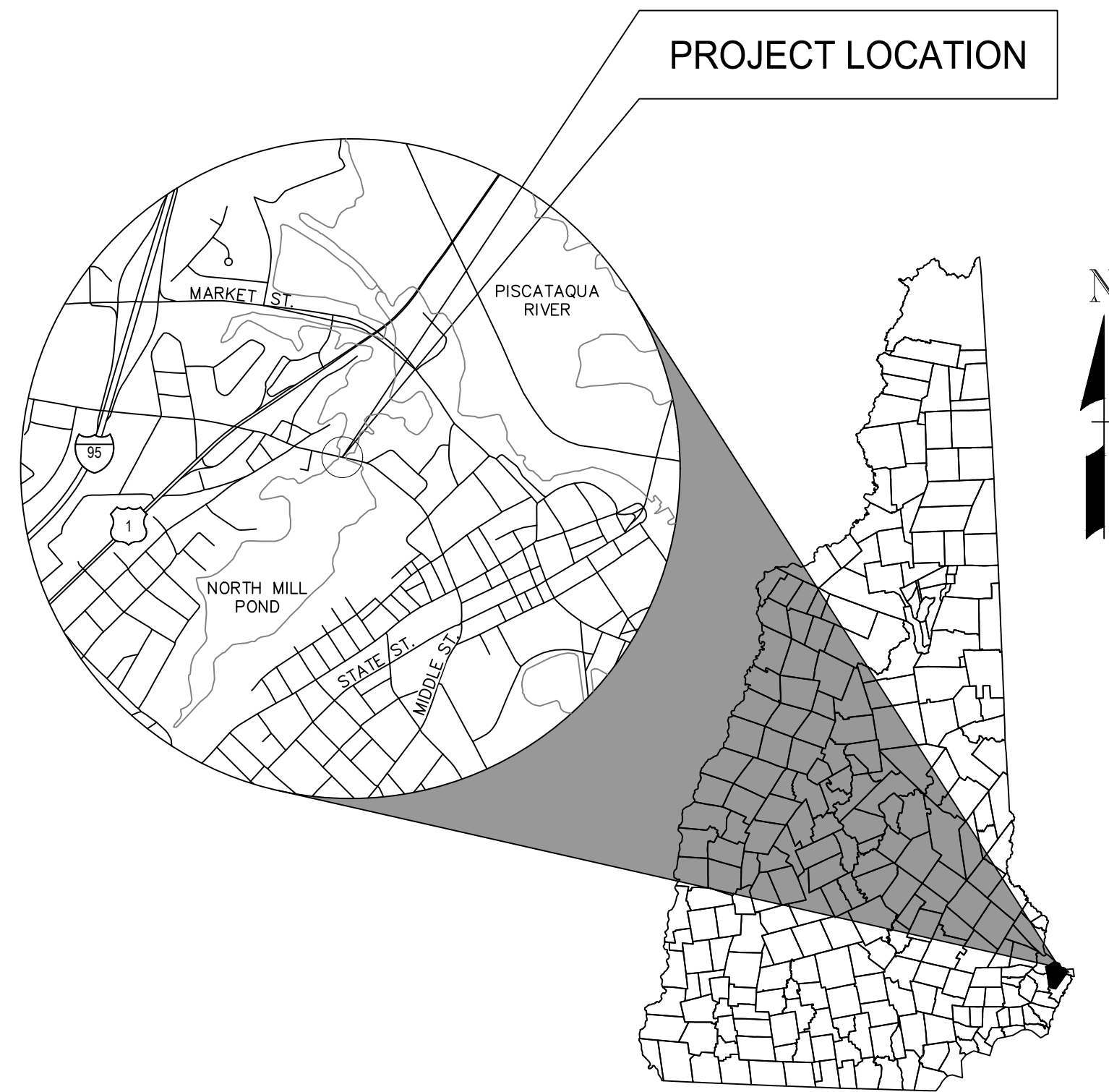
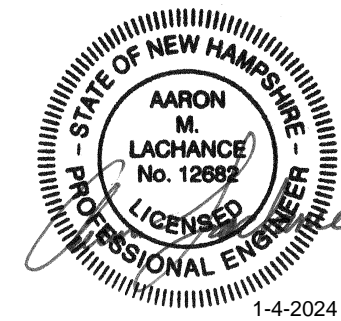


# CITY OF PORTSMOUTH ROCKINGHAM COUNTY NEW HAMPSHIRE



## PLANS OF PROPOSED BRIDGE REPAIRS MAPLEWOOD AVENUE OVER NORTH MILL POND NHDOT BRIDGE NO. 231/103

JANUARY 2024



LOCATION MAP

### INDEX OF SHEETS

SHEET NO. DESCRIPTION

- 1 TITLE SHEET
- 2 STANDARD SYMBOLS SHEET (1 OF 2)
- 3 STANDARD SYMBOLS SHEET (2 OF 2)
- 4 PROJECT NOTES
- 5 PROJECT NOTES AND SUMMARY OF QUANTITIES
- 6 TYPICAL SECTIONS
- 7 DETOUR PLAN
- 8 SITE PLAN
- 9 UTILITY AND DRAINAGE PLAN
- 10 WETLAND IMPACTS PLAN
- 11 WATER DIVERSION PLAN
- 12 BRIDGE REPAIR DETAILS
- 13 RAIL AND SUPPORT SLAB JOINT LAYOUT PLAN
- 14 RAIL SUPPORT SLAB CONSTRUCTION DETAILS
- 15 RETAINING WALL DETAILS
- 16 RAIL DETAILS
- 17 ROADWAY PLAN AND PROFILE

REV.	DESCRIPTION	REV. BY	DATE

NHDOT BRIDGE NO.	DESIGNED	DRAWN	W/C/TAG	CHECKED	AML	SCALE	AS SHOWN	DATE
231/103	RPM							JANUARY 2024

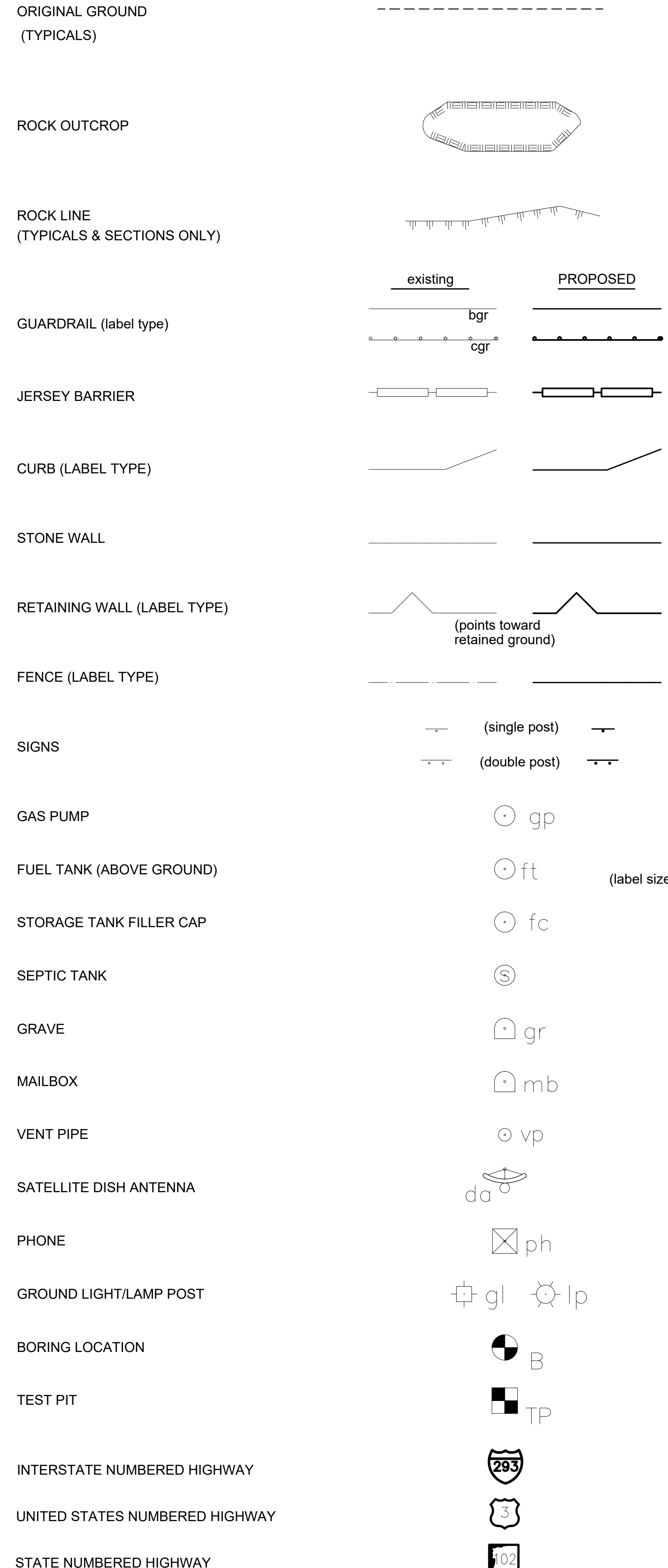
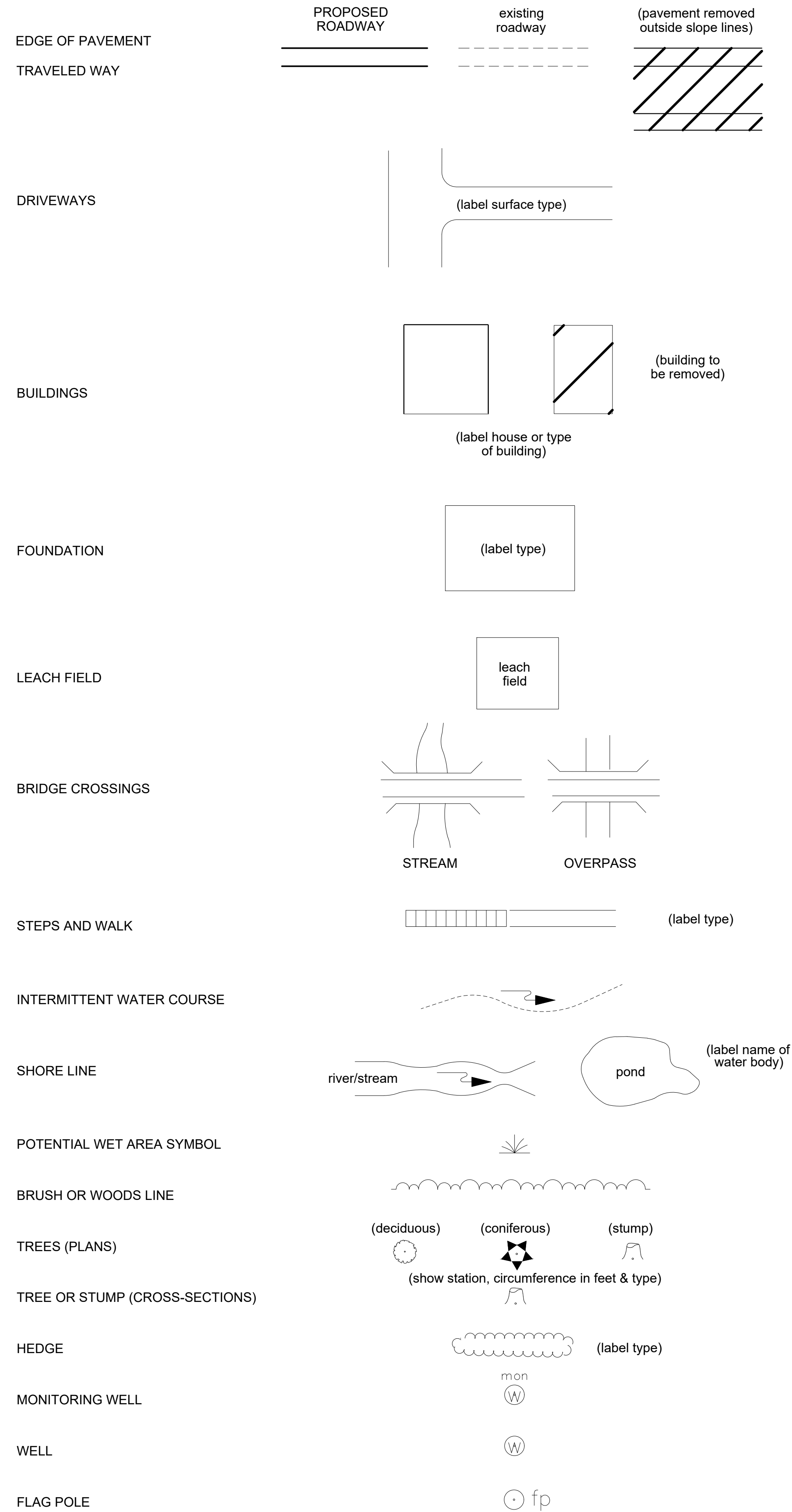
**HOYLE TANNER**  
 Pease International Tradeport  
 100 International Drive, Suite 360  
 Portsmouth, NH 03801  
 (603) 431-2520 www.foyletanner.com

PORTSMOUTH, NEW HAMPSHIRE  
 MAPLEWOOD AVENUE OVER NORTH MILL POND  
 TITLE SHEET

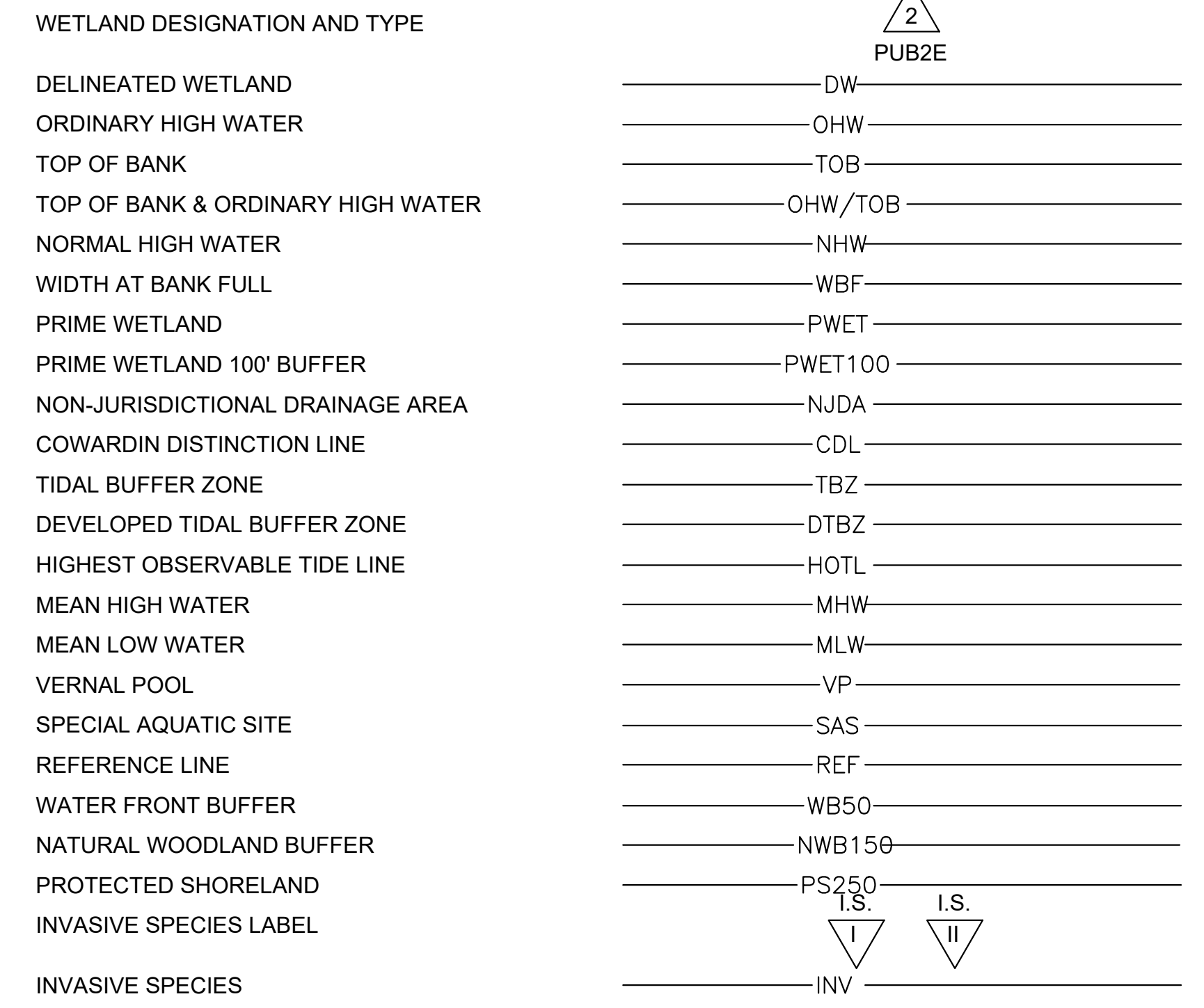
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 SHEET NO.

**1**  
 SHEET 1 OF 17

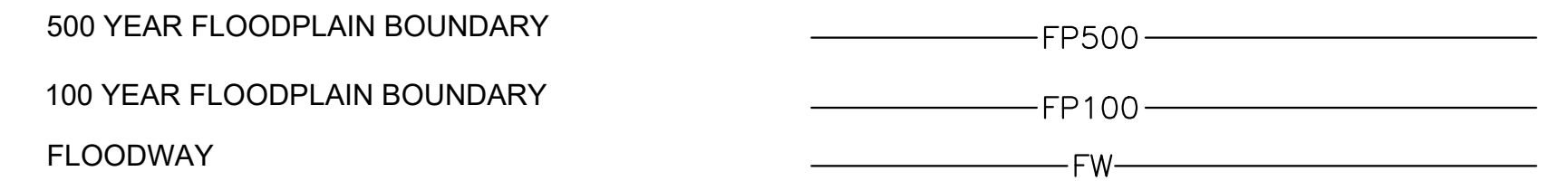
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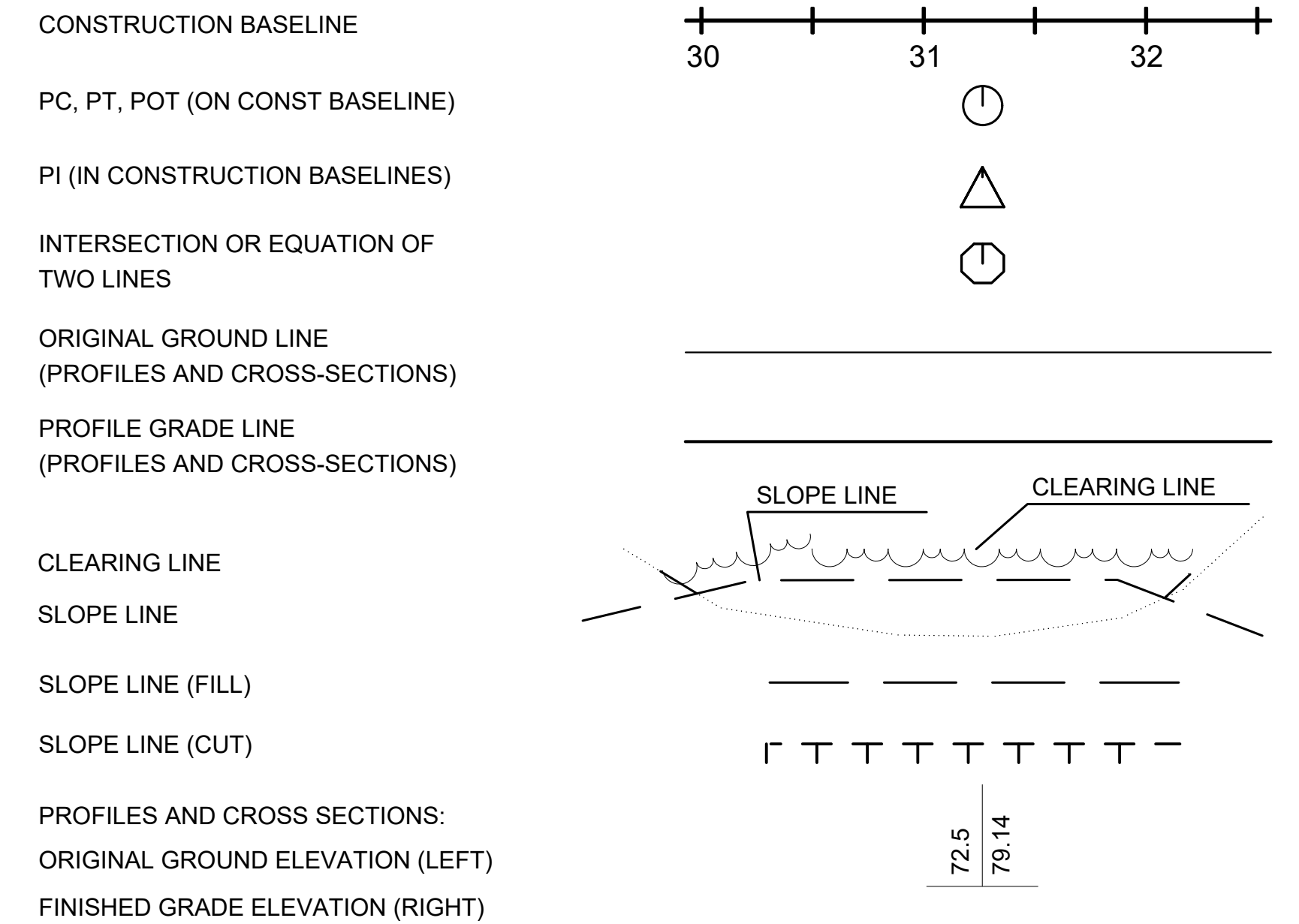
### SHORELAND - WETLAND



### FLOODPLAIN / FLOODWAY



### ENGINEERING



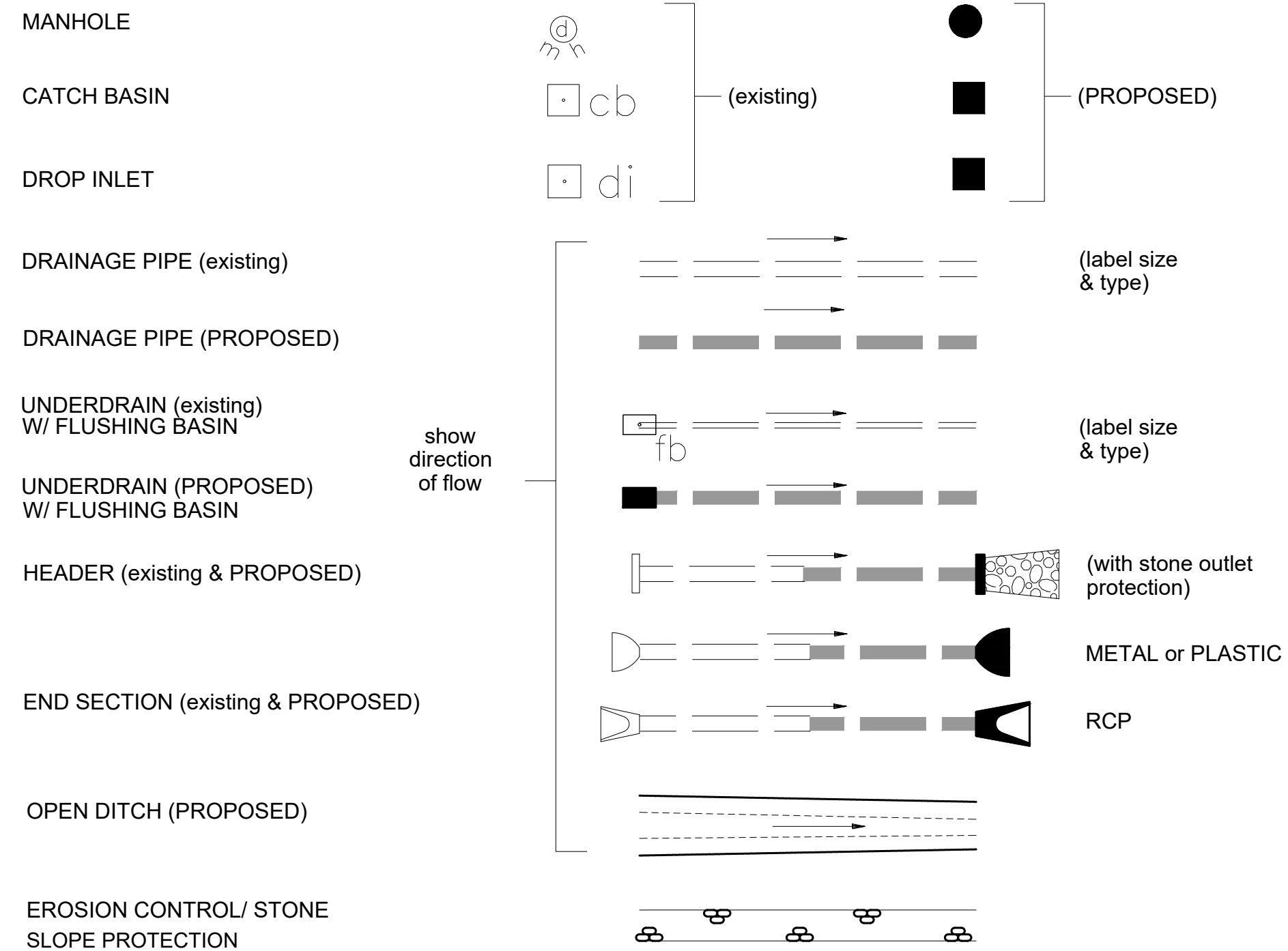
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 Portsmouth, NH 03801  
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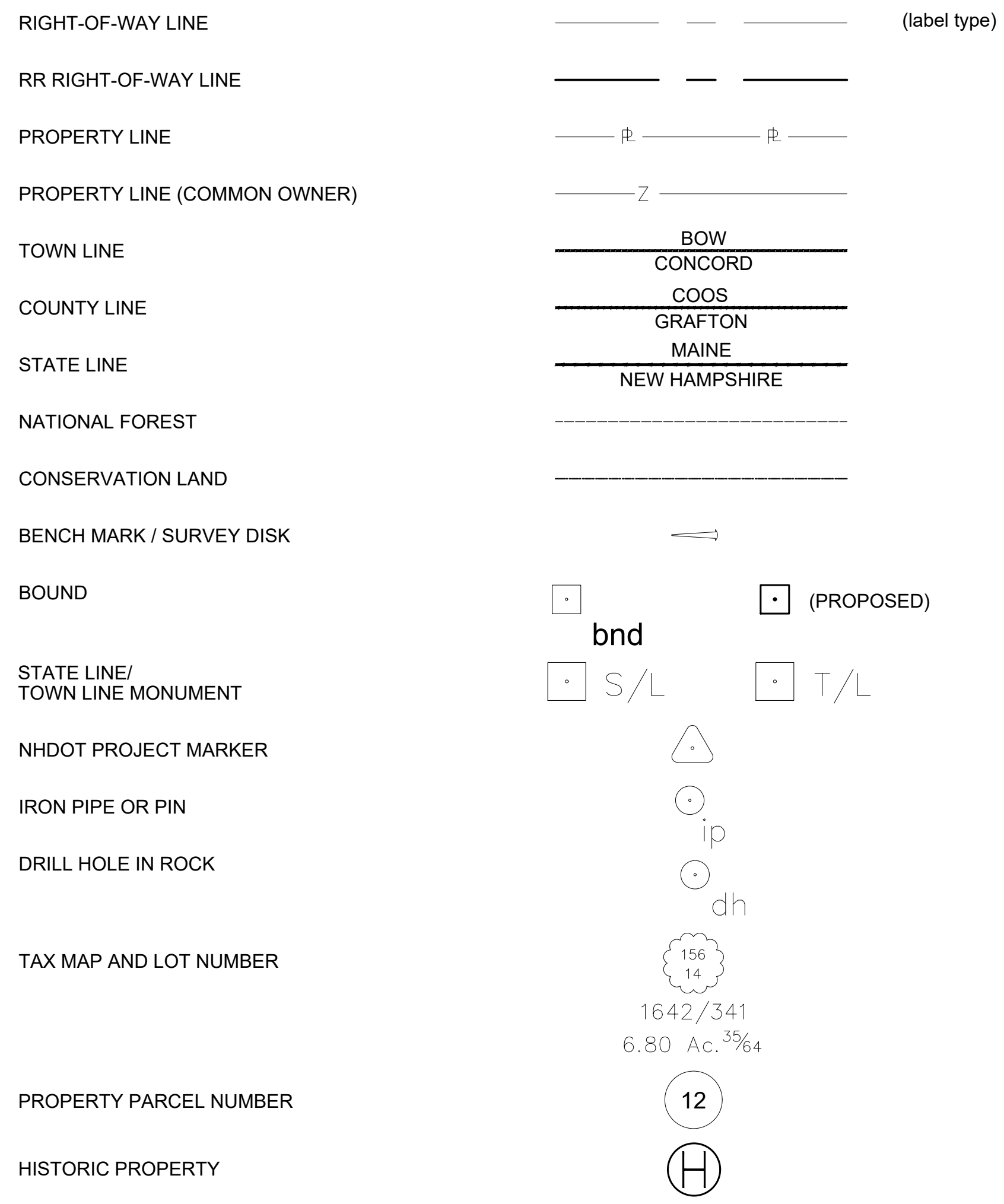
PORTSMOUTH, NEW HAMPSHIRE  
 MAPLEWOOD AVENUE OVER NORTH MILL POND  
 STANDARD SYMBOLS SHEET (1 OF 2)

