# VIRGINIA RAILWAY EXPRESS

NORTHERN VIRGINIA TRANSPORTATION COMMISSION POTOMAC AND RAPPAHANNOCK TRANSPORTATION COMMISSION QUANTICO STATION IMPROVEMENTS (INCLUDING ARKENDALE TO POWELL'S CREEK THIRD TRACK - PACKAGE 5 MP CRP 78.2 TO MP CFP 79.0)

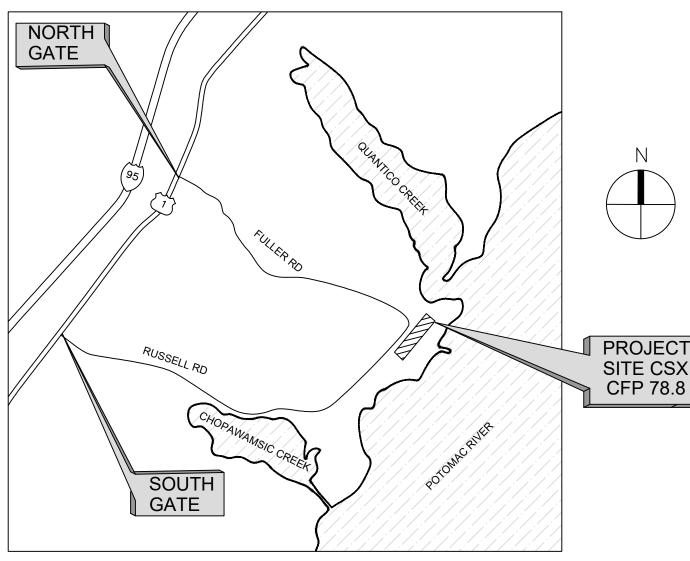
## **LEGEND**

STATION SITE IN CONTRACT

STATION SITES NOT IN CONTRACT

# **QUANTICO STATION**

550 Railroad Ave Quantico, VA 22134



# VICINITY MAP

(NOT TO SCALE)

# RAILROAD LOCATION INFORMATION

HOST RAILROAD: CSX TRANSPORTATION

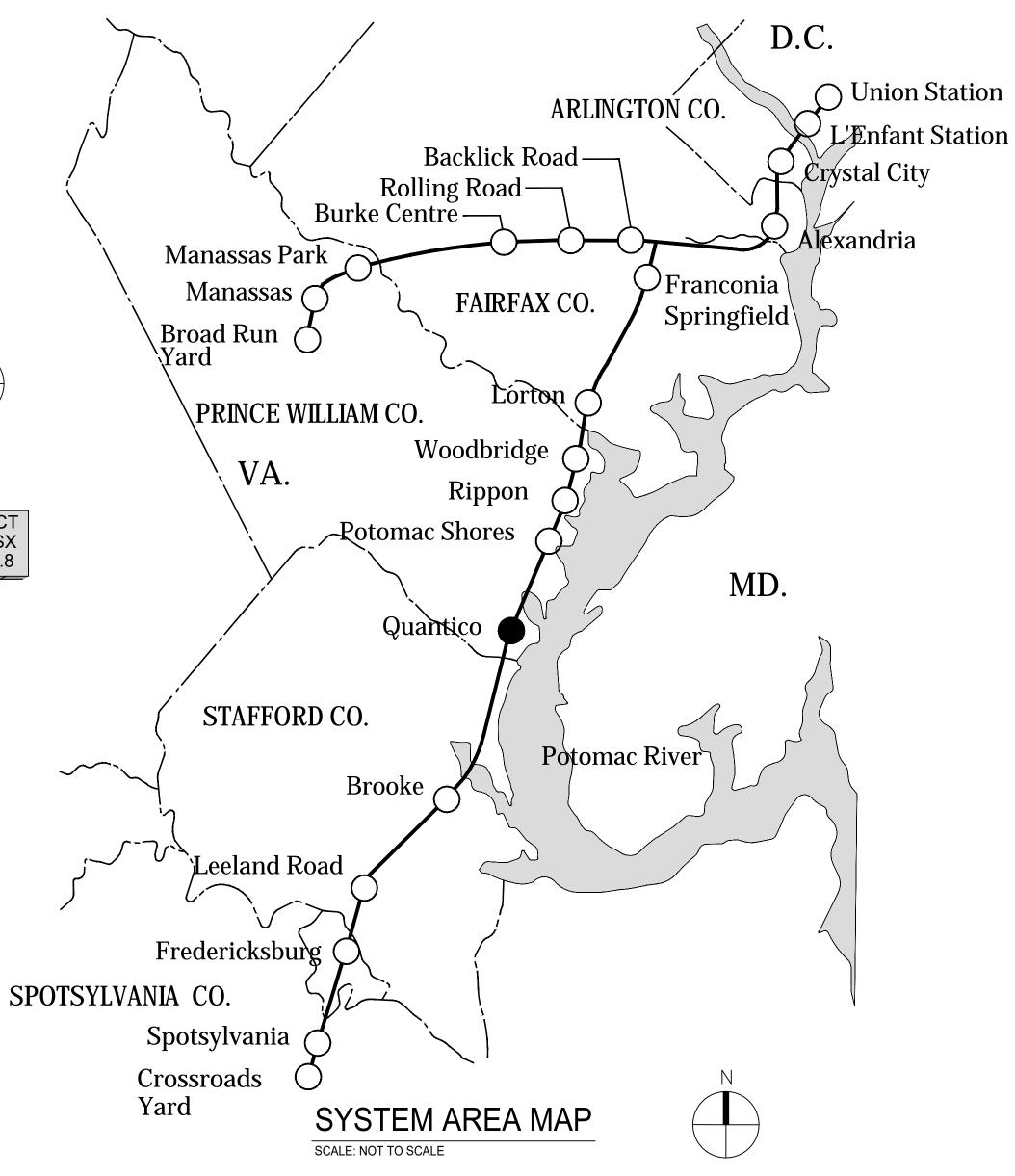
**ZONE: CENTRAL** 

SUBDIVISION/DISTRICT: RF&P

MILEPOST: CFP 78.8

**NEAREST GRADE CROSSING:** FRA# 860605J AT CFP 78.83

POTOMAC AVENUE, PRINCE WILLIAM COUNTY, VA



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TRACK TYPICAL SECTIONS

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RETAINING WALL RW-13 PLAN & ELEVATION (SHEET 1 OF 3)

RETAINING WALL RW-13 PLAN & ELEVATION (SHEET 2 OF 3)

EROSION & SEDIMENT CONTROL STA. 8260+00 TO STA.

**ENGINEERING GEOLOGY ENGINEERING GEOLOGY** 

B-004	ENGINEERING
B-005	ENGINEERING
B-006	ENGINEERING
B-007	ENGINEERING

**ENGINEERING GEOLOGY** B-010 **ENGINEERING GEOLOGY ENGINEERING GEOLOGY** 

**ARCHITECTURAL** 

ARCHITECTURAL NOTES

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PLATFORM AND CANOPY REFLECTED CEILING PLAN REFLECTED CEILING PLAN - BRIDGE LEVEL **EXTERIOR ELEVATIONS** EXTERIOR ELEVATIONS TOWER

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3D REPRESENTATION

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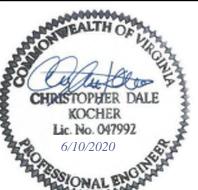
(CROSS SECTIONS STA. 8234+50.00 TO STA. 8270+00.00)

## **CSX STANDARD DETAILS**

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> INVITATION FOR BID NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION	DESIGNED BY:	
	0	06/10/20			INVITATION FOR BID	AK	
						DRAWN BY:	Odda.
APPROVED BY COUNTY						CHECKED BY: RCB	9000au
						DATE: 06/10/2020	







Fairfax, VA 22031

# **QUANTICO STATION**

**COVER SHEET** AND DRAWING INDEX

IFB-020-019 DRAWING NO: G-000

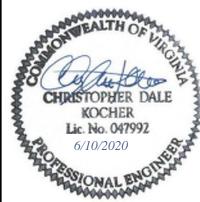
AS NOTED

SHEET NO: 1 OF 202

PAY ITEM NUMBER	CONSOLIDATED PAY ITEM CODE	PAY ITEM	EST. QTY.	UNIT	PAY ITEM DESCRIPTION	METHOD OF MEASUREMENT AND PAYMENT	REFERENCE TECHNICAL SPECIFICATION SECTION
1	04.00.0001	MOBILIZATION	1	LS	MOBILIZATION SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT AND WORKMANSHIP FOR PERFORMING PRELIMINARY OPERATIONS, INCLUDING MOVING PERSONNEL AND EQUIPMENT TO THE PROJECT SITE; PAYING BONDS AND INSURANCE PREMIUMS; FIELD VERIFYING EXISTING CONDITIONS; OBTAINING ALL NECESSARY PERMITS; IDENTIFYING AND LOCATING ALL UTILITIES. SIMILARLY WORK SHALL ALSO INCLUDE DEMOBLIZATION TO REMOVE PERSONNEL AND EQUIPMENT FROM THE PROJECT SITE.	NO MEASUREMENT SHALL BE MADE BY THE ENGINEER. MOBILIZATION WILL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE. SEE SPECIFICATION 012900 PAYMENT PROCEDURES AND LIMITATIONS FOR MOBILIZATION BID PRICE AND PAYMENT DETAILS.	012900, 013100
2	04.00.0002	GENERAL CONDITIONS	26	MO	ONDITIONS SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT AND WORKMANSHIP FOR ALL ITEMS PERTINENT TO THE WORK THAT CANNOT BE TO OTHER PAY ITEMS OR MOBILIZATION, INCLUDING SUCH ITEMS BUT NOT LIMITED TO PROJECT MANAGEMENT AND COORDINATION; FULL-TIME NO MEASURMENT SHALL BE MADE BY THE ENGINEER. GENERAL CONDITIONS SHALL BE PAID AT THE CONSTRUCTION DURATION IN MONTHS.  PECIFIC TECHNICAL SUBMITTALS (E.G. ERECTION PLAN); SITE SAFETY AND SECURITY; QUALITY ASSURANCE AND QUALITY CONTROL; PROJECT (COSEOUT; TEMPORARY FIELD OFFICE INCLUDING ITS THE FURNISHINGS, EQUIPMENT, AND UTILITIES; AND PREPARATION OF RAWINGS.  JULY SEDIMENT CONTROLS SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT AND WORKMANSHIP FOR THE INSTALLATION AND MAINTENANCE.  PROSION AND SEDIMENT CONTROL SHALL BE MEASURED AT THE CONTRACT.		012900, 013100, 013200, 013513, 013523, 014000, 014500, 015000, 017300, 017700
3	04.40.4001	EROSION & SEDIMENT CONTROL	4.18	ACRE	EROSION AND SEDIMENT CONTROLS SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT AND WORKMANSHIP FOR THE INSTALLATION AND MAINTENANCE, AS REQUIRED AND/OR DIRECTED BY THE JURISDICTION INSPECTOR DURING CONSTRUCTION, OF TEMPORARY STONE CONSTRUCTION ENTRANCE(S), SILT FENCE, SUPER SILT FENCE, TEMPORARY SEEDS, STABILIZATION MATERIALS AND SAFETY FENCE. EROSION AND SEDIMENT CONTROL SHALL ALSO INCLUDE STABILIZATION OF ALL AREA DISTURBED WITH CONSTRUCTION WITH PERMANENT SEED AND A HEALTHY STAND OF GRASS COVER AS DETERMINED BY THE CONSTRUCTION MANAGER AND REMOVAL OF THE EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO THE COMPLETION OF CONSTRUCTION.	EROSION AND SEDIMENT CONTROL SHALL BE MEASURED AT THE CONTRACT UNIT PRICE PER ACRE OF DISTURBANCE WITHIN THE LIMITS OF CLEARING AND GRADING AS DEFINED BY THE PLANS. EROSION AND SEDIMENT CONTROL WILL BE PAID AT THE CONTRACT UNIT PRICE PER ACRE OF DISTURBANCE.	312500, 329200, 329205, 329210, APPENDIX A 020120
4	04.40.4002	SITEWORK [SITE/CIVIL & DRAINAGE]	1	LS	SITEWORK SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT AND WORKMANSHIP FOR SITE IMPROVENTS NOT ASSIGNED TO OTHER PAY ITEMS, AND SHALL INCLUDE BUT IS NOT LIMITED TO CONSTRUCTION SURVEYING, MAINTENANCE OF TRAFFIC, SELECTIVE SITE DEMOLITION, CLEARING AND GRUBBING, TREE REMOVAL, EARTHWORK INCLUDING EXCAVATION, DEWATERING, GRADING, SUBBASE MATERIAL, BACKFILLING, AND TESTING NECESSARY FOR PROPOSED CONSTRUCTION; ALLAYING OF DUST, TREE AND PLANT PROTECTION, EXISTING UTILITY TEST PITS, DISCONNECTS AND/OR SHUTOFFS, AND LEGAL DISPOSAL OF CLEARED AND GRUBBED MATERIAL, AND PLACEMENT OF EXCESS MATERIAL (SOILS) ONSITE, MILL EXISTING ASPHALT PAVEMENT, ASPHALT OVERLAY, ASPHALT PATCHING, CONCRETE SIDEWALKS, STEPS AND RAMPS, RE-STRIPPING OF PARKING AREAS AND POTOMAC AVE, LANDSCAPING, MAINTENANCE OF UTILITIES, TRENCHING, AND EXCAVATION SUPPORT AND PROTECTION. SITE UTILITIES INCLUDING STORM DRAIN PIPING, STORM STRUCTURES, UNDERDRAIN, PIPE JACKING, EMERGENCY STANDBY GENERATOR WITH ASSOCIATED UTILITY TRENCHING AND INSTALLATION. CHAIN LINK PERIMETER FENCE, AND ORNAMENTAL FENCE, VRE/AMTRAK/TOWN SIGNS AND CLOCK.	NO MEASUREMENT SHALL BE MADE BY THE ENGINEER. SITEWORK SHALL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE.	024119, 260500, 260519, 260526, 260533, 033000, 263213, 263600, 311000, 311100, 312000, 312005, 312010, 312333, 312500, 315000, 315010, 316000, 316005, 321614, 323113, 330100, 331116, 334100, 337119,  APPENDIX A 020200, 020215, 020238 020240
5	04.40.4004	EXCESS SOIL MATERIAL TESTING AND OFFSITE DISPOSAL	2,500	CY	EXCESS MATERIAL (SOILS) TESTING AND OFFSITE DISPOSAL SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, AND WORKMANSHIP FOR THE TESTING, TRANSPORTATION AND LEGAL DISPOSAL OF SOILS TO BE REMOVED FROM THE PROJECT SITE.	EXCESS MATERIAL TESTING AND OFFSITE DISPOSAL WILL BE MEASURED IN CUBIC YARDS AND WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC YARD OF EXCESS MATERIAL TESTING AND OFFSITE DISPOSAL.	312000, 312010, Appendix A 020200, 020235, 020240
6	04.10.1003	RETAINING WALL	8,016	SF	RETAINING WALL SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT AND WORKMANSHIP TO FURNISH AND CONSTRUCT RETAINING STRUCTURES AS SHOWN ON THE PLANS INCLUDING ALL CONCRETE AND REINFORCING, PILES, TIEBACKS, ASSOCIATED DRAINAGE DITCHES, HARDWARE AND INCIDENTALS FOR COMPLETE INSTALLATION.	RETAINING WALL WILL BE MEASURED IN SQUARE FEET AND WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT OF WALL FACE.	324000, 325000, 033500, 051200, Appendix A 070105, 070120
7	04.10.1008	MISCELLANEOUS TRACKWORK ITEMS	1	LS	MISCELLANEOUS TRACKWORK SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT AND WORKMANSHIP FOR REMOVAL AND PROPER DISPOSAL OF TRACK INCLUDING TIES, RAIL, AND OTM; FURNISHING AND CONSTRUCTING ALL INTER-TRACK FENCE, CHAIN LINK FENCE, GEOGRID, GEOTEXTILE FABRIC, SUB-BALLAST AND BALLAST RETAINER.	NO MEASUREMENT SHALL BE MADE BY THE ENGINEER. MISCELLANEOUS TRACKWORK SHALL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE.	017049, 024119, 033000, 315010, 323113,  APPENDIX A 020400, 020410,
							020260, 020265, 070105, 070120
8	04.20.2005	CANOPY - PLATFORM 1	1,130	SF	CANOPY SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT AND WORKMASHIP FOR PVC ROOFING, PRIMARY ROOF DRAINS, BACKUP ROOF DRAINS, PARAPET WITH METAL FACIA; DOWNSPOUTS; FABRICATION; SHOP PAINTING; ERECTION OF STRUCTURAL STEEL SUPPORTS; INDEPENDENT CONCRETE FOUNDATIONS; CLEANING; AND FIELD PAINTING.	CANOPY SHALL BE MEASURED IN SQUARE FEET OF ROOFING MATERIAL IN ACCORDANCE WITH THE NEAT LINES SHOWN ON THE PLANS. CANOPY WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.	033000, 051200, 053100, 054000, 055000, 061600, 072726, 074213.13, 075419, 076000, 077200, 099100, 221413
9	04.20.2011.1	ELECTRICAL AND LIGHTING - PLATFORM 1	1	LS	ELECTRICAL AND LIGHTING SHALL INCLUDE FURNISHING, INSTALLATION, AND TESTING OF ALL MATERIALS, EQUIPMENT AND APPURTENCES FOR ALL ELECTRICAL EQUIPMENT INCLUDING PANELS, CONDUIT (RACEWAYS), CONDUCTOR, POLE MOUNTED LIGHTS, CANOPY MOUNTED PENDANT LIGHTS, MOUNTING HARDWARE, AND INSTALLATION OF POLE MOUNTED LUMINAIRE BODY, REFRACTORS, BALLASTS, SOCKETS WITH LAMP; CONDUCTOR CABLES TO THE TERMINI AT THE BASE; POLE, POLE BASE AND ANCHORS; PHOTOELECTRIC CONTROLS AND SOCKETS; GROUNDING; ADJUSTMENTS AND TESTING AS INDICATED ON THE PLANS. PLATFORM 1 ALSO INCLUDES REMOVAL AND DISPOSAL, REMOVAL AND RELOCATION OF SOME EXISTING LIGHTS, MOUNTING HARDWARE, PATCHING EXISTING CONCRETE, AND INSTALLATION OF POLE MOUNTED LUMINAIRE BODY, REFRACTORS, BALLASTS, SOCKETS WITH LAMP; EXTENDED CONDUCTOR CABLES.	NO MEASUREMENT SHALL BE MADE BY THE ENGINEER. ELECTRICAL AND LIGHTING SHALL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE.	024119, 260500, 260519, 260526, 260524, 260529, 260533, 260553, 262416, 262816, 264300, 265100, 283111
10	04.20.2012	COMMUNICATIONS - PLATFORM 1	1	LS	COMMUNICATIONS SHALL INCLUDE FURNISHING, INSTALLATION, AND TESTING OF ALL CONDUIT (RACEWAYS), CONDUCTOR, CABINET AND BOXES FOR POWER AND COMMUNICATIONS TO ALL COMMUNICATIONS EQUIPMENT INCLUDING SPEAKERS, CAMERAS, TVM'S, AND VMS. THE CONTRACTOR SHALL PERFORM INSTALLATION OF POLE MOUNTED SPEAKERS AND CANOPY MOUNTED SPEAKERS INCLUDING MOUNTING HARDWARE, ADJUSTMENTS AND TESTING AT THE LOCATIONS ALONG THE PLATFORM AS INDICATED ON THE PLANS. NOTE: VRE WILL PERFORM INSTALLATION AND TESTING OF CAMERAS, VMS, TVM AND NEW COMMUNICATIONS CABINET. PLATFORM 1 ALSO INCLUDES REMOVAL OF AN EXISTING CAMERA AND VMS AT THE LOCATIONS ALONG PLATFORM 1 AS INDICATED ON THE PLANS.	NO MEASUREMENT SHALL BE MADE BY THE ENGINEER. COMMUNICATIONS SHALL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE.	260500, 260519, 260526, 260529, 260533, 260553
11	04.20.2002	CAST IN PLACE PLATFORM - PLATFORM 1	7,100	SF	CAST IN PLACE PLATFORM SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT AND WORKMANSHIP FOR CONCRETE FORMING AND PLACEMENT, REINFORCING STEEL; INSTALLING/REMOVING FORMWORK; FINISHING; SHEETING, SHORING, STRUCTURE EXCAVATION, DEWATERING, CURING AND PROTECTION. FURNISHING AND INSTALLING SURFACE APPLIED DETECTABLE TACTILE WARNING SURFACE AND RUB RAIL ALONG THE EDGE OF THE PLATFORM AS SHOWN ON THE PLANS. FURNISHING AND INSTALLATION OF WATER SUPPLY PIPING, GROUND HYDRANTS AND TRENCH DRAINS. FURNISHING AND INSTALLATION OF PLATFORM GUARDRAIL AND SHALL INCLUDE MOUNTING HARDWARE (BENT PLATE, EXPANSION BOLTS AND NEOPRENE PAD), GROUNDING AND PAINTING OF THE GUARDRAIL. FURNISHING AND INSTALLATION OF SIGNAGE SHALL INCLUDE SUBMISSION OF A PDF PROOF OF SIGN ARTWORK AND METHODS OF MOUNTING FOR VRE APPROVAL PRIOR TO FABRICATION; FABRICATION OF ALL SIGNS; PROVISION OF ALL MOUNTING HARDWARE AND SIGNAGE INSTALLATION.	CAST IN PLACE PLATFORM SHALL BE MEASURED IN SQUARE FEET IN ACCORDANCE WITH THE NEAT LINES SHOWN ON THE PLANS. CAST IN PLACE PLATFORM WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.	033000, 321726, 055000, 055213, 099100, 220517, 101400, 220523.12 221116, 221119, 221423.10
12	04.20.2006	STAIR/ELEVATOR TOWERS - TOWERS 1 & 2	2	EA	STAIR/ELEVATOR TOWER SHALL INCLUDE LABOR, MATERIALS, EQUIPMENT AND WORKMANSHIP FOR FURNISHING AND CONSTRUCTION OF THE TOWER, STAIRS AND ELEVATOR MACHINE ROOM AS SHOWN ON THE PLANS. CONSTRUCTION SHALL INCLUDES ALL CONCRETE AND REINFORCING, STRUCTURAL STEEL, NON-STRUCTURAL STEEL, WIRE MESH ARCHITECTURAL TREATMENTS, PLUMBING, ELECTRICAL, ROOFING, LOUVERS, FIRE STOPPING, FIRE AND HEAT DETECTION, SUMP PUMP, DOORS AND HARDWARE, AND INCIDENTALS FOR COMPLETE INSTALLATION. INSTALLING/REMOVING FORMWORK; FINISHING; SHEETING, SHORING, STRUCTURE EXCAVATION, DEWATERING, CURING AND PROTECTION.	NO MEASUREMENT SHALL BE MADE BY THE ENGINEER. STAIR AND ELEVATOR TOWERS SHALL BE PAID FOR AT THE PRICE FOR EACH.	033000, 042100, 042200, 051200, 053100, 054000, 055000, 055113, 055213, 057301, 061053, 061600, 071326, 072100, 072726, 074113.16 074213.13, 075419, 076000, 076200 077129, 077200, 079200, 079513.16 081113, 083113, 087000, 089000, 092900, 099100, 099600, 108213.1, 118129, 142400, 220529, 221116, 221413, 221429, 260500, 260519, 260524, 260526, 260529, 265100, 283111, 284400

1. EVERYTHING DESIGNED AND DEPICTED/PROPOSED FOR CONSTRUCTION IS INCLUDED IN THESE PAY ITEMS. IF YOU DON'T SEE SOMETHING CALLED OUT IN A PAY ITEM, YOU SHOULD ASK A QUESTION FOR CLARIFICATION, OR INCLUDE IT IN AN EXISTING ITEM. INVITATION FOR BID NOT FOR CONSTRUCTION

	APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION	DESIGNED BY:
		0	06/10/20			INVITATION FOR BID	CDK
							DRAWN BY:
							CDK
	APPROVED BY COUNTY						CHECKED BY:
İ							RCB
							DATE: 06/10/2020
							00/10/2020







IFB-020-019 QUANTICO STATION QUANTITY SUMMARY

(SHEET 1 OF 2)

DRAWING NO: G-001 NONE 2 OF 202

PAY ITEM NUMBER	CONSOLIDATED PAY ITEM CODE	PAY ITEM	EST. QTY.	UNIT	PAY ITEM DESCRIPTION	METHOD OF MEASUREMENT AND PAYMENT	REFERENCE TECHNICAL SPECIFICATION SECTION
13	04.20.2008	ELEVATORS - TOWERS 1 & 2	2	EA	ELEVATOR SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT AND WORKMANSHIP TO FURNISH AND INSTALL HYDRAULIC PASSENGER ELEVATOR AND ASSOCIATED EQUIPMENT PER MANUFACTURER REQUIREMENTS AND INSTRUCTIONS; FURNISH AND INSTALL HVAC EQUIPMENT AND APPURTENANCES FOR HEATING, COOLING AND VENTILATING THE ELEVATOR MACHINE ROOM AS INDICATED ON THE MECHANICAL DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE TO INSTALL EACH SYSTEM IN ACCORDANCE WITH THE EQUIPMENT MANUFACTURER'S INSTALLATION INSTRUCTIONS AND ALL STATE AND LOCAL CODES. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL NECESSARY ADDITIONAL COMPONENTS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM. THESE COMPONENTS INCLUDE BUT ARE NOT LIMITED TO REFRIGERANT; REFRIGERANT PIPING; POWER WIRING AND ELECTRICAL DISCONNECTS; CONTROL WIRING; MOUNTING STEEL, BRACKETS AND MISCELLANEOUS HARDWARE; WALL AND ROOF PENETRATION SEALING COMPONENTS.	NO MEASUREMENT SHALL BE MADE BY THE ENGINEER. ELEVATORS SHALL BE PAID FOR AT THE PRICE FOR EACH.	142400, 230513, 230517, 230518, 230529, 230548, 230553, 230719, 230923.01, 230823.12, 232300, 233113, 233300, 233423, 238129, 260519, 260529, 260533, 262816
14	04.20.2007	PEDESTRIAN BRIDGE - BETWEEN TOWERS 1 & 2	615	SF	PEDESTRIAN BRIDGE SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT AND WORKMANSHIP TO FURNISH AND INSTALL STRUCTURAL STEEL, METAL DECKING, METAL HARDWARE, WOVEN WIRE MESH, BUILT UP ROOFING SYSTEMS, ROOF HATCHES, FALL PROTECTION AND STRUCTURAL CONCRETE FOR BRIDGE SLAB.	PEDESTRIAN BRIDGE SHALL BE MEASURED IN SQUARE FEET IN ACCORDANCE WITH THE NEAT LINES SHOWN ON THE PLANS. PEDESTRIAN BRIDGE WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.	033000, 051200, 053100, 054000, 055000, 055213, 057301, 077233, 099100, 099600, 118129,
15	04.20.2005	CANOPY - PLATFORM 2	2,305	SF	CANOPY SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT AND WORKMASHIP FOR PVC ROOFING, PRIMARY ROOF DRAINS, BACKUP ROOF DRAINS, PARAPET WITH METAL FACIA; DOWNSPOUTS; FABRICATION; SHOP PAINTING; ERECTION OF STRUCTURAL STEEL SUPPORTS; INDEPENDENT CONCRETE FOUNDATIONS; CLEANING; AND FIELD PAINTING.	CANOPY SHALL BE MEASURED IN SQUARE FEET OF ROOFING MATERIAL IN ACCORDANCE WITH THE NEAT LINES SHOWN ON THE PLANS. CANOPY WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.	033000, 051200, 053100, 054000, 055000, 061600, 072726, 074213.13, 075419, 076000, 077200, 099100, 221413
16	04.20.2011.2	ELECTRICAL AND LIGHTING - PLATFORM 2	1	LS	ELECTRICAL AND LIGHTING SHALL INCLUDE FURNISHING, INSTALLATION, AND TESTING OF ALL MATERIALS, EQUIPMENT AND APPURTENCES FOR ALL ELECTRICAL EQUIPMENT INCLUDING PANELS, CONDUIT (RACEWAYS), CONDUCTOR, POLE MOUNTED LIGHTS, CANOPY MOUNTED PENDANT LIGHTS, MOUNTING HARDWARE, AND INSTALLATION OF POLE MOUNTED LUMINAIRE BODY, REFRACTORS, BALLASTS, SOCKETS WITH LAMP; CONDUCTOR CABLES TO THE TERMINI AT THE BASE; POLE, POLE BASE AND ANCHORS; PHOTOELECTRIC CONTROLS AND SOCKETS; GROUNDING; ADJUSTMENTS AND TESTING AS INDICATED ON THE PLANS.	NO MEASUREMENT SHALL BE MADE BY THE ENGINEER. ELECTRICAL AND LIGHTING SHALL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE.	024119, 260500, 260519, 260526, 260524, 260529, 260533, 260553, 262416, 262816, 264300, 265100, 283111
17	04.20.2012	COMMUNICATIONS - PLATFORM 2	1	LS	COMMUNICATIONS SHALL INCLUDE FURNISHING, INSTALLATION, AND TESTING OF ALL CONDUIT (RACEWAYS), CONDUCTOR, CABINET AND BOXES FOR POWER AND COMMUNICATIONS TO ALL COMMUNICATIONS EQUIPMENT INCLUDING SPEAKERS, CAMERAS, TVM'S, AND VMS. THE CONTRACTOR SHALL PERFORM INSTALLATION OF POLE MOUNTED SPEAKERS AND CANOPY MOUNTED SPEAKERS INCLUDING MOUNTING HARDWARE, ADJUSTMENTS AND TESTING AT THE LOCATIONS ALONG THE PLATFORM AS INDICATED ON THE PLANS. NOTE: VRE WILL PERFORM INSTALLATION AND TESTING OF CAMERAS, VMS, TVM AND NEW COMMUNICATIONS CABINET.	NO MEASUREMENT SHALL BE MADE BY THE ENGINEER. COMMUNICATIONS SHALL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE.	260500, 260519, 260526, 260529, 260533, 260553
18	04.20.2002	CAST IN PLACE PLATFORM - PLATFORM 2	13,600	SF	CAST IN PLACE PLATFORM SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT AND WORKMANSHIP FOR CONCRETE FORMING AND PLACEMENT, REINFORCING STEEL; INSTALLING/REMOVING FORMWORK; FINISHING; SHEETING, SHORING, STRUCTURE EXCAVATION, DEWATERING, CURING AND PROTECTION. FURNISHING AND INSTALLING SURFACE APPLIED DETECTABLE TACTILE WARNING SURFACE AND RUB RAIL ALONG THE EDGE OF THE PLATFORM AS SHOWN ON THE PLANS. FURNISHING AND INSTALLATION OF WATER SUPPLY PIPING, GROUND HYDRANTS AND TRENCH DRAINS. FURNISHING AND INSTALLATION OF PLATFORM GUARDRAIL AND SHALL INCLUDE MOUNTING HARDWARE (BENT PLATE, EXPANSION BOLTS AND NEOPRENE PAD), GROUNDING AND PAINTING OF THE GUARDRAIL. FURNISHING AND INSTALLATION OF SIGNAGE SHALL INCLUDE SUBMISSION OF A PDF PROOF OF SIGN ARTWORK AND METHODS OF MOUNTING FOR VRE APPROVAL PRIOR TO FABRICATION; FABRICATION OF ALL SIGNS; PROVISION OF ALL MOUNTING HARDWARE AND SIGNAGE INSTALLATION.	CAST IN PLACE PLATFORM SHALL BE MEASURED IN SQUARE FEET IN ACCORDANCE WITH THE NEAT LINES SHOWN ON THE PLANS. CAST IN PLACE PLATFORM WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.	033000, 321726, 055000, 055213, 099100, 220517, 101400, 220523.12, 221116, 221119, 221423.10
19	04.20.2006	STAIR/ELEVATOR TOWER - TOWER 3	1	EA	STAIR/ELEVATOR TOWER SHALL INCLUDE LABOR, MATERIALS, EQUIPMENT AND WORKMANSHIP FOR FURNISHING AND CONSTRUCTION OF THE TOWER, STAIRS AND ELEVATOR MACHINE ROOM AS SHOWN ON THE PLANS. CONSTRUCTION SHALL INCLUDES ALL CONCRETE AND REINFORCING, STRUCTURAL STEEL, NON-STRUCTURAL STEEL, WIRE MESH ARCHITECTURAL TREATMENTS, PLUMBING, ELECTRICAL, ROOFING, LOUVERS, FIRE STOPPING, FIRE AND HEAT DETECTION, SUMP PUMP, DOORS AND HARDWARE, AND INCIDENTALS FOR COMPLETE INSTALLATION. INSTALLING/REMOVING FORMWORK; FINISHING; SHEETING, SHORING, STRUCTURE EXCAVATION, DEWATERING, CURING AND PROTECTION.	NO MEASUREMENT SHALL BE MADE BY THE ENGINEER. STAIR AND ELEVATOR TOWERS SHALL BE PAID FOR AT THE PRICE FOR EACH.	033000, 042100, 042200, 051200, 053100, 054000, 055000, 055113, 055213, 057301, 061053, 061600, 071326, 072100, 072726, 074113.16, 074213.13, 075419, 076000, 076200, 077129, 077200, 079200, 079513.16, 081113, 083113, 087000, 089000, 092900, 099100, 099600, 108213.1, 118129, 142400, 220529, 221116, 221413, 221429, 260500, 260519, 260524, 260526, 260529, 265100, 283111, 284400
20	04.20.2008	ELEVATOR - TOWER 3	1	EA	ELEVATOR SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT AND WORKMANSHIP TO FURNISH AND INSTALL HYDRAULIC PASSENGER ELEVATOR AND ASSOCIATED EQUIPMENT PER MANUFACTURER REQUIREMENTS AND INSTRUCTIONS; FURNISH AND INSTALL HVAC EQUIPMENT AND APPURTENANCES FOR HEATING, COOLING AND VENTILATING THE ELEVATOR MACHINE ROOM AS INDICATED ON THE MECHANICAL DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE TO INSTALL EACH SYSTEM IN ACCORDANCE WITH THE EQUIPMENT MANUFACTURER'S INSTALLATION INSTRUCTIONS AND ALL STATE AND LOCAL CODES. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL NECESSARY ADDITIONAL COMPONENTS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM. THESE COMPONENTS INCLUDE BUT ARE NOT LIMITED TO REFRIGERANT; REFRIGERANT PIPING; POWER WIRING AND ELECTRICAL DISCONNECTS; CONTROL WIRING; MOUNTING STEEL, BRACKETS AND MISCELLANEOUS HARDWARE; WALL AND ROOF PENETRATION SEALING COMPONENTS.	NO MEASUREMENT SHALL BE MADE BY THE ENGINEER. ELEVATORS SHALL BE PAID FOR AT THE PRICE FOR EACH.	142400, 230513, 230517, 230518, 230529, 230548, 230553, 230719, 230923.01, 230823.12, 232300, 233113, 233300, 233423, 238129, 260519, 260529, 260533, 262816
21	04.20.2007	PEDESTRIAN BRIDGE - BETWEEN TOWERS 2 & 3	566	SF	PEDESTRIAN BRIDGE SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT AND WORKMANSHIP TO FURNISH AND INSTALL STRUCTURAL STEEL, METAL DECKING, METAL HARDWARE, WOVEN WIRE MESH, BUILT UP ROOFING SYSTEMS, ROOF HATCHES, FALL PROTECTION AND STRUCTURAL CONCRETE FOR BRIDGE SLAB.	PEDESTRIAN BRIDGE SHALL BE MEASURED IN SQUARE FEET IN ACCORDANCE WITH THE NEAT LINES SHOWN ON THE PLANS. PEDESTRIAN BRIDGE WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.	033000, 051200, 053100, 054000, 055000, 055213, 057301, 077233, 099100, 099600, 118129

#### NOTES:

1. EVERYTHING DESIGNED AND DEPICTED/PROPOSED FOR CONSTRUCTION IS INCLUDED IN THESE PAY ITEMS. IF YOU DON'T SEE SOMETHING CALLED OUT IN A PAY ITEM, YOU SHOULD ASK A QUESTION FOR CLARIFICATION, OR INCLUDE IT IN AN EXISTING ITEM.

INVITATION FOR BID NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION	DESIGNED BY:
	0	06/10/20			INVITATION FOR BID	CDK
						DRAWN BY:
						CDK
APPROVED BY COUNTY						CHECKED BY:
						RCB
						DATE: 06/10/2020
						00/10/2020





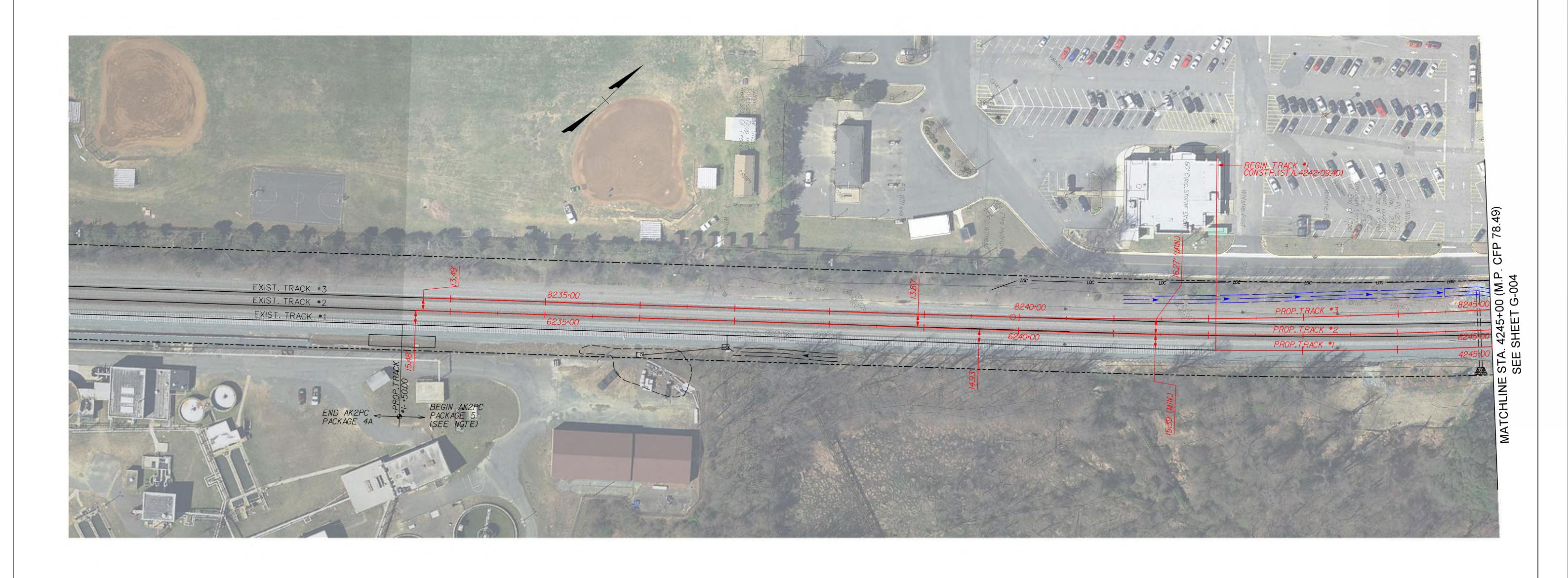


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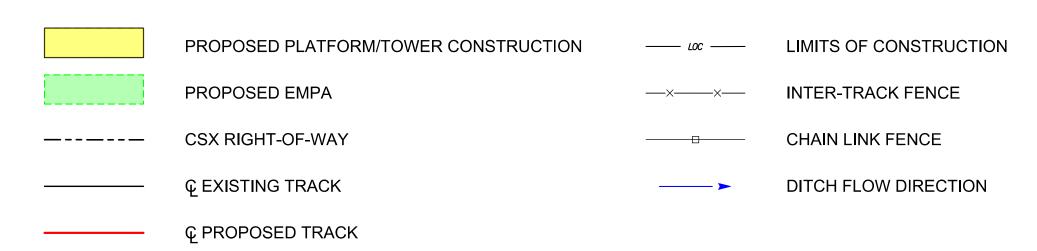
QUANTITY SUMMARY
(SHEET 2 OF 2)

QUANTICO STATION

IFB-020-019							
DRAWING NO:	G-002						
SCALE:	NONE						



## LEGEND

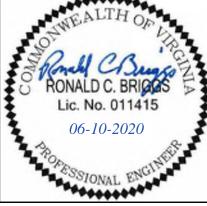


INVITATION FOR BID
NOT FOR CONSTRUCTION

# GRAPHIC SCALE

50'	0	50'	100'
HORIZ	ONTAL SCA	ALE: 1"=50'	

	APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION	DESIGNED BY:
		0	06/10/20			INVITATION FOR BID	KRJ
							DRAWN BY:
							KRJ
	APPROVED BY COUNTY						CHECKED BY:
ľ							RCB
							DATE:
							06/10/2020





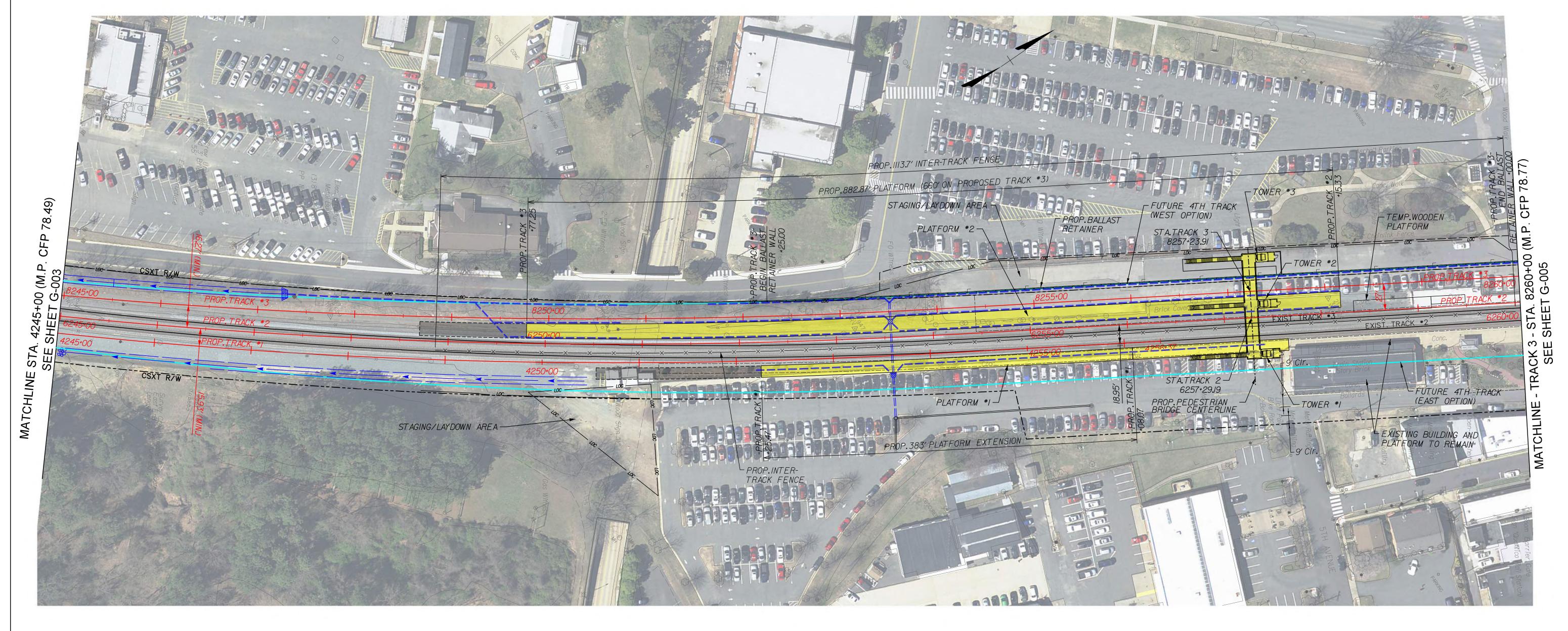


QUANTICO STATION	

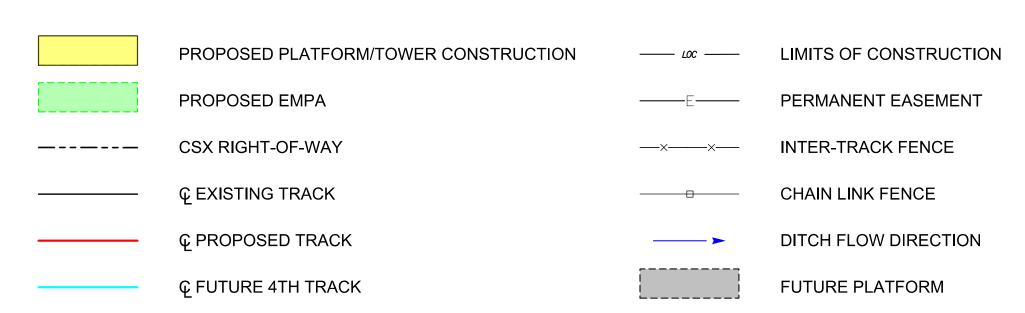
PROJECT OVERVIEW
(SHEET 1 OF 3)

IFB NO:
IFB-020-019
DRAWING NO:
G-003
SCALE:
AS SHOWN





## LEGEND

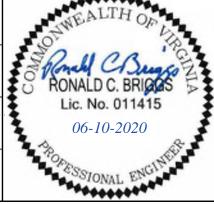


INVITATION FOR BID
NOT FOR CONSTRUCTION

GRAPHIC SCALE

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HORI	ZONTAL SCA	\LE: 1"=50'	

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION	DESIGNED BY:
	0	06/10/20			INVITATION FOR BID	KRJ
						DRAWN BY:
						KRJ
 APPROVED BY COUNTY				*****		CHECKED BY:
						RCB
						DATE:
· · · · · · · · · · · · · · · · · · ·						06/10/2020





STV 100 lears
STV Incorporated
2701 Prosperity Avenue, Suite 305 Fairfax, Virginia 22031

OLIANTICO STATIONI	IFB NO:
QUANTICO STATION	DRAWING NO:
	SCALE:

PROJECT OVERVIEW
(SHEET 2 OF 3)

SCALE:

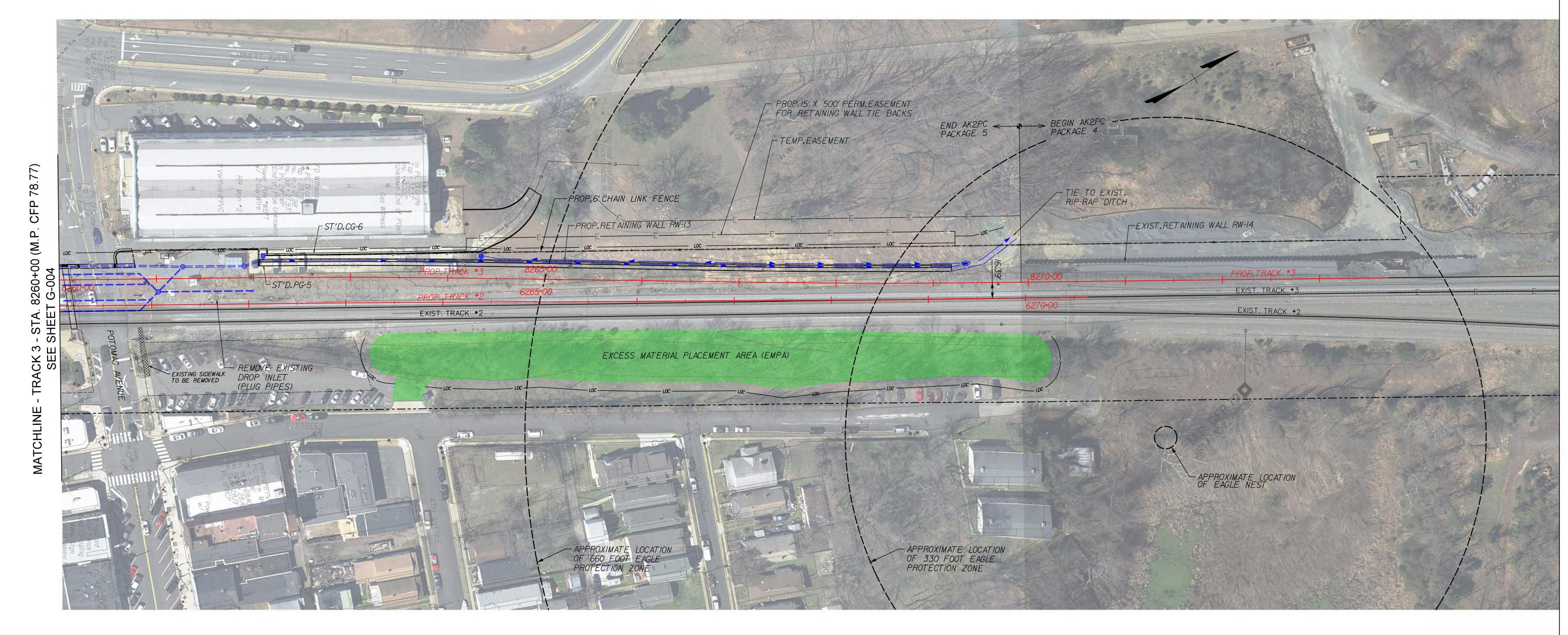
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SHEET NO:

5 OF 202

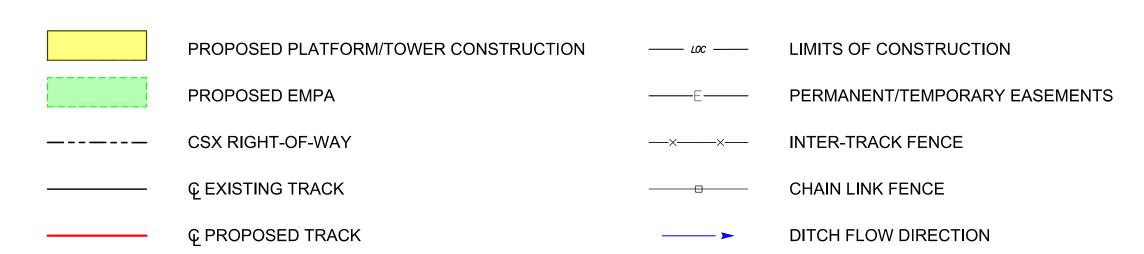
AS SHOWN

IFB-020-019

G-004



## **LEGEND**

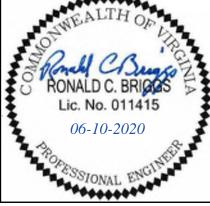


INVITATION FOR BID
NOT FOR CONSTRUCTION

GRAPHIC SCALE

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HORI	ZONTAL SCA	LE: 1"=50'	

REV.NO.	DATE	BY	APP BY	DESCRIPTION	DESIGNED BY:	
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					DRAWN BY:	3
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	0	0 06/10/20	0 06/10/20	0 06/10/20	0 06/10/20 INVITATION FOR BID	0 06/10/20 INVITATION FOR BID KRJ  DRAWN BY:  KRJ  CHECKED BY:  RCB  DATE:





STV Jears
STV Incorporated
2701 Prosperity Avenue, Suite 305 Fairfax, Virginia 22031

	IFB NO:
QUANTICO STATION	IFB-020-019
	DRAWING NO:
	G-005
PRO IECT OVERVIEW	SCALE:
PRO IEC I CIVERVIEW	I AS SHOWN

PROJECT OVERVIEW (SHEET 3 OF 3)

G-005 AS SHOWN SHEET NO: 6 OF 202



# GENERAL NOTES

#### SCOPE OF WORK

- 1. ALL WORK SHOWN ON PLANS, EXCEPT AS NOTED TO BE PERFORMED BY OTHERS, SHALL BE PERFORMED BY THE CONTRACTOR TO THE SATISFACTION OF VRE.
- 2. CONSTRUCTING OR SHIFTING OF EXISTING TRACKS SHALL BE THE RESPONSIBILITY OF CSXT AND IS NOT INCLUDED IN THE SCOPE OF THIS CONTRACT.
- 3. RAILROAD TRAFFIC SHALL BE MAINTAINED AND PROTECTED AT ALL TIMES AND THE CONTRACTOR SHALL AT NO TIME DURING CONSTRUCTION OF THIS PROJECT DELAY OR INTERFERE WITH THE SAFE OPERATION OF TRAIN TRAFFIC. ALL METHODS OF HANDLING THE WORK AFFECTING THE DELAY AND SAFETY OF TRAIN TRAFFIC SHALL BE APPROVED BY THE RAILROAD PRIOR TO PROCEEDING WITH THAT PART OF THE WORK.
- 4. UNLESS DIRECTED OTHERWISE, CONTRACTOR SHALL COORDINATE HIS WORK AND DIRECT ALL CORRESPONDENCE TO THE VIRGINIA RAILWAY EXPRESS (VRE) OR ITS AUTHORIZED AGENT. DIRECTIVES PROVIDED BY ANY OTHER PARTIES ALTERING THE CONTRACT DOCUMENTS WITHOUT THE CONSENT OF THE VRE WILL NOT BE RECOGNIZED FOR REIMBURSEMENT. ADDITIONAL STAKEHOLDER COORDINATION OF WORK TO BE PERFORMED SHALL INCLUDE CSXT, AMTRAK, VDOT, MARINE CORPS BASE QUANTICO (MCBQ), TOWN OF QUANTICO, AND PRINCE WILLIAM COUNTY.
- 5. ALL PROPOSED SIGNAL WORK (INCLUDING GRADE-CROSSING) SHOWN ON THESE PLANS IS INCLUDED FOR REFERENCE ONLY. ALL DESIGN DETAILS AND INFORMATION RELATED TO SIGNAL MODIFICATIONS AND/OR IMPROVEMENTS SHALL BE THE RESPONSIBILITY OF XORAIL AND IS NOT INCLUDED IN THE SCOPE OF THIS CONTRACT. SEE XORAIL CONSTRUCTION DOCUMENTS AND DRAWINGS, PROJECT #VA2008027.

