAWN APM CHECKED TTN DESIGNED APM



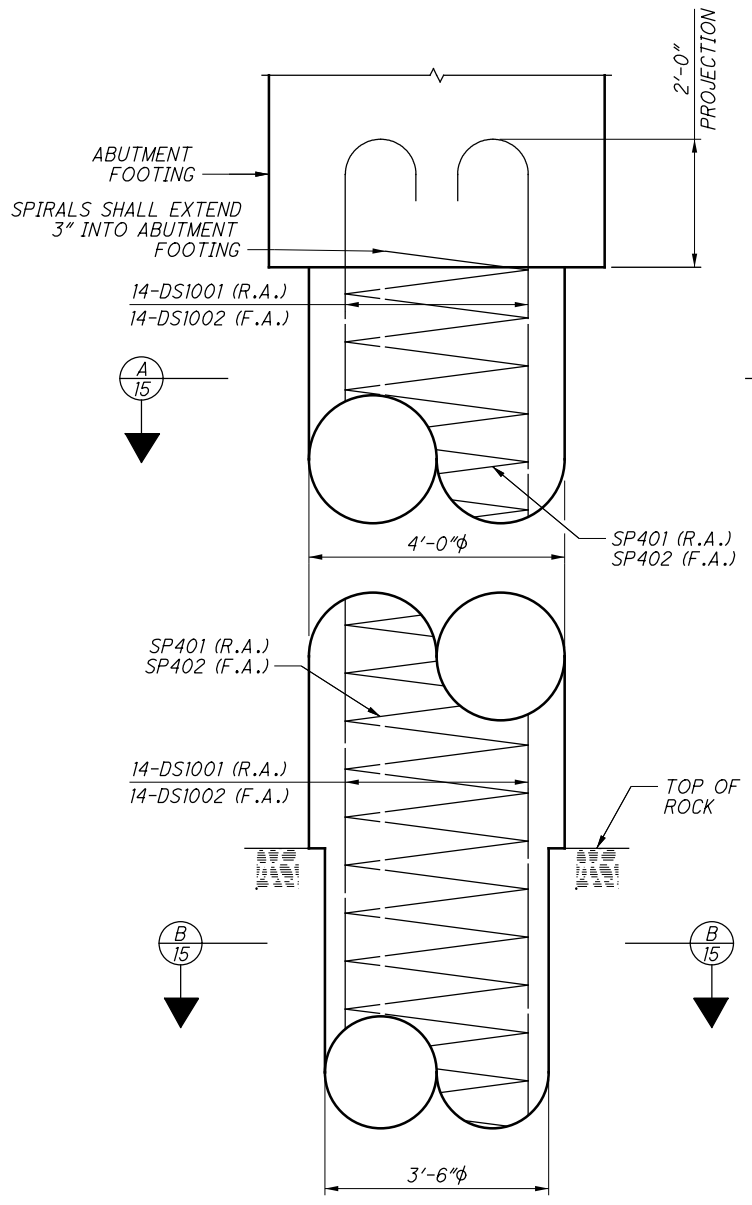
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**TYPICAL ABUTMENT SECTION**



**TYPICAL WINGWALL SECTION**



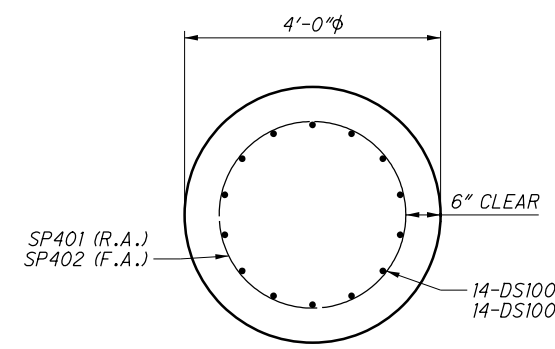
**DRILLED SHAFT DETAIL**

**NOTES:**

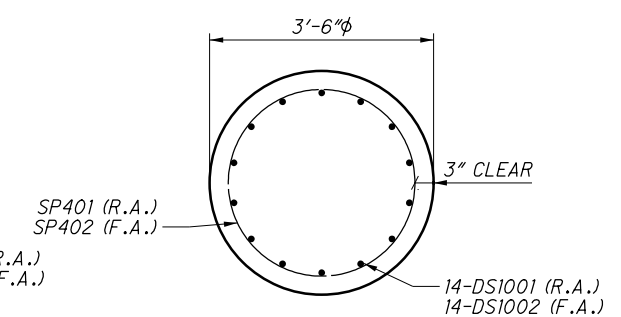
- MINIMUM BAR LAPS:  
 LAP HORIZONTAL NO. 5 BARS 3'-1"  
 LAP VERTICAL NO. 5 BARS 2'-5"  
 LAP VERTICAL NO. 6 BARS 3'-7"  
 LAP VERTICAL NO. 7 BARS 4'-2"  
 LAP HORIZONTAL NO. 8 BARS 5'-4"

**LEGEND**

- STD. DWG. - STANDARD DRAWING
- CONST. - CONSTRUCTION
- JT. - JOINT
- BRG. - BEARING
- TYP. - TYPICAL
- PEJF - PREFORMED EXPANSION JOINT FILLER
- PCPP - PERFORATED CORRUGATED PLASTIC PIPE



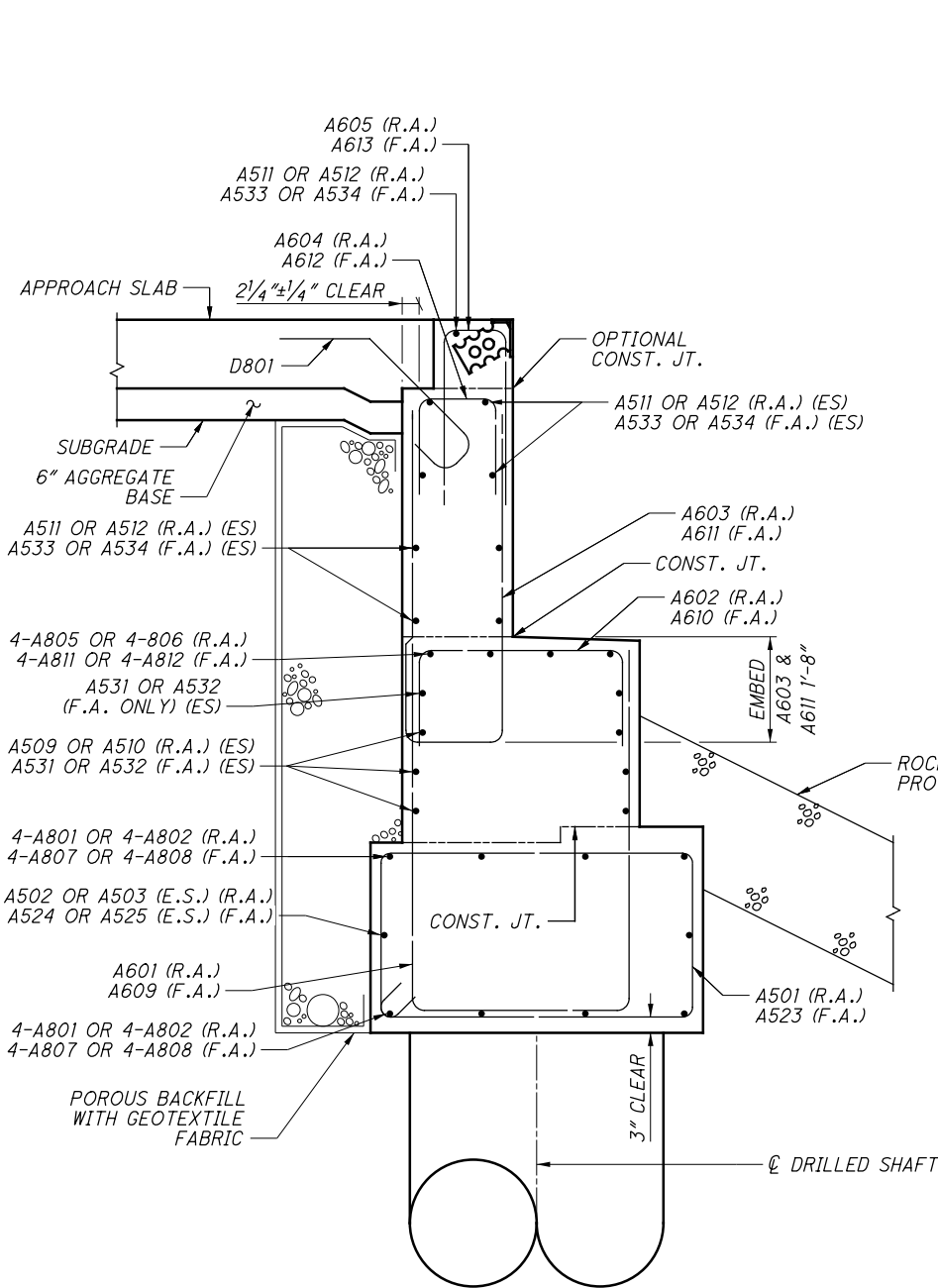
**SECTION A-A**



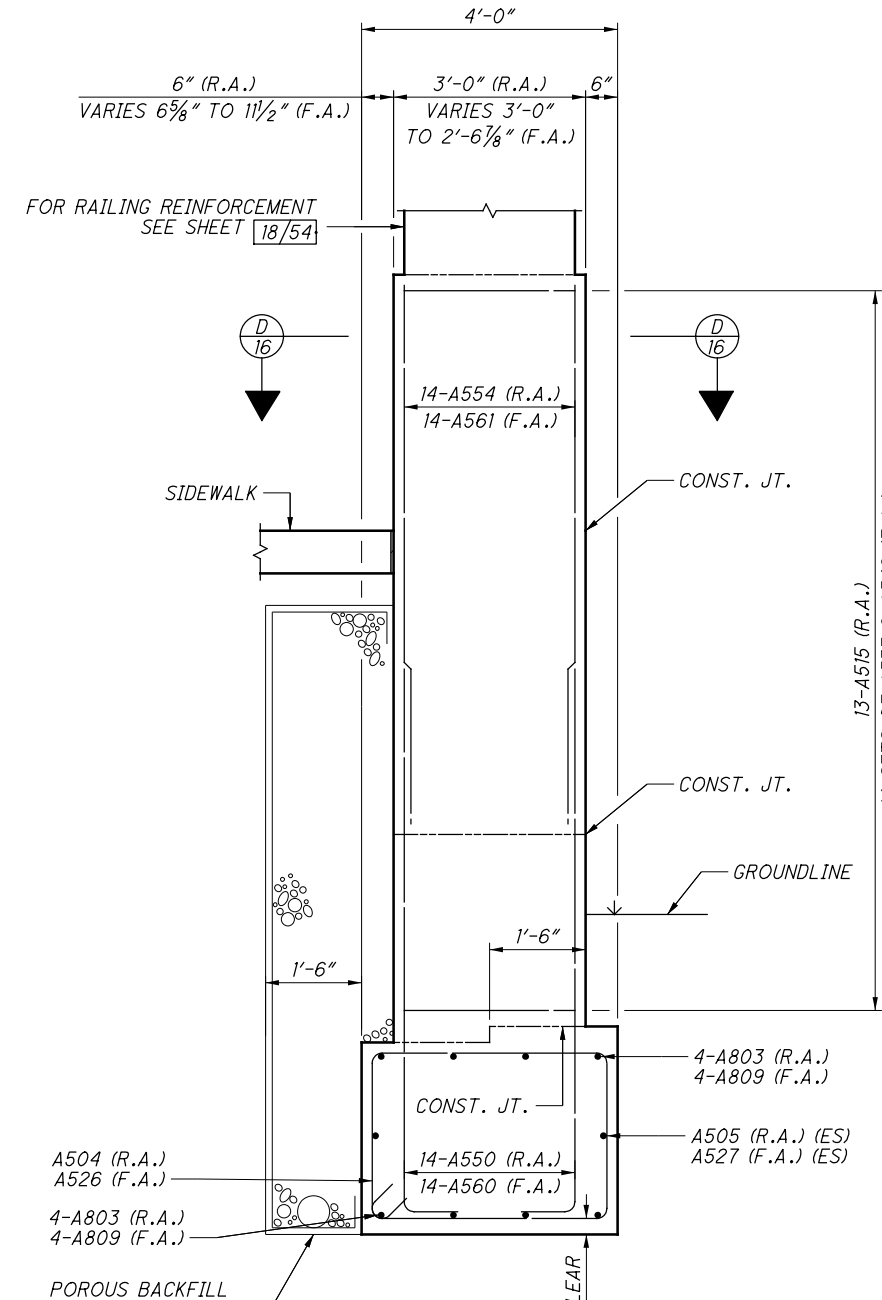
**SECTION B-B**

DESIGN AGENCY NORTHWEST CONSULTANTS, INC 3220 CENTRAL PARK WEST TOLEDO, OHIO 43617 PHONE(419) 841-4704 FAX(419) 841-2879	DATE 3/30/18	REVIEWED JBD STRUCTURE FILE NUMBER 2000572
DRAWN APM	CHECKED TTN	REVISIONS REVISED
<b>ABUTMENT DETAILS</b> BRIDGE NO. DEF-15-1477 CLINTON STREET OVER THE MAUMEE RIVER		
DEF-15-14.77	PID No. 96605	15 / 54
175 231		

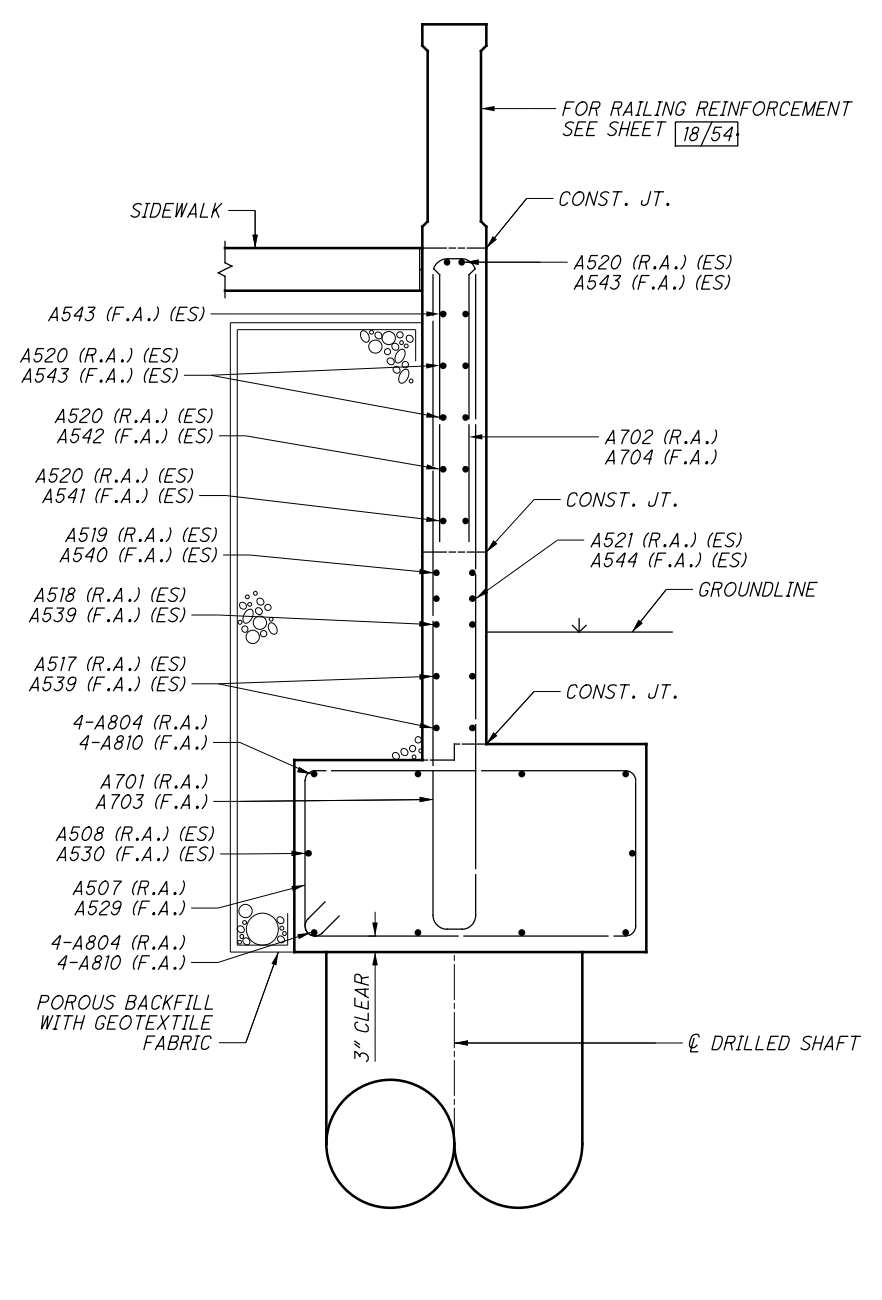
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**SECTION A-A**



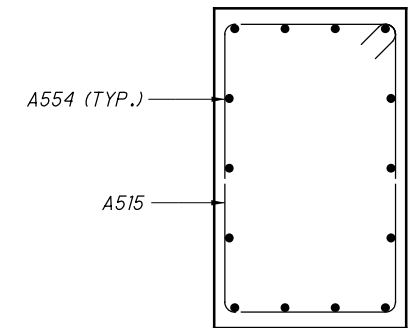
**SECTION B-B**



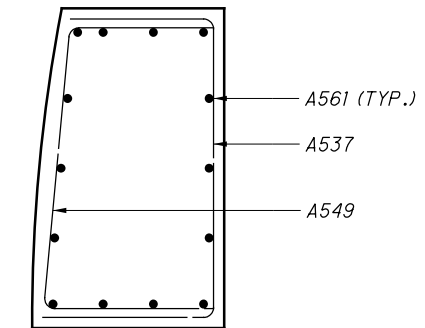
**SECTION C-C**

- NOTES:**
- MINIMUM BAR LAPS:  
 LAP HORIZONTAL NO. 5 BARS 3'-1"  
 LAP VERTICAL NO. 5 BARS 2'-5"  
 LAP VERTICAL NO. 6 BARS 3'-7"  
 LAP VERTICAL NO. 7 BARS 4'-2"  
 LAP HORIZONTAL NO. 8 BARS 5'-4"

- LEGEND**
- CONST. - CONSTRUCTION
  - JT. - JOINT
  - ES - EACH SIDE
  - NS - NEAR SIDE
  - FS - FAR SIDE
  - F.A. - FORWARD ABUTMENT
  - R.A. - REAR ABUTMENT
  - R.R. - RIGHT REAR
  - R.F. - RIGHT FORWARD



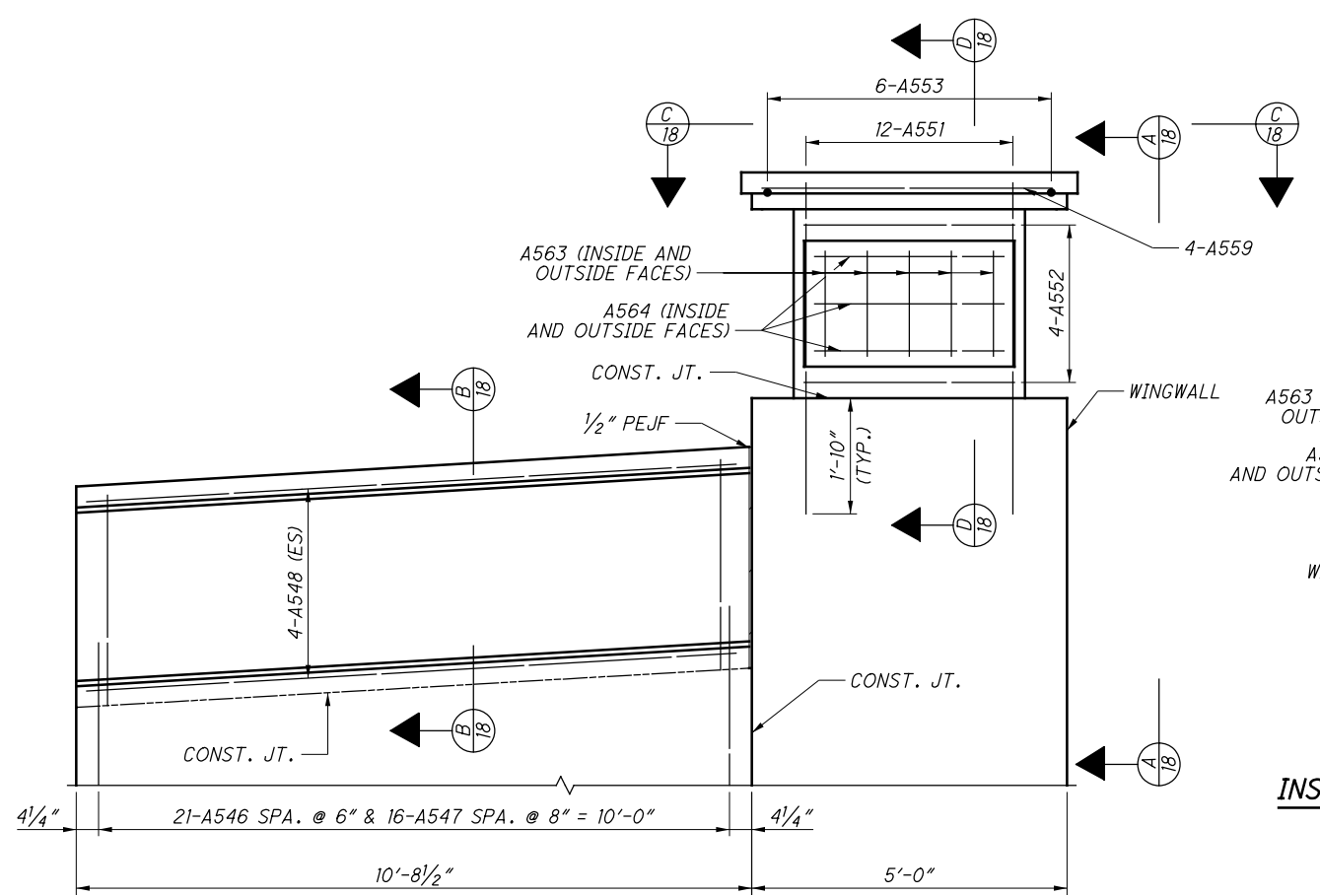
**SECTION D-D**  
(APPLIES R.R. WINGWALL)



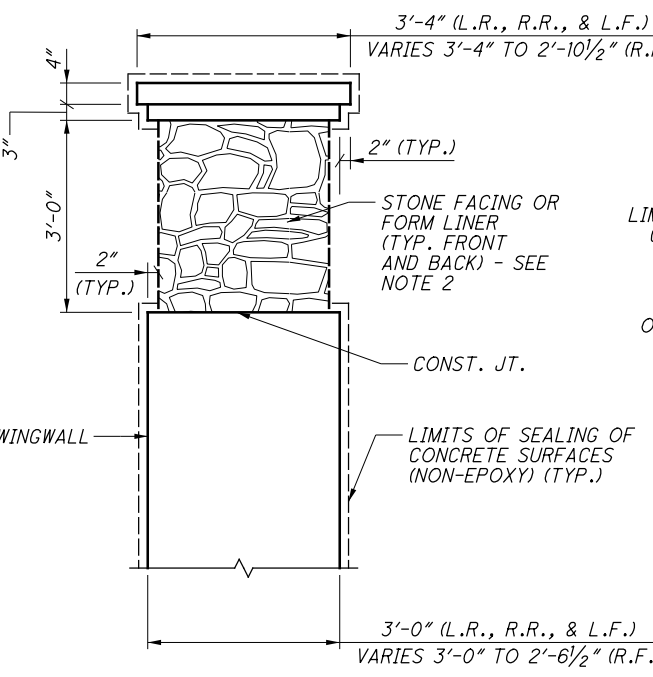
**SECTION D-D**  
(APPLIES R.F. WINGWALL)



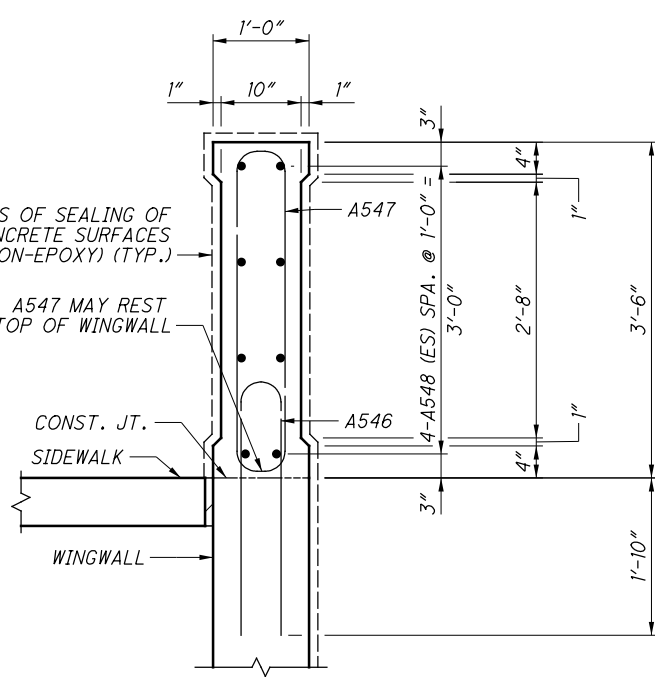
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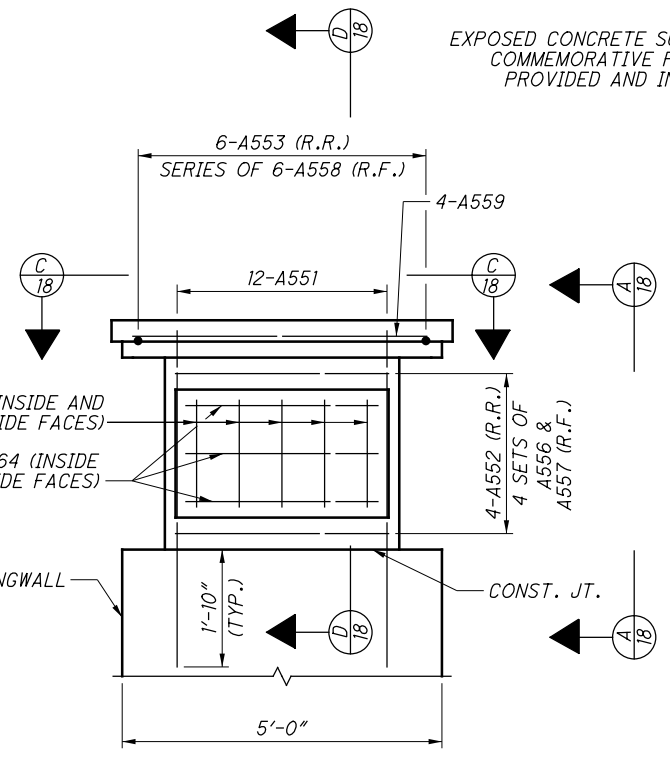
**INSIDE FACE OF L.R. WINGWALL MOUNTED RAILING**  
 (L.F. WINGWALL MOUNTED RAILING SIMILAR)  
 (STONE FACING/FORM LINER ALTERNATES NOT SHOWN)



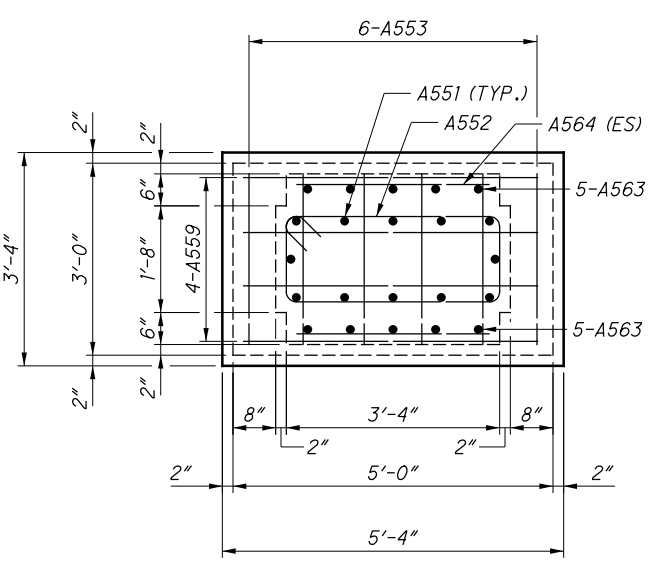
**VIEW A-A**  
 (REINFORCEMENT NOT SHOWN)



**SECTION B-B**

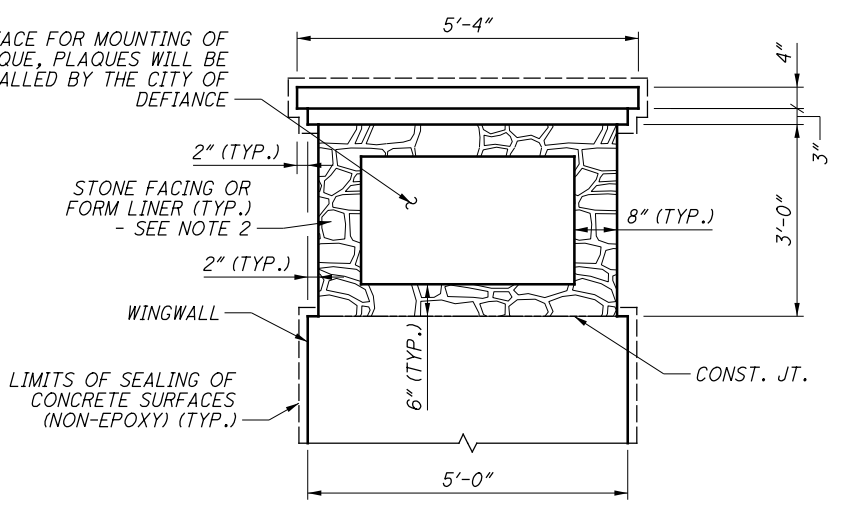


**INSIDE FACE OF R.R. WINGWALL MOUNTED RAILING**  
 (R.F. WINGWALL MOUNTED RAILING SIMILAR)  
 (STONE FACING/FORM LINER ALTERNATES NOT SHOWN)

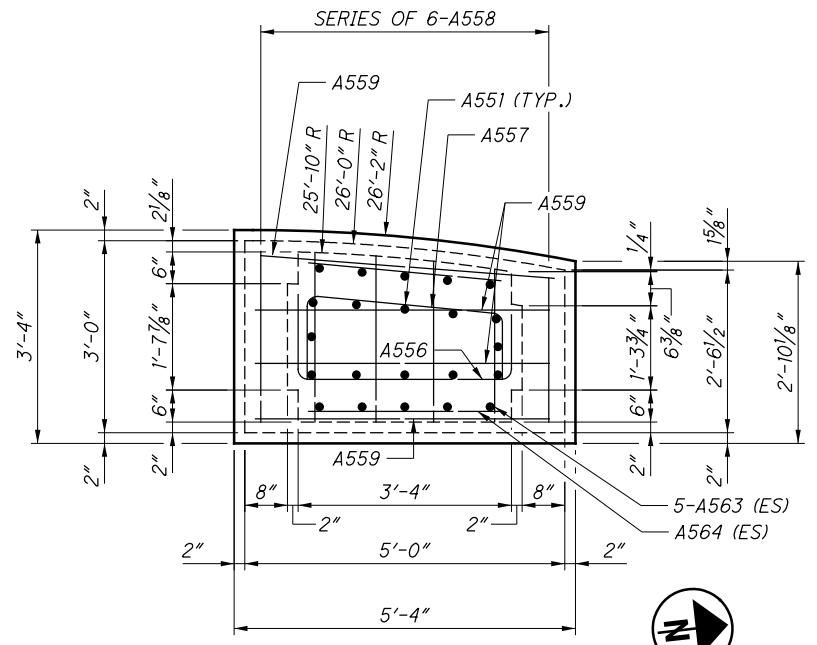


**SECTION C-C**  
 (STONE FACING/FORM LINER ALTERNATES NOT SHOWN)  
 (APPLIES R.R., L.R., & L.F.)

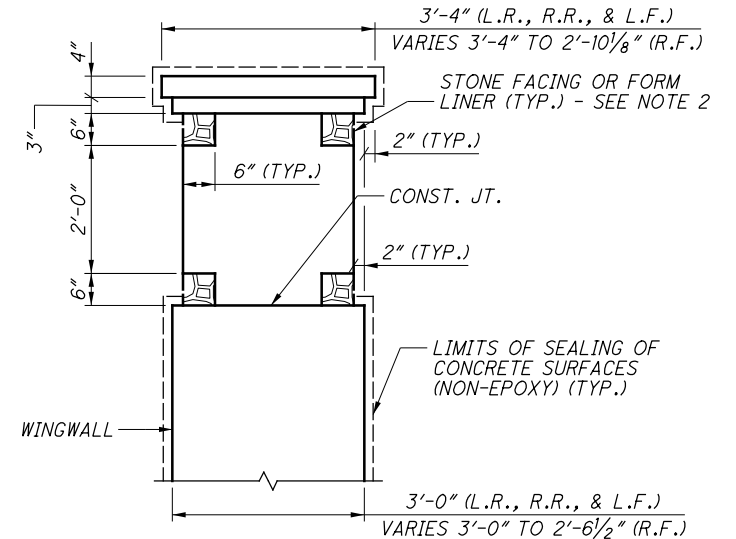
- LEGEND**
- CONST. - CONSTRUCTION
  - JT. - JOINT
  - SPA. - SPACED
  - TYP. - TYPICAL
  - ES - EACH SIDE
  - R.R. - RIGHT REAR
  - L.R. - LEFT REAR
  - R.F. - RIGHT FORWARD
  - L.F. - LEFT FORWARD
  - R - RADIUS
  - PEJF - PREFORMED JOINT FILLER



**PYLON AESTHETIC ELEVATION**  
 (TYP. INSIDE AND OUTSIDE FACE)



**SECTION C-C**  
 (STONE FACING/FORM LINER ALTERNATES NOT SHOWN)  
 (APPLIES R.F.)



**SECTION D-D**  
 (REINFORCEMENT NOT SHOWN)

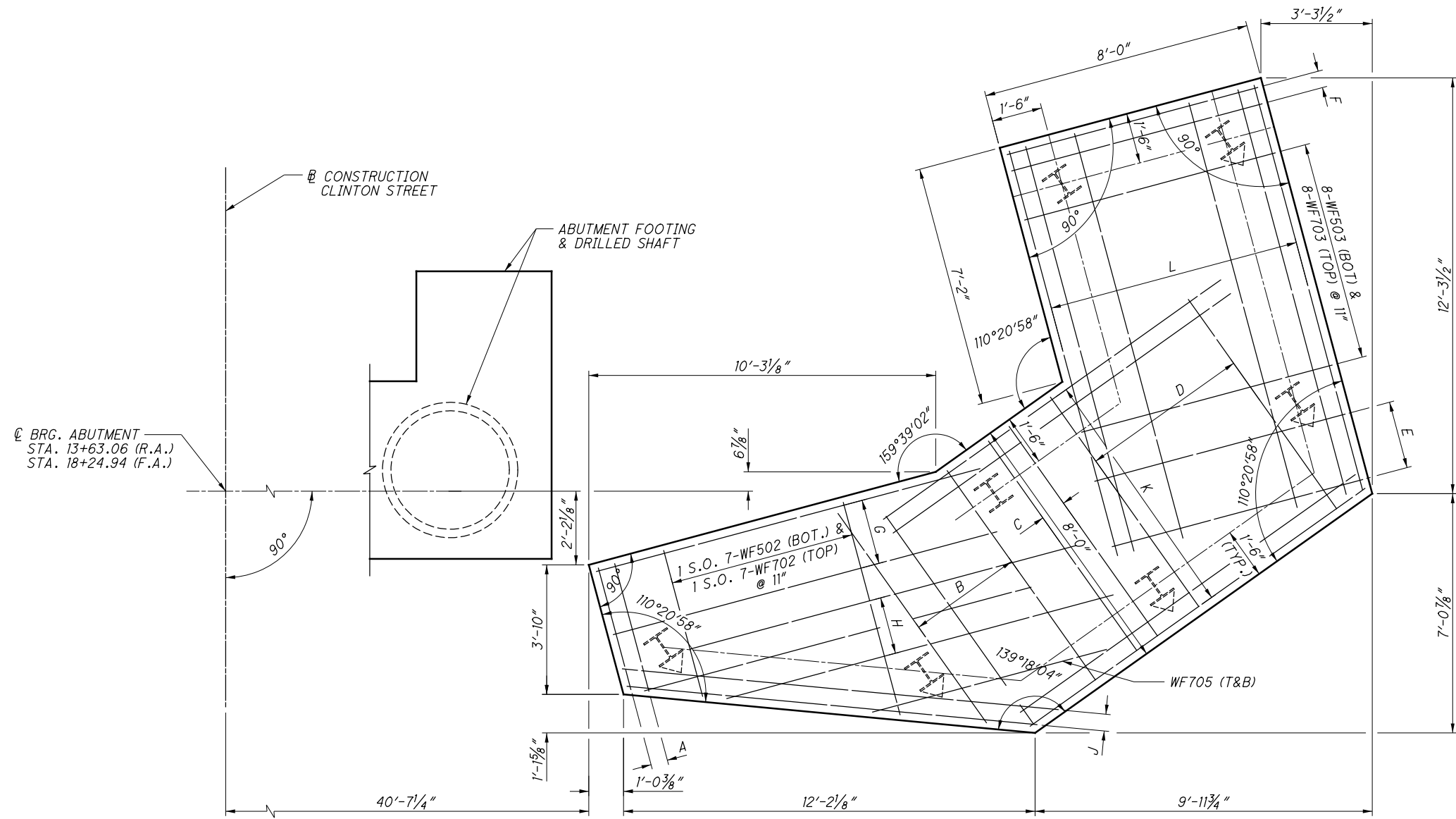
**NOTES:**

- PAYMENT FOR WINGWALL MOUNTED RAILING CONCRETE SHALL BE INCLUDED IN ITEM 511, CLASS QC1 CONCRETE, ABUTMENT INCLUDING FOOTING. PAYMENT FOR WINGWALL MOUNTED RAILING REINFORCING STEEL SHALL BE INCLUDED IN ITEM 509, EPOXY COATED REINFORCING STEEL.