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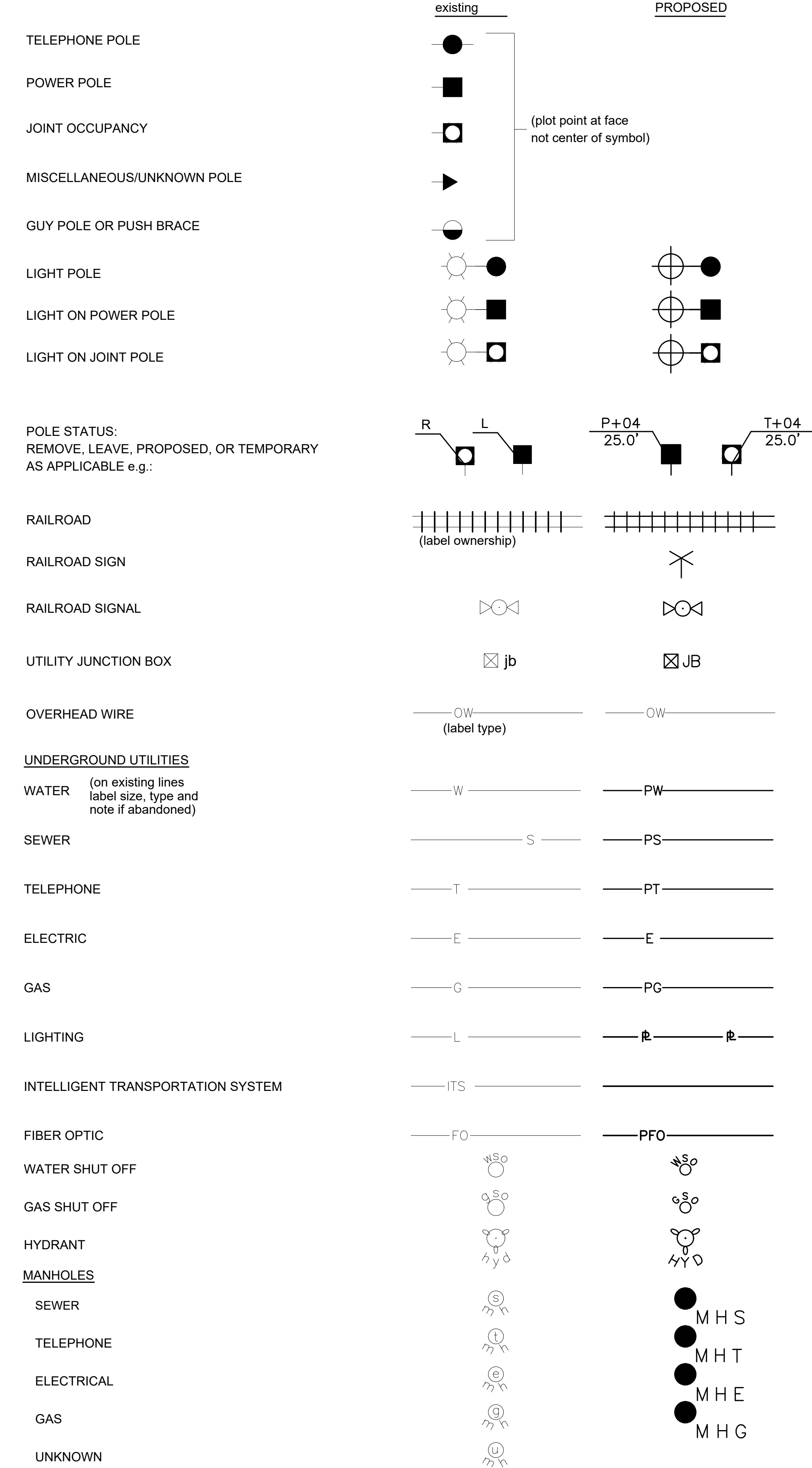
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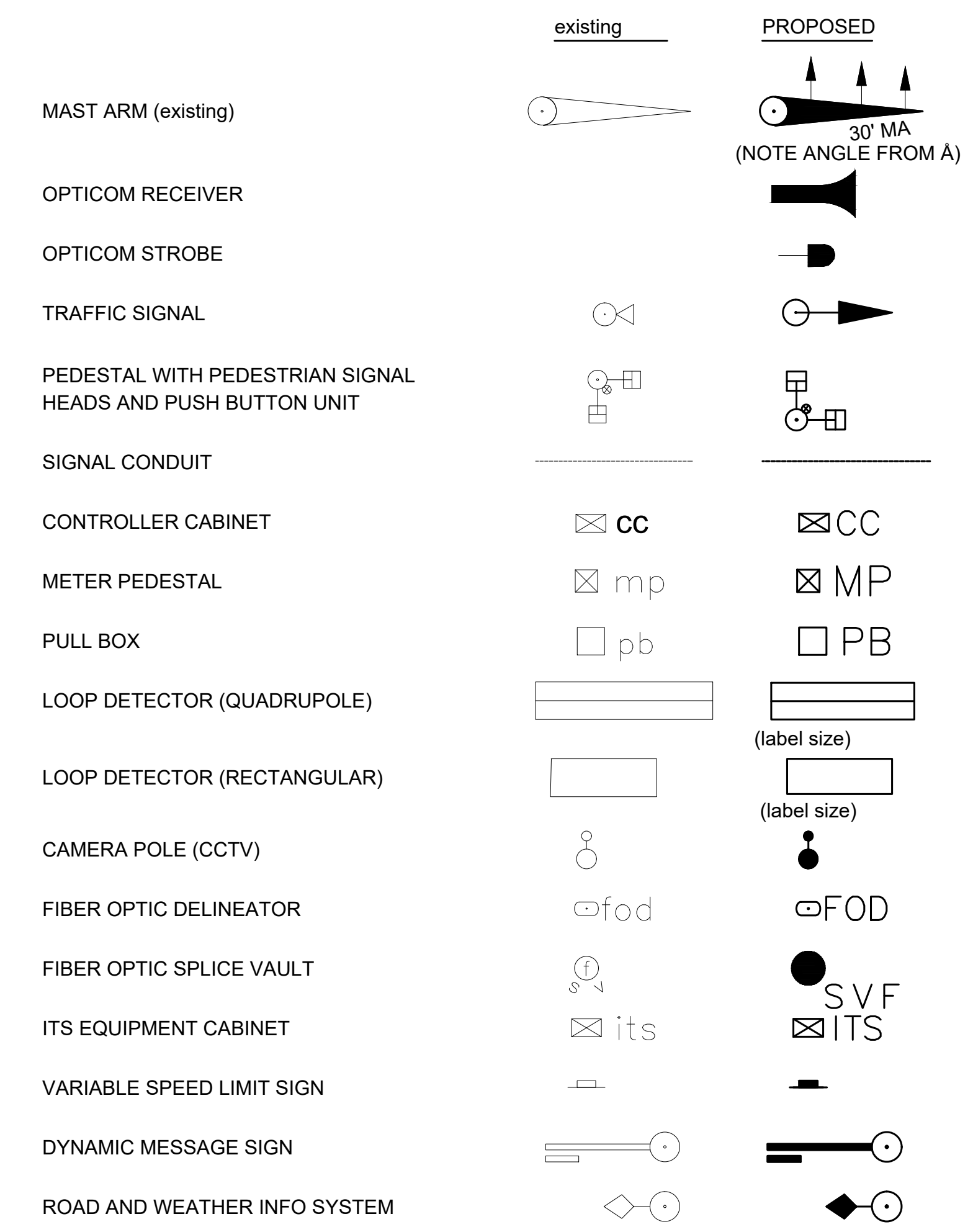
## BOUNDARIES / RIGHT-OF-WAY



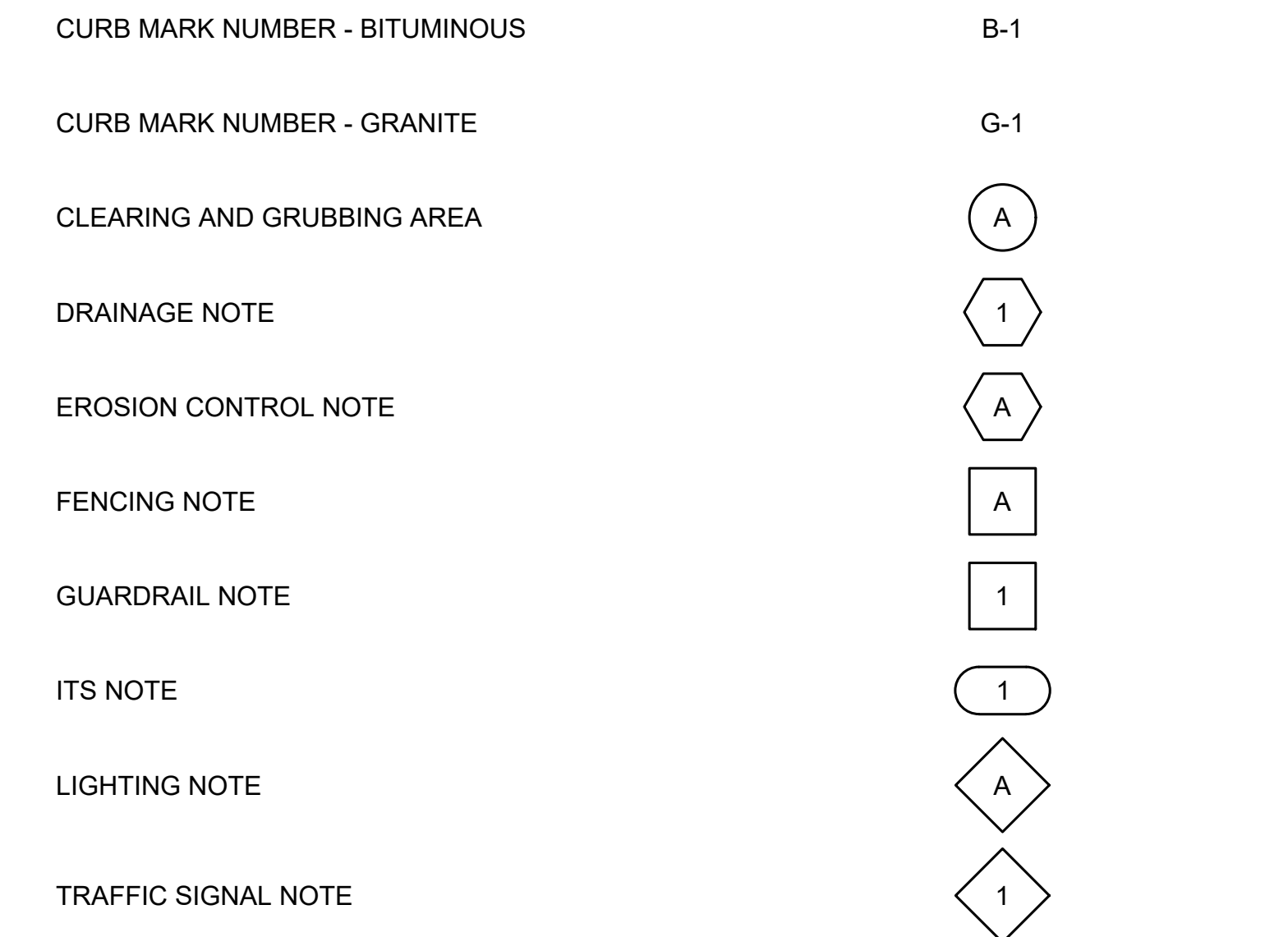
## UTILITIES



## TRAFFIC SIGNALS / ITS



## CONSTRUCTION NOTES



REV.	DESCRIPTION	DATE

NHDOT BRIDGE NO.	DESIGNED	DRAWN	CHECKED	SCALE	DATE
231703	RPM	WCT/AG	AML	AS SHOWN	JANUARY 2024

**HOYLE TANNER**  
 Please International Trademark  
 100 International Drive, Suite 360  
 Portsmouth, NH 03801  
 (603) 431-2520 www.foyletanner.com

PORTSMOUTH, NEW HAMPSHIRE  
 MAPLEWOOD AVENUE OVER NORTH MILL POND  
 STANDARD SYMBOLS SHEET (2 OF 2)

PROJECT NO. 20.905110.00  
 SHEET NO.

**3**  
 SHEET 3 OF 17

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**GENERAL NOTES**

- GENERAL NOTES SHALL APPLY TO ALL DRAWINGS PREPARED BY HOYLE, TANNER & ASSOCIATES, INC. (HOYLE TANNER) AND THE PROPOSED WORK THEY CONVEY.
- ALL WORK SHALL CONFORM TO ALL FEDERAL, STATE AND LOCAL CODES, REGULATIONS AND STANDARDS AND THE MORE STRINGENT SHALL GOVERN.
- THE GENERAL CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS AND COORDINATION OF OTHER TRADES.
- THESE DOCUMENTS DO NOT INCLUDE THE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. CARE OF ADJACENT PROPERTIES DURING CONSTRUCTION AND COMPLIANCE WITH STATE AND FEDERAL REGULATIONS REGARDING SITE SAFETY SHALL SOLELY BE THE CONTRACTOR'S RESPONSIBILITY.
- ALL DIMENSIONS, ELEVATIONS AND CONDITIONS MUST BE VERIFIED BY THE GENERAL CONTRACTOR OR RESPONSIBLE TRADES PRIOR TO COMMENCING WITH THE WORK, FABRICATION OR ORDERING MATERIALS. DO NOT SCALE DRAWINGS, USE DIMENSIONS SHOWN.
- ANY DISCREPANCIES BETWEEN THESE DRAWINGS AND EXISTING CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY, BEFORE PROCEEDING WITH THE WORK.
- THE INFORMATION SHOWN ON THESE PLANS CONCERNING THE TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING DETERMINATIONS AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. ALL COSTS FOR DETERMINING UNDERGROUND UTILITY TYPES AND LOCATIONS SHALL BE SUBSIDIARY TO THE CONTRACT. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES FOUND INTERFERING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTION SHALL BE AGREED TO BY THE ENGINEER AND UTILITY OWNERS BEFORE PROCEEDING WITH THE WORK.
- ALL APPLICABLE UTILITY DEPARTMENTS AND COMPANIES SHALL BE NOTIFIED BEFORE EXCAVATION IS STARTED. UTILITIES WITHIN 50 FEET OF AN EXCAVATION SHALL BE MARKED IN THE FIELD.
- HOYLE TANNER WAIVES ANY AND ALL RESPONSIBILITY AND LIABILITY FOR PROBLEMS THAT ARISE DUE TO THE FAILURE OF THE CONTRACTOR:
  - TO FOLLOW THESE DRAWINGS AND SPECIFICATIONS AND THE DESIGN INTENT THEY CONVEY.
  - TO NOTIFY HOYLE TANNER OF ANY DISCREPANCIES, ERRORS, OMISSIONS OR CONFLICTS AND OBTAIN THEIR GUIDANCE TO RESOLVE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR DESIGNING, INSTALLATION AND REMOVAL OF ALL TEMPORARY SHORING AND BRACING REQUIRED DURING CONSTRUCTION.
- THE CONTRACTOR SHOULD NOTE THAT THE NHDOT "STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION" ARE MADE A PART OF THIS PROJECT AND ALL APPLICABLE DETAILS, STANDARDS AND SPECIFICATIONS SHALL APPLY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING EROSION AND SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH THE "NEW HAMPSHIRE STORMWATER MANUAL, VOLUME 3 EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION" BY THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES.
- THIS PROJECT SHALL BE SUBJECT TO AVOIDANCE AND MINIMIZATION MEASURES TO PROTECT THE HABITAT OF THE NORTHERN LONG-EARED BAT. MEASURES APPLICABLE TO THIS PROJECT INCLUDE TIME-OF-YEAR (TOY) RESTRICTIONS FOR TREES ≥ 3" DIAMETER BREAST HEIGHT (DBH). THE CONTRACTOR SHALL NOT CONDUCT ANY TREE CUTTING AND CLEARING ACTIVITIES FROM JUNE 1 THROUGH JULY 31.

**TOPOGRAPHIC SURVEY NOTES**

- THE SURVEY FOR THIS PROJECT WAS COMPLETED BY:  
DOUCET SURVEY, INC  
2 COMMERCE DRIVE, SUITE 202, BEDFORD, NH 03110  
(603) 614-4060
- THE SURVEY CONSISTED OF 3 SHEET(S) TITLED:  
EXISTING CONDITIONS PLAN FOR HOYLE, TANNER & ASSOCIATES, INC. OF NHDOT BRIDGE NO. 231/103 MAPLEWOOD AVENUE PORTSMOUTH, NEW HAMSHIRE
- WETLAND RESOURCES WITHIN THE SURVEY AREA WERE DELINEATED BY:  
THOMAS SOKOLOSKI, CWS NO. 127
- DATUM USED FOR THESE DRAWINGS IS AS FOLLOWS:  
HORIZONTAL – NAD 83  
VERTICAL – NGVD88
- THE ABOVE-REFERENCED FIELD SURVEY WAS COMPLETED BETWEEN DECEMBER 2019 AND JANUARY 2020 AND DOES NOT REFLECT CHANGES RESULTING FROM THE ROADWAY PAVING PROJECT (MILL AND OVERLAY) COMPLETED BY THE CITY OF PORTSMOUTH IN 2021. AS SUCH, MINOR DEVIATIONS BETWEEN THE SURVEY PLAN AND CURRENT EXISTING CONDITIONS SHOULD BE ANTICIPATED.

**GENERAL CONSTRUCTION NOTES**

- DIMENSIONS, ANGLES, BEARINGS AND ELEVATIONS SHOWN ON THESE CONTRACT PLANS HAVE BEEN OBTAINED FROM EXISTING PLANS, LIMITED FIELD INVESTIGATIONS, AND SURVEY, AND MAY NOT ACCURATELY REFLECT ACTUAL FIELD CONDITIONS. ACCORDINGLY, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING FIELD MEASUREMENTS OF ALL EXISTING STRUCTURE COMPONENTS IMPACTED BY THE PROPOSED WORK TO ASSURE CONSISTENCY WITH THE PROPOSED MODIFICATIONS. ANY DISCREPANCIES IN DIMENSIONS, CHARACTER OR EXTENT OF THE EXISTING FEATURES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE ADVANCING THE WORK.
- THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES FROM DAMAGE DURING CONSTRUCTION.
- WATER LEVEL VARIES FROM THAT SHOWN DUE TO TIDAL EFFECTS.
- ITEM 1002.1, REPAIRS OR REPLACEMENTS-BRIDGE STRUCTURES AS NEEDED, IS INCLUDED FOR THE COMPLETION OF UNANTICIPATED WORK NECESSARY IN CONNECTION WITH THE SCOPE OF THIS PROJECT.
- CONCRETE TIES AND ANCHORAGES FOR USE IN FORMS SHALL BE FABRICATED SO AS TO BE REMOVED TO A MINIMUM DEPTH OF 2" WITHOUT INJURY TO THE CONCRETE. HOLES SHALL BE PLUGGED WITH A MORTAR MATCHING THE COLOR OF ADJACENT CONCRETE FOR EXPOSED CONCRETE SURFACES.
- IF CONCRETE FORMS ARE TO BE TREATED WITH FORM RELEASE COMPOUND, THIS WORK SHALL BE DONE PRIOR TO THE ERECTION OF THE FORMS. THE REINFORCING STEEL, AT THE TIME CONCRETE IS PLACED, SHALL BE FREE OF DIRT, PAINT, OIL, FORM RELEASE COMPOUND, OR OTHER ORGANIC MATERIALS THAT MAY ADVERSELY AFFECT OR REDUCE BOND.
- ALL EXPOSED EDGES OF THE CONCRETE SHALL BE CHAMFERED ¾", UNLESS OTHERWISE NOTED.
- ALL BACKFILL MATERIAL (EXCEPT SUITABLE FILL) SHALL NOT EXCEED THE OPTIMUM MOISTURE CONTENT BY MORE THAN 2 PERCENTAGE POINTS. THE MATERIAL SHALL BE PLACED IN LAYERS NOT MORE THAN 12" LOOSE DEPTH, UNLESS OTHERWISE NOTED. FOR EARTH MATERIALS WITHIN 10' OF THE BACK OF STRUCTURES NOT HAVING APPROACH SLABS, AT LEAST 98 PERCENT OF MAXIMUM DENSITY SHALL BE OBTAINED. ALL OTHER BACKFILL MATERIAL SHALL BE COMPACTED TO NOT LESS THAN 95 PERCENT OF MAXIMUM DENSITY. THE COMPACTION WILL BE TESTED AT FREQUENCIES DETERMINED IN THE FIELD BY THE ENGINEER.
- VIBRATION MONITORING SHALL BE CONDUCTED FOR ALL WORK COMPLETED DIRECTLY ADJACENT TO THE STRUCTURE LOCATED AT 10 NORDIC LANE THAT HAS POTENTIAL TO CAUSE A DISTURBANCE TO THE EXISTING STRUCTURE. VIBRATION MONITORING SHALL COMPLY WITH THE REQUIREMENTS OF SECTION 211 OF THE STANDARD SPECIFICATIONS.

**DESIGN LOADS, MATERIALS AND SPECIFICATIONS**

- DESIGN LOADING: HL-93
- DESIGN SPEED: 25 MPH
- DESIGN METHOD: LOAD AND RESISTANCE FACTOR DESIGN METHOD (LRFD)
- SPECIFICATIONS: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 9TH EDITION.  
  
NHDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION 2016 WITH CURRENT ADDITIONS AND MODIFICATIONS AS OF THE BID OPENING DATE.
- REINFORCING STEEL: AASHTO M 31 (ASTM A615) GRADE 60  
AASHTO M 284 (ASTM A775) GRADE 60 EPOXY COATED (WHERE INDICATED)
- CONCRETE: PROPOSED RAIL SUPPORT SLAB:  
ITEM 520.02025, CONCRETE CLASS AA, RAIL SUPPORT SLAB (QC/QA) (F)  
4,000 PSI (AT 28 DAYS)

**HYDRAULIC DATA**

1. DRAINAGE AREA:	4.16 SQUARE MILES
2. DESIGN FLOOD:	Q50
3. Q50 VELOCITY: Q100 VELOCITY:	9.3 FPS 10.6 FPS
4. Q50 FLOOD ELEVATION: Q100 FLOOD ELEVATION:	7.95 FT 8.40 FT
5. Q50 FLOOD FLOW: Q100 FLOOD FLOW:	1,907 CFS 2,164 CFS
6. BRIDGE WATERWAY OPENING:	205 SF

**WORK AREA NOTES**

- PRIOR TO COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR SHALL LAYOUT LIMITS OF ALL EASEMENTS AND CITY'S RIGHT-OF-WAY WITHIN THE PROJECT LIMITS. COST IS INCLUDED UNDER ITEM 692, MOBILIZATION. LAYOUT SHALL BE PERFORMED BY A LAND SURVEYOR LICENSED IN THE STATE OF NEW HAMPSHIRE. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- MEMORANDUMS OF UNDERSTANDING WITH THE OWNERS OF PROPERTIE(S) IMPACTED BY THE PROPOSED WORK HAVE BEEN OBTAINED BY THE CITY FOR THE CONSTRUCTION LIMITS SHOWN ON THE PLANS.
- CONSTRUCTION ACCESS SHALL BE LIMITED TO WITHIN THE CITY'S RIGHT-OF-WAY AND PROJECT LIMITS SHOWN IN THESE PLANS, UNLESS NOTED OTHERWISE. ADDITIONAL AREAS REQUIRED BY THE CONTRACTOR SHALL BE AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL COORDINATE WITH AFFECTED PROPERTY OWNERS AND OBTAIN TEMPORARY USE RIGHTS FOR SUCH AREAS.

**TRAFFIC CONTROL NOTES**

- THE BRIDGE WILL BE CLOSED DURING A PORTION OF CONSTRUCTION, AT WHICH TIME TRAFFIC WILL BE DETOURED AROUND THE SITE (ITEM 619.1). THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPLYING, ERECTING, AND MAINTAINING PERMANENT CONSTRUCTION FENCING, SIGNS, AND/OR WARNING DEVICES AS APPROVED OR DIRECTED BY THE ENGINEER. ALL DEVICES SHALL CONFORM TO SECTION 619 OF THE NHDOT STANDARD SPECIFICATIONS AND THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). WORK ON THE PROJECT OR ANY SEPARATE ACTIVITY THEREIN SHALL NOT START UNTIL ALL REQUIRED SIGNS AND WARNING DEVICES ARE INSTALLED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER.
- IF OWNER DOES NOT AWARD BID ALTERNATE 3, THE BRIDGE SHALL BE CLOSED TO ALL VEHICULAR TRAFFIC FOR A MAXIMUM OF 80 CONSECUTIVE CALENDAR DAYS. IF OWNER DOES AWARD BID ALTERNATE 3, THE BRIDGE SHALL BE CLOSED TO ALL VEHICULAR TRAFFIC FOR A MAXIMUM OF 30 CONSECUTIVE CALENDAR DAYS.
- AN ADA COMPLIANT ROUTE FOR PEDESTRIAN TRAFFIC SHALL BE AVAILABLE THROUGH THE PROJECT AREA DURING ALL PHASES OF CONSTRUCTION.
- THE CONTRACTOR SHALL MAINTAIN SAFE, CONTINUOUS ACCESS TO ABUTTING PROPERTIES, INCLUDING FOR EMERGENCY VEHICLES, DURING THE COURSE OF THE WORK. TEMPORARY DISRUPTIONS OF ACCESS NECESSARY FOR CONSTRUCTION OF THE PROPOSED WORK SHALL BE COORDINATED IN ADVANCE WITH THE AFFECTED PROPERTY OWNERS. A MINIMUM OF 48 HOURS ADVANCED NOTICED IS REQUIRED.

**EXISTING BRIDGE REMOVAL NOTES**

- THE CONTRACTOR'S METHOD OF REMOVAL OF PORTIONS OF THE EXISTING CAST-IN-PLACE CONCRETE BRIDGE FOOTINGS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO THE COMMENCEMENT OF ANY REMOVAL OPERATIONS. DOCUMENTS SHALL BE PREPARED AND SUBMITTED IN ACCORDANCE WITH SPECIFICATION SECTION 01300 OF THE CONTRACT DOCUMENTS.
- REMOVAL OF EXISTING BRIDGE STRUCTURE, ITEM 502., SHALL INCLUDE REMOVAL OF PORTIONS OF THE EXISTING FOOTINGS TO THE LIMITS SHOWN ON THESE PLANS.
- THE CONTRACTOR SHALL TAKE SPECIAL CARE TO ENSURE THAT NO DEBRIS FALLS INTO NORTH MILL POND DURING CONSTRUCTION OPERATIONS. THE ERECTION, MAINTENANCE AND REMOVAL OF TEMPORARY STRUCTURES OR OTHER METHODS TO PREVENT DEBRIS FROM FALLING INTO NORTH MILL POND, AND THE CONTRACTOR'S METHOD OF REMOVAL SHALL BE SUBMITTED IN ACCORDANCE WITH SECTION 01300 TO THE ENGINEER FOR REVIEW AND APPROVAL. ALL COSTS SHALL BE INCLUDED IN ITEM 502.

**WATER DIVERSION NOTES**

- A TEMPORARY WATER DIVERSION STRUCTURE WILL BE REQUIRED. WATER DIVERSION STRUCTURES SHALL BE DESIGNED TO ACCOMMODATE, AT A MINIMUM, THE STORM EVENT DISCHARGE FROM HODGDON BROOK COMBINED WITH THE HIGHEST TIDE ELEVATIONS AS DESCRIBED IN THE HYDRAULIC ANALYSES SUMMARY REPORTS INCLUDED IN THE SPECIFICATIONS. SEE SHEET 10 FOR ADDITIONAL WATER DIVERSION NOTES AND DETAILS. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING FINAL DESIGN CRITERIA FOR COFFERDAM SYSTEM BASED ON THEIR APPROACH TO CONSTRUCTING THE PROJECT. THE CONTRACTOR'S METHOD OF WATER DIVERSION SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO THE START OF WORK.
- ALL COSTS FOR THE INSTALLATION, MAINTENANCE AND REMOVAL OF THE WATER DIVERSION STRUCTURE WILL BE PAID FOR UNDER ITEM 503.1, WATER DIVERSION STRUCTURE.
- DEWATERING SHALL BE REQUIRED IN THE CHANNEL TO CONTROL THE WATER INFLOW AND ADEQUATELY DEWATER THE CHANNEL EXCAVATION. SUMP PUMPING AREAS WITHIN THE WATER DIVERSION PERIMETER MAY BE REQUIRED TO ADEQUATELY CONTROL THE GROUNDWATER WITHIN THE WORK AREAS. DEWATERING SHALL BE CONTINUOUS UNTIL PARTIAL FOOTING REMOVAL AND GEOPOLYMER LINING WORK ARE COMPLETE. ALL COSTS FOR DEWATERING SHALL BE INCLUDED IN ITEM 503.101, WATER DIVERSION STRUCTURE.
- WATER PUMPED FROM DEWATERING LOCATIONS SHALL BE FILTERED ADEQUATELY TO REMOVE FINE MATERIALS PRIOR TO RETURNING THE WATER TO NORTH MILL POND. ALL COSTS FOR CONSTRUCTION AND MAINTENANCE OF SEDIMENTATION BASIN OR OTHER METHODS TO CONTROL WATER POLLUTION SHALL BE INCLUDED IN ITEM 503.1, WATER DIVERSION STRUCTURES. ACTUAL LOCATION OF SEDIMENTATION BASIN TO BE DETERMINED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.

REV.	DESCRIPTION	DRAWN BY	CHECKED BY	DATE			
NHDOT BRIDGE NO. 231/103	DESIGNED RPM	DRAWN WCT/TAG	CHECKED AML	SCALE AS SHOWN			
DATE JANUARY 2024				This document is prepared as an instrument of service and shall remain the property of Hoyle Tanner. It may not be used, reproduced, disseminated or transferred in any manner, including electronically, for any other purpose than this project, without the written permission of Hoyle Tanner.			
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PORTSMOUTH, NEW HAMPSHIRE MAPLEWOOD AVENUE OVER NORTH MILL POND PROJECT NOTES							
PROJECT NO. 20.905110.00							
SHEET NO.							
4							
SHEET 4 OF 17							

**PAVEMENT NOTES**

- ALL PAVING OPERATIONS SHALL BE PERFORMED BY A SUBCONTRACTOR THAT IS LISTED ON THE NHDOT PREQUALIFIED CONTRACTORS LIST IN THE CATEGORY OF PAVING.
- THE BITUMINOUS MIXTURE SHALL BE THOROUGHLY COMPACTED BY ROLLING. THE INITIAL ROLLING SHALL BE COMPLETED WITH A STATIC OR VIBRATORY STEEL-DRUM ROLLER. INTERMEDIATE ROLLING SHALL BE COMPLETED BY A PNEUMATIC-TIRED ROLLER. FINAL ROLLING SHALL BE COMPLETED WITH A STATIC-DRUM ROLLER. THE MINIMUM WEIGHT OF STATIC ROLLER SHALL BE 8 TONS.
- SUBMIT PAVEMENT MIX DESIGN TO ENGINEER FOR APPROVAL PRIOR TO PAVING. SEE SECTION 401 OF THE NHDOT STANDARD SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- THE GRADE OF ASPHALT CEMENT SHALL BE PG 64-28.
- THE FINAL (SURFACE) COURSE PAVEMENT WILL BE COMPLETED DURING THE 2025 CONSTRUCTION SEASON. ALL STRUCTURES WITHIN THE LIMITS OF BITUMINOUS CONCRETE PAVEMENT INCLUDING BUT NOT LIMITED TO FRAMES, GRATES, MANHOLE COVERS, AND VALVE BOXES SHALL BE ADJUSTED TO BINDER GRADE PER NHDOT STANDARD DETAILS TO ALLOW FOR WINTER MAINTENANCE ACTIVITIES. THIS WORK MUST BE COMPLETED IN ORDER TO ACHIEVE SUBSTANTIAL COMPLETION. PAYMENT FOR ADJUSTMENT OF STRUCTURES TO BINDER GRADE SHALL BE INCIDENTAL TO THE BINDER PAVING WORK.
- IF BID ALTERNATIVE 2 IS NOT AWARDED, PLACEMENT OF WEARING COURSE PAVEMENT WILL BE COMPLETED BY OTHERS. IF BID ALTERNATIVE 2 IS AWARDED, SURFACE COURSE PAVEMENT PLACEMENT WILL BE INCORPORATED INTO THE WORK FOR COMPLETION DURING THE 2025 CONSTRUCTION SEASON. ALL STRUCTURES WITHIN THE LIMITS OF BITUMINOUS CONCRETE PAVEMENT INCLUDING BUT NOT LIMITED TO FRAMES, GRATES, MANHOLE COVERS, AND VALVE BOXES SHALL BE ADJUSTED TO FINISH GRADE PRIOR TO PAVING. PAYMENT FOR ADJUSTMENT OF STRUCTURES TO FINISH GRADE SHALL BE INCIDENTAL TO THE FINISH PAVING WORK.
- ALL ROADWAY TRENCHES REQUIRED FOR THE INSTALLATION OF STORM DRAINAGE FEATURES, UTILITY CONDUITS, AND/OR UTILITY VAULTS THAT ARE LOCATED OUTSIDE THE LIMITS OF FULL DEPTH ROADWAY RECONSTRUCTION SHALL BE PAVED WITH MINIMUM 2" THICK WINTER BINDER COURSE (ITEM 403.11033).
- PAVEMENT SHALL BE TRANSITIONED TO TIE INTO THE EXISTING PAVEMENT AT A SMOOTH, PERPENDICULAR, VERTICAL SURFACE CREATED BY A SAWCUT (INCIDENTAL TO PAVING ITEMS) AND COLD PLANING (ITEM 417). THIS SHALL BE PRODUCED FOR BOTH THE SURFACE COURSES OF PAVEMENT.

**UTILITY COORDINATION**

- OVERHEAD UTILITIES ARE PRESENT WITHIN THE PROJECT SITE. THE CONTRACTOR SHALL BE FAMILIAR AND TAKE NECESSARY PRECAUTIONS WITH THESE UTILITIES DURING CONSTRUCTION. CONTRACTOR SHALL COORDINATE TEMPORARY RELOCATIONS; SHIELDING NECESSARY FOR EQUIPMENT MOBILIZATION (SUCH AS CRANE TO INSTALL THE WATER DIVERSIONS STRUCTURES AND TEMPORARY DISCONNECTION OF POWER WITH THE UTILITY OWNERS IF REQUIRED. ALL COST FOR THIS COORDINATION SHALL BE INCLUDED IN ITEM 692, MOBILIZATION. ALL COSTS ASSOCIATED WITH MISCELLANEOUS TREE TRIMMING & CLEARING FOR TEMPORARY UTILITY RELOCATIONS SHALL BE INCLUDED IN ITEM 201.1, CLEARING AND GRUBBING (F).