#### **SPECIFICATIONS**

CONSTRUCTION: PROJECT TECHNICAL SPECIFICATIONS AND VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE SPECIFICATIONS, 2016

AND VDOT ROAD AND BRIDGE STANDARDS, 2016.

DESIGN: 2019 AREMA MANUAL FOR RAILWAY ENGINEERING AND CSX TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADBED

CONSTRUCTION.

THESE PLANS ARE INCOMPLETE UNLESS ACCOMPANIED BY ALL SPECIFICATIONS INCLUDED IN THE CONTRACT DOCUMENTS.

NEW

#### SURVEY DATA SHEETS

HORIZONTAL CURVE No.

1. CONTROL MONUMENT DRAWINGS ARE TO BE USED TO LOCATE THE MONUMENTS AND NOT TO RE-ESTABLISH THEM.

#### **GRADING**

- 1. EARTHWORK QUANTITIES ON THIS PROJECT DO NOT INCLUDE ANTICIPATED SETTLEMENT AND MAY REQUIRE ADJUSTING DURING CONSTRUCTION.
- 2. THE BORROW MATERIAL FOR THIS PROJECT SHALL CONSIST OF MATERIAL CLASSIFYING AS AREMA TYPE 3 OR BETTER OR AS APPROVED BY THE ENGINEER, OR AS SPECIFIED.

#### **DRAINAGE**

1. THE LOCATIONS OF ALL DRAINAGE STRUCTURES SHOWN ON THESE PLANS ARE APPROXIMATE ONLY, WITH THE EXCEPTION OF STRUCTURES SHOWING SPECIFIC STATIONS AND STORM SEWERS. ALL EXISTING STORM DRAIN PIPES SHALL REMAIN UNLESS LABELED ON PLANS AS "TO BE REMOVED" OR "TO BE ABANDONED"

#### HORIZONTAL AND VERTICAL ALIGNMENT NOTES

- 1. SPEEDS SHOWN ON ALIGNMENT DATA SHEETS, DWGS, T-001 AND T-002. REPRESENT MAXIMUM ALLOWED SPEEDS PER CSX DESIGN CRITERIA.
- 2. STATIONING IS BASED ON THE CENTERLINE OF THE NEW THIRD TRACK. THE BASELINE HAS CONTINUOUS STATIONING WITHIN MINOR TICK MARKS SHOWN EVERY 50 FEET AND MAJOR TICK MARKS SHOWN EVERY 100 FEET.
- 3. THE PROFILE GRADE LINE IS THE TOP OF THE LOW RAIL FOR EACH TRACK.
- 4. WHERE THE PROFILE OF ONE TRACK IS NOT THE SAME AS THE SECOND OR THIRD TRACK, SEPARATE TRACK PROFILES ARE SHOWN ON THEIR OWN GRID.
- 5. REFER TO TRACK ALIGNMENT TABLES FOR LIMITS OF ACTUAL SUPERELEVATION.
- 6. THE CONSTRUCTION TOLERANCES REQUIRED FOR ALL TRACK CONSTRUCTION ARE PROVIDED IN THE SPECIFICATIONS.
- 7. REFER TO ARCHITECTURAL DRAWINGS FOR ARCHITECTURAL STATION PLATFORM INFORMATION. DETAILS AND LOCATIONS SHOWN ON TYPICAL SECTIONS ARE TYPICAL AND MAY VARY. RIGHT-OF-WAY LIMITS SHALL BE CONFIRMED BY CONTRACTOR AND COORDINATED WITH CSX.
- 8. FOR ANY CONSTRUCTION PERFORMED BY OTHERS ON ANY PORTION OF THE PROJECT LIMITS THROUGHOUT THE CONSTRUCTION OF THIS CONTRACT, THE CONTRACTOR SHALL PREPARE A DETAILED CERTIFIED RECORD SURVEY.

#### MISCELLANEOUS TRACKWORK (BY CONTRACTOR)

1. CONSTRUCT BALLAST RETAINER WALL.

RIGHT OF WAY LINE

- 2. SUBBALLAST DEPTH SHALL BE A MINIMUM OF 6 INCHES.
- 3. GEOGRID AND GEOTEXTILE FABRIC SHALL BE INSTALLED AT SITE UNDER SUBBALLAST (IF REQUIRED AND AS DIRECTED BY THE ENGINEER), REFER TO TRACK PLANS AND SPECIFICATIONS FOR DETAILS.
- 4. REMOVE AND DISPOSE OF TRACK INCLUDING TIES. RAIL AND OTM.
- 5. INSTALL INTER-TRACK FENCE AND CHAIN LINK FENCE.
- 6. CONTRACTOR SHALL COORDINATE WITH CSXT FOR ALL GRADE CROSSING WORK AT POTOMAC AVE.

#### TRACK CONSTRUCTION (BY OTHERS)

- 1. RAIL SHALL BE 136 RE CONTINUOUSLY WELDED
- 2. TIES SHALL BE PRESTRESSED CONCRETE CROSSTIE, SEE CSX STANDARD DRAWING.
- 3. SPACING TIES AT 20 INCHES.
- 4. BALLAST DEPTH SHALL BE A MINIMUM OF 12 INCHES BELOW BOTTOM OF TIE.

#### **INCIDENTALS**

- 1. THAT PORTION OF THE RIGHT OF WAY WITHIN A MINIMUM OF 15 FEET FROM THE EDGE OF TRACK OR SURFACING OR WITHIN THE LIMITS OF CONSTRUCTION SLOPES BEYOND 15 FEET, SHALL BE CLEARED AND GRUBBED IN ACCORDANCE WITH THE APPLICABLE VDOT ROAD AND BRIDGE SPECIFICATIONS, SECTION 301, WHERE SUFFICIENT RIGHT-OF-WAY OR CONSTRUCTION EASEMENT IS PROVIDED.
- 2. CLEARING AND GRUBBING SHALL BE CONFINED TO THOSE AREAS NEEDED FOR CONSTRUCTION.
- 3. NO TREES OR SHRUBS IN UNGRADED AREAS SHALL BE CUT WITHOUT THE PERMISSION OF THE ENGINEER.
- 4. THE UNDERGROUND UTILITY DATA SHOWN IN THESE PLANS WERE OBTAINED WITH REASONABLE CARE FROM PLANS PROVIDED BY THE UTILITY PROVIDERS AND CSX GIS MAPS, AND SUBSURFACE INVESTIGATION RECORDED IN GOOD FAITH SOLELY FOR USE IN ESTABLISHING DESIGN CONTROLS FOR THE PROJECT. NEITHER THE ENGINEER NOR VRE HAVE ANY REASON TO SUSPECT THAT SUCH INFORMATION IS NOT REASONABLY ACCURATE AS AN APPROXIMATE INDICATION OF THE UTILITY LOCATIONS. THE ENGINEER AND VRE DO NOT IN ANY WAY WARRANT OR GUARANTEE. EITHER EXPRESSLY OR BY IMPLICATION. THE SUFFICIENCY OF THE INFORMATION, THE UTILITY LOCATIONS PROVIDED IN THESE PLANS ARE NOT INTENDED AS A SUBSTITUTE FOR FIELD SURVEYS. PERSONAL INVESTIGATION, INTERPRETATION AND JUDGMENT BY THE CONTRACTOR. THE PROJECT UTILITY RELOCATIONS ARE THE RESPONSIBILITY OF VRE. CONFLICTS AND RELOCATIONS WILL BE IDENTIFIED BY THE UTILITY OWNERS BASED ON THE PROJECT DESIGN.
- 5. BY LAW, ANYONE PLANNING TO EXCAVATE IS REQUIRED TO CALL MISS UTILITY OF VIRGINIA AT 811 OR 1-800-552-7001 AT LEAST TWO FULL WORKING DAYS PRIOR TO BEGINNING WORK. EXCAVATION INCLUDES ANY WORK THAT BREAKS THE SURFACE OF THE ORIGINAL GROUND INCLUDING, BUT NOT LIMITED TO, CLEARING AND GRUBBING, DIGGING, TRENCHING, DRIVING PILE, BORING, AND LOCATING PINS. BEGIN EXCAVATION ONLY AFTER CHECKING THE POSITIVE RESPONSE SYSTEM AND FINDING THAT ONE OF THE FOLLOWING CONDITIONS HAS BEEN MET.
  - 1) ALL NOTIFIED UTILITIES HAVE EITHER MARKED THEIR LINES OR REPORTED THAT NO FACILITIES ARE LOCATED IN THE AREA OF EXCAVATION.
  - 2) THE MARKING PERIOD HAS EXPIRED.
  - 3) MISS UTILITY INFORMS YOU THAT NO MEMBER OPERATORS NEED

# TO BE NOTIFIED OF THE EXCAVATION.

## **EXISTING**

NEW TRACK & AND STATIONING ———————————————————————————————————		FENCE LINE	××
	1155-	PROPERTY LINE	
POINT OF INTERSECTION		WATER LINE —	W
RETAINING WALLS		SANITARY SEWER LINE ————————————————————————————————————	SS
CRASH WALLS		STORM SEWER LINE	- S
BRIDGES		GAS LINE & PLANTATION PIPELINE ————————————————————————————————————	_ EXIST. PLANTATION PIPELINE
		ELECTRIC UNDERGROUND CABLE ————————————————————————————————————	– E——
BORING LOCATIONS	$ \longrightarrow^{XX-XXX}$	FIBER OPTIC UNDERGROUND CABLE	_ T FO
	DMT-XX-XXX	RAILROAD COMMUNICATION CABLE ——————	_ P——
DILATOMETER TEST PROBE LOCATIONS ————————————————————————————————————		TELEPHONE UNDERGROUND CONDUIT ————	- ======
SLOPE FILL LINE ————————————————————————————————————	FIC	EXISTING TRACKS ————————————————————————————————————	
SLOPE CUT LINE		MILE POST	- <b>\_</b>
2' WIDE TRAPEZOIDAL DITCH ————————————————————————————————————		TRAVERSE POINT MONUMENT	- #XXX XXX
CULVERT	32"	BRIDGES	

 $\overline{C4-1}$ 

<u>10</u>	
CULVERTS ————————————————————————————————————	
DROP INLET	
POWER POLES	<b>D</b> -
TELEPHONE OR TELEGRAPH POLES	ф
OVERHEAD TELEPHONE LINES	— т он——
OVERHEAD POWER LINES	——Р ОН——
HEDGE	(*************************************
TREES	<b>©</b>
HEAVY WOODS	
MAJOR CONTOUR	——— 25 ——
MINOR CONTOUR	
EXISTING STREAM & EDGE OF WATER —————	
CONFIRMED JURISDICTIONAL STREAM OR WETLAND	
NON-JURISDICTIONAL STREAM OR WETLAND	<u>*</u>
HISTORICAL SOIL BORING	<b>S</b> B−XXX
NORTH ARROW	

### INCIDENTALS CONT.

6. THE FOLLOWING UTILITY OWNERS HAVE BEEN IDENTIFIED WITHIN THE PROJECT LIMITS:

COMCAST PLANTATION PIPELINE COLUMBIA GAS OF VIRGINIA QWEST/ CENTURYLINK MCI/ VERIZON DOMINION VIRGINIA POWER MARINE CORPS BASE QUANTICO CSX TRANSPORTATION

7. THE RIGHT-OF-WAY DATA SHOWN IN THESE PLANS WAS OBTAINED WITH REASONABLE CARE FROM CSX VAL-MAPS AND CSX GIS MAPS AND RECORDED IN GOOD FAITH SOLELY FOR USE IN ESTABLISHING DESIGN CONTROLS FOR THE PROJECT. VRE HAS NO REASON TO SUSPECT THAT SUCH INFORMATION IS NOT REASONABLY ACCURATE AS AN APPROXIMATE INDICATION OF THE RIGHT-OF-WAY LIMITS. VRE DOES NOT IN ANY WAY WARRANT OR GUARANTEE, EITHER EXPRESSLY OR BY IMPLICATION, THE SUFFICIENCY OF THE INFORMATION FOR BID PURPOSES. THE RIGHT-OF-WAY LIMITS PROVIDED IN THESE PLANS ARE NOT INTENDED AS A SUBSTITUTE FOR PERSONAL INVESTIGATION, INTERPRETATION AND JUDGMENT BY THE BIDDERS.

#### **EROSION & SEDIMENT CONTROL**

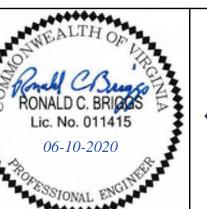
- 1. EROSION AND SEDIMENT CONTROL SHALL BE IN ACCORDANCE WITH CSX TRANSPORTATION FROSION AND SEDIMENT CONTROL PLAN, VDOT ROAD AND BRIDGE SPECIFICATIONS, 2016 AND THE PLANS.
- 2. THE TEMPORARY EROSION AND SILTATION CONTROLS SHOWN ON THE PLANS ARE INTENDED TO PROVIDE A GENERAL PLAN FOR CONTROLLING EROSION AND SILTATION WITHIN THE PROJECT LIMITS. THE EROSION AND SILTATION CONTROLS SHOWN ON THE PLANS ARE BASED ON FIELD CONDITIONS AT THE TIME OF PLAN DEVELOPMENT AND AN ASSUMED SEQUENCE OF CONSTRUCTION. THE CONTRACTOR, IN CONJUNCTION WITH THE ENGINEER, SHALL ADJUST THE LOCATION, QUANTITY AND TYPE OF EROSION AND SILTATION CONTROLS REQUIRED BASED ON THE ACTUAL FIELD CONDITIONS ENCOUNTERED AT THE TIME OF CONSTRUCTION AND THE SELECTED SEQUENCE OF CONSTRUCTION.
- 3. ALL PERIMETER EROSION AND SILTATION CONTROL SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES. THE AREAS BEYOND THE PROJECT'S CONSTRUCTION AREA ARE TO BE PROTECTED FROM SILTATION. PERIMETER CONTROLS SUCH AS FILTER BARRIER, SILT FENCE, DIVERSION DIKES, TURBIDITY CURTAINS, ETC., SHALL BE INSTALLED PRIOR TO ANY GRUBBING OPERATIONS OR OTHER EARTH MOVING ACTIVITIES.
- 4. ROCK FOR CHECK DAMS, EROSION CONTROL STONE, AND RIPRAP IN CHANNELS SHALL BE IN ACCORDANCE WITH SECTION 204 AND SECTION 414 OF THE APPLICABLE VDOT ROAD AND BRIDGE SPECIFICATIONS.

#### FROSION & SEDIMENT CONTROL

ORANGE PLASTIC SAFETY FENCE(FOR DESIGNATION OF WETLAND AREAS)	
TEMPORARY SILT FENCE ———————————————————————————————————	X—
TEMPORARY SUPER SILT FENCE	XX
TEMPORARY DIVERSION CHANNEL ———————————————————————————————————	
TURBIDITY CURTAIN, TYPE 1, 2	
ROCK CHECK DAM ———————————————————————————————————	
NLET PROTECTION, TYPE A	
NLET PROTECTION, TYPE B	(
CONSTRUCTION ENTRANCE ————————————————————————————————————	
DEWATERING STRUCTURE	
LIMITS OF CONSTRUCTION ————————————————————————————————————	LOC
DIVERSION DIKE	<b>———</b>
	,

INVITATION FOR BID NOT FOR CONSTRUCTION

DESIGNED BY APPROVED BY VRE REV.NO. DATE **DESCRIPTION** KRJ **INVITATION FOR BID** 06/10/20 DRAWN BY: KRJ APPROVED BY COUNTY CHECKED BY: RCB



06/10/2020





2701 Prosperity Ave, Suite 305

Fairfax, VA 22031

**QUANTICO STATION** 

**GENERAL NOTES** (SHEET 1 OF 2)

IFB-020-019 DRAWING NO: G-006 SCALE: NOT TO SCALE SHEET NO:

#### **CODE & STANDARDS**

THE WORK OF THIS PROJECT SHALL COMPLY WITH 2015 VIRGINIA UNIFORM STATEWIDE BUILDING CODE "VUSBC" WHICH INCLUDES THE ADOPTED AND AMENDED VERSIONS OF THE FOLLOWING:

2015 IBC INTERNATIONAL BUILDING CODE

2015 IPC INTERNATIONAL PLUMBING CODE

2015 IMC INTERNATIONAL MECHANICAL CODE

2015 IECC INTERNATIONAL ENERGY CONSERVATION CODE

2015 IFGC INTERNATIONAL FUEL GAS CODE

2017 NEC NATIONAL ELECTRICAL CODE

2015 SFPC VIRGINIA STATEWIDE FIRE PREVENTION CODE

2003 ICC/ANSI A117.1 ACCESSIBILITY STANDARDS

2006 DEPARTMENT OF TRANSPORTATION ACCESSIBILITY STANDARDS (DOTAS)

THE CONTRACTOR SHALL COMPLY WITH CSXT PUBLIC PROJECTS INFORMATION MANUAL AND WITH ALL VRE, LOCAL, STATE AND FEDERAL SAFETY AND ENVIRONMENTAL REGULATIONS.

CONTRACTOR IS REQUIRED TO PROVIDE TRAFFIC CONTROL PLAN, STAGING PLAN, WORK AREA SAFETY AND SECURITY PLAN.

#### PROJECT/ CODE SUMMARY

#### DESCRIPTION:

THE WORK WILL CONSIST OF THE CONSTRUCTION OF NEW PLATFORM, EXTENSION OF SIDE PLATFORM, ELEVATOR / STAIR TOWERS, AND BRIDGE.

WORK INCLUDES SITE DEVELOPMENT OF NEW UTILITY CONNECTIONS FOR DOMESTIC WATER, STORM DRAIN, AND ELECTRICAL LIGHTING.

2. <u>OWNER NAME:</u> VIRGINIA RAILWAY EXPRESS 1500 KING STREET, SUITE 202 ALEXANDRIA, VA 22314

#### **GENERAL NOTES**

- 1. WORK ON THIS STRUCTURE REQUIRES WORKING WITHIN AN EXISTING CSXT RIGHT OF WAY. EVERY EFFORT HAS BEEN MADE TO IDENTIFY DISCREPANCIES AND ENSURE THAT THE DETAILS ARE DEPICTED CORRECTLY. THESE DRAWINGS HAVE BEEN PREPARED BASED ON INFORMATION AVAILABLE. HOWEVER, SINCE THIS IS AN EXISTING R.O.W., THE CONTRACTOR CAN EXPECT AND SHOULD PLAN ON ENCOUNTERING VARIANCES AND DEVIATIONS BETWEEN THE INFORMATION FOUND IN THESE DRAWINGS AND EXISTING SITE CONDITIONS. ACTUAL FIELD CONDITIONS MAY REQUIRE MODIFICATIONS IN CONSTRUCTION DETAILS AND QUANTITIES. DRAWING SCALES THAT ARE SHOWN ON THE PROJECT PLANS ARE TO BE CONSIDERED AS BEING APPROXIMATE AND SHALL NOT BE RELIED UPON FOR PURPOSES OF PREPARING BIDS, ORDERING AND FABRICATING MATERIALS, NOR CALCULATING MEASUREMENT FOR PAYMENT. THE CONTRACTOR IS RESPONSIBLE TO FIELD VERIFY ALL DETAILS INCLUDING GEOMETRY AND ELEVATIONS PRIOR TO THE FABRICATION AND INSTALLATION OF ANY MATERIAL. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER. OR AUTHORIZED REPRESENTATIVE, COPIES OF FIELD SURVEYS AND VERIFICATIONS FOR INCLUSION INTO THE CONSTRUCTION RECORDS FOR THE PROJECT.
- 2. ANY DESIGN REVISIONS LOCATED WITHIN THE CSXT RIGHT-OF-WAY, OR WITH THE POTENTIAL TO IMPACT CSXT FACILITIES OR OPERATIONS ARE SUBJECT TO CSXT REVIEW AND APPROVAL.
- 3. THE CONTRACTOR SHALL COMPLY WITH ALL RAILROAD (CSXT & VRE), LOCAL, STATE, AND FEDERAL SAFETY AND ENVIRONMENTAL REGULATIONS.
- 4. CONTRACTOR TO COMPLY WITH ALL NOISE ORDINANCES, IF APPLICABLE
- 5. THE CONTRACTOR SHALL FURNISH ALL MATERIALS, LABOR, EQUIPMENT, TRANSPORTATION AND SERVICES NECESSARY FOR THE SATISFACTORY COMPLETION OR THE WORK. CONSTRUCTION SHALL CONFORM TO ALL APPLICABLE CODES, REGULATIONS. AND THE CONTRACT DOCUMENTS.
- 6. THE CONTRACTOR SHALL NOT CONDUCT MAJOR ACTIVITIES OFF SITE THAT WILL PRODUCE NOISE, DUST, ACCESS INTERFERENCE, OR OTHER IMPACTS TO OPERATIONS DURING WEEKDAY RUSH HOURS PRIOR TO 8 A.M. OR AFTER 5 P.M.
- 7. THE CONTRACTOR SHALL SCHEDULE ALL ACTIVITIES SUCH THAT RAIL TRAFFIC IS NOT DELAYED OR OTHERWISE IMPACTED DUE TO THE WORK BEING PERFORMED. WEEKEND AND NIGHT WORK SHOULD BE EXPECTED.
- 8. THE CONTRACTOR SHALL SUBMIT A DETAILED PROGRESS SCHEDULE AND SEQUENCING PLAN A MINIMUM OF 30 DAYS PRIOR TO THE START OF WORK.
- 9. THE CONTRACTOR SHALL COORDINATE LOCATION AND SCHEDULE OF STAGING AREAS WITH VRE.
- 10. THE CONTRACTOR SHALL NOT BE PERMITTED TO USE THE CSXT RIGHT-OF-WAY, EXCEPT AREAS SHOWN ON APPROVED PLANS, FOR THE STORAGE OF MATERIALS OR EQUIPMENT DURING CONSTRUCTION WITHOUT PRIOR APPROVAL OF CSXT. THE CSXT RIGHT-OF-WAY MUST REMAIN CLEAR AT ALL TIMES.
- 11. THE CONTRACTOR SHALL SUBMIT A DETAILED TRAFFIC CONTROL PLAN (IF REQUIRED) A MINIMUM OF 30 DAYS PRIOR TO THE START OF WORK.
- 12. ANY WORK INSTALLED IN CONFLICT WITH THE ARCHITECTURAL/ENGINEER DRAWINGS SHALL BE CORRECTED BY THE CONTRACTOR AT CONTRACTOR'S EXPENSE AND AT NO ADDITIONAL EXPENSE TO THE OWNER OR ARCHITECT/ENGINEER.
- 13. REPAIRS TO UTILITIES OR PROPERTY DAMAGE AS A RESULT OF CONTRACTOR'S NEGLIGENCE OR METHOD OF OPERATION SHALL BE MADE AT THE CONTRACTOR'S EXPENSE BEFORE PROCEEDING WITH CONSTRUCTION.
- 14. THE CONTRACTOR SHALL BE RESPONSIBLE TO RESET ANY SIGN POSTS OR OTHER APPURTENANCES REMOVED DURING THE CONSTRUCTION TO FACILITATE HIS WORK, EXCEPT WHERE SPECIFIED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
- 15. SPECIAL NOTICE TO CONTRACTORS: ALL CONTRACTORS PERFORMING WORK ON THE PREMISES SHALL BE RESPONSIBLE FOR INITIATING, MAINTAINING AND SUPERVISING A REASONABLE AND PRUDENT SAFETY PROGRAM INCLUDING BUT NOT LIMITED TO THE ISOLATION OF WORK AREAS AND THE PROMPT REMOVAL OF ANY DEBRIS OR TOOLS WHICH MIGHT ENDANGER THE GENERAL PUBLIC. VISITORS AND STAFF OF THE OWNER.
- 16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED BY GOVERNING JURISDICTIONS THAT HAVE NOT ALREADY BEEN OBTAINED BY VRE.
- 17. THE CONTRACTOR SHALL USE REASONABLE AND NECESSARY PRECAUTIONS TO ENSURE THE SAFETY OF VRE COMMUTERS.

#### RAILROAD (CSXT & VRE) COORDINATION

- 1. TEMPORARY CONSTRUCTION CLEARANCES TO BE USED SHALL BE AS SPECIFIED BY THE RAILROAD'S DIVISION MANAGER. CLEARANCES WILL BE COORDINATED THROUGH CSXT CHIEF ENGINEER OR HIS REPRESENTATIVE.
- 2. CSXT DOES NOT PERMIT ANY REDUCTION TO EXISTING VERTICAL AND HORIZONTAL CLEARANCES AS DEFINED BY THE AREMA CLEARANCE ENVELOPE.
- 3. THE CONTRACTOR SHALL COORDINATE WITH CSXT & VRE AND OBTAIN APPROVALS PRIOR TO PERFORMING ANY WORK ON OR NEAR THE TRACKS OR CSXT RIGHT-OF-WAY.
- 4. THE CONTRACTOR WILL BE REQUIRED TO ACQUIRE RIGHT OF ENTRY AGREEMENT WITH CSXT & VRE PRIOR TO WORKING ON THEIR RIGHT OF WAY. CSXT MAY TAKE UP TO 60 DAYS TO ISSUE.
- 5. THE CONTRACTOR MUST COORDINATE CONSTRUCTION ACTIVITIES WITH CSXT & VRE. FLAGGING SERVICES MAY TAKE UP TO 45 DAYS TO OBTAIN. FLAGMEN ARE PROVIDED BASED ON AVAILABILITY. THERE ARE NO GUARANTEES THAT A FLAGMAN WILL BE PROVIDED IN THE TIME LISTED.
- 6. CSXT FLAGMAN SERVICES WILL BE PAID FOR BY OTHERS.
- 7. THE CONTRACTOR SHALL MAINTAIN CONTACT WITH THE CSXT FLAGMAN AND FOLLOW HIS INSTRUCTIONS AT ALL TIMES.
- 8. THE CONTRACTOR WILL SCHEDULE AND COORDINATE ALL FLAGMAN SERVICES WITH CSXT.
- 9. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING EXISTING UTILITIES AND RAILROAD SIGNALS AND FOR MAINTAINING THE UTILITIES AND RAILROAD SIGNALS THROUGHOUT THE DURATION OF THE PROJECT, UNLESS NOTED OTHERWISE. CSXT WILL MARK EXISTING CSXT FACILITIES. CONTRACTOR SHALL COORDINATE WITH CSXT TO HAVE THEIR FACILITIES MARKED IN THE FIELD, PRIOR TO PERFORMING WORK WITH THE POTENTIAL TO IMPACT BELOW-GRADE FACILITIES. COST OF CSXT MARKING OF CSXT FACILITIES TO BE PAID FOR BY OTHERS.
- 10. THE CONTRACTOR SHALL CONTACT "MISS UTILITY" AT 1-800-552-7001 FOR MARKING THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES (I.E. WATER, SEWER, GAS, TELEPHONE, ELECTRIC, AND CABLE TV) AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION OR CONSTRUCTION. THE CONTRACTOR IS REQUIRED TO IDENTIFY AND PROTECT ALL OTHER UTILITY LINES FOUND IN THE WORK SITE AREA BELONGING TO OTHER OWNERS THAT ARE NOT MEMBERS OF "MISS UTILITY". PLEASE NOTE THAT CSXT'S COMMUNICATIONS AND SIGNALS FACILITIES ARE NOT SUBJECT TO "MISS UTILITY."
- 11. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING RAILROAD FACILITIES FROM DEBRIS DURING CONSTRUCTION.
- 12. THE CONTRACTOR MUST PLAN AND PERFORM THE WORK IN A MANNER SUCH THAT THE CSXT TRACKS AT THE PROJECT LOCATION REMAIN FULLY CAPABLE OF CARRYING RAIL TRAFFIC THROUGHOUT THE WORK PERIOD.
- 13. CONTRACTOR SHALL NOT IMPEDE CSXT ACCESS ALONG ITS TRACK AND RIGHT-OF-WAY.
- 14. THE CONTRACTOR SHALL NOT REMOVE ANY EXISTING CSXT OWNED MATERIAL (INCLUDING, BUT NOT LIMITED TO, SOIL, STONE, COMMUNICATIONS AND SIGNAL DEVICE COMPONENTS, AND DRAINAGE FACILITIES) FROM CSXT RIGHT-OF-WAY WITHOUT PRIOR AUTHORIZATION FROM CSXT. IN THE EVENT THAT SUCH MATERIAL CANNOT BE RELOCATED WITHIN CSXT'S RIGHT-OF-WAY IN A MANNER SATISFACTORY TO CSXT, THE MATERIAL SHALL BE PROPERLY TESTED BY CSXT FOR CONTAMINATION AND DISPOSED OF IN ACCORDANCE WITH THE CSX DISPOSAL POLICY (SEE APPENDIX A, SECTION 020215 OF THE SPECIFICATIONS).

#### RAILROAD OPERATIONS

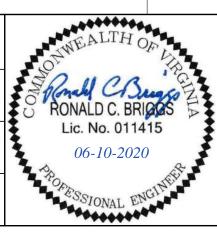
- 1. AT NO TIME SHALL THE CONTRACTOR'S OPERATIONS INTERFERE WITH THE MOVEMENT OF TRAINS. ALL TRAIN OPERATIONS (CSXT, VRE AND AMTRAK) SHALL ALWAYS REMAIN IN-SERVICE AND UNINTERRUPTED DURING CONSTRUCTION. ALL TRAINS SHALL BE PERMITTED TO MOVE THROUGH THE CONSTRUCTION ZONE AT THE MAXIMUM AUTHORIZED SPEED (MAS) AND THERE SHALL BE NO SLOW ORDER IMPOSED IN THE CONSTRUCTION ZONE DURING THE CONSTRUCTION PERIOD. IN ORDER TO PERFORM CONSTRUCTION, THE CONTRACTOR SHALL EMPLOY AVAILABLE TRACK WINDOWS TO ENTER, PERFORM WORK, AND EXIT. SUCH TRACK WINDOWS WILL VARY BY TIME OF DAY, DAY OF WEEK, AND DURATION.
- 2. WHEREVER NECESSARY DUE TO GEOMETRY AND LOADING, THE CONTRACTOR SHALL PROVIDE ADEQUATE SUPPORT OF EXCAVATION (SOE). SEE TEMPORARY SHORING NOTES THIS SHEET AND UNDERDRAIN/PLATFORM DETAIL, SHEET DR-004. SUCH SOE IS REQUIRED ANY TIME EXCAVATION ENTERS THE THEORETICAL RAILROAD EMBANKMENT LINE AS DEFINED BY CSXT. ALL SOE CALCULATIONS AND DETAILS SHALL BE SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE COMMONWEALTH OF VIRGINIA. PLANS AND CALCULATIONS SHALL BE REVIEWED AND APPROVED BY VRE AND CSXT PRIOR TO INSTALLATION, DISTURBANCE AND USE.
- 3. DURING CONSTRUCTION AND EXECUTION OF TRACK SHIFTS, THE CONTRACTOR SHALL LIMIT EXCAVATION AND CONSTRUCTION DIRECTLY ADJACENT TO ACTIVE TRACK.
- 4. THE CONTRACTOR SHALL EXERCISE CAUTION DURING INSTALLATION OF SOE AND UNDERDRAINS IMMEDIATELY ADJACENT TO TRACK AS TO MINIMIZE DISTURBANCE OF BALLAST. THE CONTRACTOR SHALL PRESERVE TRACK STABILITY AND LIMIT EXCESSIVE EXCAVATION. ALL EXCAVATION IS TO REMAIN OUTSIDE OF THE TRACK SYSTEM LIVE LOAD INFLUENCE LINE AND MINIMIZED TO THE GREATEST EXTENT POSSIBLE. ALL SOE, EXCAVATION FORMWORK/BALLAST SHOULDER PROTECTION SHALL BE APPROVED BY CSX PRIOR TO EXCAVATION.

#### TEMPORARY SHORING NOTES

- TEMPORARY SHORING WILL BE REQUIRED IF THE EXCAVATION WILL ENCROACH WITHIN THE "THEORETICAL RAILROAD EMBANKMENT LINE". TEMPORARY SHORING IS REQUIRED AT ELEVATOR PIT TOWER 1 AND TOWER 2, CANOPY COLUMN FOUNDATIONS (CENTER PLATFORM), MANHOLE 24-1, 24-2 AND 25-5, AND FOR JACKING PIPE UNDER TRACKS (24-1 TO 24-2).
- 2. THE CONTRACTOR SHALL SUBMIT DETAILED DRAWINGS AND CALCULATIONS TO THE ENGINEER SHOWING SIZES OF ALL STRUCTURAL MEMBERS, DETAILS OF CONNECTIONS, AND DISTANCES FROM THE CENTERLINE OF TRACK TO FACE OF SHORING. DRAWING SHALL INCLUDE A SECTION SHOWING HEIGHT OF SHORING AND TRACK ELEVATION IN RELATION TO BOTTOM OF EXCAVATION. THE DRAWING AND CALCULATIONS SHALL BE PREPARED BY A LICENSED PROFESSIONAL ENGINEER IN THE COMMONWEALTH OF VIRGINIA AND SHALL BEAR HIS SEAL AND SIGNATURE.
- 3. PREFERRED PROTECTION IS THE COFFERDAM TYPE THAT COMPLETELY ENCLOSES THE EXCAVATION. WHERE DICTATED BY CONDITIONS, PARTIAL COFFERDAMS WITH OPEN SIDES AWAY FROM THE TRACK MAY BE USED. COFFERDAMS SHALL BE CONSTRUCTED USING STEEL SHEET PILING OR STEEL SOLDIER PILES WITH TIMBER LAGGING. WALES AND STRUTS SHALL BE PROVIDED AS NEEDED. MANUFACTURED PRODUCTS (I.E. TRENCH BOXES) WILL NOT BE ALLOWED.
- 4. SHORING SHALL BE DESIGNED TO RESIST A VERTICAL LIVE LOAD SURCHARGE OF 1,882 POUNDS PER SQUARE FOOT (PSF), IN ADDITION TO ACTIVE EARTH PRESSURE. THE SURCHARGE SHALL BE ASSUMED TO ACT ON A CONTINUOUS STRIP, 8'-6" WIDE. LATERAL PRESSURES DUE TO SURCHARGE SHALL BE COMPUTED USING THE STRIP LOAD FORMULAS SHOWN IN AREMA MANUAL FOR RAILWAY ENGINEERING, CHAPTER 8, PART 20.
- 5. ALLOWABLE STRESSES IN MATERIALS SHALL BE IN ACCORDANCE WITH AREMA MANUAL FOR RAILWAY ENGINEERING, CHAPTERS 7, 8 AND 15.
- 6. A CONSTRUCTION PROCEDURE FOR TEMPORARY SHORING SHALL BE SHOWN ON THE DRAWING.
- 7. SAFETY RAILING SHALL BE INSTALLED WHEN TEMPORARY SHORING IS WITHIN 15'-0" OF THE CENTERLINE OF TRACK.
- 8. A MINIMUM DISTANCE OF 10 FEET FROM THE CENTERLINE OF THE TRACK TO THE FACE OF THE NEAREST POINT OF SHORING SHALL BE MAINTAINED.
- 9. FOR SHEETING AND SHORING WITHIN 18'-0" OF THE CENTERLINE OF THE TRACK, THE LIVE LOAD INFLUENCE ZONE, AND IN SLOPES, THE CONTRACTOR SHALL USE SHEET PILE. NO SHEET PILE IN SLOPES OR WITHIN 18'-0" OF THE CENTERLINE OF TRACK SHALL BE REMOVED. SHEET PILES SHALL BE CUT OFF 3'-0" BELOW FINISHED GROUND LINE. THE REMAINING 3'-0" SHALL BE BACKFILLED AND COMPACTED IMMEDIATELY AFTER CUT OFF.

INVITATION FOR BID NOT FOR CONSTRUCTION

APP BY DESIGNED BY: APPROVED BY VRE REV NO DATE BY DESCRIPTION KRJ **INVITATION FOR BID** 06/10/20 DRAWN BY: KRJ APPROVED BY COUNTY CHECKED BY: RCB 06/10/2020







Fairfax, VA 22031

QUANTICO STATION

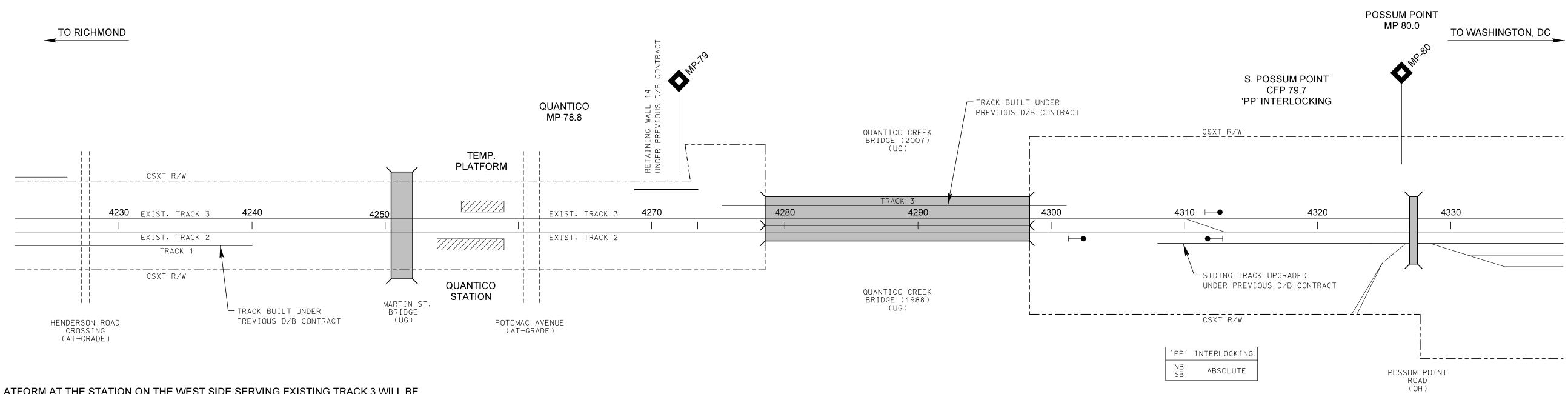
GENERAL NOTES (SHEET 2 OF 2) IFB NO: IFB-020-019

DRAWING NO: G-007

SCALE:

NOT TO SCALE

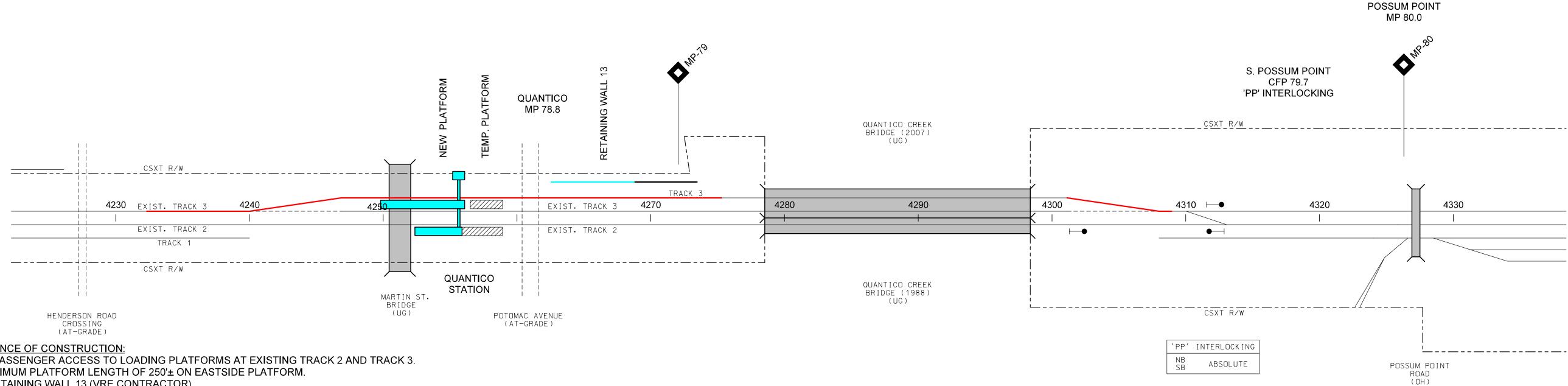
SHEET NO:



THE TEMPORARY PLATFORM AT THE STATION ON THE WEST SIDE SERVING EXISTING TRACK 3 WILL BE COMPLETED AND IN-USE PRIOR TO CONSTRUCTION BEGINNING ON THE STATION MODIFICATIONS. PEDESTRIAN ACCESS TO TEMPORARY WESTSIDE PLATFORM IS VIA AT-GRADE PEDESTRIAN CROSSING (SIGNALIZED) AT POTOMAC AVE.

ACCESS FOR PASSENGER LOADING FROM EASTSIDE (SERVING EXISTING TRACK 2) IS FROM THE EXISTING PLATFORM WHICH EXTENDS APPROXIMATELY 400' +/- FROM SOUTH OF THE EXISTING STATION BUILDING TO THE AT-GRADE CROSSING OF POTOMAC AVE.

## **EXISTING CONDITIONS PLAN**



#### **SUGGESTED SEQUENCE OF CONSTRUCTION:**

- 1. MAINTAIN ALL PASSENGER ACCESS TO LOADING PLATFORMS AT EXISTING TRACK 2 AND TRACK 3.
- MAINTAIN A MINIMUM PLATFORM LENGTH OF 250'± ON EASTSIDE PLATFORM.
- 2. CONSTRUCT RETAINING WALL 13 (VRE CONTRACTOR).
- 3. GRADE AND COMPLETE DRAINAGE ITEMS FOR NEW TRACK 3 TO TOP OF SUBGRADE THRU STATION AREA (VRE CONTRACTOR).
- 4. CONSTRUCT CENTER PLATFORM, ELEVATOR/STAIR TOWERS (WEST SIDE, CENTER PLATFORM AND EAST SIDE), BALLAST RETAINER AND PASSENGER BRIDGE OVER TRACKS (VRE CONTRACTOR).
- 5. CONSTRUCT EASTSIDE PLATFORM EXTENSION (TEMPORARY IMPACTS TO PARKING) (VRE CONTRACTOR).
- 6. PLACE SUB-BALLAST LAYER FOR NEW TRACK 3 (VRE CONTRACTOR).
- 7. CONSTRUCT NEW TRACK 3 FROM WITHIN 10' +/- OF EXISTING TRACK 3 CENTERLINE (SOUTH) TO TIE-IN WITH NEW TRACK 3 CROSSING QUANTICO CREEK BRIDGE (NORTH) (CSXT).
- 8. COMPLETE RELOCATION/INSTALLATION OF SIGNALS AT POTOMAC AVE. (CSXT).
- 9. INSTALL NEW AT-GRADE CROSSING FOR TRACK 3 ACROSS POTOMAC AVE. (CSXT)
- 10. WHEN CENTER PLATFORM, ELEVATORS/STAIRS AND PASSENGER BRIDGES ARE OPEN TO PASSENGERS (VRE), CUT AND THROW EXISTING TRACK 3 TO NEW TRACK 3 (SOUTH AND NORTH). EXISTING TRACK 2 AND NEW TRACK 3 WILL THEN BE IN SERVICE AND WILL SERVE PASSENGERS FROM EITHER TRACK. (CSXT)

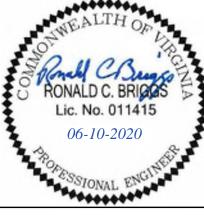
## PHASE I

INVITATION FOR BID NOT FOR CONSTRUCTION

9 OF 202

 LEGEND
EXISTING TRACKS PROPOSED CONST. (BY CSXT) PROPOSED CONST. (BY CONTRACTOR) EXISTING TRACKS TO BE REMOVED
 CSXT R/W

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APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION	DESIGNED BY:
	0	06/10/20			INVITATION FOR BID	KRJ
						DRAWN BY:
						KRJ
APPROVED BY COUNTY						CHECKED BY:
						RCB
						DATE:
						06/10/2020

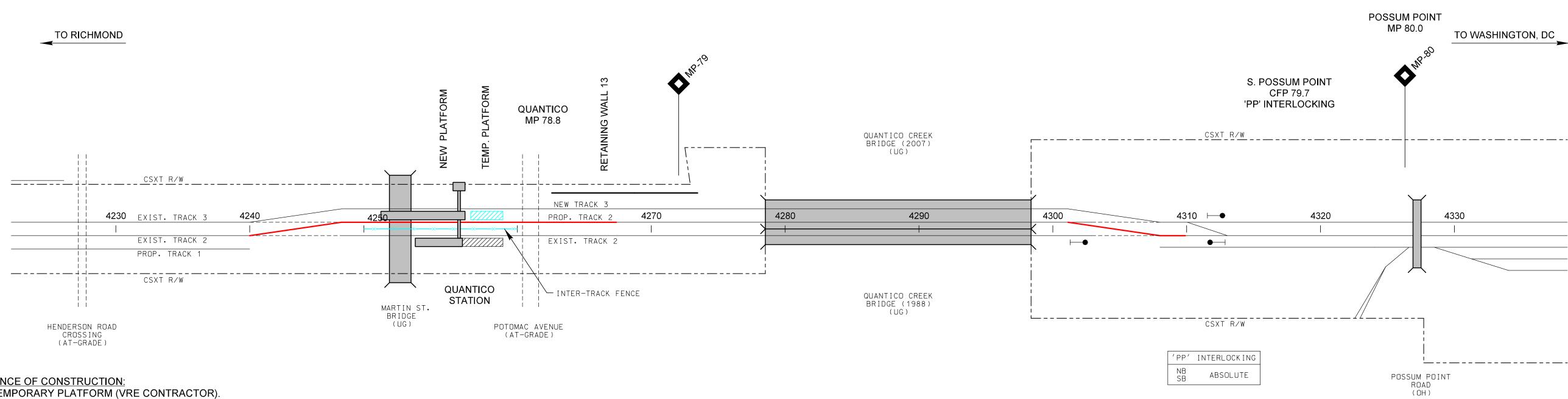




STV 100 lears
STV Incorporated
2701 Prosperity Avenue, Suite 305 Fairfax, Virginia 22031

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QUANTICO STATION	IFB-020-019
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	G-008
SUGGESTED	SCALE:
	AS SHOWN
SEQUENCE OF CONSTRUCTION	SHEET NO:

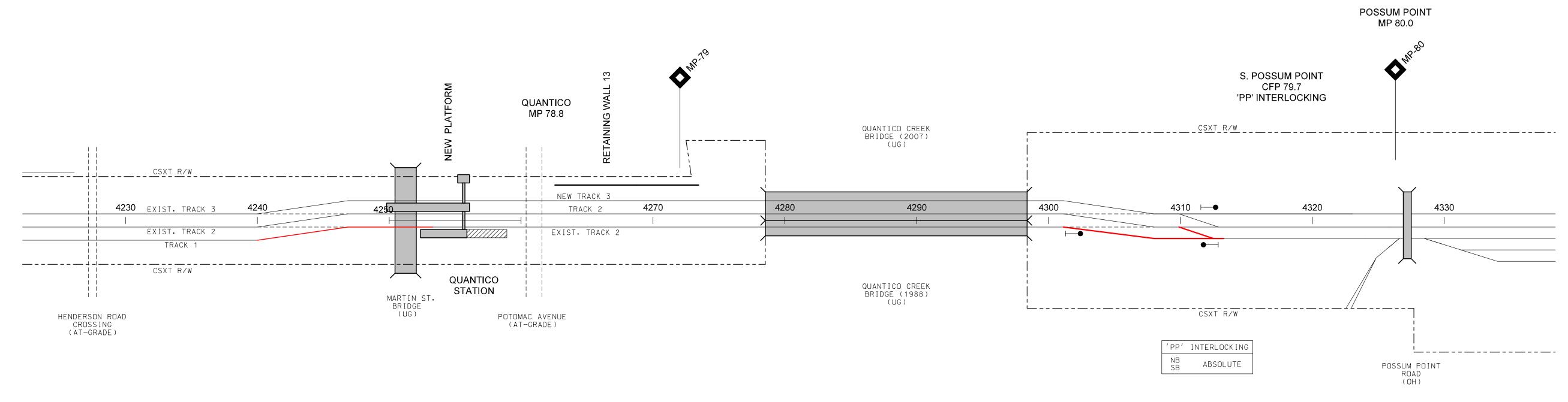
(SHEET 1 OF 2)



#### **SUGGESTED SEQUENCE OF CONSTRUCTION:**

- 1. REMOVE THE TEMPORARY PLATFORM (VRE CONTRACTOR).
- 2. REMOVE EXISTING TRACK 3 WITHIN LIMITS OF THE PLATFORM/STATION (VRE CONTRACTOR).
- 3. CONSTRUCT PROPOSED TRACK 2 THRU THE STATION ON CONCRETE TIES (CSXT).
- 4. INSTALL NEW AT-GRADE CROSSING FOR PROPOSED TRACK 2 ACROSS POTOMAC AVE. (CSXT).
- 5. TIE PROPOSED TRACK 2 TO EXISTING TRACK 3 NORTH OF POTOMAC AVE (CSXT).
- 6. INSTALL INTER-TRACK FENCE (VRE CONTRACTOR)
- 7. CUT AND THROW EXISTING TRACK 2 TO NEW TRACK 2 (SOUTH AND NORTH). NEW TRACK 2 AND NEW TRACK 3 WILL THEN BE IN SERVICE AND WILL SERVE PASSENGERS FROM THE CENTER PLATFORM. (CSXT).

# PHASE II



### SUGGESTED SEQUENCE OF CONSTRUCTION:

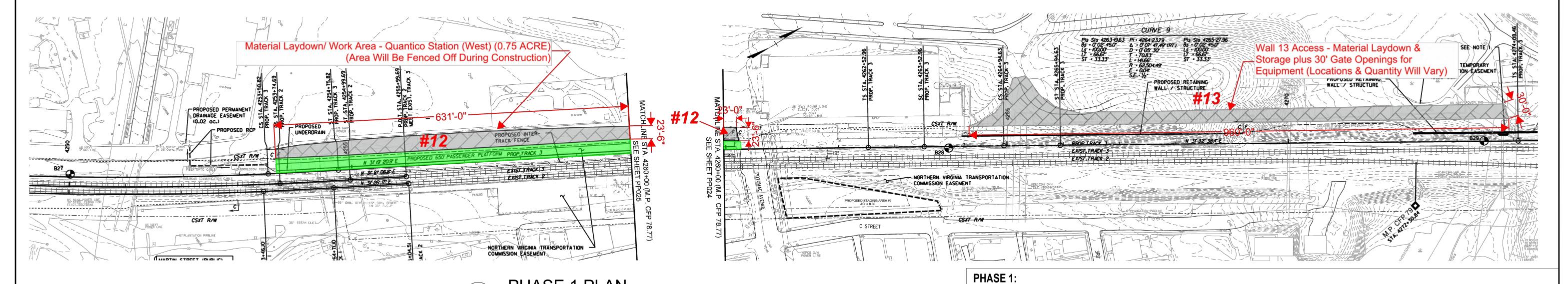
- 1. REMOVE A PORTION OF EXISTING EASTSIDE PLATFORM FROM STATION BUILDING NORTH TO POTOMAC AVE. (VRE CONTRACTOR).
- 2. COMPLETE GRADING OF PARK AREA SOUTH EAST QUADRANT OF POTOMAC AVE. CROSSING (VRE CONTRACTOR).
- 3. CUT AND THROW EXISTING TRACK 2 TO NEW TRACK 1 (SOUTH AND NORTH). THIS WILL ALLOW PASSENGER SERVICE FROM ALL THREE TRACKS VIA EASTSIDE PLATFORM OR CENTER PLATFORM (CSXT).

