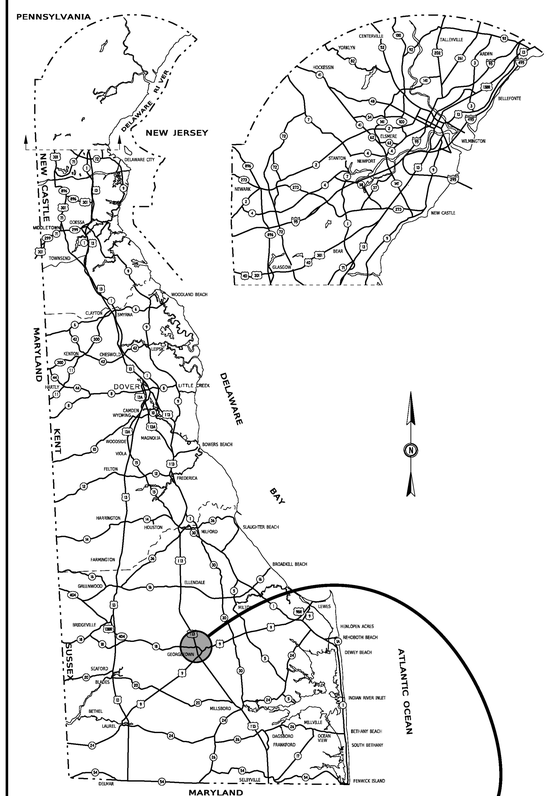


GENERAL LOCATION OF CONTRACT

THE STATE OF DELAWARE
DEPARTMENT OF TRANSPORTATION

U.S. CUSTOMARY UNITS

CONSTRUCTION PLANS FOR:

US 113 AT SR 18 / SR 404
GRADE SEPARATED INTERSECTION

CONTRACT NUMBER: T201412701

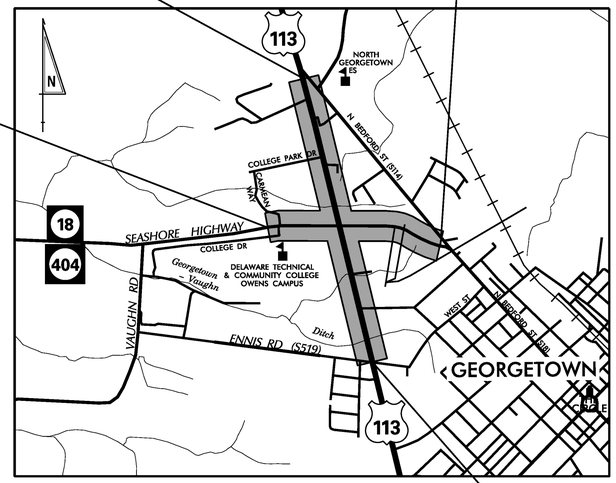
FEDERAL AID PROJECT NUMBER: ESTP-2014(05)

COUNTY: SUSSEX M.R. #: 113/18/404

END CONTRACT STATION 456+91 NB

LIMIT OF CONTRACT STATION 546+50

LIMIT OF CONTRACT STATION 578+75



LOCATION MAP
SCALE: NONE

BEGIN CONTRACT STATION 408+91 NB

DESIGN DESIGNATION

MRD #: S113	ROAD NAME: US 113 (DUPONT BOULEVARD)		
FUNCTIONAL CLASS: PRINCIPAL ARTERIAL		D.H.V. PROJECTED: 3,955	YEAR: 2040
TYPE OF CONSTRUCTION: RECONSTRUCTION		DESIGN SPEED: 55 M.P.H.	
A.A.D.T. CURRENT: 28,443	YEAR: 2017	TRUCKS: 5 %	
A.A.D.T. PROJECTED: 35,127	YEAR: 2040	DIRECTION OF DISTRIBUTION: 50 %	
MRD #: S18 / S404	ROAD NAME: SR 18 / SR 404 (SEASHORE HIGHWAY / BRIDGEVILLE ROAD)		
FUNCTIONAL CLASS: PRINCIPAL ARTERIAL		D.H.V. PROJECTED: 2,349	YEAR: 2040
TYPE OF CONSTRUCTION: RECONSTRUCTION		DESIGN SPEED: 40 M.P.H.	
A.A.D.T. CURRENT: 16,259	YEAR: 2017	TRUCKS: 3 %	
A.A.D.T. PROJECTED: 20,080	YEAR: 2040	DIRECTION OF DISTRIBUTION: 50 %	
ROAD NAME: US 113 NB RAMP A			
FUNCTIONAL CLASS: ARTERIAL RAMP		D.H.V. PROJECTED: 1,050	YEAR: 2040
TYPE OF CONSTRUCTION: NEW		DESIGN SPEED: 30 M.P.H.	
A.A.D.T. CURRENT: N/A	YEAR: N/A	TRUCKS: 1%	
A.A.D.T. PROJECTED: 9,325	YEAR: 2040	DIRECTION OF DISTRIBUTION: NA	
ROAD NAME: US 113 NB RAMP B			
FUNCTIONAL CLASS: ARTERIAL RAMP		D.H.V. PROJECTED: 61	YEAR: 2040
TYPE OF CONSTRUCTION: NEW		DESIGN SPEED: 30 M.P.H	
A.A.D.T. CURRENT: N/A	YEAR: N/A	TRUCKS: 1%	
A.A.D.T. PROJECTED: 521	YEAR: 2040	DIRECTION OF DISTRIBUTION: NA	
ROAD NAME: US 113 SB RAMP C			
FUNCTIONAL CLASS: ARTERIAL RAMP		D.H.V. PROJECTED: 188	YEAR: 2040
TYPE OF CONSTRUCTION: NEW		DESIGN SPEED: 30 M.P.H.	
A.A.D.T. CURRENT: N/A	YEAR: N/A	TRUCKS: 1%	
A.A.D.T. PROJECTED: 1,607	YEAR: 2040	DIRECTION OF DISTRIBUTION: NA	
ROAD NAME: US 113 SB RAMP D			
FUNCTIONAL CLASS: ARTERIAL RAMP		D.H.V. PROJECTED: 766	YEAR: 2040
TYPE OF CONSTRUCTION: NEW		DESIGN SPEED: 30 M.P.H	
A.A.D.T. CURRENT: N/A	YEAR: N/A	TRUCKS: 1%	
A.A.D.T. PROJECTED: 6,803	YEAR: 2040	DIRECTION OF DISTRIBUTION: NA	

APPROVED DESIGN EXCEPTIONS

DESIGN PARAMETER	REQUIRED	PROVIDED	DATE

ADDENDA / REVISIONS

ASSOCIATED CONTRACTS

CONTRACT NO.	CONTRACT NAME
51	SR 18 BEDFORD STREET GEORGETOWN, US 113 TO MARKET STREET
173	US 113 DUPONT BOULEVARD, GEORGETOWN TO MILFORD
191	NORTH BEDFORD STREET GEORGETOWN, US 113 TO US 9 TR
857	US 113, GEORGETOWN TO ELLENDALE
1693	SR 18, MARYLAND STATE LINE TO BRIDGEVILLE
64-010-35	SR 18, GEORGETOWN TO COKESBURY CHURCH (SUSSEX 529)
65-070-12	US 113, ROAD 432 TO GEORGETOWN
76-010-06	US 113, GEORGETOWN TO MILFORD (15 LOCATIONS)
88-013-01	US 113, SR 18 TO S579
90-063-04	US 113, GEORGETOWN, S321 TO SR 404
20-013-05	SR 18 SIDEWALKS, DEL TECH TO GEORGETOWN
T201400901	HEP SC, US 113 @ SR 404/SR18 INTERSECTION IMPROVEMENTS

PREPARED BY

WRA Whitman, Requardt and Associates, LLP
Engineers • Architects • Environmental Planners Est. 1915

08/30/2024
DATE

THIS SEAL APPLIES TO ALL SHEETS BEARING THE "WRA" SECTION DESIGNATION.

TODD A. OLIVER REGISTERED No. 12426 DELAWARE PROFESSIONAL ENGINEER
SEAL

APPROVED FOR ADVERTISEMENT

09/06/2024
DIRECTOR OF TRANSPORTATION SOLUTIONS DATE

LAST REVISED: 11/26/2018
8/30/2024
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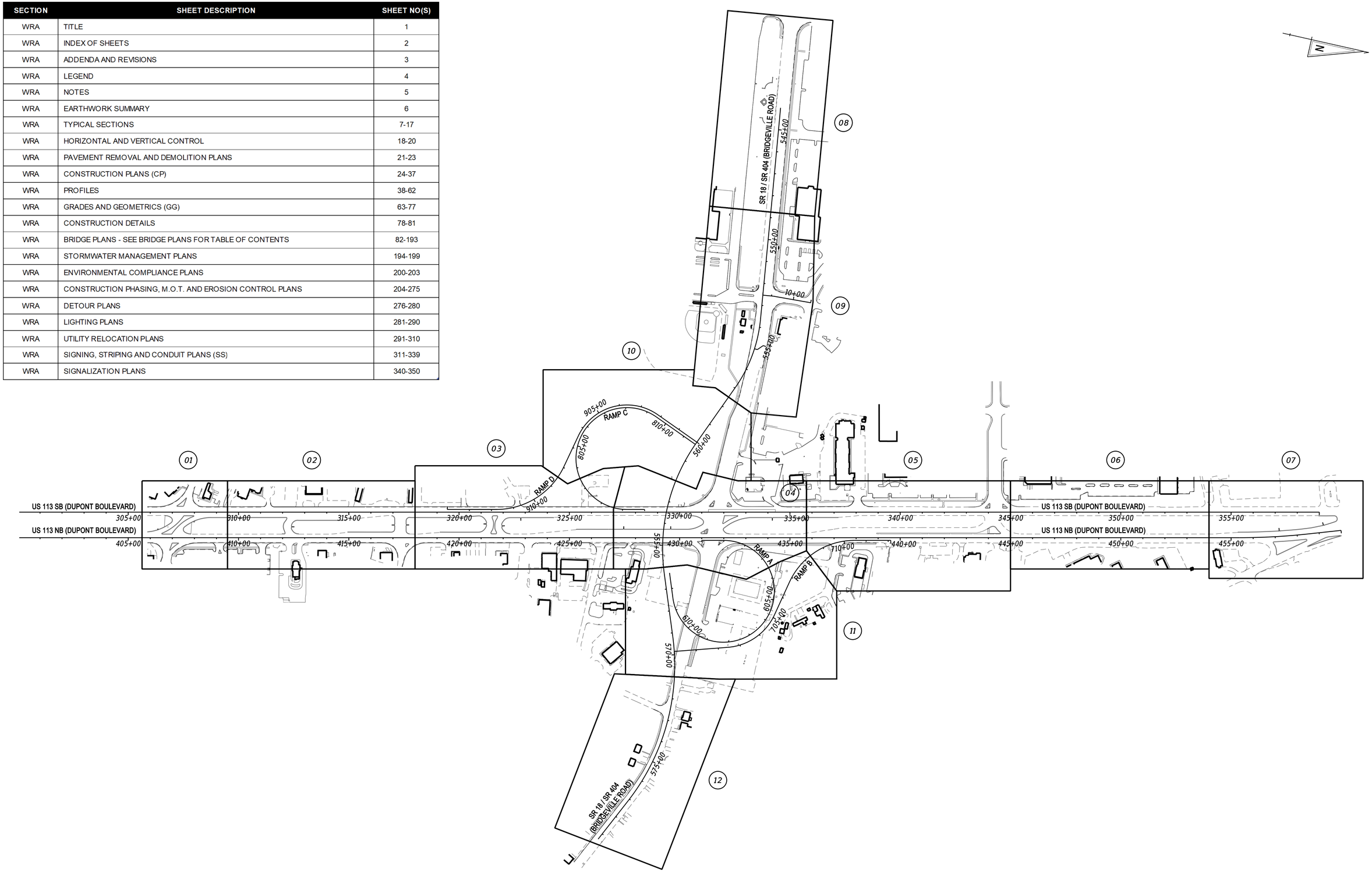
SECTION	SHEET DESCRIPTION	SHEET NO(S)
WRA	TITLE	1
WRA	INDEX OF SHEETS	2
WRA	ADDENDA AND REVISIONS	3
WRA	LEGEND	4
WRA	NOTES	5
WRA	EARTHWORK SUMMARY	6
WRA	TYPICAL SECTIONS	7-17
WRA	HORIZONTAL AND VERTICAL CONTROL	18-20
WRA	PAVEMENT REMOVAL AND DEMOLITION PLANS	21-23
WRA	CONSTRUCTION PLANS (CP)	24-37
WRA	PROFILES	38-62
WRA	GRADES AND GEOMETRICS (GG)	63-77
WRA	CONSTRUCTION DETAILS	78-81
WRA	BRIDGE PLANS - SEE BRIDGE PLANS FOR TABLE OF CONTENTS	82-193
WRA	STORMWATER MANAGEMENT PLANS	194-199
WRA	ENVIRONMENTAL COMPLIANCE PLANS	200-203
WRA	CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLANS	204-275
WRA	DETOUR PLANS	276-280
WRA	LIGHTING PLANS	281-290
WRA	UTILITY RELOCATION PLANS	291-310
WRA	SIGNING, STRIPING AND CONDUIT PLANS (SS)	311-339
WRA	SIGNALIZATION PLANS	340-350