- STONE FACING AND FORM LINER ARE ALTERNATE BID ITEMS. SEE GENERAL NOTES SHEETS 4/54 AND 4A/54.

DESIGN AGENCY: NORTHWEST CONSULTANTS, INC.  
 3220 CENTRAL PARK WEST  
 TOLEDO, OHIO 43617  
 PHONE(419) 841-4704 FAX(419) 841-2879  
 DATE: 3/30/18  
 REVIEWED: JBD  
 DRAWN: APM  
 DESIGNED: APM  
 CHECKED: TTN  
 STRUCTURE FILE NUMBER: 2000572  
 ABUTMENT DETAILS  
 BRIDGE NO. DEF-15-1477  
 CLINTON STREET OVER THE MAUMEE RIVER  
 DEF-15-14.77  
 PID No. 96605  
 18/54  
 178  
 231

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BRG. ABUTMENT  
STA. 13+63.06 (R.A.)  
STA. 18+24.94 (F.A.)

CONSTRUCTION  
CLINTON STREET

ABUTMENT FOOTING  
& DRILLED SHAFT

**PLAZA WALL FOOTING PLAN**  
(FORWARD PLAZA WALL SHOWN, REAR PLAZA WALL OPPOSITE HAND)



**LEGEND:**

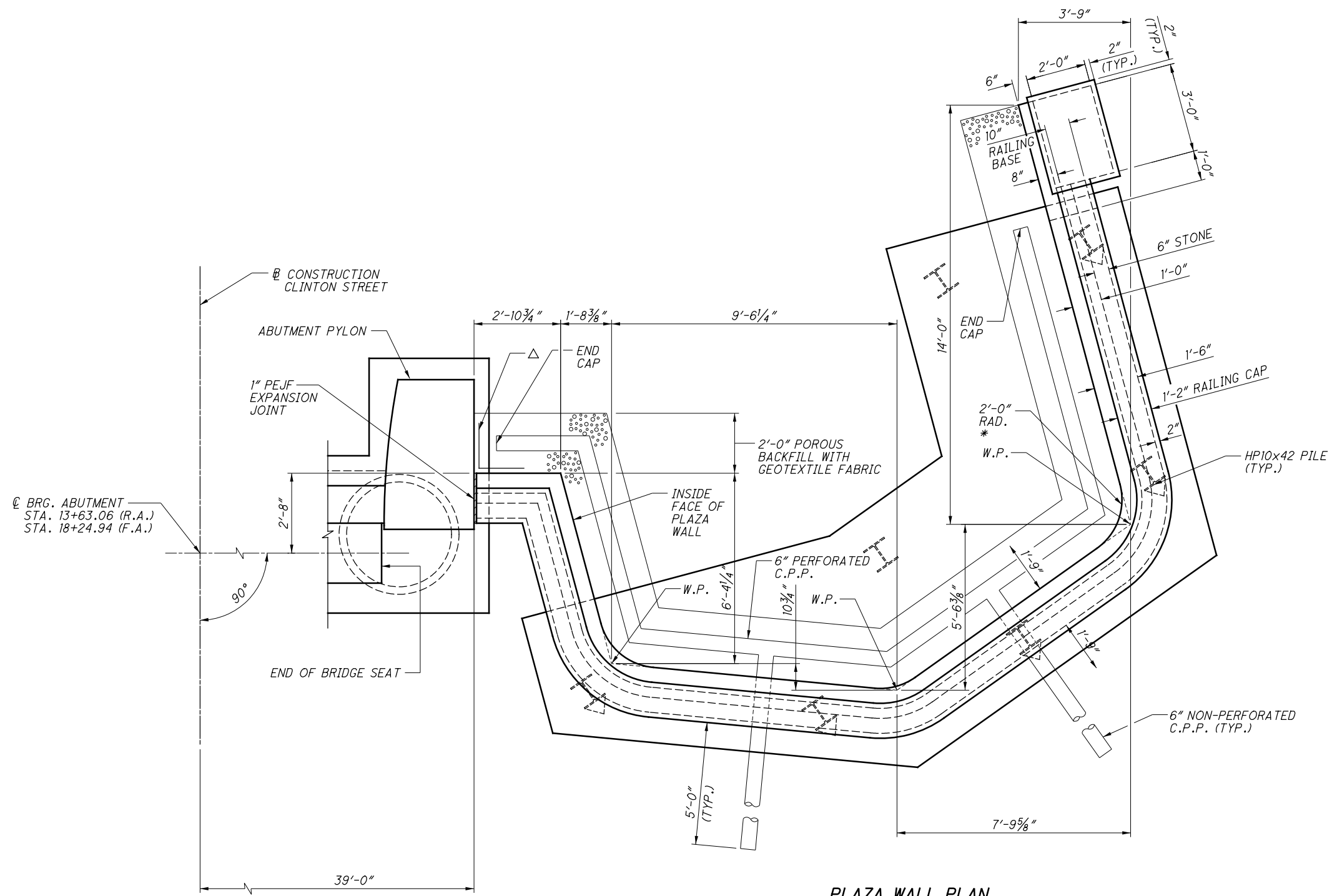
BOT = BOTTOM  
R.A. = REAR ABUTMENT  
F.A. = FORWARD ABUTMENT  
T&B = TOP AND BOTTOM

- A = 1 S.O. 2-WF501 (BOT) & 1 S.O. 2-WF701 (TOP) @ 6"
- B = 5-WF503 (BOT) & 5-WF703 (TOP) @ 10"
- C = 2-WF503 (BOT) & 2-WF703 (TOP) @ 9"
- D = 6-WF503 (BOT) & 6-WF703 (TOP) @ 1'-0"
- E = 3-WF503 (BOT) & 3-WF703 (TOP) @ 1'-0"
- F = 2-WF503 (BOT) & 2-WF703 (TOP) @ 6"
- G = 3-WF704 (T&B) @ 11 1/2"
- H = 3-WF704 (T&B) @ 10"
- J = 1 S.O. 2-WF706 (T&B) @ 10"
- K = 8-WF707 (T&B) SPACE AS SHOWN AND AT EQ. SPA. BETWEEN PILES
- L = 8-WF708 (T&B) SPACE AS SHOWN AND AT EQ. SPA. BETWEEN PILES

**NOTES:**

1. SEE SHEET 7 / 54 FOR FOUNDATION PLAN.
2. SEE SHEETS 20 / 54 TO 24 / 54 FOR PLAZA WALL DETAILS.

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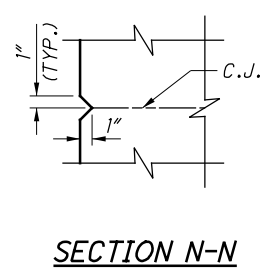
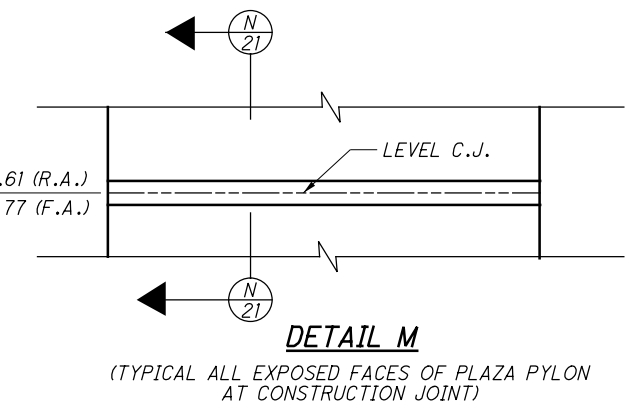
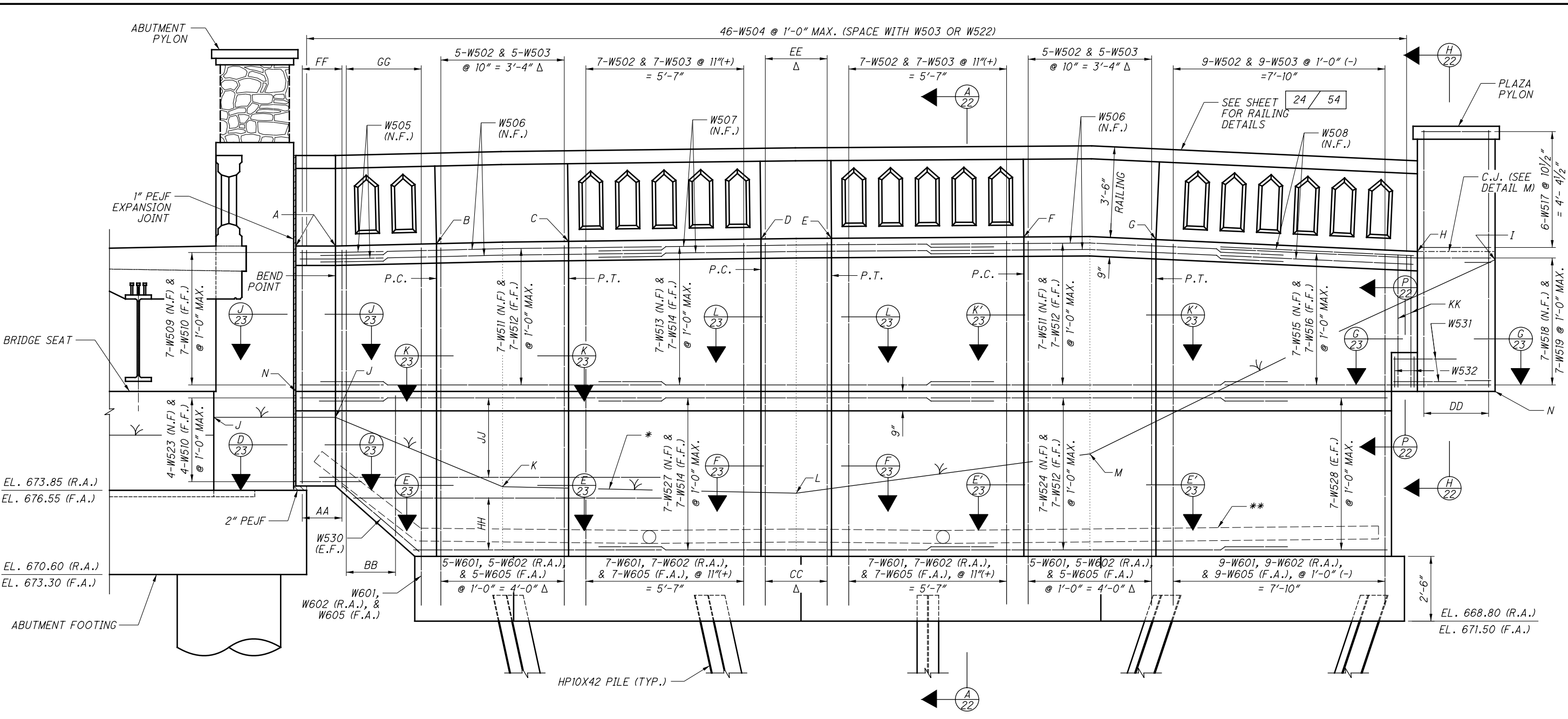


**PLAZA WALL PLAN**  
 (BRIDGE SUPERSTRUCTURE NOT SHOWN)  
 (FORWARD PLAZA WALL SHOWN, REAR PLAZA WALL OPPOSITE HAND)

**LEGEND:**  
 R.A. = REAR ABUTMENT  
 RAD. = RADIUS  
 F.A. = FORWARD ABUTMENT  
 W.P. = WORK POINT  
 C.P.P. = CORRUGATED PLASTIC PIPE  
 PEJF = PREFORMED EXPANSION JOINT FILLER  
 Δ = TYPE 2 WATERPROOFING, 3'-0" WIDE, CENTERED ON JOINT, FROM TOP OF ABUTMENT FOOTING TO BOTTOM OF PLAZA SIDEWALK  
 \* = TYP. AT INSIDE FACE OF PLAZA WALL AT 3 CORNERS

<b>PLAZA WALL PLAN</b> BRIDGE NO. DEF-15-1477 CLINTON STREET OVER THE MAUMEE RIVER		<b>DESIGNED</b> BES <b>CHECKED</b> MAB	<b>DRAWN</b> BES <b>REVISED</b>	<b>REVIEWED</b> JCS <b>DATE</b> 10/25/17 <b>STRUCTURE FILE NUMBER</b> 2000572	<b>BURGESS &amp; NIPLÉ</b> Engineers Architects Planners 5085 REED ROAD, COLUMBUS, OHIO 43220
<b>DEF-15-14.77</b>	<b>PID No. 96605</b>	20 / 54		180 231	

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**DEVELOPED ELEVATION - PLAZA WALL**  
 (FORWARD PLAZA WALL SHOWN, REAR PLAZA WALL OPPOSITE HAND)  
 (OUTSIDE FACE SHOWN, STONE ON PLAZA WALL NOT SHOWN)

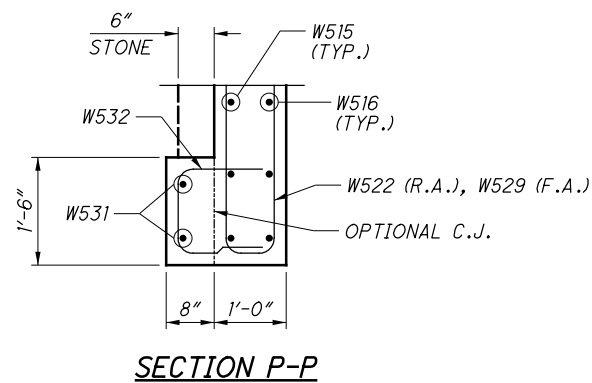
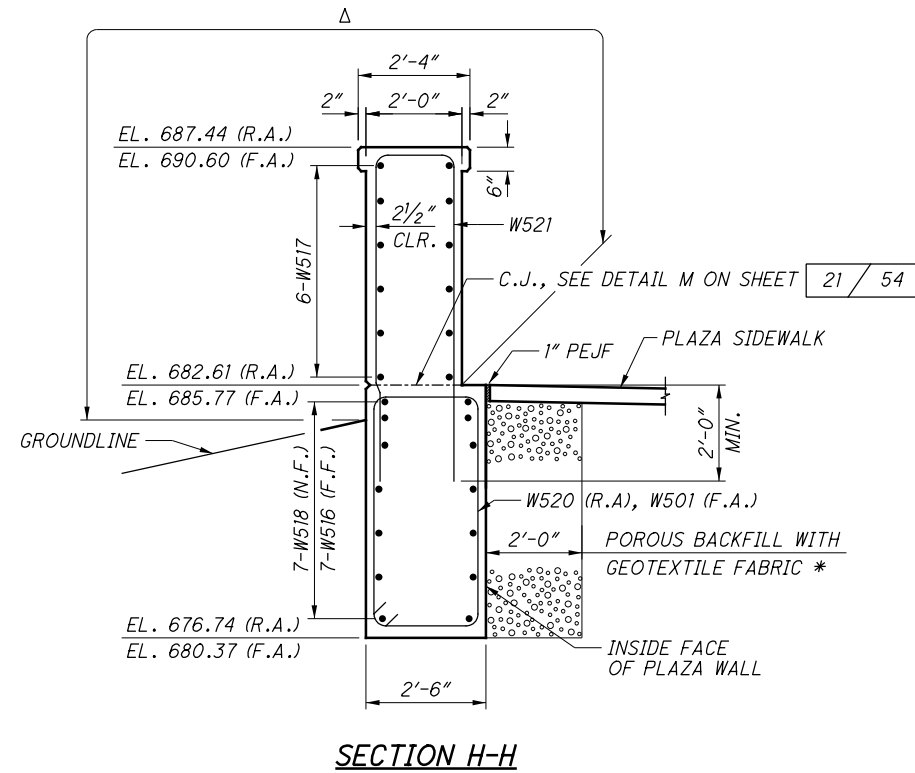
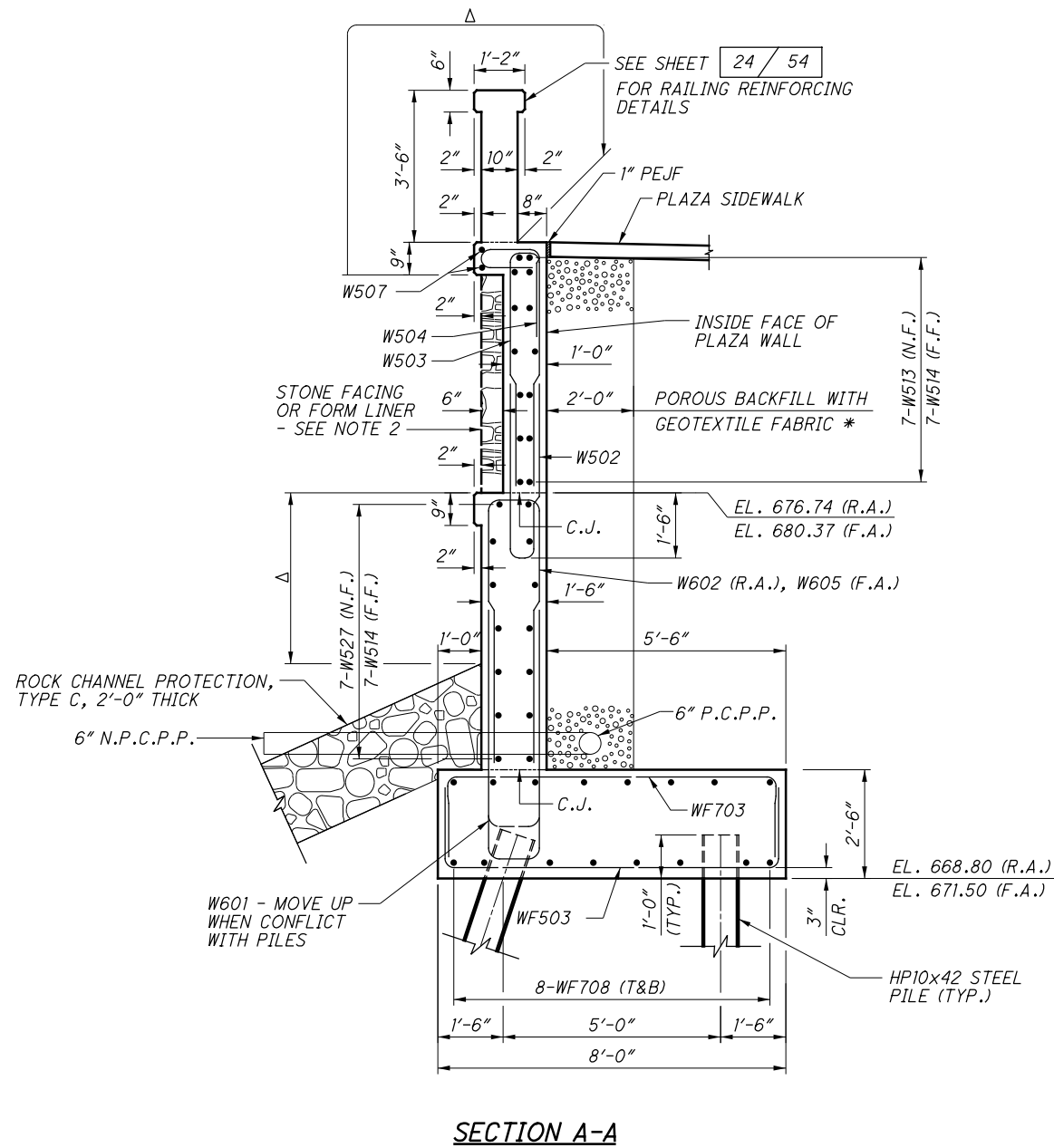
**LEGEND:**  
 AA = 4-W603 (R.A.) & 4-W606 (F.A.) @ 9" = 2'-3"  
 BB = 1 S.O. 4-W604 (R.A.) & 1 S.O. 4-W607 (F.A.) @ 1'-0" = 3'-0"  
 CC = 4-W601, 4-W602 (R.A.), & 4-W605 (F.A.) @ 10" = 2'-6"  
 DD = 4-W520 (R.A.), 4-W501 (F.A.) & 4-W521 @ 10" = 2'-6"  
 EE = 3-W502 & 3-W503 @ 1'-0" = 2'-0"  
 FF = 4-W502 & 4-W503 @ 9" = 2'-3"  
 GG = 4-W502 & 4-W503 @ 1'-0" = 3'-0"  
 HH = 1 S.O. 3-W525 (N.F.) & 1 S.O. 3-W526 (F.F.) @ 1'-0" MAX.  
 JJ = 4-W524 (N.F.) & 4-W512 (F.F.) @ 1'-0" MAX.  
 KK = W522 (R.A.) & W529 (F.A.)  
 E.F. = EACH FACE  
 F.A. = FORWARD ABUTMENT  
 F.F. = FAR FACE  
 N.F. = NEAR FACE  
 P.C. = POINT OF CURVATURE  
 PEJF = PREFORMED EXPANSION JOINT FILLER  
 P.T. = POINT OF TANGENCY  
 R.A. = REAR ABUTMENT  
 S.O. = SERIES OF  
 \* = PROPOSED GROUND AT FACE OF WALL  
 \*\* = 1/8" / FT. MIN. SLOPE TOWARDS OUTLETS (TYP.)  
 Δ = SPACING GIVEN AT NEAR FACE

**ELEVATIONS**

LOCATION	A	B	C	D	E	F	G	H	I	J	K	L	M	N
R.A. PLAZA	682.29	682.40	682.44	682.57	682.61	682.80	682.83	682.61	682.57	676.24	673.99	673.74	675.26	676.74
F.A. PLAZA	685.98	686.11	686.13	686.27	686.28	686.35	686.30	685.77	685.63	679.30	676.69	676.44	677.96	680.37

**NOTES:**  
 1. LAP REINFORCING THE FOLLOWING MINIMUM LENGTHS:  
 #5 BAR: 2'-5"  
 #6 BAR: 3'-7"

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**LEGEND:**

- C.J. = CONSTRUCTION JOINT
- F.A. = FORWARD ABUTMENT
- F.F. = FAR FACE
- N.F. = NEAR FACE
- N.P.C.P.P. = NON-PERFORATED CORRUGATED PLASTIC PIPE
- P.C.P.P. = PERFORATED CORRUGATED PLASTIC PIPE
- PEJF = PREFORMED EXPANSION JOINT FILLER
- R.A. = REAR ABUTMENT
- T&B = TOP AND BOTTOM
- \* = TURN FILTER FABRIC UP 6" AT INSIDE FACE OF WALL AT BOTTOM
- Δ = LIMITS OF CONCRETE SEALING (NON-EPOXY)

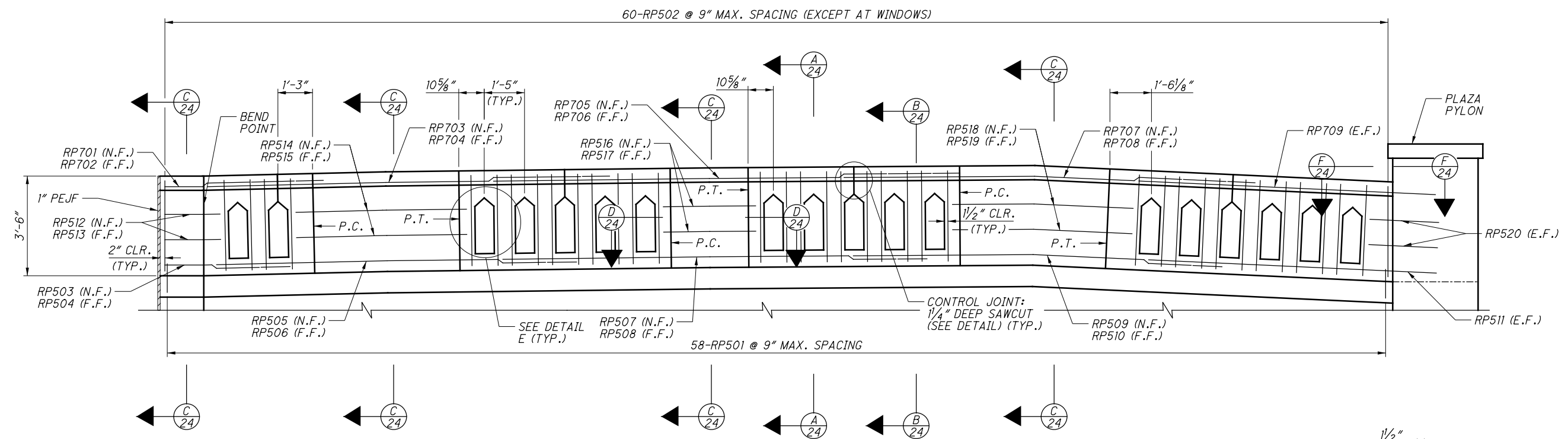
**NOTES:**

1. LAP REINFORCING THE FOLLOWING MINIMUM LENGTHS:  
 #5 BAR: 2'-5"  
 #6 BAR: 3'-7"
2. STONE FACING AND FORM LINER ARE ALTERNATE BID ITEMS.  
 SEE GENERAL NOTES SHEETS 4 / 54 AND 4A / 54 .

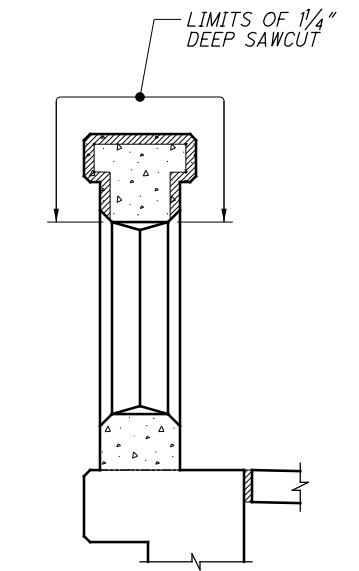




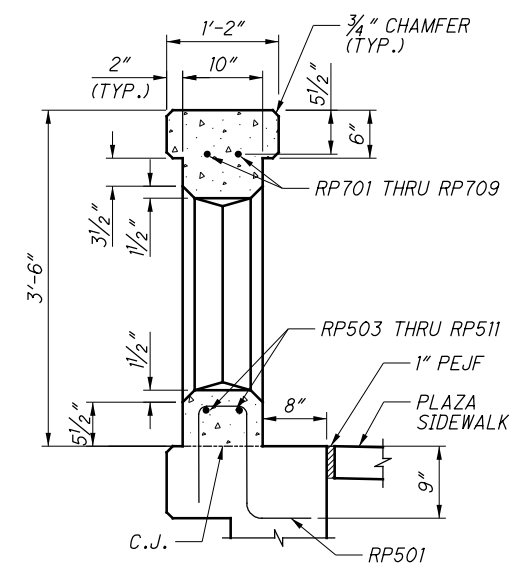
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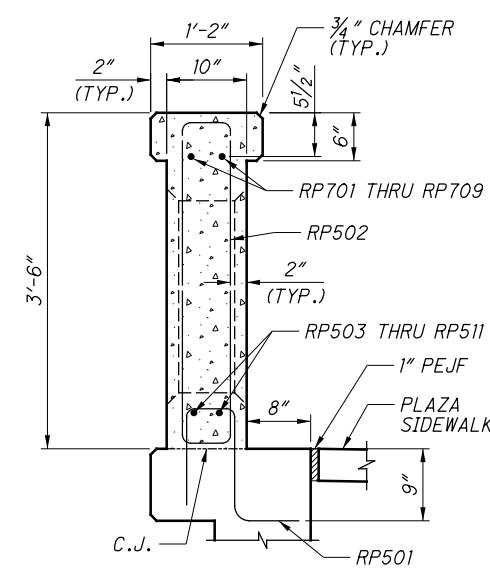
**DEVELOPED ELEVATION - PLAZA RAILING**  
 (FORWARD PLAZA WALL SHOWN, REAR PLAZA WALL OPPOSITE HAND)  
 (OUTSIDE FACE SHOWN, ABUTMENT NOT SHOWN)



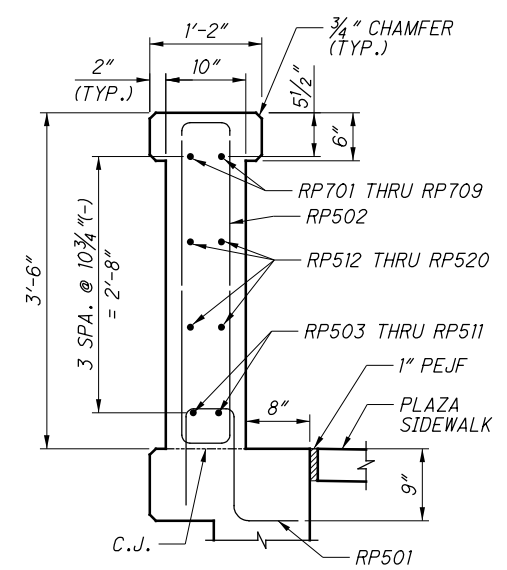
**CONTROL JOINT DETAIL**  
(THRU RAILING WINDOW)



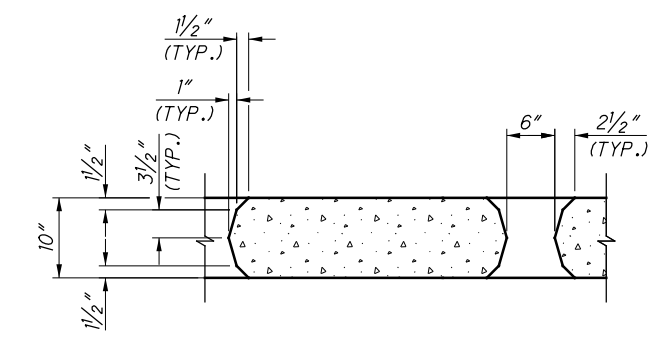
**SECTION A-A**  
(THRU RAILING WINDOW) (TYP.)



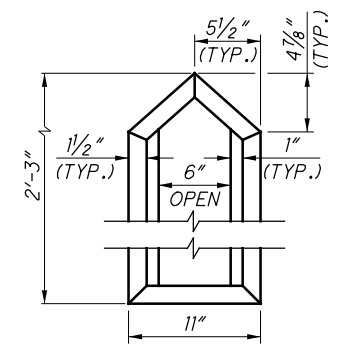
**SECTION B-B**  
(THRU SOLID RAILING) (TYP.)