PHASE III

INVITATION FOR BID NOT FOR CONSTRUCTION

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					DRAWN BY:	30 1100 °C		OI V	QUANTICO STATION	DRAWING NO:
——— EXISTING TRACKS ———— PROPOSED CONST. (BY CSXT)					KRJ	RONALD C. BRIGOS	WDE N	Section 1		G-009
PROPOSED CONST. (BY CONTRACTOR)	APPROVED BY COUNTY				CHECKED BY:	Lic. No. 011415	VKE	STV Incorporated	SUGGESTED	SCALE:
EXISTING TRACKS TO BE REMOVED					RCB	06-10-2020		1	SEQUENCE OF CONSTRUCTION	AS SHOWN
CSXT R/W					DATE:	POLICE ONCHARD		2701 Prosperity Avenue, Suite 305 Fairfax, Virginia 22031		SHEET NO:
					06/10/2020	SJONAL EN	<b>V</b>		(SHEET 2 OF 2)	10 OF 202





CSX/MCBQ LICENSE FOR NONFEDERAL USE OF DEPARTMENT OF THE NAVY REAL PROPERTY

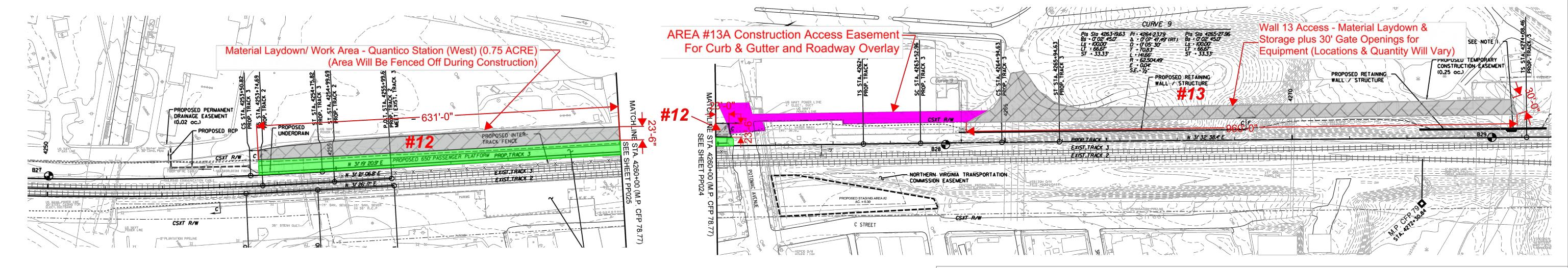
FILE NO. LIC-0-11147; LICENSE NO. N40080-16-RP-00014

TERM: THROUGH DECEMBER 31, 2020

#### DESCRIPTION:

ROAD ACCESS, MATERIAL STORAGE, MATERIAL LAYDOWN AREA, TEMPORARY PARKING FOR THE ARKENDALE 3RD TRACK PROJECT ALONG CSX RAIL LINES

THE CONTRACTOR IS LIMITED TO USE OF THE AREAS OF MCBQ PROPERTY AS SHOWN ABOVE UNTIL THE PHASE 2 LICENSE IS EXECUTED. A TIME-OF- YEAR RESTRICTION FOR WORK ACTIVITIES WITHIN 660' OF EAGLE'S NEST (SEE PP-025 FOR LOCATION) WILL BE IN EFFECT FROM DECEMBER 15 THROUGH JULY 15.



# PHASE 2 PLAN

#### PHASE 2:

CSX/MCBQ LICENSE FOR NONFEDERAL USE OF DEPARTMENT OF THE NAVY REAL PROPERTY

FILE NO. LIC-0-11178; LICENSE NO. N40080-16-RP-00043

TERM: LICENSE IS ANTICIPATED ON OR BEFORE JANUARY 1, 2021

#### DESCRIPTION:

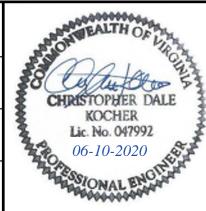
ROAD ACCESS, MATERIAL STORAGE, MATERIAL LAYDOWN AREA, TEMPORARY PARKING FOR THE CONSTRUCTION OF RETAINING WALL 13, STATION CONSTRUCTION, ROAD AND DRAINAGE WORK, INCLUDING PAVING, CURB MODIFICATION AND IMPROVEMENTS TO POTOMAC AVENUE CROSSING SURFACE AND APPROACHES.

THE CONTRACTOR IS LIMITED TO USE OF THE AREAS OF MCBQ PROPERTY AS SHOWN ABOVE. A TIME-OF- YEAR RESTRICTION FOR WORK ACTIVITIES WITHIN 660' OF EAGLE'S NEST (SEE PP-025 FOR LOCATION) WILL BE IN EFFECT FROM DECEMBER 15 THROUGH JULY 15.

> INVITATION FOR BID NOT FOR CONSTRUCTION

LICENSEE: CSX REAL PROPERTY RAY E. BIRKHOLZ 6737 SOUTHPOINT DRIVE SOUTH, BLDG. J-915 JACKSONVILLE, FL 32216 (904) 279-3816 RAY BIRKHOLZ@CSX.COM

		•					
	APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION	DESIGNED BY:
		0	06/10/20			INVITATION FOR BID	CDK
							DRAWN BY:
							CDK
	APPROVED BY COUNTY						CHECKED BY:
							RCB
							DATE:
J							06/10/2020







**QUANTICO STATION** 

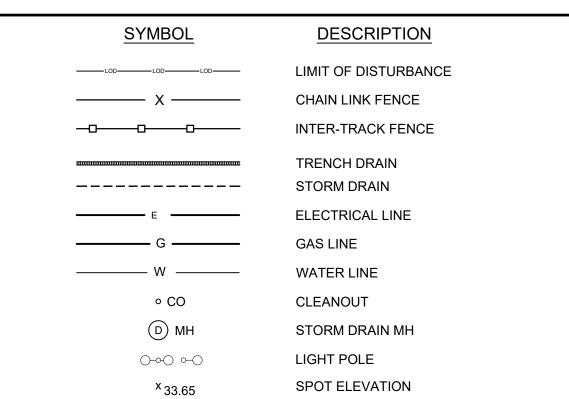
CONSTRUCTION ACCESS PLAN

IFB-020-019	
DRAWING NO: G-010	
SCALE: 1" = 80'	
a	

## **ABBREVIATIONS**

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS AC. APPROX. APPROXIMATE ASSOC. ASSOCIATION BC BACK OF CURB BLDG. BUILDING BP BASE POINT, BOLLARD POST C&G CD **CURB AND GUTTER** CHECK DAM CE CIP CIR. CLF CONSTRUCTION ENTRANCE **CULVERT INLET PROTECTION** CIRCLE CHAIN LINK FENCE CMP CORRUGATED METAL PIPE CONC. CONCRETE CONST. CONSTRUCTION D.B. DATUR DEED BOOK DATA ACCORDING TO UTILITY RECORDS DD DIVERSION DIKE DI DROP INLET DR. DRIVE DRN. ELEC. ELECTRIC, ELECTRICAL ELEV. ELEVATION EM **ELECTRIC METER** EMPA EOI EXCESS MATERIAL PLACEMENT AREA END OF INFORMATION EDGE OF PAVEMENT EP ESMT. EASEMENT EX. **EXISTING** FC FACE OF CURB FO FIBER OPTIC GH GROUND HYDRANT GM **GAS METER** GAS MARKER POST (GAS WITNESS POST) GAS PIPE TEST STATION НН HAND HOLE HTP HAZARD TACTILE PAVING HWY HIGHWAY IPF IRON PIPE FOUND IPS IRON PIPE SET ID, I.D. IDENTITY IN PL. IN PLACE INVERT INLET PROTECTION LOC. LOCATION LOD LP LIMITS OF DISTURBANCE LIGHT POST MH MANHOLE M&M MEET AND MATCH MTD. MOUNTED N/F NOW/FUTURE O/E OVERHEAD ELECTRIC LINE OP OUTLET PROTECTION OVHD. OVERHEAD PED. PEDESTAL PG. PAGE PKWY PARKWAY PROP. PROPOSED PT. POINT PTD. PAINTED PVC POLYVINYL CHLORIDE R/W, R.O.W. RIGHT OF WAY RCP REINFORCED CONCRETE PIPE RD. ROAD RAILROAD RIGHT OF WAY DIVERSION RWD SAFETY FENCE SAN. SANITARY SB SPLICE BOX SBL SCH., SCHED. SURVEY BASE LINE SCHEDULE STORM DRAIN SEWER SILT FENCE ST. STREET STM. TC TP STORM TOP OF CURB, TIME OF CONCENTRATION, TRASH CAN TOP OF PLATFORM TELE. TELEPHONE TEMP. TEMPORARY TRANS. TRANSFORMER

# PROPOSED LEGEND



# **EXISTING LEGEND**

**SYMBOL** DESCRIPTION BUILDING, ROOF LINE, PORCH CONNECTED PROPERTY SYMBOL **BOLLARD POSTS, POSTS** COUNTY BOUNDARY \_\_\_\_ EDGE OF PAVEMENT **FENCE GAS TEST** — - - — G — - - — **GAS LINE** GAS MARKER ---- SAN ----**GRAVITY SEWER GUY WIRE** LIGHT POLE \* Solid White Line PAVEMENT STRIPING / MARKING POWER POLE -0-PROPERTY LINE Existing R/W RIGHT OF WAY LINE SANITARY MANHOLE SIGNS \_\_\_\_ STEPS STORM MANHOLE, DROP INLET SURVEY BASELINE N90°00'00"W  $\triangle$ TRAVERSE POINT TREE, SHRUB \_\_\_\_ FO \_\_\_\_ UNDERGROUND FIBER OPTIC UNDERGROUND POWER CABLE \_\_\_\_\_ E \_\_\_\_ UNKNOWN MANHOLE, UTILITY LINE EXISTING SPOT ELEVATION \_\_\_\_\_100\_\_\_\_ EXISTING CONTOUR

> **INVITATION FOR BID** NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION	DESIGNED BY:
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						ND
APPROVED BY COUNTY						CHECKED BY:
						CK
						DATE:
						06/10/2020
				·		

TRAVERSE

UNKNOWN UTILITY POLE

VIRGINIA DEPARTMENT OF TRANSPORTATION

VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK

UNK. UP

VDOT

VESCH XING.







**QUANTICO STATION** 

CIVIL SYMBOLS AND **ABBREVIATIONS** 

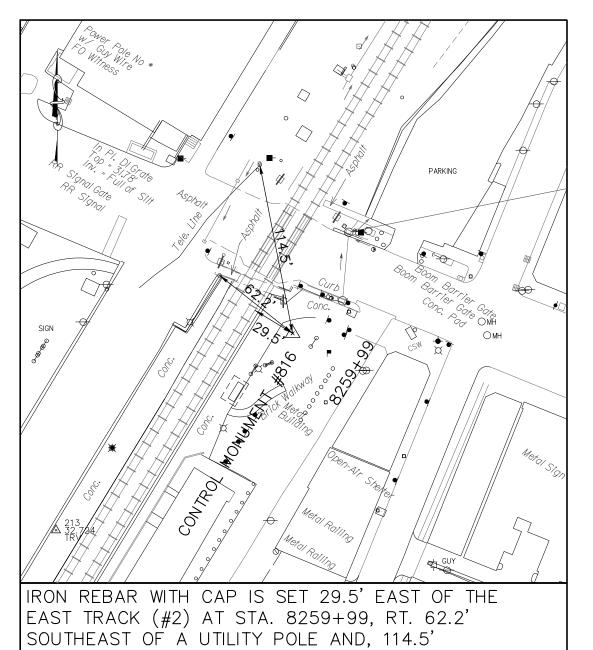
IFB-020-019
DRAWING NO:
C-001
SCALE:
NOT TO SCALE
SHEET NO:

CONTROL MONUMENT #816 IRON REBAR AND CAP ESTABLISHED BY: BOWMAN CONSULTING GROUP JUNE 2014

VERTICAL DATUM BASED ON NAVD88 ELEVATION = 32.31'HORIZONTAL DATUM BASED ON VIRGINIA STATE PLANE NORTH ZONE NAD83 (2011)

PROJECT COORDINATES N: 6875451.30 FT. E: 11828279.56 FT.

BEARING TO CONTROL MONUMENT #817 IS N 72°53'32" W A DISTANCE OF 286.19'



SOUTHEAST OF A F.O. WITNESS POST. CONTROL POINT

LIES APPROXIMATELY 55' SOUTH OF POTOMAC AVENUE

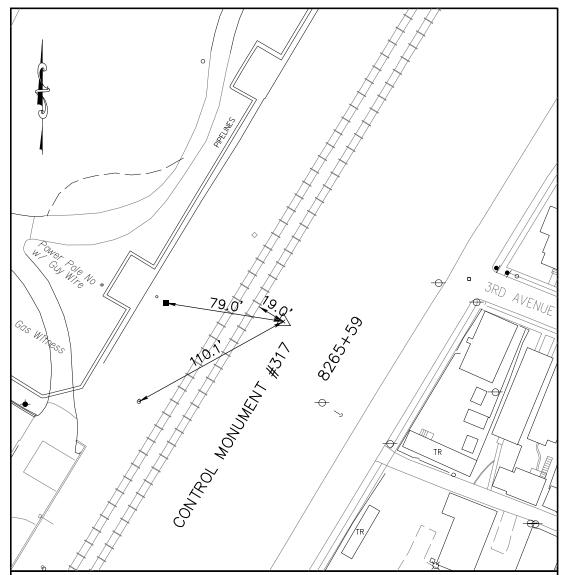
AND IS SET FLUSH WITH THE GROUND.

CONTROL MONUMENT #317 IRON REBAR AND CAP ESTABLISHED BY: BOWMAN CONSULTING GROUP JUNE 2014

VERTICAL DATUM BASED ON NAVD88 ELEVATION = 27.28HORIZONTAL DATUM BASED ON VIRGINIA STATE PLANE NORTH ZONE NAD83 (2011)

PROJECT COORDINATES N: 6875935.21 FT. E: 11828561.30 FT.

BEARING TO CONTROL MONUMENT #321 IS N 29°26'38" E A DISTANCE OF 1381.17'



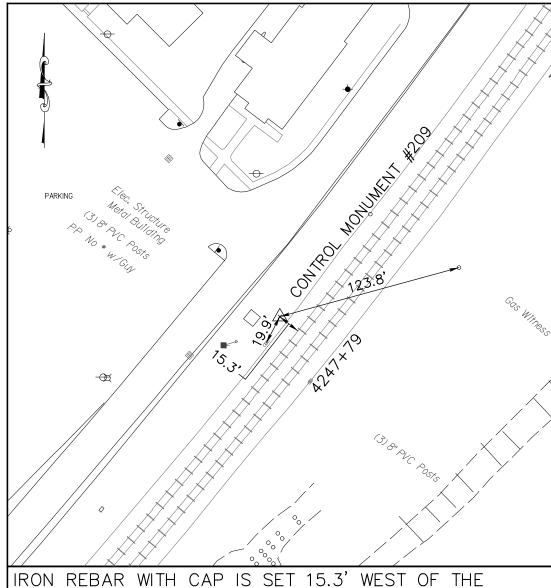
IRON REBAR WITH CAP IS SET 19.0' EAST OF THE EAST TRACK (#2) AT STA. 8265+59, RT. 110.1' NORTHEAST OF A GAS WITNESS POST AND, 79.0' EAST OF A POWER POLE w/ GUY WIRE. CONTROL POINT LIES APPROXIMATELY 73.5' SOUTH OF 3RD AVENUE AND IS SET FLUSH WITH THE GROUND.

CONTROL MONUMENT #209 IRON REBAR AND CAP ESTABLISHED BY: BOWMAN CONSULTING GROUP JUNE 2014

VERTICAL DATUM BASED ON NAVD88 ELEVATION = 28.66" HORIZONTAL DATUM BASED ON VIRGINIA STATE PLANE NORTH ZONE NAD83 (2011)

PROJECT COORDINATES N: 6874464.05 FT. E: 11827552.90 FT.

BEARING TO CONTROL MONUMENT #816 IS N 36°21'16" E A DISTANCE OF 1225.85'



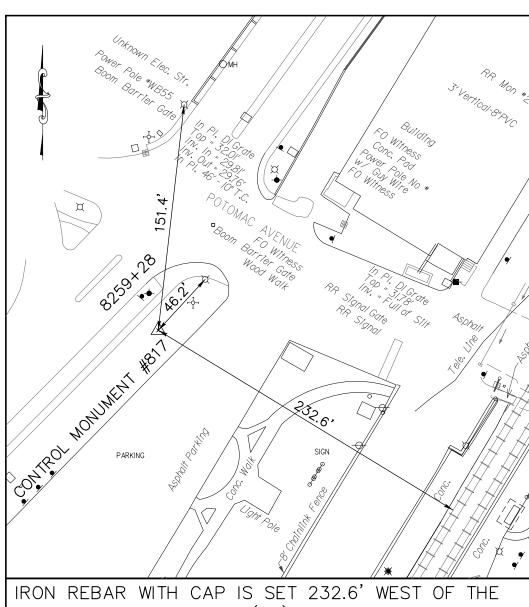
WESTWARD MOST TRACK (#2) AT STA. 4247+79, LT. 19.9' NORTHEAST OF A 8" PVC POST AND, 123.8' SOUTHWEST OF A GAS WITNESS POST. CONTROL POINT LIES APPROXIMATELY 330' SOUTH OF MARTIN STREET AND IS SET FLUSH WITH THE GROUND.

CONTROL MONUMENT #817 IRON REBAR AND CAP ESTABLISHED BY: BOWMAN CONSULTING GROUP JUNE 2014

VERTICAL DATUM BASED ON NAVD88 ELEVATION = 39.12HORIZONTAL DATUM BASED ON VIRGINIA STATE PLANE NORTH ZONE NAD83 (2011)

PROJECT COORDINATES N: 6875535.49 FT. E: 11828006.03 FT.

BEARING TO CONTROL MONUMENT #317 IS N 54°15'06" E A DISTANCE OF 684.19'



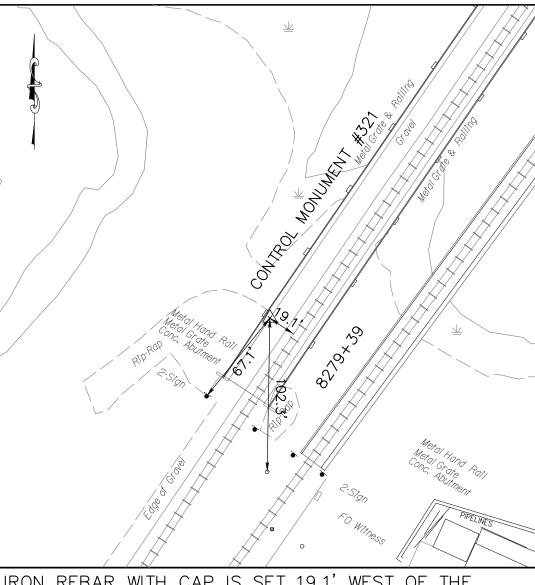
WESTWARD MOST TRACK (#2) AT STA. 8259+28, LT. 46.2' SOUTHWEST OF A UTILITY POLE AND, 151.4' SOUTH OF A POWER POLE #WB55. CONTROL POINT LIES APPROXIMATELY 80' SOUTH OF POTOMAC AVENUE AND IS SET FLUSH WITH THE GROUND

CONTROL MONUMENT #321 IRON REBAR AND CAP ESTABLISHED BY: BOWMAN CONSULTING GROUP JUNE 2014

VERTICAL DATUM BASED ON NAVD88 ELEVATION = 23.92'HORIZONTAL DATUM BASED ON VIRGINIA STATE PLANE NORTH ZONE NAD83 (2011)

PROJECT COORDINATES N: 6877137.98 FT. E: 11829240.25 FT.

BEARING TO CONTROL MONUMENT #818 IS N 29°52'57" E A DISTANCE OF 2878.02'

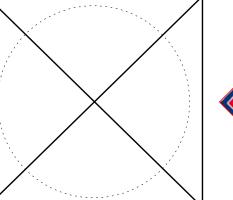


IRON REBAR WITH CAP IS SET 19.1' WEST OF THE WESTWARD MOST TRACK (#2) AT STA. 8279+39, LT. 67.1' NORTHEAST OF A UNKNOWN SIGN AND, 102.3' NORTHWEST OF A F.O. WITNESS POST. CONTROL POINT LIES APPROXIMATELY 1307' NORTH OF 3RD AVENUE AND IS SET FLUSH WITH THE GROUND.

THESE DRAWINGS ARE TO BE USED TO LOCATE THE MONUMENTS AND NOT TO RE-ESTABLISH THEM.

INVITATION FOR BID NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION	DESIGNED BY:	
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APPROVED BY COUNTY						CHECKED BY:	
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						DATE:	
						06/10/2020	







2701 Prosperity Avenue, Suite 305

Fairfax, Virginia 22031

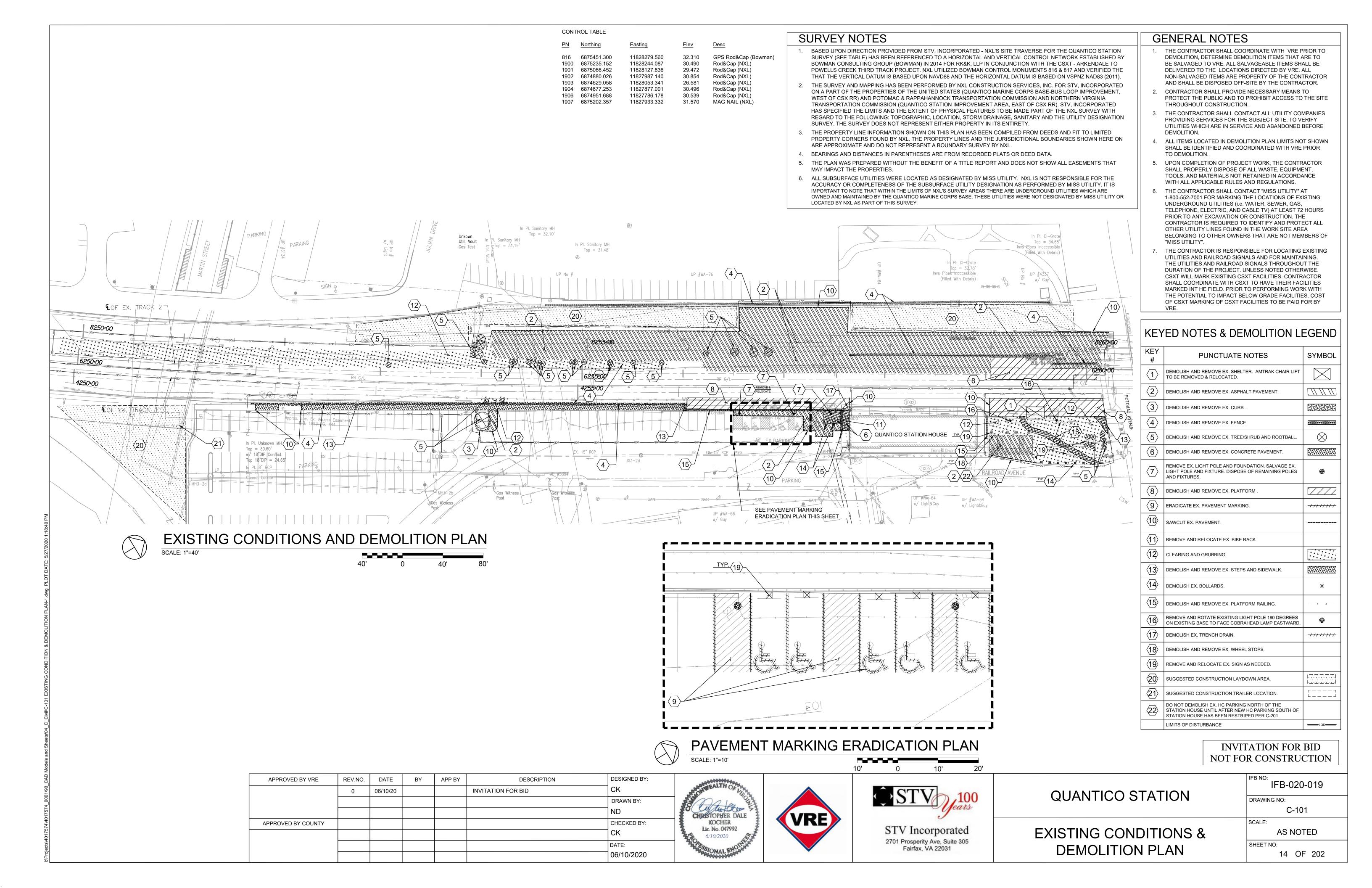
IFB NO: IFB-020-019 **QUANTICO STATION** DRAWING NO:

SCALE: SURVEY DATA MONUMENTS #209, #816, #817, #317, #321 SHEET NO:

13 OF 202

C-002

AS SHOWN



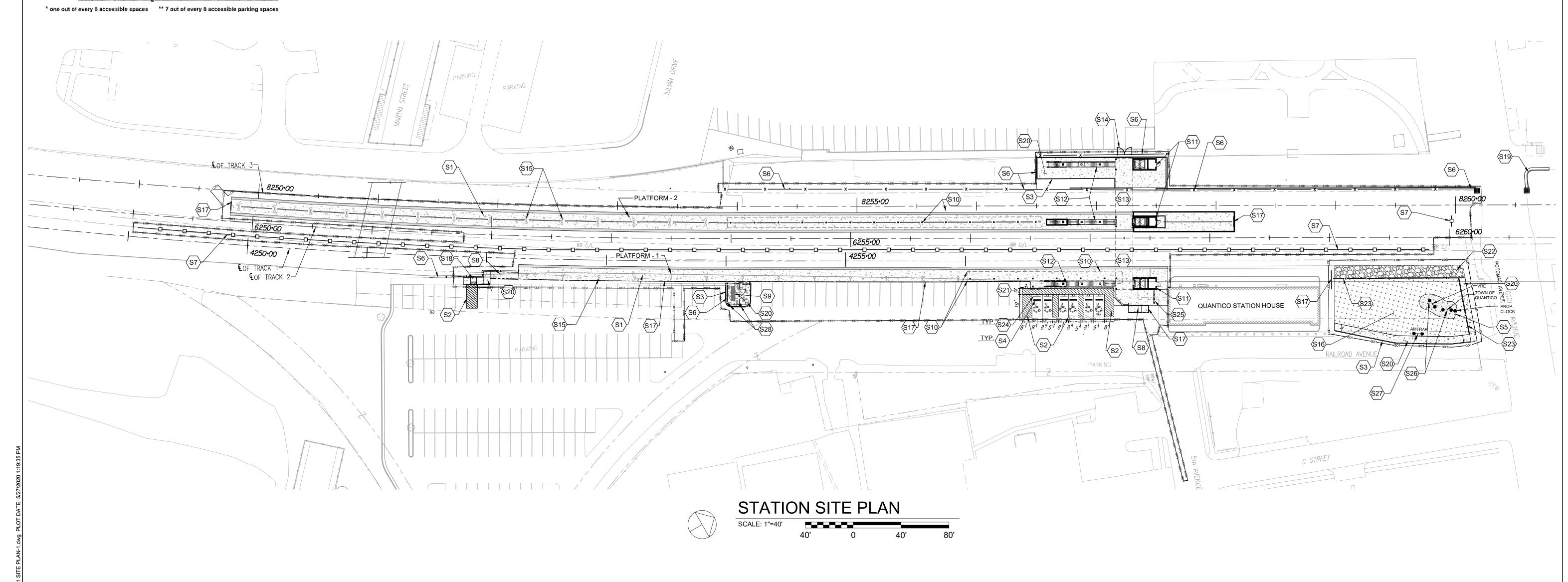
#### Minimum Number of Accessible Parking Spaces ADA Standards for Accessible Design 4.1.2 (5) Total Number Total Minimum Van Accessible Accessible Parking Spaces with min. 96" of Parking Number of Parking Accessible Spaces with spaces Provided min. 60" wide Parking Spaces wide access access alsle (60" & 96" aisles) (per lot) Column A 26 to 50 51 to 75 76 to 100 > 151 to 200 301 to 400 401 to 500 501 to 1000 2% of total 1/8 of Column A\* 7/8 of Column A\*\* parking provided in each lot 1001 and over 20 plus 1 for 1/8 of Column A\* 7/8 of Column A\*\* each 100 over 1000

KEYED NOTES & SITE LEGEND							
KEY #	KEYNOTE	SYMBOL					
⟨S1⟩	PROPOSED CONCRETE PLATFORMS AND PAVEMENT.						
S2	PROVIDE 4" PAVEMENT MARKING.						
<b>S</b> 3	PROVIDE VDOT STD. CG-2 6" CONCRETE CURB.						
<b>S4</b>	PROVIDE CONCRETE WHEEL STOP.	_					
<b>S5</b>	PROPOSED MULCH BED.	**************************************					
<b>S6</b>	PROPOSED CHAIN LINK FENCE.	x					
<b>S7</b>	PROPOSED INTER TRACK FENCE.						
\(\s8\)	PROVIDE ADA RAMP WITH RAILINGS. SEE SHEET A-412 FOR RAILING DETAILS.						

	KEYED NOTES & SITE LEGE	ND
KEY #	KEYNOTE	SYMBOL
<b>S9</b>	PROPOSED EMERGENCY GAS GENERATOR. SEE ELECTRICAL PLANS FOR DETAILS.	
\$10	PROPOSED CANOPIES AND COLUMNS OVER THE PLATFORM. SEE ARCHITECTURAL AND STRUCTURAL PLANS.	
\$11	PROPOSED ELEVATOR TOWERS. SEE ARCHITECTURAL AND STRUCTURE PLANS.	
\$12	PROPOSED TOWER STAIRS. SEE ARCHITECTURAL PLANS.	
\$13	PROPOSED PEDESTRIAN BRIDGE. SEE ARCHITECTURAL AND STRUCTURAL PLANS.	
\$14	PROVIDE 12 FOOT WIDE CHAIN LINK DOUBLE SWING GATE.	×
<b>(</b> \$15)	PROVIDE ELECTRICAL LIGHT POLES. SEE ELECTRICAL PLANS FOR DETAILS.	<i>∞</i> ~ ~
\$16	PROPOSED TURF RESTORATION AREA.	k k k k
\$17	PROPOSED PLATFORM RAILING. SEE SHEET A-412 FOR RAILING DETAILS.	

KEYED NOTES & SITE LEGEND							
KEY #	KEYNOTE	SYMBOL					
\$18	PROVIDE VDOTCG-12 TYPE B CURB RAMP.	2 SASAS 1					
<b>(</b> \$19 <b>)</b>	VDOT STD. CG-6 CURB AND GUTTER.						
\$20	PROVIDE CONCRETE SIDEWALK.	. р. ти					
\$21	RELOCATION POINT OF EX. SINGLE COBRA-HEAD PARKING LOT LIGHT POLE TO BE REUSED.	Ô					
\$22	PROPOSED 12 INCH LAYER OF RIPRAP - CLASS A1 FOR PEDESTRIAN DETERRENT.						
\$23	PROVIDE 4 FOOT HEIGHT ORNAMENTAL METAL FENCE ALONG POTOMAC AVE.	x					
<b>\$24</b>	PROVIDE HANDICAP PARKING SIGN.						
S25	RELOCATED BIKE RACK LOCATION.	0 0 0 0					

KEYED NOTES & SITE LEGEND									
KEY #	KEYNOTE								
\$26	RELOCATED STATION AND TOWN OF QUANTICO SIGNS. CONTRACTOR TO ELEVATE MOUNTING HEIGHT BY 4-FEET TO BE VISIBLE OVER ORNAMENTAL FENCE.	•••							
\$27	CONTRACTOR SHALL RELOCATE AND INSTALL AMTRAK A11 SIGN PER AMTRAK ENGINEERING STATION STANDARD DESIGN PRACTICES (SDP)- EP4000 APPENDIX G. CONTRACTOR SHALL SUBMIT ENGINEERED SIGNED/SEALED DRAWINGS FOR REVIEW AND APPROVAL OF A11 STATION SIGN FOOTINGS.	•••							
\$28	PROPOSED BOLLARD. SEE DETAIL 7 SHEET C-602.	•							
	PROPOSED CLEANOUT.	•CO							
	PROPOSED STORM DRAIN MANHOLE.	ФМН							
	LIMITS OF DISTURBANCE	LOD							



INVITATION FOR BID NOT FOR CONSTRUCTION

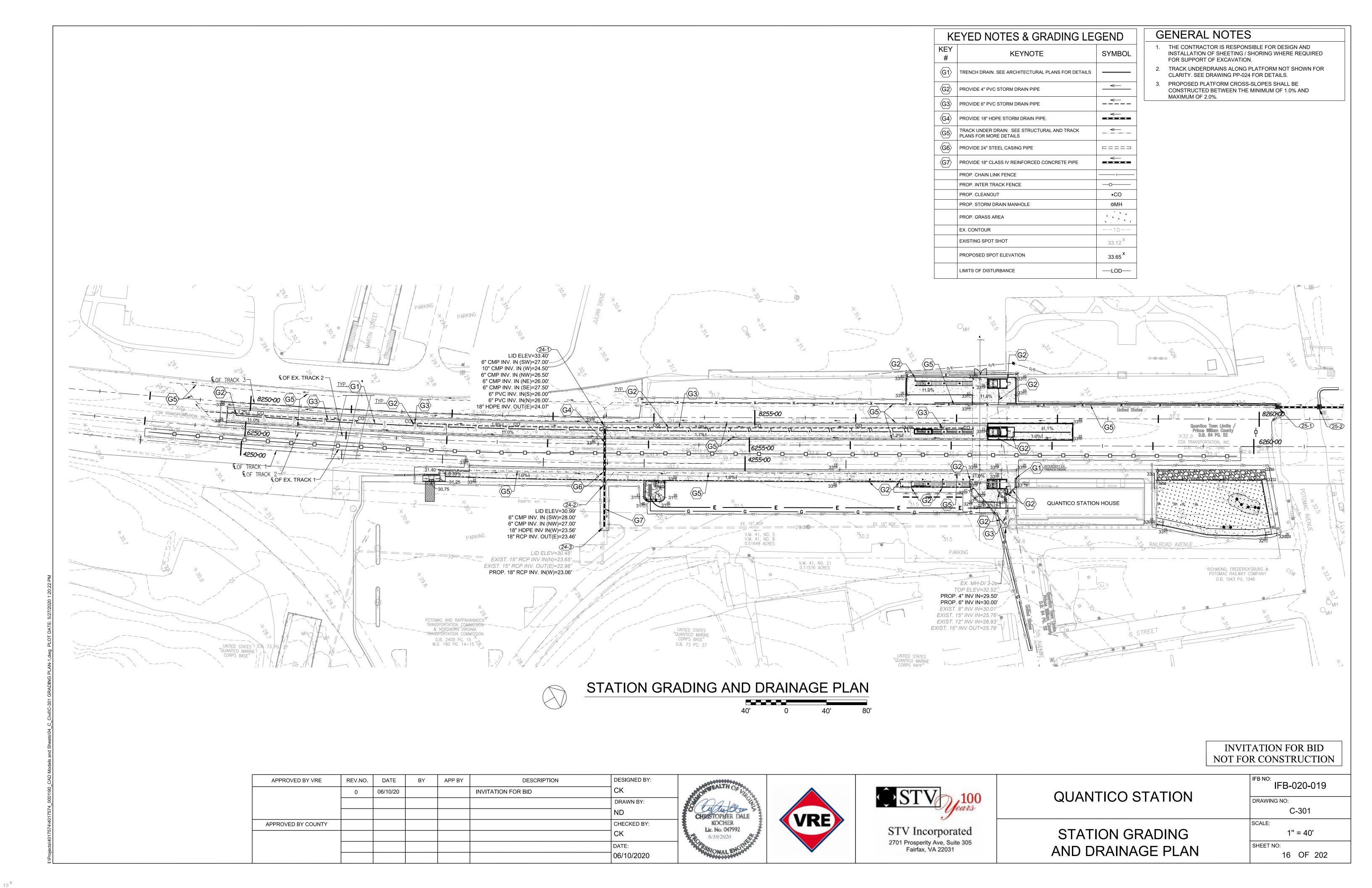
APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION	DESIGNED BY:
	0	06/10/20			INVITATION FOR BID	CK
						DRAWN BY:
						ND
APPROVED BY COUNTY						CHECKED BY:
						CK
						DATE:
						06/10/2020

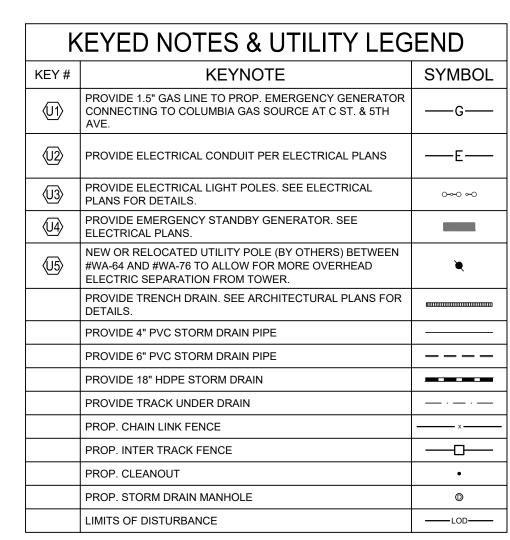


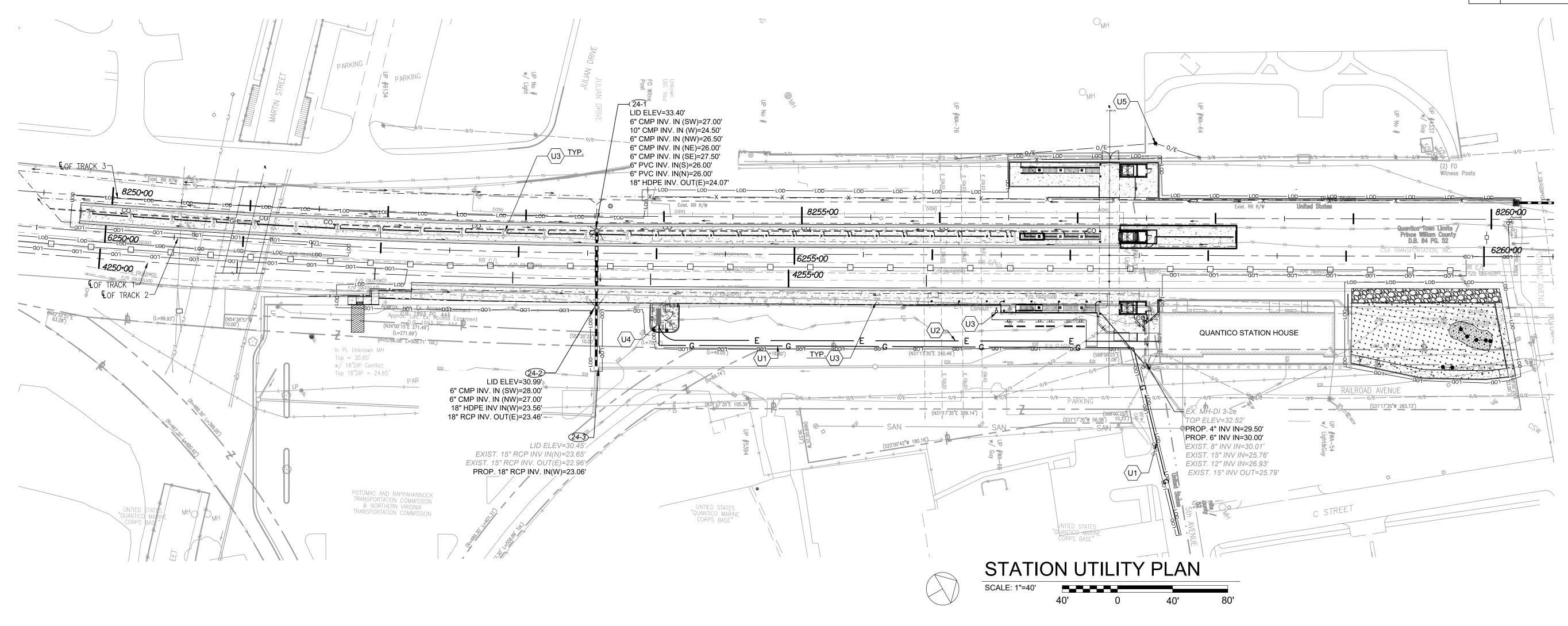




	IFB-020-019
QUANTICO STATION	DRAWING NO:
	C-201
	SCALE:
STATION SITE PLAN	1" = 40'
	SHEET NO:
	15 OF 202







INVITATION FOR BID NOT FOR CONSTRUCTION

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APPROVED BY COUNTY						CHECKED BY:	-
						СК	
						DATE:	
						06/10/2020	



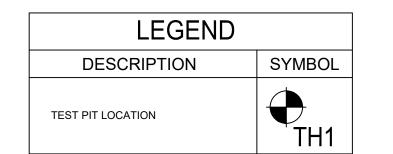




**QUANTICO STATION** 

STATION UTILITY PLAN

1 1 0	R CONSTRUCTION					
	IFB-020-019					
	DRAWING NO:					
	C-501					
	SCALE:					
	1" = 40'					
	SHEET NO:					



DRAWING NO:

SCALE:

SHEET NO:

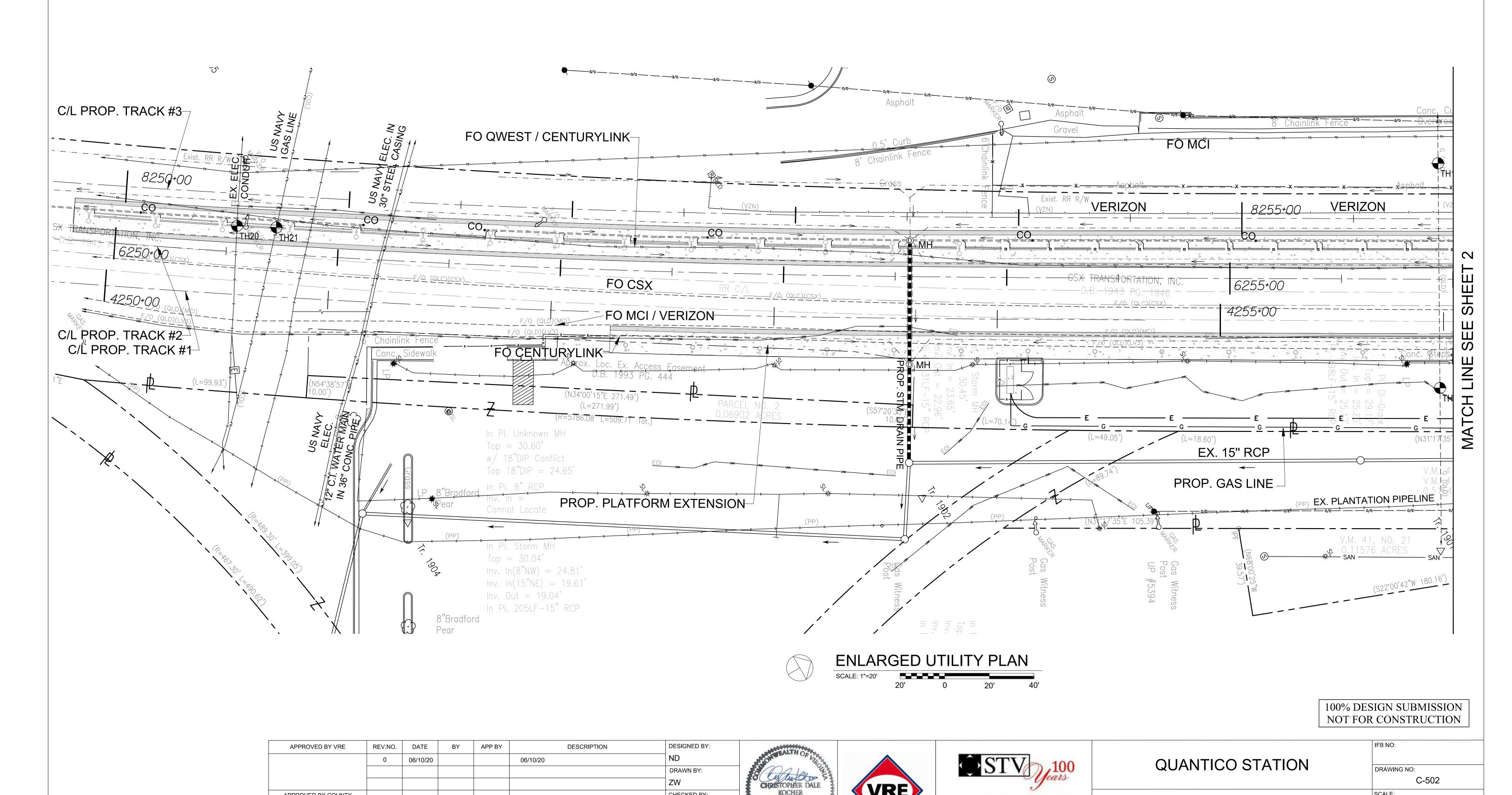
ENLARGED UTILITY PLAN

(SHEET 1 OF 2)

C-502

1" = 20'

18 OF 202



DRAWN BY:

CHECKED BY:

06/10/2020

APPROVED BY COUNTY

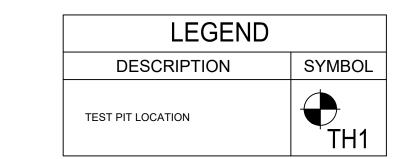
CHRISTOPHER DALE KOCHER Lic. No. 047992

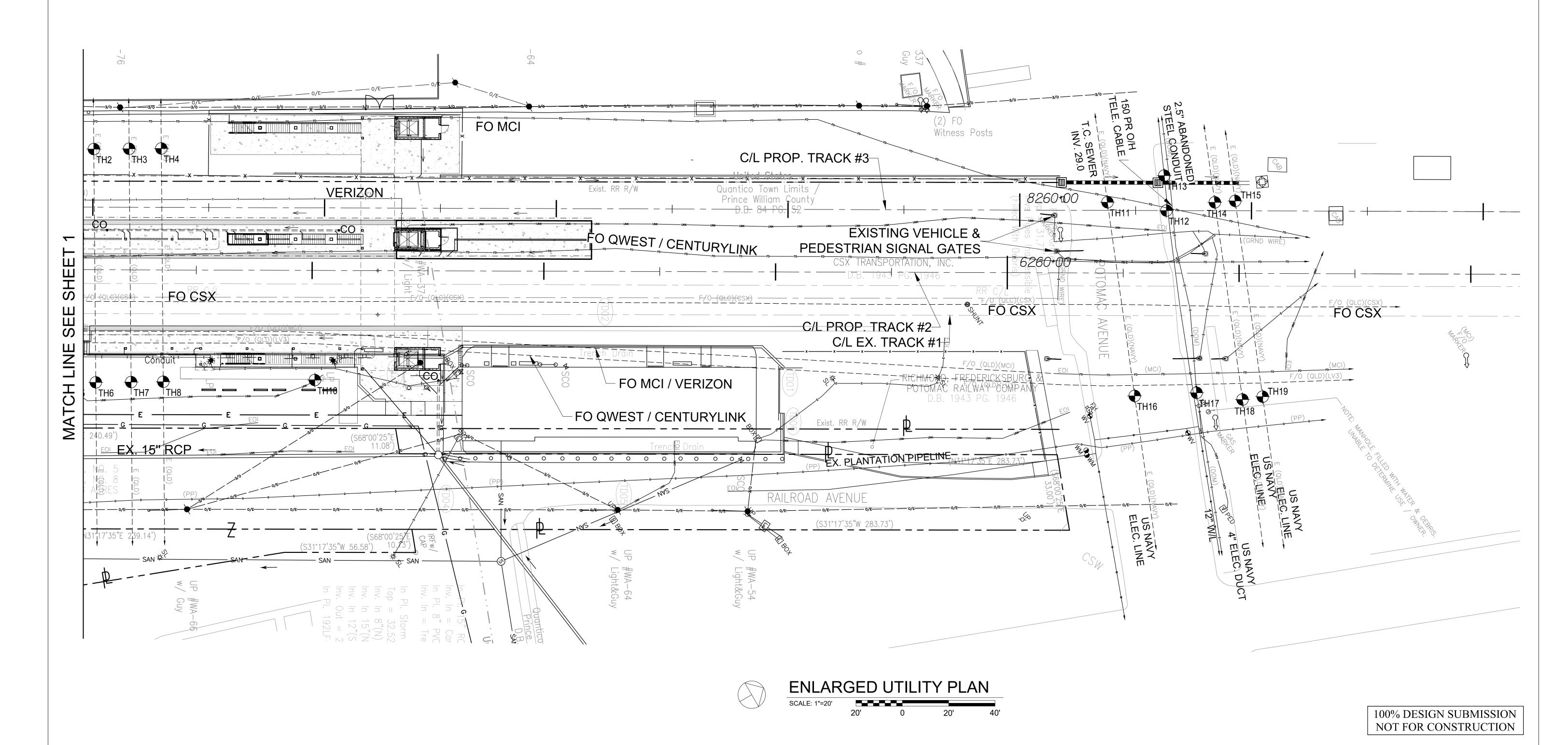
6/10/2020

(VRE)

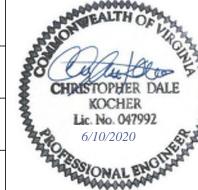
STV Incorporated

2701 Prosperity Ave, Suite 305 Fairfax, VA 22031





APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION	DESIGNED BY:	
	0	06/10/20			INVITATION FOR BID	ND	
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APPROVED BY COUNTY						CHECKED BY:	
						RCB	
						DATE:	
						06/10/2020	







# QUANTICO STATION

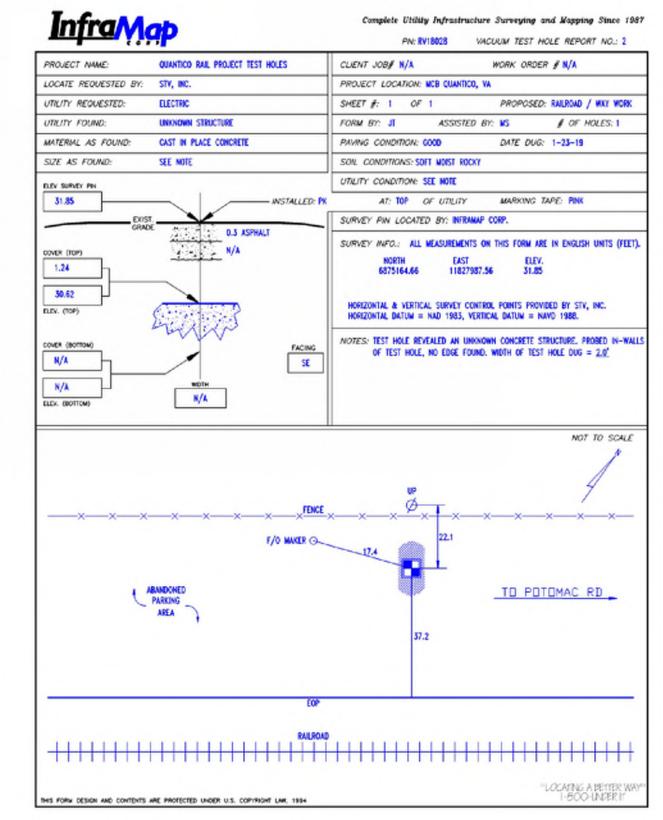
ENLARGED UTILITY PLAN (SHEET 2 OF 2)

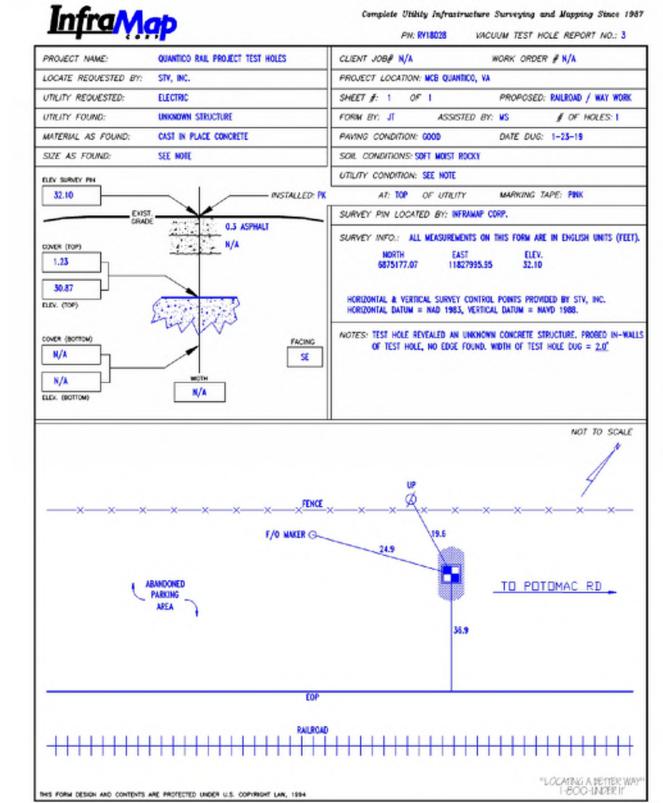
IFB NO:
DRAWING NO:
C-503
SCALE:
1" = 20'
SHEET NO:
19 OF 202