ADDENDA / REVISIONS		SCALE 0 200 400 600 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. N/A	INDEX OF SHEETS	SECTION WRA
				COUNTY SUSSEX	DESIGNED BY: S. BEALL		SHEET NO. 2
					CHECKED BY: T. OLIVER		

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ADDENDUM PREPARED BY

Whitman, Requardt and Associates, LLP
Engineers • Architects • Environmental Planners Est. 1915

THIS SEAL APPLIES TO THE FOLLOWING SHEETS CHANGED UNDER ADDENDUM #X:
XX, XX-XX, XX

DATE

SEAL

REVISION PREPARED BY

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THIS SEAL APPLIES TO THE FOLLOWING SHEETS CHANGED UNDER REVISION #X:
XX, XX-XX, XX

DATE

SEAL

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ADDENDA / REVISIONS		NOT TO SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	ADDENDA AND REVISIONS	SECTION
				T201412701	DESIGNED BY: S. BEALL		WRA
				COUNTY	CHECKED BY: T. OLIVER		SHEET NO.
				SUSSEX			3

MANMADE ROADSIDE FEATURES

FEATURE DESCRIPTION	EXISTING	PROPOSED	ID
BOLLARD - STEEL POLE	◎		
BOLLARD - WOOD POST	⊠		
CURB, TYPE 1 AND TYPE 3	CURB, TYPE "X"		
CURB, TYPE 2			
CURB & GUTTER, TYPE 1			C XXX
CURB & GUTTER, TYPE 2	C&G, TYPE "X"		
CURB & GUTTER, TYPE 3			
CURB OPENING - SUMP / ON GRADE			C O
CURB OPENING WITH SIDEWALK			CO SW
FENCE - CHAINLINK OR STRANDED			F XXX
FENCE - STOCKADE OR SPLIT RAIL			
FLAG POLE	F.P.		
GUARDRAIL - STEEL BEAM, TYPE 1			
GUARDRAIL - STEEL BEAM, TYPE 2			
GUARDRAIL - STEEL BEAM, TYPE 3			
GUARDRAIL - WIRE ROPE			
GUARDRAIL - END ANCHORAGE			GR XXX
GUARDRAIL - END TREATMENT, TYPE 1			
GUARDRAIL - END TREATMENT, TYPE 2			
GUARDRAIL - END TREATMENT, TYPE 3			
GUARDRAIL - IMPACT ATTENUATOR			
LAMP AND POST - RESIDENTIAL	LAMP ◎		
MAILBOX	MB □	MB	
PARKING METER AND POST	P.M. ⊕		
PAVEMENT - FLEXIBLE			
PAVEMENT - RIGID			
PILE - BRIDGE	□		
PILLAR OR MISCELLANEOUS POST	○		
TRAFFIC SIGN AND POST	▽		
WALL - BRICK OR BLOCK			
WALL - STONE			

DRAINAGE FEATURES

FEATURE DESCRIPTION	EXISTING	PROPOSED	ID
BIOFILTRATION SWALE		BFS	
DITCH OR STREAM CENTERLINE			
DIRECTIONAL STREAM FLOW ARROW			
DRAINAGE INLET	C.B. □ / D.I. □	■	DI XXX
DRAINAGE JUNCTION BOX	J.B. □	■	JB XXX
DRAINAGE MANHOLE	Ⓓ	●	MH XXX
DRAINAGE PIPE AND FLOW ARROW	SIZE/TYPE LABEL		P XXX
DRAINAGE PIPE HEADWALL			
FLARED END SECTION			FES XXX
RIPRAP - AREA FEATURE			RR XXX
RIPRAP - LINEAR FEATURE			
SAFETY END SECTION			SES XXX
UNDERDRAIN			UD XXX
UNDERDRAIN OUTLET			UDO XXX

UTILITY FEATURES

FEATURE DESCRIPTION	EXISTING	PROPOSED
CABLE TV DISTRIBUTION BOX	TV	
CABLE TV - COMCAST - UNDERGROUND	COM-C (A)	COM-C
COMMUNICATIONS - CONRAIL - UNDERGROUND	CON-C (A)	
ELECTRIC - DELAWARE ELECTRIC COOPERATIVE	DEC-E (A)	DEC-E
ELECTRIC - DELMARVA POWER		DP-E
ELECTRIC MANHOLE	Ⓔ	
ELECTRIC METER	EM	
ELECTRIC TRANSFORMER	E	E
GAS - CHESAPEAKE UTILITY - GAS	CU-G (A)	CU-G
GAS MANHOLE	Ⓖ	
GAS METER	G.M. □	
GAS VALVE	G.V. ○	
GAS PUMP - SERVICE STATION	G.P. □	
IRRIGATION - UNDERGROUND	IR(A)	IR
ITMS - UNDERGROUND	ITMS(A)	ITMS
LIGHTING - UNDERGROUND	LI(A)	LI
LUMINAIRE - POLE MOUNTED		
MANHOLE - UNDETERMINED OWNER	?	
RAILROAD TRACKS		
SANITARY - TOWN OF GEORGETOWN	TG-S (A)	TG-S
SANITARY SEWER MANHOLE	Ⓢ	
SANITARY SEWER VALVE	S.V. ○	
SANITARY SEWER CLEANOUT OR VENT	S.C.O. ○	
SEPTIC DRAIN FIELD	S.D.F.	
SIGNALIZATION - UNDERGROUND	SIG(A)	SIG
SIGNALIZATION - UNDERGROUND - DELDOT	EX-CON (A)	
SOIL BORING LOCATION		
TELEPHONE BOOTH	B	
TELEPHONE MANHOLE	Ⓣ	
TELEPHONE - VERIZON	VER-C (A)	VER-C
TELEPHONE - VERIZON - FIBER OPTIC	VER-FO (A)	
TELEPHONE TEST POINT	T	
TRAFFIC - CONDUIT JUNCTION WELL	J.W. □	
TRAFFIC - LIGHT POLE AND BASE	◎	
TRAFFIC - PEDESTRIAN POLE & BASE		
TRAFFIC - SIGNAL CABINET & BASE		
TRAFFIC - SIGNAL POLE AND BASE	⊗	⊙
UTILITY BOX	U	
UTILITY POLE GUY WIRE ANCHOR		
UTILITY POLE		
UTILITY TEST HOLE LOCATION		
WATER - TOWN OF GEORGETOWN	TG-W (A)	TG-W
WATER - FIRE HYDRANT	F.H. ⊕	F.H.
WATER METER	W.M. □	
WATER VALVE	W.V. ○	W.V.
WELL HEAD	WELL ○	

NATURAL ROADSIDE FEATURES

FEATURE DESCRIPTION	EXISTING	PROPOSED
HEDGEROW OR THICKET		
MARSH BOUNDARY LINE		
TREE - CONIFEROUS		
TREE - DECIDUOUS		
TREE STUMP		
SHRUBBERY		
WETLAND BOUNDARY - DELINEATED	WL	
WOODS LINE BOUNDARY		

RIGHT-OF-WAY FEATURES

FEATURE DESCRIPTION	EXISTING	PROPOSED
DENIAL OF ACCESS	DA	DA
EASEMENT - OTHERS	EASEMENT TYPE	
PERMANENT EASEMENT	PE	PE
PROPERTY LINE		
PROPERTY MARKER - CONCRETE	C.M. □	■
PROPERTY MARKER - IRON PIPE	I.P. ○	
RIGHT-OF-WAY BASELINE	100+00	100+00
RIGHT-OF-WAY LINE	R/W	R/W
RIGHT-OF-WAY BY PE	R/W-PE	
RIGHT-OF-WAY & DENIAL OF ACCESS	R/W-DA	R/W-DA
RIGHT-TO-ENTER		RTE
TEMPORARY CONSTRUCTION EASEMENT		TCE

SURVEY CONTROL & MONUMENTATION

FEATURE DESCRIPTION	EXISTING
POINT OF CURVATURE OR TANGENCY	⊙
POINT OF INTERSECTING TANGENTS	◎
SURVEY BENCHMARK LOCATION	B.M. ⊕
SURVEY NGS POINT LOCATION	△
SURVEY TIE POINT LOCATION	T.P. ⊕
SURVEY TRAVERSE POINT	△

PAVEMENT SECTION(S)

OVERLAY PAVEMENT - SEE TYPICAL SECTIONS FOR MATERIALS AND DEPTHS	
RECONSTRUCTED PAVEMENT - SEE TYPICAL SECTIONS FOR MATERIALS AND DEPTHS	
DRIVEWAY AND ENTRANCE PAVEMENT - SEE NOTES FOR MATERIALS AND DEPTHS	

IDENTIFIERS

FEATURE DESCRIPTION	ID
ABANDON BY CONTRACTOR	AB C
ABANDON BY OTHERS	AB O
ADJUST BY CONTRACTOR	A C
ADJUST BY OTHERS	A O
BEST MANAGEMENT PRACTICE	BMP XXXX
BUS STOP PAD / TYPE	BSP X
BUS STOP WITH SHELTER PAD / TYPE	BSSP X
CONCRETE SAFETY BARRIER	B XXX
CONVERT TO JUNCTION BOX	C/JB XXX
CONVERT TO DRAINAGE MANHOLE	CMH XXX
DO NOT DISTURB	DND
ENERGY DISSIPATOR	ED XXX
FILL WITH FLOWABLE FILL	FF C
LANDSCAPE PLANTINGS	LS XXX
PEDESTRIAN CONNECTION / TYPE	PC YX
PEDESTRIAN CONNECTION / TYPE WITHOUT DETECTABLE WARNING SYSTEM	PC-N YXX
RELOCATE BY CONTRACTOR	RL C
RELOCATE BY OTHERS	RL O
RELOCATE BY PROPERTY OWNER	RL PO
REMOVE BY CONTRACTOR	RM C
REMOVE BY OTHERS	RM O
REMOVE BY TRAFFIC CONTRACTOR	RM TC
RIGHT-OF-WAY MONUMENT	R YXX

MISCELLANEOUS FEATURES

FEATURE DESCRIPTION	PROPOSED
BARRIER, DOUBLE-FACED, PERMANENT	
BARRIER, SINGLE-FACED, PERMANENT, TEST LEVEL 4 / TEST LEVEL 5	
BARRIER - HIGH TENSION CABLE (HTCB)	
BARRIER - HTCB END TERMINAL	
BRICK PATTERNED SURFACE	
BUTT JOINT	
CLEAR ZONE	CZ
CONSTRUCTION BASELINE	100+00
LATERAL OFFSET	LO
LIMIT OF CONSTRUCTION	LOC
PAVEMENT PATCH	
PAVEMENT REMOVAL - TOPSOIL, SEED AND MULCH	
P.C.C. SIDEWALK - 4"	
P.C.C. SIDEWALK - 6" (USE 8" DEPTH FOR CHANNELIZATION ISLANDS.)	
PROPOSED MSE WALL (HEIGHT VARIES)	
TURF REINFORCEMENT MAT, TYPE 1	
HEADWALL	HW XXX
CELLULAR CONFINEMENT SHOULDER PROTECTION	

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ADDENDA / REVISIONS		NOT TO SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. N/A	LEGEND	SECTION WRA
				COUNTY SUSSEX	DESIGNED BY: S. BEALL		SHEET NO. 4
					CHECKED BY: T. OLIVER		

GENERAL NOTES

1. THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE DELAWARE DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS", DATED JANUARY 2024 AND THE DELAWARE DEPARTMENT OF TRANSPORTATION "STANDARD CONSTRUCTION DETAILS", DATED 2024, INCLUDING ALL REVISIONS UP TO THE DATE OF ADVERTISEMENT.

2. ELECTRONIC DESIGN DATA FILES THAT WILL BE MADE AVAILABLE TO THE AWARDED CONTRACTOR, INCLUDE:

( )	NONE
(X)	ASCII DATA FILES WITH COORDINATES AND ELEVATIONS FOR PROPOSED POINTS AS SELECTED BY THE ENGINEER.
(X)	EXISTING DIGITAL TERRAIN MODEL, IN .DTM FILE FORMAT, COMPATIBLE WITH SOFTWARE CURRENTLY USED BY DELDOT.
(X)	PROPOSED DIGITAL TERRAIN MODEL, IN .DTM FILE FORMAT, COMPATIBLE WITH SOFTWARE CURRENTLY USED BY DELDOT.
(X)	DESIGN FILE, IN .DGN FILE FORMAT, THAT CONTAINS 3D FEATURE LINES FOR THE PROPOSED DESIGN. 3D FEATURE LINES ARE FOR THE PROPOSED TOP SURFACE ELEVATION ONLY.

NOTE: THE DOCUMENT ENTITLED "RELEASE FOR DELIVERY OF DOCUMENTS IN ELECTRONIC FORM TO A CONTRACTOR" MUST BE SIGNED BY ALL PARTIES PRIOR TO THE DELIVERY OF ANY ELECTRONIC PROJECT FILES.