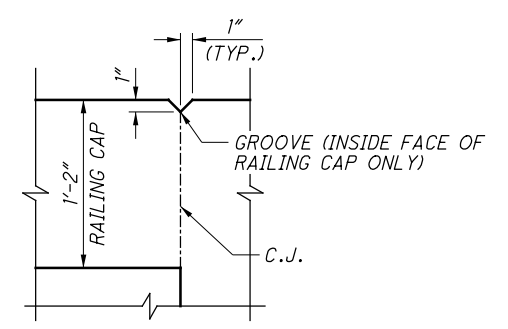
**SECTION C-C**  
(THRU PLAZA PILASTER)



**SECTION D-D**  
(DEVELOPED VIEW)



**DETAIL E**



**SECTION F-F**

**LEGEND:**

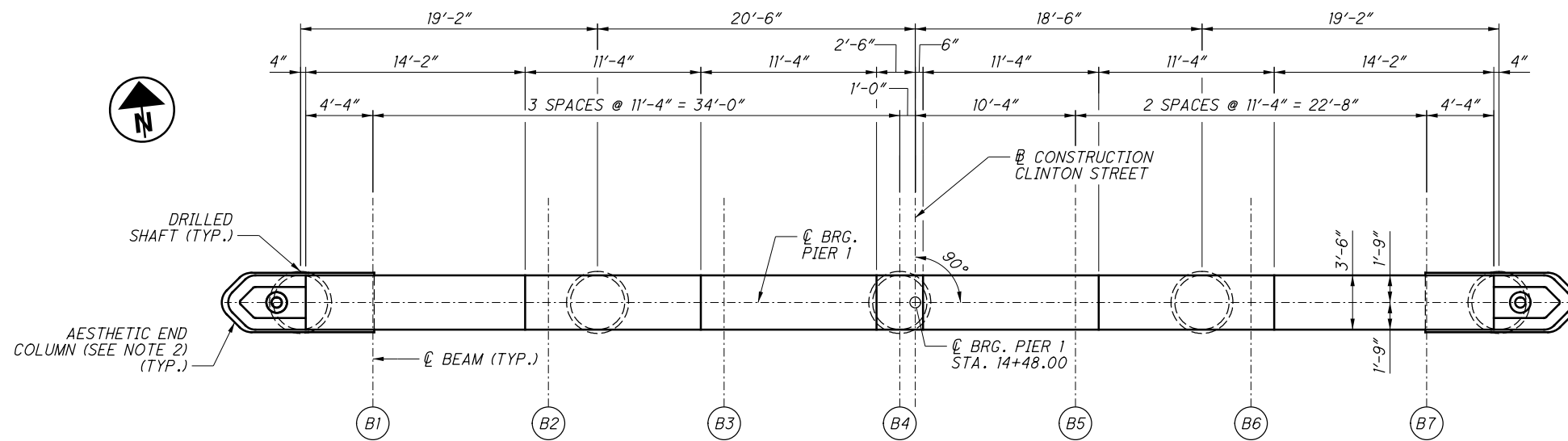
- C.J. = CONSTRUCTION JOINT
- E.F. = EACH FACE
- F.F. = FAR FACE
- N.F. = NEAR FACE
- P.C. = POINT OF CURVATURE
- PEJF = PREFORMED EXPANSION JOINT FILLER
- P.T. = POINT OF TANGENCY

**NOTES:**

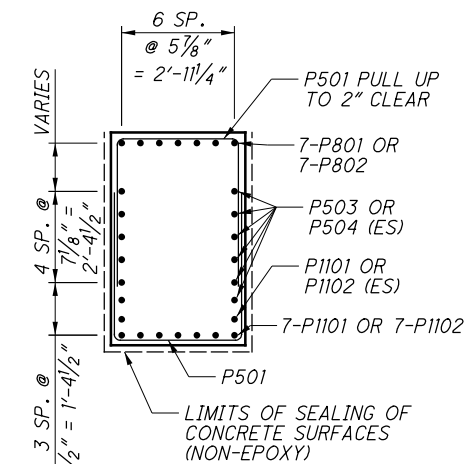
1. PLAZA RAILING SHALL BE SELF COMPACTING CONCRETE (SCC). SEE GENERAL NOTES FOR DETAILS. PLAZA PYLON SHALL BE CLASS QCI CONCRETE.
2. LAP REINFORCING THE FOLLOWING MINIMUM LENGTHS:  
 #5 BARS: 2'-7"  
 #7 BARS: 4'-1"

<b>BURGESS &amp; NIPLÉ</b> Engineers - Architects - Planners 5085 REED ROAD, COLUMBUS, OHIO 43220	
DATE 10/25/17	STRUCTURE FILE NUMBER 2000572
REVIEWED JCS	CHECKED BES
DRAWN MAB	DESIGNED MAB
<b>PLAZA RAILING DETAILS</b> BRIDGE NO. DEF-15-1477 CLINTON STREET OVER THE MAUMEE RIVER	
DEF - 15 - 14.77	PID No. 96605
24 / 54	<div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center; margin: 0 auto;"> <span style="margin-right: 5px;">184</span> <span>231</span> </div>

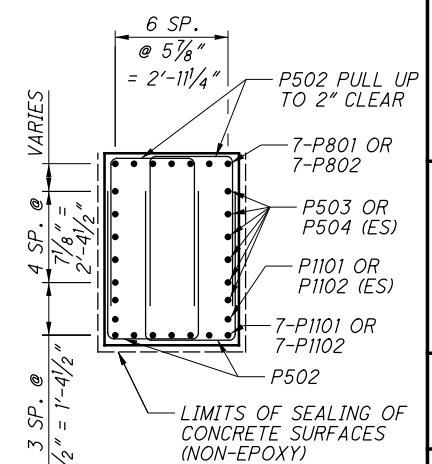
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**PLAN**

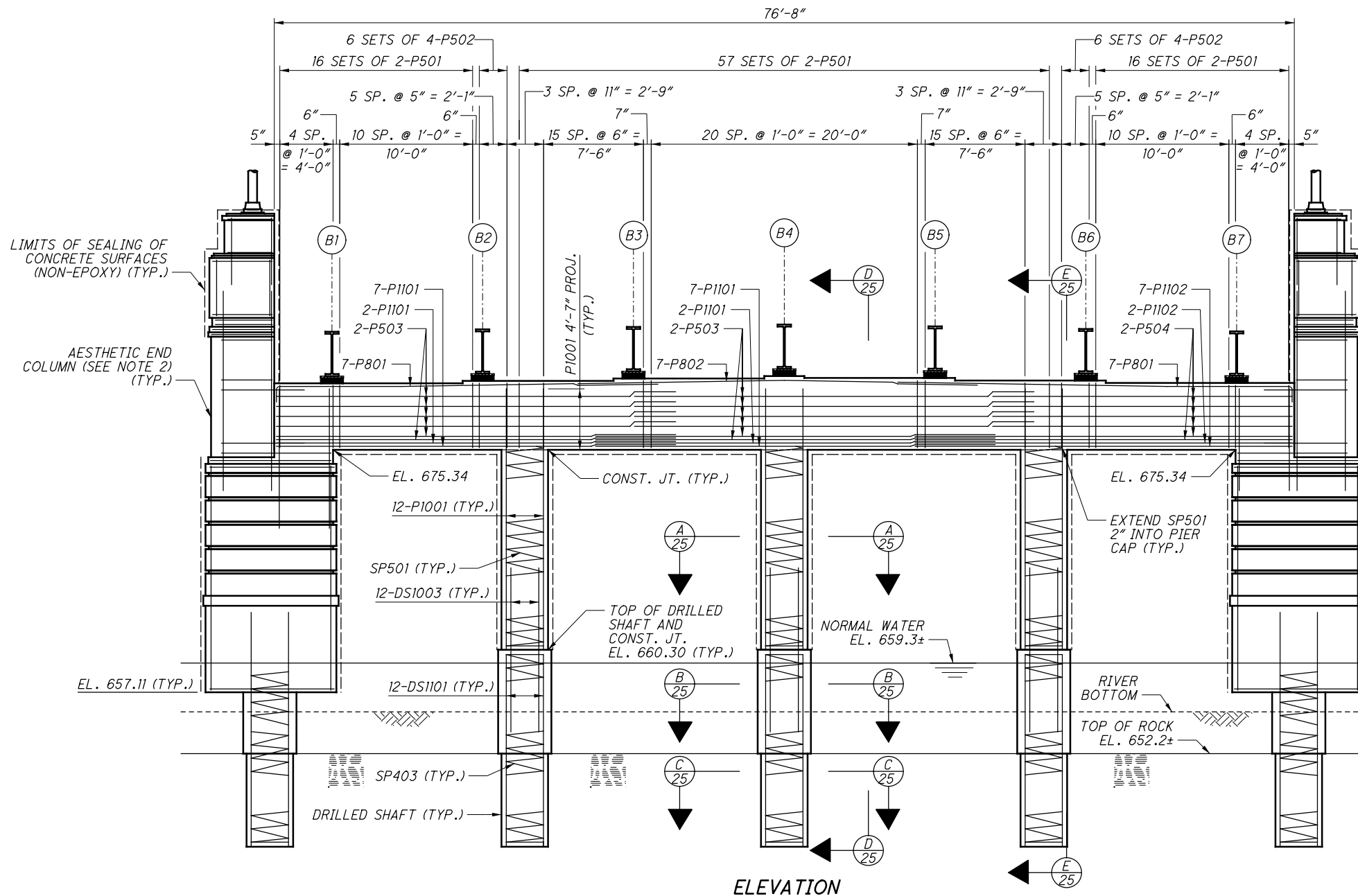


**SECTION D-D**

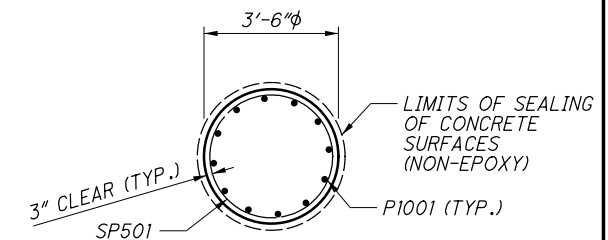


**SECTION E-E**

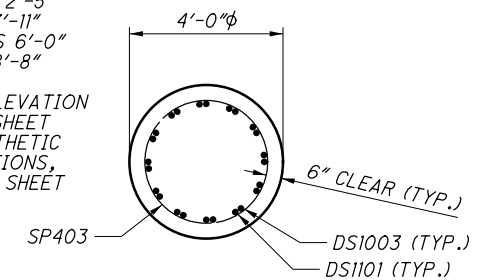
BEAM SEAT ELEVATION TABLE	
B1	680.34
B2	680.52
B3	680.70
B4	680.88
B5	680.74
B6	680.55
B7	680.37



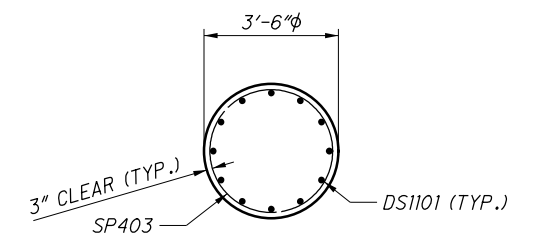
**ELEVATION**



**SECTION A-A**



**SECTION B-B**



**SECTION C-C**

**NOTES:**

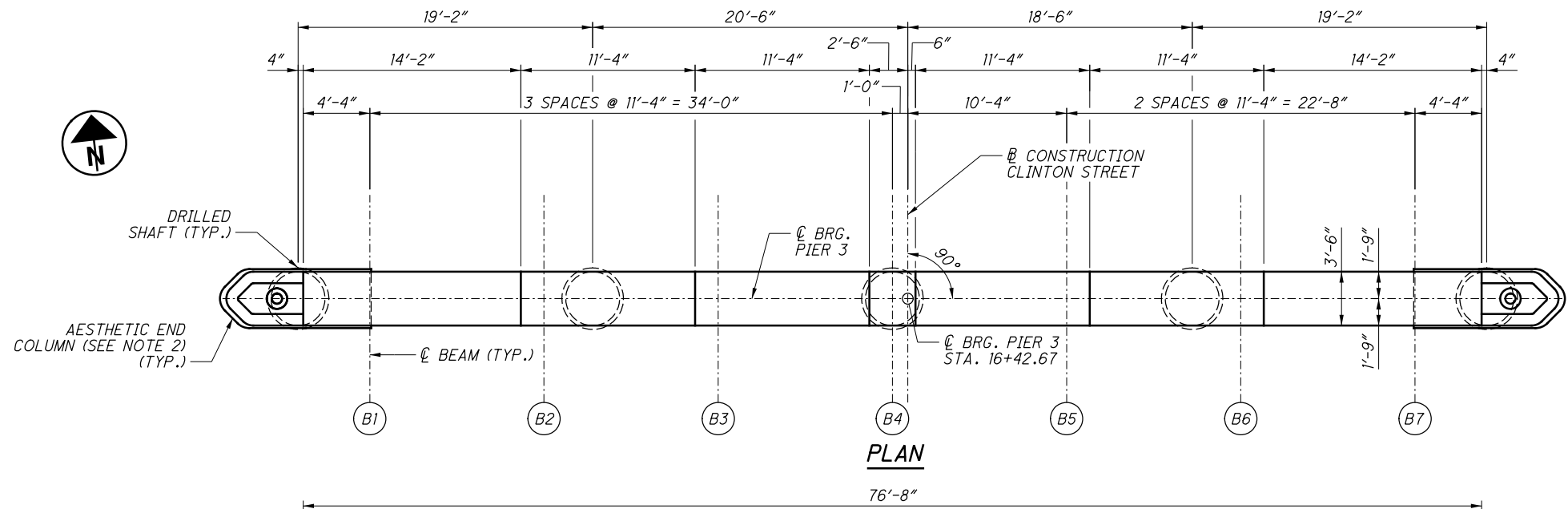
- MINIMUM BAR LAPS  
 LAP HORIZONTAL NO. 5 BARS 3'-1"  
 LAP VERTICAL NO. 5 STIRRUPS 2'-5"  
 LAP HORIZONTAL NO. 8 BARS 7'-11"  
 LAP VERTICAL NO. 10 & 11 BARS 6'-0"  
 LAP HORIZONTAL NO. 11 BARS 8'-8"
- FOR AESTHETIC END COLUMN ELEVATION SHOWING REINFORCEMENT SEE SHEET 29/54. FOR ADDITIONAL AESTHETIC END COLUMN DIMENSIONS, SECTIONS, ELEVATIONS, AND DETAILS SEE SHEET 30/54.

**LEGEND**

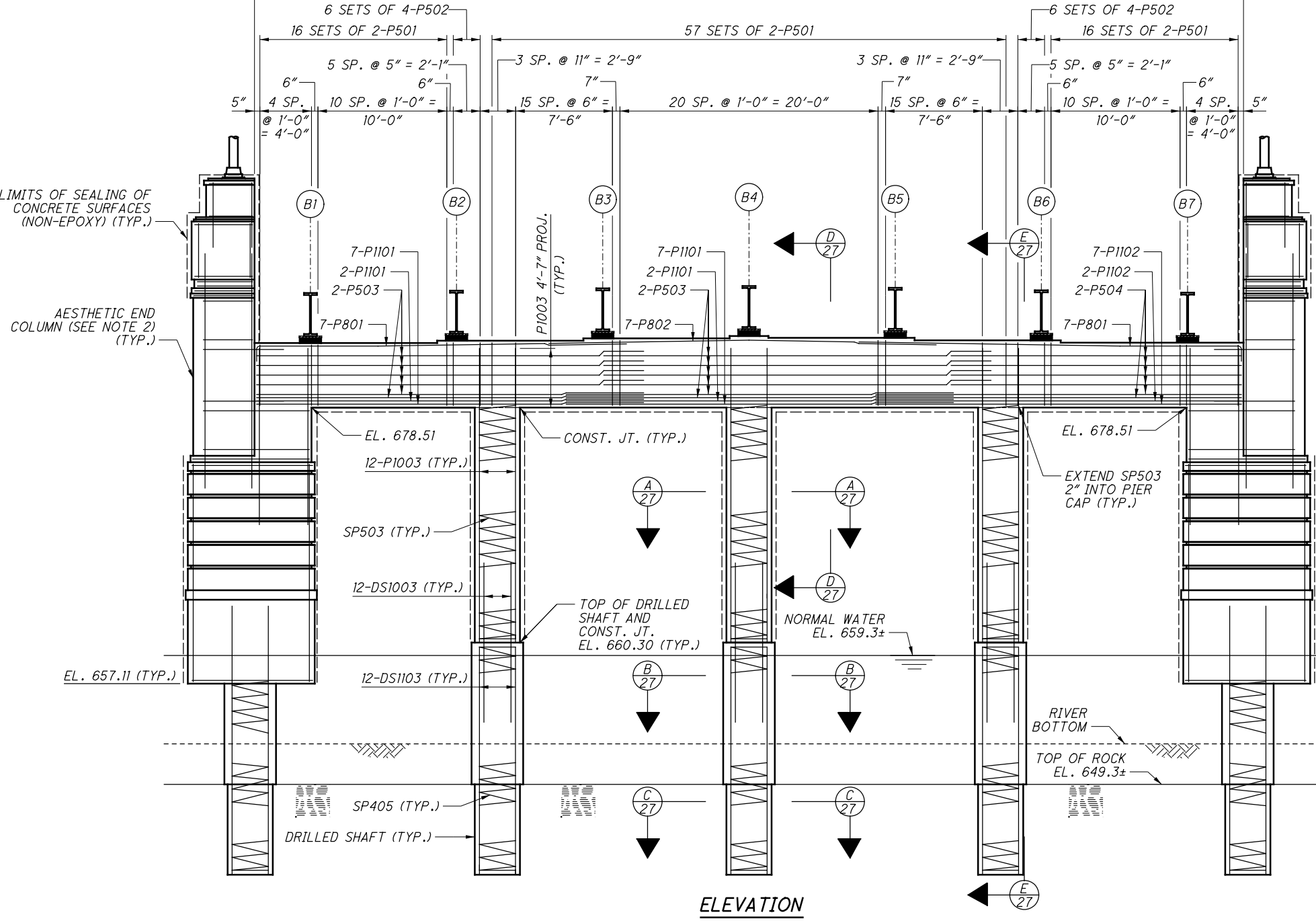
- TYP. - TYPICAL
- BRG. - BEARING
- STA. - STATION
- SP. - SPACES
- CONST. - CONSTRUCTION
- JT. - JOINT
- EL. - ELEVATION
- ES - EACH SIDE
- PROJ. - PROJECTION



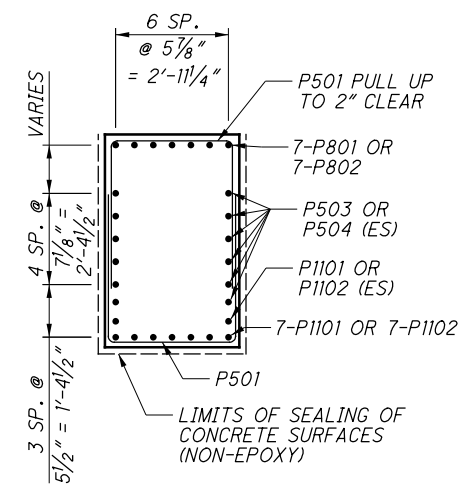
pw:\BncWise02\_na.int-bn.com:Projectwise\Documents\pr53411\def\96605\structures\DEF-15-1477\Sheets\PI003.dgn 8/29/2018 4:20:26 PM kochmm



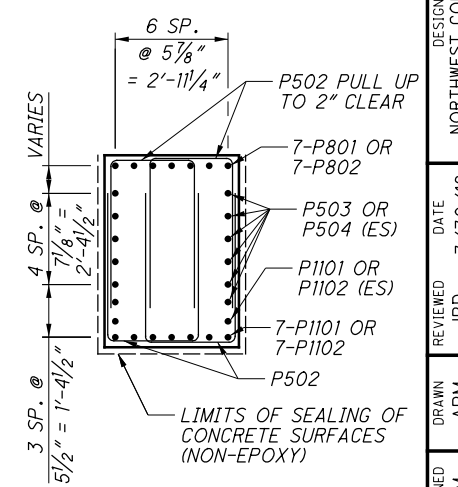
**PLAN**



**ELEVATION**



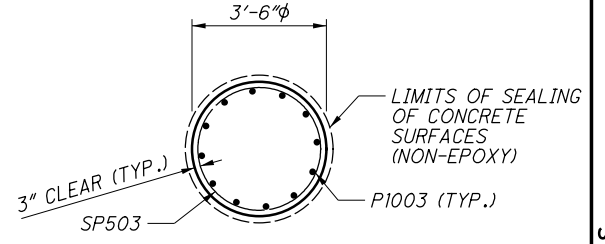
**SECTION D-D**



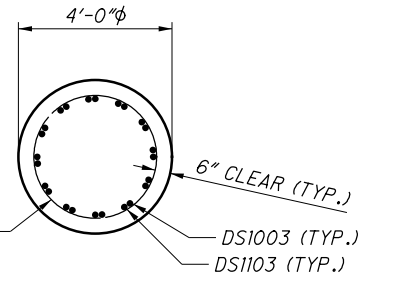
**SECTION E-E**

**BEAM SEAT ELEVATION TABLE**

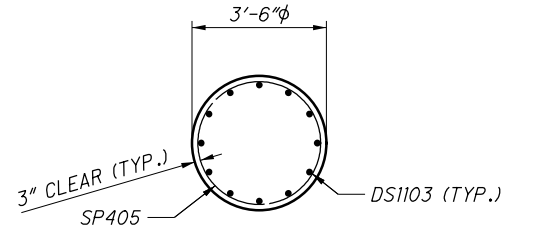
B1	683.51
B2	683.69
B3	683.87
B4	684.05
B5	683.90
B6	683.72
B7	683.54



**SECTION A-A**



**SECTION B-B**



**SECTION C-C**

**NOTES:**

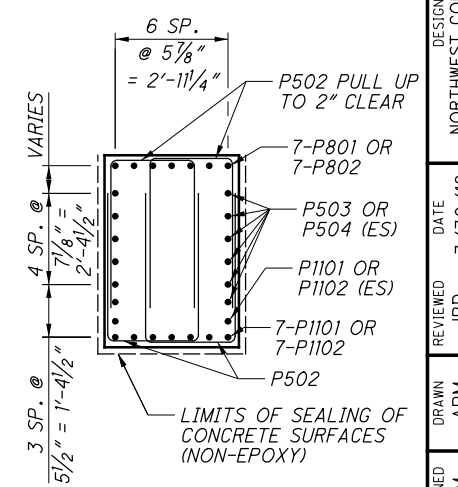
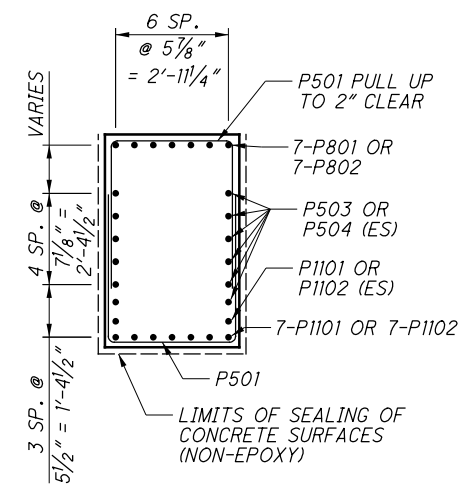
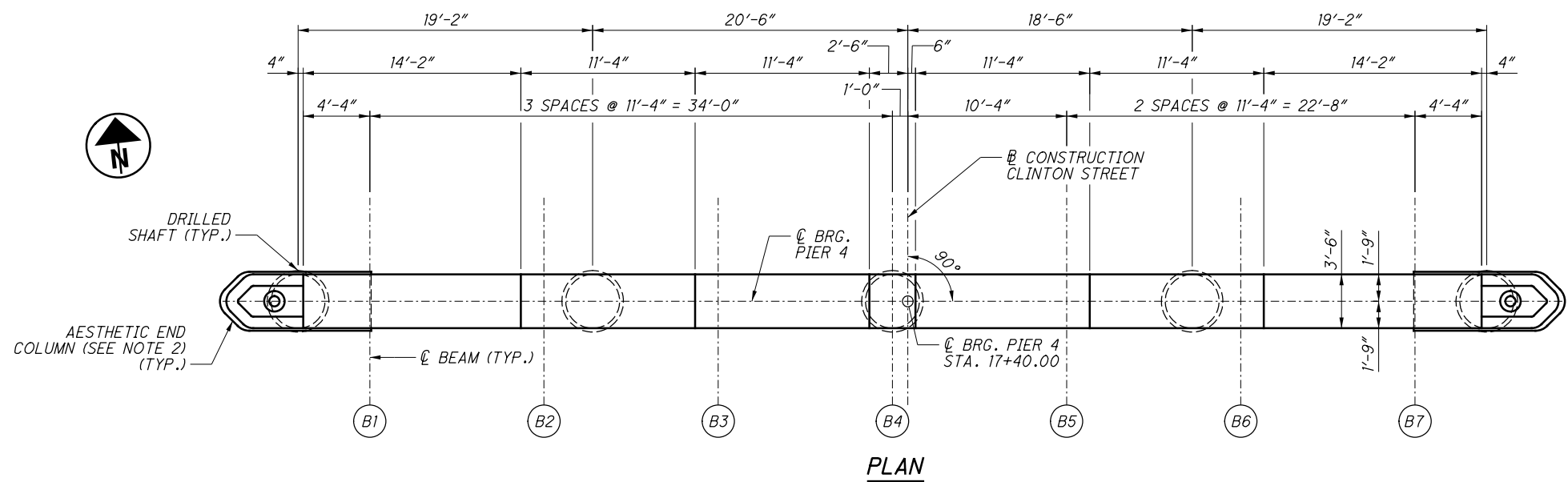
- MINIMUM BAR LAPS  
 LAP HORIZONTAL NO. 5 BARS 3'-1"  
 LAP VERTICAL NO. 5 STIRRUPS 2'-5"  
 LAP HORIZONTAL NO. 8 BARS 7'-11"  
 LAP VERTICAL NO. 10 & 11 BARS 6'-0"  
 LAP HORIZONTAL NO. 11 BARS 8'-8"
- FOR AESTHETIC END COLUMN ELEVATION SHOWING REINFORCEMENT SEE SHEET 29/54. FOR ADDITIONAL AESTHETIC END COLUMN DIMENSIONS, SECTIONS, ELEVATIONS, AND DETAILS SEE SHEET 30/54.

**LEGEND**

- TYP. - TYPICAL
- BRG. - BEARING
- STA. - STATION
- SP. - SPACES
- CONST. - CONSTRUCTION
- JT. - JOINT
- EL. - ELEVATION
- ES - EACH SIDE
- PROJ. - PROJECTION

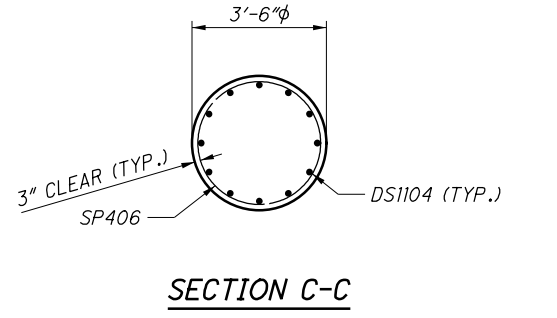
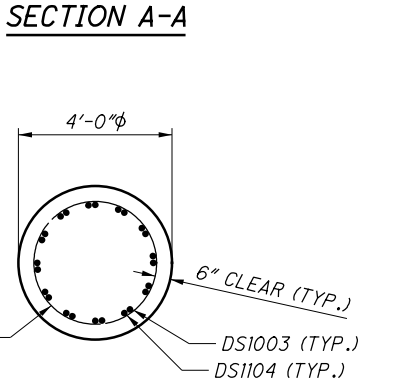
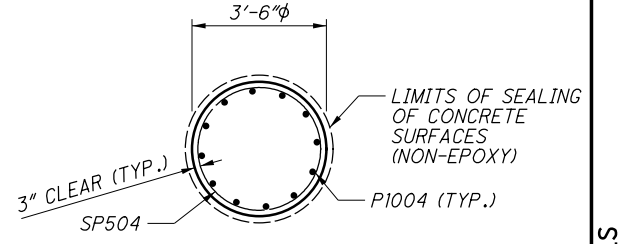
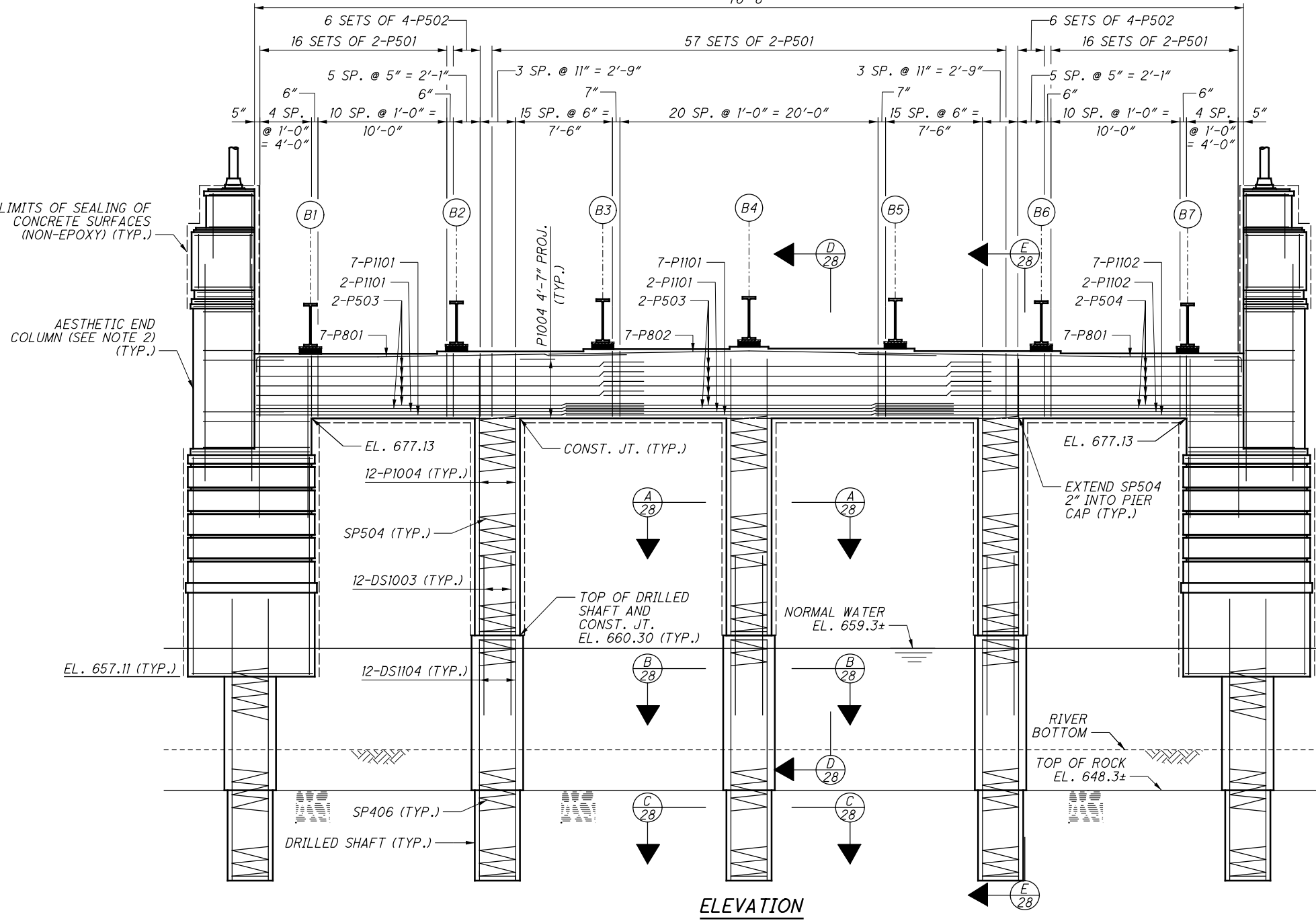
DESIGN AGENCY: NORTHWEST CONSULTANTS, INC.  
 3220 CENTRAL PARK WEST  
 TOLEDO, OHIO 43617  
 PHONE(419) 841-4704 FAX(419) 841-2879  
 DATE: 3/30/18  
 REVIEWED: JBD  
 DRAWN: APM  
 CHECKED: TTN  
 STRUCTURE FILE NUMBER: 2000572  
**PIER 3 DETAILS**  
 BRIDGE NO. DEF-15-1477  
 CLINTON STREET OVER THE MAUMEE RIVER  
**DEF-15-14.77**  
 PID No. 96605  
 27/54  
 187  
 231

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**BEAM SEAT ELEVATION TABLE**

B1	682.13
B2	682.31
B3	682.49
B4	682.67
B5	682.52
B6	682.34
B7	682.16



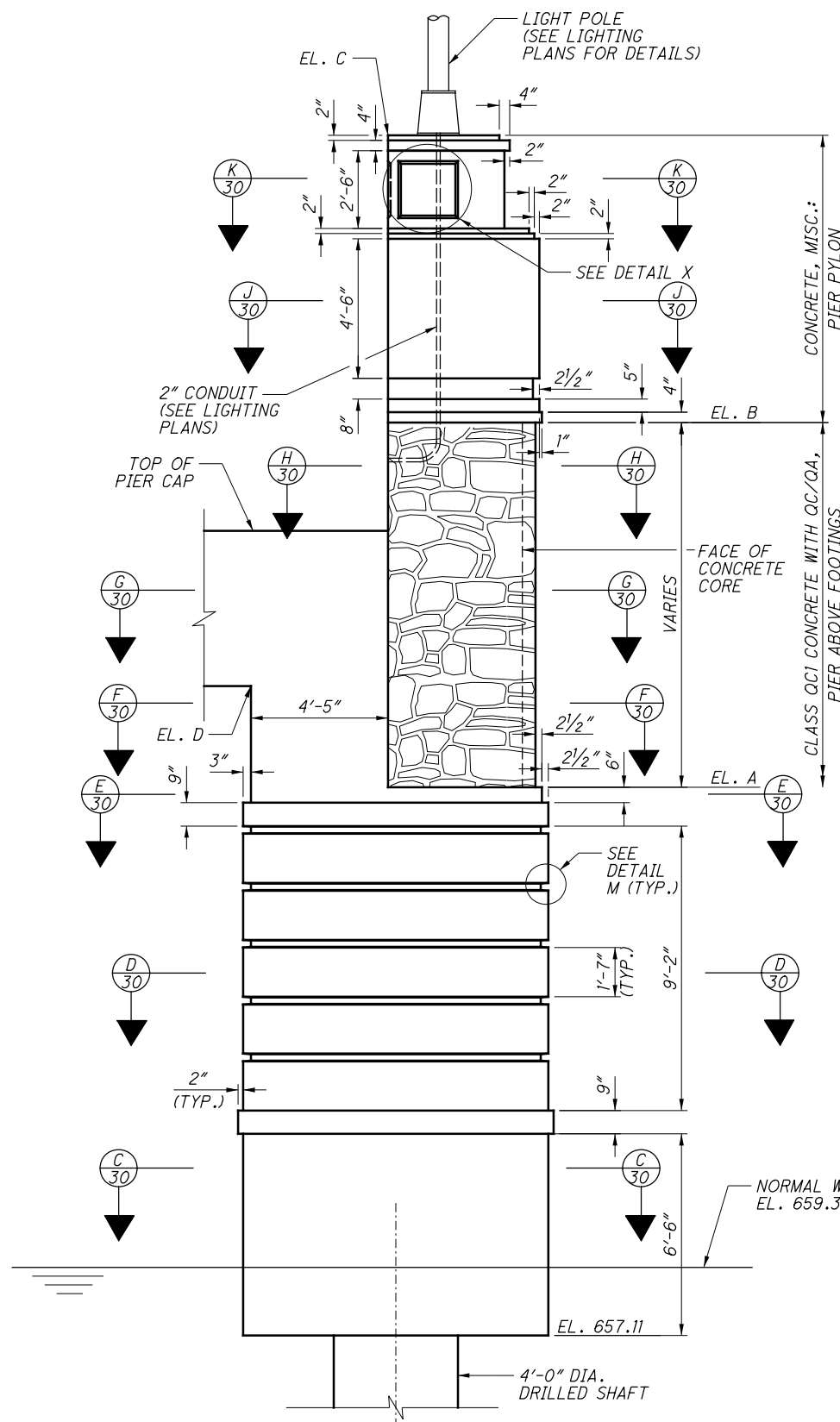
- NOTES:**
- MINIMUM BAR LAPS  
LAP HORIZONTAL NO. 5 BARS 3'-1"  
LAP VERTICAL NO. 5 STIRRUPS 2'-5"  
LAP HORIZONTAL NO. 8 BARS 7'-11"  
LAP VERTICAL NO. 10 & 11 BARS 6'-0"  
LAP HORIZONTAL NO. 11 BARS 8'-8"
  - FOR AESTHETIC END COLUMN ELEVATION SHOWING REINFORCEMENT SEE SHEET 29/54. FOR ADDITIONAL AESTHETIC END COLUMN DIMENSIONS, SECTIONS, ELEVATIONS, AND DETAILS SEE SHEET 30/54.