Page 1 of 1

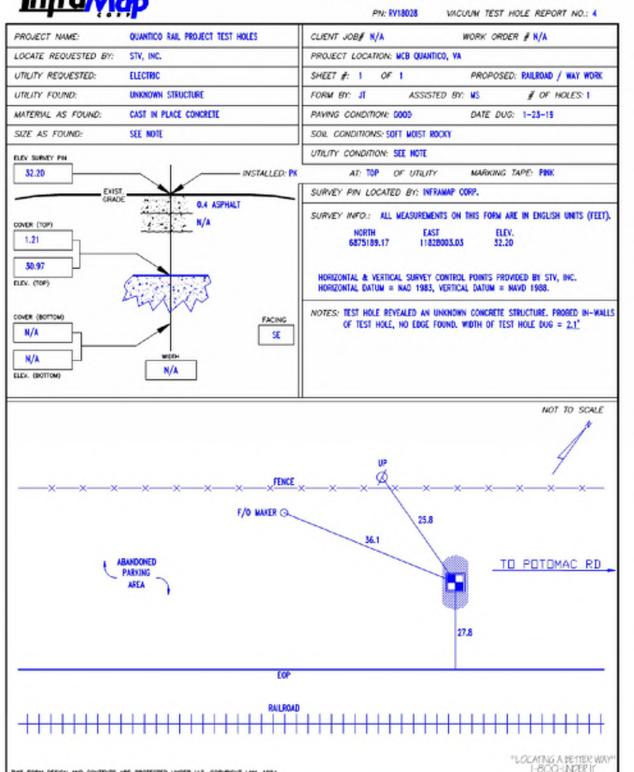
#### Complete Utility Infrastructure Surveying and Mapping Since 1987 PN: RY18028 VACUUM TEST HOLE REPORT NO.: 1 QUANTICO RAIL PROJECT TEST HOLES CLIENT JOB# N/A WORK ORDER # N/A LOCATE REQUESTED BY: STV, INC. PROJECT LOCATION: NCB QUANTICO, VA UTILITY REQUESTED: PROPOSED: RAILROAD / WAY WORK UTILITY FOUND: ASSISTED BY: US # OF HOLES: CAST IN PLACE CONCRETE DATE DUG: 1-23-19 MATERIAL AS FOUND: PAVING CONDITION: 0000 SIZE AS FOUND: SEE NOTE SOIL CONDITIONS: SOFT WOIST ROCK UTILITY CONDITION: SEE NOTE 31.90 AT: 10P OF UTILITY MARKING TAPE: PINK SURVEY PIN LOCATED BY: INFRAMAP CORP. SURVEY INFO.: ALL WEASUREMENTS ON THIS FORM ARE IN ENGLISH UNITS (FEET) EAST ELEV. 11827382.52 31.90 1.18 30.72 HORIZONTAL & VERTICAL SURVEY CONTROL POINTS PROVIDED BY STV, INC. ELEV. (TOP) HORIZONTAL DATUM = NAD 1983, VERTICAL DATUM = NAVO 1988. NOTES: TEST HOLE REVEALED AN UNKNOWN CONCRETE STRUCTURE, PROBED IN-WALLS (MOTTOR) REVOC OF TEST HOLE, NO EDGE FOUND. WOTH OF TEST HOLE DUG = $2.0^{\circ}$ N/A N/A N/A ELEX. (BOTTOM) NOT TO SCALE TO POTOMAC RD





# <u>InfraMap</u>

plete	Utility	Infrastruc	ture	Sur	eying	and .	Mapping	Strace	1967
	PN: KY1	8028	WIC	JUM	TEST	HOLE	REPORT	NO.:	4



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#### Complete Utility Infrastructure Surveying and Mapping Since 1987 PN: RV18808 VACUUM TEST HOLE REPORT NO.: 5

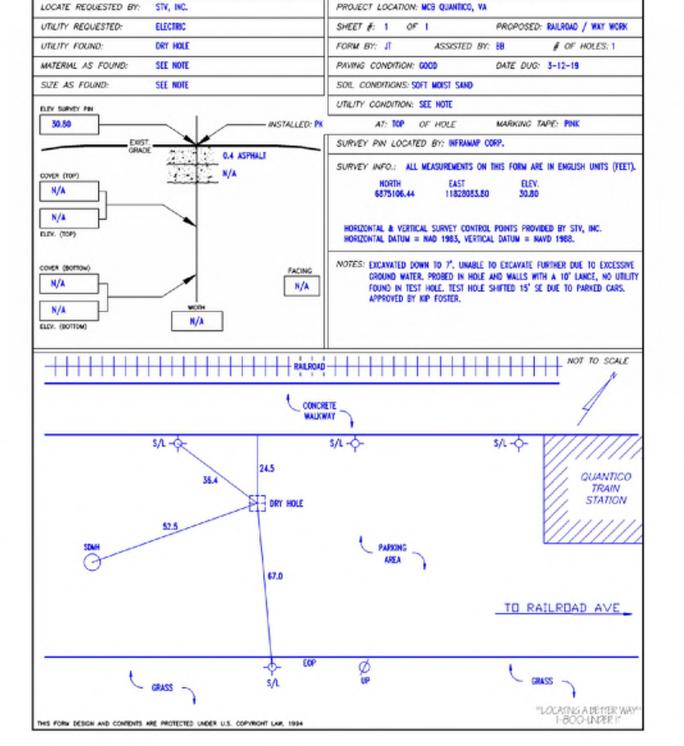
PROJECT NAME:	QUANTICO RAIL PROJECT TEST HOLES	CLIENT JOB# N/A WORK ORDER # N/A
LOCATE REQUESTED BY	: STV, INC.	PROJECT LOCATION: MCB CUMITICO, VA
UTILITY REQUESTED:	GAS	SHEET #: 1 OF 1 PROPOSED: RAILROND / WAY WORK
UTILITY FOUND:	DRY HOLE	FORM BY: JT ASSISTED BY: 88 # OF HOLES: 1
MATERIAL AS FOUND:	SEE NOTE	PAVING CONDITION: GOOD DATE DUG: 3-12-19
SIZE AS FOUND:	SEE MOTE	SOIL CONDITIONS: SOFT MOIST SAND
ELEV SUPLEY PIN		UTILITY CONDITION: SEE NOTE
30.70	INSTALLED	PK AT: TOP OF HOLE MARKING TAPE: PINK
	IST.	SURVEY PIN LOCATED BY: INFRIMUP CORP.
ONDR (FOP)  H/A  N/A  RLIN. (FOP)	N/A	SURVEY INFO.: ALL MEASUREMENTS ON THIS FORM ARE IN ENGLISH UNITS (FEET).  NORTH EAST ELEV. 6875096.33 11828077.61 30.70  HORIZONTAL & VERTICAL SURVEY CONTROL FORMTS PROVIDED BY STV, INC. HORIZONTAL BATUM = NAU 1983, VERTICAL BATUM = NAVO 1988.
N/A N/A ELDI. (BOTTOM)	FACING N/A	NOTES: EXCAVATED DOWN TO 7", UNUBLE TO EXCAVATE FURTHER DUE TO EXCESSIVE GROUND WATER, PROBED IN HOLE AND WALLS WITH A 10" LANCE, NO UTILITY FOUND IN TEST HOLE. TEST HOLE SHIFTED 15" SE DUE TO PARKED CARS, APPROVED BY KIP FOSTER.
		KONETE_
	WA	nator )
SSWA	24.5 25.7 26.7 26.7 27.3	S/L-\$-  GUANTICO TRAIN STATION  PARENG AREA
		TO RAILROAD AVE_
	TW CW	
- (	- GRASS - 5/1	OB COURTS -

QUANTICO RAIL PROJECT TEST HOLES

#### Complete Utility Infrastructure Surveying and Mapping Since 1987 PN: RY18028 VACUUM TEST HOLE REPORT NO.: 6

WORK ORDER # N/A

CLIENT JOB# N/A

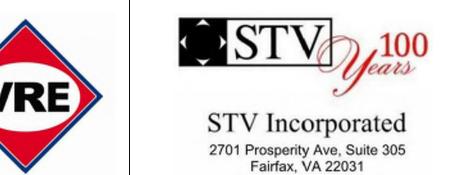


<u>IntraM</u>	HP .	PN: RV18028 VACUUM TEST HOLE REPORT NO.: 7
PROJECT NAME:	QUANTICO RAIL PROJECT TEST HOLES	CLIENT JOB# N/A WORK ORDER # N/A
LOCATE REQUESTED BY:	STV, INC.	PROJECT LOCATION: MCB QUANTICO, VA
UTILITY REQUESTED:	ELECTRIC	SHEET #: 1 OF 1 PROPOSED: RAILROND / WXY WORK
UTILITY FOUND:	DRY HOLE	FORM BY: JT ASSISTED BY: 88 # OF HOLES: 1
MATERIAL AS FOUND:	SEE MOTE	PAVING CONDITION: 6000 DATE DUG: 3-12-19
SIZE AS FOUND:	SEE MOTE	SOIL CONDITIONS: SOFT WOIST SAND
DEV SURVEY PIN		UTILITY CONDITION: SEE MOTE
30.85	INSTALLED: PK	AT: TOP OF HOLE MARKING TAPE: PINK
EXIS		SURVEY PIN LOCATED BY: NFRANAP CORP.
ONER (TOP)  N/A  N/A  D.DV. (TOP)	0.4 ASPRALT N/A	SURVEY INFO.: ALL MEASUREMENTS ON THIS FORM ARE IN ENGLISH UNITS (FEET NORTH EAST ELEV. 6875118.63 11828092.60 50.85  HORIZONTAL & VERTICAL SURVEY CONTROL POINTS PROVIDED BY STV, INC. HORIZONTAL DATUM = NAID 1983, VERTICAL DATUM = NAID 1988.
N/A N/A ELEX. (BOTTOM)	FACING N/A N/A	NOTES: EXCAVATED DOWN TO 7', UNABLE TO EXCAVATE FURTHER DUE TO EXCESSIVE GROUND WATER, PROBED IN HOLE AND WALLS WITH A 10' LANCE, NO UTILIFOUND IN TEST HOLE. TEST HOLE SHIFTED 15' SE DUE TO PARKED CARS, APPROVED BY KIP FOSTER.
	ниннин :::	MOT TO SCALE
	COMP	
SDAFFI C	5)1.9 24.3 057 HOLE	S/L-\$-  QUANTICO TRAIN STATION  PARISING AREA
		TO RAILROAD AVE
	CRASS - S/L	Ø GRUSS ~

INVITATION FOR BID NOT FOR CONSTRUCTION

APP BY DESCRIPTION **DESIGNED BY:** APPROVED BY VRE REV.NO. DATE INNVITATION FOR BID DRAWN BY APPROVED BY COUNTY CHECKED BY: 06/10/2020

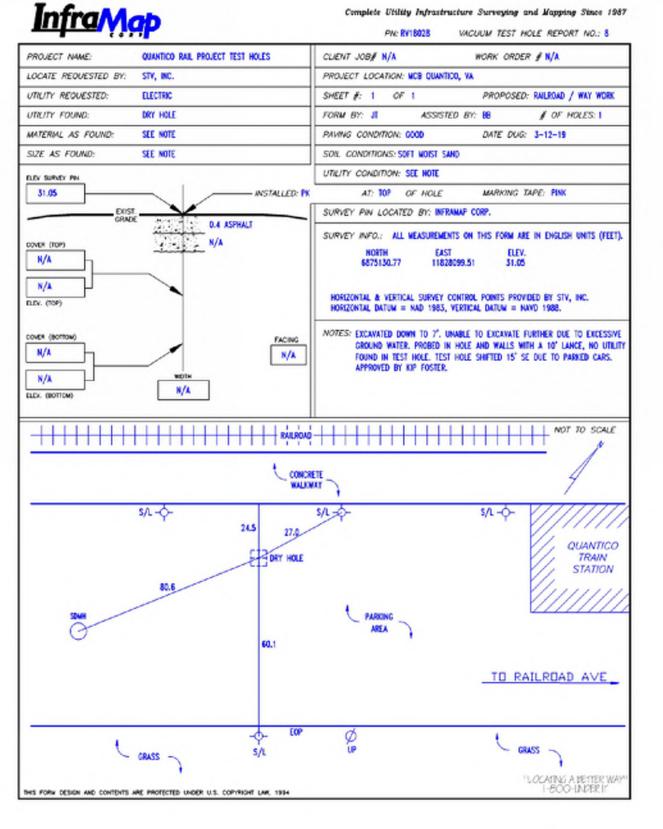


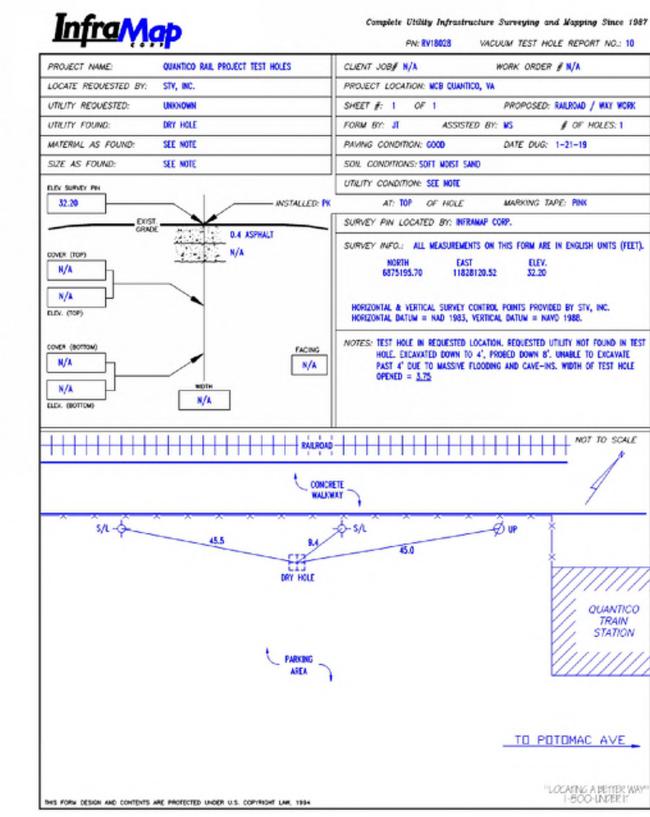


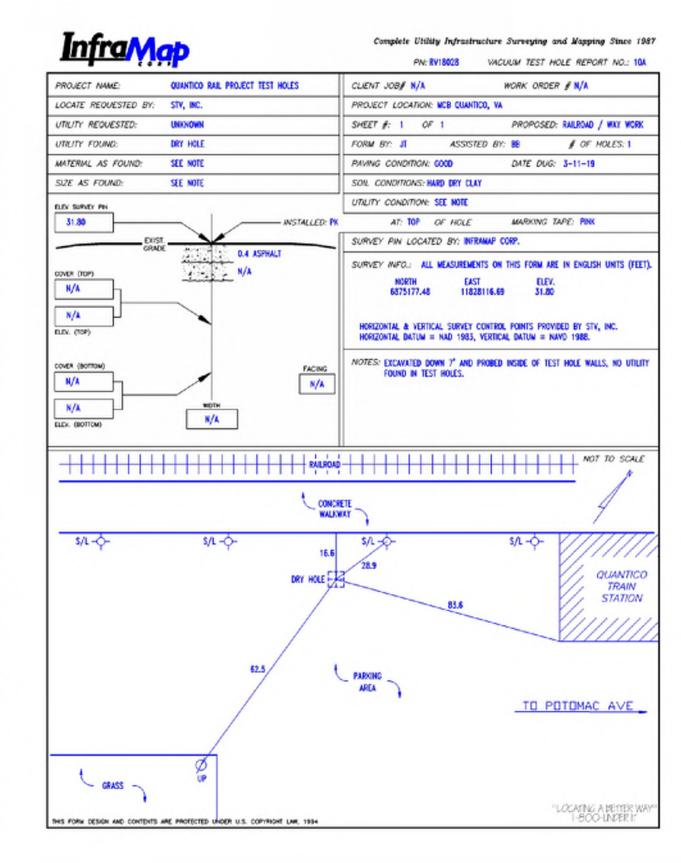


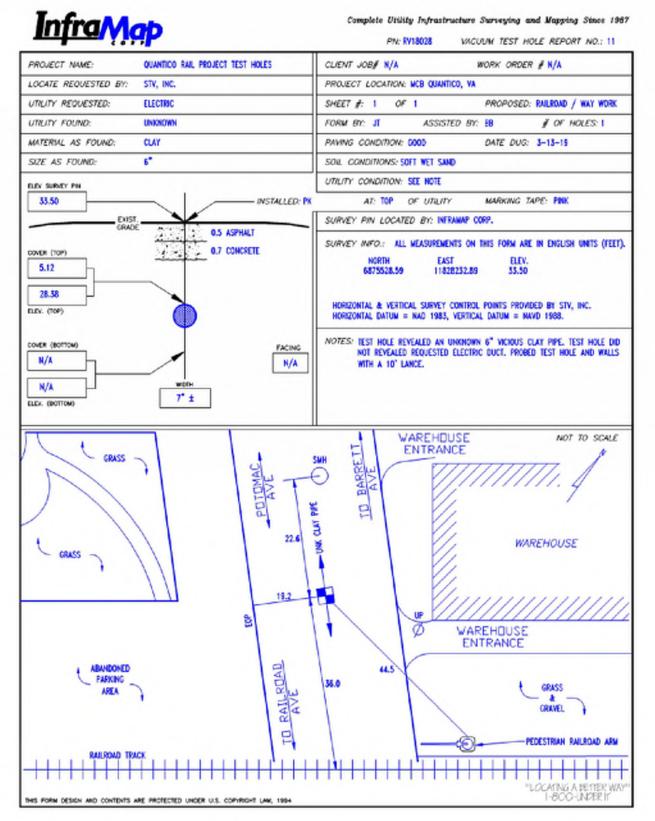
UTILITY TEST HOLE LOGS (SHEET 1 OF 3)

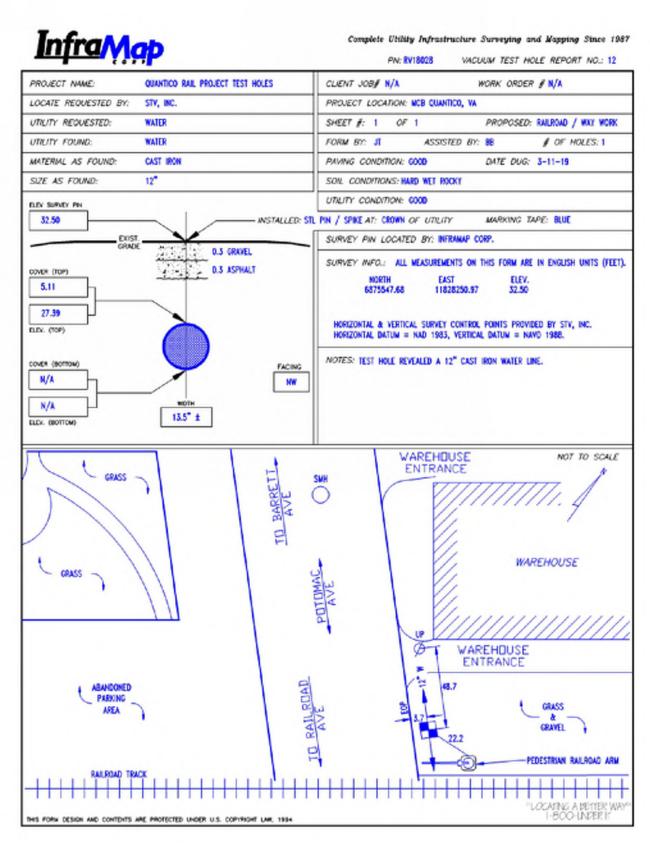
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C-504
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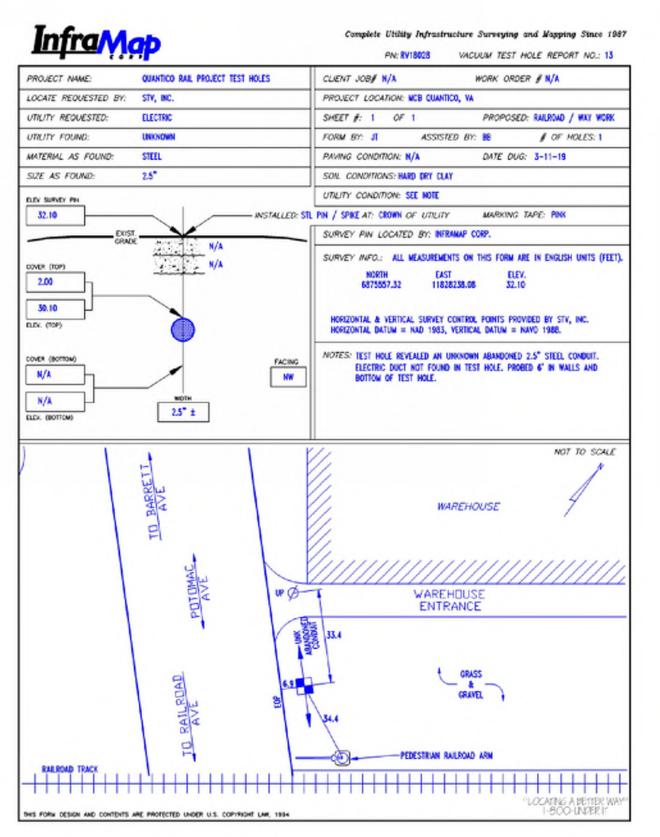


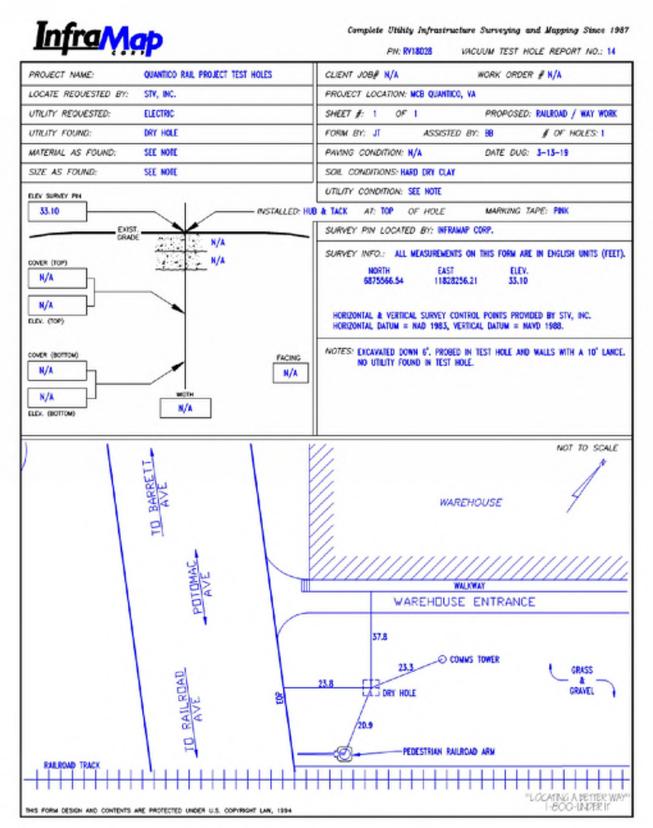


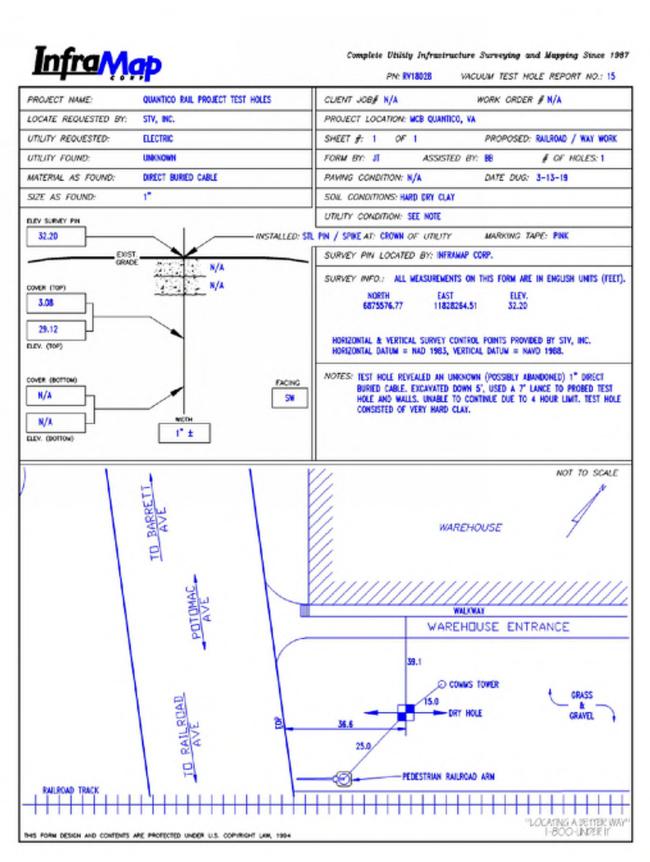












INVITATION FOR BID NOT FOR CONSTRUCTION

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						06/10/2020	

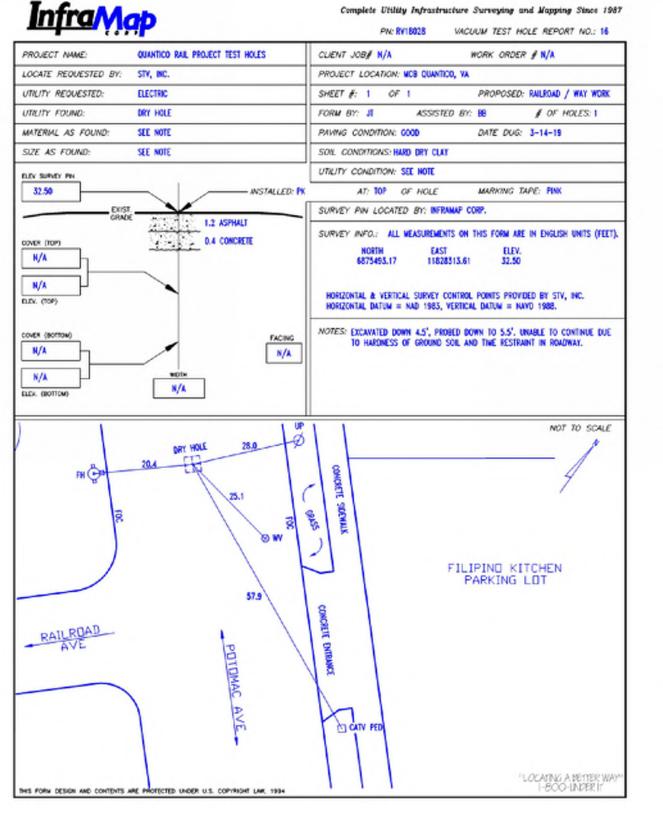


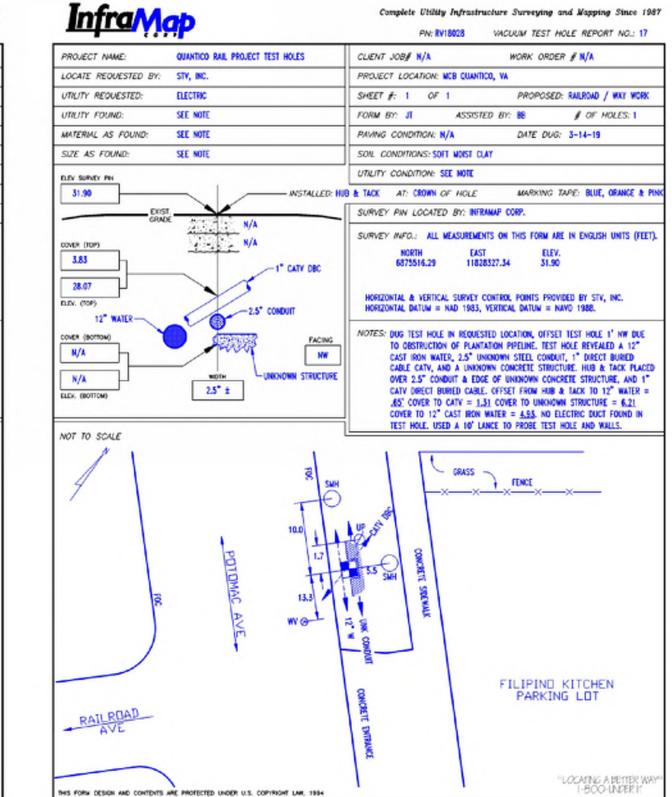


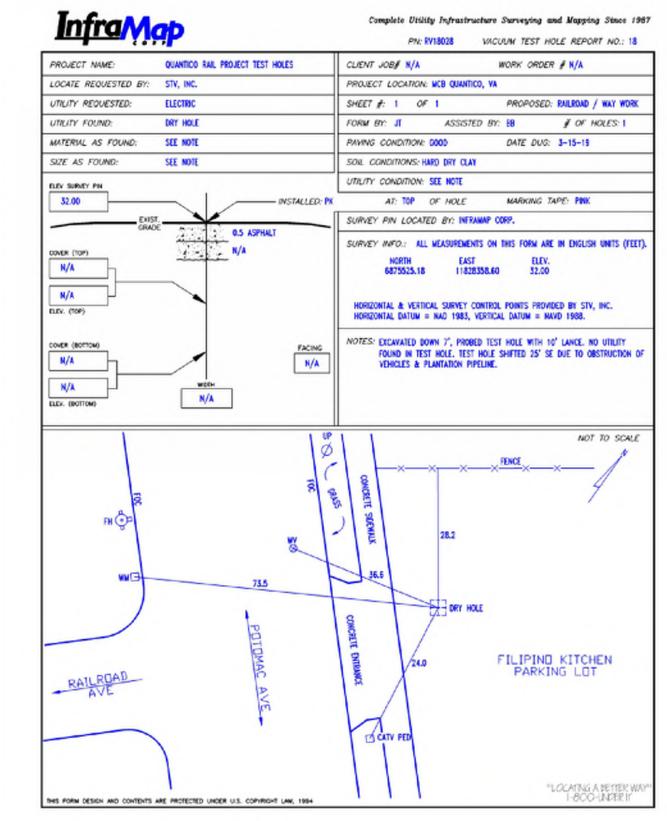
QUANTICO STATION
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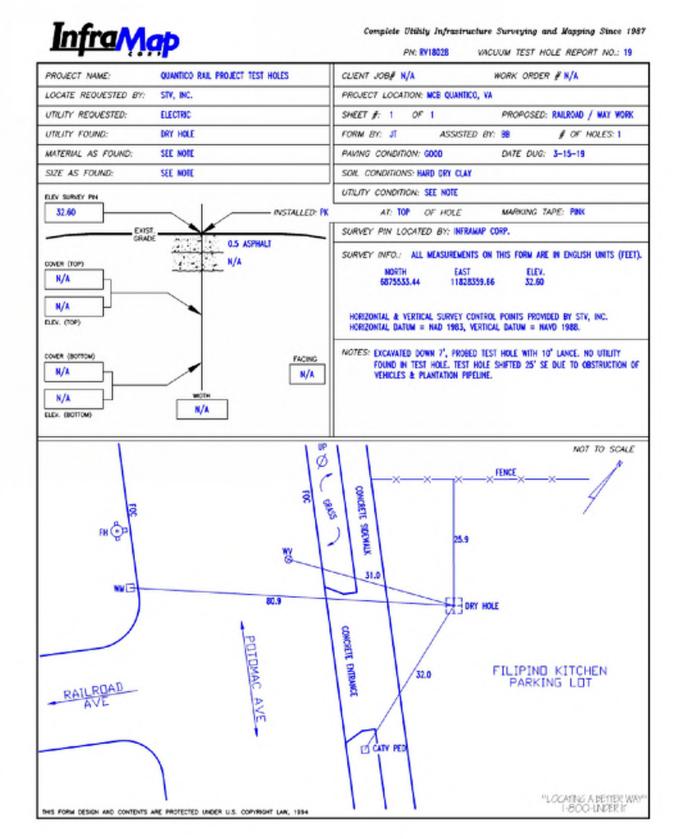
UTILITY TEST HOLE LOGS (SHEET 2 OF 3)

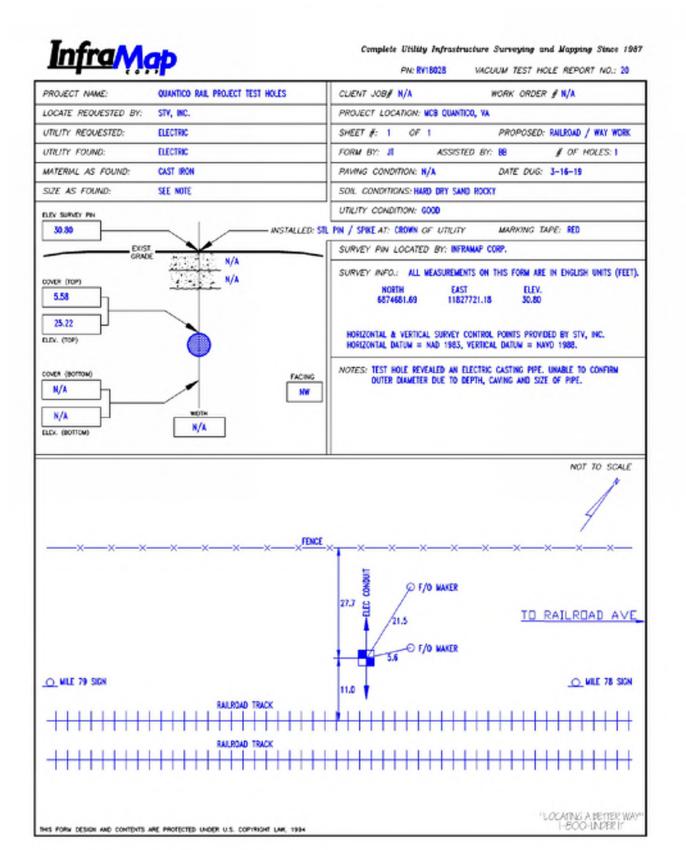
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DRAWING NO:
C-505
SCALE:
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SHEET NO: 21 OF 202

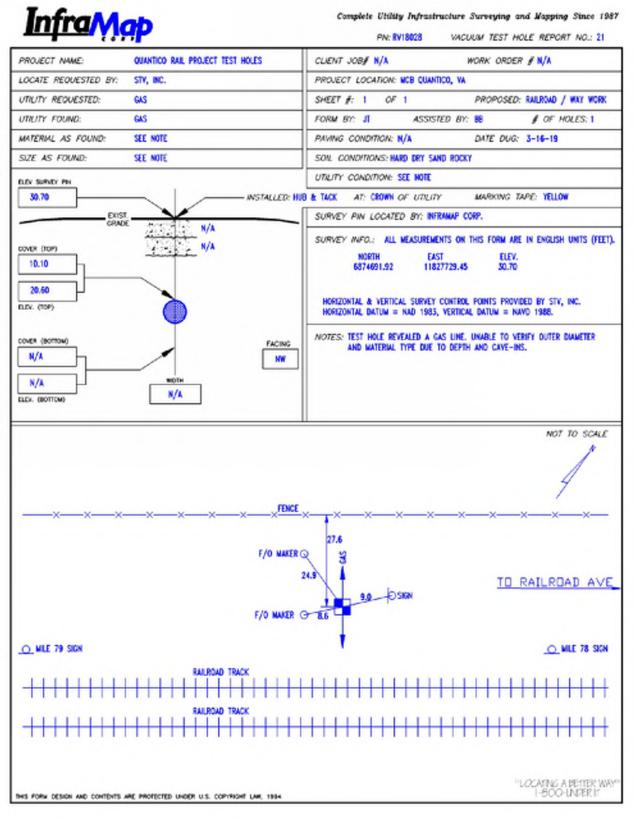












INVITATION FOR BID NOT FOR CONSTRUCTION

IFB-020-019

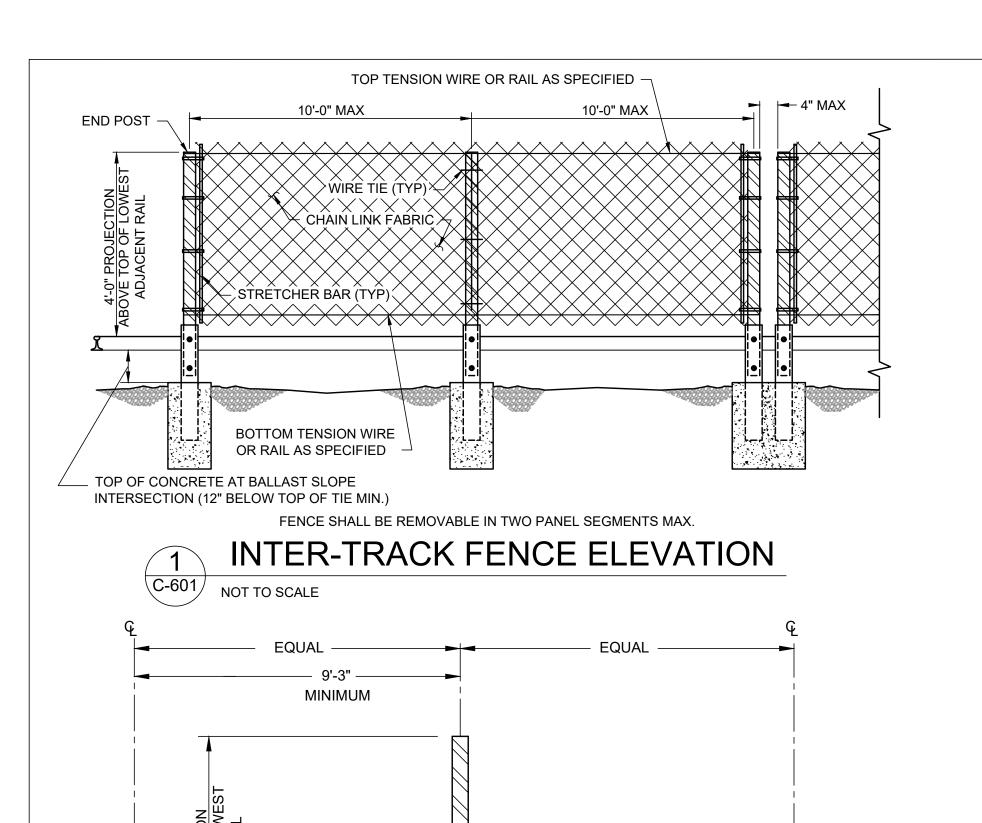
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						DATE:	
						06/10/2020	





QUANTICO STATION
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DRAWING NO: C-506 UTILITY TEST HOLE LOGS NOT TO SCALE (SHEET 3 OF 3) 22 OF 202



TOP OF TIE

CONCRETE **FOUNDATION** 

INTER-TRACK FENCE SECTION

**CONCRETE WHEEL STOP** 

2.5"± O.D. GALV.

PIPE/TUBE

2.5"± I.D. GALV. PIPE/TUBE

NOT TO SCALE

#6 @ 2'-6" LONG

NOT TO SCALE

2016 ROAD & BRIDGE STANDARDS CG-12 DETECTABLE WARNING SURFACE C-601 NOT TO SCALE

A COPY OF THE ORIGINAL SEALED AND SIGNED DRAWING IS ON FILE IN THE CENTRAL OFFICE.

(GENERAL NOTES)

VIRGINIA DEPARTMENT OF TRANSPORTATION

CG-12 DETECTABLE WARNING SURFACE

TRUNCATED DOME

NOTE: COMPONENTS OF CURB RAMPS CONSIST OF THE FOLLOWING:
HYDRAULIC CEMENT SIDEWALK (DEPTH IN INCHES, AREA IN SQUARE YARDS)
CURB WHEN REQUIRED (CG-2 OR CG-3 IN LINEAR FEET)
DETECTABLE WARNING SURFACE (AREA IN SQUARE YARDS)
EACH OF THE ABOVE ITEMS IS A SEPARATE PAY ITEM AND SHOULD
BE SUMMARIZED FOR EACH CURB CUT RAMP.

PERPENDICUL AR

TYPE B PARALLEL

PARALLEL & PERPENDICULAR

000000000000000

000000000000000 

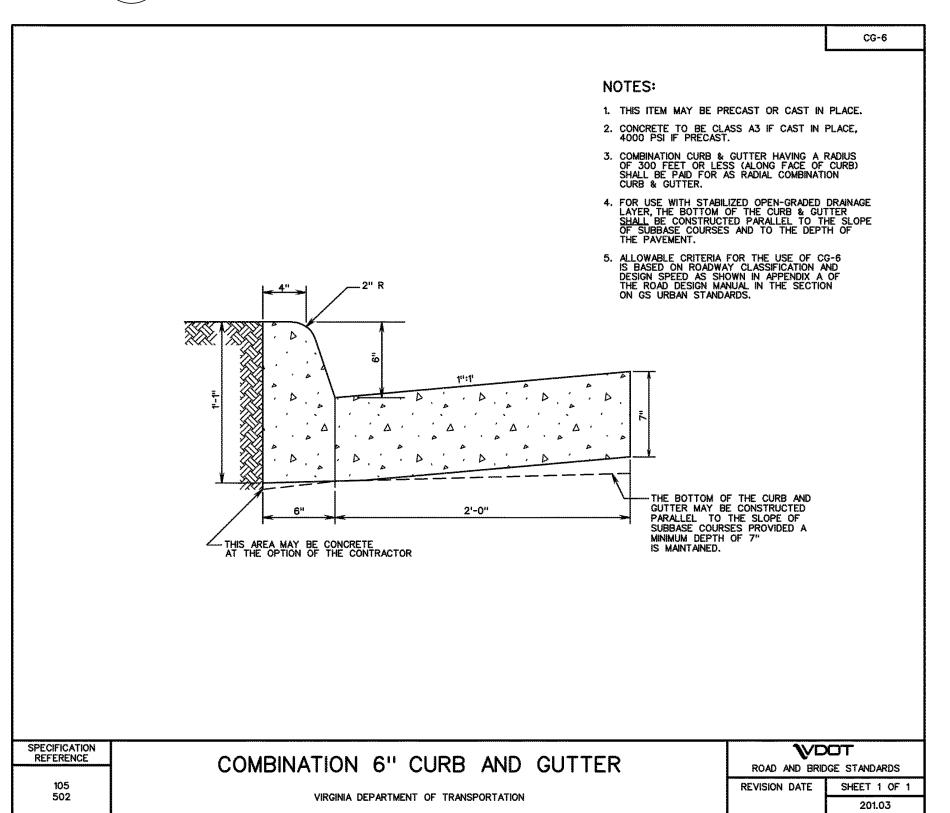
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

VARIABLE FULL WIDTH OF RAMP FLOOR PAY LIMITS

DETECTABLE WARNING

AT XX , SAME AS TOP OF CURB

SPECIFICATION REFERENCE



#### **COMBINATION 6" CURB & GUTTER DETAIL** 6 C-601 NOT TO SCALE

DESCRIPTION DESIGNED BY: APP BY APPROVED BY VRE REV.NO. DATE CK INVITATION FOR BID 06/10/20 DRAWN BY: ND CHECKED BY: APPROVED BY COUNTY DATE: 06/10/2020

CG-12

**GENERAL NOTES:** 

THE DETECTABLE WARNING SHALL BE PROVIDED BY TRUNCATED DOMES.

ALL DETECTABLE WARNING SURFACE PRODUCTS SHALL MEET THE REQUIREMENTS OF SECTION 504 OF THE SPECIFICATIONS FOR CG-12 DETECTABLE WARNING SURFACE. DETECTABLE WARNING SUFACE PRODUCTS USED SHALL BE FROM THE MATERIALS APPROVED PRODUCT LIST NUMBER 72.

SLOPING SIDES OF CURB RAMP MAY BE POURED MONOLITHICALLY WITH RAMP FLOOR OR BY USING PERMISSIBLE CONSTRUCTION JOINT WITH REQUIRED BARS.

ROADWAY CURB / CURB AND GUTTER SLOPE TRANSITIONS ADJACENT TO CURB RAMPS ARE INCLUDED IN PAYMENT FOR CURB / CURB AND GUTTER.

CURB RAMPS ARE REQUIRED FOR SIDEWALKS AND SHARED USE PATHS. THE WIDTH OF THE CURB RAMP SHALL MATCH SIDEWALK WIDTH, WHEN CURB RAMPS ARE USED IN CONJUNCTION WITH A SHARED USE PATH, THE MINIMUM WIDTH SHALL BE THE WIDTH OF THE SHARED USE PATH.

DETECTABLE WARNINGS SHALL EXTEND THE FULL WIDTH OF THE CURB RAMP LANDING FLOOR.

CURB RAMPS WILL BE INSTALLED AND LOCATED WITHIN PEDESTRIAN CROSSWALKS AS SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER. CURB RAMPS SHOULD NOT BE LOCATED BEHIND VEHICLE STOP LINES, LIGHT POLES, FIRE HYDRANTS, DROP INLETS, ETC.

RAMPS MAY BE PLACED ON RADIAL OR TANGENTIAL SECTIONS PROVIDED THAT THE CURB OPENING IS PLACED WITHIN THE LIMITS OF THE CROSSWALK AND THAT THE SLOPE AT THE CONNECTION OF THE CURB OPENING IS PERPENDICULAR TO THE CURB.

WHERE CURB RAMPS INTERSECT A RADIAL SECTION OF CURB AT ENTRANCES OR STREET CONNECTIONS THE DETECTABLE WARNING SURFACE SHALL HAVE A FACTORY RADIUS OR BE FIELD-MODIFIED AS RECOMMENDED BY THE MANUFACTURER TO MATCH THE BACK OF CURB. SEE CG-12-INS PAGES 204.06 AND 204.07 FOR METHODS OF INSTALLING DETECTABLE WARNINGS ON A RADIUS.

. DETECTABLE WARNING SURFACE PANELS SHALL BE INSTALLED FLUSH WITH THE BACK OF CURB.

DETECTABLE WARNING

INSTALLED ON A RADIUS

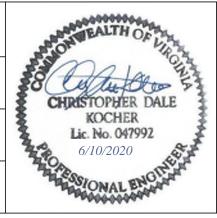
04/19

VDOT

ROAD AND BRIDGE STANDARDS

SHEET 1 OF 5 REVISION DATE

204.01







**QUANTICO STATION** 

SITE DEVELOPMENT DETAILS

NOT FOR CONSTRUCTION IFB-020-019

ONE DIRECTION WITHOUT BUFFER STRIP FOR GENERAL NOTES ON THE DETECTABLE WARNING SURFACE, SEE SHEET 1 OF 5. THE REQUIRED LENGTH OF A PARALLEL RAMP IS LIMITED TO 15 FEET, REGARDLESS OF THE SLOPE. GUTTER PAN SHALL BE A MAXIMUM SLOPE OF 20:1 AT THE RAMP OPENING. DIAGONAL PLACEMENT IS NOT PERMITTED. TYPE B PARALLEL APPLICATION CROSSWALK ROADWAY GRADE MINIMUM RAMP LENGTH IN PERCENT CONCRETE CROSSWALK TWO DIRECTIONS SMALLER RADII TWO DIRECTIONS LARGER RADII WITHOUT BUFFER STRIP VDOT SPECIFICATION REFERENCE CG-12 DETECTABLE WARNING SURFACE ROAD AND BRIDGE STANDARDS TYPE B (PARALLEL) APPLICATION SHEET 3 OF 5 REVISION DATE VIRGINIA DEPARTMENT OF TRANSPORTATION 04/19 204.03 2016 ROAD & BRIDGE STANDARDS TYPE B CURB RAMP C-601 NOT TO SCALE TOP RAIL AS SPECIFIED (TYP.) -CORNER OR END POST

WITHOUT BUFFER STRIP

ONE DIRECTION

WITH BUFFER STRIP

EXAMPLE INSTALLATION METHODS - SEE PLANS FOR LAYOUT

(SEE TABLE) TRANSITION GUTTER PAN SLOPE TO 20:1 THROUGH RAMP LENGTH

(SEE TABLE)

BACK OF CURB -

2' MIN.

DETECTABLE WARNING SURFACE -

TRANSITION GUTTER PAN SLOPE GUTTER PAN MAXIMUM SLOPE 20:1

48 : 1 MAX.