OVERHEAD UTILITY OWNER INFORMATION:

EVERSOURCE  
NICK KOSKO  
PHONE: (603) 332-7565  
EMAIL: NICKOLAI.KOSKO@EVERSOURCE.COM

CONSOLIDATED COMMUNICATIONS  
JOE CONSIDINE  
PHONE: (603) 427-5525  
EMAIL: JOSEPH.CONSIDINE@CONSOLIDATED.COM

COMCAST  
DAN ROBERTS  
PHONE: (603) 231-1128  
EMAIL: CATVCON@ROADRUNNER.COM

FIRST LIGHT FIBER  
SCOTT SCHROEDER  
PHONE: (603) 440-5991  
EMAIL: SSCHROEDER@FIRSTLIGHT.NET

- THE INFORMATION SHOWN ON THESE PLANS CONCERNING THE TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING DETERMINATIONS AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. ALL COSTS FOR DETERMINING UNDER GROUND UTILITY TYPES AND LOCATIONS SHALL BE SUBSIDIARY TO THE CONTRACT. THE CONTRACTOR SHALL CONTACT DIG SAFE AND ALL APPLICABLE UTILITY DEPARTMENTS AND COMPANIES BEFORE EXCAVATION IS STARTED. UTILITIES WITHIN 50 FEET OF AN EXCAVATION SHALL BE MARKED IN THE FIELD.

UNITIL CORPORATION  
6 LIBERTY LANE WEST  
HAMPTON, NH 03842-1720  
PHIL JOHNSON  
PHONE: (603) 294-5157

- RELOCATION OF THE GAS LINE IS REQUIRED IN ORDER TO INSTALL THE UTILITY VAULT. THE CONTRACTOR SHALL COORDINATE WITH EVERSOURCE REGARDING THE REQUIRED LOCATION OF THE UTILITY VAULT PRIOR TO THE INSTALLATION OF THE VAULT. THE CONTRACTOR SHALL COORDINATE WITH THE GAS COMPANY TO RELOCATE THE GAS MAIN AS NECESSARY FOR INSTALLATION OF THE UTILITY VAULT. SEE ADDITIONAL NOTES REGARDING CONDUIT INSTALLATION AND UNDERGROUND UTILITY RELCATIONS ON SHEET 8.

**STORMWATER POLLUTION PREVENTION NOTES**

- THE EROSION AND SEDIMENT CONTROLS DETAILED IN THESE PLANS ARE SCHEMATIC ONLY AND ARE NOT INTENDED TO DICTATE CONSTRUCTION MEANS AND METHODS, NOR THE SPECIFIC EROSION AND SEDIMENT CONTROLS NECESSARY TO COMPLETE THE WORK. THE CONTRACTOR SHALL SUBMIT ITEM 645.7, STORMWATER POLLUTION PREVENTION PLAN (SWPPP), FOR REVIEW AND APPROVAL TO THE ENGINEER. UPON APPROVAL BY THE ENGINEER, THE SWPPP WILL BE SENT TO NHDES FOR REVIEW AND APPROVAL PRIOR TO THE START OF WORK IF ANY OF THE PROPOSED EROSION AND SEDIMENT CONTROL MEASURES VARY FROM THOSE SHOWN IN THESE PLANS.
- THE EROSION AND SEDIMENT CONTROL MEASURES DETAILED ON THESE PLANS ARE BASED ON THE NEW HAMPSHIRE STORMWATER MANUAL, VOLUME 3, EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION, DECEMBER 2008.
- ALL STORMWATER, EROSION AND SEDIMENT CONTROL MEASURES SHALL BE LOCATED WITHIN THE PERMANENT EASEMENT AREAS AND LIMITS OF WORK SHOWN ON PLANS.
- FOR ANY WORK ASSOCIATED WITH ITEM 699, MISCELLANEOUS TEMPORARY EROSION AND SEDIMENT CONTROL, DETAILED ESTIMATES FOR THE WORK SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO START OF THE WORK.
- ALL STORMWATER, EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE CONTRACTOR'S STORM WATER POLLUTION PREVENTION PLAN (ITEM 645.7). SILT FENCE SHALL BE INSTALLED AS SHOWN ON PAGE 96 AND THE DEWATERING BAG (IF USED AS PART OF THE SEDIMENTATION BASIN) SHALL BE INSTALLED AS SHOWN ON PAGE 149 OF NHDES STORMWATER MANUAL, VOLUME 3.

**SUMMARY OF QUANTITIES**

ITEM NO	ITEM DESCRIPTION	UNIT	QUANTITY
201.1	CLEARING AND GRUBBING	A	0.15
202.7	REMOVAL OF GUARDRAIL	LF	580
202.8	REMOVAL OF FENCE	LF	50
203.1	COMMON EXCAVATION	CY	1600
207.3	UNCLASSIFIED CHANNEL EXCAVATION	CY	60
211.11	VIBRATION MONITORING SERVICES	HR	40
304.2	GRAVEL	CY	260
304.3	CRUSHED GRAVEL	CY	410
403.11033	HBP-WINTER BINDER, MACHINE METHOD	TON	270
403.16	PAVEMENT JOINT ADHESIVE	LF	1700
417	COLD PLANING BITUMINOUS SURFACES	SY	80
502	REMOVAL OF EXISTING BRIDGE STRUCTURE	U	1
503.1	WATER DIVERSION STRUCTURES	U	1
511.04	STRUCTURAL CONCRETE REMOVAL	CY	220
520.02025	CONCRETE CLASS AA, RAIL SUPPORT SLAB (QC/QA)	CY	220
520.421	CONCRETE CLASS F, FLOWABLE FILL, EXCAVATABLE	CY	10
520.99	GEOPOLYMER LINING	LF	51
534.3	WATER REPELLENT (SILANE/SILOXANE)	GAL	35
544.31	REINFORCING STEEL, EPOXY COATED (CONTRACTOR DETAILED)	LB	34900
563.24	BRIDGE RAIL T4	LF	530
583.3	RIPRAP, CLASS III	CY	6
583.7	RIPRAP, CLASS VII	CY	70
593.321	GEOTEXTILE; STABILIZATION CL.2, NON-WOVEN	SY	1850
593.411	GEOTEXTILE; PERM CONTROL CL.1, NON-WOVEN	SY	430
596.3	STONE MASONRY RETAINING WALL RECONSTRUCTION (FULL HEIGHT)	SF	500
596.31	STONE MASONRY RETAINING WALL RECONSTRUCTION (PARTIAL HEIGHT)	SF	200
603.0001	VIDEO INSPECTION	LF	80
603.82212	12" PE PIPE (TYPE S)	LF	130
604.0007	POLYETHYLENE LINER	EA	4
604.114	CATCH BASINS TYPE A, 4-FOOT DIAMETER	U	5
606.417	PORTABLE CONCRETE BARRIER FOR TRAFFIC CONTROL	LF	80
608.12	2" BITUMINOUS SIDEWALK	SY	120
608.24	4" CONCRETE SIDEWALK	SY	34
609.01	STRAIGHT GRANITE CURB	LF	690
614.513	UTILITY VAULT	U	1
614.7281	LIGHTING CONDUIT SYSTEM	U	1
614.73114	3" PVC CONDUIT, SCHEDULE 40	LF	460
614.75941	5" 9-DUCT PVC CONDUIT, SCHEDULE 40	LF	390
618.7	FLAGGERS	HR	560
619.1	MAINTENANCE OF TRAFFIC	U	1
619.253	PORTABLE CHANGEABLE MESSAGE SIGN (UNIT WEEK)	UWK	28
632.0104	RETROREFLECTIVE PAINT PAVE. MARKING, 4" LINE	LF	880
645.7	STORM WATER POLLUTION PREVENTION PLAN	U	1
645.72	MONITORING SWPPP AND EROSION AND SEDIMENT CONTROLS	EA	25
646.51	TURF ESTABLISHMENT WITH MULCH, TACKIFIERS AND LOAM	SY	410
670.104	TEMPORARY PORTABLE LIGHTING	U	1
692	MOBILIZATION	U	1
699	MISCELLANEOUS TEMPORARY EROSION AND SEDIMENT CONTROL	\$	1
1002.1	REPAIRS OR REPLACEMENTS AS NEEDED - BRIDGE STRUCTURES	\$	1
1008.251	ALTERATIONS AND ADDITIONS AS NEEDED - TEMPORARY PEDESTRIAN ACCOMMODATIONS	\$	1
1008.4	ALTERATIONS AND ADDITIONS AS NEEDED - UTILITY ADJUSTMENTS	\$	1

**Bid Alternate 1**

521.424	CHEMICAL SOIL SURFACE GROUT	CF	80
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**Bid Alternate 2**

403.11843	HBP-1/2" SURFACE MIX, MACHINE METHOD, POLYMER MODIFIED	TON	130
403.16	PAVEMENT JOINT ADHESIVE	LF	1700
410.22	ASPHALT EMULSION FOR TACK COAT	GAL	110
417	COLD PLANING BITUMINOUS SURFACES	SY	80
632.0104	RETROREFLECTIVE PAINT PAVE. MARKING, 4" LINE	LF	1560

**Bid Alternate 3**

999	REDUCTION OF BRIDGE CLOSURE DURATION TO 30 DAYS MAXIMUM	LS	1
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REV.	DESCRIPTION	DATE

NHDOT BRIDGE NO. 2317103  
DESIGNED RPM  
DRAWN WCT/AG  
CHECKED AML  
SCALE AS SHOWN  
DATE JANUARY 2024



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PORTSMOUTH, NEW HAMPSHIRE  
MAPLEWOOD AVENUE OVER NORTH MILL POND  
PROJECT NOTES AND SUMMARY  
OF QUANTITIES

PROJECT NO. 20.905110.00  
SHEET NO.

**5**  
SHEET 5 OF 17

REV.	DESCRIPTION	DATE

NH DOT BRIDGE NO.	DESIGNED	DRAWN	CHECKED	SCALE	DATE
2311/103	RPM	TAG	AML	AS SHOWN	JANUARY 2024

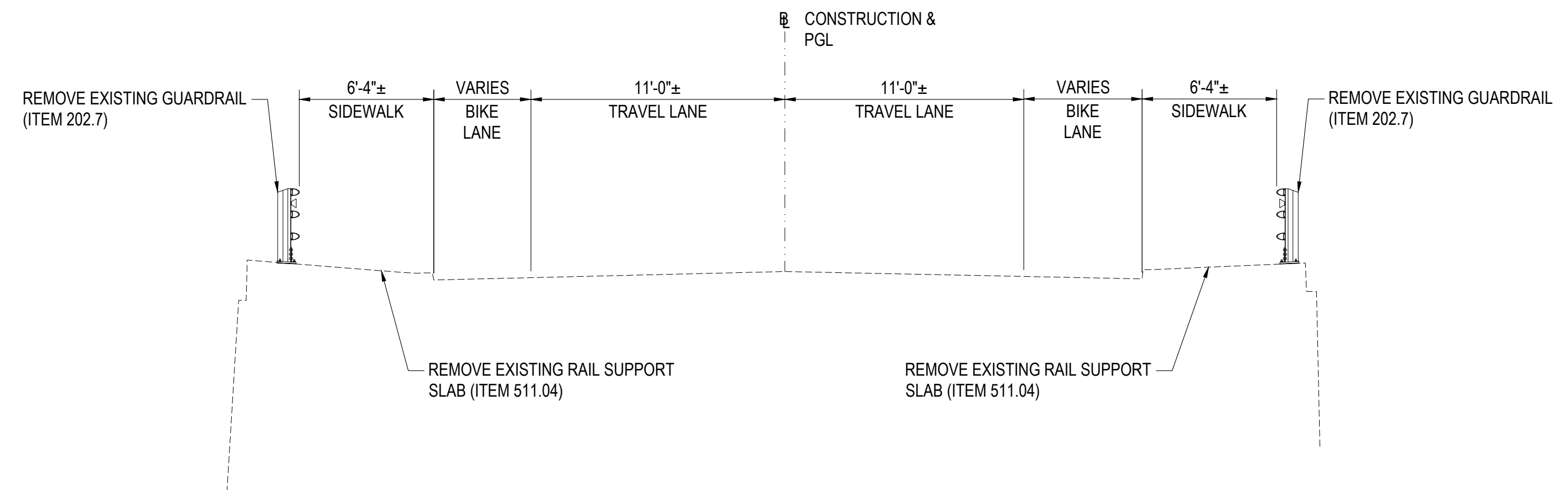
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PORTSMOUTH, NEW HAMPSHIRE  
 MAPLEWOOD AVENUE OVER NORTH MILL POND  
 TYPICAL SECTIONS

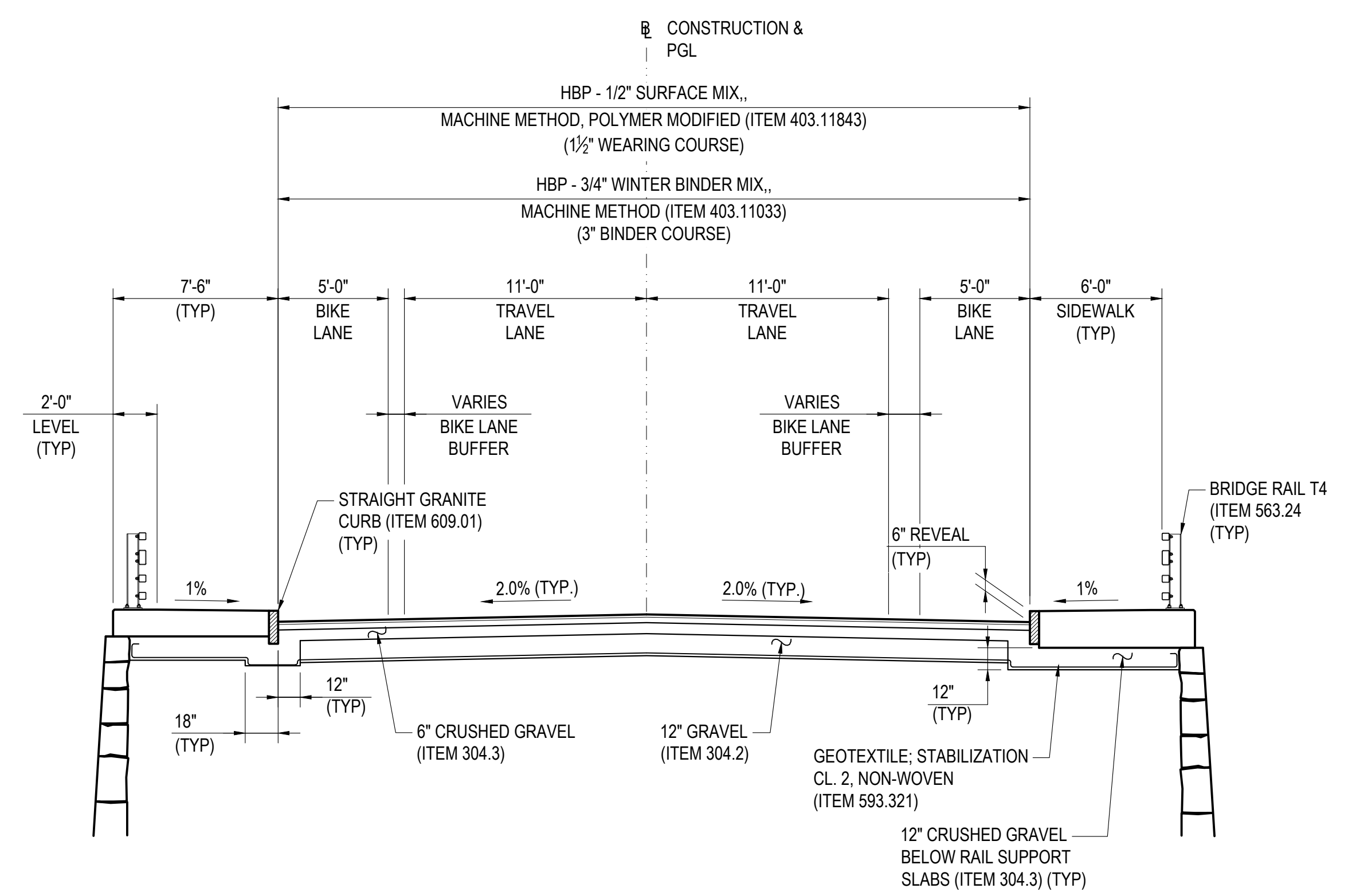
PROJECT NO. 20.905110.00  
 SHEET NO.

**6**  
 SHEET 6 OF 17



**EXISTING TYPICAL SECTION**

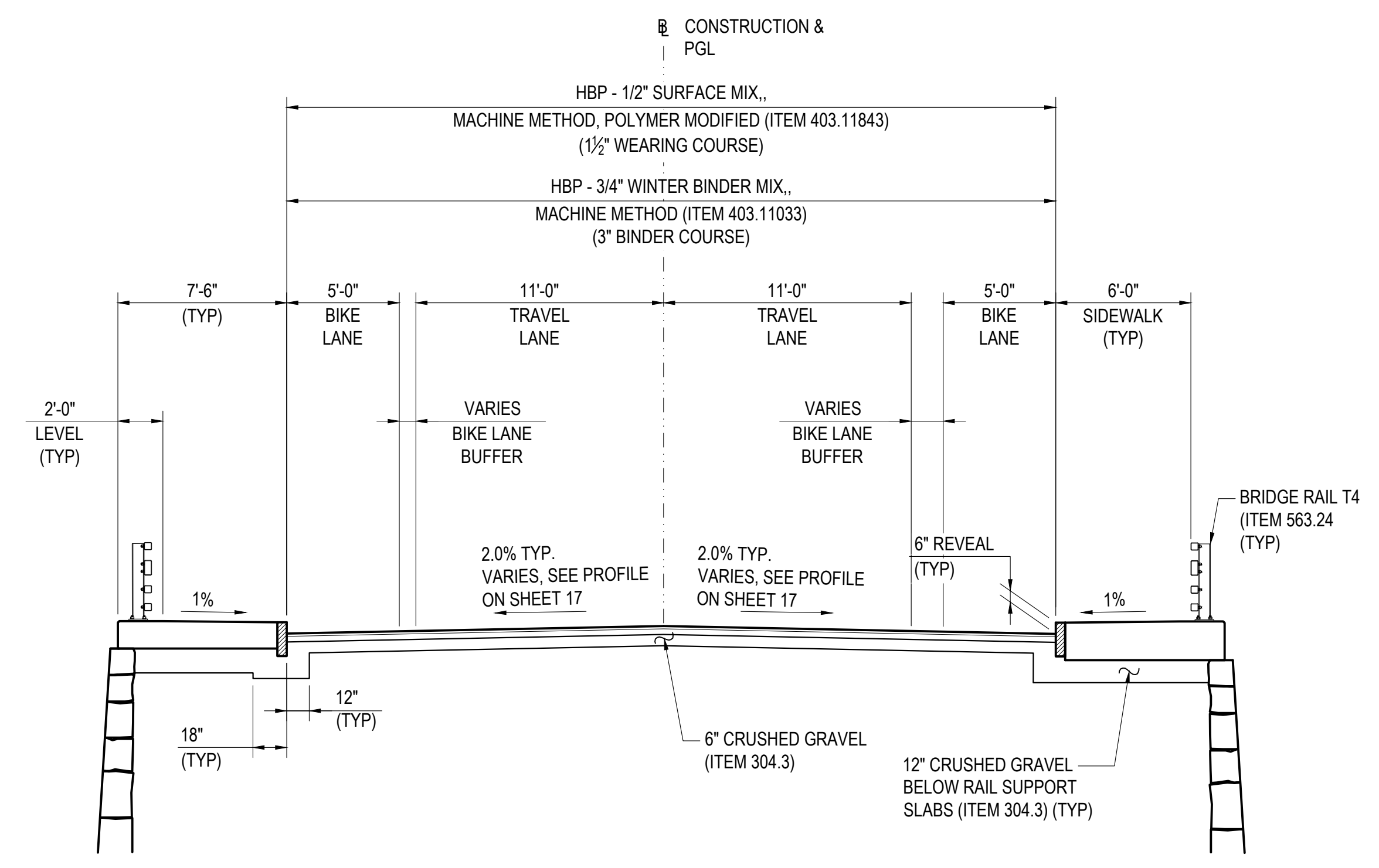
NOT TO SCALE



**PROPOSED TYPICAL SECTION (FULL DEPTH CONSTRUCTION)**

STA 3+00 TO STA 5+00

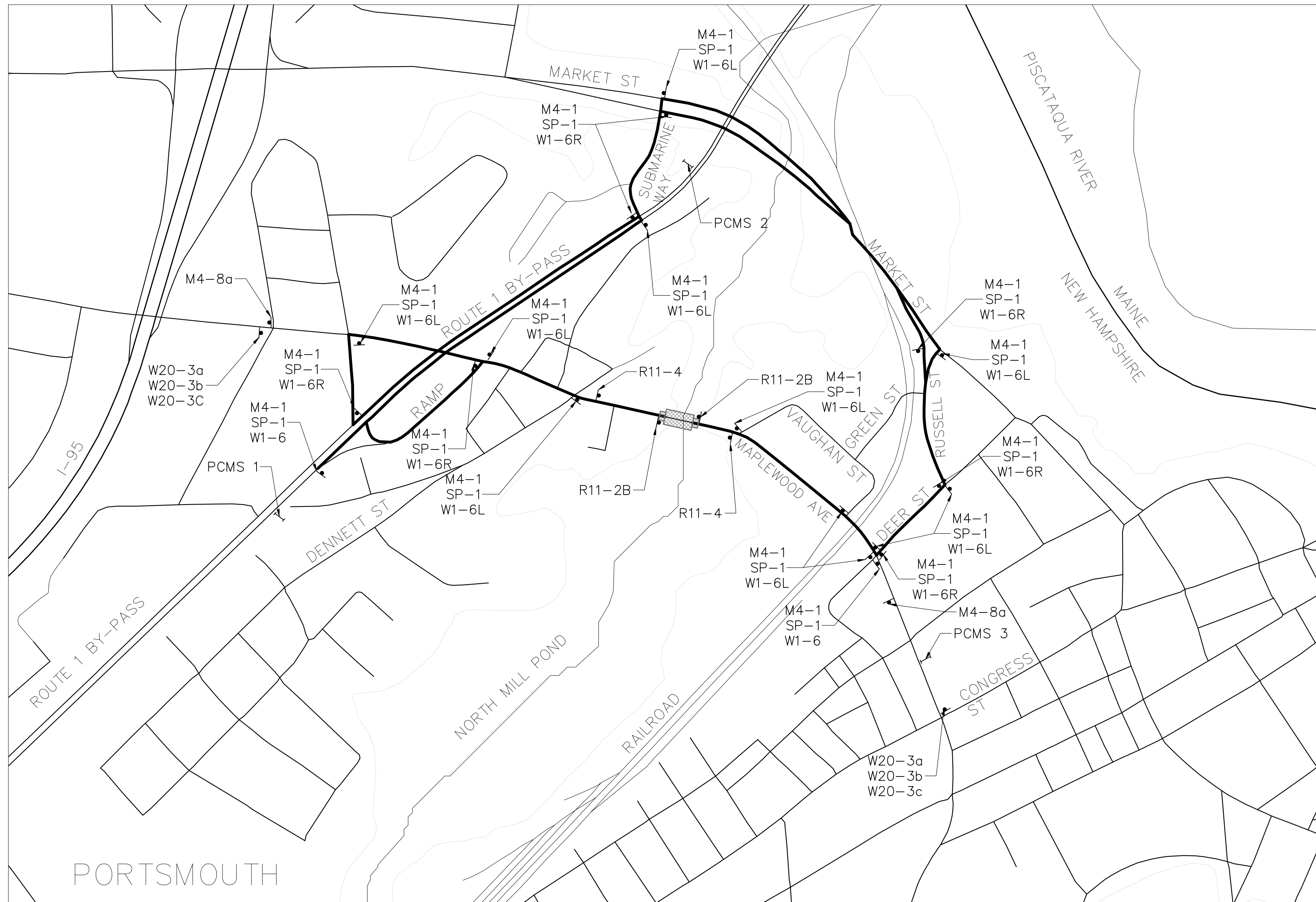
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**PROPOSED TYPICAL SECTION (PARTIAL DEPTH CONSTRUCTION)**

STA 2+25 TO STA 3+00  
 STA 5+00 TO STA 6+15

NOT TO SCALE



DETOUR ROUTE LENGTH = 1.5 MILES ±  
 DETOUR ROUTE PLAN  
 SCALE: 1" = 350'

DETOUR SIGNAGE ON US ROUTE 1 BYPASS TO BE COORDINATED WITH NHDOT DISTRICT 6 BEFORE INSTALLATION

**TRAFFIC CONTROL NOTES**

- TRAFFIC CONTROL DEVICES SHALL CONFORM TO SECTION 619 OF THE NHDOT STANDARD SPECIFICATIONS, AND THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), AS PUBLISHED BY THE U.S. DEPARTMENT OF TRANSPORTATION AND ADOPTED BY THE COMMISSIONER OF THE NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION. SIGNS SHALL ALSO CONFORM TO USDOT STANDARD HIGHWAY SIGNS AND NHDOT CONSTRUCTION SIGN STANDARDS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPLYING, ERECTING AND MAINTAINING PERMANENT CONSTRUCTION SIGNS AND WARNING DEVICES AS LISTED ON THE PLANS, AND SHALL ALSO BE RESPONSIBLE FOR SUPPLYING, ERECTING AND MAINTAINING ALL OPERATIONAL SIGNS AND WARNING DEVICES FOR HIS PLANNED METHODS OF OPERATION IN CONFORMANCE WITH THE MUTCD.
- THE CONTRACTOR SHALL MARK ALL HAZARDS WITHIN THE LIMITS OF THE PROJECT AND CONNECTING ROADS WITH WELL MAINTAINED SIGNS AND WARNING DEVICES. ALL SIGNS AND WARNING DEVICES SHALL BE MOVED, SUPPLEMENTED, CHANGED, OR REMOVED DURING THE PROGRESS OF THE CONSTRUCTION AS NEEDED.
- TRAFFIC CONTROL DEVICES SHALL BE REMOVED, AND SIGNS SHALL BE COVERED OR REMOVED, WHEN THEY NO LONGER APPLY TO THE EXISTING CONDITIONS.
- PLYWOOD SUBSTRATE FOR CONSTRUCTION SIGNS SHALL CONFORM TO SECTION 619. AND FLAT ALUMINUM SHEETS SHALL CONFORM TO SECTION 615 OF THE NHDOT STANDARD SPECIFICATIONS.
- DETOURS INVOLVING THE ROUTING OF TRAFFIC OVER ROADS OUTSIDE THE LIMITS OF THE PROJECT SHALL BE MARKED AND MAINTAINED BY THE CONTRACTOR (UNLESS OTHERWISE NOTED). THE CONTRACTOR SHALL BE REQUIRED TO ERECT AND MAINTAIN ANY REQUIRED SIGNS AND WARNING DEVICES AT THE BEGINNING AND END OF THE WORK AND AT INTERSECTING ROADWAYS. THE LOCATION AND POSITION OF THESE SIGNS AND WARNING DEVICES SHALL BE AS APPROVED BY THE ENGINEER. THE CONTRACTOR MAY ALSO BE REQUIRED TO UNCOVER, COVER AND OTHERWISE MAINTAIN DETOUR SIGNS SUPPLIED BY OTHERS.
- PORTABLE CHANGABLE MESSAGE SIGNS (ITEM 619.253) SHALL BE OPERATIONAL A MINIMUM OF TWO WEEKS PRIOR TO THE START OF ANY WORK THAT WILL IMPACT TRAFFIC. MESSAGE TO BE DISPLAYED SHALL BE COORDINATED WITH THE ENGINEER.

LEGEND	
	TEMPORARY CONSTRUCTION SIGN
	TYPE III BARRICADE
	WORK AREA
	ALTERNATE ROUTE
	PORTABLE CHANGABLE MESSAGE SIGN
*	MOUNTED ON BARRICADE
**	MOUNTED ON POST WITH M4-1
-	PAVED ROAD
B	BLACK
W	WHITE
O	ORANGE
R	RED
Y	YELLOW

- WORK ON THE PROJECT, OR ANY SEPARATE ACTIVITY THEREIN, SHALL NOT START UNTIL ALL THE REQUIRED SIGNS AND WARNING DEVICES ARE INSTALLED AND APPROVED BY THE ENGINEER
- SIGN LOCATIONS SHOWN ON THESE STANDARDS ARE RECOMMENDED AND MAY BE ADJUSTED AS DETERMINED BY THE ENGINEER. TYPICAL LAYOUTS SHOWN ARE NOT TO SCALE
- THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE THE ENGINEER WITH CERTIFICATION THAT ALL THE SIGNS AND WARNING DEVICES USED ON THE PROJECT MEET THE SPECIFICATIONS
- THE USE OF CONSTRUCTION SIGNS AND WARNING DEVICES NOT SHOWN ON THESE STANDARDS OR MUTCD, UNLESS APPROVED BY THE ENGINEER, SHALL BE PROHIBITED
- ALL COSTS FOR TRAFFIC CONTROL DEVICES, INCLUDING PLACEMENT, RELOCATION AND REMOVAL OF SIGNS SHALL BE INCLUDED IN ITEM 619.1, MAINTENANCE OF TRAFFIC
- THE CONTRACTOR SHALL MAINTAIN SAFE, CONTINUOUS ACCESS TO ALL PROPERTIES ADJACENT TO THE PROJECT LOCATION
- THE CONTRACTOR SHALL COORDINATE THEIR EFFORTS WITH ADJACENT CONSTRUCTION PROJECTS
- THE CONTRACTOR SHALL INCORPORATE THE APPLICABLE SIGNS AND WARNING DEVICES FROM NHDOT STANDARD PLANS TC-1 THROUGH TC-8

CONSTRUCTION SIGNS AND WARNING DEVICES (ITEM 619.1)							
TYPE	DESCRIPTION	SIZE WxH	SQ. FT.	NO REQ.	TOTAL AREA	POST	COLOR
M4-1		36" X 18"	4.5	20	90	1 POST PER SIGN	B/O
M4-8a		24" X 24"	4	2	8	1 POST PER SIGN	B/W
R11-2B		48" X 30"	10	2	20	*	B/W
R11-4		60" X 30"	12.5	2	25	2 POSTS PER SIGN	B/W
SP-1		54" X 8"	3	20	60	MOUNT WITH R11-4	B/O
W1-6		48" X 24"	8	2	16	**	B/O
	TO BE MOUNTED POINTING UP						
W1-6L		48" X 24"	8	11	88	**	B/O
W1-6R		48" X 24"	8	7	56	**	B/O
W20-3a W20-3b W20-3c		36" X 36"	9	2	18	1 POST PER SIGN	B/O
		36" X 36"	9	2	18	1 POST PER SIGN	B/O
		36" X 36"	9	2	18	1 POST PER SIGN	B/O

PORTABLE CHANGABLE MESSAGE SIGN (ITEM 619.253)													
PCMS 1 / PCMS 2													
PHASE 1							PHASE 2						
M	A	P	L	E	W	'	D	F	O	L	L	O	W
C	L	O	S	E	D			M	A	R	K	E	T
E	A	S	T		B	N	D	D	E	T	O	U	R
PCMS 3													
PHASE 1							PHASE 2						
M	A	P	L	E	W	'	D	F	O	L	L	O	W
C	L	O	S	E	D			M	A	R	K	E	T
A	H	E	A	D				D	E	T	O	U	R