- LEGEND**
- TYP. - TYPICAL
  - BRG. - BEARING
  - STA. - STATION
  - SP. - SPACES
  - CONST. - CONSTRUCTION
  - JT. - JOINT
  - EL. - ELEVATION
  - ES - EACH SIDE
  - PROJ. - PROJECTION

DESIGN AGENCY: NORTHWEST CONSULTANTS, INC.  
 3220 CENTRAL PARK WEST  
 TOLEDO, OHIO 43617  
 PHONE(419) 841-4704 FAX(419) 841-2878  
 DATE: 3/30/18  
 REVIEWED: JBD  
 DRAWN: APM  
 CHECKED: TTN  
 STRUCTURE FILE NUMBER: 2000572  
**PIER 4 DETAILS**  
 BRIDGE NO. DEF-15-1477  
 CLINTON STREET OVER THE MAUMEE RIVER  
**DEF-15-14.77**  
**PID No. 96605**  
 28/54  
 188  
 231



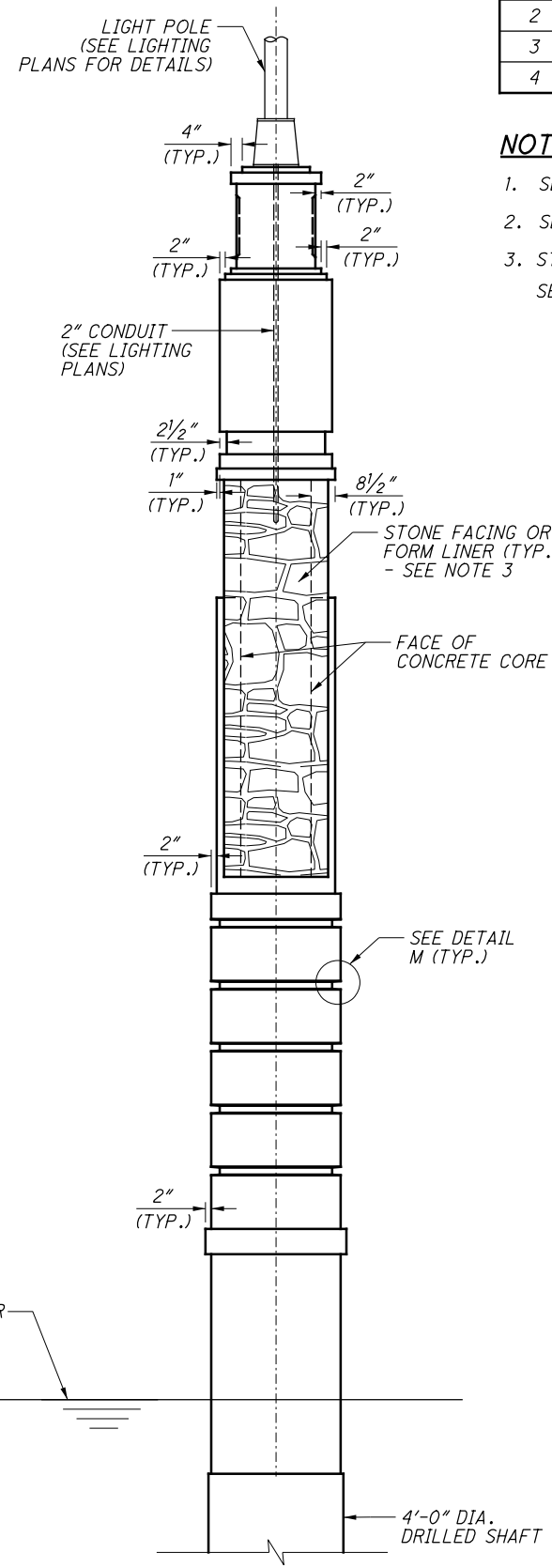
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**TYPICAL PARTIAL PIER ELEVATION**  
(SUPERSTRUCTURE NOT SHOWN)

**LEGEND:**

- C.J. = CONSTRUCTION JOINT
- P. = PIER
- P.C. = POINT OF CURVATURE
- R = RADIUS
- W.P. = WORK POINT

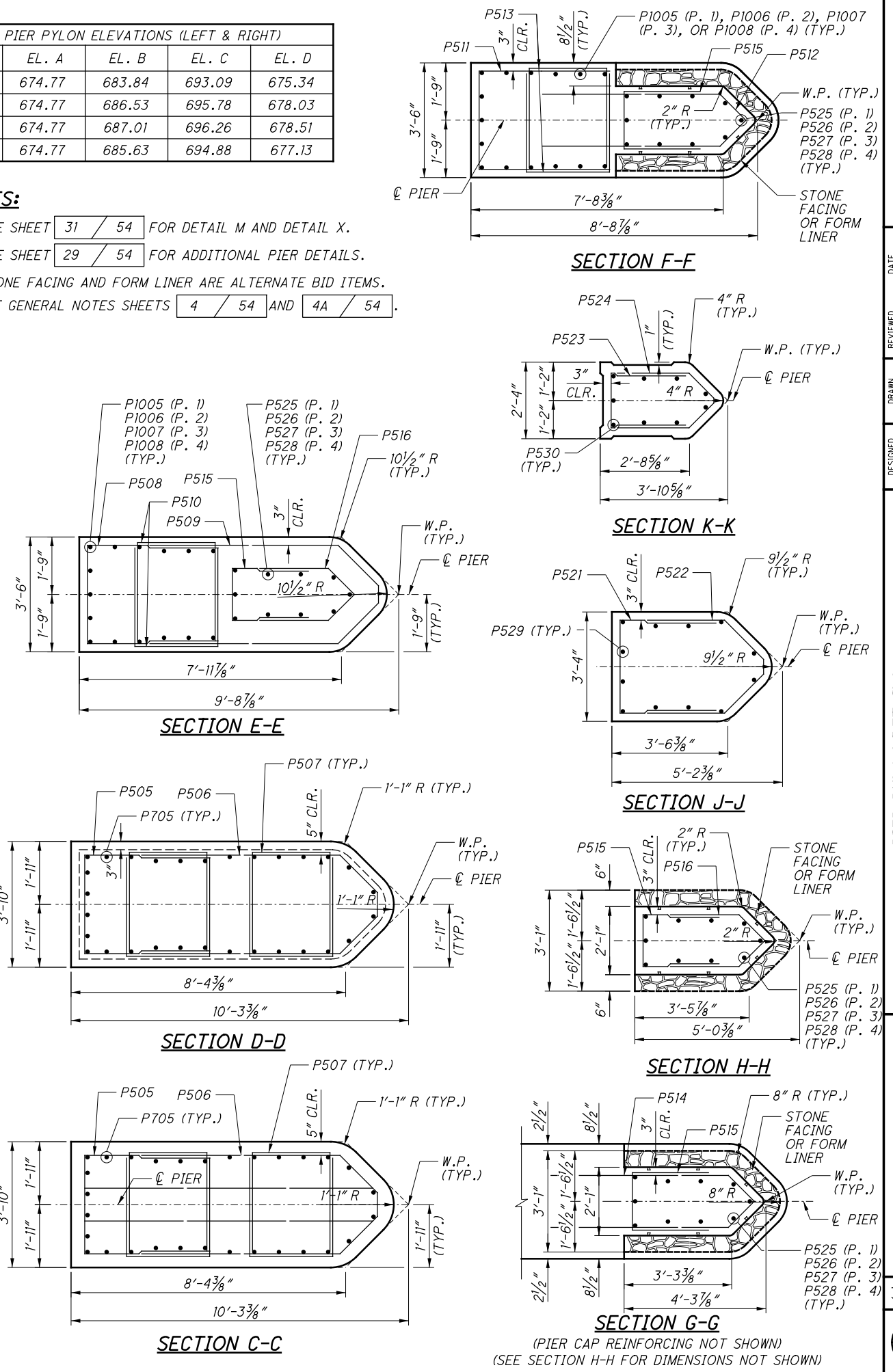


**TYPICAL PIER SIDE VIEW**  
(SUPERSTRUCTURE NOT SHOWN)

PIER PYLON ELEVATIONS (LEFT & RIGHT)				
PIER	EL. A	EL. B	EL. C	EL. D
1	674.77	683.84	693.09	675.34
2	674.77	686.53	695.78	678.03
3	674.77	687.01	696.26	678.51
4	674.77	685.63	694.88	677.13

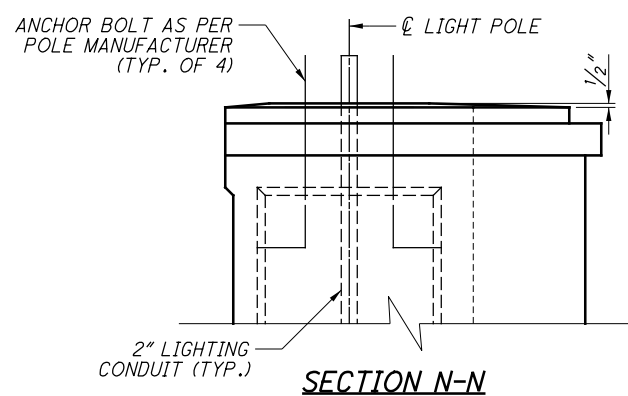
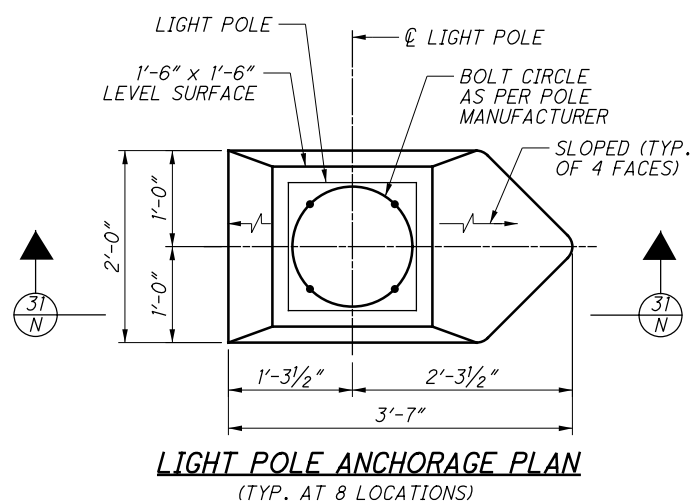
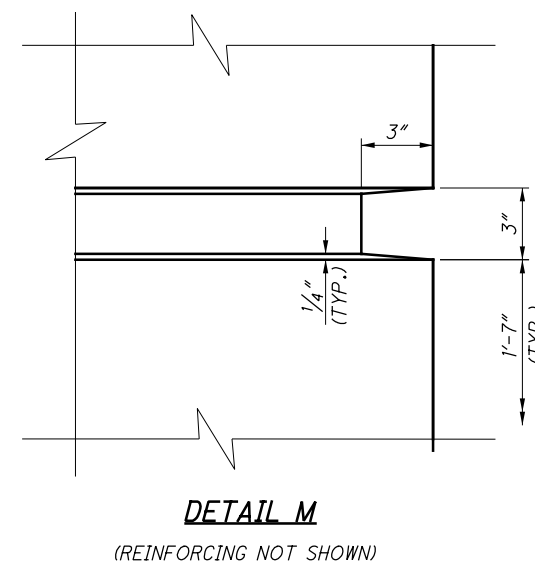
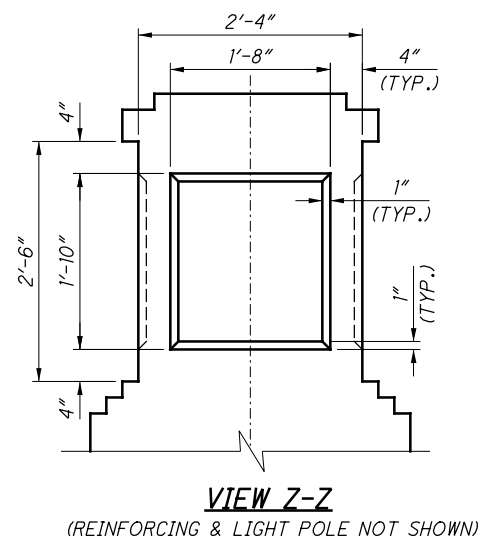
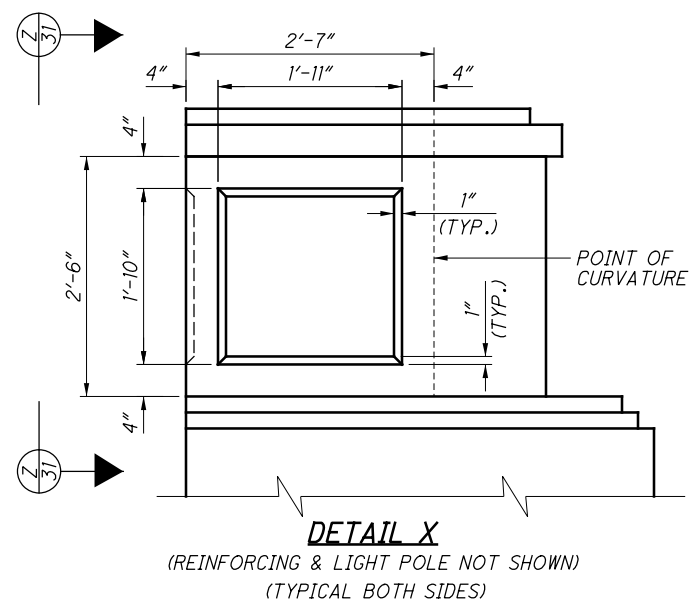
**NOTES:**

1. SEE SHEET 31 / 54 FOR DETAIL M AND DETAIL X.
2. SEE SHEET 29 / 54 FOR ADDITIONAL PIER DETAILS.
3. STONE FACING AND FORM LINER ARE ALTERNATE BID ITEMS. SEE GENERAL NOTES SHEETS 4 / 54 AND 4A / 54.





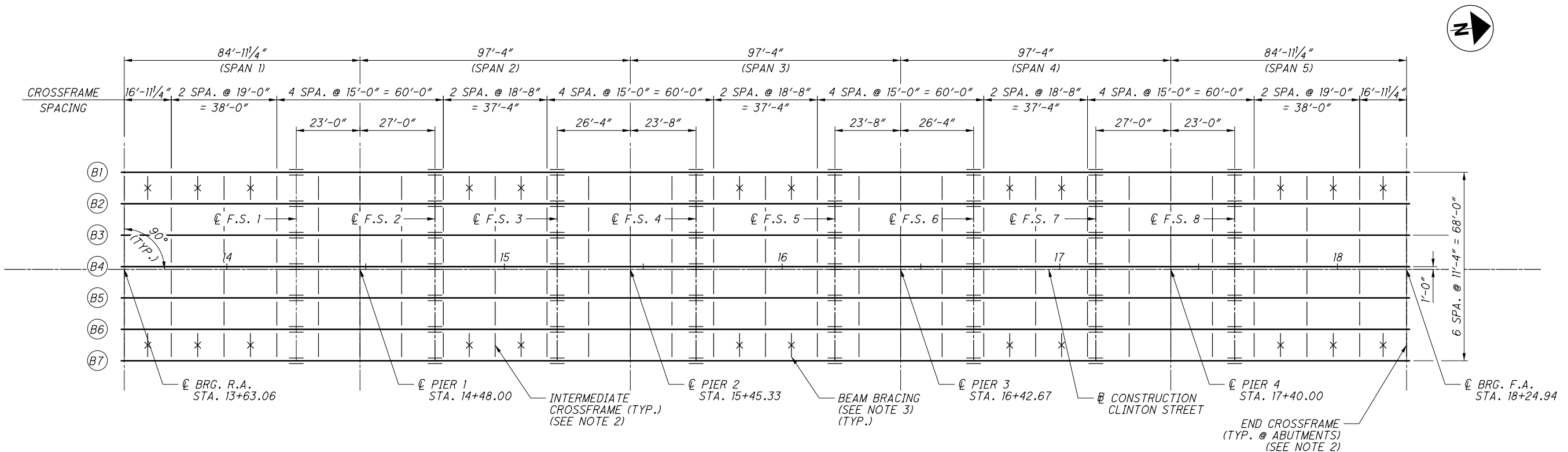
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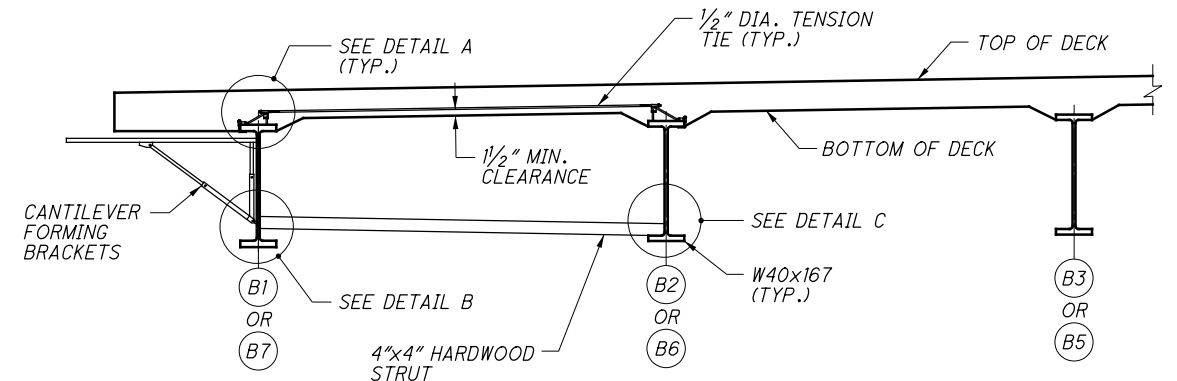
**NOTES:**

1. SEE LIGHTING PLANS FOR ADDITIONAL LIGHT POLE AND CONDUIT DETAILS.

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**FRAMING PLAN**



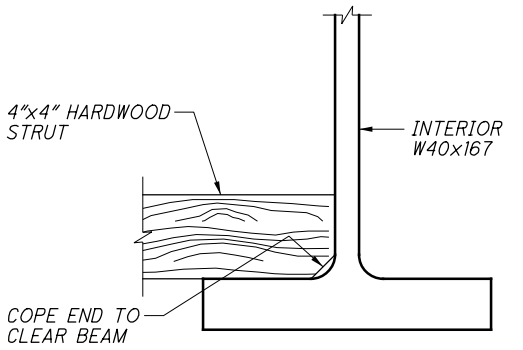
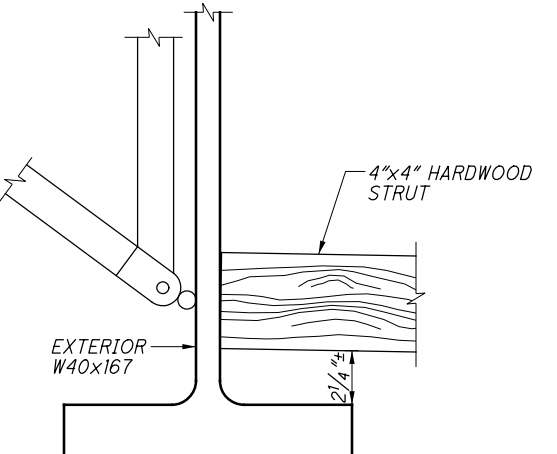
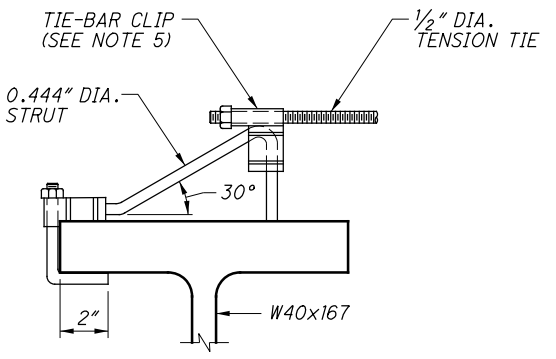
**BEAM BRACING FOR DECK SLAB PLACEMENT**

**LEGEND:**

- B# = BEAM NUMBER
- F.A. = FORWARD ABUTMENT
- F.S. = FIELD SPLICE
- R.A. = REAR ABUTMENT

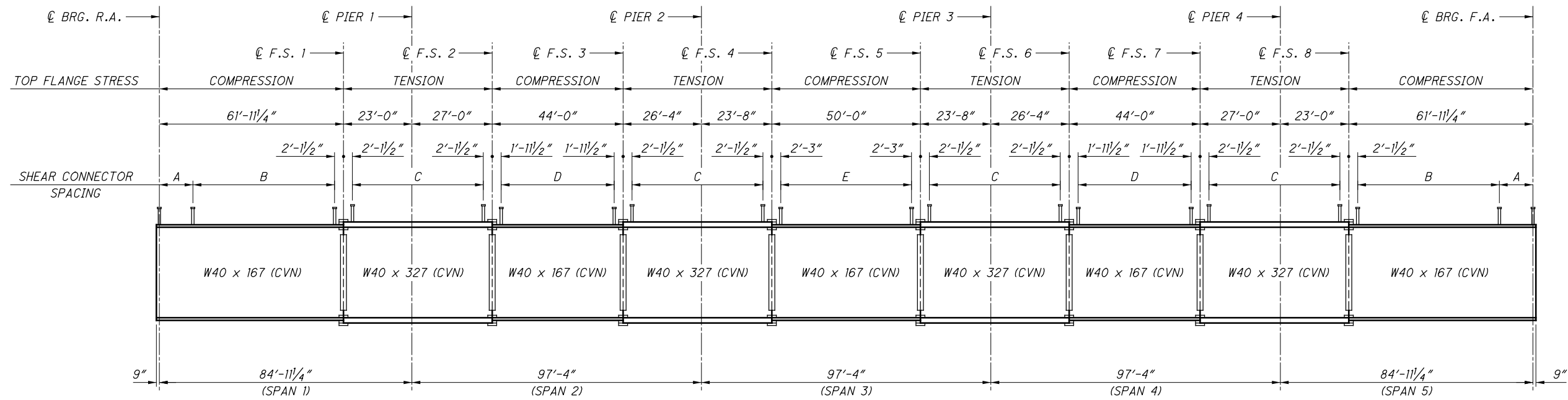
**NOTES:**

1. ALL DIMENSIONS ARE HORIZONTAL.
2. SEE ODOT STANDARD DRAWING GSD-1-96 FOR INTERMEDIATE AND END CROSSFRAME DETAILS. USE TYPE 3 OR TYPE 4 INTERMEDIATE CROSSFRAMES AS SHOWN IN THE STANDARD DRAWING. THE ESTIMATED QUANTITY FOR STRUCTURAL STEEL IS BASED ON THE USE OF TYPE 3 INTERMEDIATE CROSSFRAMES.
3. BEAM BRACING SHALL BE SPACED MIDSPAN BETWEEN INTERMEDIATE CROSSFRAMES. THE UNIT BID PRICE INCLUDES ALL MATERIALS, LABOR, AND INCIDENTALS NECESSARY TO FURNISH AND INSTALL THE BEAM BRACING. PAYMENT WILL BE INCLUDED WITH ITEM 513, STRUCTURAL STEEL, MISC.: BEAM BRACING.
4. THE TENSION TIE BARS SHALL BE PLACED PERPENDICULAR TO THE BEAMS. THE TENSION TIE BARS SHALL HAVE A MINIMUM OF 1/2" INCH COVER AND SHALL BE PLACED AT OR BELOW THE LEVEL OF THE TOP LAYER OF REINFORCING STEEL IN THE DECK SLAB. THE TENSION TIE BARS SHALL BE A MINIMUM OF #4 EPOXY COATED REINFORCING STEEL BARS WITH THREADED ENDS OR 1/2" DIAMETER GALVANIZED ALL-THREAD. TENSION TIE BARS SHALL BE ATTACHED TO THE TOP FLANGES OF THE BEAMS WITH EPOXY COATED TIE-BAR CLIPS. NO WELDING TO THE TOP FLANGES OF THE BEAMS WILL BE PERMITTED. THE STRUT BRACING SHALL BE COMPOSED OF 4" X 4" HARDWOOD OR A MATERIAL OF AN EQUIVALENT STRENGTH. THE STRUTS SHALL BE PLACED AT EACH TENSION TIE BAR LOCATION AND WEDGED AGAINST THE WEB OF THE BEAMS WITHIN 4" OF THE BOTTOM FLANGE. ALL ADDITIONAL STEEL COMPONENTS SHALL BE GALVANIZED ACCORDING TO 711.02.
5. CLIPS SHALL BE C67 TIE BAR BEAM CLIP PRE-STRESS HANGER MANUFACTURED BY DAYTON SUPERIOR OR EQUIVALENT.

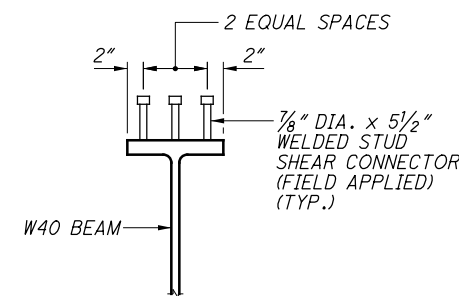


DATE	10/25/17
REVIEWED	JCS
STRUCTURE FILE NUMBER	2000572
DRAWN	TTK
RE-USED	
DESIGNED	TTK
CHECKED	MAB

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**BEAM ELEVATION**



**SHEAR CONNECTOR DETAIL**

**LEGEND:**

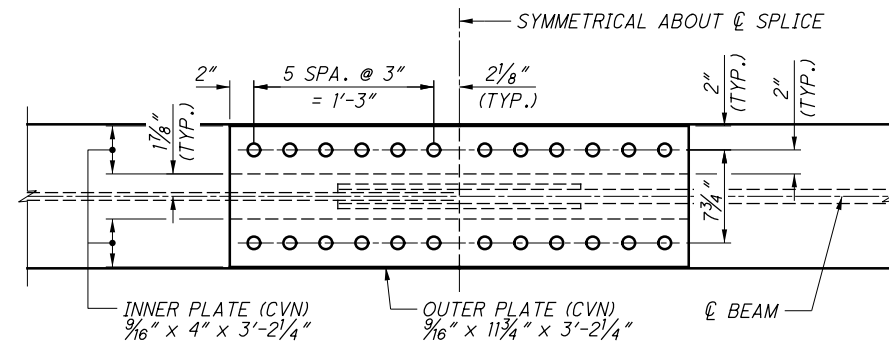
F.A. = FORWARD ABUTMENT  
 F.S. = FIELD SPLICE  
 R.A. = REAR ABUTMENT

**NOTES:**

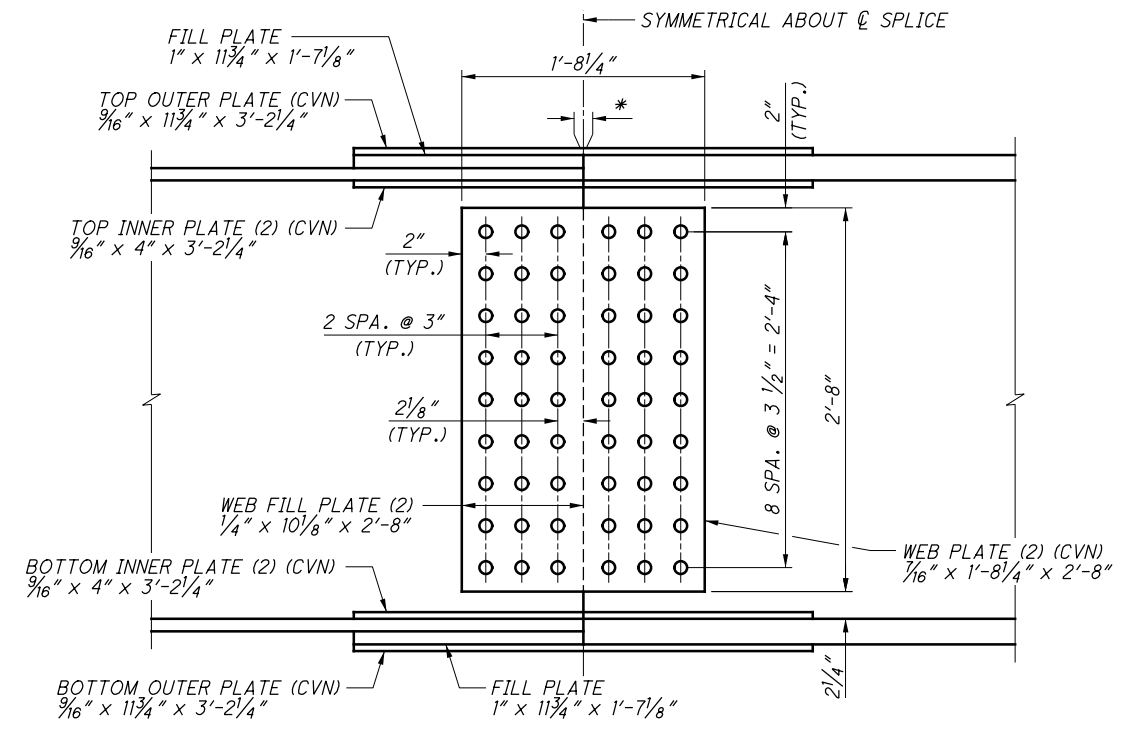
- ALL DIMENSIONS ARE HORIZONTAL AND REQUIRE ADJUSTMENT FOR CAMBER AND FINISHED GRADE.
- WHERE A SHAPE OR PLATE IS DESIGNATED (CVN), FURNISH MATERIAL THAT MEETS THE MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN 711.01.
- WELD ATTACHMENT OF SUPPORTS FOR CONCRETE DECK FINISHING MACHINE TO AREAS OF THE FASCIA BEAM FLANGES DESIGNATED "COMPRESSION". DO NOT WELD ATTACHMENTS TO AREAS DESIGNATED "TENSION". FILLET WELDS TO COMPRESSION FLANGES SHALL BE AT LEAST 1" FROM EDGE OF FLANGE, BE NO MORE THAN 2" LONG, AND BE AT LEAST 1/4" FOR THICKNESSES UP TO 3/4" OR 5/16" FOR GREATER THAN 3/4".
- SEE SHEET 38 / 54 FOR PAINTING REQUIREMENTS.

SHEAR CONNECTOR SPACING					
BEAM	A	B	C	D	E
1 - 7	18 SPA. @ 7 1/2" = 11'-3"	63 SPA. @ 9 1/4" = 48'-6 3/4"	61 SPA. @ 9" = 45'-9"	52 SPA. @ 9 1/4" = 40'-1"	56 SPA. @ 9 3/4" = 45'-6"

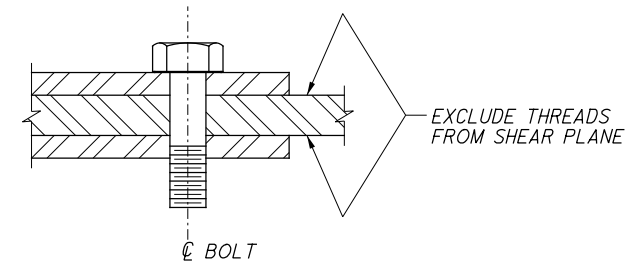
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**FLANGE SPLICE**  
(FIELD SPLICE 1, 3, 5 & 7 SHOWN)  
(FIELD SPLICE 2, 4, 6 & 8 SIMILAR)



**WEB SPLICE**  
(FIELD SPLICE 1, 3, 5 & 7 SHOWN)  
(FIELD SPLICE 2, 4, 6 & 8 SIMILAR)



**DETAIL C**  
(NOT TO SCALE)

**NOTES:**

1. WHERE A SHAPE OR PLATE IS DESIGNATED (CVN), FURNISH MATERIAL THAT MEETS THE MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN 711.01.
2. STRUCTURAL STEEL FOR SPLICE PLATES SHALL BE ASTM A709, GRADE 50W (CVN) FOR ALL FIELD SPLICES.
3. HIGH STRENGTH BOLTS SHALL BE 1" DIAMETER.
4. ALL BOLTS, NUTS AND WASHERS SHALL BE ASTM A325 TYPE III (WEATHERING), EXCEPT AT FASCIA BEAMS WHERE ALL BOLTS, NUTS AND WASHERS SHALL BE ASTM A325 TYPE I (GALVANIZED).
5. EXCLUDE BOLT THREADS FROM THE SHEAR PLANES (SEE DETAIL C).

**LEGEND:**

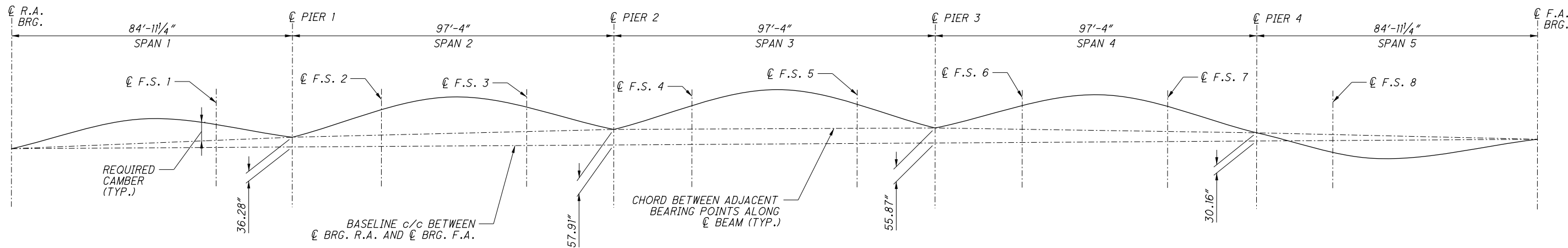
\* = 1/4" MAXIMUM OPENING FOR WEB AND FLANGES

DESIGNED	TTK	CHECKED	MAB
DRAWN	TTK	REVISED	
REVIEWED	JCS	STRUCTURE FILE NUMBER	2000572
DATE	10/25/17		

**FIELD SPLICE DETAILS**  
BRIDGE NO. DEF-15-1477  
CLINTON STREET OVER THE MAUMEE RIVER

DEF - 15 - 14.77  
PID No. 96605

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**CAMBER AND BLOCKING DIAGRAM**  
(NOT TO SCALE)

**NOTES:**

1. POSITIVE CAMBER VALUES INDICATE CAMBER ABOVE CHORD BETWEEN ADJACENT BEARINGS. NEGATIVE CAMBER VALUES INDICATE CAMBER BELOW CHORD BETWEEN ADJACENT BEARINGS.
2. ALL CHORDS REFERENCED TO TOP OF WEB.

