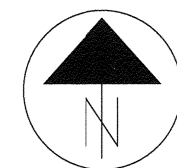
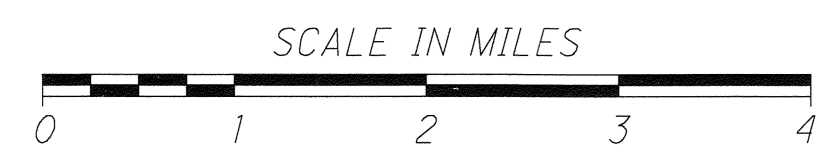


LOCATION MAP

LATITUDE: 39° 49' 3.14" N      LONGITUDE: 82° 22' 22.45" W



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

*DESIGN DESIGNATION*

CURRENT ADT (2022)	420
DESIGN YEAR ADT (2042)	500
DESIGN HOURLY VOLUME (2036)	60
DIRECTIONAL DISTRIBUTION	53%
TRUCKS (24 HOUR B&C)	10.00%
DESIGN SPEED	55 MPH
LEGAL SPEED	55 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	
RURAL LOCAL ROAD	
NHS PROJECT	NO

## DESIGN EXCEPTIONS

NONE

**PLAN PREPARED BY:**

**E. P. FERRIS**  
AND  
**ASSOCIATES**  
INC

**Consulting Civil Engineers and Surveyors**

**PERRY COUNTY ENGINEER'S OFFICE**

**PER-CR26-04.20**

**READING TOWNSHIP**

**PERRY COUNTY**

*INDEX OF SHEETS:*

<i>TITLE SHEET</i>	1
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## PROJECT DESCRIPTION

BRIDGE REPLACEMENT OF THE EXISTING MULTIPLE SPAN STEEL BEAM WITH CORRUGATED DECK, WITH ASPHALT WEARING SURFACE, SUPPORTED ON STEEL HEADER BEAM ON STEEL H-PIILING, BEHIND STEEL SHEET PILING. THE PROPOSED STRUCTURE WILL BE A SINGLE SPAN PRESTRESSED NON-COMPOSITE BOX BEAM BRIDGE ON SEMI INTERGRAL ABUTMENTS ON NEW STEEL H-PIILING BEHIND THE EXISTING STEEL SHEET PILING WITH MINIMAL ROADWAY IMPROVEMENT WORK.

PROJECT EARTH DISTURBED AREA: 0.17 ACRES  
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 0.29 ACRES  
NOTICE OF INTENT EARTH DISTURBED AREA: N/A ACRES

## 2023 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS 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 SHEET 5



APPROVED \_\_\_\_\_  
DATE \_\_\_\_\_ PERRY COUNTY ENGINEER

APPROVED \_\_\_\_\_  
DATE \_\_\_\_\_ PERRY COUNTY COMMISSIONER

APPROVED \_\_\_\_\_  
DATE \_\_\_\_\_ PERRY COUNTY COMMISSIONER

APPROVED \_\_\_\_\_  
DATE \_\_\_\_\_ PERRY COUNTY COMMISSIONER

FEDERAL PROJECT NO.:

FILE NO.

108771

CONSTRUCTION PROJECT NO.:

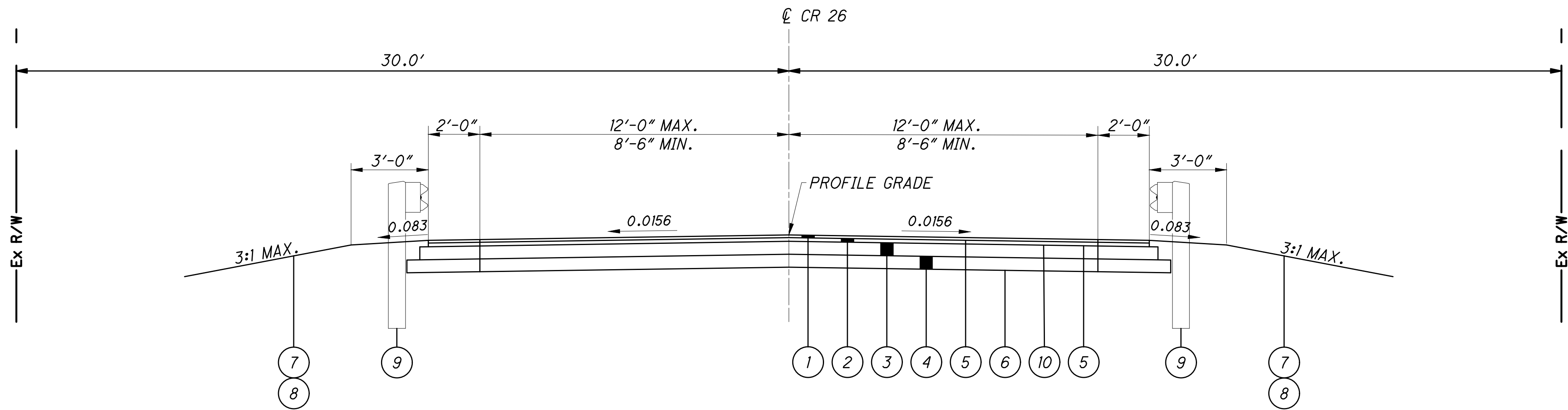
## RAILROAD INVOLVEMENT

**NONE**

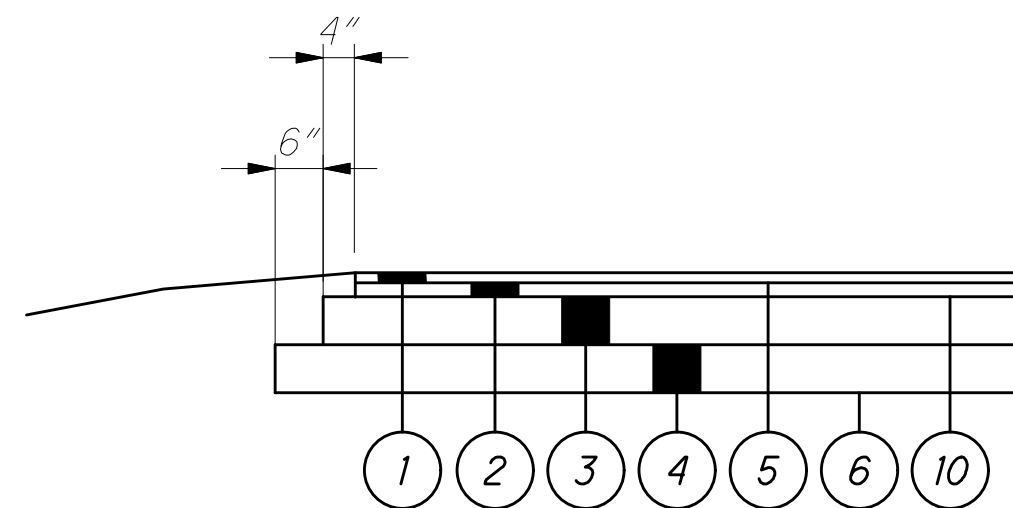
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**RUSH CREEK ROAD (C.R. 26)**  
STA. 21+30.00 TO STA. 22+08.50  
STA. 22+63.50 TO STA. 23+78.00



**STEP DETAIL**

ITEM	DESCRIPTION
1	441 ~ 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG70-22M
2	441 ~ 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (449), PG70-22
3	301 ~ 6" ASPHALT CONCRETE BASE, PG64-22 (449)
4	304 ~ 6" AGGREGATE BASE
5	407 ~ TACK COAT
6	204 ~ SUBGRADE COMPACTION
7	653 ~ TOPSOIL, FURNISHED AND PLACED, 4"
8	659 ~ SEEDING AND MULCHING
9	606 ~ GUARDRAIL, TYPE MGS
10	407 ~ TACK COAT



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ENGINEER DEFINED

DULY AUTHORIZED AGENT OF THE PERRY COUNTY ENGINEER ACTING WITHIN THE SCOPE OF HIS/HER AUTHORITY FOR PURPOSES OF ENGINEERING AND ADMINISTRATION OF THE CONTRACT.

CONTRACTOR DEFINED

THE INDIVIDUAL, FIRM OR CORPORATION CONTRACTING WITH THE PERRY COUNTY ENGINEER FOR PERFORMANCE OF PRESCRIBED WORK, ACTING DIRECTLY OR THROUGH A DULY AUTHORIZED REPRESENTATIVE AND QUALIFIED UNDER THE PROVISIONS OF 5525.02 TO 5525.09, ORC, AND ANY AMENDMENTS THERETO.

CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER.

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. THE INSTALLATION AND OPERATION OF ALL TEMPORARY TRAFFIC CONTROL AND TEMPORARY TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS SHALL BE PROVIDED BY THE CONTRACTOR WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

MATERIAL TESTING

THE COUNTY ENGINEER RESERVES THE RIGHT TO ORDER TESTING OF ALL MATERIALS USED.

CLEARING AND GRUBBING

ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY IS INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201, CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING.

EROSION CONTROL

INSTALLATION, MAINTENANCE, REMOVAL, ETC. FOR SEDIMENTATION AND EROSION CONTROL MEASURES SHALL BE PER ODOT SUPPLEMENTAL SPECIFICATION 832.

VERTICAL CONTROL		
THE VERTICAL DATUM IS BASED ON ELEVATIONS ESTABLISHED USING GPS OBSERVATIONS AND TRANSFERRED BY BENCH CIRCUIT TO SAID FRANKLIN COUNTY ENGINEERING DEPARTMENT AT RESET. THE SAID OBSERVED ELEVATIONS WERE THEN TRANSFERRED TO THE SITE, THE MONUMENT BEING ON THE NORTH AMERICAN VERTICAL DATUM OF 1988.		
NO.	DESCRIPTION	ELEVATION
BM1	5/8" REBAR 30" LONG W/ RED PLASTIC CAP STAMPED EP FERRIS TRAVERSE	961.20
BM2	5/8" REBAR 30" LONG W/ RED PLASTIC CAP STAMPED EP FERRIS TRAVERSE	979.17

HORIZONTAL CONTROL				
HORIZONTAL CONTROLS ARE BASED ON OHIO STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 83 (NSRS 2011). REFERENCE FRAME: NAD 83 (2011) ELLIPSOID: GEOID 12A MAP PROJECTION: LAMBERT CONFORMAL CONIC COORDINATE SYSTEM: OHIO STATE PLANE, SOUTH OHIO GRID COORDINATE SCALE FACTOR: 1.0000000000				
		GROUND COORDINATES		
NO.	DESCRIPTION	NORTHING	EASTING	ELEVATION
HC1	5/8" REBAR 30" LONG W/ RED PLASTIC CAP STAMPED EP FERRIS TRAVERSE	661999.40	2004139.84	961.20
HC2	5/8" REBAR 30" LONG W/ RED PLASTIC CAP STAMPED EP FERRIS TRAVERSE	661858.03	2004516.54	979.17

ITEM 204 - PROOF ROLLING, AS PER PLAN

AN ESTIMATED QUANTITY FOR THIS ITEM HAS BEEN PROVIDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER. THE CONTRACTOR MAY UTILIZE A FULLY LOADED DUMP TRUCK, APPROVED BY THE ENGINEER, IN LIEU OF THE PROOF ROLLER REQUIREMENTS LISTED IN SPECIFICATION 204.06 A-G. ALL OTHER REQUIREMENTS PER 204.06 SHALL APPLY.

ITEM 204 PROOF ROLLING, AS PER PLAN1 HOUR

ITEM 407 - TACK COAT

THE RATE OF APPLICATION OF THE 407 TACK COAT SHALL BE SUBJECT TO ADJUSTMENTS AS DIRECTED BY THE ENGINEER. FOR ESTIMATING PURPOSES ONLY, THE PLAN QUANTITIES INDICATE AN AVERAGE APPLICATION RATE OF:

407 TACK COAT (INTERMEDIATE COURSE) (0.05 GAL./S.Y.)  
407 TACK COAT (0.075 GAL./S.Y.)

ITEM 441 - ASPHALT CONCRETE

THE HOT MIX ASPHALT MIXTURE SHALL BE COMPOSED OF AGGREGATE, ASPHALT BINDER, AND MODIFIERS (WHERE SPECIFIED) MEETING OHIO DEPARTMENT OF TRANSPORTATION (ODOT) REQUIREMENTS. PRIOR TO PRODUCING HOT MIX ASPHALT FOR THIS CONTRACT, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR APPROVAL, A JOB MIX FORMULA (JMF) OR BITUMINOUS CONCRETE DATA SHEET.

THE JMF SHALL INCLUDE THE MIX TYPE PROPOSED FOR USE, AGGREGATE TYPE AND GRADATION, PERCENTAGE OF ASPHALT BINDER BY WEIGHT OF MIXTURE, GRADE OF ASPHALT BINDER, DESCRIPTION AND SOURCE OF MODIFIER (IF APPLICABLE), AND UNIT WEIGHT OF THE MIXTURE. THE JMF, OR DATA SHEET, SHALL HAVE PREVIOUSLY BEEN APPROVED FOR USE ON ODOT WORK.

SEEDING AND MULCHING

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:

653 TOPSOIL FURNISHED AND PLACED48 CU. YDS.  
659 SEEDING AND MULCHING430 SQ. YDS.  
659 COMMERCIAL FERTILIZER0.06 TON  
659 LIME0.10 ACRE  
659 WATER2.3 M. GAL.

APPLY SEEDING AND MULCHING TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

FARM DRAINS

ALL FARM DRAINS WHICH ARE ENCOUNTERED DURING CONSTRUCTION WILL EITHER BE REPAIRED OR PROVIDED WITH UNOBSTRUCTED OUTLETS.

EXISTING FARM DRAINS WHICH ARE LOCATED BELOW THE ROADWAY DITCH ELEVATIONS AND WHICH CROSS THE ROADWAY SHALL BE REPLACED WITHIN THE CONSTRUCTION LIMITS BY ITEM 611 CONDUIT, TYPE B, ONE COMMERCIAL SIZE LARGER THAN THE EXISTING CONDUIT.