NOTE: THERE MAY BE SOME AREAS OF THE PROJECT NOT INCLUDED IN THE ELECTRONIC DESIGN DATA FILE(S). IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW THE DESIGN DATA FILE AND DETERMINE THE LIMITS OF THE PROJECT INCLUDED.

3. PROJECT FILES THAT WILL BE MADE AVAILABLE TO THE CONTRACTOR, INCLUDE:

(X)	CROSS SECTIONS
(X)	RIGHT-OF-WAY PLANS (WILL BE MADE AVAILABLE TO THE AWARDED CONTRACTOR)

PROJECT NOTES

SECTION 100

1. ANY DAMAGE TO ITEMS NOTED TO BE RELOCATED OR RESET BY THE CONTRACTOR, AT THE DISCRETION OF THE ENGINEER, SHALL BE REPAIRED AND/OR REPLACED IN KIND AT THE CONTRACTOR'S EXPENSE.

2. THE CONTRACTOR WILL CONTACT THE DELAWARE TMC AT 302-659-4600 PRIOR TO ANY UNMANNED AIRCRAFT VEHICLE (UAV) FLIGHTS. THE CONTRACTOR WILL BE REQUIRED TO PROVIDE THE FOLLOWING INFORMATION: THE REGISTRATION NUMBER OF THE UAV, THE FLIGHT TIME, LOCATION OF THE FLIGHT, THE PILOT'S NAME AND THE PILOT'S CONTACT NUMBER DURING THE FLIGHT.

3. A NIGHT WORK SURVEY OF ADJACENT PROPERTY OWNERS WAS CONDUCTED AND LOCAL NOISE ORDINANCES HAVE BEEN VERIFIED. NIGHT WORK IS PERMITTED ON THIS CONTRACT.

SECTION 200

1. NO SOIL CAN BE TAKEN OFF SITE WITHOUT APPROVAL OF THE ENGINEER. CONTAMINATED SOIL DISPOSAL WILL BE HANDLED BY THE DEPARTMENT'S ENVIRONMENTAL REPRESENTATIVE. ALL SOIL EXCAVATED DUE TO THE PROJECT'S CONSTRUCTION SHALL BE STOCKPILED IN THE DESIGNATED STOCKPILE AREAS, REUSED AS BACKFILL MATERIAL, OR DIRECT LOADED INTO THE ENVIRONMENTAL REPRESENTATIVE'S TRUCKS, AS DIRECTED IN ACCORDANCE WITH THE CONTAMINATED MATERIALS MANAGEMENT PLAN (CMMP) AND DELDOT STANDARD MATERIAL SPECIFICATIONS. SOIL THAT IS ENVIRONMENTALLY SUITABLE FOR REUSE WILL BE PAID FOR UNDER THE APPROPRIATE ITEM. THE CONTRACTOR SHALL REUSE CONTAMINATED SOIL AS EMBANKMENT, FILL OR OTHER APPROPRIATE ON-SITE USE AS DETERMINED AND APPROVED BY THE ENGINEER AND THE ENVIRONMENTAL REPRESENTATIVE, AND IN ACCORDANCE WITH THE CONTRACT. THE CONTRACTOR IS RESPONSIBLE TO IDENTIFY A STAGING AREA LOCATED WITHIN THE LIMITS OF CONSTRUCTION FOR PLACEMENT OF THE SOIL PENDING SAMPLING ANALYSIS AND OFFSITE REMOVAL.

5. ITEMS TO BE REMOVED UNDER ITEM 211000 - REMOVAL OF STRUCTURES AND OBSTRUCTIONS SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:
   a. CONCRETE SUPPORT FOUNDATIONS FOR MISCELLANEOUS SMALL STRUCTURES NOT COVERED UNDER OTHER PAY ITEMS
   b. SIGNAL, LIGHTING, AND PEDESTRIAN POLE BASES AND CABINET FOUNDATIONS
   c. HANDRAILS
   d. PRIVATE LIGHT POLES
   e. UTILITY POLES
   f. WELLS
   g. CONCRETE BUILDING FOUNDATIONS

6. UNLESS OTHERWISE NOTED AS DO NOT DISTURB OR ADJUST BY CONTRACTOR/OTHERS, ALL EXISTING FEATURES, INCLUDING TREES, SHRUBS, AND STORM SEWER WITHIN THE PROPOSED LOC SHALL BE REMOVED BY THE CONTRACTOR AND PAID FOR UNDER THE RESPECTIVE BID ITEM. REMOVAL OF EXISTING STORM SEWER SHALL BE PAID FOR UNDER ITEM 202000, REMOVAL OF TREES AND SHRUBS SHALL BE PAID FOR UNDER 201000, REMOVAL OF ADDITIONAL EXISTING FEATURES SHALL BE PAID FOR UNDER ITEM 211000, AS NOTED ABOVE.

7. EXISTING SANITARY OR WATER SERVICE VALVES AND PIPE CONNECTIONS ASSOCIATED WITH PROPERTY ACQUISITIONS THAT HAVE BEEN DEMOLISHED OR ABANDONED SHALL BE REMOVED BY THE CONTRACTOR UNDER ITEM 211000.

8. ALL PAVED OR RIGID SURFACES OUTSIDE THE LIMITS OF THE PROPOSED ROADWAY IN PRIOR DEMOLISHED AREAS ON THE FOLLOWING PARCELS SHALL BE REMOVED BY THE CONTRACTOR. EXISTING CONCRETE ELEMENTS, INCLUDING CURB, SIDEWALK, AND ABANDONED UTILITY FEATURES ON THESE PARCELS WILL BE PAID FOR UNDER ITEM 211001 - REMOVAL OF PORTLAND CEMENT CONCRETE PAVEMENT, CURB AND SIDEWALK. BUILDING FOUNDATIONS WILL BE PAID FOR UNDER ITEM 211000 - REMOVAL OF STRUCTURES AND OBSTRUCTIONS. BITUMINOUS ELEMENTS, INCLUDING PARKING LOTS AND DRIVEWAYS WILL BE PAID FOR UNDER ITEM 202000 EXCAVATION AND EMBANKMENT. THE CONTRACTOR SHALL BACKFILL AREAS OF EXCAVATION, TOPSOIL, AND SEED TO STABILIZE AND ENSURE POSITIVE DRAINAGE. PARCELS: 4, 5, 6, 8, 25. 26, 27, 28, 29, 30, 32, 40, 41, 42, 43, 44, 45, 46, 47. OF THESE PARCELS, THE FOLLOWING WITH SLAB BUILDING FOUNDATIONS ARE PAID FOR UNDER ITEM 211000:

PARCEL 6 (4,774 SY) PARCEL 29 (668 SY)
PARCEL 8 (604 SY) PARCEL 30 (357 SY)
PARCEL 25 (1,567 SY) PARCEL 32 (327 SY)
PARCEL 26 (556 SY) PARCEL 42 (1,709 SY)
PARCEL 28 (372 SY) PARCEL 43 (688 SY)

SECTION 400

9. THE PAVEMENT SECTION FOR FLEXIBLE PAVEMENT RESIDENTIAL DRIVEWAYS SHALL BE 2" BITUMINOUS CONCRETE, TYPE 'C' (ITEM 401005) OVER 8" GABC (ITEM 301001), UNLESS OTHERWISE NOTED ON THE PLANS OR AS DETERMINED BY ENGINEER IN THE FIELD AS NEEDED TO MATCH EXISTING.

10. THE PAVEMENT SECTION FOR FLEXIBLE PAVEMENT COMMERCIAL DRIVEWAYS SHALL BE AS NOTED BELOW, UNLESS OTHERWISE SHOWN ON THE PLANS OR AS DETERMINED BY ENGINEER IN THE FIELD AS NEEDED TO MATCH EXISTING. COMMERCIAL DRIVEWAY LOCATIONS INCLUDE ALL EXISTING DRIVEWAYS ALONG US 113 AND THOSE NOTED ALONG SR 18/SR 404 ON THE CP SHEETS.
    2" BITUMINOUS CONCRETE, TYPE 'C' (ITEM 401005)
    3" BITUMINOUS CONCRETE, TYPE 'B' (ITEM 401014)
    8" GRADED AGGREGATE BASE COURSE (ITEM 301001)

SECTION 600

11. DRAINAGE INLET GRATES ADJACENT TO THE CURB OR EDGE PAVING, WITHIN THE PROJECT LIMITS, WHICH ARE NOT TYPE 1 OR TYPE 4, SHALL BE REPLACED WITH TYPE 1. INLET GRATES WITHIN THE PAVING, NOT ADJACENT TO THE CURB OR EDGE OF PAVING SHALL BE REPLACED WITH TYPE 3. THE ACTUAL LOCATIONS, THE NEED FOR ANY GRATE MODIFICATIONS OR FOR NEW FRAMES SHALL BE DETERMINED BY THE ENGINEER. ALL REPLACED GRATES/FRAMES SHALL BE DELIVERED TO THE DELAWARE DEPARTMENT OF TRANSPORTATION'S SOUTH DISTRICT MAINTENANCE YARD WITH THE COST OF DELIVERY INCIDENTAL TO ITEM 602100 - DRAINAGE INLET GRATE(S) & ITEM 602101 - DRAINAGE INLET FRAME(S). FINAL PAYMENT FOR DRAINAGE INLET GRATES/FRAMES SHALL NOT BE MADE UNTIL RECEIPT OF DELIVERED MATERIALS IS PRODUCED, SIGNED BY A DELDOT MAINTENANCE YARD SUPERVISOR.

12. STATION AND ELEVATION DATA GIVEN FOR DRAINAGE STRUCTURES ARE TO BE APPLIED TO THE CENTER OF THE GRATE FOR INLETS AND TO THE CENTER OF THE STRUCTURE FOR JUNCTION BOXES AND MANHOLES.

SECTION 700

13. IN AREAS WHERE PROPOSED CURB MEETS EXISTING CURB AND THE TWO CURB TYPES ARE NOT SIMILAR, THE PROPOSED CURB SHALL BE TRANSITIONED IN 10 LINEAR FEET, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. PAYMENT FOR THIS WORK, INCLUDING SAW CUTTING EXISTING CURB SHALL BE INCIDENTAL TO THE PROPOSED CURB ITEM.

14. WHERE PROPOSED CONCRETE SIDEWALK IS CONSTRUCTED TO MEET EXISTING SIDEWALK, THE EXISTING SIDEWALK SHALL BE SAWCUT AT THE TIE-IN POINT OR MEET THE NEAREST EXISTING SIDEWALK JOINT. ALL SAW CUTTING SHALL BE FULL DEPTH, UNLESS OTHERWISE NOTED ON THE PLANS OR DIRECTED BY THE ENGINEER AND SHALL BE PAID FOR UNDER ITEM 762001 - SAWCUTTING, CONCRETE, FULL DEPTH.

15. PORTLAND CEMENT CONCRETE CHANNELIZING ISLANDS THAT ARE LESS THAN 75 SQ FT MAY BE POURED MONOLITHICALLY, OR AS DIRECTED BY THE ENGINEER.

16. ALL PAVED AREAS TO BE RECONSTRUCTED OR WIDENED SHALL BE SAWCUT AT THE POINT WHERE THE NEW PAVEMENT IS TO TIE INTO THE EXISTING PAVEMENT.

17. THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER TO DETERMINE ADJUSTMENTS TO GUARDRAIL POST SPACING IN ORDER TO AVOID CONFLICTS WITH EXISTING UNDERGROUND UTILITIES.

SECTION 900

18. THIS PROJECT IS COVERED UNDER AN NPDES GENERAL PERMIT FOR CONSTRUCTION. UNDER THE GENERAL PERMIT, COMPLIANCE WITH DELDOT'S APPROVED SEDIMENT AND STORMWATER MANAGEMENT PLANS WILL CONSTITUTE COMPLIANCE WITH THE NPDES INDUSTRIAL PERMITTING REQUIREMENTS FOR THIS CONSTRUCTION PROJECT. A COPY OF THE NPDES GENERAL PERMIT AND NOI IS KEPT ON FILE IN EACH OF THE CONSTRUCTION OFFICES AND THE DEPARTMENT'S STORMWATER SECTION. A COPY OF THE GENERAL PERMIT OR THE NOI CAN BE OBTAINED UPON REQUEST FROM EITHER THE DEPARTMENT'S STORMWATER ENGINEER OR THE APPROPRIATE CONSTRUCTION ENGINEER.

19. PROVIDE ALL DNREC REQUIRED POST CONSTRUCTION VERIFICATION DOCUMENTATION FOR STORMWATER BEST MANAGEMENT PRACTICES (BMP) TO THE ENGINEER AT THE TIME OF SUBSTANTIAL COMPLETION.

MISCELLANEOUS

20. THE CONTRACTOR SHALL NOTIFY DART FIRST STATE AT DOT_DETOURS@DELAWARE.GOV AT LEAST 14 DAYS PRIOR TO THE START OF ANY DETOURS OR CONSTRUCTION, AND DOT_DTC_PROJECTDEVELOPMENT@DELAWARE.GOV AT SUCH TIME THE FACILITY IS COMPLETED AND OPERABLE FOR TRANSIT OPERATIONS. FOR EMERGENCY DETOUR INFORMATION ONLY, PLEASE CONTACT DTC'S CHIEF SCHEDULER AT 302-576-6019.