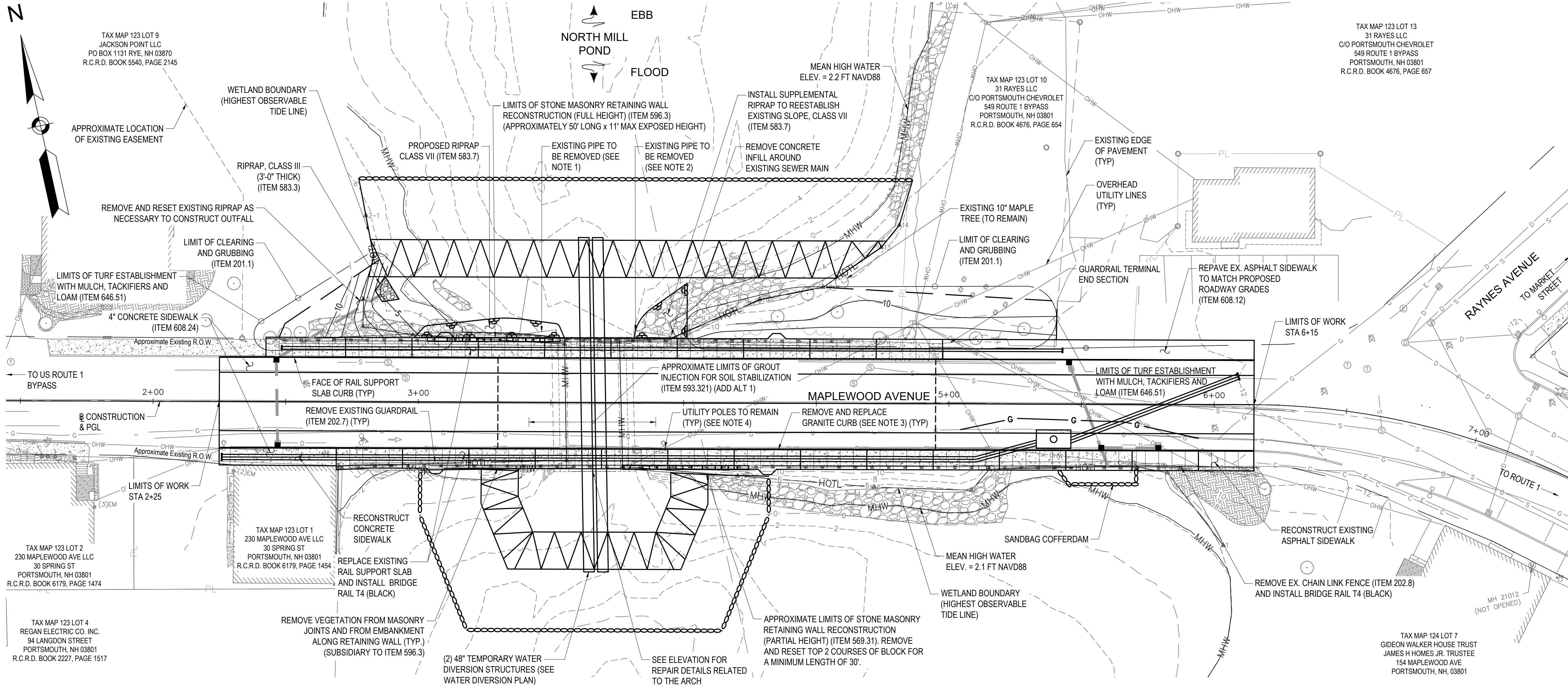
REV.	DESCRIPTION	DATE

NHDOT BRIDGE NO. 231/103  
 DESIGNED RPM  
 DRAWN IRM  
 CHECKED AML  
 SCALE AS SHOWN  
 DATE JANUARY 2024

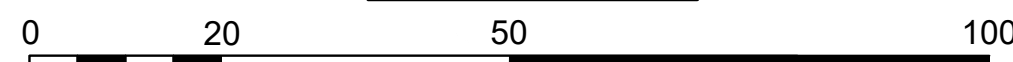
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PORTSMOUTH, NEW HAMPSHIRE  
 MAPLEWOOD AVENUE OVER NORTH MILL POND  
 DETOUR PLAN

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**SITE PLAN**



**GENERAL ENVIRONMENTAL IMPACT NOTES**

- ALL MANUFACTURED EROSION AND SEDIMENT CONTROL PRODUCTS, WITH THE EXCEPTION OF TURF REINFORCEMENT MATS, UTILIZED FOR, BUT NOT LIMITED TO, SLOPE PROTECTION, RUNOFF DIVERSION, SLOPE INTERRUPTION, PERIMETER CONTROL, INLET PROTECTION, CHECK DAMS, AND SEDIMENT TRAPS SHALL NOT CONTAIN PLASTIC, OR MULTIFILAMENT OR MONOFILAMENT POLYPROPYLENE NETTING OR MESH WITH AN OPENING SIZE OF GREATER THAN 1/8 INCHES.
- ALL OBSERVATIONS OF THREATENED OR ENDANGERED SPECIES ON THE PROJECT SITE SHALL BE REPORTED IMMEDIATELY TO THE NHFG NONGAME AND ENDANGERED WILDLIFE ENVIRONMENTAL REVIEW PROGRAM BY PHONE AT 603-271-2461 AND BY EMAIL AT NHFGREVIEW@WILDLIFE.NH.GOV, WITH THE EMAIL SUBJECT LINE CONTAINING THE NHB DATACHECK TOOL RESULTS LETTER ASSIGNED NUMBER (NHB22-1712), THE PROJECT NAME (MAPLEWOOD AVENUE OVER NORTH MILL POND), AND THE TERM "WILDLIFE SPECIES OBSERVATION".
- PHOTOGRAPHS OF THE OBSERVED SPECIES AND NEARBY ELEMENTS OF HABITAT OR AREAS OF LAND DISTURBANCE SHALL BE PROVIDED TO NHFG IN DIGITAL FORMAT AT THE ABOVE EMAIL ADDRESS FOR VERIFICATION, AS FEASIBLE.
- IN THE EVENT A THREATENED OR ENDANGERED SPECIES IS OBSERVED ON THE PROJECT SITE DURING THE TERM OF THE PERMIT, THE SPECIES SHALL NOT BE DISTURBED, HANDLED, OR HARMED IN ANY WAY PRIOR TO CONSULTATION WITH NHFG AND IMPLEMENTATION OF CORRECTIVE ACTIONS RECOMMENDED BY NHFG.
- NHFG, INCLUDING ITS EMPLOYEES AND AUTHORIZED AGENTS, SHALL HAVE ACCESS TO THE PROPERTY DURING THE TERM OF THE PERMIT.

VERTICAL CONTROL (TBM) TABLE			
NUMBER	ELEVATION	STATION & OFFSET	DESCRIPTION
TBM 6032A	12.56		CHISELED BOX ON SE'LY CORNER OF TRANSFORMER PAD
TBM 6032B	16.14		CHISELED BOX ON SE'LY CORNER OF TRANSFORMER PAD
TBM 6032C	12.98		MAG NAIL SET UP 6" IN UP 32A 15 263FP19
TBM 6032D	13.92		MAG NAIL SET UP 6" IN POLE PSNH165 1 118 1/2FP

NOTE: INFORMATION PROVIDED IN TABLES ABOVE IS FOR GENERAL LOCATION ONLY

**NOTES**

- SAWCUT AND REMOVE EX. ABANDONED SEWER MAIN AT THE LIMITS OF EXCAVATION NECESSARY FOR RETAINING WALL RECONSTRUCTION (ITEM 202.42). REVIEW PORTION OF SEWER MAIN TO REMAIN WITH ENGINEER AND INSTALL FLOWABLE FILL INTO REMAINING ABANDONED SEWER PIPE AS DIRECTED (ITEM 202.31).
- TRIM PROJECTING PORTION OF EX. CMP LINER AND CONCRETE HEADER. FILL ANY VOIDS BETWEEN LINER AND MASONRY PRIOR TO INSTALLING GEOPOLYMER LINER. CREATE A SMOOTH RADIUS TRANSITION BETWEEN LINER AND VERTICAL MASONRY FACE (SUBSIDIARY TO ITEM 520.99).
- NEW CURBING TO BE INSTALLED AS PART OF RAIL SUPPORT SLAB CONSTRUCTION
- EX. UTILITY POLES WITHIN LIMITS OF CONSTRUCTION WILL REMAIN IN PLACE. RAIL SUPPORT SLAB DESIGN TO ACCOMMODATE FUTURE UNDERGROUND RELOCATION OF EXISTING AERIAL UTILITIES AND REMOVAL OF UTILITY POLES.
- ALL TREE REMOVAL SHALL BE SUBSIDIARY TO ITEM 201.1 - CLEARING AND GRUBBING.

REV.	DESCRIPTION	DATE

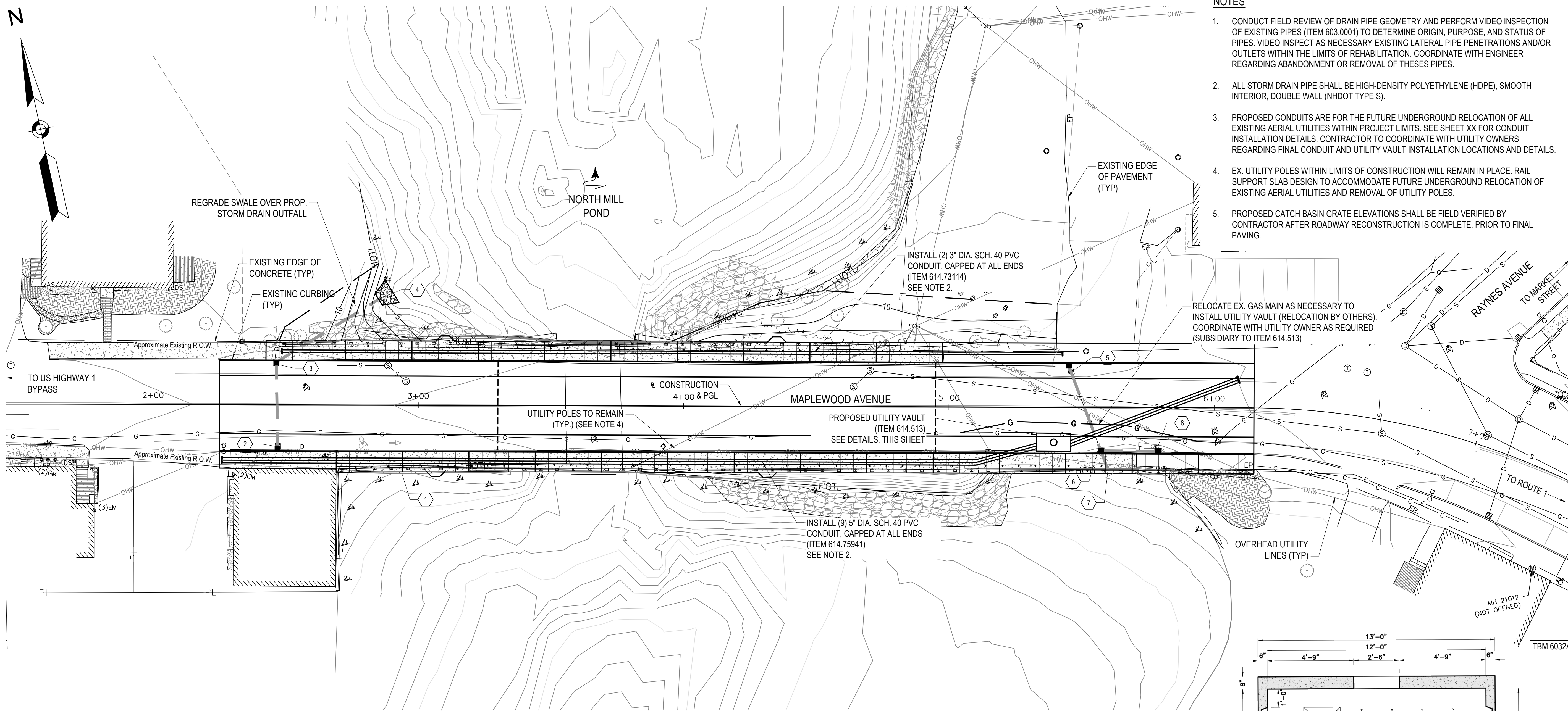
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PORTSMOUTH, NEW HAMPSHIRE  
 MAPLEWOOD AVENUE OVER NORTH MILL POND  
 SITE PLAN

PROJECT NO. 20.905110.00  
 SHEET NO.

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**NOTES**

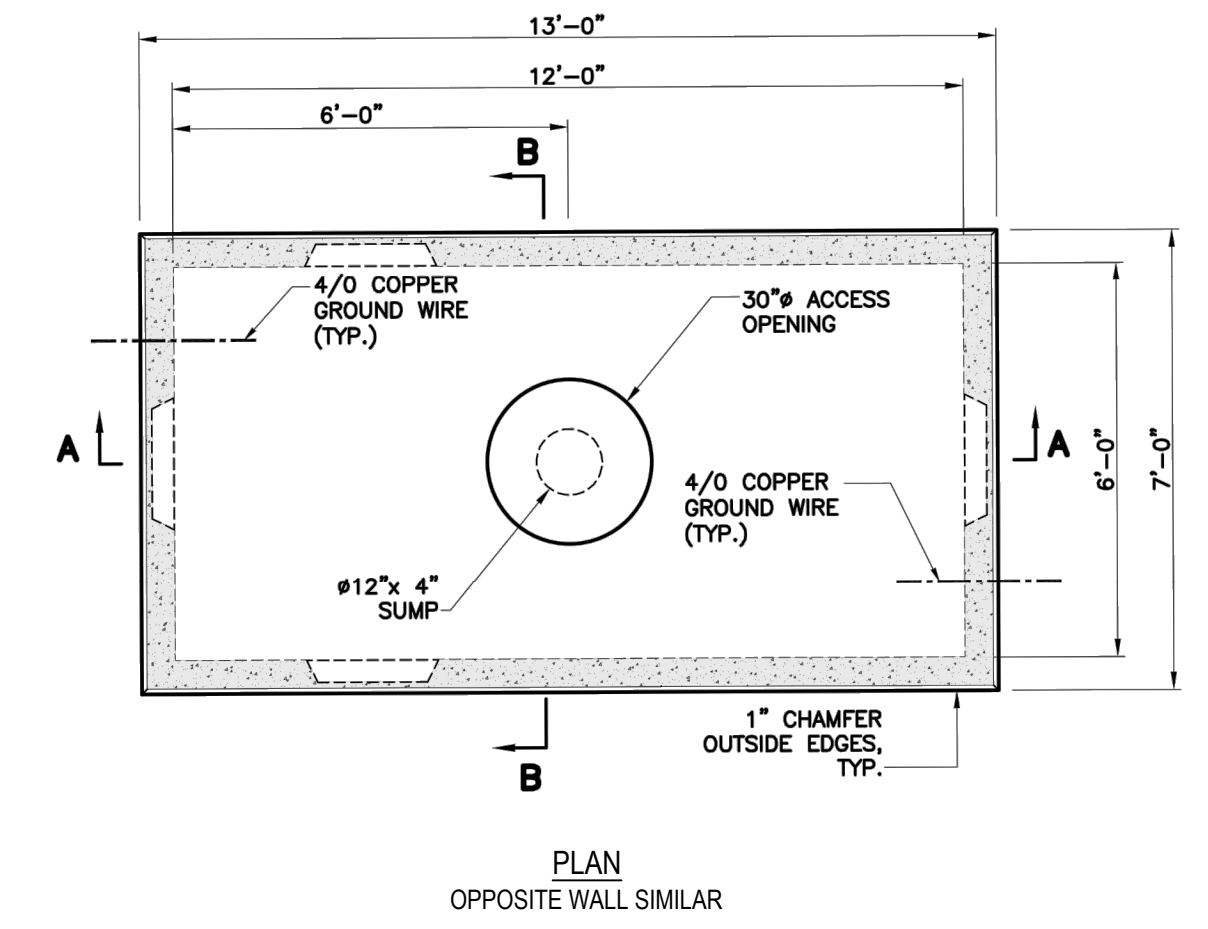
1. CONDUCT FIELD REVIEW OF DRAIN PIPE GEOMETRY AND PERFORM VIDEO INSPECTION OF EXISTING PIPES (ITEM 603.0001) TO DETERMINE ORIGIN, PURPOSE, AND STATUS OF PIPES. VIDEO INSPECT AS NECESSARY EXISTING LATERAL PIPE PENETRATIONS AND/OR OUTLETS WITHIN THE LIMITS OF REHABILITATION. COORDINATE WITH ENGINEER REGARDING ABANDONMENT OR REMOVAL OF THESE PIPES.
2. ALL STORM DRAIN PIPE SHALL BE HIGH-DENSITY POLYETHYLENE (HDPE), SMOOTH INTERIOR, DOUBLE WALL (NHDOT TYPE S).
3. PROPOSED CONDUITS ARE FOR THE FUTURE UNDERGROUND RELOCATION OF ALL EXISTING AERIAL UTILITIES WITHIN PROJECT LIMITS. SEE SHEET XX FOR CONDUIT INSTALLATION DETAILS. CONTRACTOR TO COORDINATE WITH UTILITY OWNERS REGARDING FINAL CONDUIT AND UTILITY VAULT INSTALLATION LOCATIONS AND DETAILS.
4. EX. UTILITY POLES WITHIN LIMITS OF CONSTRUCTION WILL REMAIN IN PLACE. RAIL SUPPORT SLAB DESIGN TO ACCOMMODATE FUTURE UNDERGROUND RELOCATION OF EXISTING AERIAL UTILITIES AND REMOVAL OF UTILITY POLES.
5. PROPOSED CATCH BASIN GRATE ELEVATIONS SHALL BE FIELD VERIFIED BY CONTRACTOR AFTER ROADWAY RECONSTRUCTION IS COMPLETE, PRIOR TO FINAL PAVING.

**UTILITY AND DRAINAGE PLAN**

SCALE: 1" = 20'

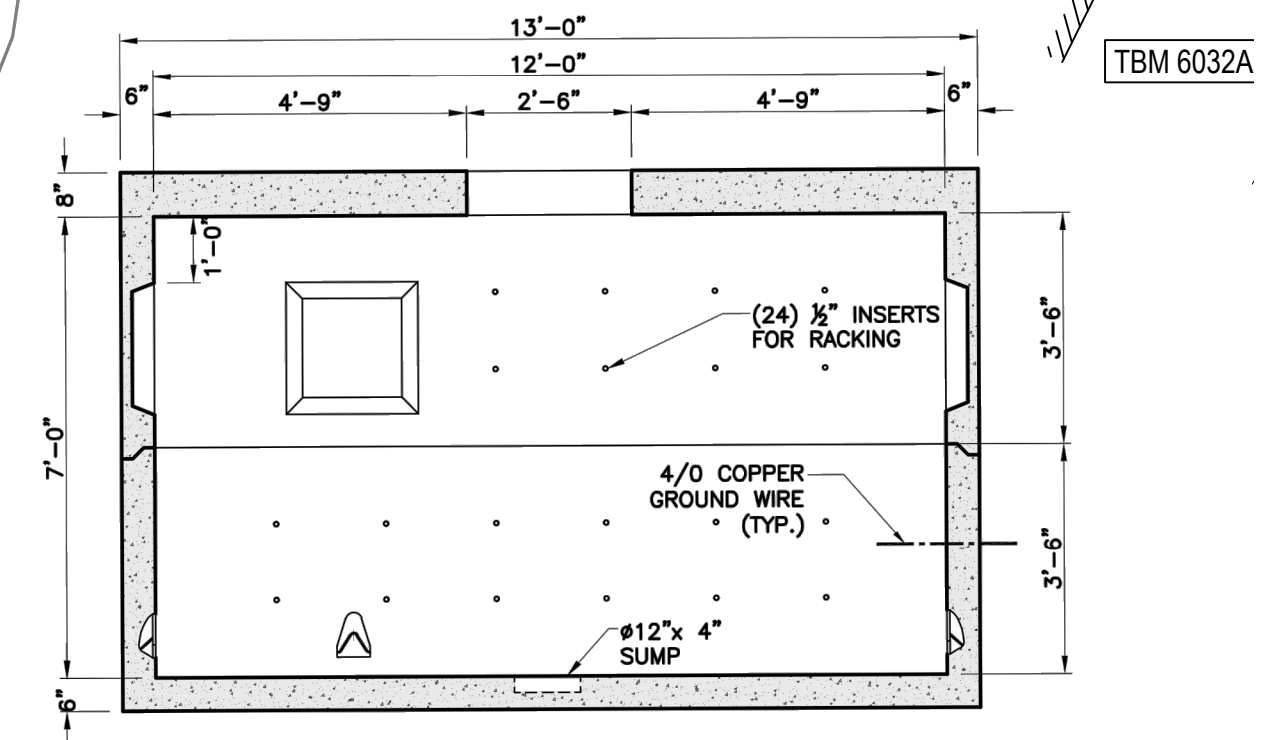
**DRAINAGE NOTES:**

- |  |   |
|--|---|
| <p>1 CONST. MASONRY PLUG IN EX. 8" CLAY STORM DRAIN OUTFALL, FLUSH WITH FACE OF EX. BLOCK RETAINING WALL (PRIOR TO PLACEMENT OF FLOWABLE FILL) (SUBSIDIARY TO ITEM 520.421)</p> <p>2 REMOVE EX. CB AND 5 LF x 8" CLAY PIPE (SUBSIDIARY) FILL REMAINING PIPE WITH CONCRETE CLASS F, FLOWABLE FILL EXCAVATABLE (ITEM 520.421; SEE NOTE 5) CONST. CB-B (ITEM 604.114) 12" INV. OUT = 5.98' GRATE ELEV. = 10.60' CONST. 29 LF x 12" HDPE (ITEM 603.82212)</p> <p>3 REMOVE EX. DROP INLET AND CLAY PIPE OUTFALL (SUBSIDIARY) CONST. CB-B (ITEM 604.114) CONST. POLYETHYLENE LINER (ITEM 604.0007) 12" INV. IN = 5.70' 12" INV. OUT = 5.45' CONST. 45 LF x 12" HDPE (ITEM 603.82212)</p> <p>4 CONST. RIPRAP APRON AT OUTFALL 12" INV. OUT = 5.00</p> | <p>5 REMOVE EX. CB AND 8" CLAY PIPE (SUBSIDIARY) CONST. CB-B (ITEM 604.114) CONST. POLYETHYLENE LINER (ITEM 604.0007) 12" INV. OUT = 6.02' GRATE ELEV. = 10.90' CONST. 31 LF x 12" HDPE (ITEM 603.82212)</p> <p>6 CONST. CB-B (ITEM 604.114) CONST. POLYETHYLENE LINER (ITEM 604.0007) 12" INV. IN (N) = 5.71' 12" INV. IN (E) = 5.71' 12" INV. OUT = 5.46' CONST. 6 LF x 12" HDPE (ITEM 603.82212)</p> <p>7 INSTALL NEW STORM DRAIN OUTFALL THROUGH EX. PIPE PENETRATION IN RETAINING WALL (ENLARGE EX. OPENING TO ACCEPT NEW PIPE AND GROUT ANNULAR SPACE AROUND PROP. PIPE) 12" INV. OUT = 5.40' (MATCH INV. OF EX. 10" CLAY)</p> <p>8 REMOVE EX. CB AND 8" CLAY PIPE (SUBSIDIARY) CONST. CB-B (ITEM 604.114) CONST. POLYETHYLENE LINER (ITEM 604.0007) 12" INV. OUT = 5.89' GRATE ELEV. = 10.90' CONST. 18 LF x 12" HDPE (ITEM 603.82212)</p> |
|--|---|



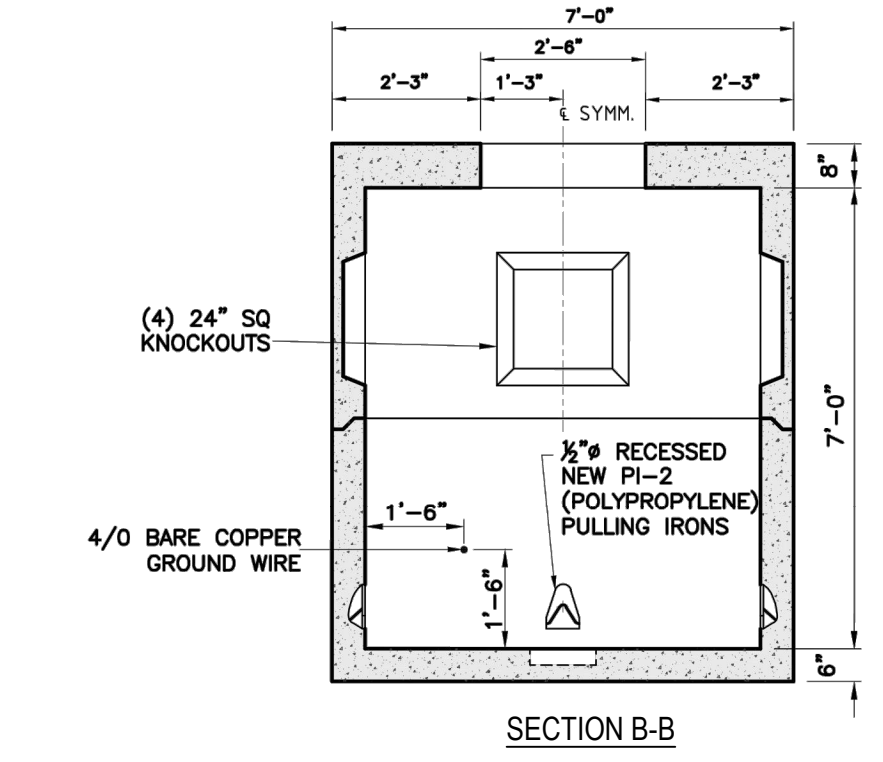
**UTILITY VAULT DETAIL**

NOT TO SCALE



**SECTION A-A**

OPPOSITE WALL SIMILAR

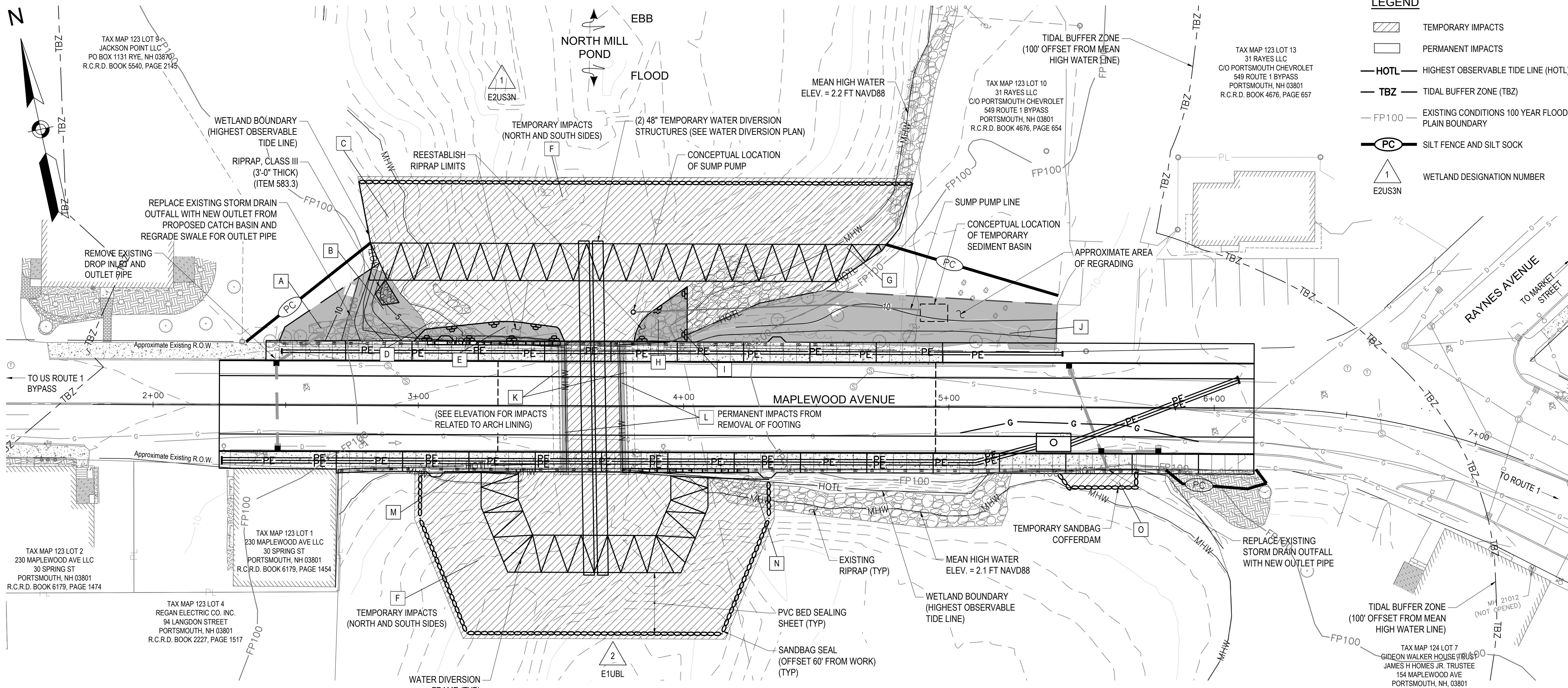


**SECTION B-B**

REV.	DESCRIPTION	DATE

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**LEGEND**

- TEMPORARY IMPACTS
- PERMANENT IMPACTS
- HIGHEST OBSERVABLE TIDE LINE (HOTL)
- TIDAL BUFFER ZONE (TBZ)
- EXISTING CONDITIONS 100 YEAR FLOOD PLAIN BOUNDARY
- SILT FENCE AND SILT SOCK
- WETLAND DESIGNATION NUMBER

REV.	DESCRIPTION	DATE

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SYMBOL	IMPACT TYPE	AREA (SF)
A	PERMANENT TBZ	499
B	PERMANENT IMPACT BETWEEN MHW & HOTL	555
C	TEMPORARY IMPACT BETWEEN MHW & HOTL	636
D	TEMPORARY IMPACT BETWEEN MHW & HOTL	68
E	PERMANENT IMPACT BELOW MHW	199
F	TEMPORARY IMPACT BELOW MHW	16,413
G	TEMPORARY IMPACT BETWEEN MHW & HOTL	1,048
H	PERMANENT IMPACT BELOW MHW	218
I	PERMANENT IMPACT BETWEEN MHW & HOTL	37
J	PERMANENT TBZ	2,264
K	PERMANENT IMPACT BETWEEN MHW & HOTL	38
K	PERMANENT IMPACT BELOW MHW	38
L	PERMANENT IMPACT BELOW MHW	206
M	TEMPORARY IMPACT BETWEEN MHW & HOTL	117
N	TEMPORARY IMPACT BETWEEN MHW & HOTL	204
O	TEMPORARY IMPACT BETWEEN MHW & HOTL	179

**SUMMARY OF IMPACTS**

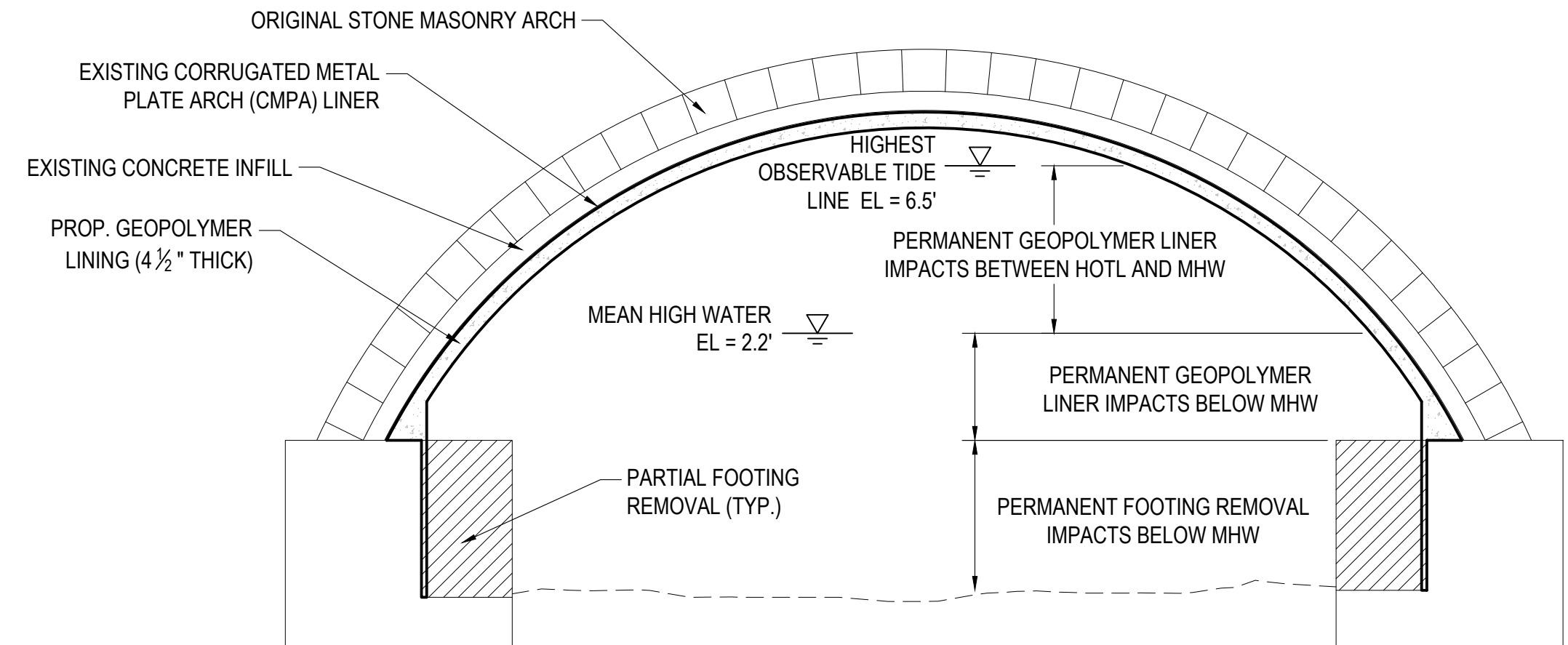
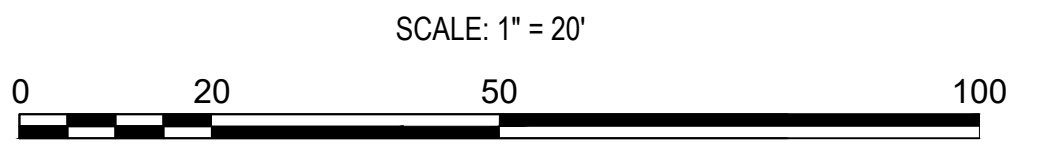
TOTAL NEW TEMPORARY IMPACTS BELOW HOTL = 18,665 SF  
 TOTAL NEW PERMANENT IMPACTS BELOW HOTL = 1,291 SF  
 TOTAL NEW TEMPORARY IMPACTS BELOW MHW = 16,413 SF  
 TOTAL NEW PERMANENT IMPACTS BELOW MHW = 661 SF  
 TOTAL NEW TBZ TEMPORARY IMPACTS = 0 SF  
 TOTAL NEW TBZ PERMANENT IMPACTS = 2,763 SF

TOTAL NHDES IMPACTS = 22,719 SF  
 TOTAL USACE IMPACTS = 17,074 SF

WETLAND CLASSIFICATION	
1 E2US3N	ESTUARINE, INTERTIDAL, UNCONSOLIDATED SHORE, MUD, REGULARLY FLOODED
2 E1UBL	ESTUARINE, SUBTIDAL, UNCONSOLIDATED BOTTOM, SUBTIDAL

THOMAS E. SOKOLOSKI, CERTIFIED WETLAND SCIENTIST #127 OF TES ENVIRONMENTAL CONSULTANTS, L.L.C. OF BOW, NH, PERFORMED THE WETLAND MAPPING ON FEBRUARY 28, 2020 ACCORDING TO THE STANDARDS OF THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL AND THE REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION, VERSION 2.0, JANUARY 2012, US ARMY CORPS OF ENGINEERS.

