

# **FINAL PLANS**

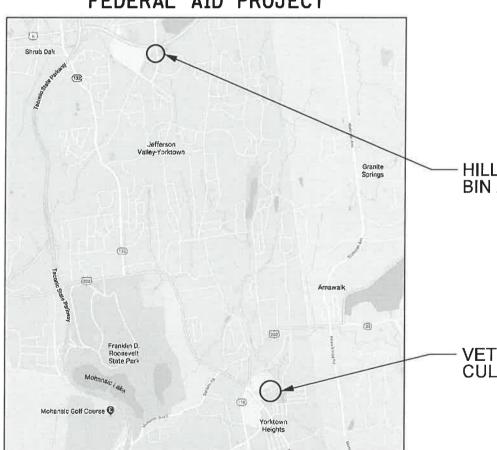
**MARCH 2020** 

## **TOWN OF YORKTOWN**

PIN 8761.66: REPLACEMENT OF HILL BLVD BRIDGE (BIN 2265539)
OVER TRIBUTARY TO BARGER BROOK PIN 8761.71: REPLACEMENT OF VETERANS RD CULVERT OVER HALLOCKS MILL BROOK

> TOWN OF YORKTOWN WESTCHESTER COUNTY, NEW YORK

> > FEDERAL AID PROJECT



THE LATEST REVISIONS OF THE STANDARD SHEETS MAINTAINED BY THE DEPARTMENT, WHICH ARE CURRENT ON THE DATE OF ADVERTISEMENT FOR BIDS, SHALL BE CONSIDERED TO BE IN EFFECT. ALL PAY ITEMS AND WORK CONTAINED IN THE CONTRACT AND ANY ADDITIONAL PAY ITEMS AND WORK ENCOUNTERED DURING THE COURSE OF THE CONTRACT SHALL BE SUBJECT TO THE APPLICABLE STANDARD SHEETIS) UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS.

ALL WORK CONTEMPLATED UNDER THIS CONTRACT IS TO BE COVERED BY AND IN CONFORMITY WITH THE STANDARD SPECIFICATIONS (US CUSTOMARY) REFERENCED IN THE CONTRACT PROJECT "PROPOSAL" EXCEPT AS MODIFIED BY THESE PLANS OR BY CHANGES SET FORTH IN

CONTRACT PLANS HAVE BEEN DESIGNED IN ACCORDANCE WITH NYSDOT POLICIES AND GUIDELINES AND THE FINAL DESIGN REPORT APPROVED ON 7/5/2018 (HILL BLVD) AND 6/27/2018 (VETERANS ROAD)

PROJECT LIMITS: STA. H 11+61 TO H 13+20 (HILL BOULEVARD) STA. V 12+06 TO V 13+30 (VETERANS ROAD)

CONTRACT LIMITS:
HILL BOULEVARD: LEE BLVD TO NYS ROUTE 6; LEE BLVD TO HILL BLVD
VETERANS ROAD: NYS ROUTE 202 TO NORTH COUNTY TRAILWAY; GREENWOOD ST TO HANOVER ST

NYSDOT STANDARD SHEETS:

203-01 608-03 646-13 663-01
203-02 608-04 646-16 663-02
203-03 608-05 649-01 663-03
203-04 608-06 619-66 663-04
203-05 609-01 624-01 663-05
204-01 609-02 625-01 663-06
209-01 609-03 630-01 663-06
209-02 611-01 645-01 664-01
209-03 619-01 645-02 685-01
209-04 619-02 645-03
209-05 619-01 645-06
209-07 619-11 645-06
209-07 619-11 645-07
402-01 619-12 645-09
604-01 619-66 645-10
605-01 625-01 645-11
605-01 625-01 645-12
606-04 630-01 645-14
606-05 645-02 645-13
606-06 645-02 646-16
606-11 645-03 649-01
606-16 645-03 649-01
606-16 645-03 649-01
606-26 645-06 655-02
606-24 645-07 655-03
606-25 645-10 655-05
606-29 645-11 655-06
606-30 645-12 655-07
606-31 645-12 655-07
606-31 645-12 655-08

HILL BOULEVARD BRIDGE BIN 2265539

**VETERANS ROAD CULVERT** 



# **LOCATION MAP**

-			132			
AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS:	HILL BOULEVARD OVER TRIBUTARY TO BARGER CREEK	PIN 8761.66 8761.71	BRIDGES	CULVERTS	ALL DIMENSIONS IN ## UNLESS OTHERWISE NOTED	CONTRACT NUMBER
DESCRIPTION OF ALTERNATIONS	VETERANS ROAD OVER HALLOCKS MILL BROOK	-	BIN 2265539		TITLE SHEET	
	TOWN OF YORKTOWN	-				DRAWING NO. COVER
	COUNTY: WESTCHESTER REGION: 8	1				SHEET NO. 1
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY, UP AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERING ENGINEER, ARCHITECT, DATE AND SURVEYOR THE ALTERING ENGINEER, ARCHITECT, OR LAND SURVEYOR THE ALTERING ENGINEER, ARCHITECT, OR LAND SURVEYOR THE ALTERING ENGINEER OF THE ALTERING ENGINEER OF THE ALTERING ENGINEER, ARCHITECT, OR LAND SURVEYOR THE ALTERING ENGINEER OF THE ALTERING ENGINEER OF THE ALTERING ENGINEER, ARCHITECT, OR LAND SURVEYOR THE ALTERING ENGINEER OF THE ALTERING ENGINEER OF THE ALTERING ENGINEER, ARCHITECT, OR LAND SURVEYOR THE ALTERING ENGINEER OF THE ALTERING ENGINEER OF THE ALTERING ENGINEER, ARCHITECT, OR LAND SURVEYOR THE ALTERING ENGINEER OF THE ALTERING ENGINEER OF THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR THE ALTERING ENGINEER OF THE ALTERIN						

CONTRACTOR'S NAME AWARD DATE COMPLETION DATE FINAL ACCEPTANCE DATE TOWN OF YORKTOWN ENGINEERING DEPARTMENT ENGINEER IN CHARGE FINAL COST TOTAL

FISCAL SHARE

COST(S)

ALTERED BY:

PROJECT MANAGER, WSP

TOWN OF YORKTOWN, WESTCHESTER COUNTY

APPROVED BY

AFFIX SEAL:

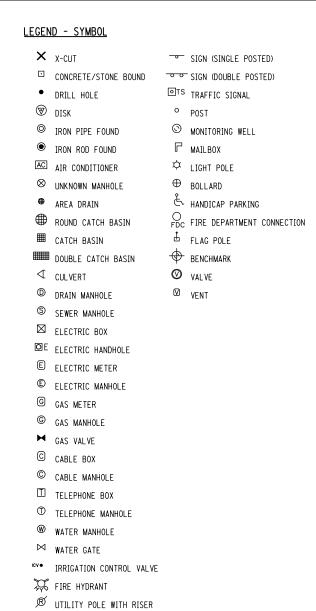
FTLE NAME = DGN#SPEC/A1234567890123456789012345678 DATE/TIME = DGN#SYTIME0123456 USER = DGN#USERNAME

INDEX TOTAL NUMBER OF SHEETS 55 SHEET DESCRIPTION DRAWING NUMBER NUMBER TITLE SHEET COVER INDEX OF DRAWINGS, LEGEND AND ABBREVIATIONS INDEX ESTIMATE OF QUANTITIES EOQ GENERAL NOTES 1 of 2 GNN-1 GENERAL NOTES 2 of 2 GNN-2 HILL BOULEVARD BASELINE TIES HB-1 DETOUR PLAN HB-2 TYPICAL APPROACH ROADWAY SECTIONS HB-3 EXISTING AND PROPOSED PROFILE HB-4 BORING LOCATION PLAN HB-5 BORING SUBSURFACE PROFILE HB-6 EXISTING PLAN AND ELEVATION HB-7 PROPOSED PLAN HB-8 EXCAVATION PLAN HB-9 EXCAVATION SECTIONS 1 of 2 HB-10 EXCAVATION SECTIONS 2 of 2 HB-11 PRECAST UNIT PLAN AND DETAILS HB-12 PRECAST UNIT SECTIONS HB-13 INVERT SLAB REINFORCEMENT PLAN HB-14 FOOTING PLAN AND SECTIONS HB-15 WINGWALL DETAILS HB-16 CONNECTION/CLOSURE POUR DETAILS HB-17 SOIL EROSION AND SEDIMENT CONTROL PLAN HB-18 UTILITY PLAN HB-19 UTILITY PROFILES HB-20 UTILITY DETAILS HB-21 SANITARY SEWER BYPASS PLAN HB-22 BARLIST HB-23 VETERANS ROAD BASELINE TIES VR-1 DETOUR PLAN VR-2 TYPICAL APPROACH ROADWAY SECTIONS VR-3 EXISTING AND PROPOSED PROFILES VR-4 BORING LOCATION PLAN VR-5 BORING SUBSURFACE PROFILE VR-6 EXISTING PLAN AND ELEVATION VR-7 PROPOSED PLAN VR-8 EXCAVATION PLAN VR-9 EXCAVATION SECTIONS 1 of 2 VR-10 EXCAVATION SECTIONS 2 of 2 VR-11 PRECAST UNIT PLAN AND DETAILS VR-12 PRECAST UNIT SECTIONS VR-13 PRECAST FLARED END UNIT SECTION VR-14 WINGWALL DETAILS VR-15 CONNECTION/CLOSURE POUR DETAILS VR-16

	INDEX TOTAL NUMBER OF SHE					
SHEET NUMBER						
45	SOIL EROSION AND SEDIMENT CONTROL PLAN		VR-17			
46	UTILITY PLAN		VR-18			
47	UTILITY PROFILE		VR-19			
48	48 BARLIST					
	COMMON					
49	BRIDGE RAIL DETAILS (1 OF 2)		RAL-1			
50	BRIDGE RAIL DETAILS (2 OF 2)		RAL-2			
51	APPROACH RAILING TRANSITION AND DETAILS		RAL-3			
52	52 SOIL EROSION AND SEDIMENT CONTROL DETAILS					
53	53 WATERMAIN DETAILS 1 OF 3					
54	54 WATERMAIN DETAILS 2 OF 3					
55	55 WATERMAIN DETAILS 3 OF 3					