21. ALL DART SIGNS HAVE BEEN UPDATED TO A NEW DESIGN. THE DELDOT SIGN SHOP DOES NOT FABRICATE THE UPDATED SIGN OR ANY SUPPLEMENTAL PLAQUES TO ALLOW FOR ADDITIONAL ROUTE NUMBERS. ALL REQUEST FOR FABRICATION OF THESE SIGNS MUST BE MADE THROUGH DART TRANSIT AT (302) 576-6132.

22. ALL SANITARY SEWER MANHOLE COVERS THAT ARE WITHIN THE PROPOSED PAR SHALL BE REPLACED WITH ADA-COMPLIANT COVERS. ALL WORK AND MATERIALS SHALL BE INCIDENTAL TO THE ADJUSTING AND REPAIRING FOR THAT SPECIFIC SANITARY MANHOLE AND IS PAID FOR UNDER ITEM 711500 - ADJUST AND REPAIR EXISTING SANITARY MANHOLE.

23. ANY STAGING AND/OR STOCKPILE AREA(S) OUTSIDE THE PROJECT'S LIMIT OF CONSTRUCTION (LOC) THAT INDIVIDUALLY OR CUMULATIVELY ARE LARGER THAN 10,000 SQUARE FEET, MUST BE APPROVED BY DELDOT'S ARCHAEOLOGIST. CONTACT THE CONSTRUCTION AREA ENGINEER WHO WILL COORDINATE WITH DELDOT'S ARCHAEOLOGIST.

    WITHIN 30 DAYS, DELDOT WILL;
    1) APPROVE THE USE OF THE PROPOSED STAGING AND STOCKPILE AREA(S);
    2) REJECT THE REQUEST; OR
    3) PERFORM AN ARCHAEOLOGICAL SURVEY TO DETERMINE WHETHER TO APPROVE OR REJECT THE REQUEST, WHICH MAY TAKE UP TO 3 MONTHS. IF AN ARCHAEOLOGICAL SURVEY IS NECESSARY, DELDOT OR A CONSULTANT ON ITS BEHALF WILL UNDERTAKE THE SURVEY.

CONTAMINATED MATERIALS NOTES

1. A CONTAMINATED MATERIALS MANAGEMENT PLAN (CMMP) AND HEALTH AND SAFETY PLAN (HASP) HAVE BEEN PROVIDED AS PART OF THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL COORDINATE WITH DNREC PERSONNEL AND THE DEPARTMENT'S ENVIRONMENTAL REPRESENTATIVE THROUGHOUT THE DURATION OF THE CONTRACT TO ENSURE THAT THE GOALS OF THE PROGRAM ARE ADDRESSED. EXCAVATION WORK WILL TAKE PLACE IN AREAS THAT MAY CONTAIN CONTAMINATED SOIL AND/OR GROUNDWATER.

2. WORKER SAFETY TRAINING AND PERSONAL PROTECTIVE EQUIPMENT REQUIREMENTS FOR EXCAVATION CONTRACTORS OUTLINED IN THE HASP ARE:
   a. 24-HOUR OSHA HAZWOPER TRAINING
   b. MODIFIED LEVEL D PERSONAL PROTECTIVE EQUIPMENT (HARD HATS, STEEL TOE BOOTS, NITRILE GLOVES, SAFETY VESTS)

3. IN ORDER TO COMPLY WITH DNREC'S FINAL PLAN OF REMEDIAL ACTION, ALL IMPORTED MATERIAL SHALL BE TESTED AND APPROVED BY DNREC. THE DEPARTMENT'S ENVIRONMENTAL REPRESENTATIVE WILL BE RESPONSIBLE TO CONDUCT THE TESTING AND SUBMIT THE FINDINGS TO DNREC. THE CONTRACTOR SHALL SUBMIT MATERIAL SOURCES AT THE TIME OF PROJECT AWARD IN ORDER TO COMPLY WITH DNREC'S 30-DAY SOURCE APPROVAL TIMEFRAME.

4. NO SOIL CAN BE TAKEN OFF SITE WITHOUT APPROVAL OF THE ENGINEER. CONTAMINATED SOIL DISPOSAL WILL BE HANDLED BY THE DEPARTMENT'S ENVIRONMENTAL REPRESENTATIVE. ALL SOIL EXCAVATED DUE TO THE PROJECT'S CONSTRUCTION SHALL BE STOCKPILED IN THE DESIGNATED STOCKPILE AREAS, REUSED AS BACKFILL MATERIAL, OR DIRECT LOADED INTO THE ENVIRONMENTAL REPRESENTATIVE'S TRUCKS, AS DIRECTED IN ACCORDANCE WITH THE CONTAMINATED MATERIALS MANAGEMENT PLAN (CMMP) AND DELDOT STANDARD MATERIAL SPECIFICATIONS. SOIL THAT IS ENVIRONMENTALLY SUITABLE FOR REUSE WILL BE PAID FOR UNDER THE APPROPRIATE ITEM. THE CONTRACTOR SHALL REUSE CONTAMINATED SOIL AS EMBANKMENT, FILL OR OTHER APPROPRIATE ON-SITE USE AS DETERMINED AND APPROVED BY THE ENGINEER AND THE ENVIRONMENTAL REPRESENTATIVE, AND IN ACCORDANCE WITH THE CONTRACT. THE CONTRACTOR IS RESPONSIBLE TO IDENTIFY A STAGING AREA LOCATED WITHIN THE LIMITS OF CONSTRUCTION FOR PLACEMENT OF THE SOIL PENDING SAMPLING ANALYSIS AND OFFSITE REMOVAL.

5. THE FOLLOWING PARCELS WITHIN THE LOC MAY CONTAIN CONTAMINATED MATERIALS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE DEPARTMENT'S ENVIRONMENTAL REPRESENTATIVE PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITIES ON THESE PARCELS.

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135-14.15-01.00
135-14.15-08.00
135-14.15-22.00
135-14.15-23.00
135-14.15-24.00
135-14.15-25.00
135-14.15-26.00
135-14.15-27.00
135-14.15-28.00
135-14.15-52.00

ADDENDA / REVISIONS		NOT TO SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	NOTES	SECTION
				T201412701	DESIGNED BY: S. BEALL		WRA
				COUNTY	CHECKED BY: T. OLIVER		SHEET NO.
				SUSSEX			5

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EARTHWORK SUMMARY (FOR INFORMATION ONLY)

	PHASE 1 SR18/404 BMP_SW & BMP_NE RAMPS A,B,C&D	PHASE 1 Cont'd US 113 NB RT US 113 SB RT	PHASES 2A & 2B SR 18/404 EAST US 113 MEDIAN	PHASE 3 SR 18/404 WEST RIGHT SIDE 546+50 - 557+00	PHASES 4A & 4B SR 18/404 WEST LEFT SIDE 552+00 - 559+00	PHASES 5A & 5B EX PAVT REMOVAL US 113 TIE INS BTWN 323+00 - 347+00	PROJECT TOTALS
EXCAVATION - ITEM 202000 (CY)							
EX01 : FROM CROSS SECTIONS / MODELS (+)	5,270	7,633	17,211	1,266	242	3,420	35,042
EX02 : BITUMINOUS PAVEMENT REMOVED IN FILL SECTIONS (+) (See Note 2)	2,016	328	1,246	94	552	15,510	19,746
EX03 : TOPSOIL REMOVED UNDER FILL SECTIONS (+) (See Note 1)	3,717	810	1,691	268	259	280	7,025
EX04 : TOPSOIL PLACED IN CUT SECTIONS (+) (Template includes topsoil depth)	0	0	0	0	0	0	0
EX05 : ROOT MAT REMOVED IN CUT SECTIONS (-)	0	0	0	0	0	0	0
EX06 : CURB AND/OR CURB AND GUTTER EXCAVATION (-) (See Note 7)	0	0	0	0	0	0	0
EX07 : UNDERDRAIN EXCAVATION (-) (Excluded from Inroads Normal Cut Qty)	0	0	0	0	0	0	0
EX08 : ROCK EXCAVATION (-)	0	0	0	0	0	0	0
EX09 : REMOVAL OF PCC PVT, CURBS, SIDEWALK, ETC. (-) (paid under 211001 in SY) (Within model limits)	2,256	1,299	0	0	0	0	3,555
EXTOTAL : TOTAL EXCAVATION	8,747	7,472	20,148	1,628	1,053	19,210	58,258
STORMWATER MANAGEMENT POND EXCAVATION - ITEM 910008 (CY)							
SWEX01 : FROM CROSS SECTIONS / MODELS (+)	27,627	0	0	8,937	0	0	36,564
SWEX02 : TOPSOIL REMOVED UNDER FILL SECTIONS (+)	0	0	0	0	0	0	0
SWEX03 : TOPSOIL PLACED IN CUT SECTIONS (+) 6" OVER EXCAVATION AS SHOWN ON SW PLANS	1,515	0	0	504	0	0	2,019
SWEX04 : ROOT MAT REMOVED (-)	0	0	0	0	0	0	0
SWEX05 : EXISTING BUILDING FOUNDATION REMOVAL PAID FOR UNDER 211000 (-)	418	0	0	418	0	0	836
SWEXTOTAL : TOTAL STORMWATER MANAGEMENT POND EXCAVATION	28,724	0	0	9,023	0	0	37,747
EXCAVATION AVAILABLE FOR EMBANKMENT (CY)							
EXTOTAL : TOTAL EXCAVATION (+) [ITEM 202000]	8,747	7,472	20,148	1,628	1,053	19,210	58,258
SWEXTOTAL : TOTAL STORMWATER MANAGEMENT POND EXCAVATION (+) [ITEM 910008]	28,724	0	0	9,023	0	0	37,747
AVEX01 : PIPE, CULVERT, AND STRUCTURAL EXCAVATION (+) [ITEM 207002] (Structures)	138	0	0	0	0	0	138
AVEX02 : PIPE, CULVERT, AND STRUCTURAL EXCAVATION (+) [ITEM 207002] (Drainage)	3,417	8,536	0	0	0	0	11,953
AVEX03 : CHANNEL EXCAVATION (+) [ITEM 203000]	0	126	0	0	0	0	126
AVEX04 : POLE BASES EXCAVATION (+) [ITEM 834XXX]	94	46	0	0	0	0	140
AVEX05 : EXCAVATION FROM CURBS AND/OR CURB AND GUTTER (+) (Included in Template)	0	0	0	0	0	0	0
AVEX06 : EXCAVATION FROM UNDERDRAINS (+)	410	556	0	0	0	0	966
AVEX07 : MISCELLANEOUS EXCAVATIONS (+)	0	261	0	0	0	0	261
AVEX08 : TOPSOIL REMOVED IN CUT AND/OR FILL SECTIONS (-)	4,341	2,096	5,927	662	296	657	13,979
AVEX09 : TOPSOIL REMOVED IN CUT AND/OR FILL SECTIONS FOR STORMWATER MANAGEMENT PONDS (-)	1,610	0	0	0	0	0	1,610
AVEX10: UNSUITABLE MATERIALS (-) (Bituminous pvt removed in cut and fill + 50% MOT excav)	6,772	3,360	4,917	564	660	16,807	33,080
AVEXTOTAL : TOTAL EXCAVATION AVAILABLE FOR EMBANKMENT	28,807	11,541	9,304	9,425	97	1,746	60,920
EMBANKMENT AND BORROW, TYPE 'F' REQUIRED (CY)							
EMRF01 : FROM CROSS SECTIONS / MODEL (+) [EMBANKMENT REQUIRED BELOW SUBGRADE OR CAPPING]	126,839	788	18,406	351	4,286	598	151,268
EMRF02 : TOPSOIL REMOVED UNDER FILL (+)	3,717	810	1,691	268	259	280	7,025
EMRF03 : ROOT MAT REMOVED UNDER FILL (+)	0	0	0	0	0	0	0
EMRF04 : UNSUITABLE MATERIAL REMOVED UNDER FILL (+)	0	0	0	0	0	0	0
EMRF05 : PCC REMOVED UNDER FILL (+) (Includes 12" refill for building foundation removal)	0	0	0	0	0	4,322	4,322
EMRF06 : BITUMINOUS PAVEMENT REMOVED UNDER FILL (+)	2,016	328	1,246	94	552	4,909	9,145
EMRF07 : TOPSOIL TO BE PLACED IN FILL (+) (Incided in template)	0	0	0	0	0	0	0
EMRF08 : SUBTOTAL OF EMBANKMENT AND BORROW, TYPE 'F' REQUIRED	132,572	1,926	21,343	713	5,097	10,109	171,760
EMRF09 : COMPACTION FACTOR APPLIED TO THE SUBTOTAL (%)	1.2	1.2	1.2	1.2	1.2	1.2	
EMRFTOTAL : TOTAL EMBANKMENT AND BORROW, TYPE 'F' REQUIRED	159,086	2,311	25,612	856	6,116	12,131	206,112
TOPSOIL SUMMARY (CY) [NEED = '-' / EXCESS = '+']							
TOP01 ; TOPSOIL SALVAGED FROM CUT SECTIONS (+) (Assumed 75% reusable)	469	957	3,177	296	28	275	5,201
TOP02 : TOPSOIL SALVAGED FROM FILL SECTIONS (+) (Assumed 75% reusable)	2,788	608	1,268	201	194	210	5,269
TOP03 : TOPSOIL SALVAGED FROM STORMWATER MANAGEMENT PONDS (+)	1,628	0	0	0	0	0	1,628
TOP04 : TOPSOIL REQUIRED (-) (calculate from plan view areas plus topsoil needed for SWM Ponds)	-8,031	-3,005	-1,002	-1,002	-1,002	-8,014	-22,056
TOPTOTAL : TOTAL TOPSOIL	-3,146	-1,441	3,443	-505	-780	-7,529	-9,958
MATERIAL BALANCE (CY) [NEED = '-' / EXCESS = '+']							
BORROW, TYPE 'A' (Includes 1.2 Compaction Factor)	-6,216	-61	-1,160	-307	-704	0	-8,449
BORROW, TYPE 'B' (Refill Undercut Excavation plus 1.2 Compaction Factor)	-1,050	-897	-2,418	-195	-126	-2,305	-6,991
BORROW, TYPE 'C' (Item 207023)	-2,873	-2,873	0	0	0	0	-5,745
BORROW, TYPE 'F' (Includes 1.2 Compaction Factor)	-130,279	9,230	-16,308	8,569	-6,019	-10,385	-145,192
TOPSOILING (ITEM 908010 in CY) TOP01+TOP02+TOP03	4,885	1,565	4,445	497	222	485	12,098
TOPSOIL (Item 908004 in CY) TOPTOTAL	-3,146	-1,441	3,443	-505	-780	-7,529	-9,958
UNSUITABLE MATERIAL (EX09 + SWEX05 + AVEX10 + 25% TOP01 + 25% TOP02 + BUILDING FOUNDATIONS, NOTE 4)	8,004	3,751	6,028	1,106	716	16,928	36,534