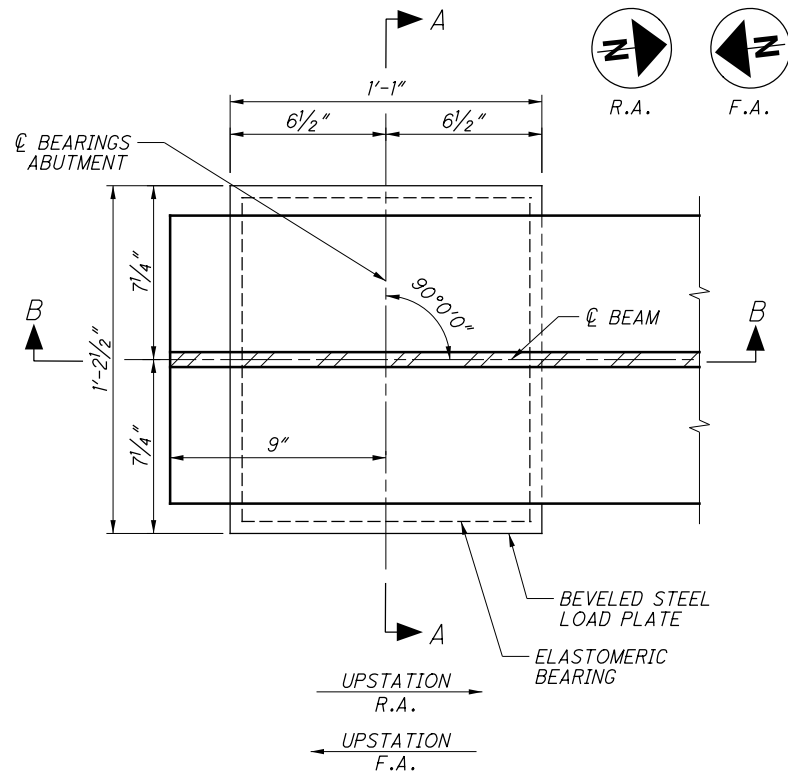
**LEGEND:**

- B# = BEAM NUMBER
- BRG. = BEARING
- F.A. = FORWARD ABUTMENT
- F.S. = FIELD SPLICE
- R.A. = REAR ABUTMENT
- A = DEFLECTION DUE TO WEIGHT OF STEEL
- B = DEFLECTION DUE TO REMAINING DEAD LOAD
- C = ADJUSTMENT FOR VERTICAL CURVE
- D = TOTAL (REQUIRED SHOP CAMBER)

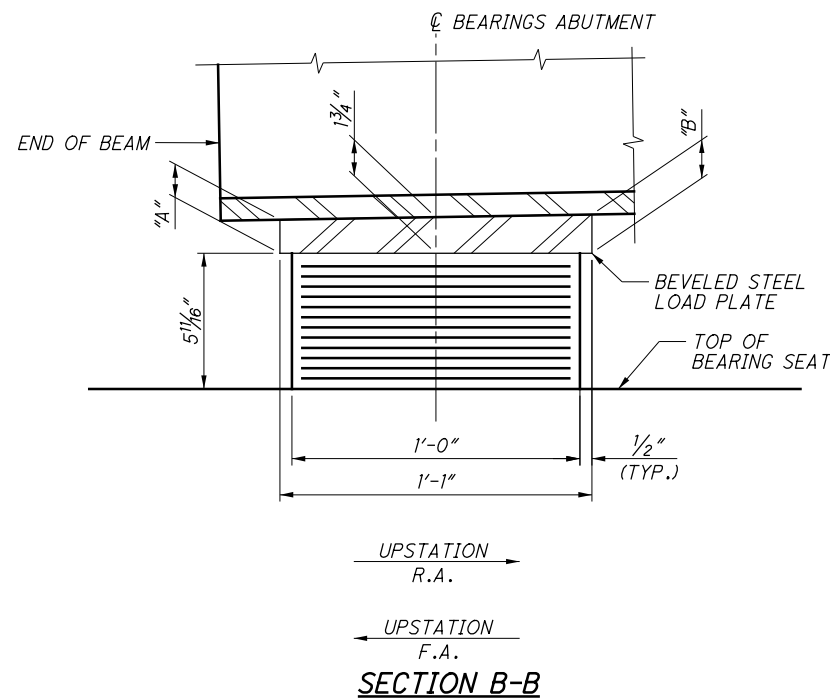
**CAMBER TABLE (VALUES IN INCHES)**

BEAM NUMBER	C/BRG. R.A.	SPAN 1					C/PIER 1	SPAN 2					C/PIER 2	SPAN 3					C/PIER 3	SPAN 4					C/PIER 4	SPAN 5					C/BRG. F.A.
		0.25 SPAN	0.5 SPAN	F.S. 1	0.75 SPAN	0.25 SPAN		F.S. 2	0.5 SPAN	F.S. 3	0.75 SPAN	F.S. 4		0.25 SPAN	0.5 SPAN	0.75 SPAN	F.S. 5	0.25 SPAN		F.S. 6	0.5 SPAN	F.S. 7	0.75 SPAN	0.25 SPAN		F.S. 8	0.5 SPAN	0.75 SPAN			
B1-B7	A	0	0.26	0.31	0.16	0.15	0	0.07	0.09	0.17	0.10	0.09	0	0.13	0.13	0.24	0.13	0.13	0	0.09	0.10	0.17	0.09	0.07	0	0.15	0.16	0.31	0.26	0	
	B	0	1.68	2.00	1.06	0.96	0	0.33	0.41	0.86	0.49	0.44	0	0.76	0.79	1.44	0.79	0.76	0	0.44	0.50	0.86	0.41	0.33	0	0.96	1.06	2.00	1.68	0	
	C	0	0.65	1.28	1.25	1.20	0	2.22	2.37	2.96	2.34	2.22	0	2.18	2.22	2.96	2.22	2.18	0	2.22	2.34	2.96	2.37	2.22	0	-1.21	-1.37	-2.77	-2.41	0	
	D	0	2.59	3.59	2.47	2.31	0	2.62	2.87	3.99	2.93	2.75	0	3.07	3.14	4.64	3.14	3.07	0	2.75	2.94	3.99	2.87	2.62	0	-0.10	-0.15	-0.46	-0.47	0	

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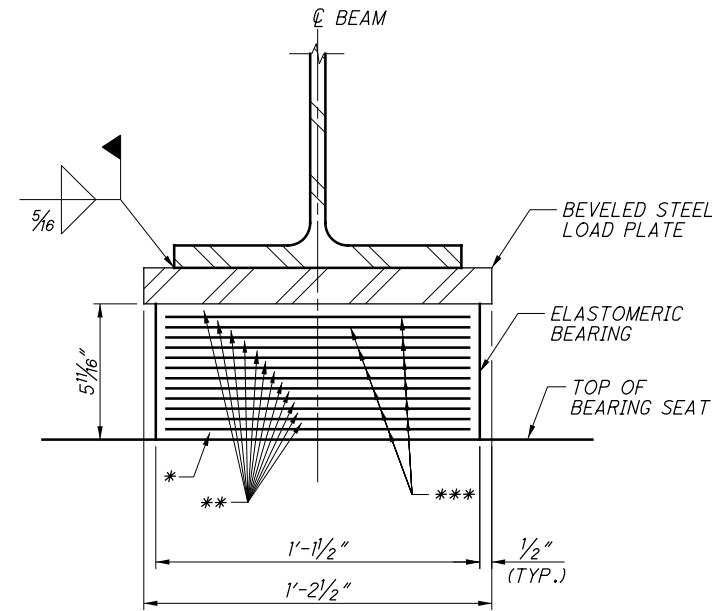


**ABUTMENT BEARING PLAN**  
(EXPANSION)



**SECTION B-B**

LOAD PLATE BEVEL DIMENSIONS		
	DIM. "A"	DIM. "B"
R.A.	1 7/16"	2 1/16"
F.A.	1 1/16"	1 3/16"



**SECTION A-A**

- \* = 1 EXTERNAL ELASTOMER LAYERS  
THICKNESS = 0.264"
- \*\* = 12 INTERNAL ELASTOMER LAYERS  
THICKNESS = 0.377"
- \*\*\* = 12 INTERNAL STEEL LAMINATES  
THICKNESS = 0.0747"

**LEGEND:**

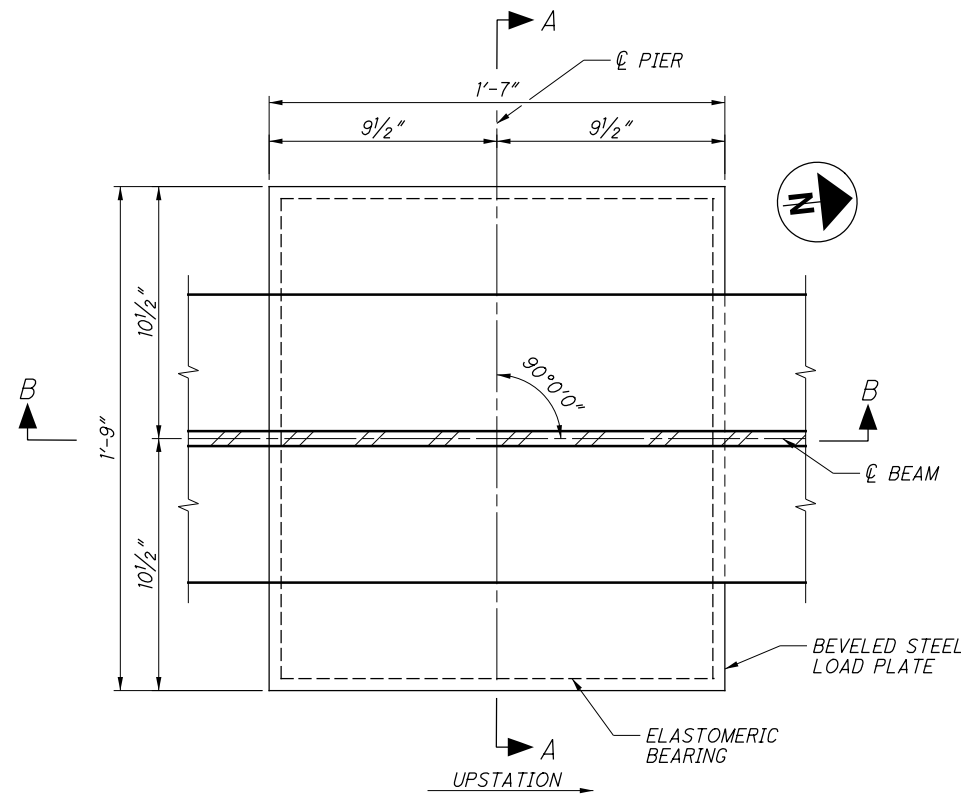
F.A. = FORWARD ABUTMENT  
 R.A. = REAR ABUTMENT

**NOTES:**

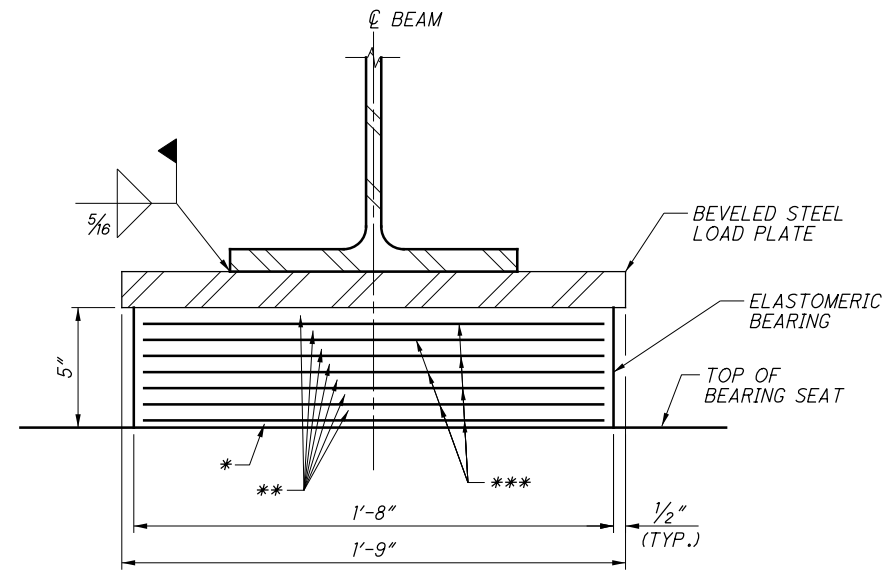
1. ABUTMENT ELASTOMERIC BEARINGS: THE ELASTOMER SHALL HAVE A HARDNESS OF 50 DUROMETER. THE BEARINGS WERE DESIGNED IN ACCORDANCE WITH SECTION 14.7.5 (METHOD B) OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS. PERFORM THE LONG-TERM COMPRESSION PROOF LOAD TEST IN ACCORDANCE WITH THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, DIVISION II, SECTION 18.7.2.6 AND 18.7.4.5.
2. PIER ELASTOMERIC BEARINGS: 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.
3. LOAD PLATES: SHOP MARK THE LOAD PLATES WITH THE FOLLOWING INFORMATION: TOP, UPSTATION DIRECTION, AND SUBSTRUCTURE LOCATION (R.A., PIER 1, 2, 3, 4 OR F.A.). ALL MARKS SHALL BE PERMANENT AND BE VISIBLE AFTER THE BEARING IS INSTALLED. THE BEVELED STEEL LOAD PLATES SHALL BE ASTM A709 GRADE 50W STRUCTURAL STEEL. VULCANIZE THE BEVELED STEEL LOAD PLATE TO THE ELASTOMER DURING THE MOLDING PROCESS.
4. ANCHOR RODS: THE ANCHOR RODS AT PIER 2 SHALL BE ASTM F1554, GRADE 105, GALVANIZED ACCORDING TO 711.02. HEAVY HEX NUTS SHALL BE ASTM A563 GRADE DH OR DH3, GALVANIZED ACCORDING TO 711.02, AND LUBRICATED WITH A LUBRICANT CONTAINING A VISIBLE DYE. ANCHOR RODS SHALL BE CAST-IN-PLACE. DRILLING AND GROUTING WILL NOT BE PERMITTED.
5. DESIGN LOADING: BEARINGS ARE DESIGNED FOR THE FOLLOWING SERVICE LOADS (KIPS):
 

	ABUTMENTS	PIERS 1, 3 & 4	PIER 2
DEAD LOAD	81	273	253
LIVE LOAD W/O IMPACT	90	169	166
TOTAL DESIGN LOAD	171	442	419
6. BASIS OF PAYMENT: THE UNIT BID PRICE INCLUDES ALL MATERIALS, LABOR, TESTING, AND INCIDENTALS NECESSARY TO FURNISH AND INSTALL LAMINATED ELASTOMERIC BEARINGS INCLUDING BEVELED STEEL LOAD PLATES AND ANCHOR RODS (PIER 2 ONLY). PAYMENT WILL BE INCLUDED WITH THE APPROPRIATE 516 ITEM.

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**PIER EXPANSION BEARING PLAN**  
(PIERS 1, 3, & 4)



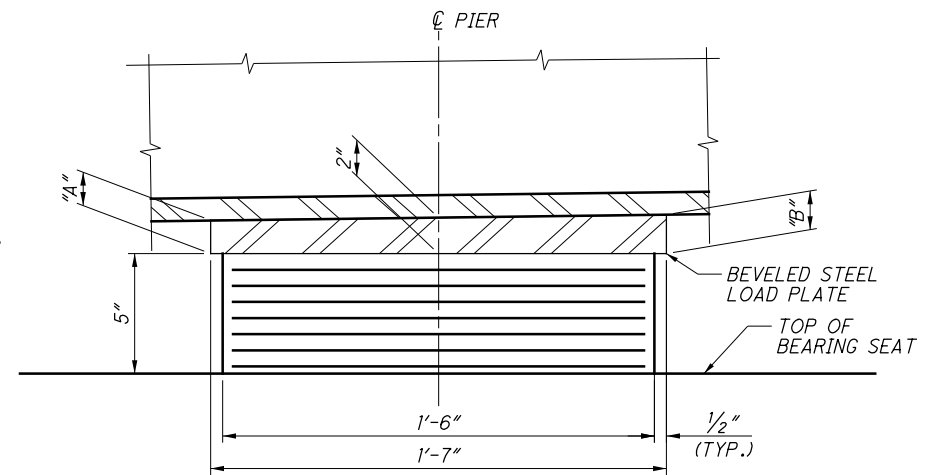
**SECTION A-A**

- \* = 1 EXTERNAL ELASTOMER LAYERS  
THICKNESS = 0.407"
- \*\* = 7 INTERNAL ELASTOMER LAYERS  
THICKNESS = 0.582"
- \*\*\* = 7 INTERNAL STEEL LAMINATES  
THICKNESS = 0.0747"

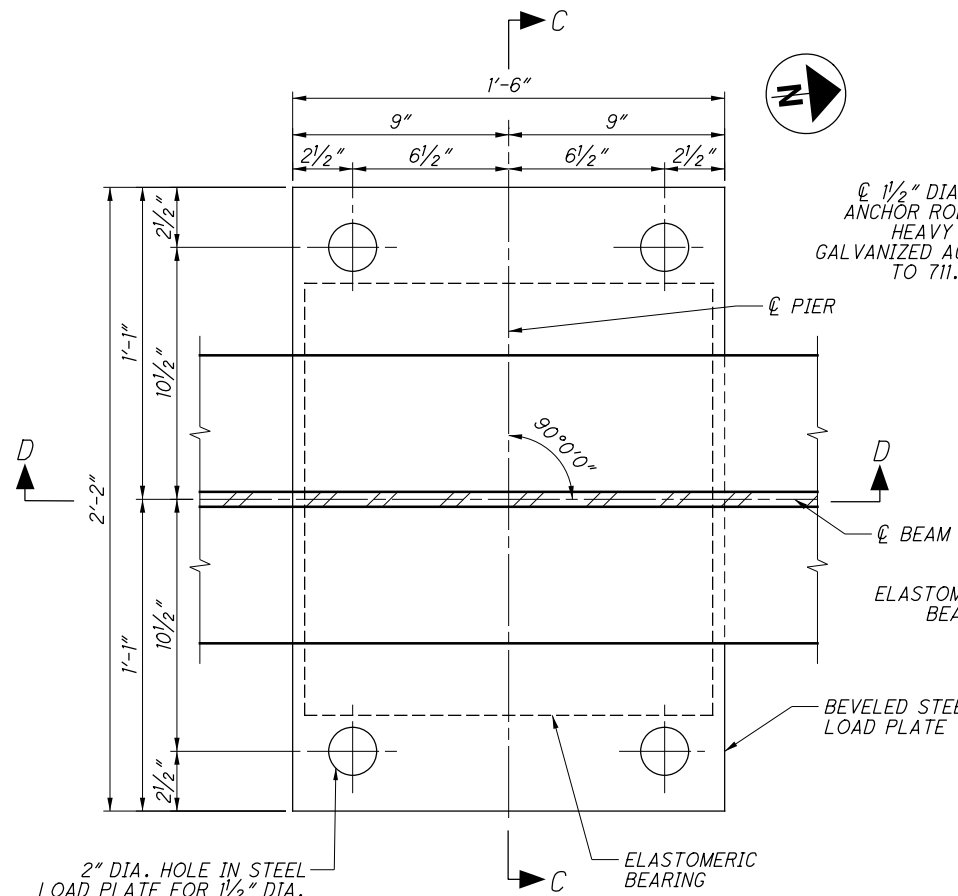
LOAD PLATE BEVEL DIMENSIONS		
	DIM. "A"	DIM. "B"
P1	1 5/8"	2 3/8"
P2	1 7/8"	2 1/8"
P3	2 1/16"	1 5/16"
P4	2 3/16"	1 3/16"

**NOTE:**

1. SEE SHEET 36 / 54 FOR NOTES AND LEGEND.



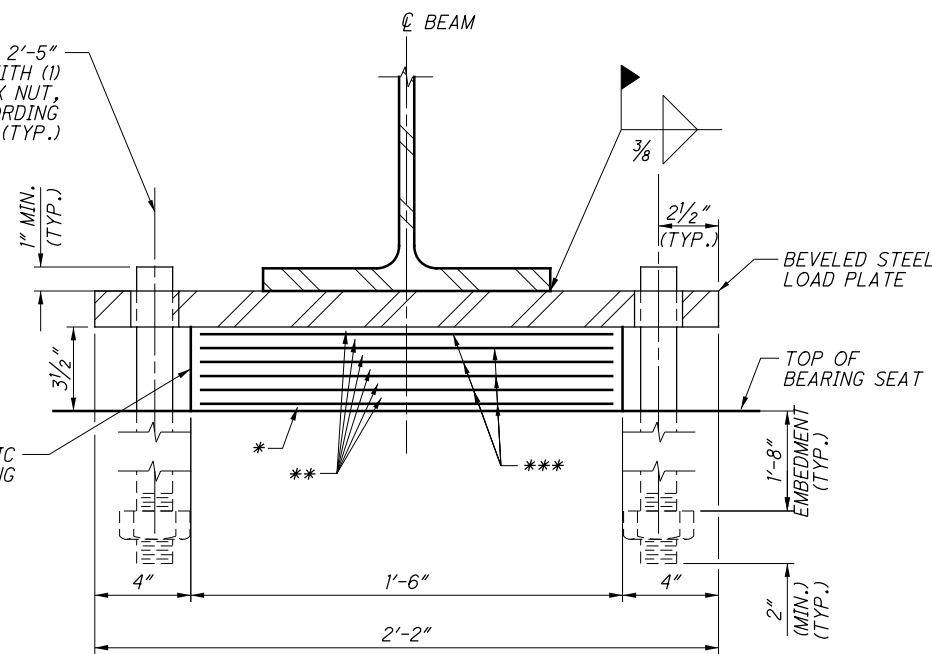
**SECTION B-B**



**PIER FIXED BEARING PLAN**  
(PIER 2)

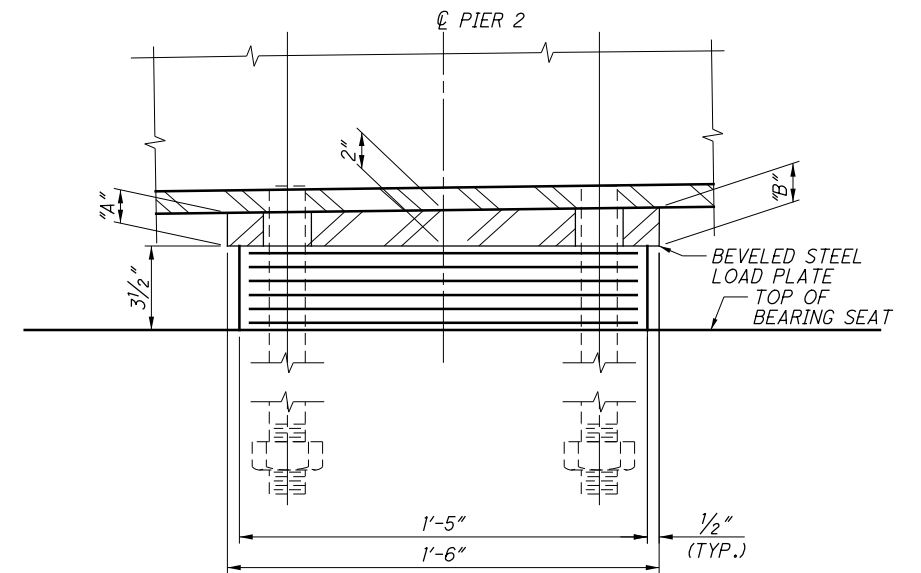
2" DIA. HOLE IN STEEL LOAD PLATE FOR 1/2" DIA. ANCHOR ROD, ALL ANCHOR RODS SHALL BE CAST-IN-PLACE (TYP.)

1/2" DIA. X 2'-5" ANCHOR ROD WITH (1) HEAVY HEX NUT, GALVANIZED ACCORDING TO 711.02 (TYP.)



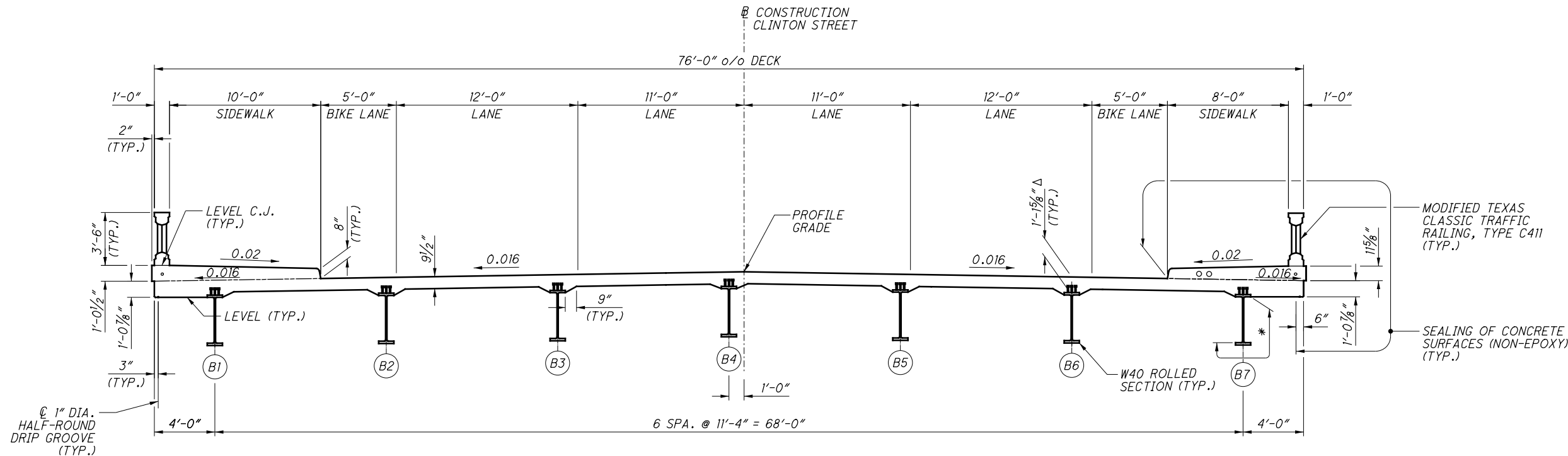
**SECTION C-C**

- \* = 1 EXTERNAL ELASTOMER LAYERS  
THICKNESS = 0.319"
- \*\* = 6 INTERNAL ELASTOMER LAYERS  
THICKNESS = 0.456"
- \*\*\* = 6 INTERNAL STEEL LAMINATES  
THICKNESS = 0.0747"

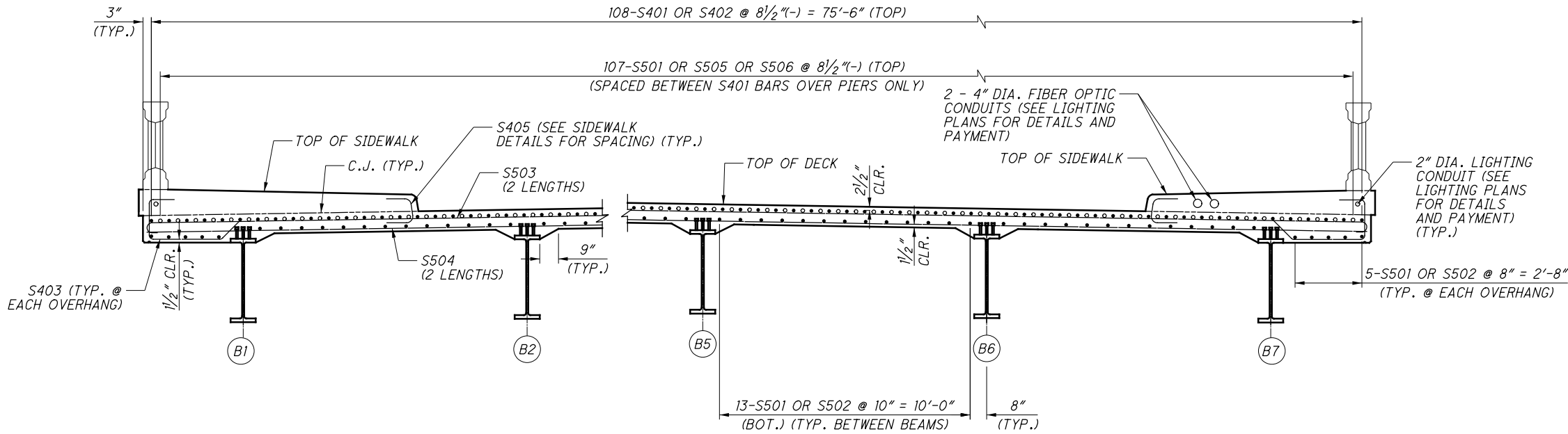


**SECTION D-D**

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**TRANSVERSE SECTION**  
(INTERMEDIATE CROSSFRAMES NOT SHOWN)



**DECK SLAB REINFORCING STEEL DETAILS**

(SEE SHEET 40 / 54 FOR SIDEWALK AND SHEET 46 / 54 FOR CONCRETE RAILING REINFORCING STEEL DETAILS)

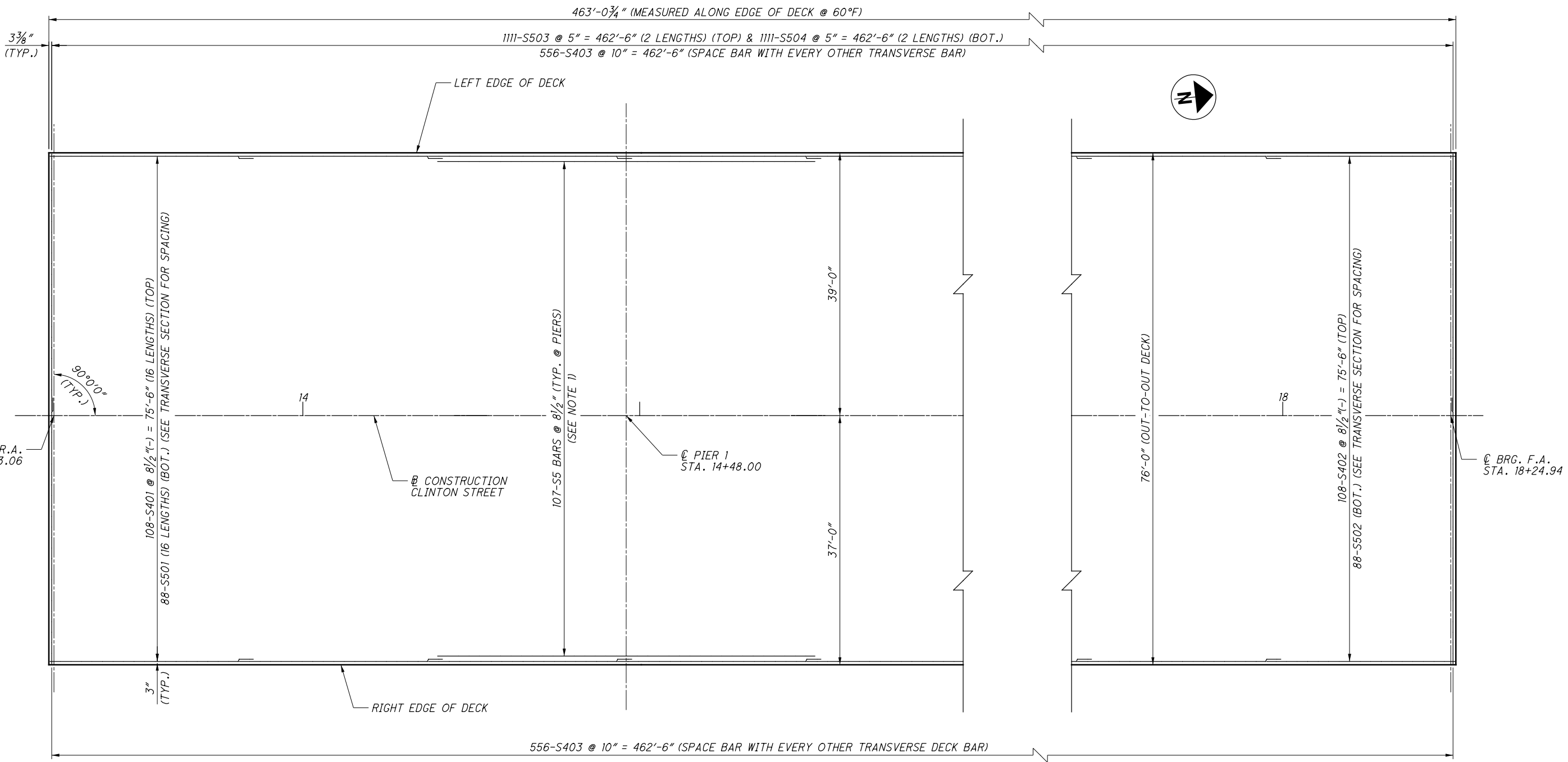
- LEGEND:**
- B# = BEAM NUMBER
  - C.J. = CONSTRUCTION JOINT
  - CLR. = CLEAR
  - Δ = TOP OF WEB TO TOP OF DECK
  - \* = LIMITS OF FIELD PAINTING, FULL LENGTH OF BRIDGE, FASCIA BEAMS ONLY. THE FINISH COAT COLOR SHALL BE FEDERAL STANDARD NUMBER 595C-26314. ADDITIONALLY, THE FOLLOWING SURFACES SHALL BE PAINTED:
    1. THE REMAINING PORTIONS OF THE FASCIA BEAMS AND THE ENTIRE PERIMETER OF THE INSIDE BEAMS, AS WELL AS ALL CROSSFRAMES AND STIFFENERS SHALL BE FIELD PAINTED FOR A 10-FOOT LENGTH ADJACENT TO THE ABUTMENTS. THE FINISH COAT COLOR SHALL BE FEDERAL STANDARD NUMBER 595C-20045 OR 20059, THE COLOR OF WEATHERING STEEL.
    2. THE ENTIRE PERIMETER OF THE FASCIA BEAMS (INCLUDING SPLICE PLATES) WITHIN 2'-0" OF EITHER SIDE OF THE CENTERLINE OF FIELD SPLICES. THE FINISH COAT COLOR SHALL BE FEDERAL STANDARD NUMBER 595C-26314.

- NOTES:**
1. DECK SLAB CONCRETE QUANTITY: THE ESTIMATED QUANTITY OF DECK SLAB CONCRETE IS BASED ON THE CONSTANT DECK SLAB THICKNESS, AS SHOWN, PLUS THE QUANTITY OF CONCRETE THAT FORMS EACH BEAM HAUNCH. THE ESTIMATE ASSUMES A CONSTANT HAUNCH THICKNESS OF 4 1/8" INCHES AND A CONSTANT HAUNCH WIDTH OUTSIDE THE EDGE OF EACH BEAM FLANGE OF 9 INCHES. DEVIATE FROM THIS HAUNCH THICKNESS AS NECESSARY TO PLACE THE DECK SURFACE AT THE FINISHED GRADE. THE ALLOWABLE TOLERANCE FOR THE HAUNCH WIDTH OUTSIDE THE EDGE OF EACH BEAM FLANGE IS ±3 INCHES.
  2. THE HAUNCH THICKNESS WAS MEASURED AT THE CENTERLINE OF THE BEAM, FROM THE SURFACE OF THE DECK TO THE BOTTOM OF THE TOP FLANGE MINUS THE DECK SLAB THICKNESS. THE AREA OF ALL EMBEDDED STEEL PLATES HAS BEEN DEDUCTED FROM THE HAUNCH QUANTITY IN ACCORDANCE WITH 511.23.

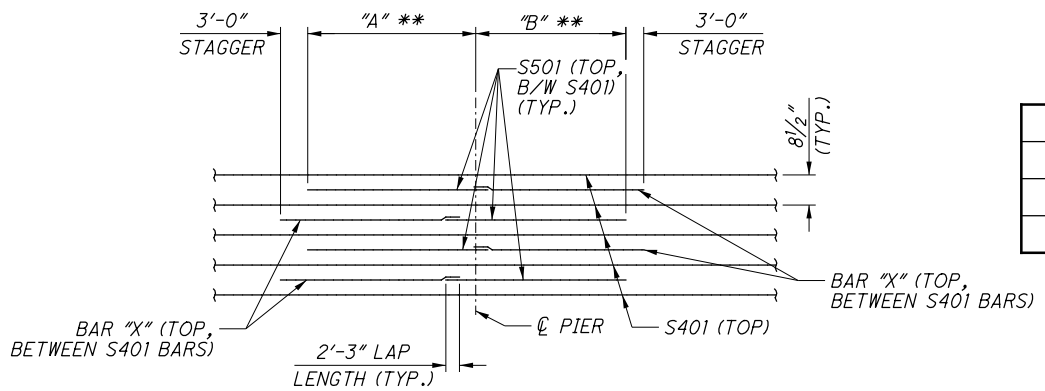
<b>BURGESS &amp; NIPLÉ</b> Engineers - Architects - Planners 5085 REED ROAD, COLUMBUS, OHIO 43220	
DATE 10/25/17	REVIEWED JCS
STRUCTURE FILE NUMBER 2000572	DRAWN AAA
DESIGNED MAB	CHECKED TTK/BFK
TRANSVERSE SECTION BRIDGE NO. DEF-15-1477 CLINTON STREET OVER THE MAUMEE RIVER	
DEF - 15 - 14.77	PID No. 96605
38 / 54	198 231



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**DECK PLAN**  
(CONCRETE RAILING AND SIDEWALK NOT SHOWN)



**ADDITIONAL REINFORCING OVER PIER DIAGRAM**  
(\*\* = EVERY OTHER BAR)

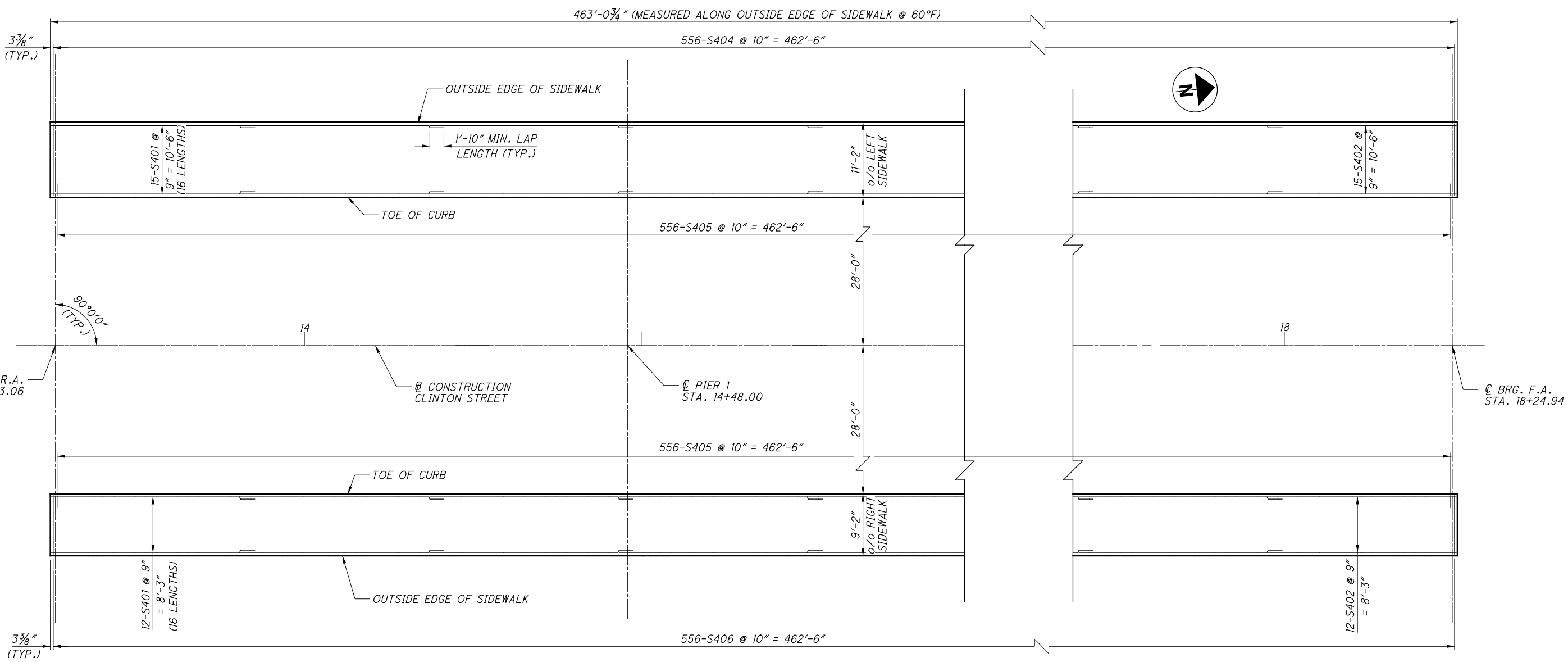
	PIER 1	PIER 2	PIER 3	PIER 4
DIM. "A"	28'-0"	30'-0"	24'-0"	28'-0"
DIM. "B"	28'-0"	24'-0"	30'-0"	28'-0"
BAR "X"	S505	S506	S506	S505

**LEGEND:**  
 BOT. = BOTTOM  
 BRG. = BEARINGS  
 B/W = BETWEEN  
 C.J. = CONSTRUCTION JOINT  
 F.A. = FORWARD ABUTMENT  
 R.A. = REAR ABUTMENT  
 T&B = TOP AND BOTTOM

**NOTES:**

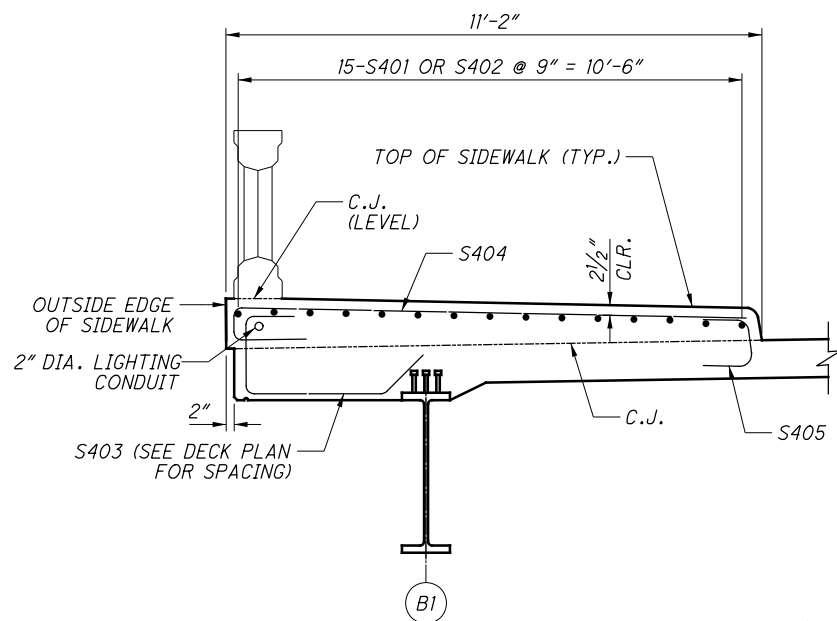
- SEE "ADDITIONAL REINFORCING OVER PIER DIAGRAM" DETAIL ON THIS SHEET FOR SPACING AND LENGTHS. (TYP. AT EACH PIER)
- LAP REINFORCING STEEL THE FOLLOWING MINIMUM LENGTHS:  
 LONGITUDINAL STEEL:  
 #4 BARS (TOP) = 1'-10"  
 #5 BARS (BOT.) = 2'-3"  
 TRANSVERSE STEEL:  
 #5 BARS (TOP) = 2'-3"  
 #5 BARS (BOT.) = 2'-10"
- SEE SHEET 40 / 54 FOR SIDEWALK REINFORCING STEEL DETAILS.
- SEE SHEET 41 / 54 FOR DECK POUR SEQUENCE.
- TRANSVERSE BARS SHALL BE PLACED, AND SPACINGS ARE PROVIDED, PERPENDICULAR TO CONSTRUCTION CLINTON STREET.