#### LEGEND - LINE

	ABUTTERS LOT LINE
——————————————————————————————————————	PROPERTY LINE
PE (OR TE)	EASEMENT
НВ	HIGHWAY BOUNDARY
<del></del>	METAL/CHAIN LINK FENCE
* *	WIRE FENCE
8 8 9	WOOD/PLASTIC FENCE
—— SA———	SEWER LINE
ST	DRAIN LINE
W	WATER LINE
G	GAS LINE
——— E ———	UNDERGROUND ELECTRIC
—— c——	UNDERGROUND CABLE
—— <i>T</i> ———	TELEPHONE LINE
OHW	OVERHEAD WIRES
	STONE WALL
~~~~~~	TREE LINE
	INTERMEDIATE CONTOURS
— — 50 — —	INDEX CONTOURS
FW	WETLAND LINE



FINISHED FLOOR ELEVATION STONE RETAINING WALL CONCRETE RETAINING WALL WOOD RETAINING WALL BRICK RETAINING WALL SINGLE WHITE LINE SINGLE YELLOW LINE DASHED LINE WHITE DASHED LINE YELLOW DYL DOUBLE YELLOW LINE DOUBLE WHITE LINE CORRUGATED METAL PIPE RCP REINFORCED CONCRETE PIPE CORRUGATED PLASTIC PIPE POLYVINYL CHLORIDE POLYETHYLENE CAST IRON INVERT

**ABBREVIATIONS** 

EOC

EOG

WC

LSA

TEMPORARY BENCHMARK

EDGE OF PAVEMENT

EDGE OF CONCRETE

EDGE OF GRAVEL

CONCRETE CURB

BITUMINOUS CURB

LANDSCAPED AREA

SLOPED GRANITE CURB

VERTICAL GRANITE CURB

WOOD CURB

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

HILL BOULEVARD OVER TRIBUTARY TO BARGER CREEK

VETERANS ROAD OVER HALLOCKS MILL BROOK

TOWN OF YORKTOWN

COUNTY: WESTCHESTER REGION: 8

PIN 8761.66 8761.71 PS&E DATE: MARCH 2020 BRIDGES

CULVERTS

Ø UTILITY POLE

DECIDUOUS TREE

CONIFER TREE

UTILITY POLE WITH LIGHT AND RISER

UTILITY WITH RISER AND TRANSFORMER

AL

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

INDEX OF DRAWINGS, LEGEND AND ABBREVIATIONS

DRAWING NO. INDEX

SHEET NO. 2

CONTRACT NUMBER

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.



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	MM	
	DESIGN SUPERVISOR	
+	DESIGN	L

	333.00 FOOTING CONCRETE, CLASS HE					
		EPOXY-COATED BAR F	LB	Г		
	562.0101	REINFORCED CONCRE	TE SPAN UNITS	SY	Г	
	562.03	WINGWALL WITH FOOT	TING	SY	Г	
	564.0501	STRUCTURAL STEEL, T	YPE 1	LS	Г	
	568.51	STEEL BRIDGE RAIL (F	OUR RAIL)	LF	Г	
		TRANSITION BRIDGE R		LF	Г	
	595.50000018 SHEET APPLIED WATERPROOFING MEMBRANE					
	603.6005	REINFORCED CONCRE	TE PIPE CLASS III, 24 INCH DIAMETER	LF	Г	
	603.7305	REINFORCED CONCRE	TE PIPE END SECTIONS, 24 INCH DIAMETER	EA	Г	
		TRASH RACK	·	EA	Г	
	604.4060 ROUND PRECAST CONCRETE MANHOLE TYPE 60					
	606.120101	BOX BEAM END PIECE		EA	Г	
	606.71	REMOVING AND DISPO	SING CORRUGATED BEAM GUIDE RAILING	LF	Г	
	608.020102	HOT MIX ASPHALT (HM	A) SIDEWALKS, DRIVEWAYS AND BICYCLE	TON	Г	
	000.020102	PATHS, AND VEGETAT	ION CONTROL STRIPS	TON	ĺ	
	609.0901	OPTIONAL CURB (PRE	CAST TYPE PVF150 OR CAST-IN-PLACE TYPE	LF	Г	
	609.0901	VF1 50 OR GRANITE TY	PE C)	LF	ĺ	
	609.2201	UNPAINTED HOT MIX A	SPHALT CURB (MOUNTABLE)	LF	Г	
	610.1402	TOPSOIL - ROADSIDE		CY	Г	
	610.1601	TURF ESTABLISHMENT	- ROADSIDE	SY	Г	
	614.060202	TREE REMOVAL OVER	6 INCHES TO 12 INCHES DIAMETER BREAST	EA		
	014.000202	HEIGHT - STUMPS CUT	FLUSH	EA	ĺ	
	614.060302	TREE REMOVAL OVER	EA	Г		
	014.000302	HEIGHT - STUMPS CUT	FLUSH	EA		
	614.060402	TREE REMOVAL OVER	18 INCHES TO 24 INCHES DIAMETER BREAST	EA	Г	
	014.000402	HEIGHT - STUMPS CUT FLUSH				
	615.01010108	8 MATERIAL FOR STREAM BED ESTABLISHMENT				
		BASIC WORK ZONE TR		LS		
	619.04	TYPE III CONSTRUCTIO		EA		
			MESSAGE SIGN (PVMS) STANDARD SIZE -			
	619.110511		OPTIONAL EQUIPMENT SPEC, NO CELLULAR	EA		
		COM REQ			L	
			TE BARRIER (UNPINNED)	LF	L	
		STONE FILLING (MEDIL		CY	L	
		CRUSHED STONE (IN F		CY	L	
		SURVEY OPERATIONS		LS	L	
		CUTTING PAVEMENT		LF	L	
	637.11	ENGINEERS FIELD OFF		MNTH	L	
	650.1010		ATION OF CASING PIPE UNDER HIGHWAY	LF	ĺ	
			S THAN OR EQUAL TO 24" (10" DIAMETER)		L	
	650.1012		ATION OF CASING PIPE UNDER HIGHWAY	LF		
			S THAN OR EQUAL TO 24" (12" DIAMETER)		L	
_		MANHOLE FRAME AND		EA		
	660.21100008	FURNISH & INSTALL ST	EEL CASING 10"	LF	L	
AFFIX	SEAL:		ALTERED BY:			
ON:			ON:			
				10 0:::: -	_	
				AS-BUILT	ΚĒ	
				DESCRIPTI	UN	
l						

**ESTIMATE OF QUANTITIES - HILL BOULEVARD** 

205.0402 LABORATORY ANALYSIS FOR HAZARDOUS WASTE RCRA TOXICITY CHARACTERISTIC
205.0403 LABORATORY ANALYSIS FOR IGNITIBILITY
205.0408 LABORATORY ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS (GASOLINE RANGE ORGANICS)

205.0407 (DIESEL RANGE ORGANICS)
206.01 STRUCTURE EXCAVATION

201.06 CLEARING AND GRUBBING
203.02 UNCLASSIFIED EXCAVATION AND DISPOSAL

203 03 EMBANKMENT IN PLACE

206.05 TEST PIT EXCAVATION

209.13 SILT FENCE - TEMPORARY

407.0103 STRAIGHT TACK COAT 552.17 SHIELDS AND SHORING

206.0201 TRENCH AND CULVERT EXCAVATION
207.20 GEOTEXTILE BEDDING

555.08 FOOTING CONCRETE, CLASS HP

207.26 PREFABRICATED COMPOSITE STRUCTURAL DRAIN

402.198903 19 F9 BINDER COURSE HMA, 80 SERIES COMPACTION 402.378903 37.5 F9 BASE COURSE HMA, 80 SERIES COMPACTION

553.030001 TEMPORARY WATERWAY DIVERSION STRUCTURE

304.11000008 SUBBASE COURSE (MODIFIED) 402.128103 12.5 F1 TOP COURSE HMA, 80 SERIES COMPACTION

203.25 SAND BACKFILL

203.21 SELECT STRUCTURE FILL

ITEM NO.

PIN QUANTITY

0.5 660

640

920

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CY

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CY TON

TON TON

GAL SF EA

CY

660.21120008	FURNISH & INSTALL STEEL CASING 12"	LF	50
660.70000004	MAINTENANCE OF SANITARY SEWER FLOWS	LS	1
663.0106	6" DUCTILE IRON CEMENT LINED WATER PIPE	FT	6
663.0112	12" DUCTILE IRON CEMENT LINED WATER PIPE	FT	160
663.1006	6" RESILIENT WEDGE GATE VALVE & VALVE BOX	EA	1
663.1212	12" DOUBLE DISK GATE VALVE & VALVE BOX	EA	2
663.1301	HYDRANT	EA	1
663.2001	IRON WATER MAIN FITTINGS (3" - 8")	LB	19.2
663.2002	IRON WATER MAIN FITTINGS (10" - 16")	LB	1536
663.42	REMOVE AND DISPOSE OF EXISTING WATER VALVE & VALVE BOX	EA	1
663.43	REMOVE AND DISPOSE OF EXISTING HYDRANT	EA	1
664.01060004	DUCTILE IRON SEWER PIPE & FITTINGS, 6"	LF	130
664.01080004	DUCTILE IRON SEWER PIPE & FITTINGS, 8"	LF	130
664.01100004	DUCTILE IRON SEWER PIPE & FITTINGS, 10"	LF	175
664.05160003	BRIDGE MOUNTING OF SEWER PIPE, 16"	LF	42
664.40480006	PRECAST SANITARY SEWER MANHOLE (48" DIA)	LF	18
680.94010003	WATERTIGHT DISCONNECT BOX - NEMA 4X	EA	2
683.08020104	3G/4G LTE GATEWAY MODEM WITH ANTENNA	EA	2
685.11	WHITE EPOXY REFLECTORIZED PAVEMENT STRIPES - 20 MILS	LF	91

ITEM NO.	DESCRIPTION	UNIT	PIN QUAN1
201.06	CLEARING AND GRUBBING	LS	QUAIN
	REMOVAL OF SUBSTRUCTURES	CY	
	UNCLASSIFIED EXCAVATION AND DISPOSAL	CY	<b>—</b>
	EMBANKMENT IN PLACE	CY	
	SELECT STRUCTURE FILL	CY	
	SAND BACKFILL	CY	
203.23		CT	
205.0402	LABORATORY ANALYSIS FOR HAZARDOUS WASTE RCRA TOXICITY	EA	
	CHARACTERISTIC		
205.0403	LABORATORY ANALYSIS FOR IGNITIBILITY	EA	
205.0406	LABORATORY ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS	EA	
	(GASOLINE RANGE ORGANICS)		
205.0407	LABORATORY ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS	EA	
200.0401	(DIESEL RANGE ORGANICS)	L/\	
206.01	STRUCTURE EXCAVATION	CY	1
206.0201	TRENCH AND CULVERT EXCAVATION	CY	
207.2	GEOTEXTILE BEDDING	SY	
207.26	PREFABRICATED COMPOSITE STRUCTURAL DRAIN	SY	
	SILT FENCE - TEMPORARY	LF	
	SUBBASE COURSE (MODIFIED)	CY	
	12.5 F1 TOP COURSE HMA, 80 SERIES COMPACTION	TON	
		TON	1
	19 F9 BINDER COURSE HMA, 80 SERIES COMPACTION		-
	37.5 F9 BASE COURSE HMA, 80 SERIES COMPACTION	TON	<u> </u>
	STRAIGHT TACK COAT	GAL	-
	INTERIM STEEL SHEETING	SF	
	TEMPORARY WATERWAY DIVERSION STRUCTURE	EA	
	CONCRETE FOR STRUCTURES, CLASS HP	CY	
	EPOXY-COATED BAR REINFORCEMENT FOR STRUCTURES	LB	1
562.03	WINGWALL WITH FOOTING	SY	
568.51	STEEL BRIDGE RAIL (FOUR RAIL)	LF	
568.70	TRANSITION BRIDGE RAILING	LF	
595.50000018	SHEET APPLIED WATERPROOFING MEMBRANE	SF	
	REINFORCED CONCRETE PIPE CLASS III, 18 INCH DIAMETER	LF	
	DRECAST CONCRETE BOX CHI VERT (FILL HEIGHT LESS THAN 24 IN)		
603.63180915	18 FOOT SPAN, 9 FOOT RISE	LF	
602.77	CONCRETE COLLARS	EA	
			<u> </u>
	BOX BEAM END PIECE	EA	<u> </u>
606.71	REMOVING AND DISPOSING CORRUGATED BEAM GUIDE RAILING	LF	
608.020102	HOT MIX ASPHALT (HMA) SIDEWALKS, DRIVEWAYS AND BICYCLE	TON	
	PATHS, AND VEGETATION CONTROL STRIPS		
609.0101	STONE CURB (TYPE A)	LF	
609,0901	OPTIONAL CURB (PRECAST TYPE PVF150 OR CAST-IN-PLACE TYPE	LF	
	VF1 50 OR GRANITE TYPE C)		
610.1402	TOPSOIL - ROADSIDE	CY	
610.1601	TURF ESTABLISHMENT - ROADSIDE	SY	
04.4.000000	TREE REMOVAL OVER 6 INCHES TO 12 INCHES DIAMETER BREAST		
614.060202	HEIGHT - STUMPS CUT FLUSH	EA	
	TREE REMOVAL OVER 18 INCHES TO 24 INCHES DIAMETER BREAST		
614.060402	HEIGHT - STUMPS CUT FLUSH	EA	
615 01010100	MATERIAL FOR STREAM BED ESTABLISHMENT	CY	<del>                                     </del>
	BASIC WORK ZONE TRAFFIC CONTROL	LS	
	TYPE III CONSTRUCTION BARRICADE	EA	1
019.04		EA	-
640 44054	PORTABLE, VARIABLE MESSAGE SIGN (PVMS) STANDARD SIZE -		1
619.110511	FULL MATRIX (LED) NO OPTIONAL EQUIPMENT SPEC, NO CELLULAR	EA	
	COM REQ		<u> </u>
	TEMPORARY CONCRETE BARRIER (UNPINNED)	LF	
	STONE FILLING (MEDIUM)	CY	
	CRUSHED STONE (IN PLACE MEASURE)	CY	
	SURVEY OPERATIONS	LS	
627.5014001	CUTTING PAVEMENT	LF	
647.41	REMOVE AND STORE SIGN PANEL, SIGN ASSEMBLY SIZE I (UNDER	E^	
047.41	30 SQUARE FEET)	EA	1
660.21160008	FURNISH & INSTALL STEEL CASING 16 NPS (OUTSIDE DIAMETER)	LF	t
	12" DUCTILE IRON CEMENT LINED WATER PIPE	FT	
	12" DOUBLE DISK GATE VALVE & VALVE BOX	EA	<b>!</b>
663 1212	IRON WATER MAIN FITTINGS (10" - 16")	LB	<del>                                     </del>
	WATERTIGHT DISCONNECT BOX - NEMA 4X	EA	1
663.2002	LAND IL DELLA DISCUSSIONE LA BULA - INCIVIA 4A		
663.2002 680.94010003			1
663.2002 680.94010003 683.08020104	3G/4G LTE GATEWAY MODEM WITH ANTENNA	EA	
663.2002 680.94010003 683.08020104 685.11	3G/4G LTE GATEWAY MODEM WITH ANTENNA WHITE EPOXY REFLECTORIZED PAVEMENT STRIPES - 20 MILS	LF	
663.2002 680.94010003 683.08020104 685.11	3G/4G LTE GATEWAY MODEM WITH ANTENNA		

	AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS:	HILL BOULEVARD OVER TRIBUTARY TO BARGER CREEK	PIN 8761.66 8761.71	BRIDGES	CULVERTS	ALL DIMENSIONS IN f† UNLESS OTHERWISE NOTED	CONTRACT NUMBER
"		VETERANS ROAD OVER HALLOCKS MILL BROOK	PS&E DATE: MARCH 2020			ESTIMATE OF QUANTITIES	
		TOWN OF YORKTOWN					DRAWING NO. EOQ
		COUNTY: WESTCHESTER REGION: 8					SHEET NO. 3
TO	IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.						

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#### **GENERAL NOTES:**