EXISTING COLLECTORS AND ISOLATED FARM DRAINS WHICH ARE ENCOUNTERED ABOVE THE ELEVATION OF ROADWAY DITCHES SHALL BE OUTLETTED INTO THE ROADWAY DITCH BY ITEM 611 CONDUIT, TYPE F. THE OPTIMUM OUTLET, INVERT ELEVATION SHALL BE ONE FOOT ABOVE THE FLOWLINE ELEVATION OF THE DITCH. LATERAL FIELD TILES WHICH CROSS INTO THE LIMITS OF CONSTRUCTION SHALL BE INTERCEPTED BY ITEM 611 CONDUIT, TYPE F AND CARRIED IN A LONGITUDINAL DIRECTION TO AN ADEQUATE OUTLET OR ROADWAY CROSSING.

THE LOCATION, TYPE, SIZE AND GRADE OF REPLACEMENTS SHALL BE DETERMINED BY THE ENGINEER AND PAYMENT SHALL BE MADE ON FINAL MEASUREMENT.

FARM DRAINS CONT.

EROSION CONTROL PADS AND ANIMAL GUARDS SHALL BE PROVIDED AT THE OUTLET END OF ALL FARM DRAINS AS PER STANDARD CONSTRUCTION DRAWING DM-1.1 EXCEPT WHEN THEY OUTLET INTO A DRAINAGE STRUCTURE. PAYMENT FOR THE EROSION CONTROL PADS AND ANIMAL GUARDS AND ANY NECESSARY BENDS, TEES, OR OTHER FITTINGS SHALL BE INCLUDED FOR PAYMENT IN THE PERTINENT CONDUIT ITEMS.

THE FOLLOWING CONTINGENCY QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE TO BE USED AS DIRECTED BY THE ENGINEER.

ITEM 611, 4" CONDUIT, TYPE F, 50 FOOT  
ITEM 611, 6" CONDUIT, TYPE F, 50 FOOT  
ITEM 611, 8" CONDUIT, TYPE F, 50 FOOT  
ITEM 611, 12" CONDUIT, TYPE F, 50 FOOT

ITEM 614 - MAINTAINING TRAFFIC

NOTICE OF CLOSURE SIGNS, SHALL BE ERECTED BY THE ENGINEER IN ADVANCE OF THE SCHEDULED ROAD CLOSURE. THE CONTRACTOR SHALL GIVE AT LEAST A TWO WEEK NOTICE TO THE ENGINEER IN ORDER TO ERECT THESE SIGNS.

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN STANDARD 48"x30" "ROAD CLOSED" SIGNS, SIGN SUPPORTS, BARRICADES, GATES, AND LIGHTS, AS DETAILED IN STANDARD CONSTRUCTION DRAWINGS MT-101.60 DURING PERIODS IN WHICH THE AFFECTED ROADS ARE CLOSED TO TRAFFIC.

ACCESS TO LOCAL PROPERTY OWNERS SHALL BE MAINTAINED AT ALL TIMES.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR 614, MAINTAINING TRAFFIC, UNLESS SEPERATELY ITEMIZED IN THE PLAN.

UNSUITABLE FOUNDATIONS

IF UNSUITABLE FOUNDATION SOILS ARE ENCOUNTERED IN THE AREAS OF THE PROPOSED ROADBED OR STRUCTURES, THEY SHALL BE REMOVED AND REPLACED WITH SUITABLE MATERIAL. THE LOCATIONS AND DIMENSIONS WILL BE AS DETERMINED BY THE ENGINEER.

THE FOLLOWING CONTINGENCY QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER.

ITEM 204, EXCAVATION OF SUBGRADE50 CY  
ITEM 204, GRANULAR MATERIAL, TYPE F50 CY  
ITEM 204, GEOTEXTILE FABRIC150 SY

EXISTING UTILITIES

THE IDENTITY AND LOCATION OF THE EXISTING UNDERGROUND UTILITY FACILITIES KNOWN TO BE LOCATED IN THE CONSTRUCTION AREA HAVE BEEN SHOWN ON THE PLANS AS ACCURATELY AS PROVIDED BY THE OWNER OF THE UNDERGROUND UTILITY. THE COUNTY AND/OR THE ENGINEER ASSUMES NO RESPONSIBILITY TO THE ACCURACY OR THE DEPTHS OF THE UNDERGROUND FACILITIES WHETHER OR NOT SHOWN ON THE PLANS.

INVESTIGATION, LOCATION, SUPPORT, PROTECTION AND RESTORATION OF ALL EXISTING UTILITIES AND APPURTENANCES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. ADDITIONALLY, THE CONTRACTOR IS RESPONSIBLE TO COORDINATE THIS CONSTRUCTION ACTIVITY ALONG WITH THE RELOCATION OF ANY UTILITIES AS REQUIRED BY THE PLAN WITH THE OWNER OF THE AFFECTED UTILITY. PRIVATE UTILITY MANHOLES WITHIN THE LIMITS OF THE WORK SHALL BE READJUSTED TO GRADE BY THE RESPECTIVE UTILITY AT THEIR COST. UTILITY POLES WITHIN THE INFLUENCE OF THE STORM LINE TRENCHES OR EARTHWORK OPERATIONS SHALL BE REINFORCED BY THE UTILITY COMPANY PRIOR TO THESE CONSTRUCTION ACTIVITIES. NOTIFICATION OF THE UTILITY COMPANY PRIOR TO CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL EXPOSE ANY UTILITY LINE OR STRUCTURE (PUBLIC OR PRIVATE) SUFFICIENTLY IN ADVANCE OF LAYING PIPE, DUCT, CONDUIT, OR POLE FOUNDATION IN ORDER THAT THE ENGINEER MAY DETERMINE THE EXACT ELEVATION AND MAKE ANY NECESSARY ADJUSTMENTS. COST OF THE ABOVE, IF ANY, SHALL BE INCLUDED IN THE PRICE BID FOR THE PROJECT IMPROVEMENT. THE CONTRACTOR SHALL CAUSE NOTICE TO BE GIVEN TO THE OHIO UTILITIES PROTECTION SERVICE (TELEPHONE 800-362-2764, TOLL FREE) AND TO THE OWNERS OF THE UNDERGROUND UTILITIES WHO ARE NOT MEMBERS OF A REGISTERED UNDERGROUND PROTECTION SERVICE IN ACCORDANCE WITH SECTION 153.64 OF THE REVISED CODE. THE ABOVE MENTIONED NOTICE SHALL BE GIVEN AT LEAST 48 HOURS PRIOR TO START OF CONSTRUCTION.

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ROADWAY ESTIMATED QUANTITIES									
SHEET NUM.			OFFICE CALS	ITEM	EXT.	TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
3	5	6							
								ROADWAY	
1				201	11000	1	LUMP	CLEARING AND GRUBBING	
			236	203	10000	236	CY	EXCAVATION	
			53	203	20000	53	CY	EMBANKMENT	
			565	204	10000	565	SY	SUBGRADE COMPACTION	
50				204	13000	50	CY	EXCAVATION OF SUBGRADE	
50				204	30050	50	CY	GRANULAR MATERIAL, TYPE F	
1				204	45001	1	HOURL	PROOF ROLLING, AS PER PLAN	3
150				204	50000	150	SY	GEOTEXTILE FABRIC	
		125		606	15050	125	FT	GUARDRAIL, TYPE MGS	
		4		606	25550	4	EA	ANCHOR ASSEMBLY, MGS TYPE A	
		4		606	35002	4	EA	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	
								EROSION CONTROL	
48				653	10000	48	CY	TOPSOIL FURNISHED AND PLACED	
430				659	10000	430	SY	SEEDING AND MULCHING	
0.06				659	20000	0.06	TON	COMMERCIAL FERTILIZER	
0.1				659	31000	0.10	ACRE	LIME	
2.3				659	35000	2.3	MGAL	WATER	
5000				832	30000	5000	EA	EROSION CONTROL	3
								DRAINAGE	
50				611	00406	50	FT	4" CONDUIT, TYPE F	3
50				611	01500	50	FT	6" CONDUIT, TYPE F	3
50				611	02600	50	FT	8" CONDUIT, TYPE F	3
50				611	05200	50	FT	12" CONDUIT, TYPE F	3
								PAVEMENT	
			91	301	56000	91	CY	ASPHALT CONCRETE BASE, PG64-22 (449)	
			95	304	20000	95	CY	AGGREGATE BASE	
			67	407	10000	67	GAL.	TACK COAT	
			45	441	70100	45	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG70-22M	
								TRAFFIC CONTROL	
		12		626	00110	12	EA	BARRIER REFLECTOR, TYPE 2, BIDIRECTIONAL	
		46		630	03100	46	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
		12		630	80100	12	SF	SIGN, FLAT SHEET	
		0.1		644	00100	0.10	MILE	EDGE LINE, 4"	
		0.05		644	00300	0.05	MILE	CENTERLINE	
								MAINTENANCE OF TRAFFIC	
	1			614	12420	1	LUMP	DETOUR SIGNING	
	1			614	11000	1	LUMP	MAINTAINING TRAFFIC	
	1			616	10000	1	MGAL	WATER	
		4		619	16000	4	MNTH	FIELD OFFICE, TYPE A	
		1		623	10000	1	LUMP	CONSTRUCTION LAYOUT STAKES AND SURVEYING	
		1		624	10000	1	LUMP	MOBILIZATION	

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ITEM 614. MAINTAINING TRAFFIC

C.R. 26 SHALL BE CLOSED TO THROUGH TRAFFIC WITHIN THE PROJECT WORK LIMITS STATED FOR A PERIOD NOT TO EXCEED 120 CONSECUTIVE CALENDAR DAYS BEGINNING NO EARLIER THAN MARCH 15, 2022. THROUGH TRAFFIC WILL BE DETOURED AS SHOWN IN THE PLANS. DISINCENTIVES SHALL BE ASSESSED IN THE AMOUNT OF \$1000 PER DAY FOR EACH CALENDAR DAY THAT THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE PROPOSAL COMPLETION DATE.

BEFORE THE WORK BEGINS, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER THE NAMES AND TELEPHONE NUMBERS OF THE CONTACT PERSON OR PERSONS WHO CAN BE CONTACTED TWENTY FOUR (24) HOURS PER DAY BY THE PERRY COUNTY ENGINEER, AND ALL INTERESTED LAW ENFORCEMENT AGENCIES. THIS PERSON OR PERSONS SHALL BE RESPONSIBLE FOR PLACING OR REPLACING NECESSARY TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

THE CONTRACTOR WILL ADVISE THE PERRY COUNTY ENGINEER SEVEN (7) DAYS PRIOR TO THE START OF CONSTRUCTION ACTIVITIES. THE PROJECT ENGINEER WILL PROVIDE ASSISTANCE/CLARIFICATION FOR ANY QUESTIONS.

NOTICE OF CLOSURE SIGNS, AS DETAILED IN THESE PLANS, SHALL BE ERECTED BY THE CONTRACTOR AT LEAST ONE WEEK IN ADVANCE OF THE SCHEDULED ROAD CLOSURE. THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. ON ROADWAYS, THEY SHOULD BE ERECTED AT THE POINT OF CLOSURE.

ROAD WILL BE  
CLOSED MMM DD  
FOR 120 DAYS  
OHIO DEPT OF TRANSPORTATION

W20-H14-60

MMM = MONTH (3 LTR.)  
DD = DATE (1 OR 2 DIGIT)

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN STANDARD 48 X 30 INCH ROAD CLOSED SIGNS, SIGN SUPPORTS, BARRICADES, AND LIGHTS, AS DETAILED IN SCD MT-101.60 AT THE FOLLOWING LOCATIONS DURING PERIODS IN WHICH THE AFFECTED ROADS ARE CLOSED TO TRAFFIC.

ON C.R. 26 AT STA. 21+00  
ON C.R. 26 AT STA. 24+00

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN C.R. 26 DETOUR SIGNS AND SIGN SUPPORTS AS DETAILED IN THE PLANS.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DETERMINED BY THE ENGINEER FOR THE MAINTENANCE OF TRAFFIC.