SECTION A-A

SECTION B-B

5'-0" MIN
SHAPE TO MATCH FACE
OF ROADWAY CURB

STRETCHER BAR TRUSS ROD 3/8" (MIN) **BRACE POST CONCRETE POST** LINE POST FOUNDATION 3000 PSI, 3" SLUMP (MAX), 2-4% **ENTRAINED AIR** 10'-0" MAX 10'-0" MAX **END SECTION** LINE SECTION

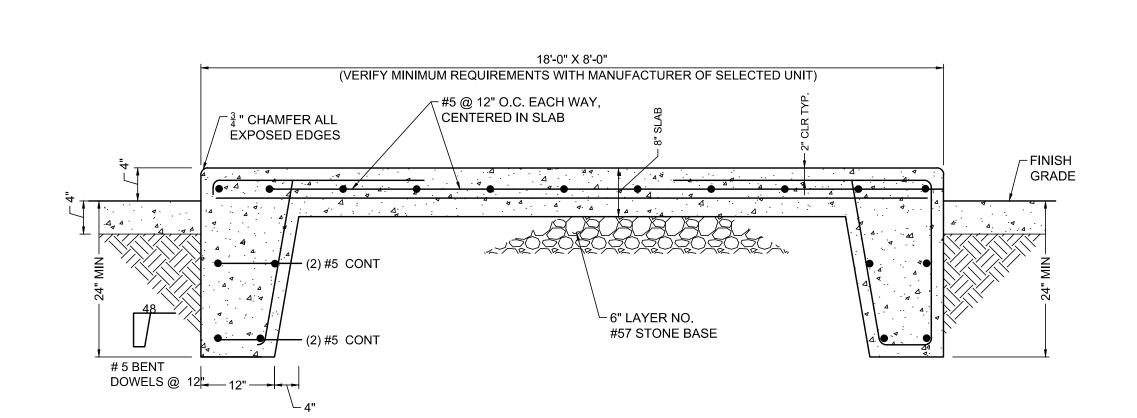
> CHAIN LINK FENCE NOT TO SCALE

1. BRACES AND TRUSS RODS SHALL BE USED AT ALL CORNERS.

**INVITATION FOR BID** 

DRAWING NO: C-601

> NOT TO SCALE SHEET NO: 23 OF 202

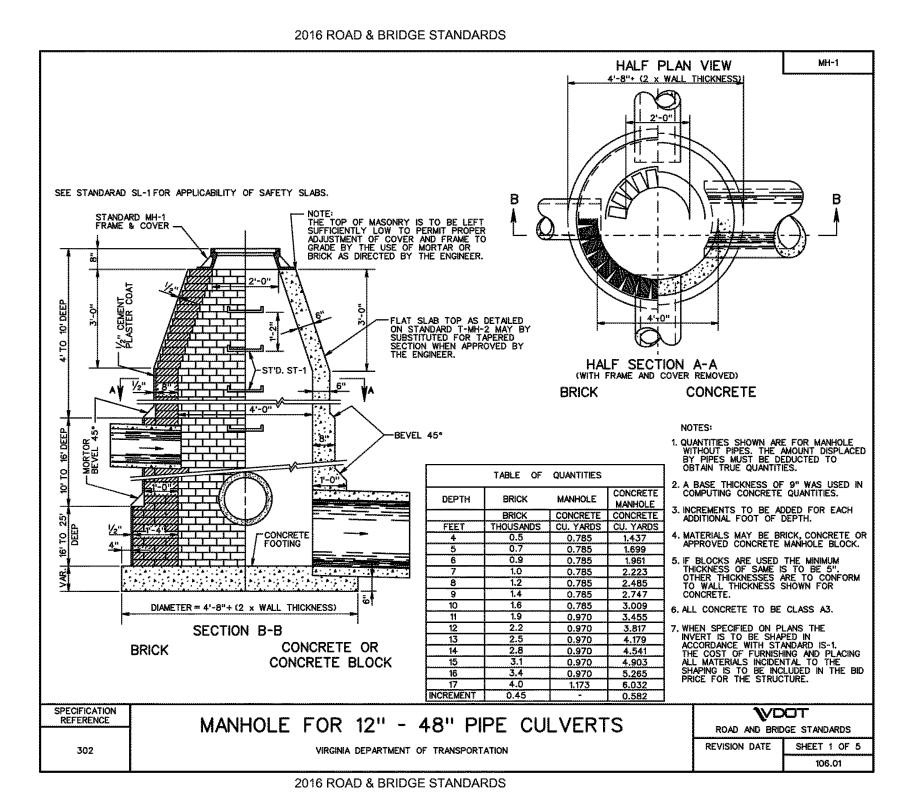


- CLEANOUT WITH COVER (MEDIUM DUTY) "STORM CLEANOUT WITH COVER (HEAVY DUTY) -CO" SHALL BE CAST IN "STORM CO" SHALL BE CAST IN COVER COVER FINISH GRADE -─ 18"x18"x6" THICK CONCRETE PAD PAVED AREA LAWN AREA - PVC PIPE 45° PVC TEE -- 45° PVC ELBOW - PVC CAP END (WHERE REQUIRED) INV (SEE PLAN)

1. FOR PIPE SIZES SEE SHEET C-501.

CONCRETE PAD FOR GAS GENERATOR
NOT TO SCALE

2 CLEAN OUT DETAIL
C-602 NOT TO SCALE

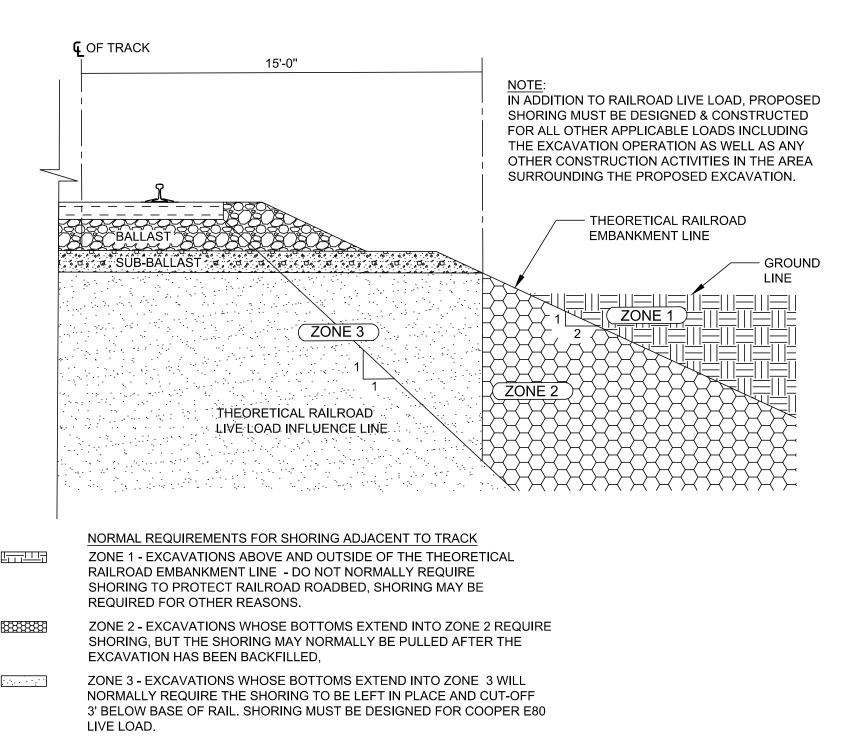


VDOT STANDARD MANHOLE

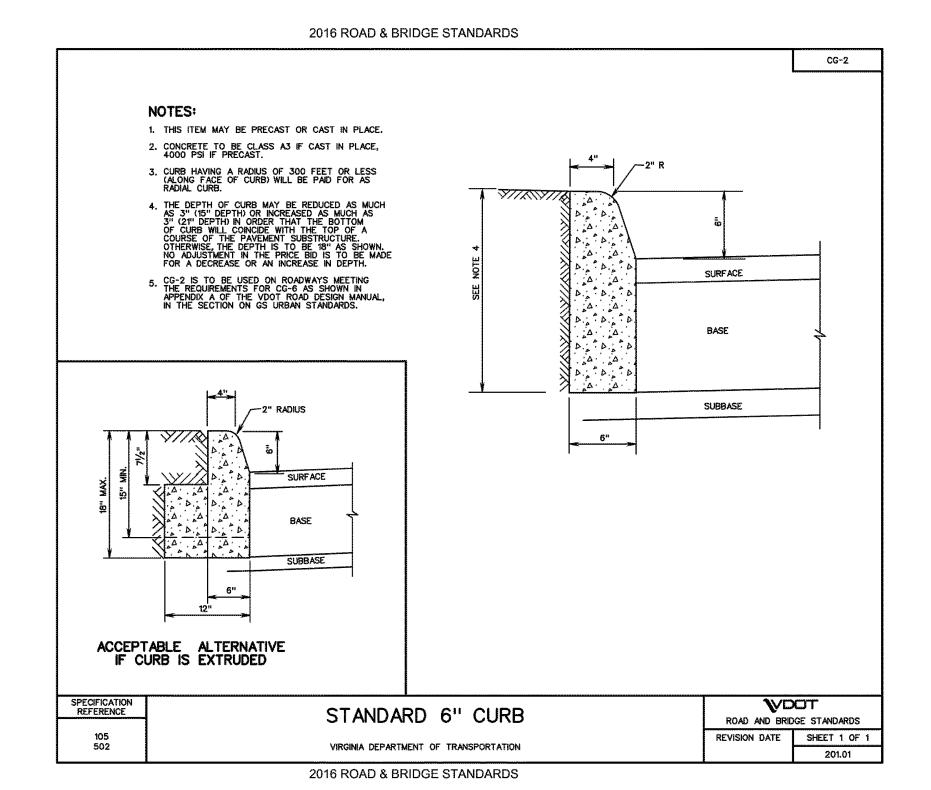
NOT TO SCALE

C-602

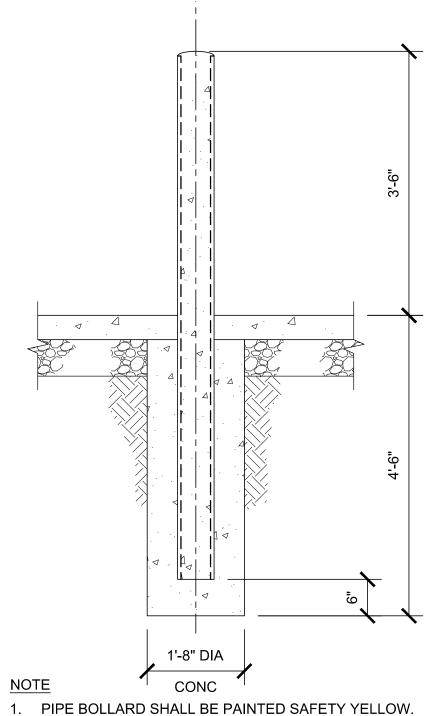
FIGURE 1: Theoretical Live Load Influence Zone











7 BOLLARD DETAIL

NOT TO SCALE

INVITATION FOR BID NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION	DESIGNED BY:
	0	06/10/20			INVITATION FOR BID	CK
						DRAWN BY:
						ND
APPROVED BY COUNTY						CHECKED BY:
						CK
						DATE:
						06/10/2020







QUANTICO STATION

SITE DEVELOPMENT DETAILS

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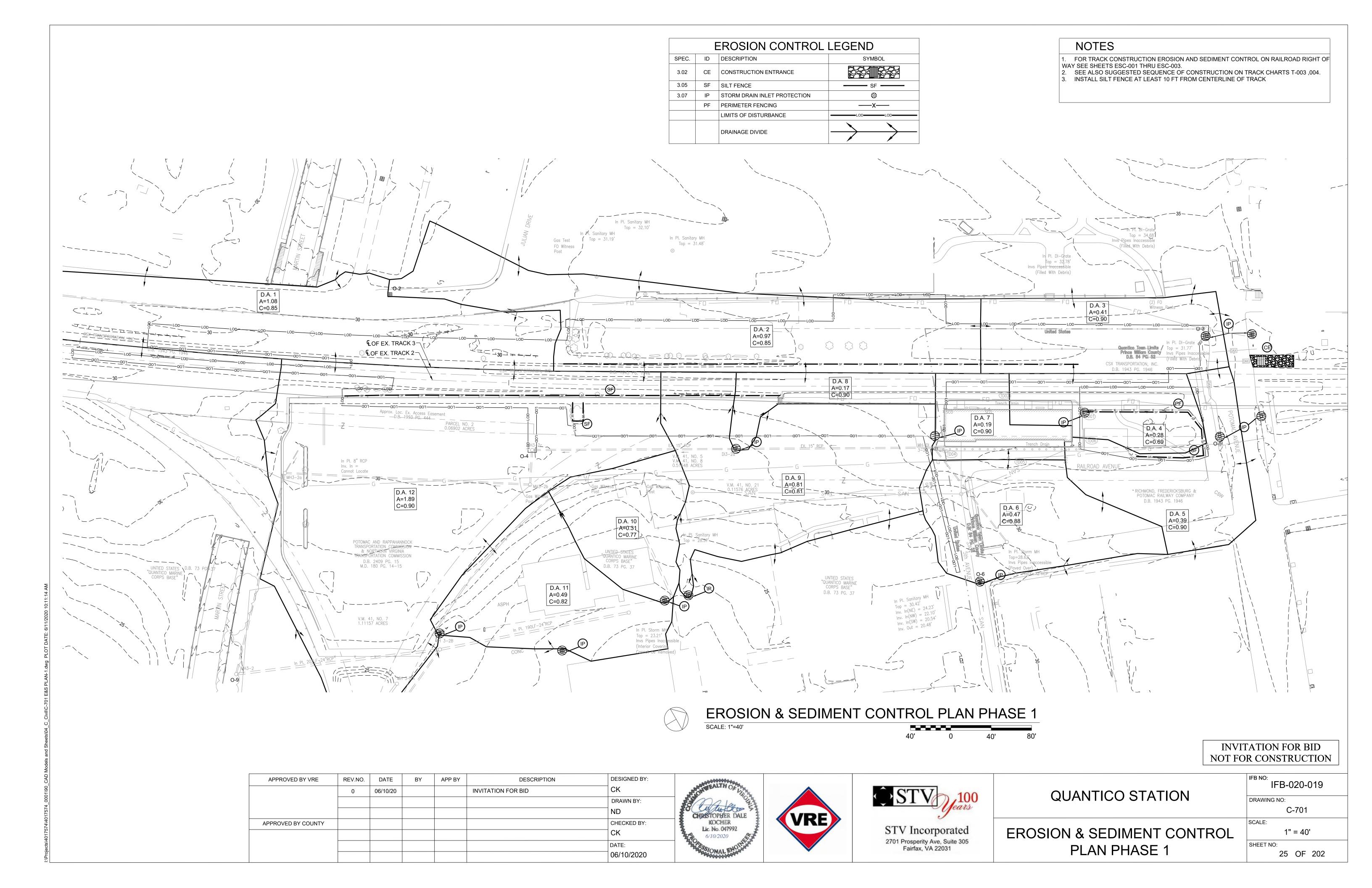
C-602

SCALE:

NOT TO SCALE

SHEET NO:

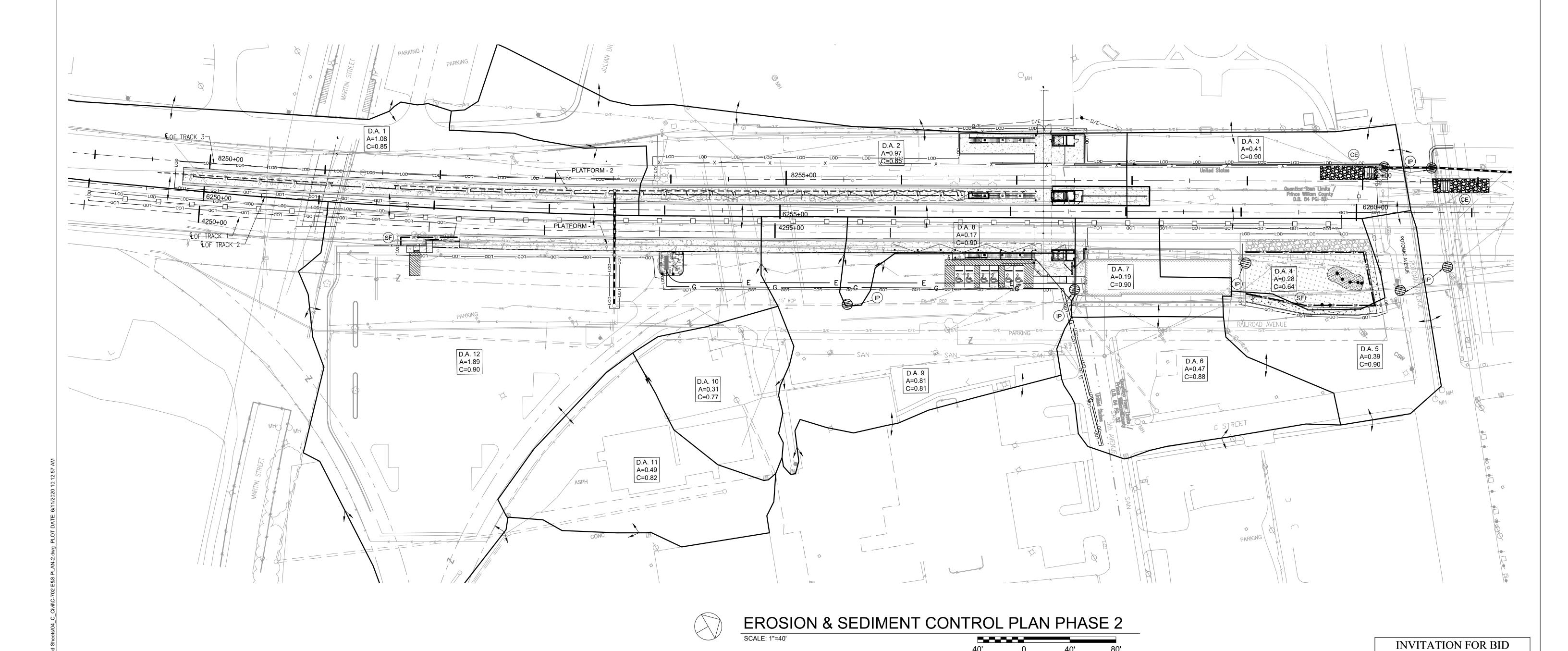
24 OF 202



	-	EROSION CONTROL	LEGEND
SPEC.	ID	DESCRIPTION	SYMBOL
3.02	CE	CONSTRUCTION ENTRANCE	
3.05	SF	SILT FENCE	
3.07	ΙP	STORM DRAIN INLET PROTECTION	0
	PF	PERIMETER FENCING	—— x ——
		LIMITS OF DISTURBANCE	LOD—LOD—
		DRAINAGE DIVIDE	$\rightarrow$

#### NOTES

- 1. FOR TRACK CONSTRUCTION EROSION AND SEDIMENT CONTROL ON RAILROAD RIGHT OF WAY SEE SHEETS ESC-001 THRU ESC-003.
- 2. SEE ALSO SUGGESTED SEQUENCE OF CONSTRUCTION ON TRACK CHARTS T-003,004.
  3. INSTALL SILT FENCE AT LEAST 10 FT FROM CENTERLINE OF TRACK



 BY
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 CHECKED BY:
 CK

 DATE:
 06/10/2020

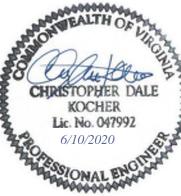
APPROVED BY VRE

APPROVED BY COUNTY

REV.NO.

DATE

06/10/20







# **QUANTICO STATION**

EROSION & SEDIMENT CONTROL PLAN PHASE 2

IFB-020-019
DRAWING NO:
C-702
SCALE:
1" = 40'
SHEET NO:
26 OF 202

NOT FOR CONSTRUCTION

#### **EROSION AND SEDIMENT CONTROL NARRATIVE**

#### PROJECT DESCRIPTION-

THE PROJECT IS LOCATED IN THE VRE'S QUANTICO STATION ON MARINE CORPS BASE QUANTICO IN PRINCE WILLIAM COUNTY, VIRGINIA. THE PURPOSE OF LAND DISTURBING ACTIVITY IS TO BUILD AN ADDITIONAL CENTER PLATFORM AND EXTEND THE EXISTING SIDE PLATFORM TO SERVE A PROPOSED THIRD TRACK.

THE TOTAL AREA OF DISTURBANCE AS SHOWN ON THE PLAN IS 1.66 ACRES (72,266 SQFT).

#### **EXISTING CONDITIONS-**

THE EXISTING SITE CONSISTS OF THE EXISTING VRE QUANTICO STATION AND ITS TWO TRACKS. THE SITE IS ON MINIMAL GRADE, APPROXIMATELY ONE PERCENT OR LESS, GENERALLY SLOPING FROM NORTH TO SOUTH. ALL OF THE RUNOFF FROM THE EXISTING SITE DRAINS INTO AN EXISTING STORM SEWER SYSTEM.

#### EROSION AND SEDIMENT CONTROL MEASURES-

CONSTRUCTION ENTRANCE - CE - VESCH STD. AND SPEC. 3.02
A STABILIZED STONE PAD WITH A FILTER FABRIC UNDERLINER LOCATED AT POINTS OF VEHICULAR INGRESS AND EGRESS ON A CONSTRUCTION SITE.

#### **IAINTENANCE**

THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR THE WASHING AND REWORKING OF EXISTING STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY STRUCTURES USED TO TRAP SEDIMENT. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY. THE USE OF WATER TRUCKS TO REMOVE MATERIAL DROPPED, WASHED, OR TRACKED ONTO ROADWAYS WILL NOT BE PERMITTED UNDER ANY CIRCUMSTANCES

#### SILT FENCE SF -3.05

SILT FENCE WILL BE USED ON THE DOWNHILL SIDE OF AREAS TO BE DISTURBED TO PREVENT SEDIMENT FROM LEAVING THE SITE.

- SILT FENCES BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
- 2. CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED SILT FENCE RESULTING FROM END RUNS AND UNDERCUTTING.
- 3. SHOULD THE FABRIC ON A SILT FENCE DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL BE NECESSARY, THE FABRIC SHALL BE REPLACED
- 4. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT.
  THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY
  ONE-HALF THE HEIGHT OF THE BARRIER.
- 5. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED AND SEEDED.

#### STORM DRAIN INLET PROTECTION -IP 3.07

A SEDIMENT-FILTER AREA AROUND A STORM DRAIN CURB INLET. USED TO PREVENT SEDIMENT FROM ENTERING STORM DRAINAGE SYSTEMS PRIOR TO PERMANENT STABILIZATION OF THE DISTURBED AREA.

- 1. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
- 2. SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE HALF THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
- 3. STRUCTURES SHALL BE REMOVED AND THE AREA STABILIZED.

#### PERMANENT STABILIZATION

ALL UNPAVED AREAS DISTURBED AS PART OF THIS CONSTRUCTION SHALL BE EITHER SEEDED OR GRAVEL PAVED PER THE SPECIFICATIONS. NO TEMPORARY SEDIMENT CONTROL MEASURES SHALL BE REMOVED BEFORE THE PERMANENT STABILIZATION IS COMPLETED AND APPROVED BY THE COUNTY INSPECTOR IN CHARGE.

#### STORMWATER RUNOFF CONSIDERATIONS

THE PROPOSED IMPROVEMENTS AT THE SITE SHALL HAVE MINIMUM IMPACT TO THE OVER ALL INCREASE IN SURFACE RUNOFF. THE EXISTING BIORETENTION FACILITY ON THE EAST SIDE OF THE STATION PARKING LOT WILL PROVIDE TREATMENT FOR THE PROPOSED IMPROVEMENTS.

#### ADJACENT AREAS

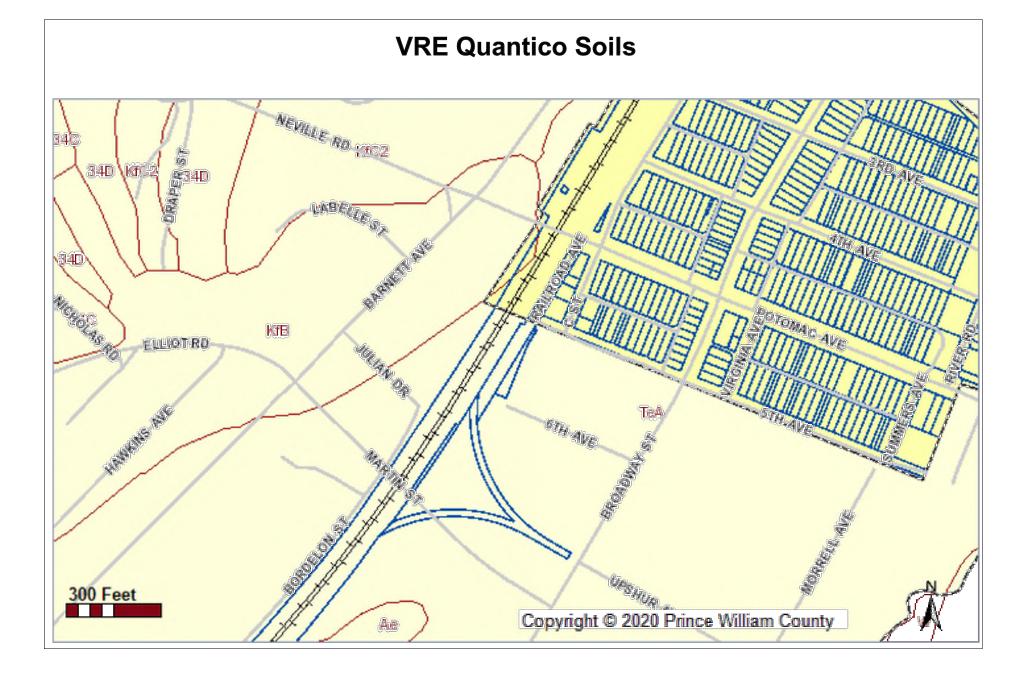
THERE ARE NO ENVIRONMENTALLY SENSITIVE AREAS ADJACENT TO THE PROJECT SITE.

#### CRITICAL AREAS

THERE ARE NO CRITICAL AREAS FOUND ON PROJECT SITE.

#### MAINTENANCE

ALL TEMPORARY SEDIMENT CONTROL MEASURES WILL BE INSTALLED PRIOR TO CONSTRUCTION AND MAINTAINED BY THE CONTRACTOR UNTIL PERMANENT STABILIZATION IS COMPLETED AND APPROVED BY PRINCE WILLIAM COUNTY INSPECTOR IN-CHARGE. MAINTENANCE OF EACH EROSION AND SEDIMENT CONTROL MEASURE SHALL BE DONE, AS SPECIFIED IN THE LATEST EDITION INCLUDING ANY AMENDMENTS OF THE "VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK".



Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
KfB	Kempsville fine sandy loam, gravelly substratum, 2 to 6 percent slopes	0.1	2.5%
TeA	Tetotum fine sandy loam, 0 to 2 percent slopes	4.5	97.5%
Totals for Area of Interest		4.6	100.0%

#### MISCELLANEOUS NOTES

1. FOR TRACK CONSTRUCTION EROSION AND SEDIMENT CONTROL ON RAILROAD RIGHT OF WAY SEE SHEETS ESC-001 THRU ESC-003.

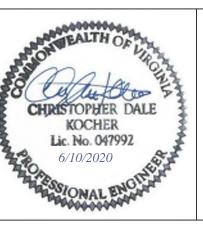
#### MINIMUM STANDARDS

- 1. PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 30 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THreaAN ONE YEAR.
- 2. DURING CONSTRUCTION OF THE PROJECT, SOIL STOCKPILES AND BORROW AREAS SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE APPLICANT IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS BORROW AREAS AND SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE.
- 3. A PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED ON DENUDED AREAS NOT OTHERWISE PERMANENTLY STABILIZED. PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT IS UNIFORM, MATURE ENOUGH TO SURVIVE AND WILL INHIBIT EROSION.
- 4. SEDIMENT BASINS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND\_DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE TAKES PLACE.
- 5. STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.
- 6. SEDIMENT TRAPS AND SEDIMENT BASINS SHALL BE DESIGNED AND CONSTRUCTED BASED UPON THE TOTAL DRAINAGE AREA TO BE SERVED BY THE TRAP OR BASIN.
  - a. THE MINIMUM STORAGE CAPACITY OF A SEDIMENT TRAP SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA AND THE TRAP SHALL ONLY CONTROL DRAINAGE AREAS LESS THAN THREE ACRES.
  - b. SURFACE RUNOFF FROM DISTURBED AREAS THAT IS COMPRISED OF FLOW FROM DRAINAGE AREAS GREATER THAN OR EQUAL TO THREE ACRES SHALL BE CONTROLLED BY A SEDIMENT BASIN. THE MINIMUM STORAGE CAPACITY OF A SEDIMENT BASIN SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA. THE OUTFALL SYSTEM SHALL, AT A MINIMUM, MAINTAIN THE STRUCTURAL INTEGRITY OF THE BASIN DURING A 25-YEAR STORM OF 24-HOUR DURATION. RUNOFF COEFFICIENTS USED IN RUNOFF CALCULATIONS SHALL CORRESPOND TO A BARE EARTH CONDITION OR THOSE CONDITIONS EXPECTED TO EXIST WHILE THE SEDIMENT BASIN IS UTILIZED.
- 7. CUT AND FILL SLOPES SHALL BE DESIGNED AND CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION. SLOPES THAT ARE FOUND TO BE ERODING EXCESSIVELY WITHIN ONE YEAR OF PERMANENT STABILIZATION SHALL BE PROVIDED WITH ADDITIONAL SLOPE STABILIZING MEASURES UNTIL THE PROBLEM IS CORRECTED.
- 8. CONCENTRATED RUNOFF SHALL NOT FLOW DOWN CUT OR FILL SLOPES UNLESS CONTAINED WITHIN AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL, FLUME OR SLOPE DRAIN STRUCTURE.
- 9. WHENEVER WATER SEEPS FROM A SLOPE FACE, ADEQUATE DRAINAGE OR OTHER PROTECTION SHALL BE PROVIDED.
- 10. ALL STORM SEWER INLETS THAT ARE MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT SEDIMENT\_LADEN WATER CANNOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.
- 11.BEFORE NEWLY CONSTRUCTED STORMWATER CONVEYANCE CHANNELS OR PIPES ARE MADE OPERATIONAL, ADEQUATE OUTLET PROTECTION AND ANY REQUIRED TEMPORARY OR PERMANENT CHANNEL LINING SHALL BE INSTALLED IN BOTH THE CONVEYANCE CHANNEL AND RECEIVING CHANNEL.
- 12. WHEN WORK IN A LIVE WATERCOURSE IS PERFORMED, PRECAUTIONS SHALL BE TAKEN TO MINIMIZE ENCROACHMENT, CONTROL SEDIMENT TRANSPORT AND STABILIZE THE WORK AREA TO THE GREATEST EXTENT POSSIBLE DURING CONSTRUCTION. NONERODIBLE MATERIAL SHALL BE USED FOR THE CONSTRUCTION OF CAUSEWAYS AND COFFERDAMS. EARTHEN FILL MAY BE USED FOR THESE STRUCTURES IF ARMORED BY NONERODIBLE COVER MATERIALS.
- 13. WHEN A LIVE WATERCOURSE MUST BE CROSSED BY CONSTRUCTION VEHICLES MORE THAN TWICE IN ANY SIX-MONTH PERIOD, A TEMPORARY VEHICULAR STREAM CROSSING CONSTRUCTED OF NONERODIBLE MATERIAL SHALL BE PROVIDED.
- 14. ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS PERTAINING TO WORKING IN OR CROSSING LIVE WATERCOURSES SHALL BE MET.
- 15. THE BED AND BANKS OF A WATERCOURSE SHALL BE STABILIZED IMMEDIATELY AFTER WORK IN THE WATERCOURSE IS COMPLETED.
- 16. UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA:
  - a. NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.b. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.
  - c. EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF SITE PROPERTY.
  - d. MATERIAL USED FOR BACKFILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION.
  - e. RESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THESE REGULATIONS.
  - f. APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH.
- 17. WHERE CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED OR PUBLIC ROADS, PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY VEHICULAR TRACKING ONTO THE PAVED SURFACE. WHERE SEDIMENT IS TRANSPORTED ONTO A PAVED OR PUBLIC ROAD SURFACE, THE ROAD SURFACE SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER. THIS PROVISION SHALL APPLY TO INDIVIDUAL DEVELOPMENT LOTS AS WELL AS TO LARGER LAND DISTURBING ACTIVITIES.

- 18. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE MEASURES ARE NO LONGER NEEDED, UNLESS OTHERWISE AUTHORIZED BY THE LOCAL PROGRAM AUTHORITY TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.
- 19.PROPERTIES AND WATERWAYS DOWNSTREAM FROM DEVELOPMENT SITES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION, EROSION AND DAMAGE DUE TO INCREASES IN VOLUME, VELOCITY AND PEAK FLOW RATE OF STORMWATER RUNOFF FOR THE STATED FREQUENCY STORM OF 24-HOUR DURATION IN ACCORDANCE WITH THE FOLLOWING STANDARDS AND CRITERIA:
  - a. CONCENTRATED STORMWATER RUNOFF LEAVING A DEVELOPMENT SITE SHALL BE DISCHARGED DIRECTLY INTO AN ADEQUATE NATURAL OR MAN\_MADE RECEIVING CHANNEL, PIPE OR STORM SEWER SYSTEM. FOR THOSE SITES WHERE RUNOFF IS DISCHARGED INTO A PIPE OR PIPE SYSTEM, DOWNSTREAM STABILITY ANALYSES AT THE OUTFALL OF THE PIPE OR PIPE SYSTEM SHALL BE PERFORMED.
  - b. ADEQUACY OF ALL CHANNELS AND PIPES SHALL BE VERIFIED IN THE FOLLOWING MANNER:
  - (1) THE APPLICANT SHALL DEMONSTRATE THAT THE TOTAL DRAINAGE AREA TO THE POINT OF ANALYSIS WITHIN THE CHANNEL IS ONE HUNDRED TIMES GREATER THAN THE CONTRIBUTING DRAINAGE AREA OF THE PROJECT IN QUESTION; OR
  - (2) (A) NATURAL CHANNELS SHALL BE ANALYZED BY THE USE OF A TWO\_YEAR STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP CHANNEL BANKS NOR CAUSE EROSION OF CHANNEL BED OR BANKS.
  - (b) ALL PREVIOUSLY CONSTRUCTED MAN\_MADE CHANNELS SHALL BE ANALYZED BY THE USE OF A TEN\_YEAR STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP ITS BANKS AND BY THE USE OF A TWO\_YEAR STORM TO DEMONSTRATE THAT STORMWATER WILL NOT CAUSE EROSION OF CHANNEL BED OR BANKS; AND
  - (c) PIPES AND STORM SEWER SYSTEMS SHALL BE ANALYZED BY THE USE OF A TEN\_YEAR STORM TO VERIFY THAT STORMWATER WILL BE CONTAINED WITHIN THE PIPE OR SYSTEM.
  - c. IF EXISTING NATURAL RECEIVING CHANNELS OR PREVIOUSLY CONSTRUCTED MAN MADE CHANNELS OR PIPES ARE NOT ADEQUATE, THE APPLICANT SHALL:
  - (1) IMPROVE THE CHANNELS TO A CONDITION WHERE A TEN\_YEAR STORM WILL NOT OVERTOP THE BANKS AND A TWO\_YEAR STORM WILL NOT CAUSE EROSION TO THE CHANNEL BED OR BANKS; OR
  - (2) IMPROVE THE PIPE OR PIPE SYSTEM TO A CONDITION WHERE THE TEN\_YEAR STORM IS CONTAINED WITHIN THE APPURTENANCES: OR
  - (3) DEVELOP A SITE DESIGN THAT WILL NOT CAUSE THE PRE-DEVELOPMENT PEAK RUNOFF RATE FROM A TWO-YEAR STORM TO INCREASE WHEN RUNOFF OUTFALLS INTO A NATURAL CHANNEL OR WILL NOT CAUSE THE PRE-DEVELOPMENT PEAK RUNOFF RATE FROM A TEN-YEAR STORM TO INCREASE WHEN RUNOFF OUTFALLS INTO A MAN-MADE CHANNEL; OR
  - (4) PROVIDE A COMBINATION OF CHANNEL IMPROVEMENT, STORMWATER DETENTION OR OTHER MEASURES WHICH IS SATISFACTORY TO THE PLAN-APPROVING AUTHORITY TO PREVENT DOWNSTREAM EROSION.
  - d. THE APPLICANT SHALL PROVIDE EVIDENCE OF PERMISSION TO MAKE THE IMPROVEMENTS.
  - e. ALL HYDROLOGIC ANALYSES SHALL BE BASED ON THE EXISTING WATERSHED CHARACTERISTICS AND THE ULTIMATE DEVELOPMENT OF THE SUBJECT PROJECT.
  - f. IF THE APPLICANT CHOOSES AN OPTION THAT INCLUDES STORMWATER DETENTION, HE SHALL OBTAIN APPROVAL FROM THE LOCALITY OF A PLAN FOR MAINTENANCE OF THE DETENTION FACILITIES. THE PLAN SHALL SET FORTH THE MAINTENANCE REQUIREMENTS OF THE FACILITY AND THE PERSON RESPONSIBLE FOR PERFORMING THE MAINTENANCE.
  - g. OUTFALL FROM A DETENTION FACILITY SHALL BE DISCHARGED TO A RECEIVING CHANNEL, AND ENERGY DISSIPATORS SHALL BE PLACED AT THE OUTFALL OF ALL DETENTION FACILITIES AS NECESSARY TO PROVIDE A STABILIZED TRANSITION FROM THE FACILITY TO THE RECEIVING CHANNEL.
  - h. ALL ON-SITE CHANNELS MUST BE VERIFIED TO BE ADEQUATE.
  - i. INCREASED VOLUMES OF SHEET FLOWS THAT MAY CAUSE EROSION OR SEDIMENTATION ON ADJACENT PROPERTY SHALL BE DIVERTED TO A STABLE OUTLET, ADEQUATE CHANNEL, PIPE OR PIPE SYSTEM, OR TO A DETENTION FACILITY

INVITATION FOR BID NOT FOR CONSTRUCTION

**DESIGNED BY:** APPROVED BY VRE BY APP BY DESCRIPTION REV.NO. DATE CK **INVITATION FOR BID** 06/10/20 DRAWN BY: ND CHECKED BY: APPROVED BY COUNTY DATE: 06/10/2020





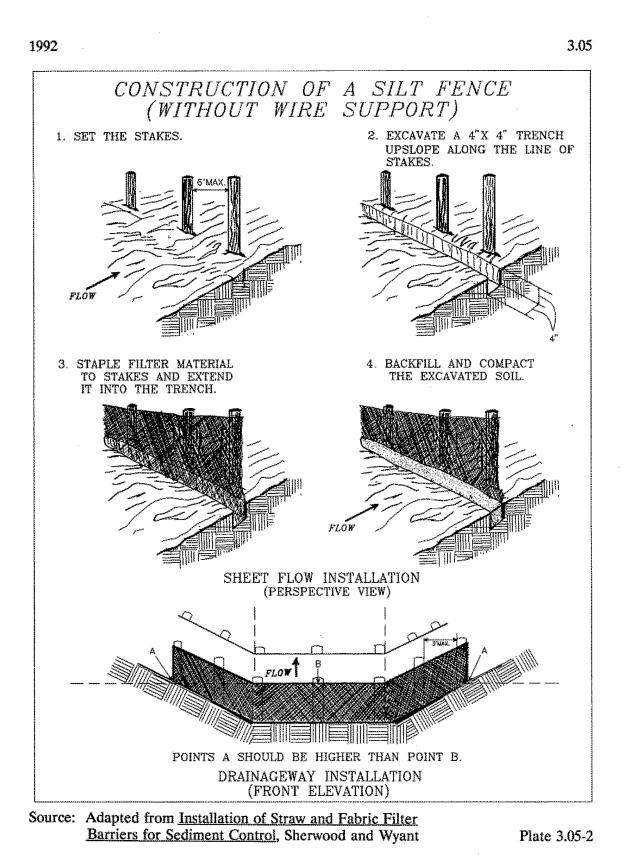




EROSION & SEDIMENT CONTROL NOTES

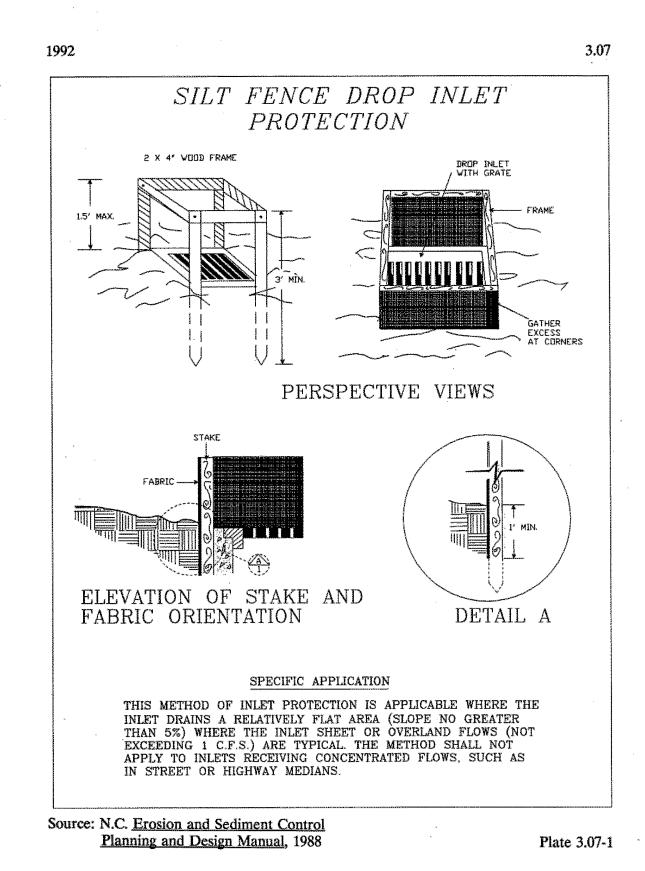
IFB NO: IFB-020-019 DRAWING NO: C-703

> 1"=3,000' SHEET NO: 27 OF 202



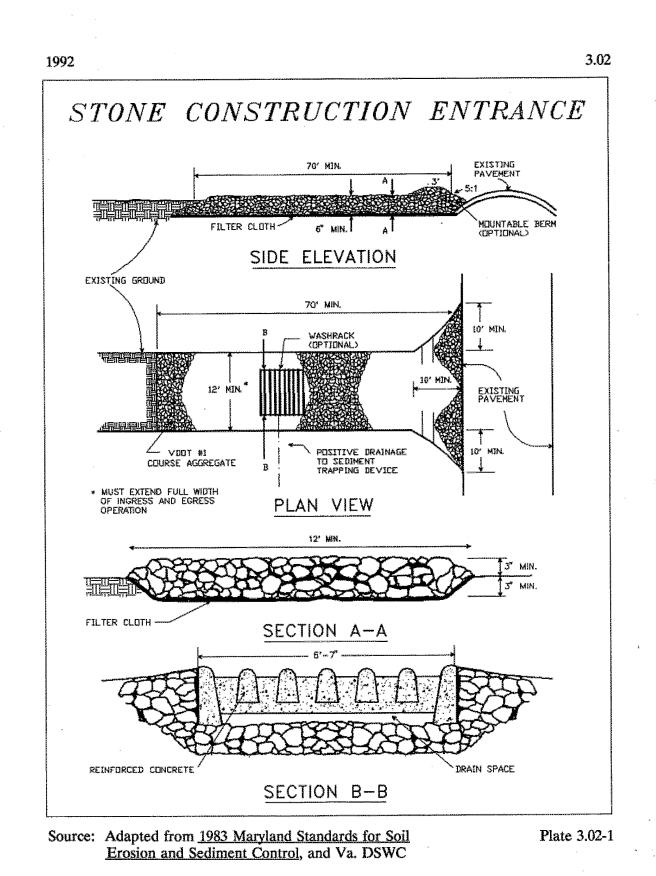
III - 25





III - 35





III - 9



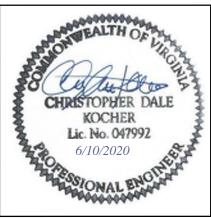
# CONSTRUCTION ENTRANCE DETAIL

## MISCELLANEOUS NOTES

1. FOR TRACK CONSTRUCTION EROSION AND SEDIMENT CONTROL ON RAILROAD RIGHT OF WAY SEE SHEETS ESC-001 THRU ESC-003.

INVITATION FOR BID

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION	DESIGNED BY:	l
	0	06/10/20			INVITATION FOR BID	СК	l
						DRAWN BY:	l
						ND	l
APPROVED BY COUNTY						CHECKED BY:	l
						CK	l
						DATE:	l
						06/10/2020	L







NOT FO	R CONSTRUCTION
	IFB-020-019

	2 020 0.0
QUANTICO STATION	DRAWING NO:
	C-704
	SCALE:
EROSION & SEDIMENT CONTROL	NOT TO SCALE
DETAILS	SHEET NO: 28 OF 202

								TRACK GEOME	ETRY DATA										
	_							TRACI	<b>&lt;</b> 2	_									_
CURVE NO.	DESC.	STATION	NORTHING	EASTING	BEARING	DISTANCE	Rc (ft)	Dc	Lc (ft)	DELTA c	1	THETA	Ls (ft)	X (ft)	Y (ft)	Ea.	FREIGHT V	PASSENGER V (3" Eu)	PASSENGE V (4" Eu)
MATCH	D00	2000 . 20 . 20	0.070.440.0070	44 000 000 4440															
EXIST. TRK 2	POB	6233+63.62	6,873,418.0372	11,826,606.1118	N 44° 53' 08.73" E	594.9059													_
	TS	6239+58.53	6,873,839.5371	11,827,025.9342	11 44 33 00.73 L	394.9039		+											
	10	0200100.00	0,070,000.0071	11,021,020.0042				1				0° 55' 47.96"	186.0000	185.9951	1.0063				
	SC	6241+44.53	6,873,972.0276	11,827,156.4771															
C10-2	PI	6247+28.31	6,874,384.9386	11,827,569.1651			5729.6507	0° 59' 59.95"	1161.2619	11° 36' 44.90" L	13° 28' 20.81" L					1"	60 MPH	75 MPH	84 MPH
	CS	6253+05.79	6,874,883.6833	11,827,872.5800				1				0° 55! 47 06"	196 0000	105 0051	1.0063				
	ST	6254+91.79	6,875,041.8925	11,827,970.3809				+				0° 55' 47.96"	186.0000	185.9951	1.0063		+		+
		0254+91.79	0,073,041.0923	11,021,910.3009	N 31° 24' 47.92" E	662.3411													+
	TS	6261+54.13	6,875,607.1541	11,828,315.5984															
												0° 06' 15.00"	100.0000	100.0000	0.0606				
	SC	6262+54.13	6,875,692.4657	11,828,367.7710															
C11-2A	PI	6263+04.61	6,875,735.5829	11,828,394.0326			27501.9893	0° 12' 30.00"	100.9697	0° 12' 37.27" R	0° 25' 07.27" R					1/2"	60 MPH	110MPH	110 MPH
		6262   55 40	6 975 779 4422	11 020 420 7117													+		+
	CS	6263+55.10	6,875,778.4433	11,828,420.7117				+				0° 06' 15.00"	100.0000	100.0000	0.0606		+		+
	ST	6264+55.10	6,875,863.4351	11,828,473.4032				1		1		0 00 13.00	100.0000	100.0000	0.0000	1	1		+
		0201100.10	5,57 5,555 1.55 1	,	N 31° 49' 55.19" E	240.0000													<u> </u>
	TS	6266+95.10	6,876,067.3387	11,828,599.9865															
												0° 08' 17.50"	100.0000	100.0000	0.0804				
	SC	6267+95.10	6,876,152.3409	11,828,652.6612															
C44 2D	- DI	0000:45.00	0.070.404.0004	44 000 070 4500			00700 4544	0° 40' 25 00"	100 2100	00 401 27 0011	00 221 42 0011 1					4 /0!!	OO MELL	440 MDU	440 MDU
C11-2B	PI	6268+45.20	6,876,194.8684	11,828,679.1569			20730.1514	0° 16' 35.00"	100.2100	0° 16' 37.09" L	0 33 12.09 L					1/2"	60 MPH	110 MPH	110 MPH
	CS	6268+95.31	6,876,237.7333	11,828,705.1032															+
		0200100.01	5,51 5,251 11 555	,								0° 08' 17.50"	100.0000	100.0000	0.0804				<u> </u>
	ST	6269+95.31	6,876,323.1567	11,828,757.0919															1
					N 31° 16' 43.10" E	68.6910													
MATCH	POE	6270+64.00	6,876,381.8637	11,828,792.7563															
EXIST. TRK 3					N. 44°40 F0 17  F	1 015 0067		1											<del>                                     </del>
	TS	4240+15.01	6,873,869.0666	11,827,076.3422	N 44°49'58.17"E	1,015.0067													
		4240113.01	0,070,000.0000	11,021,010.0422				1				0°58'42.98"	186.0000	185.9946	1.0589		+		
	SC	4242+01.01	6,874,001.7143	11,827,206.7250															
C10-1	PI	4247+43.53	6,874,385.7117	11,827,589.9812			5,445.000	1° 03' 08.15"	1,079.2639	11° 21' 24.14" L	13° 18' 50.10" L					1"	60 mph		
	CS	4252+80.27	6,874,848.7542	11,827,872.7021								0°59'42 09"	400,0000	405.0040	4.0500				
MATCH	ST	4254+66.27	6,875,006.7550	11,827,970.8390								0°58'42.98"	186.0000	185.9946	1.0589				
EXIST TRK 2	31	4204700.21	0,070,000.7000	11,021,910.0390	N 31°31'08.07"E	171.0647													
LAIST THICZ					1	.71.0017													

## NOTES:

I)TRACK ALIGNMENT DATA SHOWN AS SHADED IS AS DESIGNED UNDER THE CSXT ARKENDALE TO POWELLS CREEK THIRD TRACK DESIGN/BUILD PROJECT AND IS THE RESPONSIBILITY OF THE DESIGN/BUILD TEAM.
2)THE DC SHOWN IS BASED ON CHORD DEFINITION. LENGTH OF CURVE AND ALL PROJECT STATIONING ARE BASED ON ARC DEFINITION TO MATCH THE REMAINDER OF THE PROJECT.

3) DESIGN SPEED IN ACCORDANCE WITH CSX ST'D.2511 AND 2510.

4) LENGTH OF SPIRAL (Ls) MEETS OR EXCEEDS MINIMUM AREMA REQUIREMENTS FOR PASSENGER COMFORT BASED ON ACTUAL CALCULATED EQUILIBRIUM UNBALANCES AT THE AUTHORIZED SPEED OF 55 MPH THROUGH THE STATION.

#### ABBREVIATIONS:

CS - CURVE TO SPIRAL PI - POINT OF INTERSECTION

PITO - POINT OF INTERSECTION OF TURNOUT

POB - POINT OF BEGINNING

POC - POINT ON CURVE POE - POINT OF ENDING

POT - POINT ON TANGENT

PS - POINT OF SWITCH

SC - SPIRAL TO CURVE

ST - SPIRAL TO TANGENT

TS - TANGENT TO SPIRAL

INVITATION FOR BID NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION	DESIGNED BY:	
	0	06/10/20			INVITATION FOR BID	KRJ	
						DRAWN BY:	3
						KRJ	Ī
APPROVED BY COUNTY						CHECKED BY:	ŧ
						RCB	3
		-				DATE:	
						06/10/2020	





STV Jears
STV Incorporated
2701 Prosperity Avenue, Suite 305 Fairfax, Virginia 22031

QUANTICO STATION	
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SH 1 SH

IFB NO:

DRAWING NO:

ALIGNMENT DATA PROPOSED TRACK 2 & TRACK 1 T-001

SCALE:

AS SHOWN

SHEET NO:

29 OF 202

IFB-020-019

								TRACK GEOME	TRY DATA										
								PROPOSED	TRACK 3										
CURVE NO.	DESC.	STATION	NORTHING	EASTING	BEARING	DISTANCE	Rc (ft)	Dc	Lc (ft)	DELTA c	I	THETA	Ls (ft)	X (ft)	Y (ft)	Ea.	FREIGHT V	PASSENGER V (3" Eu)	PASSENGER V (4" Eu)
MATCH																			
EXIST. TRK 3	POB	8233+71.28	6,873,432.9774	11,826,601.9486															
					N 44° 51' 07.13" E	521.9854													+
	TS	8238+93.27	6,873,803.0291	11,826,970.0932				+		+		0° 27' 47.48"	100.0000	99.9995	0.2695		+		+
	SC	8239+93.27	6,873,874.1118	11,827,040.4296								0 21 41.40	100.0000	99.9993	0.2093				
C10-3	PI	8246+71.95	6,874,355.0631	11,827,519.2824			6184.9191	0° 55' 34.96"	1350.6670	12° 30' 44.25" L	13° 26' 19.21" L					1"	60 MPH	78 MPH	87 MPH
	CS	8253+43.93	6,874,934.4141	11,827,872.7888															
												0° 27' 47.48"	100.0000	99.9993	0.2695				
	ST	8254+43.93	6,875,019.6160	11,827,925.1392															
			0.075.000.7007	44.000.000.0070	N 31° 24' 47.92" E	704.4172													#
	TS	8261+48.35	6,875,620.7867	11,828,292.2870								20 201 20 201	100 0000		0.0400				
	00	0000 : 40.05	0.075.700.0450	44 000 044 5000								0° 22' 29.99"	100.0000	99.9996	0.2182				
	SC	8262+48.35	6,875,706.0156	11,828,344.5938															+
C11-3A	DI	0000+00 70	6,875,749.1701	11,828,370.6935			7000 4040	0° 44' 59.98"	100.8518	0° 45! 22 00" D	1° 30' 22.96" R					4 /0!!	CO MOLL	O4 MDLI	02 MDLL
CTI-3A	PI	8262+98.78	6,675,749.1701	11,020,370.0933		<u> </u>	7639.4918	0 44 59.96	100.6516	U 45 22.90 R	1 30 22.90 K	+		<u> </u>		1/2"	60 MPH	81 MPH	92 MPH
	CS	8263+49.20	6,875,791.3865	11,828,398.2850															
	- 00	0203149.20	0,070,701.0000	11,020,000.2000								0° 22' 29.99"	100.0000	99.9996	0.2182				+
	ST	8264+49.20	6,875,875.4480	11,828,452.4479								0 22 20.00	100.0000	00.0000	0.2102				
	<u> </u>	0201 10.20	-,,	, ,	N 33° 55' 10.88" E	240.0000													+
	TS	8266+89.20	6,876,076.9119	11,828,582.8790										1					
												0° 22' 17.49"	100.0000	99.9996	0.2161				
	SC	8267+89.20	6,876,160.9724	11,828,637.0437															
C11-3B	PI	8268+39.29	6,876,202.9049	11,828,664.4489			7710.8879	0° 44' 34.98"	100.1732	0° 44' 39.61" L	1° 29' 14.60" L					1/2"	60 MPH	82 MPH	93 MPH
	11	0200133.29	0,010,202.0040	11,020,004.4400			7710.0073	0 44 04.00	100.1702	0 44 00.01 E	1 20 14.00 E					1/2	00 1011 11	OZ IVII II	95 1/11 11
	CS	8268+89.37	6,876,245.7600	11,828,690.3877															
												0° 22' 17.49"	100.0000	99.9995	0.2161				
	ST	8269+89.37	6,876,330.9726	11,828,742.7209															
							69+90.65 (BK) = 82 DPOSED ALIGNME											+	+
MATCH	POT	8269+92.71	6,876,332.0613	11,828,743.3863							<u> </u>							<u> </u>	
PROP. TRK 3					N 31° 25' 56.28" E	378.2200													
C12-3	TS	8273+70.93	6,876,654.8163	11,828,940.6466															
312 3		52.0 , 5.00	2,2.2,22110100	,===,= .3.0 100															

#### <u>NOTES:</u>

I) TRACK ALIGNMENT DATA SHOWN AS SHADED IS AS DESIGNED UNDER THE CSXT ARKENDALE TO POWELLS CREEK THIRD TRACK DESIGN/BUILD PROJECT AND IS THE RESPONSIBILITY OF THE DESIGN/BUILD TEAM. 2) THE DC SHOWN IS BASED ON CHORD DEFINITION. LENGTH OF CURVE AND ALL PROJECT STATIONING ARE BASED ON ARC DEFINITION TO MATCH THE REMAINDER OF THE PROJECT.

3) DESIGN SPEED IN ACCORDANCE WITH CSX ST'D.2511 AND 2510. 4) LENGTH OF SPIRAL (Ls) MEETS OR EXCEEDS MINIMUM AREMA REQUIREMENTS FOR PASSENGER COMFORT BASED ON ACTUAL CALCULATED EQUILIBRIUM UNBALANCES AT THE AUTHORIZED SPEED OF 55 MPH THROUGH THE STATION.