- DESIGN SPECIFICATION: NYSDOT LRFD BRIDGE DESIGN SPECIFICATIONS WITH ALL PROVISIONS IN EFFECT AS OF JANUARY 2020, (FOR DESIGN PURPOSES, COMPRESSIVE STRENGTH OF CONCRETE FOR SUBSTRUCTURES AT 28 DAYS, F'C =
- 2. LIVE LOAD: AASHTO HL-93 AND NYSDOT DESIGN PERMIT VEHICLE.
- CONSTRUCTION AND MATERIALS SPECIFICATIONS: STANDARD SPECIFICATIONS, CONSTRUCTION AND MATERIALS, NEW YORK STATE DEPARTMENT OF TRANSPORTATION, OFFICE OF ENGINEERING, DATED JANUARY 1, 2019, WITH CURRENT ADDITIONS AND MODIFICATIONS.
- 4. DETAILS ON THE DRAWINGS LABELED "NOT TO SCALE" ARE INTENTIONALLY DRAWN NOT TO SCALE FOR VISUAL CLARITY. ALL OTHER DETAILS FOR WHICH NO SCALE IS SHOWN ARE DRAWN PROPORTIONAL AND ARE FULLY DIMENSIONED.
- ALL SHOP DRAWINGS SUBMITTED FOR THIS PROJECT SHALL BE IN US CUSTOMARY UNITS.
- THE COST OF WATER USED FOR COMPACTION OF SELECT FILL ITEMS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 203,21 - SELECT STRUCTURAL FILL.
- THE COST OF ALL JOINT MATERIAL SHALL BE INCLUDED IN THE UNIT PRICES BID FOR VARIOUS ITEMS IN THE CONTRACT, UNLESS OTHERWISE SPECIFIED IN THE
- IF THE STRUCTURE HAS A BRIDGE IDENTIFICATION NUMBER (B.I.N.) PLATE ATTACHED, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REMOVE AND REMOUNT IT AFTER CONSTRUCTION IS COMPLETED.
- 9. CONTRACTOR OPERATIONS SHALL BE RESTRICTED TO THE WORK ZONE BOUNDED BY THE CONCRETE BARRIER.
- 10. NO PAYMENT WILL BE MADE FOR WORK CALLED FOR BY NOTES, ON THE PLANS, OR IN THE SPECIFICATIONS UNLESS PAYMENT IS SPECIFICALLY INDICATED BY AN ITEM NUMBER, THE COST OF WORK FOR WHICH NO PAYMENT IS INDICATED SHALL INCLUDED IN THE UNIT PRICE BID FOR THE VARIOUS ITEMS OF THE CONTRACT.
- MANUAL OF TRAFFIC CONTROL DEVICES OR AS MODIFIED BY THE ENGINEER TO TEMPORARY TRAFFIC CONTROL DEVICES SHALL COMPLY WITH NEW YORK STATE MAINTENANCE AND PROTECTION OF TRAFFIC PROCEDURES AND ALL SUIT FIELD
- 12. ALL REINFORCING STEEL TO BE EPOXY COATED.
- 13. THIS BRIDGE AND CULVERT SHALL BE MAINTAINED IN ACCORDANCE WITH THE GUIDELINES CONTAINED IN THE CURRENT EDITION OF THE AASHTO MAINTENANCE MANUAL: THE MAINTENANCE AND MANAGEMENT OF ROADWAYS AND BRIDGES.
- 14. NO RECORD PLANS FOR THESE STRUCTURES ARE AVAILABLE AT THE TOWN OF YORKTOWN DPW OFFICE.
- 15. THE CONTRACTOR SHALL EXAMINE AND VERIFY IN THE FIELD ALL EXISTING AND GIVEN CONDITIONS AND DIMENSIONS WITH THOSE SHOWN IN THE PLANS. IF FIELD CONDITIONS AND DIMENSIONS DIFFER FROM THOSE SHOWN IN THE PLANS, IF FIELD CONTRICTOR SHALL USE THE FIELD CONDITIONS AND DIMENSIONS AND MAKE THE APPROPRIATE CHANGE SHOWN ON THE PLANS AS APPROVED BY THE ENGINEER. ALL FIELD CONDITIONS AND DIMENSIONS SHALL BE SO NOTED ON THE DRAWINGS AND CURRENTIFE FOR APPOACH.
- 16. IN CASE OF DISCREPANCY, THE CONTRACTOR SHALL USE FIELD MEASURED DIMENSIONS TO MAKE APPROPRIATE CHANGES OF DETAILS SHOWN IN CONTRACT PLANS AND SHALL SUBMIT SHOP/WORKING DRAWINGS TO THE ENGINEER FOR APPROVAL AT NO ADDITIONAL COST.
- 17. THE CONTRACTOR SHALL SCHEDULE AND COORDINATE WORK OPERATIONS WITH THE VARIOUS COMPANIES AND AGENCIES WHOSE UTILITIES AND OTHER FACILITIES MAY BE AFFECTED BY THIS PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY PERMITS REQUIRED, AND IN A TIMELY MANNER TO AVOID ANY DELAY OF WORK ON THE PROJECT.
- 18. CONDUIT CAUTION NOTE:

THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE FACT THAT CONDUITS ARE PRESENT IN OR ABOVE THE CULVERTS. THEIR EXISTENCE AND LOCATIONS SHALL BE FIELD VERIFIED. IF CONDUITS ARE PRESENT AND ARE ENCOUNTERED DURING CONSTRUCTION OPERATIONS, CARE SHALL BE EXERCISED NOT TO DAMAGE CONDUITS, EXPANSION COUPLINGS, OR CONTENTS OF CONDUITS. ANY DAMAGE SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER, AT NO COST TO THE

19. TREE CLEARING SHALL ONLY OCCUR FROM OCTOBER 1 TO MARCH 31.

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JOB MANA	AFFIX SEAL: ON:	ALTERED BY: ON:					
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#### WATERWAY DIVERSION STRUCTURE NOTES:

- THE INTENT OF A WATERWAY DIVERSION STRUCTURE IS TO TEMPORARILY DIVERT OR PUMP WATER AROUND AN AREA (STREAM WORK AREA) SO THAT EXCAVATION OR OTHER WORK CAN BE ACCOMPLISHED. ITS PRIMARY PURPOSE IS TO WATER QUALITY PROTECTION, IT IS NOT INTENDED TO BE A SUBSTITUTION FOR OR FQUAL TO A COFFERDAM.
- STREAM FLOW IS TO BE MAINTAINED THROUGHOUT CONSTRUCTION. THIS MAY BE ACCOMPLISHED BY DIVERTING FLOW AROUND THE STREAM WORK AREA ( E.G. USING TEMPORARY PIPES), DIVERTING WATER THROUGH THE STREAM WORK AREA ( E.G. USING TEMPORARY PIPES), OR BY PUMPING FLOW AROUND OR THROUGH THE STREAM WORK AREA. MATERIALS USED FOR THE DIVERSION SHALL CONFORM TO SECTION 553-2 OF THE NYS STANDARD SPECIFICATIONS, PAYMENT FOR THE TEMPORARY WATERWAY DIVERSION STRUCTURE SHALL BE MADE UNDER THE UNIT PRICE BID FOR ITEMS 553.03000X.
- 3. DIVERTED STREAM FLOW SHALL NOT BE DIRECTED TO OR THROUGH UNSTABILIZED
- ONLY ONE PAYMENT SHALL BE MADE FOR THE TEMPORARY WATERWAY DIVERSION STRUCTURE, EVEN IF THE CONTRACTOR ELECTS TO INSTALL MULTIPLE DIVERSION STRUCTURES AT THE SITE, THE COST OF ADJUSTING, MOVING OR EXTENDING THE TEMPORARY WATERWAY DIVERSION STRUCTURE DURING CONSTRUCTION SHALL BE
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR SELECTING THE SIZE, LOCATION, MATERIALS AND SUITABILITY OF THE WATERWAY DIVERSION STRUCTURE FOR THE INTENDED WORK OPERATION AND FOR MAINTAINING CONTINUOUS FLOW THROUGH OR AROUND THE STREAM WORK AREA. AT LEAST 35 CALENDAR DAYS PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT THREE COPIES OF THE TEMPORARY WATERWAY DIVERSION STRUCTURE PLAN TO THE ENGINEER FOR REVIEW AND ACCEPTANCE.
- 6. IF THE CONTRACTOR PROPOSES A WATER DIVERSION METHOD WHICH INVOLVES THE PUMPING OF STREAM WATER, ALL WATER INTAKE HOSES SHALL BE SCREENED TO PROTECT AQUATIC LIFE. THE SCREEN OPENING SIZE SHALL BE NO LARGER THAN 1/4 INCH SQUARE.
- THE CONTRACTOR MAY NEED TO INSTALL MATERIALS DOWNSTREAM OF THE STREAM WORK AREA TO PREVENT DIVERTED STREAM WATER FROM BACKFLOWING INTO THE WORK AREA. THE CONTRACTOR MAY ALSO NEED TO INSTALL MATERIALS PREVENT GROUNDWATER, STORMWATER, OR PRECIPITATION THAT ENTERS THE STREAM WORK AREA FROM EXITING THE WORK AREA IN A TURBID CONDITION. MATERIALS NECESSARY TO ACCOMPLISH THIS SHALL BE PAID FOR UNDER THE WATER DIVERSION ITEM 553,030001.
- NON-TURBID STORMWATER MAY BE DIRECTED AROUND THE STREAM WORK AREA AS LONG AS IT REMAINS NON-TURBID BEFORE ENTERING THE STREAM. MATERIALS NECESSARY TO ACCOMPLISH THIS SHALL BE PAID FOR UNDER THE WATER DIVERSION ITEM 553.030001.
- 9. DEWATERING OF THE STREAM WORK AREA SHALL BE ACCOMPLISHED BY PUMPING THE WATER TO AN UPLAND VEGETATED AREA OUTSIDE OF THE STREAMBED AS SHOWN ON THE PLANS AND/OR APPROVED BY THE ENGINEER, TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL, SUCH AS SAND BAGS OR APPROVED EQUAL, MAY BE REQUIRED AS DETERMINED BY THE ENGINEER, NO SETTLEMENT BASIN SHALL BE CONSTRUCTED. DEWATERING OF STREAM WORK AREAS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE TEMPORARY WATERWAY DIVERSION STRUCTURE, ITEM 553.030001.
- 10. DEWATERING OPERATIONS SHALL NOT DISCHARGE, EITHER DIRECTLY OR INDIRECTLY, TO ANY WATERBODIES UNLESS THE DISCHARGE WATER IS AT LEAST AS FREE AND CLEAR OF SEDIMENT AS THE ADJACENT WATERBODY.
- 11. IF THE CONTRACTOR ELECTS TO LAY BACK AN EXCAVATION THAT IS ADJACENT TO THE TEMPORARY WATERWAY DIVERSION STRUCTURE, ANY REQUIRED EXTENSION OR ADJUSTMENT OF THE DIVERSION STRUCTURE TO PREVENT WATER FROM ENTERING THE EXCAVATION SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE TOWN.
- 12. IF THE CONTRACTOR ELECTS TO USE WATER FROM THE STREAM FOR CONSTRUCTION PURPOSES, ALL WATER INTAKE HOSES SHALL BE SCREENED TO PROTECT AQUATIC LIFE. THE SCREEN OPENING SIZE SHALL BE NO LARGER THAN 1/4 INCH SQUARE. THE WITHDRAWAL OF WATER SHALL NOT CAUSE A DECREASE IN WATER ELEVATION AT THE INTAKE SITE OR DOWNSTREAM OF THE SITE. WATER WITHDRAWAL FOR CONSTRUCTION PURPOSES, IF REQUIRED, SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE TEMPORARY WATERWAY DIVERSION STRUCTURE

#### CULVERT NOTE:

1. THE DETAILS SHOWN FOR THE CULVERT BARREL ARE BASED ON THE ASSUMPTION THE WATER IN THE STREAM CHANNEL WILL BE DIVERTED, PUMPED, OR CARRIED IN A FLUME DURING THE ENTIRE CONSTRUCTION OF THE BARREL SHOULD THE CONTRACTOR DESIRE TO DIVERT THE WATER THROUGH OTHER MEANS, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR APPROVAL, THE CONSTRUCTION PROCEDURE AND SKETCHES SHOWING THE LOCATION OF THE PROPOSED CONSTRUCTION AND CONTRACTION JOINTS AND THE CHANGES IN THE BAR REINFORCEMENT DETAILS.

#### STREAM PROTECTION NOTES:

THE FOLLOWING ENVIRONMENTAL CLASSIFICATIONS ARE NOTED FOR EACH OF THESE TWO PROJECT SITES:

HILL BOULEVARD: BARGER BROOK TRIBUTARY IS CLASSIFIED AS A CLASS C WATERBODY AT THIS LOCATION AND IS LOCATED WITHIN TEH 100' BUFFER OF A STATE REGULATED FRESHWATER WETLAND. THE WORK IN THIS WATERBODY IS AUTHORIZED BY NYSDEC GENERAL PERMIT GP-3-18-001, WHICH HAS BEEN OBTAINED FOR THIS PROJECT, AND A USACE NATIONWIDE PERMIT #3

WETERANS ROAD: HALLOCKS BILL BROOK IS CLASSIFIED AS A CLASS C WATERBODY AT THIS LOCATION. THE WOR IN THIS WATERBODY IS AUTHORIZED BY A USACE NATIONWIDE PERMIT \*3 - MAINTENANCE.

THE BOUNDARIES OF THE FEDERAL JURISDICTIONAL WETLANDS AND/OR LOCATIONS OF WATERBODIES ARE DEPICTED ON THESE PLANS. NO CONSTRUCTION ACTIVITIES (INCLUDING BUT NOT LIMITED TO GRADING, FILLING, EXCAVATING, CLEARING, STOCKPILING, STORING, OR STAGING) CHALL BE PERMITTED WITHIN THESE AREAS EXCEPT AS DESCRIBED IN THESE PLANS, SHOWN ON THE PLANS, AND AS DIRECTED BY THE ENGINEER. ANY WORK IN THE WATERBODY OR WETLAND AREAS NOT SHOWN ON THE PLANS SHALL NOT BE PERFORMED WITHOUT FIRST CONTACTING THE ENGINEER.

- DURING THE COURSE OF CONSTRUCTION, THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS IN SUCH A MANNER AS TO PREVENT ANY DAMAGE TO ANY STREAM FROM POLLUTION BY DEBRIS, SEDIMENTATION OR OTHER FOREIGN MATERIAL, OR FROM THE MANIPULATION OF EQUIPMENT AND/OR MATERIALS IN OR NEAR SUCH STREAMS, NO WATER SHALL BE RETURNED DIRECTLY TO THE STREAM WHICH HAS BEEN USED FOR WASH PURPOSES OR OTHER SIMILAR OPERATIONS WHICH CAUSE THE WATER TO BE CONTAMINATED WITH SAND, SILT, CEMENT, OIL, OR OTHER IMPURITIES. IF THE CONTRACTOR USES THE WATER FROM ANY STREAM, THEY SHALL CONSTRUCT AN INTAKE OR TEMPORARY DAM AS REQUIRED TO PROTECT AND MAINTAIN WATER RIGHTS AND SUSTAIN FISH LIFE DOWNSTREAM.