**WETLAND IMPACTS PLAN**



**PROP. LINING SECTION**

SCALE: N.T.S.

**GENERAL WETLAND IMPACTS NOTES**

- AFTER COMPLETION OF IN-WATER WORK, REMOVE ALL WATER DIVERSION STRUCTURES AND RESTORE ALL DISTURBED AREAS TO PRE-CONSTRUCTION CONDITIONS.
- EROSION AND SEDIMENT CONTROL SHOWN FOR PLANNING PURPOSES ONLY. CONTRACTOR MEANS AND METHODS MAY ALTER SLIGHTLY BASED ON SITE CONDITIONS.
- CONTRACTOR SHALL RETAIN SEDIMENT ON-SITE AND IMPLEMENT THE FOLLOWING DEWATERING CONTROL PRACTICES:
  - TEMPORARY SEDIMENT BASINS SHALL BE SIZED TO RETAIN ON SITE, THE VOLUME OF A 2-YEAR 24-HOUR STORM EVENT FOR ANY AREA OF DISTURBANCE OR 3,600 CUBIC FEET OF STORMWATER RUNOFF PER ACRE OF DISTURBANCE, WHICHEVER IS GREATER.
  - CONSTRUCT AND STABILIZE DEWATERING INFILTRATION BASINS OR BAGS PRIOR TO ANY EXCAVATION THAT MAY REQUIRE DEWATERING.
  - TEMPORARY SEDIMENT BASINS SHALL BE PLACED AND STABILIZED AT LOCATIONS WHERE CONCENTRATED FLOWS (CHANNELS AND PIPES) CAN BE DISCHARGED WITHOUT DISTURBING OR UNSTABILIZING THE SURROUNDING ENVIRONMENT.
  - SEDIMENT FROM THE DEWATERING INFILTRATION BASINS OR BAG SHALL BE DISPOSED OF PER NHDES REGULATIONS.
- A MEMORANDUM OF UNDERSTANDING (MOU) WILL BE OBTAINED FROM EACH PARCEL OWNER WHERE WORK PROPOSED AS SHOWN EXTENDS BEYOND THE CITY RIGHT-OF-WAY, OR WHERE TEMPORARY CONSTRUCTION ACCESS ON PRIVATE PROPERTY IS NECESSARY.
- OVERHEAD UTILITY LINES NOT SHOWN FOR CLARITY.

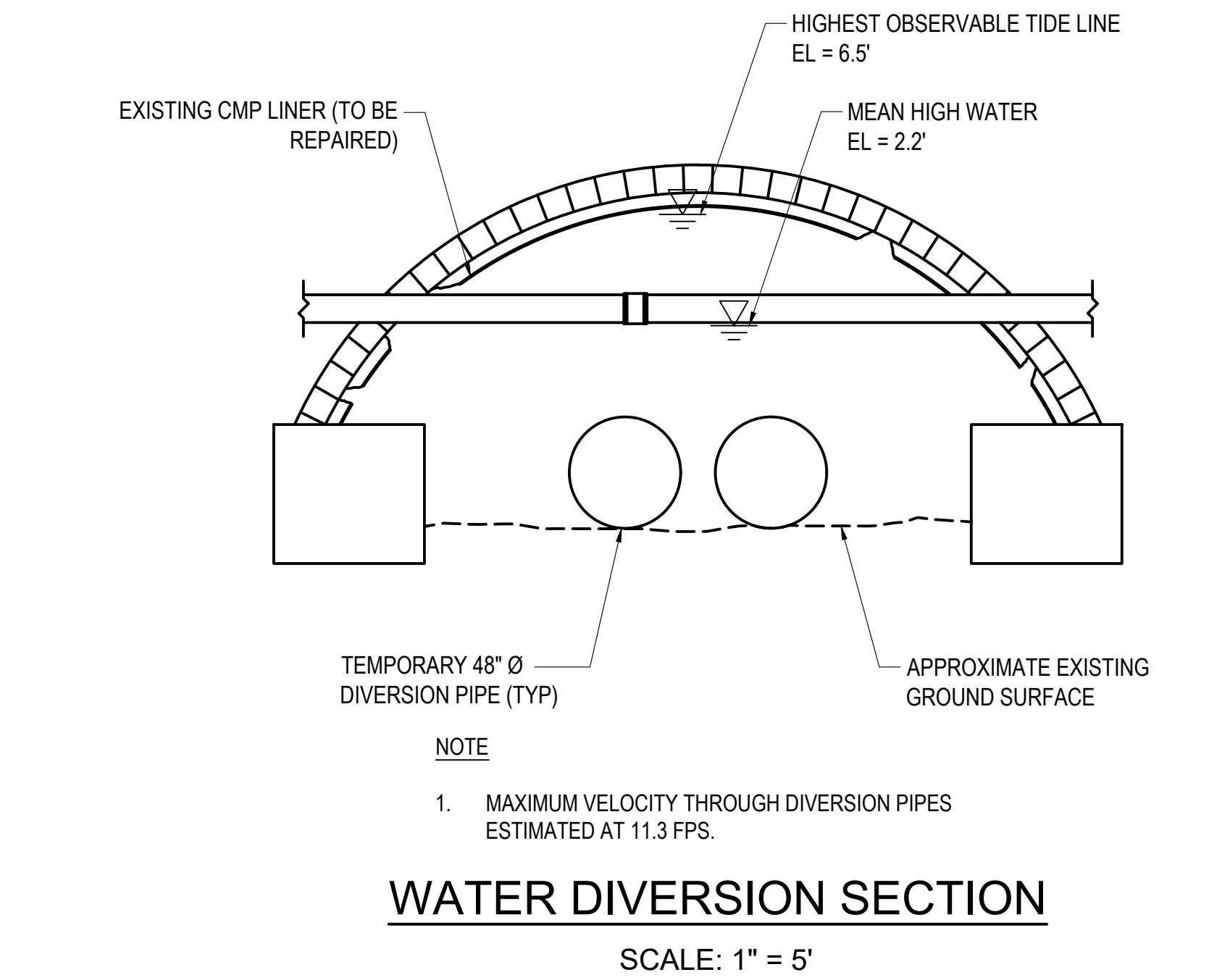
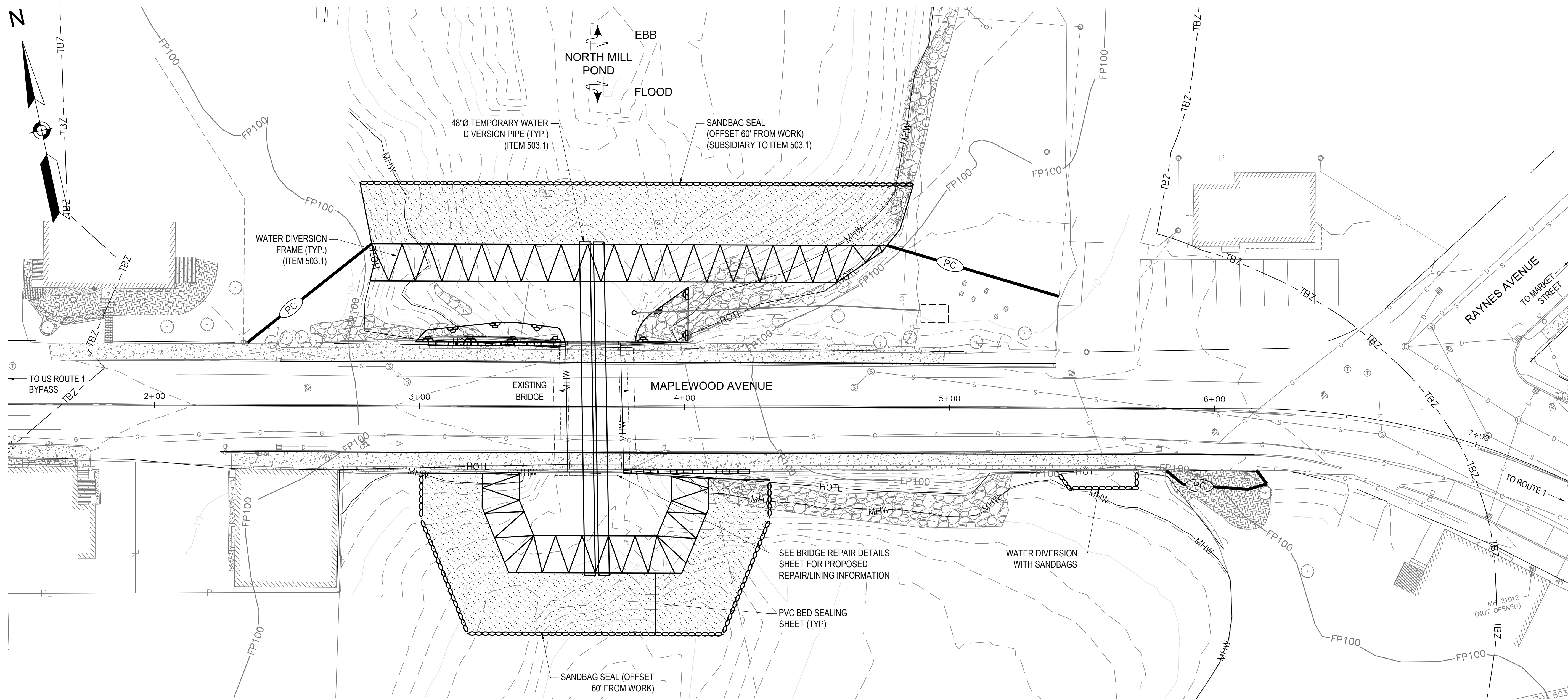
PORTSMOUTH, NEW HAMPSHIRE  
 MAPLEWOOD AVENUE OVER NORTH MILL POND  
 WETLAND IMPACTS PLAN

PROJECT NO. 20.905110.00  
 SHEET NO.

**10**

SHEET 10 OF 17

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**WATER DIVERSION SECTION**  
SCALE: 1" = 5'

**WATER DIVERSION PLAN**  
0 20 50 100

**HYDRAULIC DATA**

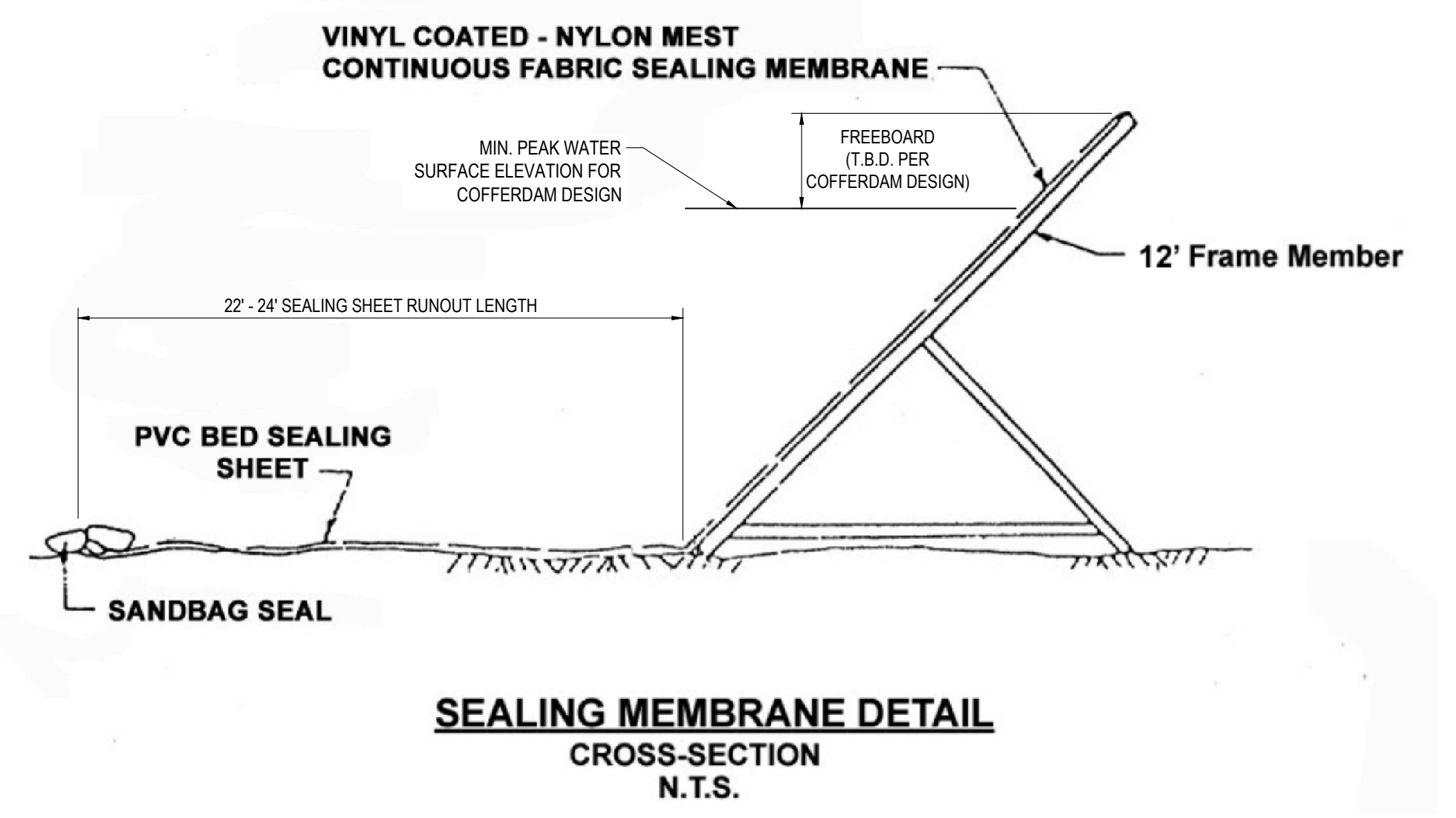
1. VALUES INDICATED BELOW ARE WITH THE WATER DIVERSION SYSTEM IN PLACE.

**FLOW CHARACTERISTICS**  
 - MAX FLOW NORTH TO SOUTH = 285 CFS  
 - MAX FLOW SOUTH TO NORTH = 235 CFS  
 - MAX VELOCITY THROUGH PIPES = 11.3 FPS

**MINIMUM PEAK WATER SURFACE ELEVATIONS FOR COFFERDAM DESIGN**  
 - NORTH COFFERDAM = 6.42'  
 - SOUTH COFFERDAM = 3.61'

**NOTES**

1. WATER DIVERSION STRUCTURES SHALL BE DESIGNED TO ACCOMMODATE, AT A MINIMUM, THE STORM EVENT DISCHARGE FROM HODGDON BROOK COMBINED WITH THE HIGHEST TIDE ELEVATIONS AS DESCRIBED IN THE HYDRAULIC ANALYSES SUMMARY REPORTS INCLUDED IN THE SPECIFICATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING FINAL DESIGN CRITERIA FOR COFFERDAM SYSTEM BASED ON THEIR APPROACH TO CONSTRUCTING THE PROJECT. THE CONTRACTOR'S METHOD OF WATER DIVERSION SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO THE START OF WORK.
2. TEMPORARY WATER DIVERSION SYSTEM SHALL UTILIZE TWIN 48" DIA. PIPES, MINIMUM. OTHER PIPING CONFIGURATIONS THAT PROVIDE AT EQUAL OR GREATER HYDRAULIC PERFORMANCE MAY BE USED.



**SEALING MEMBRANE DETAIL**  
CROSS-SECTION  
N.T.S.

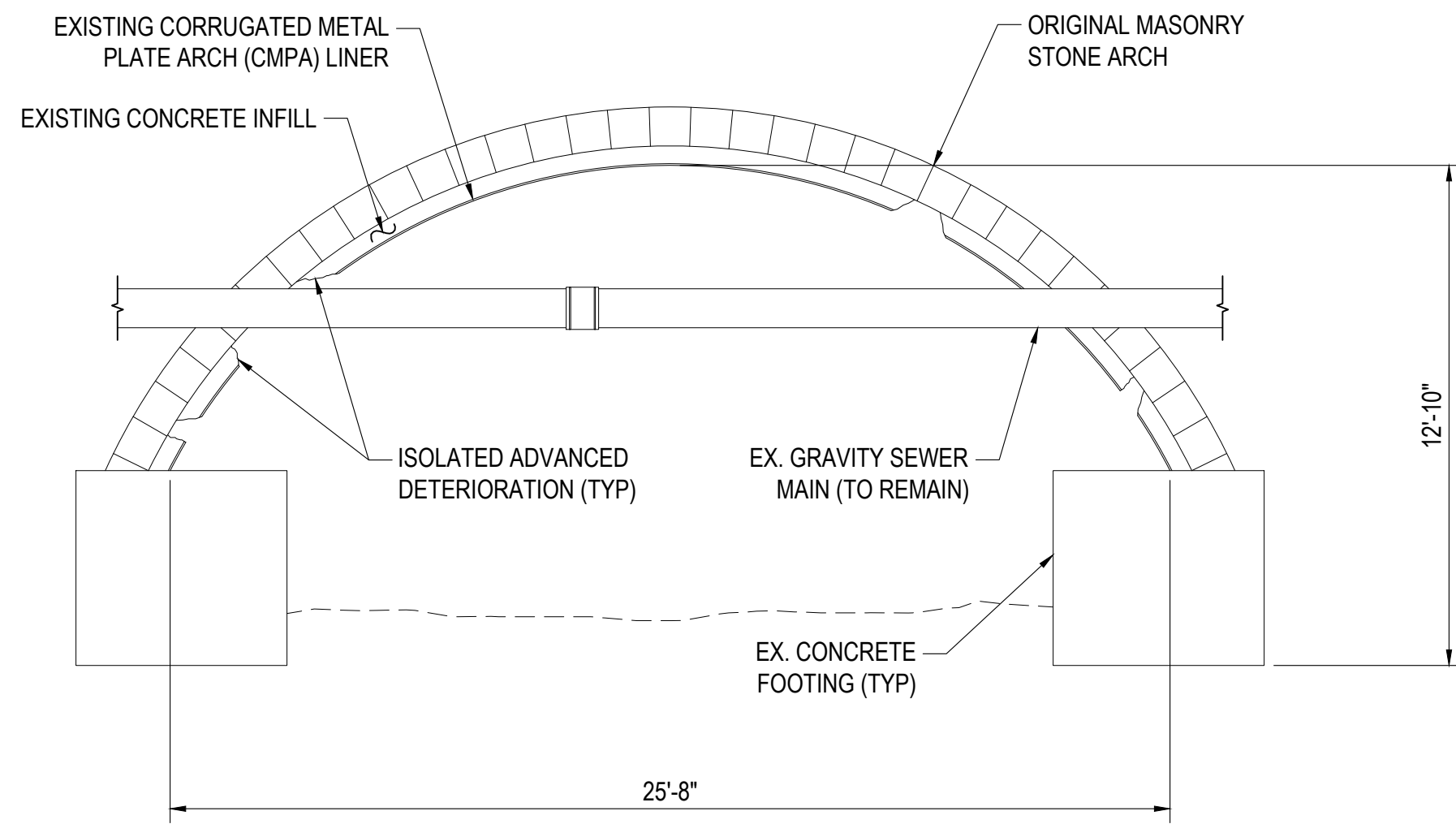
REV.	DESCRIPTION	DATE

NHDOT BRIDGE NO. 2317103  
 DESIGNED RPM  
 DRAWN WCT/AG  
 CHECKED AML  
 SCALE AS SHOWN  
 DATE JANUARY 2024  
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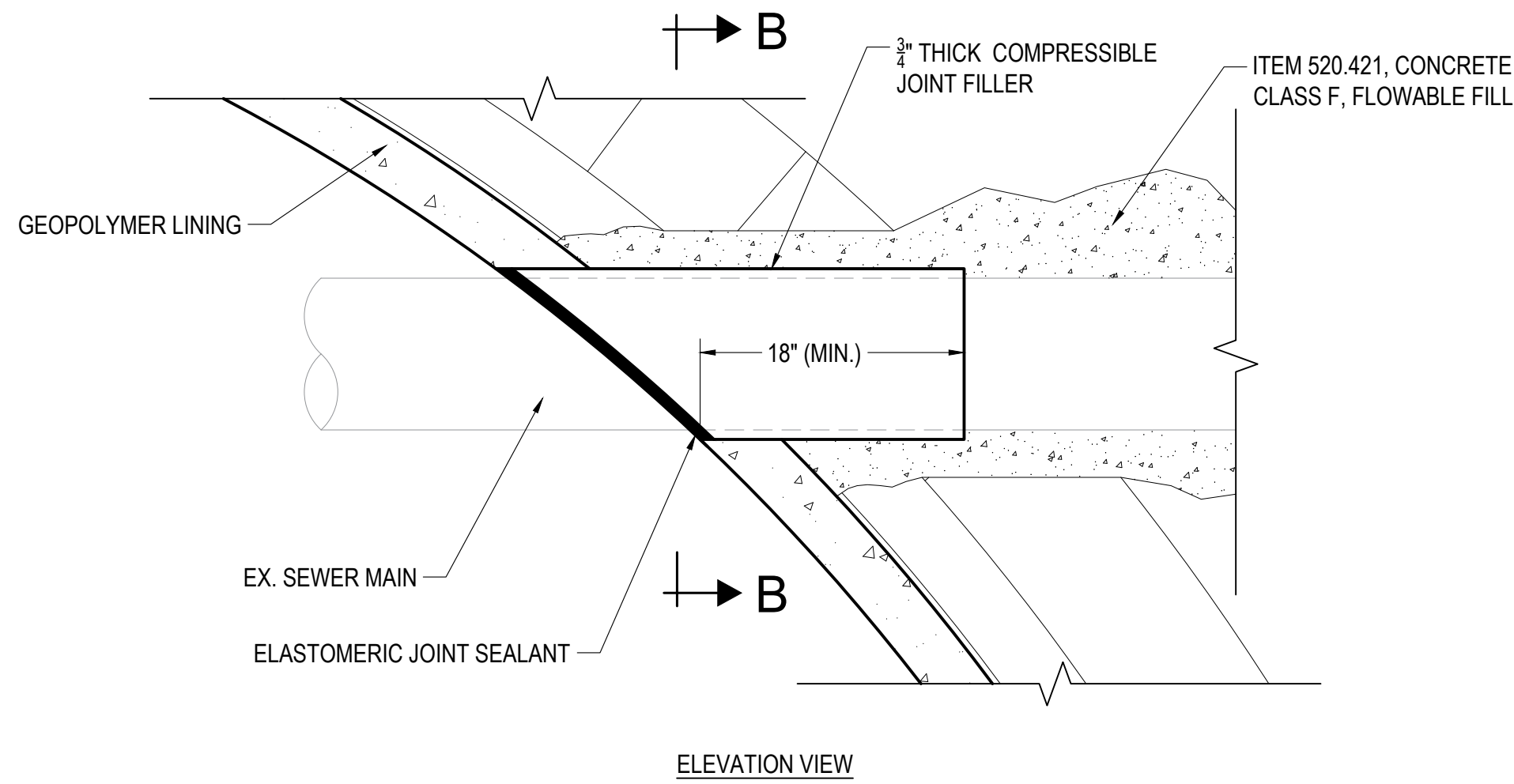
PORTSMOUTH, NEW HAMPSHIRE  
 MAPLEWOOD AVENUE OVER NORTH MILL POND  
 WATER DIVERSION PLAN  
 PROJECT NO. 20.905110.00  
 SHEET NO.

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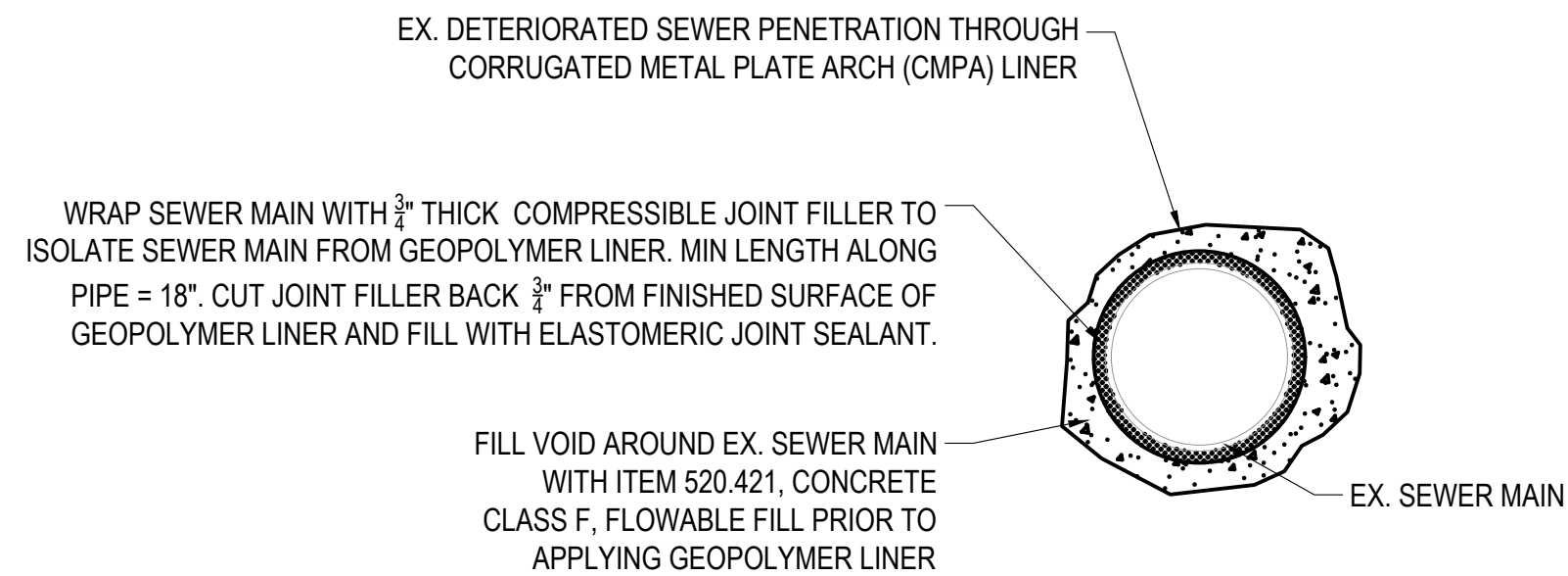


**EXISTING BRIDGE SECTION**

SCALE: 1/4" = 1'-0"



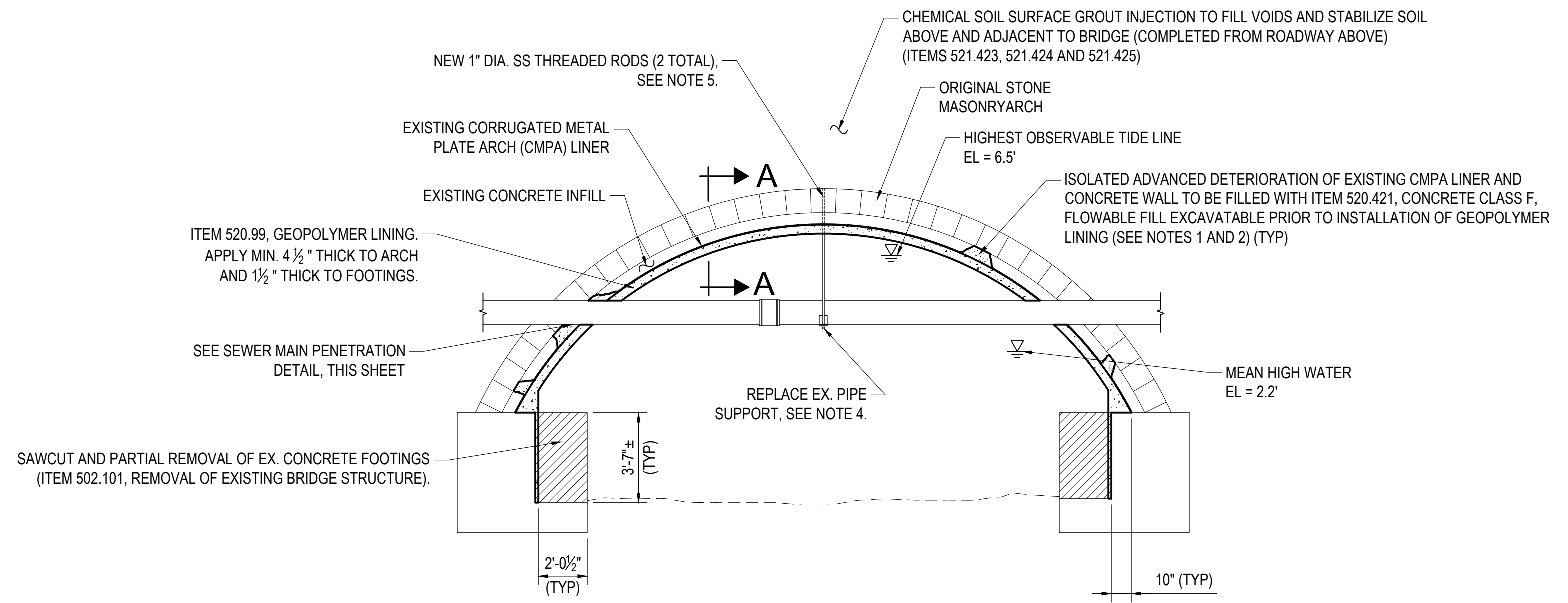
ELEVATION VIEW



SECTION B-B

**SEWER MAIN PENETRATION DETAIL**

SCALE: 1" = 1'-0"

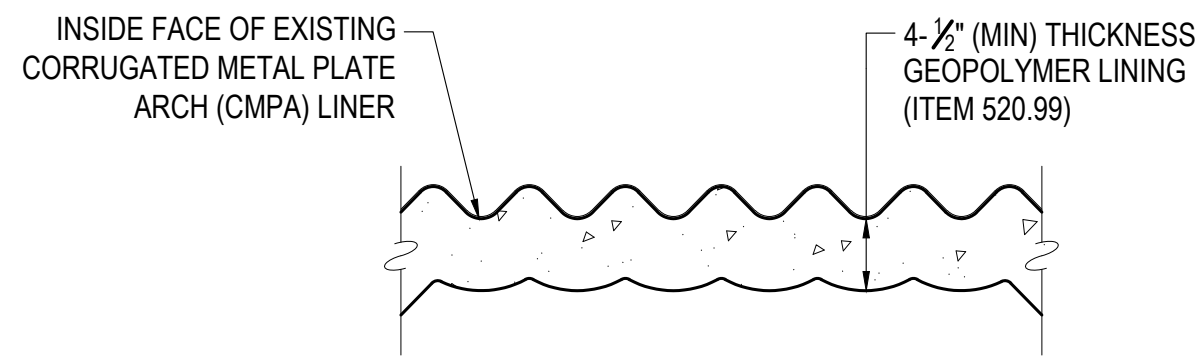


**NOTES**

1. AN ALTERNATE MATERIAL MAY BE USED IN LIEU OF CONCRETE CLASS F, FLOWABLE FILL WITH PRIOR APPROVAL FROM THE ENGINEER. THE ALTERNATE MATERIAL WILL BE PAID FOR UNDER ITEM 520.421.
2. THE POTENTIAL PRESENCE AND EXTENTS OF SUBSURFACE VOIDS BEYOND THE IMMEDIATE AREA AROUND THE EX. SEWER MAIN PENETRATIONS ARE UNKNOWN. THEREFORE, TO PREVENT LOSS OF ITEM 520.421 THROUGH THE EXISTING ARCH OR MASONRY RETAINING WALLS, CONTRACTOR SHALL MONITOR PLACEMENT OF MATERIAL AND ADJUST PLACEMENT OPERATIONS BASED ON PERFORMANCE OF INITIAL PLACEMENT. SEE SPECIFICATIONS FOR FURTHER INFORMATION.
3. TEMPORARY REMOVAL OF RIPRAP AND/OR OTHER IN-SITU STREAMBED MATERIAL LOCATED ADJACENT TO THE FOOTINGS MAY BE REQUIRED FOR PARTIAL REMOVAL OF FOOTING CONCRETE. CONTRACTOR TO COORDINATE WITH ENGINEER ON FINAL DISPOSITION OF DISPLACED STREAMBED MATERIAL AFTER CONCRETE REMOVAL WORK IS COMPLETE. EXCAVATION AND REPLACEMENT OF STREAMBED MATERIAL, IF REQUIRED, SHALL BE SUBSIDIARY TO ITEM 502.101.
4. REPLACEMENT PIPE SUPPORT SYSTEM COMPONENTS SHALL BE STAINLESS STEEL. LOWER PIPE HANGER / STRAP SHALL BE 4" WIDE (MIN.) WITH 5,000 LB LOAD CAPACITY (MIN.).
5. 1" DIA. STAINLESS STEEL THREADED RODS SHALL BE INSTALLED INTO EX. STRUCTURE (THROUGH EX. CMPA LINER, CONCRETE INFILL, AND INTO ORIGINAL STONE MASONRY ARCH) PRIOR TO INSTALLATION OF GEOPOLYMER LINER. DRILL AND GROUT RODS WITH HILTI HIT-RE V3 EPOXY ANCHORING ADHESIVE (OR APPROVED EQUAL ANCHORING ADHESIVE SUITABLE FOR SUSTAINED TENSION APPLICATION). CONTRACTOR TO FIELD DETERMINE REQUIRED ROD LENGTHS.