ITEM 614, DETOUR SIGNING      LUMP

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH C&MS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

DUST CONTROL

THE CONTRACTOR SHALL FURNISH AND APPLY WATER FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED FOR DUST CONTROL PURPOSES:

ITEM 616, WATER      1 M. GAL

OEPA NOTIFICATION OF DEMOLITION AND RENOVATION

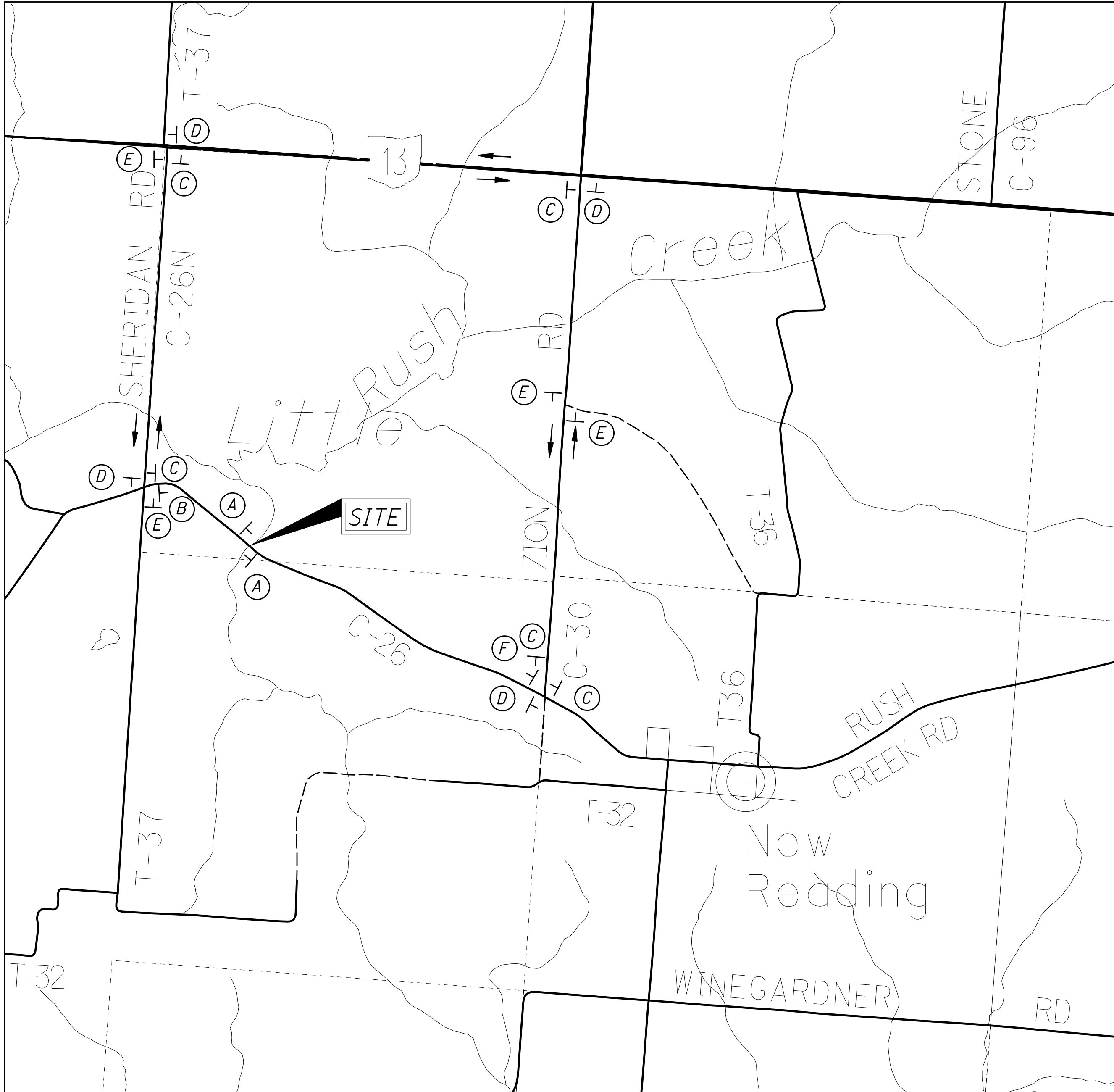
ASBESTOS SURVEYS FOR THE CRS BRIDGE SCHEDULED FOR DEMOLITION WORK WERE CONDUCTED BY A CERTIFIED ASBESTOS HAZARD EVALUATION SPECIALIST. A COPY OF THE ASBESTOS SURVEY REPORT FOR THE BRIDGE HAS BEEN INCLUDED IN THE PLAN PACKAGE FOR THIS PROJECT. THE ASBESTOS SURVEY REPORT DID NOT IDENTIFY THE PRESENCE OF ANY ASBESTOS CONTAINING MATERIALS. (THE REMOVAL AND DISPOSAL OF THE ASBESTOS CONTAINING MATERIAL MUST COMPLY WITH THE OHIO ADMINISTRATIVE CODE (OAC) REGULATIONS AND THE NATIONAL EMISSION STANDARD FOR HAZARDOUS AIR POLLUTANTS (NESHAP) STANDARD FOR ASBESTOS.)

A COPY OF THE OHIO ENVIRONMENTAL PROTECTION AGENCY (OEPA) NOTIFICATION OF DEMOLITION AND RENOVATION FORM, PARTIALLY COMPLETED BY THE ASBESTOS HAZARD EVALUATION SPECIALIST, HAS BEEN INCLUDED AT THE END OF THE ASBESTOS SURVEY REPORT. THE CONTRACTOR SHALL COMPLETE AND SIGN THE FORMS AND SUBMIT IT TO:

ASBESTOS PROGRAM  
OHIO EPA, DAPC  
PO BOX 1049  
COLUMBUS OH 43216-1049

AT LEAST 10 WORKING DAYS PRIOR TO THE START OF ANY DEMOLITION WORK. THE CONTRACTOR SHALL PROVIDE A COPY OF THE COMPLETED AND SIGNED FORMS TO THE ENGINEER. INFORMATION REQUIRED ON THE FORMS SHALL INCLUDE AT A MINIMUM: 1) THE ODOT PROJECT NUMBER, 2) THE CONTRACTORS NAME, ADDRESS AND TELEPHONE NUMBER, 3) THE SCHEDULED DATES FOR THE START AND COMPLETION OF BRIDGE DEMOLITIONS.

BASIS FOR PAYMENT: THE CONTRACTOR SHALL FURNISH ALL FEES, LABOR, AND MATERIAL NECESSARY TO COMPLETE AND SUBMIT THE OEPA NOTIFICATION FORMS. PAYMENTS FOR THIS WORK SHALL BE INCIDENTAL TO THE ITEM 202 STRUCTURE REMOVAL ITEM(S) IN THE PLAN.



LEGEND:

— COUNTY ROUTE  
— STATE ROUTE

R11-2-48

(2) 10' TYPE III SOLID BARRICADE  
PER STD. DWG. MT-101.60  
PLACED ACROSS BOTH LANES

A

R11-2-48

R11-3a-60  
M4-10-30

10' TYPE III SOLID BARRICADE  
STD. DWG. MT-101.60

B

PERRY  
26  
COUNTY

MI-H6a-30

DETOUR

M4-8-30

M6-1R-30

C

PERRY  
26  
COUNTY

MI-H6a-30

DETOUR

M4-8-30

M6-1L-30

D

PERRY  
26  
COUNTY

MI-H6a-30

DETOUR

M4-8-30

M6-3-30

E

R11-3a-60  
M4-10-30

10' TYPE III SOLID BARRICADE  
STD. DWG. MT-101.60

F

SIGN INDEX





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REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS:

DS-1-92	REVISED	07-15-22
PSBD-2-07	REVISED	07-20-18
TST-1-99	REVISED	01-15-21

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS:

800	DATED	04-19-24
832	DATED	07-21-23

DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 9TH EDITION, AND THE ODOT BRIDGE DESIGN MANUAL, 2020.

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.

DESIGN LOADING:

HL-93  
FUTURE WEARING SURFACE (FWS) OF 0.060 KIPS PER SQUARE FOOT

DESIGN DATA:

CONCRETE CLASS QC2 - COMPRESSIVE STRENGTH 4000 PSI (SUBSTRUCTURE)  
CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4500 PSI (SUPERSTRUCTURE)

REINFORCING STEEL - MINIMUM YIELD STRENGTH 60,000 PSI

CONCRETE FOR PRESTRESSED BEAMS:

COMPRESSIVE STRENGTH (FINAL) = 7.0 KSI  
COMPRESSIVE STRENGTH (RELEASE) = 5.0 KSI

PRESTRESSING STRAND:

AREA = 0.167 SQ. IN. PER STRAND  
ULTIMATE STRENGTH = 270 KSI  
INITIAL STRESS = 202.5 KSI (LOW RELAXATION STRANDS)

DECK PROTECTION METHOD:

EPOXY COATED REINFORCING STEEL  
3" ASPHALT WEARING SURFACE  
STEEL DRIP STRIP

CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED FOR SUCH ITEMS SHALL BE INCORPORATED INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

EXISTING STRUCTURE VERIFICATION

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05 AND 105.02.

BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE OWNER WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED IN THE FIELD.

RIGHT-OF-WAY

ALL WORK IS TO BE PERFORMED WITHIN THE EXISTING 60' RIGHT-OF-WAY.

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

DEMOLITION DEBRIS

THE CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID AND/OR LIMIT DEMOLITION DEBRIS FROM ENTERING THE STREAM. ANY MATERIAL THAT DOES FALL INTO THE STREAM SHALL BE REMOVED AS SOON AS POSSIBLE, & WITHIN A TWENTY FOUR (24) HOUR TIME PERIOD.

ITEM 511 - CLASS QC2 CONCRETE. SUPERSTRUCTURE. AS PER PLAN

CLASS QC2 CONCRETE, SUPERSTRUCTURE, AS PER PLAN: FURNISH MATERIAL MEETING THE REQUIREMENTS OF ASTM C578 TYPE IV. NEATLY CUT MATERIAL AS NECESSARY TO ALLOW FOR

ITEM 511 (CONT)

PROPER INSTALLATION. JOINTS AT ABUTTING PIECES SHALL BE SEALED WITH DUCT TAPE. ALLOWABLE TOLERANCE FOR THE TOTAL THICKNESS OF THE MATERIAL SHALL BE -0", +1/2". DO NOT PLACE MORE THAN TWO LAYERS OF POLYSTYRENE TO ACHIEVE TOTAL THICKNESS.

UTILITIES

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN OR ADJACENT TO THE PROJECT CONSTRUCTION LIMITS, TOGETHER WITH THEIR RESPECTIVE OWNERS:

SOUTH CENTRAL POWER COMPANY  
720 MILL PARK DRIVE, LANCASTER, OHIO 43130  
CONTACT: LOGAN TALBOT, FIELD ENGINEER  
PHONE: 740-689-6226  
EMAIL: LTALBOT@SOUTHCENTRALPOWER.COM

AT&T OHIO  
160 N. 6TH STREET, ZANESVILLE, OHIO 43701  
CONTACT: BARRETT TAMASOVICH, TELECOM SPECIALIST  
PHONE: 740-319-8995  
EMAIL: BT2178@ATT.COM

SPECTRUM  
737 HOWARD STREET, ZANESVILLE, OH 43701  
CONTACT: DANIEL FEINGOLD, CONSTRUCTION COORDINATOR  
MOBILE PHONE: 614-496-7787  
EMAIL: DANIEL.FEINGOLD@CHARTER.COM

THE ENERGY COOPERATIVE (FOR NATURAL GAS)  
120 O'NEILL DRIVE, HEBRON, OH 43025  
CONTACT: CHRIS STORTS, ASSOCIATE ENGINEER  
MOBILE PHONE: 740-485-4898  
EMAIL: CSTORTS@THEENERGYCOOP.COM

NORTHERN PERRY COUNTY WATER DISTRICT  
130 SOUTH MAIN STREET  
P. O. BOX 800, NEW LEXINGTON, OH 43764  
CONTACT: KELLY GREEN, OPERATIONS/SUPERVISOR  
PHONE: 740-342-1065  
EMAIL: NPCW@PERRYCOUNTYOHIO.NET

CALL OHIO UTILITIES PROTECTION SERVICE TWO (2) WORKING DAYS BEFORE YOU DIG, TOLL FREE NO. 1-800-362-2764 (NON-MEMBERS MUST BE CALLED DIRECTLY). ALL EXPENSES INVOLVED IN RELOCATING THE AFFECTED UTILITY LINES SHALL BE BORE BY THE UTILITY OWNERS.

ITEM 201 - CLEARING AND GRUBBING

ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY IS INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201, CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING.

ITEM 202 - PORTIONS OF EXISTING STRUCTURE REMOVED. AS PER PLAN

REMOVE ABUTMENTS TO ELEV. 963.66'

THIS ITEM SHALL INCLUDE THE ELEMENTS INDICATED IN THE PLANS AND GENERAL NOTES AND THAT ARE NOT SEPARATELY LISTED FOR PAYMENT, EXCEPT FOR WEARING COURSE REMOVAL. ITEMS TO BE REMOVED INCLUDE ALL EXISTING MATERIALS BEING REPLACED BY NEW CONSTRUCTION AND MISCELLANEOUS ITEMS THAT ARE NOT SHOWN TO BE INCORPORATED INTO THE FINAL CONSTRUCTION AND ARE DIRECTED TO BE REMOVED BY THE ENGINEER. THE DEPARTMENT WILL NOT PERMIT THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE-RAMS. DO NOT BEGIN WORK UNTIL THE ENGINEER ACCEPTS THE METHOD OF REMOVAL AND THE WEIGHT OF HAMMER SHALL BE APPROVED BY THE ENGINEER. PERFORM ALL WORK IN A MANNER THAT WILL NOT CUT, ELONGATE OR DAMAGE THE EXISTING CONCRETE REINFORCEMENT TO BE PRESERVED. CHIPPING HAMMERS SHALL NOT BE HEAVIER THAN THE NOMINAL 90-POUND PNEUMATIC HAMMERS SHALL NOT BE PLACED IN DIRECT CONTACT WITH CONCRETE REINFORCEMENT THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE. SUBMIT CONSTRUCTION PLANS ACCORDING TO C&MS 501.05.

PILES TO BEDROCK

DRIVE PILES TO REFUSAL ON BEDROCK. THE PERRY COUNTY ENGINEER 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 160.0 KIPS PER PILE FOR THE ABUTMENT PILES.