- THE EXISTING STREAMBED SHALL NOT BE DISTURBED BEYOND THE LIMITS OF THE TEMPORARY WATERWAY DIVERSION STRUCTURE, THE TEMPORARY WATERWAY DIVERSION STRUCTURE SHOULD BE SIZED WITH REGARD TO THE SEASONAL FLOW
- DEWATERING OF THE AREA SHALL BE ACCOMPLISHED AS SHOWN IN THE PLANS. CLEAN WATER MAY BE PUMPED DIRECTLY INTO THE DOWN GRADIENT STREAM CHANNEL. TURBID WATER SHALL BE DISCHARGED TO AN APPROVED UPLAND VEGETATED AREA OR A PORTABLE SETTLING DEVICE, WITH SEDIMENT FILTER BAGS OUTSIDE OF THE STREAMBED FOR TREATMENT BEFORE DISCHARGING BACK TO THE STREAM. ADDITIONAL TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL. SUCH AS FILTER TANKS, HAY BALES OR APPROVED EQUALS, MAY BE REQUIRED AS DETERMINED BY THE ENGINEER.

#### REMOVAL / RECONSTRUCTION NOTES:

- 1. EXISTING STRUCTURE SHALL BE REMOVED WITHIN THE LIMITS SHOWN ON THE PLANS UNDER ITEM 206.01 IN THE BRIDGE ESTIMATE.
- THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE FACT THAT, DUE TO THE NATURE OF RECONSTRUCTION PROJECTS, THE EXACT EXTENT OF RECONSTRUCTION WORK CANNOT ALWAYS BE ACCURATELY DETERMINED PRIOR TO THE COMMENCEMENT OF WORK. THESE CONTRACT DOCUMENTS HAVE BEEN PREPARED BASED ON FIELD INSPECTION AND OTHER INFORMATION AVAILABLE AT THE TIME. ACTUAL FIELD CONDITIONS MAY REQUIRE MODIFICATIONS TO CONSTRUCTION DETAILS AND WORK QUANTITIES. THE CONTRACTOR SHALL PERFORM THE WORK IN ACCORDANCE WITH FIELD CONDITIONS.
- THE CONTRACTOR SHALL PERFORM ALL WORK WITH CARE SO THAT ANY MATERIALS WHICH ARE TO REMAIN IN PLACE WILL NOT BE DAMAGED. IF THE CONTRACTOR DAMAGES ANY MATERIALS WHICH ARE TO REMAIN IN PLACE, THE DAMAGED MATERIALS SHALL BE REPAIRED OR REPLACED IN A MANNER SATISFACTORY TO THE ENGINEER AT THE EXPENSE OF THE CONTRACTOR.
- WHENEVER ITEMS IN THE CONTRACT REQUIRE MATERIALS TO BE REMOVED AND DISPOSED OF, THE COST OF SUPPLYING A DISPOSAL AREA AND TRANSPORTATION TO THAT AREA SHALL BE INCLUDED IN THE UNIT PRICES BID FOR THOSE ITEMS.
- 5. DURING REMOVAL OPERATIONS, THE CONTRACTOR SHALL NOT BE ALLOWED TO DURING REMOVAL OPERATIONS, THE CUNTRACTOR SHALL NOT BE ALLOWED TO DROP WASTE CONCRETE, DEBRIS, AND OTHER MATERIAL TO THE AREA BELOW THE BRIDGE. PLATFORMS, NETS, SCREENS, OR OTHER PROTECTIVE DEVICES SHALL BE USED TO CATCH THE MATERIAL. IF THE ENGINEER DETERMINES THAT ADEQUATE PROTECTIVE DEVICES ARE NOT BEING EMPLOYED, THE WORK SHALL BE SUSPENDED UNTIL ADEQUATE PROTECTION IS PROVIDED.
- ALL MATERIAL FALLING ON THE AREA BELOW AND ADJACENT TO THE BRIDGE SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AT NO COST TO THE
- THE COST OF FURNISHING, INSTALLING, MAINTAINING, REMOVING AND DISPOSING OF ALL PLATFORMS, NETS, SCREENS OR OTHER PROTECTIVE DEVICES SHALL BE INCLUDED IN THE UNIT PRICES BID FOR THE APPROPRIATE ITEMS OF THE

#### WATER SUPPLY NOTES:

- 1. ALL WATER MAINS SHALL BE CEMENT- LINED CLASS 54 DUCTILE IRON PIPE, SEAL COATED AND PUSH-ON JOINT WITH TYTON JOINTS AND GASKETS, UNLESS OTHERWISE SHOWN OR SPECIFIED
- 2. ALL WATER MAINS SHALL BE WRAPPED WITH POLYETHYLENE ENCASEMENT, PAID FOR UNDER EACH RESPECTIVE PIPE ITEM.
- 3. ALL TEES, BENDS, ELBOWS, FITTINGS AND DEAD ENDS SHALL BE INSTALLED JOINT RESTRAINT USING MEGA LUG OR APPROVED EQUAL. PUSH-ON TYTON JOINTS AND GASKETS ARE TO BE USED ON ALL PIPE SECTIONS.
- THE CONTRACTOR SHALL FURNISH AND INSTALL CONCRETE THRUST BLOCKS TIE-RODS, AND OTHER APPROVED MEANS FOR PREVENTING MOVEMENT AT JOINTS,
- DISINFECTION AND TESTING OF NEWLY INSTALLED WATER MAINS SHALL BE PERFORMED IN ACCORDANCE WITH AWWA STANDARD C651-05 OR LATEST EDITION EXCEPT FOR SECTION 4.4.2 AND THE WESTCHESTER COUNTY DEPARTMENT OF HEALTH PERMIT ATTACHED TO THE CONTRACT SPECIFICATIONS. TWO ACCEPTABLE RESULTS OF BACTERIOLOGICAL ANALYSES INCLUDING HETEROTROPHIC PLATE
  COUNTS AND TOTAL COLIFORM OF WATER SMAPLES ARE TO BE COLLECTED FROM
  THE NEWLY INSTALLED WATER MAINS AFTER DISINFECTION AND BEFORE USE AT 24 HOUR INTERVALS. NERLY LINED WATER MAINS, AND UPSTREAM OF SUCH WATER MAINS, SHALL ALSO BE SAMPLED FOR PH AS REQUIRED BY THE DEPARTMENT OF HEALTH. CONTRACTOR SHALL MAKE ARRANGEMENTS FOR THE DRINKING WATER SAMPLES TO BE DELIVERED TO OR COLLECTED BY A CERTIFIED DRINKING WATER SAMPLES TO BE DELIVERED TO ON COLLECTION. TEST RESULTSSHALL BE SUBMITTED TO THE WESTCHESTER COUNTY DEPARTMENT OF HEALTH FOR APPROVAL AND AUTHORIZATION PRIOR TO PLACING THE NEWLY INSTALLED WATER MAINS INTO SERVICE AND COMPLETING THE SERVICE CONNECTIONS.
- FURNISHING AND INSTALLATION OF NEW ADDITIONAL VALVES, WHERE SHOWN ON THE PLANS OR DIRECTED BY THE WONER, WILL BE PAID FOR UNDER THE BID ITEM FOR THE APPROPRIATE VALVE ITEM. ALL FIRE HYDRANTS SHALL BE REPLACED WITH NEW AT THE SAME LOCATION UNLESS DIRECTED OR SHOWN
- THE LOCATIONS OF GATE VALVES AND HYDRANTS AS SHOWN ON THE PLANS IS APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR INSPECTION THE SITE TO VERIFY THE PRECISE LOCATION OF EXISTING GATE VALVES PRIOR TO SUBMITTING HIS BID.
- 8. CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF EXCAVATIONS FOR REPLACEMENT AND INSTALLATION OF VALVES AND HYDRANTS. NO ADDITIONAL PAYMENT WILL BE MADE FOR WORK THAT CAN BE VERIFIED BY FIELD INSPECTION AND/OR USE OF THE CONTRACT.
- 9. DEPTH OF WATER MAINS VARY, HYDRANT EXTENSIONS SHALL BE PROVIDED BY THE CONTRACTOR (AN DPAID FOR UNDER THE FITTINGS ITEM) WHERE NECESSARY FOR PROPER DEPTH OF BURY. CONTRACOTR IS RESPONSIBLE FOR VERIFYING THE DEPTHS AND REPORTING THEM OT THE ENGINEER. HYDRANT EXTENSIONS SHALL BE COMPLETED USING SPOOL PIPE OF APPROPRIATE SIZE AND MEALUG MECHANICAL JOINT RESTRAINETS. WORK SHALL BE COMMENCED ONLY WHEN
- 10. ALL NEW HYDRANT ASSEMBLIES SHALL HAVE THRUST BLOCKS. MEGALUS OR APPROVED EQUAL ARE TO BE INSTALLED BETWEEN THE TEE OFF THE WATER MAIN AND THE HYDRANT LATERAL VALVE AND THE HYDRANT BARRLE.
- 11. ALL PROPOSED WATER MAINS SHALL HAVE MINIMUM COVER OF FOUR FEET.
- 12. ALL DIP WATER MAINS AND FITTINGS MUST BE ENCASED IN POLYEHTYLENE SLEEVE PRIOR TO BACKFILL.
- 13. WHERE ORDERED BY THE OWNER, CONTRACTOR SHALL OBTAIN PIPE COUPONS TO VERIFY PIPE IS LINED.
- 14. TOWN OF YORKTOWN WILL EXERCISE THE EXISTING ISOLATION VALVES TO SHUT DOWN WATER MAINS PRIOR TO REPLACEMENT WORK. IF THE ISOLATION VALVES FAIL, BUT FLOW IS MANAGEABLE, CONTRACTOR WILL ATTEMPT TO INSTALL NEW VALVE IN OPEN POSITION BY DEWATERING, IE ISOLATION VALVES ARE INOPERABLE AND/OR FLOW IS EXCESSIVE, CONTRACTOR SHALL INSTALL LINE STOPS OR INSTERTION VALVES AT LOCATIONS APPROVED BY THE OWNER TO FACILITATE INSTALLATION OF THE NEW VALVE, BRACING MUST BE PROVIDED FOR ALL DEAD-END VALVES IN OPEN TRENCH DURING CONSTRUCTION.

AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS:	HILL BOULEVARD OVER TRIBUTARY TO BARGER CREEK	PIN 8761.66 8761.71	BRIDGES	CULVERTS	ALL DIMENSIONS IN f† UNLESS OTHERWISE NOTED	CONTRACT NUMBER	
DESCRIPTION OF ALTERATIONS:	VETERANS ROAD OVER HALLOCKS MILL BROOK				GENERAL NOTES 1 OF 2	1	
	TOWN OF YORKTOWN	PS&E DATE: MARCH 2020					
						DRAWING NO. GNN-1	
	COUNTY: WESTCHESTER REGION: 8					SHEET NO. 4	
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED. THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.							

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AFFIX SEAL:

#### RIGHT-OF-WAY NOTES:

- A. ALL WORK TO BE PERFORMED UNDER THIS CONTRACT WILL BE WITHIN THE PUBLIC RIGHT-OF-WAY (ROW) IN ACCORDANCE WITH SECTION 105-15 OF THE CURRENT NYSDOT STANDARD SPECIFICATIONS. THE CONTRACTOR IS TO ASSURE HIMSELF THAT ALL WORK IS BEING PERFORMED WITHIN THE ROW, INCLUDING BUT NOT LIMITED TO VEHICLE ACCESS; STORAGE OF EQUIPMENT, MATERIALS, DEBRIS AND WASTE; LANDSCAPING VEGETATION REMOVAL AND MANAGEMENT GRADING SEEDING AND THE INSTALLATION OF TURF; AND THE INSTALLATION OF ANY FENCES OR PROTECTIVE
- B. IF CONTRACTOR IS UNABLE TO IDENTIFY THE LIMITS OF THE RIGHTS-OF-WAY WHEN THE CONTRACT CALLS FOR WORK IN THOSE VICINITIES, THE CONTRACTOR MUST CONTACT THE PROJECT ENGINEER FOR DEFINITIVE BOUNDARY DETERMINATIONS BEFORE ANY WORK MAY BE INITIATED AT THOSE LOCATIONS (CURRENT NYSDOT STANDARD SPECIFICATIONS SECTIONS 105-10 AND 625).
- C. IN ACCORDANCE WITH SECTION 107-13 OF THE STANDARD SPECIFICATIONS, RELEASES FOR ANY NON-ESSENTIAL CONTRACT WORK OUTSIDE OF THE EXISTING RIGHTS-OF-WAY, INCLUDING PLANTINGS, LANDSCAPING OR DRIVEWAY ENHANCEMENT, WILL BE PROVIDED BY THE PROJECT ENGINEER AND IN NO INSTANCE ARE TO BE SECURED BY THE CONTRACTOR. THE CONTRACTOR SHALL NOT INVADE UPON PRIVATE PROPERTIES, LANDS OR BUILDINGS OUTSIDE OF THE RIGHTS-OF-WAY FOR ANY REASON WITHOUT FIRST SECURING WRITTEN PERMISSION FROM THE PROPERTY OWNER (CURRENT NYSDOT STANDARD SPECIFICATIONS SECTIONS 105-15, 107-13).
- D. THE CONTRACTOR WILL BE HELD LIABLE FOR ANY DAMAGES DONE. ANY SUCH INJURIES OF DAMAGES SHALL BE SATISFACTORILY REPAIRED OR ITEMS REPLACED AT THE CONTRACTOR'S EXPENSE (CURRENT NYSDOT STANDARD SPECIFICATIONS SECTION 107-08 AND 107-13).

1. THE CONTRACTOR SHALL SURVEY AND STAKEOUT THE BASELINE AND CENTERLINE LOCATIONS AND ALL RIGHT-OF-WAY TAKING (FEE) LINES, PERMANENT OR TEMPORARY EASEMENTS, HIGHWAY BOUNDARY LINES, AND PROPERTY CORNERS DURING THE INITIAL STAGES OF THE PROJECT FOR USE BY THE UTILITY COMPANIES IN THEIR RELOCATION WORK, PAYMENT SHALL BE INCLUDED IN THE BID PRICE FOR ITEM 625.01. THE CONTRACTOR SHALL BE AWARE THAT ALL SURVEY AND STAKEOUT SHALL BE MAINTAINED FOR THE LIFE OF THE PROJECT AND REESTABLISHMENT MAY BE REQUIRED ON MULTIPLE OCCASIONS. THE CONTRACTOR SHALL CONSIDER THIS IN THE BID PRICE FOR ITEM 625.01.

#### SUBSTRUCTURE NOTES:

- EXCAVATION BELOW PLANNED FOOTING ELEVATION WILL NOT BE ALLOWED WITHOUT WRITTEN PERMISSION FROM THE ENGINEER. BACKFILL OF UNAUTHORIZED EXCAVATIONS BELOW OR BEYOND PAYMENT LINES WILL BE AT THE CONTRACTOR'S EXPENSE. BACKFILL MATERIAL WILL BE AS DIRECTED BY THE ENGINEER.
- 2. ALL PLACEMENTS OF SELECT STRUCTURE FILL, ITEM 203.21, SHALL BE COMPACTED TO 95 PERCENT OF STANDARD PROCTOR MAXIMUM DENSITY.
- HIGHWAY EMBANKMENT MATERIAL, ITEM 203.03, AND SELECT STRUCTURAL FILL, ITEM 203.21, SHALL BE PLACED SIMULTANEOUSLY, IN CONTACT ON BOTH SIDES OF THE VERTICAL PAYMENT LINE.
- 4. EXISTING SUBSTRUCTURE PLANS ARE BASED ON LIMITED FIELD OBSERVATIONS.
- CONTRACTOR SHALL FIELD VERIFY ALL CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION AND/OR FABRICATION.