**PROPOSED BRIDGE SECTION**

SCALE: 1/4" = 1'-0"

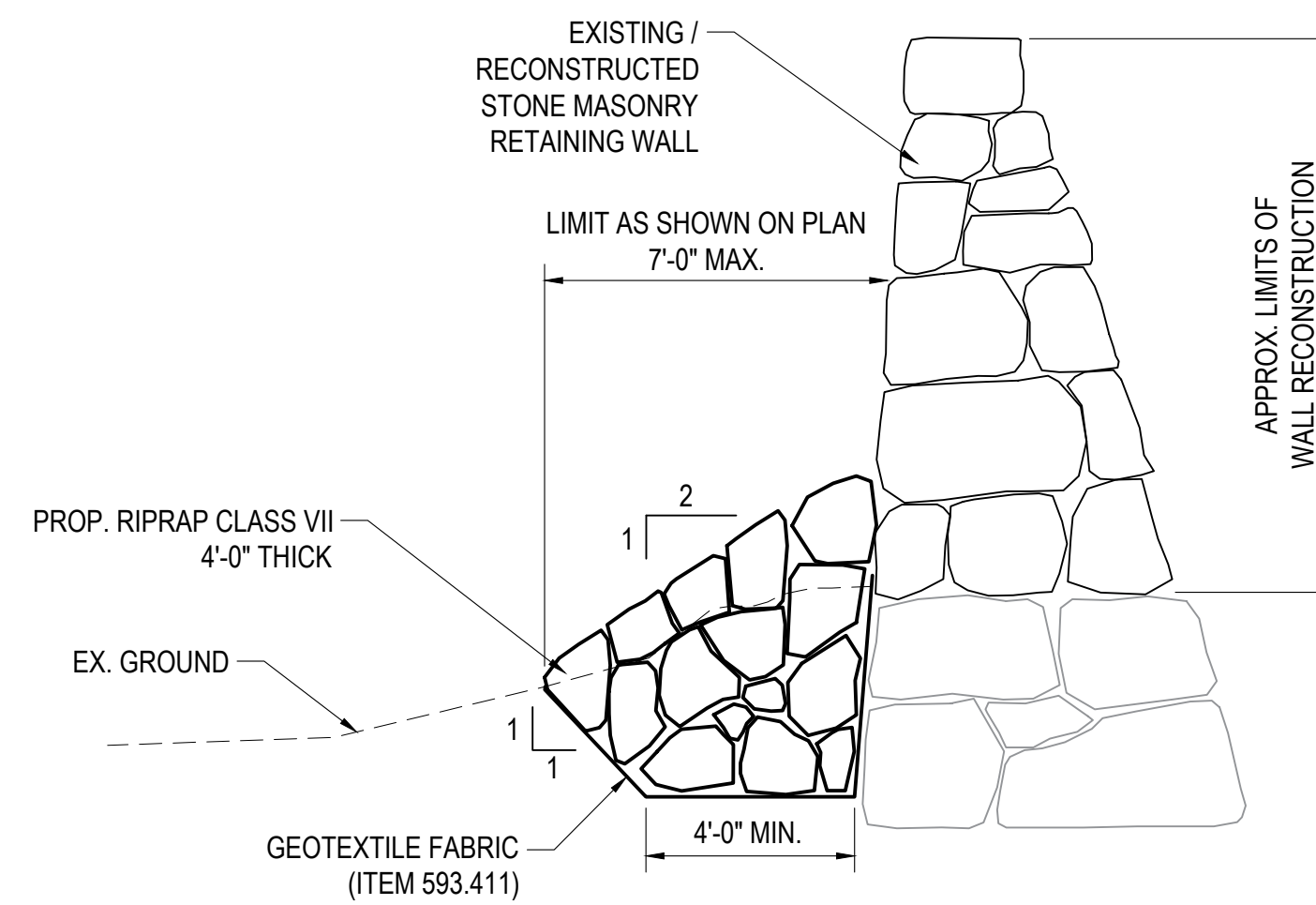


**NOTE**

1. FULL EXTENT OF DETERIORATION OF CONCRETE INFILL AND EXISTING STONE MASONRY ARCH ARE NOT KNOWN AND ARE NOT SHOWN IN THIS SECTION.

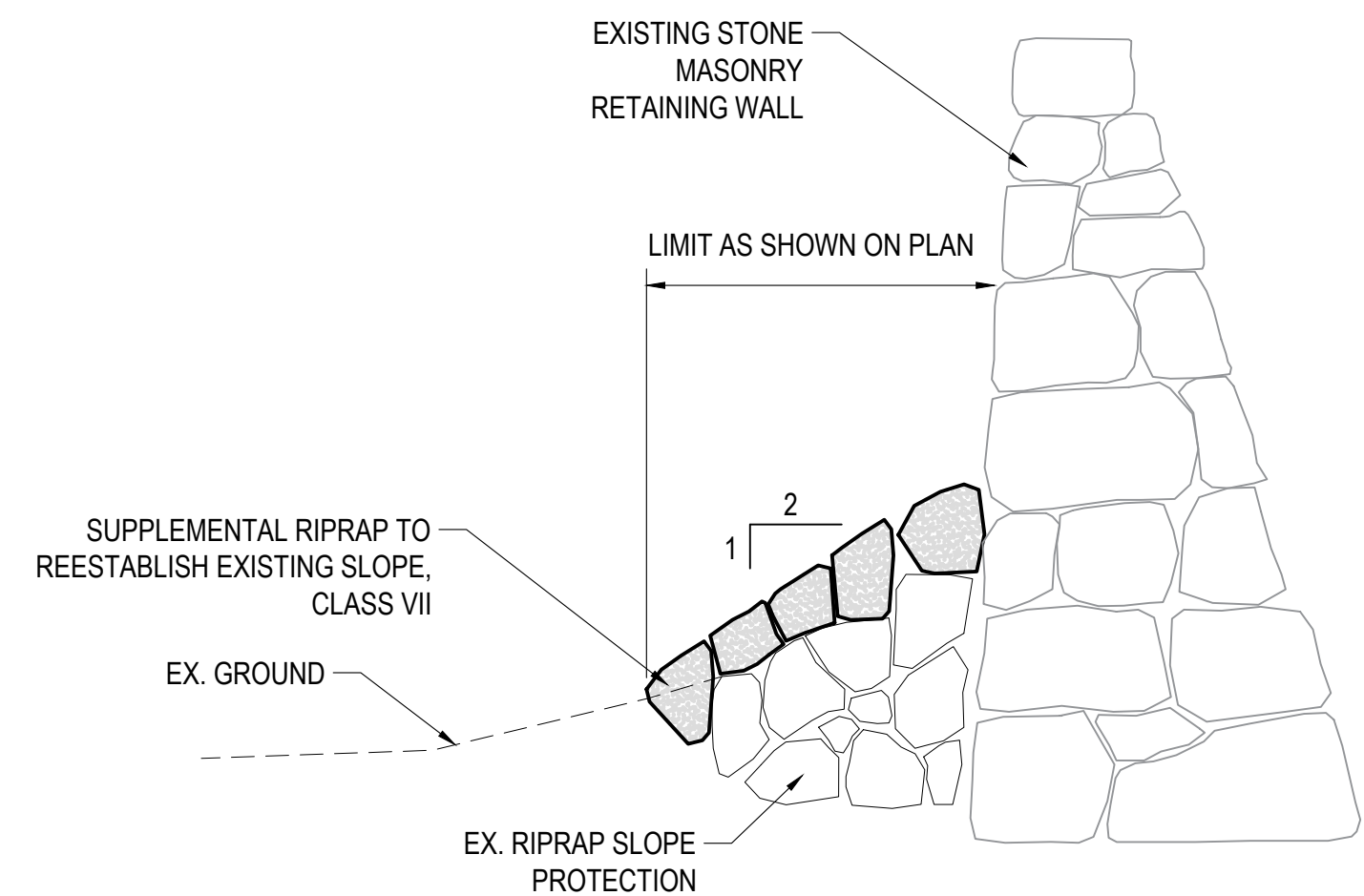
**SECTION A-A**

SCALE: 1" = 1'-0"



**PROP. RIPRAP SECTION**

SCALE: 1/4" = 1'-0"



**RIPRAP SLOPE REESTABLISHMENT**

SCALE: 1/4" = 1'-0"

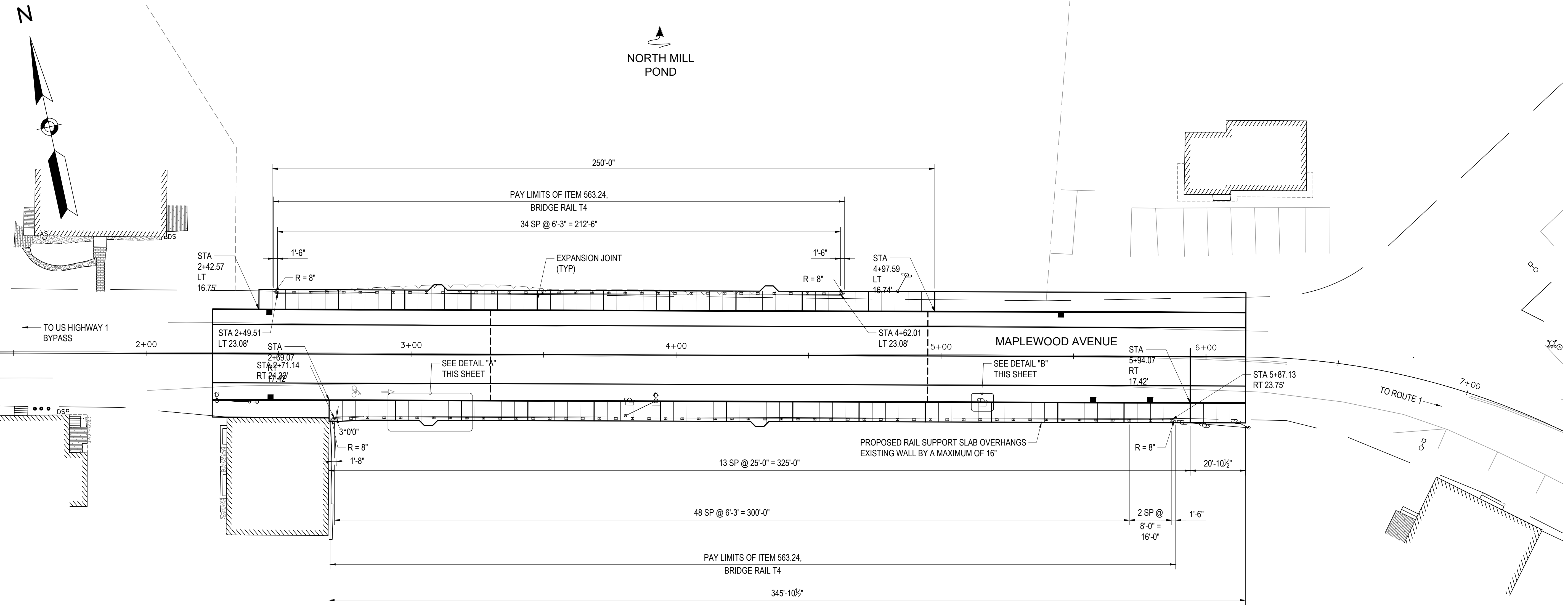
REV.	DESCRIPTION	DATE

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PORTSMOUTH, NEW HAMPSHIRE  
 MAPLEWOOD AVENUE OVER NORTH MILL POND  
 BRIDGE REPAIR DETAILS

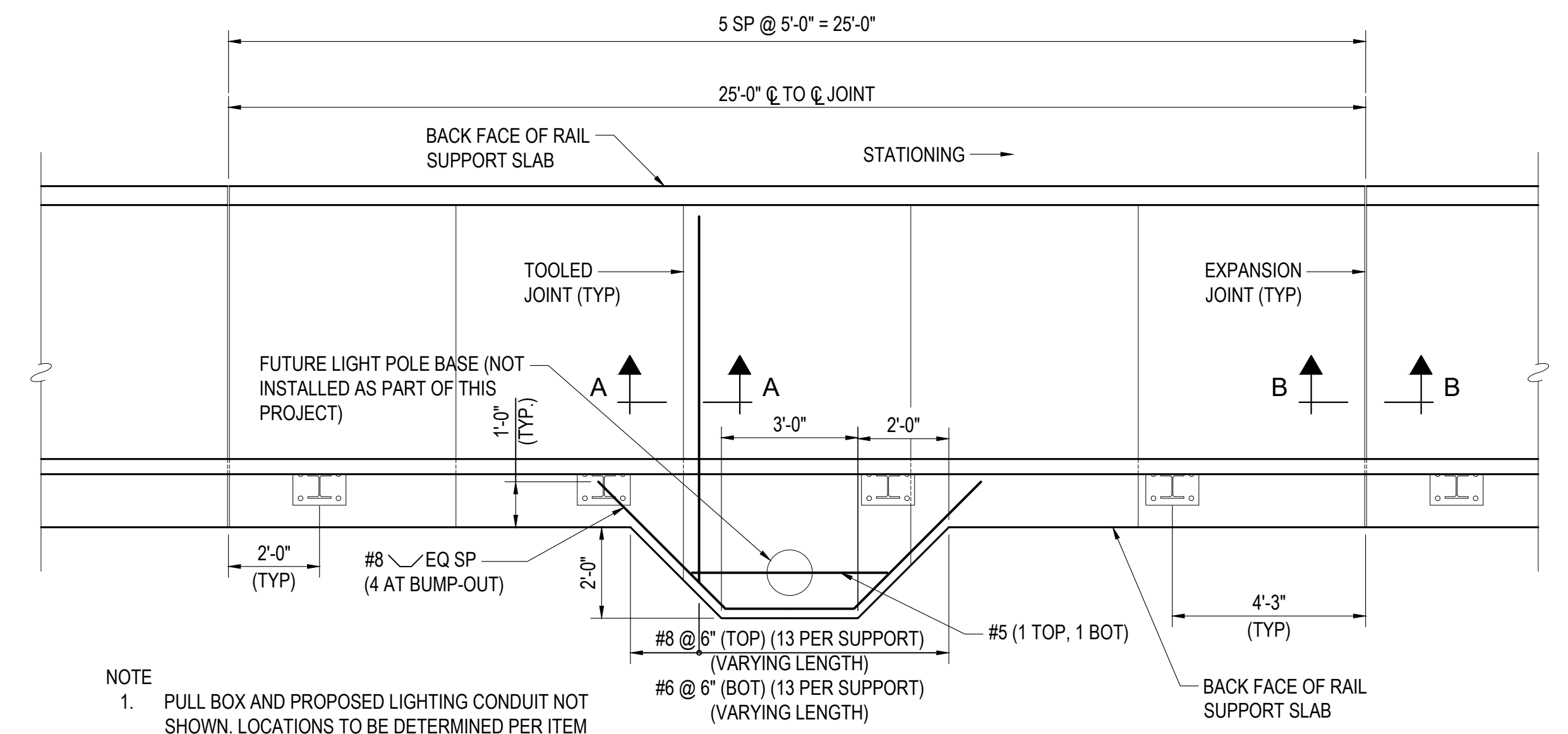
PROJECT NO. 20.905110.00  
 SHEET NO.

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**RAIL AND SUPPORT SLAB JOINT LAYOUT PLAN**

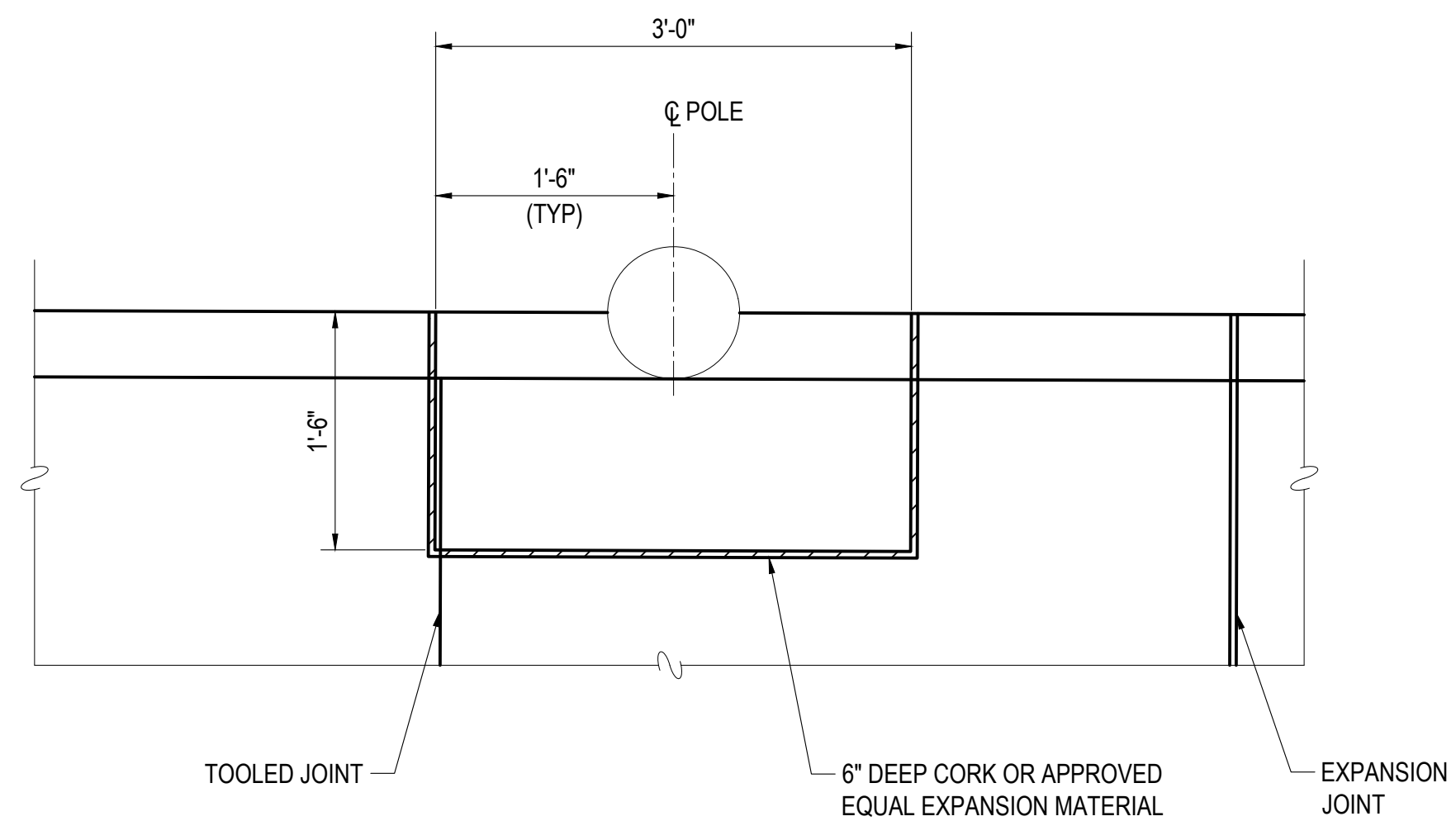
SCALE: 1" = 20'



**DETAIL "A"**

SCALE: 3/8" = 1'-0"

- NOTE**
- PULL BOX AND PROPOSED LIGHTING CONDUIT NOT SHOWN. LOCATIONS TO BE DETERMINED PER ITEM 614.7281. ADJUST REINFORCING TO AVOID CONFLICTS.
  - THE RAIL SUPPORT SLAB BUMP-OUT SECTION CAN BE SEEN ON SHEET 14.
  - FINAL BUMP OUT LOCATIONS TO BE VERIFIED BY ENGINEER AND OWNER PRIOR TO CONSTRUCTION.



**DETAIL "B"**

SCALE: 3/8" = 1'-0"

REV.	DESCRIPTION	DATE

DESIGNED	DRAWN	CHECKED	SCALE	DATE
RPM	WCT/JAG	AML	AS SHOWN	JANUARY 2024

PROJECT NO. 20.905110.00  
SHEET NO.

PORTSMOUTH, NEW HAMPSHIRE  
MAPLEWOOD AVENUE OVER NORTH MILL POND  
RAIL AND SUPPORT SLAB JOINT  
LAYOUT PLAN

PROJECT NO. 20.905110.00  
SHEET NO.

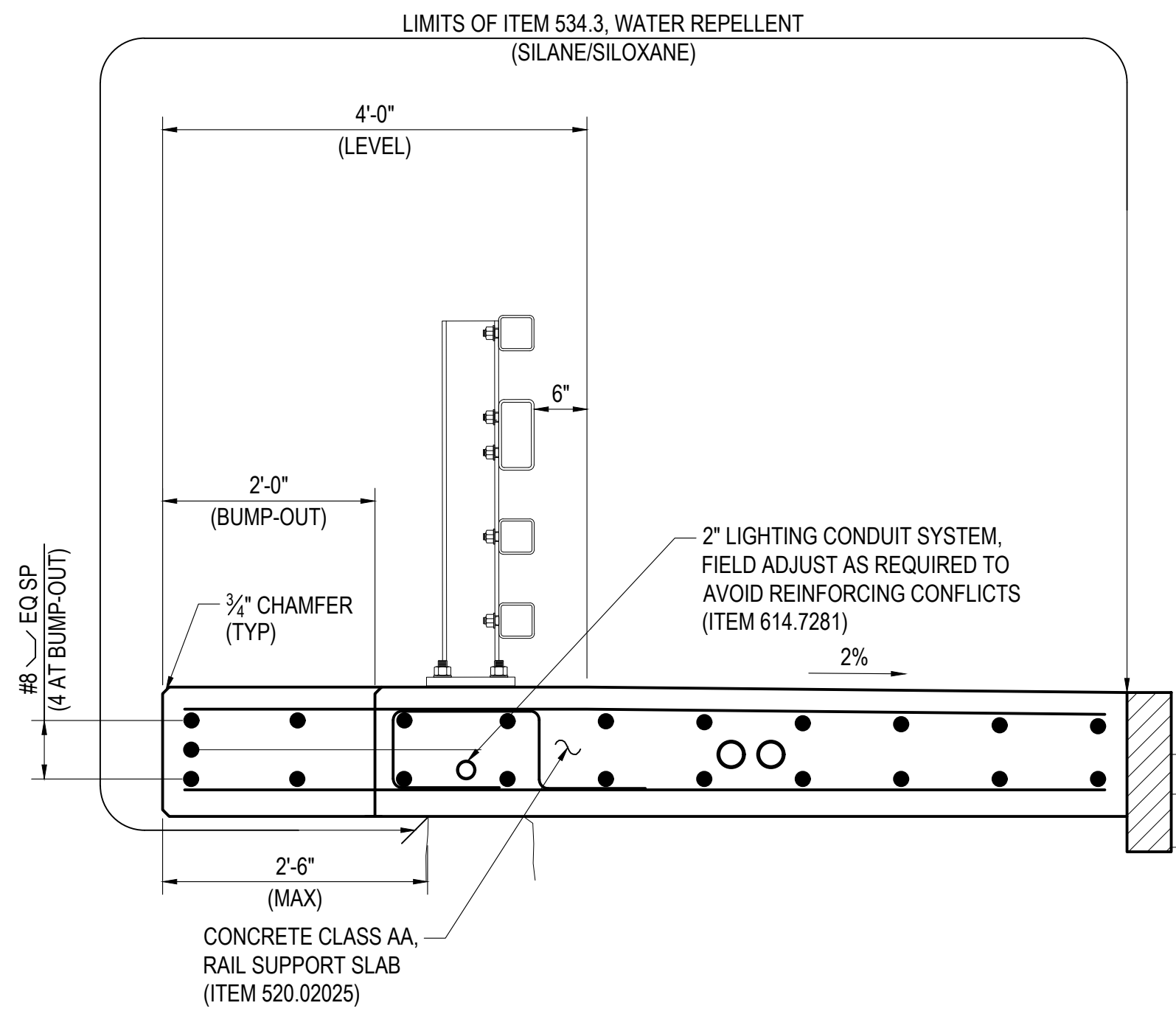
**13**  
SHEET 13 OF 17

SHEET 13 OF 17

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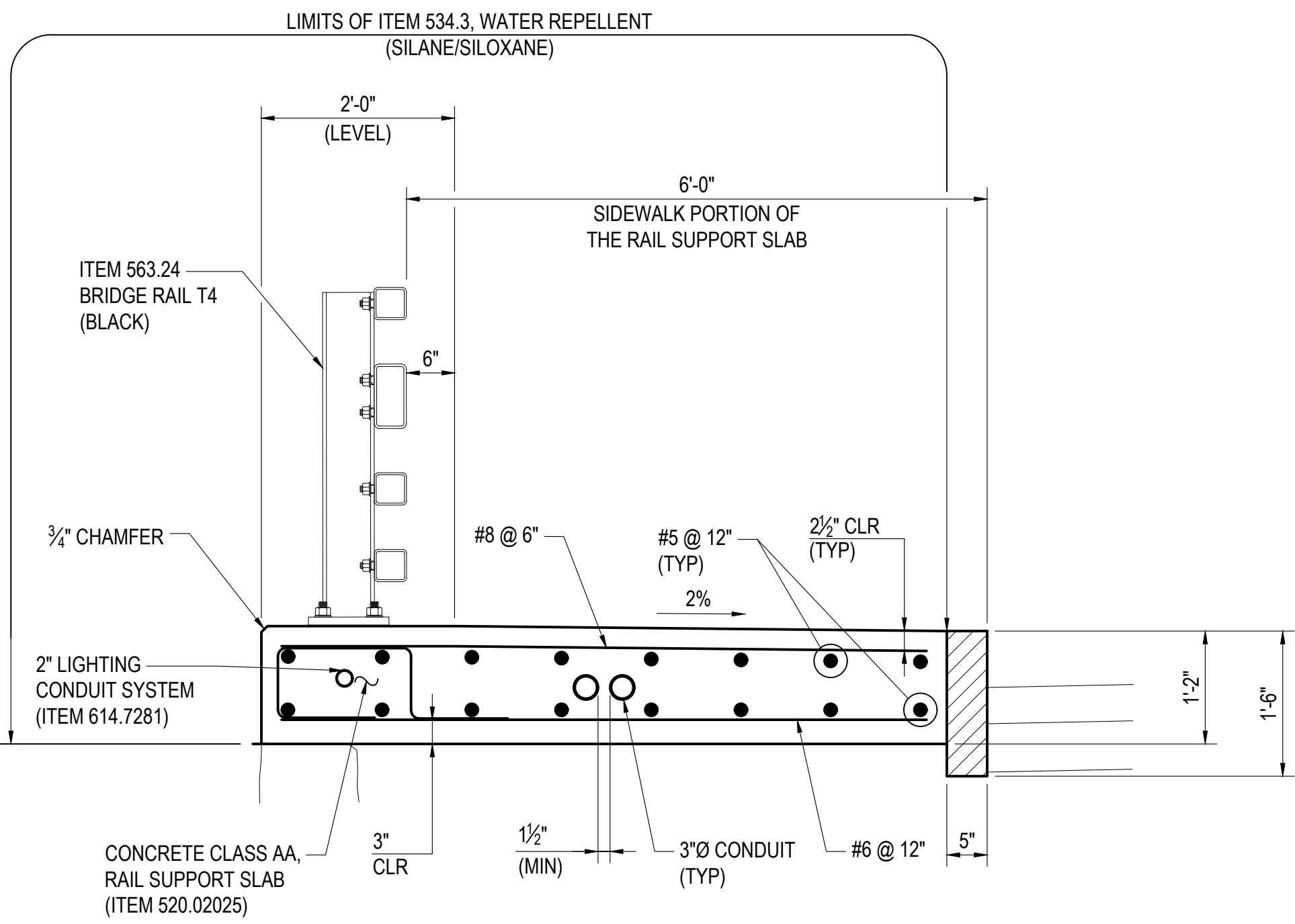
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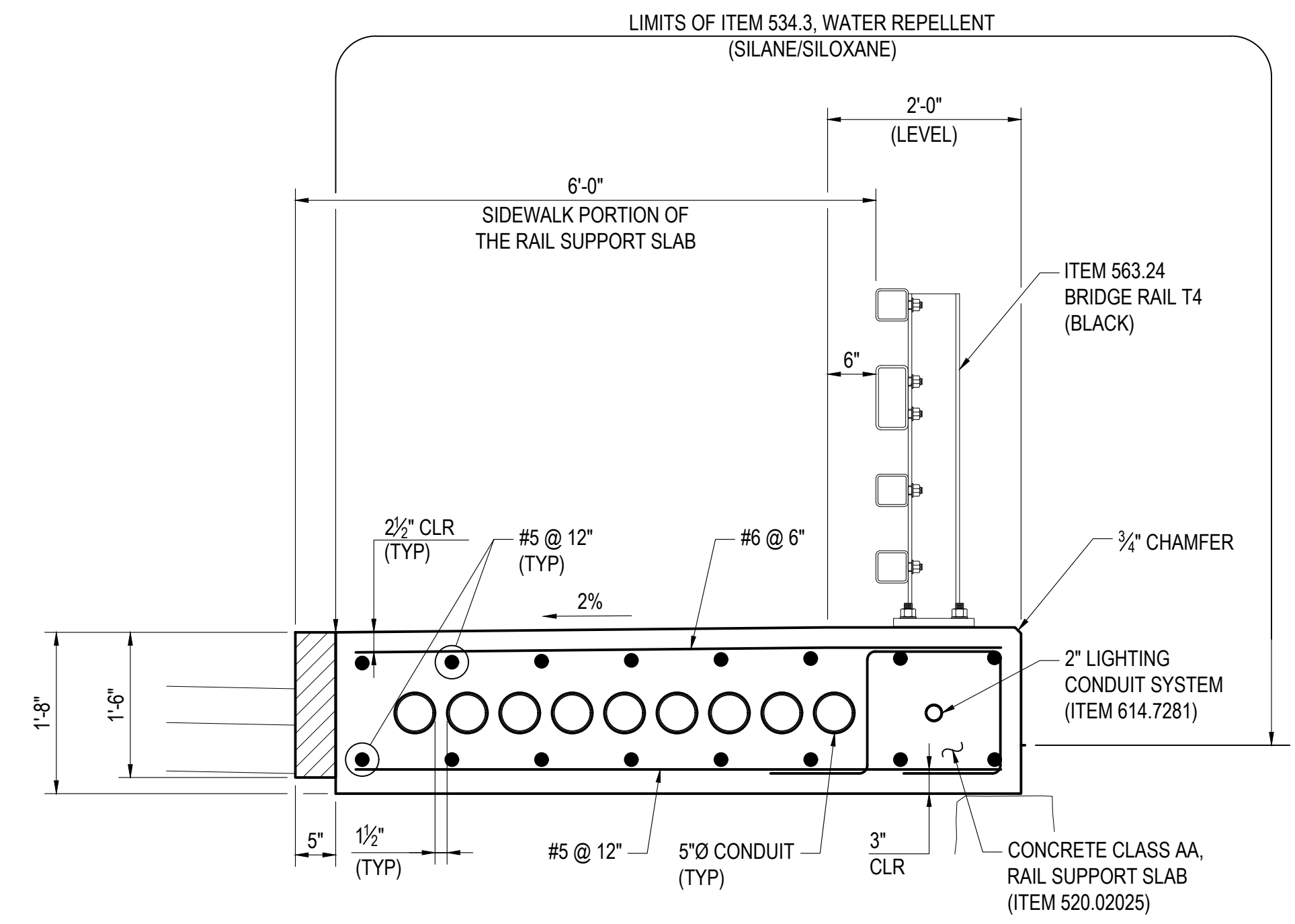
**RAIL SUPPORT SLAB BUMP OUT SECTION  
(NORTH SHOWN, SOUTH SIMILAR)**