ABUTMENT PILES:  
REAR ABUTMENT:  
HP10x42 PILES 30 FEET LONG, ORDER LENGTH

FORWARD ABUTMENT:  
HP10x42 PILES 30 FEET LONG, ORDER LENGTH

PILE SPLICES

PILE SPLICES: IN LIEU OF USING THE FULL PENETRATION BUTT WELDS SPECIFIED IN CMS 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

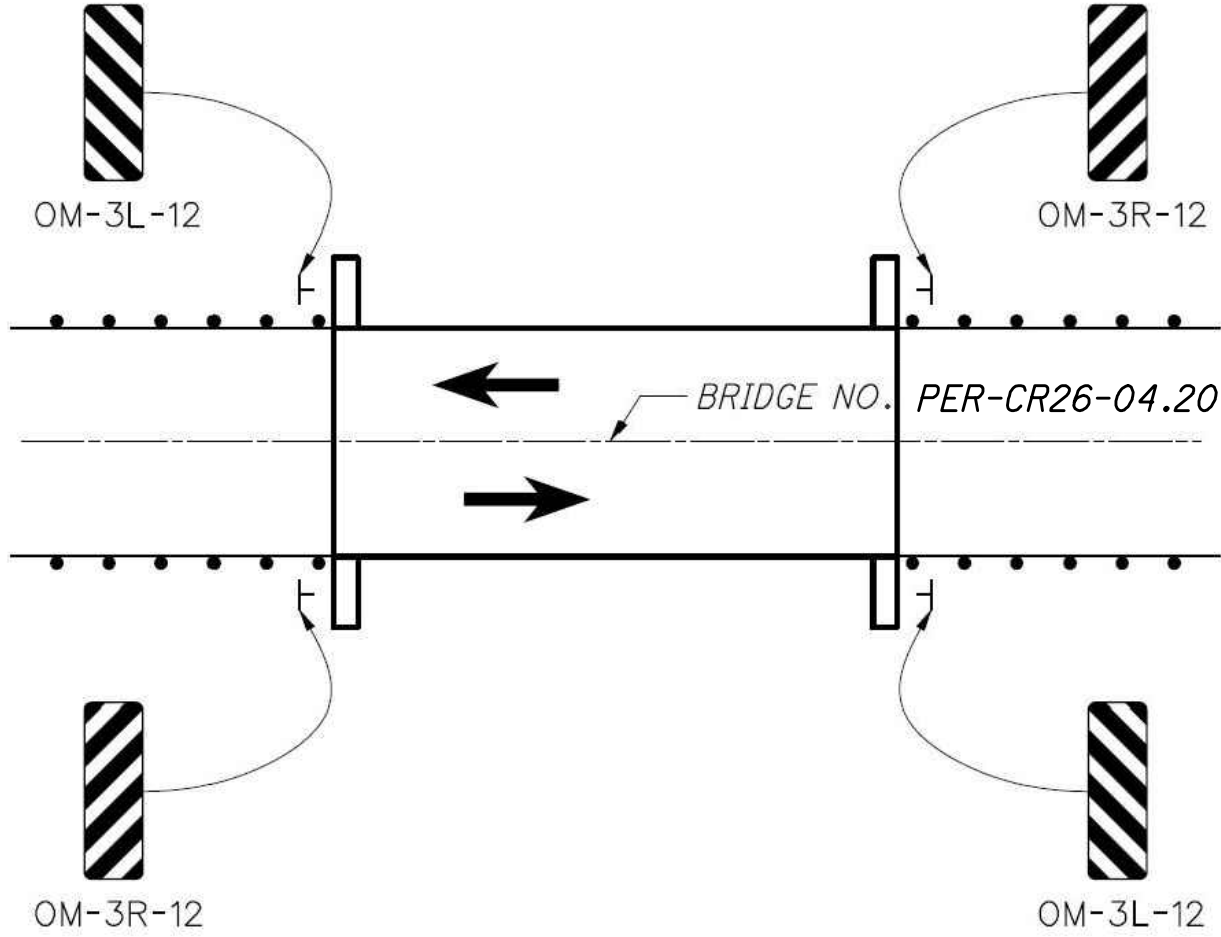
INSTALL AND WELD THE SPLICER TO THE PILE SECTIONS IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN ASSEMBLY PROCEDURE SUPPLIED TO THE ENGINEER BEFORE THE WELDING IS PERFORMED.

OBJECT MARKERS

THE CONTRACTOR SHALL INSTALL OM-3L & OM-3R (36" X 12") SIGNS AT ALL FOUR (4) WINGWALLS OF THE BRIDGE. SIGNS SHALL BE INSTALLED 1'-0" BEHIND THE GUARDRAIL POST AND BRIDGE WINGWALL. THE BOTTOM OF GROUND MOUNTED SIGN SHALL BE 5'-0" ABOVE PAVEMENT.

THE FOLLOWING ITEMS HAVE BEEN CARRIED TO THE GENERAL SUMMARY TO INSTALL THE SIGNS:

ITEM 630 GROUND MOUNTED SUPPORT, NO. 3 POST 46.0 FT.  
ITEM 630 SIGN, FLAT SHEET 12.0 SQ. FT.



SURVEYING PARAMETERS

USE THE FOLLOWING VERTICAL POSITIONING AND HORIZONTAL POSITIONING PARAMETERS FOR ALL SURVEYING:

VERTICAL POSITIONING

ORTHOMETRIC HEIGHT DATUM: NAVD 88  
GEOID: GEOID 12A

HORIZONTAL POSITIONING

REFERENCE FRAME: NAD 83 (2011)  
COORDINATE SYSTEM: OHIO STATE PLANE, SOUTH ZONE  
COMBINED SCALE FACTOR: 1.00001469

UNITS ARE IN U.S. SURVEY FEET. USE THE FOLLOWING CONVERSION FACTOR:  
1 METER = 3.280833333 U.S. SURVEY FEET.

PROJECT CONTROL INFORMATION				
POINT NO.	COORDINATES U.S. SURVEY FEET		ELEV.	DESCRIPTION
	NORTHING	EASTING		
	STATION, OFFSET			
BM #1	661999.40	2004139.84	961.19	IRON PIN SET
	22+52.41, 47.56' RT.			
BM #2	661858.0310	2004516.5380	979.17	IRON PIN SET
	26+47.57, 29.16' LT.			

DESIGN AGENCY  
E.P. FERRIS & ASSOC., INC.  
CONSULT. ENG. & SURVEYORS

DATE  
12/2022

REVIEWED  
EPF

STRUCTURE FILE NUMBER  
6430929

DRAWN  
RJB

CHECKED  
JWE

DESIGNED  
MLS

GENERAL NOTES  
BRIDGE NO. PER-CR26-0420  
OVER LITTLE RUSH CREEK

PER - CR26 - 04.20

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STRUCTURE ESTIMATED QUANTITIES					DATE: 8/25/21		DATE:	
					CALC BY: JWE		CHECKED BY: MLS	
ITEM	EXT.	TOTAL	UNIT	DESCRIPTION	ABUT.	SUPER.	GENERAL	SHEET NO.
202	11203	1	LUMP	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN			1	2 / 9
202	23500	180	SY	WEARING COURSE REMOVED			180	
407	10000	18	GAL	TACK COAT (0.055 GAL./S.Y.)				
441	70100	15	CY	3" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449) PG70-22M				
503	11100	1	LUMP	COFFERDAMS AND EXCAVATION BRACING			1	
503	21300	1	LUMP	UNCLASSIFIED EXCAVATION			1	
505	11100	1	LUMP	PILE DRIVING EQUIPMENT MOBILIZATION	1			
507	00100	300	FT	STEEL PILES HPI0X42, FURNISHED	300			
507	00150	250	FT	STEEL PILES HPI0X42, DRIVEN	250			
507	93300	10	EACH	STEEL POINTS OR SHOES	10			
509	10000	5019	LB	EPOXY COATED REINFORCING STEEL	3818	1201		
511	31611	12	CY	CLASS QC2 CONCRETE, SUPERSTRUCTURE, AS PER PLAN		12		2 / 9
511	43510	48	CY	CLASS QC1 CONCRETE, ABUTMENT INCLUDING FOOTING	48			
512	10050	53	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)		53		
512	33010	197	SY	TYPE 3 WATERPROOFING	197			
515	10070	7	EACH	PRESTRESSED CONCRETE NON-COMPOSITE BOX BEAM BRIDGE MEMBERS, LEVEL 1, B27-48 (53'-0")		7		
516	13600	22	SF	1" PREFORMED EXPANSION JOINT FILLER	22			
516	25000	201	SF	NYLON REINFORCED NEOPRENE SHEETING				
516	43200	28	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES ONLY (NEOPRENE) (6"x8"x1.76" THICK)		28		
517	70000	116	FT	RAILING (TWIN STEEL TUBE)			116	
518	21100	13	CY	POROUS BACKFILL	13			
SPECIAL	51822300	122	FT	STEEL DRIP STRIP			122	6 / 9
518	40000	89	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	89			
518	40011	43	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS, AS PER PLAN	43			
601	32004	32	CY	ROCK CHANNEL PROTECTION, TYPE A WITH GEOTEXTILE FABRIC	32			
613	41200	51	CY	LOW STRENGTH MORTAR BACKFILL	51			

PLAN ABBREVIATIONS

- ABUT. = ABUTMENT
- ADT = AVERAGE DAILY TRAFFIC
- ADTT = AVERAGE DAILY TRUCK TRAFFIC
- BRG. = BEARING
- c/c = CENTER TO CENTER
- CLR. = CLEAR COVER
- CONST. = CONSTRUCTION
- C.J. = CONSTRUCTION JOINT
- C.R. = COUNTY ROAD
- E.F. = EACH FACE
- EL. = ELEVATION
- F/F = FACE TO FACE
- F.A. = FORWARD ABUTMENT
- F.F. = FAR FACE
- ℓ = FLOW LINE
- FWD. = FORWARD
- M.N.S. = MAGNETIC NAIL SET
- N.F. = NEAR FACE
- PEJF = PREFORMED EXPANSION JOINT FILLER
- P.G. = PROFILE GRADE
- R.A. = REAR ABUTMENT
- SCD = STANDARD CONSTRUCTION DRAWING
- STA. = STATION
- T.R. = TOWNSHIP ROAD
- TYP. = TYPICAL

DESIGN AGENCY

E.P. FERRIS & ASSOC., INC.

CONSULT. ENG. & SURVEYORS

DATE

12/2022

REVIEWED

MLS

STRUCTURE FILE NUMBER

6430929

DRAWN

RJB

CHECKED

MLS

REVISED

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ESTIMATED QUANTITIES

BRIDGE NO. PER-CR26-0420

OVER LITTLE RUSH CREEK

PER - CR26 - 04.20

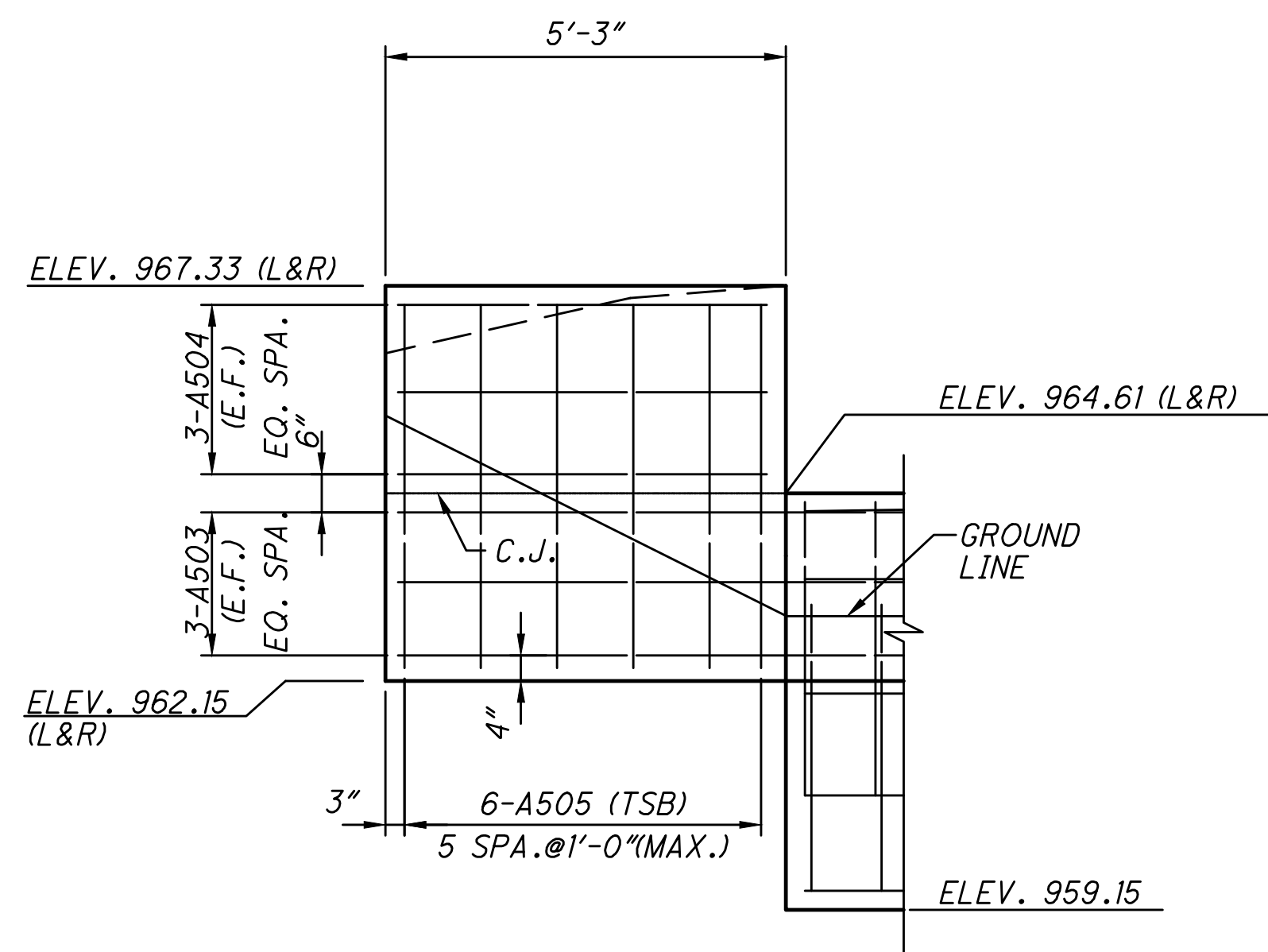
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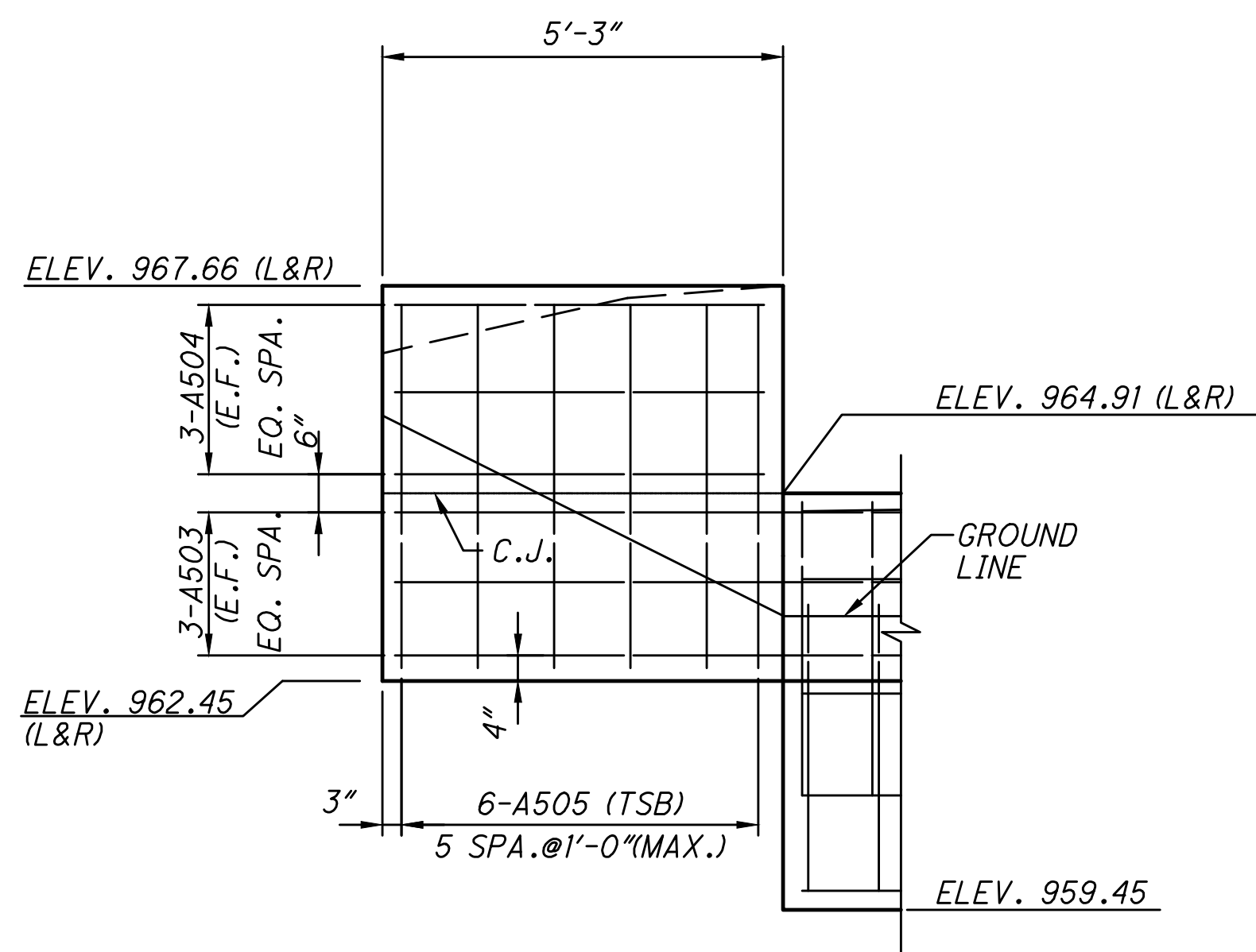