#### SUGGESTED SEQUENCE OF CONSTRUCTION OPERATIONS:

- 1. INSTALL DETOUR SIGNAGE AND MPT MEASURES, CLOSE ROADWAY.
- 2. PERFORM R.O.W. STAKEOUT, CONTACT UTILITIES, AND CLEAR AND GRUB AS NECESSARY
- INSTALL TEMPORARY WATERWAY DIVERSION STRUCTURE.
- VERIFY LOCATION AND ELEVATION OF EXISTING WATER MAIN, GAS, AND SEWER. ADJUST TEMPORARY WATERWAY DIVERSION STRUCTURE AND ADD WATER TIGHT MEASURES EXCAVATE AND REMOVE EXISTING STRUCTURE AS NECESSARY AS WORK PROCEEDS.
- PROCEED WITH INSTALLATION OF PROPOSED FOOTINGS/INVERT SLABS.
- 6. INSTALL 3-SIDED FRAME/BOX CULVERT AND WINGWALLS, BACKFILL, AND PLACE MEDIUM STONE FILL STREAM BANK PROTECTION. REMOVE TEMPORARY WATERWAY DIVERSION
- 7. MILL EXISTING ROADWAY AND INSTALL NEW PAVEMENT. INSTALL GUIDERAIL, SIGNAGE, AND LANDSCAPING.

ALTERED BY:

8. REMOVE DETOUR SIGNAGE AND OPEN BRIDGE TO TRAFFIC.

#### **UTILITY NOTES:**

1. THE ACCURACY INDICATED FOR THE LOCATIONS OF UNDERGROUND UTILITIES SHOWN ON THESE PLANS ARE DEFINED AS FOLLOWS:

QUALITY LEVEL C - RECORD INFORMATION PROVIDED BY LITTLITY OWNERS WAS PLOTTED ON THE CONTRACT PLANS, DEPTHS WERE NOT FIELD VERIFIED. PHYSICAL SURFACE FEATURES LIKE MANHOLES, VALVE BOXES AND HYDRANTS HAVE BEEN

THIS INFORMATION DOES NOT RELIEVE THE CONTRACTOR OF HIS OBLIGATIONS UNDER SECTIONS 660 THROUGH 680 OF THE STANDARD SPECIFICATIONS, NOR DOES IT RELIEVE THE UTILITY OWNERS OF THEIR OBLIGATION TO ACCURATELY LOCATE

- 2. ALL KNOWN PUBLIC AND PRIVATE UTILITY LINES WITHIN OR ADJACENT TO THE SITE OF THE WORK ARE SHOWN IN THEIR EXISTING APPROXIMATE LOCATIONS ON THE CONTRACT PLANS. THE CONTRACTOR IS CAUTIONED THAT THESE LOCATIONS ARE NOT GUARANTEED, NOR IS THERE A GUARANTEE THAT ALL SUCH LINES IN EXISTENCE ARE ACTIVE, OR HAVE BEEN SHOWN ON THE PLANS. THE CONTRACTOR EXISTENCE ARE ACTIVE, OR HAVE BEEN SHOWN ON THE PLANS. THE CONTI SHALL CALL A CODE 53 (16 NYCRR PART 753) PRIOR TO ANY EXCAVATION ACTIVITY AND SHALL ADHERE TO ALL PROVISIONS THEREIN.
- 3. SHOULD UTILITIES BE ENCOUNTERED DURING CONSTRUCTION WHICH INTERFERE WITH THE WORK AND FOR WHICH PROVISIONS ARE NOT MADE ON THE PLANS, THE CONTRACTOR SHALL IMMEDIATELY STOP WORKING IN THE AFFECTED AREA AND NOTIFY THE ENCINEER OF THE EXISTENCE OF THESE UTILITIES AND OF THE EXTENT OF CONFLICT WITH THE WORK. THE ENGINEER SHALL THEN MAKE ARRANGEMENTS WITH THE OWNING UTILITY IN ORDER TO ALLOW THE CONTRACTOR TO PROGRESS THE WORK.
- 4. THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS AS TO PREVENT DAMAGE TO SUCH FACILITIES. HE SHALL MAKE SUCH EXPLORATIONS AS TO FREVENT DAWNAGE SUCH FACILITIES. HE SHALL MAKE SUCH EXPLORATIONS AS MAY BE BECESSARY TO DETERMINE THE DIMENSIONS AND LOCATIONS OF LINES THAT MAY BE SUBJECT TO DAMAGE, NOTIFICATION TO THE VARIOUS OWNERS OF FACILITIES SHALL BE IN ACCORDANCE WITH NEW YORK STATE INDUSTRIAL CODE 753 (EFFECTIVE FEBRUARY
- THE CONTRACTOR SHALL SATISFY HIMSELF AS TO THE EXACT LOCATION OF UTILITY LINES AND SHALL PROTECT AND SUPPORT IN A SUITABLE MANNER AT HIS OWN EXPENSE ALL UNDERGROUND UTILITIES ENCOUNTERED IN HIS EXCAVATING AND OWN EXPENSE ALL UNDERGROUND UTILITIES ENCOUNTERED IN HIS EXCAVATING AND TRENCHING OPERATIONS. THE CONTRACTOR SHALL MAKE GOOD ON ANY DAMAGE TO THOSE UTILITIES CAUSED BY HIS OPERATIONS. IF THE NATURE OF THE DAMAGE IS SUCH AS TO ENDANGER THE SATISFACTORY OPERATIONS OF THE UTILITIES AND THE NECESSARY REPAIRS ARE NOT IMMEDIATELY MADE BY THE CONTRACTOR, THE WORK MAY BE DONE BY THE RESPECTIVE OWNING COMPANIES AND THE COST THEREOF CHARGED AGAINST THE CONTRACTOR.
- 6. DURING ANY CONSTRUCTION ACTIVITIES WHERE UTILITY POLES ARE IN CLOSE PROXIMITY, THE CONTRACTOR MAY BE REQUIRED TO PROVIDE A SUPPORT SYSTEM OF THE UTILITY POLE, SUBJECT TO THE APPROVAL OF THE ENGINEER AND IN COORDINATION WITH THE OWNING UTILITY COMPANY.
- THE CONTRACTOR SHALL COORDINATE HIS OPERATIONS WITH THE UTILITY COMPANIES AS TO SPECIFIC REQUIREMENTS AND/OR RESTRICTIONS WHEN PERFORMING WORK ADJACENT TO UTILITY LINES, AND PARTICULARLY WHEN WORKING IN THE AREA OF, A POLE RELOCATION, REMOVAL, OR REPLACEMENT
- 8. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR SHALL MEET WITH ALL KNOWN PUBLIC AND PRIVATE UTILITY COMPANIES OCCUPYING THE WORK SITE. THE CONTRACTOR SHALL, AT THIS MEETING, INFORM THE UTILITY COMPANIES OF HIS SCHEDULE OF OPERATIONS AND SO COORDINATE HIS WORK WITH THESE COMPANIES. CONTACT INFORMATION AND A DESCRIPTION OF THE WORK IS INCLUDED IN THE PROPOSAL BOOK AND OUTLINED HERE AS FOLLOWS:

#### HILL BOULEVARD:

- A. CON EDISON GAS: RILWAN DUROSINMI 917-418-6517
- TURN OF YORKTOWN WATER: KEN RUNDLE 914-245-6111
  TOWN OF YORKTOWN SEWER: ED MAHONEY 914-245-3510
- TOWN OF SOMERS SEWER: ADAM SMITH 914-248-5181

#### **VETRANS ROAD:**

- A. NYSEG ELECTRIC: ROB MCDONOUGH 585-484-2233
- TOWN OF YORKTOWN WATER: KEN RUNDLE 914-245-6111
  VERIZON: THOMAS MCARDLE 914-741-8740
  CABLEVISION/CSC HOLDINGS: THOMAS KEENAN 845-296-3533
- F. CROWN CASTLE: RICHARD PITZ 845-554-6091

#### WORK ZONE TRAFFIC CONTROL NOTES

- WORK ZONE TRAFFIC CONTROL SHALL BE PROVIDED IN ACCORDANCE WITH THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), THE CURRENT VERSION OF SECTION 619 OF THE STANDARD SPECIFICATIONS, THE CURRENT WORK ZONE TRAFFIC CONTROL (619 SERIES) STANDARD SHEETS, ANY PROVISIONS CONTAINED IN THE PLANS AND/OR PROPOSAL OF THIS CONTRACT, AND AS DIRECTED BY THE ENGINEER.
- 2. AS DEFINED IN SECTION 101-02 OF THE STANDARD SPECIFICATIONS, THE MUTCD CONSISTS OF THE NATIONAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS AND THE NEW YORK STATE SUPPLEMENT TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND
- THE CONTRACTOR MUST SUBMIT TO THE ENGINEER, IN WRITING, PROPOSED REVISIONS TO THE WORK ZONE TRAFFIC CONTROL PLAN FOR REVIEW AND REVISIONS TO THE ENGINEER A MINIMUM OF SEVEN (7) CALENDAR DAYS PRIOR TO THE PLANNED IMPLEMENTATION OF SUCH PROPOSED REVISIONS, EXCEPT FOR CHANGES THAT ALTER THE BASIC CONCEPT OR SCOPE OF THE WORK ZONE TRAFFIC CONTROL PLAN. SUCH CHANGES TO THE BASIC CONCEPT OR SCOPE MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL A MINIMUM OF FORTY-FIVE (45) CALENDER DAYS PRIOR TO IMPLEMENTATION OF SUCH
- 4. ALL VEHICLES AND EQUIPMENT WITHIN THE CONTRACT LIMITS AND ON TRAVEL LANES AND/OR SHOULDERS SHALL BE EQUIPPED WITH AND SHALL OPERATE A
  MINIMUM OF ONE AMBER ROTATING OR FLASHING LIGHT EMITTING DIODE (LED) BEACON VISIBLE FROM ALL DIRECTIONS FOR A MINIMUM OF 1000 FEET DURING DAYLIGHT, IF VISIBILITY OF A SINGLE BEACON IS BLOCKED BY A PORTION OF THE VEHICLE OR EQUIPMENT, ADDITIONAL BEACONS SHALL BE PROVIDED. BEACONS SHALL BE MOUNTED IN A MANNER WHICH DOES NOT CAUSE GLARE FOR DRIVERS USING THE ROADWAY OR THE OPERATOR OF THE VEHICLE OF
- 5. CONSTRUCTION EQUIPMENT, VEHICLES, AND MATERIALS SHALL BE PLACED OR STORED DURING NON-WORKING HOURS A MINIMUM OF 30 FEET FROM THE EDGE OF PAVEMENT ON THURNING HOURS A MINIMUM OF 30 FEET FROM THE EUGE OF PAVEMENT OR BEHIND TEMPORARY CONCRETE BARRIER OR GUIDE RAIL. EQUIPMENT, VEHICLES, AND MATERIALS STORED BEHIND TEMPORARY CONCRETE OR GUIDE RAIL SHALL NOT BE PLACED OR STORED WITHIN THE APPROPRIATE DEFLECTION SHOWN IN TABLE 619-6, GUIDE RAIL AND TEMPORARY CONCRETE BARRIER STANDARD DEFLECTION DISTANCES, IN THE STANDARD SPECIFICATIONS.
- 6. PRIVATE VEHICLES OWNED BY THE CONTRACTOR OR THE CONTRACTOR'S WORKERS SHALL BE PARKED, DURING WORKING AND NON-WORKING HOURS, IN ACCORDANCE WITH THE REQUIREMENTS IN THE PRECEDING PARAGRAPH.
- 7. AT THE START OF CONTRACT WORK ALL TEMPORARY TRAFFIC CONTROL DEVICES (INCLUDING, BUT NOT LIMITED TO CONES, DRUMS, CONSTRUCTION BARRICADES, ETC.) SHALL APPEAR IN ACCEPTABLE CONDITION AS DESCRIBED AND PICTURED IN THE CURRENT EDITION OF THE AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION (ATSSA) MANUAL QUALITY GUIDELINES FOR TEMPORARY TRAFFIC CONTROL DEVICES. THESE DEVICES SHALL NOT BE ALLOWED TO FALL BELOW THE MARGINAL CONDITION AT ANY TIME DURING THE LIFE OF THE
- 8. ALL SIGNS SHALL BE IN ACCETABLE CONDITION AS DESCRIBED IN THE ATSSA MANUAL QUALITY GUIDELINES FOR TEMPORARY TRAFFIC CONTROL DEVICES THROUGHOUT THE LIFE OF THE CONTRACT. NON-STANDARD SIGN LEGENDS ARE
- 9. RIGID SIGN PANELS HAVE A MINIMUM MOUNTING HEIGHT OF 7 FEET, MEASURED RIGID SIGN FARLES HAVE A MINIMUM MUONTING HELOHI OF 7 FEET, MEASURED FROM THE ROADWAY SURFACE TO THE BOTTOM OF THE LOWEST SIGN PANEL, FOR SIGNS INCORPORATING AN AUXILLARY PANEL BELOW THE PRIMARY PANEL, THE MINIMUM MOUNTING HEIGHT SHALL BE 6 FEET, FLEXIBLE PANEL AND LIGHTWEIGHT RIGID PANELS SHALL BE MOUNTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

#### WORK ZONE TRAFFIC CONTROL NOTES (CONT'D)

- 10. PORTABLE VARIABLE MESSAGE SIGNS SHALL BE PLACED AT LOCATIONS INDICATED IN THE CONTRACT PLANS, PAYMENT SHALL BE MADE UNDER ITEM
- 11. PORTABLE VARIABLE MESSAGE SIGNS WILL BE USED TO NOTIFY MOTORISTS AT LEAST TWO WEEKS IN ADVANCE OF THE ANTICIPATED START OF WORK DATE. THE SIGNS SHALL REMAIN IN PLACE UNTIL ALL WORK IS COMPLETED AT A LOCATION OR AS DIRECTED BY THE ENGINEER.
- 12. THE FOLLOWING IS A SUMMARY OF THE ANTICIPATED NEED FOR PORTABLE

LOCATION: EAST MAIN ST WEST BOUND 1/2 MILE FROM HILL BLVD. DURATION: DURATION OF CONSTRUCTION

LOCATION: INTERSECTION OF EAST MAIN ST EAST BOUND WITH LEE BLVD. DURATION: DURATION OF CONSTRUCTION.

LOCATION: INTERSECTION OF HILLBLYD WITH LEE BLYD. DURATION: DURATION OF CONSTRUCTION.

LOCATION: COMMERCE ST (NORTH BOUND) INTERSECTION WITH UNDERHILL AVE AND KEAR ST.

DURATION: DURATION OF CONSTRUCTION.

LOCATION: SAW MILL RIVER RD (ROUTE 202) INTERSECTION WITH COMMERCE ST. DURATION: DURATION OF CONSTRUCTION

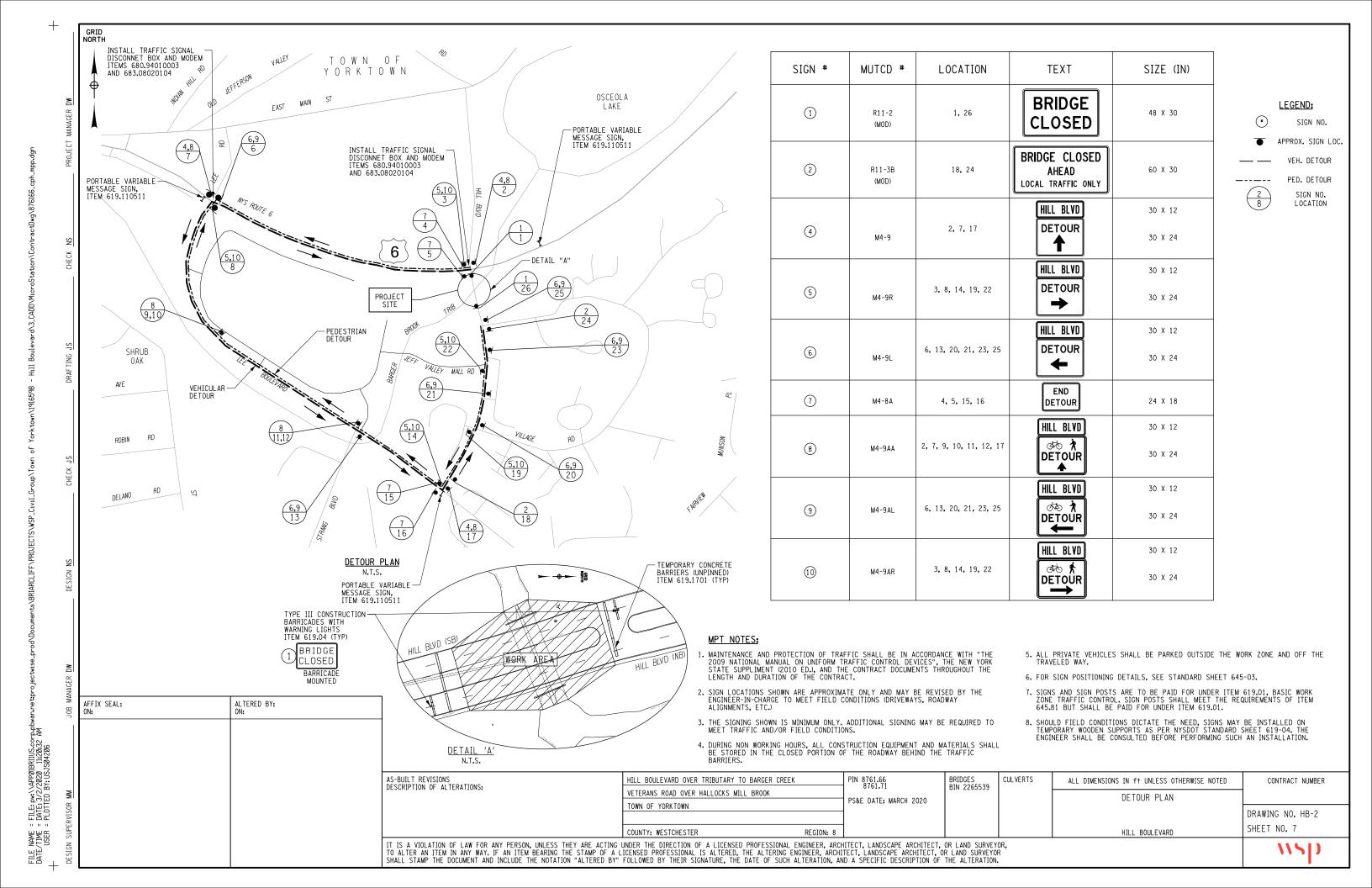
PVMS\_6 LOCATION: SAW MILL RIVER RD (ROUTE 202) INTERSECTION WITH GREENWOOD ST DURATION: DURATION OF CONSTRUCTION

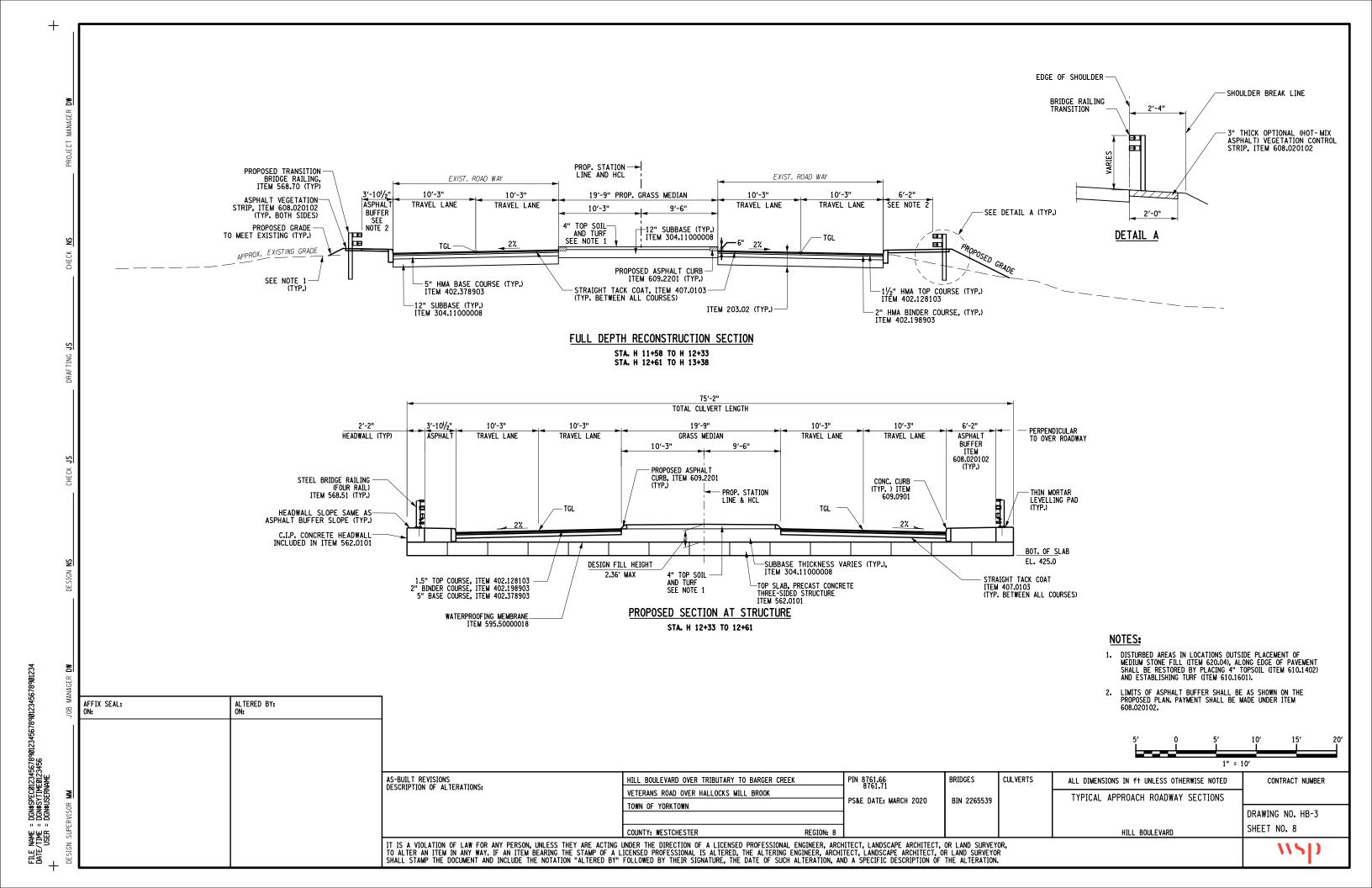
- 13. THE CONTRACTOR IS REMINDED THAT, IN ACCORDANCE WITH SECTION 619-3.10 OF THE STANDARD SPECIFICATIONS, PORTABLE VARIABLE MESSAGE SIONS WITH A PAY UNIT OF EACH SHALL BE RELOCATED OR REORIENTED, IF NECESSARY, UP TO FOUR (4) ITEMS PER YEAR AS CONDITIONS DICTATE AT NO ADDITIONAL COST TO THE TOWN.
- 14. STANDARD (TYPICAL) MESSAGES FOR PORTABLE VARIABLE MESSAGE SIGNS SHALL BE SUPPPLIED TO THE CONTRACTOR BY THE ENGINEER. THE CONTRACTOR SHALL SUBMIT ANY UNIQUE MESSAGES TO THE ENGINEER FOR

