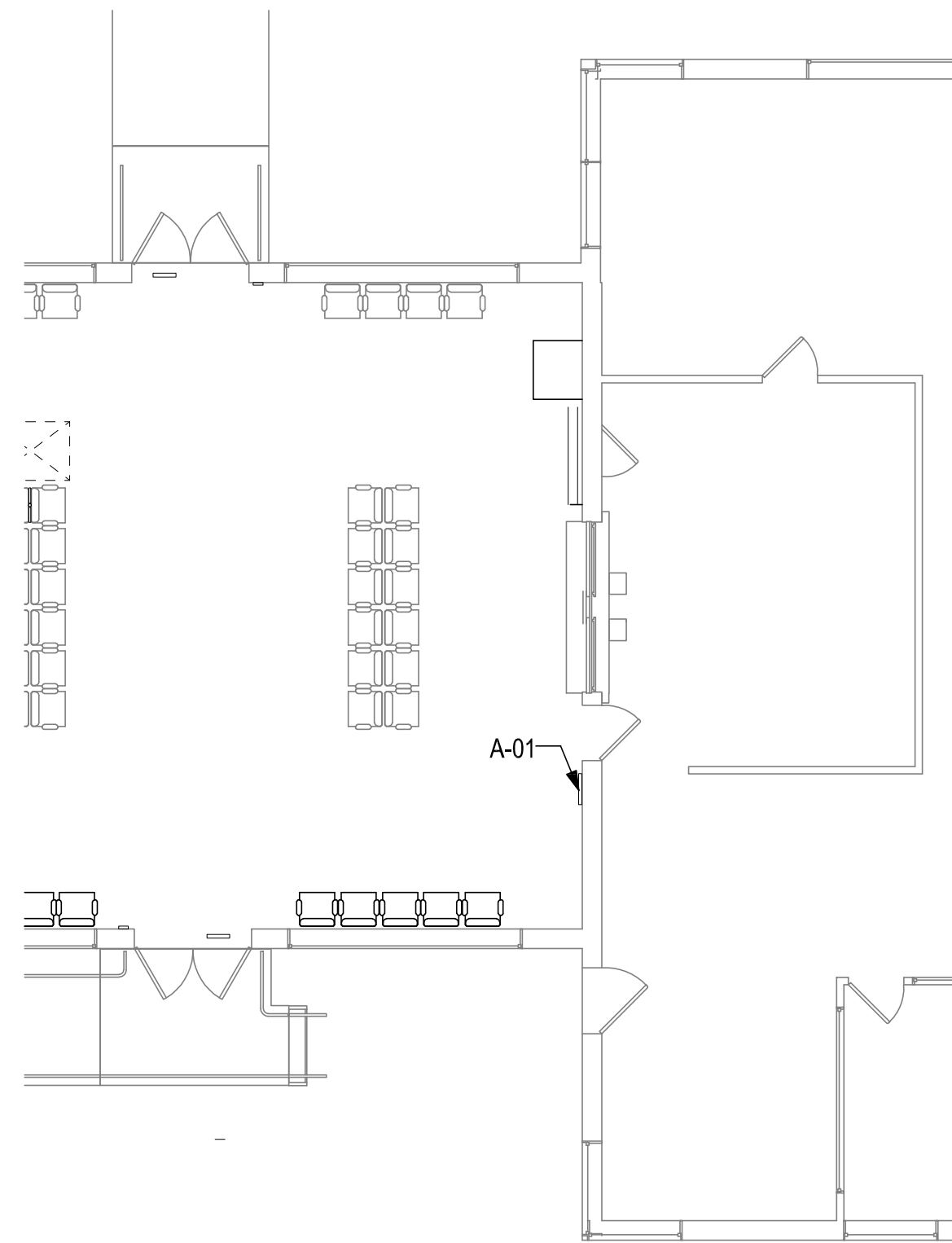
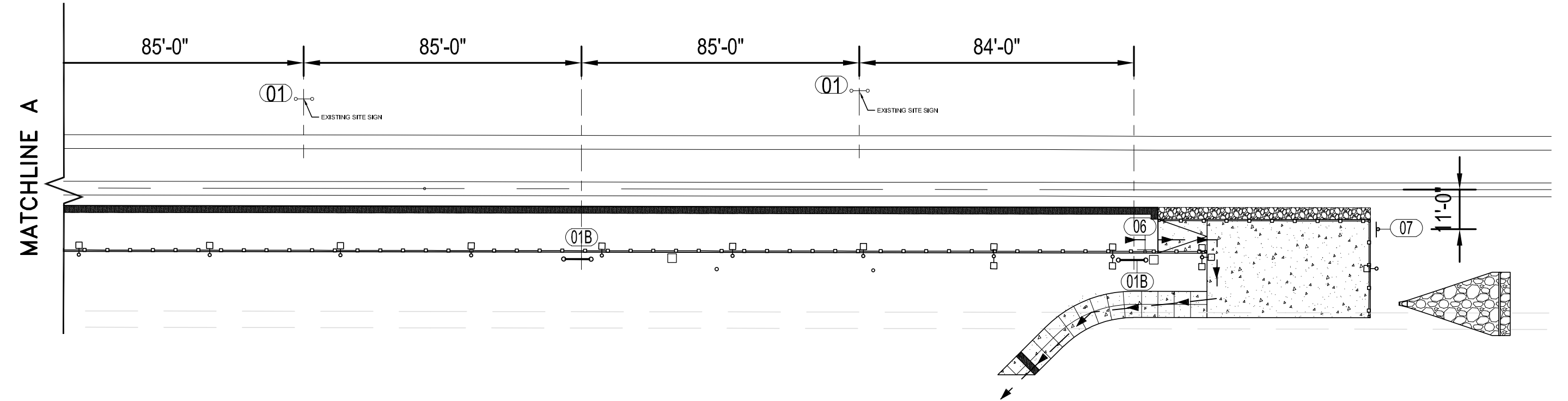


**1** PLATFORM SIGNAGE PLAN  
A-750 1/32" = 1'



**3** BUILDING SIGNAGE PLAN  
A-750 1/8" = 1'-0"  
SCALE: 1/8" = 1'-0"



**2** PLATFORM SIGNAGE PLAN  
A-750 1/32" = 1'

SITE SIGNAGE SCHEDULE							
SIGN NO.	SIGN TYPE	QTY.	ELEC. REQ'D	SIGN DETAILS	MOUNTING TYPE	MOUNTING DETAIL	COMMENTS
01	A1b	NA	NO	NA	POST MOUNTED	NA	EXISTING REMAINING
01A	A1b	2	NO	4/A-754	POST SUSPENDED	1/A-760, X/A-761	EXISTING - REMOVE & RELOCATE ON NEW SUSPENDED POSTS (SEE CIVIL & STRUCTURAL)
01B	A1b	4	NO	4/A-754	POST MOUNTED	4/A-114, 2/S-601	EXISTING - REMOVE & RELOCATE (SEE CIVIL & STRUCTURAL)
05	A12	1	NO	2/A-754	POST MOUNTED	6/A-760	EXISTING - REMOVE & RELOCATE "PETERSBURG, VA" SIGN
06	D3	2	NO	6/A-754	RAIL MOUNTED	6/A-760	NEW - "EMERGENCY EGRESS" SIGN
07	D4	2	NO	5/A-754	POST MOUNTED	3/A-760, 2/S-601	NEW - "AUTHORIZED PERSONNEL" SIGN
08	A11	1	NO	1/A-754	POST MOUNTED	7/A-754	REMOVE & RELOCATE STATION SIGNAGE TO PLATFORM W/ BULLETIN BOARD ON TRACK SIDE

NOTE: SEE SHEET A-757 FOR TYPICAL SIGNAGE MOUNTING HEIGHTS  
NOTE: SALVAGED A1b SIGNS ASSUMED STANDARD 5" MIN. LETTERING TYPICAL

BUILDING SIGNAGE SCHEDULE							
SIGN NO.	SIGN TYPE	QTY.	ELEC. REQ'D	SIGN DETAILS	MOUNTING TYPE	MOUNTING DETAIL	COMMENTS
A-01	B21	1	NO	3/A-754	WALL MNTD.	5/A-760	SEE SHEET A-757 FOR MOUNTING HEIGHTS

NOTE: EXISTING ACCESSIBLE SIGNAGE TO REMAIN EXCEPT AS NOTED

NO.	DESCRIPTION	DATE	BY



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Office of Chief Engineer

National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



PENNONI ASSOCIATES INC.  
1901 Market Street, Suite 300  
Philadelphia, PA 19103  
T 215.222.3000 F 215.222.3558  
SLAM Collaborative 1880 JFK Blvd Phila, PA 19103

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PETERSBURG (PTB)  
ADA PLATFORM  
PROGRAM (ADAPP)  
ARCHITECTURAL STATION BUILDING SIGNAGE PLAN

Designed: WN Drawn: WG Checked: JC Date: 2021-02-22

Project Code:	PTB_VA
WBS:	C.EN.100694.0669
Sheet No.	44 OF 80
Dwg. No.	A-750

STANDARD SIGNAGE TEXT STYLES

FUTIGER 55 ROMAN (FUTIGER 55) STYLE

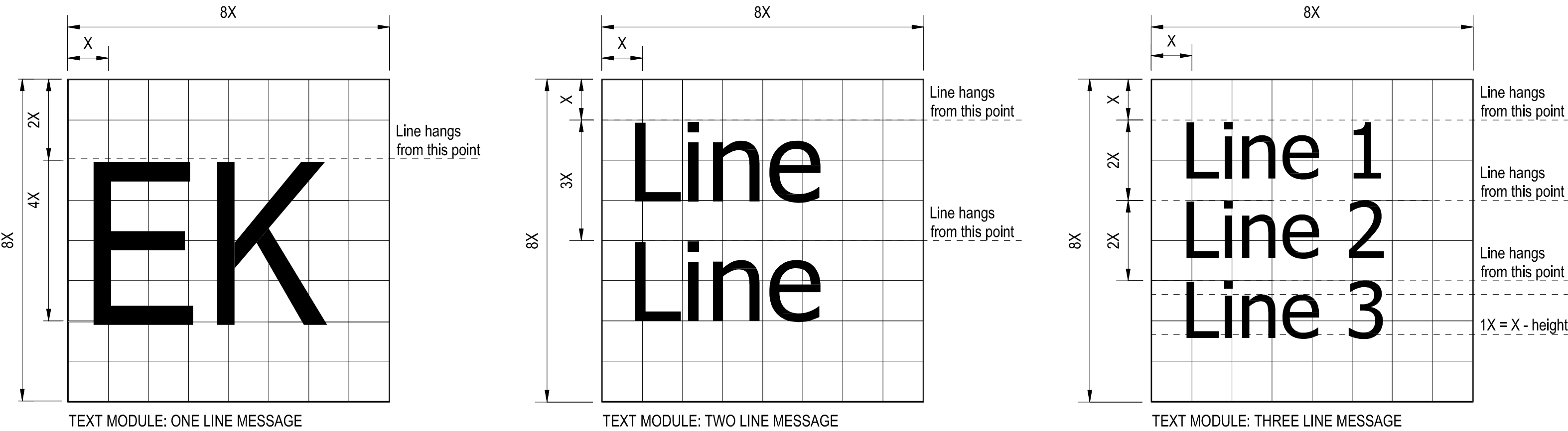
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O P Q R S T U V W X Y Z  
a b c d e f g h i j k l m n o p  
q r s t u v w x y z  
1 2 3 4 5 6 7 8 9 0

NOTE:  
THE ALPHABETS SHOWN HERE ARE FOR REFERENCE ONLY, IT SHOULD NOT BE USED FOR ARTWORK.

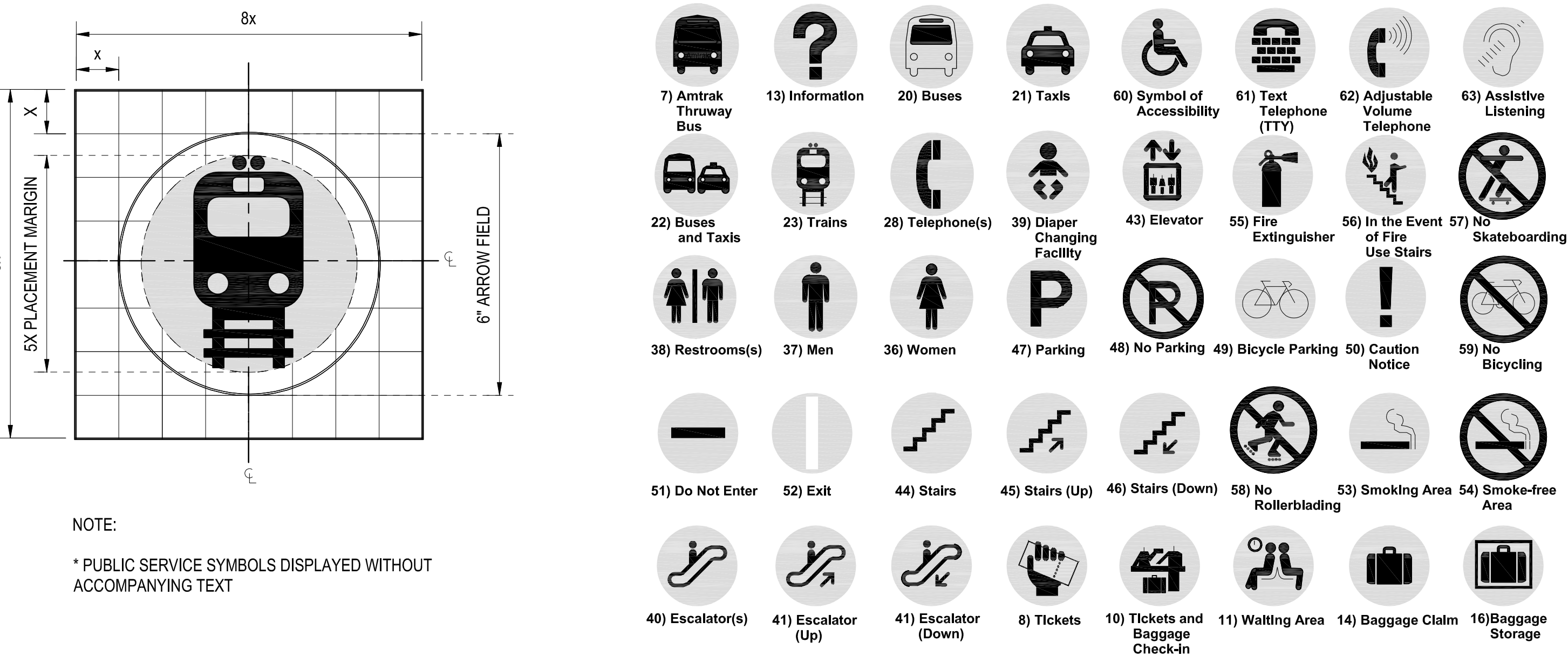
FUTIGER 65 BOLD (FUTIGER 65) STYLE

A B C D E F G H I J K L M N  
O P Q R S T U V W X Y Z  
a b c d e f g h i j k l m n o p  
q r s t u v w x y z  
1 2 3 4 5 6 7 8 9 0

STANDARD SIGNAGE TEXT MODULES



STANDARD SIGNAGE SYMBOLS



SIGNAGE SYSTEM COLORS

<b>AMTRAK BLUE</b> MATTHEWS PAINT MP57238 R190373 SVOC1142SP SV SATIN V.1.1	<b>PALE SILVER MET.</b> MATTHEWS PAINT MP18073 R190373 SVOC3516SP SV SATIN V2.0
AVERY ULTIMATE CAST OPAQUE FILM MAJESTIC BLUE UC 900-625-O	3M SCOTCHCAL CONTROLTAC FILM LIGHT SILVER METALLIC 180C-220 (OPAQUE FILM)
ARLON CALON SERIES 2300 TRANSLUCENT VINYL FILM 2051 BLUE	<b>HOTROD RED</b> MATTHEWS PAINT MP10224 R190373 SVOC1340SP SV SATIN V2.0
<b>BLACK</b> MATTHEWS PAINT MP59262 R190373 SV923SP SV SATIN V.1.0	3M SCOTCHCAL ELECTROCUT FILM GERANIUM 7725-63 (OPAQUE FILM)
3M SCOTCHCAL ELECTROCUT FILM BLACK 7725-12 (OPAQUE FILM)	3M SCOTCHLITE REFLECTIVE VINYL RUBY RED 680-82
3M SCOTCHLITE REFLECTIVE VINYL BLACK 680-85	<b>WHITE</b> MATTHEWS PAINT MP59581 R190373 SV202SP SV SATIN V1.0
<b>CLEAR COAT</b> MATTHEWS PAINT 281228SP	3M SCOTCHCAL ELECTROCUT FILM WHITE 7725-10 (OPAQUE FILM)

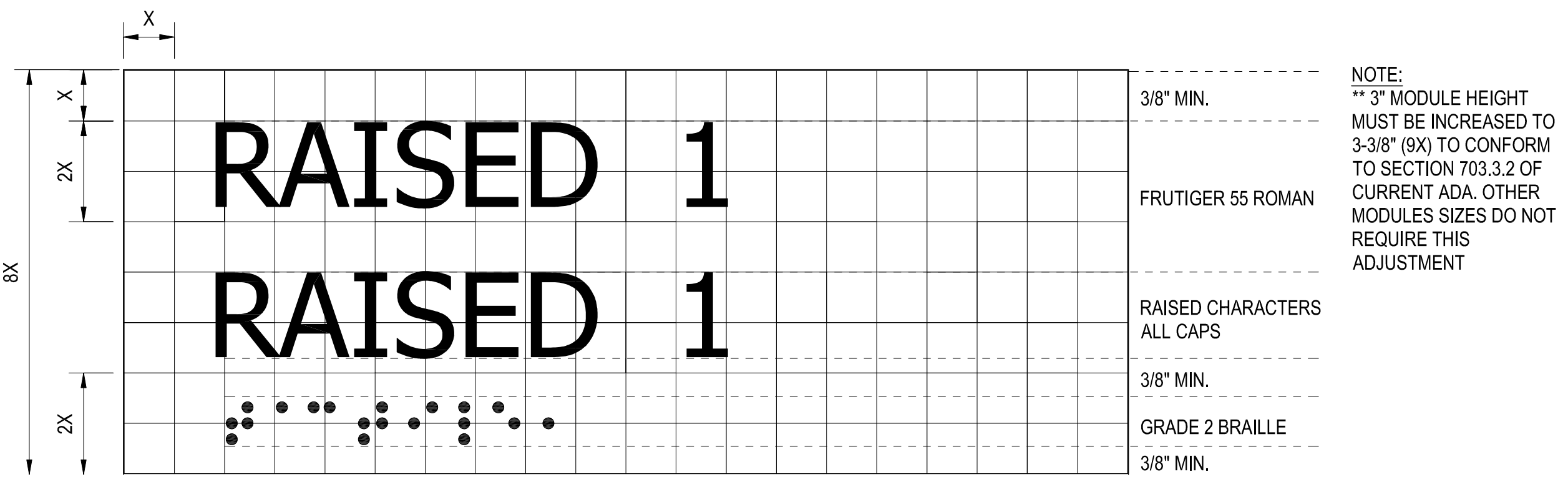
NOTE:  
PAINT MANUFACTURERS AND MODEL NUMBERS ARE LISTED AS BASELINE PRODUCT. SEE SPECIFICATIONS FOR ALTERNATE MANUFACTURERS.

3M SCOTCHLITE  
REFLECTIVE VINYL  
WHITE 680-10

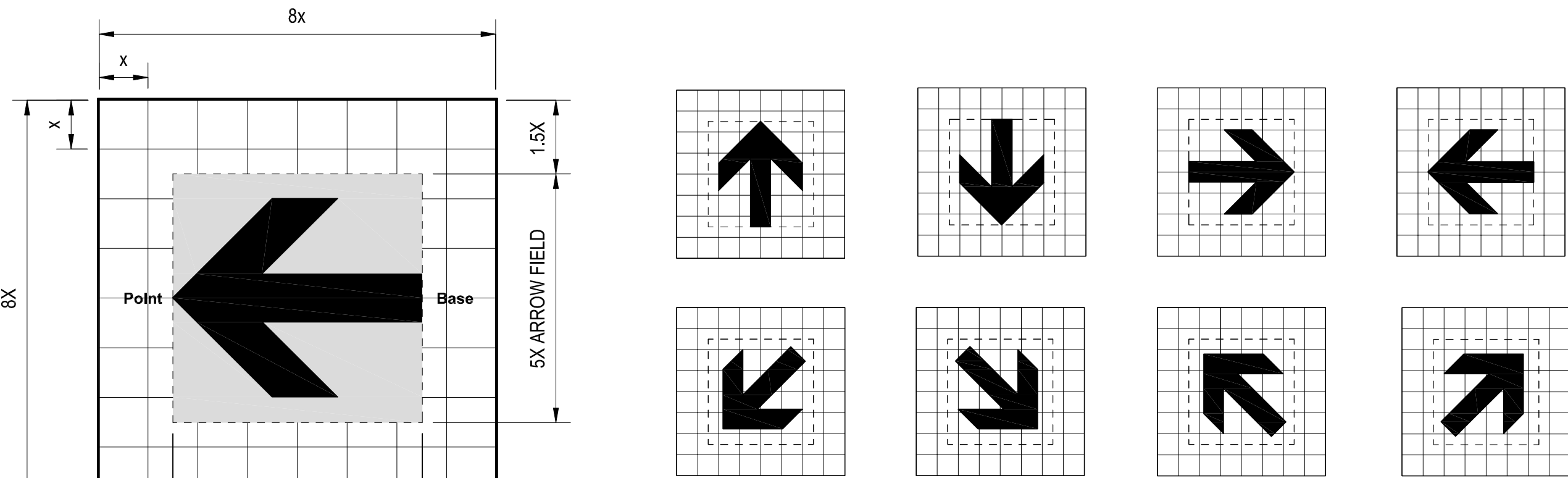
SIGNAGE GENERAL NOTES

- PRIOR TO FABRICATION OF ANY SIGNAGE THAT INCORPORATES THE TRAVEL MARK, DESIGN AND SHOP DRAWINGS MUST BE SUBMITTED TO SIGNAGE BRAND MANAGEMENT (SIGNAGEBRANDMANAGEMENT@AMTRAK.COM OR THROUGH THE AMTRAK PROJECT MANAGER WHO DISTRIBUTES REVIEW DOCUMENTS) FOR FINAL APPROVAL. "NON-BRANDED" SIGNAGE WILL ALSO BE REVIEWED BY AMTRAK. TEXT THAT APPEARS ON SIGNAGE (STATION NAME, TRACK NUMBER AND LOCATION, ETC.) IS TO BE CONFIRMED WITH AMTRAK. BRAND MANAGEMENT'S REVIEW WILL BE LIMITED TO CHECKING THAT THE SUBMISSION COMPLIES WITH ARTWORK USAGE AND LAYOUT REQUIREMENTS. ARTWORK FOR BRANDED SIGNAGE, INCLUDING FOR POSITION ONLY ARTWORK, IS AVAILABLE FOR USE BY CONTACTING SIGNAGEBRANDMANAGEMENT@AMTRAK.COM BRAND MANAGEMENT WILL ISSUE THE FINAL ARTWORK FILES AND THE LICENSE TO USE THE TRAVEL MARK UPON APPROVAL OF SHOP DRAWINGS.
- ALL EXISTING CONDITIONS INCLUDING DIMENSIONS SHALL BE VERIFIED IN FIELD PRIOR TO PROCEEDING WITH WORK. ANY DIMENSIONS OR CONDITIONS NOT CONSISTENT WITH THE CONTRACT DOCUMENTS SHALL BE REPORTED IN WRITING TO THE PROJECT ENGINEER.
- CONTRACT DOCUMENTS SHALL NOT BE SCALED. IF DIMENSIONS ARE MISSING, COORDINATE THROUGH SHOP DRAWINGS.
- PROVIDE MATERIAL AND COLOR SAMPLES FOR APPROVAL. THE SIGNS SHALL COMPLY WITH THE GRAPHIC STANDARDS PROVIDED HEREIN.
- PREPARE DETAILED AND DIMENSIONED DRAWINGS FOR THE SIGN GRAPHICS FOR APPROVAL BY THE PROJECT ENGINEER.
- PATCH AND REPAIR ALL FLOORS, WALLS, CEILINGS, ETC. DAMAGED OR EXPOSED DUE TO WORK OR REMOVALS AND FINISHED TO MATCH ADJOINING SURFACES. SPOT PAINTING WILL NOT BE PERMITTED. ALL PAINTING SHALL BE EDGE TO EDGE OVER THE ENTIRE SURFACE.
- INFORM THE PROJECT ENGINEER OF ANY CONFLICT BETWEEN NEW SIGNS AND EXISTING UTILITIES THAT ARE WITHIN 24" OF EACH OTHER. CONTRACTOR SHALL RELOCATE SIGN OR UTILITY AS DIRECTED BY THE PROJECT ENGINEER.
- PROVIDE PROTECTION OR TEMPORARILY REMOVE AND RELOCATE EXISTING SIGNS INDICATED TO REMAIN AS REQUIRED TO ACCOMMODATE NEW CONSTRUCTION WORK.

RAISED CHARACTERS AND GRADE 2 BRAILLE



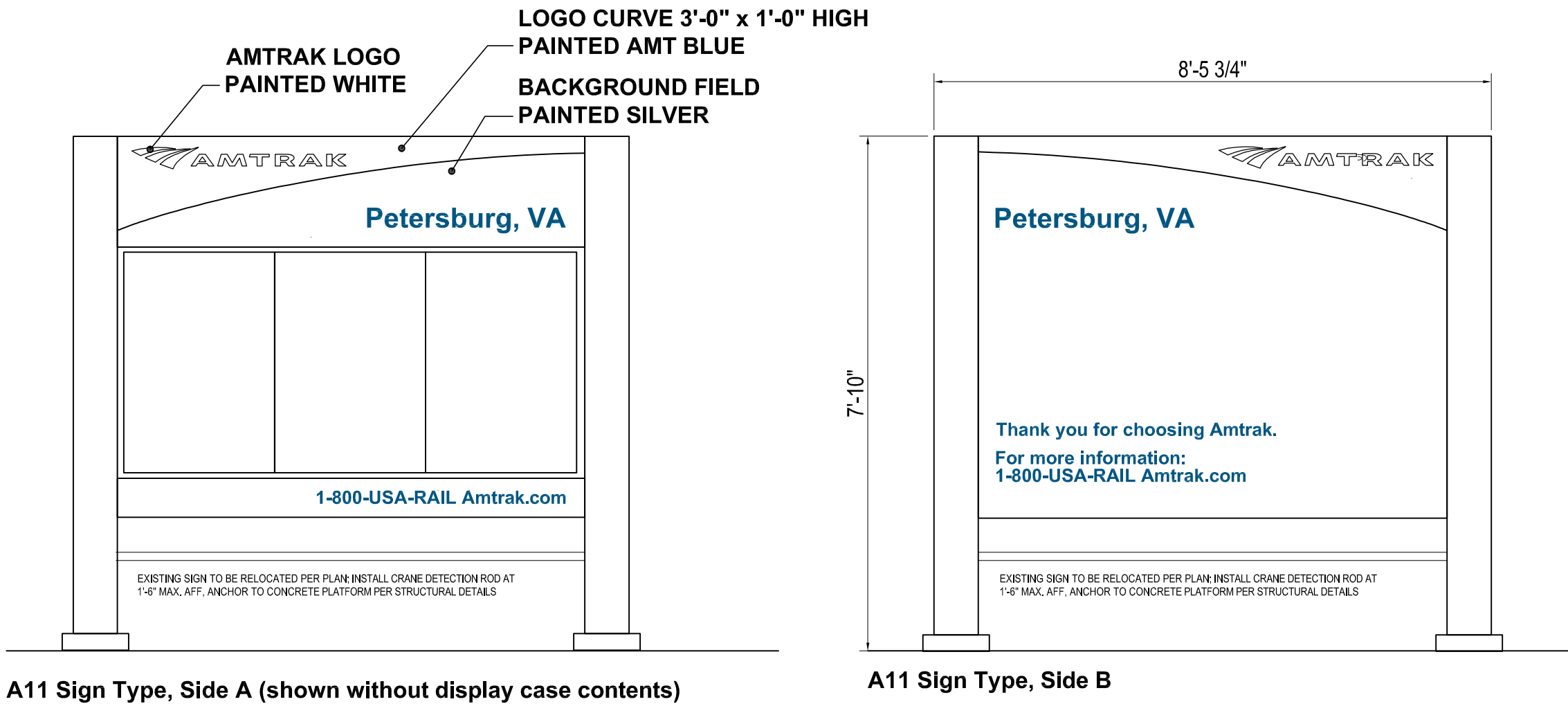
STANDARD ARROW SYMBOLS



100% ISSUE FOR BID

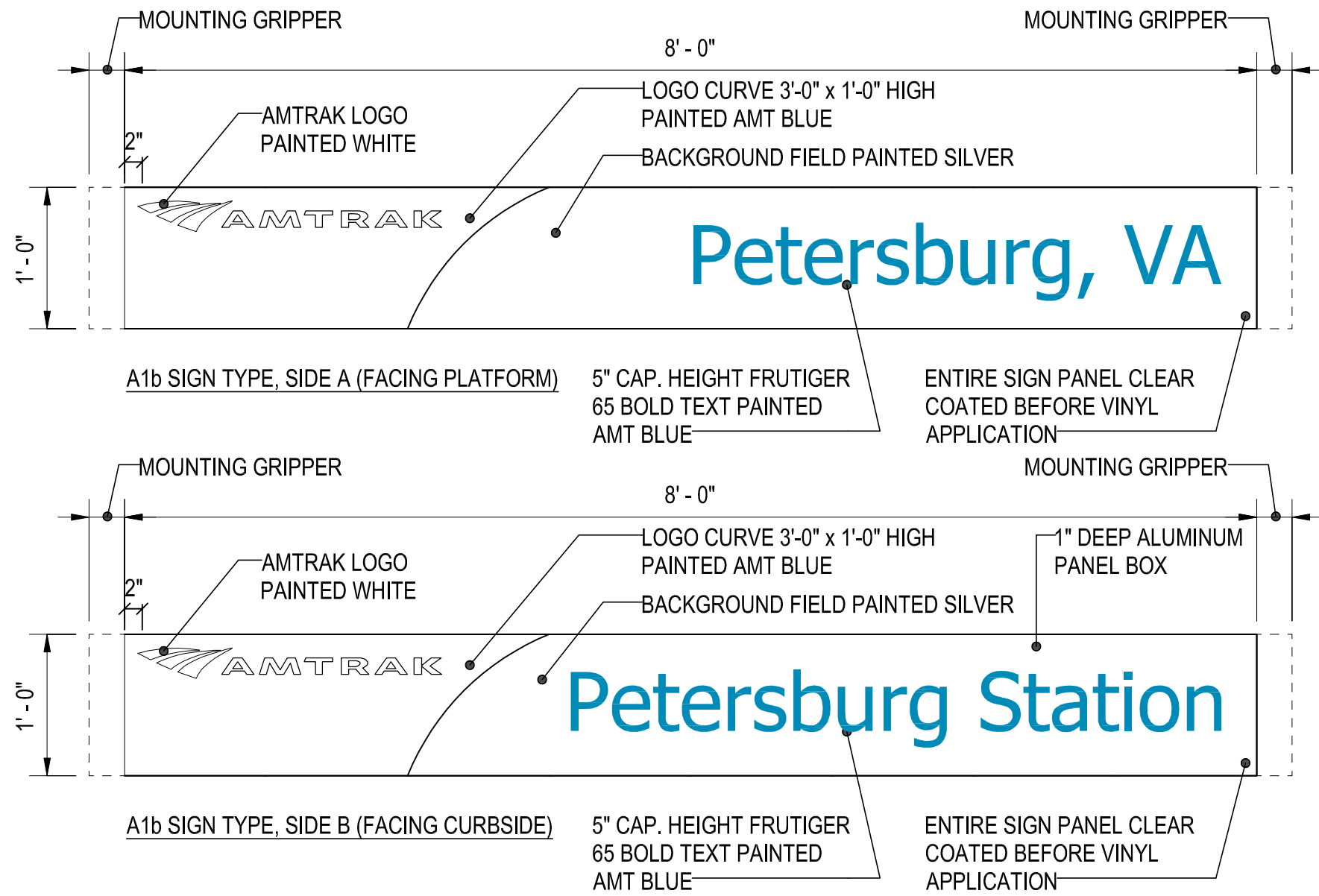
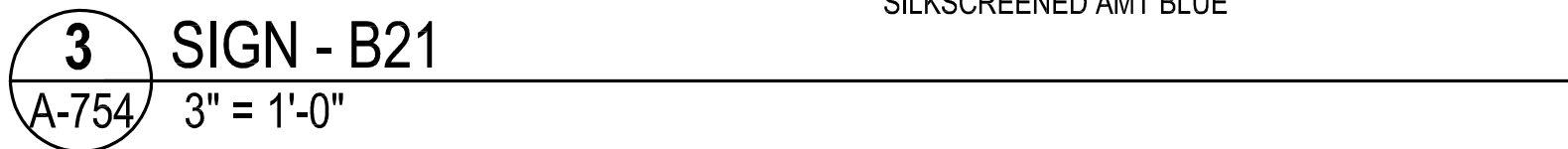
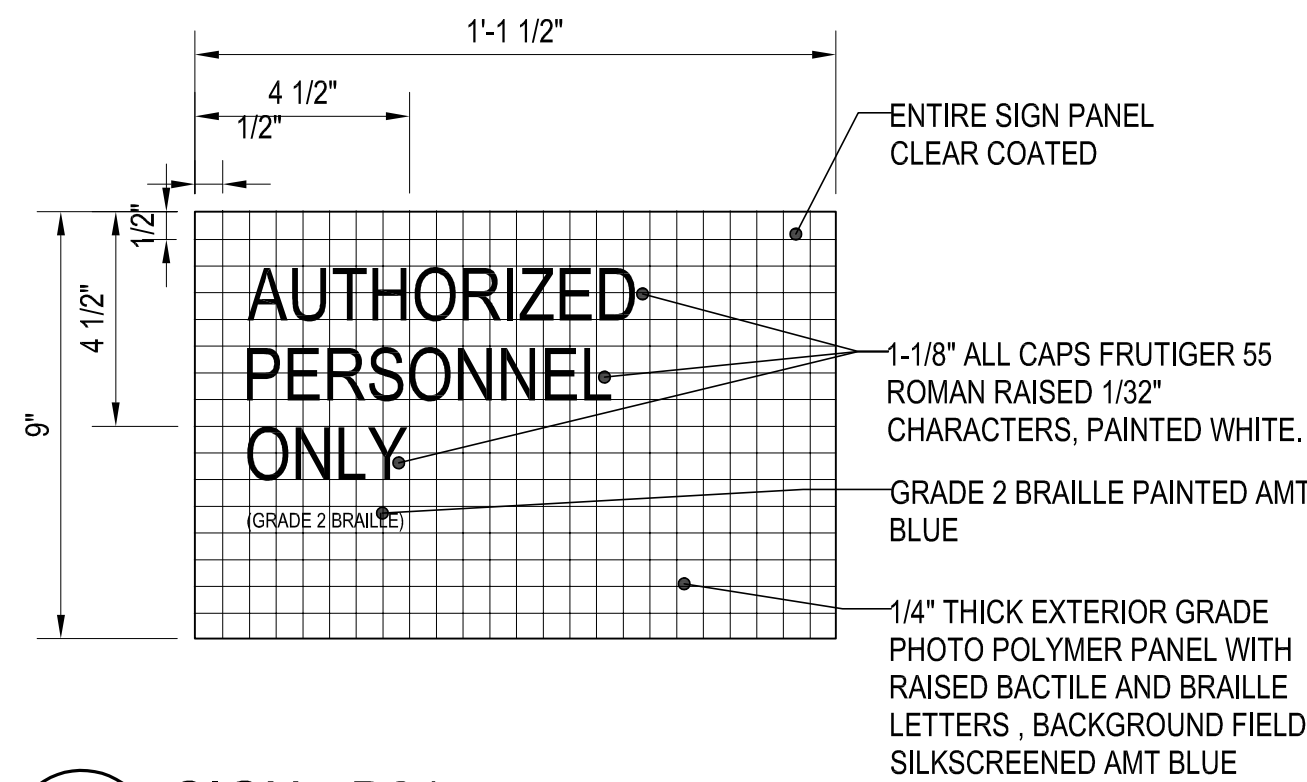
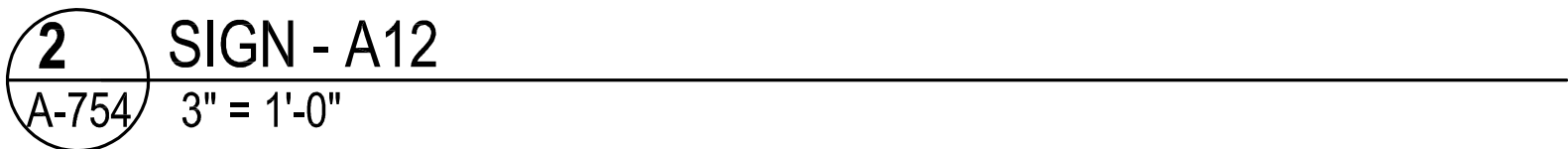
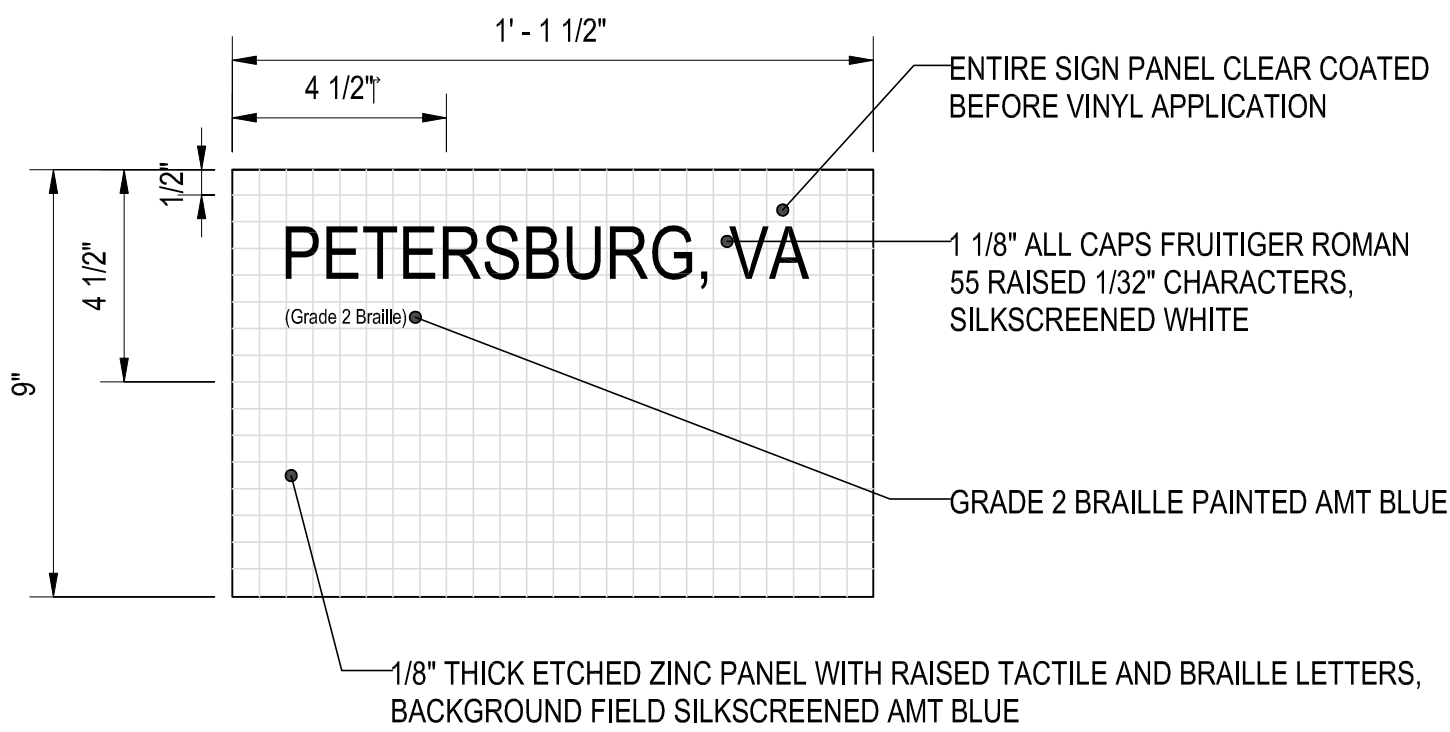
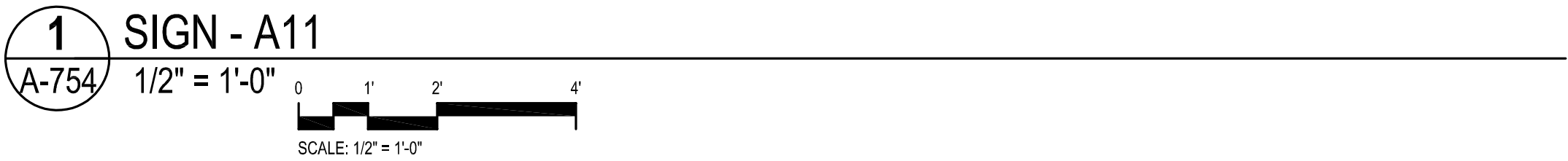
NO.	DESCRIPTION	DATE	BY	Office of Chief Engineer	Approved	Date	Pennoni	PETERSBURG (PTB) ADA PLATFORM PROGRAM (ADAPP) ARCHITECTURAL SIGNAGE GRAPHIC STANDARDS	VA	Project Code: PTB_VA
				National Railroad Passenger Corporation 30th Street Station, Philadelphia, Pennsylvania 19104			PENNONI ASSOCIATES INC. 1900 Market Street, Suite 300 Philadelphia, PA 19103 T 215.222.3000 F 215.222.3588 SLAM Collaborative 1880 JFK Blvd Phila, PA 19103	Designed: WN Drawn: WG Checked: JC Date: 2021-02-22	WBS: C.EN.100694.0689 Sheet No. 45 OF 80	Dwg. No. A-752





A11 Sign Type, Side A (shown without display case contents)

A11 Sign Type, Side B



A1b SIGN TYPE, SIDE A (FACING PLATFORM)

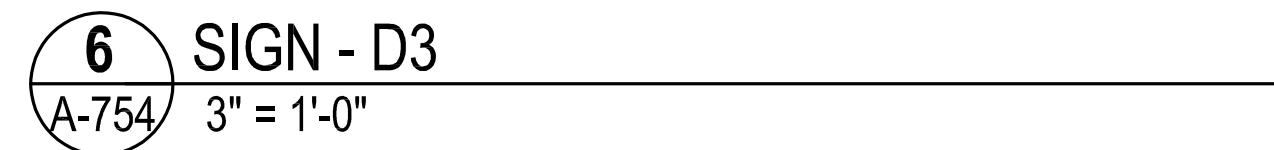
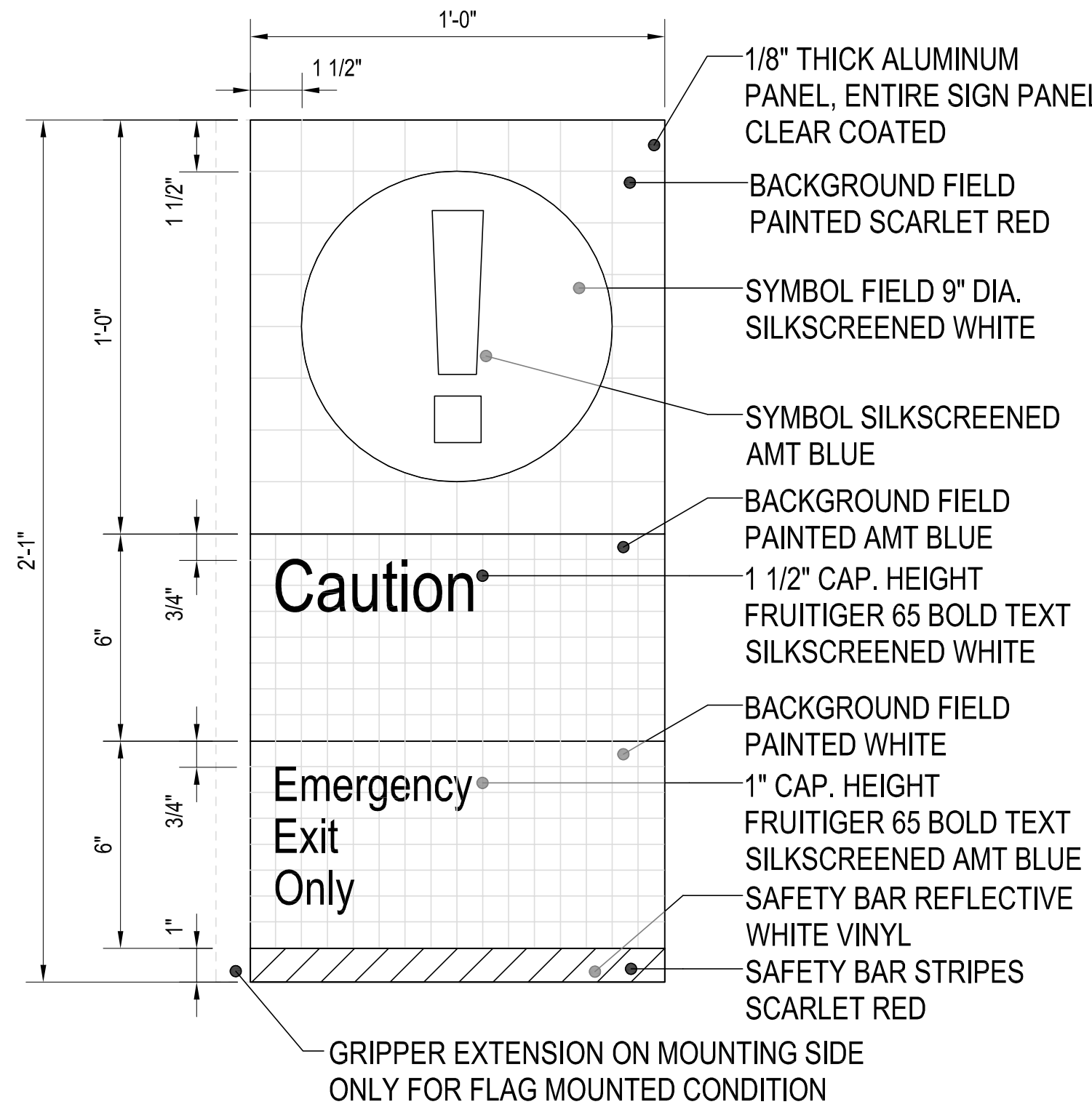
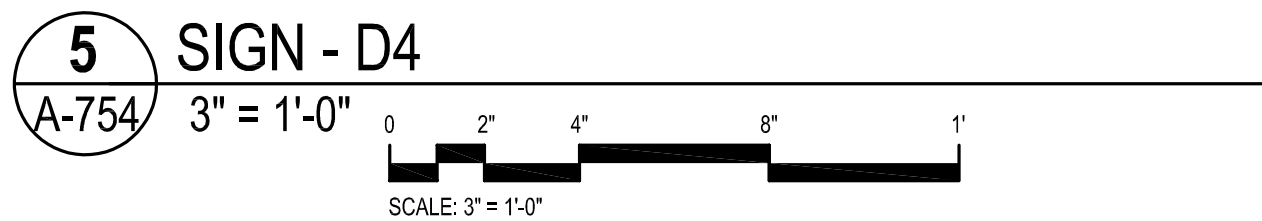
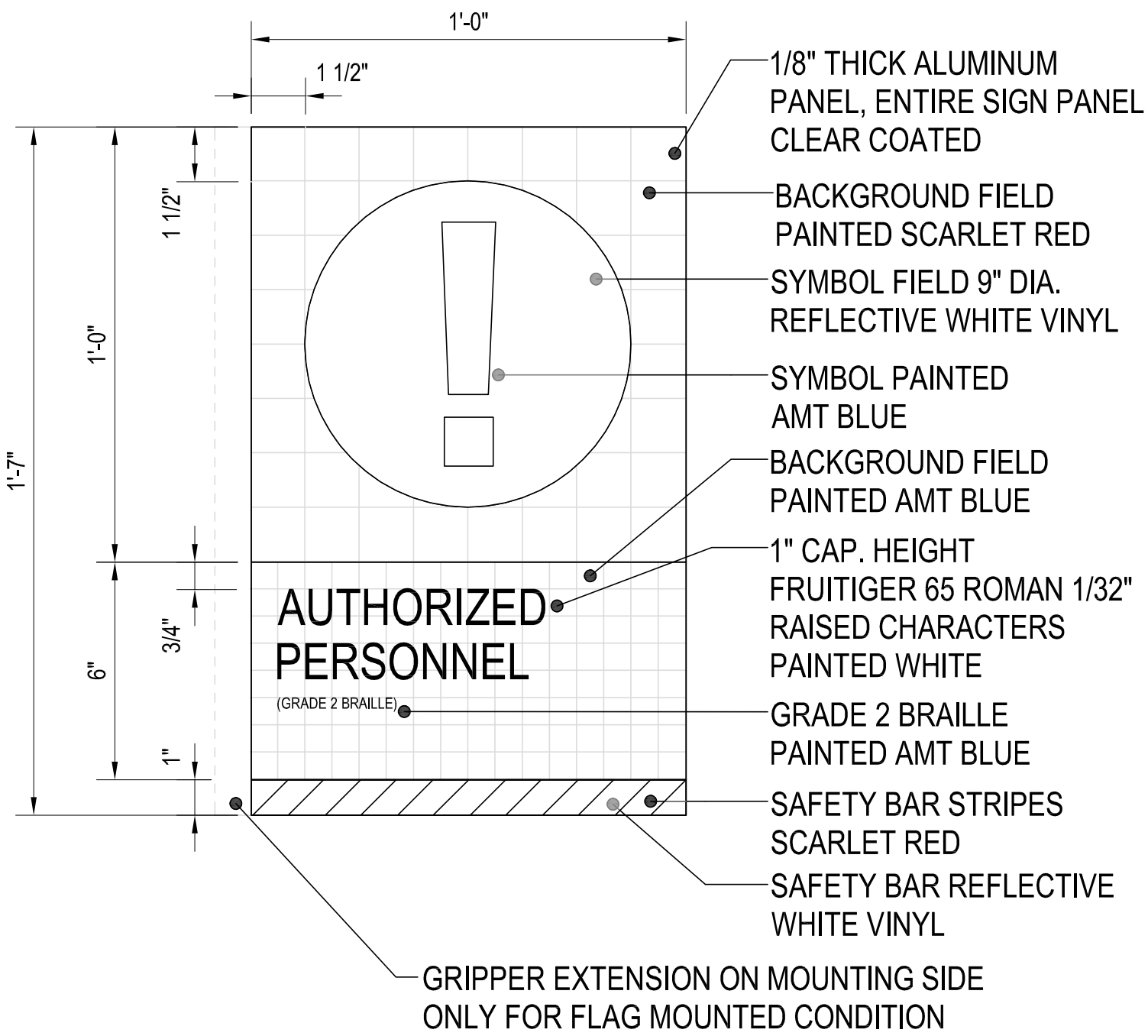
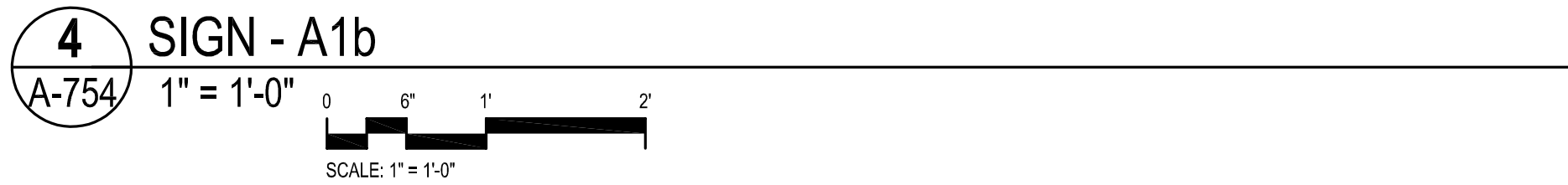
5" CAP. HEIGHT FRUTIGER 65 BOLD TEXT PAINTED AMT BLUE