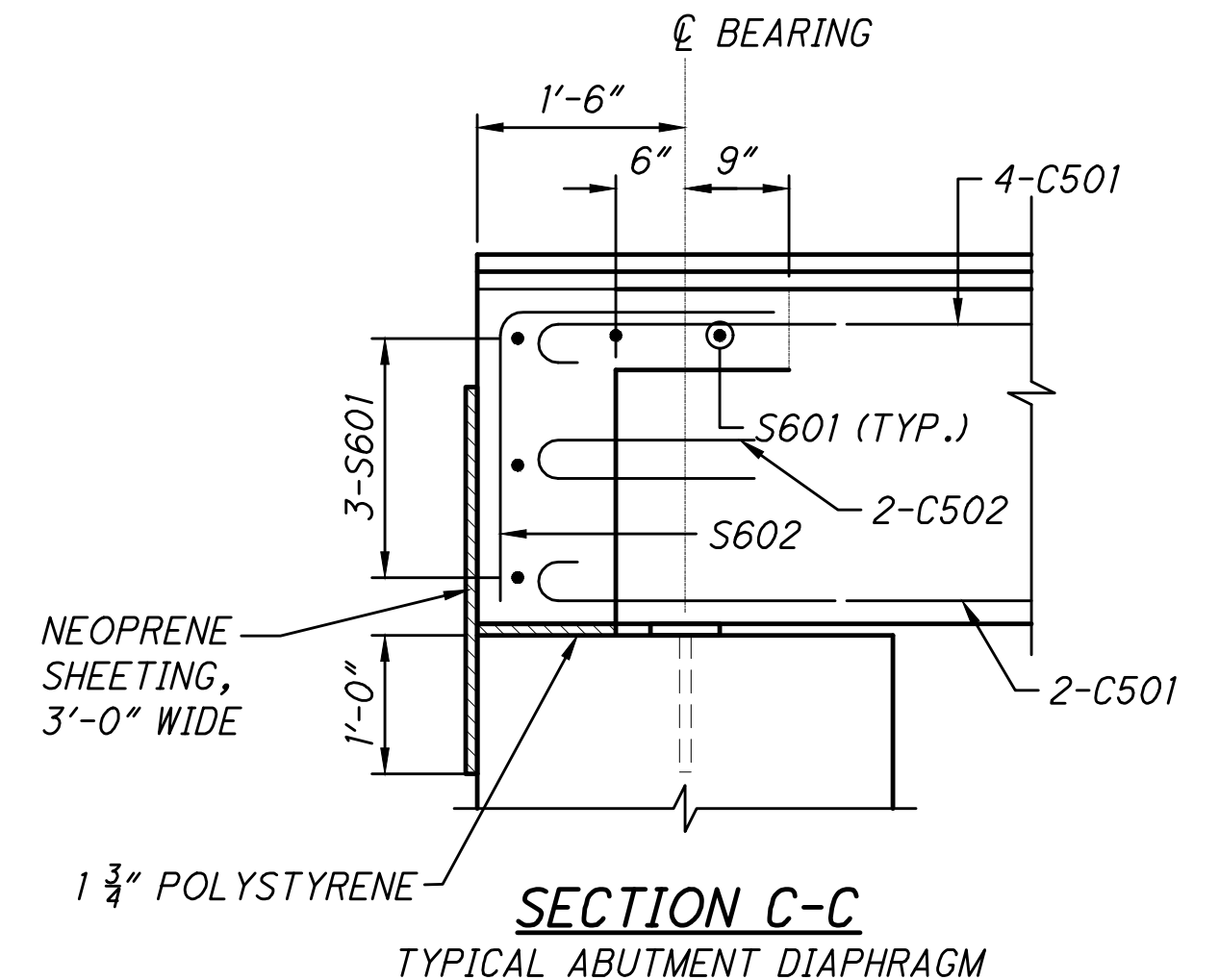
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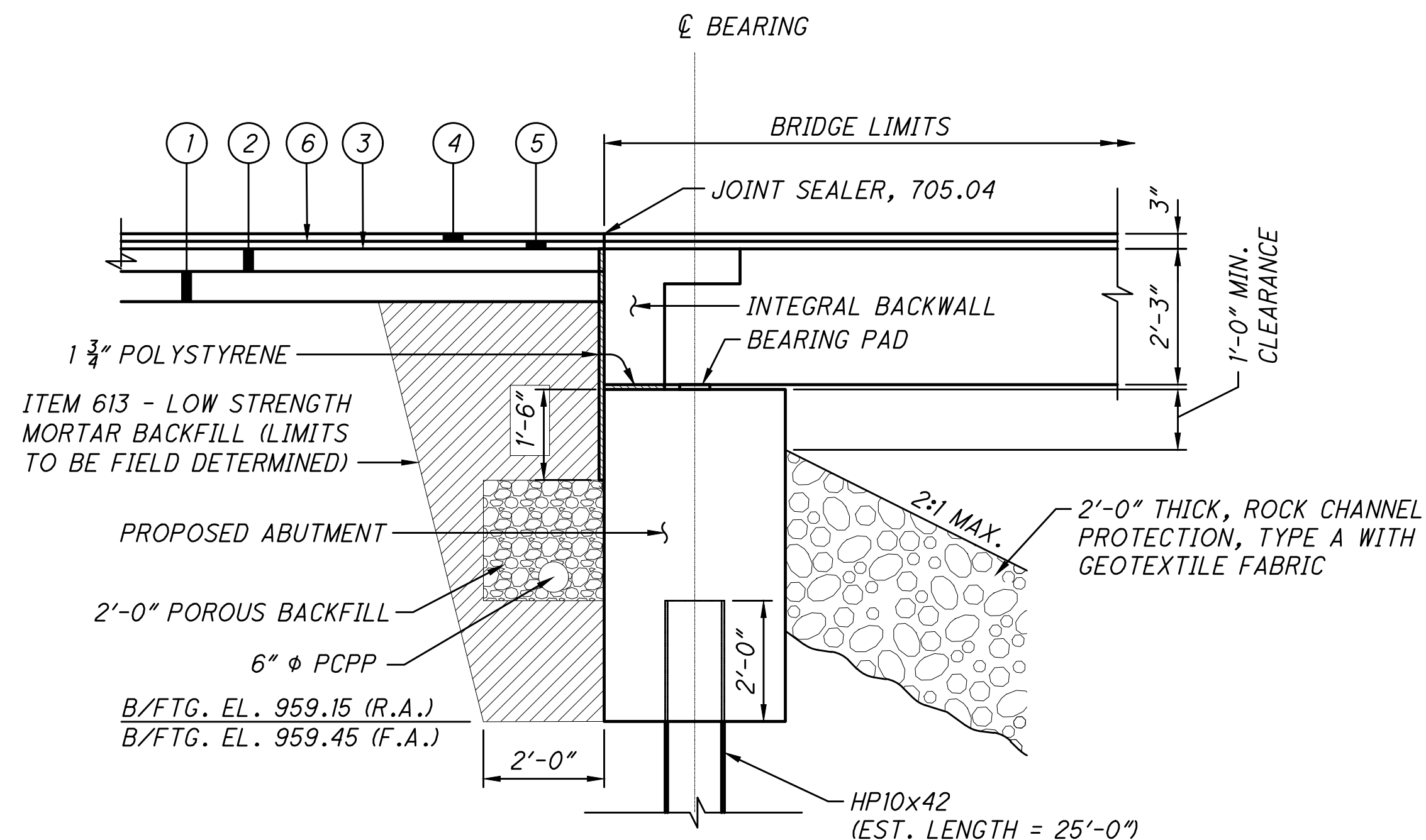
TYPICAL REAR ABUTMENT WINGWALL ELEVATION



TYPICAL FORWARD ABUTMENT WINGWALL ELEVATION



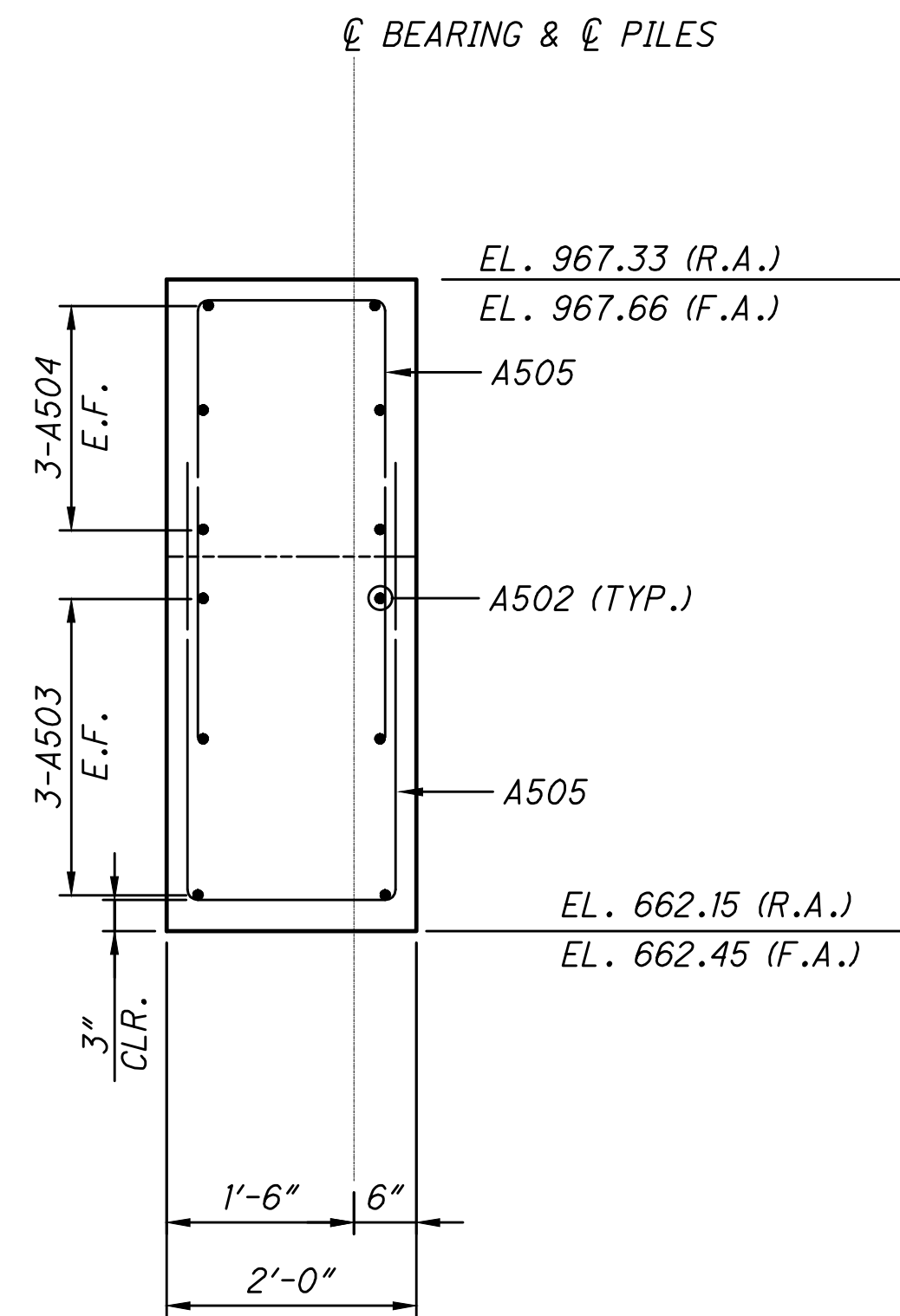
\* AT EACH BEAM END, FABRICATOR'S OPTION.  
IF NO. 6 BARS ARE USED, THEY SHALL BE  
LOCATED ON TOP OF STIRRUPS AND SPACED  
UNIFORMLY ACROSS THE BEAM.