15. NIGHTTIME CONSTRUCTION IS PROHIBITED IN THIS CONTRACT.

	TABLE OF MAINTENANCE JURISDICTION								
PART NO. ROADWAY LIMITS		FEATURES TO BE MAINTAINED	CL (MI)	LANE (MI)	AGENCY	JURISDICTION			
1	HILL BOULEVARD	WITHIN PROJECT LIMITS (H11+61 TO 13+20)	PAVEMENT, SHOULDERS, GUIDE RAILING, INCLUDING SNOW REMOVAL			TOWN OF YORKTOWN	HIGHWAY LAW SEC. 349-C		
2	HILL BOULEVARD	20 FT FROM HIGHWAY BOUNDARY	STREAM CHANNEL AND BANKS WITHIN ROW AND FEE TAKING LINES			TOWN OF YORKTOWN	HIGHWAY LAW SEC. 349-C		
3	HILL BOULEVARD	WITHIN PROJECT LIMITS (H11+61 TO 13+20)	ENTIRE STRUCTURE			TOWN OF YORKTOWN	HIGHWAY LAW SEC. 349-C		
4	VETERANS ROAD	WITHIN PROJECT LIMITS (V12+06 TO V13+30)	PAVEMENT, SHOULDERS, GUIDE RAILING, INCLUDING SNOW REMOVAL			TOWN OF YORKTOWN	HIGHWAY LAW SEC. 349-C		
5	VETERANS ROAD	20 FT FROM HIGHWAY BOUNDARY	STREAM CHANNEL AND BANKS WITHIN ROW AND FEE TAKING LINES			TOWN OF YORKTOWN	HIGHWAY LAW SEC. 349-C		
6	VETERANS ROAD	WITHIN PROJECT LIMITS (V12+06 TO V13+30)	ENTIRE STRUCTURE			TOWN OF YORKTOWN	HIGHWAY LAW SEC. 349-C		

	AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS:	HILL BOULEVARD OVER TRIBUTARY TO BARGER CREEK	PIN 8761.66 8761.71 PS&E DATE: MARCH 2020	BRIDGES	CULVERTS	ALL DIMENSIONS IN f† UNLESS OTHERWISE NOTED	CONTRACT NUMBER	
	DESCRIPTION OF ALTERATIONS:	VETERANS ROAD OVER HALLOCKS MILL BROOK				GENERAL NOTES 2 OF 2	1	
		TOWN OF YORKTOWN	- I was since minion asso				DRAWING NO. GNN-2	
		COUNTY: WESTCHESTER REGION: 8	-				SHEET NO. 5	
	IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.							





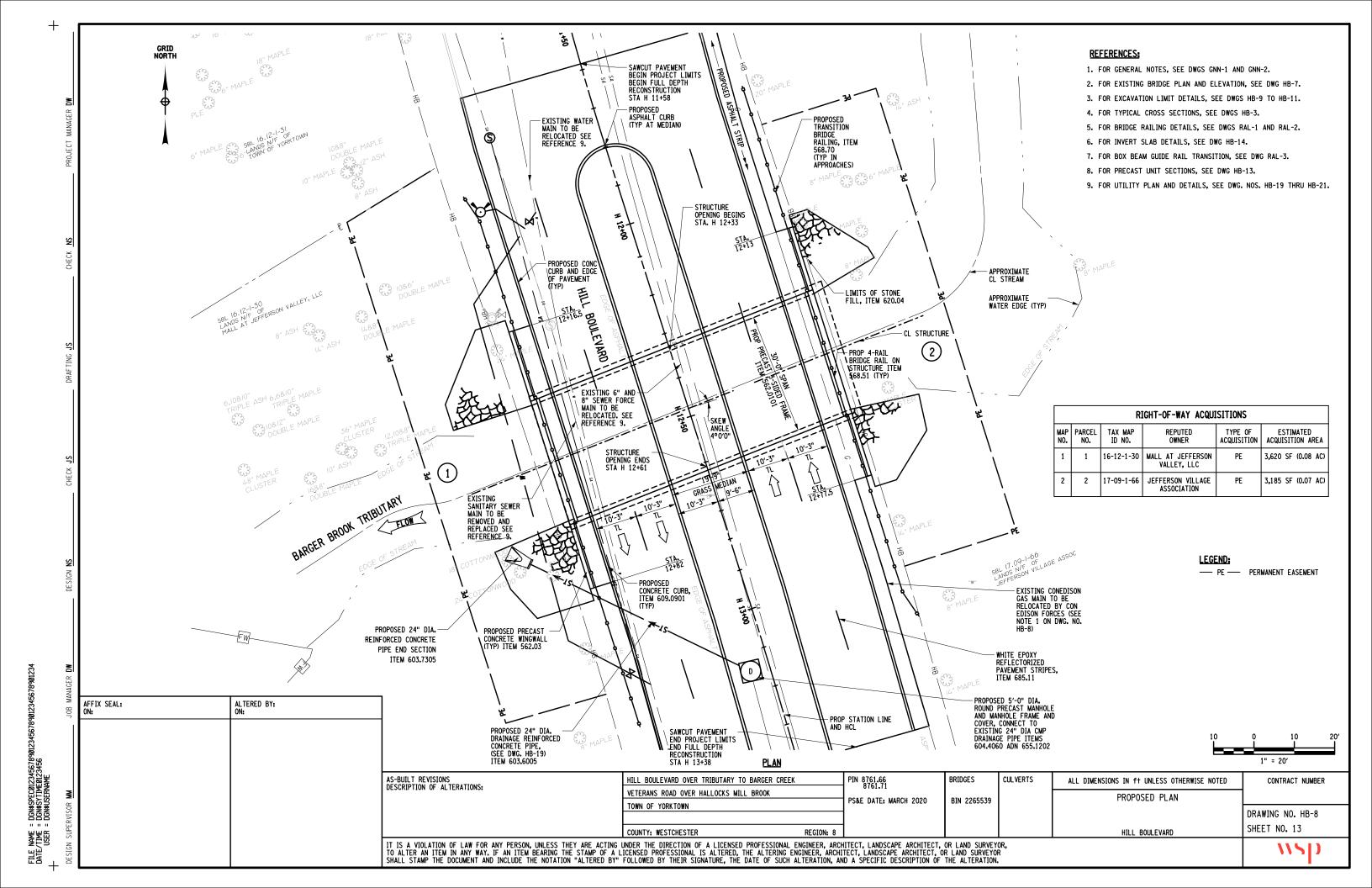
PLAN BORING NOTES: THE OBSERVED WATER LEVELS AND/OR CONDITIONS INDICATED IN BORING LOGS ARE AS RECORDED AT THE TIME OF EXPLORATION. ACTUAL WATER LEVELS MAY DIFFER FROM THE OBSERVED WATER LEVEL BECAUSE OF LIMITATIONS IN THE NUMBER AND DURATION OF OBSERVATIONS AND WILL VARY WITH CHANGES IN CLIMATE AND RAINFALL. 2. BASELINE FOR BORINGS NOT SHOWN ON PLAN, BORING LOCATIONS ARE APPROXIMATE. 3. THE BORING LOGS PRESENTED ON THESE PLANS ARE FOR THE PURPOSE OF PROVIDING INTENDED USERS WITH ACCESS TO THE SAME INFORMATION AVAILABLE TO THE ENGINEER. THIS IS NOT INTENDED AS A SUBSTITUTE FOR PERSONAL INVESTIGATION, INDEPENDENT INTERPRETATIONS OR JUDGEMENT OF THE CONTRACTOR. REFERENCES: 1. FOR BRIDGE GENERAL NOTES, SEE DWG, NOS. GNN-1 AND GNN-2. 2. FOR EXISTING BRIDGE PLAN AND ELEVATION, SEE DWG. NO. HB-7. 3. FOR PROPOSED BRIDGE PLAN, SEE DWG. NO. HB-8. 4. FOR SUBSURFACE BORING PROFILES, SEE DWG. NO. HB-6. AFFIX SEAL: ON: ALTERED BY: ON: LEGEND: FILE NAME = FILE; pw:\\APPBIBRIUS.corp.pl DATE/TIME = DATE:3/2/2020 11:20:44 AM USER = PLOTTED BY:USJS04206 AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS:

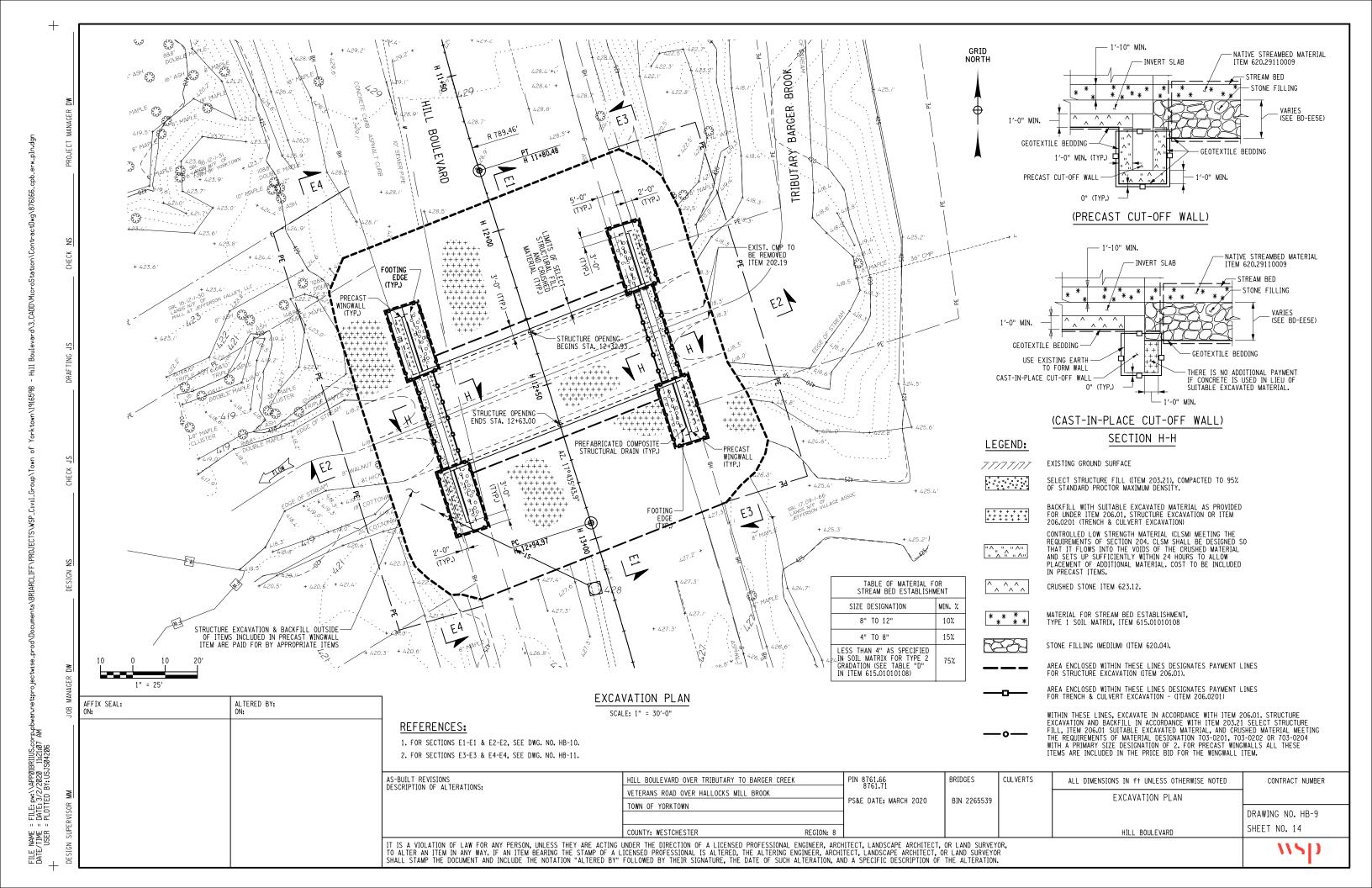
								Sub	suriace	e Investi	gation				
											Report No.:	_		CD4309D-01-	
	Client:		SP USA							-	Boring Loca	tion: <u>Se</u>	ee Borir	ng Location F	Plan
	Project:		ubsurfac							•					
			idge and			emer	nts			-	Ot 1 D 1	40/47/0047		Finish Bata	40/40/0047
		<u>Y</u>	orktown,	New Yo	ork					-	Start Date:	10/17/2017		Finish Date:	10/18/2017
	Boring N	lo.:	B-1	_		Shee	t	1 of _	2		Date	Time		Observations Depth	Casing
		Coordi	nates				Sami	oler Hami	mer		10/17/2017	PM	_	6.3'	19.0'
	Latitude					Weig		140	lbs		10/18/2017	AM		10.5'	19.0'
	Longitud	le					all:	30	in		10/18/2017	AM		9.6'	49.0'
					Hamme	er Typ	e: <u>/</u>	Automati	ic		10/18/2017	AM	_	3.9'	CAVED
	Ground	Elev.:			_	-	Boring	Advance	e By:		Borehole o	aved at 12.3	3 feet.		
							NW	(3") Casi	ing						
					1	1					01.105	FIG 17:5:			
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		•	From	То						c - coarse					trace - 0-10%
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12-		3	14.0	16.0	SS	5	5	5 5	1		RIAL (moist, r		SIL1; tra	CE ORGANIC	
12 — 13 — 14 — 15 —		3	14.0	16.0	SS	5	5	5 5	17.0	MATE		ion-plastic)			
12 — 13 — 14 — 15 —		3	14.0	16.0	SS	5	5	5 5	17.0	MATE	RIAL (moist, r	ion-plastic)			
12 — 13 — 14 — 15 — 16 —									17.0	MATE	RIAL (moist, r	on-plastic)			
12 — 13 — 14 — 15 — 16 —		3	19.0	21.0	SS	6		8 10	17.0	MATE	RIAL (moist, r	on-plastic)			
12 — 13 — 14 — 15 — 16 — 17 — 18 —									17.0	MATE	RIAL (moist, r	on-plastic)			
112 — 113 — 115 — 116 — 117 — 118 — 119 — 120 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 — 121 —									17.0	MATE	RIAL (moist, r	on-plastic)			
112 — 113 — 115 — 116 — 117 — 118 — 119 — 120 — 121 — 122 — 122 — 118 — 119 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 — 122 —									17.0	MATE	RIAL (moist, r	on-plastic)			
12 — 13 — 14 — 15 — 16 — 17 — 18 —							7		17.0	MATE	RIAL (moist, r	non-plastic)	d, non-p	olastic)	

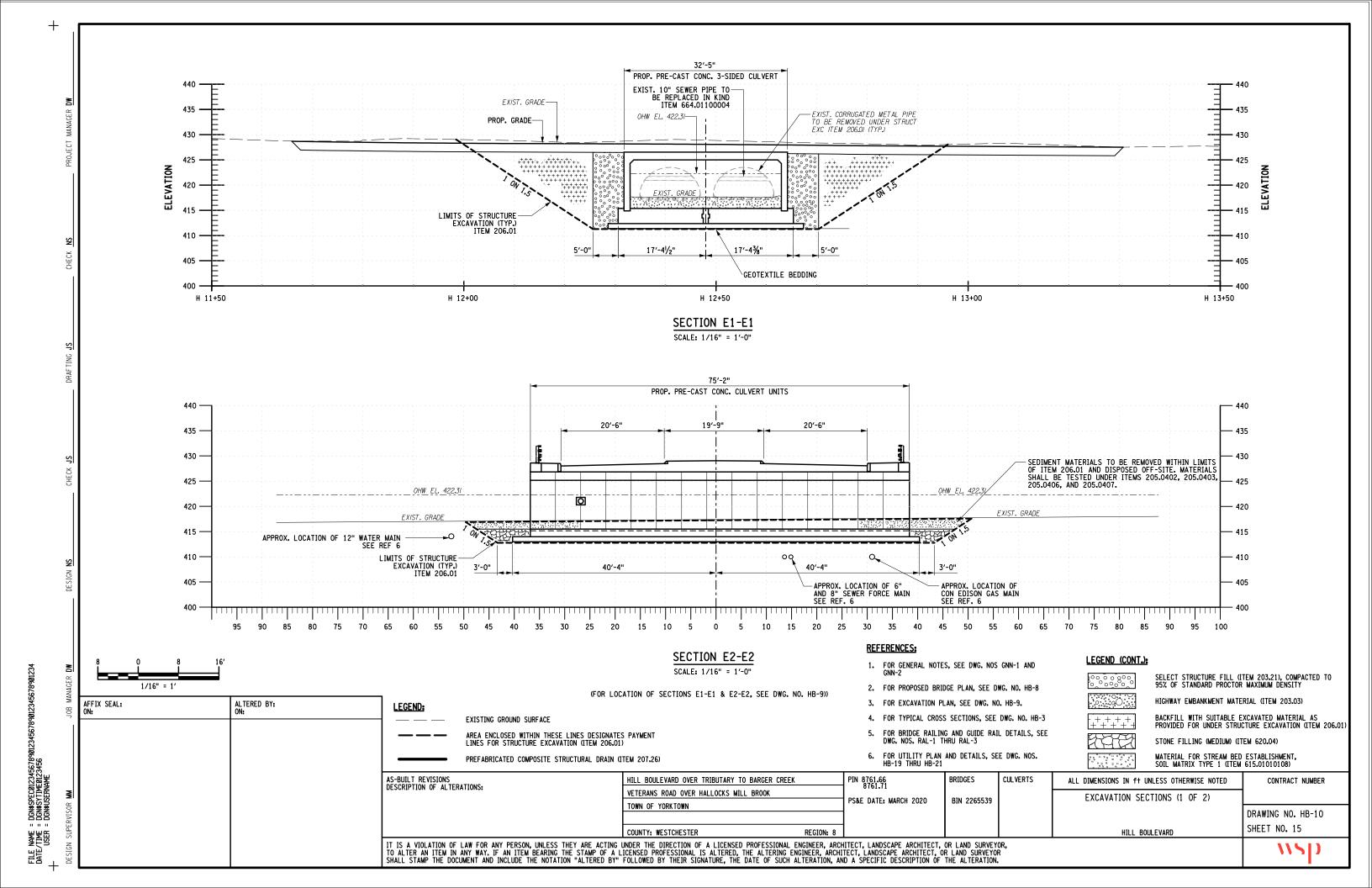
### BORING B-1 PROFILE

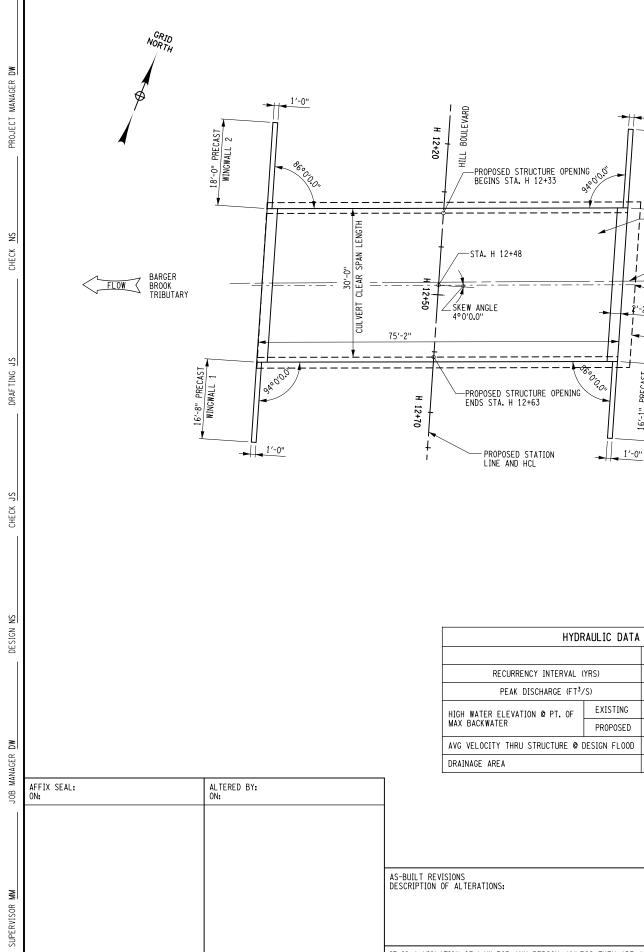
● BORE HOLE LOCATION  B-* BORING IDENTIFICATION						
AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS:	HILL BOULEVARD OVER TRIBUTARY TO BARGER CREEK	PIN 8761.66 8761.71	BRIDGES	CULVERTS	ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED	CONTRACT NUMBER
DESCRIFTION OF ALTERATIONS:	VETERANS ROAD OVER HALLOCKS MILL BROOK		DIN 0005570		BORING LOCATION PLAN	
	TOWN OF YORKTOWN	PS&E DATE: MARCH 2020	BIN 2265539		BONING EGONTON TENN	DDAWING NO UD C
						DRAWING NO. HB-5
	COUNTY: WESTCHESTER REGION: 8				HILL BOULEVARD	SHEET NO. 10
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A I SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY"	ICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCH	ITECT, LANDSCAPE ARCHITECT, (	OR LAND SURVEYO	R		wsp

			LABORATORIES, Lim	<u>iited</u>				CLABORATORIES, Limited ce Investigation					NG LABORATORIES, Limited urface Investigation	ı
	Boring No.:B-1	Report No.:	CD4309D-01-11-17	Sheet <b>2</b> of <b>2</b>	<u>.                                    </u>	Client: WSP I	SA	Report No.: CD4  Boring Location: See Boring L	309D-01-11-17 ocation Plan	Boring No	o.: <u>B-2</u>	Report No.:	CD4309D-01-11-17	Sheet <u>2</u> of <u>2</u>
	HL GONNY OF SAMPLE  26  27  28  29  6 29.0 31.1		f - fine m - medum c - course  Greenish-Grey SILT; some f	### - 35-3   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-4   35-	5%   H =	Bridge	Sampler Hammer   Weight:   140	10/17/2017 PM St os. 10/17/2017 PM in. Borehole caved at 30.5 feet.	rvations  Depth Casing  IRFACE 52.0'  10.5' CAVED	DEPTH METHOD OF ADVANCE 85	DEPTH OF SAMPLE   S	BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER	CLASSIFICATIO	and - 35-50% some - 20-35% little - 10-20% trace - 0-10%
	31 32 33 34 7 34.0 36.1	32.0.		ne SILT; little CLAY (wet, slightly	16	DEPTHOD ADVAN SAMPLE	DEPTH OF JAMPLE PER 6" 2" O.D. SAMPLER OF LAW HUMAN AMPLER OF LAW	CLASSIFICATION OF MA	TERIAL  and - 35-50% some - 20-35% itsle - 10-102% trace - 0-10%	31 32 33 34 35 36	7 34.0 36.0		32.0	
	37 38 39 8 39.0 41.1 42.1 42.1 39.0 41.1	37.0	Greenish-Grey cmf SAND; ti	race SILT (wet, non-plastic)	17	2 S 1 N G 4 1 4 5 -	0 6.0 SS 8 12 11 15	Greenish-Grey cmf SAND; some cmf GRAVE non-plastic)	L; trace SILT (wet, 8	37	8 39.0 41.0	SS 3 8 10 12	Greenish-Grey mf SAND; little SI	.T (wet, non-plastic)
	43 44 9 44.0 46.1 45 46 46 47 47 48 48 48 48 48 48 48 48 48 48 48 48 48	) SS 15 15 18 21	Greenish-Grey cmf SAND; li (saturated, non-plastic)	ittle mf GRAVEL; trace SILT	11	8 9 2 9 9 114 11 11 11 11 11 11 11 11 11 11 11 11	0 11.0 SS 5 8 1 1 10.0	Grey mf GRAVEL (moist, non-plastic) COBE spoon shoe	LE Fragment in split 1	43 44 44 45 45 47 47 48 48 48 48 48 48 48 48 48 48 48 48 48	9 44.0 46.0	SS 5 7 6 7	Greenish-Grey cmf SAND; some non-plastic)	mf GRAVEL; trace SILT (wet,
	A9 10 49.0 51.1 50.2 50.2 50.2 50.2 50.2 50.2 50.2 50.2	51,0	Boring terminated at 51.0 fee		13	15	0 16.0 SS WH 1 12 15	Greenish-Grey SILT; little f SAND; trace ORC (saturated, non-plastic)		18 49 49 49 49 49 49 49 49 49 49 49 49 49	10 49.0 51.0		Similar Soil (wet, non-plastic) Encountered flowing sands at 52 terminated at the direction of repr	esentatives of WSP USA.
	55 55 66 56 56 57 57 57 57 57 57 57 57 57 57 57 57 57		the surface with asphalt cold			Sn 20	0 21.0 SS 12 8 6 6 0 26.0 SS 3 4 5 5	Greenish-Grey SILT; some f SAND (saturated	16 16	55 55 66 60 60 60 60 60 60 60 60 60 60 60 60			Boring terminated at 52.0 feet.  Notes:  1. Borehole backfilled with ceme the surface with asphalt cold pate	
	62 62				<b>り</b>	SS Spit Spoon Sample NX Rock Core SH Undisturbed Sample (SI Estimated Groundwater	ilby Tubo)	Drillers: Chris Knight; Coleman Inspector:	Whitman	61 62				
	!	BORING B-1 PROFIL	_E (CONT.)						BORING B-2	PROFILES				
AFFIX SEAL:	:	ALTERED BY:												
												REFEREN	CES: PRING LOCATION PLAN, SEE DWG	. NO. HB-6.
				AS-BUILT REVISIONS DESCRIPTION OF ALTERAT	IONS:		HILL BOULEVARD OVER TRIB VETERANS ROAD OVER HALL TOWN OF YORKTOWN		PIN 8761.66 8761.71 PS&E DATE: MARCH 2020	BRIDGES BIN 2265539	CULVERTS		S IN ft UNLESS OTHERWISE NO	
							COUNTY: WESTCHESTER	REGION:	8				HILL BOULEVARD	DRAWING NO. SHEET NO. 1
				IT IS A VIOLATION OF LA	W FOR ANY PERSON	N, UNLESS THEY ARE ACT	ING UNDER THE DIRECTION OF A I	ICENSED PROFESSIONAL ENGINEER, TERED, THE ALTERING ENGINEER, AI IRE, THE DATE OF SUCH ALTERATION	ARCHITECT, LANDSCAPE ARCHITECT	T, OR LAND SURVE	YOR,			115









FILE NAME = FILE:pw:\\APPØIBRIUS.corp.p DATE/TIME = DATE:3/2/2020 II:21:19 AM USER = PLOTTED BY:USJSØ4206

		INFACTORED REACTIONS		
	DC 4.			
VERTICAL KIP / FT	DW	0.31		
	LL	7.75		
	DC	0.97		
HORIZONTAL	DW	0.09		
KIP / FT	LL	1.93		
	EH	-2.96		

IF THE REACTIONS OF THE SELECTED SPAN UNIT EXCEED THE VALUES SHOWN IN THE ASSUMED UNFACTORED SPAN UNIT REACTIONS TABLE, THE CONTRACTOR SHALL ENCAGE THE SERVICES OF A NYS LICENSED PROFESSIONAL ENGINEER TO VERJFY OR REDESIGN THE SUBSTROCTUIE DESIGN. THE CALCULATIONS SHALL BE PREPARED, STAMPED AND SIGNED BY A NYS PROFESSIONAL ENGINEER AND SUBMITTED TO THE D.C.E.S., FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTING THE SUBSTRUCTURES, ANY ADDITIONAL COSTS ASSOCIATED WITH A REDESIGNED SUBSTRUCTURE SHALL BE AT THE CONTRACTORS EXPENSE. CONTRACTORS EXPENSE.

PRECAST CONCRETE
THREE-SIDED
STRUCTURE UNITS,
ITEM 562,0101

2'-2" MIN. (TYP.) I HEADWALL

-APPROXIMATE & STREAM

€ STRUCTURE

BASIC FLOOD DESIGN FLOOD

2.6 FT/S

2.7 SQ. MI.

685

425.51

425.05

50

556

424.94

424.66

INVERT SLAB BELOW (SEE DWG HB-14)