#### <u>ABBREVIATIONS:</u>

CS - CURVE TO SPIRAL

PI - POINT OF INTERSECTION

PITO - POINT OF INTERSECTION OF TURNOUT

POB - POINT OF BEGINNING

POC - POINT ON CURVE

POE - POINT OF ENDING

POT - POINT ON TANGENT PS - POINT OF SWITCH

SC - SPIRAL TO CURVE

ST - SPIRAL TO TANGENT TS -TANGENT TO SPIRAL

INVITATION FOR BID NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION	DESIGNED BY:	
	0	06/10/20			INVITATION FOR BID	KRJ	
						DRAWN BY:	ż
						KRJ	ŧ
APPROVED BY COUNTY						CHECKED BY:	ŧ
						RCB	3
						DATE:	
						06/10/2020	

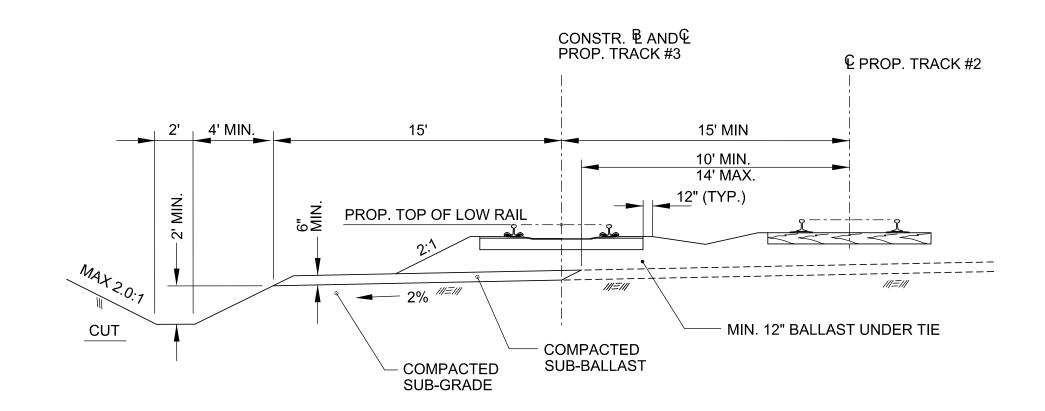




•	STV Jears
	STV Incorporated
	2701 Prosperity Avenue, Suite 305 Fairfax, Virginia 22031

	IFB NO:				
OLIANTICO STATIONI	IFB-020-019				
QUANTICO STATION	DRAWING NO:				
	T-002				
	SCALE:				
ALIGNMENT DATA	AS SHOWN				
PROPOSED TRACK 3	SHEET NO:				
THO SCED THOUSE	29 OF 202				





PROPOSED TRACK #3 WITH 15' SUB-BALLAST SHOULDER - DITCH STA 8241+50 TO 8247+39.50 \*

★ FOR PG-5 STA. 8244+00 TO STA. 8245+50, SEE DR-003 AND X-SECTIONS.

NOTES: 1. FOR SLOPE STABILIZATION DETAILS, SEE DITCH/CHANNEL LINING SUMMARY, SHEET DR-003.

2. GAPS BETWEEN STATIONS ARE TRANSITION BETWEEN 15' TO 12' SUB-BALLAST SHOULDER WIDTH.

3. FOR GEOGRID AND GEOTEXTILE FABRIC (IF NEEDED FOR ROADBED STABILIZATION) AND AS DIRECTED BY THE ENGINEER, REFER TO SPECIFICATIONS, APPENDIX A, SECTION 020260 AND 020265. ASSUME 200 SY. GEOGRID AND 300 SY. GEOTEXTILE FABRIC FOR BID.

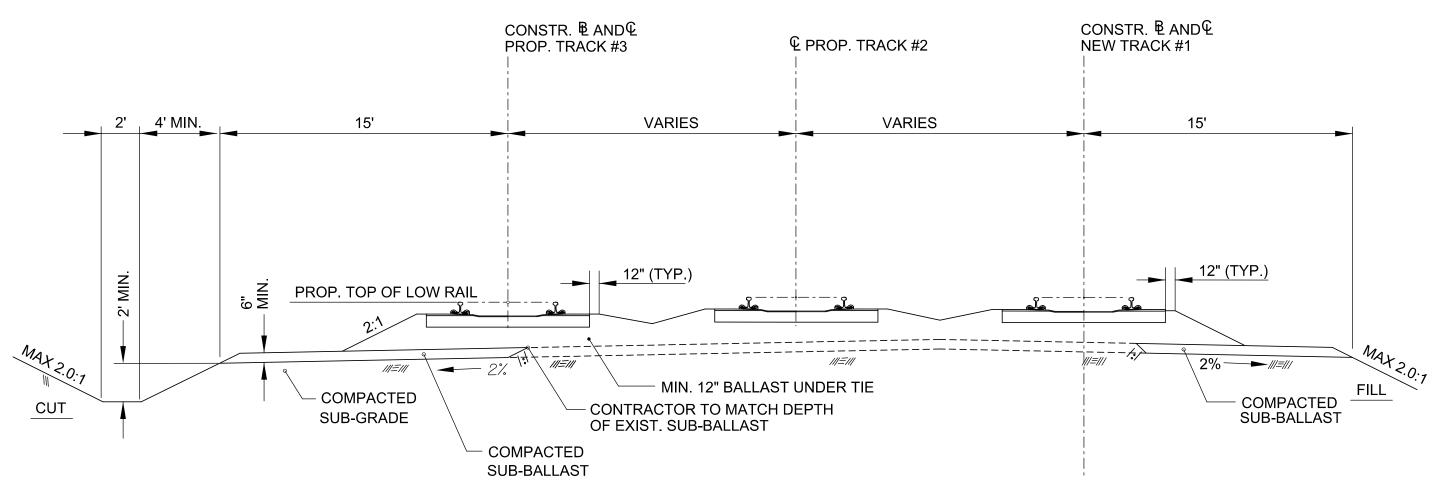
4. THE CONTRACTORWILL BE RESPONSIBLE FOR THE CONSTRUCTION OF TRACK ROAD BED TO TOP OF SUB-BALLAST LAYER.

CSXT WILL BE RESPONSIBLE FOR INSTALLATION OF BALLAST, TRACK CONSTRUCTION INCLUDING TIES, RAILS AND OTM, AND LINING OF TRACK. CSX WILL PROVIDE ALL MATERIALS FOR TRACK CONSTRUCTION.

6. CSXT WILL BE RESPONSIBLE FOR INSTALLATION OF NEW AT-GRADE CROSSING TRACK 3 POTOMAC AVE. AND RELOCATION OF AT-GRADE CROSSING TRACK 2 POTOMAC AVE. INCLUDING ALL MATERIALS REQUIRED.

7. CSXT WILL BE RESPONSIBLE FOR CUT-IN OF NEW TRACK.

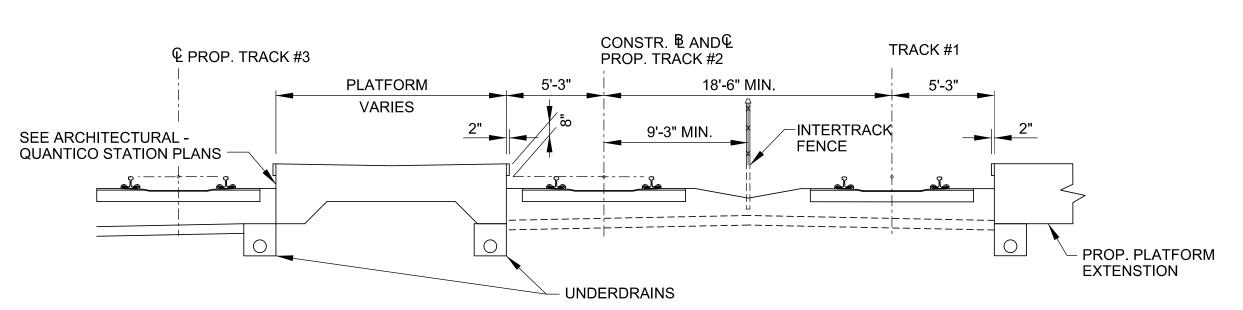
INVITATION FOR BID NOT FOR CONSTRUCTION



#### 15' SUB-BALLAST SHOULDER - LT CUT

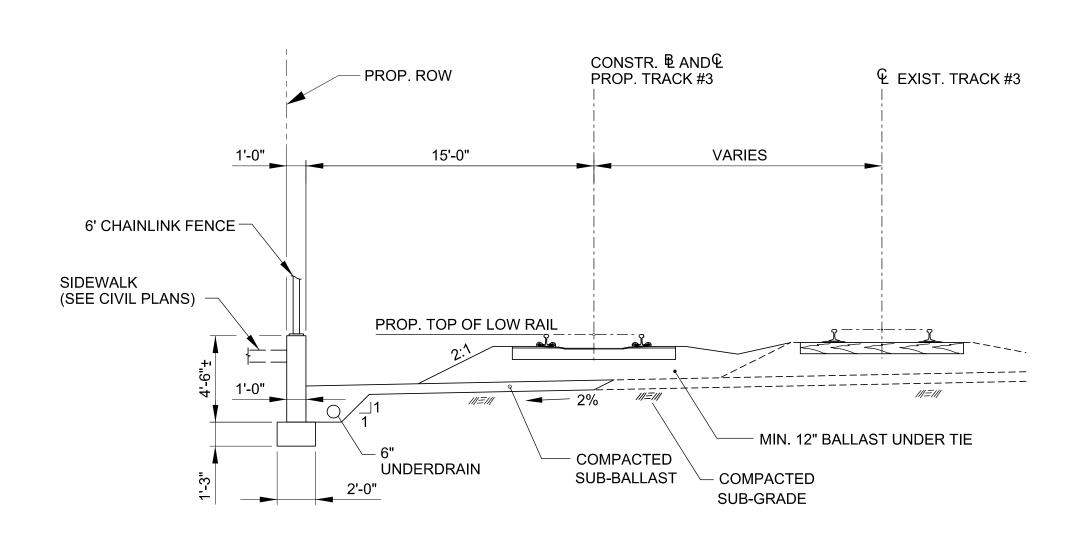
### 15' SUB-BALLAST SHOULDER - RT FILL

## TYPICAL ROADBED - TRIPLE TRACK #SECTION



QUANTICO STATION STA 8249+77 TO 8258+34

PLATFORM EXTENSION STA 4252+33 TO 4256+08 EAST SIDE



BALLAST RETAINER STA 8252+25 TO 8260+00

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION	DESIGNED BY:	
	0	06/10/20			INVITATION FOR BID	MAJ	١,
						DRAWN BY: MAJ	*
APPROVED BY COUNTY						CHECKED BY: EAB	****
						DATE: 06/10/2020	





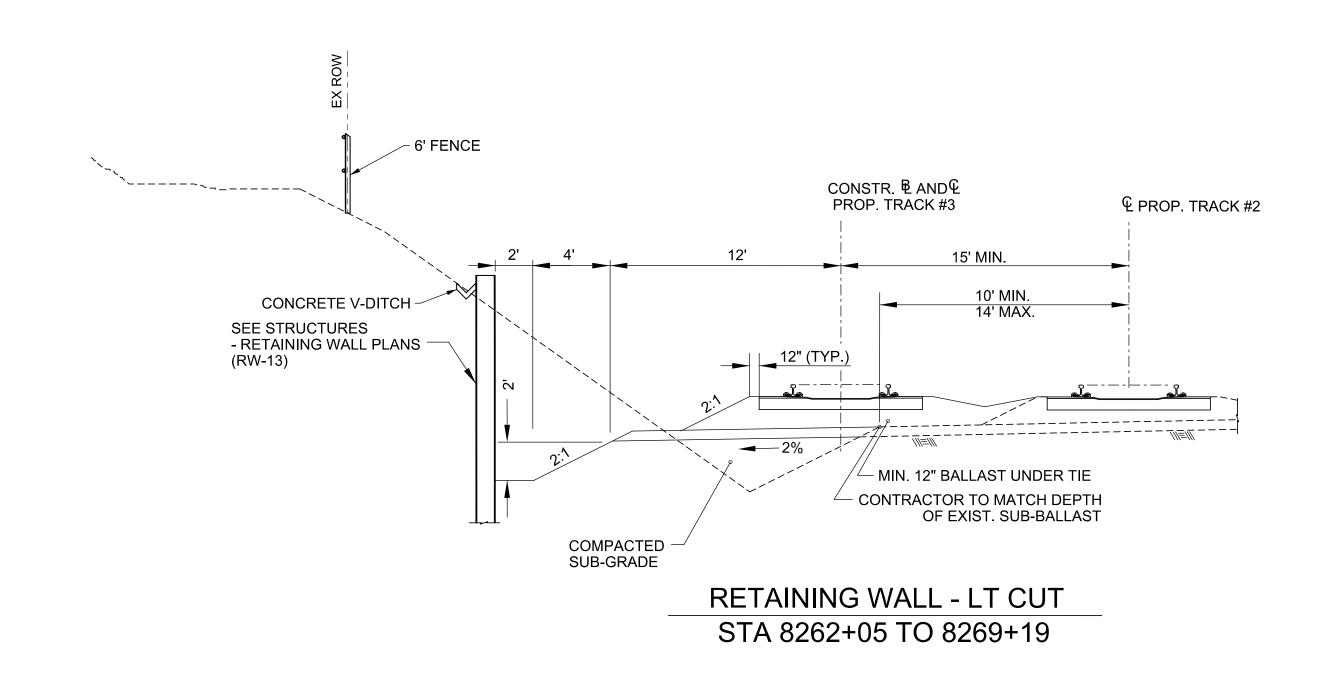
STV 100 Jeans
STV Incorporated
2701 Prosperity Avenue, Suite 305 Fairfax, Virginia 22031

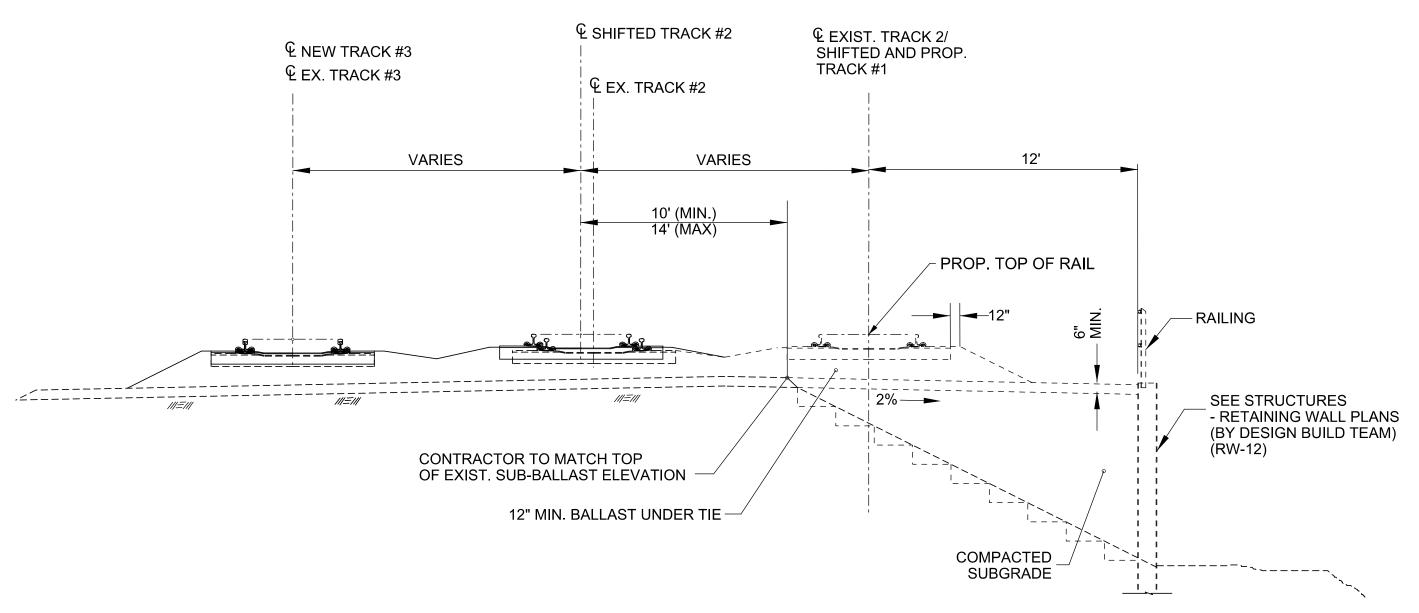
**QUANTICO STATION** 

TRACK TYPICAL SECTIONS

IFB-020-019 DRAWING NO: TS-001 SCALE: AS SHOWN SHEET NO: 31 OF 202

IFB NO:





IFB NO:

SCALE:

SHEET NO:

DRAWING NO:

IFB-020-019

TS-002

AS SHOWN

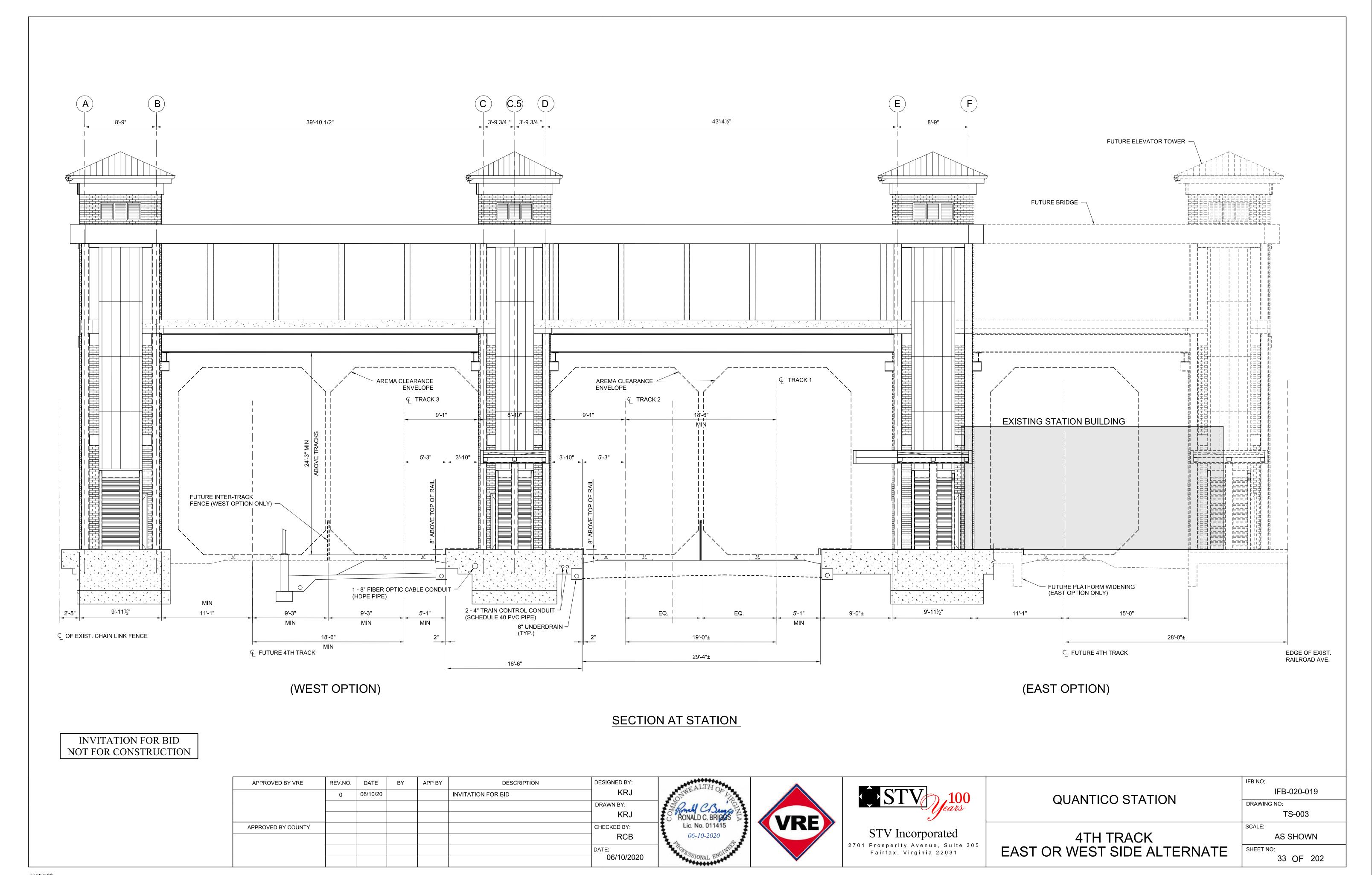
32 OF 202

NOTE: 1. RETAINING WALL RW-12 AND TRACK ROADBED GRADING COMPLETED UNDER CSXT ARKENDALE TO POWELLS CREEK THIRD TRACK PROJECT.

RETAINING WALL - RT FILL (NIC - BY DESIGN BUILD TEAM)
STA 4240+45 TO 4244+80

INVITATION FOR BID NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO. DATE 0 06/10/20	BY	APP BY DESCRIPTION INVITATION FOR BID	DESIGNED BY:  MAJ  DRAWN BY:  MAJ	RONALD C BRIGGS		\$\hat{STV}_{lears}^{100}	QUANTICO STATION
APPROVED BY COUNTY				CHECKED BY:  EAB  DATE: 06/10/2020	Lic. No. 011415  06-10-2020  ROMESSIONAL ENGINEER	VRE	STV Incorporated 2701 Prosperity Avenue, Suite 305 Fairfax, Virginia 22031	TRACK TYPICAL SECTIONS



#### GENERAL NOTES

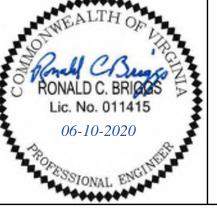
UNLESS OTHERWISE APPROVED OR DIRECTED BY THE ENGINEER THE CONTRACTOR SHALL PLAN AND PERFORM THE WORK IN ACCORDANCE WITH THE FOLLOWING:

- 1. EXISTING DETAIL LINE WORK IN TRAFFIC CONTROL PLANS IS A GRAPHICAL REPRESENTATION OF THE EXISTING CONDITIONS AND PROPOSED MOT.
- 2. IT IS NOT INTENDED OF THIS PLAN TO ENUMERATE EVERY DETAIL WHICH MUST BE CONSIDERED IN THE CONSTRUCTION OF EVERY STAGE, BUT ONLY SHOW THE GENERAL FEATURES NECESSARY TO PROVIDE FOR PROPER HANDLING OF TRAFFIC.
- 3. THE PHASES IN THE SEQUENCE OF CONSTRUCTION SHALL BE FOLLOWED UNLESS THE CONTRACTOR SUBMITS AN ALTERNATE PLAN AND SECURES THE APPROVAL OF THE ENGINEER FOR A SEQUENCE WHICH WILL BOTH EXPEDITE CONSTRUCTION AND LESSEN THE EFFECT OF SUCH CONSTRUCTION UPON THE TRAVELING PUBLIC. PORTIONS OF THE ROADWAYS IN THE DIFFERENT PHASES MAY BE CONSTRUCTED CONCURRENTLY PROVIDED THEY DO NOT INTERFERE WITH EXISTING TRAFFIC FLOW AND/OR DO NOT CAUSE ANY DELAY IN THE PROJECT COMPLETION.
- 4. ALL WORK IS TO BE PERFORMED IN ACCORDANCE WITH THE CURRENT MUTCD, THE VIRGINIA WORK AREA PROTECTION MANUAL (2011 EDITION) AND AS DIRECTED BY THE ENGINEER.
- 5. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SUPPLY, INSTALL AND MAINTAIN ALL TRAFFIC CONTROL EQUIPMENT FOR THE DURATION OF THE PROJECT.
- 6. THE CONTRACTOR WILL PROVIDE FOR THE SAFE OPERATION OF THE ROADWAY AT-GRADE CROSSING AS REQUIRED TO PROHIBIT ANY POSSIBLE QUEUING OF TRAFFIC WITHIN THE CSXT CROSSING.
- 7. ACCESS TO ALL ADJACENT RESIDENTIAL AND COMMERCIAL PROPERTIES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION, OR AS DIRECTED BY THE ENGINEER.
- 8. IF THE CONTRACTOR DEVIATES FROM THIS TRAFFIC CONTROL PLAN THEY SHALL SUBMIT A REVISED TRAFFIC CONTROL PLAN TO THE ENGINEER FOR APPROVAL PRIOR TO THE BEGINNING OF EACH PHASE. THE REVISED CONTROL PLAN SHALL SHOW ALL NECESSARY TRAFFIC CONTROL DEVICES, INCLUDING SIGNS, AND CHANNELING DEVICES.
- 9. ALL TRAFFIC CONTROL DEVICES SHALL BE PLACED AND MOVED AS NECESSARY TO MAINTAIN ADEQUATE PROPERTY OWNER ACCESS AT ALL TIMES. WORK MAY REQUIRE ADDITIONAL TRAFFIC CONTROL DEVICES, GRADING, AND TEMPORARY PAVEMENT FOR PASSAGE OF PEDESTRIANS, VEHICULAR, AND EMERGENCY TRAFFIC THROUGH THE WORK AREAS BOTH DURING AND AFTER WORKING HOURS.
- 10. VDOT PERMITS FOR CONSTRUCTION ENTRANCES MAY BE REQUIRED. OTHER LOCAL PERTINENT CONSTRUCTION ZONE PERMITS/NOTIFICATIONS MAY BE REQUIRED.
- 11. ALL MAJOR CONSTRUCTION TRAFFIC ENTERING MCBQ (i.e. LARGE LOADS, MATERIAL DELIVERY, EQUIPMENT DELIVERY, etc.) ARE REQUIRED TO USE THE SOUTH GATE ENTRANCE (EXIT 148).
- 12. ALL TRAFFIC CONTROL SHALL COMPLY WITH VDOT, MCBQ, AND LOCAL TOWN AND COUNTY PERMITS, NOTIFICATIONS, AND OTHER PARAMETERS, AS REQUIRED BY LOCATION AND FIELD CONDITIONS.
- 13. ALL TRAFFIC CONTROL WITHIN LIMITS OF MCBQ SHALL BE SUBMITTED, REVIEWED, AND APPROVED BY MCBQ PRIOR TO START OF CONSTRUCTION.

INVITATION FOR BID NOT FOR CONSTRUCTION

\$\$FILE\$\$ \$\$DATE\$\$ \$\$TIME\$\$

#### REV.NO. APP BY DESCRIPTION DESIGNED BY: APPROVED BY VRE DATE BY MAJ 06/10/20 **INVITATION FOR BID** DRAWN BY: MAJ APPROVED BY COUNTY CHECKED BY: EAB 06/10/2020







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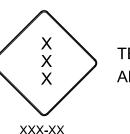
DRAWING NO: TC-001 SCALE: AS SHOWN

IFB NO:

TRAFFIC CONTROL **GENERAL NOTES** 

LEGEND

APPROXIMATE TEMPORARY CONSTRUCTION SITE ACCESS ENTRANCE (SEE E&SC STANDARD DETAILS)



TEMPORARY SIGN MESSAGE AND DESIGNATION

**WORK ZONE** 

TEMPORARY SIGN

SAFETY CONE

TYPE III BARRICADE (8' WIDE)

TYPE III BARRICADES WITH POLICE ASSISTANCE

EXISTING TRAFFIC FLOW

FLAGGER STATION

TEMPORARY TRAFFIC FLOW



## STANDARD ACRONYMS

CSXT CSX TRANSPORTATION

MCBQ MARINE CORPS BASE QUANTICO

MOT MAINTENANCE OF TRAFFIC

MUTCD MANUAL UNIFORM TRAFFIC CONTROL DEVICES

**PCMS** PORTABLE CHANGEABLE MESSAGE SIGN

SUPPORT OR TRAILER

TRAFFIC CONTROL PLAN

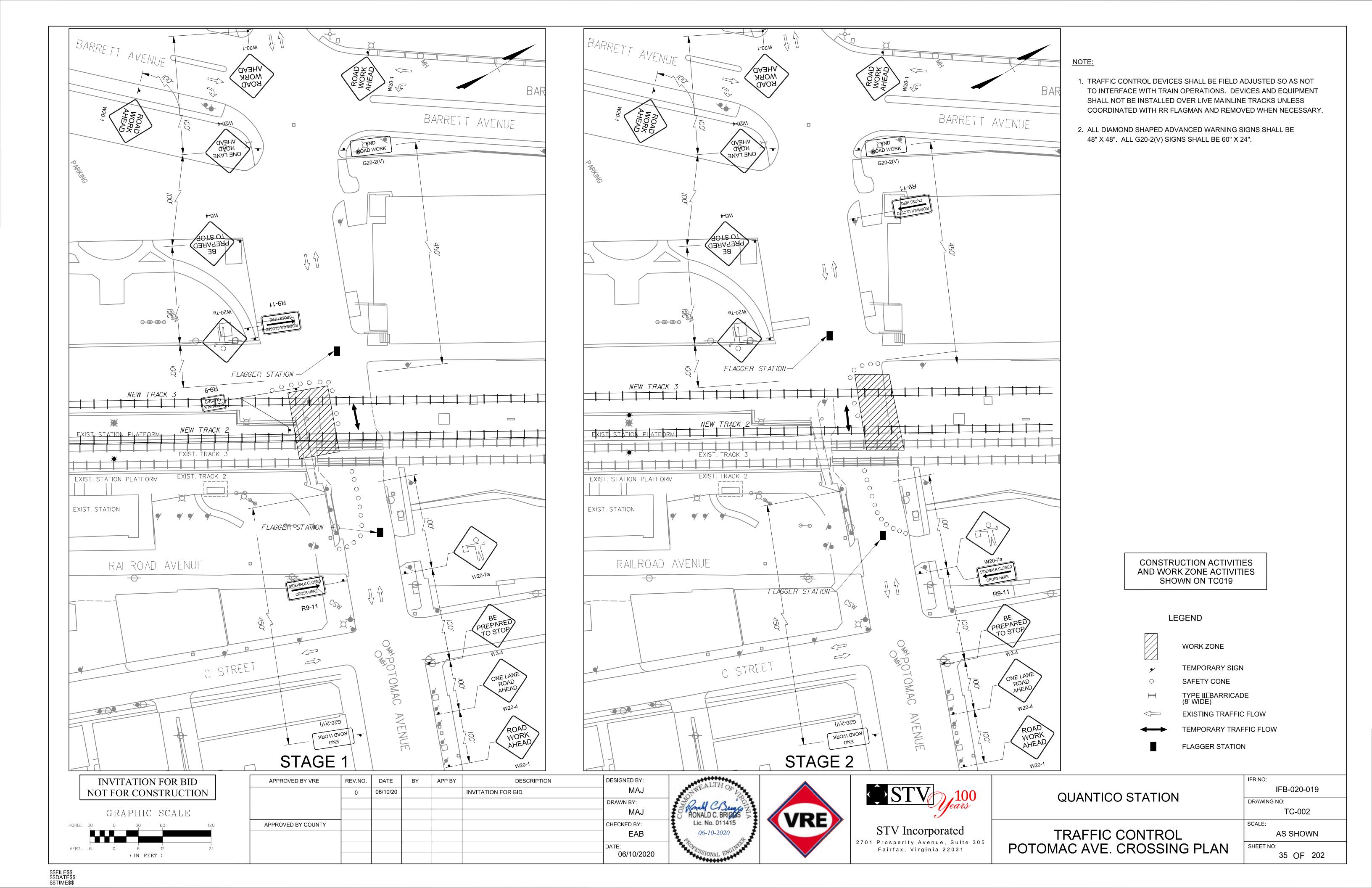
**VDOT** VIRGINIA DEPARTMENT OF TRANSPORTATION

VWAPM VIRGINIA WORK AREA PROTECTION MANUAL

**QUANTICO STATION** 

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IFB-020-019



#### POTOMAC AVENUE

#### WORK ZONE ACTIVITIES

- 1. WORK IMPACTING THE TRAVEL PATTERNS OF THE EXISTING CROSSING SHALL BE RESTRICTED TO NON-HOLIDAY WEEKEND PERIODS ONLY. LANE CLOSURE WORK HOURS SHALL BE LIMITED TO THE PERIOD STARTING AT 7 PM ON FRIDAY AND ENDING ON MONDAY MORNING AT 5 AM. DURING THESE HOURS A MINIMUM 12 FOOT TRAVEL LANE AND 4 FOOT PEDESTRIAN SHOULDER SHALL BE PROVIDED FOR AT ALL TIMES.
- 2. WORK WITHIN THE VICINITY OF THE HIGHWAY-RAIL CROSSING SHALL ADHERE STRICTLY TO THE VIRGINIA WORK ZONE PROTECTION MANUAL TTC-56.0; ENTITLED "WORK IN THE VICINITY OF A HIGHWAY RAIL CROSSING".
- 3. INSTALL TEMPORARY SIGNS AS SHOWN ON DRAWING TC-002 TO CLOSE ONE HALF OF POTOMAC AVE. AT A TIME.

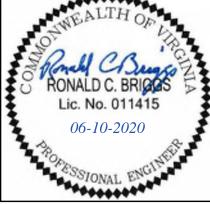
STAGE 1: 1. WORK WILL BE LIMITED TO THE SOUTHERN HALF OF THE EXISTING CROSSING IN A MANNER TO AFFORD A MINIMUM 12 FOOT TRAVEL LANE AND A 4 FOOT PEDESTRIAN SHOULDER AS REQUIRED FOR FLAGGING OPERATION.

STAGE 2: 1. WORK WILL BE LIMITED TO THE NORTHERN HALF OF THE EXISTING CROSSING IN A MANNER TO AFFORD A MINIMUM 12 FOOT TRAVEL LANE AS REQUIRED FOR FLAGGING OPERATION.

- 4. UPON COMPLETION OF ALL WORK, REMOVE ALL LANE CLOSURES, AND ALL TEMPORARY TRAFFIC DEVICES.
- 5. ALL WORK WITHIN THE HIGHWAY-RAIL CROSSING WILL BE ACCOMPLISHED AS SHOWN ON DRAWING GC-002. STAGING FOR THE INSTALLATION OF NEW AT-GRADE RAIL CROSSING IS THE RESPONSIBILITY OF CSX.

INVITATION FOR BID NOT FOR CONSTRUCTION

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APPROVED BY COUNTY						CHECKED BY:
						EAB
						DATE:
						06/10/2020







# QUANTICO STATION

TRAFFIC CONTROL POTOMAC AVE.
CROSSING CONSTRUCTION
SEQUENCE/WORK ZONE NOTES

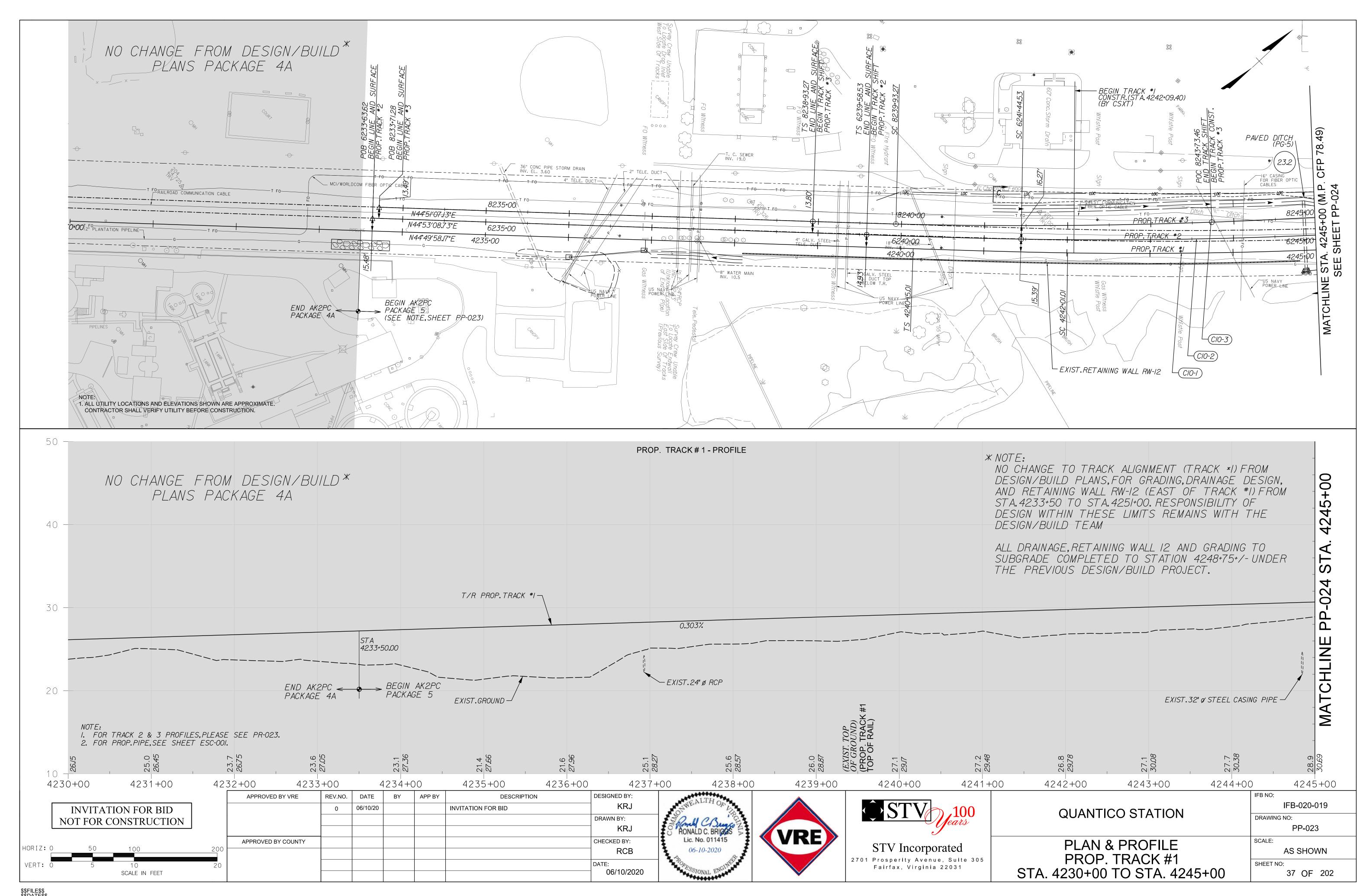
IFB NO:
IFB-020-019
DRAWING NO:
TC-003

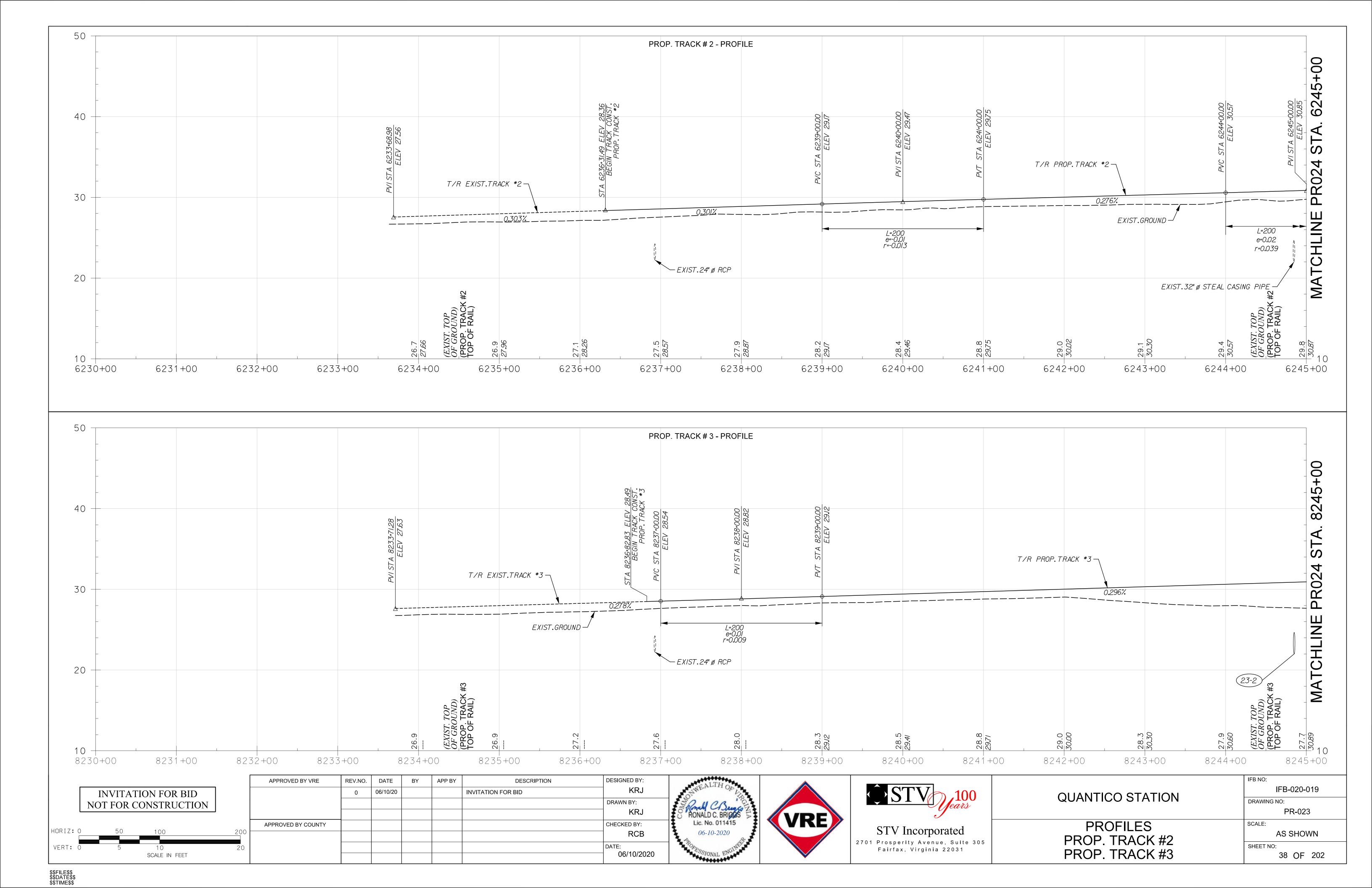
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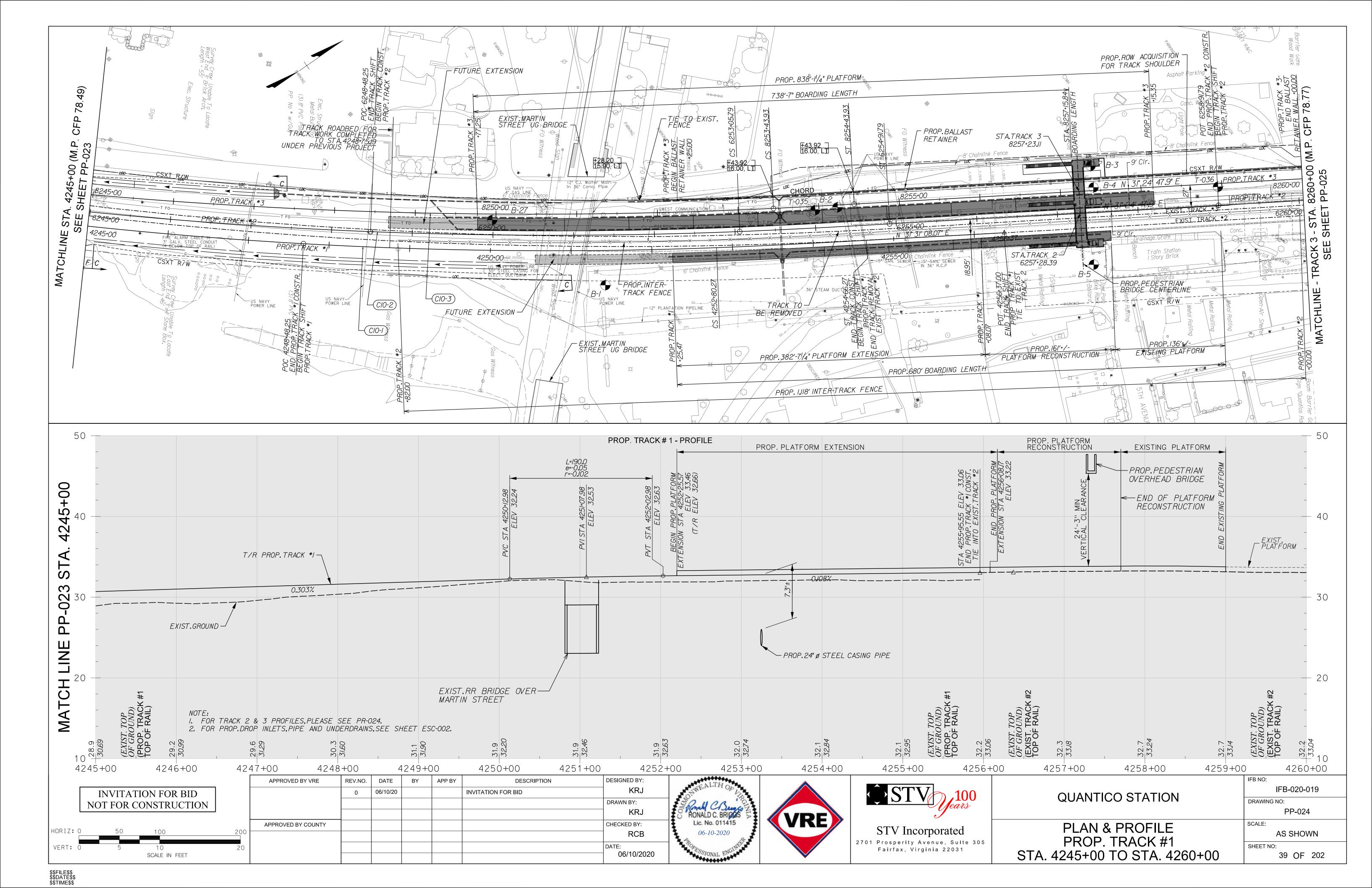
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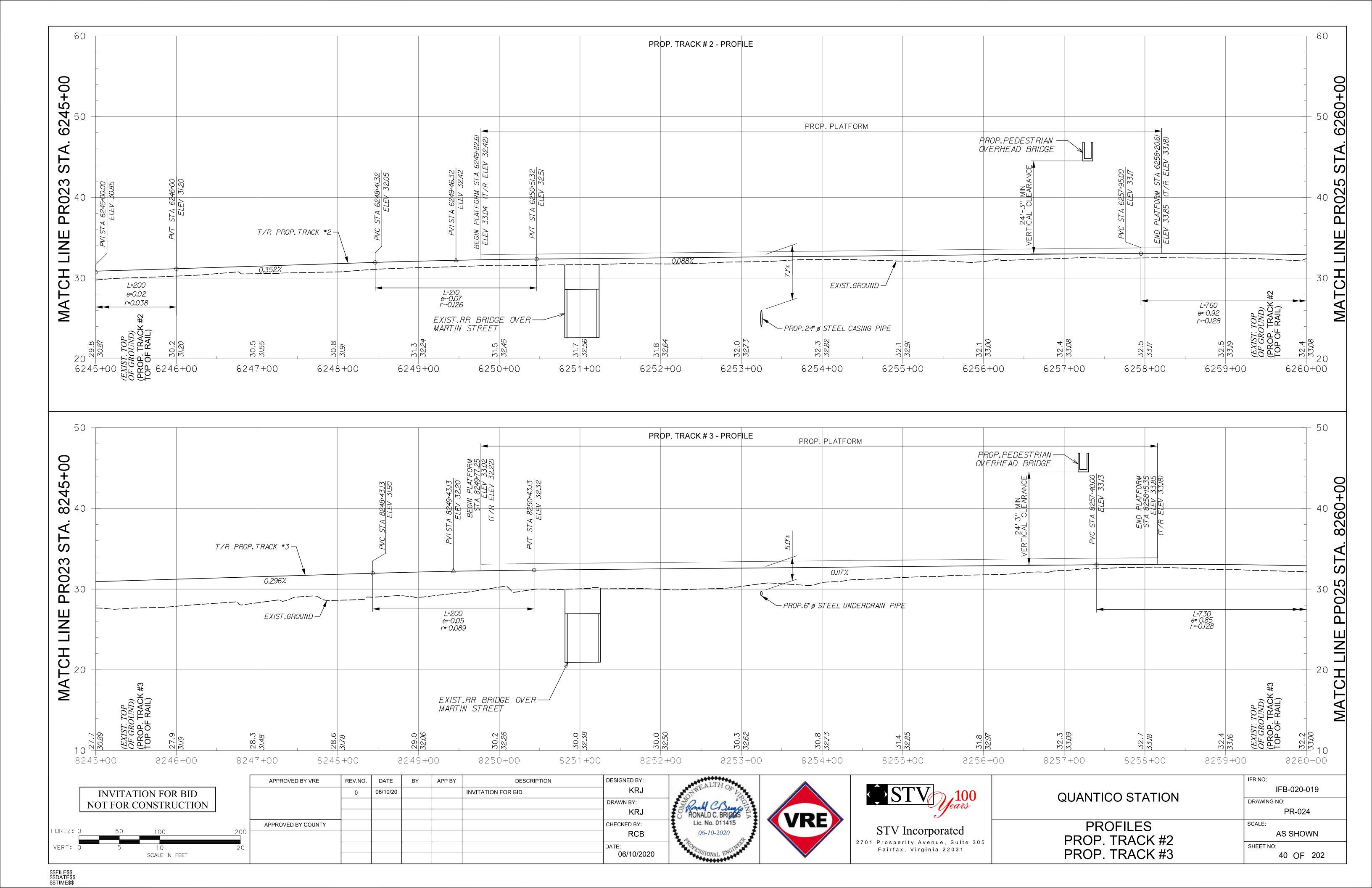
36 OF 202