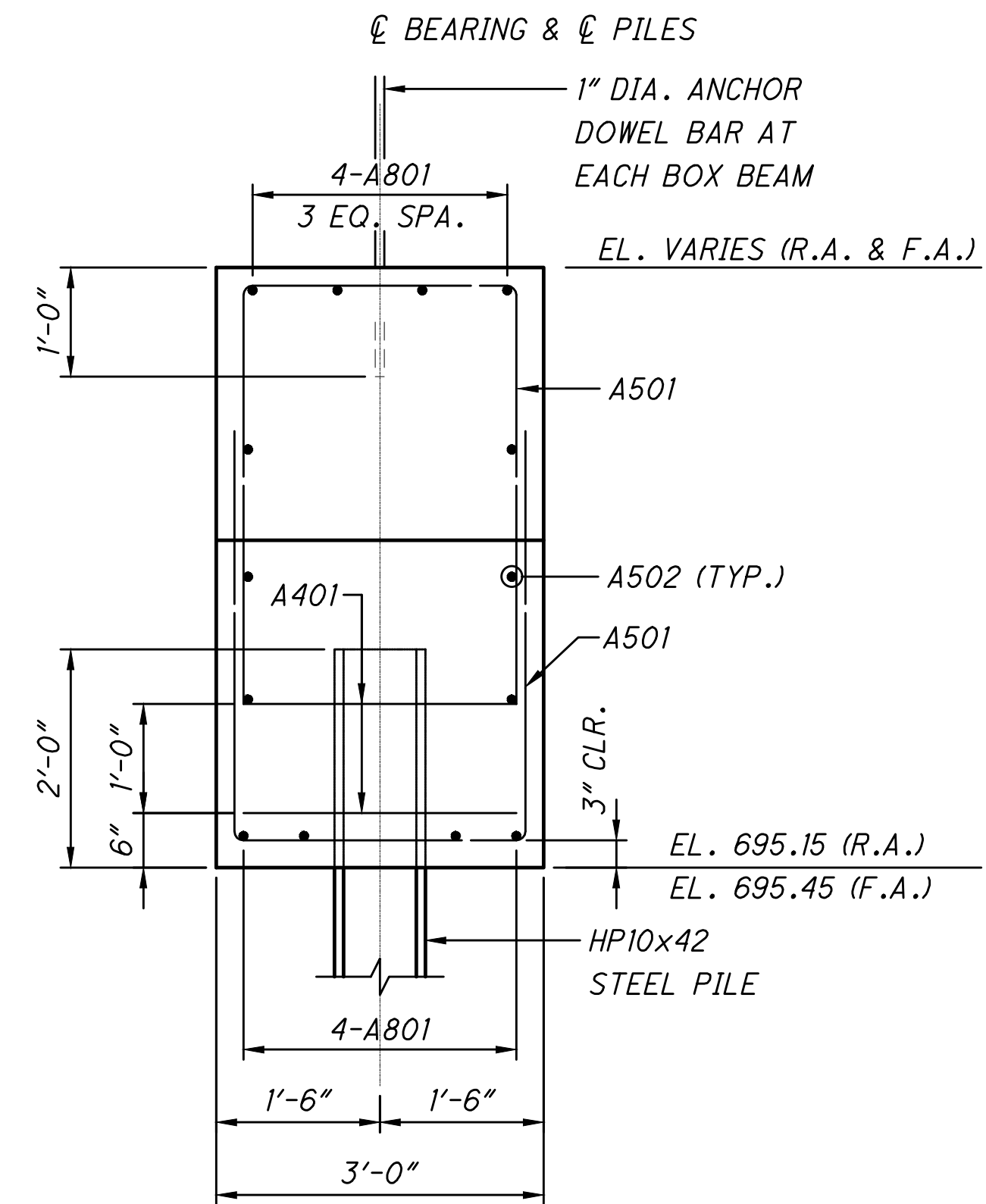
TYPICAL ABUTMENT SECTION  
NOT TO SCALE

LEGEND

- ① ITEM 304 - 6" AGGREGATE BASE
- ② ITEM 301 - 6" ASPHALT CONCRETE BASE, PG64-22 (449)
- ③ ITEM 407 - TACK COAT FOR BASE COURSE @ 0.075 GAL/S.Y.
- ④ ITEM 441 - 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG70-22M
- ⑤ ITEM 441 - 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG70-22M
- ⑥ ITEM 407 - TACK COAT FOR INTERMEDIATE COURSE @ 0.05 GAL/S.Y.



SECTION A-A  
TYPICAL ABUTMENT



SECTION B-B  
TYPICAL ABUTMENT

NOTES:

- 1. BRIDGE SEAT REINFORCING, SETTING ANCHORS: ACCURATELY PLACE CONCRETE REINFORCING IN THE VICINITY OF THE BRIDGE SEAT TO AVOID INTERFERENCE WITH THE DRILLING OF ANCHOR BAR HOLES.
- 2. DO NOT PLACE THE ABUTMENT CONCRETE ABOVE THE BRIDGESEAT CONSTRUCTION JOINT UNTIL THE PRESTRESSED BOX BEAMS HAVE BEEN ERECTED.
- 3. FOR DETAILS OF ANCHOR DOWEL BARS, SEE ODOT STANDARD DRAWING PSBD-2-07.
- 4. INSTALL A 3'-0" WIDE STRIP OF NEOPRENE SHEETING CENTERED ON THE JOINT AND EXTENDING FROM THE TOP OF THE BOX BEAM TO 1'-0" BELOW THE BEAM SEAT.

DESIGN AGENCY  
E.P. FERRIS & ASSOC., INC.  
CONSULT. ENG. & SURVEYORS

DATE  
12/2022  
REVIEWED  
EPF  
DRAWN  
RJB  
DESIGNED  
JWE  
CHECKED  
MLS

ABUTMENT DETAILS  
BRIDGE NO. PER-CR26-0420  
OVER LITTLE RUSH CREEK

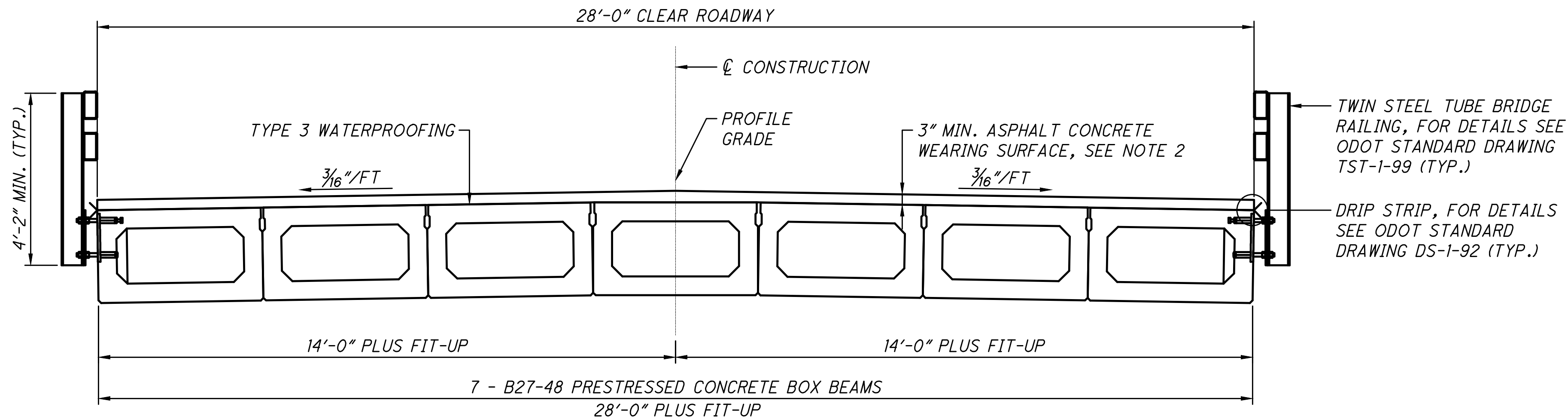
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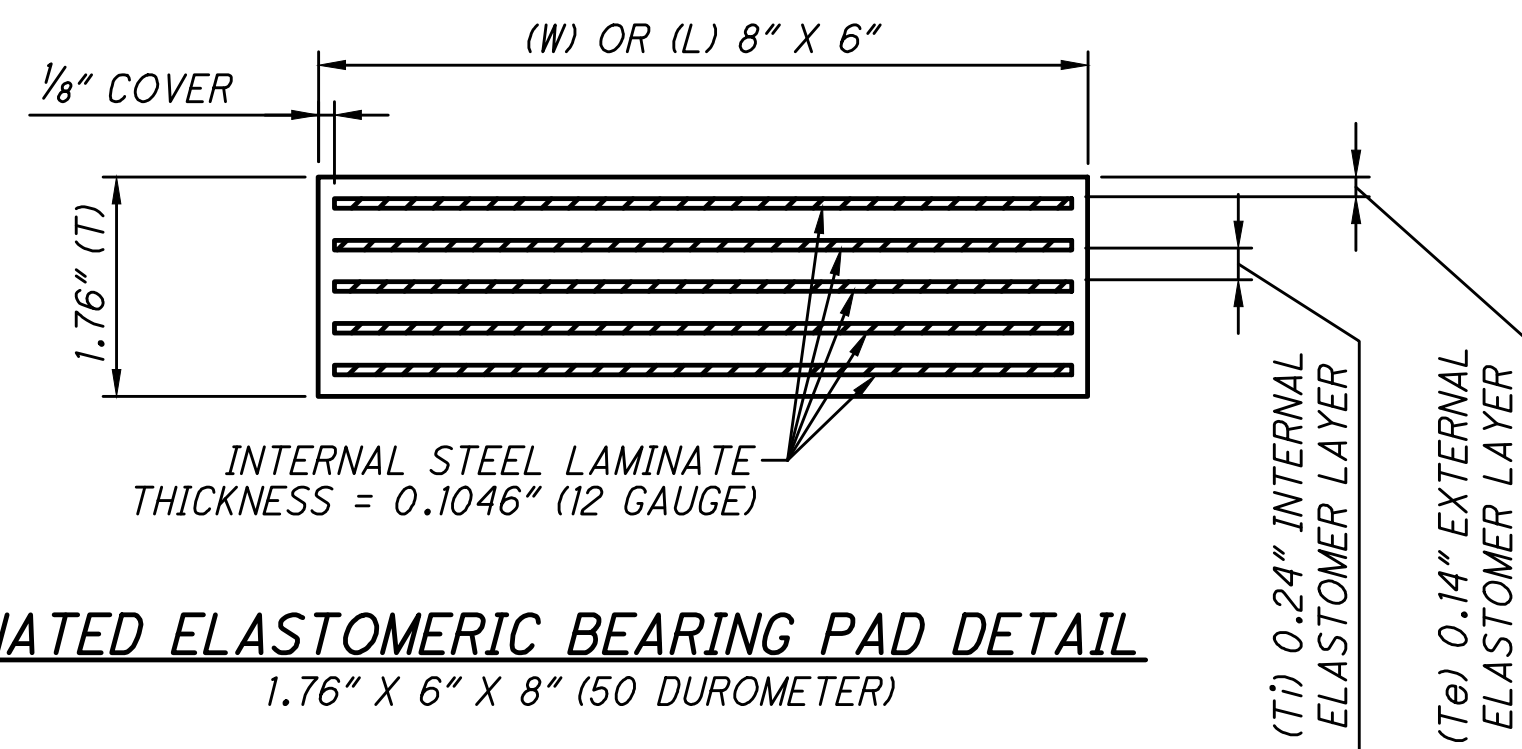
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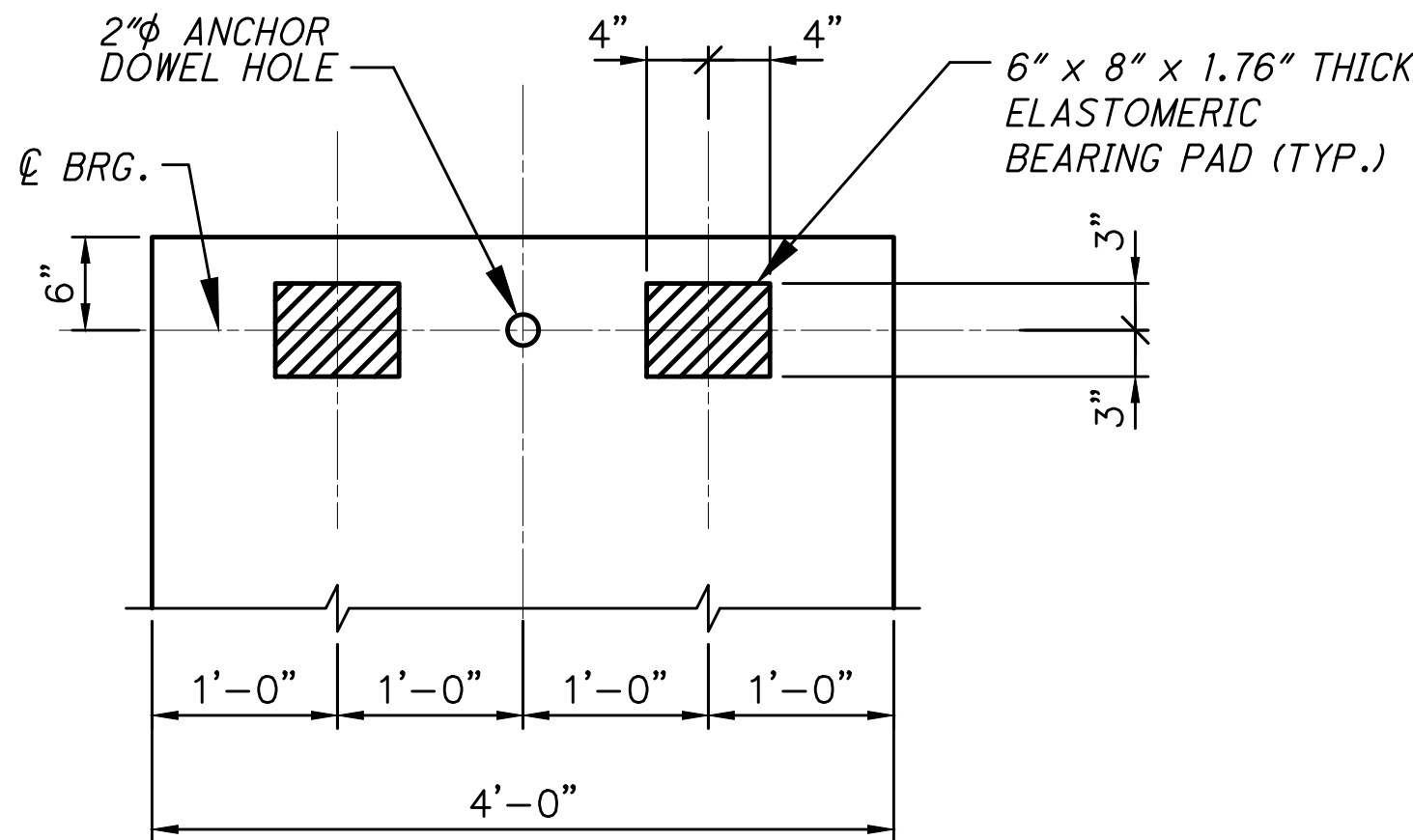
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TRANSVERSE SECTION