Notes:

1. Existing topsoil stripping depth = 6". All topsoil under fill is stripped.
2. Existing bituminous pavement depth = 12".
3. Existing bituminous pavement removal outside of template added to Phase 5 = 15,450 CY (EX01 AVEX10); 4,909 CY (EMRF06) for refill
4. Existing building foundation depths assumed to be 18". Removal is paid for under Item 211000. Added to Phase 5: 3,755 CY (EMRF05) and 4,797 CY Unsuitable.
5. Topsoil needed for SWM Ponds included in TOP04 Phase 1 = 12,122 SY at 6" depth
6. Excavation for MOT included in EX01 = 210CY with 50% unsuitable for reuse (AVEX10)
7. Proposed curb and gutter is included in the roadway template. It is not subtracted per guidance in the DelDOT "Quantity-Earthwork-Calculating and Quantifying" document.

ADDENDA / REVISIONS		NOT TO SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. N/A	EARTHWORK SUMMARY	SECTION WRA
				COUNTY SUSSEX	DESIGNED BY: M. FOX		SHEET NO. 6
					CHECKED BY: T. OLIVER		

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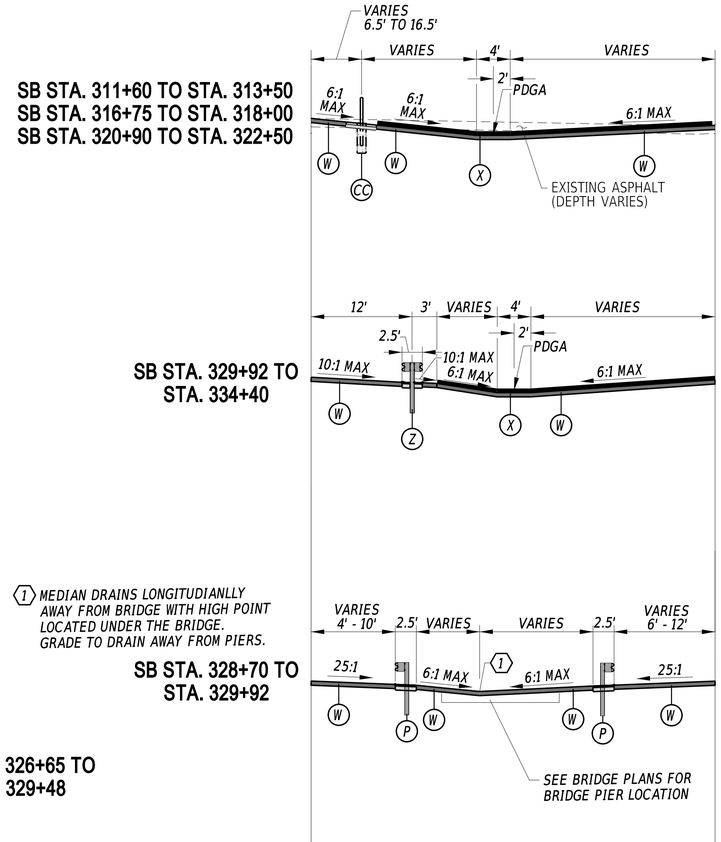

US 113 - TYPICAL NORMAL SECTION

SB STATION 309+00 TO STATION 334+40

NB STATION 409+00 TO STATION 434+40

LEGEND

- (A) ITEM 209001 - BORROW, TYPE A
- (B) ITEM 209006 - BORROW, TYPE F
- (C) ITEM 301001 - GABC
- (D) ITEM 401005 - SUPERPAVE TYPE C, PG 64-22 (CARBONATE STONE)
- (E) ITEM 401014 - SUPERPAVE TYPE B, PG 64-22
- (G) ITEM 401016 - SUPERPAVE TYPE B, PG 76-22
- (H) ITEM 401037 - SUPERPAVE TYPE B, PG 64-22, WEDGE
- (K) ITEM 401046 - SUPERPAVE TYPE C, PG 76-22 (NON-CARBONATE STONE)
- (M) ITEM 701014 - PCC CURB, TYPE 2
- (N) ITEM 701016 - I. PCC CURB AND GUTTER, TYPE 1-4
- (P) ITEM 720021 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31
- (Q) ITEM 705001 - PCC SIDEWALK, 4"
- (R) ITEM 705002 - PCC SIDEWALK, 6"
- (S) ITEM 727007 - BRIDGE SAFETY FENCE, TYPE 1
- (T) ITEM 708001 - GEOTEXTILES, STABILIZATION
- (U) ITEM 709001 - PERFORATED PIPE UNDERDRAINS, 6" (WHERE SHOWN ON PLANS)
- (V) ITEM 760010 - PAVEMENT MILLING, BITUMINOUS CONCRETE PAVEMENT
- (W) ITEM 908004 - TOPSOIL, 6" DEPTH OR ITEM 908010 - TOPSOILING, 6" DEPTH
ITEM 908014 - PERMANENT GRASS SEEDING, DRY GROUND
ITEM 908026 - EROSION CONTROL MULCH
- (X) ITEM 908020 - EROSION CONTROL BLANKET MULCH
- (Y) SAFETY EDGE (INCIDENTAL TO RESPECTIVE SUPERPAVE ITEMS)
- (Z) ITEM 720023 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 3-31
- (AA) ITEM 626504 - ALUMINUM PEDESTRIAN RAILING
- (BB) ITEM 701507 - CURB RETAINING WALL, TYPE 1
- (CC) ITEM 722001 - HIGH TENSION CABLE BARRIER

MATERIAL	LIFT THICKNESS	
	MINIMUM	MAXIMUM
BITUMINOUS CONCRETE, TYPE 'C' (4.75 MM MIX)	0.5"	1"
BITUMINOUS CONCRETE, TYPE 'C' (9.25 MM MIX)	1.25"	2"
BITUMINOUS CONCRETE, TYPE 'C' (12.5 MM MIX)	1.5"	2"
BITUMINOUS CONCRETE, TYPE 'B' (19 MM MIX), (76-22, 70-22)	2.25"	4"
BITUMINOUS CONCRETE, TYPE 'B' (19 MM MIX), (64-22)	2.25"	6"
GRADED AGGREGATE BASE COURSE	4"	8"

NOTES:

1. PGA - POINT OF GRADE APPLICATION
   PDGA - POINT OF DITCH GRADE APPLICATION
   P/R - POINT OF ROTATION
2. THE PGA IS APPLIED TO THE TOP OF THE FINAL PAVEMENT SURFACE. IN AREAS WHERE THE PGA IS LOCATED WITHIN THE RAISED MEDIAN, ITS VERTICAL LOCATION SHALL BE THE TOP OF ADJACENT PAVEMENT ELEVATION PROJECTED AT THE PROPOSED CROSS SLOPE TO THE CONSTRUCTION BASELINE.
3. MAXIMUM ALGEBRAIC DIFFERENCE OF CROSS SLOPES SHALL NOT EXCEED 8%.
4. EROSION CONTROL BLANKET IS REQUIRED ON ALL EMBANKMENT SLOPES STEEPER THAN 3:1 AND/OR SLOPES THAT ARE 50' OR LONGER.
5. THE CONTRACTOR SHALL USE ITEM 401037 AT VARIABLE DEPTH AS NEEDED TO REACH THE PROPOSED ROADWAY PROFILE GRADE AND ACHIEVE THE CROSS SLOPES AS SHOWN ON TYPICAL SECTIONS FOR SR 18 / SR 404 AT INTERSECTION WITH CARMEAN WAY, SHEET 9 AND US 113 SB RT TURN / SHOULDER, SHEET 8.
6. WHEN PROPOSED PAVEMENT WIDTH IS LESS THAN 4', USE PROPOSED PATCHING PAVEMENT ITEMS AT THE SAME DEPTH AS INDICATED ON TYPICAL SECTIONS.

   ITEM 301002 - GABC, PATCHING
   ITEM 401029 - SUPERPAVE TYPE C, PG64-22 PATCHING
   ITEM 401030 - SUPERPAVE TYPE B, PG64-22 PATCHING

ADDENDA / REVISIONS		NOT TO SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	TYPICAL SECTIONS	SECTION
				T201412701	DESIGNED BY: M. FOX		WRA
				COUNTY	CHECKED BY: T. OLIVER		SHEET NO.
				SUSSEX			7

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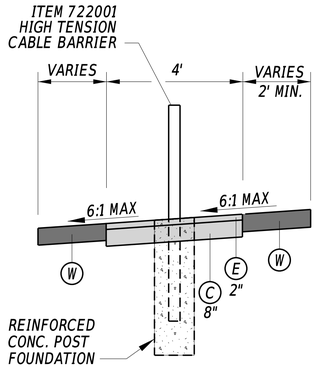
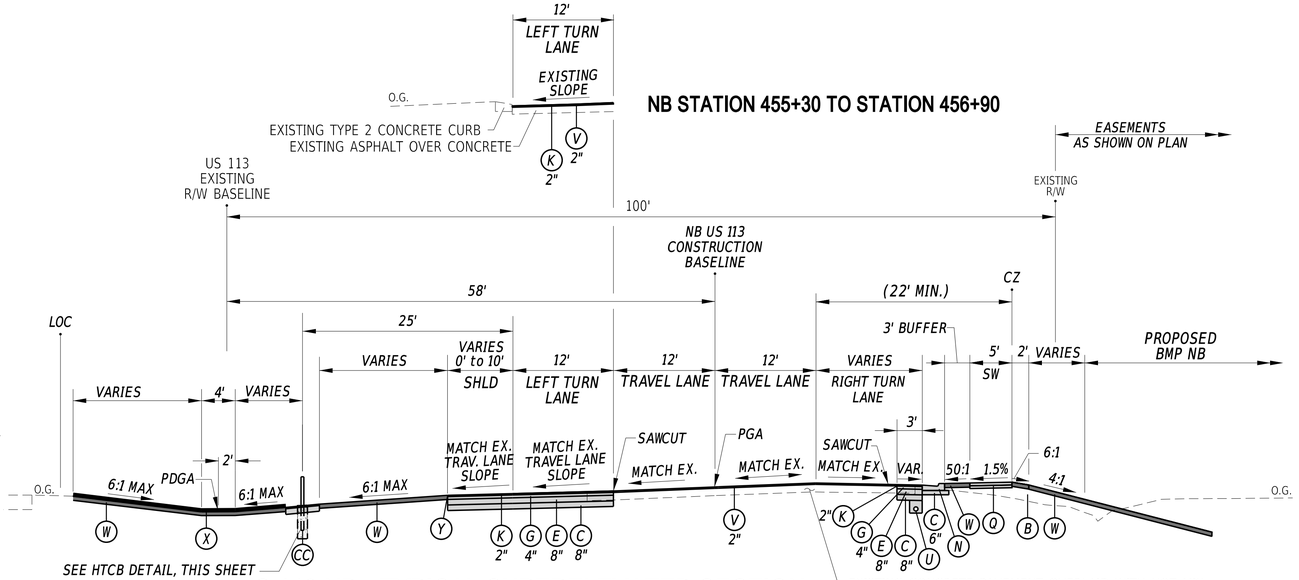