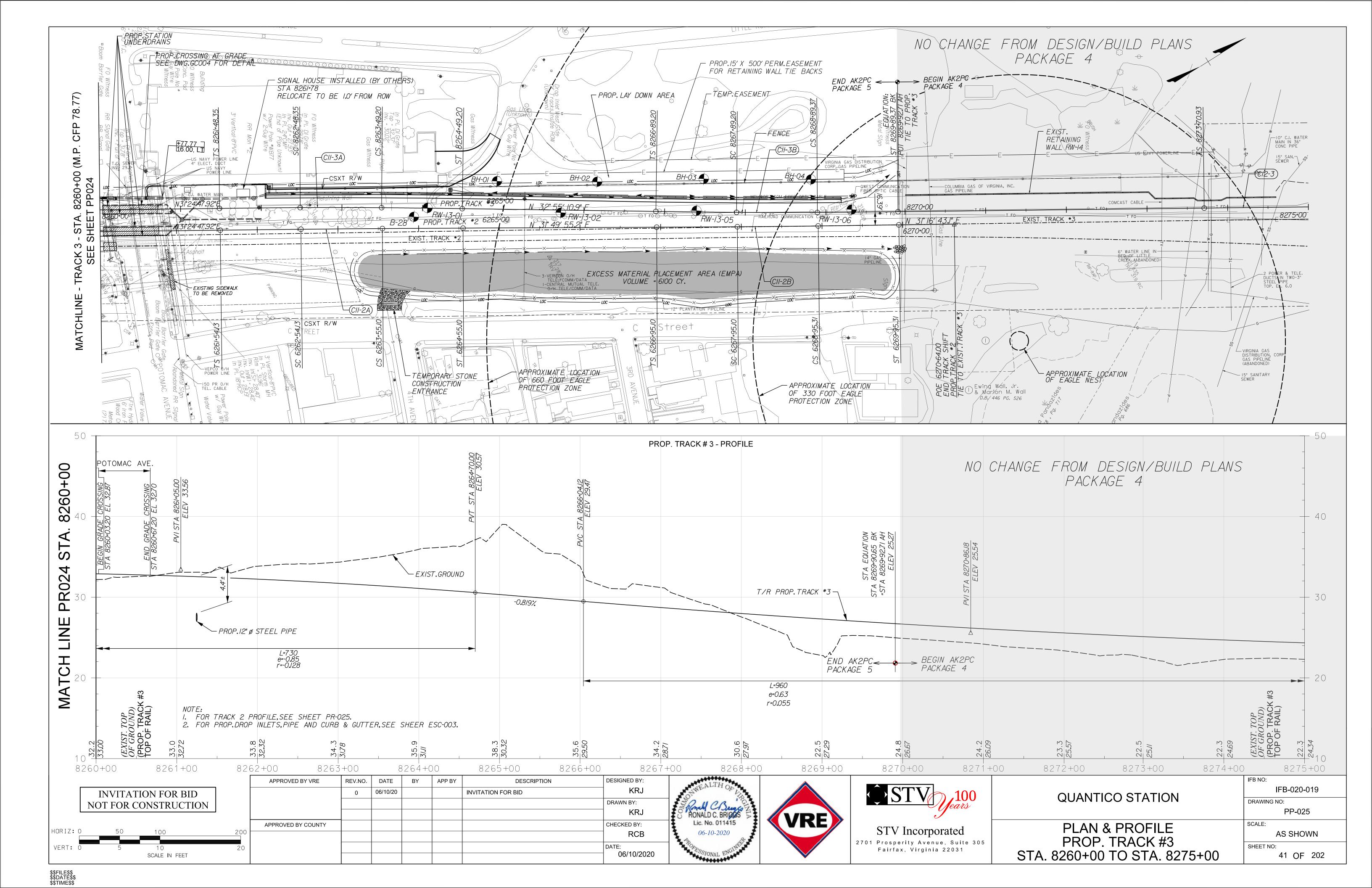


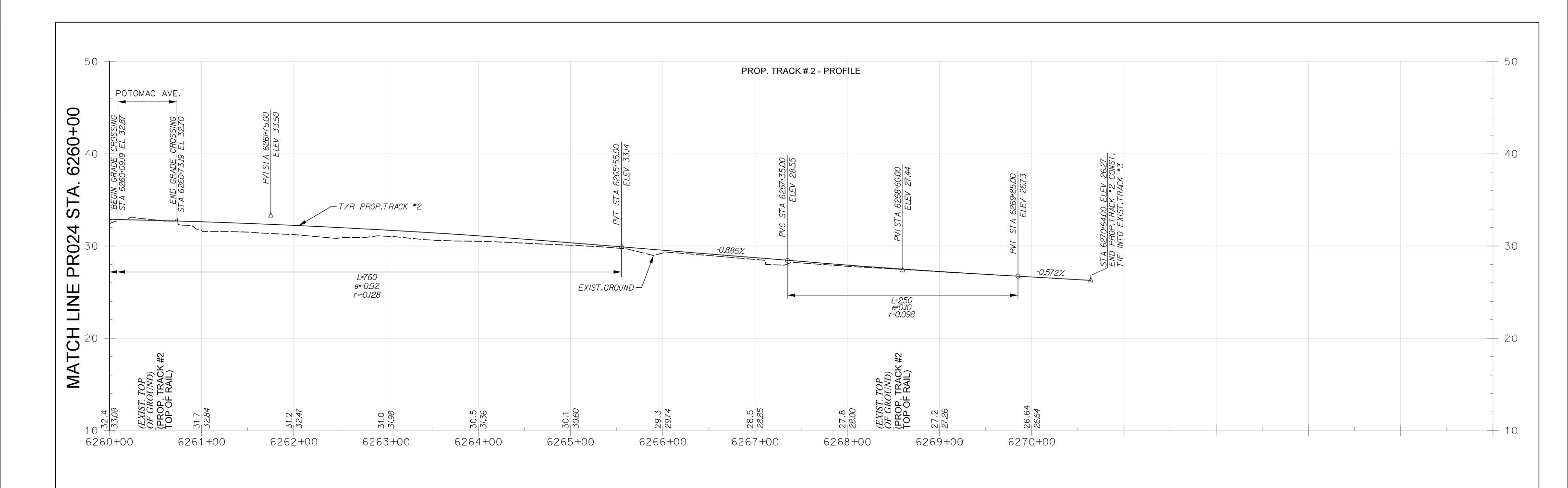






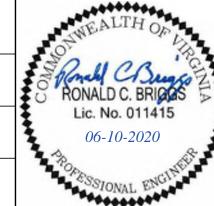


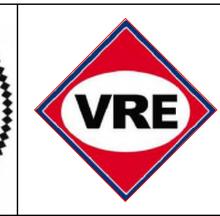




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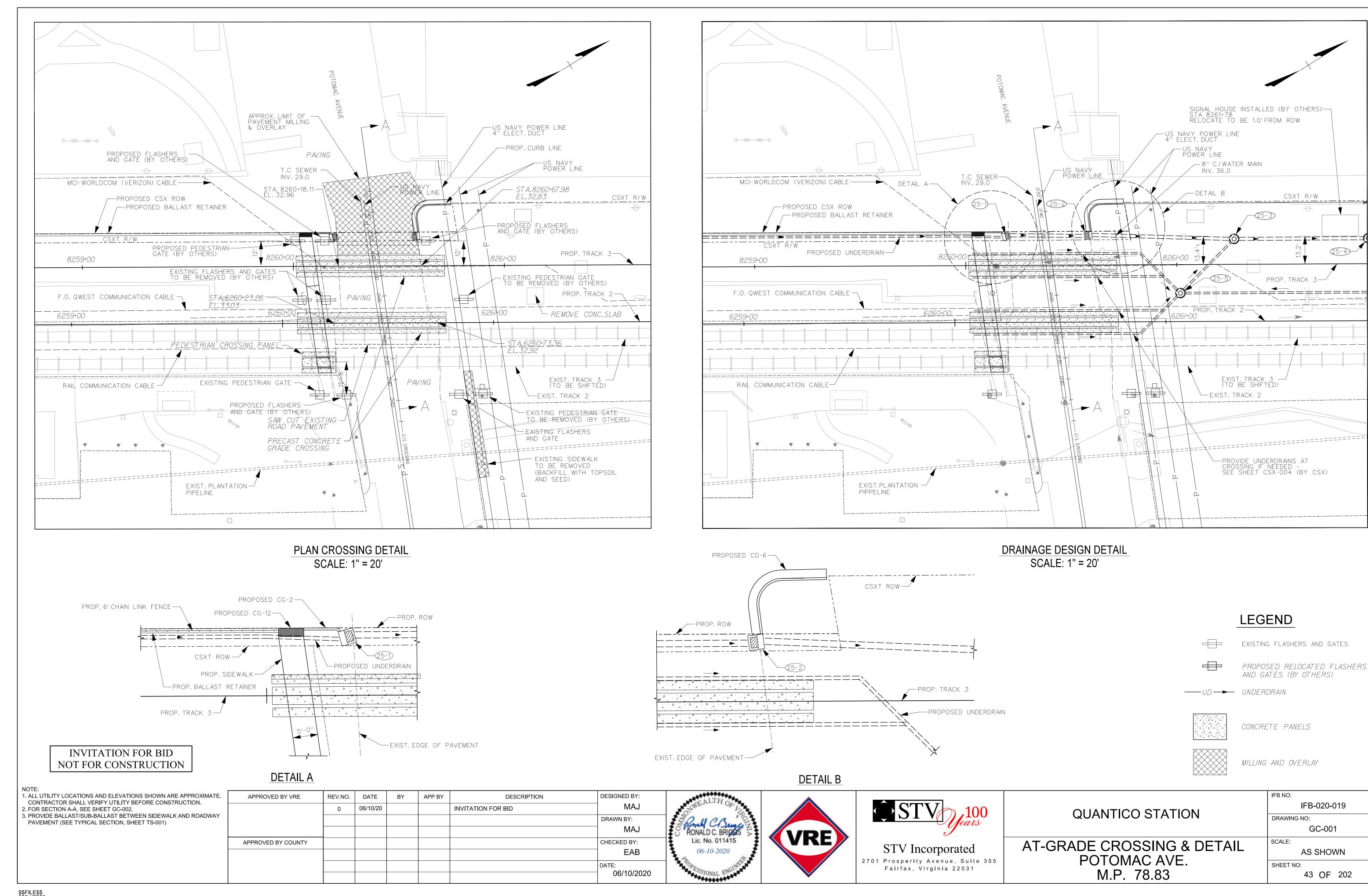




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STV Incorporated
2701 Prosperity Avenue, Suite 305 Fairfax, Virginia 22031

	IFB NO:
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	PR-025
	SCALE:
PROFILES	AS SHOWN
PROP. TRACK #2	SHEET NO: 42 <b>OF</b> 202
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# <u>NOTES</u>

- I. FOR GRADE CROSSINGS INSTALLATION SEE CSXT'S STANDARDS DRAWING 2527 SHEET 2.
- 2. CSXT'S MWI 901-06 (REVISED 1/26/12), IS TO BE USED IN CONJUNCTION WITH THIS DRAWING.
- 3. ALL TRACK MOUNTED CROSSING MATERIALS WILL BE SUPPLIED BY CSXT WITH EXCEPTION OF THE ASPHALT PRODUCTS FOR THE CROSSING.
- 4. CONTRACTOR WILL CONFIRM LOCATION OF ALL UTILITIES AND PAINT MARKS WITH CSX AND UTILITY OWNERS.
- 5. ALL SIGNAL RELOCATIONS / INSTALLATIONS AND MODIFICATIONS BY OTHERS.
- 6. FOR MAINTENANCE OF TRAFFIC CONSTRUCTION SEQUENCE/WORK OF POTOMAC AVE. GRADE CROSSING SEE DWG. NO. TC-001, TC-002, AND TC-003.
- 7. EXISTING FLASHERS AND AUTOMATIC GATES WILL BE RELOCATED BY XORAIL. FOR ACCURATE LOCATION OF HARDWARE AND OTHER PROTECTIVE DEVICES AT GRADE CROSSING SEE XORAIL DRAWINGS, PROJECT #VA2008027.
- CONTRACTOR SHALL PROVIDE APPROPRIATE SAFETY MEASURES AT GRADE CROSSING IN CLOSE COORDINATION WITH CSX AND MCBQ DURING CONSTRUCTION.
- 9. INSTALLATION OF GRADE CROSSING PANELS SHALL FOLLOW MANUFACTURER'S INSTRUCTIONS. (BY CSXT)
- 10. FOR VERTICAL PROFILE OF PROPOSED TRACK #3 SEE DWG.PP025.FOR PROPOSED TRACK #2 VERTICAL PROFILE SEE DWG.PR025.
- II. FOR UNDERDRAIN DETAILS SEE DWG.DR-004.
- 12. FOR X-SECTION AT CROSSING ELEVATION SEE DWG.XS-027.
- 13. POTOMAC AVE.NEW PAVEMENT AND OVERLAY TO BE TRANSITIONED TO MATCH TRACK GRADE WITHIN DISTANCE SHOWN (SECTION A-A).

## CONSTRUCTION SEQUENCE

# PHASE I (SIGNAL INSTALLATION)

- INITIAL WORK ALONG THE CSX TRACK SHALL BE STAGED OUTSIDE OF THE AREA OF THE HIGHWAY-RAIL CROSSING SO CONSTRUCTION WILL NOT IMPACT ANY MOVEMENT OF THE EXISTING TRAVEL LANES ACROSS THE TRACKS, ACCESS TO THE EXISTING CROSSING AND ADEQUATE SIGHT DISTANCES SHALL BE FULLY MAINTAINED. ALL VEHICULAR TRAFFIC AND PEDESTRIAN MOVEMENTS SHALL NOT BE IMPEDED.
- 2) CONSTRUCT NEW AUTOMATED GATE AND FLASHING SIGNAL ON THE SOUTHWEST AND NORTHWEST SIDE OF THE CROSSING. NEW EQUIPMENT SHALL BE TESTED AND FULLY FUNCTIONAL PRIOR TO REMOVAL OF THE EXISTING DEVICE. (BY CSXT)
- 3) ONCE NEW GATES AND FLASHING SIGNAL ARE FULLY OPERATIONAL, REMOVE THE EXISTING GATES AND FLASHING DEVICE. (BY CSXT)
- 4) MAINTAIN PEDESTRIAN CROSSING ON SOUTH SIDE OF ROADWAY (IN ITS CURRENT LOCATION).

# PHASE 2 (DRAINAGE)

1) INSTALL DRAINAGE STRUCTURES 25-1,25-2 AND 25-3.SEE WORK ZONE ACTIVITIES FOR NOTES AND TIME RESTRICTIONS DURING CONSTRUCTION (DRAWING TC-003). SEE STAGE | AND STAGE 2 TRAFFIC CONTROL PLAN (DRAWING TC-002) FOR TRAFFIC CONTROL DURING INSTALLATION OF DRAINAGE STRUCTURES.

#### PHASE 3 (BY CSXT)

- 1) CLOSE SOUTH SIDEWALK TO PEDESTRIAN TRAFFIC.
- 2) INSTALL TRACK NO.3 RAIL, CROSSING PANELS AND TRACK NO.1 PEDESTRIAN CROSSING PANELS (SEE WORK ZONE ACTIVITIES FOR NOTES ON SHEET TC-003.
- 3) RE-OPEN SOUTH SIDEWALK FOR ACCESS TO EXISTING WEST PLATFORM FOR BOARDING OF PASSENGERS FROM EXISTING TRACK NO.2 DURING CONSTRUCTION.

#### PHASE 3 (BY CONTRACTOR)

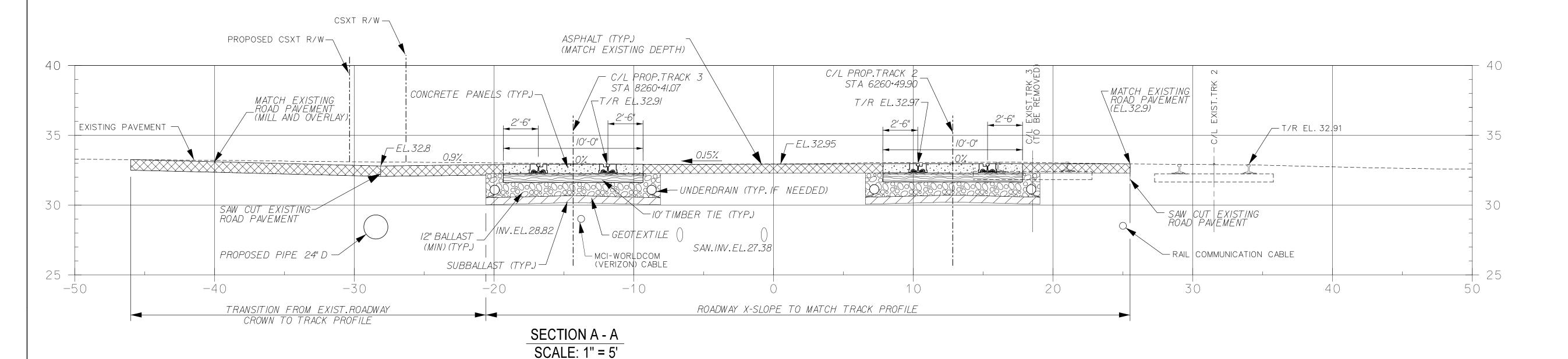
I) COORDINATE ASPHALT MILL AND OVERLAY WITH CSXT DURING INSTALLATION OF RAIL CROSSING.

# PHASE 4 (BY CSXT)

- I) DURING SHUT-DOWN PERIOD FOR TRACK NO.2 SHIFT EXIST.TRACK NO.3 TO NEW ALIGNMENT THROUGH STATION AND CROSSING.
- 2) INSTALL TRACK NO.2 RAIL AND CROSSING PANELS AND PEDESTRIAN CROSSING PANELS.
- 3) RE-OPEN CROSSING FOR FULL ACCESS OF VEHICULAR TRAFFIC AND PEDESTRIAN TRAFFIC (SOUTH SIDEWALKS).

#### PHASE 4 (BY CONTRACTOR)

I) COORDINATE ASPHALT MILL AND OVERLAY WITH CSXT DURING INSTALLING OF RAIL CROSSING.



**LEGEND** 

BALLAST

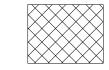
SUBBALLAST



ROAD BASE AGGREGATE



CONCRETE PANELS



MILL AND OVERLAY

			_	
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DESIGNED BY: APPROVED BY VRE REV.NO. DATE BY APP BY **DESCRIPTION** MAJ **INVITATION FOR BID** 06/10/20 DRAWN BY MAJ CHECKED BY: APPROVED BY COUNTY EAB 06/10/2020 SCALE IN FEET







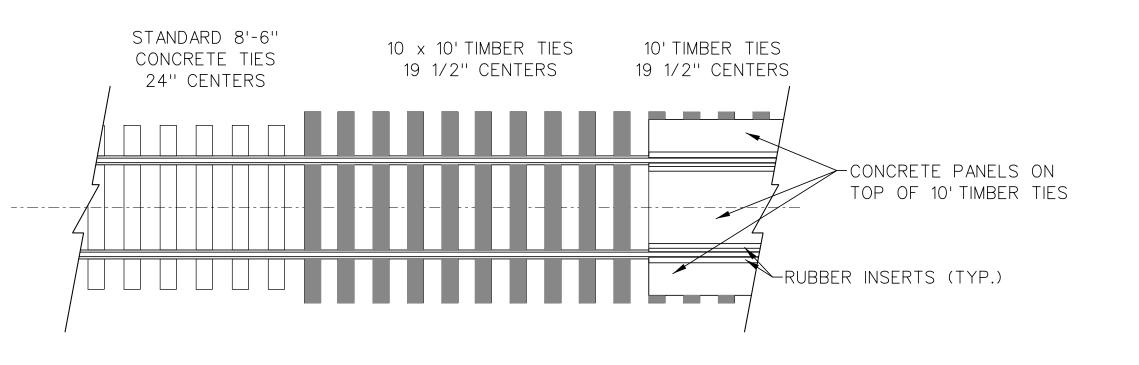
**QUANTICO STATION** 

AT-GRADE CROSSING & DETAIL POTOMAC AVE. M.P. 78.83

IFB NO: IFB-020-019 DRAWING NO: GC-002 SCALE:

**AS SHOWN** SHEET NO: 44 OF 202

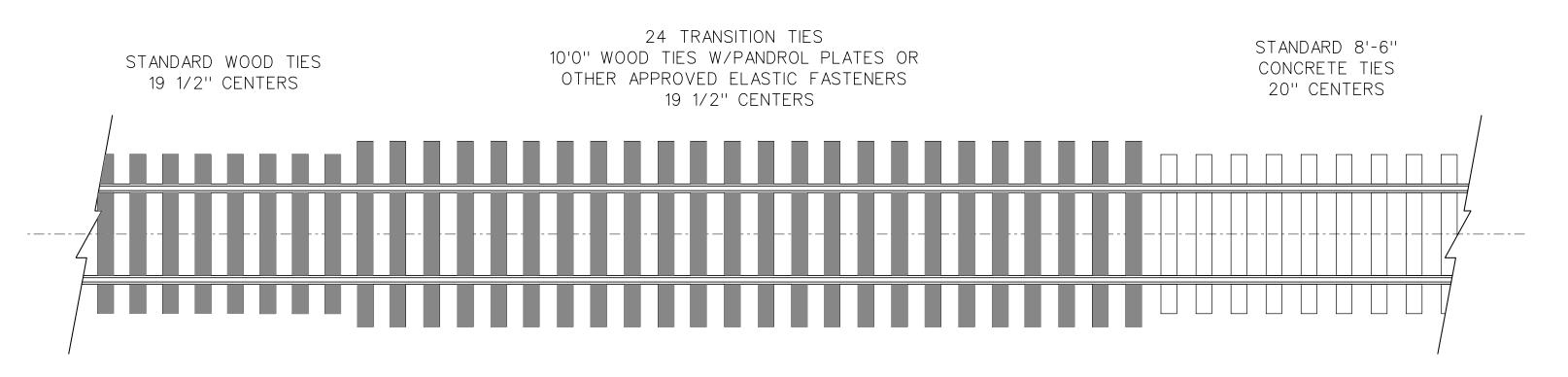




# <u>NOTES</u>

- FOR GRADE CROSSINGS INSTALLATION SEE CSXT'S STANDARDS DRAWING: 2527.
- 2. CSXT'S MWI 901-06 (REVISED 01/26/2012) ROAD CROSSING INSTALLATION, IS TO BE USED IN CONJUNCTION WITH THIS DRAWING.
- ALL CROSSING MATERIALS WITH EXCEPTION OF THE ASPHALT PRODUCTS: ROAD SUB-BASE AND TACK COAT FOR THE CROSSING WILL BE SUPPLIED BY CSXT.
- 4. CSXT WILL CONFIRM SELECTED TYPE OF GRADE CROSSING MATERIALS.

# TRANSITION BETWEEN CONCRETE TIES AND CONCRETE PANEL AT GRADE CROSSING



TRANSITION BETWEEN CONCRETE TIES AND EXISTING TRACK ON WOOD TIES

# <u>NOTES</u>

- 1. TRANSITION TIES TO CONSIST OF 24, 10'-0" LONG TIES WITH PANDROL TYPE, GALVANIZED CLIPS OR EQUAL.
- 2. BOX ANCHORS ARE REQUIRED FOR 200 FT IN WOOD TIES AFTER TRANSITION TIES.
- AT LOCATION WHERE ADDITIONAL ANCHORS ARE REQUIRED, CSX ENGINEER WILL DETERMINATE THE NUMBER OF ANCHORS REQUIRED.
- 4. ELASTIC FASTENERS IN WOOD TIE ZONE WILL SATISFY RAIL ANCHORAGE NEEDS. USE OF ANCHORS IN COMBINATION WITH ELASTIC FASTENERS SHALL BE DONE ONLY AS DIRECTED BY CSX ENGINEER.
- 5. CONNECTION OF THE NEW CONCRETE TIE TRACK WITH EXISTING TRACK, SURFACING AND WELDING THE CONNECTION JOINTS AT THE LIVE TRACK WILL BE DONE WITH CSX FORCES.

INVITATION FOR BID NOT FOR CONSTRUCTION

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2701 Prosperity Avenue, Suite 305

Fairfax, Virginia 22031

QUANTICO STATION

IFB NO:

IFB-020-019

DRAWING NO:

GC-003

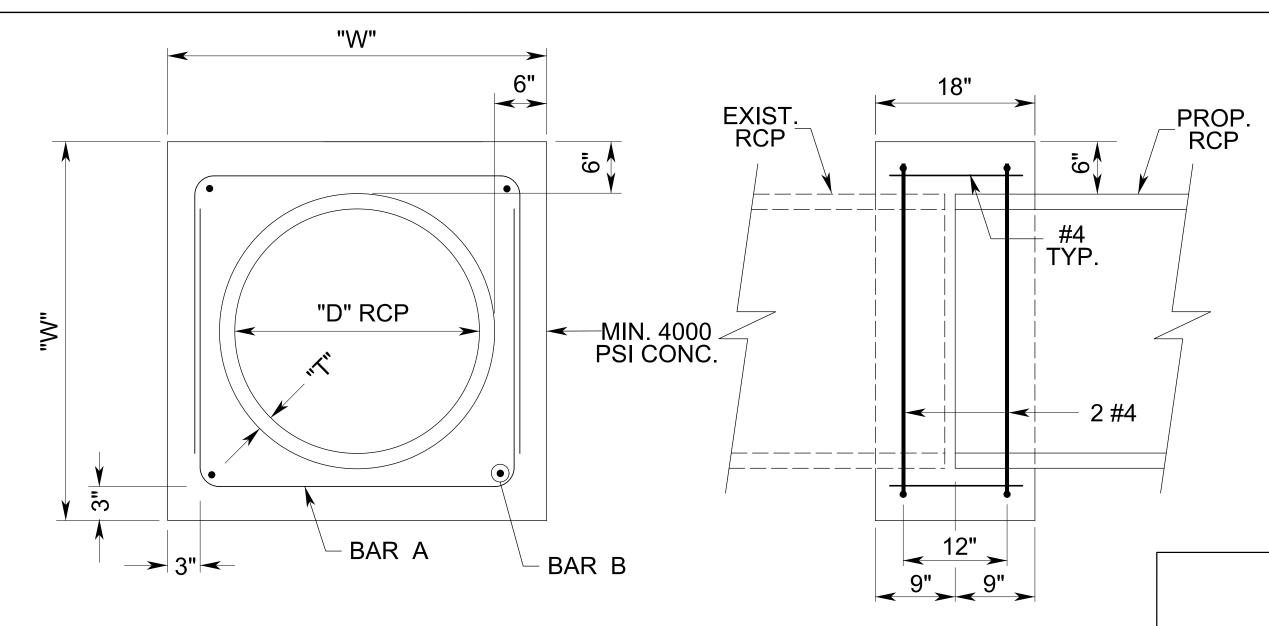
TRANSITION TIES & DETAILS

SCALE:

AS SHOWN

SHEET NO:

45 OF 202



#### **CONCRETE COLLAR TABLE** RCP "T" PIPE MIN. 4000 PSI SPACING BAR SIZE WIDTH DIA. **THICKNESS** CONCRETE 24" 0.34 CU-YD #4 12" 3.5" 0.43 CU-YD #4 36" 0.52 CU-YD #4 42" 4.5" 63" 12" 0.62 CU-YD 48" 70" 12" 0.73 CU-YD #4

NOTE: CONCRETE COLLARS SHALL BE USED ON ANY OR ALL JOINTS AND CONNECTIONS IN ORDER TO ENSURE A PROPER WATER TIGHT SEAL ON ALL REINFORCED CONCRETE PIPE CONNECTIONS AS DIRECTED BY THE ENGINEER.

PROPOSED

FILL SLOPE

PIPE DIAMETER /

SPAN

12"

15"

18"

24"

30"

36"

48"

PROPOSED PIPE

PROPOSED PIPE

FINISHED

C

1'-4"

1'-7"

1'-9"

2'-2"

2'-6'

2'-9"

3'-0"

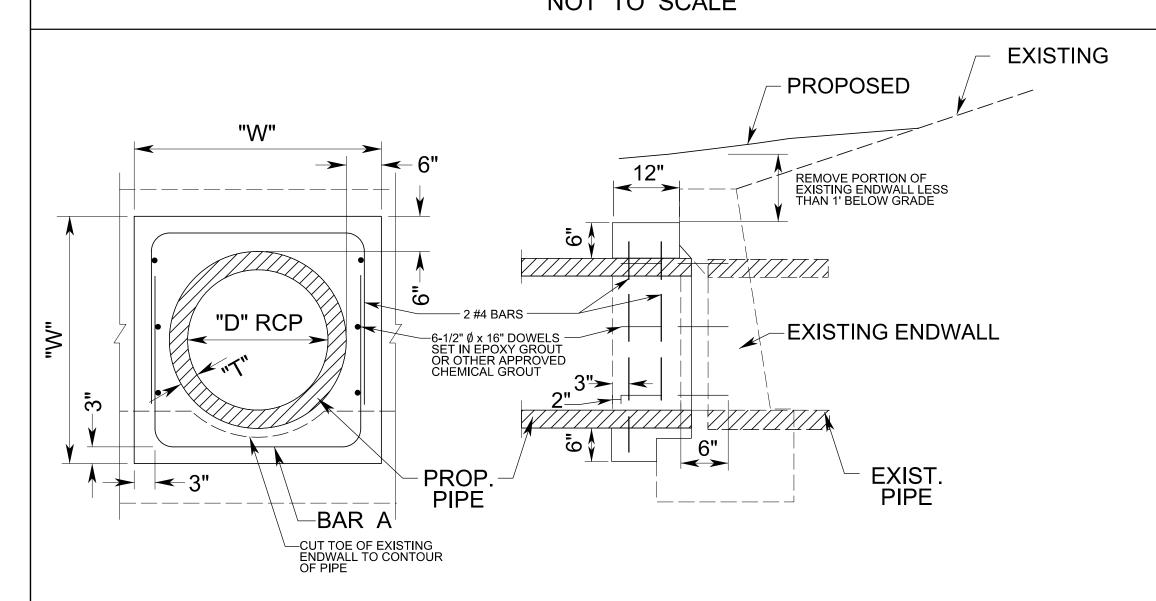
**GROUND SURFACE** 

# FRONT SECTION

SIDE VIEW

# DETAIL A

CONCRETE COLLAR DETAIL FOR CONNECTING PROPOSED CONCRETE PIPES TO EXISTING CONCRETE PIPES WITHOUT ENDWALLS NOT TO SCALE



FRONT SECTION

SIDE VIEW

# DETAIL C

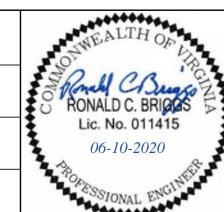
CONCRETE COLLAR FOR EXTENSION OF EXISTING PIPE CULVERTS WITH ENDWALLS

NOT TO SCALE

NOTE: ALL CONCRETE USED FOR ALL COLLARS SHALL HAVE MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI

INVITATION FOR BID
NOT FOR CONSTRUCTION

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						MAJ
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						EAB
						DATE:
						06/10/2020



4'-4"

4'-8"

5'-0"

5'-8"

6'-2"

7'-0"

7'-10"



C

0'-6"

0'-8"

0'-9"

0'-9"

1'-0"

Ε

0'-10"

0'-11"

1'-9"

2'-0"

**DETAIL D** 

TOE WALL DETAIL

NOT TO SCALE

NOTE: TOE WALL DETAIL DOES NOT APPLY TO PIPE EXTENSIONS THROUGH PROPOSED RETAINING WALLS. SEE RETAINING WALL PLAN SHEETS FOR DETAILS.



**QUANTICO STATION** 

IFB-020-019 DRAWING NO: DR-001 SCALE: AS SHOWN SHEET NO:

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IFB NO:

1.5' FOR CLASS AI RIP-RAP 2.0' FOR CLASS I RIP-RAP

DRAINAGE DETAILS

MAY BE FIELD APPLIED) OR OTHER APPROVED CORROSIVE RESISTANT MATERIAL IN ACCORDANCE WITH AREMA REQUIRED FOR CMP (INCLUDING DUCTILE IRON & CORRUGATED STEEL) BITUMINOÙS COATING TO EXTEND 12" BEYOND CONCRETE ĆOLLAR.

12" FLEXIBLE PIPE (CORRUGATED STEEL, MIN. 4000 -PSI CONC. CORRUGATED ALUMINUM, CORRUGATED POLYETHYLENE OR PVC)

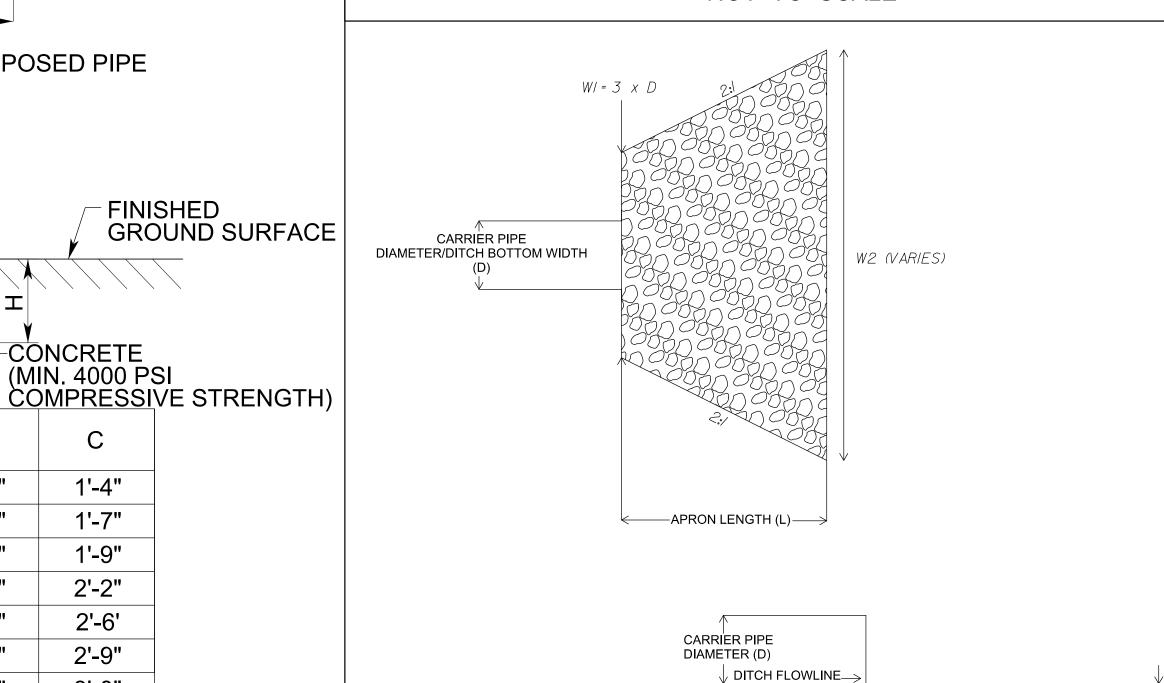
BITUMINOUS COATING (ANY SUITABLE BITUMINOUS MATERIAL

NOTE: SEE DETAIL A FOR REINFORCING (SIMILAR)

# DETAIL B

# CONCRETE JACKET FOR CONNECTING DISSIMILAR TYPES OF PIPES

NOT TO SCALE



# OUTLET PROTECTION

-APRON LENGTH (L)

NOT TO SCALE

# DRAINAGE DESCRIPTIONS

\* (23-1) 12' - 24" Class 56 Ductile Iron Plpe Req'd.(3.3' Cover) Connect to Existing 24" Ductile Iron Pipe/Headwall (See Detail C) Inv.(In) = 22.13 Inv.(Out) = 21.93

\*\* (23-2) 4' - 24" HDPE DR 32.5 Carrier Pipe Req'd.(extend exist.pipe) Inv.(In) = 22.40 Inv.(Out) = 22.21 (tie to exist.pipe) I Concrete Toe Wall Req'd.

\* 23-3 | Junction Box Req'd. See Detail Drawing DR024 | VD0T St'd.MH-| Frame & Cover Req'd. | H=8.0' | Inv. 17.00

23-4) 90' - 24" Class V Reinforced Concrete Pipe Req'd.(5.3' Cover) Inv.(In) = 17.00, Station: 4236+92, Offset from New Track CL: 12.78' \*\* 25-1 Inv.(Out) = 12.46, Station: 4236+04, Offset from New Track CL: 23.67'

\* 23-4 | Junction Box Req'd. See Detail Drawing DR025 Connect to Existing Drop Inlet IVDOT St'd.MH-I Frame & Cover Req'd. H=6.5'

\* (23-5) 8' - 24" Class V Reinforced Concrete Pipe Req'd.(2.0' Cover) Inv.(In) = 23.16 Station: 4237+00,0ff set from New Track CL: 17.00' Inv.(Out) = 22.00 Station: 4236+94,0ff set from New Track CL: 12.88' I Concrete Toe Wall Reg'd.

\*\*\* (24-1) I-St'd.MH-I Manhole (Lid el.= 33.41)
St'd.MH-I Frame and Cover (Top Flush with Top of Platform)
D = 8.7' Inv.= 24.07

51' - 24" Jacked Steel Casing Pipe Req'd.(5.6' Cover) 51' - 18" HDPE DR 32.5 Carrier Pipe Req'd. Inv.(In) = 24.07 Inv.(Out) = 23.56

2)—(24-3) 40' - 18" Class V Reinforced Concrete Pipe Req'd.(5.5' Cover) Inv.(In) = 23.46 Inv.(Out) = 23.06 Connect to Existing Manhole 24-3

24-3) Existing Manhole/Pipes Top = 30.45 Inv.(In) = 23.65 Exist.15" (N) Inv.(Out) = 22.96 Exist.15" (E)

(\*\* (25-1) I-Std.VDOT DI-2A Drop Inlet Req'd. H = 4.7' Inv.= 28.39 Connect New Underdrain to Inlet

Inv.(In) = 28.39 Inv.(Out) = 28.19

\*\*\*\* (25-2) I-Std.VDOT DI-2A Drop Inlet Req'd.

H = 5.0' Inv. = 28.09

25-3) 64' - 24" Class V Reinforced Concrete Pipe Req'd.(2.5' Cover) Inv.(In) = 28.09 Inv.(Out) = 27.77

Note: Contractor to Locate Drain from MCBQ Building at DI to be Removed (Approx. Sta. 6261+80) and Reconnect to Prop. MH.

40' - 24" Class V Reinforced Concrete Pipe Req'd.(2.5' Cover)

60' - 24" Class V Reinforced Concrete Pipe Req'd.(2.6' Cover) Inv.(In) = 27.67 Inv.(Out) = 27.37

\*\* (25-5)

(25-3) 32' - 6" Polymer Coated Corrugated Steel Spiral Rib Pipe Underdrain (3.1' Cover) Inv.(In) = 27.80 Inv.(Out) = 27.70

\*\*\* (25-5) I-St'd.VDOT MH-I Manhole (Lid el.= 3.50) St'd.MH-I Frame and Cover D = 3.0' Inv.= 27.80

) I-Std.VDOT DI-I Drop Inlet Req'd.
Type III Grate Req'd.
H = 4.6' Inv. = 28.20
6' - 12" HDPE DR 32.5 Pipe
(Outfall thru RW-13 into Toe Ditch)
Inv.(In) = 28.20 Inv.(Out) = 28.00

Type III Grate Req'd.

Type III Grate Req'd.

H = 9.0' Inv. = 27.00

3' - 12" HDPE DR 32.5 Pipe

(Outfall thru RW-13 into Toe Ditch)

Inv.(In) = 27.00 Inv.(Out) = 26.80

\* No Change from Design/Build Plans. Responsibility of Drainage Structure remains with the Design/Build Team. (Work Completed by Others)

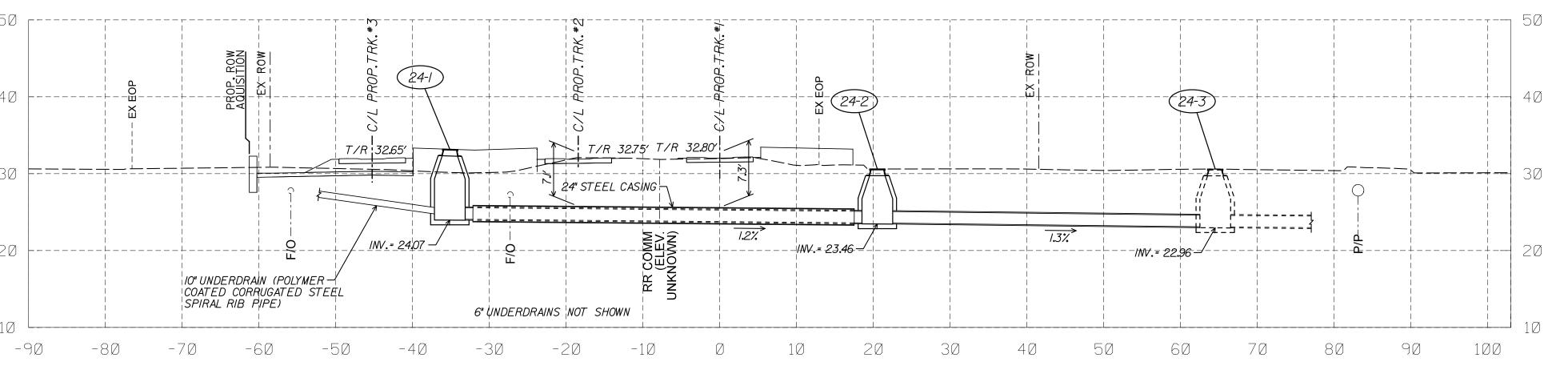
\*\* Pipe shall be Designed to Support Cooper E-80 Loading.

\*\*\* Drop Inlets and Manholes shall be Designed to Support Cooper E-80 Surcharge Loading.

NOTE:

For Location of Drainage Structures, see sheets ESC-023, ESC-024 and ESC-025

For Notes, see sheet DR-003.



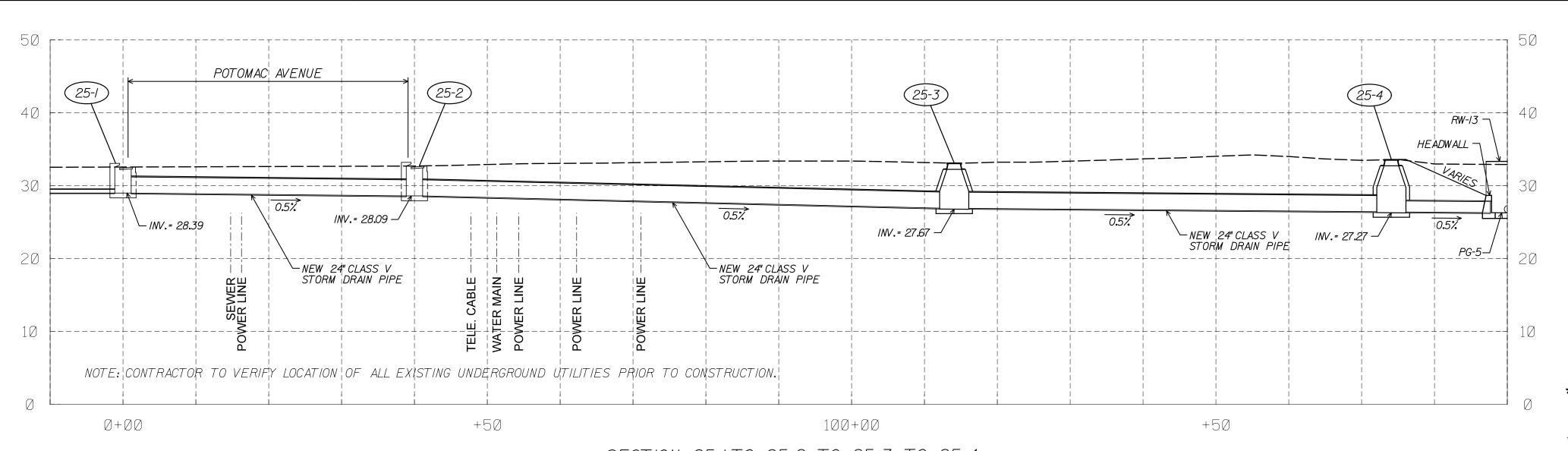
St'd.PG-5 Reg'd.(see DR-003 for detail)

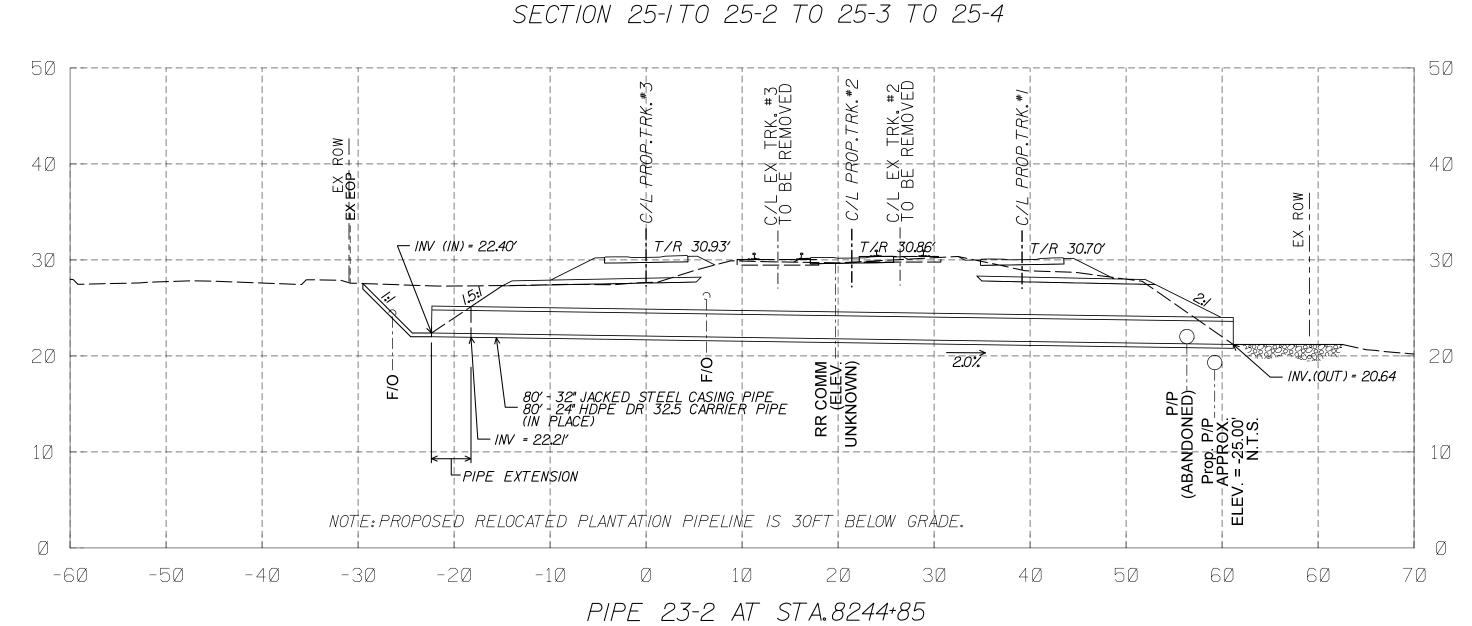
INVITATION FOR BID NOT FOR CONSTRUCTION

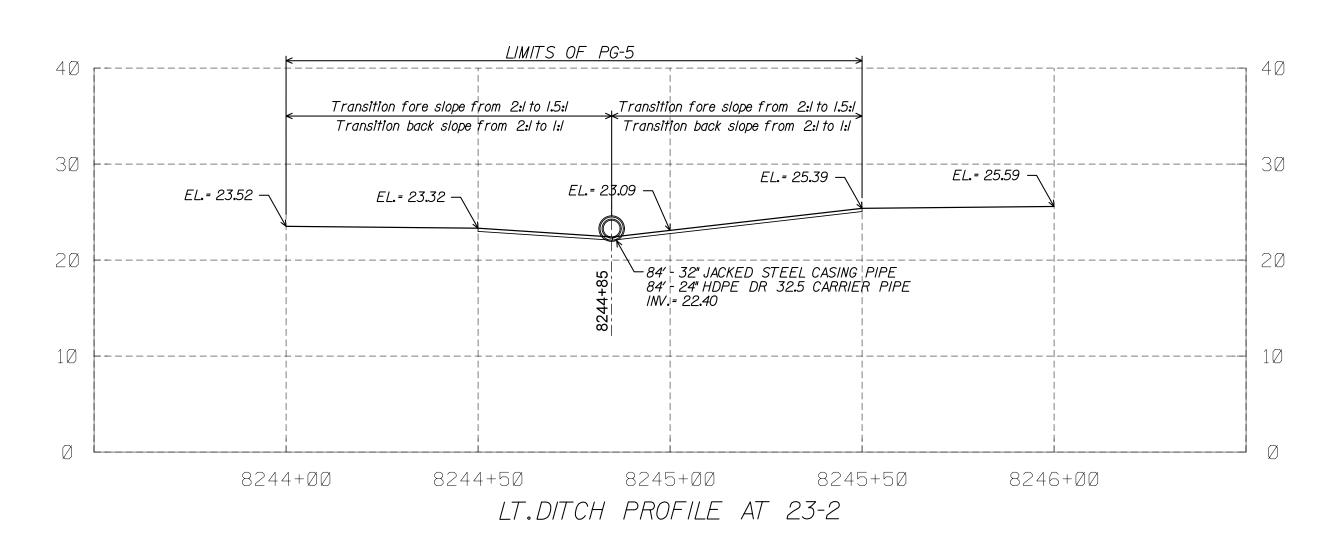
4253+60 \*\* (PIPE 24-1 to 24-2 to 24-3)

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					DRAWN BY:	SOUCA TE		SI V	QUANTICO STATION	DRAWING NO:
					KRJ	RONALD C. BRIGGS	WDE N	Julia		DR-002
APPROVED BY COUNTY					CHECKED BY:	Lic. No. 011415	<b>VRE</b>			SCALE:
					RCB	06-10-2020		STV Incorporated	DRAINAGE DESCRIPTIONS	AS SHOWN
					DATE:	POFFE STATE		2701 Prosperity Avenue, Suite 305 Fairfax, Virginia 22031	& PIPE PROFILE	SHEET NO:
					06/10/2020	SIONAL ENG		Tantax, triginia 22001		47 OF 202

24-1













	DITCH/CHANNEL LINING SUMMARY										
STATION			SIDE S	LOPES	DITCH	LINING					
FROM	то	SIDE	LT	RT	BOTTOM WIDTH FT.	DEPTH FT.	LINING WIDTH FT.	LINING TYPE			
				PROPOSE	ED TRACK S	IDE DITCHE	S				
8241+50	8244+00	LT	VARIES	2	2	1.0	7	VDOT ST'D. EC-2 REQ'D.			
8244+00	8245+50	LT	VARIES	VARIES	2	**	**	ST'D. PG-5 REQ'D.			
8245+50	8247+30	LT	2	2	2	1.0	7	VDOT ST'D. EC-2 REQ'D.			
8262+06	8269+19	LT		2	2	2.0		PG-5 MODIFIED *			
8264+40	8269+19	LT	1	1	0	0.5		CONCRETE "V" DITCH			

- \* PROVIDE ½" JOINT FILLER BETWEEN RETAINING WALL AND PAVED DITCH SEE RETAINING WALL DETAILS, DRAWING RW13-04
- \* \* SEE PROFILE THIS SHEET (PROFILE AT 23-2) AND VDOT ST'D. PG-5.

# Ditch Lining Notes:

- The Ditch/Channel Lining Summary table lists ditches where lining material is required in addition to seeding. Grass seeding shall be applied to all new ditches. See type and rate shall be applied in accordance with the project specifications.

# Detail References

Concrete/Concrete Pipe Collar - Detail A Sheet DR-001 CMP/Concrete Pipe Collar - Detail B DR-001 Concrete/End Wall Connection - Detail C DR-001 Concrete Toe Wall - Detail D Sheet DR-001 Outlet Protection Detail - Sheet DR-001

# Pipe Cover Notes:

Unless specified otherwise on the pipe profiles, the depths of pipe cover are quantified by the following:

- Pipe under railroad: The minimum distance measured from the outside top of proposed pipe (or casing pipe in jacking situations) to the bottom of rail.
- Pipe under roads/entrances: The minimum distance measured from the outside top of pipe to finished grade.

# Pipe Bedding Note:

A minimum of 3-inches of compacted granular material shall be placed and compacted below all new pipes and pipe extensions in accordance with AREMA Chapter 8 Part 10.

# QUANTICO STATION

IFB NO:

IFB-020-019

DRAWING NO:

DR-003

STORM DRAIN PROFILE & SHEET SHEET

AS SHOWN

ET NO:

48 OF 202

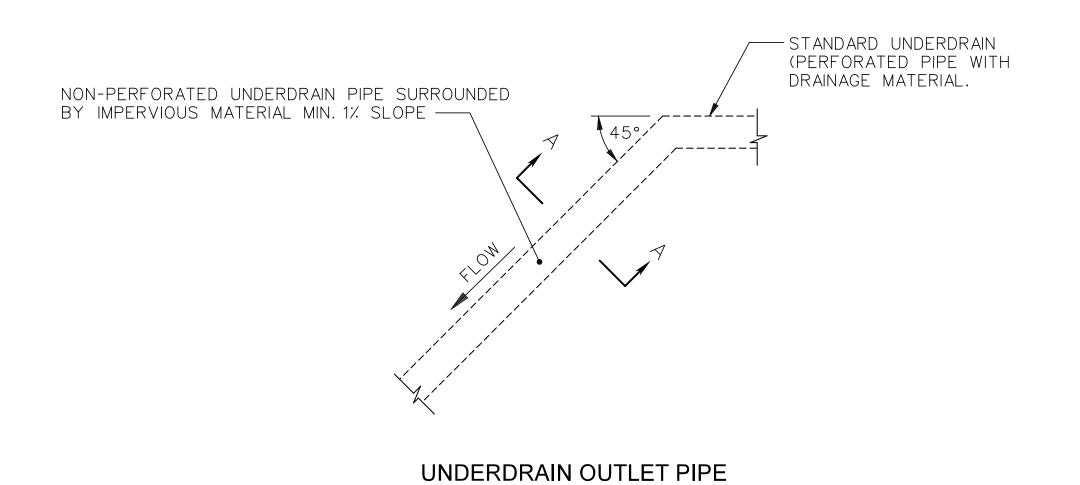


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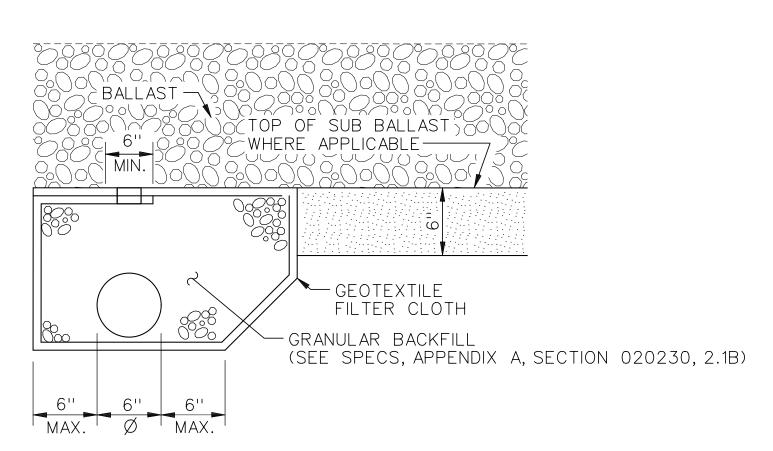
INVITATION FOR BID

NOT FOR CONSTRUCTION

SCALE IN FEET



N.T.S.



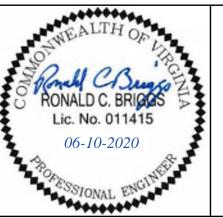
# UNDERDRAIN

# NOTE:

- 1. UNDERDRAIN MATERIAL SHALL BE CORRUGATED METAL IN ACCORDANCE WITH PROJECT SPECIFICATION.
- 2. UNDERDRAINS SHALL HAVE A MINIMUM POSITIVE SLOPE OF 0.5%.

INVITATION FOR BID NOT FOR CONSTRUCTION





SUBGRADE OR FINISHED GRADE-

MIN. Ø MIN.