LAMINATED ELASTOMERIC BEARING PAD DETAIL  
1.76" X 6" X 8" (50 DUROMETER)



BEARING PAD LAYOUT

NOTE:

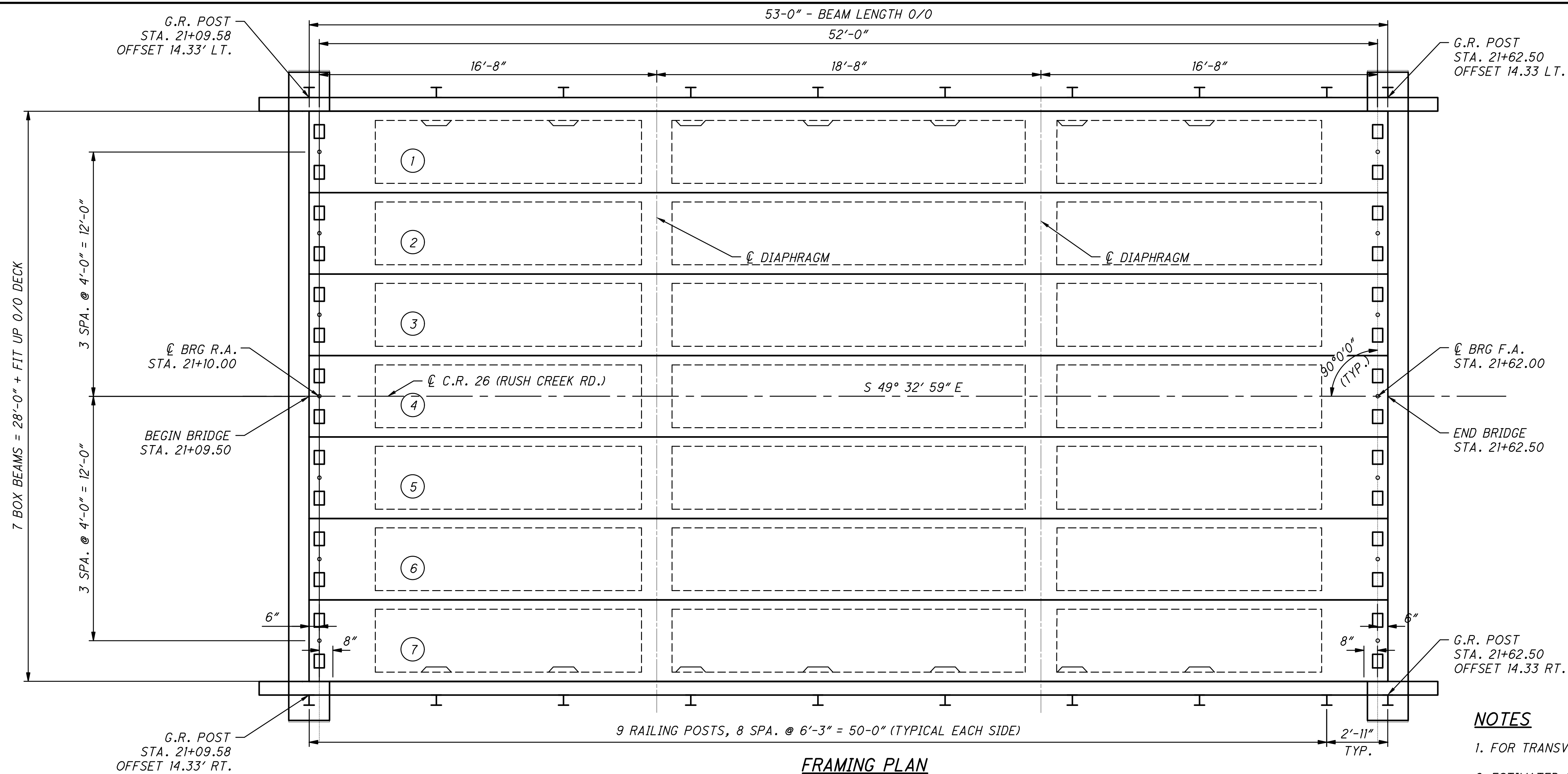
ELASTOMERIC BEARINGS: THE ELASTOMER SHALL HAVE A HARDNESS OF 50 DUROMETER. THE BEARINGS WERE DESIGNED IN ACCORDANCE WITH SECTION 14.7.6 (METHOD A) OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS. THE LONG-TERM COMPRESSION PROOF LOAD TEST (AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, DIVISION II, SECTION 18.7.2.6) IS NOT REQUIRED.

ELASTOMERIC BEARING PAD DATA											
LOCATION	L	W	T	Te	NUMBER OF EXT. LAYERS	Ti	NUMBER OF INT. LAYERS	NUMBER OF STEEL LAMIN.	DESIGN LOAD (KIPS)		
									DL	LL	TOTAL
REAR ABUTMENT	6"	8"	1.76"	0.14"	2	0.24"	4	5	10.22	11.57	21.79
FWD. ABUTMENT	6"	8"	1.76"	0.14"	2	0.24"	4	5	10.22	11.57	21.79

NOTES

- PRESTRESSED CONCRETE BOX BEAM BRIDGE DETAILS SHALL BE IN ACCORDANCE WITH ODOT STANDARD DRAWING PSBD-2-07.
- ASPHALT CONCRETE WEARING COURSE SHALL CONSIST OF A VARIABLE THICKNESS OF 441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG70-22M AND A SECOND 1 1/2" THICKNESS OF 441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG70-22M. PLACE THE FIRST PORTION OF THE COURSE SHALL BE OF 1 1/2" UNIFORM THICKNESS. FEATHER THE SECOND PORTION OF THE COURSE TO PLACE THE SURFACE PARALLEL TO AND 1 1/2" BELOW FINAL PAVEMENT SURFACE ELEVATION.  
  
TWO APPLICATIONS OF ITEM 407 - TACK COAT, ONE PRIOR TO PLACEMENT OF THE FIRST LIFT OF SURFACE COURSE AND ONE PRIOR TO PLACEMENT OF THE SECOND LIFT OF SURFACE COURSE. APPLICATION RATE OF 0.05 TO 0.06 GAL/YD<sup>2</sup>.
- BRIDGE RAILING POST SPACINGS SHOWN ARE TYPICAL FOR BOTH SIDES.
- INSTALL A 3'-0" WIDE STRIP OF TYPE 3 WATERPROOFING CENTERED ON THE JOINT AND EXTENDING FROM THE TOP OF THE BOX BEAM TO 1'-6" BELOW THE BEAM SEAT. ALL TYPE 3 WATERPROOFING SHOWN SHALL BE ITEM 516 NYLON REINFORCING NEOPRENE SHEETING, AS PER PLAN

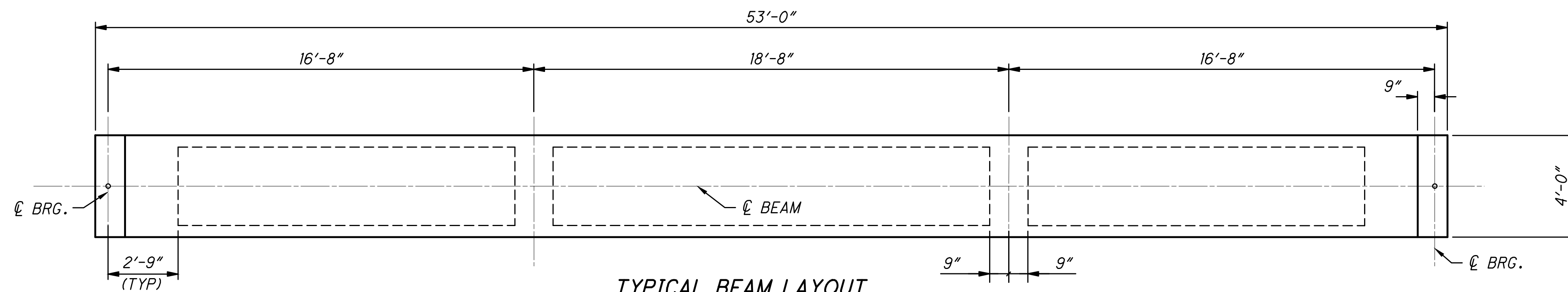
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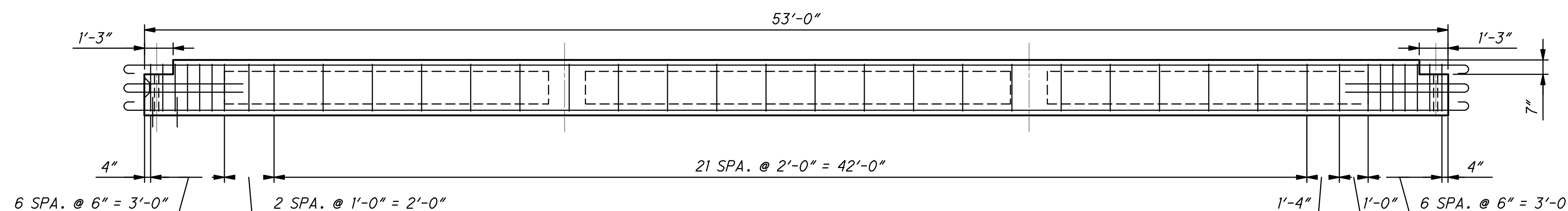
**FRAMING PLAN**

**NOTES**

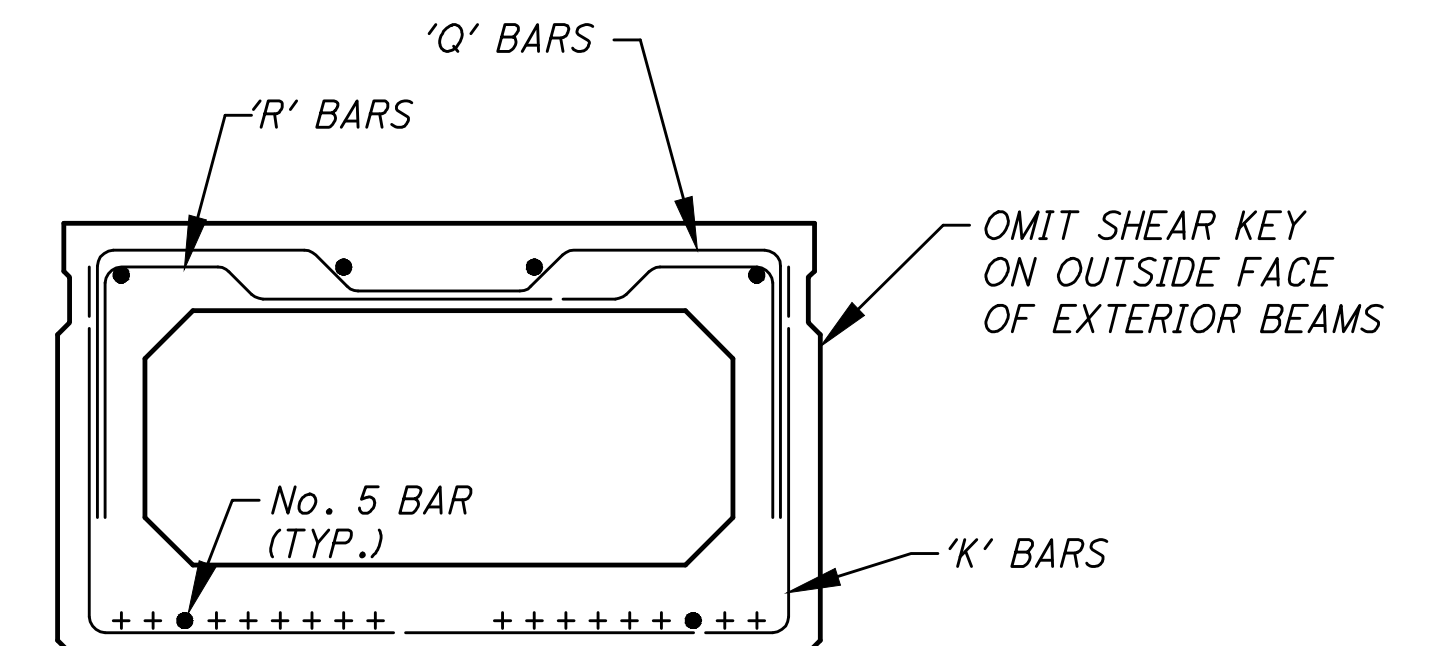
1. FOR TRANSVERSE SECTION, SEE SHEET 11 OF 14.
2. ESTIMATED CAMBER AT DAY 0 (DO) IS  $\frac{9}{16}$ "
3. ESTIMATED CAMBER AT DAY 30 (D30) IS  $\frac{15}{16}$ "
4. DEFLECTION DUE TO REMAINING DEAD LOAD (E.G., RAILING, ETC.) IS 0"