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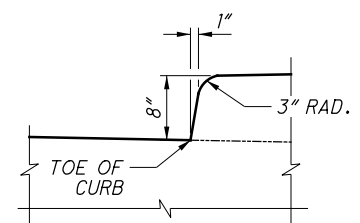
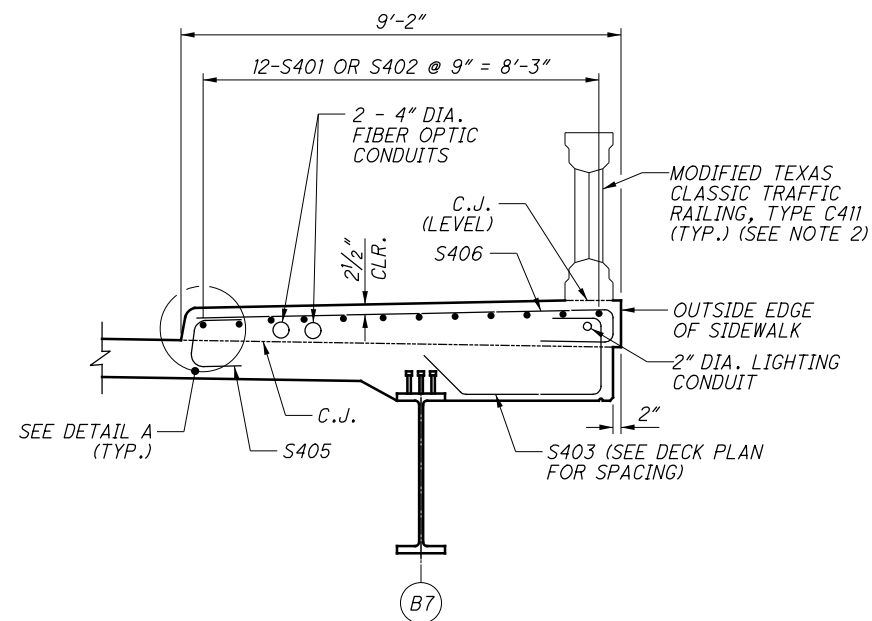
**SIDEWALK PLAN**

(CONCRETE RAILING AND DECK SLAB NOT SHOWN)



**SIDEWALK TRANSVERSE SECTION**

(CONCRETE RAILING AND DECK BARS NOT SHOWN)



**DETAIL A**

(REINFORCING STEEL NOT SHOWN)

**NOTES:**

- SEE SHEET 

39	54
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 FOR DECK REINFORCING STEEL DETAILS.
- SEE SHEET 

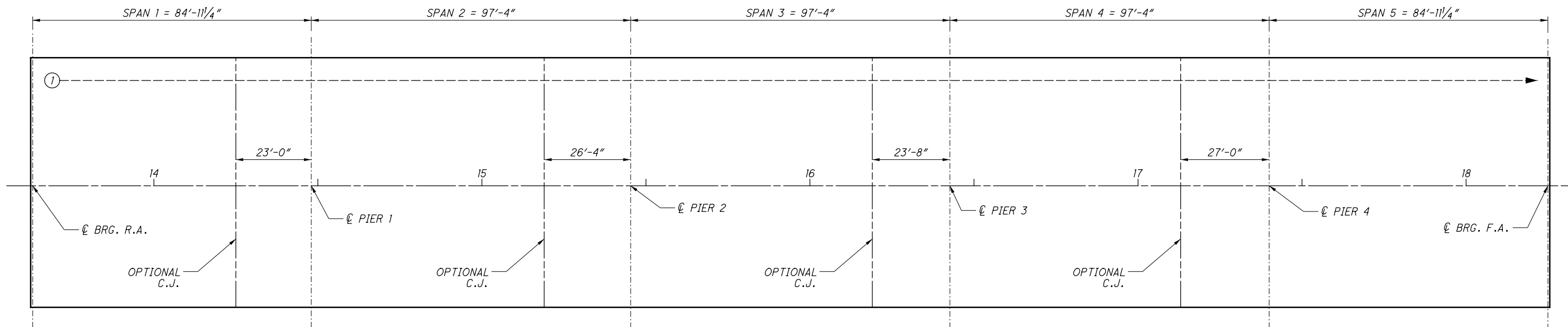
46	54
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 FOR CONCRETE RAILING REINFORCING STEEL DETAILS.

**LEGEND:**

- BRG. = BEARINGS
- C.J. = CONSTRUCTION JOINT
- CLR. = CLEAR
- F.A. = FORWARD ABUTMENT
- o/o = OUT-TO-OUT
- R.A. = REAR ABUTMENT
- RAD. = RADIUS

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**DECK POUR SEQUENCE**

**LEGEND:**

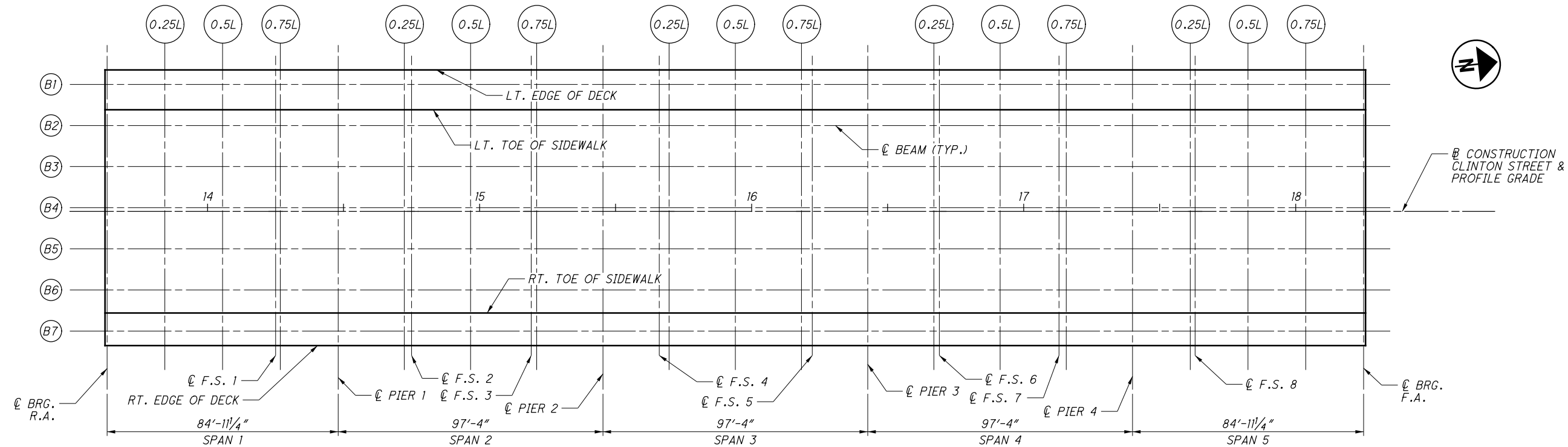
BRG. = BEARINGS  
 C.J. = CONSTRUCTION JOINT  
 F.A. = FORWARD ABUTMENT  
 R.A. = REAR ABUTMENT

① → = DECK POUR SEQUENCE NUMBER AND DIRECTION OF POUR

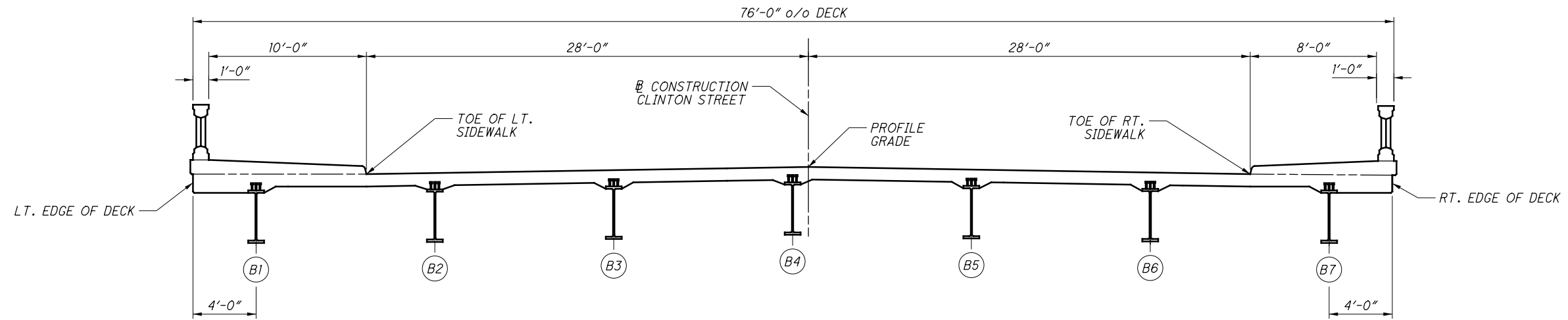
**NOTES:**

1. THE ENCIRCLED NUMBERS INDICATE THE SEQUENCE FOR PLACING THE SLAB SECTIONS. TRANSVERSE CONSTRUCTION JOINTS ARE PERMITTED AT THE LOCATIONS SHOWN ONLY.
2. CONTRACTOR PROPOSED CHANGES TO THE DECK PLACEMENT SEQUENCE MUST BE SUBMITTED WITH PLANS AND COMPUTATIONS PREPARED IN ACCORDANCE WITH CMS 501.05. COMPUTATIONS MUST INCLUDE A STRUCTURAL ANALYSIS DEMONSTRATING THAT THE PROPOSED DECK PLACEMENT SEQUENCE WILL NOT CAUSE UPLIFT AT ANY BEARING LOCATION AND THAT THE FORCES PRODUCED IN THE STEEL SUPERSTRUCTURE DO NOT EXCEED THOSE PERMITTED BY THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.

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**CRITICAL BRIDGE POINTS PLAN**



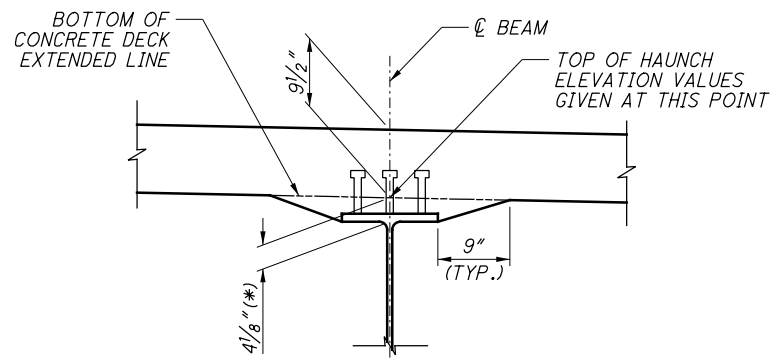
**CRITICAL BRIDGE POINTS TRANSVERSE SECTION**

- LEGEND:**
- B# = BEAM NUMBER
  - BRG. = BEARING
  - F.A. = FORWARD ABUTMENT
  - F.S. = FIELD SPLICE
  - L. = SPAN LENGTH
  - LT. = LEFT
  - R.A. = REAR ABUTMENT
  - RT. = RIGHT

DATE	10/25/17
REVIEWED	JCS
DESIGNED	BFK
DRAWN	BFK
CHECKED	TTK
STRUCTURE FILE NUMBER	2000572

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TOP OF HAUNCH ELEVATIONS														
	☉ BEAM 1		☉ BEAM 2		☉ BEAM 3		☉ BEAM 4		☉ BEAM 5		☉ BEAM 6		☉ BEAM 7	
	STA.	ELEV.	STA.	ELEV.	STA.	ELEV.	STA.	ELEV.	STA.	ELEV.	STA.	ELEV.	STA.	ELEV.
☉ BRG. R.A.	13+63.06	680.80	13+63.06	680.98	13+63.06	681.16	13+63.06	681.34	13+63.06	681.19	13+63.06	681.01	13+63.06	680.83
0.25 SPAN 1	13+84.29	681.92	13+84.29	682.10	13+84.29	682.28	13+84.29	682.46	13+84.29	682.31	13+84.29	682.13	13+84.29	681.95
0.5 SPAN 1	14+05.53	682.92	14+05.53	683.10	14+05.53	683.28	14+05.53	683.46	14+05.53	683.31	14+05.53	683.13	14+05.53	682.95
F.S. 1	14+25.00	683.68	14+25.00	683.87	14+25.00	684.05	14+25.00	684.23	14+25.00	684.08	14+25.00	683.90	14+25.00	683.72
0.75 SPAN 1	14+26.76	683.75	14+26.76	683.93	14+26.76	684.11	14+26.76	684.29	14+26.76	684.14	14+26.76	683.96	14+26.76	683.78
☉ PIER 1	14+48.00	684.49	14+48.00	684.67	14+48.00	684.85	14+48.00	685.03	14+48.00	684.89	14+48.00	684.70	14+48.00	684.52
0.25 SPAN 2	14+72.33	685.35	14+72.33	685.53	14+72.33	685.71	14+72.33	685.89	14+72.33	685.74	14+72.33	685.56	14+72.33	685.38
F.S. 2	14+75.00	685.44	14+75.00	685.62	14+75.00	685.80	14+75.00	685.98	14+75.00	685.83	14+75.00	685.65	14+75.00	685.47
0.5 SPAN 2	14+96.66	686.09	14+96.66	686.27	14+96.66	686.46	14+96.66	686.64	14+96.66	686.49	14+96.66	686.31	14+96.66	686.13
F.S. 3	15+19.00	686.60	15+19.00	686.78	15+19.00	686.96	15+19.00	687.14	15+19.00	687.00	15+19.00	686.81	15+19.00	686.63
0.75 SPAN 2	15+21.00	686.64	15+21.00	686.82	15+21.00	687.00	15+21.00	687.18	15+21.00	687.03	15+21.00	686.85	15+21.00	686.67
☉ PIER 2	15+45.33	687.06	15+45.33	687.24	15+45.33	687.42	15+45.33	687.60	15+45.33	687.45	15+45.33	687.27	15+45.33	687.09
F.S. 4	15+69.00	687.45	15+69.00	687.63	15+69.00	687.81	15+69.00	687.99	15+69.00	687.84	15+69.00	687.66	15+69.00	687.48
0.25 SPAN 3	15+69.66	687.46	15+69.66	687.64	15+69.66	687.82	15+69.66	688.00	15+69.66	687.85	15+69.66	687.67	15+69.66	687.49
0.5 SPAN 3	15+94.00	687.72	15+94.00	687.91	15+94.00	688.09	15+94.00	688.27	15+94.00	688.12	15+94.00	687.94	15+94.00	687.76
0.75 SPAN 3	16+18.33	687.76	16+18.33	687.94	16+18.33	688.12	16+18.33	688.30	16+18.33	688.15	16+18.33	687.97	16+18.33	687.79
F.S. 5	16+19.00	687.76	16+19.00	687.94	16+19.00	688.12	16+19.00	688.30	16+19.00	688.15	16+19.00	687.97	16+19.00	687.79
☉ PIER 3	16+42.67	687.66	16+42.67	687.84	16+42.67	688.02	16+42.67	688.20	16+42.67	688.05	16+42.67	687.87	16+42.67	687.69
0.25 SPAN 4	16+67.00	687.53	16+67.00	687.71	16+67.00	687.90	16+67.00	688.08	16+67.00	687.93	16+67.00	687.75	16+67.00	687.57
F.S. 6	16+69.00	687.52	16+69.00	687.70	16+69.00	687.88	16+69.00	688.06	16+69.00	687.91	16+69.00	687.73	16+69.00	687.55
0.5 SPAN 4	16+91.33	687.29	16+91.33	687.47	16+91.33	687.65	16+91.33	687.83	16+91.33	687.68	16+91.33	687.50	16+91.33	687.32
F.S. 7	17+13.00	686.89	17+13.00	687.07	17+13.00	687.26	17+13.00	687.44	17+13.00	687.29	17+13.00	687.11	17+13.00	686.93
0.75 SPAN 4	17+15.67	686.84	17+15.67	687.02	17+15.67	687.20	17+15.67	687.38	17+15.67	687.23	17+15.67	687.05	17+15.67	686.87
☉ PIER 4	17+40.00	686.28	17+40.00	686.46	17+40.00	686.64	17+40.00	686.82	17+40.00	686.67	17+40.00	686.49	17+40.00	686.31
0.25 SPAN 5	17+61.23	685.80	17+61.23	685.98	17+61.23	686.16	17+61.23	686.34	17+61.23	686.19	17+61.23	686.01	17+61.23	685.83
F.S. 8	17+63.00	685.75	17+63.00	685.94	17+63.00	686.12	17+63.00	686.30	17+63.00	686.15	17+63.00	685.97	17+63.00	685.79
0.5 SPAN 5	17+82.47	685.29	17+82.47	685.47	17+82.47	685.66	17+82.47	685.84	17+82.47	685.69	17+82.47	685.51	17+82.47	685.33
0.75 SPAN 5	18+03.70	684.84	18+03.70	685.02	18+03.70	685.20	18+03.70	685.38	18+03.70	685.23	18+03.70	685.05	18+03.70	684.87
☉ BRG. F.A.	18+24.94	684.43	18+24.94	684.62	18+24.94	684.80	18+24.94	684.98	18+24.94	684.83	18+24.94	684.65	18+24.94	684.47



**HAUNCH DETAIL**

(\* = TOP OF WEB TO BOTTOM OF CONCRETE DECK EXTENDED LINE)

**LEGEND:**

- BRG = BEARING
- F.A. = FORWARD ABUTMENT
- F.S. = FIELD SPLICE
- R.A. = REAR ABUTMENT

**NOTES:**

1. TOP OF HAUNCH ELEVATIONS SHOWN REPRESENT THE THEORETICAL LOCATION OF THE BOTTOM OF THE DECK ABOVE THE ☉ OF THE BEAM HAUNCH PRIOR TO DEFLECTIONS CAUSED BY DECK PLACEMENT AND OTHER ANTICIPATED DEAD LOADS.
2. SEE CRITICAL BRIDGE POINTS PLAN ON SHEET 42 / 54 FOR ELEVATION LOCATIONS.

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SCREED ELEVATIONS														
	☉ BEAM 1		☉ BEAM 2		☉ BEAM 3		☉ BEAM 4		☉ BEAM 5		☉ BEAM 6		☉ BEAM 7	
	STA.	ELEV.	STA.	ELEV.	STA.	ELEV.	STA.	ELEV.	STA.	ELEV.	STA.	ELEV.	STA.	ELEV.
☉ BRG. R.A.	13+63.06	681.59	13+63.06	681.77	13+63.06	681.95	13+63.06	682.13	13+63.06	681.99	13+63.06	681.80	13+63.06	681.62
0.25 SPAN 1	13+84.29	682.71	13+84.29	682.89	13+84.29	683.07	13+84.29	683.25	13+84.29	683.10	13+84.29	682.92	13+84.29	682.74
0.5 SPAN 1	14+05.53	683.71	14+05.53	683.89	14+05.53	684.07	14+05.53	684.25	14+05.53	684.10	14+05.53	683.92	14+05.53	683.74
F.S. 1	14+25.00	684.48	14+25.00	684.66	14+25.00	684.84	14+25.00	685.02	14+25.00	684.87	14+25.00	684.69	14+25.00	684.51
0.75 SPAN 1	14+26.76	684.54	14+26.76	684.72	14+26.76	684.90	14+26.76	685.08	14+26.76	684.93	14+26.76	684.75	14+26.76	684.57
☉ PIER 1	14+48.00	685.28	14+48.00	685.46	14+48.00	685.65	14+48.00	685.83	14+48.00	685.68	14+48.00	685.50	14+48.00	685.31
0.25 SPAN 2	14+72.33	686.14	14+72.33	686.32	14+72.33	686.50	14+72.33	686.68	14+72.33	686.53	14+72.33	686.35	14+72.33	686.17
F.S. 2	14+75.00	686.23	14+75.00	686.41	14+75.00	686.59	14+75.00	686.77	14+75.00	686.62	14+75.00	686.44	14+75.00	686.26
0.5 SPAN 2	14+96.66	686.89	14+96.66	687.07	14+96.66	687.25	14+96.66	687.43	14+96.66	687.28	14+96.66	687.10	14+96.66	686.92
F.S. 3	15+19.00	687.39	15+19.00	687.57	15+19.00	687.75	15+19.00	687.94	15+19.00	687.79	15+19.00	687.61	15+19.00	687.42
0.75 SPAN 2	15+21.00	687.43	15+21.00	687.61	15+21.00	687.79	15+21.00	687.97	15+21.00	687.83	15+21.00	687.64	15+21.00	687.46
☉ PIER 2	15+45.33	687.85	15+45.33	688.03	15+45.33	688.21	15+45.33	688.40	15+45.33	688.25	15+45.33	688.06	15+45.33	687.88
F.S. 4	15+69.00	688.24	15+69.00	688.42	15+69.00	688.60	15+69.00	688.79	15+69.00	688.64	15+69.00	688.45	15+69.00	688.27
0.25 SPAN 3	15+69.66	688.25	15+69.66	688.43	15+69.66	688.61	15+69.66	688.80	15+69.66	688.65	15+69.66	688.46	15+69.66	688.28
0.5 SPAN 3	15+94.00	688.52	15+94.00	688.70	15+94.00	688.88	15+94.00	689.06	15+94.00	688.91	15+94.00	688.73	15+94.00	688.55
0.75 SPAN 3	16+18.33	688.55	16+18.33	688.73	16+18.33	688.91	16+18.33	689.09	16+18.33	688.94	16+18.33	688.76	16+18.33	688.58
F.S. 5	16+19.00	688.55	16+19.00	688.73	16+19.00	688.91	16+19.00	689.09	16+19.00	688.94	16+19.00	688.76	16+19.00	688.58
☉ PIER 3	16+42.67	688.45	16+42.67	688.63	16+42.67	688.81	16+42.67	688.99	16+42.67	688.84	16+42.67	688.66	16+42.67	688.48
0.25 SPAN 4	16+67.00	688.32	16+67.00	688.51	16+67.00	688.69	16+67.00	688.87	16+67.00	688.72	16+67.00	688.54	16+67.00	688.36
F.S. 6	16+69.00	688.31	16+69.00	688.49	16+69.00	688.67	16+69.00	688.86	16+69.00	688.71	16+69.00	688.52	16+69.00	688.34
0.5 SPAN 4	16+91.33	688.08	16+91.33	688.26	16+91.33	688.44	16+91.33	688.62	16+91.33	688.47	16+91.33	688.29	16+91.33	688.11
F.S. 7	17+13.00	687.69	17+13.00	687.87	17+13.00	688.05	17+13.00	688.23	17+13.00	688.08	17+13.00	687.90	17+13.00	687.72
0.75 SPAN 4	17+15.67	687.63	17+15.67	687.81	17+15.67	687.99	17+15.67	688.17	17+15.67	688.02	17+15.67	687.84	17+15.67	687.66
☉ PIER 4	17+40.00	687.07	17+40.00	687.25	17+40.00	687.43	17+40.00	687.62	17+40.00	687.47	17+40.00	687.28	17+40.00	687.10
0.25 SPAN 5	17+61.23	686.59	17+61.23	686.77	17+61.23	686.95	17+61.23	687.13	17+61.23	686.98	17+61.23	686.80	17+61.23	686.62
F.S. 8	17+63.00	686.55	17+63.00	686.73	17+63.00	686.91	17+63.00	687.09	17+63.00	686.94	17+63.00	686.76	17+63.00	686.58
0.5 SPAN 5	17+82.47	686.08	17+82.47	686.27	17+82.47	686.45	17+82.47	686.63	17+82.47	686.48	17+82.47	686.30	17+82.47	686.12
0.75 SPAN 5	18+03.70	685.63	18+03.70	685.81	18+03.70	685.99	18+03.70	686.17	18+03.70	686.02	18+03.70	685.84	18+03.70	685.66
☉ BRG. F.A.	18+24.94	685.23	18+24.94	685.41	18+24.94	685.59	18+24.94	685.77	18+24.94	685.62	18+24.94	685.44	18+24.94	685.26

**LEGEND:**

BRG. = BEARING  
 F.A. = FORWARD ABUTMENT  
 F.S. = FIELD SPLICE  
 R.A. = REAR ABUTMENT

**NOTES:**

- SCREED ELEVATIONS SHOWN REPRESENT THE THEORETICAL DECK SURFACE LOCATION PRIOR TO DEFLECTIONS CAUSED BY DECK PLACEMENT AND OTHER ANTICIPATED LOADS.
- SEE CRITICAL BRIDGE POINTS PLAN ON SHEET 42 / 54 FOR ELEVATION LOCATIONS.

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**FINAL DECK SURFACE ELEVATIONS**

	LT. EDGE OF DECK		☉ BEAM 1		TOE OF LT. SIDEWALK		☉ BEAM 2		☉ BEAM 3		☉ BEAM 4		PROFILE GRADE		☉ BEAM 5		☉ BEAM 6		TOE OF RT. SIDEWALK		☉ BEAM 7		RT. EDGE OF DECK	
	STA.	ELEV.	STA.	ELEV.	STA.	ELEV.	STA.	ELEV.	STA.	ELEV.	STA.	ELEV.	STA.	ELEV.	STA.	ELEV.	STA.	ELEV.	STA.	ELEV.	STA.	ELEV.	STA.	ELEV.
☉ BRG. R.A.	13+63.06	681.53	13+63.06	681.59	13+63.06	681.70	13+63.06	681.77	13+63.06	681.95	13+63.06	682.13	13+63.06	682.15	13+63.06	681.99	13+63.06	681.80	13+63.06	681.70	13+63.06	681.62	13+63.06	681.56
0.25 SPAN 1	13+84.29	682.50	13+84.29	682.57	13+84.29	682.68	13+84.29	682.75	13+84.29	682.93	13+84.29	683.11	13+84.29	683.13	13+84.29	682.96	13+84.29	682.78	13+84.29	682.68	13+84.29	682.60	13+84.29	682.54
0.5 SPAN 1	14+05.53	683.48	14+05.53	683.54	14+05.53	683.66	14+05.53	683.72	14+05.53	683.91	14+05.53	684.09	14+05.53	684.10	14+05.53	683.94	14+05.53	683.76	14+05.53	683.66	14+05.53	683.58	14+05.53	683.51
F.S. 1	14+25.00	684.32	14+25.00	684.39	14+25.00	684.50	14+25.00	684.57	14+25.00	684.75	14+25.00	684.93	14+25.00	684.95	14+25.00	684.78	14+25.00	684.60	14+25.00	684.50	14+25.00	684.42	14+25.00	684.36
0.75 SPAN 1	14+26.76	684.40	14+26.76	684.46	14+26.76	684.57	14+26.76	684.64	14+26.76	684.82	14+26.76	685.00	14+26.76	685.02	14+26.76	684.85	14+26.76	684.67	14+26.76	684.57	14+26.76	684.49	14+26.76	684.43
☉ PIER 1	14+48.00	685.22	14+48.00	685.28	14+48.00	685.39	14+48.00	685.46	14+48.00	685.65	14+48.00	685.83	14+48.00	685.84	14+48.00	685.68	14+48.00	685.50	14+48.00	685.39	14+48.00	685.31	14+48.00	685.25
0.25 SPAN 2	14+72.33	686.05	14+72.33	686.11	14+72.33	686.22	14+72.33	686.29	14+72.33	686.47	14+72.33	686.65	14+72.33	686.67	14+72.33	686.50	14+72.33	686.32	14+72.33	686.22	14+72.33	686.14	14+72.33	686.08
F.S. 2	14+75.00	686.13	14+75.00	686.19	14+75.00	686.30	14+75.00	686.37	14+75.00	686.56	14+75.00	686.74	14+75.00	686.75	14+75.00	686.59	14+75.00	686.41	14+75.00	686.30	14+75.00	686.22	14+75.00	686.16
0.5 SPAN 2	14+96.66	686.75	14+96.66	686.81	14+96.66	686.93	14+96.66	686.99	14+96.66	687.18	14+96.66	687.36	14+96.66	687.37	14+96.66	687.21	14+96.66	687.03	14+96.66	686.93	14+96.66	686.85	14+96.66	686.78
F.S. 3	15+19.00	687.29	15+19.00	687.35	15+19.00	687.46	15+19.00	687.53	15+19.00	687.71	15+19.00	687.89	15+19.00	687.91	15+19.00	687.75	15+19.00	687.56	15+19.00	687.46	15+19.00	687.38	15+19.00	687.32
0.75 SPAN 2	15+21.00	687.33	15+21.00	687.39	15+21.00	687.51	15+21.00	687.58	15+21.00	687.76	15+21.00	687.94	15+21.00	687.95	15+21.00	687.79	15+21.00	687.61	15+21.00	687.51	15+21.00	687.43	15+21.00	687.36
☉ PIER 2	15+45.33	687.79	15+45.33	687.85	15+45.33	687.96	15+45.33	688.03	15+45.33	688.21	15+45.33	688.40	15+45.33	688.41	15+45.33	688.25	15+45.33	688.06	15+45.33	687.96	15+45.33	687.88	15+45.33	687.82
F.S. 4	15+69.00	688.11	15+69.00	688.18	15+69.00	688.29	15+69.00	688.36	15+69.00	688.54	15+69.00	688.72	15+69.00	688.74	15+69.00	688.57	15+69.00	688.39	15+69.00	688.29	15+69.00	688.21	15+69.00	688.15
0.25 SPAN 3	15+69.66	688.12	15+69.66	688.19	15+69.66	688.30	15+69.66	688.37	15+69.66	688.55	15+69.66	688.73	15+69.66	688.75	15+69.66	688.58	15+69.66	688.40	15+69.66	688.30	15+69.66	688.22	15+69.66	688.15
0.5 SPAN 3	15+94.00	688.33	15+94.00	688.40	15+94.00	688.51	15+94.00	688.58	15+94.00	688.76	15+94.00	688.94	15+94.00	688.96	15+94.00	688.79	15+94.00	688.61	15+94.00	688.51	15+94.00	688.43	15+94.00	688.36
0.75 SPAN 3	16+18.33	688.42	16+18.33	688.48	16+18.33	688.60	16+18.33	688.66	16+18.33	688.85	16+18.33	689.03	16+18.33	689.04	16+18.33	688.88	16+18.33	688.70	16+18.33	688.60	16+18.33	688.52	16+18.33	688.45
F.S. 5	16+19.00	688.42	16+19.00	688.48	16+19.00	688.60	16+19.00	688.67	16+19.00	688.85	16+19.00	689.03	16+19.00	689.04	16+19.00	688.88	16+19.00	688.70	16+19.00	688.60	16+19.00	688.52	16+19.00	688.45
☉ PIER 3	16+42.67	688.38	16+42.67	688.45	16+42.67	688.56	16+42.67	688.63	16+42.67	688.81	16+42.67	688.99	16+42.67	689.01	16+42.67	688.84	16+42.67	688.66	16+42.67	688.56	16+42.67	688.48	16+42.67	688.42
0.25 SPAN 4	16+67.00	688.22	16+67.00	688.29	16+67.00	688.40	16+67.00	688.47	16+67.00	688.65	16+67.00	688.83	16+67.00	688.85	16+67.00	688.68	16+67.00	688.50	16+67.00	688.40	16+67.00	688.32	16+67.00	688.26
F.S. 6	16+69.00	688.21	16+69.00	688.27	16+69.00	688.38	16+69.00	688.45	16+69.00	688.63	16+69.00	688.81	16+69.00	688.83	16+69.00	688.66	16+69.00	688.48	16+69.00	688.38	16+69.00	688.30	16+69.00	688.24
0.5 SPAN 4	16+91.33	687.94	16+91.33	688.01	16+91.33	688.12	16+91.33	688.19	16+91.33	688.37	16+91.33	688.55	16+91.33	688.57	16+91.33	688.40	16+91.33	688.22	16+91.33	688.12	16+91.33	688.04	16+91.33	687.97
F.S. 7	17+13.00	687.59	17+13.00	687.65	17+13.00	687.76	17+13.00	687.83	17+13.00	688.01	17+13.00	688.19	17+13.00	688.21	17+13.00	688.05	17+13.00	687.86	17+13.00	687.76	17+13.00	687.68	17+13.00	687.62
0.75 SPAN 4	17+15.67	687.54	17+15.67	687.60	17+15.67	687.71	17+15.67	687.78	17+15.67	687.96	17+15.67	688.14	17+15.67	688.16	17+15.67	687.99	17+15.67	687.81	17+15.67	687.71	17+15.67	687.63	17+15.67	687.57
☉ PIER 4	17+40.00	687.01	17+40.00	687.07	17+40.00	687.18	17+40.00	687.25	17+40.00	687.43	17+40.00	687.62	17+40.00	687.63	17+40.00	687.47	17+40.00	687.28	17+40.00	687.18	17+40.00	687.10	17+40.00	687.04
0.25 SPAN 5	17+61.23	686.44	17+61.23	686.51	17+61.23	686.62	17+61.23	686.69	17+61.23	686.87	17+61.23	687.05	17+61.23	687.07	17+61.23	686.90	17+61.23	686.72	17+61.23	686.62	17+61.23	686.54	17+61.23	686.48
F.S. 8	17+63.00	686.39	17+63.00	686.46	17+63.00	686.57	17+63.00	686.64	17+63.00	686.82	17+63.00	687.00	17+63.00	687.02	17+63.00	686.85	17+63.00	686.67	17+63.00	686.57	17+63.00	686.49	17+63.00	686.43
0.5 SPAN 5	17+82.47	685.85	17+82.47	685.92	17+82.47	686.03	17+82.47	686.10	17+82.47	686.28	17+82.47	686.46	17+82.47	686.48	17+82.47	686.31	17+82.47	686.13	17+82.47	686.03	17+82.47	685.95	17+82.47	685.89
0.75 SPAN 5	18+03.70	685.42	18+03.70	685.49	18+03.70	685.60	18+03.70	685.67	18+03.70	685.85	18+03.70	686.03	18+03.70	686.05	18+03.70	685.88	18+03.70	685.70	18+03.70	685.60	18+03.70	685.52	18+03.70	685.46
☉ BRG. F.A.	18+24.94	685.16	18+24.94	685.23	18+24.94	685.34	18+24.94	685.41	18+24.94	685.59	18+24.94	685.77	18+24.94	685.79	18+24.94	685.62	18+24.94	685.44	18+24.94	685.34	18+24.94	685.26	18+24.94	685.19

**LEGEND:**

- BRG. = BEARING
- F.A. = FORWARD ABUTMENT
- F.S. = FIELD SPLICE
- LT. = LEFT
- R.A. = REAR ABUTMENT
- RT. = RIGHT

**NOTES:**

1. FINAL DECK SURFACE ELEVATIONS SHOWN REPRESENT THE DECK SURFACE ELEVATIONS AFTER ALL ANTICIPATED DEAD LOAD DEFLECTIONS HAVE OCCURED.
2. SEE CRITICAL BRIDGE POINTS PLAN ON SHEET 42 / 54 FOR ELEVATION LOCATIONS.