SECTION A

UNDERDRAIN INVERT —

NON PERFORATED PIPE ---

IMPERVIOUS BACKFILL-





# **QUANTICO STATION**

# SCALE:

IFB NO:

DRAWING NO:

IFB-020-019

DR-004

AS SHOWN

49 OF 202

TYPICAL UNDERDRAIN

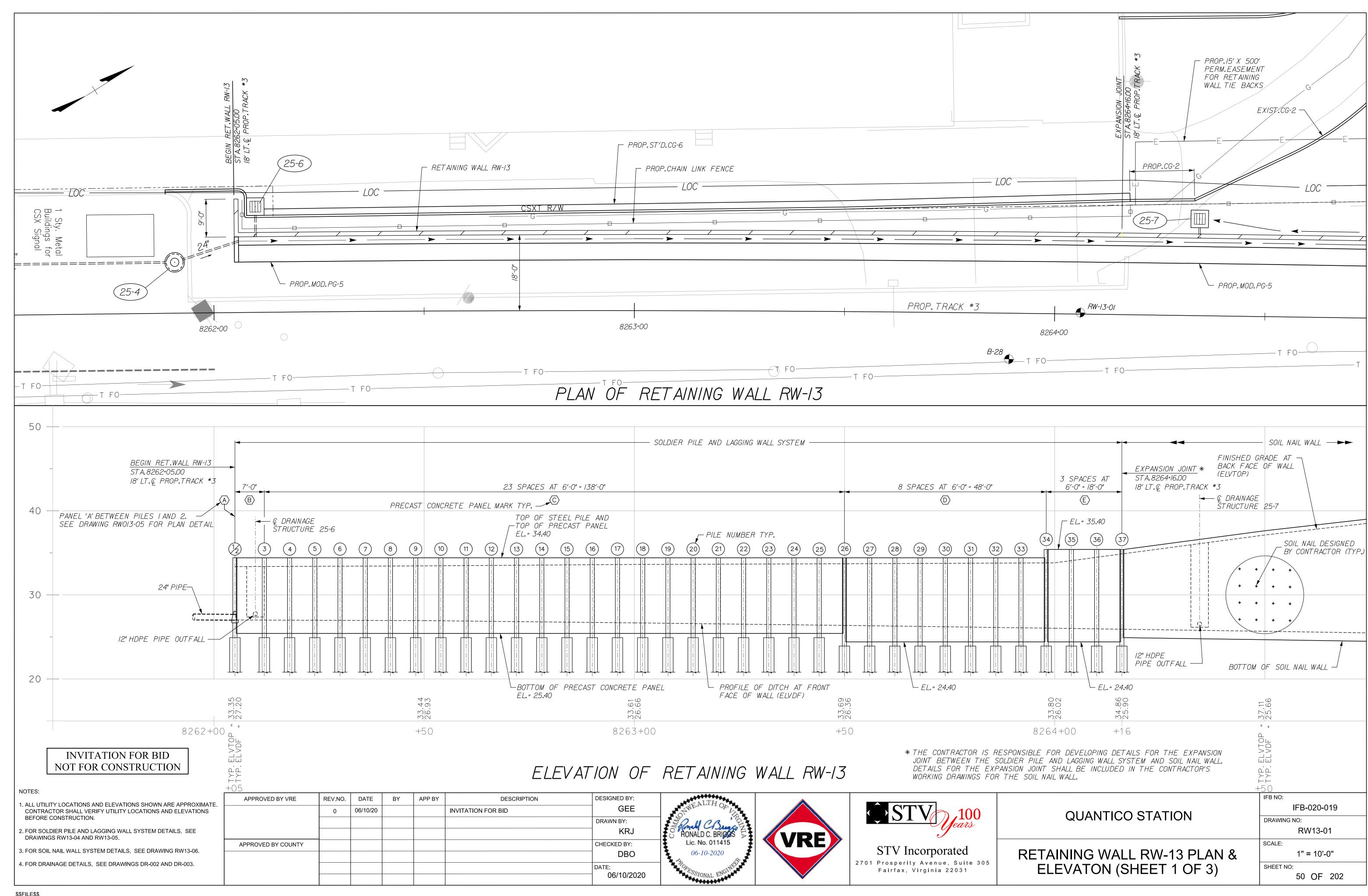
	5'-3"±  ———————————————————————————————————
	— Ç ACTIVE TRACK
5.000 3.000 5 3.000 3.000 5	
	AGGREGATE
	LIVE LOAD 6" Ø UNDERDRAIN INFLUENCE LINE
	7' MIN.

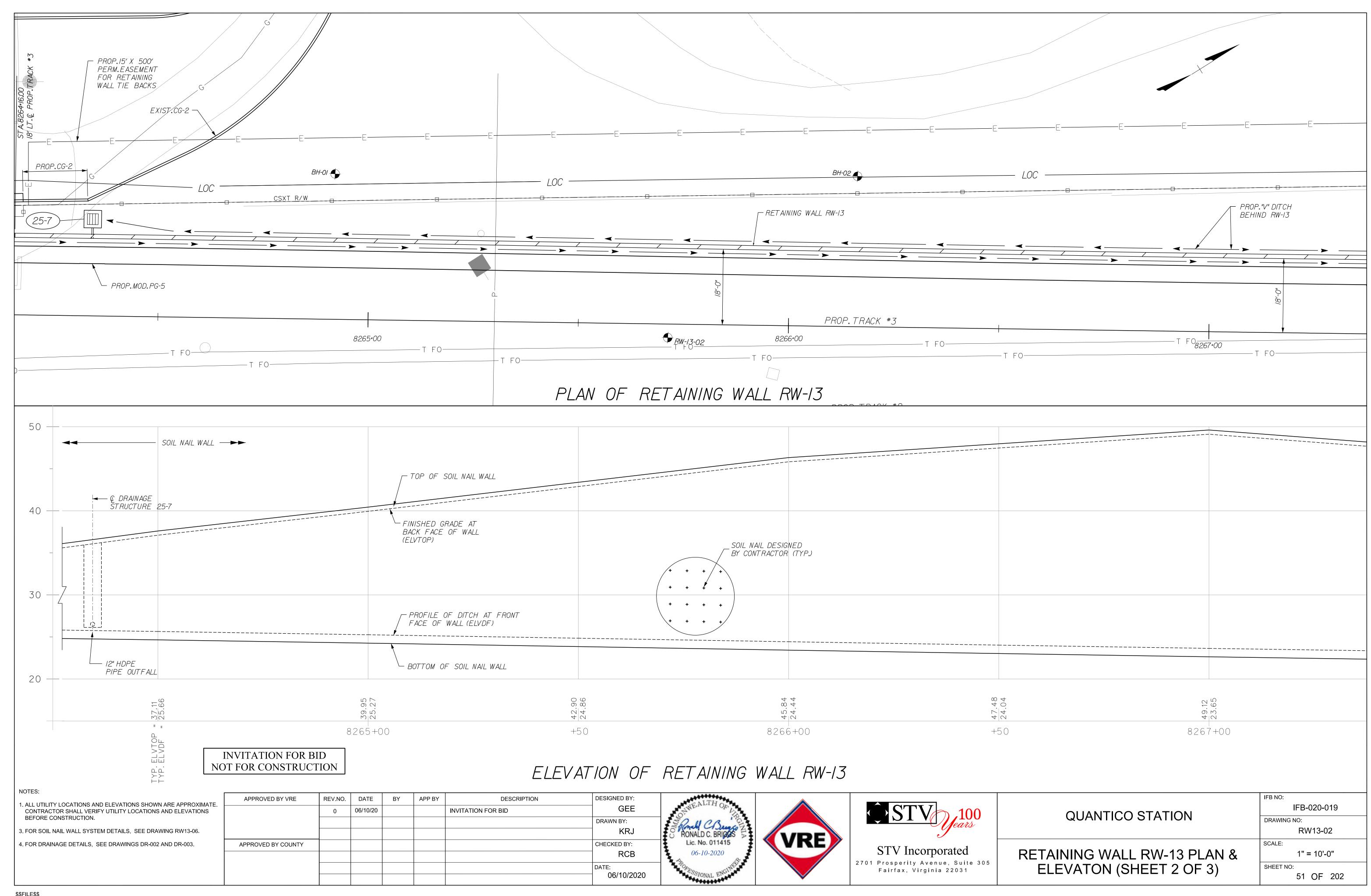
# UNDERDRAIN / PLATFORM (AT ACTIVE TRACK)

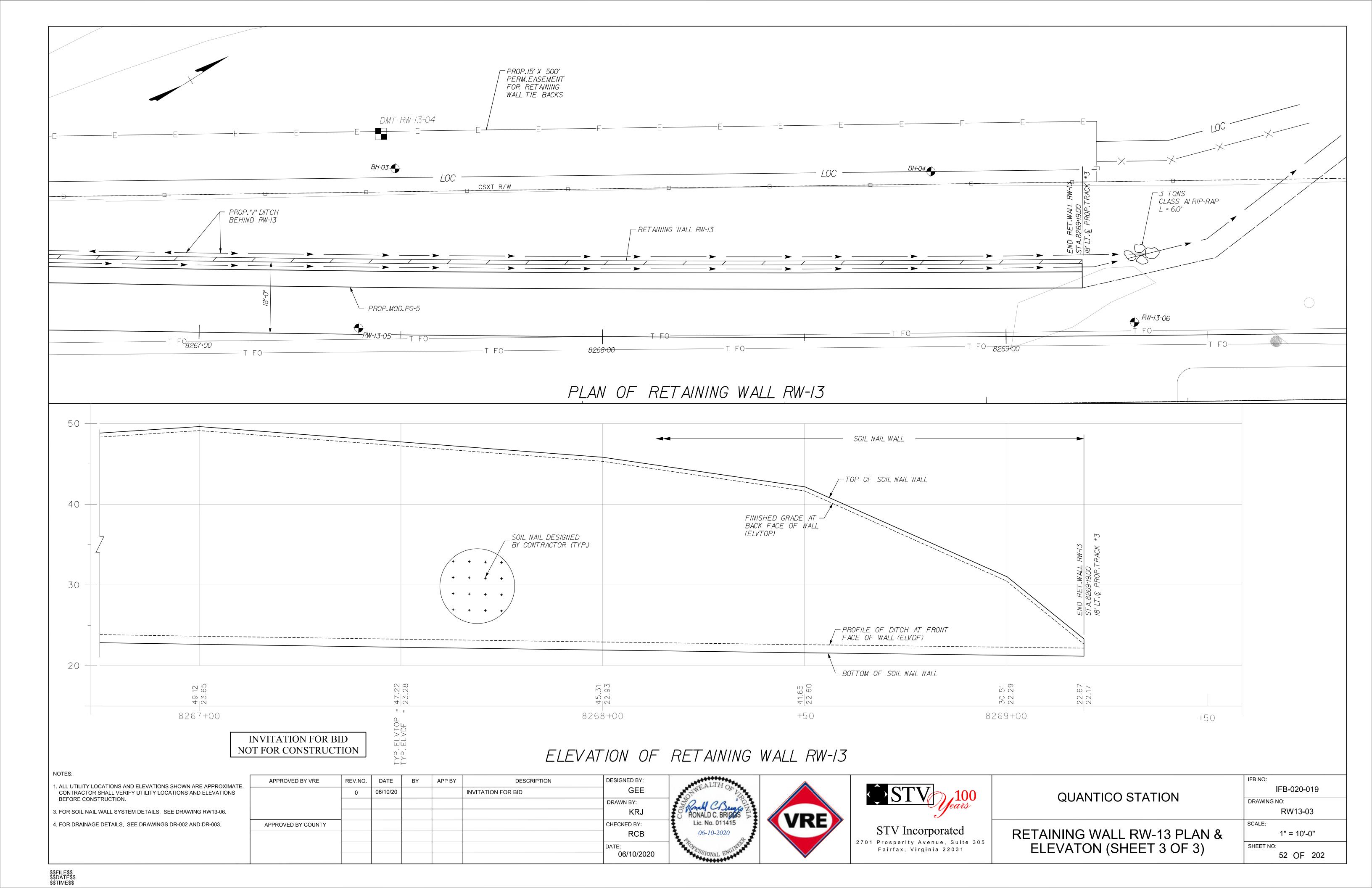
N.T.S.

# NOTE:

- 1. INSTALL PLYWOOD FORM TO RETAIN BALLAST DURING EXCAVATION FOR UNDERDRAIN. BRACE AWAY FROM TRACK.
- 2. INSTALL UNDERDRAIN IN SECTIONS. LIMIT OPEN EXCAVATION TO 20'± AND BACKFILL WITH AGGREGATE TO BOTTOM OF PLATFORM DOWN TURN IMMEDIATELY AFTER INSTALLATION.
- 3. PLYWOOD FORM FOR FACE OF PLATFORM SHALL BE BACKFILLED WITH BALLAST TO TOP OF TIE AND BRACED AWAY FROM TRACK.
- 4. AFTER REMOVAL OF PLYWOOD FORM, BALLAST SHALL BE RE-COMPACTED.







# BACKFILL WITH #3 COURSE AGGREGATE ON TOP OF EXISTING GROUND FRONT FACE OF WALL CHAIN LINK FENCE -TOP OF STEEL PILE AND £ STEEL PILE → ROW ---TOP OF PRECAST CONCRETE PANEL 6" M/N. ¬ STD.CG-6 — STEEL PILE -PERMISSIBLE JOINT PRECAST CONCRETE PANEL (TYP.) — | -- 4" DIA. WEEP HOLE MOD.PG-5 TOP OF DRILLED HOLE -- 1/2" JT.FILLER SEE DRAWING RWI3-05 $L6X6X^{1/2}$ GALV. LAGGING STOP $\frac{\mathsf{B}}{\mathsf{4}\,\mathsf{4}\,\mathsf{4}}$ 2'-6" DIA. DRILLED HOLE BOTTOM OF STEEL PILE AND -BOTTOM OF DRILLED HOLE ELEV."X" SEE DRAWING RWI3-05

# SOLDIER PILE AND LAGGING WALL SYSTEM

TYPICAL SECTION

FROM STA.8262+05.00 TO 8264+16.00

# GENERAL NOTES FOR SOLDIER PILE AND LAGGING WALLS

## DESIGN SPECIFICATIONS:

AMERICAN RAILWAY ENGINEERING AND MAINTENANCE-OF-WAY ASSOCIATION (AREMA) MANUAL FOR RAILWAY ENGINEERING DATED 2019, CHAPTER 8 - CONCRETE STRUCTURES AND FOUNDATIONS AND CHAPTER 15 - STEEL STRUCTURES.

#### DESIGN CRITERIA:

STRUCTURAL MEMBERS ARE DESIGNED BY THE FOLLOWING METHODS:

STRUCTURAL STEEL- SERVICE LOAD DESIGN
REINFORCED CONCRETE - SERVICE LOAD DESIGN

#### DESIGN LOADING:

RETAINING WALLS HAVE BEEN DESIGNED TO RESIST A VERTICAL LIVE LOAD SURCHARGE OF 250 POUNDS PER SQUARE FOOT (PSF),IN ADDITION TO ACTIVE EARTH PRESSURE.

### ELEVATIONS:

*UTILITIES*:

ELEVATIONS SHOWN IN PLANS ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

THE CONTRACTOR IS RESPONSIBLE FOR LOCATING EXISTING UTILITIES AND FOR MAINTAINING THE UTILITIES THROUGHOUT THE DURATION OF THE PROJECT.UNLESS NOTED OTHERWISE.

THE CONTRACTOR SHALL TEST PIT EXISTING UTILTIES TO VERIFY THAT THERE IS NO CONFLICT BETWEEN THE WALL SYSTEM AND EXISTING UTILITIES PRIOR TO THE INSTALLATION OF ANY PORTION OF THE WALL.A UTILITY REPRESENTATIVE SHALL BE PRESENT WHILE PERFORMING TEST PITS IN ORDER TO VERIFY OWNERSHIP OF THE UTILITY. THE CONTRACTOR SHALL SURVEY THE LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES AND SUBMIT COPIES OF ALL FIELD SURVEYS TO THE ENGINEER FOR INCLUSION INTO THE PROJECT RECORDS. IF ANY EXISTING UTILITIES ARE DETERMINED TO BE IN CONFLICT WITH THE WALL SYSTEM, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.

#### MAINTENANCE OF RAILROAD TRAFFIC:

THE CONTRACTOR SHALL COORDINATE WITH CSXT TO PROVIDE FOR CONTINUOUS RAIL TRAFFIC THROUGHOUT THE CONSTRUCTION PERIOD.

## CONCRETE:

CONCRETE IN PRECAST CONCRETE PANELS SHALL HAVE A MINIMUM COMPRESSIVE CYLINDER STRENGTH AT 28 DAYS EQUAL TO 5,000 PSI.

CONCRETE IN DRILLED HOLES SHALL HAVE A MINIMUM COMPRESSIVE CYLINDER STRENGTH AT 28 DAYS EQUAL TO 3,000 PSI.

ALL CONCRETE SHALL BE IN ACCORDANCE WITH APPENDIX A, SECTION 070105 OF THE SPECIFICATIONS. THE USE OF FLY ASH IS NOT PERMITTED IN THE HYDRAULIC CEMENT CONCRETE MIX.

# REINFORCING STEEL:

ALL REINFORCING STEEL SHALL BE DEFORMED BARS OF NEW BILLET-STEEL CONFORMING TO ASTM A615, GRADE 60.

MINIMUM CONCRETE COVER SHALL BE TWO (2) INCHES UNLESS OTHERWISE NOTED.

# STRUCTURAL STEEL:

SCALE: N.T.S.

ALL STRUCTURAL STEEL, INCLUDING PILES, SHALL BE ASTM A709 GRADE 50.

ALL STRUCTURAL STEEL, INCLUDING PILES, SHALL BE GALVANIZED.

THE STEEL SOLDIER PILES SHALL BE FURNISHED AND INSTALLED FULL LENGTH.SPLICES SHALL NOT BE USED UNLESS OTHERWISE APPROVED BY THE ENGINEER.

### MISCELLANEOUS:

WEEP HOLE DRAINAGE PIPES SHALL BE SCHEDULE 40 PVC SOLID WALL CONFORMING TO ASTM DI785 AND SHALL HAVE A SLOPE OF 1:12 TO DRAIN.

### CONSTRUCTION NOTES:

EXCAVATION, INSTALLATION OF STEEL SOLDIER PILES, AND THE PLACEMENT OF THE CONCRETE ENCASEMENT SHALL BE SCHEDULED SUCH THE THE CONCRETE ENCASEMENT IS PLACED WITHIN 12 HOURS AFTER EXCAVATION OF DRILLED HOLE UNLESS OTHERWISE APPROVED BY THE ENGINEER.

VIBRATION AND EXCESSIVE WHEEL LOADS SHALL NOT BE PERMITTED WITHIN THE IMMEDIATE VICINITY OF ANY EXCAVATED DRILLED HOLE.MAINTAIN DRILLED HOLE EXCAVATION STABILITY AT ALL TIMES.

THE SOLDIER PILE INSTALLATION SEQUENCE SHALL BE DETERMINED BY THE CONTRACTOR, SUBJECT TO APPROVAL OF THE ENGINEER.NO SOLDIER PILE EXCAVATION SHALL BE MADE WITHIN A CLEAR DISTANCE OF 16 FEET FROM AN OPEN DRILLED HOLE, NOT WITHIN A CLEAR DISTANCE OF 8 FEET FROM A SOLDIER PILE WHICH HAD IT'S CONCRETE ENCASEMENT IN PLACE FOR LESS THAN 12 HOURS.

INSTALLED PILES SHALL BE WITHIN ONE (I) INCH OF THEIR PLAN LOCATION.

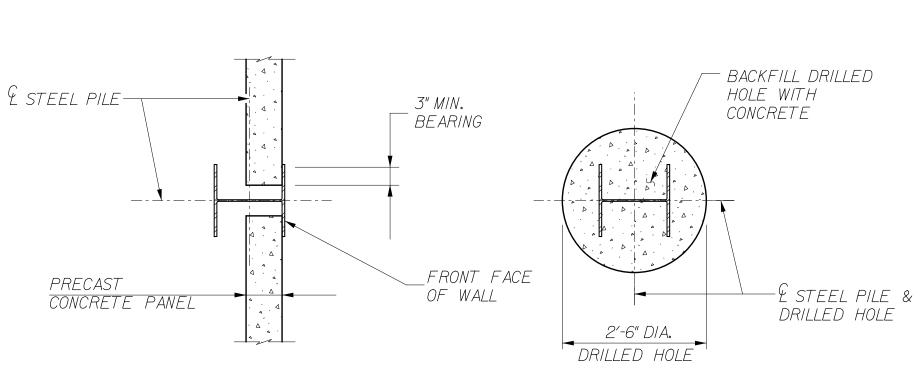
A MINIMUM OF THREE (3) INCHES OF COMPACTED CRUSHER RUN AGGREGATE SHALL BE PLACED BENEATH THE BOTTOM PRECAST CONCRETE PANEL.

PRECAST CONCRETE PANELS SHALL BE PLACED AS BACKFILL PLACEMENT PROCEEDS.AS THE BACKFILL MATERIAL IS PLACED BEHIND A PRECAST CONCRETE PANEL, THE PANELS SHALL BE MAINTAINED IN THEIR VERTICAL POSITION.

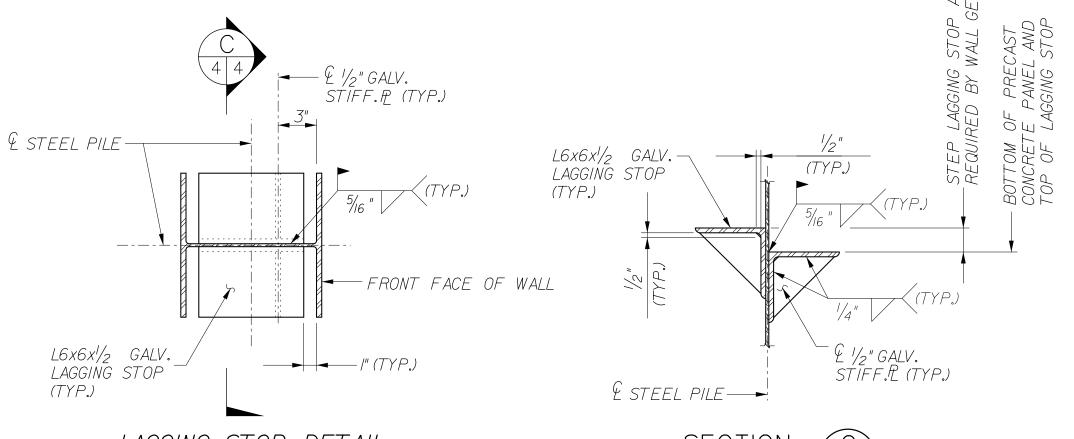
BACKFILL SHALL BE HAND-PACKED BEHIND EACH PRECAST CONCRETE PANEL AS IT IS PLACED.

#### CONSTRUCTION SEQUENCE:

- I. PILES SHALL BE INSTALLED BY DRILLING THE MINIMUM REQUIRED DRILLED HOLE DIAMETER TO THE REQUIRED ELEVATION SHOWN ON THE PLANS.
- 2. CONCRETE SHALL BE PLACED IN THE DRILLED HOLE TO THE REQUIRED ELEVATION AFTER PILE PLACEMENT AND BEFORE ANY EXCAVATION IS PERFORMED.
- 3. EXCAVATION SHALL NOT BE STARTED UNTIL THE CONCRETE IN THE DRILLED HOLES REACHES THE MINIMUM 28 DAY COMPRESSIVE STRENGTH.
- 4. INSTALL TEMPORARY LAGGING BETWEEN THE SOLDIER PILES TO TEMPORARILY SUPPORT THE EXCAVATION UNTIL THE PRECAST CONCRETE PANELS ARE INSTALLED. THE EXCAVATION TO INSTALL THE TEMPORARY LAGGING SHALL BE PLACED FROM THE TOP DOWN AS SOON AS POSSIBLE AFTER EXCAVATION TO MINIMIZE EROSION OF MATERIALS INTO THE EXCAVATION AND INSTALLED IN A MANNER THAT WILL NOT DAMAGE THE PILE COATING. BACKFILL MATERIAL SHALL BE PLACED BEHIND THE TEMPORARY LAGGING IMMEDIATELY AFTER INSTALLATION. THE MAXIMUM EXPOSED VERTICAL FACE OF EXCAVATION WITHOUT TEMPORARY LAGGING INSTALLED SHALL BE LIMITED TO 5 FEET. THE TEMPORARY LAGGING SHALL BE DESIGNED BY THE CONTRACTOR.
- 5. INSTALL THE PRECAST CONCRETE PANELS AND PLACE BACKFILL BEHIND THE PRECAST CONCRETE PANELS IMMEDIATELY AFTER INSTALLATION.WHERE PRACTICAL, THE TEMPORARY LAGGING SHALL BE REMOVED PRIOR TO BACKFILLING BEHIND THE PRECAST CONCRETE PANELS. ALL OTHER TEMPORARY LAGGING SHALL BE LEFT IN PLACE.
- 6. BACKFILL ALONG FRONT FACE OF WALL AND CONSTRUCT MODIFIED PG-5 PAVED DITCH.







<u>LAGGING STOP DETAIL</u>
N.T.S.

SECTION C
SCALE: N.T.S. 444

INVITATION FOR BID	
NOT FOR CONSTRUCTION	

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION	DESIGNED BY:	
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						DRAWN BY: KRJ	****
APPROVED BY COUNTY						CHECKED BY:  DBO	***
						DATE: 06/10/2020	







QUANTICO STATION

IFB-020-019
DRAWING NO:
RW13-04
SCALE:

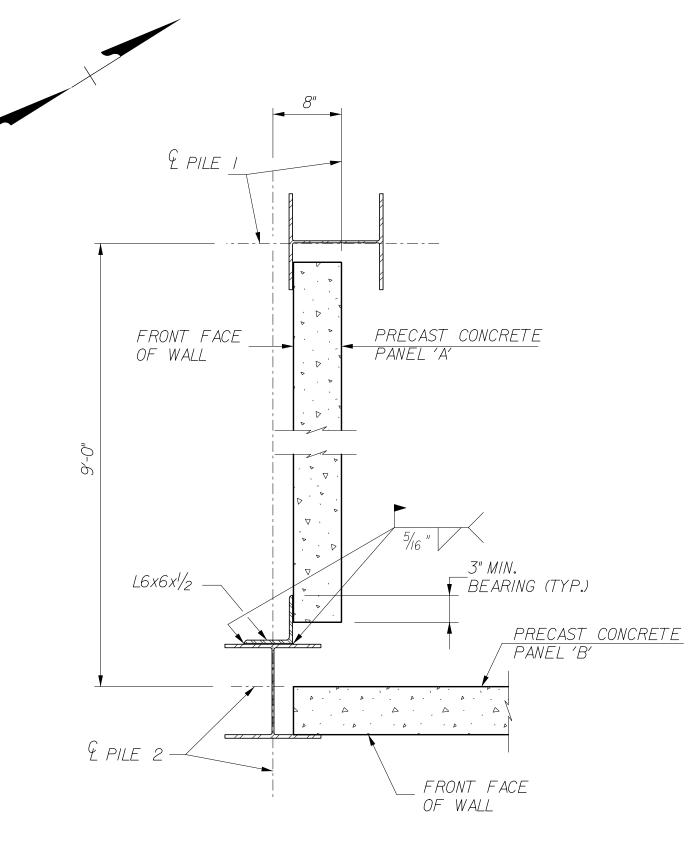
IFB NO:

RETAINING WALL RW-13 DETAILS (SHEET 1 OF 2)

SHEET NO: 53 OF 202

AS SHOWN





PRECAST CONCRETE PANELS 'A' AND 'B' PARTIAL PLAN DETAIL

N.T.S.

INVITATION FOR BID

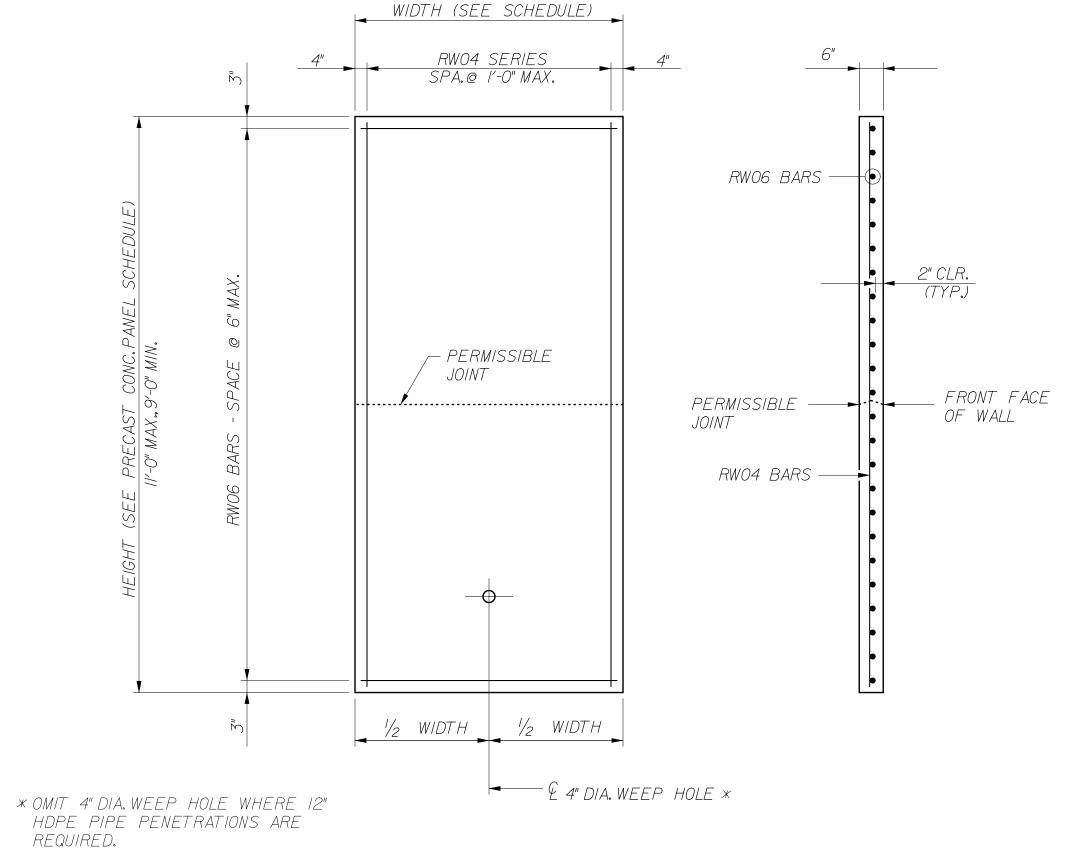
NOT FOR CONSTRUCTION

		PILE AN	D DRILLED H	OLE DATA SCI	HEDULE	
PILE NO.	PILE TYPE	BOTTOM OF PILE AND BOTTOM OF DRILLED HOLE ELEVATION	TOP OF DRILLED HOLE ELEVATION	LENGTH OF PILE ABOVE TOP OF DRILLED HOLE	LENGTH OF PILE BELOW TOP OF DRILLED HOLE	TOTAL LENGTH OF PILE
		(ELEV."X")	(ELEV."Y")	(DIM."A")	(DIM."B")	(D/M."C")
/	HPI4x73	-1.60	24.57	9'-10"	26'-2"	36′-0"
2	HP14x73	-1.60	24.57	9'-10"	26'-2"	36′-0"
3	HPI4x73	-1.60	24.57	9'-10"	26'-2"	36′-0"
4	HP14x73	-1.60	24.57	9'-10"	26'-2"	36′-0"
5	HP14x73	-1.60	24.57	9'-10"	26'-2"	36′-0"
6	HP14x73	-1.60	24.57	9'-10"	26'-2"	36′-0"
7	HPI4x73	-1.60	24.57	9'-10"	26'-2"	36′-0"
8	HPI4x73	-1.60	24.57	9'-10"	26'-2"	36′-0"
9	HPI4x73	-1.60	24.57	9'-10"	26'-2"	36′-0"
10	HPI4x73	-1.60	24.57	9'-10"	26'-2"	36′-0"
//	HP14x73	-1.60	24.57	9'-10"	26'-2"	36′-0"
12	HP14x73	-1.60	24.57	9'-10"	26'-2"	36′-0"
13	HP14x73	-1.60	24.57	9'-10"	26'-2"	36′-0"
14	HP14x73	-1.60	24.57	9'-10"	26'-2"	36′-0"
15	HP14x73	-1.60	24.57	9'-10"	26'-2"	36′-0"
16	HP14x73	-1.60	24.57	9'-10"	26'-2"	36′-0"
17	HP14x73	-1.60	24.57	9'-10"	26'-2"	36′-0"
18	HPI4x73	-1.60	24.57	9'-10"	26'-2"	36′-0"
19	HPI4x73	-1.60	24.57	9'-10"	26'-2"	36′-0"
20	HPI4x73	-1.60	24.57	9'-10"	26'-2"	36′-0"
21	HPI4x73	-1.60	24.57	9'-10"	26'-2"	36′-0"
22	HPI4x73	-1.60	24.57	9'-10"	26'-2"	36′-0"
23	HPI4x73	-1.60	24.57	9'-10"	26'-2"	36′-0"
24	HPI4x73	-1.60	24.57	9'-10"	26'-2"	36′-0"
25	HPI4x73	-1.60	24.57	9'-10"	26'-2"	36′-0"
26	HP14x73	-5.60	23.57	10'-10"	29'-2"	40'-0"
27	HPI4x73	-5.60	23.57	10'-10"	29'-2"	40'-0"
28	HPI4x73	-5.60	23.57	10'-10"	29'-2"	40'-0"
29	HPI4x73	-5.60	23.57	10'-10"	29'-2"	40'-0"
30	HPI4x73	-5.60	23.57	10'-10"	29'-2"	40'-0"
31	HPI4x73	-5.60	23.57	10'-10"	29'-2"	40'-0"
32	HPI4x73	-5.60	23.57	10'-10"	29'-2"	40'-0"
33	HPI4x73	-5.60	23.57	10'-10"	29'-2"	40'-0"
34	HPI4x73	-5.60	23.57	//′-/0"	29'-2"	4/'-0"
35	HPI4x73	-5.60	23.57	//′-/0"	29'-2"	4/'-0"
36	HPI4x73	-5.60	23.57	//′-/0"	29'-2"	4/'-0"
37	HPI4x73	-5.60	23.57	//′-/0"	29'-2"	41'-0"

RONALD C. BRIGGS Lic. No. 011415

### NOTES:

- I. THE JOINT BETWEEN THE UPPER AND LOWER PANELS SHALL BE CAPABLE OF PREVENTING HORIZONTAL MOVEMENT.
- 2. THE CONTRACTOR SHALL SUBMIT DETAILS OF THE JOINTS TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
- 3. SEE DRAWING RWI3-04 FOR NOTES AND ADDITIONAL INFORMATION.



TYPICAL ELEVATION AND SECTION THROUGH PRECAST CONCRETE PANELS

PRECAST CONCRETE PANEL SCHEDULE													
			HORIZONT AL BARS						APPROX.				
PANEL   MARK	WIDTH	HEIGHT	MARK	TYPE	NO. REQ'D	SIZE	LENGTH	MARK	TYPE	NO. REQ'D	SIZE	LENGTH	PANEL WEIGHT
Α	8'-0"	9'-0"	RW0601	STR.	18	6	7′-8"	RW0401	STR.	9	4	8′-8"	5,400 LB
В	6′-6"	9'-0"	RW0602	STR.	18	6	6'-2"	RW0402	STR.	7	4	8′-8"	4,388 LB
С	5′-6"	9'-0"	RW0603	STR.	18	6	5'-2"	RW0403	STR.	6	4	8′-8"	3,713 LB
D	5′-6"	10'-0"	RW0604	STR.	20	6	5'-2"	RW0404	STR.	6	4	9′-8"	4,125 LB
E	5′-6"	//′-0"	RW0605	STR.	22	6	5'-2"	RW0405	STR.	6	4	10'-8"	4,538 LB

QUANTITIES SHOWN ARE FOR ONE (I) PANEL OF EACH MARK.

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION	DESIGNED BY:
	0	06/10/20			INVITATION FOR BID	GEE
						DRAWN BY: KRJ
APPROVED BY COUNTY						CHECKED BY:  DBO
						DATE: 06/10/2020





QUANTICO STATION
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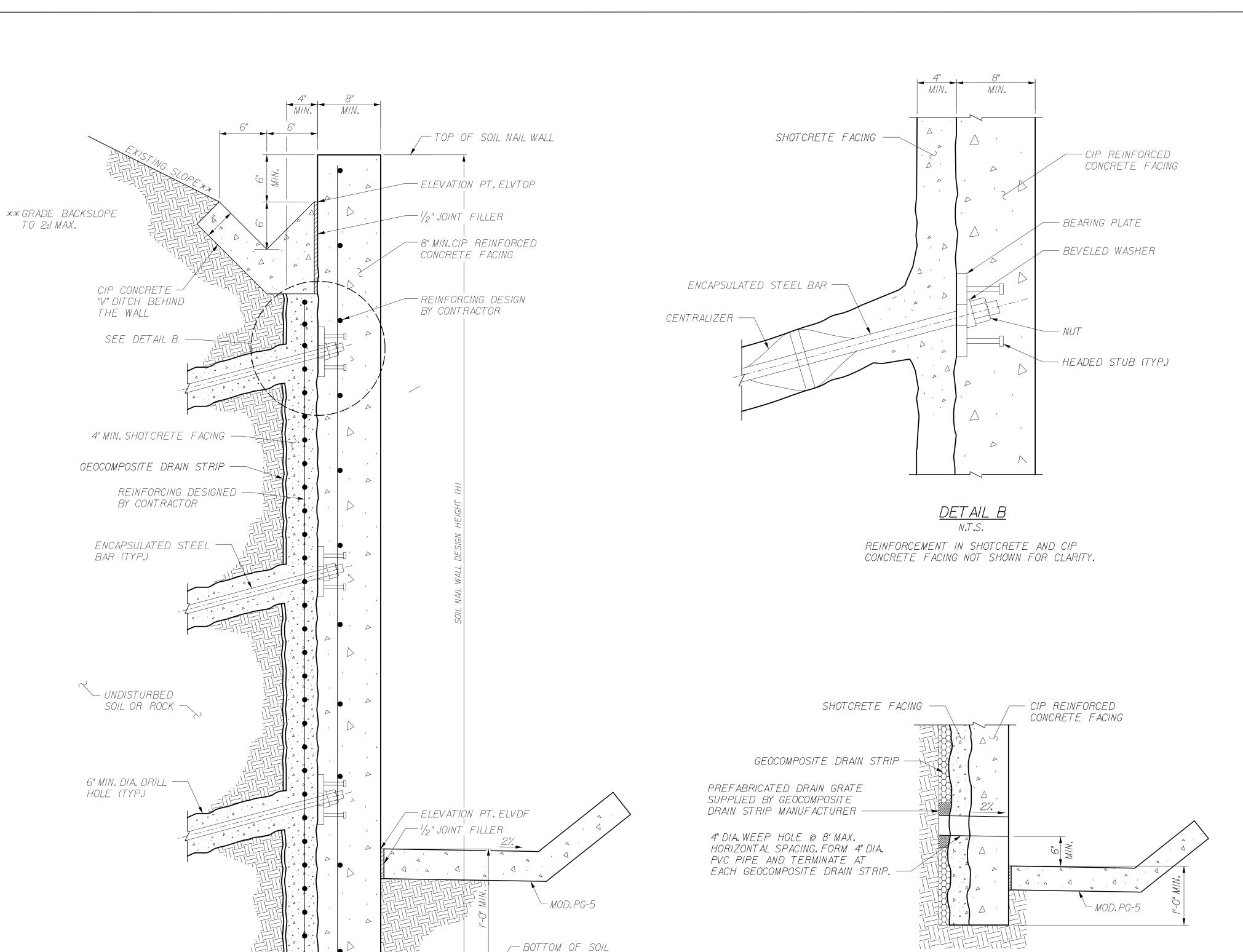
**RETAINING WALL RW-13** 

DETAILS (2 OF 2)

IFB-020-019 DRAWING NO: RW13-05 SCALE: AS SHOWN 54 OF 202

IFB NO:

\$\$FILE\$\$ \$\$DATE\$\$ \$\$TIME\$\$



SOIL NAIL WALL TYPICAL SECTION

FROM STA.8264+16.00 TO 8269+19.00

# INVITATION FOR BID NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION	DESIGNED BY:	
	0	06/10/20			INVITATION FOR BID	GEE	
						DRAWN BY:	*
						KRJ	Ī
APPROVED BY COUNTY						CHECKED BY:	ŧ
						DBO	3
						DATE:	
						06/10/2020	

NA/L WALL



TYPICAL WALL TOE DRAIN





# QUANTICO STATION

RETAINING WALL RW-13 SOIL NAIL WALL DETAILS DRAWING NO:
RW13-06
SCALE:
AS SHOWN

IFB NO:

ET NO: 55 **OF** 202

IFB-020-019

#### \$\$FILE\$\$ \$\$DATE\$\$ \$\$TIME\$\$

# GENERAL NOTES FOR SOIL NAIL WALLS

# DESIGN CRITERIA:

THE CONTRACTOR SHALL DESIGN THE SOIL NAIL WALL IN ACCORDANCE WITH SECTIONS 32 50 00 (PERMANENT SOIL NAILS) AND 03 35 50 (SHOTCRETE AND PERMANENT CONCRETE FACING) OF THE SPECIFICATIONS.

THE SOIL NAIL WALL SHALL BE DESIGNED TO RESIST A VERTICAL LIVE LOAD SURCHARGE OF 250 POUNDS PER SQUARE FOOT (PSF), IN ADDITION TO ACTIVE EARTH PRESSURE. THE SOIL NAIL WALL SHALL ALSO BE DESIGNED TO RESIST ANY CONSTRUCTION LOADING TO BE DETERMINED BY THE CONTRACTOR.

SOIL NAIL WALLS SHALL BE DESIGNED TO HAVE LESS THAN 0.003H (WHERE H IS THE SOIL NAIL WALL DESIGN HEIGHT) OF MOVEMENT AT THE TOP OF THE WALL UNDER THE DESIGN LOADS.

FOR SOIL NAIL WALL DESIGN HEIGHTS LESS THAN 18 FEET, THE MAXIMUM SOIL NAIL SPACING (HORIZONTAL AND VERTICAL) SHALL NOT EXCEED 5 FEET.

FOR SOIL NAIL WALL DESIGN HEIGHTS GREATER THAN OR EQUAL TO 18 FEET, THE MAXIMUM SOIL NAIL SPACING (HORIZONTAL AND VERTICAL) SHALL NOT EXCEED 4 FEET.

MINIMUM SOIL NAIL LENGTH (FT)	STATION RANGE
18.00	8264+16 TO 8265+50
20.00	8265+50 TO 8266+50
30.00	8266+50 TO 8267+50
31.00	8267+50 TO 8268+50
30.00	8268+50 TO 8269+19

SOIL NAILS SHALL BE ENIRELY CONTAINED WITHIN CSXT RIGHT-OF-WAY OR PERMANENT EASEMENTS.

SOIL NAILS MAY BE SPLICED USING MECHANICAL SPLICES WITH PRIOR APPROVAL OF THE ENGINEER.

#### ELEVATIONS:

ELEVATIONS SHOWN IN PLANS ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

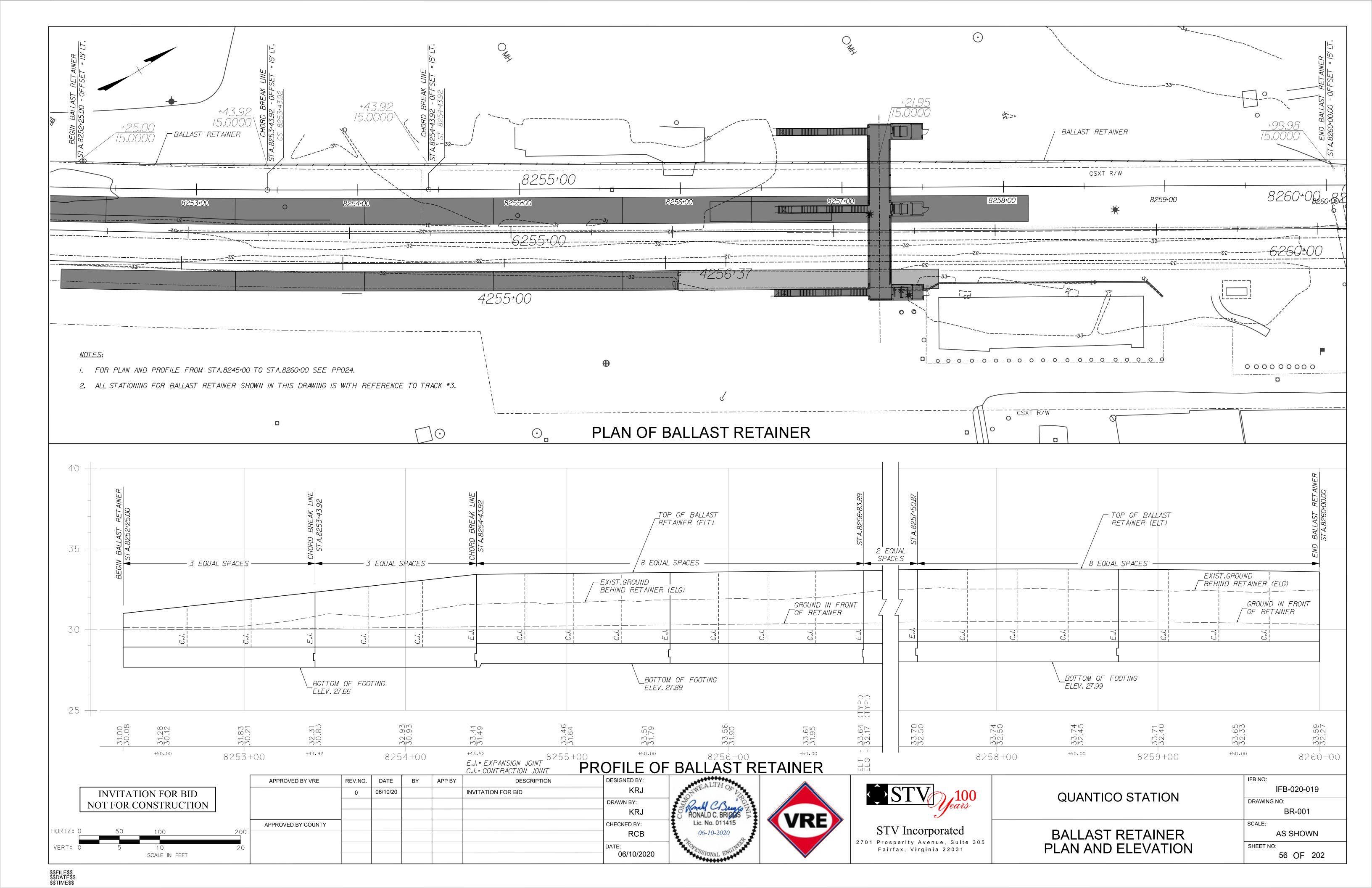
### UTILITIES:

THE CONTRACTOR IS RESPONSIBLE FOR LOCATING EXISTING UTILITIES AND FOR MAINTAINING THE UTILITIES THROUGHOUT THE DURATION OF THE PROJECT, UNLESS NOTED OTHERWISE.

THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES TO VERIFY THAT THERE IS NO CONFLICT BETWEEN THE WALL SYSTEM AND EXISTING UTILITIES PRIOR TO THE INSTALLATION OF ANY PORTION OF THE WALL.A UTILITY REPRESENTATIVE SHALL BE PRESENT WHILE PERFORMING TEST PITS IN ORDER TO VERIFY OWNERSHIP OF THE UTILITY. THE CONTRACTOR SHALL SURVEY THE LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES AND SUBMIT COPIES OF ALL FIELD SURVEYS TO THE ENGINEER FOR INCLUSION INTO THE PROJECT RECORDS. IF ANY EXISTING UTILITIES ARE DETERMINED TO BE IN CONFLICT WITH THE WALL SYSTEM, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.

# MAINTENANCE OF RAILROAD TRAFFIC:

THE CONTRACTOR SHALL COORDINATE WITH CSXT TO PROVIDE FOR CONTINUOUS RAIL TRAFFIC THROUGHOUT THE CONSTRUCTION PERIOD.



NOTES:

SPECIFICATIONS:

PROJECT SPECIFICATIONS

CSX TRANSPORTATION STANDARD SPECIFICATIONS
VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE SPECIFICATIONS
AMERICAN RAILWAY ENGINEERING AND MAINTENANCE-OF-WAY ASSOCIATION (AREMA)

MANUAL FOR RAILWAY ENGINEERING, 2019

ALL MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.

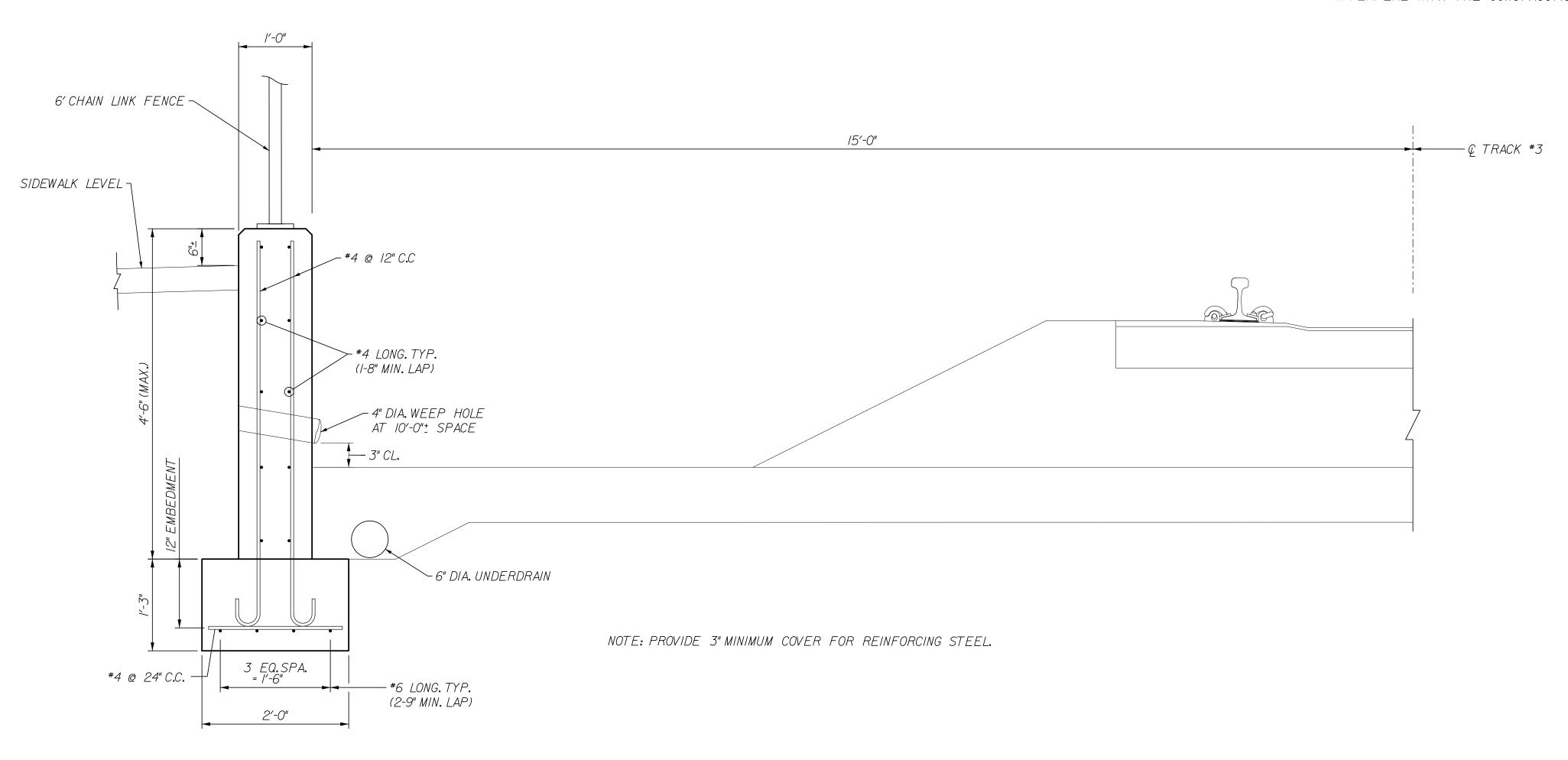
REINFORCED CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE CYLINDER STRENGTH AT 28 DAYS EQUAL TO 5000PSI.

REINFORCING STEEL SHALL CONFORM TO ASTM A615,GRADE 60.

STRUCTURAL STEEL SHALL BE ASTM A36.

ALL EDGES OF CONCRETE TO BE CHAMFERED BY 3/4".

THE CONTRACTOR IS RESPONSIBLE FOR FIELD LOCATING ALL EXISTING UTILITIES AND FEATURES THAT INTERFERE WITH THE CONSTRUCTION OF THE BALLAST RETAINER.

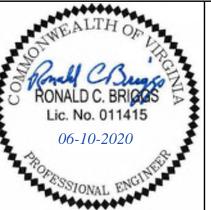


# BALLAST RETAINER TYPICAL SECTION

FROM STA.8252+25.00 TO 8260+00.00

INVITATION FOR BID NOT FOR CONSTRUCTION

APPROVED BY VRE	REV.NO.	DATE	BY	APP BY	DESCRIPTION	DESIGNED BY:	
	0	06/10/20			INVITATION FOR BID	GEE	1
						DRAWN BY:  KRJ	COMO
APPROVED BY COUNTY						CHECKED BY:	
						DATE: 06/10/2020	3







QUANTICO STATION

IFB-020-019

DRAWING NO:

BR-002

IFB NO:

BALLAST RETAINER DETAILS SCALE:

AS SHOWN

SHEET NO:

57 OF 202