SCALE: 3/4" = 1'-0"



**RAIL SUPPORT SLAB (NORTH)  
TYPICAL SECTION**

SCALE: 3/4" = 1'-0"

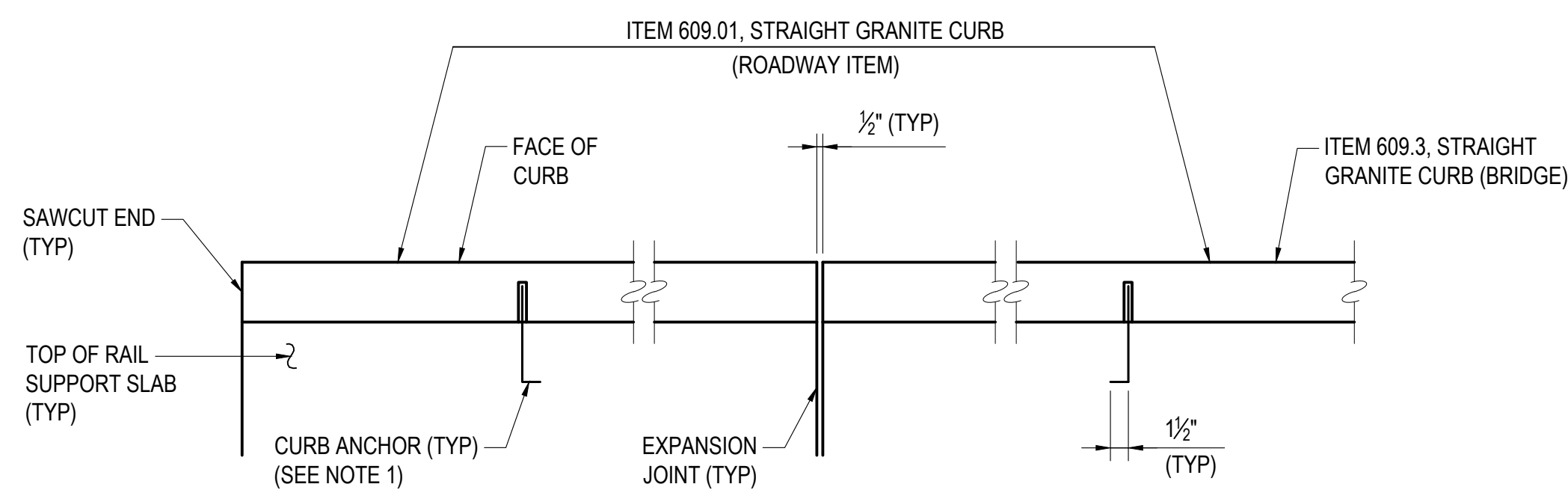


**RAIL SUPPORT SLAB (SOUTH)  
TYPICAL SECTION**

SCALE: 3/4" = 1'-0"

**NOTES**

1. RAIL SUPPORT SLAB IS DESIGNED TO HAVE THE ABILITY TO ADJUST IN THE FIELD IF OBSTRUCTIONS ARE MET THAT PROHIBIT THE CONSTRUCTION OF THE DEPTH SHOWN. MAINTAIN A 1" / 100' MINIMUM PITCH IN CONDUIT, A 1.5" SPACING BETWEEN ALL CONDUITS AND REINFORCING, 3" SPACING BETWEEN CONDUIT AND ANY VERTICAL BARS FOR RAILING ANCHORAGE, AND CLEAR COVER SPECIFIED ON THE DETAILS. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY CONFLICTS THAT PREVENT THE INSTALLATION OF THE RAIL SUPPORT SLAB THICKNESS SPECIFIED IN THE DETAILS. ADJUSTMENTS TO REINFORCEMENT SPACING AND QUANTITY MAY BE REQUIRED.
- 2.

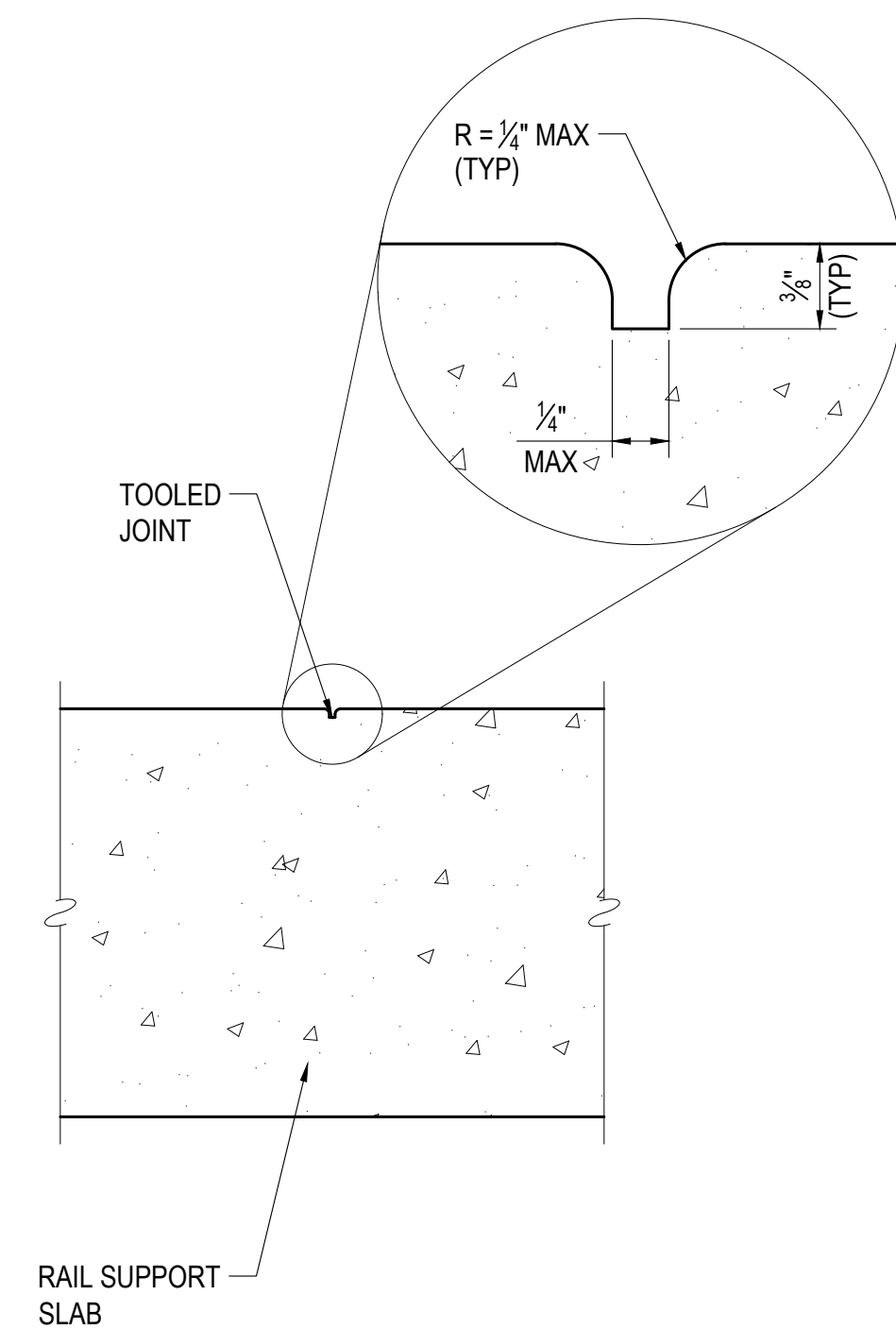


**NOTE**

1. CURB ANCHORS SHALL BE 1/2" GALVANIZED RODS, TWO PER STONE, STAGGERED ON ADJACENT STONES AND COUNTERSUNK (COST SHALL BE INCLUDED IN ITEM 609.3).

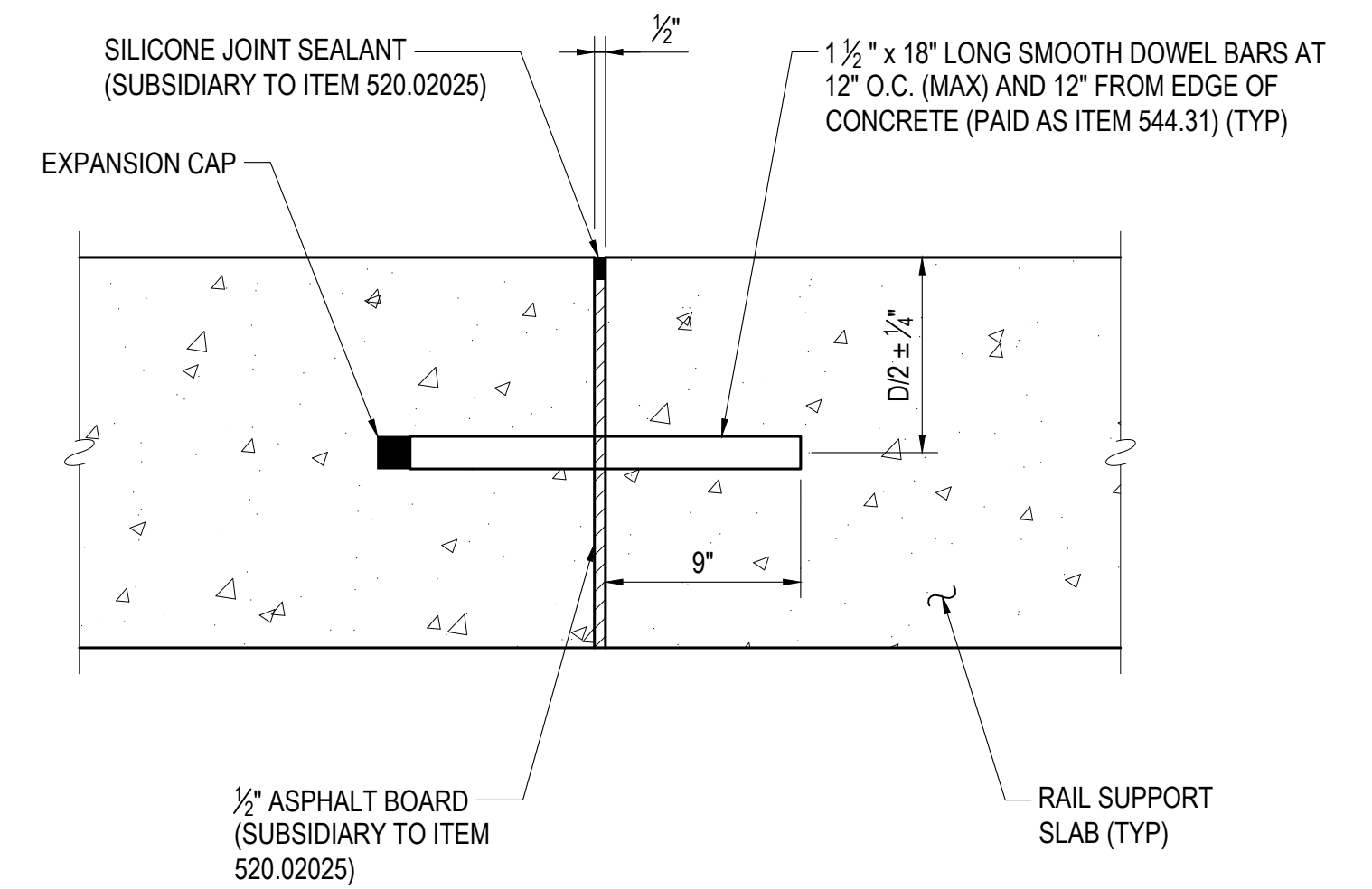
**CURB ANCHOR DETAIL**

SCALE: 1" = 1'-0"



**SECTION A-A**

SCALE: 1 1/2" = 1'-0"



**SECTION B-B**

SCALE: 1 1/2" = 1'-0"

REV.	DESCRIPTION	DATE

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PORTSMOUTH, NEW HAMPSHIRE  
 MAPLEWOOD AVENUE OVER NORTH MILL POND  
 RAIL SUPPORT SLAB  
 CONSTRUCTION DETAILS

PROJECT NO. 20.905110.00  
 SHEET NO.

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REMOVE EXPOSED PORTION OF EX. SEWER MAIN TO A MINIMUM OF 6" BEYOND FACE OF EXISTING RETAINING WALL (INCIDENTAL TO ITEM 596.3). FILL PORTION OF PIPE TO REMAIN WITH FLOWABLE FILL AS DIRECTED BY ENGINEER (ITEM 520.421).

CONCRETE OVERHANG TO BE SAWCUT FLUSH TO STONE MASONRY WALL AND REMOVED PRIOR TO INSTALLATION OF GEOPOLYMER LINER (INCIDENTAL TO ITEM 520.99)

REMOVE ISOLATED AREAS OF EXISTING BRICK INFILL AND REPLACE WITH MASONRY BLOCK(S) (ITEM 596.31). LOCATIONS AS DIRECTED BY ENGINEER IN THE FIELD.

LIMITS OF STONE MASONRY WALL RECONSTRUCTION (FULL HEIGHT) (SEE PROPOSED MASONRY WALL RECONSTRUCTION DETAIL, THIS SHEET) 50'-0"

EXISTING ABANDONED SEWER TO BE REMOVED (INCIDENTAL TO ITEMS 596.3 AND 596.31)

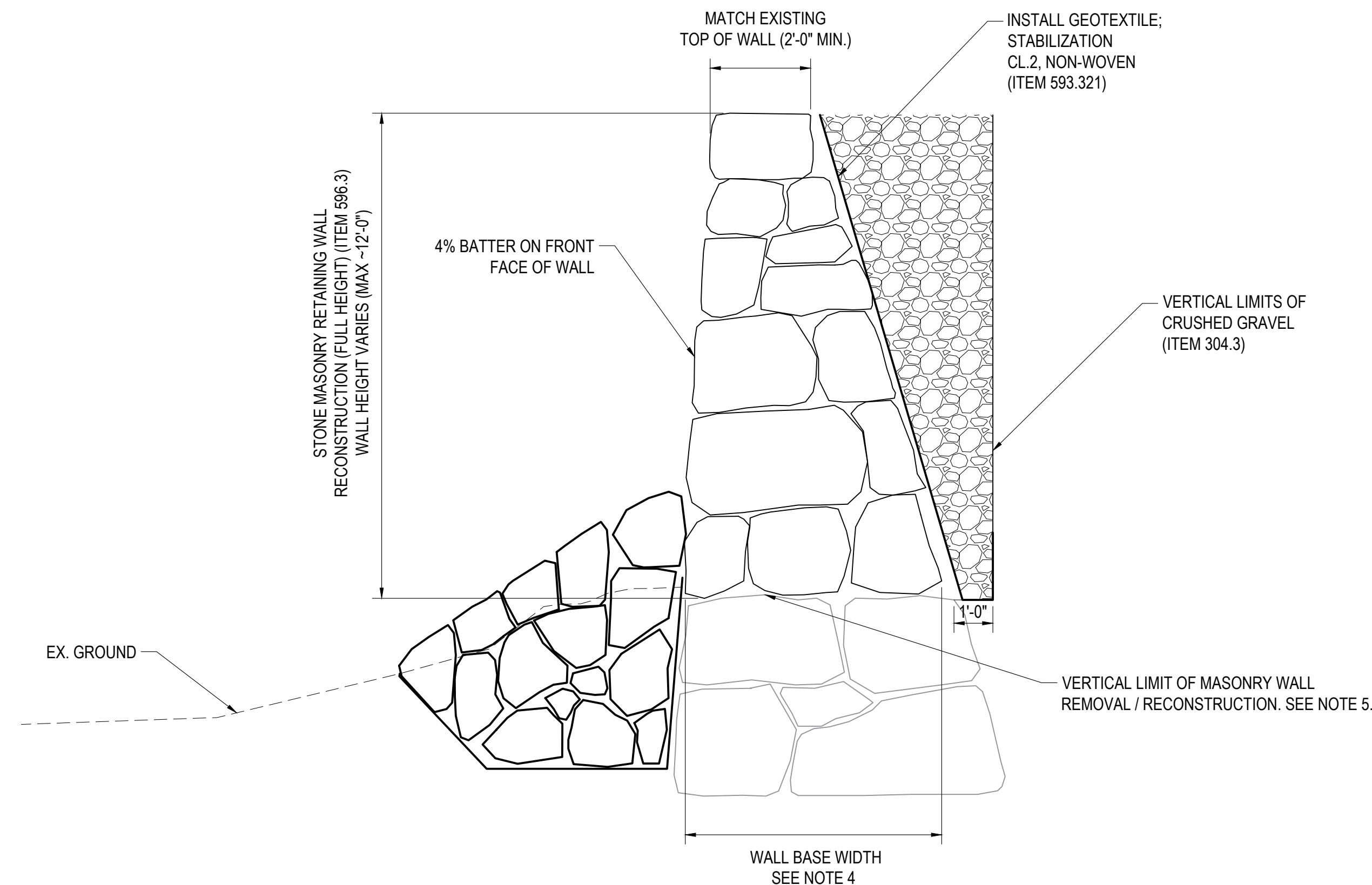
INSTALL SUPPLEMENTAL RIPRAP (CLASS VII) TO REESTABLISH EXISTING SLOPE (ITEM 583.7) (TYP.)

GEOTEXTILE FABRIC (ITEM 593.411)

PROPOSED RIPRAP CLASS VII (ITEM 583.7)

### MASONRY WALL ELEVATION

SCALE: 1/4" = 1'-0"



### PROP. STONE MASONRY WALL RECONSTRUCTION (FULL HEIGHT) DETAIL

SCALE: 3/8" = 1'-0"

#### NOTES

1. NORTH ELEVATION SHOWN. SOUTH ELEVATION SIMILAR ONLY FOR AREAS OF STONE MASONRY WALL RECONSTRUCTION (PARTIAL HEIGHT).
2. CONTRACTOR TO CONFIRM AREAS OF MASONRY BLOCK REPLACEMENT WITH ENGINEER. SEE SHEET 12 FOR FOOTING MODIFICATIONS AND BRIDGE LINING DETAILS.
3. SEE SHEET 12 FOR FOOTING MODIFICATIONS AND BRIDGE LINING DETAILS.
4. WIDTH OF PROP. WALL AT THE BOTTOM OF RECONSTRUCTION SHALL BE THE GREATER OF:
  - 0.6 x EXPOSED WALL HEIGHT
  - WIDTH OF EX. WALL AT THE LIMITS OF REMOVAL / RECONSTRUCTION
5. VERTICAL LIMITS OF WALL REMOVAL / RECONSTRUCTION MAY BE ADJUSTED IN THE FIELD TO ACCOMMODATE EXISTING MASONRY COURSING BUT SHALL EXTEND TO THE MUD LINE (MINIMUM) OR APPROX. 1'-0" BELOW THE MUD LINE (MAXIMUM).

REV.	DESCRIPTION	DATE

NH DOT BRIDGE NO.	231/103
DESIGNED	RPM
DRAWN	WCT/AG
CHECKED	AML
SCALE	AS SHOWN
DATE	JANUARY 2024

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PORTSMOUTH, NEW HAMPSHIRE  
 MAPLEWOOD AVENUE OVER NORTH MILL POND  
 RETAINING WALL DETAILS

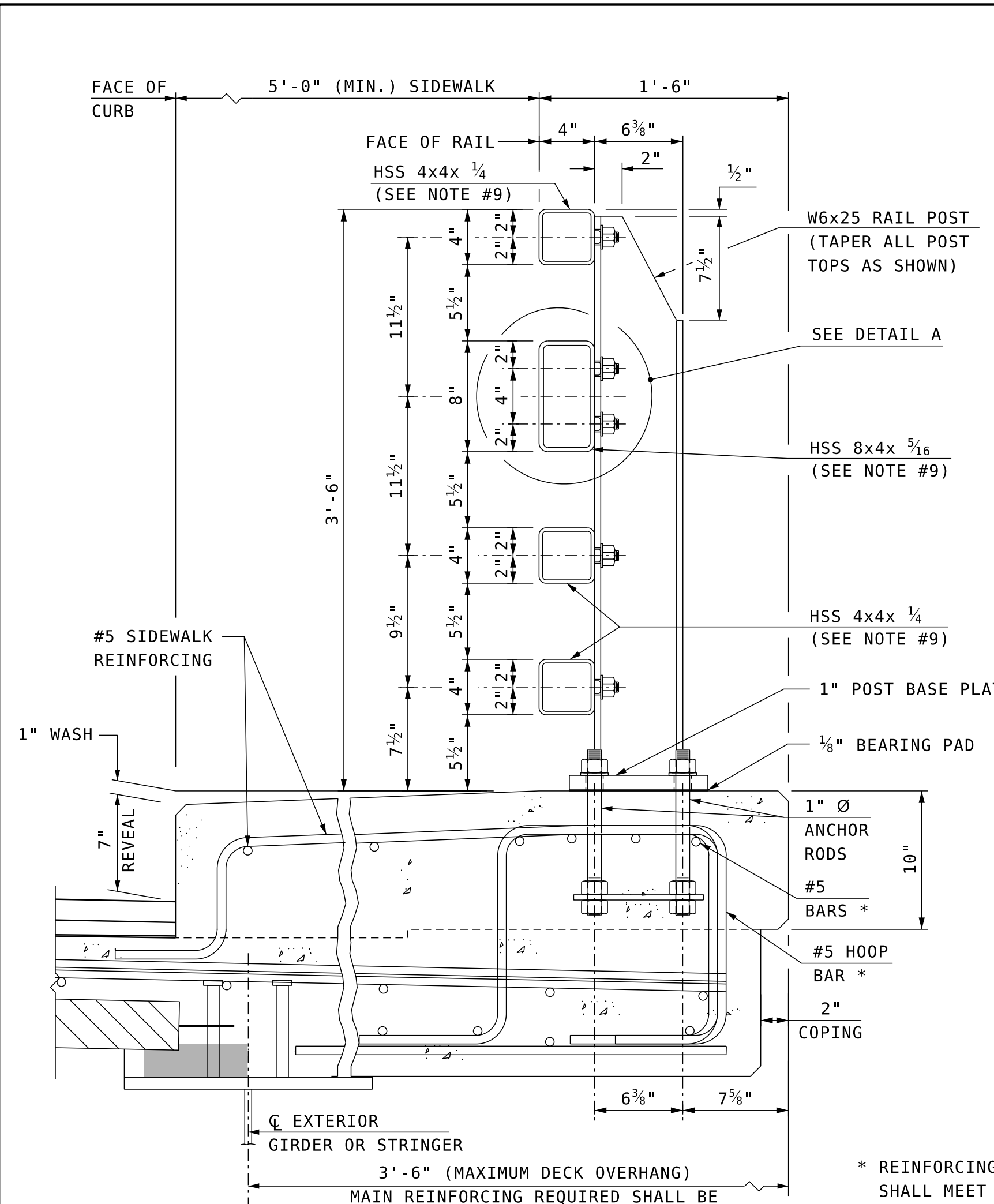
PROJECT NO. 20.905110.00  
 SHEET NO.

15

SHEET 15 OF 17

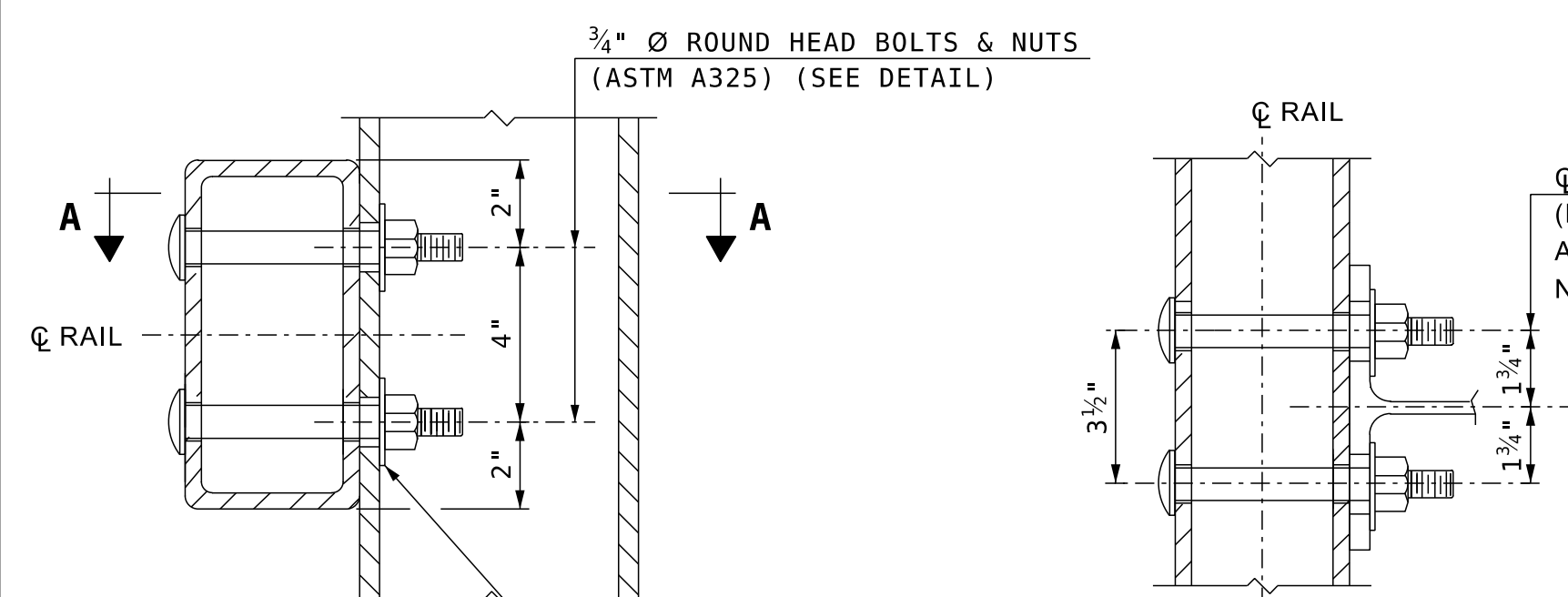
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**NOTE**  
 1. SECTION VIEW SHOWN FOR A STEEL GIRDER AND CONCRETE BRIDGE DECK. REFER TO SHEET 14 RAIL SUPPORT SLAB SECTIONS FOR SLAB DIMENSIONS AND REINFORCING NOT RELATED TO THE RAIL ANCHORAGE.