ENTIRE SIGN PANEL CLEAR COATED BEFORE VINYL APPLICATION

A1b SIGN TYPE, SIDE B (FACING CURBSIDE)

5" CAP. HEIGHT FRUTIGER 65 BOLD TEXT PAINTED AMT BLUE

ENTIRE SIGN PANEL CLEAR COATED BEFORE VINYL APPLICATION



100% ISSUE FOR BID

NO.	DESCRIPTION	DATE	BY

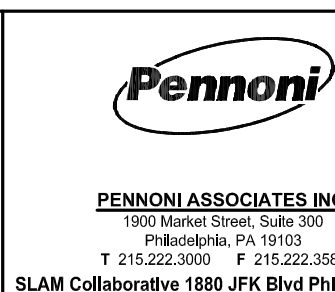


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Office of Chief Engineer

National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date

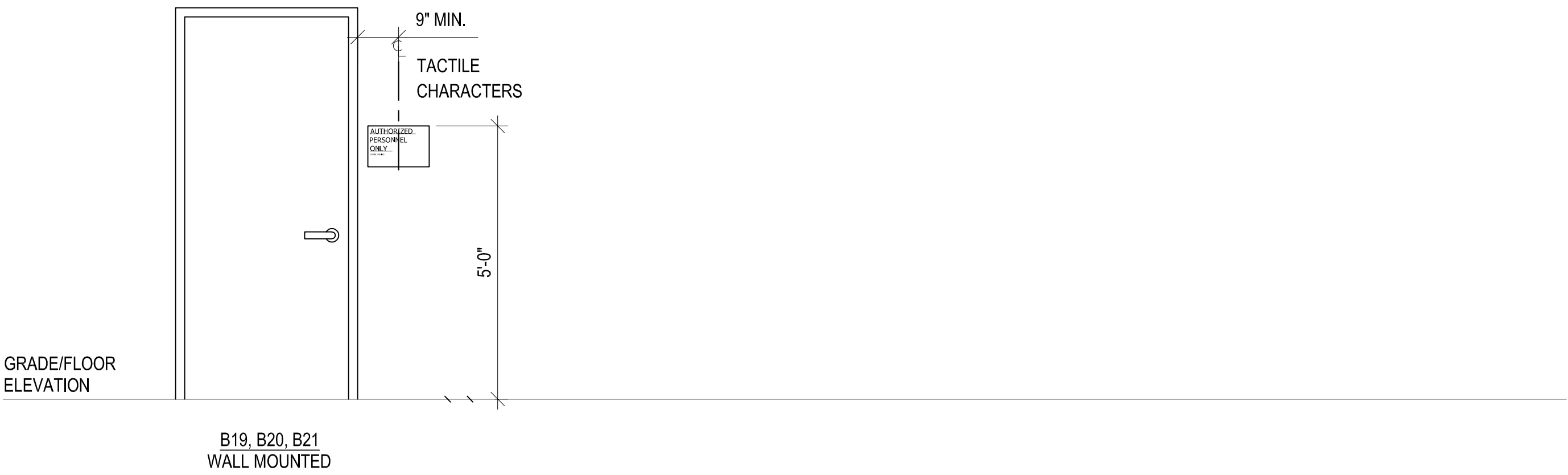
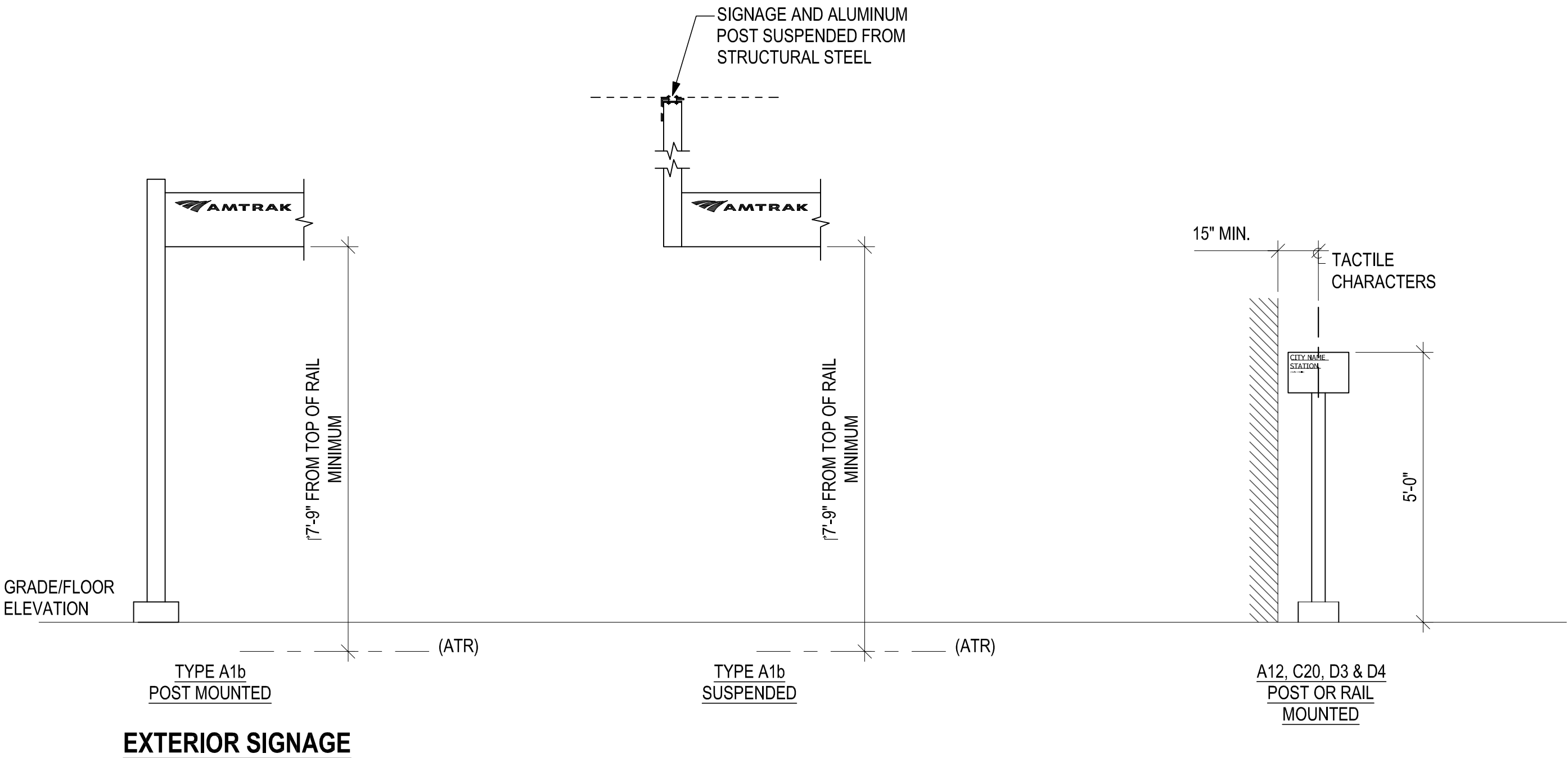


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PETERSBURG, (PTB)  
ADA PLATFORM  
PROGRAM (ADAPP)  
ARCHITECTURAL SIGNAGE DETAILS


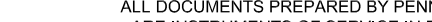
Designed: VDW Drawn: CRVG Checked: JJC Date: 2021-02-22

Project Code:	PTB, VA
WBS:	C.EN.100694.0669
Sheet No.	46 OF 80
Dwg. No.	A-754



**1** STANDARD SIGNAGE MOUNTING HEIGHTS  
A-757 1/2" = 1'-0" 0 1' 2' 4'  
SCALE: 1/2" = 1'-0"

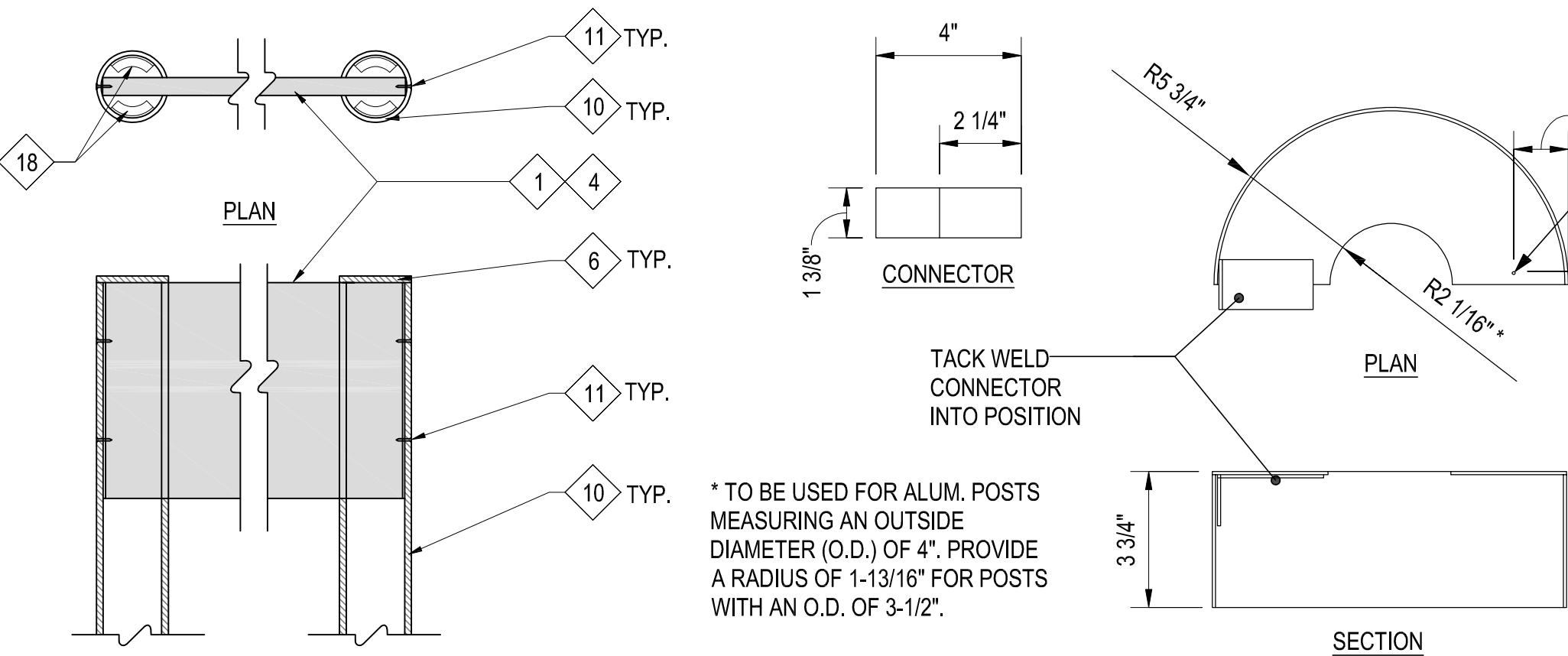
100% ISSUE FOR BID

NO.	DESCRIPTION	DATE	BY	<div><p>This material is owned by and is the sole and exclusive property of the National Railroad Passenger Corporation (Amtrak), Office of Engineering, and is supplied on a confidential basis solely for use in connection with the design and construction of Amtrak facilities and equipment. The reproduction, display, sale or other disposition of this document without the express written consent of the National Railroad Passenger Corporation, Office of Engineering, is prohibited.</p></div>		<div>Office of Chief Engineer</div> <div>National Railroad Passenger Corporation</div> <div>30th Street Station, Philadelphia, Pennsylvania 19104</div>		<div>Approved</div>	<div>Date</div>	<div><p><b>PENNONI ASSOCIATES INC.</b> 1810 Market Street, Suite 310 Philadelphia, PA 19103 T 215.222.3900 F 215.222.3558 SLAM Collaborative 1880 JFK Blvd Phila, PA 19103</p></div>	<div>ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON THE EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.</div>	<div>PETERSBURG (PTB)</div> <div>ADA PLATFORM</div> <div>PROGRAM (ADAPP)</div> <div>ARCHITECTURAL SIGNAGE MOUNTING DETAILS</div>	<div>VA</div> <div>Project Code: PTB_VA</div> <div>WBS: C.EN.100694.0669</div> <div>Sheet No. 47 OF 80</div> <div>Dwg. No. A-757</div> <div>Designed: WN</div> <div>Drawn: WG</div> <div>Checked: JC</div> <div>Date: 2021-02-22</div>
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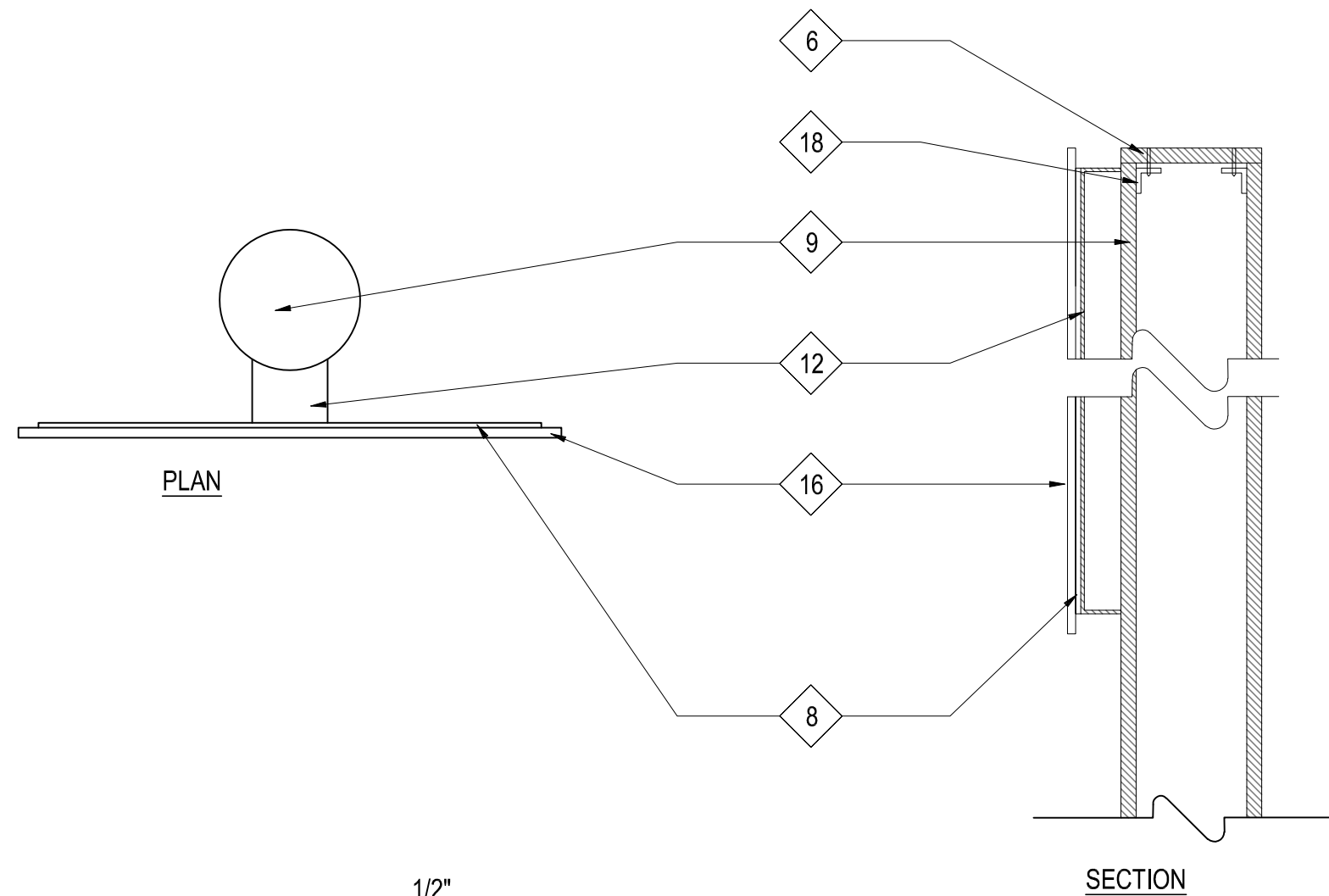
XX KEYNOTES - SIGNAGE MOUNTING DETAILS I

- NO. DESCRIPTION**
- 1 1" DEEP ALUMINUM PANEL BOX SIGN; SEE SIGNAGE SCHEDULE FOR SIGNAGE DETAIL REFERENCE.
- 2 1/4" THICK EXTERIOR GRADE PHOTO POLYMER PANEL SIGN.
- 4 FACE OF SIGN ORIENTED PARALLEL TO RAIL, LENGTH OF TRAIN, TYP.
- 5 1/8" THICK ALUMINUM SIGN; SEE SIGNAGE SCHEDULE FOR SIGNAGE DETAIL REFERENCE.
- 6 1/8" ALLUMINUM CAP FASTENED TO POST WITH VANDAL RESISTANT STAINLESS STEEL SCREWS; PAINTED SILVER. (MATTHEWS PAINT MP18073)
- 7 MECHANICAL FASTENERS AS REQUIRED BY MANUFACTURER.
- 8 1/8" THICK ALUMINUM BACKPLATE; BACK AND EDGES PAINTED AMTRAK BLUE (MATTHEWS PAINT SVOC 1142SP) MOUNT SIGNAGE PLAQUE WITH 1/2" INSET ON ALL FOUR SIDES.
- 9 3" (3.5" O.D.) SCH 40 6063-T6 ALUMINUM PIPE WELDED TO BASE PLATE WITH ALUMINUM CAP. POST TO BE PAINTED SILVER. (MATTHEWS PAINT MP18073)
- 10 3.5" (4" O.D.) SCH 40 6063-T6 ALUMINUM PIPE WELDED TO BASE PLATE. POST TO BE PAINTED SILVER. (MATTHEWS PAINT MP18073)
- 11 VANDAL RESISTANT STAINLESS STEEL SCREWS.
- 12 2" X 1-1/2" X 1/8" ALUMINUM BRACKET; BRACKET CONTINUOUSLY WELDED TO POST AND BACKPLATE. BRACKET PAINTED SILVER. ( MATTHEWS PAINT MP18073)
- 13 EXTERIOR GRADE EPOXY.
- 14 DOUBLE-SIDED INDUSTRIAL STRENGTH TAPE.
- 15 1/8" THICK ALUMINUM BACKER.
- 16 1/8" THICK ETCHED ZINC SIGN; SEE SIGNAGE SCHEDULE FOR SIGNAGE DETAIL REFERENCE.
- 17 SECURE SIGN PANEL WITH VHB TAPE AND EXTERIOR GRADE EPOXY (TYP.)
- 18 (2) 5/8" X 5/8" X 1/8" ALUM. ANGLE RING SECTION FOR CAP CONNECTION, LEG IN, OUTSIDE ARC LENGTH TO BE 1/4 OF PIPE INTERIOR CIRCUMFERENCE. TACK WELD, MIN. 3 LOCATIONS.
- 19 INSTALL BACKER PLATE WITH 3/16" X 1-1/2" STAINLESS STEEL TAPCON CONCRETE ANCHORS WITH PHILIPS FLAT HEAD. QUANTITY PER MANUFACTURERS RECOMMENDATIONS. COORDINATE SCREW LOCATIONS IN FIELD TO BE BRICK MORTAR. DO NOT PENETRATE BRICK. SCREW TYPE TO BE REMOVABLE AND REVERSIBLE.
- 20 1.5" O.D. STEEL PIPE WITH 3/4" WELDED CAP, POST TO BE PAINTED SILVER (MATTHEWS PAINT MP18073)
- 21 3/4" WELDED CONNECTION, PAINTED SILVER (MATTHEWS PAINT MP18073)
- 22 NEW STEEL PIPE RAIL (SEE A-110)
- 23 4" X8" X 1/4" ALUMINUM BASE PLATE CONTINUOUSLY WELDED TO POST AND FASTENED TO STRUCTURE ABOVE. PROVIDE NON CONDUCTING PLASTIC WASHERS & SLEEVES AT ALL MECHANICAL CONNECTION POINTS.

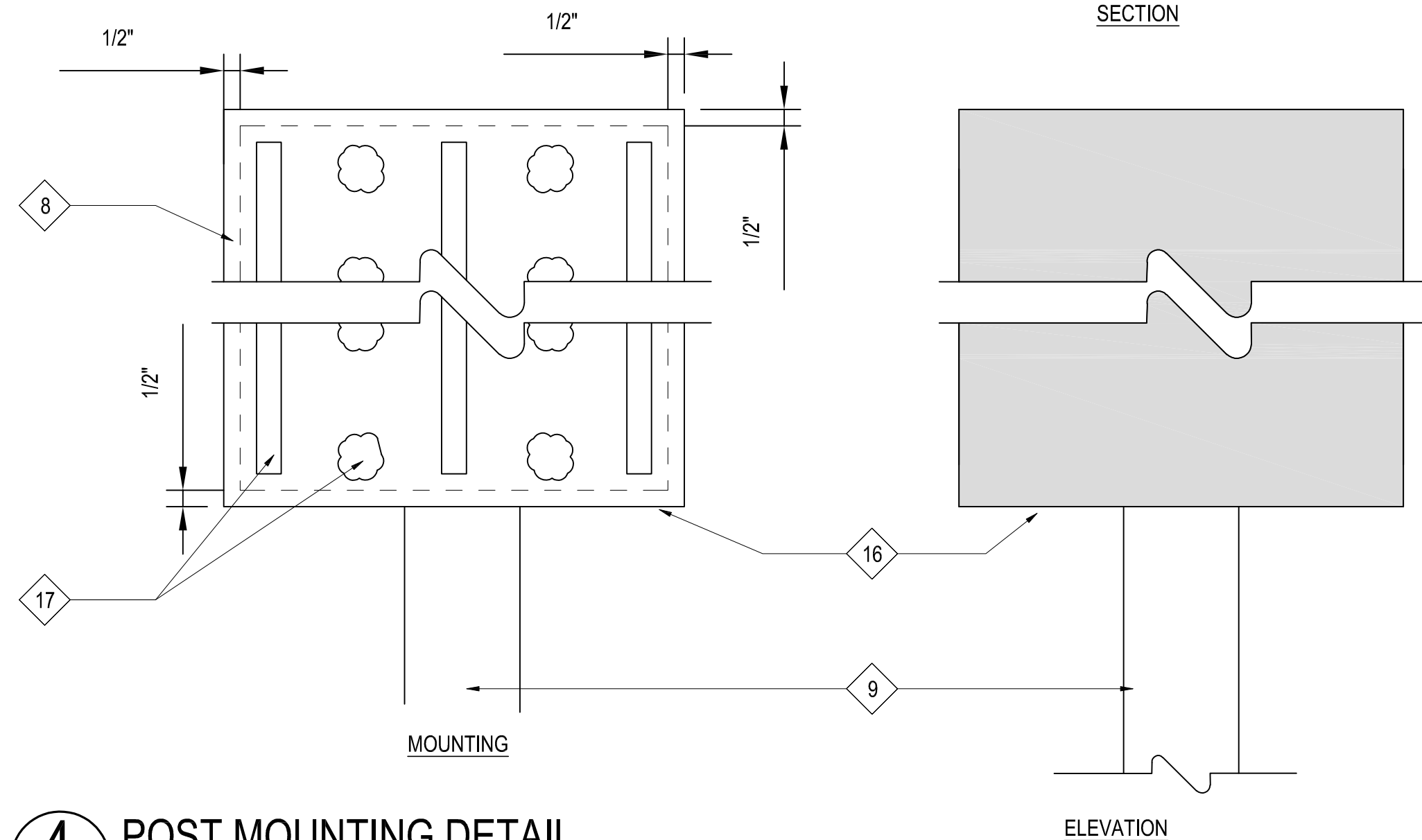


**1** PANEL MOUNTING DETAIL  
A-760 1 1/2" = 1'-0"

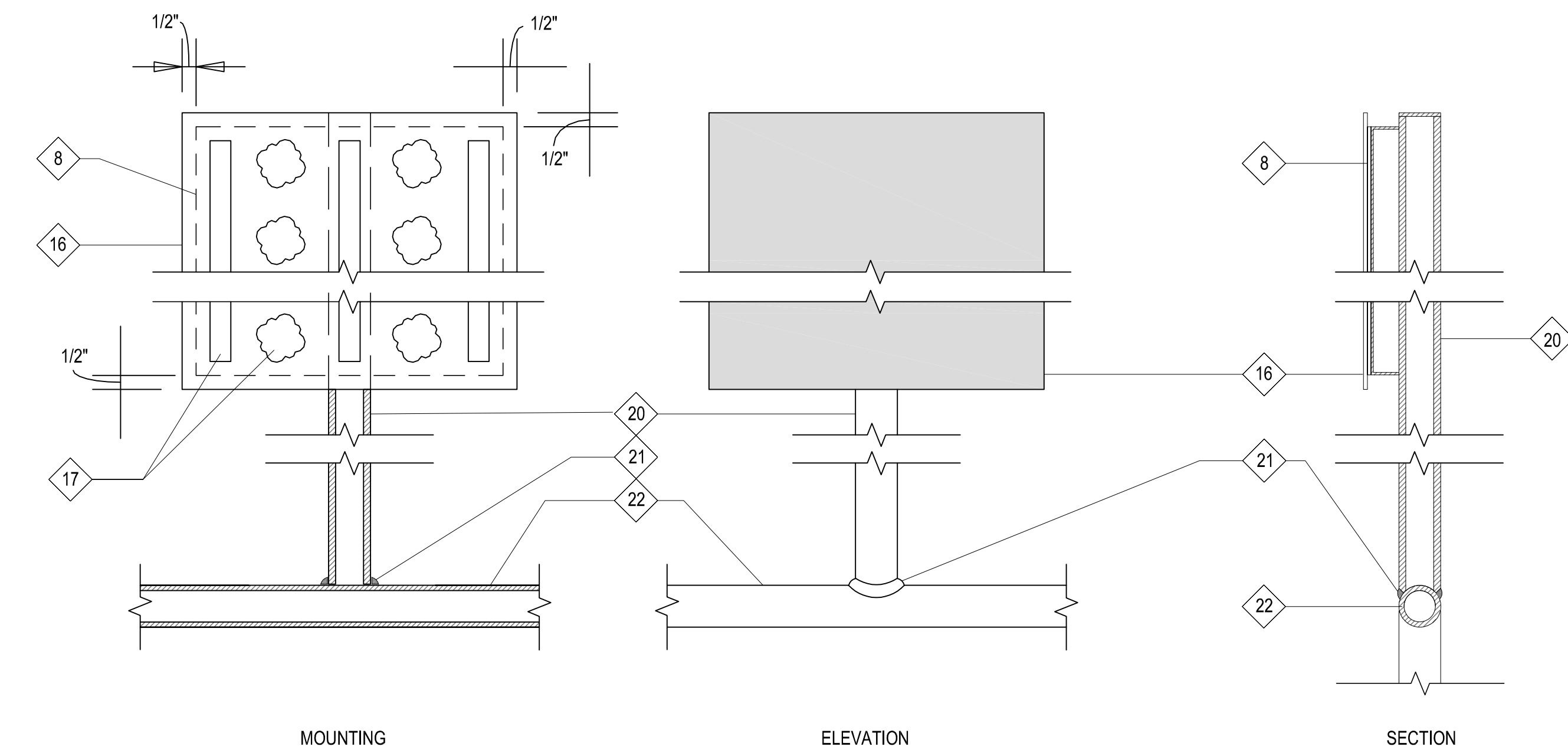
**2** BASE COVER DETAIL  
A-760 3" = 1'-0"



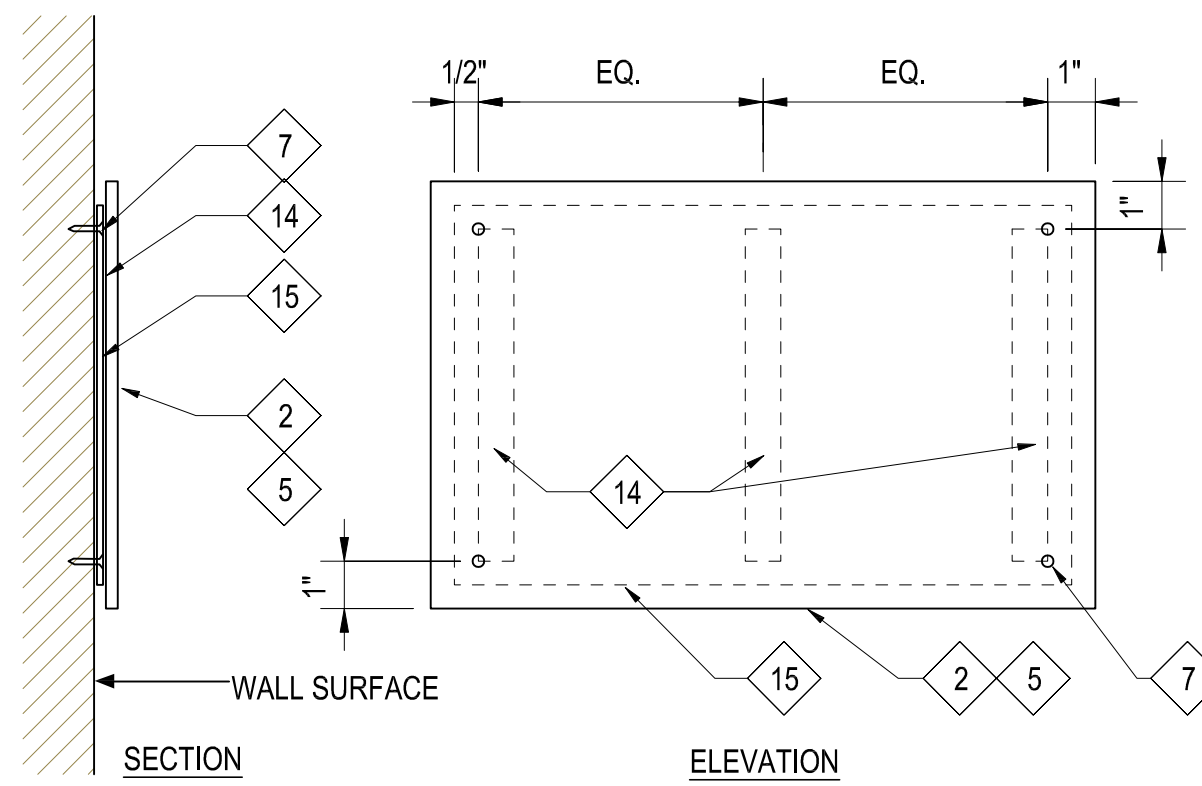
**3** POST MOUNTING ELEVATION  
A-760 1" = 1'-0"



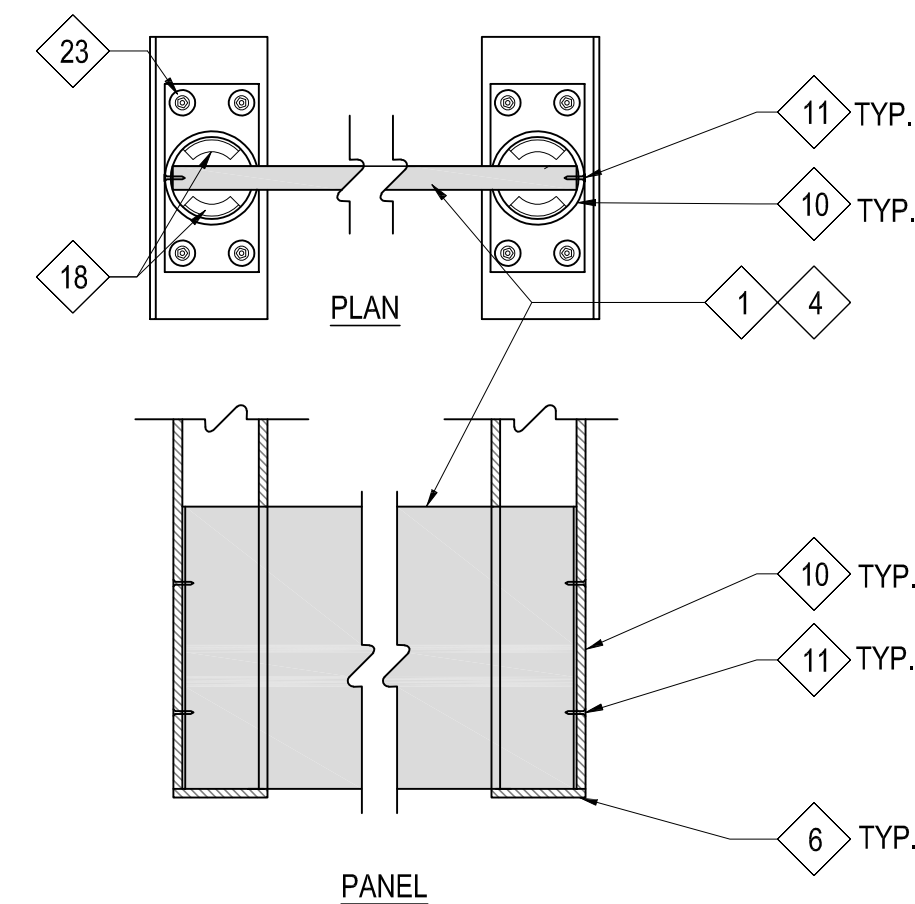
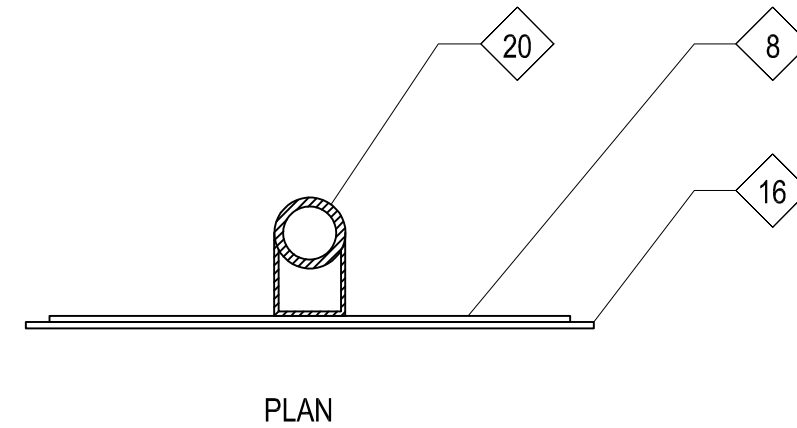
**4** POST MOUNTING DETAIL  
A-760 3" = 1'-0"



**6** RAILING MOUNTING DETAIL  
A-760 3" = 1'-0"



**5** INTERIOR WALL MOUNTING DETAIL  
A-760 3" = 1'-0"



**7** PANEL MOUNTING DETAIL  
A-760 1 1/2" = 1'-0"

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Office of Chief Engineer

National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



PENNONI ASSOCIATES INC.  
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SLAM Collaborative 1880 JFK Blvd Phila, PA 19103

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PETERSBURG (PTB)  
ADA PLATFORM  
PROGRAM (ADAPP)

ARCHITECTURAL SIGNAGE MOUNTING DETAILS 2

Designed: WN Drawn: WG Checked: JC Date: 2021-02-22

Project Code: PTB, VA

WBS: C.EN.100694.0689

Sheet No. 48 OF 80

Dwg. No. A-760



STRUCTURAL ABBREVIATIONS

AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION	MC	MOMENT CONNECTION
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIAL	N.S.	NEAR SIDE
ARCH.	ARCHITECT; ARCHITECTURAL	N.W.	NORMAL WEIGHT
B.P.	BASE PLATE; BRG. PLATE	N.I.C.	NOT IN CONTRACT
B.F.	BOTH FACES	N.T.S.	NOT TO SCALE
B.S.	BOTH SIDES	O.C.	ON CENTER
B.O.F.	BOTTOM OF FOOTING	O.F.	OUTSIDE FACE
B/	BOTTOM OF	O.F.	OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION
CANT.	CANTILEVER	P.J.F.	PREFORMED JOINT FILLER
CLR.	CLEAR	P.T.	PRESSURE TREATED
COL.	COLUMN	PROJ.	PROJECTION
CONN.	CONNECTION	QTY.	QUANTITY
CJ	CONSTRUCTION JOINT	R	RADIUS, RISER
CONT.	CONTINUOUS	REF.	REFERENCE
DBA	DEFORMED BAR ANCHOR	REINF.	REINFORCE(D)
DL	DEAD LOAD	REQ'D	REQUIRED
DSR	DOUBLE SIDE ROD	REV.	REVISION
DWL.	DOWEL	SER	STRUCTURAL ENGINEER OF RECORD
E.F.	EACH FACE	S.F.	STEPPED FOOTING
E.W.	EACH WAY	SSL	SHORT SLOTTED
EL.	ELEVATION	SIM.	SIMILAR
EMBT	EMBEDMENT	S.O.G.	SLAB ON GRADE
EXIST., EX.	EXISTING	SST	STAINLESS STEEL
EXP.	EXPANSION	STD.	STANDARD
E.J.	EXPANSION JOINT	SJI	STEEL JOIST INSTITUTE
F.S.	FAR SIDE	STIR.	STIRRUP
FIN.	FINISH(ED)	SYM.	SYMMETRICAL
FL.	FLANGE	TBD	TO BE DETERMINED
FTG.	FOOTING(S)	THK.	THICK
FDN.	FOUNDATION	T&G	TONGUE AND GROOVE
GA.	GAGE	T&B	TOP AND BOTTOM
H.R.	HAND RAIL	T.O.F.	TOP OF FOOTING
H.P.	HIGH POINT	T.O.S.	TOP OF SLAB; TOP OF STEEL
I.D.	INSIDE DIAMETER	T/	TOP OF
I.F.	INSIDE FACE	T	TREAD
I.J.	ISOLATION JOINT	TYP.	TYPICAL
KB	KNEE BRACE	U.N.O.	UNLESS NOTED OTHERWISE
LL	LIVE LOAD	V.I.F.	VERIFY IN FIELD
LLH	LONG LEG HORIZONTAL	W/	WITH
LLV	LONG LEG VERTICAL	W/O	WITHOUT
LSL	LONG SLOTTED	W.W.R.	WELDED WIRE REINFORCING
L.P.	LOW POINT	WF	WIDE FLANGE
L.W.	LIGHTWEIGHT	WW	WORKPOINT
		WWW	WALL TO WALL

STRUCTURAL SYMBOLS

	..... CRUSHED STONE
	..... CONCRETE
	..... GROUT
	..... PREPARED SUBGRADE
	..... VENEER
	..... WELDED WIRE REINFORCING IN CONCRETE
	..... CMU WALL (PLAN)
	..... REINFORCING STEEL IN CONCRETE
	..... GRATING
	..... SOUND ROCK
	..... REVISION MARK

DESIGN CRITERIA

LATERAL LOAD DESIGN		
2015 INTERNATIONAL BUILDING CODE / ASCE 7-10		
WIND		
DESCRIPTION	SYMBOL	VALUE
BASIC WIND SPEED (3 SEC. GUST)	V	120 mph
RISK CATEGORY	--	III
WIND EXPOSURE CATEGORY	--	C
INTERNAL PRESSURE COEFFICIENT	GC <sub>pi</sub>	±0.0
SEISMIC		
DESCRIPTION	SYMBOL	VALUE
IMPORTANCE FACTOR	I <sub>s</sub>	1.25
RISK CATEGORY	--	III
MAPPED SPECTRAL RESPONSE SHORT PERIOD ACCELERATION	S <sub>s</sub>	0.165g
MAPPED SPECTRAL RESPONSE 1-SECOND ACCELERATION	S <sub>1</sub>	0.06g
LONG-PERIOD TRANSITION PERIOD	T <sub>L</sub>	8s
SITE CLASSIFICATION	--	D
DESIGN SPECTRAL RESPONSE SHORT PERIOD ACCELERATION	S <sub>DS</sub>	0.176g
DESIGN SPECTRAL RESPONSE 1-SECOND ACCELERATION	S <sub>DS1</sub>	0.097g
SEISMIC DESIGN CATEGORY	S <sub>DC</sub>	B

FLOOR LOADS	
DEAD LOAD	
DESCRIPTION	VALUE (psf)
8" CONC. PLATFORM SLAB	100
MEP & MISC	10
TOTAL	110
LIVE LOAD	
TRAIN PLATFORM	150
BAGGAGE CART LOAD	3.0 k

NOTE:  
1. FUTURE PLATFORM ALONG HIGH-SPEED RAIL LINE ASSUMED TO HAVE SAME LOADING AS GIVEN ABOVE. SEE PLAN FOR ANTICIPATED FUTURE PLATFORM LOCATIONS.

SNOW LOAD		
DESCRIPTION	SYMBOL	VALUE
GROUND SNOW LOAD	P <sub>g</sub>	20 psf
SNOW EXPOSURE FACTOR	C <sub>e</sub>	1.0
SNOW LOAD IMPORTANCE FACTOR	I <sub>s</sub>	1.1
THERMAL FACTOR	C <sub>t</sub>	1.2
SNOW SLOPE FACTOR	C <sub>s</sub>	1.0
ROOF SNOW LOAD (*)	P <sub>f</sub>	18.4 psf

(\*) ACTUAL P<sub>f</sub> USED FOR DESIGN = 20 PSF PLUS DRIFTING SNOW.

GENERAL

- Refer to project specifications for additional information and requirements.
- The structure is designed, and all work shall conform, to the "2015 International Building Code", AMTRAK Standard Design Practices EP4000, and to all other applicable Federal, State, and Local Regulations.
- All codes and standards referenced in these notes, including all specifications referenced within, and all federal, state and local regulations apply to the design, construction, demolition, quality control and safety of all work performed on the project. Use the latest adopted editions of the codes and standards.
- In case of conflict between the General Notes, Specifications, and drawings, the most rigid requirements must be followed.
- Work not indicated on a part of the drawings but similar to that shown at corresponding places shall be provided at no additional cost.
- Minor details or incidental items not shown or specified, but necessary for a proper and complete installation, shall be included in the work.
- All costs of investigations, redesigns and re-installation due to improper installation of structural elements and other items not in conformance with the Contract Documents shall be at the Contractor's expense.
- The structural drawings shall be used in conjunction with the specifications, architectural, civil, and MEP drawings. If there is a discrepancy between drawings notify the Architect and Amtrak prior to performing the work.
- Store and protect all construction materials from exposure to the elements.
- Acceptance of deviations from any of the requirements of these notes, the drawings, and specifications is at the sole discretion of the Engineer. Acceptance of a deviation from any requirement shall not be construed as permitting any other deviation.
- Construction materials shall be provided free from defect and installed plumb and true to the limits set forth on the Construction Documents by experienced tradesmen.
- Special Inspection is required of all work indicated on the Structural Drawings and/or specifications. The Owner will engage a qualified testing and inspection firm to perform the Special Inspections. Provide adequate access at all times to the special inspector to observe the construction and sample the necessary materials. See IBC Section 1705 for further information and definitions regarding special inspections.
- Major openings in the structure are indicated on the Contract Documents. Coordinate locations and work for all openings, sleeves, concrete housekeeping pads, inserts, and depressions shown on the Architectural, Civil, Structural, Mechanical, Electrical, and Plumbing Drawings prior to construction. Locations of sleeves and openings shall be approved by the Structural Engineer of Record (SER).
- Verify all existing information shown (dimensions, elevations, etc.) and notify the Architect and Amtrak of any discrepancies prior to fabrication of any structural component.
- Verify and/or establish all existing conditions and dimensions at the site. Failure to notify the Architect and Amtrak of unsatisfactory conditions constitutes acceptance of existing conditions.
- If the existing field conditions do not permit the installation of the work in accordance with the Contract Documents, notify the Architect and Amtrak immediately and provide a sketch of the condition with a proposed modification of the details given on the Contract Documents. Do not commence work until the condition is resolved and the modification is approved by the Architect and Amtrak.
- Where alterations involve the existing supporting structure, provide shoring and protection to ensure the structural integrity of the existing structure.
- Determine the allowable construction loads and provide design and construction of falsework, formwork, staging, bracing, sheeting, and shoring, etc. to protect the existing structure. This work shall be designed by a Professional Engineer licensed in Virginia and engaged by the Contractor.
- Methods, procedures and the sequences (other than that noted on the Construction Documents) of construction are the responsibility of the Contractor(s). Take all necessary precautions to maintain and insure the integrity of the structure at all stages of construction.
- Job site safety and construction procedures are the sole responsibility of the Contractor. Guidelines for construction safety shall be in accordance with, but not limited to OSHA Safety and Health Regulations for Construction and all local ordinances or codes that may be applicable.
- All Contractors and Subcontractors on this project are responsible for the proper performance of their work, selection of means and methods, coordination with other trades, safety, and security on the job site.
- All construction work shall be coordinated with the Owner to minimize interference with existing facility operations.
- All Subcontractors shall be provided and must work with a full set of contract documents.
- Submit for review, drawings and calculations for all assemblies identified to be designed by an Engineer engaged by the Contractor. The design of these assemblies is the responsibility of the Contractor's Engineer registered in Virginia. All submittals shall bear this Engineer's seal and signature. Review shall be for general conformance with the project requirements as indicated on the Construction Documents.