**TYPICAL BEAM LAYOUT**



**TYPICAL STIRRUP LAYOUT**

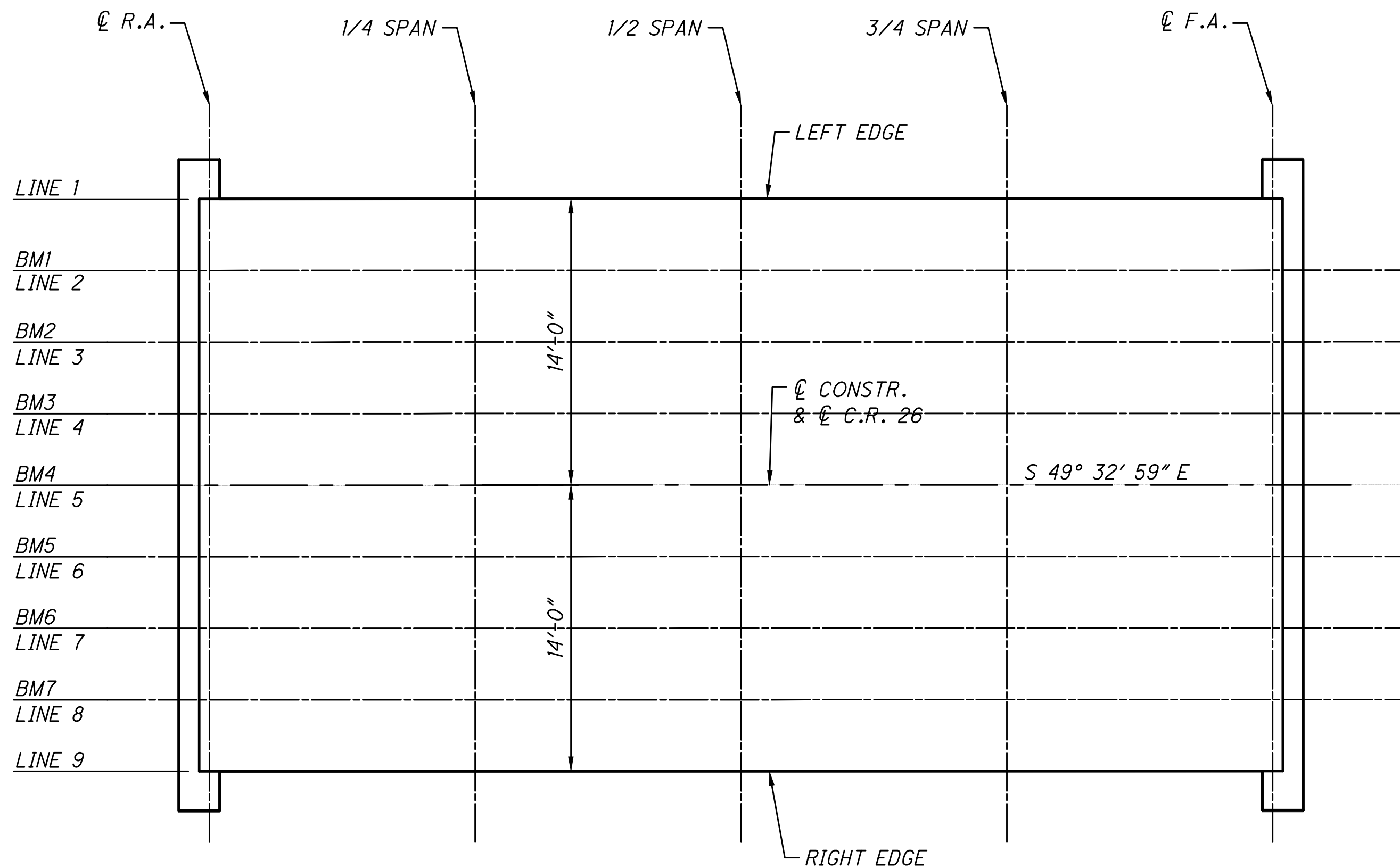


**B27-48, 53'-0" BEAM LENGTH**

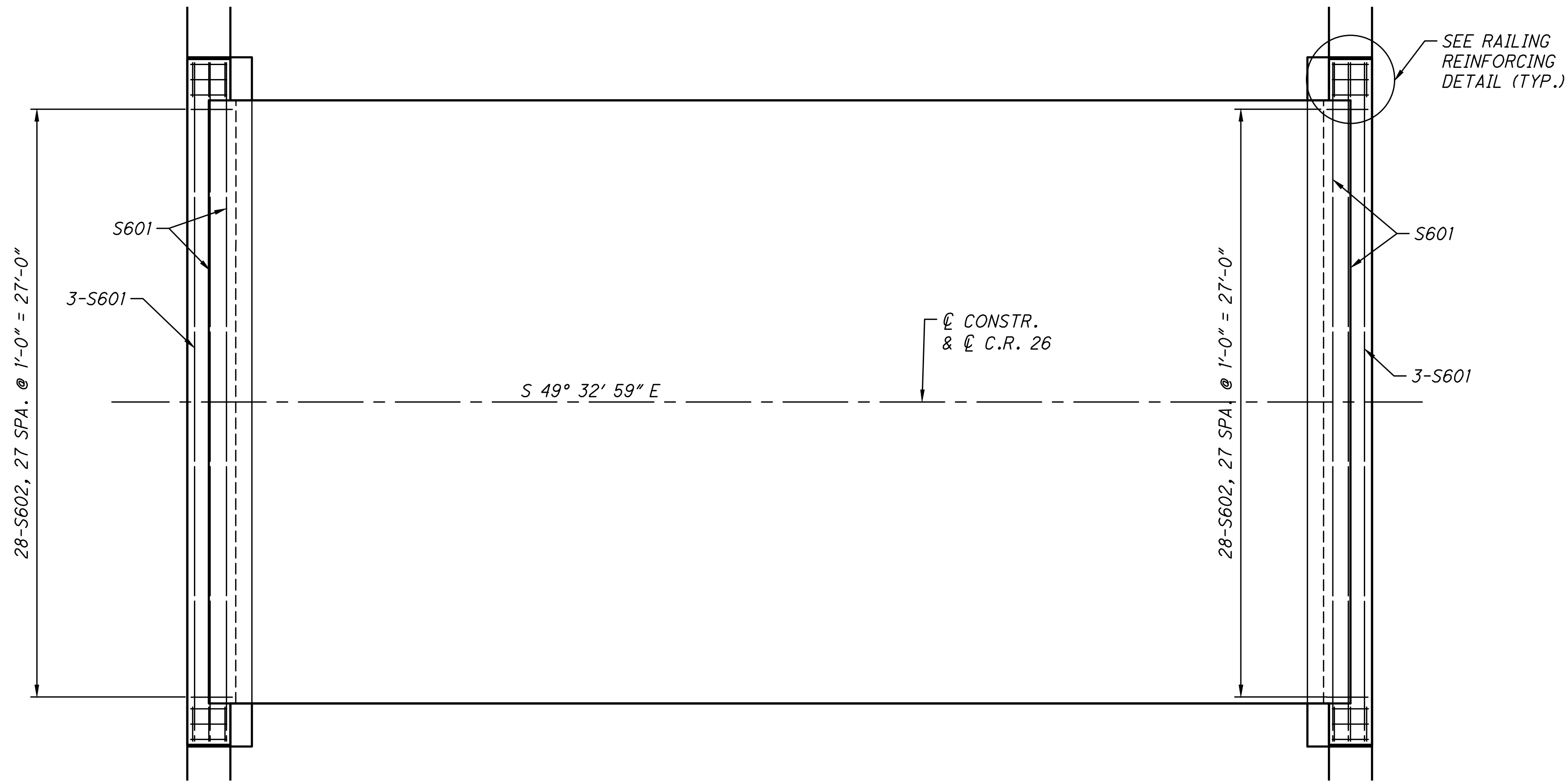
16 -  $\frac{1}{2}$ " STRANDS  
SEE BEAM ELEVATION FOR SPACING OF THE 'K', 'R' & 'Q' No. 4 STIRRUP BARS



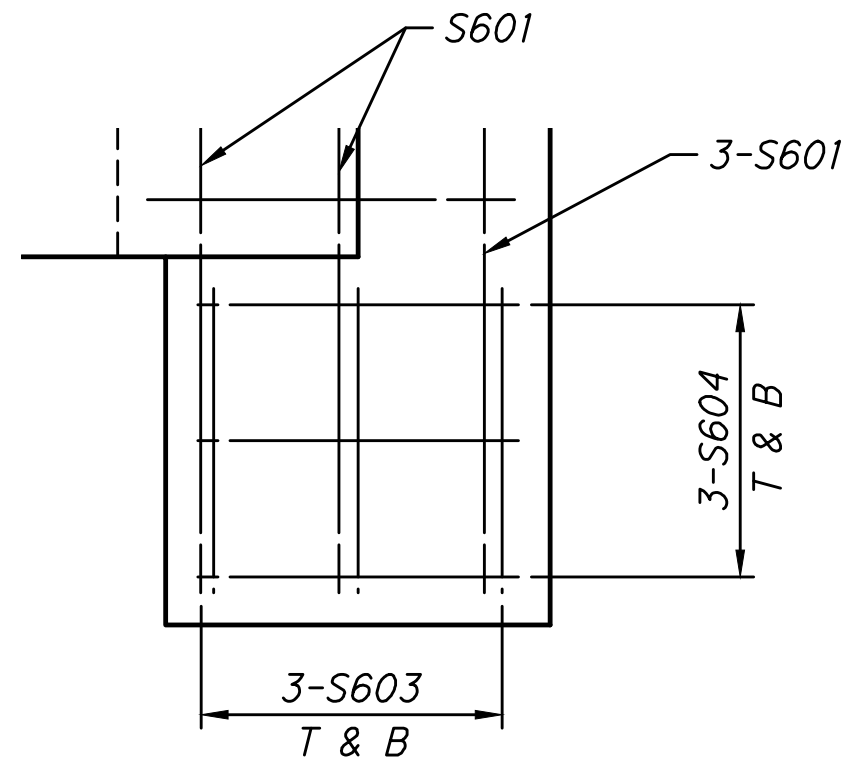
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SCREED LAYOUT



BACKWALL REINFORCING LAYOUT



RAILING REINFORCING

FINAL DECK ELEVATION TABLE						
SCREED LINE	DESCRIPTION	CL R.A. BRGS.	SPAN 1			CL F.A. BRGS.
			1/4 SPAN	1/2 SPAN	3/4 SPAN	
Edge of Deck (LT)	STATION	22+10.00	22+23.00	22+36.00	22+49.00	22+62.00
LINE 1	FINAL DECK EL.	967.33	967.48	967.58	967.63	967.63
Beam 1	STATION	022+10.00	022+23.00	022+36.00	022+49.00	022+62.00
LINE 2	FINAL DECK EL.	967.36	967.51	967.61	967.66	967.66
Beam 2	STATION	022+10.00	022+23.00	022+36.00	022+49.00	022+62.00
LINE 3	FINAL DECK EL.	967.43	967.57	967.67	967.72	967.73
Beam 3	STATION	022+10.00	022+23.00	022+36.00	022+49.00	022+62.00
LINE 4	FINAL DECK EL.	967.49	967.63	967.73	967.79	967.79
P.G./Crown-Beam 4	STATION	22+10.00	22+23.00	22+36.00	22+49.00	22+62.00
LINE 5	FINAL DECK EL.	967.55	967.70	967.80	967.85	967.85
Beam 5	STATION	022+10.00	022+23.00	022+36.00	022+49.00	022+62.00
LINE 6	FINAL DECK EL.	967.49	967.63	967.73	967.79	967.79
Beam 6	STATION	022+10.00	022+23.00	022+36.00	022+49.00	022+62.00
LINE 7	FINAL DECK EL.	967.43	967.57	967.67	967.72	967.73
Beam 7	STATION	022+10.00	022+23.00	022+36.00	022+49.00	022+62.00
LINE 8	FINAL DECK EL.	967.36	967.51	967.61	967.66	967.66
Edge of Deck (RT)	STATION	22+10.00	22+23.00	22+36.00	22+49.00	22+62.00
LINE 9	FINAL DECK EL.	967.33	967.48	967.58	967.63	967.63

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MARK	NUMBER	LENGTH	WEIGHT	TYPE	DIMENSIONS					
	TOTAL				A	B	C	D	E	INC
ABUTMENTS										
A401	20	9'-0"	121	3	1'-9"	2'-6"				
A501	112	10'-1"	1,178	2	3'-10"	2'-8"	3'-10"			
A502	16	31'-8"	529	STR						
A503	24	8'-4"	209	STR						
A504	24	4'-10"	121	STR						
A505	48	4'-8"	234	2	3'-6"	1'-8"	3'-6"			
A801	16	31'-8"	1,353	STR						
	SUB-TOTAL		3,745							

MARK	NUMBER	LENGTH	WEIGHT	TYPE	DIMENSIONS					
	TOTAL				A	B	C	D	E	INC
SUPERSTRUCTURE										
S601	10	31'-8"	476	STR						
S602	56	3'-8"	309	1	1'-11"	1'-11"				
S603	24	5'-7"	211	2	2'-2"	1'-7"	2'-2"			
S604	24	5'-8"	205	2	2'-2"	1'-8"	2'-2"			
	SUB-TOTAL		1,201							

SUB-TOTALS	
ABUTMENTS	3,818
SUPERSTRUCTURE	1,201
GRAND TOTAL	5,019

- NOTES:
1. THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT, WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, A401 IS A NO. 4 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE NOTED. "STD" WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.
2. ALL REINFORCING STEEL IS TO BE EPOXY COATED.
3. STRAIGHT BARS ARE INDICATED BY "STR".
4. SERIES BARS ARE INDICATED BY "SR".
5. SPECIAL BARS ARE INDICATED BY "SP".
6. # - BAR SHALL HAVE A THREADED SPLICED CONNECTOR END.