**BURGESS & NIPLÉ**  
Engineers ■ Architects ■ Planners  
5085 REED ROAD, COLUMBUS, OHIO 43220

DATE 10/25/17  
REVIEWED JCS  
STRUCTURE FILE NUMBER 2000572

DRAWN BFK  
DESIGNED BFK  
CHECKED TTK

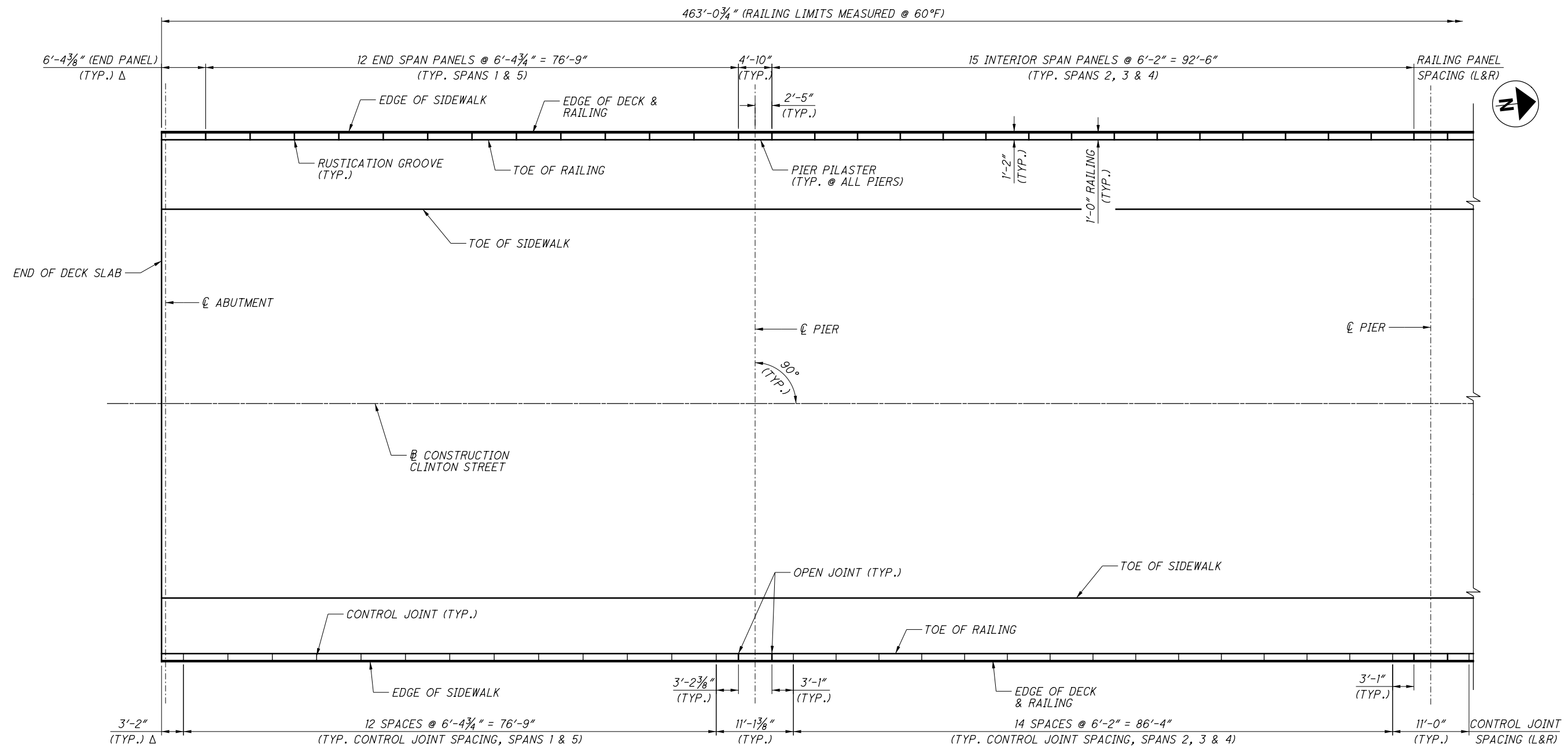
**FINAL DECK SURFACE ELEVATIONS**  
BRIDGE NO. DEF-15-1477  
CLINTON STREET OVER THE MAUMEE RIVER

DEF - 15 - 14.77  
PID No. 96605

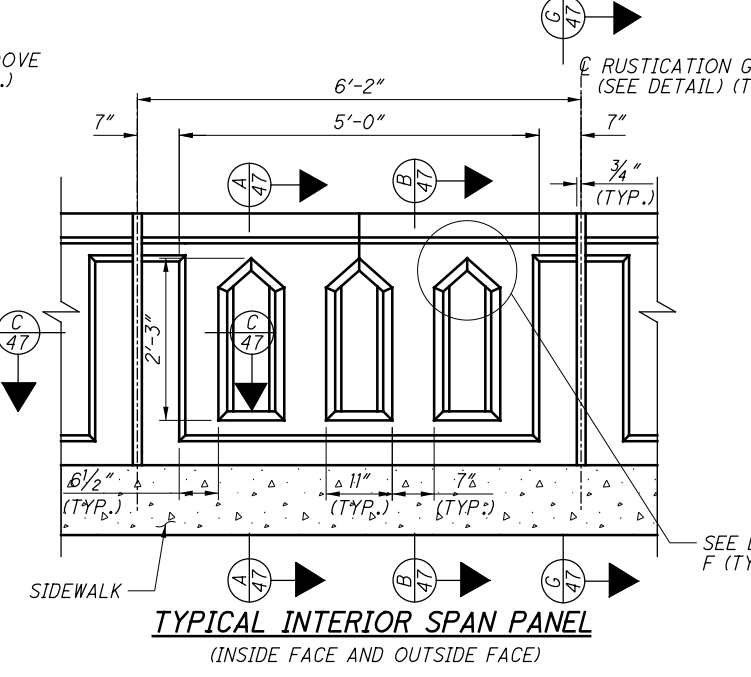
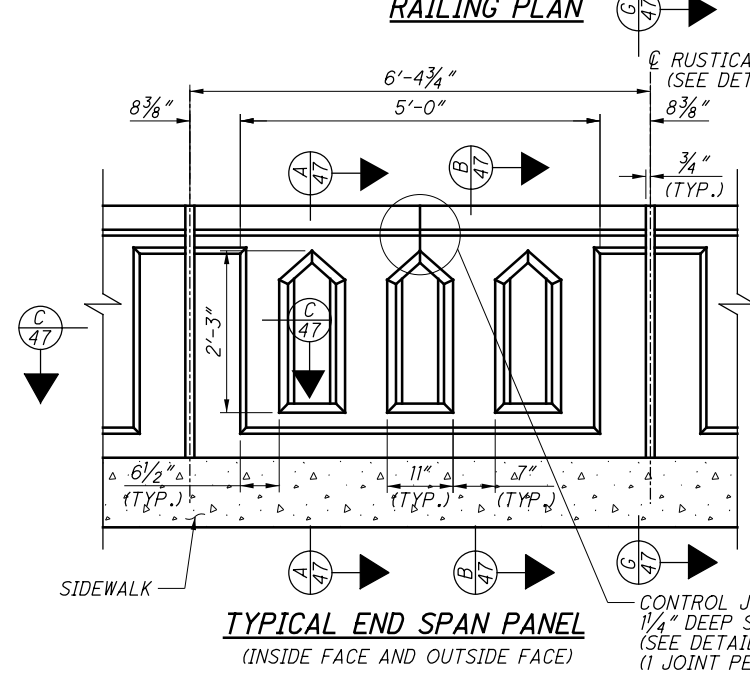
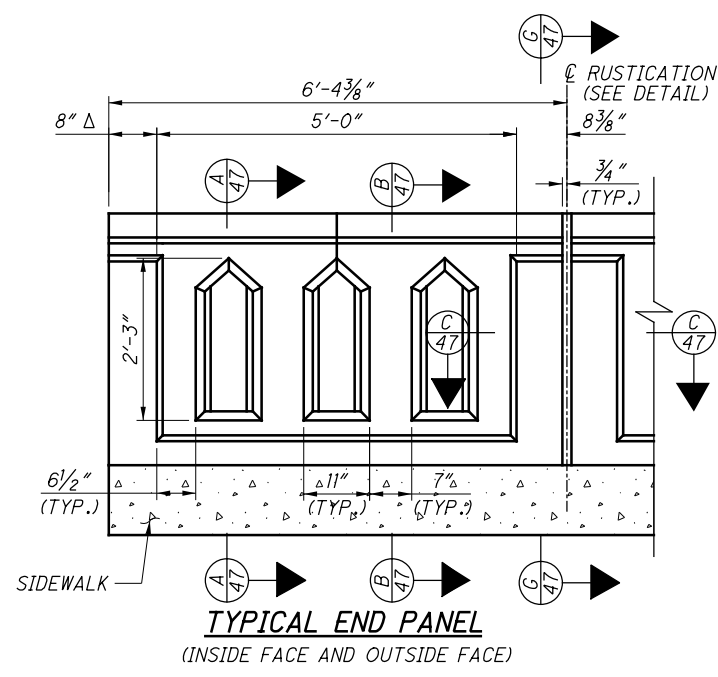
45 / 54

205  
231

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**RAILING PLAN**



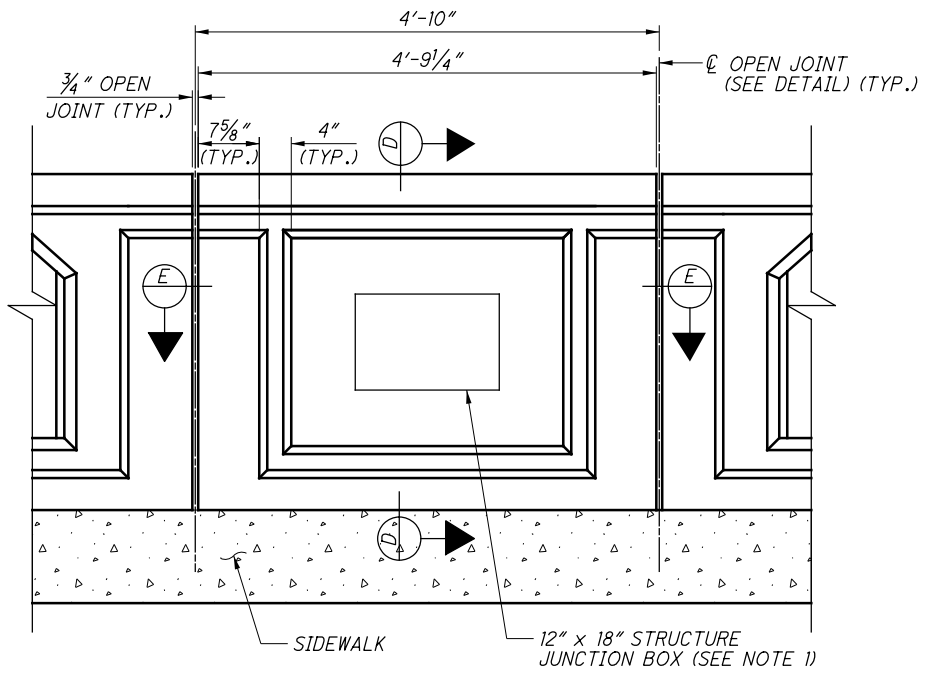
**NOTES:**  
 1. SEE SHEET 47 / 54 FOR ADDITIONAL RAILING AND PIER PILASTER DETAILS, AND FOR SECTIONS A-A, B-B, C-C & G-G.

**LEGEND:**  
 L&R = LEFT AND RIGHT  
 Δ = DIMENSION SHOWN AT 60°F

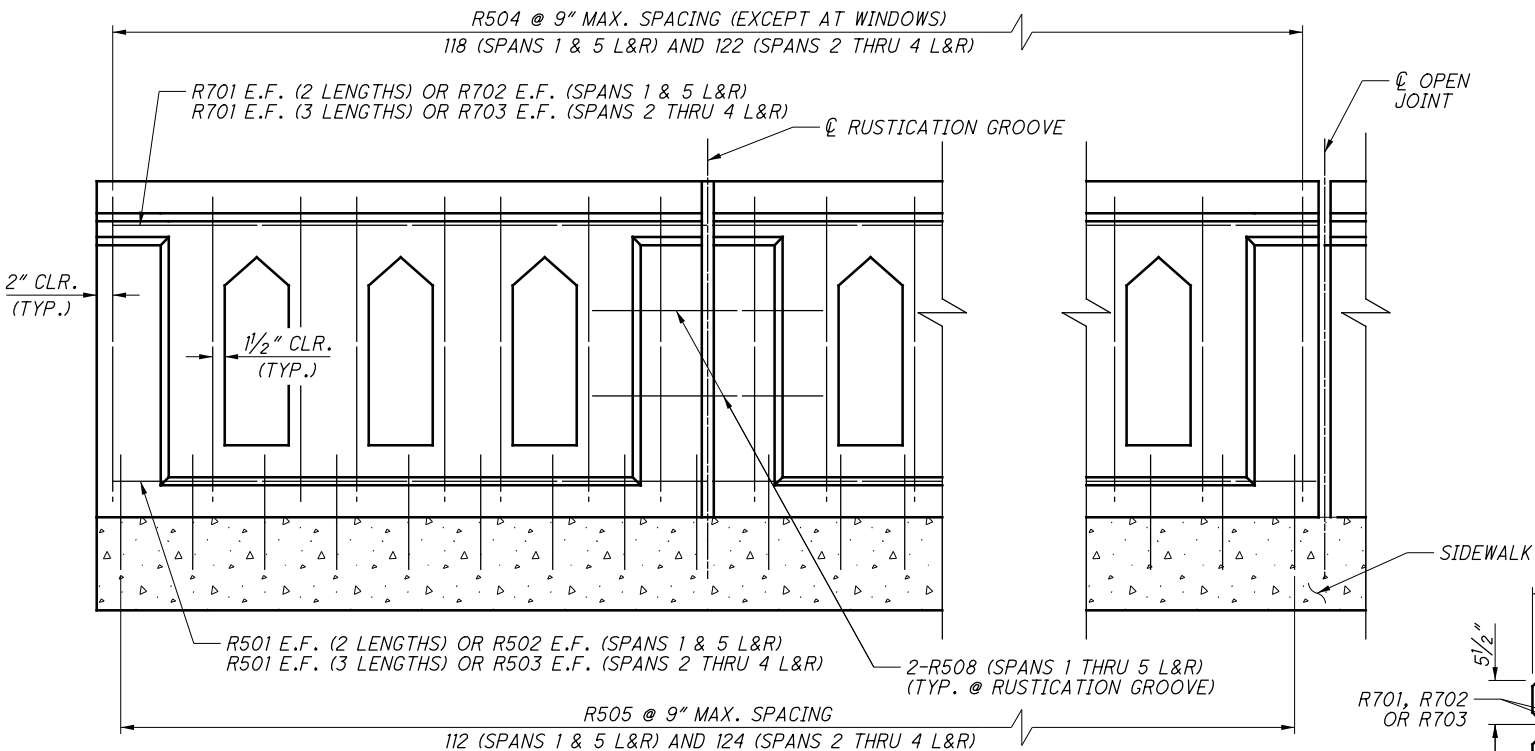
<b>BURGESS &amp; NIPLÉ</b> Engineers - Architects - Planners 5085 REED ROAD, COLUMBUS, OHIO 43220	
DESIGNED MAB	DATE 10/25/17
DRAWN MAB	REVIEWED JCS
CHECKED BFK/TTK	STRUCTURE FILE NUMBER 2000572
<b>RAILING DETAILS 1</b> BRIDGE NO. DEF-15-1477 CLINTON STREET OVER THE MAUMEE RIVER	
DEF-15-14.77	PID No. 96605
46 / 54	206 231



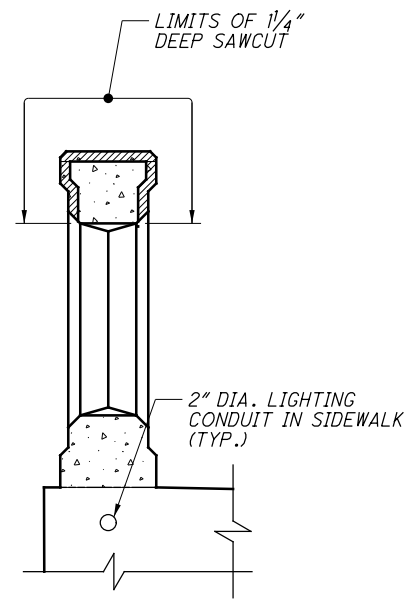
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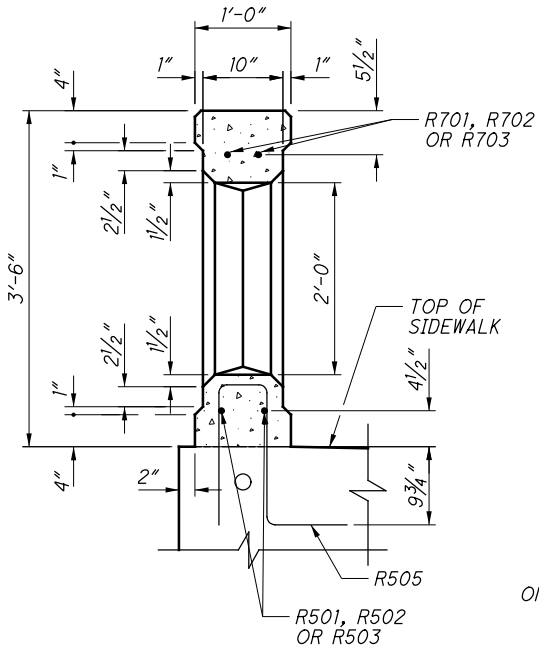
**TYPICAL PIER PILASTER**



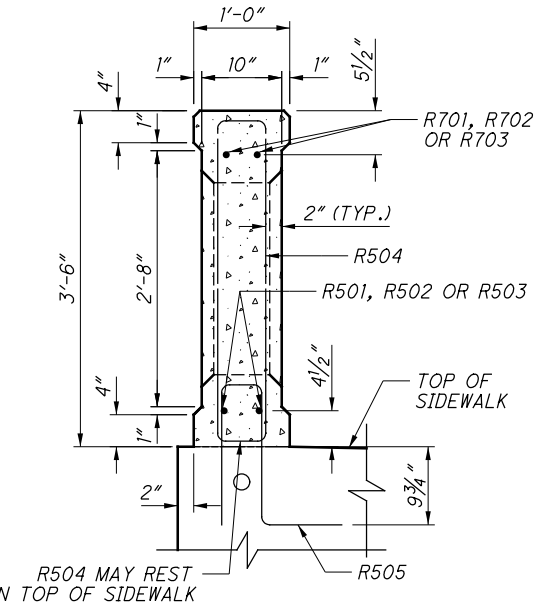
**RAILING REINFORCEMENT ELEVATION**



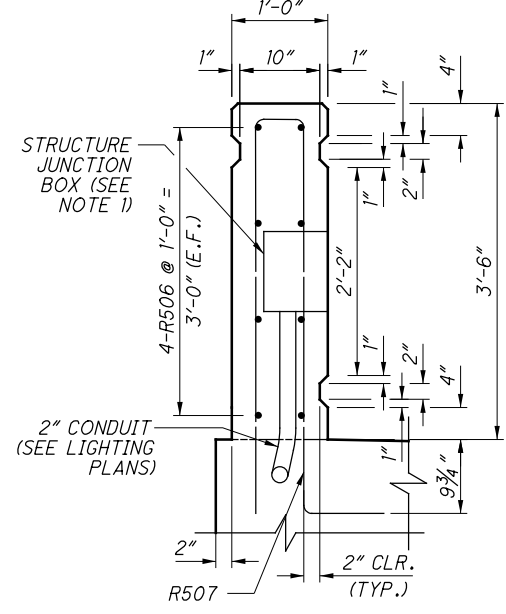
**CONTROL JOINT DETAIL**  
(THRU RAILING WINDOW)



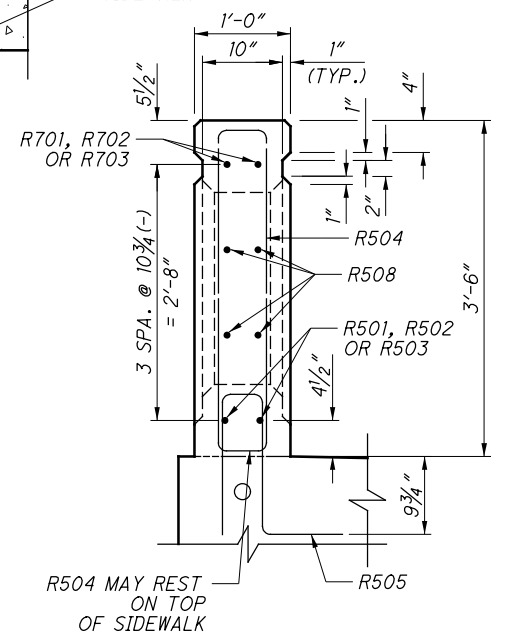
**SECTION A-A**  
(THRU RAILING WINDOW)



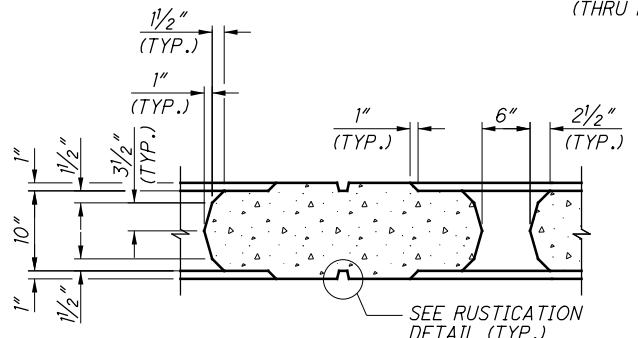
**SECTION B-B**  
(THRU SOLID RAILING)



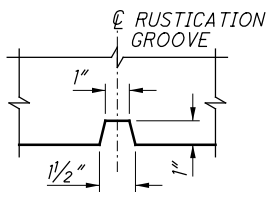
**SECTION D-D**  
(THRU PIER PILASTER)



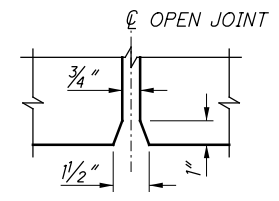
**SECTION G-G**



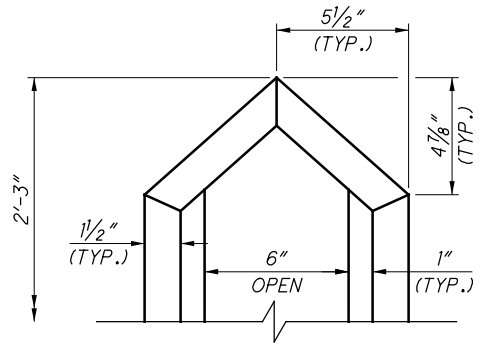
**SECTION C-C**



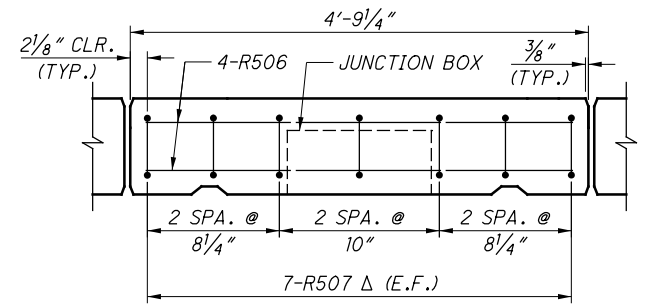
**RUSTICATION DETAIL**



**OPEN JOINT DETAIL**



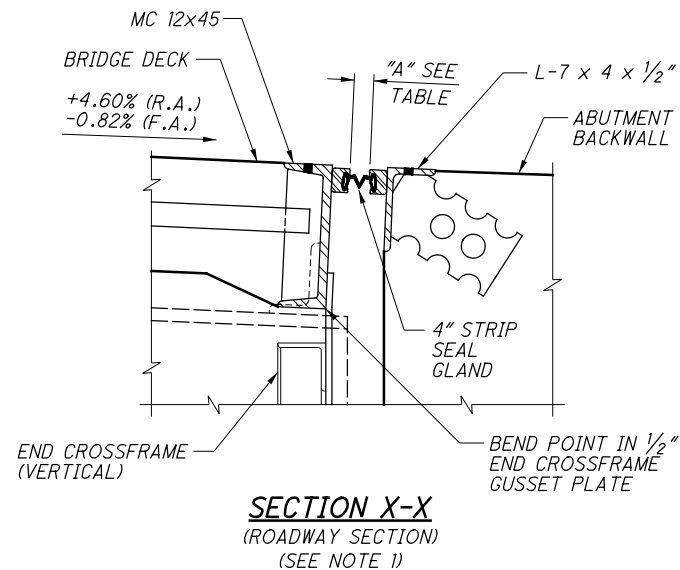
**DETAIL F**



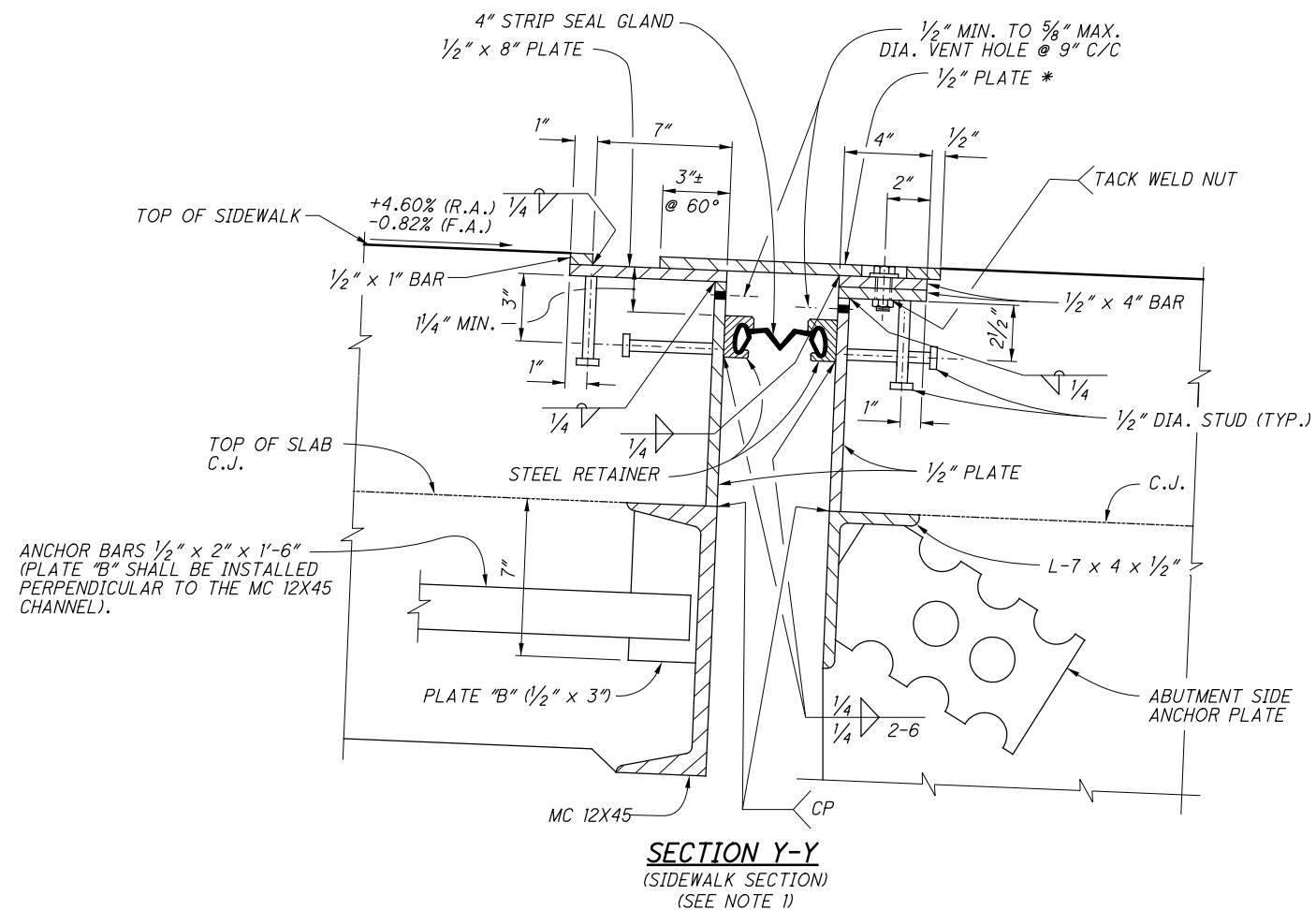
**SECTION E-E**

- NOTES:**
- SEE LIGHTING PLANS FOR STRUCTURE JUNCTION BOX DETAILS AND PAYMENT. CENTER STRUCTURE BOX VERTICALLY AND HORIZONTALLY.
  - LAP BARS THE FOLLOWING MINIMUM LENGTHS:  
 #5 BARS: 2'-7"  
 #7 BARS: 4'-1"
- LEGEND:**
- Δ = FIELD CUT R507 BARS AS NEEDED TO AVOID STRUCTURE JUNCTION BOX. REPAIR ALL DAMAGE TO THE EPOXY COATING, AS A RESULT OF THIS WORK, ACCORDING TO 509.
  - E.F. = EACH FACE
  - L&R = LEFT AND RIGHT

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TEMPERATURE °F	JOINT OPENING (DIMENSION "A")	
	R.A.	F.A.
30	2 <sup>7</sup> / <sub>16</sub> "	2 <sup>1</sup> / <sub>16</sub> "
40	2 <sup>1</sup> / <sub>4</sub> "	2 <sup>7</sup> / <sub>16</sub> "
50	2 <sup>1</sup> / <sub>16</sub> "	2 <sup>3</sup> / <sub>16</sub> "
60	1 <sup>7</sup> / <sub>8</sub> "	1 <sup>7</sup> / <sub>8</sub> "
70	1 <sup>3</sup> / <sub>4</sub> "	1 <sup>5</sup> / <sub>8</sub> "
80	1 <sup>9</sup> / <sub>16</sub> "	1 <sup>3</sup> / <sub>8</sub> "
90	1 <sup>3</sup> / <sub>8</sub> "	1 <sup>1</sup> / <sub>8</sub> "



**NOTES:**

- SEE ODOT STANDARD DRAWING EXJ-4-87 FOR ADDITIONAL DETAILS, NOTES AND LOCATION OF SECTIONS.
- ELASTOMERIC STRIP SEAL SHALL BE ONE PIECE ACROSS THE ENTIRE WIDTH OF THE STRUCTURE. NO SPLICES ARE ACCEPTABLE.
- INSTALLATION OF SEAL: DURING INSTALLATION OF THE SUPPORT/ARMOR FOR THE SUPERSTRUCTURE SIDE OF THE EXPANSION JOINT SEAL, OBSERVE THE SEATING OF BEAMS ON BEARINGS TO ASSURE THAT POSITIVE BEARING IS MAINTAINED.