GENERAL (CONTINUED)

- SHOP DRAWINGS
  - Shop drawings for all structural materials shall be submitted to the Architect for review prior to the start of fabrication and commencement of work. The review period shall be a minimum of two (2) weeks.
  - Reproduction of any portion of the Structural Contract Drawings for resubmittal as shop drawings is prohibited. Shop drawings produced in such a manner will be rejected and returned.
  - Shop drawings submitted in hard copy shall consist of (1) print and (1) reproducible. Only one marked up reproducible will be returned. If shop drawings are submitted electronically, then only electronic copies of reviewed submittals will be returned. No paper copies will be returned.
  - Shop drawings shall bear the Contractor's stamp of approval which shall constitute certification that the Contractor has verified all construction criteria, materials, and similar data and has checked each drawing for completeness, coordination, and compliance with the Contract Documents.
  - The shop drawings shall include dimensioned floor and roof edges, openings and sleeves at all roofs, floors, and walls required for all trades.
  - The detailer must use column and lintel designations as shown on the Engineer's drawings.
  - All revisions to shop drawings after the first submission must be so identified on subsequent submissions with revision tags and clouds.
  - Review of shop drawings shall not relieve the Contractor of any contract requirement, even if such items are not shown on the shop drawings.

FOUNDATIONS

- Foundations have been designed for an allowable capacity established in accordance with the Subsurface Investigation Report and recommendations prepared by AECOM, dated 11/27/2019. The requirements contained in the geotechnical report are part of the Construction Documents. The Owner shall engage a licensed qualified Geotechnical Engineer to verify the soil information and bearing capacity during construction.
- Maintain a maximum 1:1 slope from the bottom edge of any excavation to adjacent excavations or bottom of foundations.
- The bottom of all excavations and compacted earthwork will be inspected and approved by a registered Geotechnical Engineer retained by the Owner prior to placing concrete and/or backfilling. Approval by the Geotechnical Engineer, in writing, shall indicate that the soil is adequate to safely support the specified design foundation pressures and that the soils meet the requirements noted on the Construction Documents. Unknown field conditions may require excavation below the anticipated bottoms of footings along with placement of compacted backfill or controlled low-strength material (CLSM). Over-excavations may be filled with lean concrete (1,000 psi).
- The bottom of exterior footings shall be a minimum of 2'-0" below exterior finished grade to provide frost protection, or as required by local Building Codes and building officials. Coordinate all proposed bottom of footing elevations indicated on the structural documents with the proposed finished grade elevations on the Civil and/or Architectural drawings to comply with the minimum depth.
- Place concrete for foundations on the same day the subgrade is approved by the Geotechnical Engineer. Protect subgrade from frost.
- Observe water conditions at the site and take the necessary precautions to ensure that the foundation excavations remain dry during construction. Install sheeting, shoring, and/or dewatering to protect foundation excavations.
- Compact soil to not less than the following percentages of maximum dry density of modified proctor (ASTM D1557) unless noted otherwise:

Under building foundations - 95%

Under building slabs, steps, pavements - 93%
- Protect walls, piers, anchor bolts, etc., from damage during backfilling and other construction activities.
- Backfill shall be brought up simultaneously on each side of walls and grade beams, with a grade difference not to exceed 2'-0" at any time
- Do not undermine foundations during excavating for utilities, etc.
- Utility lines shall not be placed through or below foundations without the Structural Engineer's approval.
- Refer to plans and specifications for notes regarding helical piles.

CAST-IN-PLACE CONCRETE

- Concrete work shall comply with the requirements of the latest adopted editions of ACI "Building Code Requirements for Structural Concrete and Commentary (ACI 318)", ACI "Specifications for Structural Concrete (ACI 301)", and ACI "Measuring, Mixing, Transporting, and Placing Concrete (ACI 304)".
- Reinforcing steel shall be detailed, fabricated and installed in accordance with the latest editions of CRSI "Manual of Standard Practice", CRSI "Placing Reinforcing Bars" and ACI "Detailing Manual (SP-66)".
- Concrete shall have a minimum 28-day compressive strength as follows:

Type	f'c (psi)
Concrete Platform / Grade Beams	5000
Piers	4000
- Concrete exposed to freeze/thaw conditions and/or weather (including exterior footings) shall have 4% to 6% air-entrainment in accordance with ACI.
- Maximum water/cement ratios:

Piers	0.50
Platform / Grade Beams / Pile Caps	0.40
- All concrete, unless noted otherwise, shall be normal weight concrete (145 pcf +/-) with cement conforming to ASTM C150, Type I. Maximum aggregate size shall be 1-1/2" for footings and 3/4" for all other members, conforming to ASTM C33.
- Prepare concrete test cylinders from each day's pour. Cylinders shall be properly cured and stored. Sample fresh concrete in accordance with ASTM C172.
- Retain a laboratory to provide testing of concrete; slump per ASTM C143, air content per ASTM C231 or C173, cylinder tests per ASTM C31 and C39. One set of six (6) 6x12 cylinders for each 50 cubic yards for each mix used. More cylinders are required if using 4x8 for testing, reference ACI. Reports of all tests to be submitted to the Architect/Engineer.
- Submit mix designs for each class of concrete for review and approval prior to placing any concrete. Compressive strength must be substantiated by a suitable experience record or by the method of laboratory trial batches. The pertinent ACI criteria shall apply to the proportioning of mix designs and to the acceptance of concrete produced for the job. If during construction, any class of concrete fails to meet the acceptance criteria, take such steps as are deemed necessary by the SER to improve subsequent test results at no additional cost to the Owner. The contractor shall also bear the cost of special investigation, testing or remedial work necessary because of evidence of low strength or non-conforming concrete or workmanship.
- Submit reinforcing steel shop drawings and mix designs to Engineer for review and approval prior to placing any concrete.
- The addition of water at the jobsite is prohibited, unless approved in writing by the SER. Coordinate the requirements of the concrete supplier and pump to ensure pumpable and workable mix(es) without the addition of water at the jobsite. The use of plasticizers, retarders and other admixtures shall be at the option of the contractor and subject to the approval of the SER. Follow the recommendations of the manufacturer for proper use of retarders and other admixtures. Use of calcium chloride or other chloride bearing admixtures is not permitted.
- All reinforcing steel shall be epoxy coated conforming to ASTM A775 Grade 60. Epoxy coated steel wire and ties shall conform to ASTM A884.
- Welded Wire Reinforcement (WWR) shall be epoxy coated and conform to ASTM A-884. WWR shall be supplied in flat sheets.
- Lap WWR two (2) full wire spaces at splices and wire together.
- No welding of reinforcing shall be permitted, unless specifically called for or approved by the SER. Where reinforcing bars are to be welded, they shall conform to ASTM A706 and AWS D1.4 (latest edition)
- All concrete pads, sidewalks, etc., not cast integrally with structural slabs, shall be reinforced with 6x6-W2.9xW2.9 WWR at mid-depth of slab, unless shown otherwise.
- All horizontal footing and horizontal wall reinforcement shall be continuous and shall have 90 degree bends and extensions, and class "B" lap splices.
- Reinforcing steel clear cover shall be as follows unless noted otherwise:

Reinforcing steel in concrete cast against soil	3"
Reinforcing steel in formed concrete exposed to soil or weather	1½"
#5 bars and smaller	2"
#6 bars and larger	
Slab and wall reinforcing not exposed to soil or weather	¾"
Beam stirrups	1½"

\* If a corrosion inhibitor or epoxy-coated non-prestressed reinforcement is used, the top cover may be reduced to 1 ½".

Refer to ACI 318 (latest edition) for conditions not noted.

- Reinforcing steel shall be accurately placed with clear cover in accordance with ACI 318, and adequately supported before the concrete is placed. Reinforcing steel shall be secured against displacement within permitted tolerances. Provide plastic tipped bolsters and chairs at exposed slabs and beams. When supporting epoxy coated reinforcing, bolsters and chairs shall be epoxy coated.

CAST-IN-PLACE CONCRETE (CONTINUED)

- Provide all high chairs, spacers, supports, etc., necessary for proper placement of reinforcing steel.
- Bottom steel, for concrete cast on grade, shall be supported on precast concrete block (minimum size 3"x3"x3") spaced at 4'-0" o.c. each way maximum. Top bars shall be supported from doweled concrete blocks or chairs equipped with sand plates. One way top steel shall be tied with #3 transverse bars at 4'-0" o.c. maximum. Use of split bricks is not permitted for support of reinforcement.
- All reinforcing steel shall be securely wired together in the forms. Two way mats of steel shall be tied at alternate intersections both ways.
- Splices in reinforcing steel shall be made only where shown on the structural drawings and where splices have been detailed on the reinforcing placement drawings that have been reviewed by the structural engineer. All splices shall be class "B" tension contact lap splices (see tables), except where indicated otherwise on the structural drawings. Mechanical splice couplers capable of developing 125% of the tensile strength of the reinforcing steel may be used instead of tension lap splices at the contractor's option. Compression lap splices per ACI 318 may be used only where such splices are specifically indicated. Stagger splices where required to provide 1 1/2" clear spacing between reinforcing steel at splice locations. Reinforcement shall be continuous around corners.
- Continuous top and bottom bars in walls, beams and grade beams shall be spliced as follows:
  - Top bars - at midspan
  - Bottom bars - over supports
  - Provide 2-#4 top support bars for length of stirrup spacing where top bars are not otherwise provided.

25. Minimum Reinforcing Splices, Contact Lap, Class B

Table 1									
Reinf. Steel, Fy	Bar Size	Bar Location	Concrete Strength						
			3 ksi	4 ksi	5 ksi	6 ksi	7ksi	8 ksi	9 ksi
60 ksi	#3	Top	2'-4"	2'-0"	1'-9"	1'-8"	1'-6"	1'-5"	1'-4"
		Other	1'-9"	1'-6"	1'-5"	1'-4"	1'-4"	1'-4"	1'-4"
	#4	Top	3'-1"	2'-8"	2'-5"	2'-2"	2'-0"	1'-11"	1'-9"
		Other	2'-4"	2'-1"	1'-10"	1'-8"	1'-7"	1'-5"	1'-4"
	#5	Top	3'-10"	3'-4"	3'-0"	2'-9"	2'-6"	2'-4"	2'-3"
		Other	3'-0"	2'-7"	2'-4"	2'-1"	1'-11"	1'-10"	1'-9"
	#6	Top	4'-8"	4'-0"	3'-7"	3'-3"	3'-0"	2'-10"	2'-8"
		Other	3'-7"	3'-1"	2'-9"	2'-6"	2'-4"	2'-2"	2'-1"
	#7	Top	6'-9"	5'-10"	5'-3"	4'-9"	4'-5"	4'-2"	3'-11"
		Other	5'-2"	4'-6"	4'-0"	3'-8"	3'-5"	3'-2"	3'-0"
	#8	Top	7'-9"	6'-8"	6'-0"	5'-5"	5'-1"	4'-9"	4'-5"
		Other	5'-11"	5'-2"	4'-7"	4'-2"	3'-11"	3'-8"	3'-5"
#9	Top	8'-8"	7'-6"	6'-9"	6'-2"	5'-8"	5'-4"	5'-0"	
	Other	6'-8"	5'-10"	5'-2"	4'-9"	4'-5"	4'-1"	3'-10"	
#10	Top	9'-10"	8'-6"	7'-7"	6'-11"	6'-5"	6'-0"	5'-8"	
	Other	7'-6"	6'-6"	5'-10"	5'-4"	4'-11"	4'-7"	4'-4"	
75 ksi	#11	Top	10'-11"	9'-5"	8'-5"	7'-8"	7'-2"	6'-8"	6'-3"
		Other	8'-4"	7'-3"	6'-6"	5'-11"	5'-6"	5'-1"	4'-10"
	#11	Top	13'-8"	11'-9"	10'-6"	9'-7"	9'-0"	8'-4"	7'-10"
		Other	10'-5"	9'-1"	8'-2"	7'-5"	6'-11"	6'-4"	6'-1"

Table 1 Notes:

- "Top bars" are horizontal bars located where more than 12" of fresh concrete is cast in the member below the bars.
- Splice lengths shown in Table apply to splices with the following parameters:
  - Normal weight concrete
  - Minimum bar spacing requirements are satisfied
  - Clear spacing between bars and clear concrete cover ≥ (1) bar diameter within length and stirrups or ties ≥ code minimum within the length of the spliceOR
  - Clear spacing between bars ≥ 2x bar diameter and clear cover ≥ (1) bar diameter within length of splice

- Indicated splice lengths shall be multiplied by the following factors where applicable:

Table 2*		
Condition		Splice Length Multiplier
a	Bar Spacing or clear cover less than required per note A	1.3
b	Epoxy coated reinforcing with cover <3x bar diameter or clear spacing <6x bar diameter	1.5**
c	All other epoxy coated bars	1.2

Table 2 Notes:

- \* Where multiple conditions occur, apply each of the applicable factors to the basic tension lap splice lengths to obtain the required splice length.
- \*\* For condition c, epoxy coated top bars, use splice multiplier = 1.3.

- Compression lap splices when noted on the construction documents shall be per Table 3.

Table 3		
Reinforcing Steel Fy	Bar Size	Compression Lap Splice Lengths
60 ksi	#5	1'-7"
	#6	1'-11"
	#7	2'-2"
	#8	2'-6"
	#9	2'-10"
	#10	3'-2"
	#11	3'-6"
	#11	5'-1"

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Office of Chief Engineer

National Railroad Passenger Corporation

30th Street Station, Philadelphia, Pennsylvania 19104

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PETERSBURG (PTB)

ADA PLATFORM PROGRAM (ADAPP)

STRUCTURAL DESIGN CRITERIA AND GENERAL NOTES

Designed: JRC

Drawn: JSH

Checked: KTM

Date: 2021-02-22

Project Code: PTB\_VA

WBS: C.EN.100694.0069

Sheet No. 49 OF 80

2 of 5

VA

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Office of Chief Engineer

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CAST-IN-PLACE CONCRETE (CONTINUED)

29. Prior to placing concrete, submit for review by the structural engineer, a concrete placement schedule/sequence showing locations of all proposed construction and control joints and water stops.
30. Placing of concrete shall not start until the placement of reinforcing has been approved by the Owner's Inspection Agency.
31. Bonding agent or cement slurry coat shall be used where new concrete is placed against existing concrete, unless noted otherwise.
32. All concrete shall be formed, unless otherwise approved by the SER. All pours shall be terminated by forms. Provide keys between adjacent pours.
33. All concrete, including foundation work, shall be vibrated. Proper use of vibrators is required. Vibrators shall not be used to transport concrete.
34. Chamfer all exposed concrete corners/edges unless noted otherwise.
35. All embedments, including anchor rods, shall be in place prior to placing concrete.
36. Concrete shall not be pumped through aluminum pipes and shall not be placed in contact with aluminum forms, mixing drums, buggies, chutes, conveyors or other equipment made of aluminum.
37. All inserts and sleeves shall be cast-in-place whenever feasible. Drilled or powder driven fasteners will be permitted when proven to the satisfaction of the SER that the fasteners will not spall the concrete and have the same capacity as cast-in-place inserts.
38. No sleeve shall be placed through any concrete element unless shown on the approved shop drawings or specifically authorized in writing by the SER. Verify dimensions and locations of all slots, pipe sleeves, shafts, etc. as required for MEP trades before concrete is placed.
39. Coordinate elevation of top of slabs and finishing requirements with proposed architectural finishes.
40. Tops of foundations shall be hand trowel finished and smooth when supporting wood sills, steel joists, etc.
41. Concrete slabs shall be finished flat and sloped within tolerance, to the elevations indicated on the drawings. Provide the means by which the maximum and minimum concrete slab thickness can be monitored and verified during and after the placing and finishing operations. Slab construction and floor flatness/levelness shall conform to the latest edition of "Guide for Concrete Floor and Slab Construction (ACI302.1R)". Refer to Civil drawings for required platform slopes and ADA Requirements.
42. Repair concrete exhibiting voids due to honeycombs, rock pockets, and runs, spalls or otherwise damaged surfaces, with dry pack or cement grout. Finish flush with adjoining surfaces. At the discretion of the SER, or as, qualified by lab testing, excessive honeycombs or exposed reinforcement that jeopardize the design, shall be removed and replaced at the expense of the contractor.
43. Slab and grade beams shall be cast monolithically. Horizontal joints are not permitted in concrete construction.
44. Construction joints for reinforced concrete work shall be located within the middle third of span. Proposed construction joint locations shall be shown on the reinforcing steel shop drawings. Any stop in concrete work must be made with vertical bulkheads and horizontal keys, unless otherwise shown. All reinforcing is to be continuous through joints.
45. Provide 7 days of wet curing immediately after finishing, see specifications.
46. Protect the concrete surface between finishing operations on hot, dry days, or any time plastic shrinkage cracks may develop, using wet burlap, plastic membranes or fogging. Curing of concrete is to start as soon as finishes will not be damaged by curing operations. It is not permissible to delay the curing until the morning after the concrete is placed.
47. Cold weather concreting shall be in accordance with ACI-306. Hot weather concreting shall be in accordance with ACI-305R.
48. Throughout construction, the concrete work shall be adequately protected against damage due to excessive loading, construction equipment and activities, materials or methods, sun, wind, ice, rain, flowing water, snow, excessive heat, fire, stains, abrasions, and freezing temperatures.
49. When drilling concrete for adhesive anchors, pipe penetrations, etc. avoid drilling or cutting of any reinforcing or causing damage to concrete. Holes shall be prepared to receive bolts per the manufacturer's specifications.
50. Epoxy adhesives shall be used where dowels are to be installed into existing concrete. Submit manufacturer information for engineer review prior to installation.

STRUCTURAL STEEL

1. Structural steel material, design, detailing, fabrication and erection shall be in accordance with the following references:  
"Specification for Structural Steel Buildings", AISC's 13th Edition  
"Structural Welding Code, AWS D1.1", AWS  
"Engineering for Steel Construction", AISC  
"Detailing for Steel Construction", AISC
2. The steel contractor shall furnish an affidavit from the producer of the steel certifying that the steel meets the minimum requirements as defined by the applicable ASTM Specification.
3. The structural steel contractor shall verify the foundation construction for anchor rod location, elevation of top of concrete and/or leveling plates and bearing plates, alignment, etc., prior to start of erection.
4. The steel contractor is responsible for confirming and correlating all quantities and dimensions, selecting fabrication processes and techniques of construction, adequacy of connections, coordinating his work with that of all other trades and performing his work in a safe and satisfactory manner.
5. Structural steel rolled shapes shall conform to ASTM A992, unless noted otherwise. Angles, channels, plate and rods shall conform to ASTM A36.
6. Structural steel pipe shall conform to ASTM A53, Type E or S, or ASTM A501.
7. Structural steel tubing shall conform to ASTM A500, Grade B (Fy = 46 KSI), unless noted otherwise.
8. Anchor rods shall conform to ASTM F1554, Grade 36, unless noted otherwise.
9. Bolts shall be designed as bearing type bolts, except as noted herein or on plan. Bearing bolts shall be installed in accordance with the "snug tight" condition as outlined in the AISC "Specifications for Structural Joints Using ASTM A325 or A490 Bolts", latest revision. Connection bolts shall have a hardened washer placed under the turned element.
10. The fabricator is responsible for the selection, design and detailing of all connections not fully detailed in the Contract Documents. Typical connection details are indicated on the drawings for design intent only. The fabricator shall have a Professional Engineer, registered in VA., prepare and/or review the connection designs prior to submitting the shop drawings for review and approval. Connections shall be designed and detailed in accordance with AISC's "Steel Construction Manual", 14th Edition to develop a minimum end reaction of 12 KIPS, unless noted otherwise.
11. All connections shall be made with framing angles, unless otherwise noted on drawings or determined during shop drawing review.
12. Steel connections shall be bolted with 3/4" (min.) diameter A325-TC high-strength bolts or welded, unless noted or approved otherwise. Bolts shall be spaced 3" o.c. (min.), unless approved otherwise by the SER.
13. One sided connections shall be full depth with minimum 3/8" thick connection material.
14. Submit steel shop drawings for review and approval prior to fabrication.
15. All welding shall be done by AWS certified welders in accordance with AWS D1.1 (latest edition). Minimum fillet weld shall be 3/16".
16. Steel welding rods shall be E70XX (low hydrogen @ 50 KSI material).
17. Welds left exposed on the finished structure shall be ground smooth.
18. Splicing of structural steel members where not detailed on the Contract Documents is prohibited without prior written approval of the SER as to location, type of splice and connection to be made.
19. Steel at and/or below finished grade shall receive 2 coats of bitumastic paint or shall be encased with a minimum of 3" of concrete.
20. All contact surfaces within slip-critical, bolted connections and welding areas shall be free of oil, paint or galvanizing.
21. Framing members shall be equally spaced and parallel or at right angles to one another with their webs in a vertical plane, unless noted otherwise.
22. Provide temporary bracing, as required and determined by fabricator or erector, to resist wind, construction loads, etc., during construction. Bracing shall remain in place until the structure is capable of sustaining all such loads.
23. Notify the SER of any fabrication and erection errors or deviations and receive written approval before any field corrections are made.
24. Fabricator shall take full responsibility for errors and or required corrections to steel fabricated prior to SER's and Architect's approval of shop drawings.
25. Any galvanizing on structural steel elements damaged or removed during construction shall be repaired with cold field-applied galvanizing.

EXISTING CONDITIONS/DEMOLITION

1. Coordinate with civil, architectural, mechanical, electrical and plumbing drawings for all demolition work.
2. Where building alterations involve the existing supporting structure, provide shoring and protection required, insuring the structural integrity of the existing structure.
3. Selectively demolish structural components as required to construct new work. Only demolition of existing structural components affecting new construction is shown on the structural drawings. Refer to architectural, mechanical, electrical, plumbing and demolition drawings for additional demolition work.
4. This structural design is based on documents of the existing construction provided by the Owner. The contractor shall verify and/or establish all existing conditions, locations, dimensions and elevations of walls, slabs, framing, utilities, finishes, materials and systems affecting the work are in general conformance with the original construction documents and/or the information provided on the Contract Documents. Any discrepancies from information indicated on the Contract Documents shall be directed to the attention of the Architect. Verification of clearances required for all new equipment, piping, duct work and related components is the contractor's responsibility.
5. Patch, repair or replace existing finishes and materials disturbed during demolition. All repair or replacement shall match adjacent existing and/or new finishes and materials.
6. Existing conditions as they appear in these Contract Documents may differ from actual conditions because of work performed with Owner's staff and by other contractors prior to this contract. Portions of the demolition work may be included in the scope of work of another contract. All Contractors shall verify the actual scope of demolition in their contract prior to submitting a bid.
7. Any existing fastener removed for any reason shall be replaced with a new high-strength bolt of proper length and diameter, unless noted otherwise.
8. Any existing fastener discovered missing during construction shall be replaced with a new high-strength bolt of proper length and diameter.

ROOF DECK

1. Unless noted otherwise on plans, the typical roof deck shall be 17/8" Corrugated Fiber Cement Panels as manufactured by Eternit or approved equivalent. Refer to architectural drawings and specifications for further information.
2. Refer to manufacturer for recommended fastening schedule. Fasteners shall be self-drilling screws with washers to seal deck penetrations against leakage. Fasten deck to supporting members running parallel to deck span at 12" on center. Fasten side laps together with #10 self-drilling screws @ 12" on center along span between supports.
3. Main support members for the metal deck are shown. During preparation, submission and review of shop drawings, any additional angles, pour stops or miscellaneous attachment details required to support the metal deck at the required elevation shall be provided by the deck supplier or erector.
4. Top flanges of deck shall be level when tested with a 4'-0" straightedge.
5. Deck erector shall cut all openings in the roof deck which are shown on the architectural drawings, and as required by mechanical trades.
6. Any galvanizing damaged or removed during construction shall be repaired with cold field-applied galvanizing.

PETERSBURG (PTB)  
ADA PLATFORM  
PROGRAM (ADAPP)

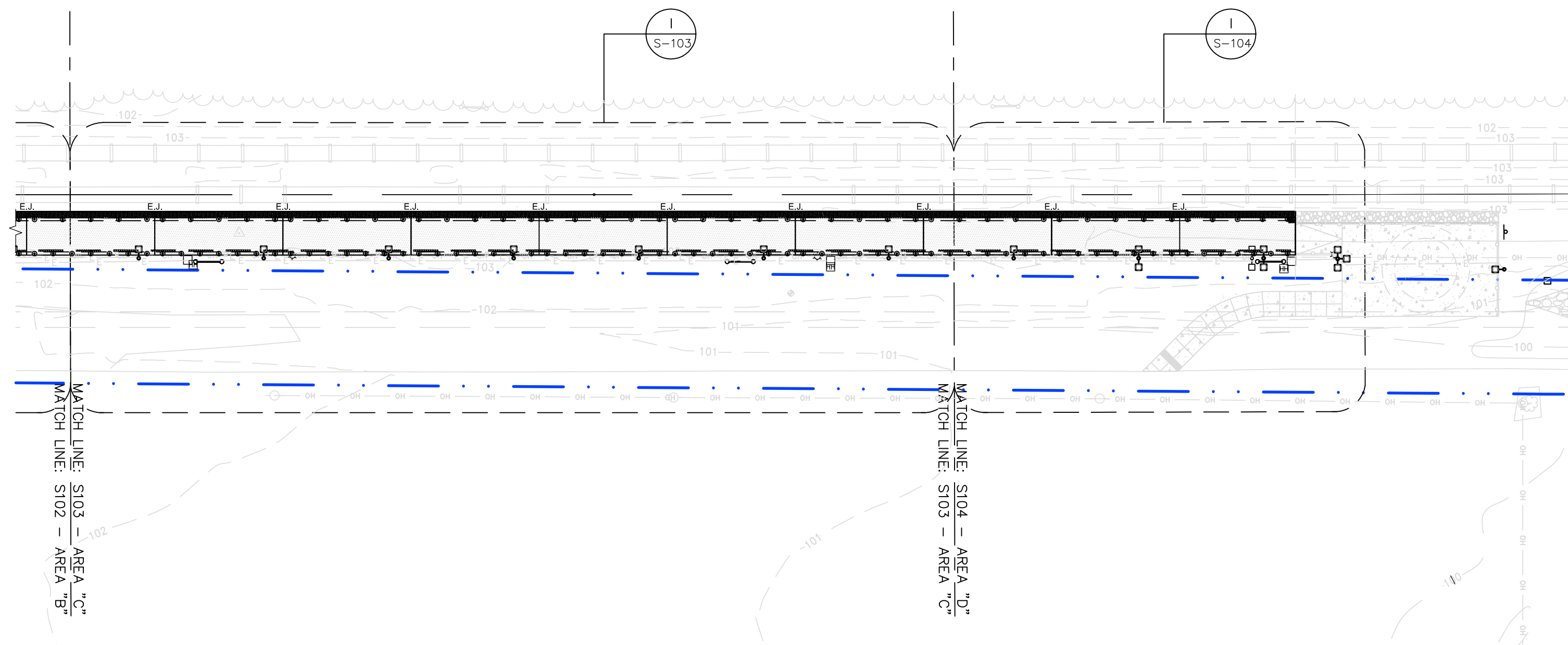
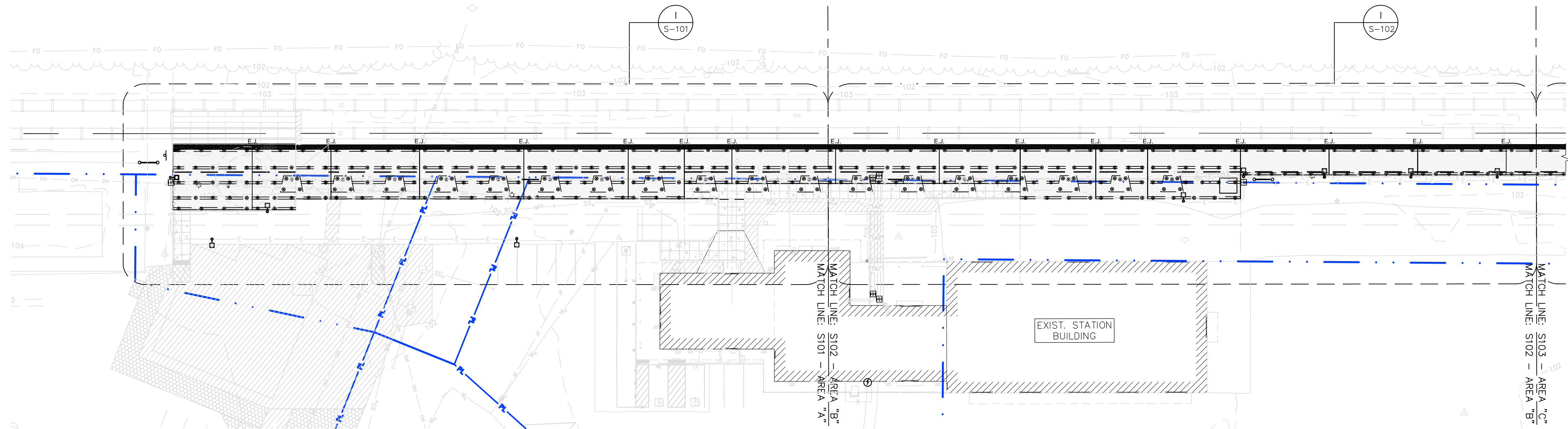
STRUCTURAL GENERAL NOTES

Designed: JRC    Drawn: JSH    Checked: KTM    Date: 2021-02-22

VA	Project Code:	PTB_VA
	WBS:	C.EN.100694.0669
	Sheet No.	50 OF 80
2021 Design	S-001	

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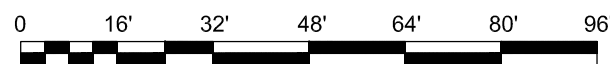
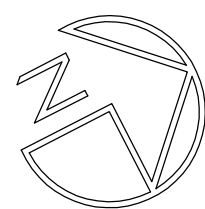




# PLATFORM KEY PLAN

SCALE: 1/32" = 1'-0"

- NOTES:  
1. SEE S-101 FOR PLAN NOTES.  
2. SEE DETAIL 1/S-104 FOR ALTERNATE PIER LOCATION DETAIL.



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## Office of Chief Engineer

National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



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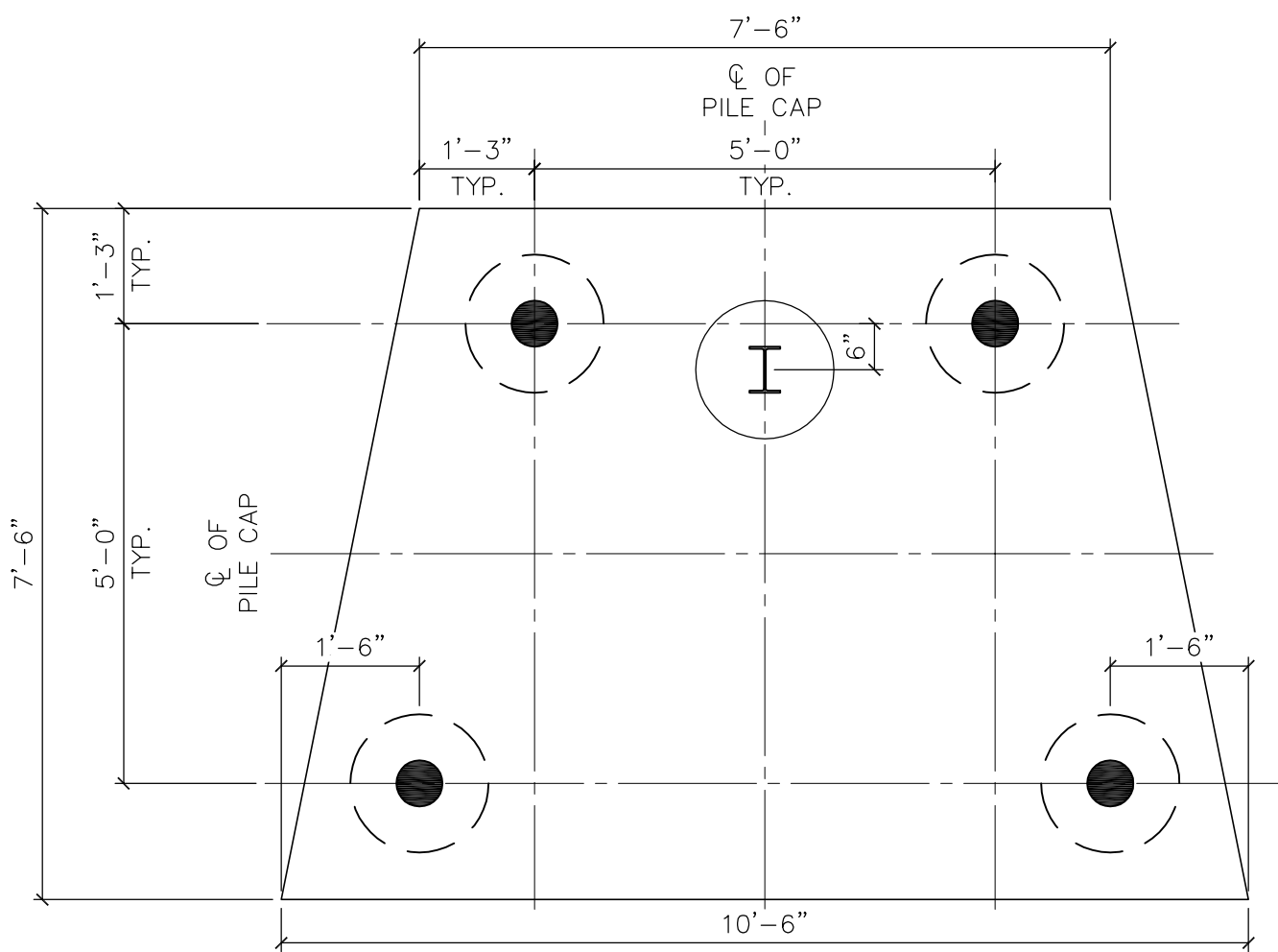
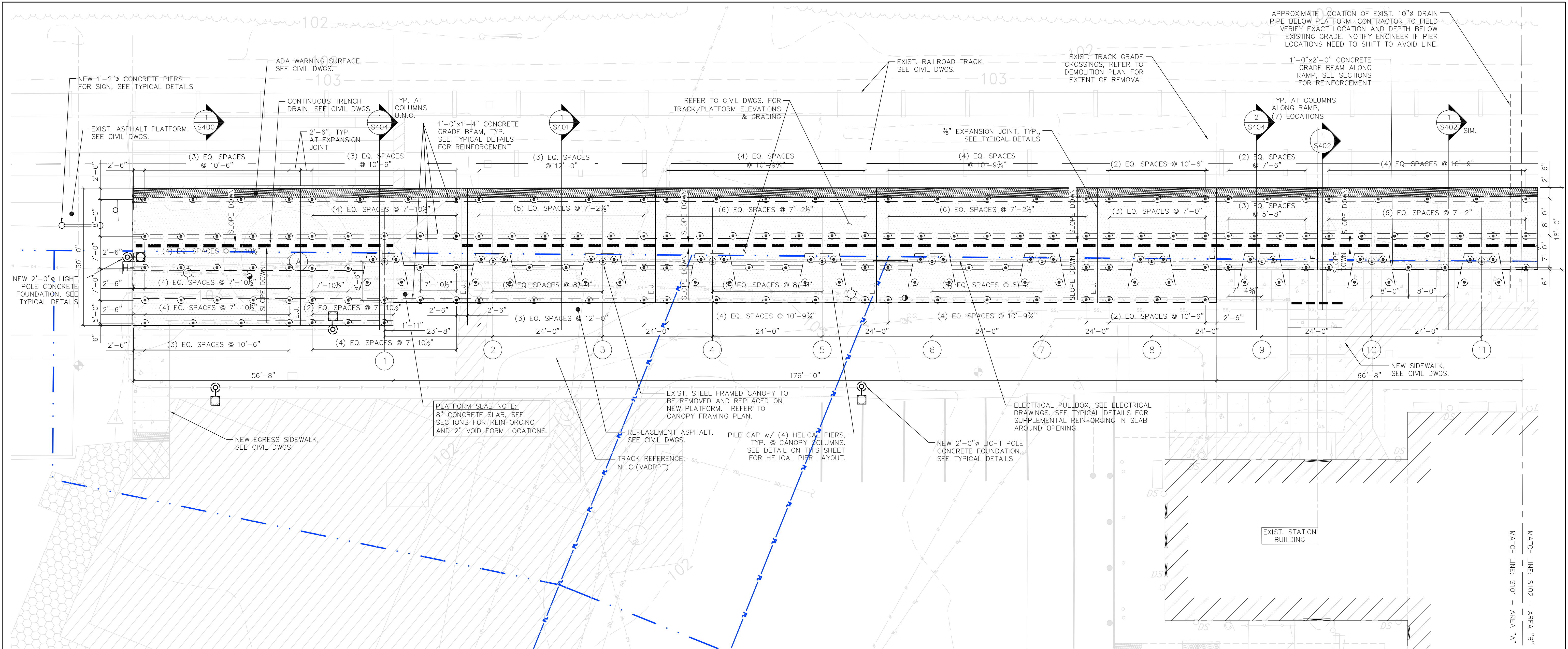
## PETERSBURG (PTB) ADA PLATFORM PROGRAM (ADAPP) STRUCTURAL PLATFORM KEY PLAN

Designed: JRC Drawn: JSH Checked: KTM Date: 2021-02-22

Project Code:	PTB_VA
WBS:	C.EN.100694.0669
Sheet No.	51 OF 80
Dwg. No.	S-100

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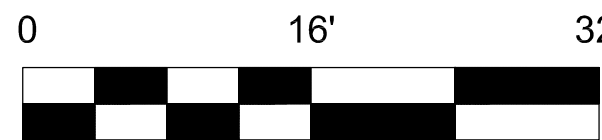
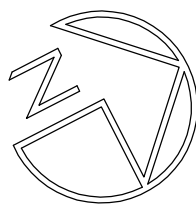




## PARTIAL PLATFORM FOUNDATION PLAN - AREA "A"

SCALE: 3/32" = 1'-0"

- NOTES:
- SEE S000 SERIES SHEETS FOR GENERAL NOTES, DESIGN CRITERIA, AND LOADS.
  - SEE S600 SERIES SHEETS FOR TYPICAL DETAILS.
  - INDICATES HELICAL PIER WITH A MINIMUM (20) KIP LOAD CAPACITY. FOR BIDDING PURPOSES ASSUME A PIER DEPTH OF 29'-0" BELOW EXISTING GRADE, BASED ON THE MAXIMUM BEARING STRATUM DEPTH GIVEN IN THE GEOTECHNICAL REPORT PREPARED BY AECOM, DATED 11/27/2019. SUBMIT DESIGN CALCULATIONS AND INSTALLATION CRITERIA FOR FINAL PIER DEPTHS PREPARED BY A GEOTECHNICAL ENGINEER LICENSED IN VA. PERFORM A MINIMUM OF (3) PIERS LOAD TESTS DISTRIBUTED ALONG PLATFORM LENGTH TO VERIFY THAT THE HELICAL PIERS MEET THE REQUIRED DESIGN CAPACITY.
  - COORD. ALL DIMENSIONS AND ELEVATIONS w/ ARCH., CIVIL, AND ELECTRICAL DWGS.
  - PROVIDE (1) #5 x 4'-0" LONG REINF. @ ALL RE-ENTRANT CORNERS. SEE TYP. DETAILS.
  - PER AMTRAK STANDARD DESIGN PRACTICES EP4000, ALL REINFORCING STEEL SHALL BE EPOXY-COATED IN ACCORDANCE w/ ASTM A775.
  - SEE DETAIL 1/S-104 FOR ALTERNATE PIER LOCATION DETAIL.



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PETERSBURG (PTB)  
ADA PLATFORM  
PROGRAM (ADAPP)

STRUCTURAL PARTIAL PLATFORM FOUNDATION PLAN - AREA "A"

Designed: JRC Drawn: JSH Checked: KTM Date: 2021-02-22

Project Code:	PTB_VA
WBS:	C.EN.100694.0669
Sheet No.	52 OF 80

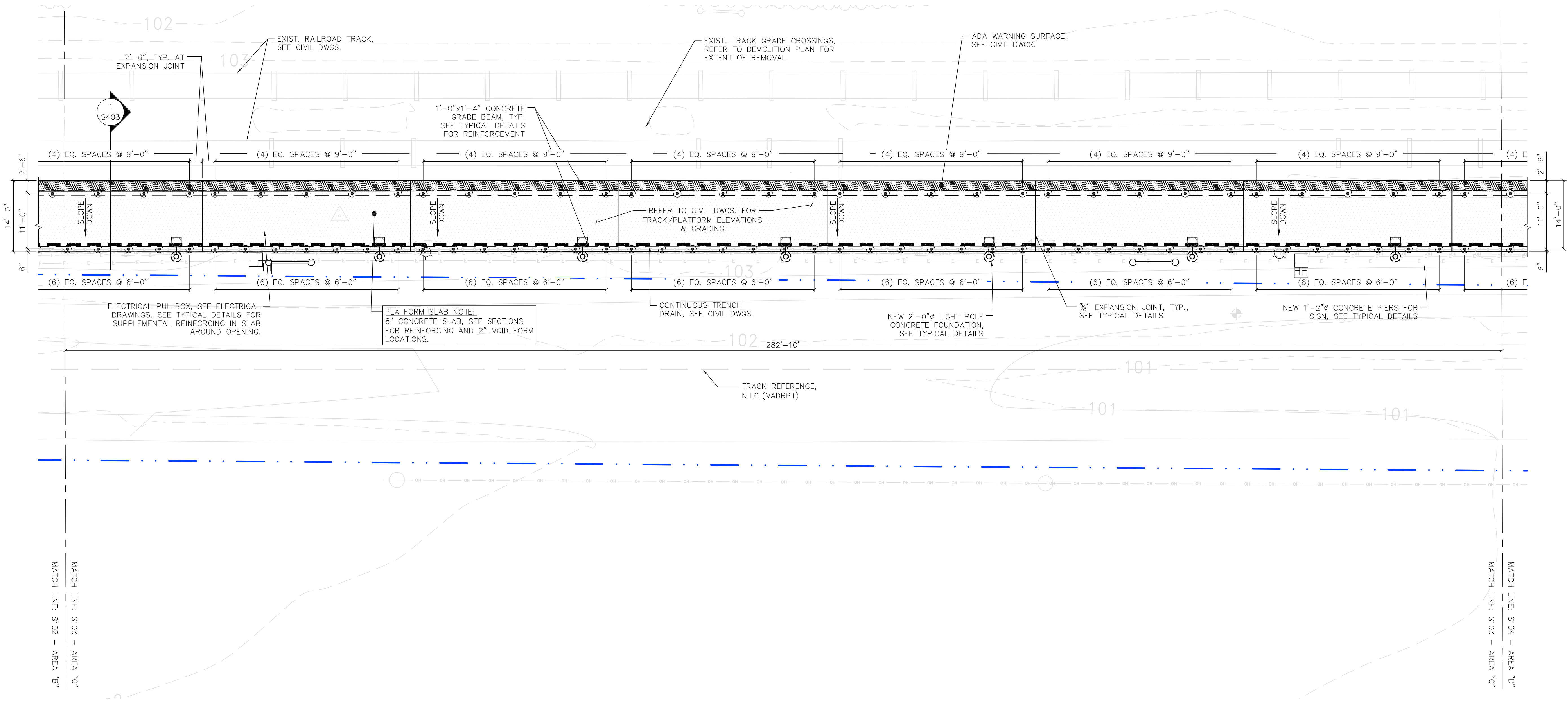
S-101

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PARTIAL PLATFORM  
FOUNDATION PLAN - AREA "C"

SCALE: 3/32" = 1'-0"

- NOTES:
- 1. SEE S-101 FOR PLAN NOTES.
  - 2. SEE DETAIL 1/S-104 FOR ALTERNATE PIER LOCATION DETAIL.