LOADING RATING (LFD)							
INVENTORY							
OPERATING	HS						
LRF	R RATING FACT	ORS					
INVENTORY	HS-93						
OPERATING	HS-93						

THE LOAD RATING TABLE SHALL BE FILLED IN BY TIIE FIC FROM INFORMATION RECEIVED FROM THE CONTRACTOR IN ACCORDANCE WITH THE AASHTO "MANUAL FOR BRIDGE EVALUATION" WITH ALL INTERIM PROVISIONS IN EFFECT. THE CONTRACTOR SHALL PROVIDE LOAD RATINGS IN BOTH THE LOAD FACTOR RATING (LFD) METHOD AND THE LOAD AND RESISTANCE FACTOR RATING (LFR) METHOD. THE CONTRACTOR SHALL ALSO PROVIDE ALL LOAD RATING COMPUTATIONS TO THE REGIONAL STRUCTURES ENGINEER.

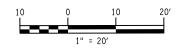
WINGWALL DATA									
LOCATION	ELEVATION A	ELEVATION B	ELEVATION C	DIMENSION "X"					
WINGWALL 1	428.53	428.53	410.36	16'-8"					
WINGWALL 2	428.31	428.31	410.36	18'-0"					
WINGWALL 3	428.99	428.99	410.36	16'-1"					
WINGWALL 4	428.77	428.77	410.36	16′-5"					

DIMENSION "X" MEASURED ALONG FRONT OF WINGWALL. FOR WINGWALL SECTIONS AND ELEVATION SEE DWG. NO. HB-21

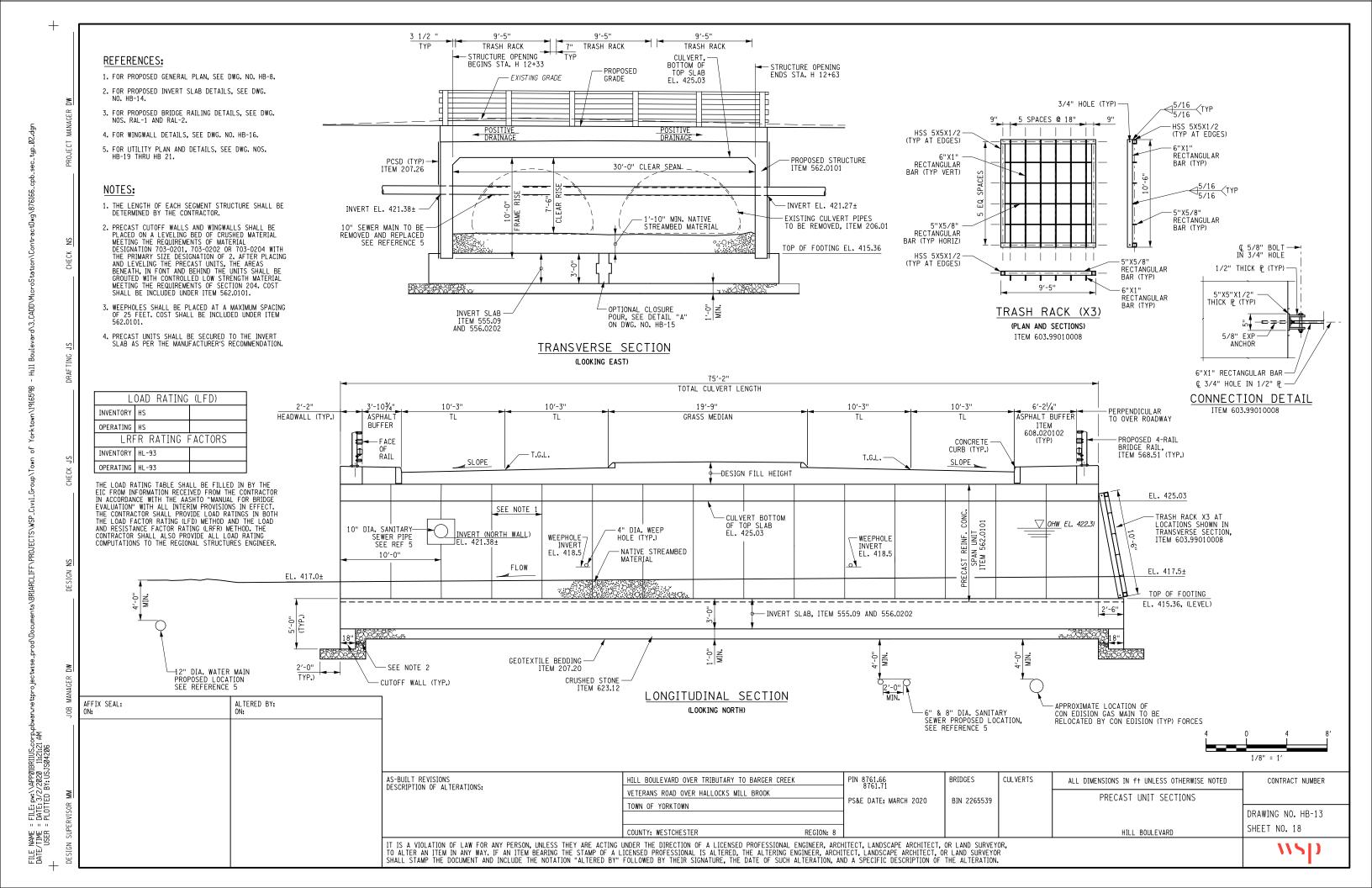
THREE SIDED STRUCTUR	E DESIGN DATA
CLEAR SPAN, FT.	30'-0"
FRAME RISE, FT.	10'-0"
* MIN. FILL HEIGHT, FT.	1.9
* MAX. FILL HEIGHT, FT.	2.5
(CSKEW) SKEW ANGLE PERPENDICULAR TO CENTER LINE OF ROADWAY, DEG.	4
LIVE LOAD	HL93 AND NYS PERMIT VEHICLE
RAILING / BARRIER TEST LOAD	TL-4

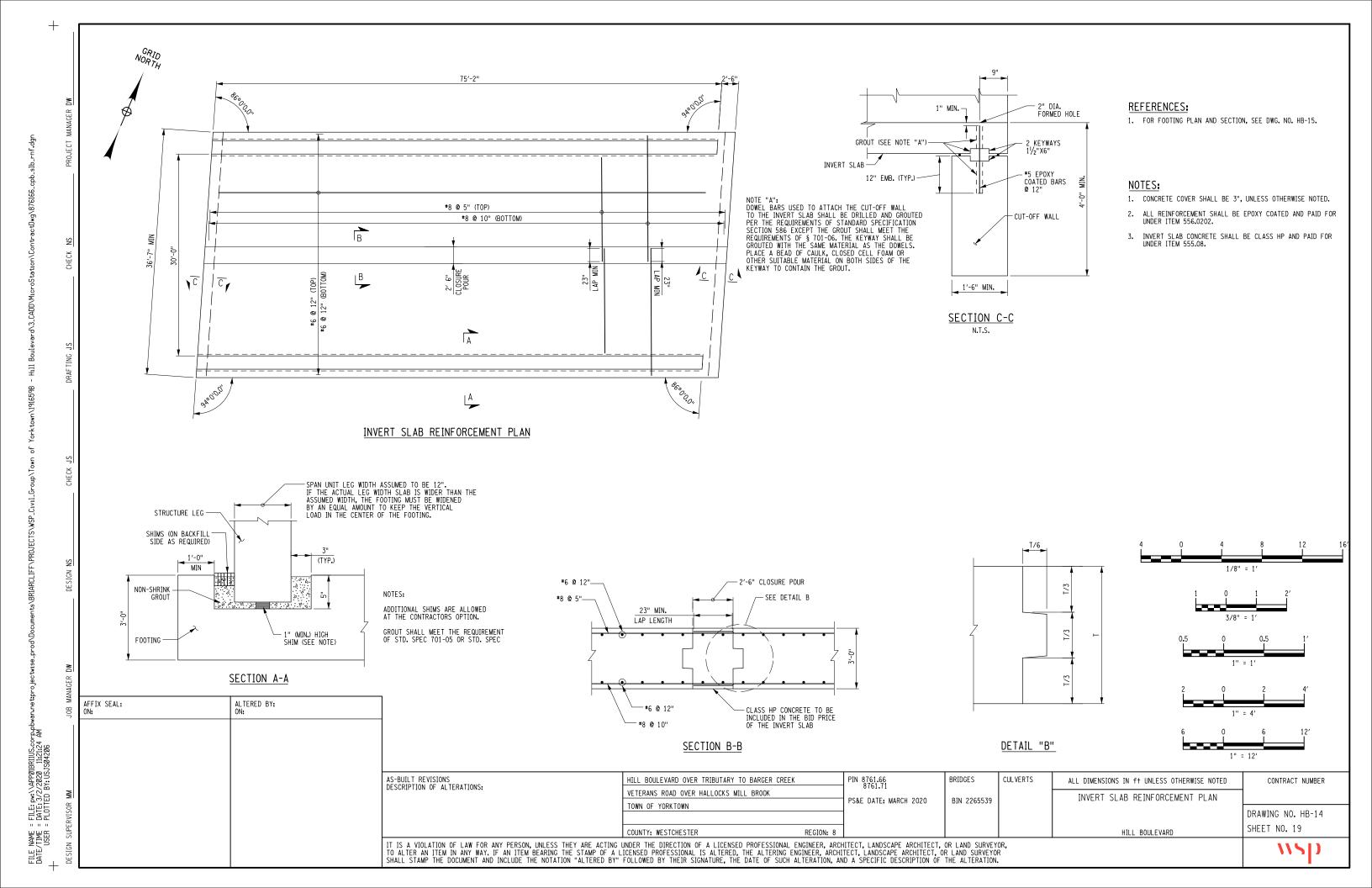
BASED ON ASSUMED TOP SLAB THICKNESS OF 17".
 FABRICATION SHALL ADJUST BASED ON ACTUAL
 TOP SLAB THICKNESS. FILL HEIGHT MEASURED
 FROM THE TOP OF THE TOP SLAB TO TOP
 OF PAVEMENT.

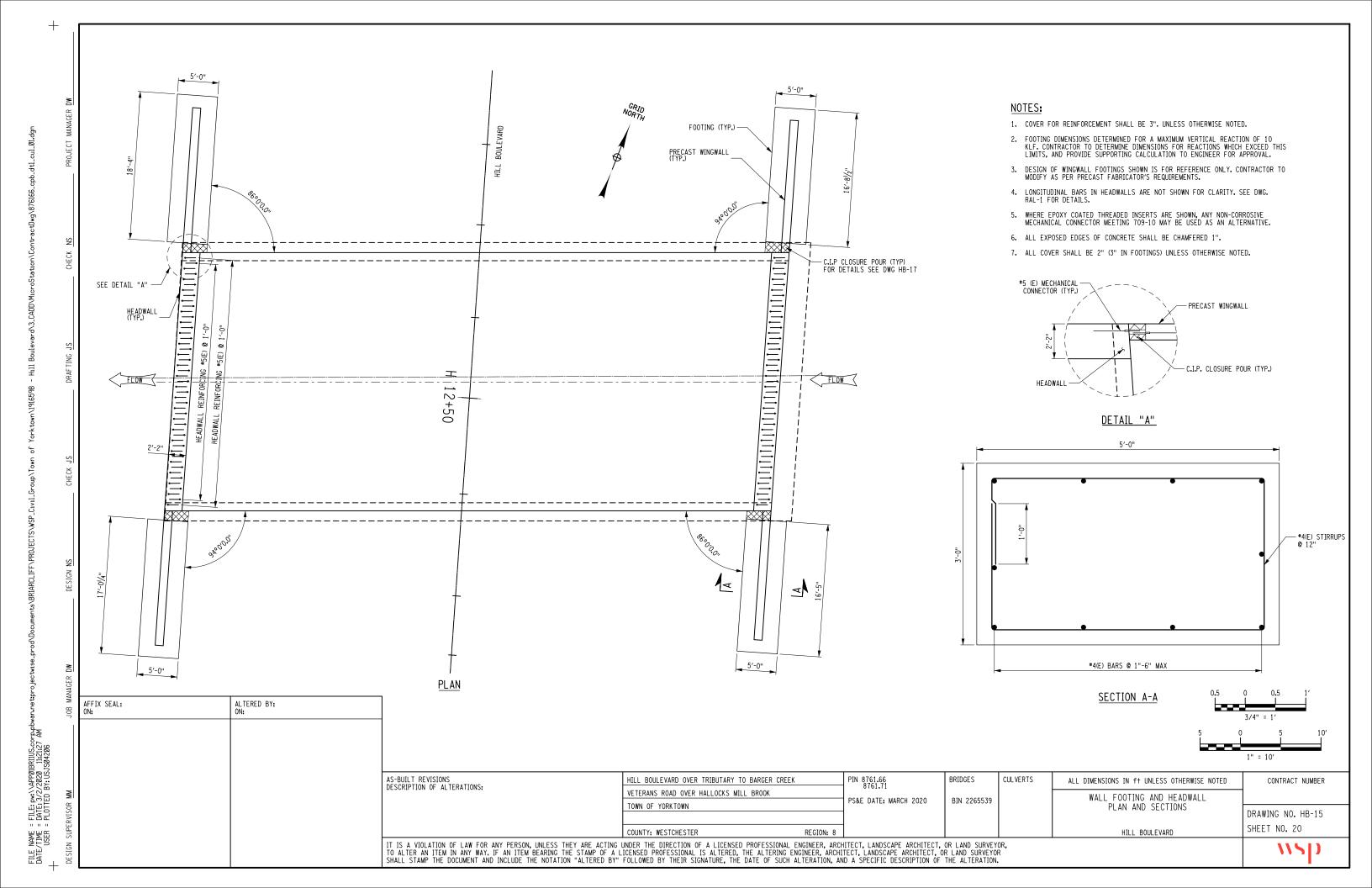
	GEOTECHNICAL DESIGN DATA										
FRICTION ANGLE OF SOIL RETAINED BY THE WALL (DEGREES)	FRICTION ANGLE OF FOUNDATION SOIL (DEGREES)	TOTAL SOIL UNIT WEIGHT (Lb / FT <sup>3</sup> )	MAXIMUM SERVICE LIMIT STATE BEARING RESISTANCE (LB / FT <sup>2</sup> )	NOMINAL COEFFICIENT OF FRICTION FOR SLIDING	STRENGTH LIMIT STATE RESISTANCE FACTOR FOR SLIDING	STRENGTH LIMIT STATE RESISTANCE FACTOR FOR BEARING					
30	30	120	2000	0.45	0.8	0.45					

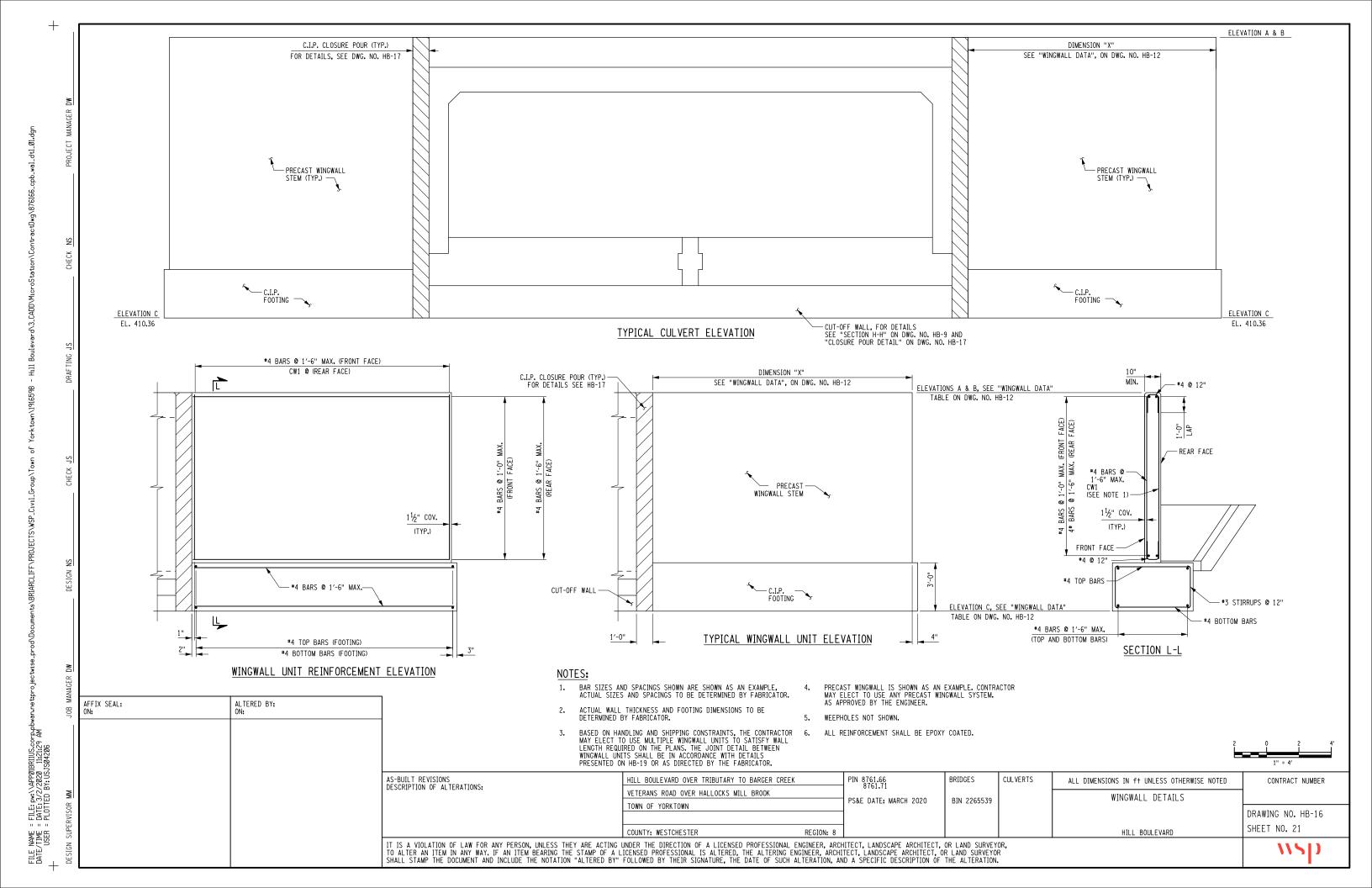


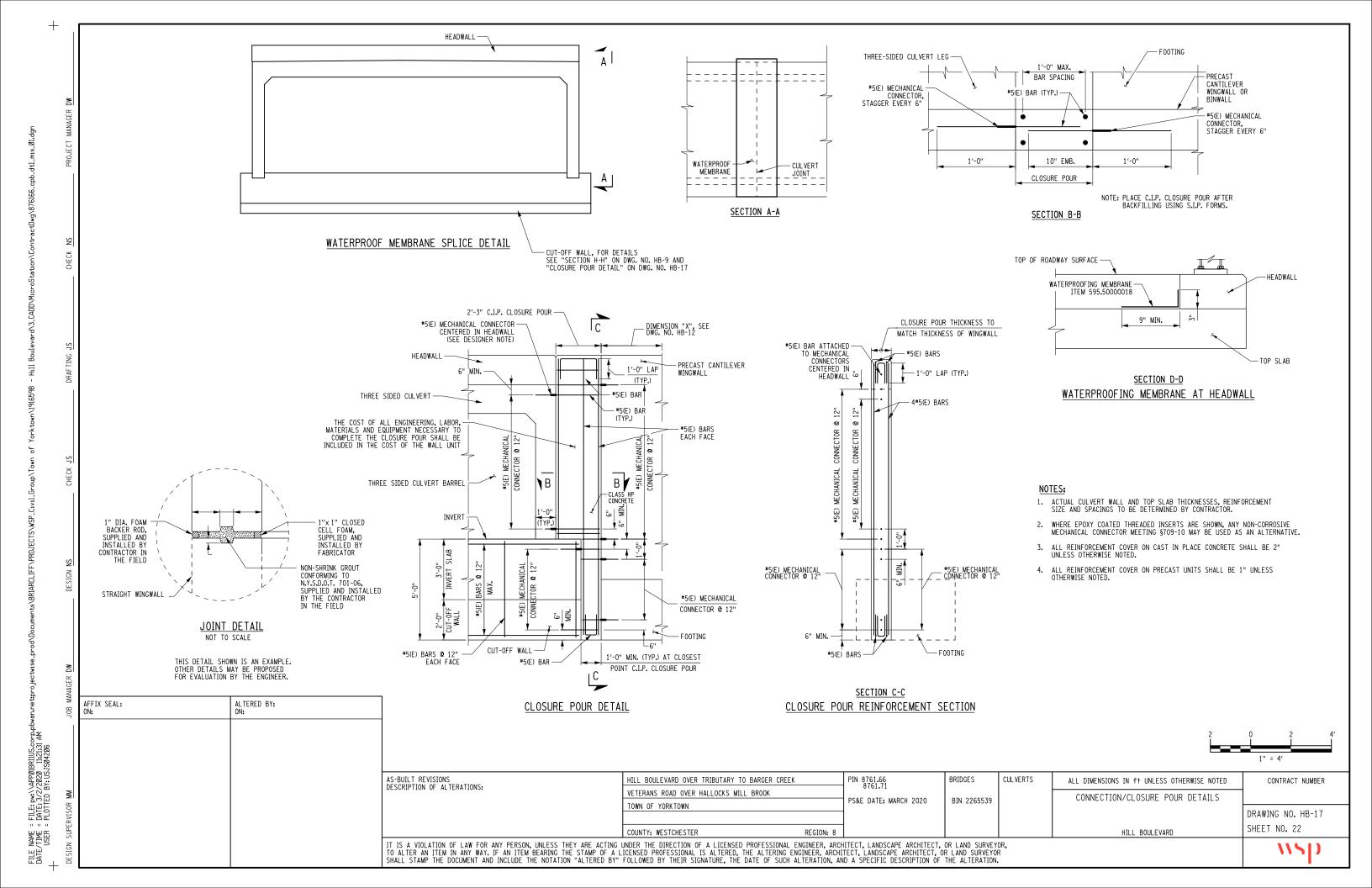
	AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS:	HILL BOULEVARD OVER TRIBUTARY TO BARGER CREEK		PIN 8761.66 8761.71	BRIDGES	CULVERTS	ALL DIMENSIONS IN f† UNLESS OTHERWISE NOTED	CONTRACT NUMBER			
'	DESCRIPTION OF ACTEMATIONS.	VETERANS ROAD OVER HALLOCKS MILL BROOK		PS&E DATE: MARCH 2020	BIN 2265539		PRECAST UNIT PLAN AND DETAILS	1			
		TOWN OF YORKTOWN		PS&E DATE: MARCH 2020				DDAWING NO. UD 10			
								DRAWING NO. HB-12			
		COUNTY: WESTCHESTER R	EGION: 8				HILL BOULEVARD	SHEET NO. 17			
- 1	TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A L	VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, R AN ITEM IN ANY WAY, IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR TAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.									

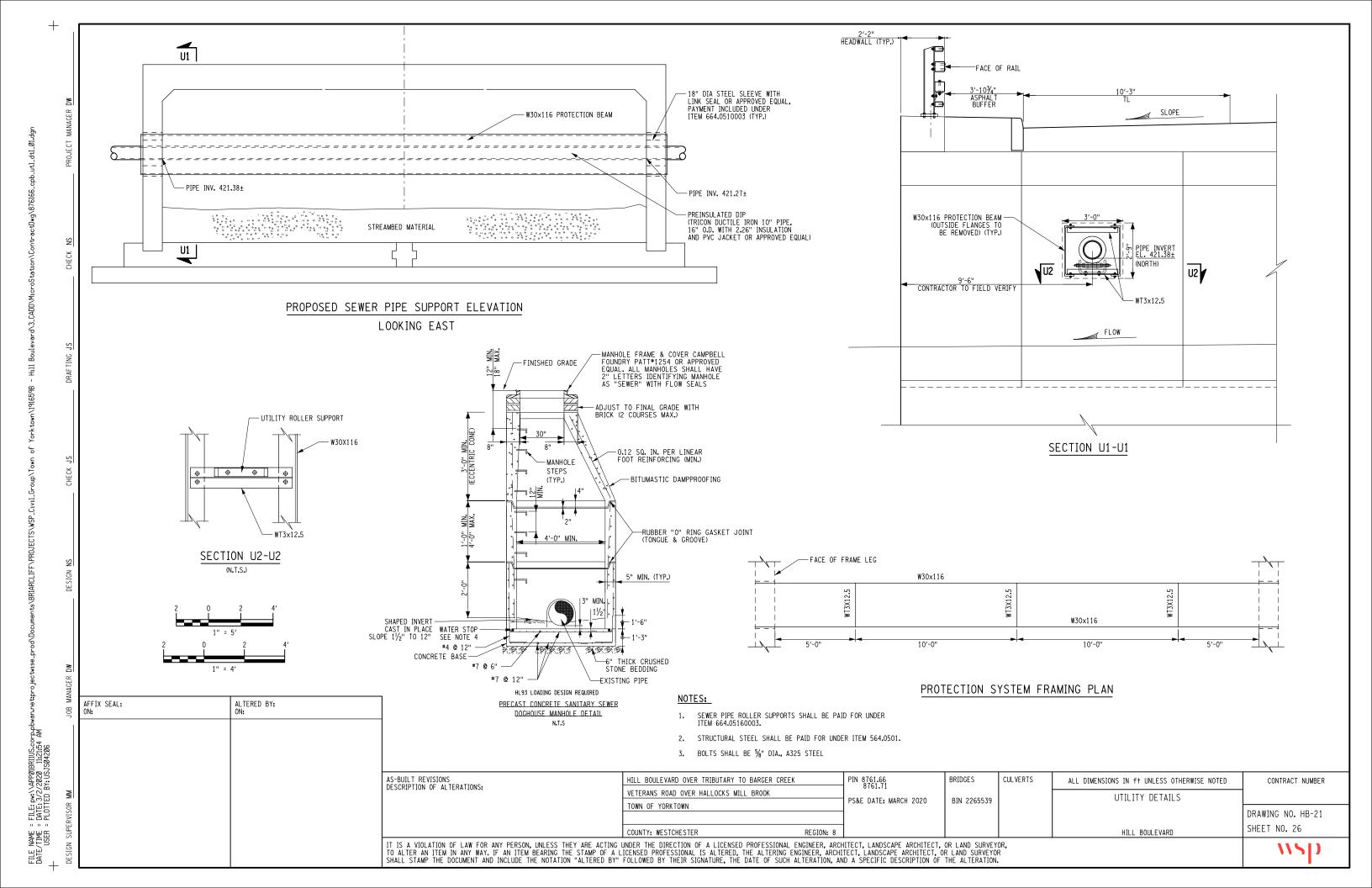


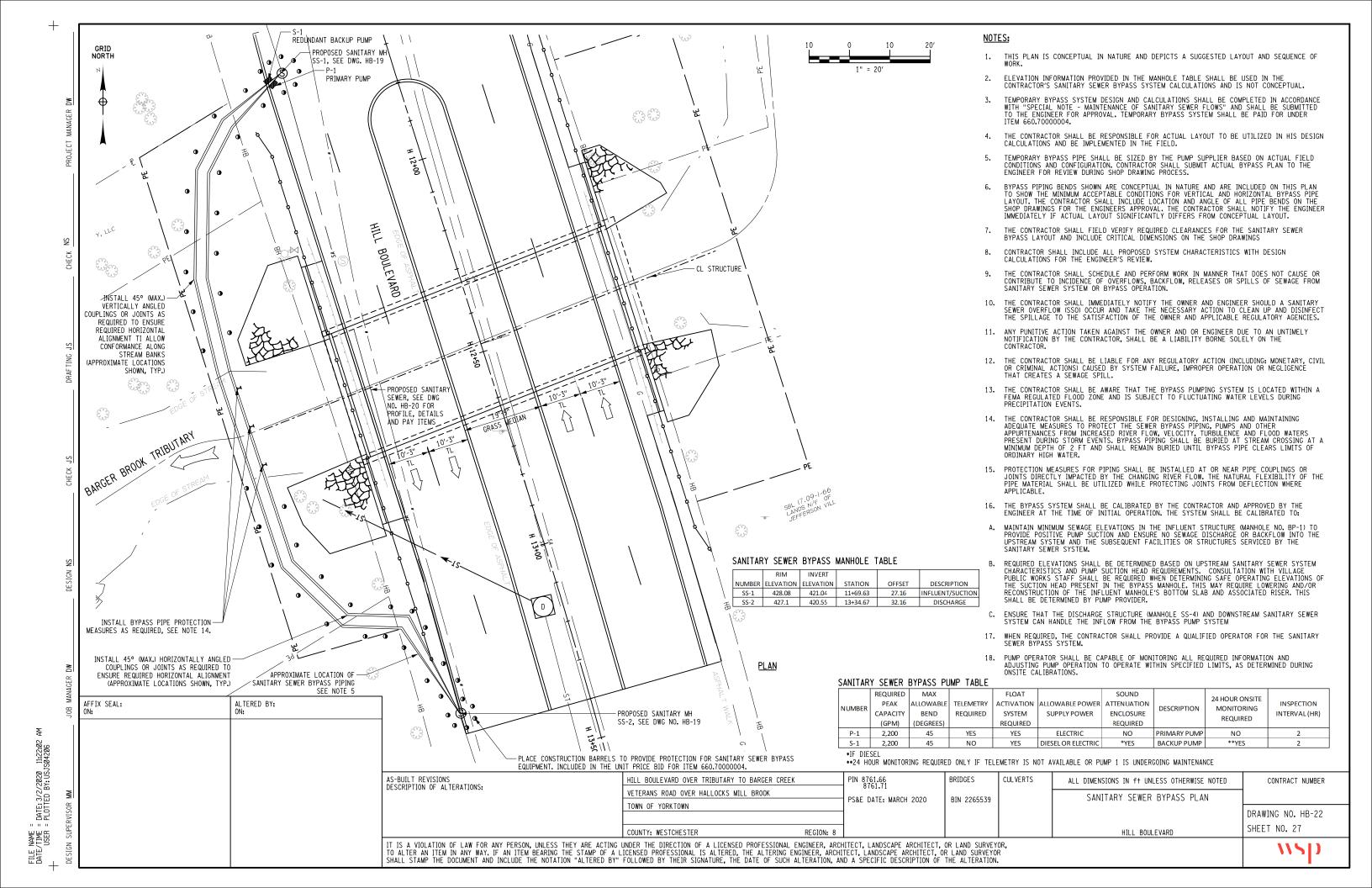












2-2 2-6 5CE3 17-5 N1 73 17-5 4-6 8-10 2-2 2-2 5CE4 12-5 26 12-5 SUBTOTAL EPOKY BARS 396 LB THI\$ POUR 5CF5 12 0-11 0-11 N1 5CE6 26 2-2 59 2-2 HILL BOULEVARD WINGWALL 2 FOOTING SUBTOTAL EPOKY BARS 194 LB THI\$ POUR 17-10 N1 17-10 4CE2 6-10 17 2-2 2-6 2-2 4CE3 20 14-9 T1 197  $0-4\frac{1}{2}$ 4-6 2-6 4-6 2-6 0-41/2 0-31/4 HILL BOULEVARD CLOSURE POUR WINGWALL 3 8-10 17 2-2 4-6 2-2 2-8 17 SUBTOTAL EPOKY BARS 365 LB THI\$ POUR 5CE2 3-11 1-11 17-5 5CF3 N1 17-5 12-5 12-5 |HILL BOULEVARD WINGWALL 3 FOOTING 5CE4 N1 16-3 5CE5 0-11 0-11 108 0-0 16-21/2 12 6-10 5CE6 26 2-2 N1 59 2-2 2-2 2-6 SUBTOTAL EPOKY BARS 4CE3 14-0 4-6 2-6 4-6 194 LB THIS POUR 0-0 2-6 0-0 0-0 4CE4 8-10 17 2-2 4-6 2-2 SUBTOTAL EPOKY BARS 267 LB THI\$ POUR HILL BOULEVARD CLOSURE POUR WINGWALL 4 HILL BOULEVARD WINGWALL 4 FOOTING 5CE1 2-8 0-8 15-11 N1 15-11 5CE2 3-11 6-10 2-2 2-6 2-2 5CE3 17-5 17-5 4CE3 14-9 4-6 2-6 4-6 5CE4 12-5 12-5 79 0-41/2 0-41/2 0-31/4 N1 26 2-6 5CE5 4CE4 8-10 4-6 0-11 0-11 12 2-2 2-2 12 N1 SUBTOTAL EPOKY BARS 233 LB THI\$ POUR 5CE6 12 2-2 N1 27 2-2 SUBTOTAL EPOKY BARS 162 LB THI\$ POUR HILL BOULEVARD CUT-OFF WALL EAST 35-0 N1 140 35-0 5-4 17 1-0 HILL BOULEVARD HEADWALL 5-9 T1 138 0-41/2 1-0 1-6 1-0 1-6 0-41/2 0-31/4 5CE1 60 2-8 167 0-10 0-0 1-10 2-0 N1 63 31-8 5CF4 5CF2 231 31-8 2-0 N1 SUBTOTAL EPOKY BARS 363 LB THI\$ POUR SUBTOTAL EPOKY BARS 398 LB THI\$ POUR HILL BOULEVARD CUT-OFF WALL WEST 35-0 N1 35-0 HILL BOULEVARD HEADWALL 5-4 17 3AE1 2-8 4CE2 2-2 1-0 60 0-10 1-10 0-0 5-9 T1 138  $0-4\frac{1}{2}$ 1-0 1-6 1-0 1-6  $0-4\frac{1}{2}$ 3AE2 31-8 83 31-8 SUBTOTAL EPOKY BARS 2-0 N1 63 2-0 144 LB THI\$ POUR SUBTOTAL EPOKY BARS 363 LB THI\$ POUR HILL BOULEVARD INVERT SLAB HILL BOULEVARD CLOSURE POUR WINGWALL 1 39-3 N1 39-21/ 5CE1 2-8 17 0-8 8CE2 29-6 N1 6065 29-6 154 11-6 5CE2 3-11 1-0 1-11 1-0 6CE3 14-10 N11 3431 4-9 0-5 2-0 0-5 0-0 0-0 0-0 17-5 N1 17-5 8CE4 34-6 N1 7092 34-6 12-5 N1 12-5 6CE5 140 9-0 1893 3-3 2-6 6CE6 5CE5 0-11 N1 103 3-3 0-11 8-7 2-1 3-3 5CE6 2-2 N1 2-2 26 SUBTOTAL EPOKY BARS 194 LB THI\$ POUR SUBTOTAL EPOKY BARS 26828 LB THI\$ POUR AFFIX SEAL: ALTERED BY: C K<sub>1</sub> E K<sub>2</sub> C ON: Ā = DATE: 3/2/2020 11:22:04 = PLOTTED BY: USJS04206 (N11) 17 AS-BUILT REVISIONS **CUL VERTS** HILL BOULEVARD OVER TRIBUTARY TO BARGER CREEK ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED CONTRACT NUMBER DESCRIPTION OF ALTERATIONS: BIN 2265539 VETERANS ROAD OVER HALLOCKS MILL BROOK BARLIST PS&E DATE: MARCH 2020 TOWN OF YORKTOWN DRAWING NO. HB-23 SHEET NO. 28 HILL BOULEVARD COUNTY: WESTCHESTER IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION. **NSD** 

NO. LENGTH TYPE WEIGHT

16-6 N1

14-9

HILL BOULEVARD WINGWALL 1 FOOTIN

10

4CF2

Α

 $0-4\frac{1}{2}$ 

187

В

4-6

С

2-6

D

4-6

Ε

2-6

F

G

H/H1

0-41/2 0-31/4

H2

K/K1

K2

0

16-61/4

MARK

5CF1

5CF2

NO. LENGTH TYPE WEIGHT

HILL BOULEVARD CLOSURE POUR WINGWALL 2

2-8

3-11

В

1-0

С

0-8

1-11

D

1-0

1-0

Ε

F

G

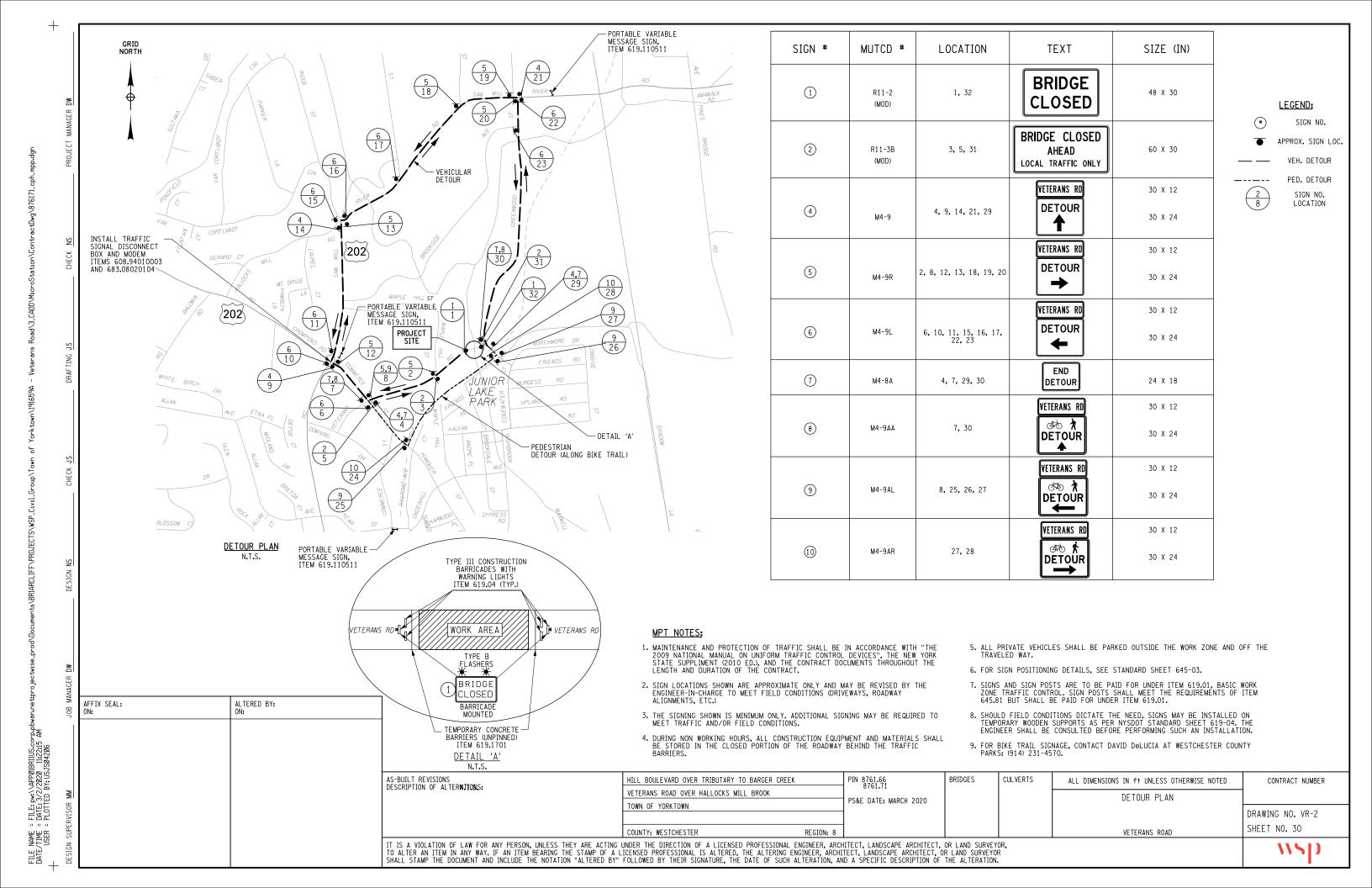
H/H1

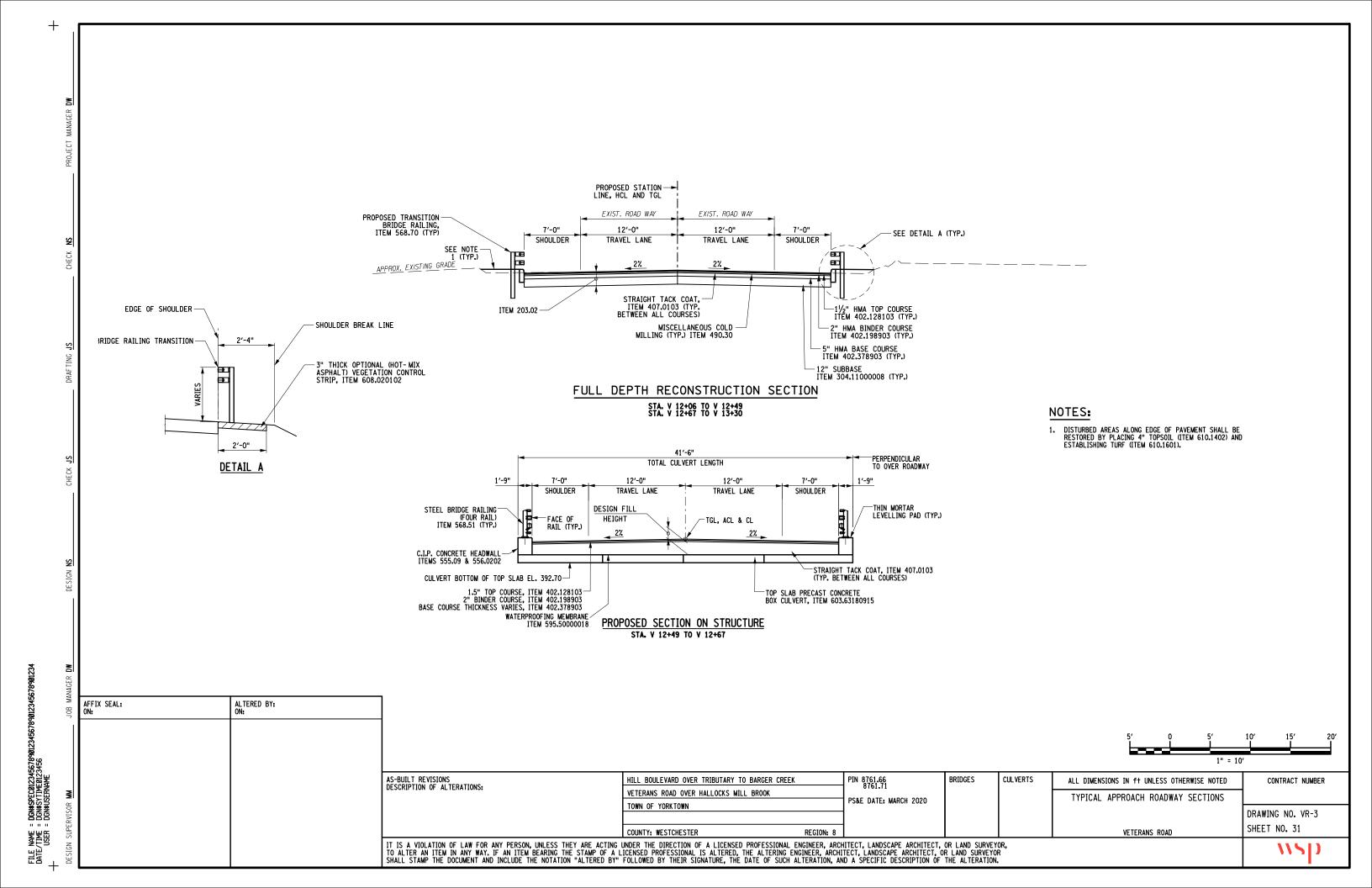
H2

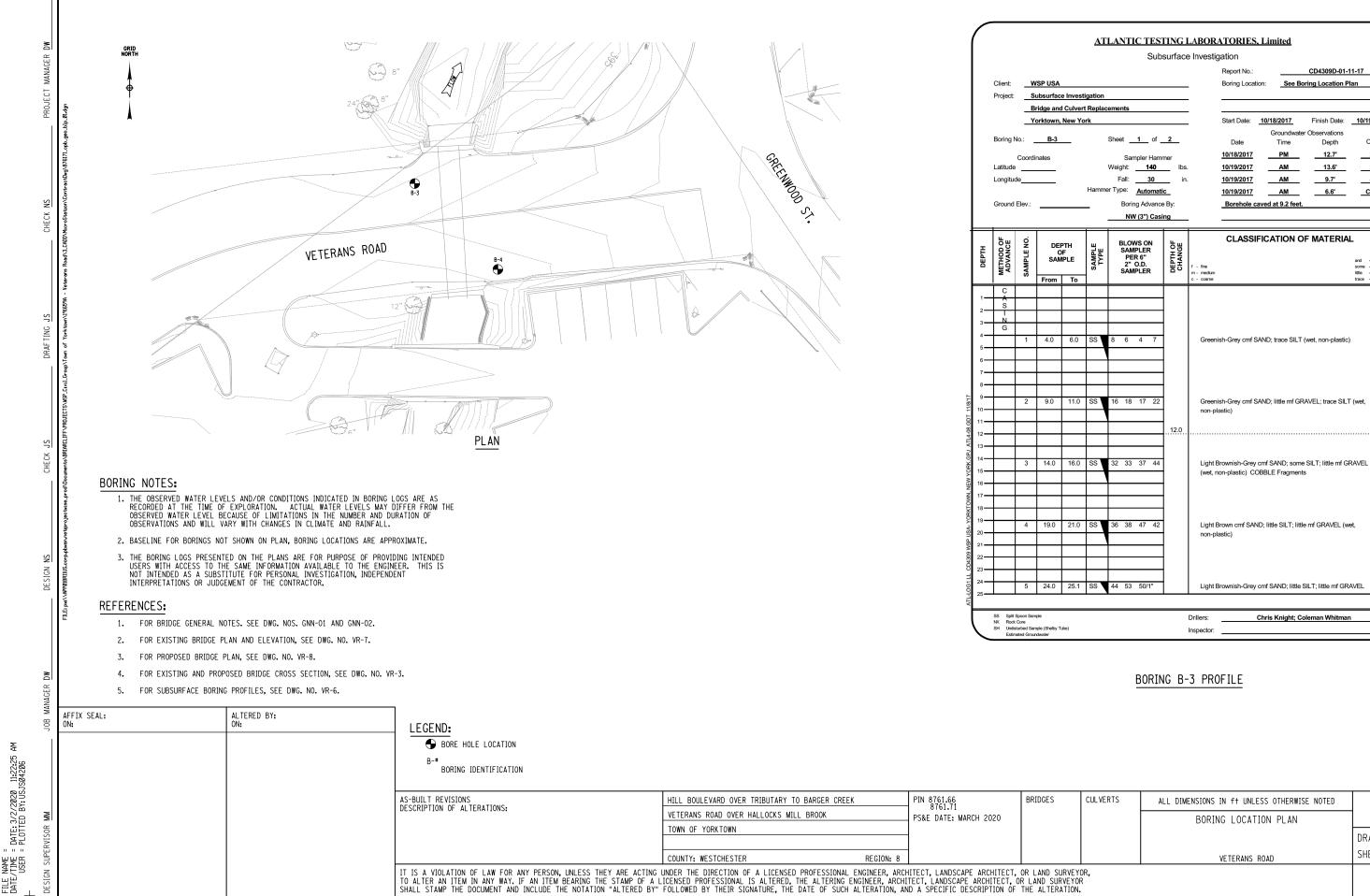
K/K1

K2

0







Light Brownish-Grev cmf SAND: little SILT: little mf GRAVEL Drillers: Chris Knight; Coleman Whitman

VETERANS ROAD

CD4309D-01-11-17 See Boring Location Plan

Depth

12.7'

13.6'

9.7'

6.6'

29.0' 29.0'

49.0'

CAVED

CONTRACT NUMBER

115[)

DRAWING NO. VR-5 SHEET NO. 33

10/18/2017

AM

**CLASSIFICATION OF MATERIAL** 

Greenish-Grey cmf SAND; trace SILT (wet, non-plastic)

Greenish-Grey cmf SAND; little mf GRAVEL; trace SILT (wet

Light Brown cmf SAND; little SILT; little mf GRAVEL (wet,

(wet, non-plastic) COBBLE Fragments

10/18/2017

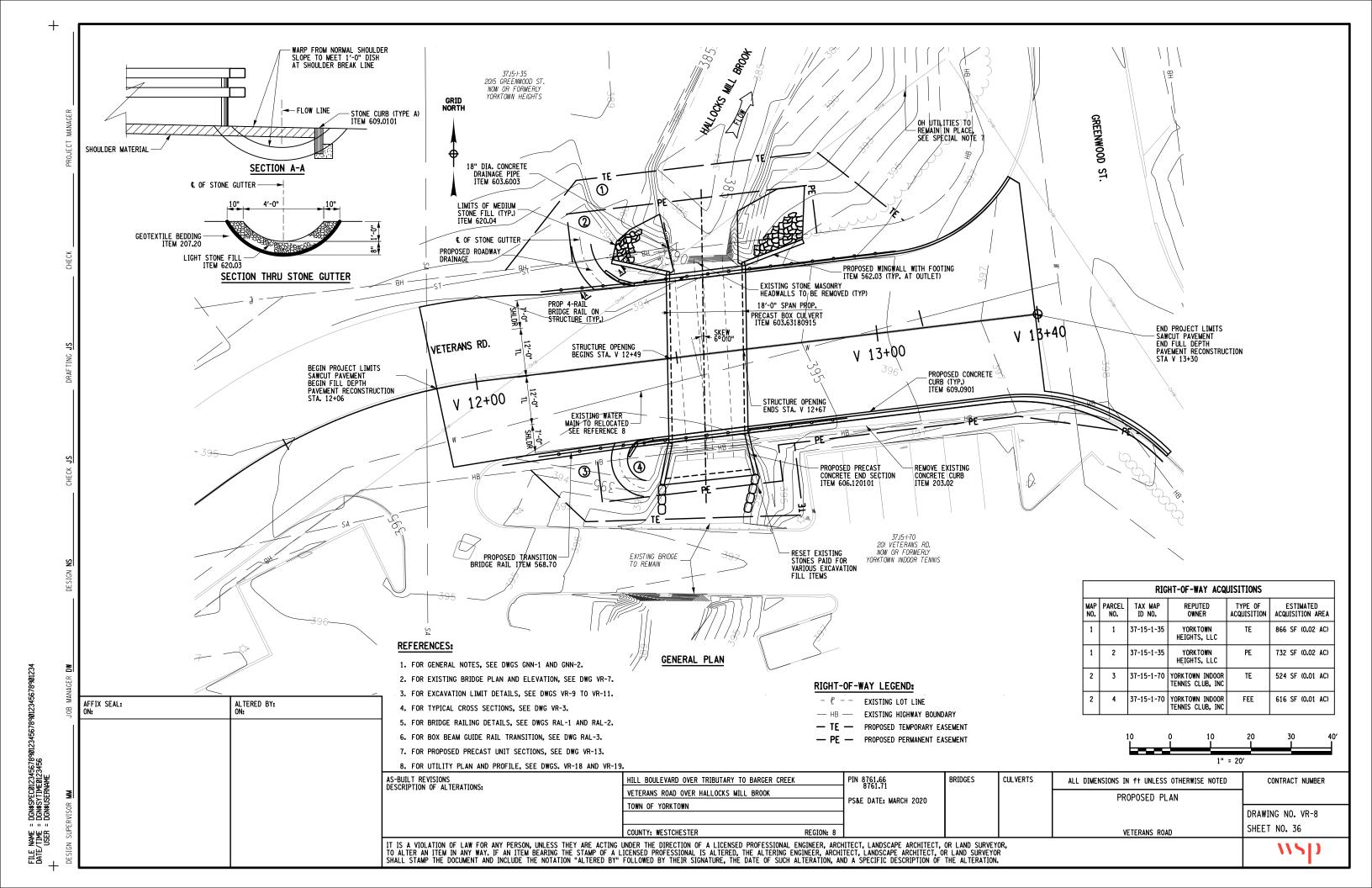
10/19/2017

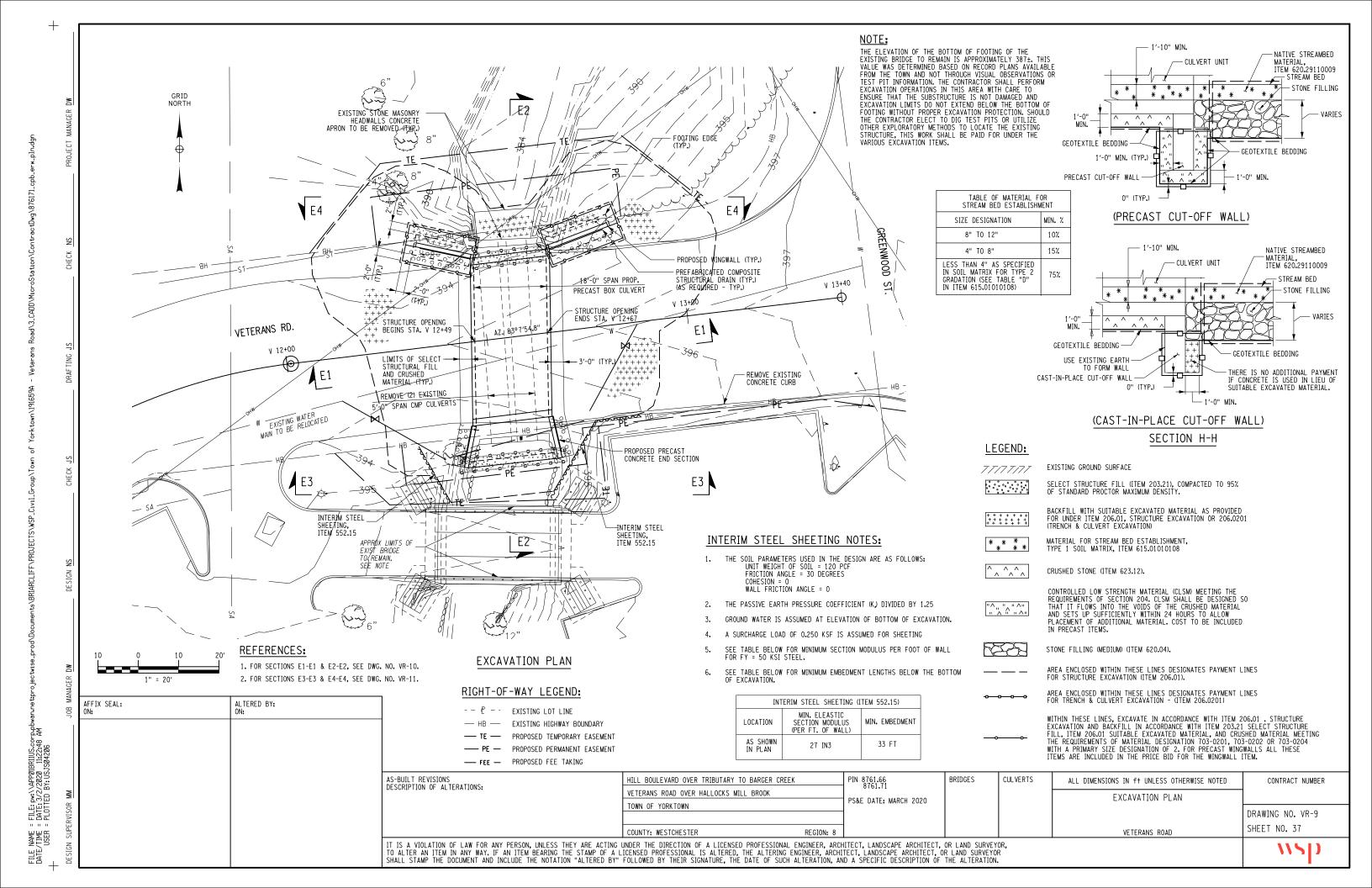
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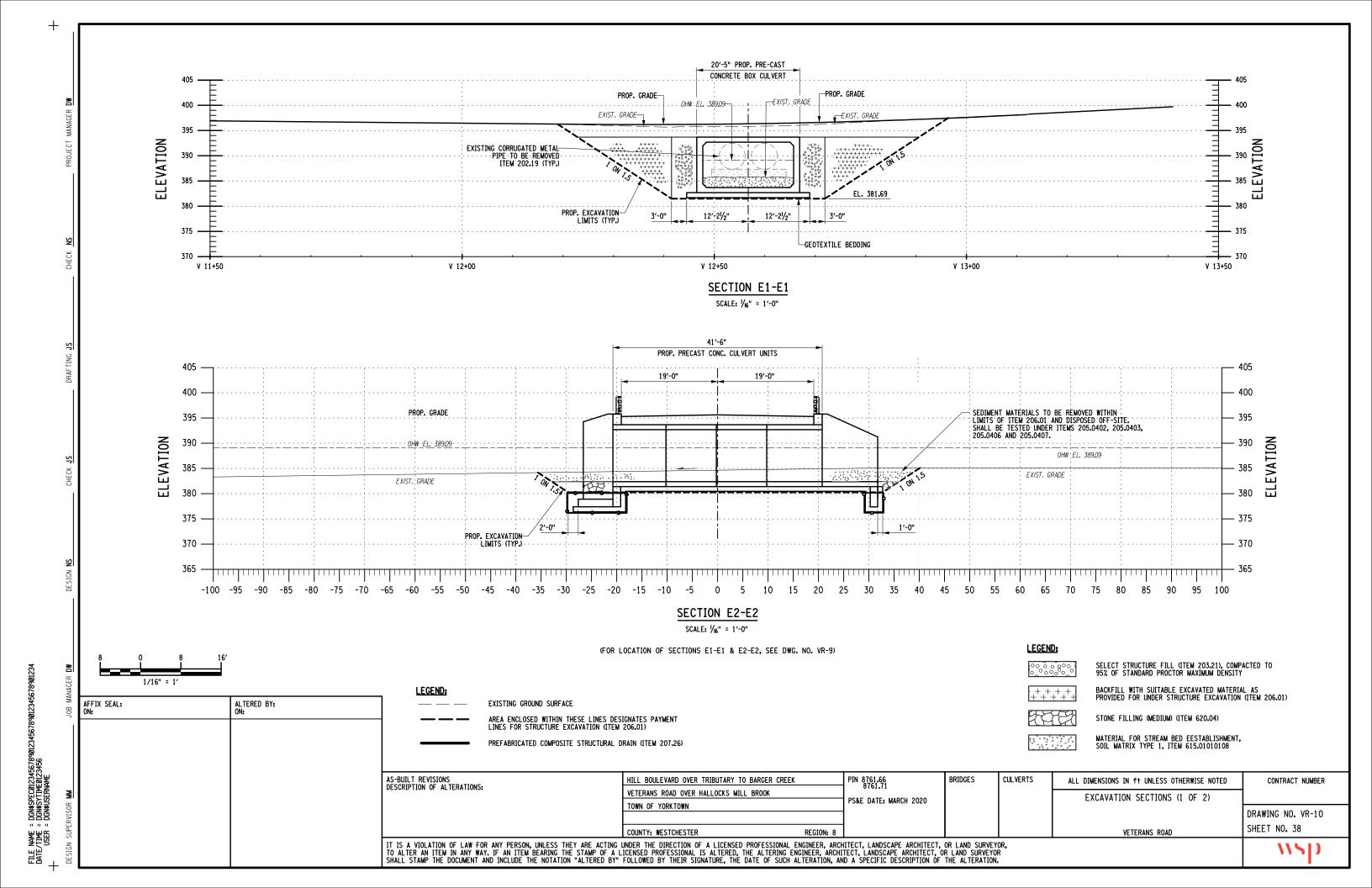
10/19/2017

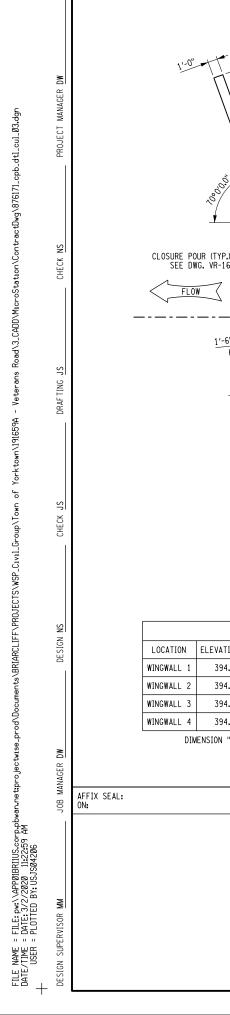
Borehole caved at 9.2 feet.

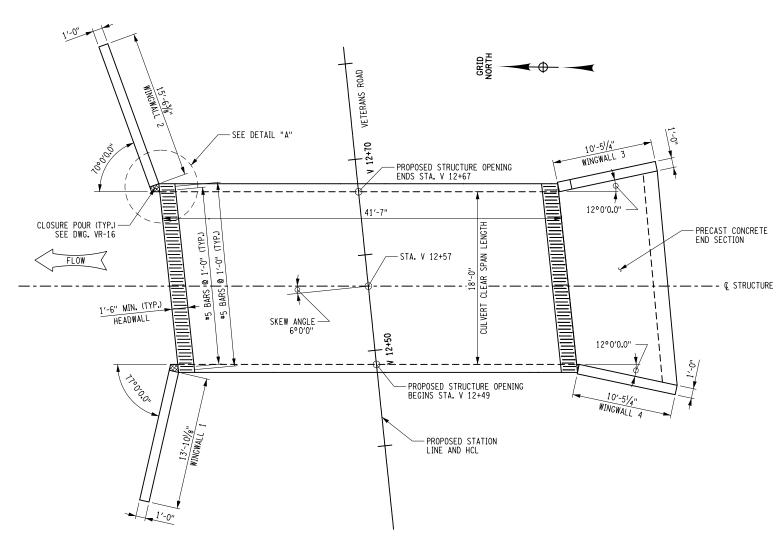
ATLANTIC TESTING LABORATORIES, Limited ATLANTIC TESTING LABORATORIES, Limited **ATLANTIC TESTING LABORATORIES, Limited** Subsurface Investigation Subsurface Investigation Subsurface Investigation Report No.: CD4309D-01-11-17 Boring Location: See Boring Location Plan WSP USA Sheet 2 of 2 Subsurface Investigation Bridge and Culvert Replacements CLASSIFICATION OF MATERIAL CLASSIFICATION OF MATERIAL BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER Start Date: 10/19/2017 Finish Date: 10/19/2017 Yorktown, New York - 35-50% - 20-35% - 10-20% - 0-10% Sheet \_\_1\_ of \_\_2\_ Depth 10/19/2017 9.9' 39.0' Sampler Hammer Weight: \_\_\_\_140 \_\_\_ lbs. 10/19/2017 PM 7.0' CAVED Advanced NX core barrel through BOULDER from 25.5 to 26.6 Fall: \_\_\_\_\_ in. Longitude Hammer Type: <u>Automatic</u> Boring Advance By: Borehole caved at 18.3 feet. 20 6 29.0 30.0 SS Greenish-Grev cmf SAND; some mf GRAVEL; trace SILT (moist, 6 29.0 31.0 44 43 47 49 Light Brown cmf SAND; trace SILT (wet, non-plastic) NW (3") Casing CLASSIFICATION OF MATERIAL BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER OF SAMPLE 7 34.0 34.8 SS Grey cmf SAND; little mf GRAVEL; trace SILT (moist, non-plastic) 7 34.0 35.6 39 44 47 50/ Similar Soil (moist, non-plastic) 8 8 39.0 39.5 SS 69 Grey c GRAVEL (moist, non-plastic) COBBLE Fragment in split 4.0 4.8 SS 3 50/3" 8 39.0 40.4 SS Brown c GRAVEL; and cmf SAND; trace SILT (wet, non-plastic) 47 45 50/5 Similar Soil (moist, non-plastic) 1. Borehole backfilled with cement-bentonite grout. Brown cmf SAND; some cmf GRAVEL; trace SILT (wet, 9 44.0 44.3 SS Brown cmf SAND; little f GRAVEL; trace SILT (moist, non-plastic) 10 49.0 49.1 SS 50/ 14.0 16.0 S Brown cmf SAND; and cmf GRAVEL; trace SILT (wet, non-plastic). Light Brown cmf SAND; little f GRAVEL; trace SILT (wet, Boring terminated at 49.1 feet. 1. Borehole backfilled with cement-bentonite grout Light Brown cmf SAND; little mf GRAVEL; little SILT (wet, 24.0 24.0 SS 50/0 NO RECOVERY Chris Knight; Coleman Whitman BORING B-3 PROFILES (CONT.) BORING B-4 PROFILES ALTERED BY: AFFIX SEAL: 108 **REFERENCES:** 1. FOR BORING LOCATION PLAN, SEE DWG. NO. VR-6. AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS: CULVERTS HILL BOULEVARD OVER TRIBUTARY TO BARGER CREEK BRIDGES ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED CONTRACT NUMBER VETERANS ROAD OVER HALLOCKS MILL BROOK BORING SUBSURFACE PROFILE PS&E DATE: MARCH 2020 TOWN OF YORKTOWN DRAWING NO. VR-6 SHEET NO. 34 VETERANS ROAD IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION. 1151)











WINGWALL DATA						
LOCATION	ELEVATION A	ELEVATION B	ELEVATION C	DIMENSION "X"		
WINGWALL 1	394.4	393.5	379.7	1'-0"		
WINGWALL 2	394.7	395.0	379.7	1'-0"		
WINGWALL 3	394.7	391.0	382.7	1'-0"		
WINGWALL 4	394.4	391.0	382.7	1′-0"		

DIMENSION "X" MEASURED ALONG FRONT OF WINGWALL

ALTERED BY:

ON:

	GEOTECHNICAL WINGWALL DESIGN DATA						
FRICTION ANGLE OF SOIL RETAINED BY THE WALL (DEGREES)	FRICTION ANGLE OF FOUNDATION SOIL (DEGREES)	TOTAL SOIL UNIT WEIGHT (Lb / FT <sup>3</sup> )	MAXIMUM SERVICE LIMIT STATE BEARING RESISTANCE (LB / FT <sup>2</sup> )	NOMINAL COEFFICIENT OF FRICTION FOR SLIDING	STRENGTH LIMIT STATE RESISTANCE FACTOR FOR SLIDING	STRENGTH LIMIT STATE RESISTANCE FACTOR FOR BEARING	