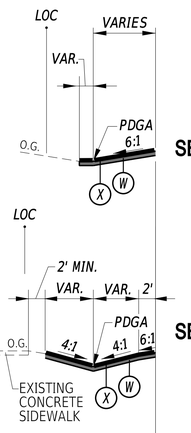
HIGH TENSION CABLE BARRIER DETAIL

US 113 SB STATION 308+25 TO STATION 328+75
US 113 NB STATION 445+10 TO STATION 456+78



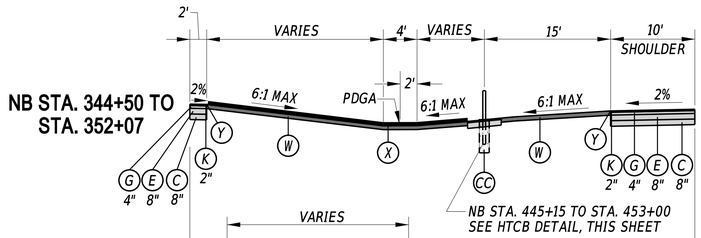
US 113 NB - TYPICAL SUPERELEVATED SECTION

STATION 453+00 TO STATION 456+90



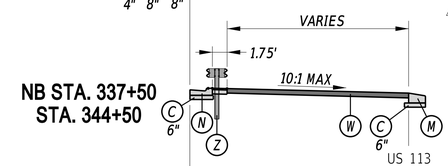
SB STA. 345+33 TO STA. 352+07

SB STA. 338+60 TO STA. 343+20

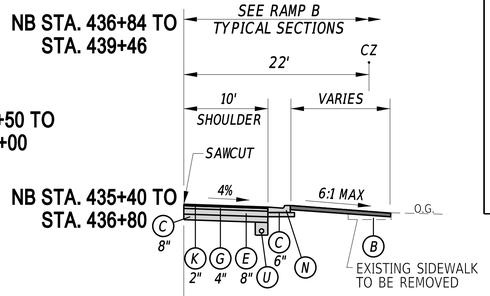


NB STA. 344+50 TO STA. 352+07

NB STA. 444+50 TO STA. 453+00

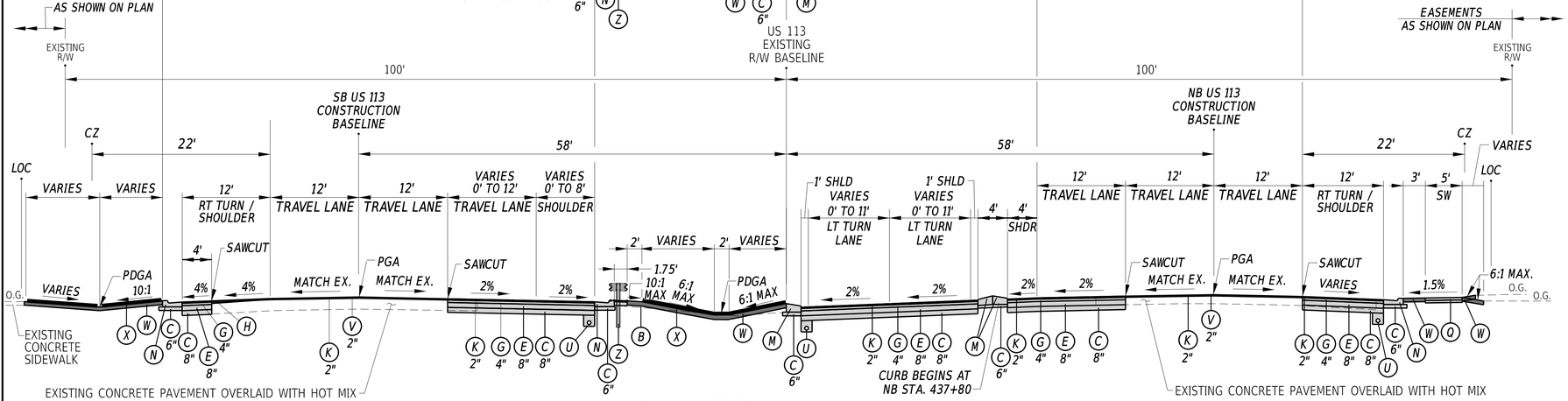


NB STA. 337+50 STA. 344+50



NB STA. 436+84 TO STA. 439+46

NB STA. 435+40 TO STA. 436+80



US 113 - TYPICAL NORMAL SECTION

SB STATION 334+40 TO STATION 352+07

NB STATION 434+40 TO STATION 453+00

LEGEND

- (A) ITEM 209001 - BORROW, TYPE A
- (B) ITEM 209006 - BORROW, TYPE F
- (C) ITEM 301001 - GABC
- (D) ITEM 401005 - SUPERPAVE TYPE C, PG 64-22 (CARBONATE STONE)
- (E) ITEM 401014 - SUPERPAVE TYPE B, PG 64-22
- (G) ITEM 401016 - SUPERPAVE TYPE B, PG 76-22
- (H) ITEM 401037 - SUPERPAVE TYPE B, PG 64-22, WEDGE
- (K) ITEM 401046 - SUPERPAVE TYPE C, PG 76-22 (NON-CARBONATE STONE)
- (M) ITEM 701014 - PCC CURB, TYPE 2
- (N) ITEM 701016 - I. PCC CURB AND GUTTER, TYPE 1-4
- (P) ITEM 720021 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31
- (Q) ITEM 705001 - PCC SIDEWALK, 4"
- (R) ITEM 705002 - PCC SIDEWALK, 6"
- (S) ITEM 727007 - BRIDGE SAFETY FENCE, TYPE 1
- (T) ITEM 708001 - GEOTEXTILES, STABILIZATION
- (U) ITEM 709001 - PERFORATED PIPE UNDERDRAINS, 6" (WHERE SHOWN ON PLANS)
- (V) ITEM 760010 - PAVEMENT MILLING, BITUMINOUS CONCRETE PAVEMENT
- (W) ITEM 908004 - TOPSOIL, 6" DEPTH OR ITEM 908010 - TOPSOILING, 6" DEPTH
  ITEM 908014 - PERMANENT GRASS SEEDING, DRY GROUND
  ITEM 908026 - EROSION CONTROL MULCH
- (X) ITEM 908020 - EROSION CONTROL BLANKET MULCH
- (Y) SAFETY EDGE (INCIDENTAL TO RESPECTIVE SUPERPAVE ITEMS)
- (Z) ITEM 720023 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 3-31
- (AA) ITEM 626504 - ALUMINUM PEDESTRIAN RAILING
- (BB) ITEM 701507 - CURB RETAINING WALL, TYPE 1
- (CC) ITEM 722001 - HIGH TENSION CABLE BARRIER

MATERIAL	LIFT THICKNESS	
	MINIMUM	MAXIMUM
BITUMINOUS CONCRETE, TYPE 'C' (4.75 MM MIX)	0.5"	1"
BITUMINOUS CONCRETE, TYPE 'C' (9.25 MM MIX)	1.25"	2"
BITUMINOUS CONCRETE, TYPE 'C' (12.5 MM MIX)	1.5"	2"
BITUMINOUS CONCRETE, TYPE 'B' (19 MM MIX), (76-22, 70-22)	2.25"	4"
BITUMINOUS CONCRETE, TYPE 'B' (19 MM MIX), (64-22)	2.25"	6"
GRADED AGGREGATE BASE COURSE	4"	8"

NOTES:

1. PGA - POINT OF GRADE APPLICATION
   PDGA - POINT OF DITCH GRADE APPLICATION
   P/R - POINT OF ROTATION
2. THE PGA IS APPLIED TO THE TOP OF THE FINAL PAVEMENT SURFACE. IN AREAS WHERE THE PGA IS LOCATED WITHIN THE RAISED MEDIAN, ITS VERTICAL LOCATION SHALL BE THE TOP OF ADJACENT PAVEMENT ELEVATION PROJECTED AT THE PROPOSED CROSS SLOPE TO THE CONSTRUCTION BASELINE.
3. MAXIMUM ALGEBRAIC DIFFERENCE OF CROSS SLOPES SHALL NOT EXCEED 8%.
4. EROSION CONTROL BLANKET IS REQUIRED ON ALL EMBANKMENT SLOPES STEEPER THAN 3:1 AND/OR SLOPES THAT ARE 50' OR LONGER.
5. THE CONTRACTOR SHALL USE ITEM 401037 AT VARIABLE DEPTH AS NEEDED TO REACH THE PROPOSED ROADWAY PROFILE GRADE AND ACHIEVE THE CROSS SLOPES AS SHOWN ON TYPICAL SECTIONS FOR SR 18 / SR 404 AT INTERSECTION WITH CARMEAN WAY, SHEET 9 AND US 113 SB RT TURN / SHOULDER, SHEET 8.
6. WHEN PROPOSED PAVEMENT WIDTH IS LESS THAN 4', USE PROPOSED PATCHING PAVEMENT ITEMS AT THE SAME DEPTH AS INDICATED ON TYPICAL SECTIONS.

   ITEM 301002 - GABC, PATCHING
   ITEM 401029 - SUPERPAVE TYPE C, PG64-22 PATCHING
   ITEM 401030 - SUPERPAVE TYPE B, PG64-22 PATCHING

ADDENDA / REVISIONS		NOT TO SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	TYPICAL SECTIONS	SECTION
				T201412701	DESIGNED BY: M. FOX		WRA
				COUNTY	CHECKED BY: T. OLIVER		SHEET NO.
				SUSSEX			8

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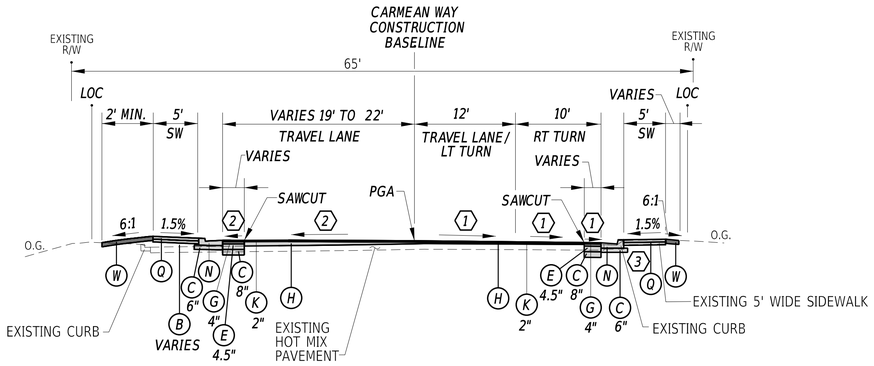
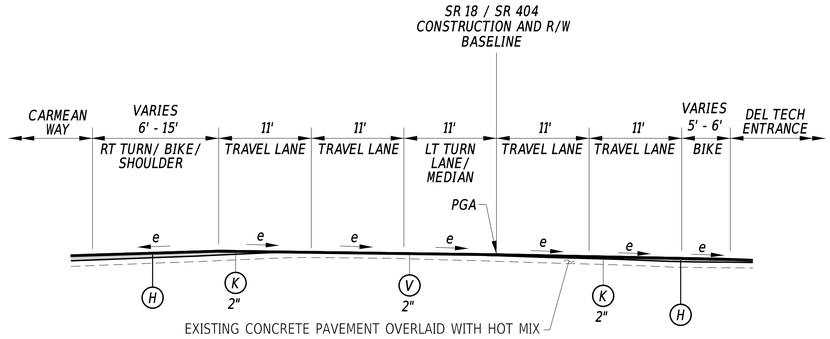


CARMEAN WAY - TYPICAL NORMAL SECTION

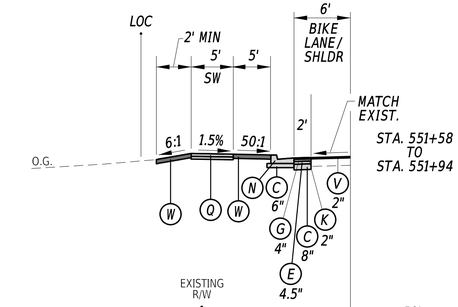
STATION 10+30 TO STATION 10+90

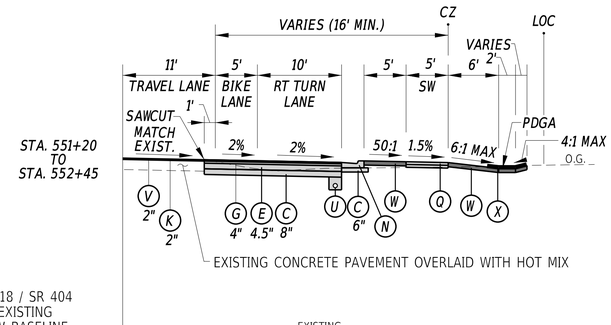


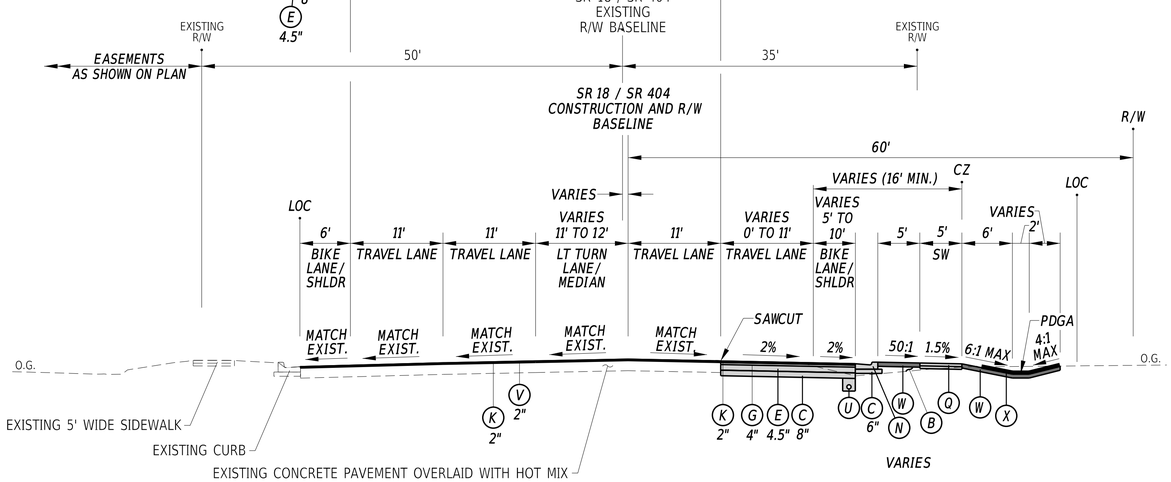
SR 18 / SR 404 - TYPICAL SUPERELEVATED OVERLAY SECTION

STATION 552+25 TO STATION 552+80

1. CROSS SLOPE VARIES FROM 0.8% TO 1.3%. SEE SHEET GG-09.
2. CROSS SLOPE VARIES FROM 1.8% TO -1.3%. SEE SHEET GG-09.
3. PROPOSED CURB AND SIDEWALK BEGIN AT STA. 10+48.