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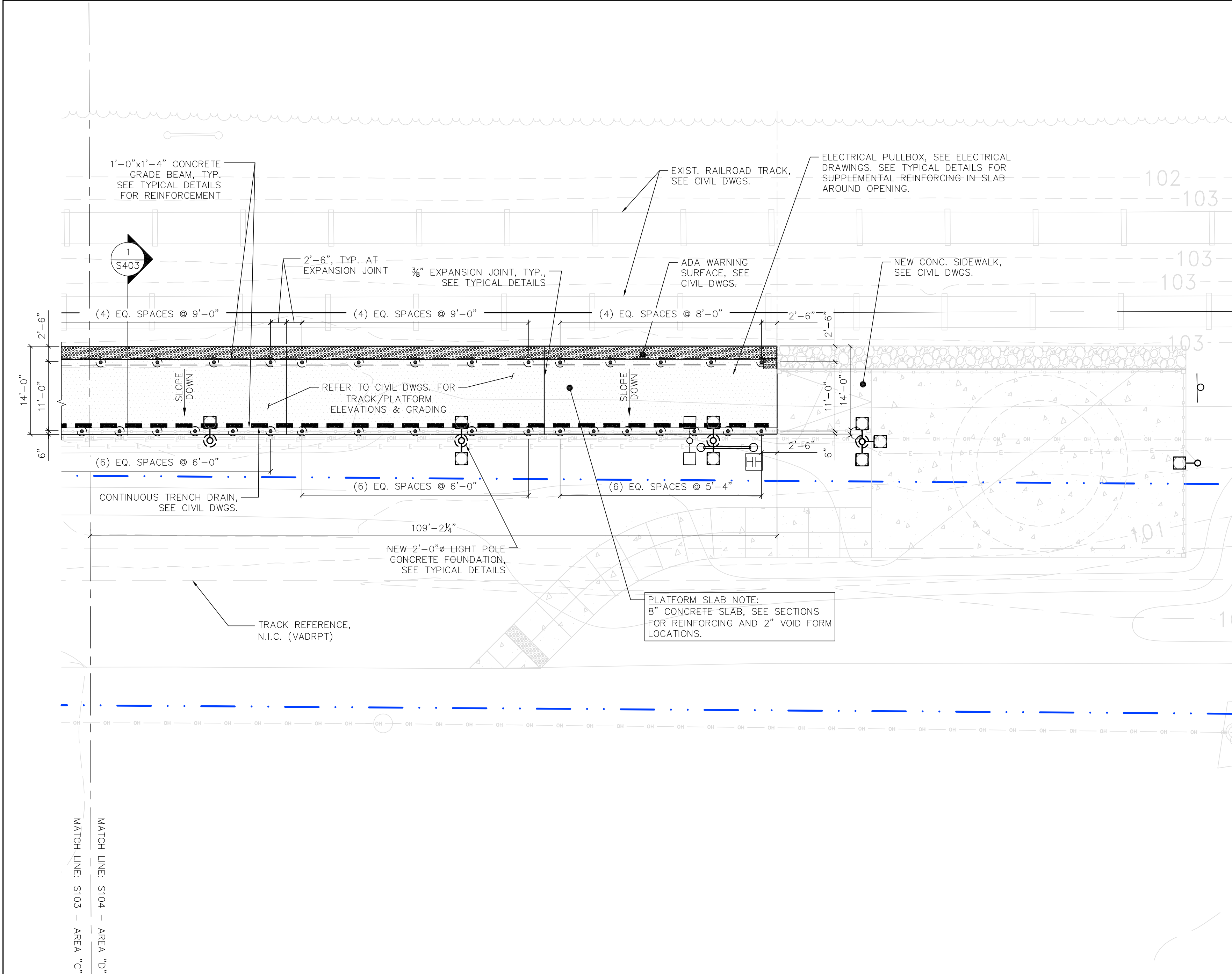
PETERSBURG (PTB)  
ADA PLATFORM  
PROGRAM (ADAPP)

STRUCTURAL PARTIAL PLATFORM FOUNDATION PLAN - AREA "C"

Designed: JRC Drawn: JSH Checked: KTM Date: 2021-02-22

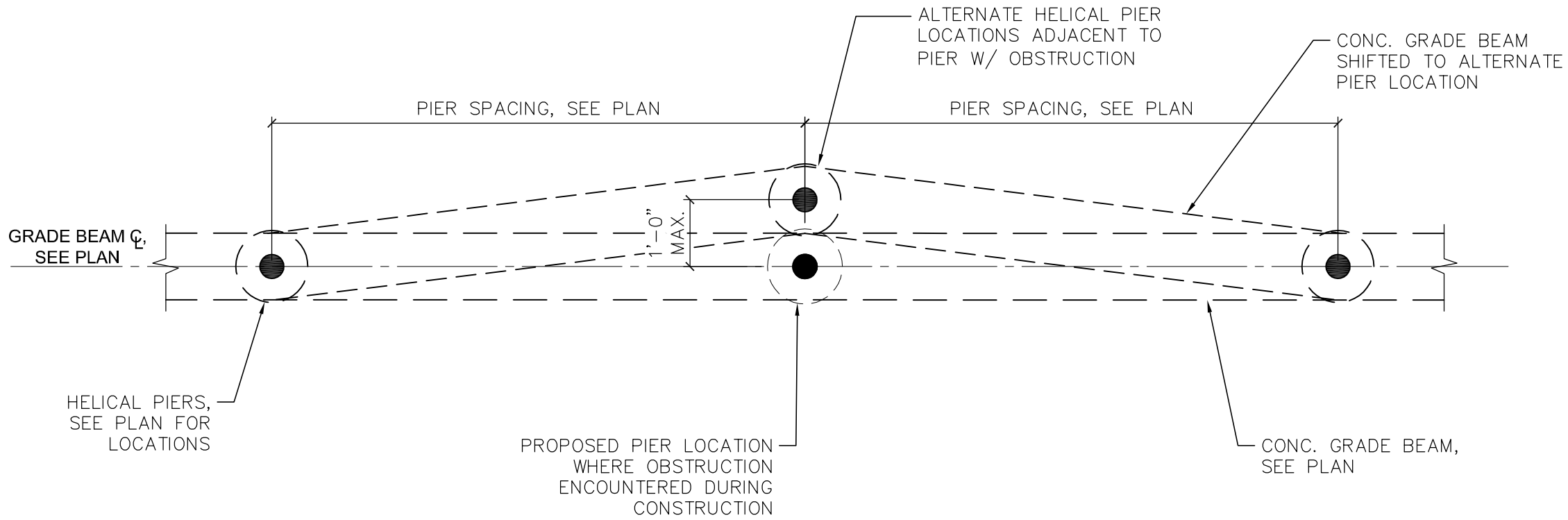
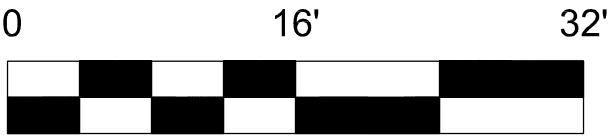
Project Code:	PTB, VA
WBS:	C.EN.100694.0669
Sheet No.	54 OF 80
Dwg. No.	S-103

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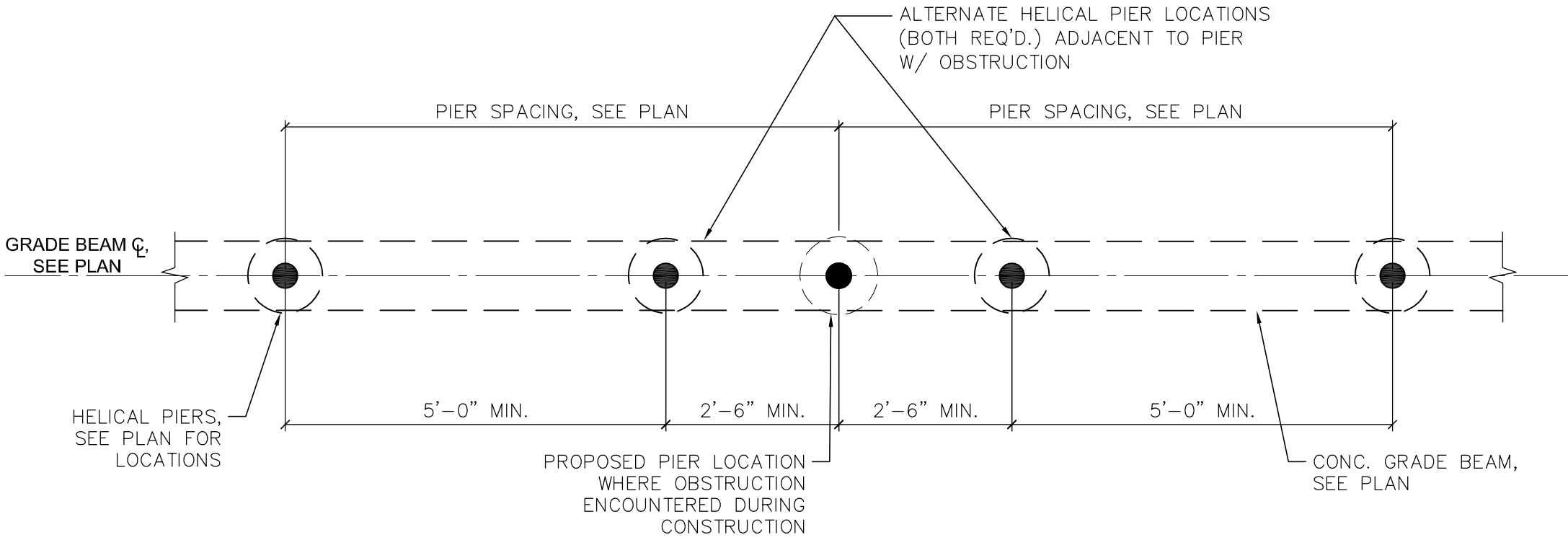


PARTIAL PLATFORM FOUNDATION PLAN - AREA "D"

- SCALE: 3/32" = 1'-0"
- NOTES:  
1. SEE S-101 FOR PLAN NOTES.  
2. SEE DETAIL 1/S-104 FOR ALTERNATE PIER LOCATION DETAIL.





OPTION 1



OPTION 3

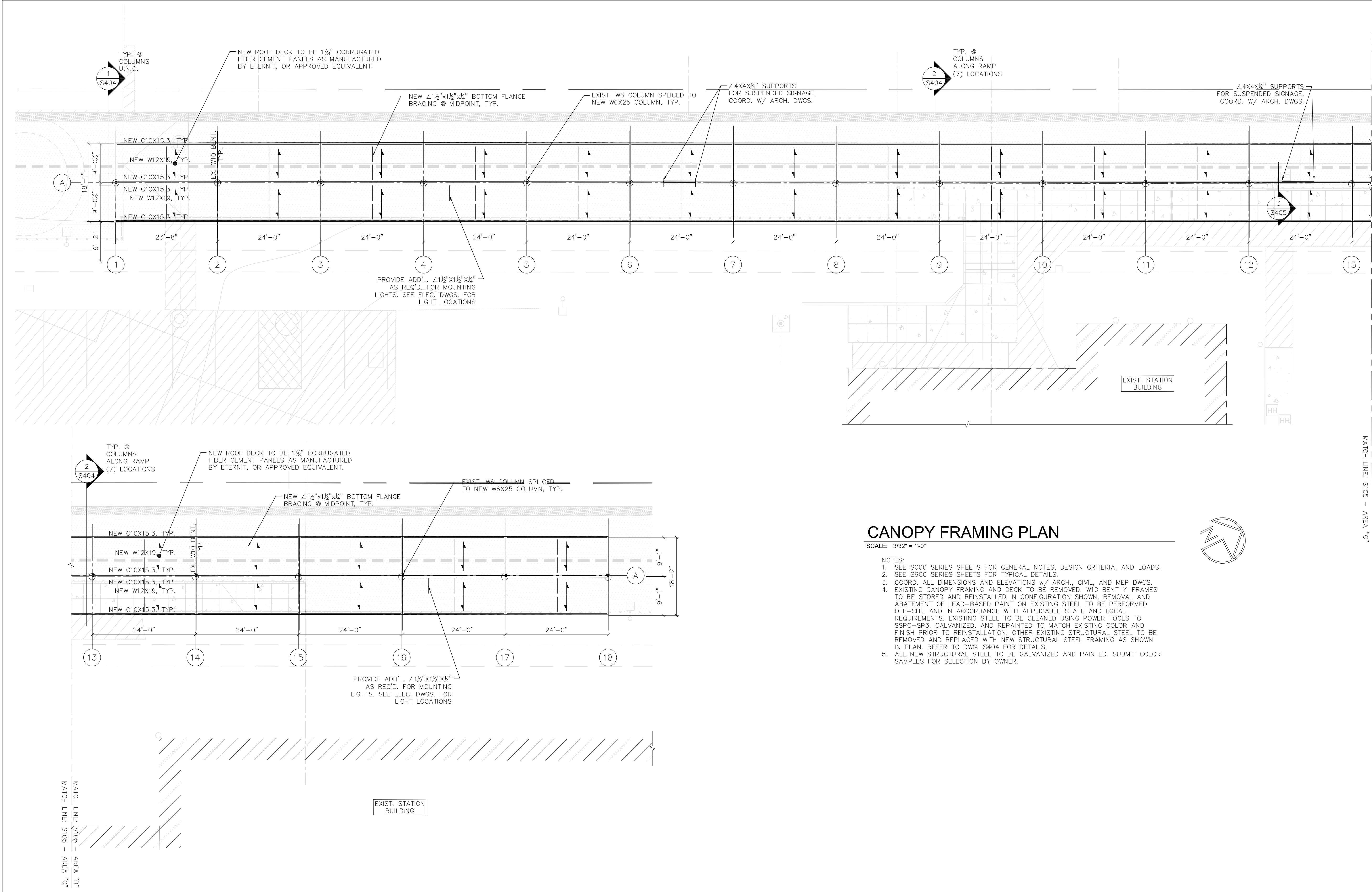
1 S104 ALTERNATE PIER LAYOUT AT EXISTING OBSTRUCTIONS ALONG GRADE BEAMS SCALE: 1/2" = 1'-0"

- NOTE:  
1. OPTION 1 - INSTALL PER ABOVE DETAIL.  
2. OPTION 2 - REMOVE PARTIALLY INSTALLED PIER, DRILL THROUGH OBSTRUCTION, AND REINSTALL PIER IN SAME LOCATION.  
3. OPTION 3 - INSTALL PER ABOVE DETAIL.  
4. NOTIFY ENGINEER OF ALL OBSTRUCTIONS AND ISSUES ENCOUNTERED DURING INSTALLATION PRIOR TO PROCEEDING WITH INSTALLATION OF ANY OF THE ABOVE OPTIONS.  
5. IF OPTION 1 CANNOT BE INSTALLED DUE TO ADJACENT TRENCH DRAIN OR OBSTRUCTIONS, OPTIONS 2 OR 3 ARE REQUIRED.  
6. OPTION 2 OR 3 MAY ONLY BE USED WHERE OPTION 1 CANNOT BE CONSTRUCTED.


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PETERSBURG (PTB)  
ADA PLATFORM  
PROGRAM (ADAPP)  
STRUCTURAL CANOPY FRAMING PLAN

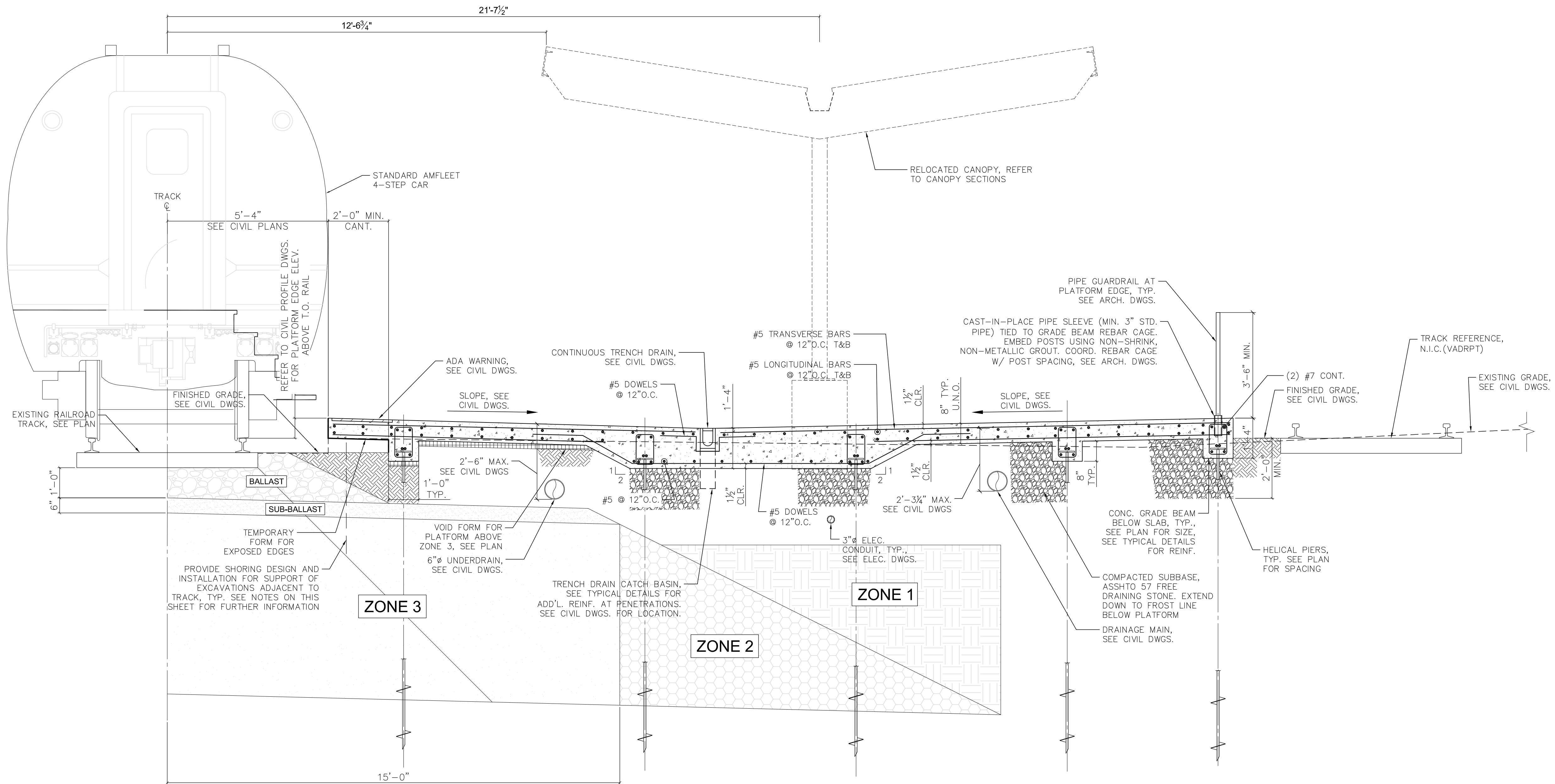
Designed: JRC  
Drawn: JSH  
Checked: KTM  
Date: 2021-02-22

VA

Project Code: PTB, VA  
WBS: C.EN.100694.0669  
Sheet No. 56 OF 80  
Dwg. No. S-105

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1  
S400  
TYPICAL PLATFORM SECTION AT 30' WIDE PLATFORM  
SCALE: 1/2"=1'-0"

- NOTES:
1. TRACK EXCAVATION ZONES AND GEOMETRY SHOWN PER CSX CORPORATION SHORING REQUIREMENTS GUIDE, FIGURE 1: THEORETICAL LIVE LOAD INFLUENCE ZONE, DATED JULY 2017.
  - ZONE 1: EXCAVATIONS ABOVE AND OUTSIDE OF THE THEORETICAL RAILROAD EMBANKMENT LINE – DO NOT NORMALLY REQUIRE SHORING TO PROTECT RAILROAD ROADBED, SHORING MAY BE REQUIRED FOR OTHER REASONS.
  - ZONE 2: EXCAVATIONS WHOSE BOTTOMS EXTEND INTO ZONE 2 REQUIRE SHORING, BUT THE SHORING MAY NORMALLY BE PULLED AFTER THE EXCAVATION HAD BEEN BACKFILLED.
  - ZONE 3: EXCAVATIONS WHOSE BOTTOMS EXTEND INTO ZONE 3 WILL NORMALLY REQUIRE THE SHORING TO BE LEFT IN PLACE AND CUT-OFF 3'-0" BELOW BASE OF RAIL. SHORING MUST BE DESIGNED FOR COOPER E80 LIVE LOAD.
  2. PRIOR TO COMMENCING ANY WORK, THE CONTRACTOR SHALL SUBMIT FOR APPROVAL BY THE RAILROAD DETAILED PLANS INDICATING THE NATURE AND EXTENT OF THE TRACK PROTECTION SHORING PROPOSED. THE CONTRACTOR SHALL INSTALL THE TEMPORARY SHORING SYSTEM PER THE APPROVED PLANS. DESIGN OF THE TEMPORARY SHORING SYSTEM TO COMPLY WITH CSX CORPORATION SHORING DESIGN GUIDE.

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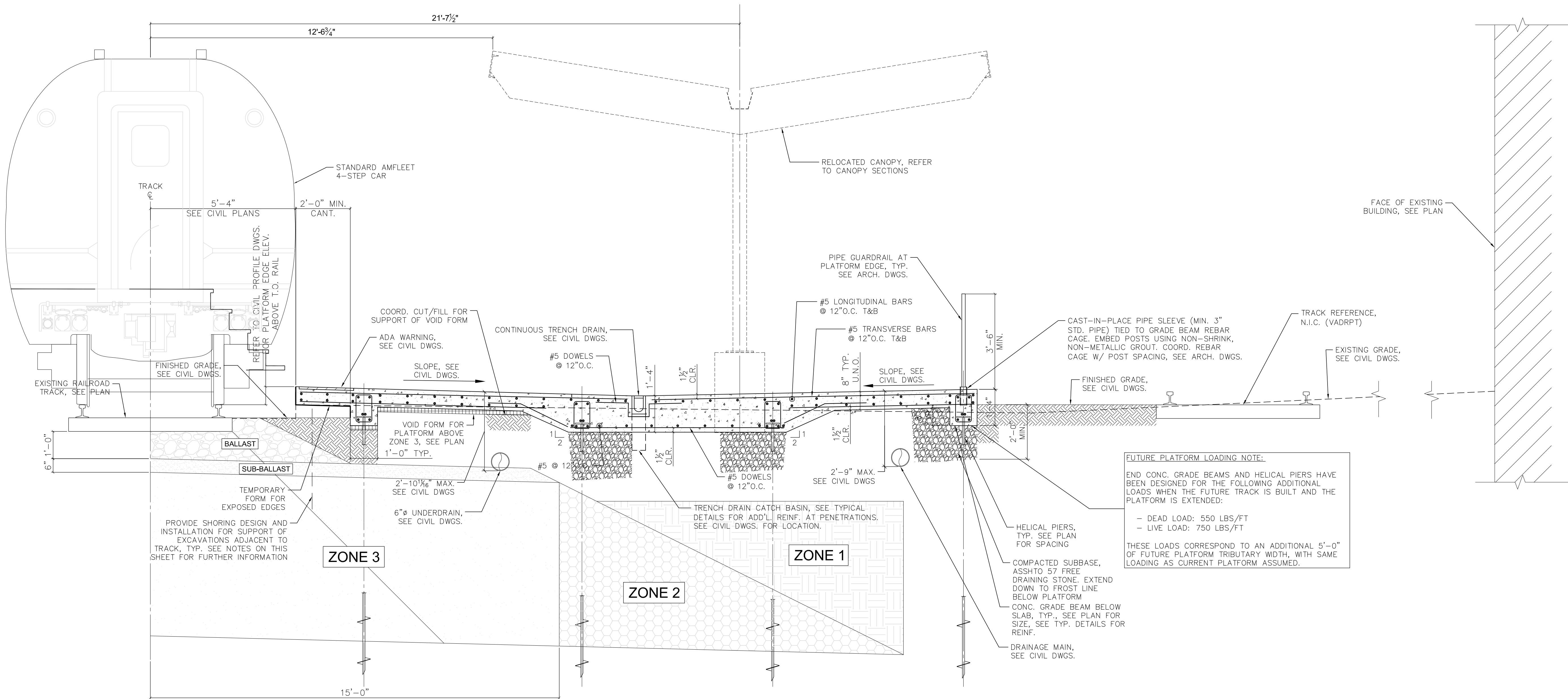
PETERSBURG (PTB)  
ADA PLATFORM  
PROGRAM (ADAPP)

STRUCTURAL FOUNDATION DETAILS

Designed: JRC Drawn: JSH Checked: KTM Date: 2021-02-22

Project Code:	PTB_VA
WBS:	C.EN.100694.0669
Sheet No.	57 OF 80
Doc No.	S-400

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1  
S401

**TYPICAL PLATFORM SECTION AT 25' WIDE PLATFORM**  
SCALE: 1/2"=1'-0"

**NOTES:**

1. TRACK EXCAVATION ZONES AND GEOMETRY SHOWN PER CSX CORPORATION SHORING REQUIREMENTS GUIDE, FIGURE 1: THEORETICAL LIVE LOAD INFLUENCE ZONE, DATED JULY 2017.  
  
ZONE 1: EXCAVATIONS ABOVE AND OUTSIDE OF THE THEORETICAL RAILROAD EMBANKMENT LINE – DO NOT NORMALLY REQUIRE SHORING TO PROTECT RAILROAD ROADBED, SHORING MAY BE REQUIRED FOR OTHER REASONS.  
  
ZONE 2: EXCAVATIONS WHOSE BOTTOMS EXTEND INTO ZONE 2 REQUIRE SHORING, BUT THE SHORING MAY NORMALLY BE PULLED AFTER THE EXCAVATION HAD BEEN BACKFILLED.  
  
ZONE 3: EXCAVATIONS WHOSE BOTTOMS EXTEND INTO ZONE 3 WILL NORMALLY REQUIRE THE SHORING TO BE LEFT IN PLACE AND CUT-OFF 3'-0" BELOW BASE OF RAIL. SHORING MUST BE DESIGNED FOR COOPER E80 LIVE LOAD.  
  
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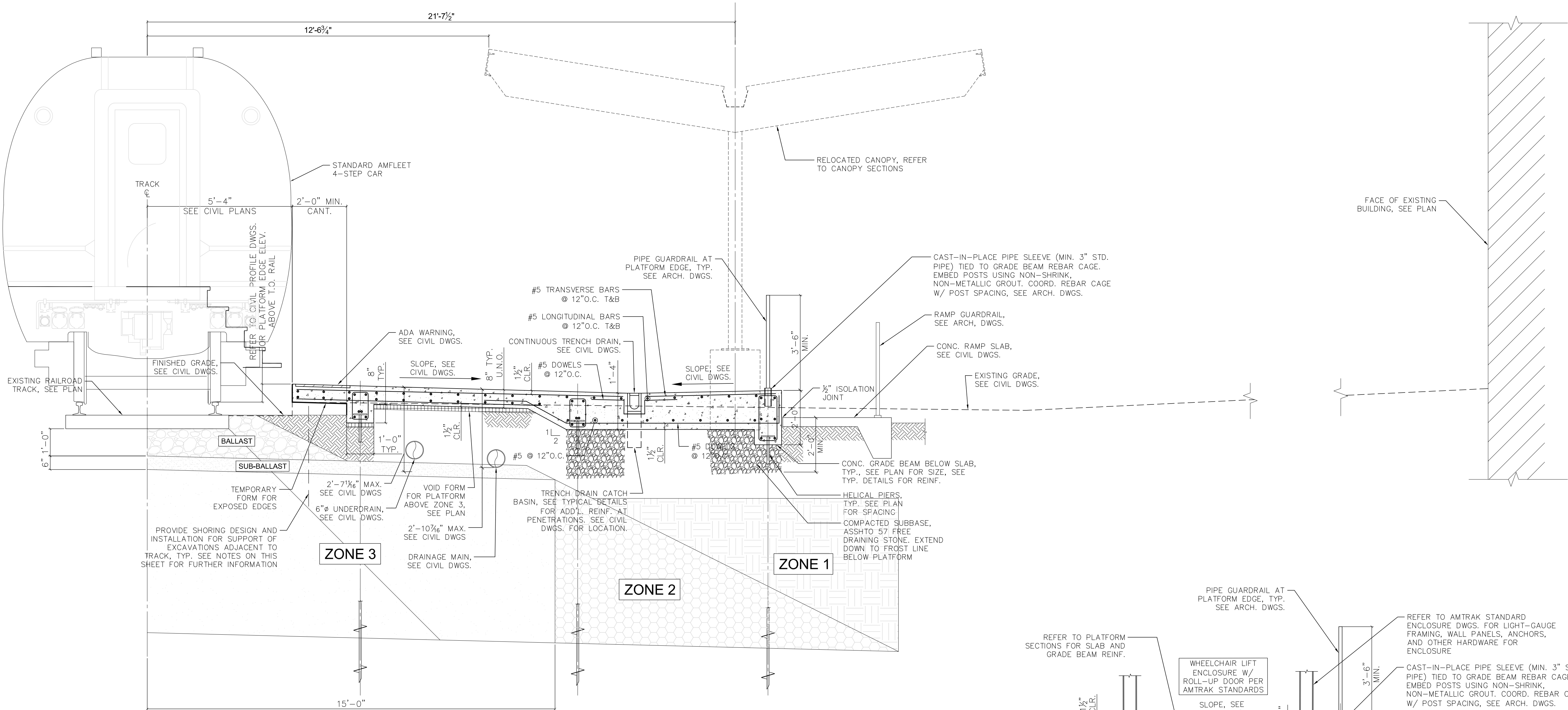
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**PETERSBURG (PTB)**  
**ADA PLATFORM**  
**PROGRAM (ADAPP)**  
**STRUCTURAL FOUNDATION DETAILS**

Designed: JRC Drawn: JSH Checked: KTM Date: 2021-02-22

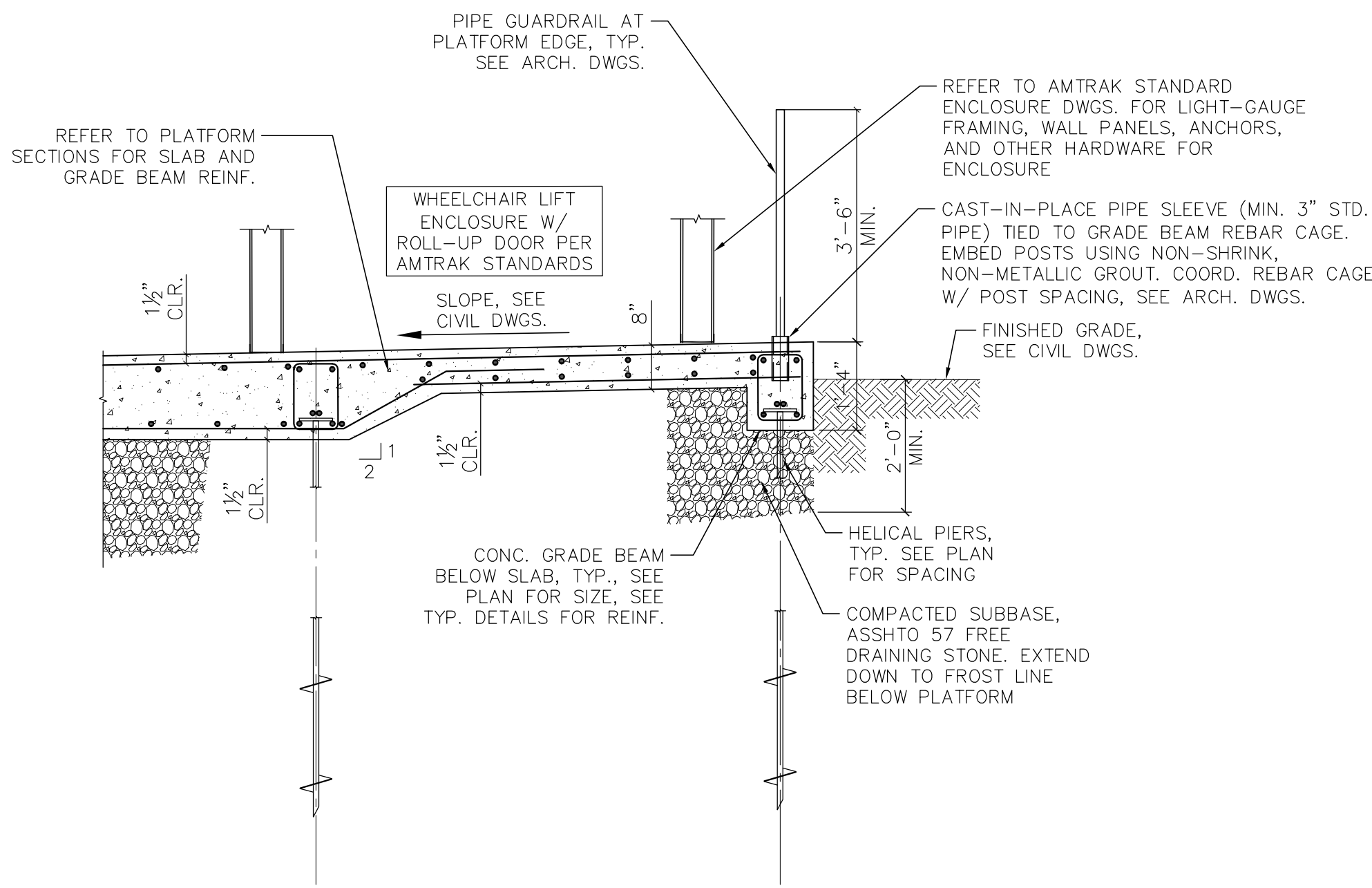
VA	Project Code:	PTB, VA
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Doc. No.	<b>S-401</b>	

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1 TYPICAL PLATFORM SECTION AT 18' WIDE PLATFORM  
SCALE: 1/2"=1'-0"

- NOTES:
- TRACK EXCAVATION ZONES AND GEOMETRY SHOWN PER CSX CORPORATION SHORING REQUIREMENTS GUIDE, FIGURE 1: THEORETICAL LIVE LOAD INFLUENCE ZONE, DATED JULY 2017.
  - ZONE 1: EXCAVATIONS ABOVE AND OUTSIDE OF THE THEORETICAL RAILROAD EMBANKMENT LINE – DO NOT NORMALLY REQUIRE SHORING TO PROTECT RAILROAD ROADBED. SHORING MAY BE REQUIRED FOR OTHER REASONS.
  - ZONE 2: EXCAVATIONS WHOSE BOTTOMS EXTEND INTO ZONE 2 REQUIRE SHORING, BUT THE SHORING MAY NORMALLY BE PULLED AFTER THE EXCAVATION HAD BEEN BACKFILLED.
  - ZONE 3: EXCAVATIONS WHOSE BOTTOMS EXTEND INTO ZONE 3 WILL NORMALLY REQUIRE THE SHORING TO BE LEFT IN PLACE AND CUT-OFF 3'-0" BELOW BASE OF RAIL. SHORING MUST BE DESIGNED FOR COOPER E80 LIVE LOAD.
2. PRIOR TO COMMENCING ANY WORK, THE CONTRACTOR SHALL SUBMIT FOR APPROVAL BY THE RAILROAD DETAILED PLANS INDICATING THE NATURE AND EXTENT OF THE TRACK PROTECTION SHORING PROPOSED. THE CONTRACTOR SHALL INSTALL THE TEMPORARY SHORING SYSTEM PER THE APPROVED PLANS. DESIGN OF THE TEMPORARY SHORING SYSTEM TO COMPLY WITH CSX CORPORATION SHORING DESIGN GUIDE.



2 TYPICAL PLATFORM SECTION AT WHEELCHAIR LIFT ENCLOSURE  
SCALE: 1/2"=1'-0"

NO.	DESCRIPTION	DATE	BY



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## Office of Chief Engineer

National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



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## PETERSBURG (PTB) ADA PLATFORM PROGRAM (ADAPP)

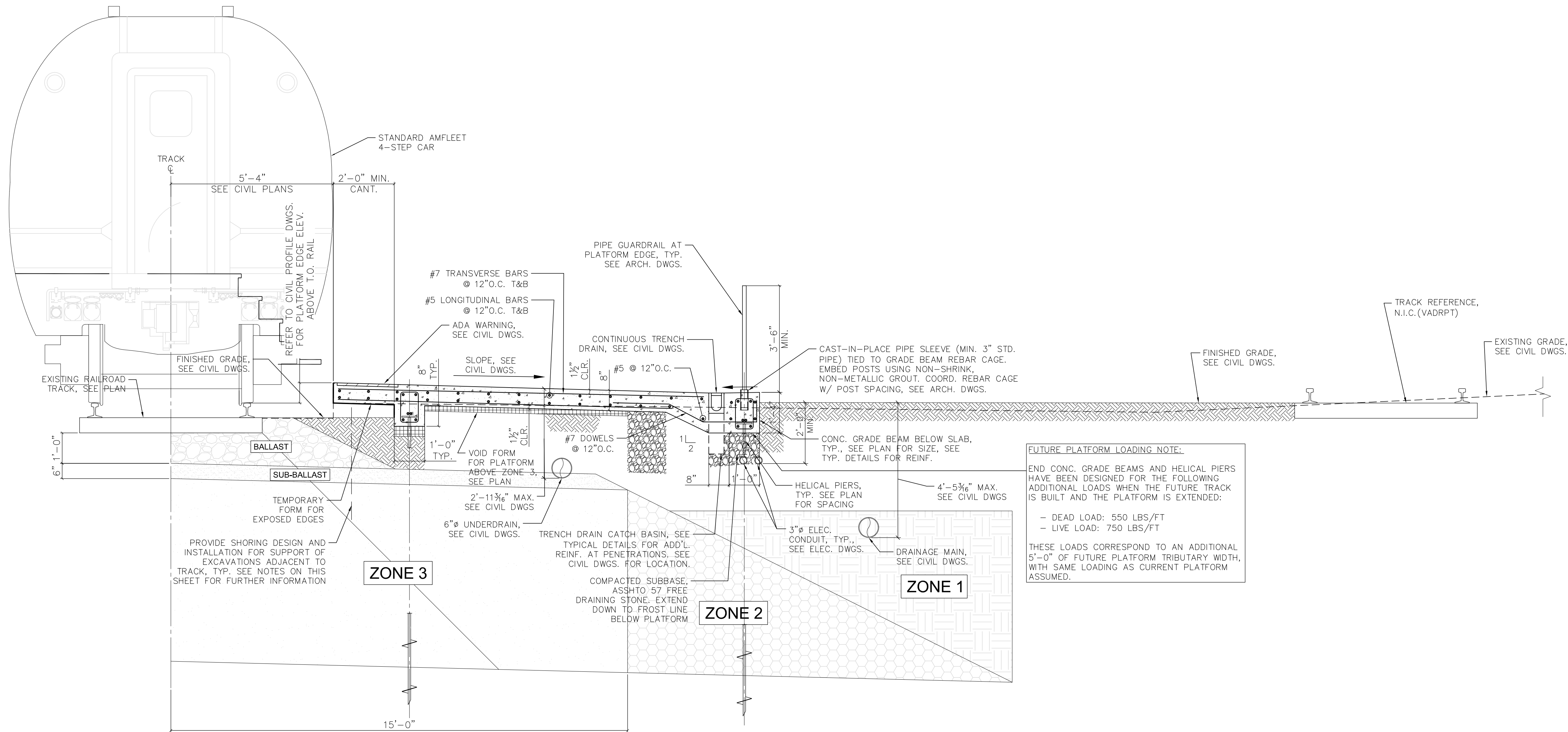
### STRUCTURAL FOUNDATION DETAILS

Designed: JRC Drawn: JSH Checked: KTM Date: 2021-02-22

Project Code:	PTB_VA
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**FUTURE PLATFORM LOADING NOTE:**

END CONC. GRADE BEAMS AND HELICAL PIERS HAVE BEEN DESIGNED FOR THE FOLLOWING ADDITIONAL LOADS WHEN THE FUTURE TRACK IS BUILT AND THE PLATFORM IS EXTENDED:

- DEAD LOAD: 550 LBS/FT
- LIVE LOAD: 750 LBS/FT

THESE LOADS CORRESPOND TO AN ADDITIONAL 5'-0" OF FUTURE PLATFORM TRIBUTARY WIDTH, WITH SAME LOADING AS CURRENT PLATFORM ASSUMED.

**1**  
S403  
**TYPICAL PLATFORM SECTION AT 14' WIDE PLATFORM**  
SCALE: 1/2"=1'-0"

- NOTES:**
1. TRACK EXCAVATION ZONES AND GEOMETRY SHOWN PER CSX CORPORATION SHORING REQUIREMENTS GUIDE, FIGURE 1: THEORETICAL LIVE LOAD INFLUENCE ZONE, DATED JULY 2017.
  - ZONE 1: EXCAVATIONS ABOVE AND OUTSIDE OF THE THEORETICAL RAILROAD EMBANKMENT LINE – DO NOT NORMALLY REQUIRE SHORING TO PROTECT RAILROAD ROADBED, SHORING MAY BE REQUIRED FOR OTHER REASONS.
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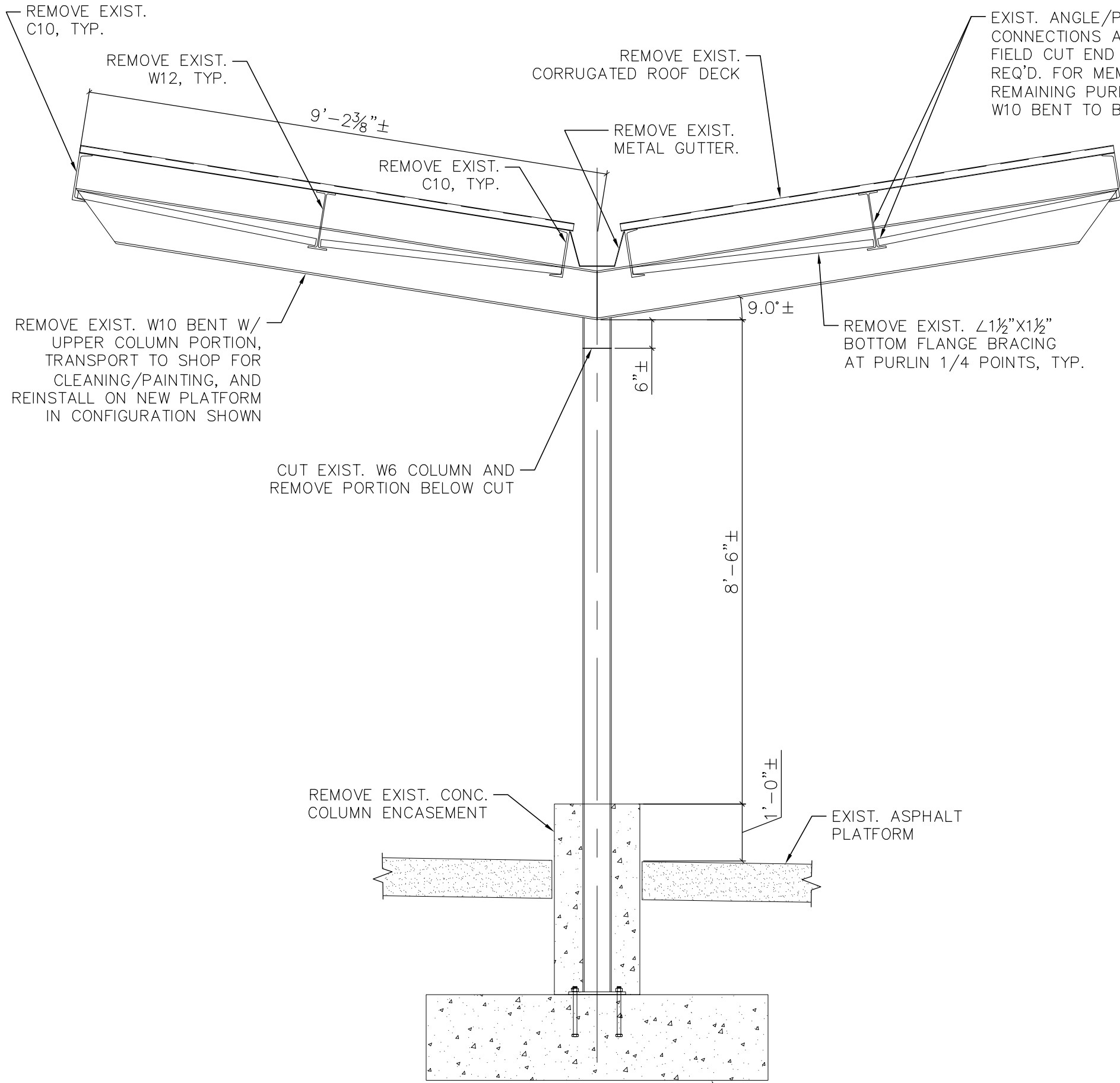
**PETERSBURG (PTB)**  
**ADA PLATFORM**  
**PROGRAM (ADAPP)**

**STRUCTURAL FOUNDATION DETAILS**

Designed: JRC Drawn: JSH Checked: KTM Date: 2021-02-22

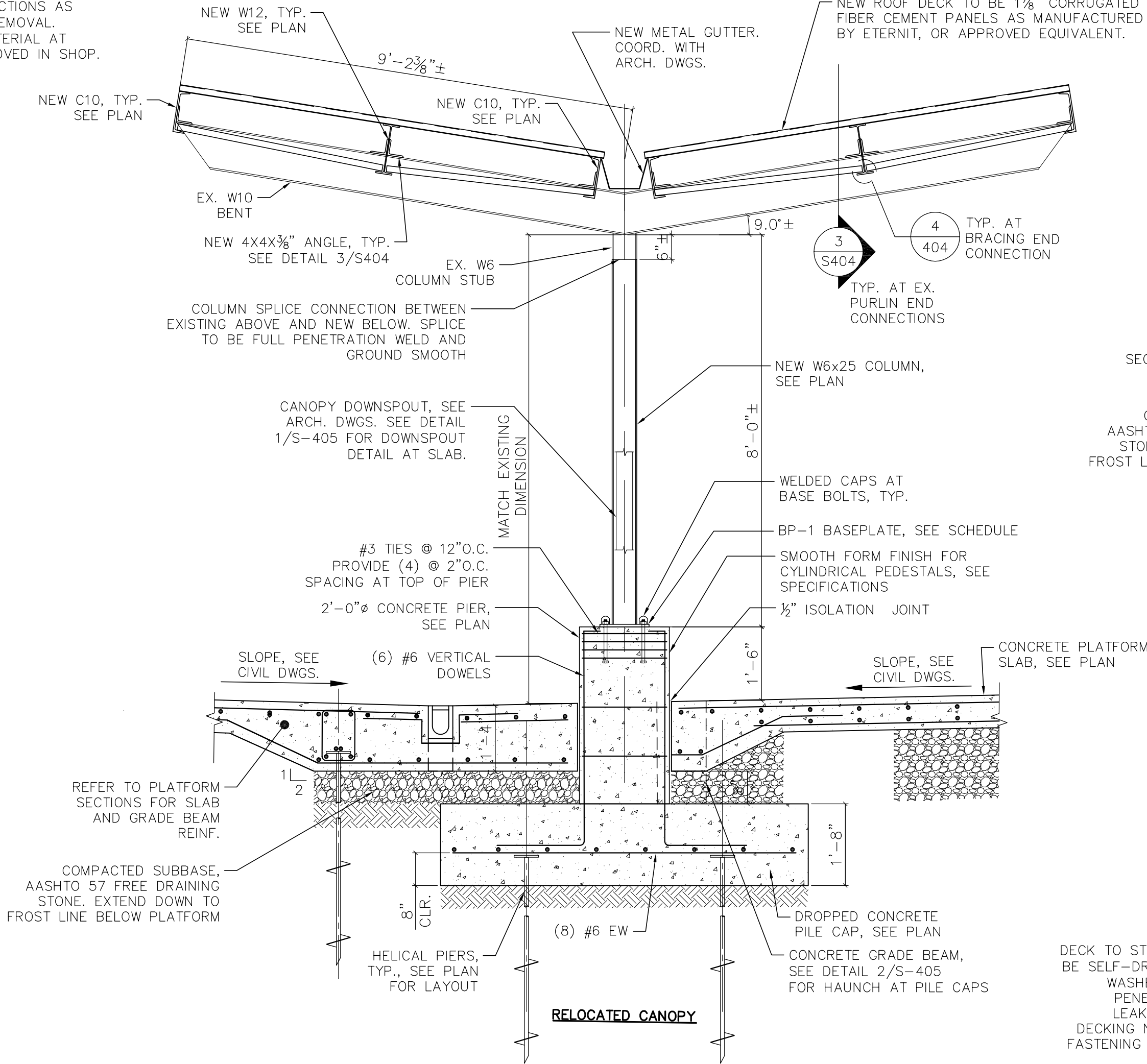
Project Code:	PTB, VA
WBS:	C.EN.100694.0669
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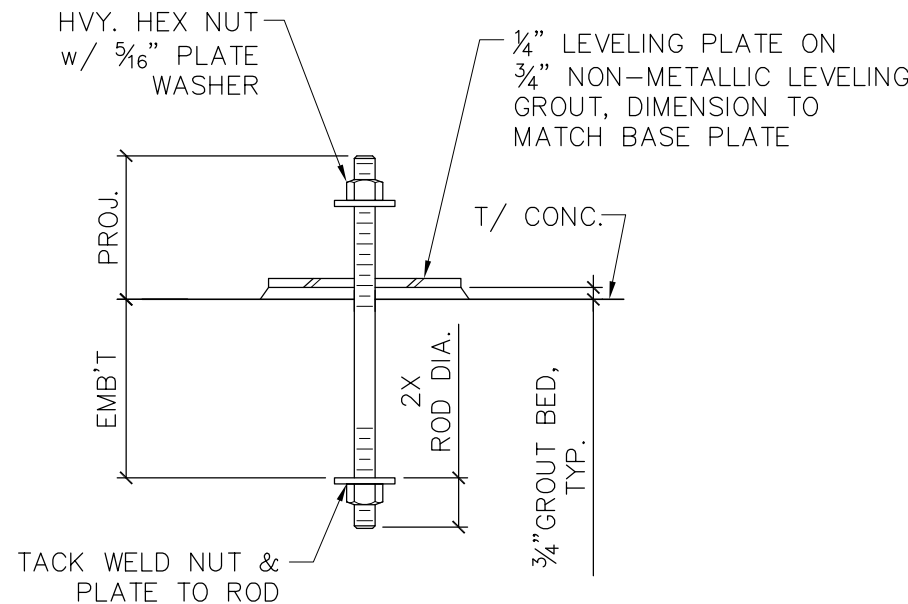
EXISTING CANOPY

1 TYPICAL CANOPY SECTION  
SCALE: 1/2"=1'-0"

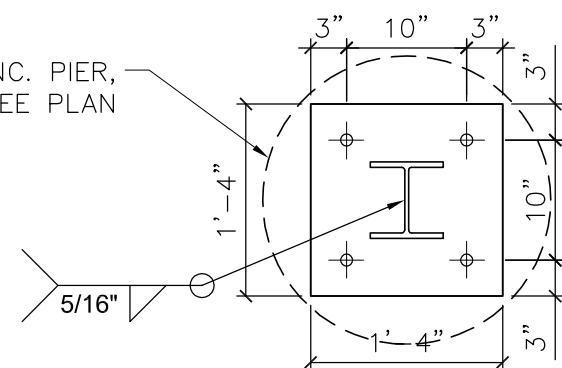


RELOCATED CANOPY

NOTES:  
1. EXISTING CANOPY DIMENSIONS SHOWN ARE BASED ON LIMITED FIELD MEASUREMENTS BY PENNONI. VERIFY EXISTING CANOPY DIMENSIONS AND GEOMETRY PRIOR TO DEMOLITION AND FABRICATION. ELEVATION AND GEOMETRY OF CANOPY TO MATCH EXISTING.