30	30	120	5800	0.45	0.8	0.45	

- 1. FOR THE SLIDING AND ECCENTRICITY ANALYSES, ASSUME A GROUND WATER ELEVATION OF XX FEET.
- 2. FOR THE BEARING ANALYSES, ASSUME A GROUNDWATER ELEVATION OF XX FEET.
- 3. USE SUBMERGED UNIT WEIGHTS BELOW THE GROUNDWATER ELEVATIONS PROVIDED.
- 4. ASSUME A SURCHARGE LOAD OF XX POUNDS PER SQUARE FOOT.

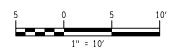
DETAIL "A"	*5 (E) MECHANICAL CONNECTOR (TYP.)  *BUTCH TO THE POUR (TYP.)
	DETAIL "A"

## NOTES:

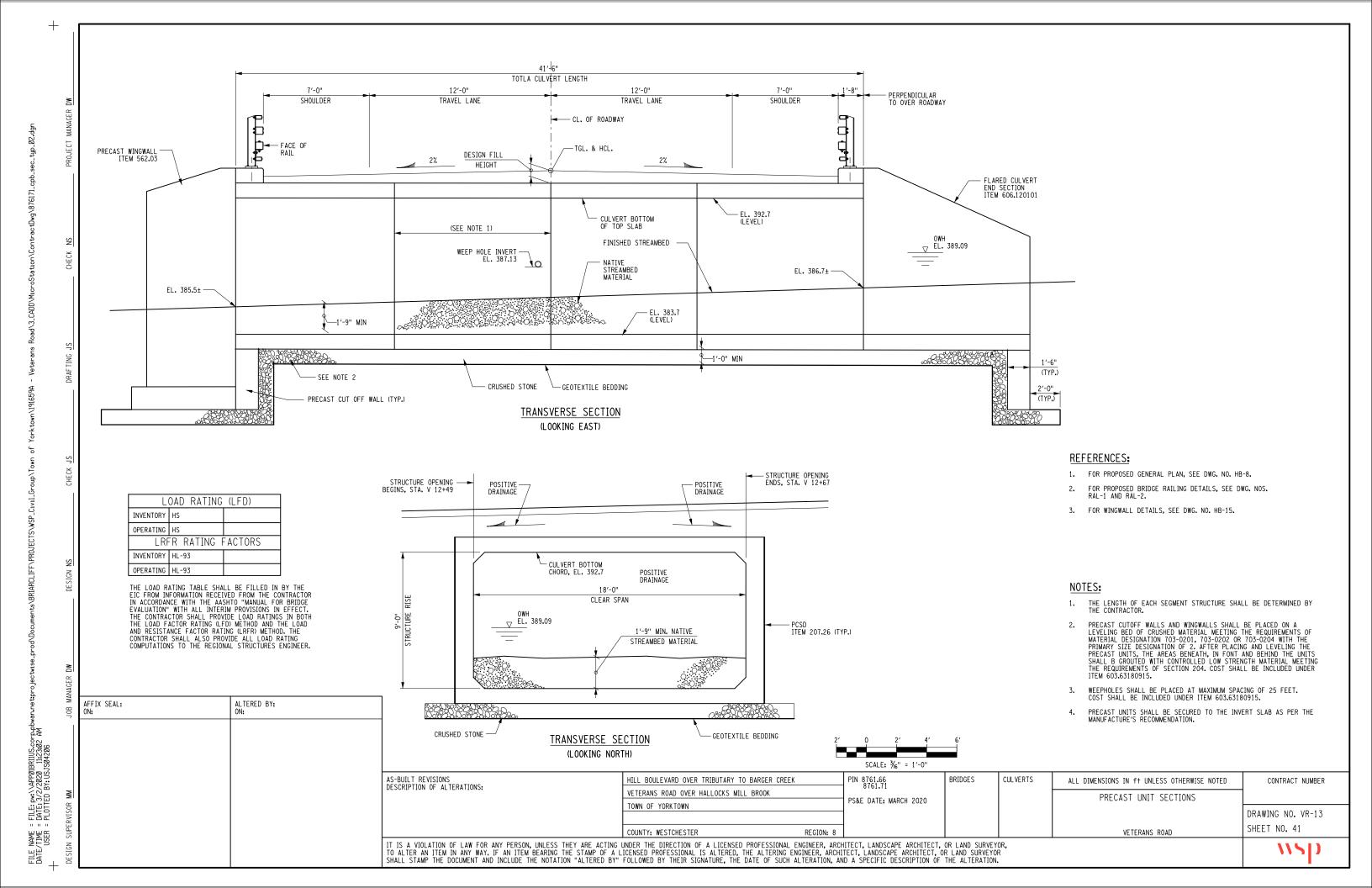
- LONGITUDINAL BARS IN HEADWALLS ARE NOT SHOWN FOR CLARITY, SEE DWG. RAL-1 FOR DETAILS.
- 2. WHERE EPOXY COATED THREADED INSERTS ARE SHOWN, ANY NON-CORROSIVE MECHANICAL CONNECTOR MEETING 709-10 MAY BE USED AS AN ALTERNATIVE.
- 3. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1".
- 4. ALL COVER SHALL BE 2" UNLESS OTHERWISE NOTED.
- 5. THE LENGTH OF EACH CULVERT SEGMENT SHALL BE DETERMINED BY THE CONTRACTOR, IF STAGED CONSTRUCTION IS EMPLOYED, THE PRECAST BOX CULVERT SEGMENT LENGTH MUST BE COMPATIBLE WITH STAGING REQUIREMENTS.
- 6. PRECAST CUT-OFF WALLS AND WINGWALLS SHALL BE PLACED ON A LEVELING BED OF CRUSHED MATERIAL MEETING THE REQUIREMENTS OF MATERIAL DESIGNATION 703-0201, 703-0202 OR 703-0204 WITH A PRIMARY SIZE DESIGNATION OF 2. AFTER PLACING AND LEVELING THE PRECAST UNITS, THE AREAS BENEATH, IN FRONT AND BEHIND THE UNITS SHALL BE GROUTED WITH CONTROLLED LOW STRENGTH MATERIAL MEETING THE REQUIREMENTS OF SECTION 204.
- 7. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1".

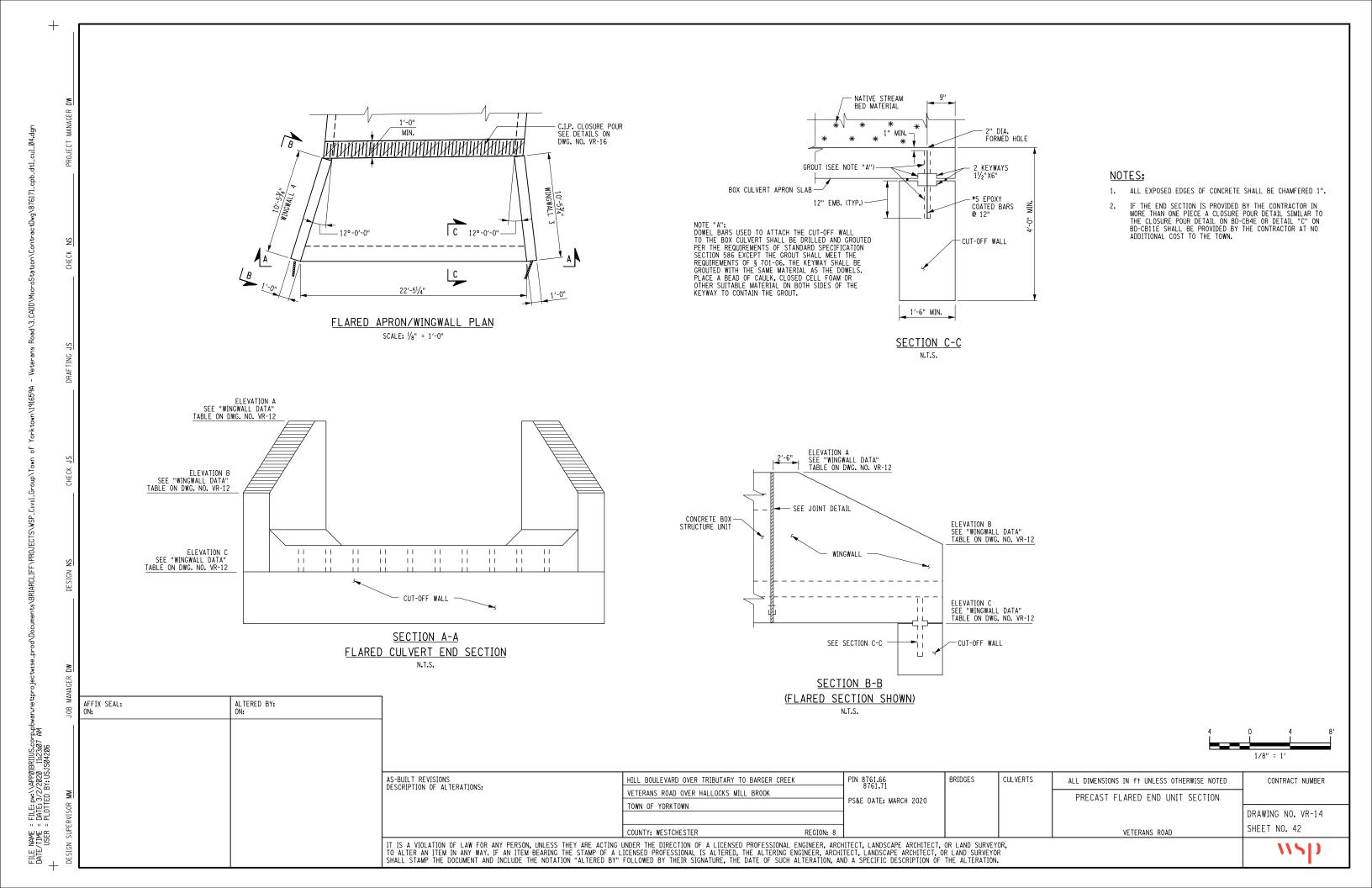
BOX CULVERT DESIGN DATA				
CLEAR SPAN, FT.	18'-0"			
FRAME RISE, FT.	9′-0"			
* MIN. FILL HEIGHT, FT.	7"			
* MAX. FILL HEIGHT, FT.	11"			
(CSKEW) SKEW ANGLE PERPENDICULAR TO CENTER LINE OF ROADWAY, DEG.	6			
LIVE LOAD	HL93 AND NYS PERMIT VEHICLE			
RAILING / BARRIER TEST LOAD	TL-4			

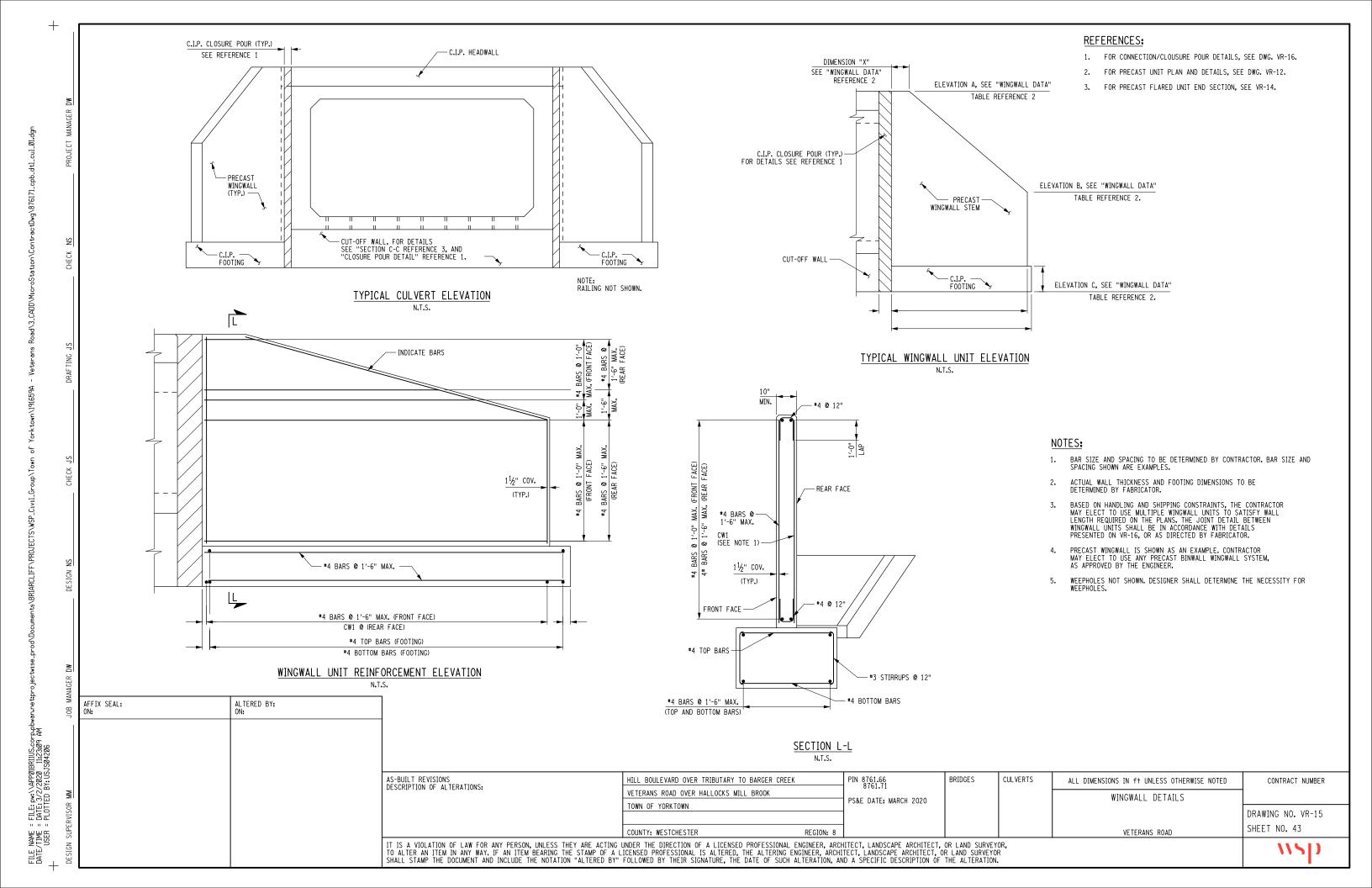
• BASED ON ASSUMED TOP SLAB THICKNESS OF 12". FABRICATIOR SHALL ADJUST BASED ON ACTUAL TOP SLAB THICKNESS. FILL HEIGHTS MEASURED FROM THE TOP OF THE TOP SLAB TO TOP OF PAVEMENT.

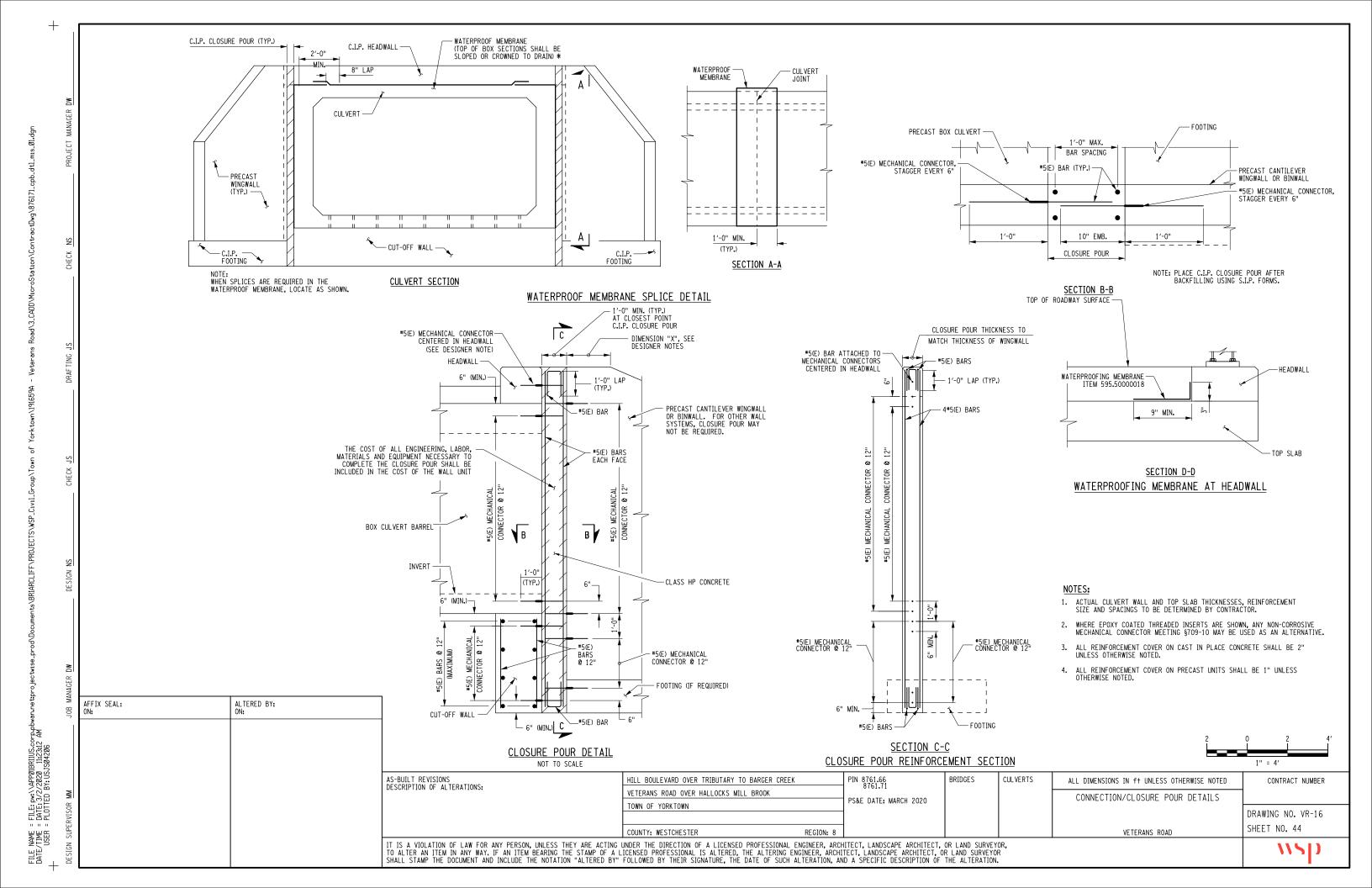


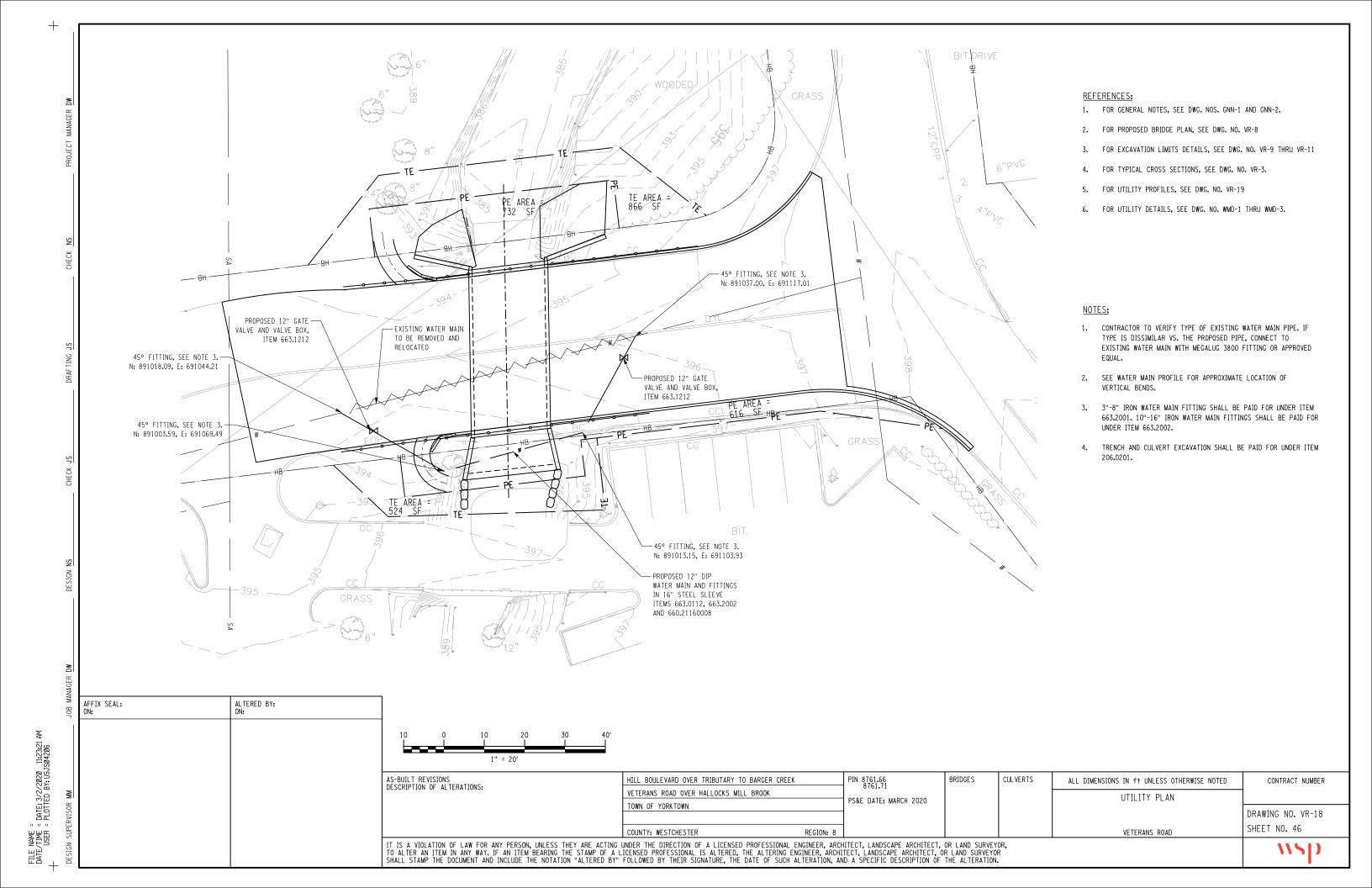
DESCRIPTION OF ALTERATIONS:	HILL BOULEVARD OVER TRIBUTARY TO BARGER CREEK VETERANS ROAD OVER HALLOCKS MILL BROOK	PIN 8761.66 8761.71 PS&E DATE: MARCH 2020	BRIDGES	CULVERTS	ALL DIMENSIONS IN f+ UNLESS OTHERWISE NOTED  PRECAST UNIT PLAN AND DETAILS	CONTRACT NUMBER
	TOWN OF YORKTOWN  COUNTY: WESTCHESTER REGION: 8	- Total Balli marker 2020			VETERANS ROAD	DRAWING NO. VR-12 SHEET NO. 40
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY, IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.						wsp











VETERANS ROAD CUT-OFF WALL NORTH VETERANS ROAD CLOSURE POUR WINGWALL 1 2-8 17 22 0-8 20-0 N1 53 20-0 1-0 1-0 14-8 N1 14-8 5-4 17 1-0 0-11 N1 0-11 5-9 T1 81 0-41/2 1-0 1-6 1-0 0-41/2 0-31/4 5C4 18 2-0 N1 38 2-0 SUBTOTAL EPOKY BARS 116 LB THI\$ POUR SUBTOTAL PLAIN BARS 186 LB THI\$ POUR VETERANS ROAD CLOSURE POUR WINGWALL 2 2-8 17 22 0-8 1-0 1-0 5CE2 14-8 N1 14-8 34 0-11 N1 0-11 SUBTOTAL EPOKY BARS 116 LB THI\$ POUR VETERANS ROAD HEADWALL 1 2-2 17 86 1-4 0-0 38 0-10 19-5 N1 19-5 SUBTOTAL EPOKY BARS 207 LB THI\$ POUR VETERANS ROAD HEADWALL 2 2-2 17 86 1-4 19-5 N1 121 19-5 SUBTOTAL EPOKY BARS 207 LB THI\$ POUR VETERANS ROAD WINGWALL 1 FOOTING 13-4 N1 13-4 6-10 17 2-2 2-6 2-2 4CE3 14-9 T1 148 0-41/2 4-6 2-6 4-6 0-41/2 0-31/4 2-6 4CE4 8-10 17 4-6 2-2 2-2 SUBTOTAL EPOKY BARS 285 LB THI\$ POUR VETERANS ROAD WINGWALL 2 FOOTING 15-1 N1 100 4CE2 6-10 17 2-6 2-2 2-2 4-6 4CE3 8-10 17 12 2-2 2-2 2-6 4CE4 17 14-9 T1 168  $0-4\frac{1}{2}$ 4-6 4-6 2-6 0-41/2 0-31/4 SUBTOTAL EPOKY BARS 316 LB THI\$ POUR AFFIX SEAL: ON: ALTERED BY: FILE NAME = DATE/TIME = DATE:3/2/2020 11:23:26 USER = PLOTTED BY:USJS04206 AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS: PIN 8761.66 8761.71 BRIDGES CULVERTS HILL BOULEVARD OVER TRIBUTARY TO BARGER CREEK ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED CONTRACT NUMBER VETERANS ROAD OVER HALLOCKS MILL BROOK BARLIST PS&E DATE: MARCH 2020 TOWN OF YORKTOWN DRAWING NO. VR-20 SHEET NO. 48 COUNTY: WESTCHESTER VETERANS ROAD IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION. 115[)

MARK

NO. LENGTH TYPE WEIGHT

Α

В

С

D

Ε

F

G

H/H1

H2

J

K/K1

K2

0

R

MARK

NO. LENGTH TYPE WEIGHT A

В

С

D

Ε

F

G

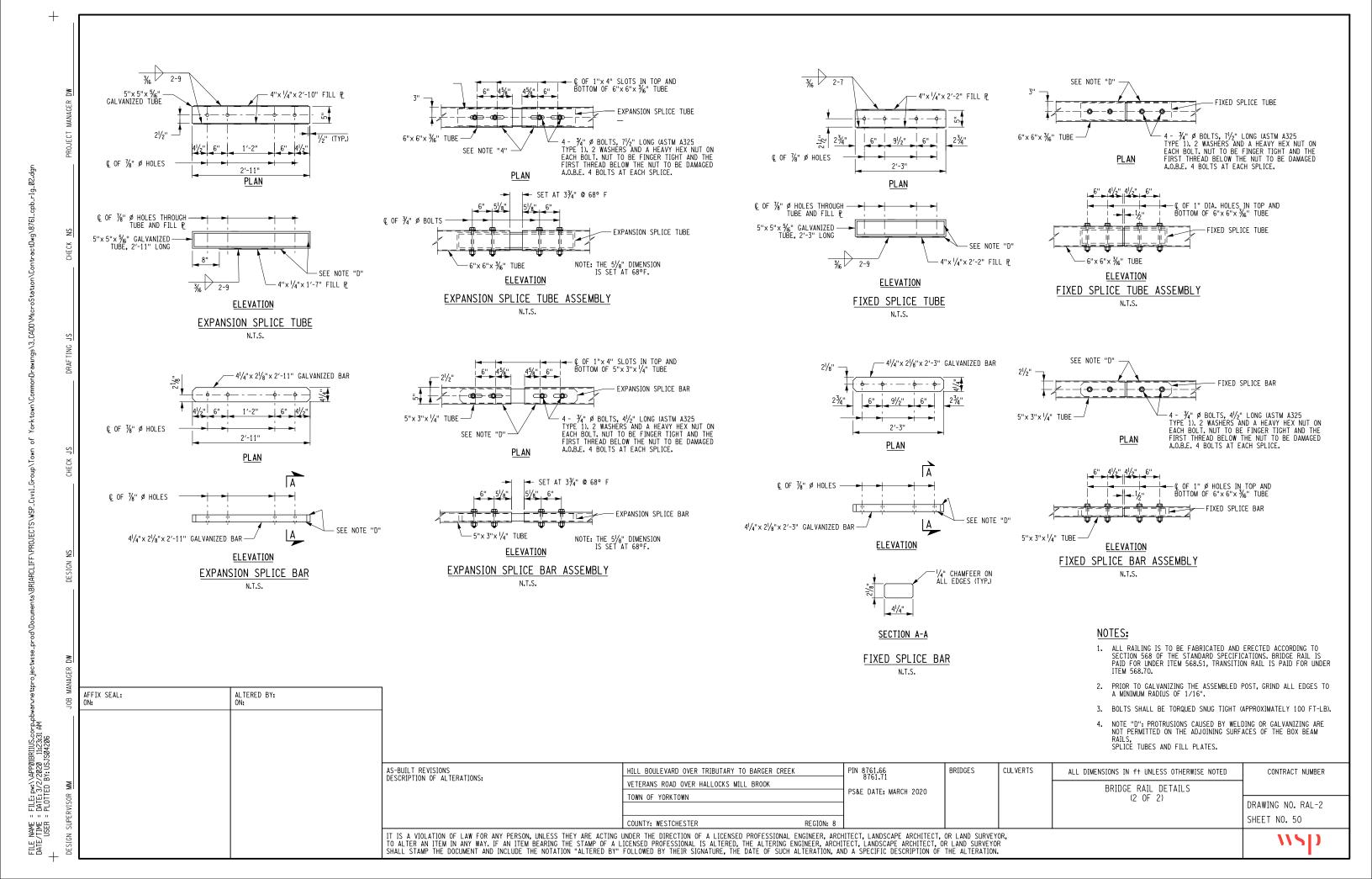
H/H1

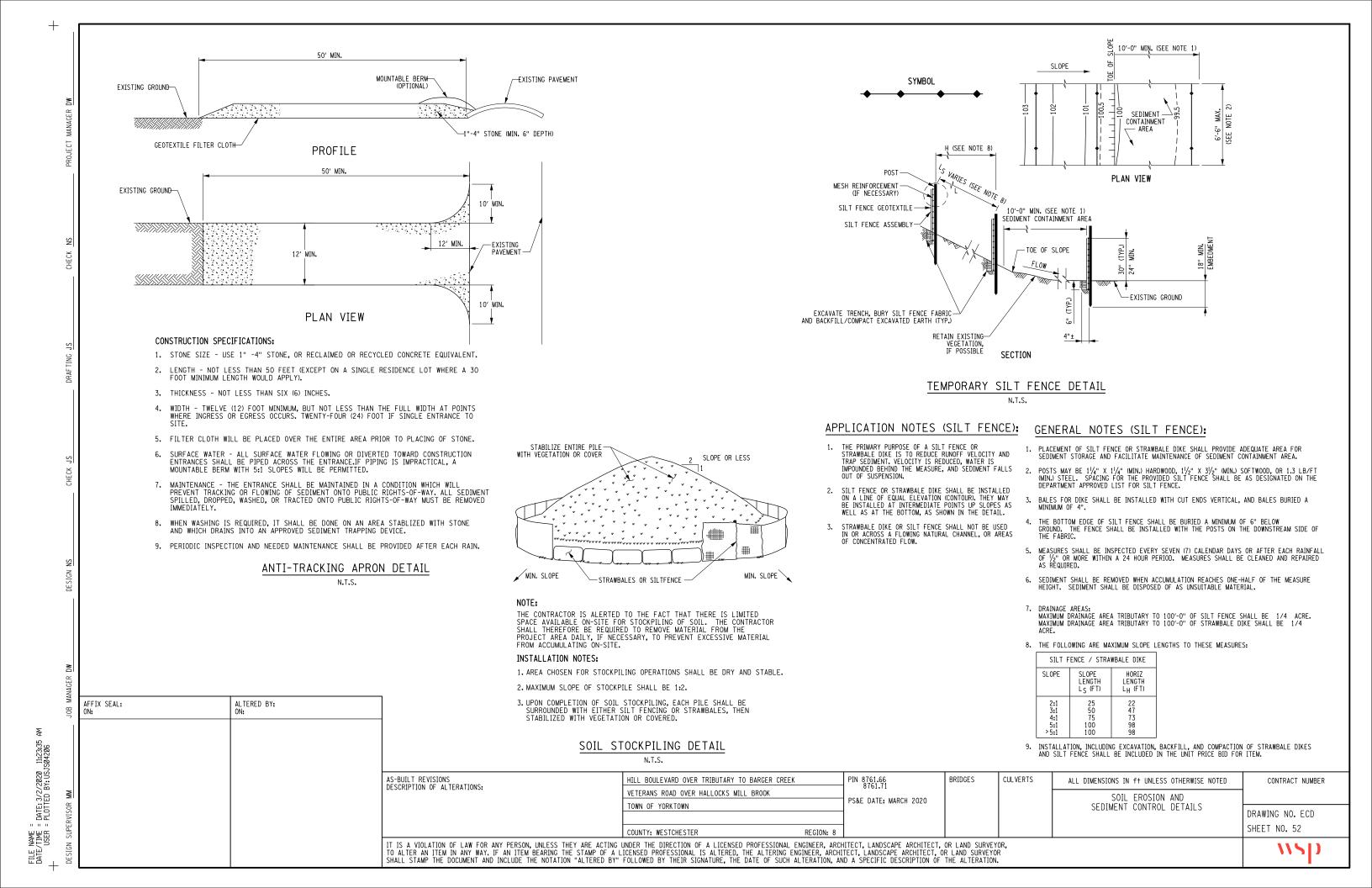
H2

K/K1

K2

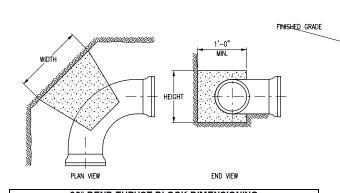
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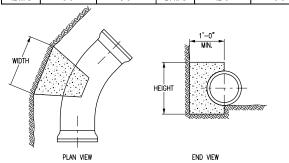




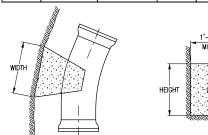
AFFIX SEAL: ON:



	90° BEND THRUST BLOCK DIMENSIONING							
PIPE SIZE	WIDTH (FT-IN)	HEIGHT (FT-IN)	PIPE SIZE	WIDTH (FT-IN)	HEIGHT (FT-IN)			
4 NPS	2'-3"	1'-3"	14 NPS	7'-3"	3'-6"			
6 NPS	3'-3"	1'-9"	16 NPS	8'-3"	4'-0"			
8 NPS	4'-3"	2'-3"	18 NPS	9'-3"	4'-6"			
10 NPS	5'-3"	2'-6"	20 NPS	10'-6"	5'-0"			
12 NPS	6'-0"	3'-3"	24 NPS	12'-6"	6'-0"			



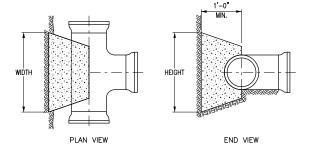
	45° BEND THRUST BLOCK DIMENSIONING						
PIPE SIZE	WIDTH (FT-IN)	HEIGHT (FT-IN)	PIPE SIZE	WIDTH (FT-IN)	HEIGHT (FT-IN		
4 NPS	2'-0"	0'-9"	14 NPS	5'-3"	2'-6"		
6 NPS	2'-6"	1'-3"	16 NPS	5'-6"	3'-3"		
8 NPS	3'-3"	1'-9"	18 NPS	7'-3"	3'-3"		
10 NPS	4'-0"	2'-0"	20 NPS	7'-3"	4'-0"		
12 NPS	4'-6"	2'-3"	24 NPS	8'-9"	4'-6"		



PLAN VIEW

	22½° BEND THRUST BLOCK DIMENSIONING						
PIPE SIZE	WIDTH (FT-IN)	HEIGHT (FT-IN)	PIPE SIZE	WIDTH (FT-IN)	HEIGHT (FT-		
4 NPS	1'-3"	0'-9"	14 NPS	3'-6"	2'-0"		
6 NPS	2'-0"	0'-9"	16 NPS	4'-6"	2'-3"		
8 NPS	2'-3"	1'-3"	18 NPS	5'-0"	2'-6"		
10 NPS	3'-0"	1'-3"	20 NPS	5'-0"	3'-0"		
12 NPS	3'-3"	1'-9"	24 NPS	6'-3"	3'-3"		

END VIEW



EXIST. OR PROP.

2'-0" OR AS DIRECTED

WITH TIE RODS

° NUT WITH ₩ASHER—

CONTINUOUS TIE-ROD AS SHOWN

GATE VALVE INSTALLATION LIMITS

EXISTING OR PROPOSED FINAL GRADE PAVEMENT

-CLAMPS

BOLTS

TYPICAL DETAIL OF CLAMP AND TIE ROD INSTALLATION FOR HYDRANT LEADS

N.T.S.

| PIPE | CLAMPS | RODS | BOLTS | STEEL WASHER |
6" | 1/2" x 2" | 3/4" | 5/8" | 1/2" x 3" |
8" | 5/8" x 2-1/2" | 3/4" | 5/8" | 1/2" x 3" |
10" | 5/8" x 2-1/2" | 7/8" | 3/4" | 1/2" x 3" |
12" | 5/8" x 3" | 1" | 7/8" | 1/2" x 3-1/2" |

, VARIES

-CORPORATION STOP FOR

-corporation stop for service

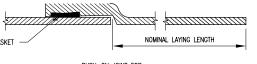
MINIMUM COVER)

-COPPER PIPE SERVICE LINE (4'-6"

TESTING

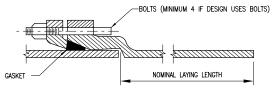
	TEE/DEAD END THRUST BLOCK DIMENSIONING						
PIPE SIZE	WIDTH (FT-IN)	HEIGHT (FT-IN)	PIPE SIZE	WIDTH (FT-IN)	HEIGHT (FT-IN)		
4 NPS	2'-0"	1'-0"	14 NPS	5'-6"	3'-3"		
6 NPS	3'-0"	1'-3"	16 NPS	6'-6"	3'-6"		
8 NPS	3'-3"	2'-0"	18 NPS	7'-6"	4'-0"		
10 NPS	4'-3"	2'-3"	20 NPS	8'-6"	4'-3"		
12 NPS	5'-3"	2'-6"	24 NPS	10'-3"	5'-3"		

NOTE: FOR MECHANICAL JOINT PIPE, TITON AND PVC PIPE TE RODS MUST BE USED IN THE CONJUNCTION WITH THE CONCRETE THRUST BLOCKS FOR HYDRANTS, VALVES ON TEES AND WHEREVER REQUIRED BY ENGINEER.



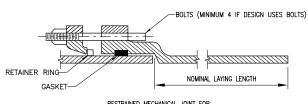
PUSH-ON JOINT FOR DUCTILE IRON PIPE AND FITTINGS

NOTE: WILL VARY WITH SIZE AND MANUFACTURER



MECHANICAL JOINT (NON-RESTRAINED) FOR DUCTILE IRON PIPE AND FITTINGS

NOTE: WILL VARY WITH SIZE AND MANUFACTURER



RESTRAINED MECHANICAL JOINT FOR DUCTILE IRON PIPE AND FITTINGS

NOTE: WILL VARY WITH SIZE AND MANUFACTURER

MECHANICAL JOINT BOLT TORQUE						
NPS SIZE	BOLT SIZE	TORQUE (LBF/FT)				
3	?"	45-60				
4-24	?"	75-90				
30-36	1"	100-120				
42-48	1?"	120-150				

- THRUST RESTRAINT USING THRUST BLOCKS OR RESTRAINED LENGTHS ARE SHOWN ON THESE SHEETS. THRUST BLOCKS, RESTRAINED JOINTS USING TIE RODS, OR RETAINER GLANDS ARE ALL ACCEPTABLE METHODS TO NYSDOT. HOWEVER, THE THRUST RESTRAINT METHOD SELECTED SHALL BE APPROVED BY THE SYSTEM OWNER.
- IF THE OWNER OF THE WATER SYSTEM REQUIRES A METHOD THAT RESTRAINS INDIVIDUAL JOINTS, EACH JOINT THAT FALLS WITHIN THE MINIMUM RESTRAINED LENGTH, MEASURED FROM THE CENTER OF THE FITTING, AS SHOWN ON THESE SHEETS SHALL BE RESTRAINED, AND SHALL WITHSTAND THE MAXIMUM PRESSURE APPLIED TO THE SYSTEM.
- 3. CLASS A CONCRETE SHALL NOT BE PLACED UNDER WATER. THE CONTRACTOR SHALL DEWATER THE EXCAVATION OR PLACE TYPE G CONCRETE USING APPROPRIATE UNDERWATER PLACEMENT TECHNIQUES.
- CONCRETE FOR THRUST BLOCKS SHALL NOT BE ALLOWED TO COVER OR INTERFERE WITH JOINT OR RESTRAINT HARDWARE. PLASTIC SHEETING OR BUILDING FELT MAY BE PLACED OVER PIPE OR FITTINGS TO PREVENT CONCRETE FROM ADHERING TO SURFACES. CONCRETE FOR THRUST BLOCKS SHALL BE POURED AGAINST UNDISTURBED SOIL.
- 5. FOR BENDS, BEARING AREA SHALL BE PARALLEL TO THE EDGE OF THE FITTING AT THE FITTING MIDPOINT.
- 6. FOR TEES, BEARING AREA SHALL BE PERPENDICULAR TO THE BRANCH (SINGLE LEG) AXIS.
- 8. THRUST RESTRAINTS FOR SIZES OVER 24 NPS OR FOR FITTINGS NOT SHOWN ON THESE SHEETS WILL BE DESIGNED ON A CASE BY CASE BASIS, AND WILL BE SHOWN IN THE CONTRACT DOCUMENTS.

9. THRUST BLOCK SIZES AND MINIMUM RESTRAINED LENGTHS SHOWN ON THESE SHEETS ARE BASED UPON THE FOLLOWING STANDARD CONDITIONS:

1.5 - SAFETY FACTOR
5'-0" - DEPTH OF COVER
200 PSI - WATER SYSTEM TEST PRESSURE
14 PSI - SOIL BEARING CAPACITY
90 LB/CF - SOIL UNIT WEIGHT

- 10. FOR INSTALLATIONS NOT MEETING THE CONDITIONS OF NOTE 10, THE CONTRACTOR SHALL SUBMIT CALCULATIONS TO THE ENGINEER FOR APPROVAL OF RESTRAINT LENGTH CHOSEN.
- 11. TO DETERMINE REQUIRED SIZES FOR DIFFERENT CONDITIONS, MULTIPLY THE DIMENSION BY A FACTOR OF THE SPECIFIC VALUE DIVIDED BY THE STANDARD VALUE.

EXAMPLE: FIND THRUST BLOCK DIMENSION FOR 12 NPS 45° BEND WITH 100 PSI TEST PRESSURE:

FROM TABLE "45n BEND THRUST BLOCK DIMENSIONING", AREA REQUIRED AT 200 PSI IS  $^4$ -6" X 2'-3" = 10.125 SF FOR 100 PSI, AREA = 10.125 X (100/200) = 5.05 SF USE WIDTH = 3'-6", HEIGHT = 1'-6" (AREA = 5.25 SF)

12. PAYMENT FOR THRUST BLOCKS SHALL BE INCLUDED UNDER THE APPROPRIATE WATER MAIN FITTING ITEMS 663.2001 AND 663.2002.

MINIMUM RESTRAINED LENGTH OF PIPE (FT-IN) L FITTING 4 NPS 6 NPS 8 NPS 11.25° BEND 1'-3" 2'-0" 2'-6" 22.5° BEND 1'-3" 2'-0" 2'-6" 45° BEND 3'-0" 4'-0" 5'-3" 90° BEND 7'-0" 9'-9" 12'-6" DEAD END 8'-6" 12'-6" 16'-0" NOTE: PVC PIPE WILL TYPICALLY HAVE SLIGHTLY GREATER RESTRAINED LENGTH NOTE: FOR POLYETHYLENE WRAPPED PIPE, MULTIPLY VALUES IN TABLE BY 1.45