SR 18 / SR 404 - TYPICAL NORMAL SECTION

STATION 546+50 TO STATION 552+25

LEGEND

- (A) ITEM 209001 - BORROW, TYPE A
- (B) ITEM 209006 - BORROW, TYPE F
- (C) ITEM 301001 - GABC
- (D) ITEM 401005 - SUPERPAVE TYPE C, PG 64-22 (CARBONATE STONE)
- (E) ITEM 401014 - SUPERPAVE TYPE B, PG 64-22
- (G) ITEM 401016 - SUPERPAVE TYPE B, PG 76-22
- (H) ITEM 401037 - SUPERPAVE TYPE B, PG 64-22, WEDGE
- (K) ITEM 401046 - SUPERPAVE TYPE C, PG 76-22 (NON-CARBONATE STONE)
- (M) ITEM 701014 - PCC CURB, TYPE 2
- (N) ITEM 701016 - I. PCC CURB AND GUTTER, TYPE 1-4
- (P) ITEM 720021 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31
- (Q) ITEM 705001 - PCC SIDEWALK, 4"
- (R) ITEM 705002 - PCC SIDEWALK, 6"
- (S) ITEM 727007 - BRIDGE SAFETY FENCE, TYPE 1
- (T) ITEM 708001 - GEOTEXTILES, STABILIZATION
- (U) ITEM 709001 - PERFORATED PIPE UNDERDRAINS, 6" (WHERE SHOWN ON PLANS)
- (V) ITEM 760010 - PAVEMENT MILLING, BITUMINOUS CONCRETE PAVEMENT
- (W) ITEM 908004 - TOPSOIL, 6" DEPTH OR ITEM 908010 - TOPSOILING, 6" DEPTH
ITEM 908014 - PERMANENT GRASS SEEDING, DRY GROUND
ITEM 908026 - EROSION CONTROL MULCH
- (X) ITEM 908020 - EROSION CONTROL BLANKET MULCH
- (Y) SAFETY EDGE (INCIDENTAL TO RESPECTIVE SUPERPAVE ITEMS)
- (Z) ITEM 720023 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 3-31
- (AA) ITEM 626504 - ALUMINUM PEDESTRIAN RAILING
- (BB) ITEM 701507 - CURB RETAINING WALL, TYPE 1
- (CC) ITEM 722001 - HIGH TENSION CABLE BARRIER

MATERIAL	LIFT THICKNESS	
	MINIMUM	MAXIMUM
BITUMINOUS CONCRETE, TYPE 'C' (4.75 MM MIX)	0.5"	1"
BITUMINOUS CONCRETE, TYPE 'C' (9.25 MM MIX)	1.25"	2"
BITUMINOUS CONCRETE, TYPE 'C' (12.5 MM MIX)	1.5"	2"
BITUMINOUS CONCRETE, TYPE 'B' (19 MM MIX), (76-22, 70-22)	2.25"	4"
BITUMINOUS CONCRETE, TYPE 'B' (19 MM MIX), (64-22)	2.25"	6"
GRADED AGGREGATE BASE COURSE	4"	8"

NOTES:

1. PGA - POINT OF GRADE APPLICATION
   PDGA - POINT OF DITCH GRADE APPLICATION
   P/R - POINT OF ROTATION
2. THE PGA IS APPLIED TO THE TOP OF THE FINAL PAVEMENT SURFACE. IN AREAS WHERE THE PGA IS LOCATED WITHIN THE RAISED MEDIAN, ITS VERTICAL LOCATION SHALL BE THE TOP OF ADJACENT PAVEMENT ELEVATION PROJECTED AT THE PROPOSED CROSS SLOPE TO THE CONSTRUCTION BASELINE.
3. MAXIMUM ALGEBRAIC DIFFERENCE OF CROSS SLOPES SHALL NOT EXCEED 8%.
4. EROSION CONTROL BLANKET IS REQUIRED ON ALL EMBANKMENT SLOPES STEEPER THAN 3:1 AND/OR SLOPES THAT ARE 50' OR LONGER.
5. THE CONTRACTOR SHALL USE ITEM 401037 AT VARIABLE DEPTH AS NEEDED TO REACH THE PROPOSED ROADWAY PROFILE GRADE AND ACHIEVE THE CROSS SLOPES AS SHOWN ON TYPICAL SECTIONS FOR SR 18 / SR 404 AT INTERSECTION WITH CARMEAN WAY, SHEET 9 AND US 113 SB RT TURN / SHOULDER, SHEET 8.
6. WHEN PROPOSED PAVEMENT WIDTH IS LESS THAN 4', USE PROPOSED PATCHING PAVEMENT ITEMS AT THE SAME DEPTH AS INDICATED ON TYPICAL SECTIONS.

   ITEM 301002 - GABC, PATCHING
   ITEM 401029 - SUPERPAVE TYPE C, PG64-22 PATCHING
   ITEM 401030 - SUPERPAVE TYPE B, PG64-22 PATCHING

ADDENDA / REVISIONS		NOT TO SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO.	N/A	TYPICAL SECTIONS	SECTION
				T201412701	DESIGNED BY: M. FOX			WRA
				COUNTY	CHECKED BY: T. OLIVER			SHEET NO.
				SUSSEX				9

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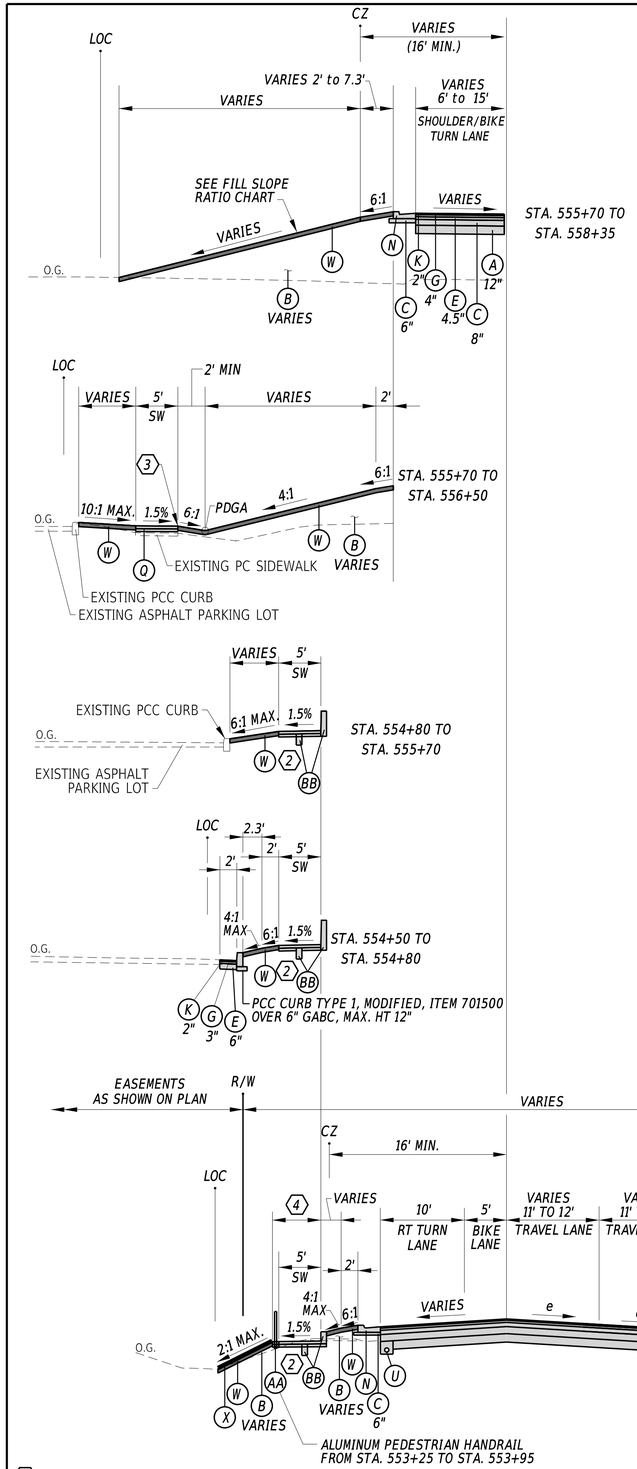

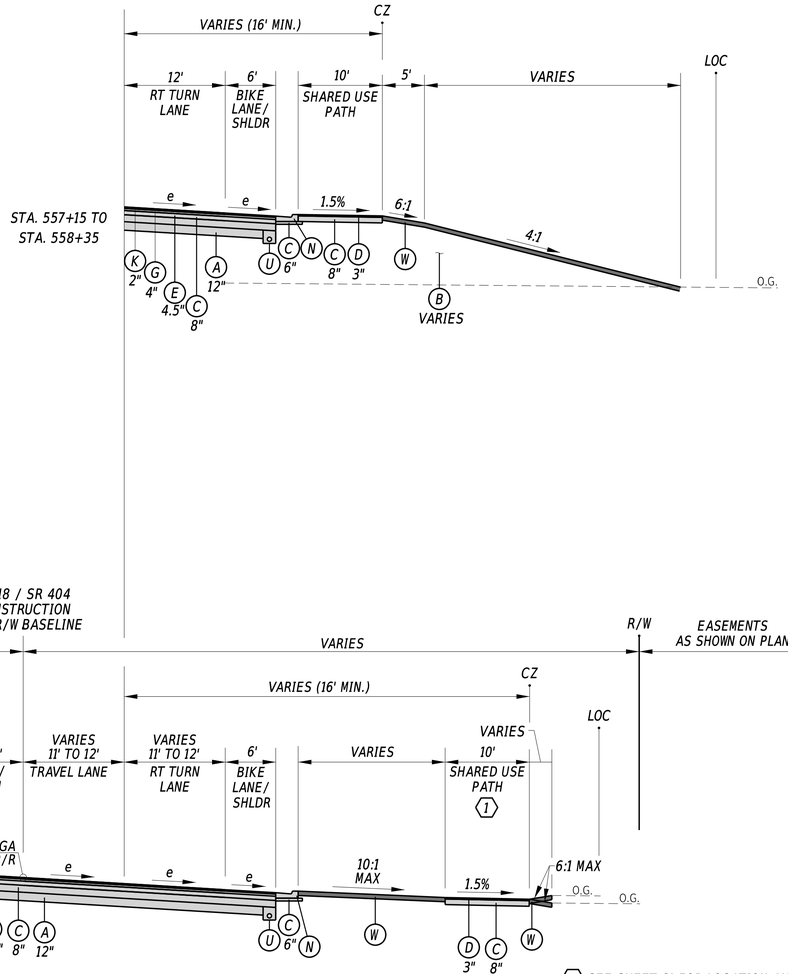

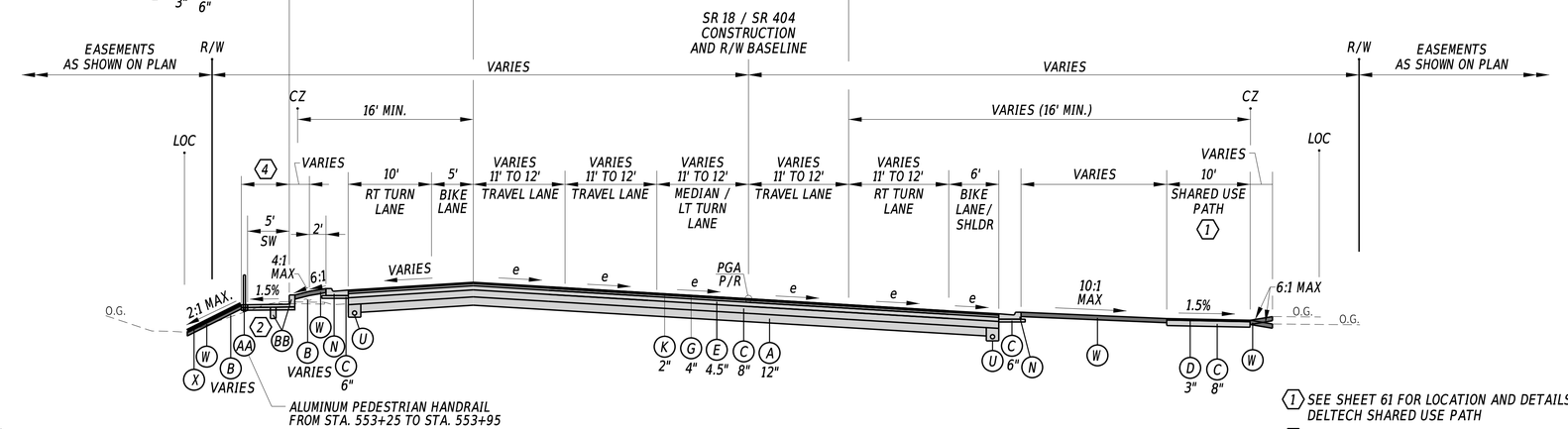

4 DIMENSION INCLUDES 5' SIDEWALK WIDTH PLUS HANDRAIL FOUNDATION WIDTH AS SPECIFIED BY MANUFACTURER. HANDRAIL FOUNDATION SHALL NOT ENCROACH ON CLEAR PATH OF 5' SIDEWALK.