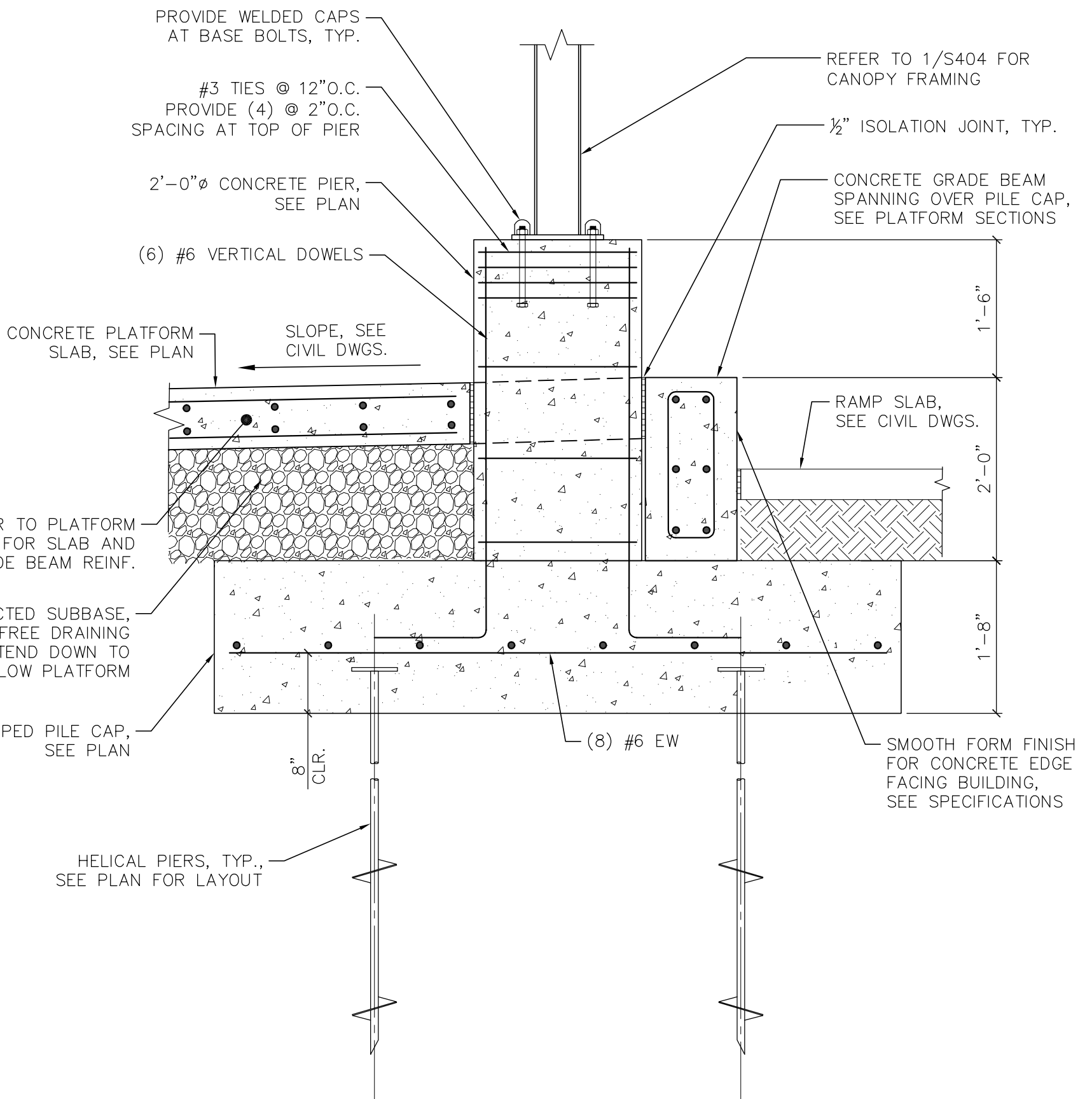


ANCHOR ROD SCHEDULE						
MARK	MATERIAL	QTY.	DIA.	EMB'T	PROJ.	ANCHOR PLATE
①	F1554-55 KSI (S1)	4	1"	18"	5"	2"x2"x1/4"

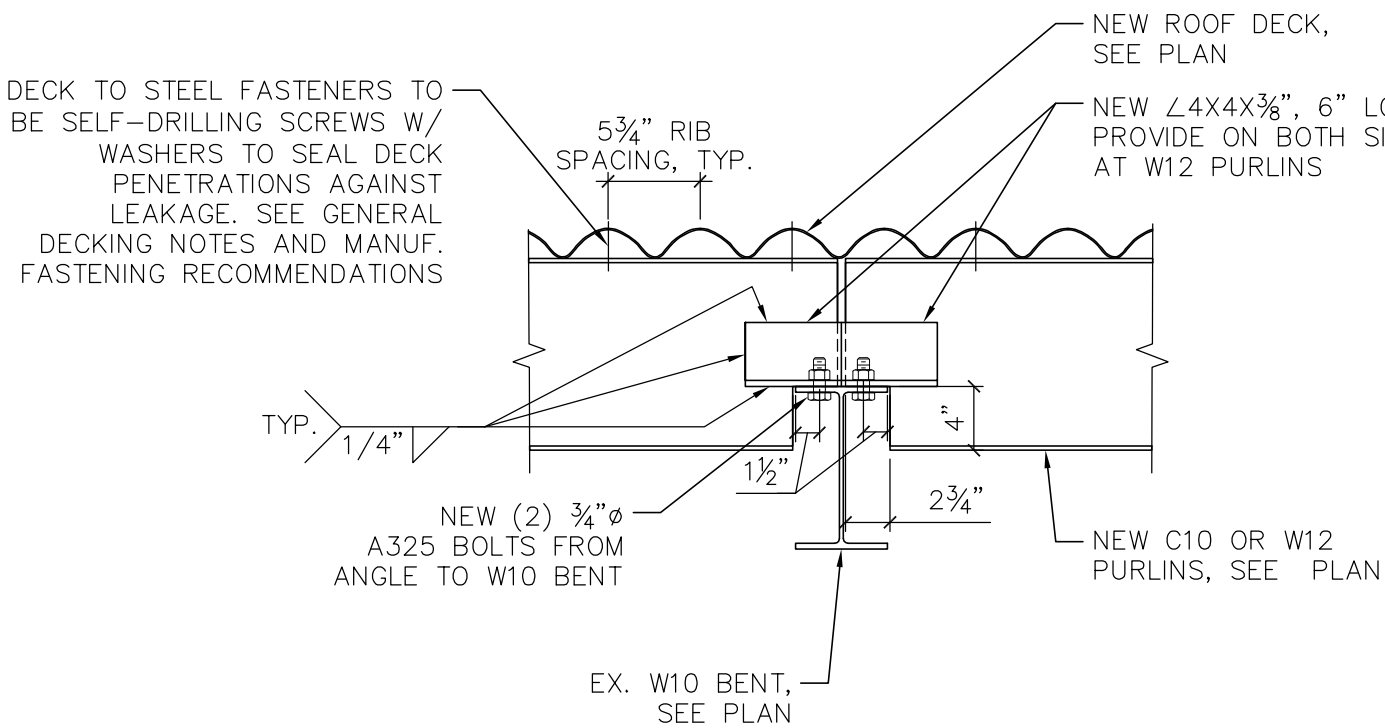


BP-1

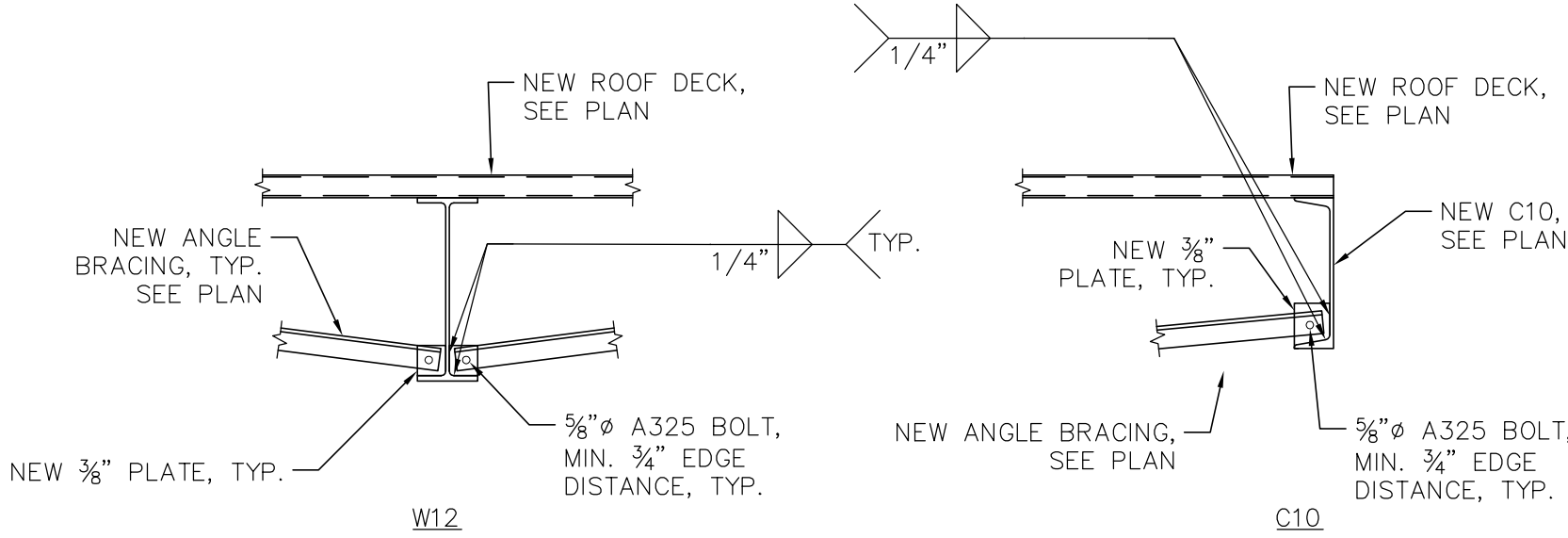
COLUMN BASE PLATE SCHEDULE			
MARK	SIZE (t x L x W)	ANCHOR RODS	REMARKS
BP-1	1 1/2" x 1'-4" x 1'-4"	①	SEE DETAIL



2 TYPICAL CANOPY FOUNDATION ALONG RAMP  
SCALE: 3/4"=1'-0"



3 TYPICAL CANOPY PURLIN END CONNECTION DETAIL  
SCALE: 1"=1'-0"



4 TYPICAL BRACING AND LIGHT SUPPORT END CONNECTION DETAIL  
SCALE: 1"=1'-0"

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PETERSBURG (PTB)  
ADA PLATFORM  
PROGRAM (ADAPP)  
STRUCTURAL CANOPY DETAILS

Designed: JRC Drawn: JSH Checked: KTM Date: 2021-02-22

Project Code:	PTB_VA
WBS:	C.EN.100694.0669
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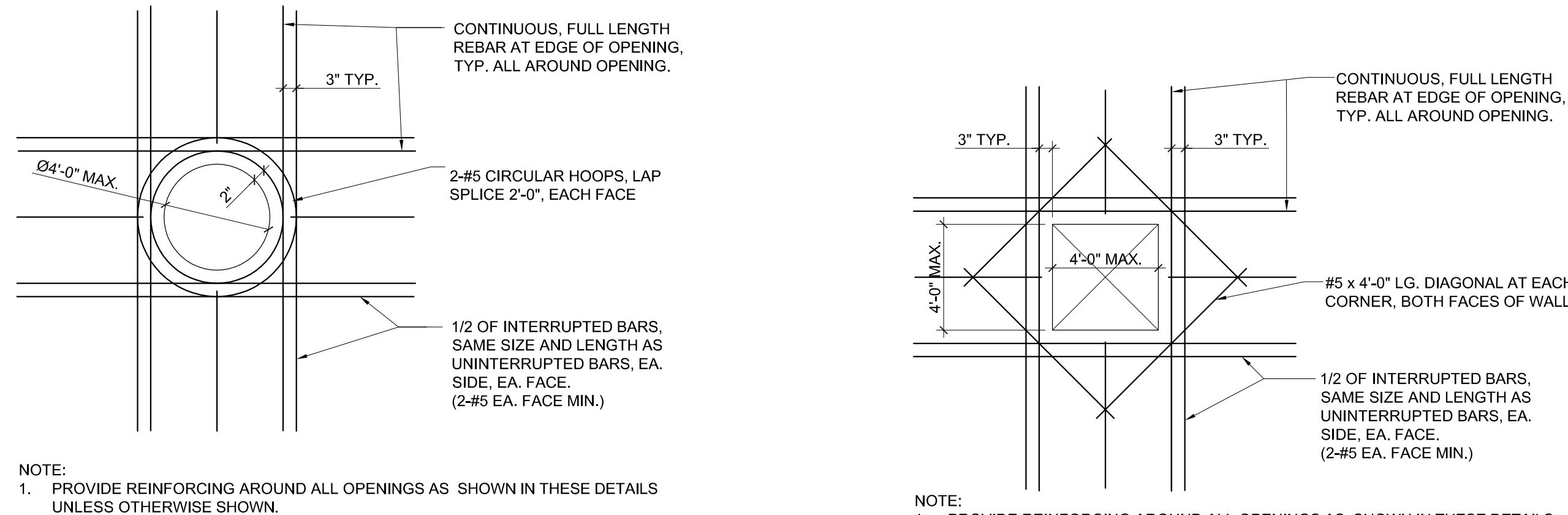
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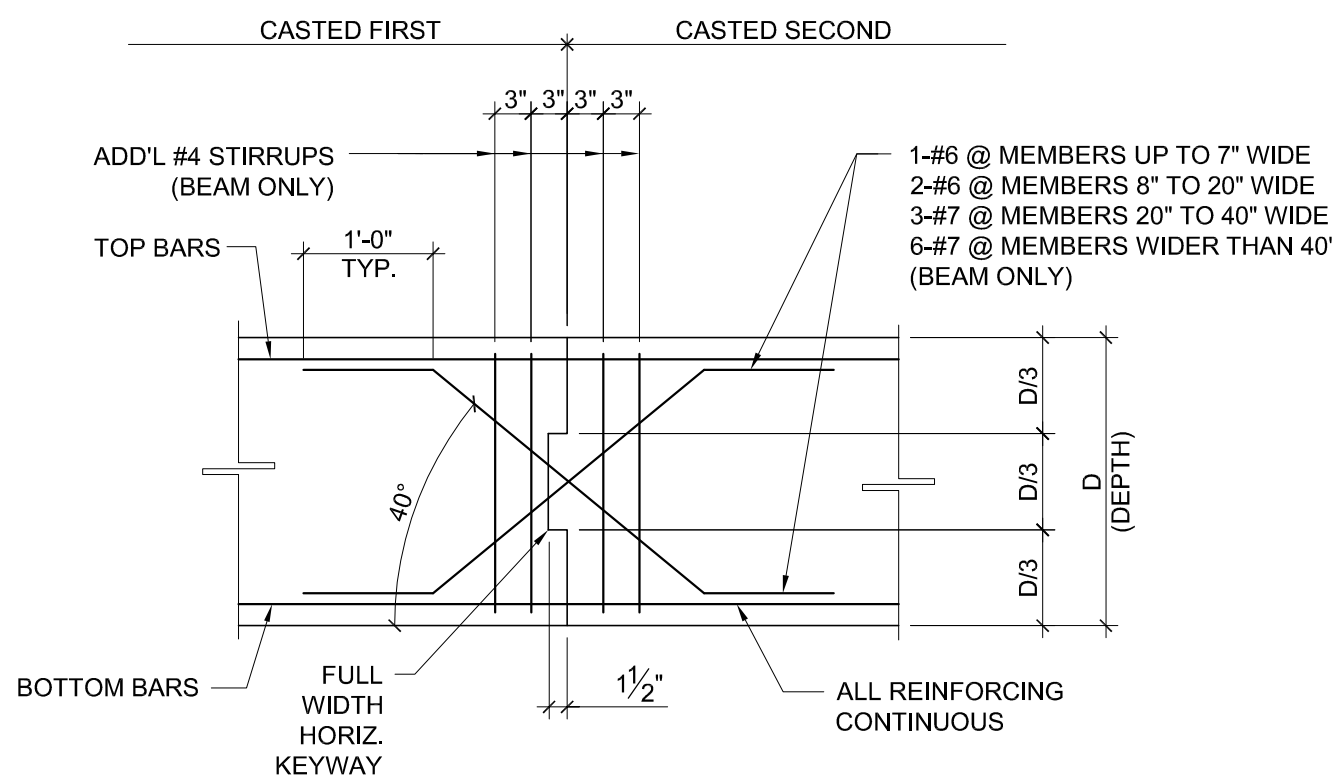


## 2 TYPICAL ROUND CONCRETE SLAB OPENING DETAIL

SCALE: N.T.S.

SCALE: N.T.S.

- NOTE:  
1. PROVIDE REINFORCING AROUND ALL OPENINGS AS SHOWN IN THESE DETAILS UNLESS OTHERWISE SHOWN.



## 5 TYPICAL CONCRETE BEAM, GIRDER OR SLAB CONSTRUCTION JOINT

SCALE: N.T.S.

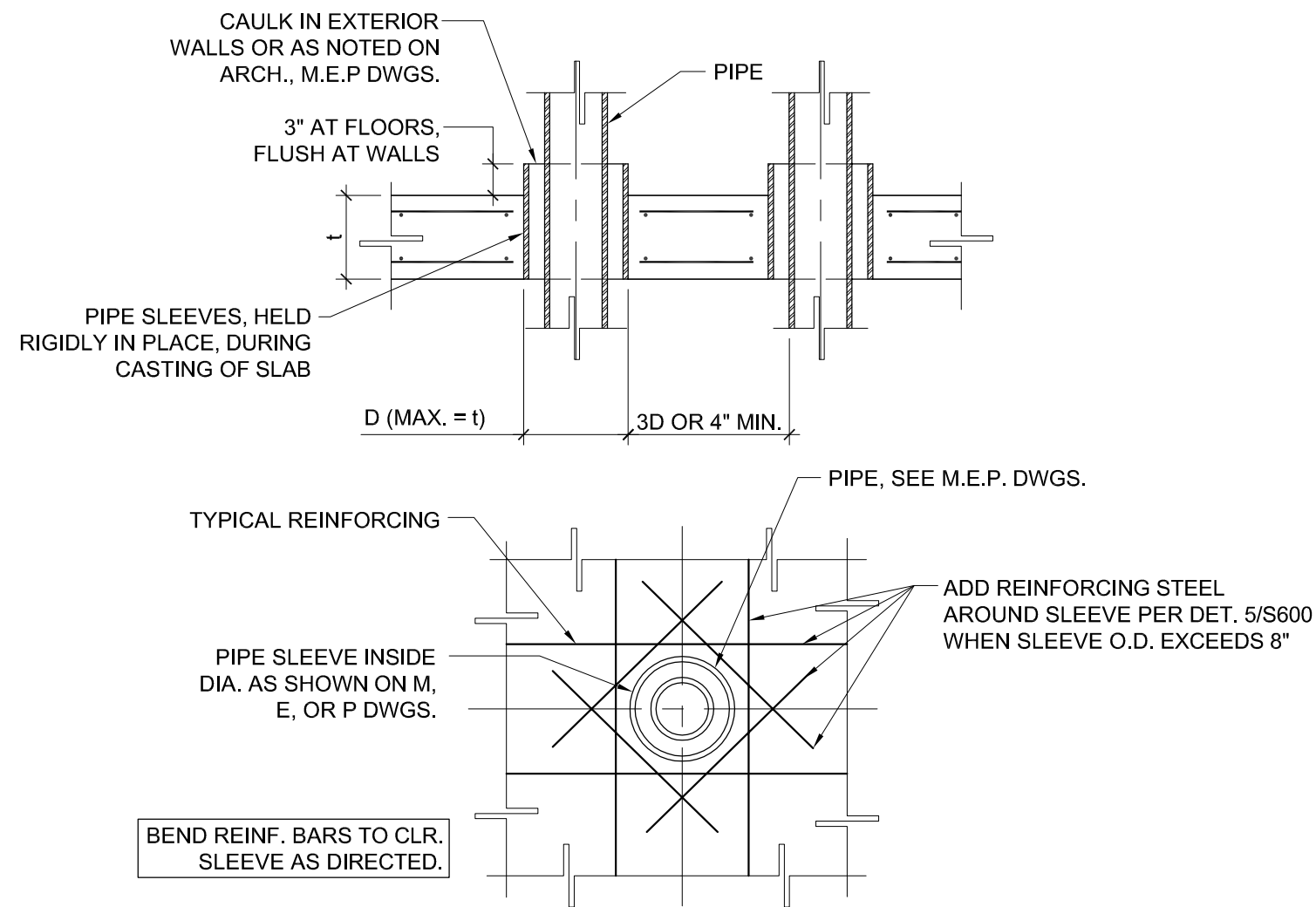
- NOTE:
1. JOINTS SHALL BE LOCATED WITHIN THE MIDDLE THIRD OF SPAN.
  2. JOINTS IN GIRDERS SHALL BE OFFSET A MINIMUM DISTANCE OF TWO TIMES THE WIDTH OF INTERSECTING BEAMS.
  3. DO NOT LOCATE JOINTS IN CANTILEVERS.
  4. ADDITIONAL HORIZONTAL BARS NOT SHOWN FOR CLARITY.



SCALE: N.T.S.

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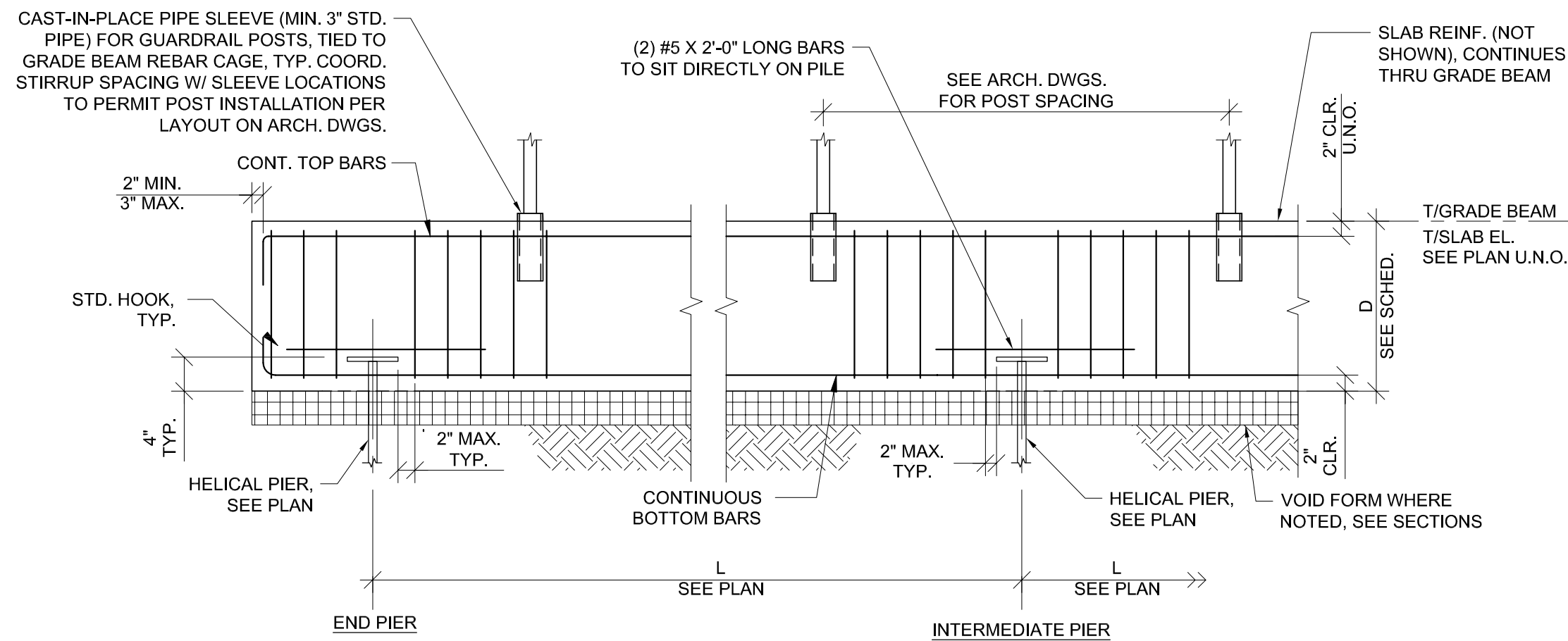
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1 TYPICAL DETAIL AT CAST IN SLEEVES THRU SLAB

SCALE: N.T.S.

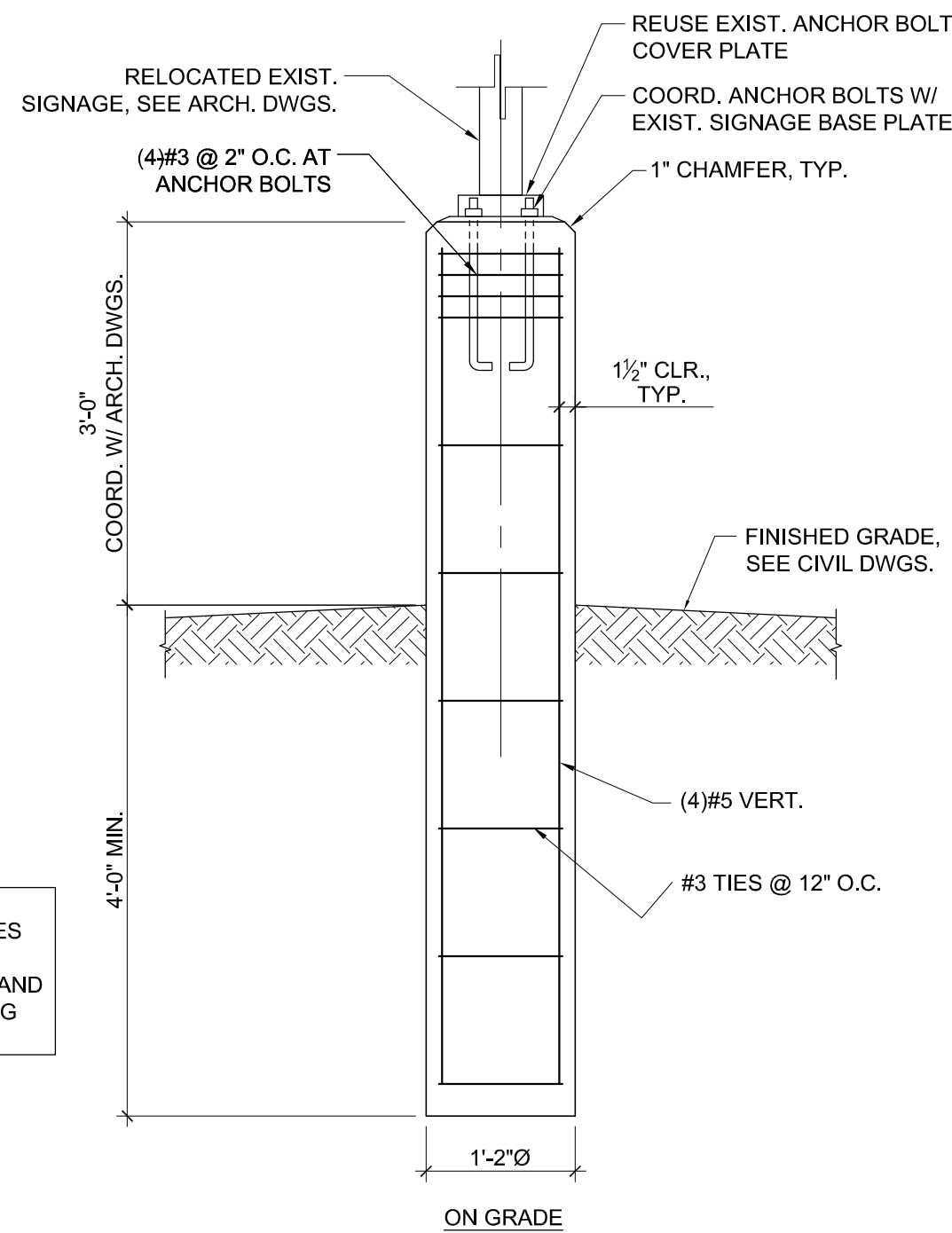
- NOTE:
- WHERE CLEAR DISTANCE BETWEEN SLEEVES IS IMPOSSIBLE, MAX. D IS EXCEEDED OR SLAB BARS ARE INTERRUPTED THIS CONDITION SHALL BE TREATED AS AN OPENING PER TYPICAL DETAIL FOR OPENING IN SLAB OR WALL.



4 TYPICAL GRADE BEAM REINFORCMENT DETAIL

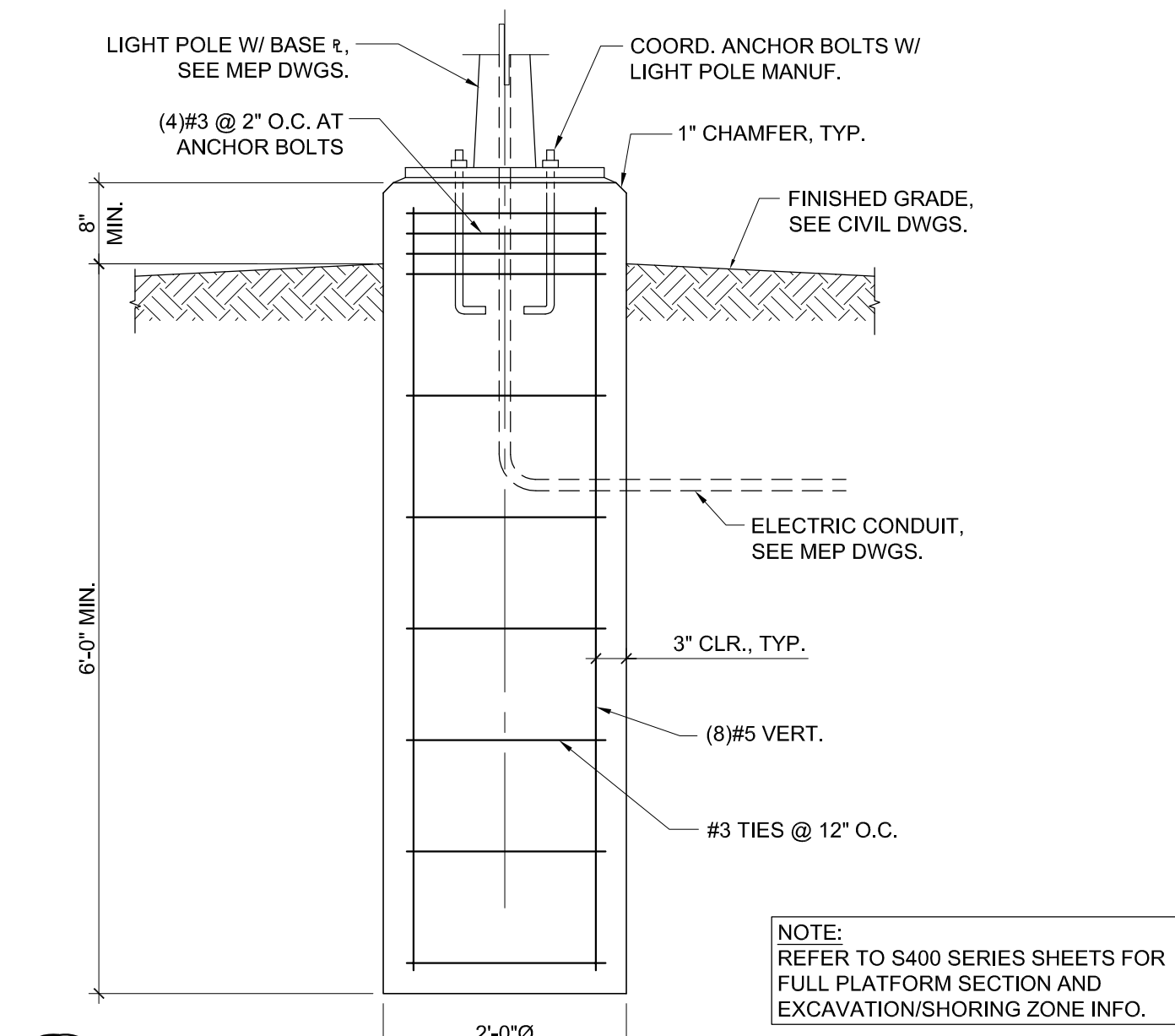
SCALE: 3/4\"/>

CONCRETE GRADE BEAM SCHEDULE						
WIDTH (W)	DEPTH (D)	BOTTOM BARS	TOP BARS	STIRRUPS		REMARKS
				SIZE	TYPICAL SPACING FROM EA. END	
12"	16"	(2) #5	(2) #5	#4	(5) @ 6" O.C., REMAINDER @ 24" O.C.	-
12"	24"	(2) #5	(2) #5	#4	(5) @ 6" O.C., REMAINDER @ 24" O.C.	-



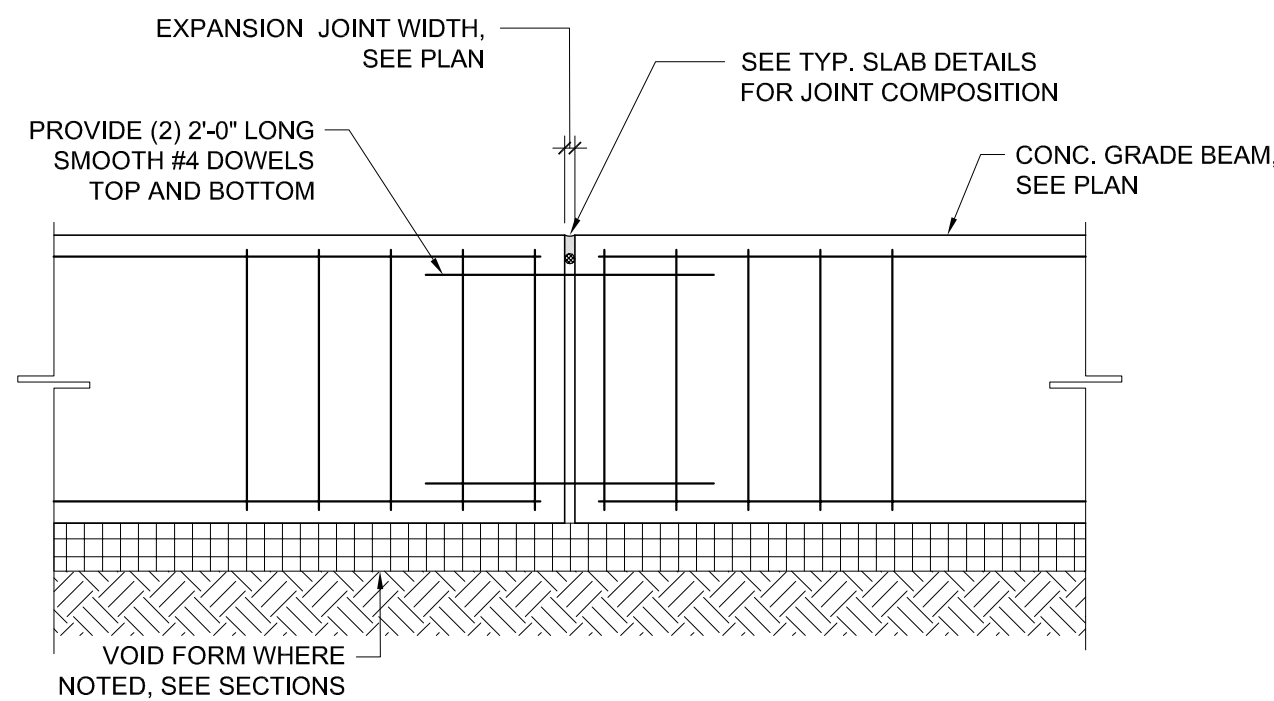
2 TYPICAL PLATFORM SIGNAGE PIER DETAIL

SCALE: 3/4\"/>



3 TYPICAL LIGHT POLE DETAIL

SCALE: 3/4\"/>



5 TYPICAL GRADE BEAM EXPANSION JOINT

SCALE: N.T.S.

- NOTE:
- SLAB REINF. NOT SHOWN. SEE SLAB TYPICAL DETAILS FOR EXPANSION JOINT IN SLAB.

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PETERSBURG (PTB)  
ADA PLATFORM  
PROGRAM (ADAPP)  
STRUCTURAL TYPICAL DETAILS

Designed: JRC Drawn: JSH Checked: KTM Date: 2021-02-22

Project Code:	PTB, VA
WBS:	C.EN.100694.0669
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Doc. No.	S-601

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ELECTRICAL SYMBOLS LIST

(NOT ALL SYMBOLS ARE NECESSARILY USED ON THIS PROJECT)

ANNOTATION

	KEY NOTE
	NEW CONDUIT/EQUIPMENT
	DENOTES EXISTING-TO-REMAIN
	DENOTES FOR DEMOLITION
LIGHTING SYMBOLS	
	POLE MOUNTED LIGHTING FIXTURE WITH TWO ARMS AND TWO LIGHTING HEADS A = FIXTURE TYPE
	POLE MOUNTED LIGHTING FIXTURE WITH ARM SINGLE LIGHTING HEAD A = FIXTURE TYPE
	POLE MOUNTED LIGHTING FIXTURE WITH SINGLE LIGHTING HEAD MOUNTED ON TOP OF THE LIGHTING POLE A = FIXTURE TYPE
	CEILING MOUNTED DOWNLIGHT CONNECTED TO NORMAL CIRCUIT A = FIXTURE TYPE
	CEILING MOUNTED DOWNLIGHT CONNECTED TO EMERGENCY/LIFE SAFETY CIRCUIT OR 90 MINUTES BATTERY BACKUP A = FIXTURE TYPE
	EXTERIOR NARROW SURFACE MOUNTED LIGHT FIXTURE LENGTH AS SHOWN ON DRAWING OR ON LIGHTING SCHEDULE A = FIXTURE TYPE
	WALL/CEILING SURFACE MOUNTED FLUORESCENT STRIP FIXTURE-TYPE AS NOTED A = FIXTURE TYPE
	CEILING/WALL MOUNTED EXIT SIGN
	SHADED AREAS INDICATE ILLUMINATED FACE/FACES DIRECTIONAL ARROWS WHERE INDICATED
	EMERGENCY BATTERY LIGHT UNIT A = FIXTURE TYPE
	REMOTE LIGHT HEADS FOR EMERGENCY BATTERY LIGHT UNIT TYPE AS NOTED
	LINE-VOLTAGE SWITCH / LOW-VOLTAGE SWITCH OR SMART CONTROL SWITCH

3	= THREE-WAY
4	= FOUR-WAY
D	= INTEGRAL DIMMER
K	= KEY OPERATED
T	= TIME SWITCH
OS	= INTEGRATED OCCUPANCY SENSOR
OR	= OVERRIDE SWITCH
MM	= MOMENTARY SWITCH
R	= AUXILIARY RELAY TO CONTROL OTHER THAN LIGHTING LOADS
10V	= 0-10V DIMMER

	CEILING MOUNTED OCCUPANCY SENSOR R = AUXILIARY RELAY TO CONTROL OTHER THAN LIGHTING LOADS
	PHOTOCELL WITH ADJUSTABLE SENSITIVITY. WP = WEATHER PROOF
	15 or 20A, 125V DUPLEX RECEPTACLE, FLUSH WALL MOUNTED @ 18" AFF, UON T = TAMPER PROOF XP = EXPLOSION PROOF AFI = ARC FLASH CIRCUIT INTERRUPTER GFI = GROUND FAULT CIRCUIT INERRUPTER
	15 or 20A, 125V DUPLEX RECEPTACLE, GFI TYPE FLUSH WALL MOUNTED @ 18" AFF, UON WP = WEATHER PROOF
	15 or 20A, 125V QUADRUPLEX RECEPTACLE FLUSH WALL MOUNTED @ 18" AFF, UON

VOICE / DATA SYMBOLS

	VOICE/DATA OUTLET FLUSH WALL MOUNTED @ 18" AFF UON, WITH 3/4" CONDUIT IN DEMISING WALL, TERMINATED IN A 90° BEND 6" INTO ACCESSIBLE CEILING
	VOICE OUTLET FLUSH WALL MOUNTED @ 18" AFF UON, WITH 3/4" CONDUIT IN DEMISING WALL, TERMINATED IN A 90° BEND 6" INTO ACCESSIBLE CEILING W = BRACKET MOUNTED @ 44" AFF, UON

POWER SYMBOLS

	JUNCTION BOX / EQUIPMENT CONNECTION MOUNTED ABOVE SUSPENDED CEILING / FLUSH WALL MOUNTED, INSTALLED WITHIN 2' OF EQUIPMENT WHERE REQUIRED AND DEDICATED FOR: VAV = DEDICATED TO VARIABLE AIR VOLUME BOX CONTROL
	JUNCTION BOX / MOTOR CONNECTION, FRACTIONAL HP EXHAUST FAN
	MOTOR RATED TOGGLE SWITCH, 20A SINGLE POLE, UON HORSEPOWER RATED WITH OVERLOAD PROTECTION.
	COMBINATION MOTOR CONTROLLER / DISCONNECT SWITCH <SWITCH AMPS><POLES>, VOLTAGE RATING AS REQUIRED VFD = VARIABLE FREQUENCY DRIVE 10HP = HORSE POWER RATING OF VFD
	HOMERUN-NUMERAL WHERE USED INDICATES DESIGNATED PANEL AND CIRCUIT NUMBER FOR REFERENCE ONLY. WHERE CONDUIT IS NOT SPECIFIED USE AC OR MC CABLE FOR APPLICATION. 2#12, #12G, 3/4" C HOMERUN, UON 3#12, #12G, 3/4" C HOMERUN, UON 4#12, #12G, 3/4" C HOMERUN, UON AT 120V AND OVER 100' CIRCUIT LENGTH PROVIDE #10 MINIMUM. AT 277V AND OVER 200' CIRCUIT LENGTH PROVIDE #10 MINIMUM.

	CONDUIT OR RACEWAY TURNING UP
	CONDUIT OR RACEWAY TURNING DOWN
	UNDERGROUND CONDUIT DEDICATED FOR EXTERIOR LIGHTING WIRING
	UNDERGROUND CONDUIT - SPARE FOR FUTURE USE
	UNDERGROUND CONDUIT - CONDUIT DEDICATED FOR COMMUNICATION
	UNDERGROUND CONDUIT - CONDUIT DEDICATED FOR DATA AND CONTROLS
	OVERHEAD POWER LINE

	30/3 UNFUSED DISCONNECT SWITCH <SWITCH AMPS><POLES>, VOLTAGE RATING AS REQUIRED
	100/60/3 FUSED DISCONNECT SWITCH <SWITCH AMPS><FUSE AMPS><POLES>, VOLTAGE RATING AS REQUIRED
	60/30/3 ENCLOSED CIRCUIT BREAKER <FRAME AMPS><TRIP AMPS><POLES>, VOLTAGE RATING AS REQUIRED ST = SHUNT TRIP
	208/120V PANELBOARD SURFACE MOUNTED
	208/120V PANELBOARD FLUSH MOUNTED
	208/120V DISTRIBUTION PANELBOARD SURFACE MOUNTED
	480/277V PANELBOARD SURFACE MOUNTED
	480/277V PANELBOARD FLUSH MOUNTED
	480/277V DISTRIBUTION PANELBOARD SURFACE MOUNTED
	TMGB GROUND BUS TMGB = TELECOMMUNICATIONS MAIN GROUNDING BUS TGB = TELECOMMUNICATIONS GROUNDING BUS
	HH HAND HOLE FOR UNDERGROUND CONDUIT TERMINATION AND WIRING INSTALLATIONS HH = DEDICATED FOR POWER WIRING HHC = DEDICATED FOR COMMUNICATION CONTROL AND DATE WIRING NUMBER INDICATES SUBSEQUENT HANDHOLE

ABBREVIATIONS

(NOT ALL ABBREVIATIONS ARE NECESSARILY USED ON THIS PROJECT)

+	MOUNTING HEIGHT AFF.
(E)	EXISTING TO REMAIN
(D)	DEMOLISH
(ER)	EXISTING TO BE RELOCATED
(ERRO)	REMOVED & RETURNED TO OWNER
(N)	NEW
(RE)	RELOCATED EXISTING
1P	SINGLE POLE
2P	TWO POLE
3P	THREE POLE
A	AMPERE
AC	ARMORED CABLE
AF	AMPERE FRAME
AFF	ABOVE FINISHED FLOOR
AHJ	AUTHORITY HAVING JURISDICTION
AIC	AMPERE INTERRUPTING CAPACITY
ALT	ALTERNATE
APPROX	APPROXIMATE(LY)
AT	AMPERE TRIP
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BKR	BREAKER
BLDG	BUILDING
C, CND	CONDUIT
C	DEGREE CELSIUS
CB, C/B	CIRCUIT BREAKER
CD	CANDELA
CEILING MOUNT	
CKT	CIRCUIT
CONT	CONTINUATION
CU	COPPER
CT, C/T	CURRENT TRANSFORMER
DEG	DEGREE
DIA	DIAMETER
DISC	DISCONNECT
DWG	DRAWING
EA	EACH
EC, E.C.	ELECTRICAL CONTRACTOR
ELC	ELECTRICAL
EM	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
F	DEGREE FAHRENHEIT
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FATC	FIRE ALARM TERMINATION CABINET
FC	FOOT CANDLE
FDR	FEEDER
FL	FLOOR
FLA	FULL LOAD AMPERES
FMC	FLEXIBLE METAL CONDUIT
G, GND	GROUND
GFI	GROUND FAULT INTERRUPTER
GRC	GALVANIZED RIGID CONDUIT
HH	HANDHOLE FOR POWER CONDUITS AND WIRING
HHC	HANDHOLE FOR COMMUNICATION CONDUITS AND WIRING
HP	HORSE POWER
HZ	HERTZ
IG	ISOLATED GROUND
JB	JUNCTION BOX
KCMIL	THOUSAND CIRCULAR MILS
KV	KILOVOLT
KVA	KILOVOLT AMPERE
KW	KILOWATT
KWH	KILOWATT HOUR
LTG, LTS	LIGHTING, LIGHTS
MC	METAL-CLAD CABLE
MCB	MAIN CIRCUIT BREAKER
MCM	THOUSAND CIRCULAR MILS
MH	MANHOLE
MI	MINERAL INSULATED CABLE
MLO	MAIN LUGS ONLY
MTD, MTO	MOUNTED, MOUNTING
MTS	MANUAL TRANSFER SWITCH
MV	MEDIUM VOLTAGE
N, NEUT	NEUTRAL
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
P	POLE
PHASE	
PANEL	
PVC	POLYVINYL CHLORIDE CONDUIT
PWR	POWER
REC	RECEPTACLE
RM	RIGID METAL CONDUIT
SPD	SURGE PROTECTION DEVICE
SPEC	SPECIFICATION
STBY	STANDBY
SW	SWITCH
SWBD	SWITCHBOARD
TBD	TO BE DETERMINED
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSION
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTED POWER SUPPLY
V	VOLTS
VFD	VARIABLE FREQUENCY DRIVE
W	WIRE
W/	WITH
WP	WEATHERPROOF (NEMA 3R RATING)
(MIN)	
XFMR	TRANSFORMER
Y	WYE
	DELTA

GENERAL NOTES



- DEFINITION: UNLESS OTHERWISE NOTED, ALL WORK SPECIFIED HEREIN OR NOTED ON DRAWINGS, SHALL BE BY THE ELECTRICAL CONTRACTOR. ALL REFERENCES TO "CONTRACTOR" OR "THIS CONTRACTOR" ON DRAWINGS OR SPECIFICATIONS ARE ADDRESSED TO THE ELECTRICAL CONTRACTOR. THE TERM "PROVIDE" WHENEVER ENCOUNTERED ON DRAWINGS OR IN THESE SPECIFICATIONS, SHALL MEAN "FURNISH AND INSTALL."
- DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT OF SYSTEMS AND WORK. CONDUIT ROUTING IS SHOWN DIAGRAMMATICALLY AND DOES NOT SHOW ALL BENDS, OFFSETS, DROPS AND RISES OF RUNS. THE CONTRACTOR SHALL ALLOW IN HIS PRICE FOR ROUTING OF CONDUIT TO AVOID OBSTRUCTIONS. COORDINATE WITH OTHER TRADES AS REQUIRED TO SUCCESSFULLY COMPLETE A WORK. MAINTAIN HEADROOM AND KEEP OPENINGS AND PASSAGEWAYS CLEAR. THE EXACT LOCATIONS OF DEVICES AND EQUIPMENT ARE SUBJECT TO THE APPROVAL OF THE OWNER, WHO RESERVES THE RIGHT TO MAKE ANY REASONABLE CHANGES IN LOCATION WITHOUT EXTRA COST.
- SECURE ALL SUPPORTS TO BUILDING STRUCTURE UTILIZING TOGGLE BOLTS (HOLLOW MASONRY), EXPANSION SHIELDS OR INSERTS (CONCRETE AND BRICK), MACHINE SCREWS (METAL), BEAM CLAMPS (FRAMEWORK), WOOD SCREWS (WOOD) OR PAN THRU STRAPS (METAL DECK), NAILS, RAWL PLUGS AND WOOD PLUGS ARE NOT PERMITTED. WHERE REQUIRED BY STRUCTURE, PROVIDE THRU BOLTS AND FISH PLATES. SUPPORT HORIZONTAL RUNS OF METALLIC RACEWAYS NOT MORE THAN 10' APART. SUPPORT RACEWAY RISERS AT EACH FLOOR LEVEL. RUN EXPOSED RACEWAYS PARALLEL WITH OR AT RIGHT ANGLES TO WALLS. MC AND AC CABLES SHALL BE SECURED EVERY 6' AND WITHIN 12" FROM THE JUNCTION BOX. SUPPORT PANEL, JUNCTION AND PULLBOXES INDEPENDENTLY TO BUILDING STRUCTURE WITH NO WEIGHT BEARING ON RACEWAYS.
- PROVIDE TEMPORARY LIGHT AND POWER SYSTEMS AT EARLIEST POSSIBLE DATE WITHIN THE CONSTRUCTION AREAS FOR THE REQUIREMENTS OF ALL TRADES AS HEREIN DESCRIBED. EXTEND SYSTEMS TO NEW CONSTRUCTION AS SOON AS PHYSICALLY POSSIBLE. MAINTAIN SYSTEM DURING WORKING HOURS OF ALL TRADES. OWNER WILL PAY FOR COST OF ENERGY. PROVIDE ALL REQUIRED MAINTENANCE, INCLUDING LAMPS AND SOCKETS.
- ALL JUNCTION BOXES AND BOXES FOR FOR WIRING DEVICES SHALL BE INSTALLED IN ACCESSIBLE LOCATIONS ONLY. ALL INSTALLATIONS SHALL BE COORDINATED WITH OVERHEAD PIPES, DUCTS AND MECHANICAL EQUIPMENT. VARIATIONS IN FIREPROOFING AND PLASTERING, WINDOW AND DOOR TRIM, PANELING, HUNG CEILINGS AND THE LIKE, CORRECT ANY INACCURACY RESULTING FROM INADEQUATE COORDINATION WITHOUT EXPENSE TO OWNER.
- PASS RACEWAYS OVER WATER, STEAM OR OTHER PIPING WHEN PULL BOXES ARE NOT REQUIRED. NO RACEWAY WITHIN 3' OF STEAM OR HOT WATER PIPES OR APPLIANCES (EXCEPT PIPE CROSSINGS WHERE RACEWAY IS AT LEAST 1" FROM PIPE COVERS AND PARALLEL RUNS WHERE RACEWAY IS AT LEAST 18").
- CUT CONDUIT ENDS SQUARE. REAM SMOOTH. PAINT MALE THREAD OF FIELD THREADED RACEWAYS WITH GRAPHITE BASE PIPE COMPOUND. DRAW UP TIGHT WITH RACEWAY COUPLING.
- HORIZONTAL OR CROSS RUNS IN PARTITIONS AND WALLS ARE NOT PERMITTED. DO NOT RUN CONDUIT IN PRECAST ROOF SLABS, IN 2" SLABS OR IN TERRAZZO FLOOR FINISH.
- MINIMUM CONDUIT SIZE SHALL BE 3/4".
- LEAVE WIRES WITH SUFFICIENT SLACK TO PERMIT MAKING FINAL CONNECTIONS. RACEWAYS OVER 10' LONG IN WHICH WIRING IS NOT INSTALLED: FURNISH NYLON PULL STRING. FOR ANY RACEWAY OVER 25' PROVIDE PULL STRING WITH CONDUIT MEASURING TAPE AND INDICATE DESIGNATION OF THE RACEWAY ON EACH END.
- COORDINATE LOCATIONS OF OUTLETS AND SWITCHES IN FINISHED ROOMS WITH ARCHITECTURAL DRAWINGS OF INTERIOR DETAILS AND FINISHES. COORDINATE WITH ARCHITECT AND INSTALL SWITCH ON LOCK/ LATCH SIDE OF DOOR. VERIFY FINAL HINGE LOCATIONS IN FIELD PRIOR TO SWITCH OUTLET INSTALLATION.
- SET BOXES SQUARE AND TRUE WITH BUILDING FINISH. ERECT WALL AND SWITCH OUTLETS IN ADVANCE OF FURRING AND FIREPROOFING. SECURE TO BUILDING STRUCTURE BY ADJUSTABLE STRAP IRONS.
- COVERS OF JUNCTION AND PULLBOXES SHALL BE ACCESSIBLE.
- PROVIDE PULLBOXES WHERE INDICATED, REQUIRED BY CODE AND WHEREVER NECESSARY TO FACILITATE PULLING OF WIRE. COORDINATE PULLBOX LOCATIONS WITH OTHER TRADES. BOXES SHALL BE ACCESSIBLE AND GENERALLY NOT EXPOSED IN FINISHED SPACES. WHERE NECESSARY, REROUTE RACEWAYS OR MAKE OTHER ARRANGEMENTS FOR CONCEALMENT.
- EMPTY RACEWAY RUNS: PROVIDE PULLBOXES EVERY 100' AND AS INDICATED. COORDINATE LOCATIONS WITH OTHER TRADES. THE PULLBOX SHALL BE INSTALLED EVERY 270° OF TOTAL CONDUIT TURNS.
- ALL ACCESS DOOR LOCATIONS SHALL BE REVIEWED BY ARCHITECT PRIOR TO INSTALLATION.
- CONNECT CONDUIT TO MOTOR TERMINAL BOXES WITH FLEXIBLE CONDUIT OF MINIMUM 18", MAXIMUM 6' LENGTH. (PROVIDE SUFFICIENT WIRING SLACK AT EACH END OF TERMINATION). DO NOT TERMINATE IN OR FASTEN RACEWAYS TO MOTOR FOUNDATION.
- PROVIDE 2 #14AWG WIRING FOR INDICATING PILOT LIGHT FROM PILOT LIGHT IN CONTROLLER TO LOAD SIDE OF DISCONNECT SWITCH. RUN WIRES IN BRANCH CIRCUIT CONDUIT AND INCREASE CONDUIT SIZE AS REQUIRED.
- PULL NO THERMOPLASTIC WIRES AT AMBIENT TEMPERATURES LOWER THAN 32 F (0 C). PROVIDE CABLE SUPPORTS FOR WIRE IN RISER CONDUITS AS REQUIRED BY CODE.
- PROVIDE SEPARATE RACEWAYS AND ENCLOSURES FOR 208/120V AND 480/277V POWER AND CONTROL WIRING AND SEPARATE SYSTEMS FOR EMERGENCY AND NORMAL POWER. THE EMERGENCY AND NORMAL SYSTEMS SHALL NOT BE INSTALLED IN THE SAME RACEWAYS, ENCLOSURES, JUNCTION BOXES, PULLBOXES, TERMINATION CABINETS, EXCEPT IN EQUIPMENT ENCLOSURES DESIGNED TO ACCEPT BOTH SYSTEMS SUCH AS AUTOMATIC TRANSFER SWITCH OR EMERGENCY LIGHTING.
- CORE BORING OF CONCRETE FLOORS AND/OR WALLS IF REQUIRED, IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR. ALL PENETRATIONS THROUGH CONCRETE STRUCTURAL FLOORING SHALL BE SCANNED WITH GROUND PENETRATING RADAR (GPR). SUBMIT FINDINGS TO ENGINEER FOR APPROVAL PRIOR TO PENETRATION.