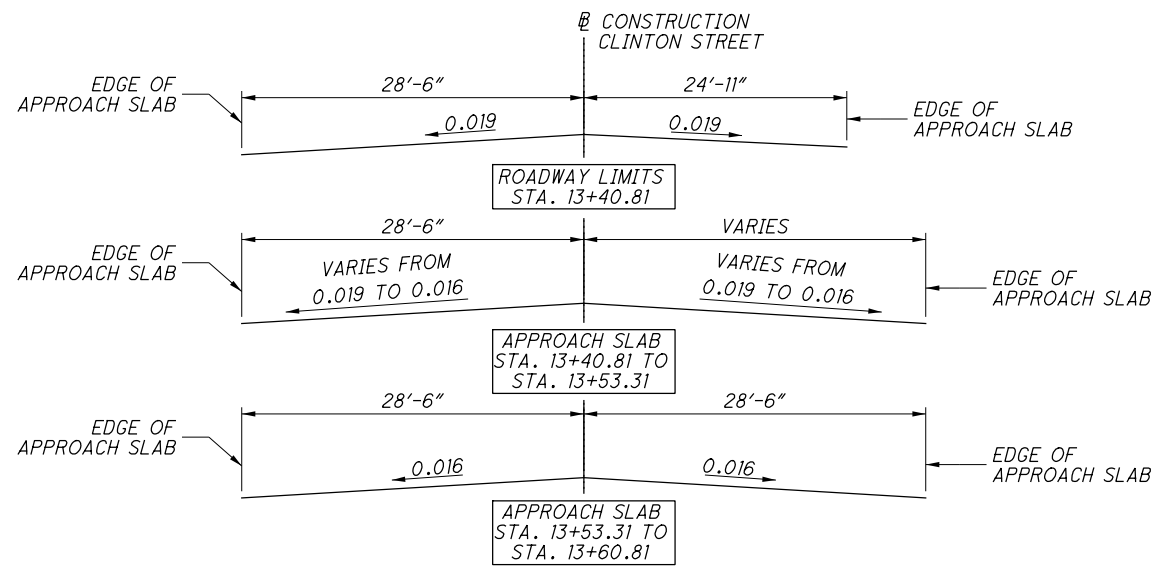
**LEGEND:**

C.J. = CONSTRUCTION JOINT  
CP = COMPLETE PENETRATION  
F.A. = FORWARD ABUTMENT  
R.A. = REAR ABUTMENT

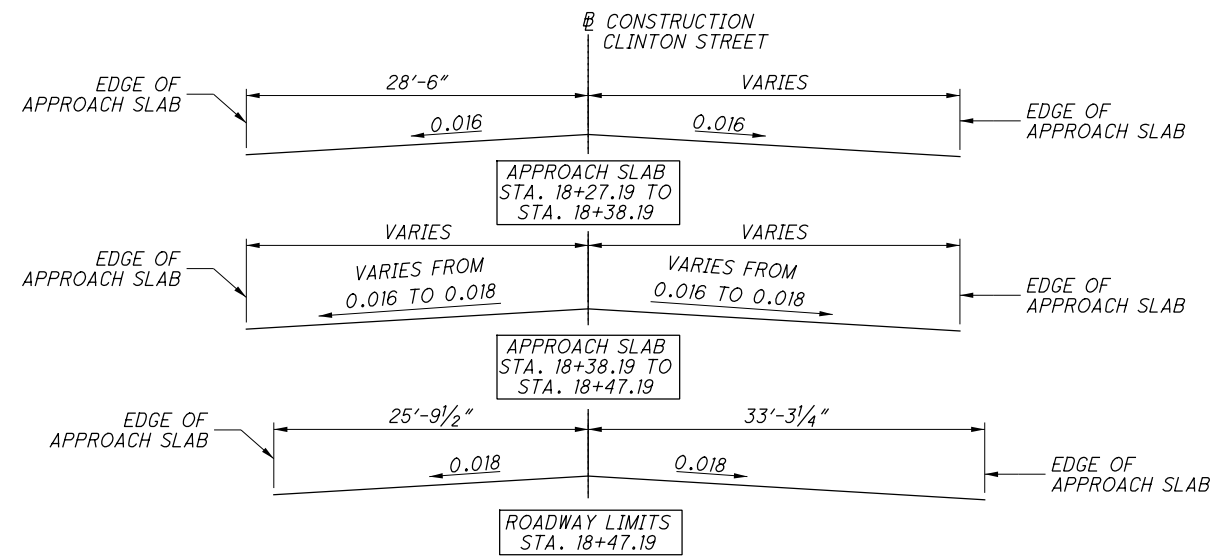
\* = NOTE CHANGE TO STANDARD DRAWING EXJ-4-87 (SLIDING PLATE IS SUPPORTED AT ABUTMENT BACKWALL INSTEAD OF DECK SIDEWALK)



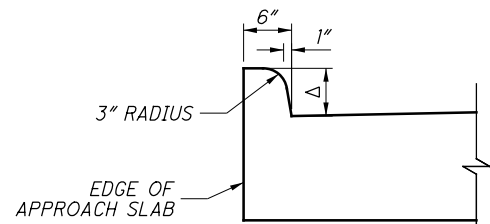
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**REAR APPROACH SLAB  
SUPERELEVATION TRANSITION DIAGRAM**



**FORWARD APPROACH SLAB  
SUPERELEVATION TRANSITION DIAGRAM**



**SECTION A-A**  
(LEFT CURB SHOWN,  
RIGHT CURB SIMILAR)

**NOTES:**

- SEE SHEET 49 / 54 FOR APPROACH SLAB GEOMETRY, NOTES AND REINFORCING.

**LEGEND:**

$\Delta$  = THICKNESS VARIES. TAPER HEIGHT FROM 6" AT ROADWAY LIMITS TO 8" AT ABUTMENT.

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REINFORCING STEEL LIST										
MARK	NUMBER	LENGTH	WEIGHT	TYPE	DIMENSIONS					
					A	B	C	D	E	F
ABUTMENTS										
A501	81	15'-6"	1309	16	4'-11"	2'-7"				
A502	4	30'-0"	125	STR.						
A503	2	26'-10"	56	STR.						
A504	4	13'-0"	54	16	3'-8"	2'-7"				
A505	2	7'-11"	17	STR.						
A506	NOT USED									
A507	7	16'-0"	117	16	5'-2"	2'-7"				
A508	2	11'-2"	23	STR.						
A509	12	30'-0"	375	STR.						
A510	6	22'-9"	142	STR.						
A511	18	30'-0"	563	STR.						
A512	9	22'-9"	214	STR.						
A513	1	11'-5"	12	1	10'-6"	1'-0 1/2"				
A514	1	10'-4"	11	1	9'-5"	1'-0 1/2"				
A515	13	15'-2"	206	16	2'-8"	4'-8"				
A516	13	15'-2"	206	16	2'-8"	4'-8"				
A517	4	7'-4"	31	STR.						
A518	2	9'-3"	19	STR.						
A519	2	12'-4"	26	STR.						
A520	10	15'-4"	160	STR.						
A521	2	15'-10"	33	20	2'-7"	7'-11"	7'-6"			
A522	2 SER. OF 8	6'-9" TO 12'-3"	159	18	8"	3'-2" TO 5'-11"	3'-2" TO 5'-11"			4 3/4" (-)
A523	81	15'-6"	1309	16	4'-11"	2'-7"				
A524	4	30'-0"	125	STR.						
A525	2	26'-10"	56	STR.						
A526	4	13'-0"	54	16	3'-8"	2'-7"				
A527	2	7'-11"	17	STR.						
A528	NOT USED									
A529	7	16'-0"	117	16	5'-2"	2'-7"				
A530	2	11'-2"	23	STR.						
A531	16	30'-0"	501	STR.						
A532	8	22'-9"	190	STR.						
A533	18	30'-0"	563	STR.						
A534	9	22'-9"	214	STR.						
A535	1	11'-4"	12	1	10'-5"	1'-0 1/2"				
A536	1	10'-4"	11	1	9'-5"	1'-0 1/2"				
A537	14	9'-3"	135	18	4'-8"	2'-8"	2'-2"			
A538	14	15'-2"	221	16	2'-8"	4'-8"				
A539	6	7'-4"	46	STR.						
A540	2	9'-4"	19	STR.						
A541	2	11'-9"	25	STR.						
A542	2	14'-1"	29	STR.						
A543	8	15'-4"	128	STR.						
A544	2	16'-0"	33	20	3'-4"	7'-11"	7'-5"			
A545	2 SER. OF 8	6'-9" TO 13'-1"	165	18	8"	3'-2" TO 6'-4"	3'-2" TO 6'-4"			5 3/8" (+)
A546	42	5'-11"	259	18	6"	2'-10"	2'-10"			
A547	32	7'-8"	256	35	6"	3'-2"	6"	6"		
A548	16	10'-4"	172	STR.						
A549	14	9'-3"	135	12	2'-2"	6"	4'-8"	2'-8"		
A550	28	9'-3"	270	1	10"	8'-6 1/2"				
A551	48	5'-3"	263	STR.						
A552	12	9'-10"	123	16	1'-4"	3'-4"				

REINFORCING STEEL LIST										
MARK	NUMBER	LENGTH	WEIGHT	TYPE	DIMENSIONS					
					A	B	C	D	E	F
ABUTMENTS (CONT.)										
A553	18	2'-8"	50	STR.						
A554	14	9'-5"	138	STR.						
A555	14	9'-6"	139	STR.						
A556	4	5'-3"	22	18	3'-4"	1'-3"	11"			
A557	4	5'-3"	22	12	11"	4"	3'-4"	1'-3"		
A558	1 SER. OF 6	2'-8" TO 2'-3"	15	STR.						1"
A559	16	4'-8"	78	STR.						
A560	28	10'-2"	297	1	10"	9'-5 1/2"				
A561	14	9'-6"	139	STR.						
A562	14	9'-6"	139	STR.						
A563	40	1'-8"	70	STR.						
A564	24	3'-0"	75	STR.						
A601	74	14'-3"	1584	18	3'-5"	5'-7"	5'-7"			
A602	74	6'-1"	676	18	3'-5"	1'-6"	1'-6"			
A603	74	11'-11"	1325	18	1'-5"	5'-5"	5'-5"			
A604	56	4'-1"	343	18	1'-5"	1'-6"	1'-6"			
A605	56	8'-3"	694	18	11"	3'-10"	3'-10"			
A606	18	10'-5"	282	18	1'-5"	4'-8"	4'-8"			
A607	12	10'-8"	192	35	1'-8"	3'-1"	1'-0"	1'-0"		
A608	8	4'-4"	52	1	1'-6"	3'-0"				
A609	74	16'-3"	1806	18	3'-5"	6'-7"	6'-7"			
A610	74	6'-1"	676	18	3'-5"	1'-6"	1'-6"			
A611	74	11'-11"	1325	18	1'-5"	5'-5"	5'-5"			
A612	56	4'-1"	343	18	1'-5"	1'-6"	1'-6"			
A613	56	8'-3"	694	18	11"	3'-10"	3'-10"			
A614	18	10'-7"	286	18	1'-5"	4'-9"	4'-9"			
A615	18	4'-2"	113	1	11"	3'-5"				
A616	18	4'-2"	113	1	11"	3'-5"				
A701	3	20'-8"	127	18	8"	10'-2"	10'-2"			
A702	3	10'-6"	64	18	8"	5'-1"	5'-1"			
A703	3	22'-8"	139	18	8"	11'-2"	11'-2"			
A704	3	11'-2"	68	18	8"	5'-5"	5'-5"			
A801	16	30'-0"	1282	STR.						
A802	8	31'-4"	669	STR.						
A803	8	7'-11"	169	STR.						
A804	8	11'-2"	239	STR.						
A805	8	30'-0"	641	STR.						
A806	4	27'-3"	291	STR.						
A807	16	30'-0"	1282	STR.						
A808	8	31'-4"	669	STR.						
A809	8	7'-11"	169	STR.						
A810	8	11'-2"	239	STR.						
A811	8	30'-0"	641	STR.						
A812	4	27'-3"	291	STR.						
A901	20	4'-3"	289	1	1'-6"	3'-0 1/2"				
A902	8	3'-5"	93	STR.						
D801	78	4'-8"	972	28	2'-4"	1'-5"				
ABUTMENTS TOTAL			29351							

**NOTES**

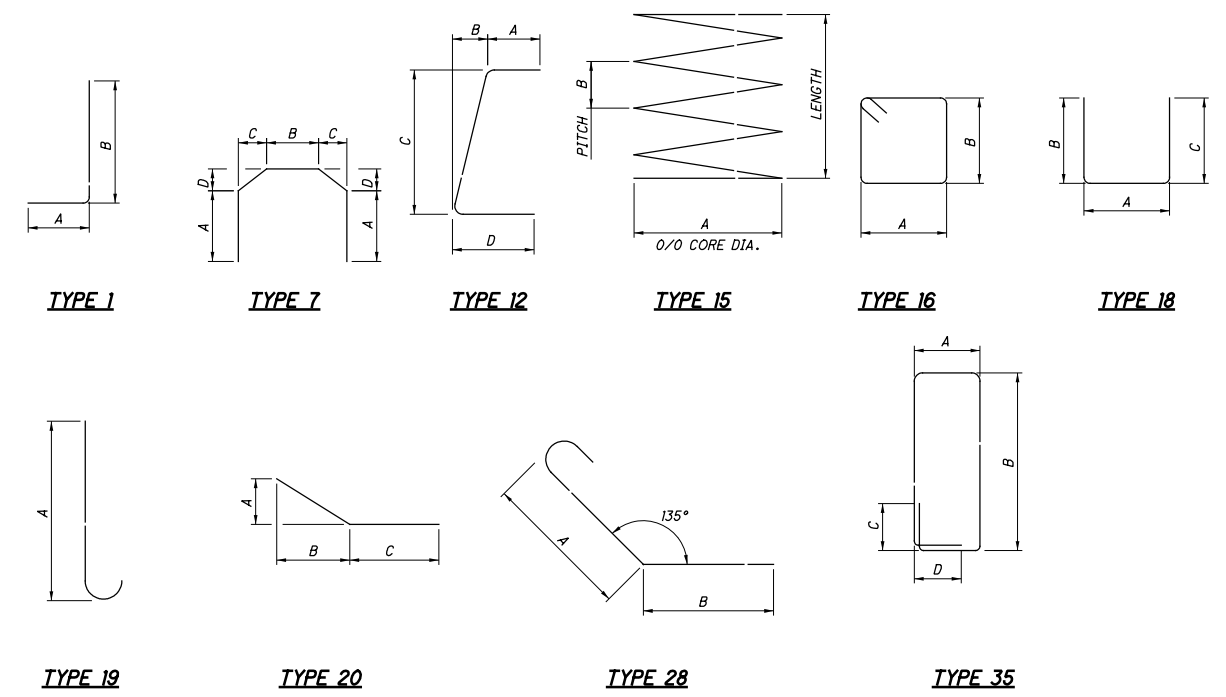
- THE BAR NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHEN FOUR DIGITS ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, P601 IS A NO. 6 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE NOTED. "R" INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.
- ALL REINFORCING STEEL TO BE EPOXY COATED.
- SEE SHEET [52/54] FOR BAR BENDING DIAGRAMS AND NOTES.

<b>REINFORCING STEEL LIST 1</b> BRIDGE NO. DEF-15-1477 CLINTON STREET OVER THE MAUMEE RIVER	DESIGN AGENCY NORTHWEST CONSULTANTS, INC 3220 CENTRAL PARK WEST TOLEDO, OHIO 43617 PHONE(419) 841-4704 FAX(419) 841-2879	DATE 3/30/18	REVIEWED JBD
DESIGNED APM CHECKED TTN	DRAWN APM REVISED	STRUCTURE FILE NUMBER 2000572	PID No. 96605
DEF-15-14.77		51 / 54	
211 231			

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REINFORCING STEEL LIST											
MARK	NUMBER	LENGTH	WEIGHT	TYPE	DIMENSIONS						
					A	B	C	D	E	F	INC.
PIERS											
SP501	3	15'-1"	1837	15	3'-0"	3"					
SP502	3	17'-9"	2146	15	3'-0"	3"					
SP503	3	18'-3"	2204	15	3'-0"	3"					
SP504	3	16'-10"	2040	15	3'-0"	3"					
P501	712	10'-7"	7859	18	3'-2"	3'-10"	3'-10"				
P502	192	9'-7"	1919	18	2'-2"	3'-10"	3'-10"				
P503	96	30'-0"	3004	STR.							
P504	48	22'-6"	1126	STR.							
P505	152	10'-5"	1651	18	3'-0"	3'-10"	3'-10"				
P506	152	16'-0"	2537	7	6'-1"	8 1/2"	1'-1 3/4"	1'-1 3/4"			
P507	608	8'-1"	5126	18	2'-4"	3'-0"	3'-0"				
P508	8	10'-9"	90	18	3'-0"	4'-0"	4'-0"				
P509	8	15'-5"	129	7	5'-9"	6"	1'-3"	1'-3"			
P510	16	8'-1"	135	18	2'-4"	3'-0"	3'-0"				
P511	96	10'-7"	1060	18	3'-0"	3'-11"	3'-11"				
P512	96	13'-5"	1343	7	5'-8"	0"	9 1/2"	9 1/2"			
P513	192	8'-1"	1619	18	2'-4"	3'-0"	3'-0"				
P514	40	13'-5"	560	7	5'-8"	0"	9 1/2"	9 1/2"			
P515	176	6'-2"	1132	18	1'-7"	2'-5"	2'-5"				
P516	40	7'-9"	323	7	2'-10"	0"	9 1/2"	9 1/2"			
P517					NOT USED						
P518	16	8'-2"	136	18	2'-5"	3'-0"	3'-0"				
P519	16	9'-2"	153	7	3'-0"	3 1/4"	1'-0 3/4"	1'-0 3/4"			
P520					NOT USED						
P521	56	8'-5"	492	18	2'-10"	2'-11"	2'-11"				
P522	56	8'-6"	496	7	2'-5"	5 1/4"	1'-2 1/4"	1'-2 1/4"			
P523	32	5'-11"	197	18	1'-8"	2'-3"	2'-3"				
P524	32	6'-8"	223	7	2'-3"	1 5/8"	9 1/4"	9 1/4"			
P525	20	14'-8"	306	STR.							
P526	20	17'-4"	362	STR.							
P527	20	17'-10"	372	STR.							
P528	20	16'-6"	344	STR.							
P529	96	4'-2"	417	STR.							
P530	72	4'-10"	363	STR.							
P531	88	4'-5"	405	18	3'-0"	10"	10"				
P532	8	3'-6"	29	18	2'-1"	10"	10"				
P533	8	2'-1"	17	18	8"	10"	10"				
P534	8	4'-7"	38	18	3'-2"	10"	10"				
P535	16	8'-9"	146	STR.							
P701	240	16'-10"	8258	STR.							
P801	56	32'-7"	4872	1	31'-5"	1'-4"					
P802	28	30'-0"	2243	STR.							
P1001	36	19'-8"	3047	STR.							
P1002	36	22'-4"	3460	STR.							
P1003	36	22'-10"	3537	STR.							
P1004	36	21'-5"	3318	STR.							
P1005	30	10'-3"	1323	STR.							
P1006	30	12'-11"	1667	STR.							
P1007	30	13'-5"	1732	STR.							
P1008	30	12'-0"	1549	STR.							
P1101	72	30'-0"	11476	STR.							
P1102	36	34'-0"	6503	STR.							
PIERS TOTAL			95321								

REINFORCING STEEL LIST											
MARK	NUMBER	LENGTH	WEIGHT	TYPE	DIMENSIONS						
					A	B	C	D	E	F	INC.
DRILLED SHAFTS (FOR INFORMATION ONLY, SEE NOTE 3)											
SP401	7	24'-11"	3024	15	3'-0"	4 1/2"					
SP402	7	38'-6"	4601	15	3'-0"	4 1/2"					
SP403	3	14'-9"	334	15	3'-0"	1'-0"					
SP404	3	15'-4"	346	15	3'-0"	1'-0"					
SP405	3	17'-8"	390	15	3'-0"	1'-0"					
SP406	3	18'-8"	408	15	3'-0"	1'-0"					
SP407	2	12'-0"	188	15	3'-0"	1'-0"					
SP408	2	12'-7"	196	15	3'-0"	1'-0"					
SP409	2	14'-11"	225	15	3'-0"	1'-0"					
SP410	2	15'-11"	238	15	3'-0"	1'-0"					
DS1001	98	28'-1"	11843	19	26'-8"						
DS1002	98	41'-8"	17571	19	40'-3"						
DS1003	144	12'-6"	7745	STR.							
DS1101	36	14'-8"	2805	STR.							
DS1102	36	15'-4"	2933	STR.							
DS1103	36	17'-8"	3379	STR.							
DS1104	36	18'-8"	3570	STR.							
DS1105	24	16'-10"	2146	STR.							
DS1106	24	17'-5"	2221	STR.							
DS1107	24	19'-9"	2518	STR.							
DS1108	24	20'-9"	2646	STR.							
DRILLED SHAFTS TOTAL			69327								



**NOTES**

- THE BAR NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHEN FOUR DIGITS ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, P601 IS A NO. 6 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE NOTED. "R" INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.
- ALL REINFORCING STEEL TO BE EPOXY COATED.
- DRILLED SHAFT REINFORCING STEEL IS NOT INCLUDED IN ITEM 509, EPOXY COATED REINFORCING STEEL FOR PAYMENT. DRILLED SHAFT REINFORCING STEEL IS INCLUDED IN ITEM 524, DRILLED SHAFTS, 48" DIAMETER, ABOVE BEDROCK.

**REINFORCING STEEL LIST 2**

BRIDGE NO. DEF-15-1477  
CLINTON STREET OVER THE MAUMEE RIVER

**DEF - 15 - 14.77**  
**PID No. 96605**

DESIGN AGENCY: NORTHWEST CONSULTANTS, INC.  
3220 CENTRAL PARK WEST  
TOLEDO, OHIO 43617  
PHONE(419) 841-4704 FAX(419) 841-2879

DATE: 3/30/18  
REVIEWED: JBD  
DRAWN: APM  
DESIGNED: APM  
CHECKED: TTN

STRUCTURE FILE NUMBER: 2000572

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**REINFORCING STEEL LIST - APPROACH SLAB**

MARK	NO.	LENGTH	WEIGHT	TYPE	DIM. A	DIM. B	DIM. C	DIM. D	DIM. E/RAD.	INCR.
	1	6'-3"								
AS501	S.O.	TO	53	STR						2'-0"
	5	14'-3"								
AS502	35	6'-2"	225	STR						
AS503	41	6'-6"	278	STR						
AS504	2	9'-3"	19	20	1'-2"	1'-5 1/2"	7'-5"			
	1	2'-9"								
AS505	S.O.	TO	69	STR						0'-6"
	12	8'-3"								
AS506	2	6'-5"	13	STR						
	1	2'-9"								
AS507	S.O.	TO	161	STR						0'-2 1/2"
	28	8'-3"								
AS508	4	16'-0"	67	STR						
AS509	3	9'-0"	28	STR						
AS510	1	6'-6"	7	20	0'-6"	2'-3"	4'-2"			
AS511	1	17'-6"	18	STR						
AS512	3	6'-11"								
	1	6'-3"								
AS1001	S.O.	TO	397	STR						1'-0"
	9	14'-3"								
AS1002	6	8'-4"	215	19	6'-11"					
AS1003	6	17'-5"	450	19	16'-0"					
AS1004	1	6'-6"	28	20	0'-6"	2'-3"	4'-2"			
AS1005	1	18'-11"	81	19	17'-6"					
AS1006	5	6'-5"	138	STR						
		TOTAL	2247	(SEE NOTE 2)						

**REINFORCING STEEL LIST - DECK AND SIDEWALK**

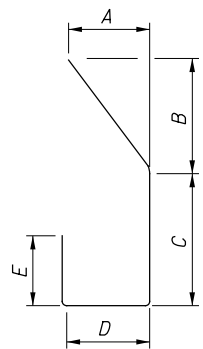
MARK	NO.	LENGTH	WEIGHT	TYPE	DIM. A	DIM. B	DIM. C	DIM. D	DIM. E/RAD.	INCR.
S401	2160	30'-0"	43286	STR						
S402	135	13'-0"	1172	STR						
S403	1112	6'-4"	4705	3B	0'-9"	0'-9"	2'-10"	1'-7"	1'-0"	
S404	556	12'-8"	4705	18	0'-8"	1'-6"	10'-8"			
S405	1112	2'-10"	2105	12	0'-11"	0'-2"	1'-0"	1'-1"		
S406	556	10'-8"	3962	18	0'-8"	1'-6"	8'-8"			
S501	1836	30'-0"	57448	STR						
S502	88	20'-0"	1836	STR						
S503	2222	39'-7"	91736	19	39'-0"					
S504	2222	39'-3"	90964	STR						
S505	214	31'-3"	6975	STR						
S506	214	29'-3"	6529	STR						
		TOTAL	315423							

**REINFORCING STEEL LIST - RAILING**

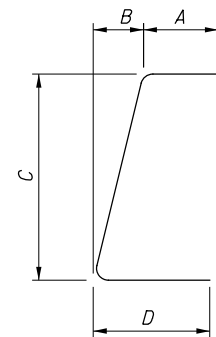
MARK	NO.	LENGTH	WEIGHT	TYPE	DIM. A	DIM. B	DIM. C	DIM. D	DIM. E/RAD.	INCR.
R501	52	30'-0"	1627	STR						
R502	8	28'-0"	234	STR						
R503	12	9'-11"	124	STR						
R504	1204	8'-3"	10360	16	0'-6"	3'-4"				
R505	1192	3'-3"	4869	27	0'-10"	1'-5 3/4"	0'-6"	1'-5 3/4"		
R506	64	4'-5"	295	STR						
R507	56	9'-5"	550	27	0'-10"	4'-2 3/4"	0'-6"	4'-2 3/4"		
R508	528	2'-3"	1239	STR						
R701	52	30'-0"	3189	STR						
R702	8	31'-0"	507	STR						
R703	12	14'-5"	354	STR						
		TOTAL	23348							

**NOTES:**

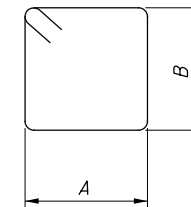
- SEE SHEET 52 / 54 FOR NOTES AND LEGEND.
- PAYMENT FOR APPROACH SLAB REINFORCING STEEL IS INCLUDED IN ITEM 526 - REINFORCED CONCRETE APPROACH SLABS WITH QA/QC (T=13%), AS PER PLAN. SEE NOTE 4 ON SHEET 49 / 54.



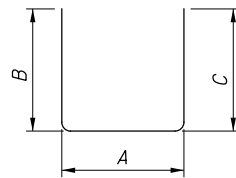
**TYPE 3B**



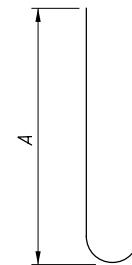
**TYPE 12**



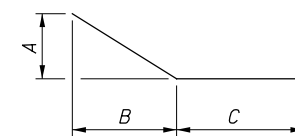
**TYPE 16**



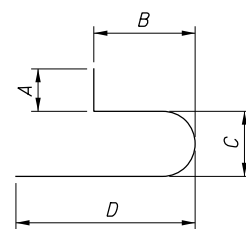
**TYPE 18**



**TYPE 19**



**TYPE 20**



**TYPE 27**

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**REINFORCING STEEL LIST - PLAZA WALL**

MARK	NO.	LENGTH	WEIGHT	TYPE	DIM. A	DIM. B	DIM. C	DIM. D	DIM. E/RAD.	INCR.
W501	4	14'-11"	62	16	2'-2"	5'-0"				
W502	88	9'-5"	864	18	0'-8"	4'-6"	4'-6"			
W503	88	11'-1"	1017	18	0'-8"	5'-4"	5'-4"			
W504	92	4'-6"	432	99	2'-0"	1'-4"	0'-5"	1'-2"		
W505	4	2'-3"	9	STR						
W506	8	11'-7"	97	36	5'-0"	4'-2"	2'-5"		3'-5"	
W507	4	17'-3"	72	36	7'-5"	2'-5"	7'-5"		3'-5"	
W508	4	7'-4"	31	STR						
W509	14	2'-4"	34	STR						
W510	22	4'-5"	101	20	2'-0 1/2"	0'-6 1/2"	2'-5 1/4"			
W511	28	10'-9"	314	36	5'-0"	3'-4"	2'-5"		2'-9"	
W512	50	10'-2"	530	36	5'-0"	2'-9"	2'-5"		2'-3"	
W513	14	16'-9"	245	36	7'-5"	1'-11"	7'-5"		2'-9"	
W514	28	16'-5"	479	36	7'-5"	1'-7"	7'-5"		2'-3"	
W515	14	8'-1"	118	STR						
W516	14	10'-3"	150	STR						
W517	12	8'-11"	112	16	1'-6"	2'-8"				
W518	14	4'-6"	66	1	1'-11"	2'-8"				
W519	14	3'-9"	55	18	2'-0"	1'-0"	1'-0"			
W520	4	15'-11"	66	16	2'-2"	5'-6"				
W521	8	14'-9"	123	18	1'-7 1/2"	6'-8"	6'-8"			
W522	2	12'-11"	27	16	0'-8"	5'-6"				
W523	8	2'-5"	20	STR						
W524	22	11'-4"	260	36	5'-0"	3'-11"	2'-5"		3'-3"	
	2	7'-3"			0'-11"					
W525	S.O.	TO	53	36	TO	3'-11"	2'-5"		3'-3"	1'-2"
	3	9'-7"			3'-3"					
	2	6'-1"			0'-11"					
W526	S.O.	TO	45	36	TO	2'-9"	2'-5"		2'-3"	1'-2"
	3	8'-5"			3'-3"					
W527	14	17'-2"	251	36	7'-5"	2'-4"	7'-5"		3'-3"	
W528	28	6'-4"	185	STR						
W529	2	11'-11"	25	16	0'-8"	5'-0"				
W530	4	4'-5"	18	STR						
W531	4	3'-8"	15	STR						
W532	4	3'-7"	15	18	1'-2"	1'-4"	1'-4"			
W601	76	12'-4"	1408	18	1'-2"	5'-9"	5'-9"			
W602	38	11'-2"	637	18	1'-2"	5'-2"	5'-2"			
W603	4	7'-5"	45	16	1'-2"	2'-4"				
	1	8'-9"				3'-0"				
W604	S.O.	TO	63	16	1'-2"	TO				1'-1 3/8"
	4	12'-1"			4'-8"					
W605	38	13'-2"	752	18	1'-2"	6'-2"	6'-2"			
W606	4	9'-5"	57	16	1'-2"	3'-4"				
	1	10'-5"				3'-10"				
W607	S.O.	TO	73	16	1'-2"	TO				1'-2"
	4	13'-11"			5'-7"					
		TOTAL	8926							

**REINFORCING STEEL LIST - PLAZA FOOTING**

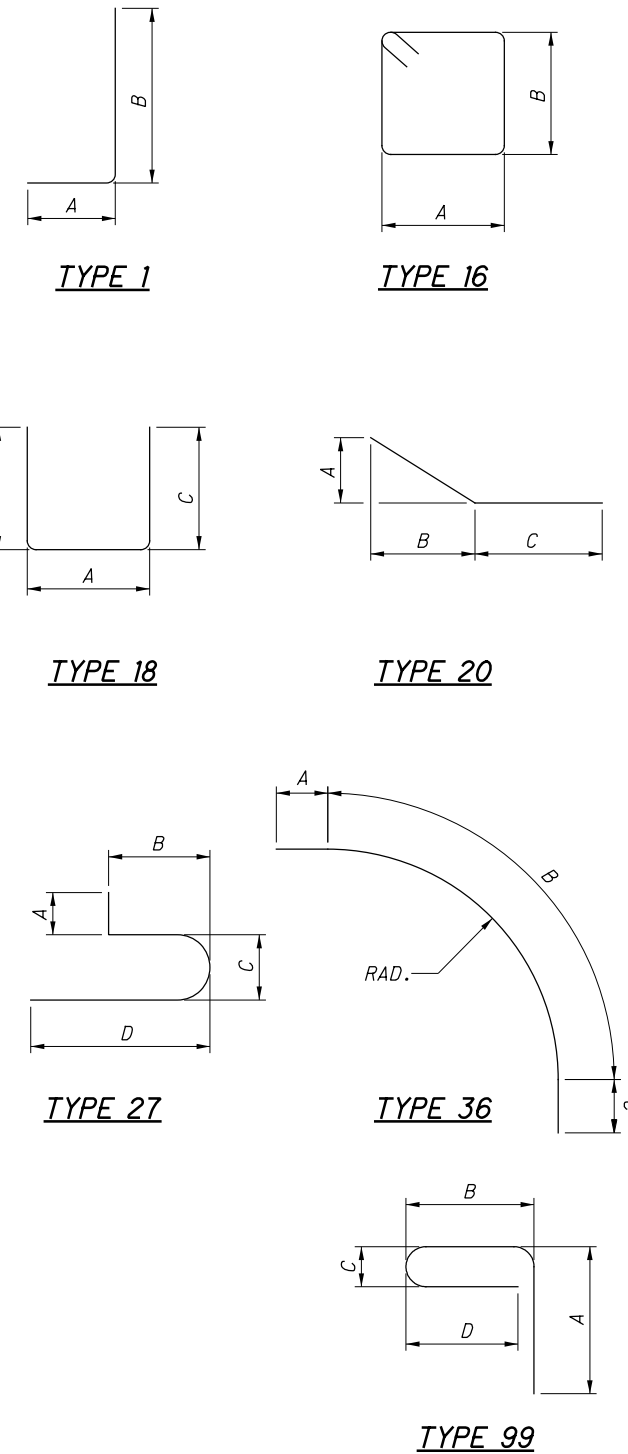
MARK	NO.	LENGTH	WEIGHT	TYPE	DIM. A	DIM. B	DIM. C	DIM. D	DIM. E/RAD.	INCR.
	1	7'-7"			3'-8"					
WF501	S.O.	TO	16	18	TO	2'-1"	2'-1"			0'-2"
	2	7'-9"			3'-10"					
	1	8'-4"			4'-5"					
WF502	S.O.	TO	68	18	TO	2'-1"	2'-1"			0'-4 1/8"
	7	10'-5"			6'-6"					
WF503	26	11'-7"	314	18	7'-8"	2'-1"	2'-1"			
	1	7'-6"			3'-8"					
WF701	S.O.	TO	31	18	TO	2'-1"	2'-1"			0'-2"
	2	7'-8"			3'-10"					
	1	8'-3"			4'-5"					
WF702	S.O.	TO	133	18	TO	2'-1"	2'-1"			0'-4 1/8"
	7	10'-4"			6'-6"					
WF703	26	11'-6"	611	18	7'-8"	2'-1"	2'-1"			
WF704	12	11'-10"	290	STR						
WF705	2	7'-2"	29	STR						
	2	12'-2"								
WF706	S.O.	TO	103	STR						0'-9"
	2	12'-11"								
WF707	16	12'-2"	398	STR						
WF708	16	12'-5"	406	STR						
		TOTAL	2399							

**REINFORCING STEEL LIST - PLAZA RAILING**

MARK	NO.	LENGTH	WEIGHT	TYPE	DIM. A	DIM. B	DIM. C	DIM. D	DIM. E/RAD.	INCR.
RP501	116	3'-0"	363	27	0'-8"	1'-2"	0'-6"	1'-0"		
RP502	120	8'-1"	1012	16	0'-6"	3'-3"				
RP503	2	4'-1"	9	20	2'-6"	0'-8"	1'-7"			
RP504	2	4'-6"	9	20	2'-6"	0'-8"	2'-0"			
RP505	2	12'-5"	26	36	4'-2"	4'-1"	4'-2"		3'-4"	
RP506	2	12'-1"	25	36	4'-6"	3'-5"	4'-2"		2'-10"	
RP507	2	14'-6"	30	36	5'-11"	2'-4"	6'-3"		3'-4"	
RP508	2	14'-2"	30	36	5'-11"	2'-0"	6'-3"		2'-10"	
RP509	2	11'-11"	25	36	3'-9"	4'-1"	4'-1"		3'-4"	
RP510	2	11'-3"	23	36	3'-9"	3'-5"	4'-1"		2'-10"	
RP511	4	10'-2"	42	STR						
RP512	4	2'-3"	9	20	0'-8 3/4"	0'-2 3/8"	1'-7"			
RP513	4	3'-2"	13	20	1'-2 1/2"	0'-3 3/8"	2'-0"			
RP514	4	4'-11"	21	36	0'-7"	4'-1"	0'-3"		3'-4"	
RP515	4	4'-3"	18	36	0'-7"	3'-5"	0'-3"		2'-10"	
RP516	4	2'-10"	12	36	0'-3"	2'-4"	0'-3"		3'-4"	
RP517	4	2'-6"	10	36	0'-3"	2'-0"	0'-3"		2'-10"	
RP518	4	5'-2"	22	36	0'-3"	4'-1"	0'-10"		3'-4"	
RP519	4	4'-6"	19	36	0'-3"	3'-5"	0'-10"		2'-10"	
RP520	8	2'-6"	21	STR						
RP701	2	5'-5"	22	20	3'-11"	1'-0"	1'-7"			
RP702	2	5'-10"	24	20	3'-11"	1'-0"	2'-0"			
RP703	2	13'-10"	57	36	4'-2"	4'-1"	5'-7"		3'-4"	
RP704	2	13'-6"	55	36	4'-6"	3'-5"	5'-7"		2'-10"	
RP705	2	14'-6"	59	36	5'-11"	2'-4"	6'-3"		3'-4"	
RP706	2	14'-2"	58	36	5'-11"	2'-0"	6'-3"		2'-10"	
RP707	2	14'-11"	61	36	5'-3"	4'-1"	5'-7"		3'-4"	
RP708	2	14'-3"	58	36	5'-3"	3'-5"	5'-7"		2'-10"	
RP709	4	10'-6"	86	STR						
		TOTAL	2219							

**NOTES:**

1. SEE SHEET 52/54 FOR NOTES AND LEGEND.



**BURGESS & NIPLÉ**  
 Engineers - Architects - Planners  
 5085 REED ROAD, COLUMBUS, OHIO 43220  
 DATE: 10/25/17  
 REVIEWED: JCS  
 DRAWN: AAA  
 DESIGNED: BFK  
 CHECKED: RMK  
 STRUCTURE FILE NUMBER: 2000572  
**REINFORCING STEEL LIST 4**  
 BRIDGE NO. DEF-15-1477  
 CLINTON STREET OVER THE MAUMEE RIVER  
 DEF-15-14.77  
 PID No. 96605  
 54/54  
 214  
 231