**SECTION VIEW**  
 SCALE: 3" = 1'-0"

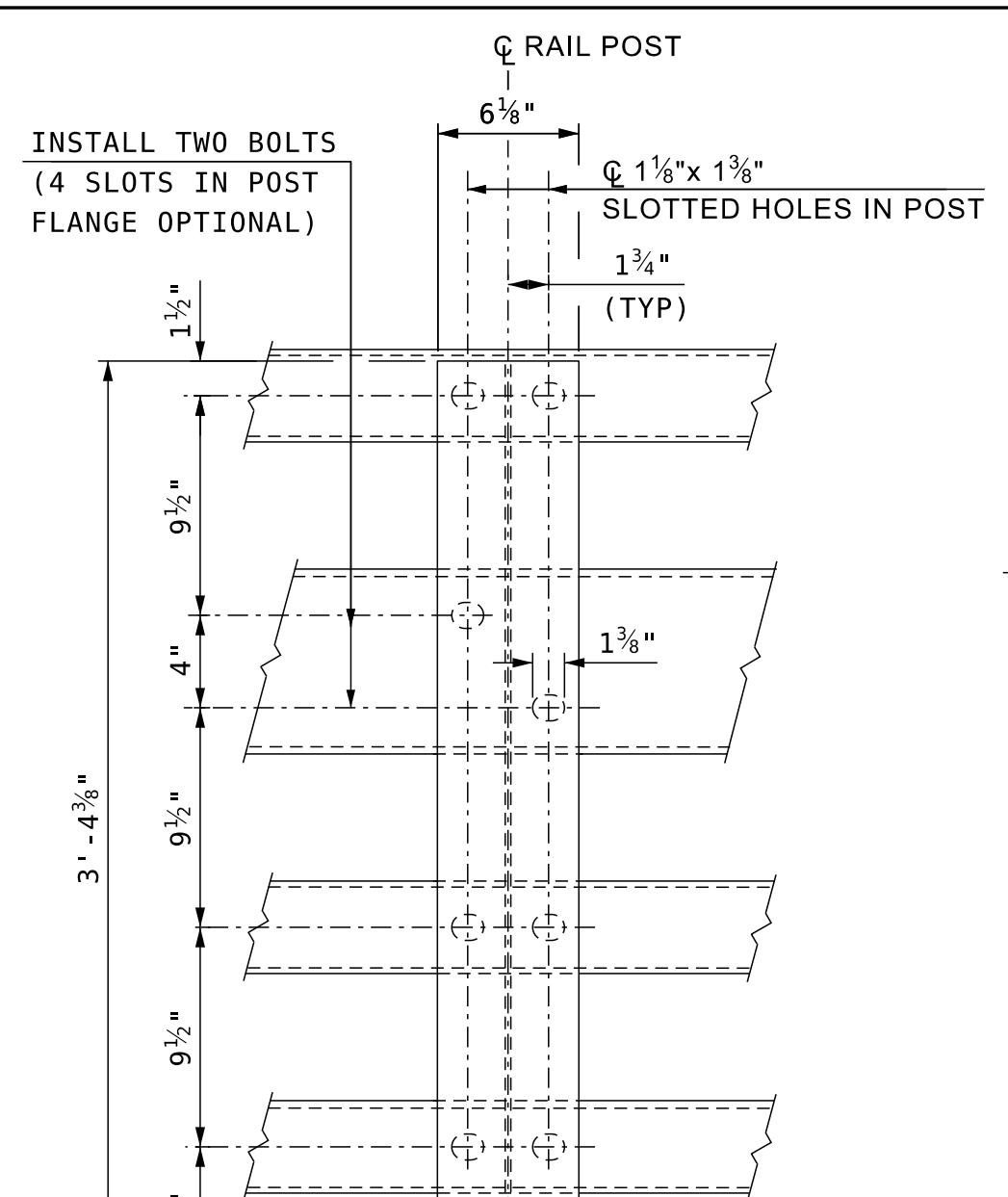


**DETAIL A**  
 SCALE: 3" = 1'-0"

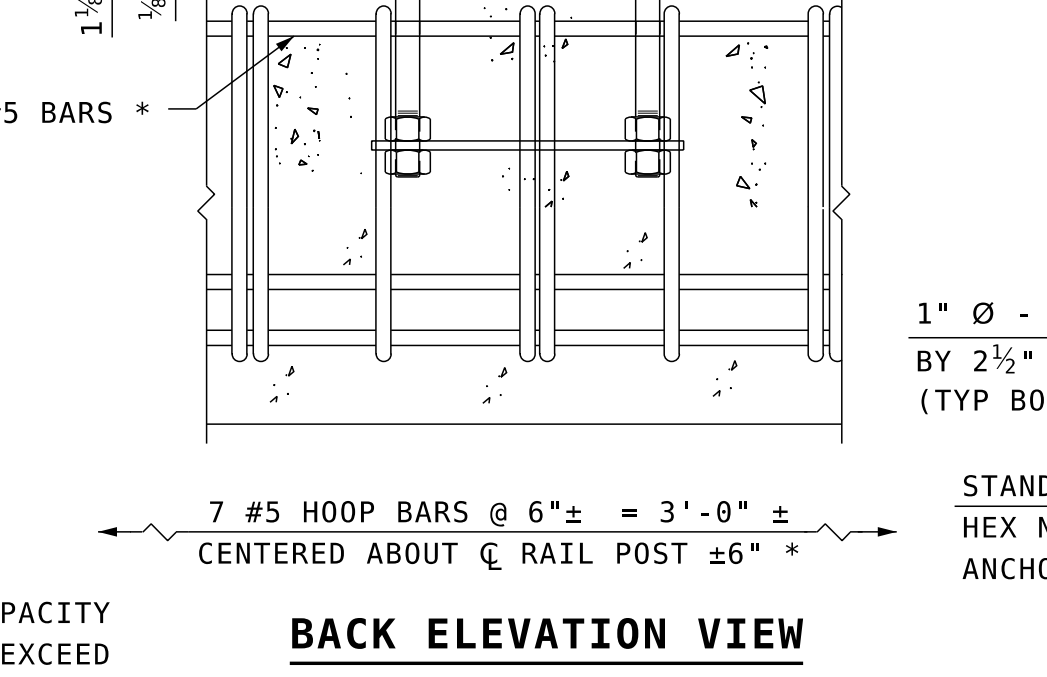
**SECTION A-A**  
 SCALE: 3" = 1'-0"

SPLICE BAR DIMENSION TABLE						
T	A	B	C	D	X	L
INTERIOR	2 1/2"	4"	4"	2"	3/4"	1'-8"
** ≤ 3 1/4"	2 1/2"	4"	4"	2"	2"	1'-8"
** 3 1/4" < T ≤ 5 1/4"	3 1/2"	5"	5"	2 1/2"	3"	2'-1"

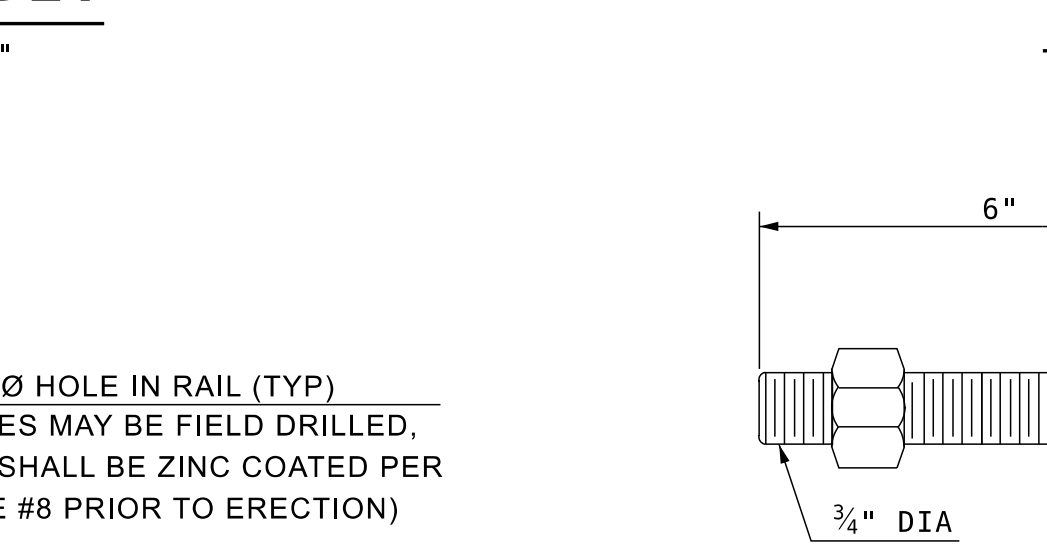
T = TOTAL MOVEMENT OF BRIDGE  
 \*\* = END SPLICE BAR



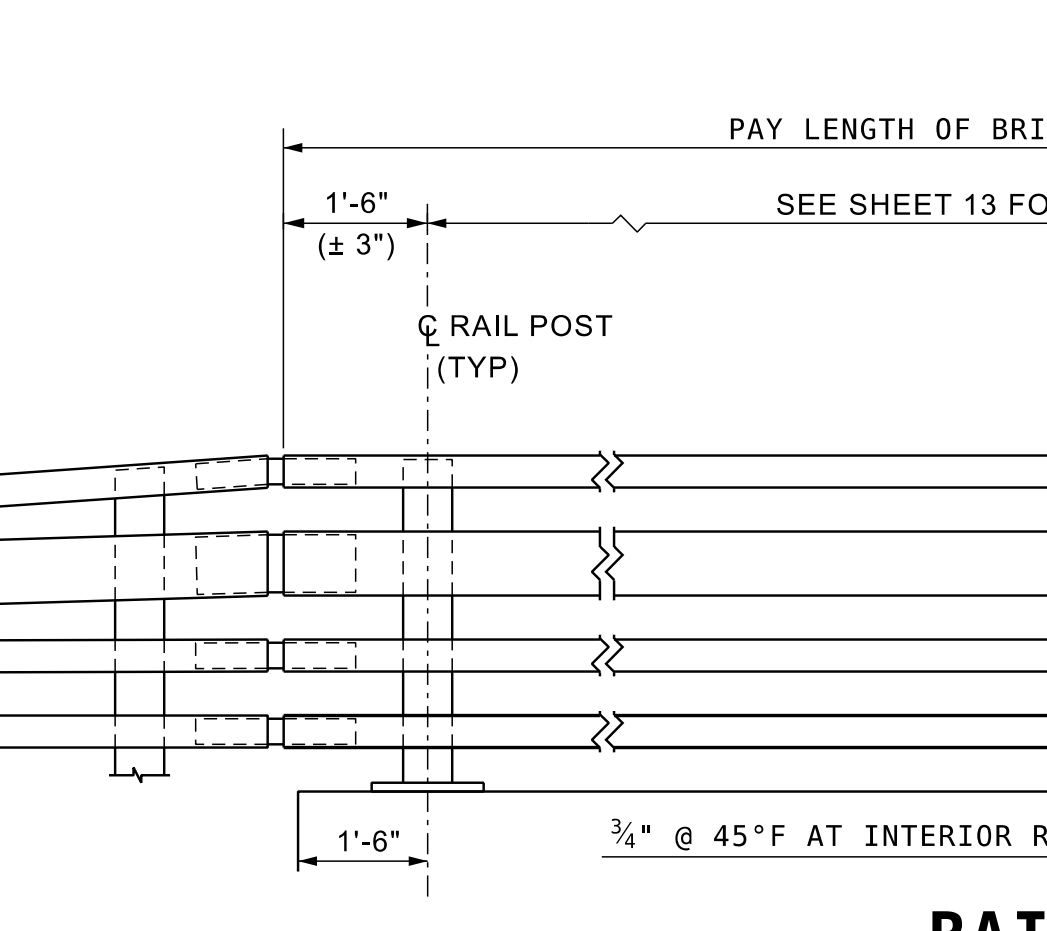
**BACK ELEVATION VIEW**  
 SCALE: 1 1/2" = 1'-0"



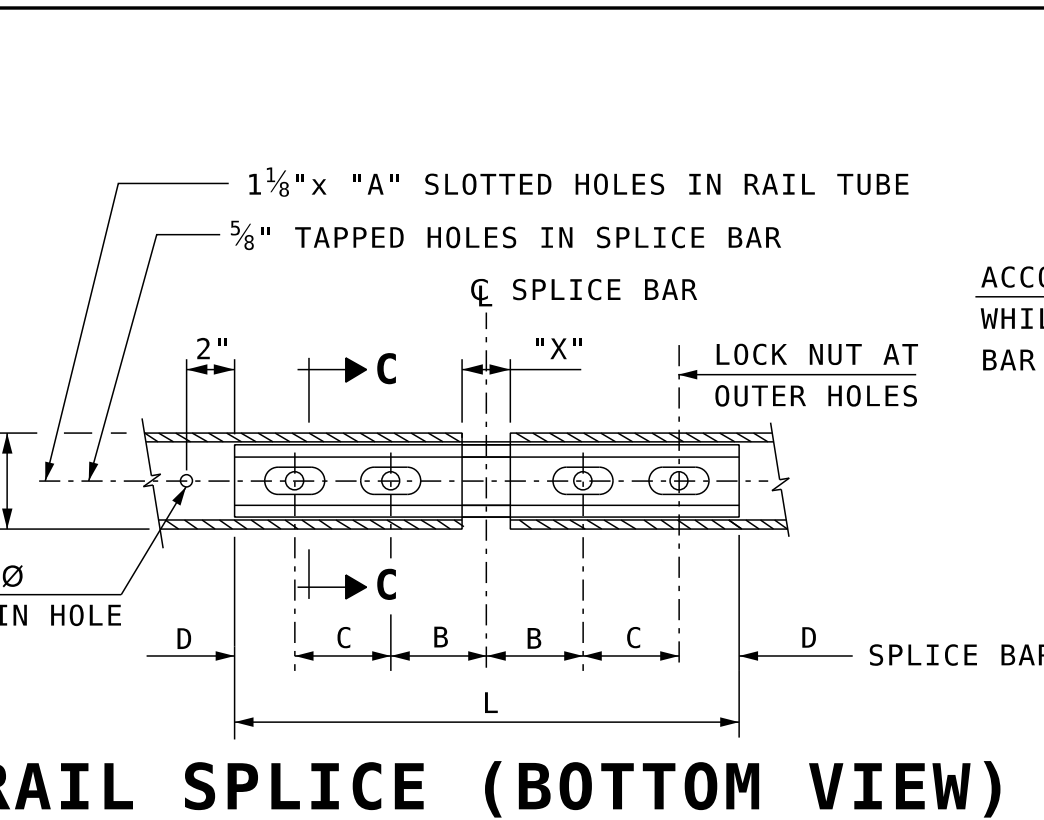
**POST ANCHOR ASSEMBLY**  
 SCALE: 1 1/2" = 1'-0"



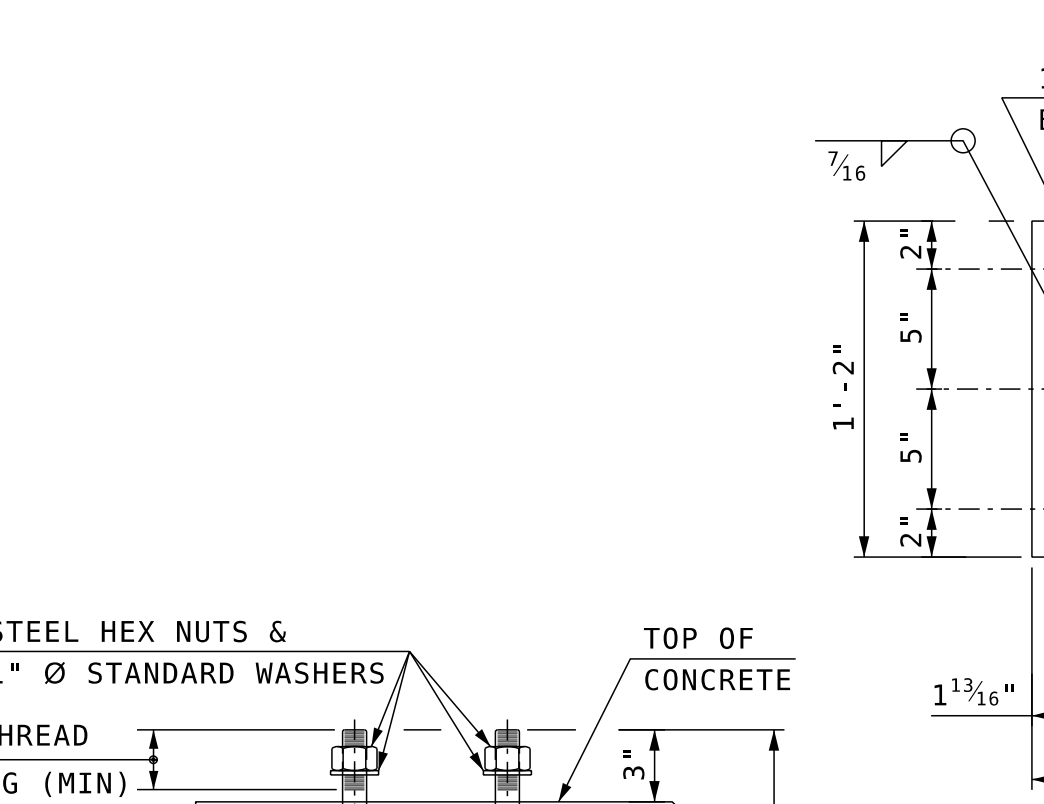
**A325 ROUND HEAD BOLT DETAIL**  
 SCALE: 6" = 1'-0"



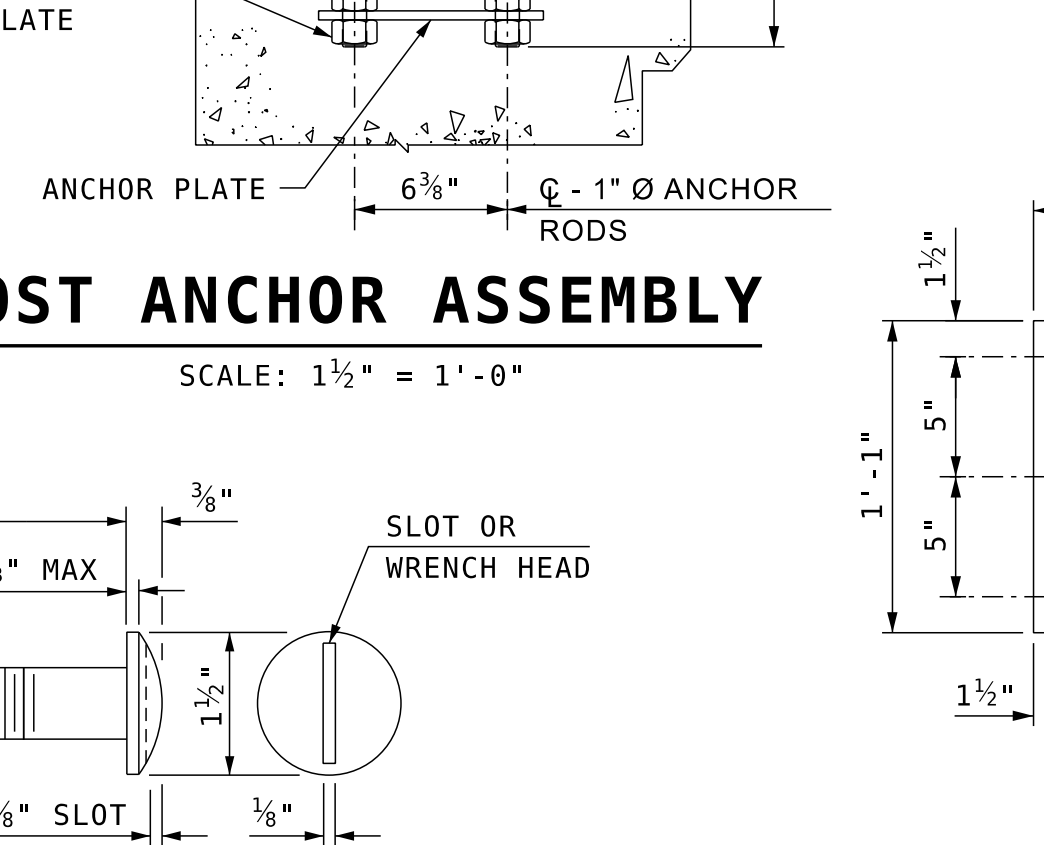
**ANCHOR PLATE**  
 SCALE: 1 1/2" = 1'-0"



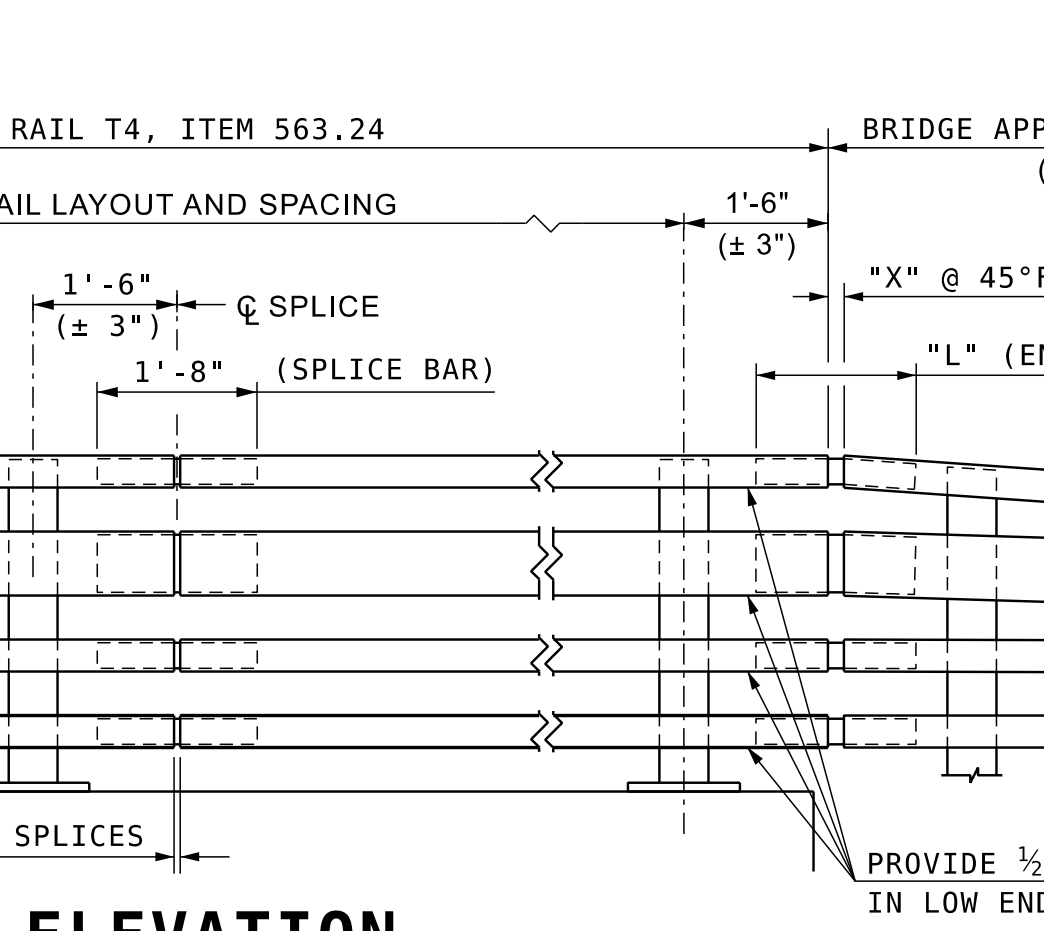
**RAIL SPLICE (BOTTOM VIEW)**  
 SCALE: 1 1/2" = 1'-0"



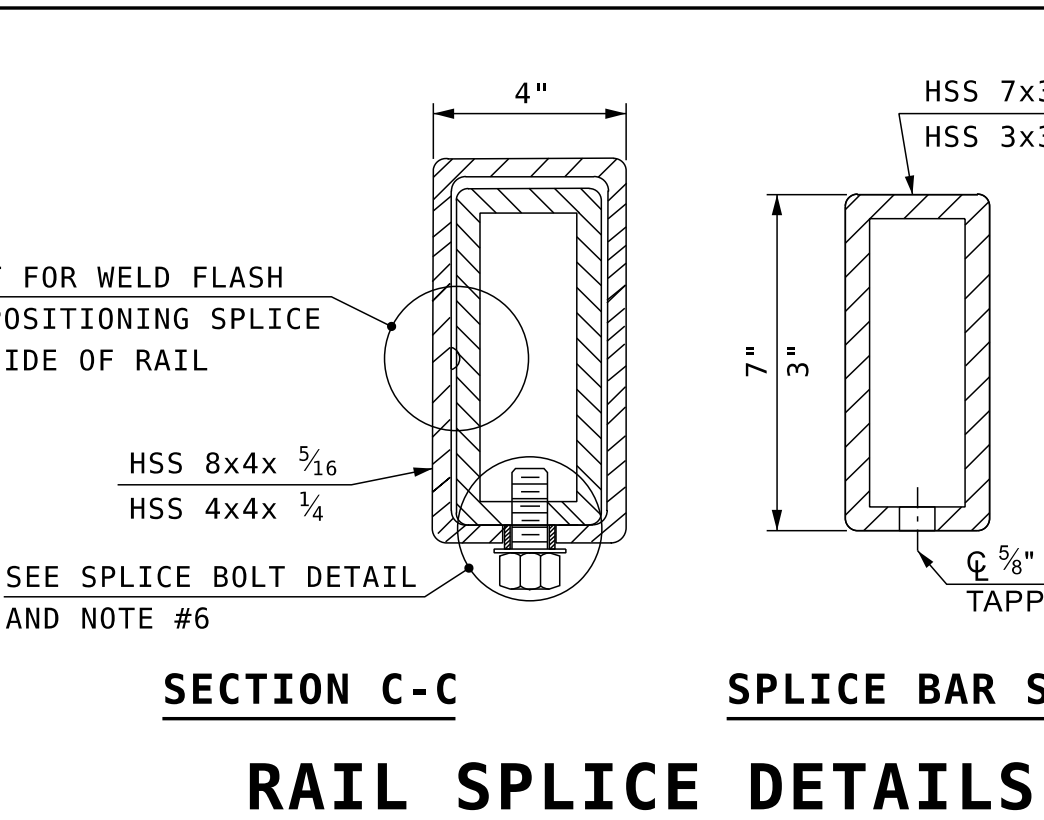
**POST BASE PLATE**  
 SCALE: 1 1/2" = 1'-0"



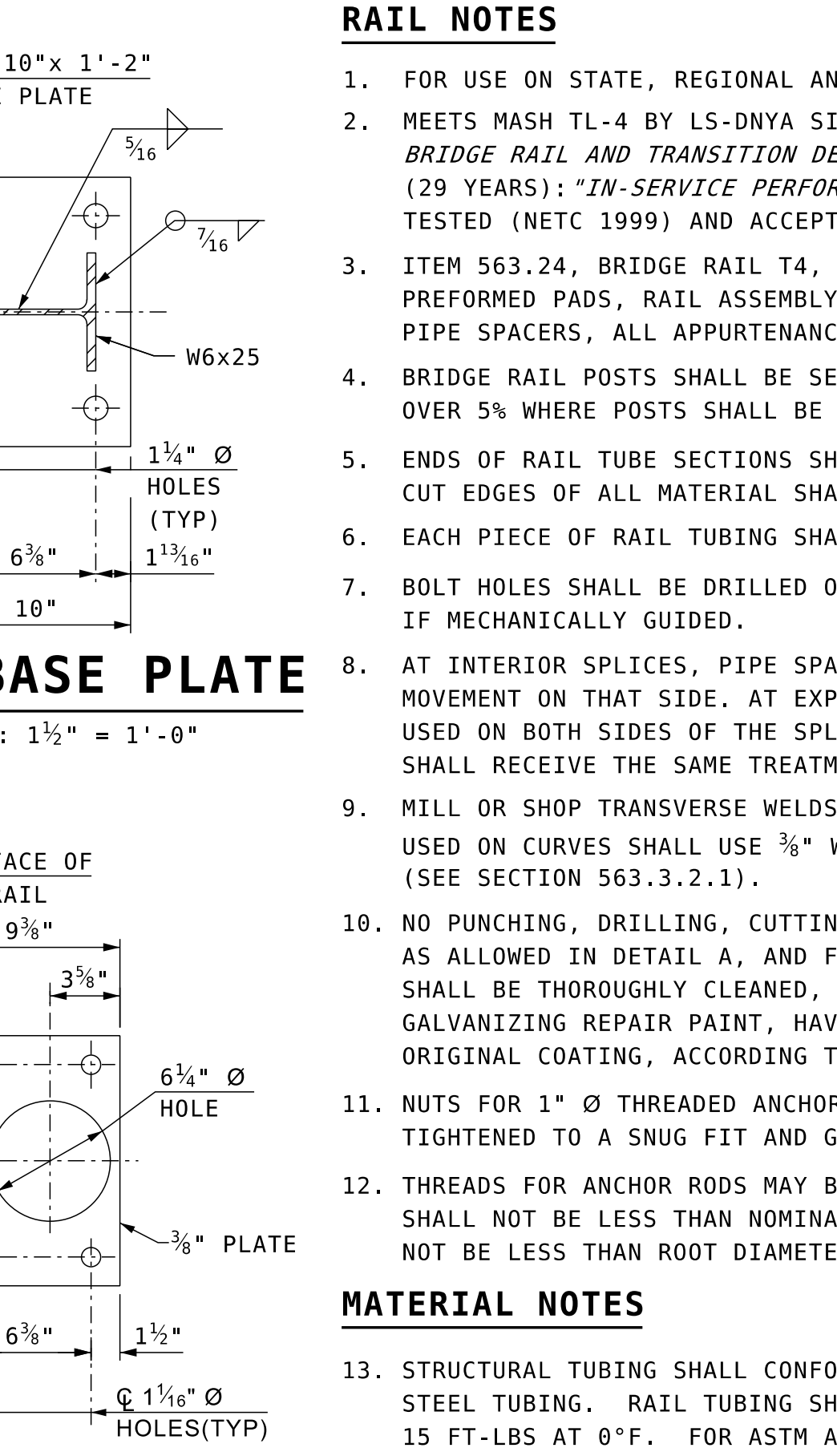
**RAIL SPLICE DETAILS**  
 SCALE: 3" = 1'-0"



**SPLICE BOLT DETAIL**  
 SCALE: 6" = 1'-0"



**RAIL NOTES**

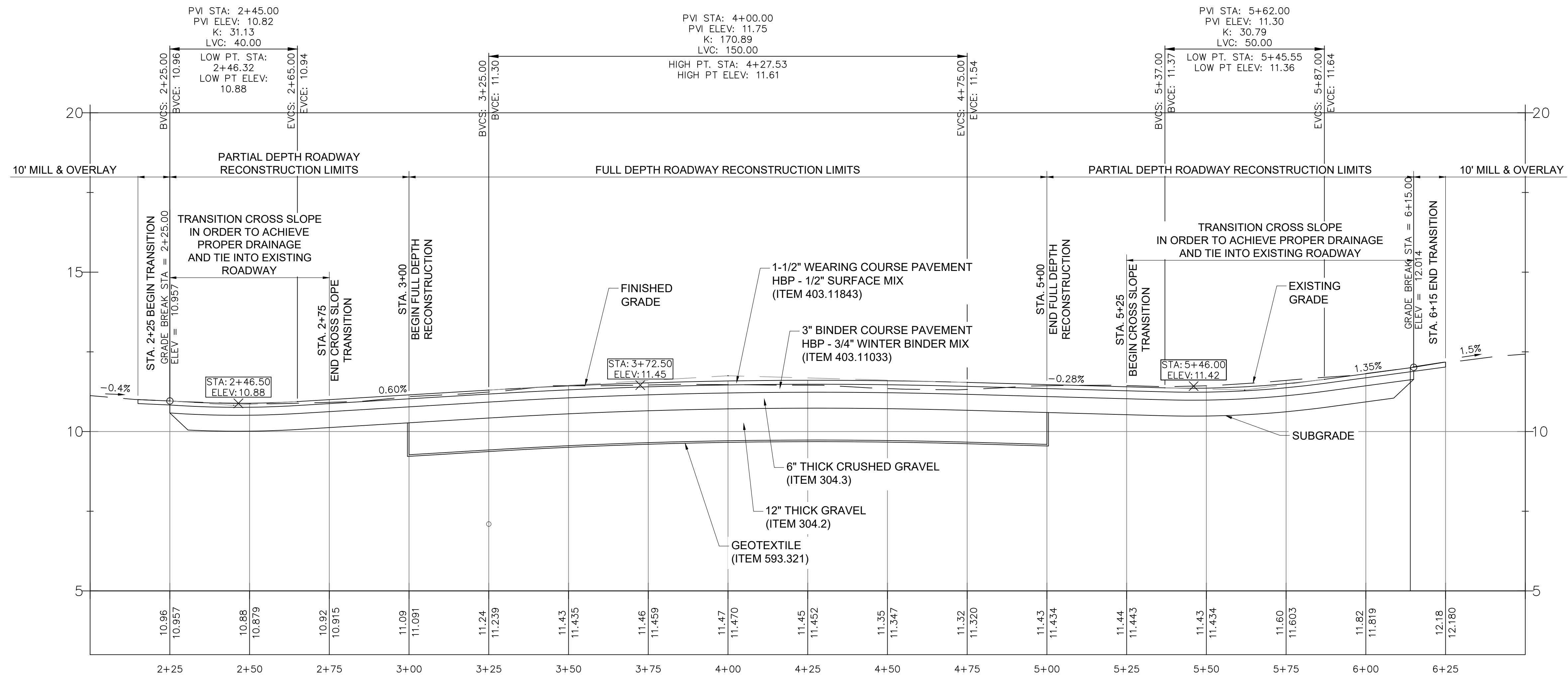


**RAIL ELEVATION**  
 SCALE: 1/2" = 1'-0"

STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN			
TOWN	PORTSMOUTH	BRIDGE NO.	2311/103
LOCATION	MAPLEWOOD AVENUE OVER NORTH MILL POND		
<b>T4 STEEL BRIDGE RAIL</b>			
REVISIONS AFTER PROPOSAL	BY	DATE	BRIDGE SHEET
DESIGNED	NETC/JSZ	3/02	- OF -
DRAWN	PJP	10/05	FILE NUMBER
QUANTITIES	CHECKED	JSZ	10/05
ISSUE DATE	11/15/05	FEDERAL PROJECT NO.	SHEET NO.
REV. DATE	7/31/28		16
TOTAL SHEETS			17

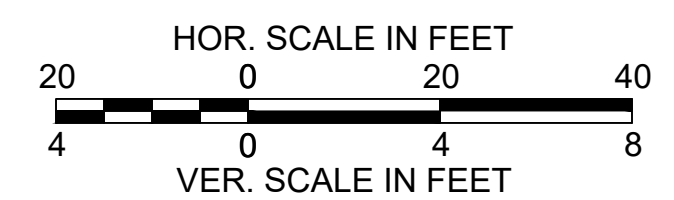
STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN			
TOWN	PORTSMOUTH	BRIDGE NO.	2311/103
LOCATION	MAPLEWOOD AVENUE OVER NORTH MILL POND		
<b>T4 STEEL BRIDGE RAIL</b>			
REVISIONS AFTER PROPOSAL	BY	DATE	BRIDGE SHEET
DESIGNED	NETC/JSZ	3/02	- OF -
DRAWN	PJP	10/05	FILE NUMBER
QUANTITIES	CHECKED	JSZ	10/05
ISSUE DATE	11/15/05	FEDERAL PROJECT NO.	SHEET NO.
REV. DATE	7/31/28		16
TOTAL SHEETS			17





**PROFILE**

**NOTE**  
 1. BRIDGE UTILITIES AND OTHER DETAILS ARE NOT SHOWN FOR CLARITY. THE INTENT OF THIS SHEET IS TO ILLUSTRATE THE PROPOSED ROADWAY PROFILE GEOMETRY AND LIMITS OF DIFFERENT SECTIONS OF ROADWAY RECONSTRUCTION



REV.	DESCRIPTION	DATE

NH DOT BRIDGE NO.	DESIGNED	CHECKED	SCALE	DATE
2317103	RPM	WCT/AG	AS SHOWN	JANUARY 2024

**HOYLE TANNER**  
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 (603) 431-2520 www.foyletanner.com

PORTSMOUTH, NEW HAMPSHIRE  
 MAPLEWOOD AVENUE OVER NORTH MILL POND  
 ROADWAY PROFILE

1/4/2024 4:50 PM K:\PROJECTS\Portsmouth-NH\20\_905110\_00-Maplewood-Avenue-Bridge\CADD\Custsheets\2390511000Profile.dwg

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