- WIRE COLOR CODING: AS PER CODE. WHERE COLOR-CODED CABLE IS NOT AVAILABLE, CERTIFY IN WRITING AND REQUEST PERMISSION FOR OVERLAP COLOR TAPING OF CONDUCTORS (MINIMUM LENGTH 6") IN ALL ACCESSIBLE LOCATIONS. COLOR CODING, ONCE SELECTED, MUST BE USED CONSISTENTLY FOR THE ENTIRE PROJECT.  
480/277V - WAY SYSTEM:  
PHASES A = BROWN, B = ORANGE, C = YELLOW, NEUTRAL = GRAY, GROUNDING = GREEN WITH YELLOW STRIPES.  
208/120V - WAY SYSTEM:  
PHASES A = BLACK, B = RED, C = BLUE, NEUTRAL = WHITE, GROUNDING = GREEN.  
240/120V - DELTA SYSTEM WITH HIGH LEG:  
PHASES A = BLACK, B (HIGH LEG)= ORANGE, C = RED, NEUTRAL = WHITE, GROUNDING = GREEN.  
240/120 V SINGLE PHASE:  
PHASES A = BLACK, B = RED, NEUTRAL = WHITE, GROUNDING = GREEN.  
DC SYSTEM:  
POSITIVE = RED, MID-WIRE = WHITE, NEGATIVE = BLACK.
- FIRESTOPPING SHALL BE INSTALLED WHENEVER WIRING OR RACEWAYS CROSS FIRE RATED CONSTRUCTION AND IN ACCORDANCE WITH THE REQUIREMENTS OF THE MANUFACTURER TO MAINTAIN THE UL LISTED FIRE RATING OF THE PENETRATED WALL OR FLOOR ASSEMBLY. REFER TO DRAWINGS FOR FIRE RATING OF WALLS IDENTIFICATION WHERE APPLICABLE.
- THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WORK BETWEEN THE TRADES. ANY WORK RESULTING FROM THE LACK OF COORDINATION SHALL BE CORRECTED WITH NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR IS RESPONSIBLE FOR REPORTING AN EXISTING FIELD WORK INCONSISTENCIES DISCOVERED DURING CONSTRUCTION TO THE ENGINEER IN FORM OF "RFI" REQUEST FOR INFORMATION BEFORE ANY INACCURATE WORK IS EXECUTED.
- CONTRACTOR SHALL INCLUDE IN HIS BID A PRICING FOR ARC FLASH STUDY/LABELING AND PROTECTIVE DEVICES COORDINATION STUDY. THESE STUDIES SHALL BE EXECUTED BY THE CONTRACTOR IN ACCORDANCE WITH SPECIFICATIONS 260573.16 AND 260573.19.

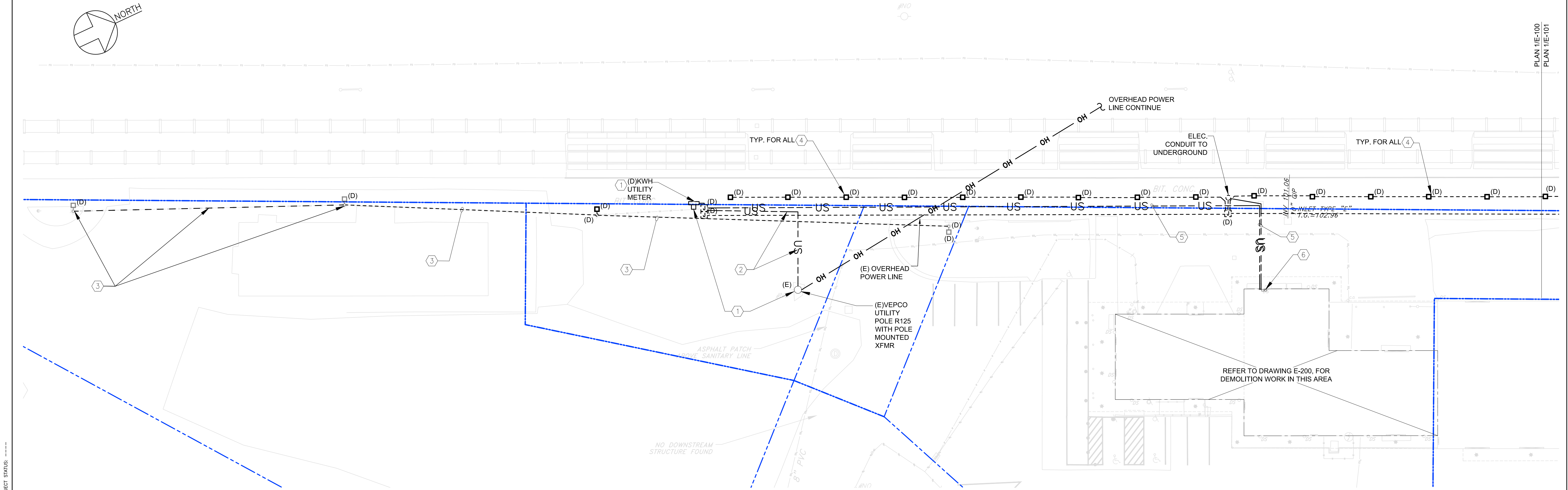
DEMOLITION NOTES

- THE CONTRACTOR SHALL INCLUDE IN HIS BID ALL COSTS ASSOCIATED WITH REMOVAL AND RELOCATION OF ELECTRICAL WORK AS DESCRIBED IN THE SPECIFICATIONS WITH ALLOWANCES FOR EXPECTED OR UNFORESEEN DIFFICULTIES WHEN CONCEALED WORK HAS BEEN OPENED. NO CLAIMS FOR ADDITIONAL WORK ASSOCIATED WITH DEMOLITION WILL BE ACCEPTED.
- THE CONTRACTOR SHALL REMOVE AND/OR RELOCATE ALL EXISTING ELECTRICAL WORK WHICH INTERFERES WITH THE NEW ARCHITECTURAL AND ELECTRICAL LAYOUTS IN FULL COORDINATION WITH THE PROJECT WORK. ALL SYSTEMS WHICH ARE NO LONGER REQUIRED TO FUNCTION SHALL BE DE-ENERGIZED AND DISCONNECTED AT THE SOURCE OF POWER SUPPLY.
- DEMOLITION AND REMOVAL WORK SHALL BE PERFORMED IN A NEAT AND WORKMANLIKE MANNER. THE CONTRACTOR SHALL PATCH, REPAIR OR OTHERWISE RESTORE ANY DAMAGED INTERIOR OR EXTERIOR BUILDING SURFACE TO ITS ORIGINAL CONDITION. ALL PATCHING SHALL BE OF THE SAME MATERIALS, WORKMANSHIP, AND FINISH, AND SHALL ACCURATELY MATCH ALL SURROUNDING WORK.
- THE CONTRACTOR SHALL REMOVE ALL ELECTRICAL OUTLETS, SWITCHES AND OTHER DEVICES, COMPLETE WITH ASSOCIATED WIRING AND CONDUITS BACK TO NEAREST JUNCTION BOX THAT IS TO REMAIN OR TO PANEL BOARD. WHERE THE REMOVAL OF THESE ITEMS DISRUPTS EXISTING WIRING TO REMAIN, THE CONTRACTOR SHALL INSTALL JUNCTION BOXES AND EXTEND FEEDER WITH MATCHING CABLE TYPE, CONDUCTOR AMPACITY AND CONDUIT SIZES.
- WHERE IT IS IMPRACTICAL -SUCH AS IN INACCESSIBLE LOCATIONS- TO REMOVE RACEWAY BACK TO SOURCE, DISCONNECT WIRING AT LOAD (EQUIPMENT) AND AT LINE SIDE, CUT AND CAP, FLUSH TO SURFACE. REMOVE CONDUCTORS FROM EXISTING RACEWAYS TO BE REWIRED. CLEAN RACEWAY AS REQUIRED PRIOR TO REWIRING.
- ALL RACEWAYS WHICH BECOME EXPOSED DURING THE ALTERATION WORK SHALL BE REMOVED AND REROUTED CONCEALED BEHIND FINISHED SURFACES.
- ALL UNUSED OUTLET BOXES OR CAPPED FLOOR OUTLETS SHALL BE PROVIDED WITH MATCHING BLANK COVERS.
- EXISTING PANEL DIRECTORIES AFFECTED BY THE ALTERATION WORK SHALL BE MODIFIED TO REFLECT THE BRANCH CIRCUIT WIRING CHANGES.
- INSTALL NEW WORK AND CONNECT TO EXISTING WORK WITH MINIMUM INTERFERENCE TO EXISTING FACILITIES. TEMPORARY SHUTDOWNS OF EXISTING SERVICES SHALL BE PERFORMED AT NO ADDITIONAL CHARGES, AT TIMES NOT TO INTERFERE WITH NORMAL OPERATION OF EXISTING FACILITIES AND ONLY WITH WRITTEN CONSENT OF OWNER. NOTIFICATION MUST BE GIVEN AT LEAST 5 DAYS PRIOR TO SHUT DOWN. ALARM AND EMERGENCY SYSTEMS SHALL NOT BE INTERRUPTED, UNLESS THE PROJECT REQUIRES A DIRECT WORK WITH LIFE SAFETY SYSTEMS. MAINTAIN CONTINUOUS OPERATION OF EXISTING FACILITIES AS REQUIRED WITH NECESSARY TEMPORARY CONNECTIONS BETWEEN NEW AND EXISTING WORK. CONNECT NEW WORK TO EXISTING WORK IN NEAT AND ACCEPTABLE MANNER. RESTORE EXISTING DISTURBED WORK TO ORIGINAL CONDITION, INCLUDING MAINTENANCE OF WIRING CONTINUITY AS REQUIRED.
- THE CONTRACTOR SHALL NOTIFY THE OWNER AT THE APPROPRIATE TIME OF THE PROJECTED DEMOLITION AND PHASING SCHEDULE SO THAT REMOVAL OR RELOCATION OF AFFECTED UTILITIES MAY BE CARRIED OUT IN COORDINATION WITH THE PROJECT REQUIREMENTS. THE CONTRACTOR SHALL FOLLOW CLOSELY AND COORDINATE WITH OTHER TRADES PHASING SCHEDULE AND PROCEED IN THE SPECIFIED SEQUENCE.
- ALL EXISTING MATERIAL AND EQUIPMENT IN USABLE CONDITION, WHICH IS TO BE REMOVED UNDER THIS CONTRACT, SHALL REMAIN THE PROPERTY OF THE OWNER OR SHALL BE DISPOSED OF IN A LEGAL MANNER BY THE ELECTRICAL CONTRACTOR, AS DIRECTED BY THE OWNER. ITEMS OF SALVAGE SHALL BE CAREFULLY REMOVED AND STORED AT LOCATIONS DIRECTED BY THE OWNER.
- ARRANGE TO WORK CONTINUOUSLY, INCLUDING OVERTIME, IF REQUIRED, TO ASSURE THAT SYSTEMS WILL BE SHUT DOWN ONLY DURING THE TIME ACTUALLY REQUIRED TO MAKE THE NECESSARY CONNECTIONS TO THE EXISTING SYSTEMS.
- PATCH AND PAINTING OF EXISTING WALLS TO REMAIN AFFECTED BY ELECTRICAL DEMOLITION ARE TO COMPLETED UNDER ARCHITECTURAL SPECIFICATION. THERE SHALL BE NO BLANK COVER-PLATES. THE ELECTRICAL WORK SHALL BE ENTIRELY COMPLETED BEFORE PATCHING AND PAINTING.
- THE CONTRACTOR SHALL SURVEY AND RECORD THE CONDITION OF EXISTING FACILITIES TO REMAIN IN PLACE THAT MAY BE AFFECTED BY DEMOLITION OPERATIONS. THE CONTRACTOR SHALL VERIFY ALL EXISTING SOURCES OF POWER TO EQUIPMENT PRIOR TO FINAL REMOVAL.
- IF WORK REQUIRES THE INTERRUPTION FIRE ALARM AND FIRE PROTECTION SYSTEMS, ARRANGE WITH OWNER TO CONDUCT A FIRE WATCH WHILE THESE SYSTEMS ARE OUT OF SERVICE. CONSULT WITH FIRE MARSHALL PRIOR TO FIRE WATCH.

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1 ELECTRICAL SITE DEMOLITION SOUTH  
E-100 SCALE: 1" = 20'-0"

DRAWING DEMOLITION NOTES

- RELOCATE EXISTING 120/240V UTILITY METER AND ASSOCIATED DISCONNECT TO THE EXISTING POLE RJ25. RECONNECT METER TO THE EXISTING POLE MOUNTED TRANSFORMER
- REMOVE ALL WIRING ASSOCIATED WITH RELOCATED METER AND ABANDON UNDERGROUND CONDUIT IN PLACE.
- OVERHEAD WIRING AND LIGHTS TO BE REMOVED. KEEP EXISTING POLES SHOWN ON 2/E101.
- REMOVE ALL CANOPY MOUNTED EXISTING LIGHTING WITH ALL ASSOCIATED CONDUITS AND WIRING.
- TRACE AND REMOVE EXISTING WIRING. CONDUIT TO BE ABANDONED IN PLACE.
- REMOVE EXISTING LIGHTING PANEL FOR CANOPY AND EXTERIOR POLE LIGHTING NEAR RAILROAD TRACKS AND REMOVE OBSOLETE CONTROL CABINET. THE CONTRACTOR SHALL CONTACT AMTRAK REPRESENTATIVE TO REASSURE THAT THE EXISTING PANEL IS COMPLETELY DE-ENERGIZED AND DOES NOT CONTAIN ACTIVE CONTROL DEVICES. SEE E-200.

GENERAL DEMOLITION NOTES

- PRIOR TO PENETRATION OR EXCAVATION OF ANY SURFACE THE CONTRACTOR SHALL CONTACT RAILROAD AUTHORITIES TO DETERMINE IF ANY OF THE RAILROAD'S SIGNAL SYSTEMS ARE LOCATED IN THE AREA. THE CONTRACTOR, AT HIS EXPENSE SHALL ARRANGE FOR A CABLE LOCATOR AND SHALL MAKE ARRANGEMENT FOR CABLE RELOCATION OR OTHER PROTECTION OF THE SIGNAL SYSTEMS, OR SHALL REQUEST AN ARRANGEMENT FOR NEW LOCATION OF EXCAVATION OR CROSSINGS.

GENERAL NOTES

- THE CONTRACTOR SHALL BE LIABLE FOR ANY OR ALL DAMAGES TO THE BUILDING CAUSED BY ITS EMPLOYEE OR SUBCONTRACTOR, INCLUDING AND NOT LIMITED TO:
  - Damage to any portion of the building caused by the movement of tools, materials or equipment.
  - Damage to any component of the construction of spaces being used by the Contractor.
  - Damage to the electrical distribution system and/or other space being used by the Contractor.
  - Damage to the electrical, mechanical and/or life safety or other systems caused by inappropriate operation or connections made by the Contractor or other actions of Contractor.
  - Other damage to the materials, tools and/or equipment of Amtrak, its consultants, General Contractor, subcontractors, architect, other contractors, agents and lessees.
- IT SHALL BE RESPONSIBILITY OF THE CONTRACTOR TO STAKE ALL AREAS ALONG CABLE ROUTE PRIOR TO ANY TRENCHING OR DIGGING.
  - The contractor shall be responsible for restoring any disturbed earth to its original or better condition. A reasonable effort shall include any landscaping, seeding, or replacement of shrubbery that may be required to properly restore the excavated area. If settling should occur, the installation contractor shall be responsible for any secondary restoration.
- THE CONTRACTOR SHALL NOT MAKE ANY PENETRATION OF FLOORS, WALLS OR CEILING WITHOUT PRIOR CONSENT OF AMTRAK, ITS ARCHITECT GENERAL CONTRACTOR OR DESIGNATED FACILITY/ SITE MANAGER.
- PENETRATIONS THROUGH FIRE RATED WALLS AND FLOOR SHALL BE SEALED WITH APPROPRIATE MATERIALS OR DEVICES TO BLOCK A SPREAD OF FIRE, SMOKE OR TOXIC GASES IN ACCORDANCE WITH LOCAL BUILDING CODES AND ADOPTED INTERNATIONAL CODES.
  - Provide products that upon curing do not re-emulsify, dissolve, leach, and breakdown or otherwise deteriorate over time from exposure to atmospheric moisture, sweating pipes, pounding water or other forms of moisture characteristic during and after construction.
  - Provide fire stop sealants sufficiently flexible to accommodate motion such as pipe vibration, water hammer, thermal expansion and other normal building movement without damage to the seal.
- PENETRATIONS BELOW GROUND LEVEL SHALL BE ACCOMPANIED WITH REMANUFACTURED SEALER ASSEMBLY. THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR ALL UNDERGROUND PENETRATIONS WITH A SPECIFIC SYSTEM TO BE USED FOR REVIEW BY ENGINEER, ARCHITECT AND AMTRAK REVIEW BOARD.

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NO.	DESCRIPTION	DATE	BY



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Office of Chief Engineer

National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



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PETERSBURG (PTB)  
ADA STATIONS  
PROGRAM (ADAPP)  
ELECTRICAL SITE DEMOLITION PLAN - SOUTH

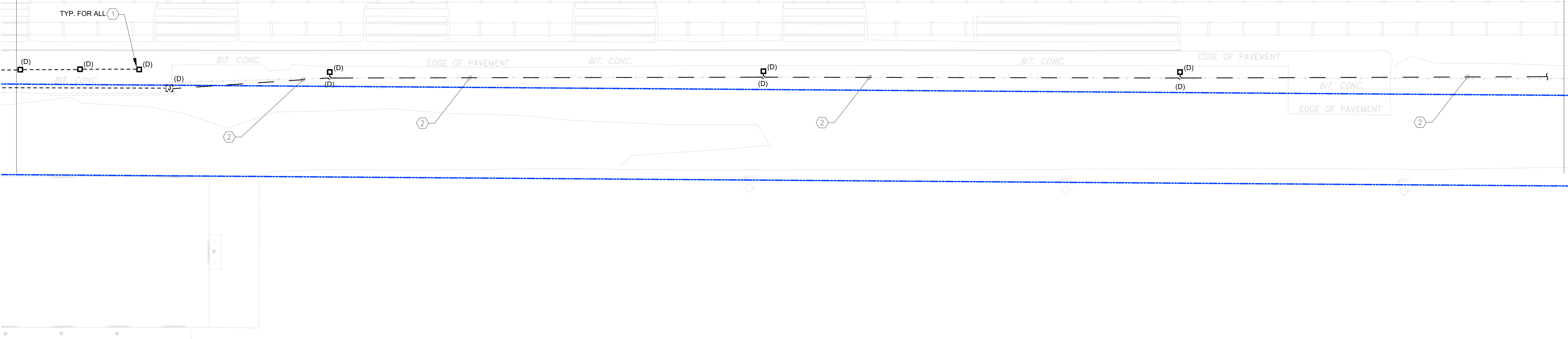
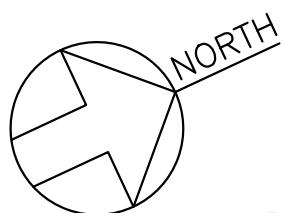
Designed: JPR Drawn: MAS Checked: JPR Date: 2021-02-22

Project Code:	PTB, VA
WBS:	C.EN.100694.0669
Sheet No.	66 OF 80
Dwg. No.	E-100

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PLAN 1/E-100  
PLAN 1/E-101



# 1 ELECTRICAL SITE DEMOLITION NORTH

E-101 SCALE: 1" = 20'-0"



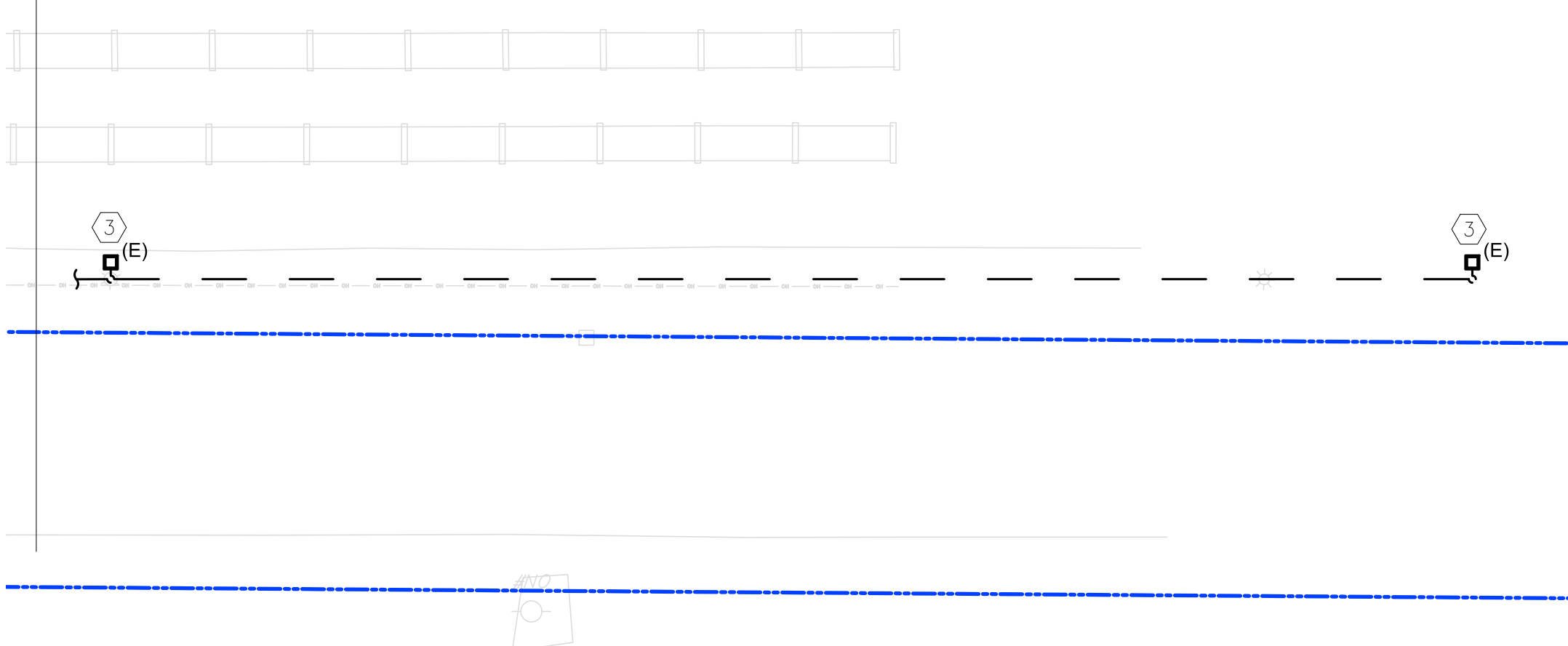
## KEY DEMOLITION NOTES

- 1 REMOVE ALL CANOPY MOUNTED EXISTING LIGHTING WITH ALL ASSOCIATED CONDUITS AND WIRING.
- 2 REMOVE EXISTING POLE, LIGHTING FIXTURE AND OVERHEAD WIRING.
- 3 EXISTING POLE TO REMAIN. REMOVE LIGHTING FIXTURE AND OVERHEAD WIRING.

## GENERAL DEMOLITION NOTES

1. ALL OVERHEAD EXISTING WIRING NOT SHOWN ON THIS DRAWING SHALL REMAIN AS IT IS. THE CONTRACTOR SHALL MAKE ALL PROVISIONS FOR MAINTAINING ALL EXISTING INSTALLATIONS.

PLAN 1/E-101  
PLAN 2/E-101



# 2 ELECTRICAL SITE DEMOLITION NORTH

E-101 SCALE: 1" = 20'-0"



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Office of Chief Engineer

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Approved	Date



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PETERSBURG (PTB)  
ADA STATIONS  
PROGRAM (ADAPP)

ELECTRICAL SITE DEMOLITION PLAN - NORTH

Designed: JPR Drawn: MAS Checked: JPR Date: 2021-02-22

VA

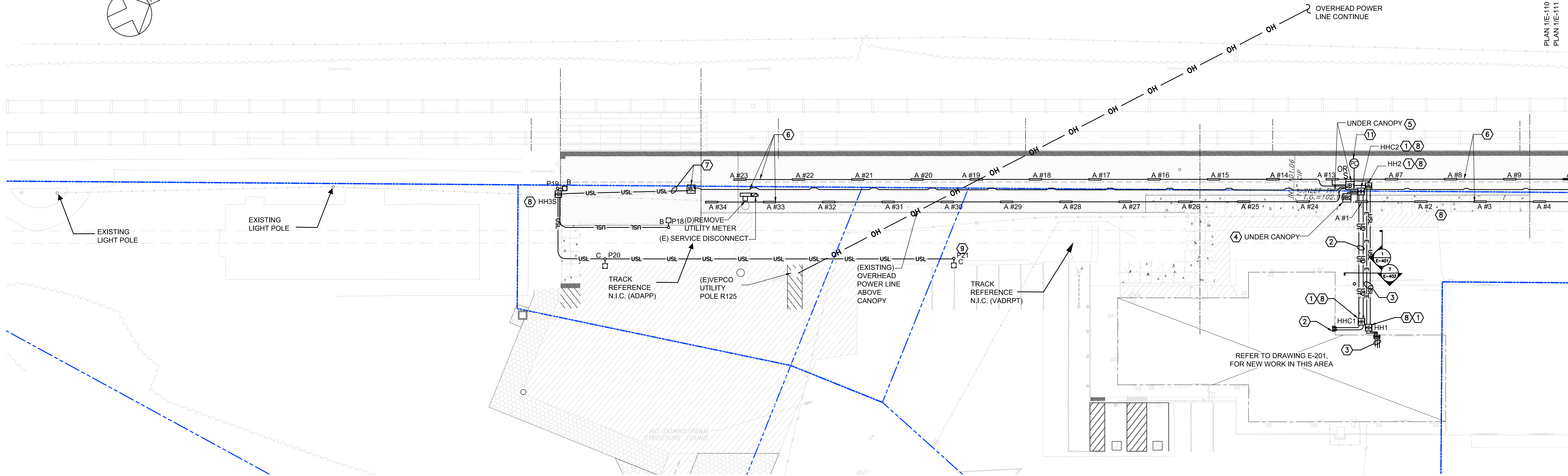
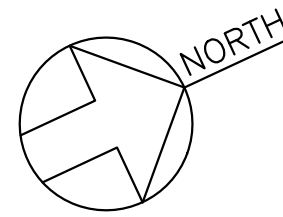
Project Code: PTB, VA  
WBS: C.EN.100694.0669  
Sheet No. 67 OF 80

Dwg. No.

E-101



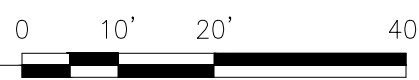
UN:\Accounts\ATKINS\ATKINS\9008 - AE Design ADA Stations Petersburg VA\DESIGN\E-110.dwg PLOTTED: 2/19/2021 1:03 PM BY: Alexander Mittereder PLOTSTYLE: Amtrak Plot Style.ctb PROJECT STATUS: -----



PLAN 1/E-110  
PLAN 1/E-111

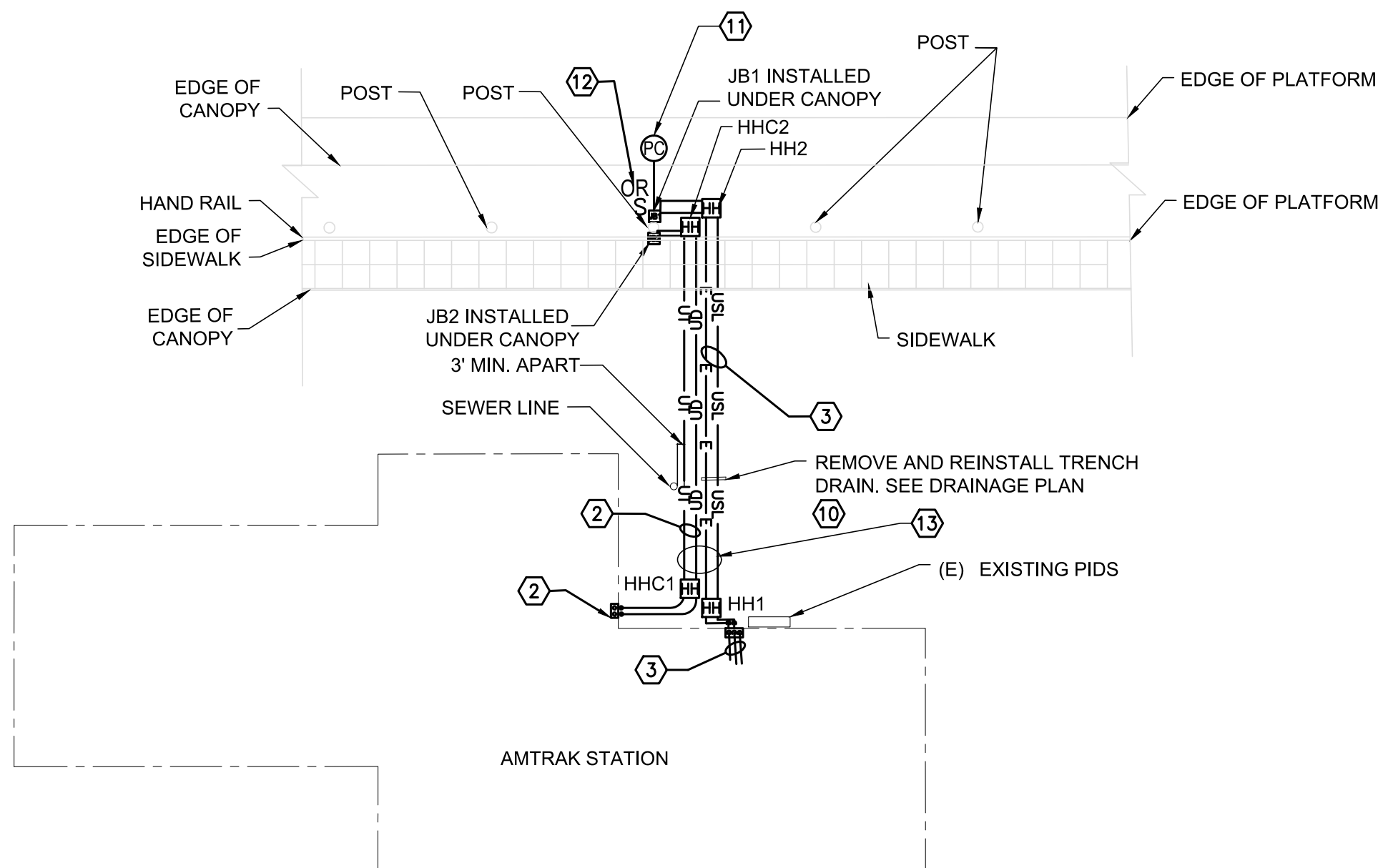
# 1 ELECTRICAL SITE PLAN SOUTH

E-110 SCALE: 1" = 20'-0"



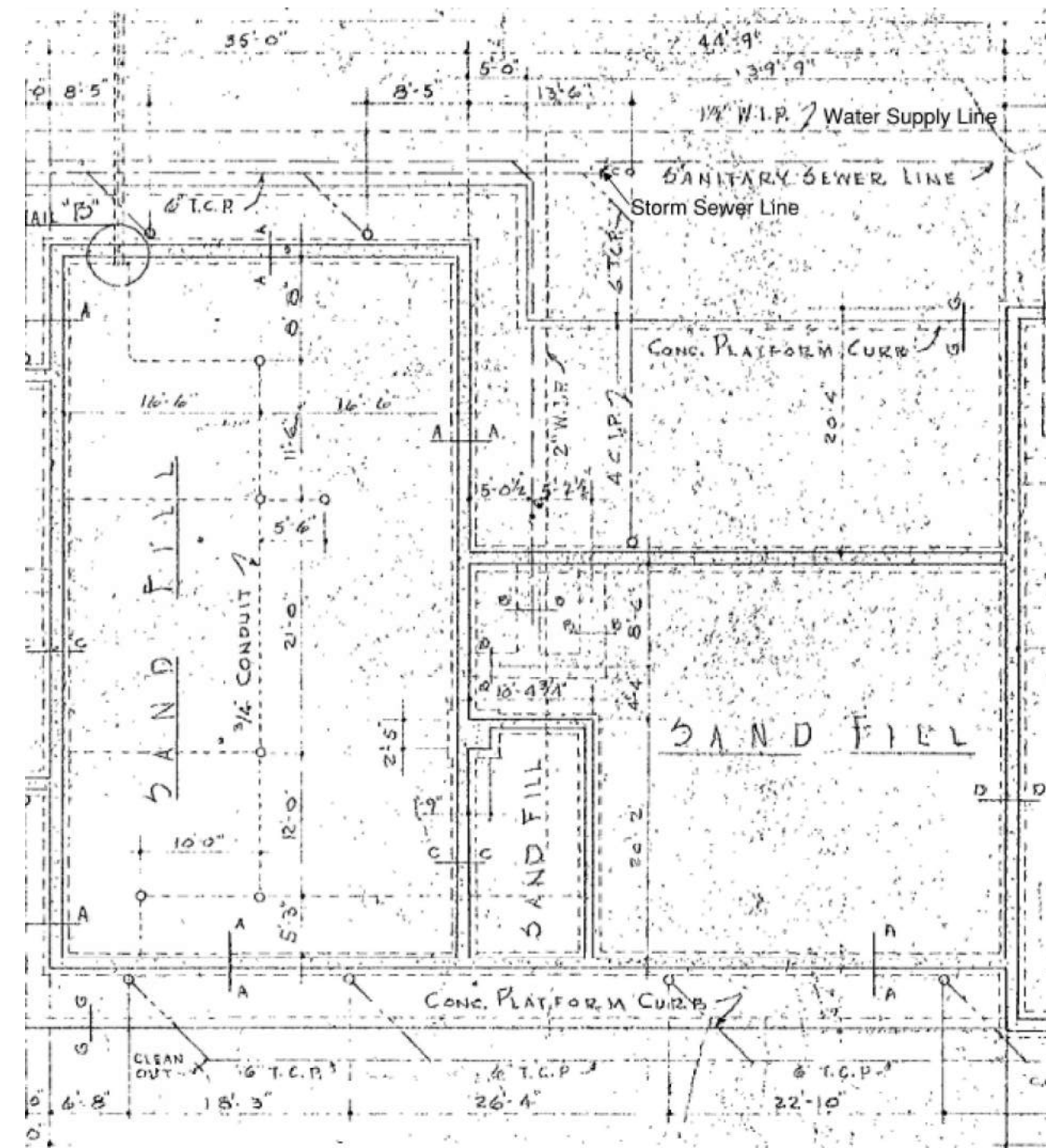
## KEY NOTES

- PULL BOXES FOR LIGHTING POWER AND FUTURE PIDS.
- PROVIDE (2) 2" C FOR FUTURE PIDS AND DATA WIRING. CONDUITS ROUTED UNDER FUTURE TRACKS SHALL BE STEEL CASING PIPE.
- PROVIDE (1) 3" C FOR LIGHTING POWER AND (1) 2" FUTURE POWER CONDUITS. CONDUITS ROUTED UNDER FUTURE TRACKS SHALL BE STEEL CASING PIPE.
- RUN (2) 2" SPARE CONDUITS (DATA & TELEPHONE) UNDER PLATFORM FROM HHC2 TO JUNCTION BOX JB2. INSTALL JB2 UNDER CANOPY ROOF FRAMING IN THE WEB OF POST, THEN STOP. SEE DETAIL 3/E-403.
- RUN (1) 3" CONDUIT AND (1) 2" SPARE POWER CONDUIT UNDER PLATFORM FROM HH2 TO JUNCTION BOX JB1. INSTALL JB1 UNDER CANOPY ROOF FRAMING IN THE WEB OF POST. CONTINUE TO CANOPY FIXTURES A AND TO JUNCTION BOX AT FAR END OF SOUTH CANOPY AND FAR END OF NORTH CANOPY. SEE DRAWING E-404 FOR WIRING AND CONDUIT SIZE AND DETAIL 2/E-403 FOR TYPICAL ROUTING.
- RUN CONDUITS UNDER CANOPY FOR ROOF CANOPY LIGHTS AND P18.
- RUN (1) 3" CONDUIT FOR P18 AND P19. UNDER CANOPY ROOF FROM JB1 TO JB3 AND DOWN COLUMN TO HH3S. INSTALL (1) 3" CONDUIT TO HH3S.
- HAND HOLE (HH, HHC), SEE E-403 FOR DETAILS.
- ADD NEW POLE LIGHT P21, C.
- REMOVE AND REINSTALL EXISTING TRENCH DRAIN.
- INSTALL PHOTOCELL 1' ABOVE EDGE OF CANOPY, AND PHOTOCELL SHALL FACE TO NORTH. SEE 5/E-403 FOR DETAILS.
- PROVIDE 3R LOCKABLE OVERRIDE SWITCH. BOX SHALL ACCOMMODATE A LARGE DIAMETER PADLOCK. INSTALL SWITCH ON THE NEAREST CANOPY POST, 4' ABOVE FINISHED PLATFORM FLOOR.
- WORK ON CONDUITS FROM BUILDING TO PLATFORM. CONTRACTOR SHALL VERIFY UNDERGROUND SANITARY, STORM AND WATER LINE IN THE FIELD. SEE DETAIL 3 ON THIS DRAWING.



# 2 ELECTRICAL CONDUIT FROM STATION TO PLATFORM LAYOUT

E-110 SCALE: 1" = 20'-0"



# 3 PARTIAL EXISTING SITE PLAN

E-110 SCALE: NOT TO SCALE

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Office of Chief Engineer

National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



PENNONI ASSOCIATES INC.  
1302 Market Street, Suite 300  
Philadelphia, PA 19103  
T 215.222.3000 F 215.222.3588

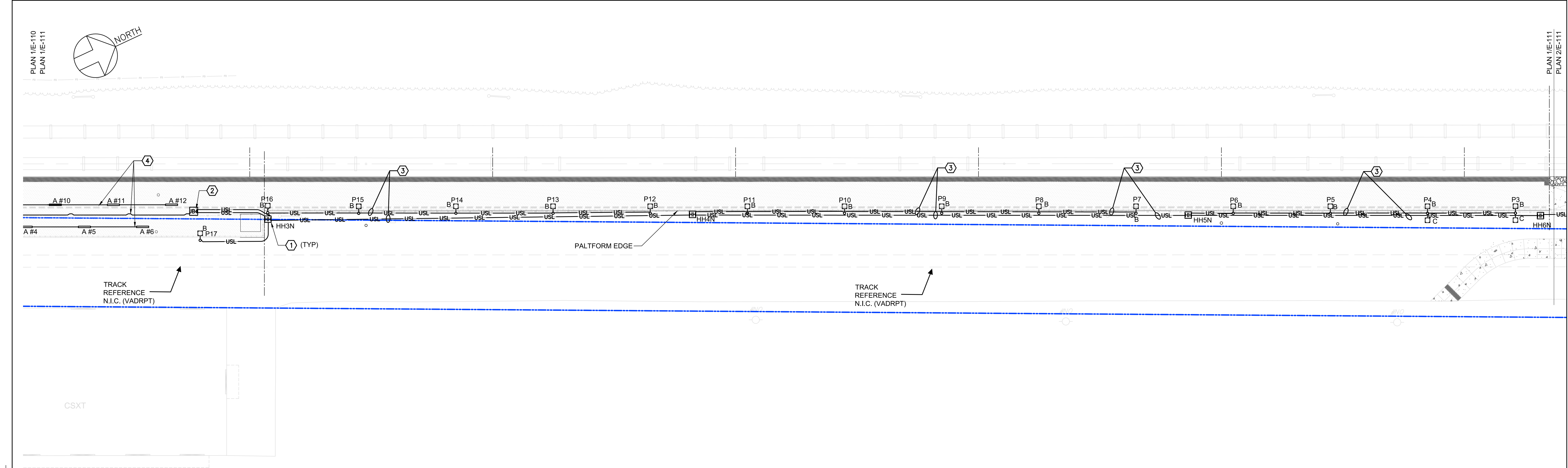
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PETERSBURG (PTB)  
ADA STATIONS  
PROGRAM (ADAPP)  
ELECTRICAL SITE PLAN - SOUTH

Designed: JPR Drawn: MAS Checked: JPR Date: 2021-02-22

Project Code:	PTB, VA
WBS:	C.EN.100694.0669
Sheet No.	68 OF 80
Dwg. No.	E-110





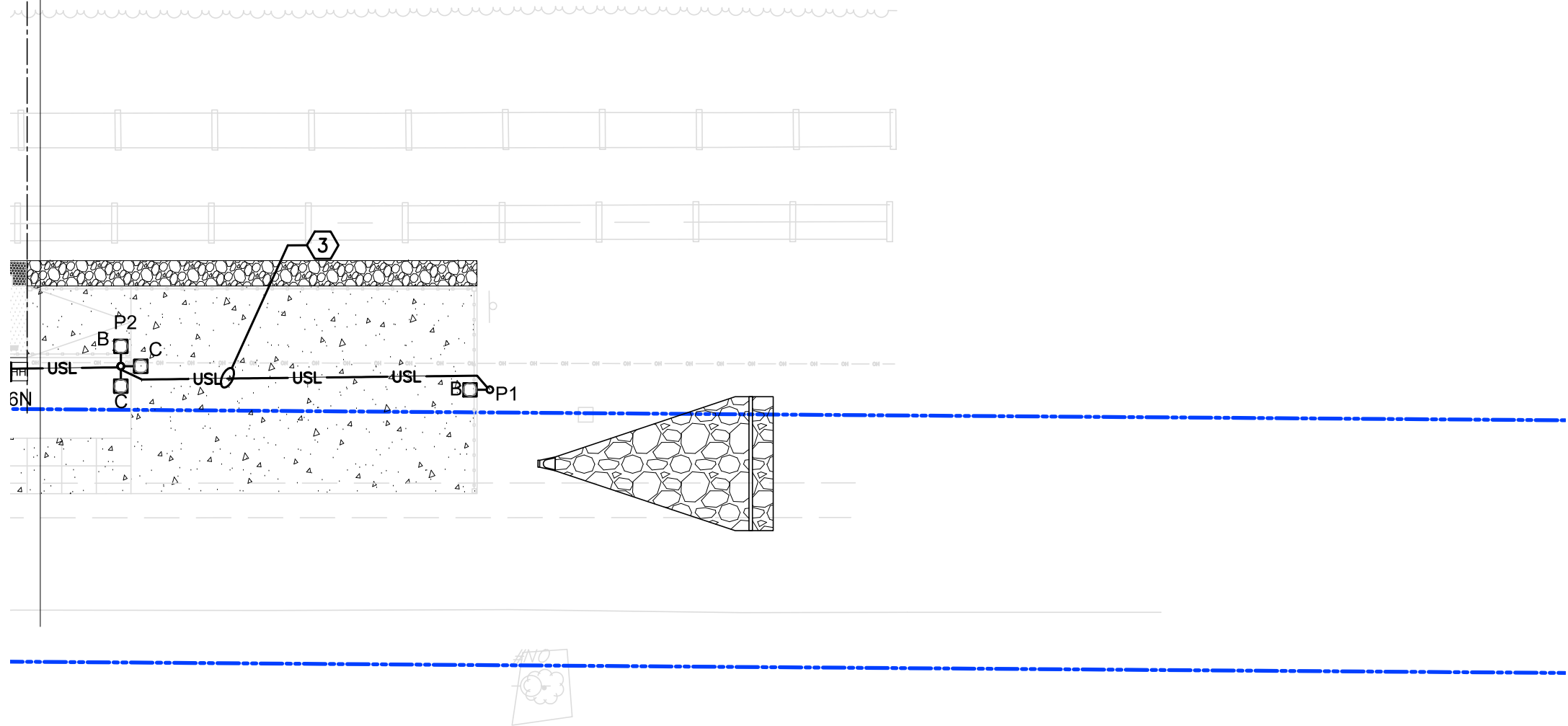
1 ELECTRICAL SITE PLAN NORTH  
E-111 SCALE: 1" = 20'-0"



KEY NOTES

- 1 HAND HOLE (HH, HHC), SEE E-403 FOR DETAILS
- 2 RUN (3) 3" CONDUIT FROM JB4 JUNCTION BOX TO HH3N UNDER PLATFORM. (2) 3" SPARE CONDUITS END UP HH3N. SEE DETAIL 2/E-403.
- 3 PROVIDE 3"C FOR LIGHTING POWER.
- 4 RUN CONDUITS UNDER CANOPY ROOF FOR CANOPY AND NORTH POLE LIGHTING.

PLAN 1/E-111  
PLAN 2/E-111



2 ELECTRICAL SITE NORTH  
E-111 SCALE: 1" = 20'-0"



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NO.	DESCRIPTION	DATE	BY



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Office of Chief Engineer

National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



PENNONI ASSOCIATES INC.  
1001 Market Street, Suite 300  
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PETERSBURG (PTB)  
ADA STATIONS  
PROGRAM (ADAPP)  
ELECTRICAL SITE PLAN - NORTH

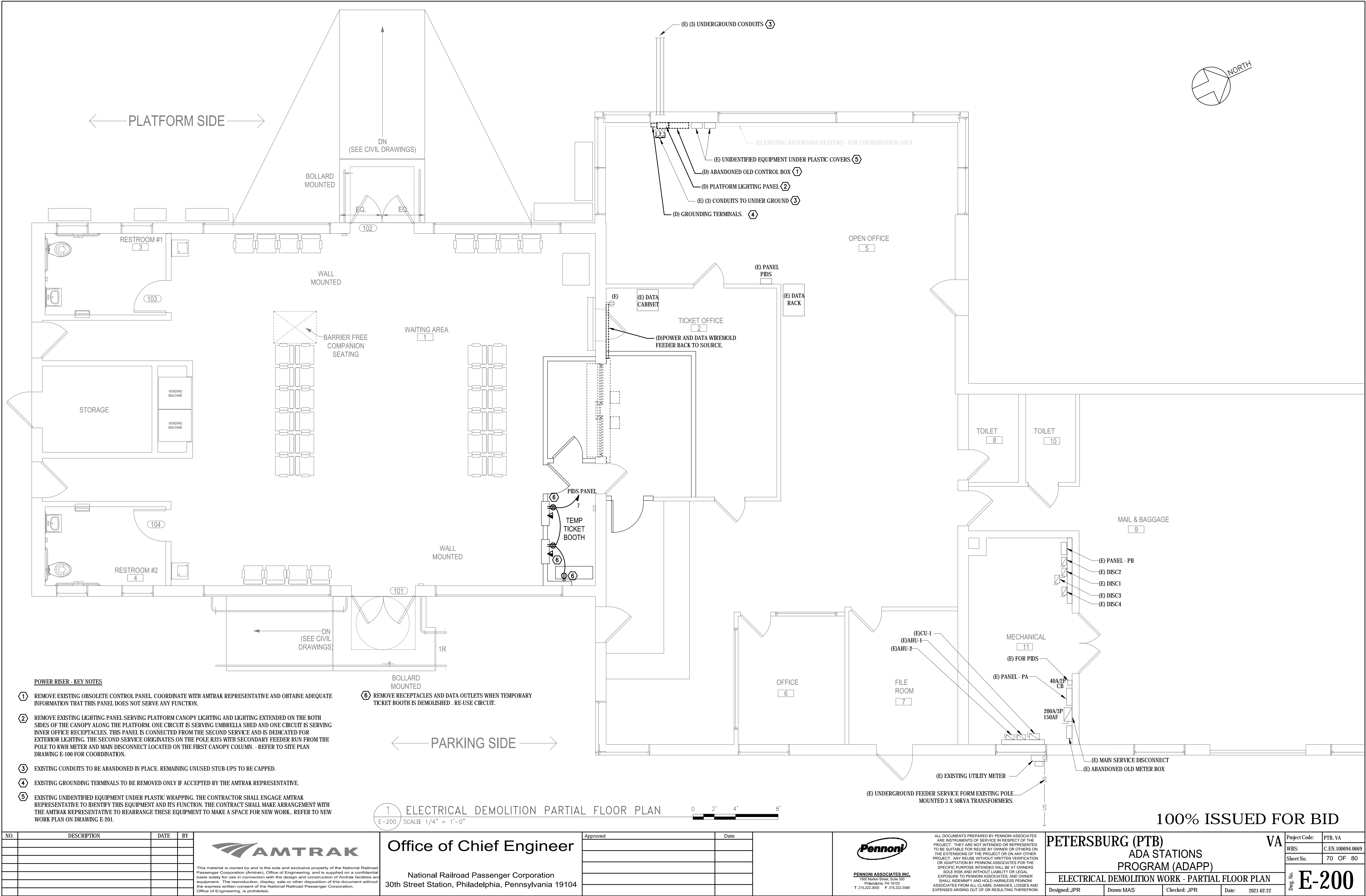
Designed: JPR Drawn: MAS Checked: JPR Date: 2021-02-22

Project Code:	PTB, VA
WBS:	C.EN.100694.0669
Sheet No.	69 OF 80
Dwg. No.	E-111

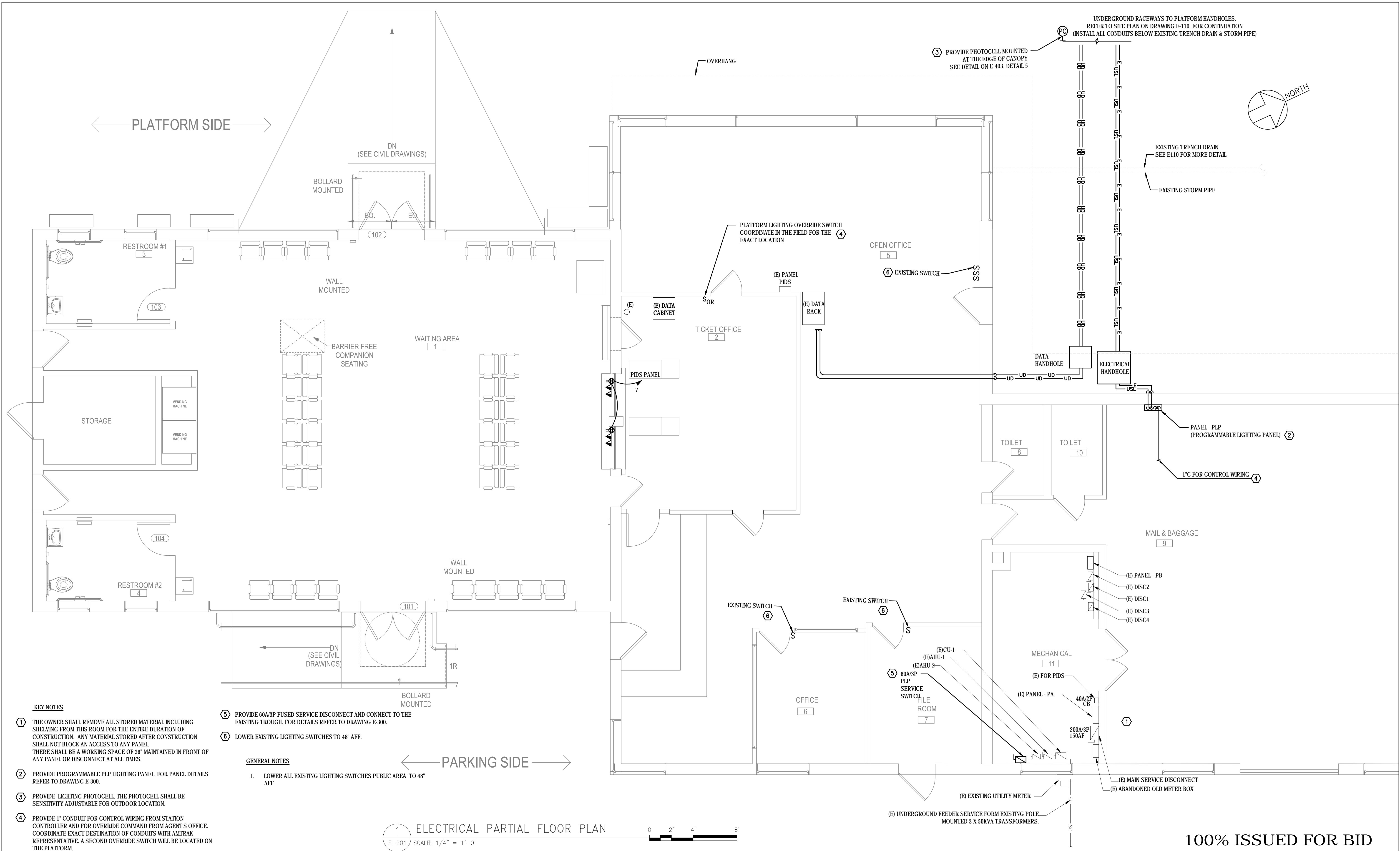
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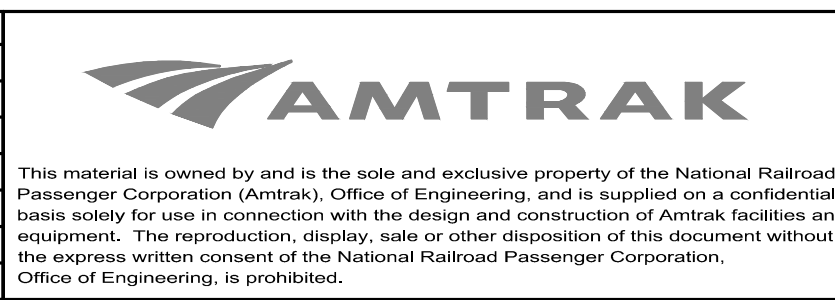


- KEY NOTES**
- ① THE OWNER SHALL REMOVE ALL STORED MATERIAL INCLUDING SHELVING FROM THIS ROOM FOR THE ENTIRE DURATION OF CONSTRUCTION. ANY MATERIAL STORED AFTER CONSTRUCTION SHALL NOT BLOCK AN ACCESS TO ANY PANEL. THERE SHALL BE A WORKING SPACE OF 36" MAINTAINED IN FRONT OF ANY PANEL OR DISCONNECT AT ALL TIMES.
- ② PROVIDE PROGRAMMABLE PLP LIGHTING PANEL. FOR PANEL DETAILS REFER TO DRAWING E-300.
- ③ PROVIDE LIGHTING PHOTOCELL. THE PHOTOCELL SHALL BE SENSITIVITY ADJUSTABLE FOR OUTDOOR LOCATION.
- ④ PROVIDE 1" CONDUIT FOR CONTROL WIRING FROM STATION CONTROLLER AND FOR OVERRIDE COMMAND FROM AGENT'S OFFICE. COORDINATE EXACT DESTINATION OF CONDUITS WITH AMTRAK REPRESENTATIVE. A SECOND OVERRIDE SWITCH WILL BE LOCATED ON THE PLATFORM.

- GENERAL NOTES**
- ⑤ PROVIDE 60A/3P FUSED SERVICE DISCONNECT AND CONNECT TO THE EXISTING TROUGH. FOR DETAILS REFER TO DRAWING E-300.
- ⑥ LOWER EXISTING LIGHTING SWITCHES TO 48" AFF.
1. LOWER ALL EXISTING LIGHTING SWITCHES PUBLIC AREA TO 48" AFF

1 ELECTRICAL PARTIAL FLOOR PLAN  
E-201 SCALE: 1/4" = 1'-0"

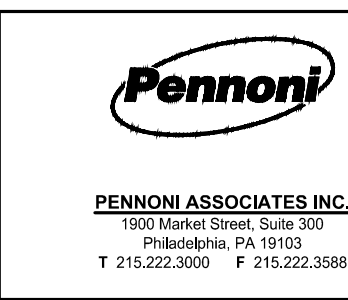
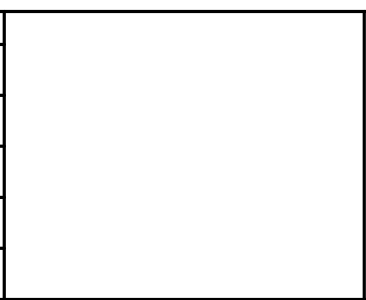
NO.	DESCRIPTION	DATE	BY



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30th Street Station, Philadelphia, Pennsylvania 19104

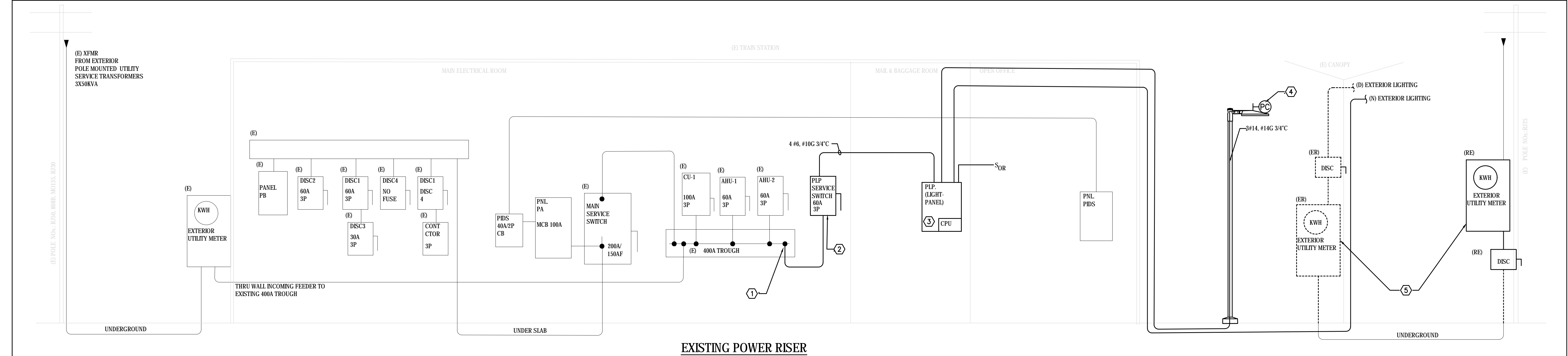
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PETERSBURG (PTB) ADA STATIONS PROGRAM (ADAPP)		VA	
ELECTRICAL NEW WORK - PARTIAL FLOOR PLAN		100% ISSUED FOR BID	
Designed: JPR	Drawn: MAS	Checked: JPR	Date: 2021-02-22
Project Code:	PTB, VA	WBS:	C.EN.100694.0669
Sheet No.	71 OF 80	Dwg. No.	E-201





EXISTING POWER RISER

POWER RISER - KEY NOTES

- 1 TAP FEEDER AT EXISTING 400A BUS FEEDER FOR NEW SERVICE DISCONNECT.
- 2 PROVIDE NEW 60A/3P PLP SERVICE DISCONNECT SWITCH. - PROVIDE LABEL "SERVICE DISCONNECT SWITCH FEEDS PANEL PLP. PLP SERVICE SWITCH NEUTRAL TO BE PROPERLY BONDED TO GROUND PER NEC SERVICE ENTRANCE REQUIREMENTS.
- 3 PROVIDE LIGHTING PANEL WITH PROGRAMMABLE CPU (CENTRAL PROCESSING UNIT) AND CONTROLLABLE CIRCUIT BREAKERS AS SHOWN ON PANEL SCHEDULE. FOR LOCATION REFER TO DRAWING E-200. BASIS OF DESIGN IS A SQUARE D POWERLINK PANEL.
- 4 PROVIDE LIGHTING PHOTOCELL ON POLE LIGHT. THE PHOTOCELL SHALL BE SENSITIVITY ADJUSTABLE FOR OUTDOOR LOCATION.
- 5 COORDINATE RELOCATION OF METER AND DISCONNECT WITH ELECTRIC UTILITY

PANEL: PIDS			(EXISTING)			208/120 VOLTS, 1 PHASE, 3 WIRE			BUS: 40 AMPS		
LOCATION: REFER TO POWER RISER DIAGRAM						MOUNTING: <input checked="" type="checkbox"/> SURFACE <input type="checkbox"/> FLUSH			MAIN: MLO AMPS, 2 POLE		
FED FROM: REFER TO POWER RISER DIAGRAM						BUS: <input checked="" type="checkbox"/> COPPER <input type="checkbox"/> ALUMINUM			NEUTRAL: 100% AIC: 10,000 AMPS		
FEEDER SIZE: REFER TO POWER RISER DIAGRAM						<input checked="" type="checkbox"/> GROUND <input type="checkbox"/> ISOLATED GROUND			<input type="checkbox"/> FEED THRU <input type="checkbox"/> SHUNT TRIP		
MANUFACTURER/MODEL: REFER TO SPECIFICATIONS						NEMA ENCLOSURE TYPE: 1					
CKT. NO.	TRIP AMPS	DESCRIPTION OF LOAD	LOAD (KVA)	PHASES (KVA)		LOAD (KVA)	DESCRIPTION OF LOAD	TRIP AMPS	CKT. NO.		
				A	B						
1	20	LED SIGN	0.0	0.0		0.0	RACK	20	2		
3	20	LCD DISPLAY	0.0		0.0	0.0	WORKSTATION	20	4		
5	20	RACK AC UNIT	0.0	0.0		0.0	AUTO DOORS	20	6		
7	20	TICKET WINDOW RECEPTACLES	0.7		0.7	0.0	AUTO DOORS	20	8		
9	—	SPACE	0.0	0.0		0.0	SPACE	—	10		
11	—	SPACE	0.0		0.0	0.0	SPACE	—	12		
13	—	SPACE	0.0	0.0		0.0	SPACE	—	14		
15	—	SPACE	0.0		0.0	0.0	SPACE	—	16		
LOAD TYPE			PIDS	0.0	0.7	CONNECTED	DEMAND FACTOR	DEMAND	TOTAL CONNECTED	4.2 KVA	
LIGHTING			4.2		0.7	4.2	100%	4.2	TOTAL DEMAND	4.2 KVA	
RECEPTACLE			0.0			0.0	NEC220.44	0.0	TOTAL DEMAND	11.7 AMPS	
MECHANICAL			0.0			0.0	100%	0.0	PLUS 25% PER NEC	14.6 AMPS	
OTHER			0.0			0.0	100%	0.0			

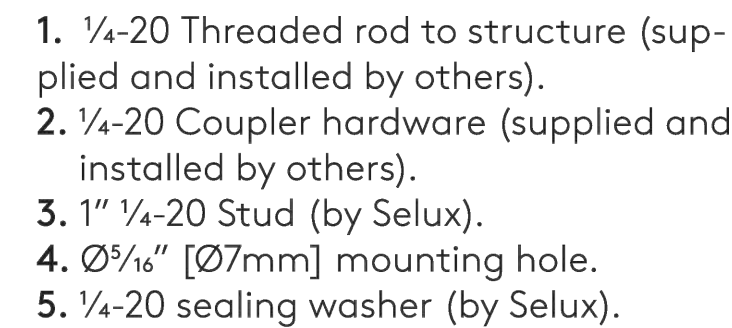
PANEL: PLP (NEW)				208/120 VOLTS, 3 PHASE, 4 WIRE				BUS: 60 AMPS					
LOCATION: GROUND LEVEL				MOUNTING: <input checked="" type="checkbox"/> SURFACE <input type="checkbox"/> FLUSH				MAIN: 60* AMPS, 3 POLE					
FED FROM: TROUGH				BUS: <input checked="" type="checkbox"/> COPPER <input type="checkbox"/> ALUMINUM				NEUTRAL: 100% AIC: 20K AMPS					
FEEDER SIZE: REFER TO POWER RISER DIAGRAM				<input checked="" type="checkbox"/> GROUND <input type="checkbox"/> ISOLATED GROUND				<input type="checkbox"/> FEED THRU <input type="checkbox"/> SHUNT TRIP					
MANUFACTURER/MODEL: REFER TO SPECIFICATIONS				NEMA ENCLOSURE TYPE: 1									
CKT. NO.	TRIP AMPS	DESCRIPTION OF LOAD	LOAD (KVA)	PER PHASE (KVA)			LOAD (KVA)	DESCRIPTION OF LOAD	TRIP AMPS	CKT. NO.			
				A	B	C							
1	20*	PLATFORM FIXTURE A	0.2	0.6	<div></div>	<div></div>	0.4	PLATFORM FIXTURE B	20*	2			
3	20*	PLATFORM FIXTURE A	0.2	<div></div>	0.5	<div></div>	0.3	PLATFORM FIXTURE B	20*	4			
5	20*	PLATFORM FIXTURE A	0.3	<div></div>	<div></div>	0.6	0.3	PLATFORM FIXTURE B	20*	6			
7	20*	PLATFORM FIXTURE A	0.3	0.8	<div></div>	<div></div>	0.5	PLATFORM FIXTURE B	20*	8			
9	20*	PLATFORM FIXTURE C	0.4	<div></div>	0.4	<div></div>	0.0	SPARE	20	10			
11	20	SPARE	0.0	<div></div>	<div></div>	0.0	0.0	SPARE	20	12			
13	20	SPARE	0.0	0.0	<div></div>	<div></div>	0.0	SPARE	20	14			
15	20	SPARE	0.0	<div></div>	0.0	<div></div>	0.0	SPARE	20	16			
17	20	SPARE	0.0	<div></div>	<div></div>	0.0	0.0	SPARE	20	18			
19	20	SPARE	0.0	0.0	<div></div>	<div></div>	0.0	SPARE	20	20			
21	20	SPARE	0.0	<div></div>	0.0	<div></div>	0.0	SPARE	20	22			
23	20	SPARE	0.0	<div></div>	<div></div>	0.0	0.0	SPARE	20	24			
25	20	SPARE	0.0	0.0	<div></div>	<div></div>	0.0	SPARE	20	26			
27	20	SPARE	0.0	<div></div>	0.0	<div></div>	0.0	SPARE	20	28			
29	20	SPARE	0.0	<div></div>	<div></div>	0.0	0.0	SPARE	20	30			
LOAD TYPE	PNL-1	PNL-2	PNL-3	PNL-1	1.4	0.9	0.6	DEMAND FACTOR	DEMAND	TOTAL CONNECTED	0.0	KVA	
LIGHTING	0.0	0.0	0.0	PNL-2	0.0	0.0	0.0	0.0	100%	0.0	TOTAL DEMAND	0.0	KVA
RECEPTACLE	0.0	0.0	0.0	PNL-3	0.0	0.0	0.0	0.0	NEC220.44	0.0	TOTAL DEMAND	0.0	AMPS
MECHANICAL	0.0	0.0	0.0	2.9			0.0	100%	0.0	PLUS 25% PER NEC	0.0	AMPS	
OTHER	0.0	0.0	0.0				0.0	100%	0.0				

PANEL NOTES

- \* CIRCUIT BREAKER WITH EQUIPMENT GROUND FAULT PROTECTION.
- 1. LIGHTING PANEL SHALL BE EQUIPPED WITH SPD, PROGRAMMABLE CPU, ASTRONOMICAL CLOCK AND CONTROLLABLE BREAKERS.
- 2. THE EXTERNAL CONTROL SHALL BE PROVIDED FROM THE ADJUSTABLE SENSITIVITY PHOTOCELL, MOUNTED ON THE EXTERIOR BUILDING WALL.
- 3. PANEL CPU CONTROLLER SHALL ACCEP OVERRIDE SIGNAL FROM STATION CONTROLLER

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1. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING COMPATIBILITY BETWEEN THE LIGHTING SYSTEM DEVICES INCLUDING BALLASTS/DRIVERS, SENSORS, SWITCHING CONTROLS AND ASSOCIATED POWER PACKS.
2. CONTRACTOR SHALL OBTAIN A WIRING DIAGRAM FROM THE LIGHTING SUPPLIER WHICH SHOWS TERMINALS AT THE BALLAST/DRIVER BY COLOR AND CONTROL DEVICES IDENTIFIED, NOMINAL VOLTAGE INCLUDING THE WIRE COLOR AT THE TERMINAL TO ENSURE COMPATIBILITY OF THE LIGHTING SYSTEM ASSEMBLY.
3. LIGHTING CONTROL WIRING DIAGRAM SHALL BE PROVIDED FOR EACH TYPICAL LIGHTING CONTROL ARRANGEMENT ON THE DRAWING.
4. LIGHTING CONTROL WIRING DIAGRAM SHALL BE PROVIDED WITH LIGHTING SUBMITTALS FOR REVIEW.
5. RELEASE OF THE SUBMITTALS BY THE ENGINEER DOES NOT GUARANTEE CONTROL DEVICE COMPATIBILITY WITH BALLAST/DRIVER OF LISTED LIGHTING FIXTURES MANUFACTURERS. THE SUBMITTAL WILL BE REVIEWED FOR MEETING DESIGN INTENT AND COMPLIANCE WITH 2015 IECC AND OTHER ENERGY CONSERVATION APPLICABLE STANDARDS.



This diagram illustrates the components of a tamper-resistant enclosure assembly. The parts are labeled as follows:

- Tamper Resistant Hardware
- Aluminum Top Plate
- Sealing Gasket
- Lens
- Fixture Extrusion
- Joining End Plate
- Joining Gasket

Direct & Recessed  
Flangeless

Technical drawing of the Direct and Recessed Lens Depicted. The drawing shows a lens assembly with dimensions in inches and millimeters:

- Top dimension: 3 <sup>9</sup>/<sub>16</sub>" (91mm)
- Bottom dimension: 2 <sup>1</sup>/<sub>4</sub>" (56mm)
- Bottom dimension: 2 <sup>3</sup>/<sub>8</sub>" (60mm)

Direct & Recessed Lens Depicted

**Housing** - Continuous, low copper 6063-T6 extruded aluminum profile with aluminum endcaps, available as Individual fixtures (up to 12') or Runs.

**Geartray** - Low copper 6063-T6 extruded aluminum profile.

**Shielding** - Extruded, impact resistant acrylic snap in lens:

- LED Optimized White Lens (LW)
- Clear Lens with Microprism (MI)

“LMO” refers to the Selux proprietary LED optical system - Light modulation optics. These lenses are offered in M60 behind a Satine Lens for even illumination and comfortable lit appearance.

- “LMO” symmetric lens (NB)
- “LMO” Asymmetric 5° wall grazer (A5)
- “LMO” Asymmetric 20° wall washer (A2)
- “LMO” Batwing (BW)

\* Please note that the snap-in cover is a frosted acrylic, designed to match the visual appearance of the LW Lens.

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### ELECTRICAL DETAILS - EXTERIOR LIGHTING TYPE-A

Designed: JPR	Drawn: MAS	Checked: JPR	Date: 2021-02-22
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Product Code:	PTB, VA
Model:	C.EN.100694.0669
Lot No.	73 OF 80
<b>E-400A</b>	

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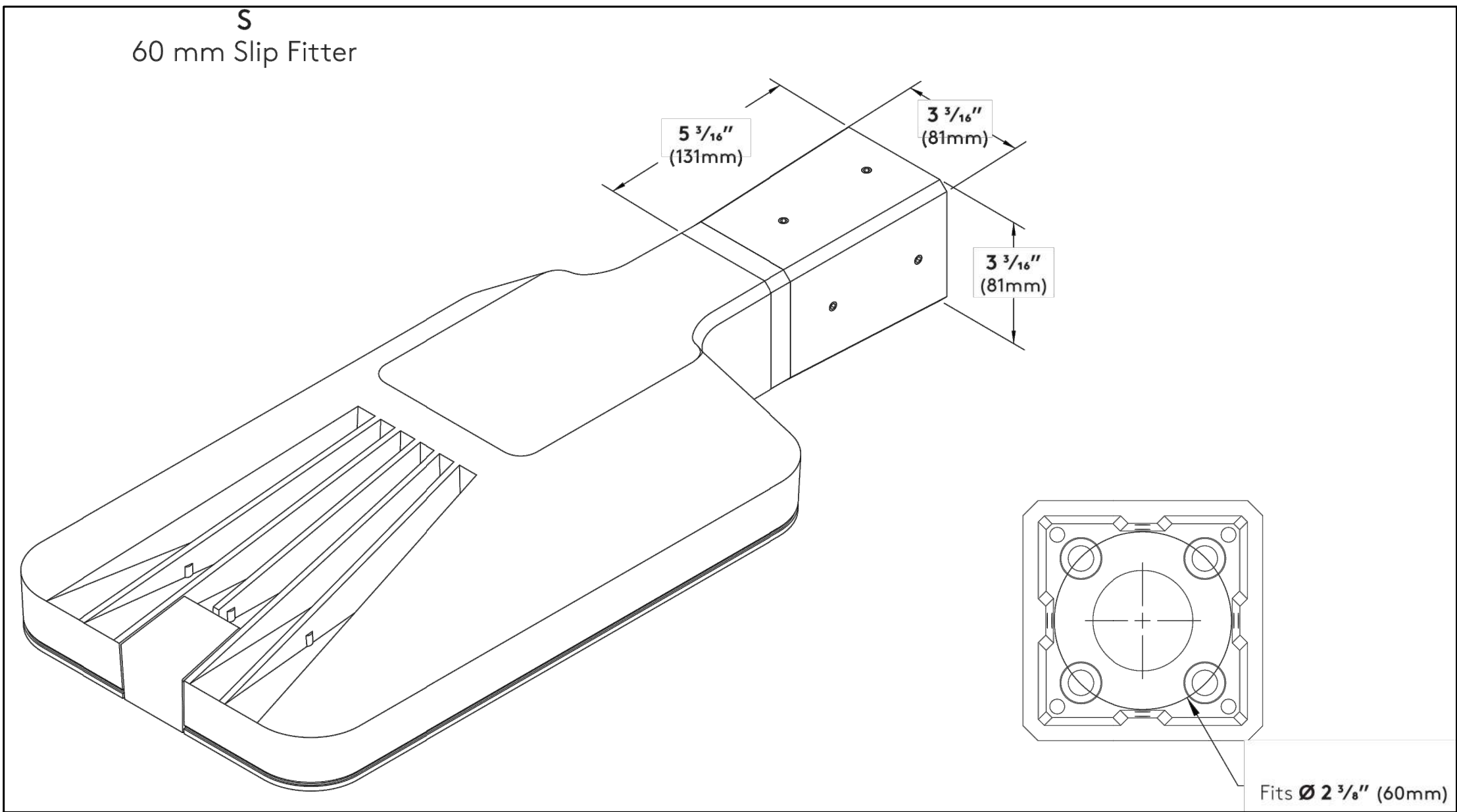
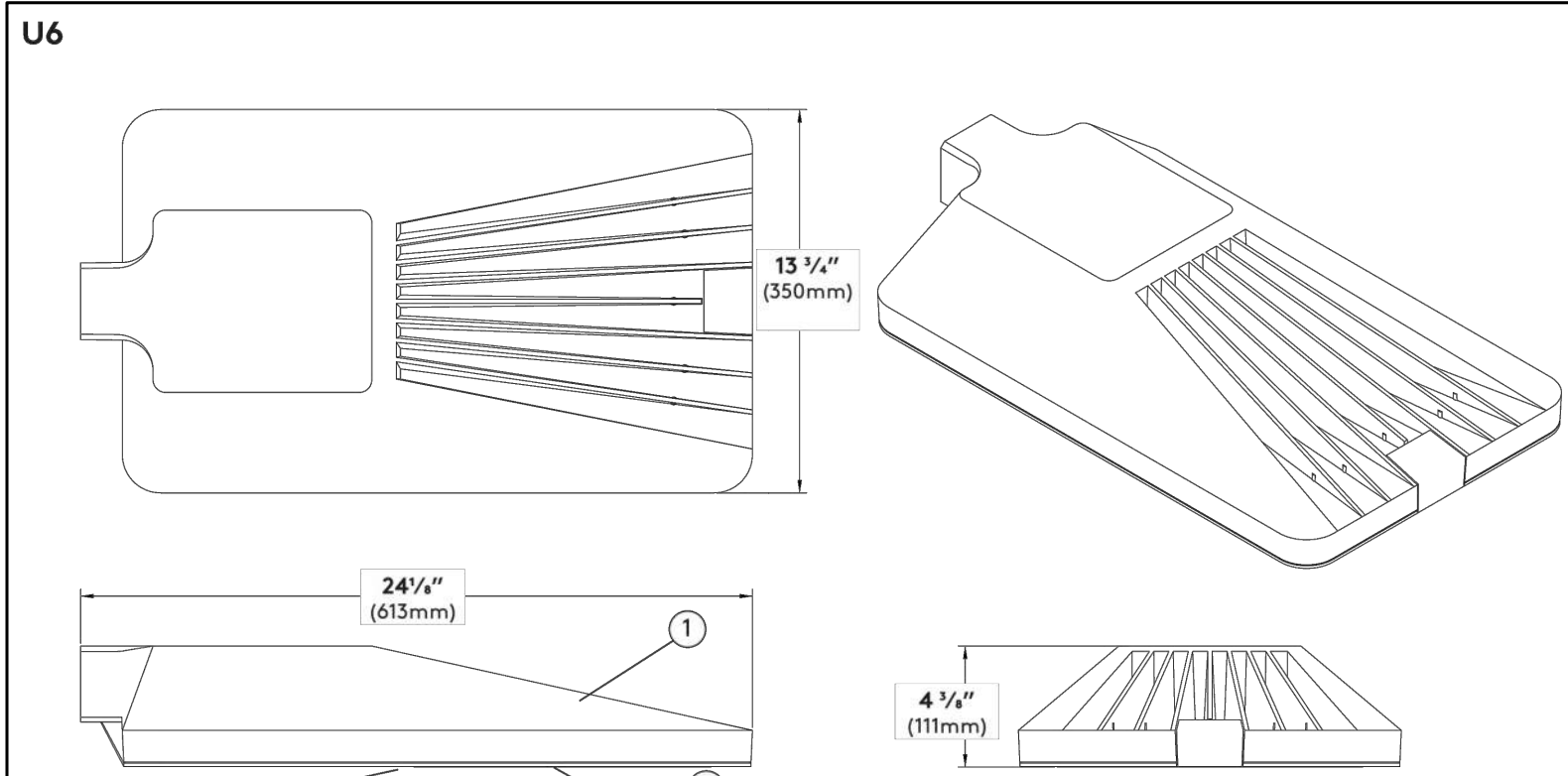
LIGHTING FIXTURE SCHEDULE

FIXT. TYPE	DESCRIPTION	SECURITY LEVELS	MOUNTING	OPTICS	LAMPS				BALLAST/DRIVER		TOTAL LUMENS	NOMINAL VOLTAGE	INPUT WATTAGE	MANUFACTURER	CATALOG NUMBER	COMMENTS
					NO.	WATTS	TYPE	COLOR	BALLAST TYPE	SWITCHING						
A	EXTRUDED ALUMINUM WITH ALUMINUM END CAPS, AVAILABLE AS INDIVIDUAL FIXTURE	MEDIUM	UNDER CANOPY TO STRUCTURE	N/A	N/A	28W	LED	3500	LED DRIVER	0%/100%	3032	120	28	SELUX – MODEL M125–	125–1B30–35–MI–TS–04–BL–UNV	M125 LED DIRECT MULTI–MOUNT WITH MICRO–PRISMATIC INLAY 1” FACTORY INSTALLED STUDS 4FT SEMI–MATTE BLACK 120–277V.
B	FIXTURE HOUSING: DIE CAST MARINE GRADE ALUMINUM BODY & DOOR, CONTINUOUS MOLDED SILICON GASKET. ACCESSORIES: POLE MOUNTED DOUBLE SHORT ARM FOR FIXTURE TYPE–B AND –C (BELOW).	MEDIUM	POLE	R3W	N/A	77W	LED	3000	LED DRIVER	0%/100%	8561	120	77	SELUX – MANUFACTURER CHESAPEAKE LTG. – DISTRIBUTOR.	U6–R3W–S1–5G350–30–25–BK–UNV	OURAY 600 TYPE III WIDE SHORT ARM. 25FT POWER CORD BLACK 120–277V.
C	FIXTURE HOUSING: DIE CAST MARINE GRADE ALUMINUM BODY & DOOR, CONTINUOUS MOLDED SILICON GASKET. ACCESSORIES: POLE MOUNTED DOUBLE SHORT ARM FOR FIXTURE TYPE–C AND –B (ABOVE). MOUNTING FOR FIXTURE TYPE–C SHALL BE AT–ADJUSTABLE TILT	MEDIUM	POLE	R4	N/A	77W	LED	3000	LED DRIVER	0%/100%	8561	120	77	SELUX – MANUFACTURER CHESAPEAKE LTG. – DISTRIBUTOR.	U6–R4–S2–AT–5G350–30–25–BK–UNV	OURAY 600 TYPE IV SHORT ARM ADJUSTABLE TILT. 25FT POWER CORD BLACK ADD SHORT POLE BRACKET "SB" AND SLIP FITTER "S" FOR POLES REQUIRING 3RD LIGHT, 120–277V.
P	POLE: TAPERED DIE–CAST ALUMINUM POLE; 6”Ø, DARK BRONZE POLYESTER POWDER COAT. WITH TWO–PIECE FIELD INSTALLED FULL BASE COVER 20.75”Ø TO ENCLOSED PLATE AND ANCHOR.	MEDIUM	–BASE	–	–	–	–	–	–	–	–	–	–	SELUX – MANUFACTURER CHESAPEAKE LTG. – DISTRIBUTOR.	POLE: AT64–20–BK–BC9, 20’H, 4”Ø TAPERED, BASE: BC9, 8.125”H, 20.75”Ø. BOLT CIRCLE = 9.5”, MIND 100MPH	POLE WITH TWO ARMS FOR FIXTURE TYPE–B FACING RAILROAD AND FIXTURE TYPE–C MOUNTED 180° ON "AT" ADJUSTABLE TILT

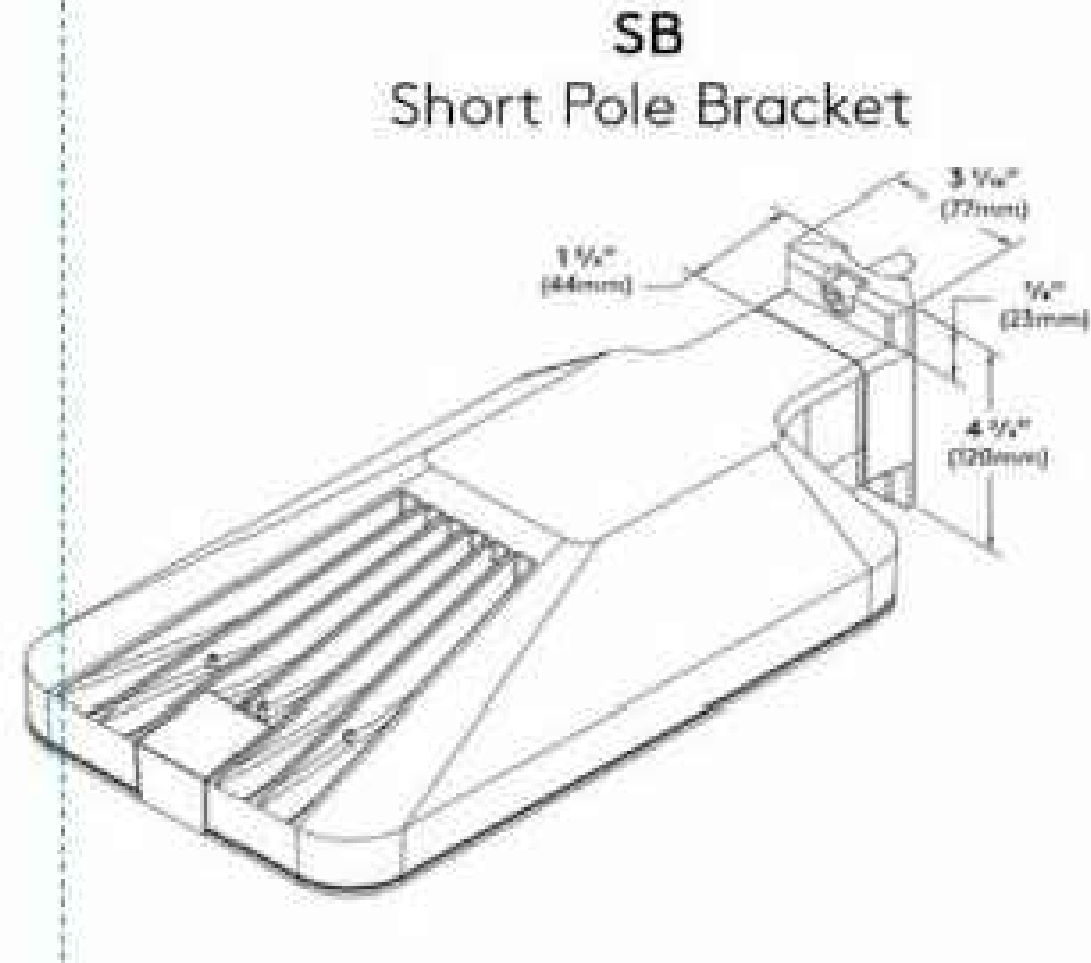
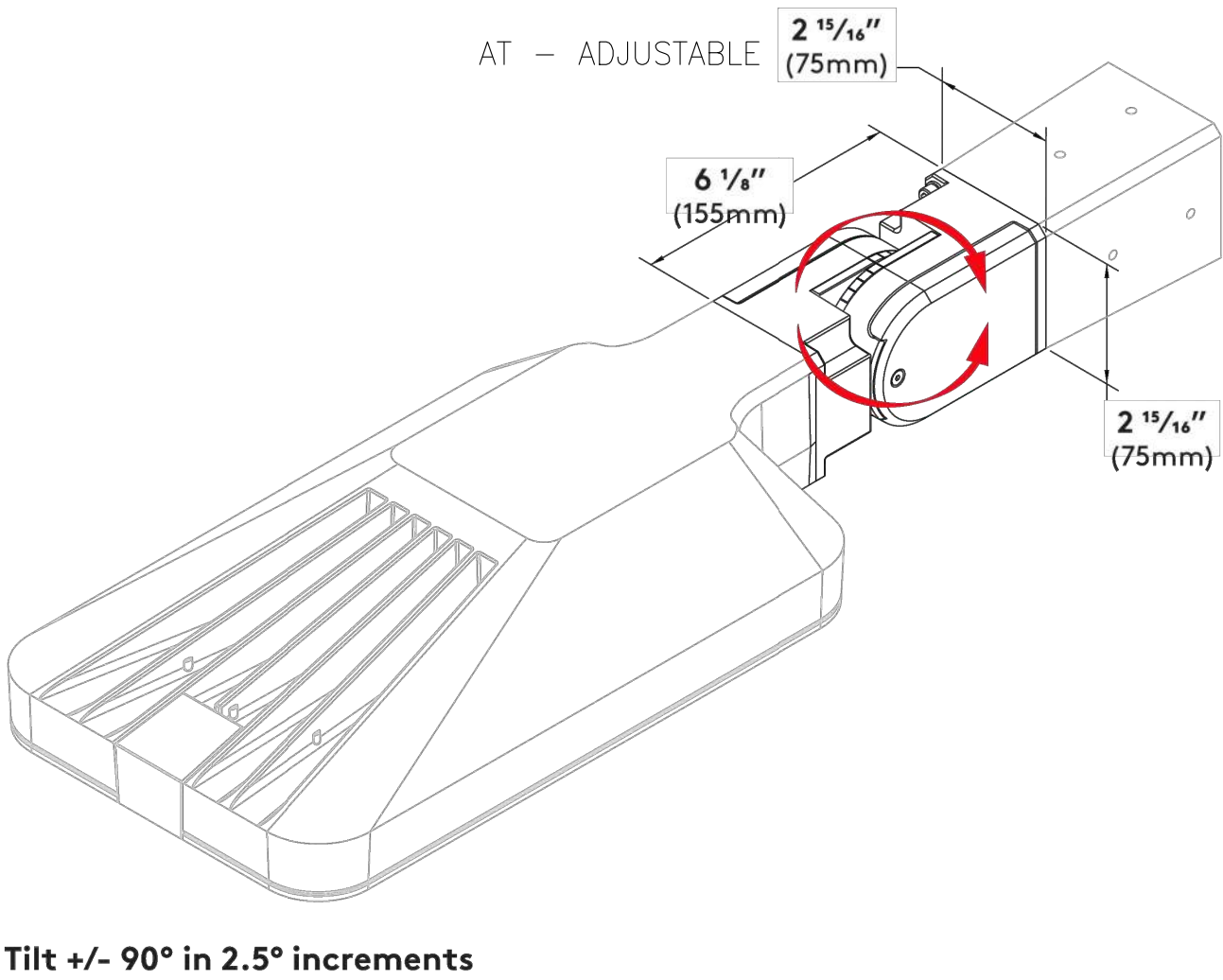
NOTE, PROVIDE (TLPC) A 3–PIN RECEPTACLE WITH PHOTOCELL TO POLE LIGHT P18,

LIGHTING AND CONTROL NOTES

1. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING COMPATIBILITY BETWEEN THE LIGHTING SYSTEM DEVICES INCLUDING BALLASTS/DRIVERS, DIMMERS AND OTHER EXTERNAL CONTROLS AND ASSOCIATED POWER PACKS.
2. CONTRACTOR SHALL OBTAIN A WIRING DIAGRAM FROM THE LIGHTING SUPPLIER WHICH SHOWS TERMINALS AT THE BALLAST/DRIVER BY COLOR AND CONTROL DEVICES IDENTIFIED, NOMINAL VOLTAGE INCLUDING THE WIRE COLOR AT THE TERMINAL TO ENSURE COMPATIBILITY OF THE LIGHTING SYSTEM ASSEMBLY.
3. LIGHTING CONTROL WIRING DIAGRAM FOR LOW VOLTAGE AND LINE VOLTAGE SHALL BE PROVIDED FOR EACH TYPICAL LIGHTING CONTROL ARRANGEMENT ON THE CONTRACTOR’S SHOP DRAWING.
4. LIGHTING CONTROL WIRING DIAGRAM WITH CONTROL DEVICES SHALL BE PROVIDED WITH LIGHTING SUBMITTALS FOR REVIEW.
5. SEE E–400A FOR TYPE A INSTALLATION.



Adjustable arm located between fixture head and fixed mounting.



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Office of Chief Engineer

National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date



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PETERSBURG (PTB)		VA		Project Code:	PTB_VA
ADA STATIONS		WBS:		C.EN.100694.0669	
PROGRAM (ADAPP)		Sheet No.		74 OF 80	
ELECTRICAL DETAILS - EXTERIOR LIGHTING TYPE-B&C		Drawn No.		E-400B	
Designed: JPR	Drawn: MAS	Checked: JPR	Date:	2021-02-22	



VA\Accounts\ATKRA\ATKRA\9008 - AE Design ADA Stations Petersburg VA\DESIGN\E-401.dwg PLOTTED: 8/16/2020 3:09 PM BY: Bai Wang PLOTSTYLE: Amtrak Plot Style.ctb PROJECT STATUS: -----

## FUTURE RAILROAD – CONDUIT CROSSING NOTES

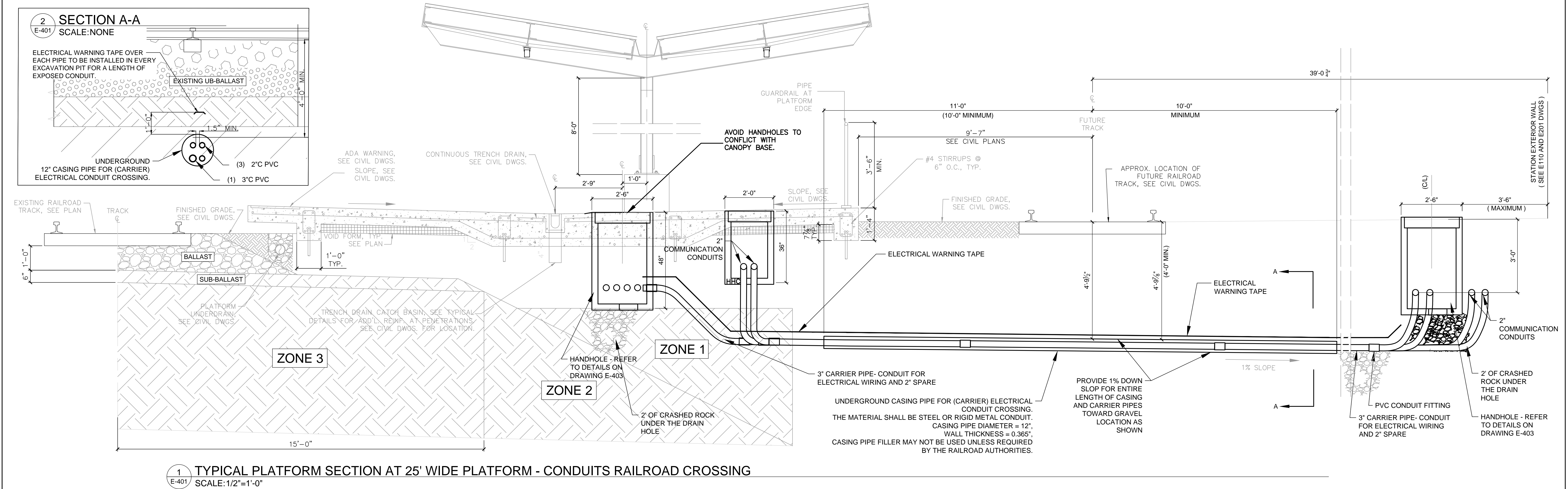
- UNLESS OTHERWISE AUTHORIZED BY THE RAILROAD AUTHORITIES, A RAILROAD REPRESENTATIVE SHALL BE PRESENT DURING INSTALLATION OF THE CROSSING.
- PRIOR TO PENETRATION OR EXCAVATION OF ANY SURFACE THE CONTRACTOR SHALL CONTACT RAILROAD AUTHORITIES TO DETERMINE IF ANY OF THE RAILROAD'S SIGNAL SYSTEMS ARE LOCATED IN THE AREA. IF ANY OF SIGNAL SYSTEMS ARE LOCATED IN THE AREA, THE CONTRACTOR, AT HIS EXPENSE SHALL ARRANGE FOR A CABLE LOCATOR AND SHALL MAKE ARRANGEMENT FOR CABLE RELOCATION OR OTHER PROTECTION OF THE SIGNAL SYSTEMS, OR SHALL REQUEST AN ARRANGEMENT FOR NEW LOCATION OF RAILROAD CROSSING. THE CONTRACTOR SHALL PROVIDE TO THE ENGINEER HIS FINDINGS ON THE PROPOSED WORK DRAWINGS WITH THE REQUEST FOR NEW LOCATION OF RAILROAD CROSSING.
- THE CONTRACTOR SHALL USE AVAILABLE TECHNICS TO DETERMINE IF A POSSIBLE OBSTRUCTION MAY EXIST IN THE PATHWAY OF CROSSING. SUCH AS ABANDONED CONCRETE STRUCTURES, WELLS STEEL CHAMBERS ETC. DURING THE DEMOLITION UNDER CIVIL ENGINEERING CONTRACT THE CONTRACTOR SHALL OBTAIN SUFFICIENT KNOWLEDGE OF EXISTING CONDITION IN THE AREA OF CROSSING. ADDITIONAL DEMOLITION MAY BE NECESSARY IN ORDER TO PROVIDE A SUITABLE CONDITION FOR REQUIRED CROSSING.
- CROSSING SHALL BE MADE AS NEAR AS POSSIBLE AT AN ANGLE OF 90° TO THE RAILROAD TRACKS.
- UNDERGROUND CROSSING SHALL BE INSTALLED AT 48" (4') MINIMUM DEPTH BELOW THE BASE OF THE RAIL.
- PIPELINES CROSSING THE RAILROAD SHALL BE CONSTRUCTED IN ACCORDANCE WITH PART 5 OF "AREMA" – AMERICAN RAILWAY ENGINEERING AND MAINTENANCE–OF–WAY ASSOCIATION MANUAL FOR RAILWAY ENGINEERING.
- CASING PIPE SHALL BE RIGID METAL OR GALVANIZED STEEL. THE INSIDE DIMENSION OF CASING PIPE SHALL BE 2" LARGER THAN OUTSIDE DIMENSION OF THE CARRIER PIPE. OR A DISTANCE BETWEEN INSIDE WALL OF CASING PIPE AND COUPLING OF THE CARRIER PIPE SHALL NOT BE LESS THAN 3/4".
- CARRIER PIPE SHALL BE PVC SCHEDULE 80.
- INSIDE DIMENSION OF THE CASING PIPE SHALL ALLOW FOR CARRIER PIPE TO BE INSERTED WITH RUNNERS AND SUBSEQUENTLY REMOVED IF NECESSARY WITHOUT DISTURBING THE CASING OR THE

ROADBED.

- THE SUPPORTS AND RUNNERS SHALL KEEP THE CARRIER PIPE AT LEAST 0.75" FROM THE CASING PIPE WALLS
- RUNNERS SHALL BE MADE OF ULTRA HIGH MOLECULAR WEIGHT POLYMER WITH INHERENT HIGH ABRASION RESISTANCE AND LOW COEFFICIENT OF FRICTION.
- EACH END OF THE CASING PIPE AND WITH CARRIER CONDUIT SHALL BE WRAPPED WITH THE END SEAL MODEL CCES MANUFACTURED BY CASCADE WOTERWORKS OR EQUAL.
- DESIGN LOADS:
  - THE DEAD LOAD OF THE EARTH SHALL BE CONSIDERED TO BE 120 POUNDS PER CUBIC FOOT.
  - RAILROAD LIVE LOAD USED SHALL BE A COOPER E–80 LOADING.
  - IMPACT FACTOR SHALL BE 1.75 FOR DEPTH OF COVER UP TO 5 FEET. FOR COVER DEPTH DEEPER THAN 5' THE IMPACT FACTOR CAN BE REDUCED BY 0.03 PER FOOT OF DEPTH.
  - LIVE LOAD INCLUDING IMPACT FOR VARIOUS HEIGHTS OF COVER FOR A COOPER E–80 LOADING, WITH MINIMUM AXLE SPACING OF 5':

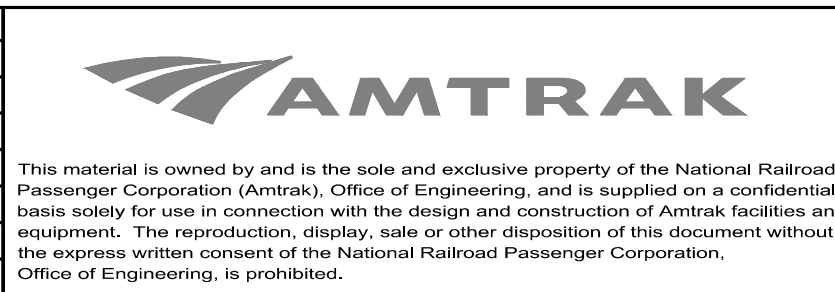
HEIGHT OF COVER	LOAD (LB/SF)
3'	3150
4'	2850
5'	2550
6'	2250
- THE EXTENSION OF THE CASING PIPE FROM THE CENTER OF THE RAILROAD SHALL BE APPROVED BY THE AMTRAK REPRESENTATIVE. THE CONTRACTOR SHALL OBTAINED APPROVAL BEFORE ANY EXCAVATION. EXCEPT FOR APPROVED DEMOLITIONS.
- THE DISTANCE FROM CENTER LINE OF MANHOLE TO THE CENTER LINE OF THE NEAREST ADJACENT RAILROAD SHALL NOT BE LESS THAN 15' OR NOT LESS THAN MAXIMUM REACH OF THE BALLAST REGULATOR PLUS SIX FEET (+6').
- WHEN WATER IS EXPECTED TO BE ACCUMULATING AT ANY QUANTITIES, THE CONTRACTOR SHALL SUBMIT A PLAN (HOW TO EXTRACT AND CONTROL A WATER FLOW) TO THE ENGINEER AND AMTRAK REPRESENTATIVE FOR APPROVAL BEFORE THE CONSTRUCTION PROCESS BEGINS. A PUMP OR PUMPS OF SUFFICIENT CAPACITY SHALL BE MAINTAINED AT THE SITE. PUMPS IN OPERATION SHALL BE CONSTANTLY ATTENDED ON A 24–HOUR BASIS UNTIL IN THE SOLE JUDGMENT OF THE AMTRAK REPRESENTATIVE/ INSPECTOR THE OPERATION OF THE PUMPS CAN BE SAFELY HALTED. ALL SUCH ADDITIONAL COST SHALL BE THE RESPONSIBILITY OF THE OWNER.

- THE CONTRACTOR SHALL MAINTAIN AND EXERCISE ALL SAFETY REQUIREMENTS AND PRECAUTIONS REQUIRED BY THE RAILROAD SAFETY RULES AND REGULATIONS. THE CONTRACTOR AND THEIR EMPLOYEES SHALL PROVIDE A WRITTEN ACKNOWLEDGMENT TO THE AMTRAK REPRESENTATIVE, STATING THAT THEY HAVE RECEIVED, RED AND UNDERSTOOD ALL SAFETY REGULATIONS WHILE PERFORMING THE WORK ON THE AMTRAK SITE. SAFETY TRAINING MAY BE CONDUCTED BY THE AMTRAK REPRESENTATIVE. THE CONTRACTOR MUST PROVIDE TO ALL INVOLVED EMPLOYEES AND AGENTS (PPE) PERSONAL PROTECTIVE EQUIPMENT AS REQUIRED BY THE OWNER.
- IN NO CASE THE CONSTRUCTION OR CONTRACTOR'S ACTIVITIES (SCHEDULED OR NOT SCHEDULED) SHOULD IMPACT OPERATION OF THE RAILROAD AT ANY TIME UNDER ANY CIRCUMSTANCE.




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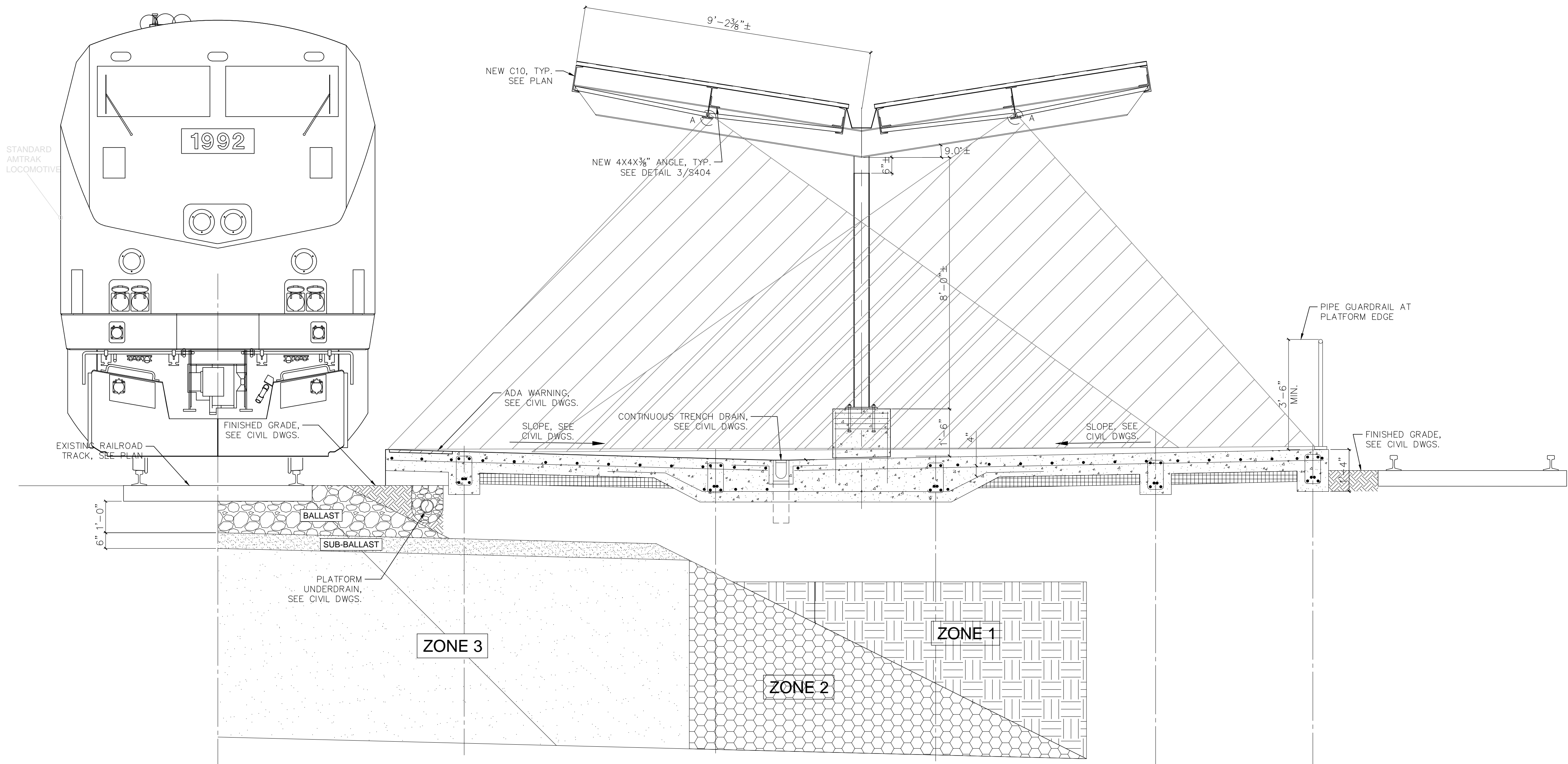
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<div>PETERSBURG (PTB) VA</div> <div>ADA STATIONS PROGRAM (ADAPP)</div> <div>ELECTRICAL DETAILS - CONDUITS RAILROAD CROSSING</div>				Project Code: PTB, VA	
				WBS: C.EN.100694.0669	
				Sheet No. 75 OF 80	
				Dwg. No.	E-401
Designed: JPR		Drawn: MAS			
		Date: 2021-02-22			



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PETERSBURG (PTB)  
ADA STATIONS  
PROGRAM (ADAPP)  
ELECTRICAL DETAILS - PLATFORM TYPICAL LIGHT COVERAGE

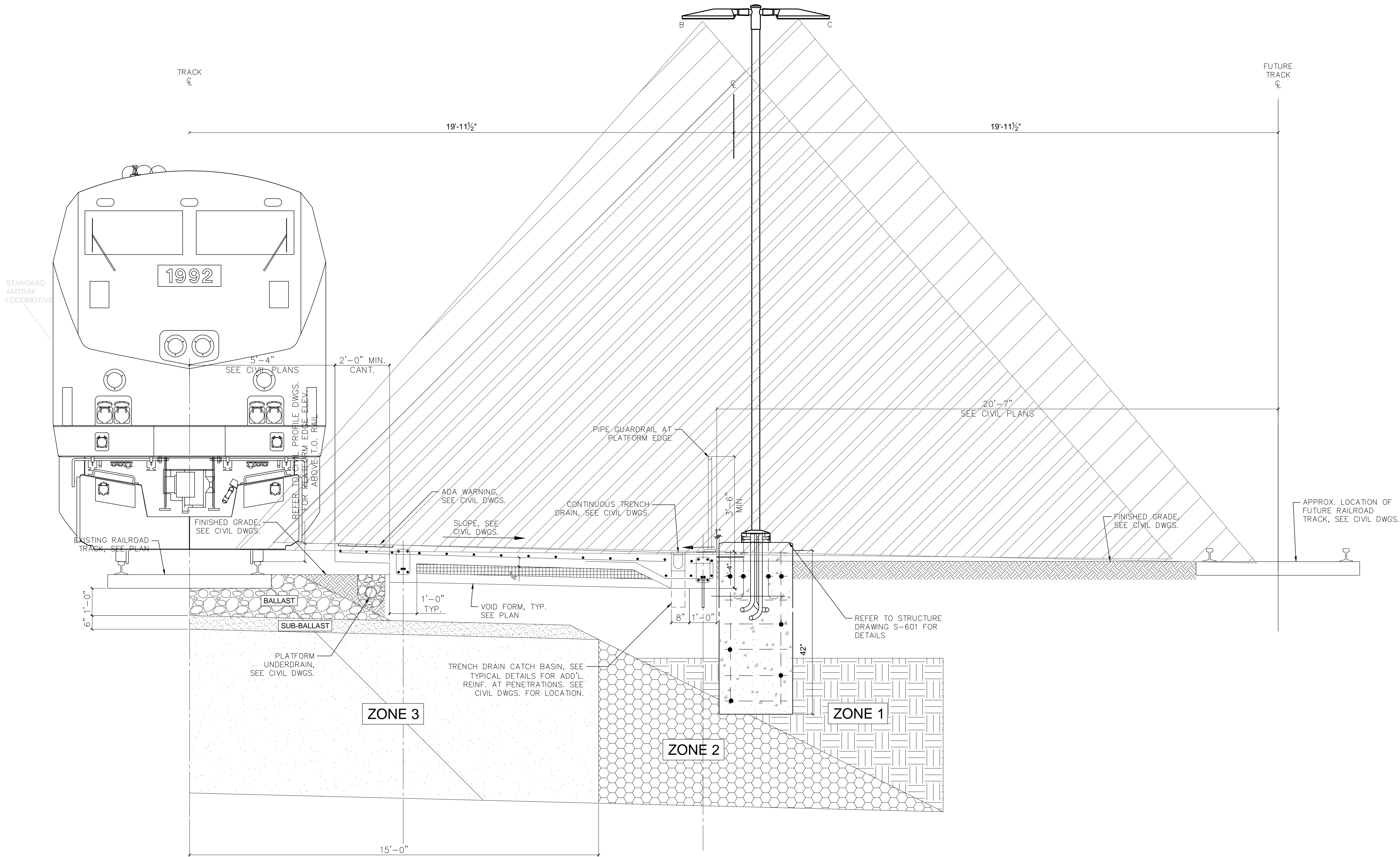
Designed: JPR Drawn: MAS Checked: JPR Date: 2021-02-22

VA

Project Code:	PTB, VA
WBS:	C.EN.100694.0669
Sheet No.	76 OF 80

Drawn No  
**E-402A**

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1 TYPICAL PLATFORM SECTION AT 14' WIDE PLATFORM  
S402B SCALE: 1/2"=1'-0"

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PETERSBURG (PTB)  
ADA STATIONS  
PROGRAM (ADAPP)  
ELECTRICAL DETAILS - PLATFORM TYPICAL LIGHT COVERAGE

Designed: JPR Drawn: MAS Checked: JPR Date: 2021-02-22

VA

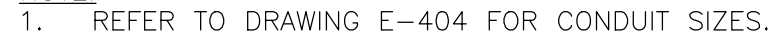
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WBS:	C.EN.100694.0669
Sheet No.	77 OF 80

Dwg. No. E-402B





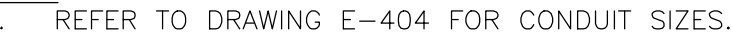
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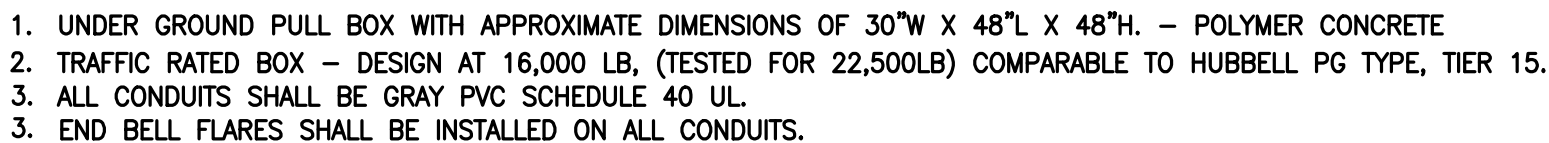
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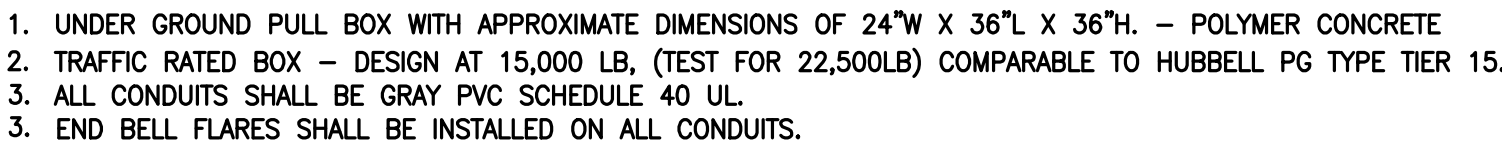
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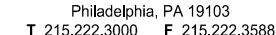
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VA

Dwg. No.

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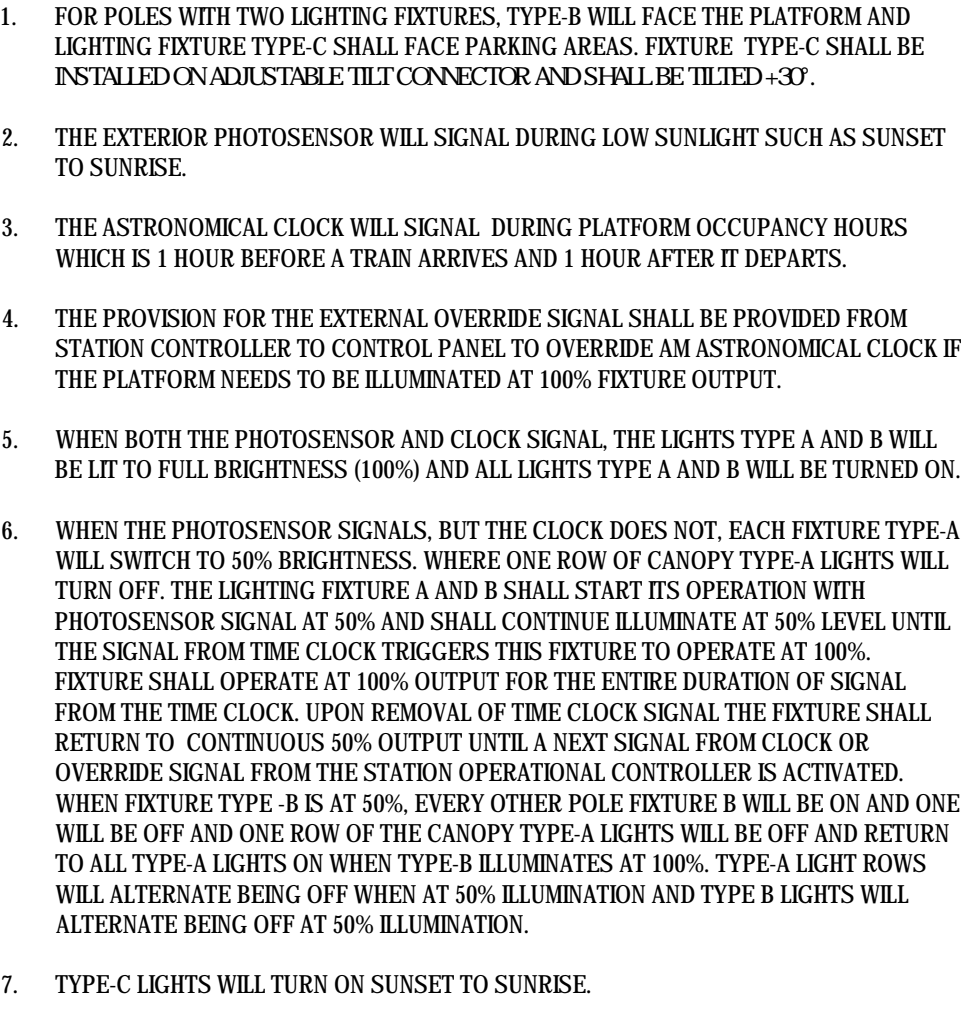
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Checked: JPF

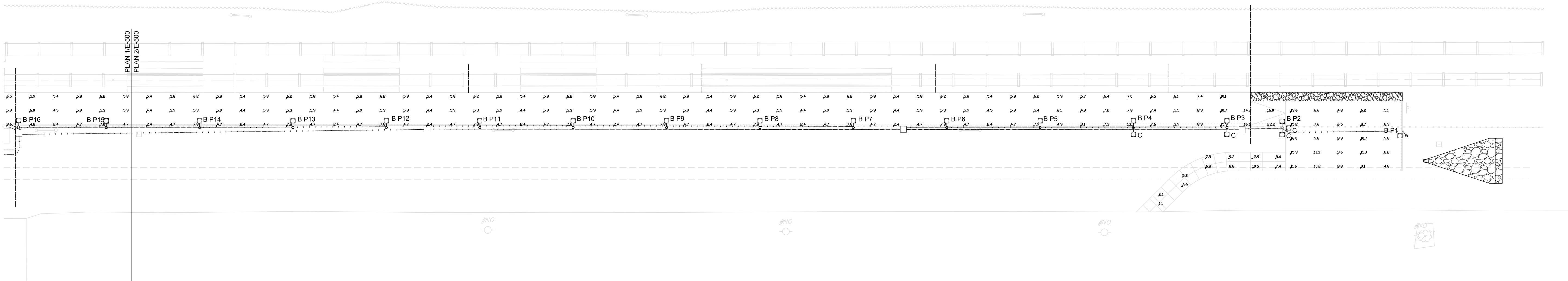
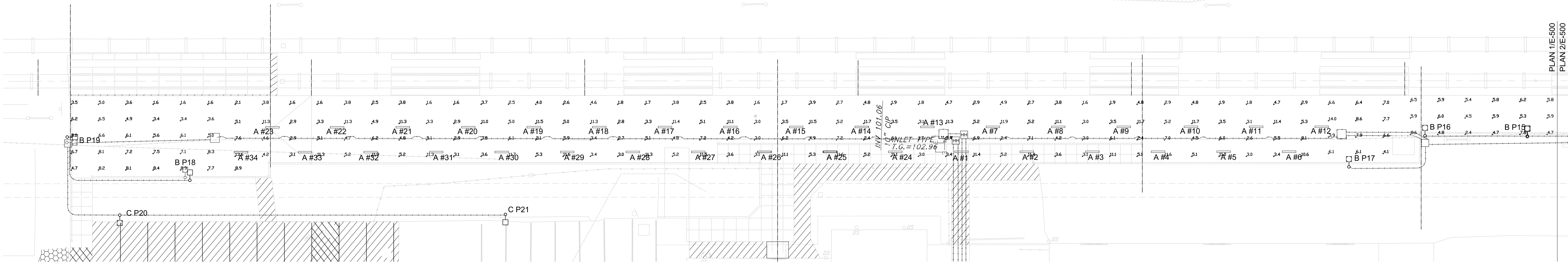
Date: 2021-02-22



VA	Project Code:	PTB, VA
	WBS:	C.EN.100694.0669
	Sheet No.	79 OF 80
	Dwg. No.	<b>E-404</b>



ZONE	MIN.	MAX.	AVG.
UNDER CANOPY	1.7	14.0	6.4
SOUTH PLATFORM	1.6	8.9	4.6
NORTH EXIT RAMP	1.1	12.9	7.6
NORTH PLATFORM	2.4	22.2	6.5



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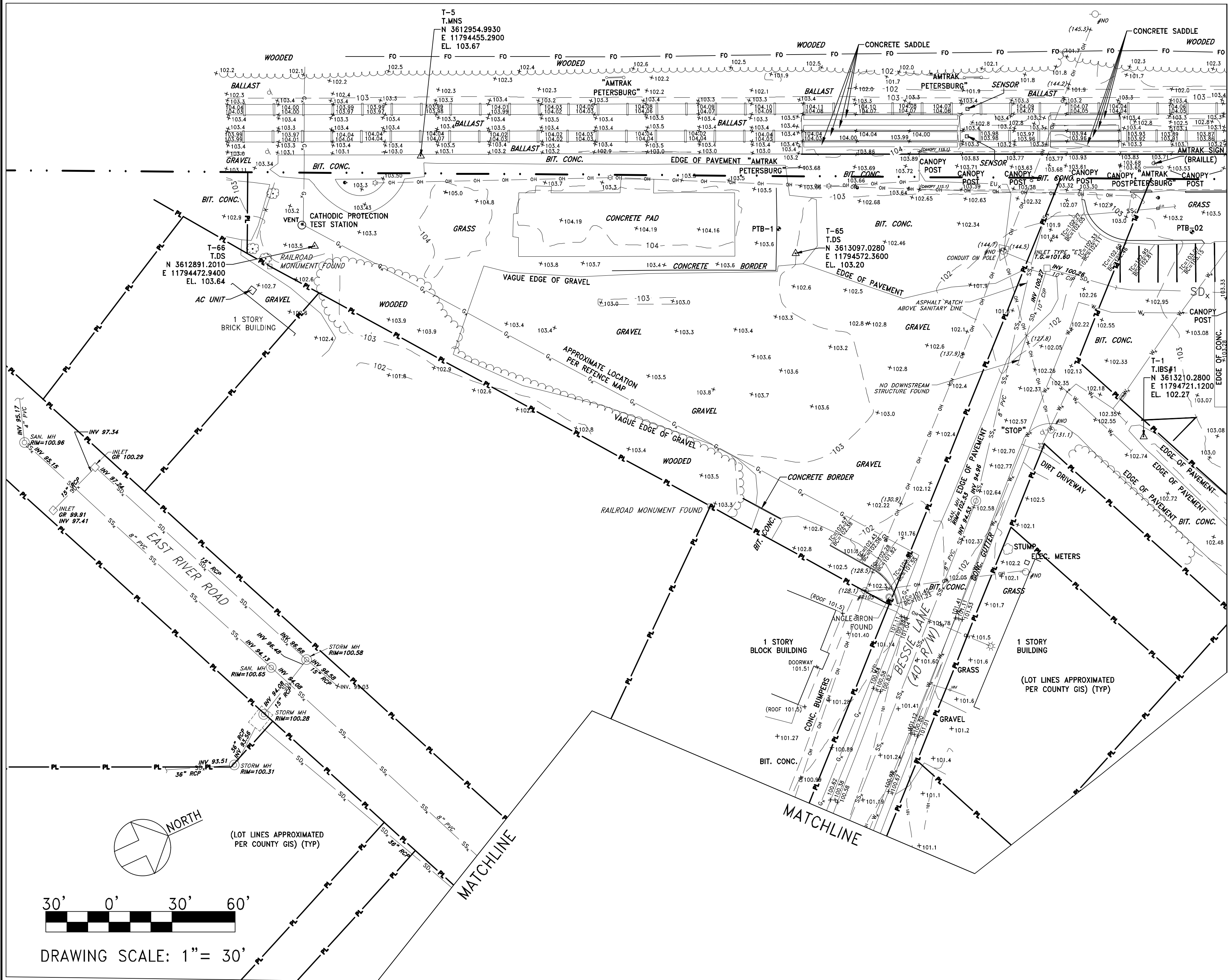
PETERSBURG (PTB)  
ADA STATIONS  
PROGRAM (ADAPP)

ELECTRICAL PHOTOMETRIC PLAN - WHOLE PLATFORM

Designed: BW Drawn: BW Checked: JPR Date: 2021-02-22

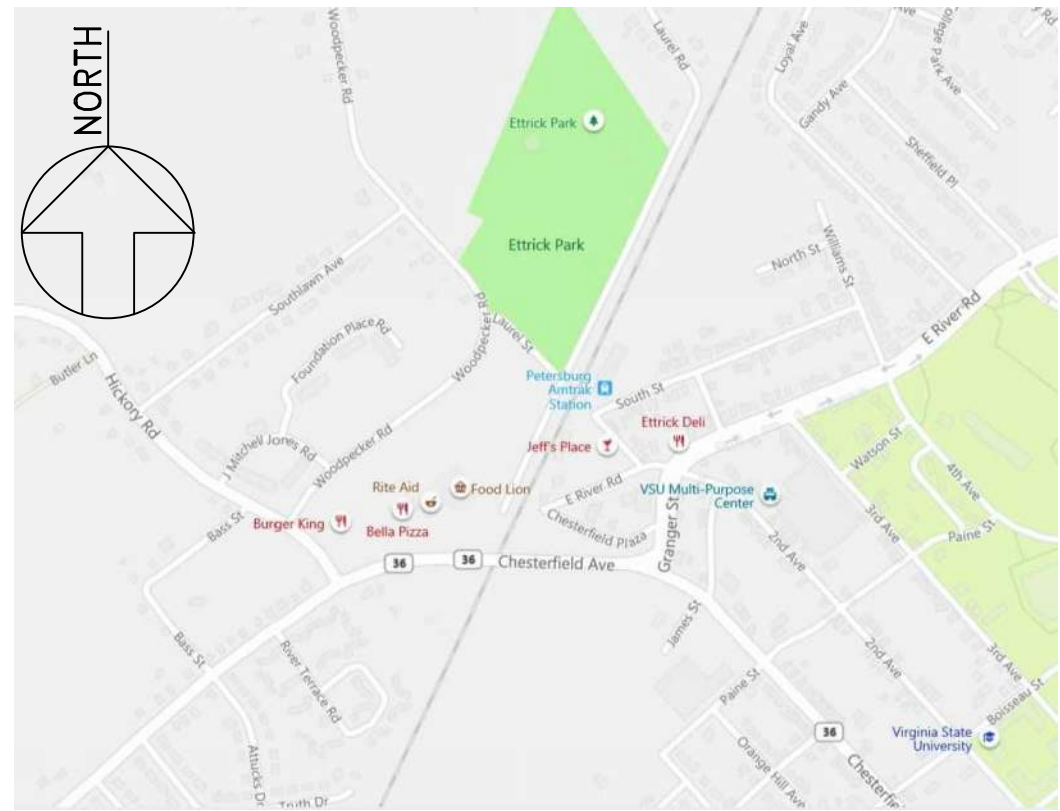
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WBS:	C.EN.100694.0669
Sheet No.	80 OF 80
Dwg. No.	E-500





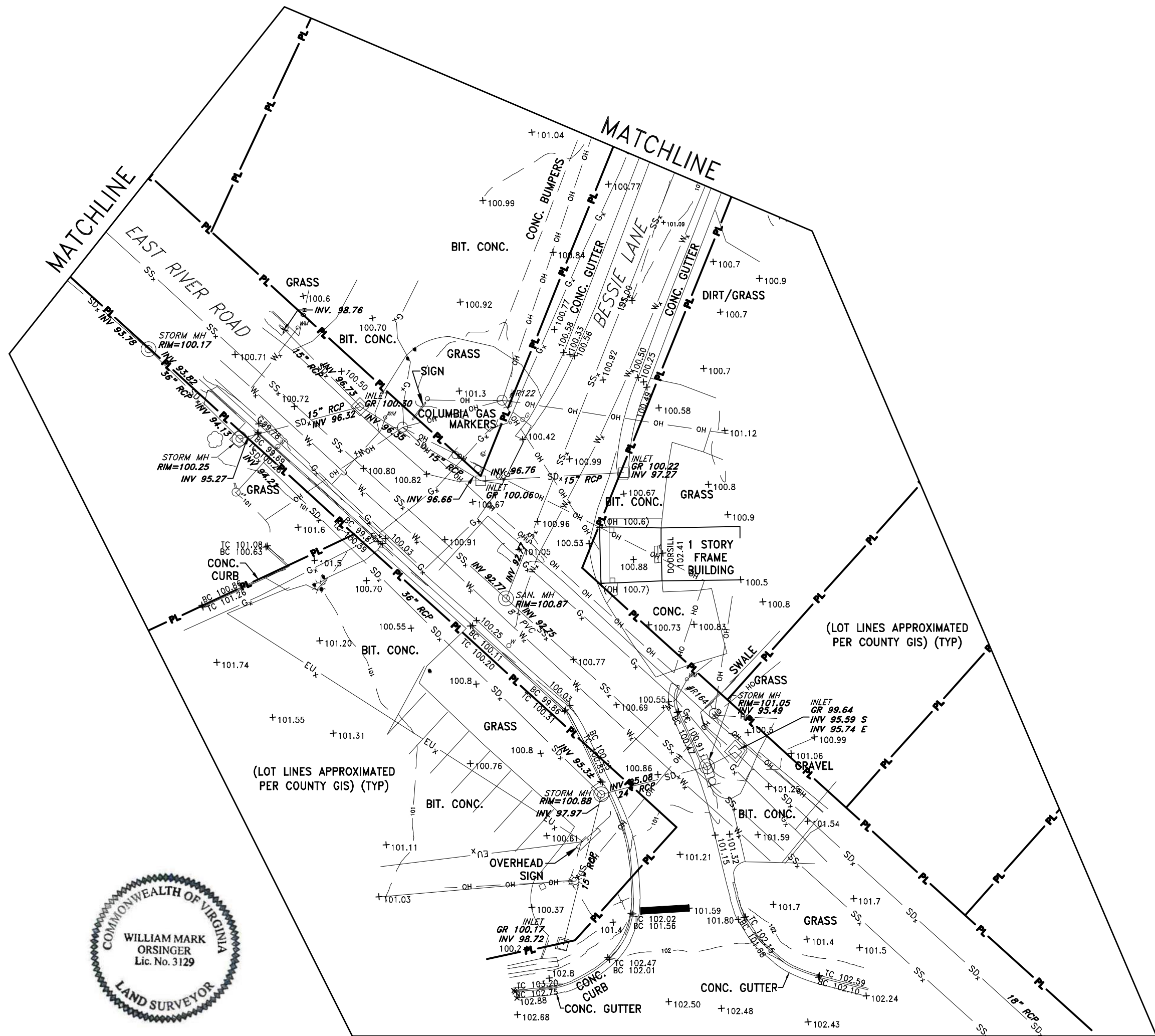
MATCHLINE SHEET 2

LEGEND	
EXISTING FEATURES	
X X	FENCE LINE
OH OH	OVERHEAD WIRE LINE
EU <sub>x</sub>	U/G ELEC LINE
CU <sub>x</sub>	U/G COMM LINE
---	CURB LINE
---	PAVED ROAD LINE
---	EDGE OF GRAVEL LINE
---	STRUCTURE OVERHANG
---	EDGE OF WATER
---	STEEL GUIDE RAIL
SS <sub>x</sub>	SANITARY SEWER
SS <sub>x</sub>	SANITARY SEWER (ORIGIN UNKNOWN)
SD <sub>x</sub>	STORM SEWER
SD <sub>x</sub>	STORM SEWER (ORIGIN UNKNOWN)
G <sub>x</sub>	GAS LINE
W <sub>x</sub>	WATER LINE
---	TREELINE
---	MINOR CONTOUR
---	MAJOR CONTOUR
---	HANDRAILS
---	RAILROAD TRACK
*	LIGHT POLE
●	CEILING MOUNTED LIGHT
○	UTILITY POLE
—	GUY
○	WATER VALVE
○	SIGN
○	HANDICAP SIGN
○	ELECTRIC METER
○	TREE
○	DOWNSPOUT
○	HYDRANT
○	SPOT ELEVATION@ GROUND LEVEL
○	SPOT ELEVATION/ABOVE OR BELOW GROUND LEVEL
○	CLEANOUT
○	MANHOLE
○	SOIL BORING
PTB-9	ABBREVIATIONS
BIT.	BITUMINOUS
(TYP.)	TYPICAL
TC	TOP OF CURB
SAN.	SANITARY
DS	DOWNSPOUT
F.F.	FINISHED FLOOR
FL	FLOOD LIGHT
COMM	COMMUNICATIONS
CONC.	CONCRETE
DIA.	DIAMETER
BC	BOTTOM OF CURB
MH	MANHOLE
HC	HANDICAPPED
EL.	ELEVATION (NAVD'88)
APPROX.	APPROXIMATE
F.O.C.	FIBER OPTIC CABLE



LOCATION MAP  
(NOT TO SCALE)

SURVEY LEGEND	
---	EXISTING RAILROAD RIGHT OF WAY LINE PER POINT TO POINT MAPS.
PL PL	PROPERTY LINE PER POINT TO POINT MAPS



#### GENERAL NOTES

ALL BOUNDARY AND PROPERTY LINE INFORMATION DEPICTED WAS ESTABLISHED BY POINT TO POINT LAND SURVEYORS IN JULY 2011. PROPERTY CORNERS FOUND AND EXISTING CONDITIONS UPDATED BY GPI PERSONNEL BETWEEN JUNE 3, AND JUNE 13, 2019. ADDITIONAL LOCATIONS PERFORMED BETWEEN JUNE 15 AND JUNE 16, 2020.

ELEVATIONS ON RAILROAD TRACK ARE MEASURED AT TOP OF RAIL.

IF DIGITAL INFORMATION IS ALSO SUPPLIED, IT IS DONE SO FOR INFORMATIONAL PURPOSES, ONLY.

THE ORIGINAL SIGNED AND SEALED DOCUMENT IS THE DOCUMENT OF RECORD.

HORIZONTAL DATUM IS BASED UPON VASPOS NAD'83, (VIRGINIA SOUTH ZONE, US SURVEY FEET) AS ESTABLISHED BY POINT TO POINT LANDS SURVEYORS IN JULY 2011.

VERTICAL DATUM IS BASED UPON NAVD'88, AS ESTABLISHED BY POINT TO POINT LAND SURVEYORS IN JULY 2011.

#### TOPOGRAPHICAL STANDARD NOTES

COPIES OF THIS SURVEY ARE NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF THE VIRGINIA LICENSED PROFESSIONAL SURVEYOR AND MAPPER LISTED HEREON. ADDITIONS OR DELETIONS TO SURVEY MAPS OR REPORTS BY OTHER THAN THE SIGNING PARTY OR PARTIES IS PROHIBITED WITHOUT WRITTEN CONSENT OF THE SIGNING PARTY OR PARTIES.

THE CERTIFICATIONS HEREON ARE NOT TRANSFERABLE. LOCATION OF UNDERGROUND IMPROVEMENTS OR ENCROACHMENTS ARE NOT ALWAYS KNOWN AND OFTEN MUST BE ESTIMATED. IF ANY UNDERGROUND IMPROVEMENTS OR ENCROACHMENTS EXIST OR ARE SHOWN, THE IMPROVEMENTS AND ENCROACHMENTS ARE NOT COVERED BY THIS CERTIFICATE.

THIS TOPOGRAPHICAL MAPPING AMENDS AND SUPPLEMENTS PREVIOUS MAPPING OF THIS SITE PREPARED FOR AMTRAK BY POINT TO POINT LAND SURVEYORS DATED JULY 26, 2011 REVISED THRU OCTOBER 15, 2013.

#### VIRGINIA STATE SURVEY NOTE:

THIS BOUNDARY & TOPOGRAPHIC SURVEY PROJECT WAS COMPLETED UNDER THE DIRECT AND RESPONSIBLE CHARGE OF WILLIAM M. ORSINGER, L.S. FROM AN ACTUAL GROUND SURVEY MADE UNDER HIS SUPERVISION; THE ORIGINAL DATA WAS OBTAINED ON OR BEFORE JUNE 16, 2020; AND THAT THIS PLAT AND MAP MEET OR EXCEED MINIMUM ACCURACY STANDARDS.

#### REFERENCE MAP

UNNAMED MAP SHOWING UNDERGROUND GAS FACILITIES BELONGING TO COLUMBIA GAS OF VIRGINIA.

No.	Revisions	Date	By
1	ADDITIONAL TOPO	06/16/20	CC

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Office of Chief Engineer

National Railroad Passenger Corporation  
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date
DEPUTY CHIEF ENGINEER-STRUCTURES	
SENIOR DIRECTOR STATIONS AND FACILITIES	
DIRECTOR STATIONS PROGRAM	



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*William M. Orsinger*  
July 15, 2020  
WILLIAM M. ORSINGER Land Surveyor, VA Lic. 0403003129

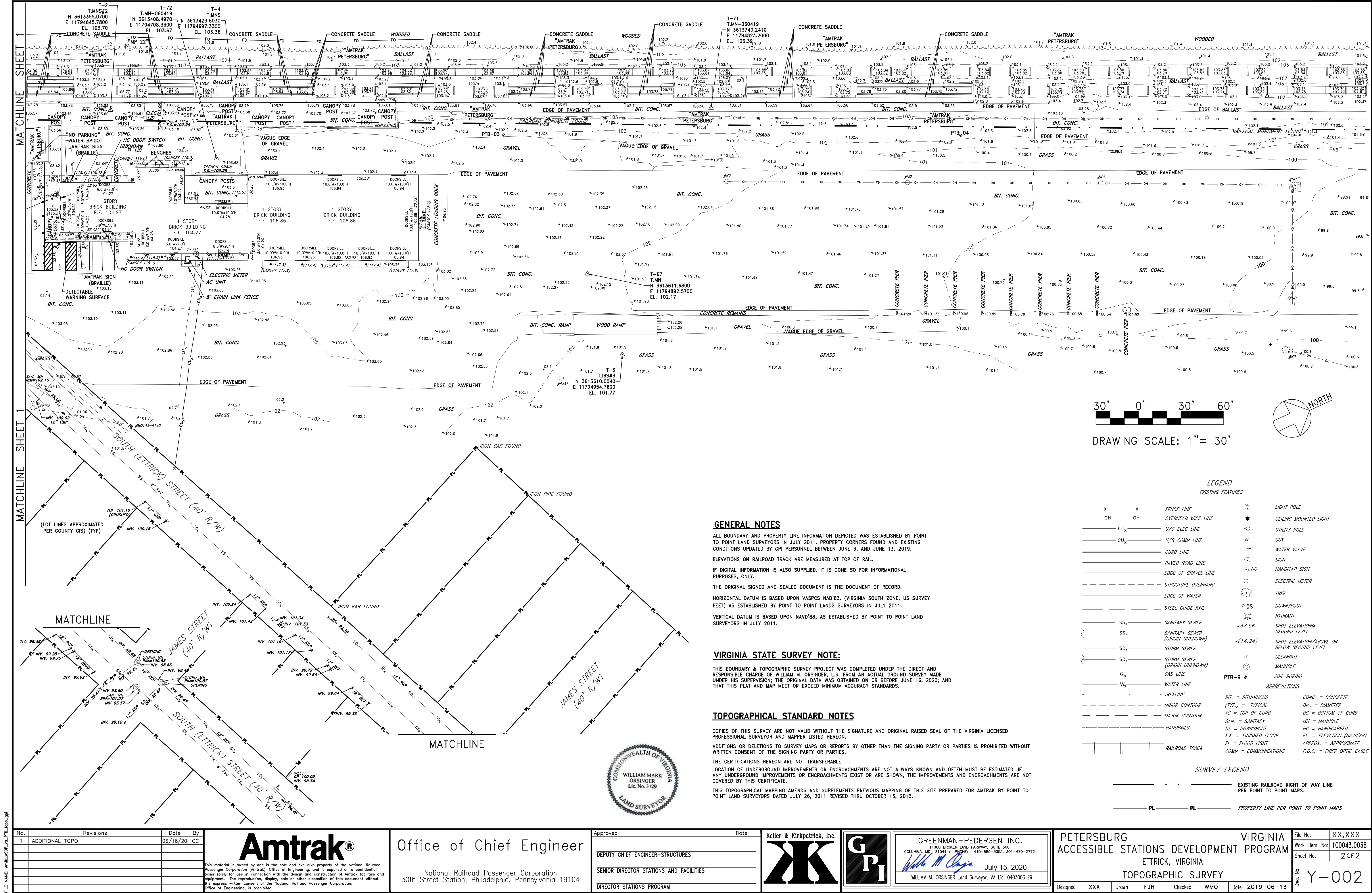
PETERSBURG ACCESSIBLE STATIONS DEVELOPMENT PROGRAM  
ETTRICK, VIRGINIA

TOPOGRAPHIC SURVEY

Designed XXX Draw FJH Checked WMO Date 2019-06-13

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