SR 18 / SR 404 - TYPICAL SUPERELEVATED SECTION

STATION 552+80 TO STATION 558+35

1 SEE SHEET 61 FOR LOCATION AND DETAILS OF DELTECH SHARED USE PATH

2 SEE CURB RETAINING WALL DETAIL, SHEET 79

3 SEE PROPOSED SIDEWALK ELEVATIONS ON SHEET 71

FILL SLOPE RATIO CHART	
HEIGHT OF EMBANKMENT	SLOPE RATIO
0' TO 5'	6:1
5' TO 10'	4:1
10' TO 15'	3:1
>15'	2:1

LEGEND

- (A) ITEM 209001 - BORROW, TYPE A
- (B) ITEM 209006 - BORROW, TYPE F
- (C) ITEM 301001 - GABC
- (D) ITEM 401005 - SUPERPAVE TYPE C, PG 64-22 (CARBONATE STONE)
- (E) ITEM 401014 - SUPERPAVE TYPE B, PG 64-22
- (G) ITEM 401016 - SUPERPAVE TYPE B, PG 76-22
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- (K) ITEM 401046 - SUPERPAVE TYPE C, PG 76-22 (NON-CARBONATE STONE)
- (M) ITEM 701014 - PCC CURB, TYPE 2
- (N) ITEM 701016 - I. PCC CURB AND GUTTER, TYPE 1-4
- (P) ITEM 720021 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31
- (Q) ITEM 705001 - PCC SIDEWALK, 4"
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- (T) ITEM 708001 - GEOTEXTILES, STABILIZATION
- (U) ITEM 709001 - PERFORATED PIPE UNDERDRAINS, 6" (WHERE SHOWN ON PLANS)
- (V) ITEM 760010 - PAVEMENT MILLING, BITUMINOUS CONCRETE PAVEMENT
- (W) ITEM 908004 - TOPSOIL, 6" DEPTH OR ITEM 908010 - TOPSOILING, 6" DEPTH
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MATERIAL	LIFT THICKNESS	
	MINIMUM	MAXIMUM
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BITUMINOUS CONCRETE, TYPE 'C' (9.25 MM MIX)	1.25"	2"
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BITUMINOUS CONCRETE, TYPE 'B' (19 MM MIX), (64-22)	2.25"	6"
GRADED AGGREGATE BASE COURSE	4"	8"

NOTES:

1. PGA - POINT OF GRADE APPLICATION
   PDGA - POINT OF DITCH GRADE APPLICATION
   P/R - POINT OF ROTATION
2. THE PGA IS APPLIED TO THE TOP OF THE FINAL PAVEMENT SURFACE. IN AREAS WHERE THE PGA IS LOCATED WITHIN THE RAISED MEDIAN, ITS VERTICAL LOCATION SHALL BE THE TOP OF ADJACENT PAVEMENT ELEVATION PROJECTED AT THE PROPOSED CROSS SLOPE TO THE CONSTRUCTION BASELINE.
3. MAXIMUM ALGEBRAIC DIFFERENCE OF CROSS SLOPES SHALL NOT EXCEED 8%.
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   ITEM 401029 - SUPERPAVE TYPE C, PG64-22 PATCHING
   ITEM 401030 - SUPERPAVE TYPE B, PG64-22 PATCHING

ADDENDA / REVISIONS		NOT TO SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	TYPICAL SECTIONS	SECTION
				T201412701	DESIGNED BY: M. FOX		WRA
				COUNTY	CHECKED BY: T. OLIVER		SHEET NO.
				SUSSEX			10

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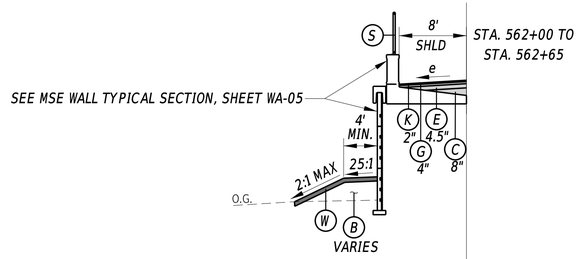

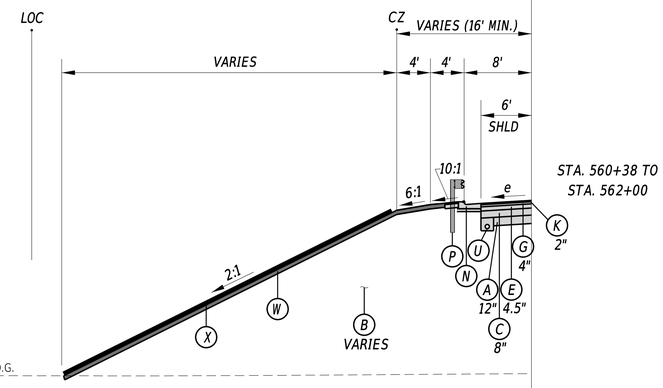

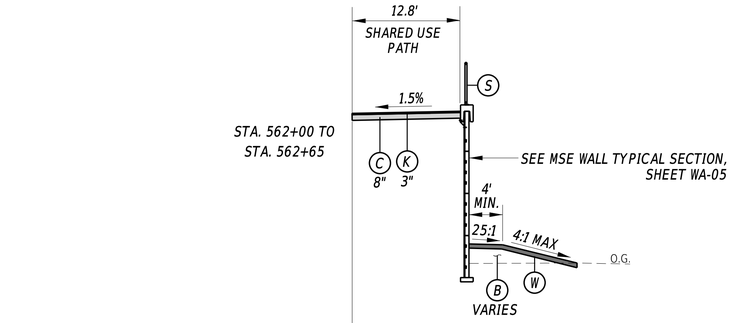

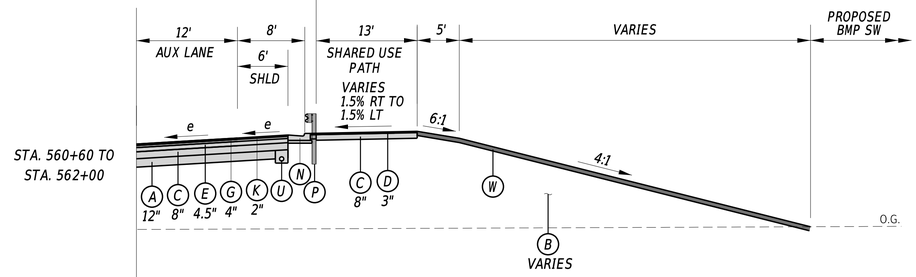

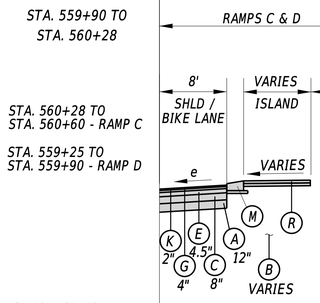

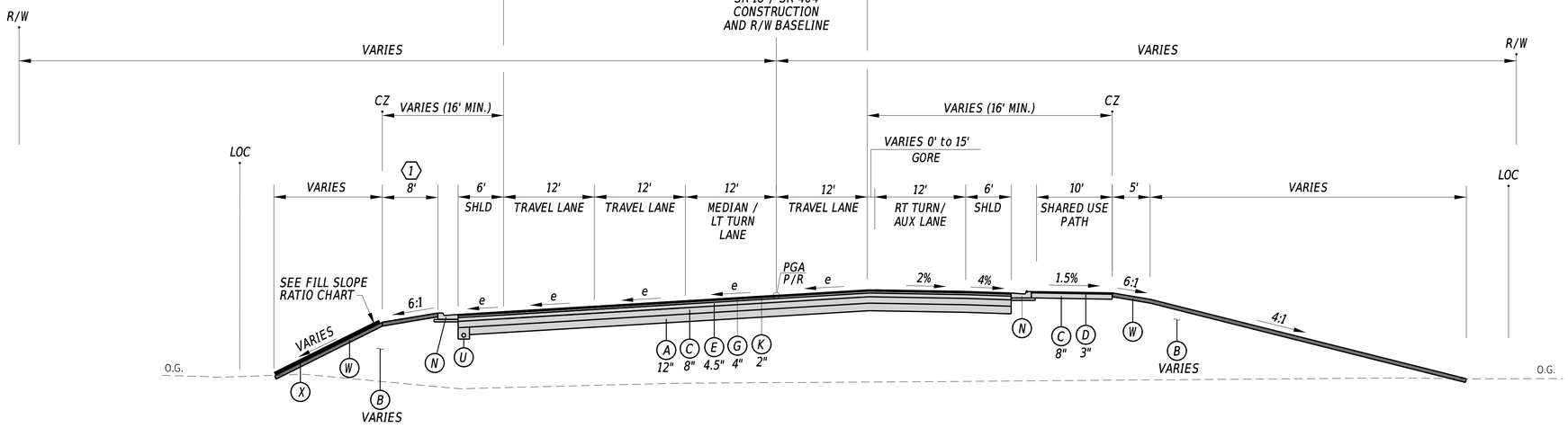

1 VARIES 8' TO 13' FROM STA. 559+60 TO STA. 560+00 FOR SIGNAL POLE BASE 3C

SR 18 / SR 404 - TYPICAL SUPERELEVATED SECTION

STATION 558+35 TO STATION 562+65

FILL SLOPE RATIO CHART	
HEIGHT OF EMBANKMENT	SLOPE RATIO
0' TO 5'	6:1
5' TO 10'	4:1
10' TO 15'	3:1
>15'	2:1

LEGEND

- (A) ITEM 209001 - BORROW, TYPE A
- (B) ITEM 209006 - BORROW, TYPE F
- (C) ITEM 301001 - GABC
- (D) ITEM 401005 - SUPERPAVE TYPE C, PG 64-22 (CARBONATE STONE)
- (E) ITEM 401014 - SUPERPAVE TYPE B, PG 64-22
- (G) ITEM 401016 - SUPERPAVE TYPE B, PG 76-22
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- (U) ITEM 709001 - PERFORATED PIPE UNDERDRAINS, 6" (WHERE SHOWN ON PLANS)
- (V) ITEM 760010 - PAVEMENT MILLING, BITUMINOUS CONCRETE PAVEMENT
- (W) ITEM 908004 - TOPSOIL, 6" DEPTH OR ITEM 908010 - TOPSOILING, 6" DEPTH
  ITEM 908014 - PERMANENT GRASS SEEDING, DRY GROUND
  ITEM 908026 - EROSION CONTROL MULCH
- (X) ITEM 908020 - EROSION CONTROL BLANKET MULCH
- (Y) SAFETY EDGE (INCIDENTAL TO RESPECTIVE SUPERPAVE ITEMS)
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MATERIAL	LIFT THICKNESS	
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BITUMINOUS CONCRETE, TYPE 'B' (19 MM MIX), (64-22)	2.25"	6"
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   ITEM 401029 - SUPERPAVE TYPE C, PG64-22 PATCHING
   ITEM 401030 - SUPERPAVE TYPE B, PG64-22 PATCHING

ADDENDA / REVISIONS		NOT TO SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	TYPICAL SECTIONS	SECTION
				T201412701	DESIGNED BY: M. FOX		WRA
				COUNTY	CHECKED BY: T. OLIVER		SHEET NO.
				SUSSEX			11

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FILL SLOPE RATIO CHART	
HEIGHT OF EMBANKMENT	SLOPE RATIO
0' TO 5'	6:1
5' TO 10'	4:1
10' TO 15'	3:1
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LEGEND

- (A) ITEM 209001 - BORROW, TYPE A
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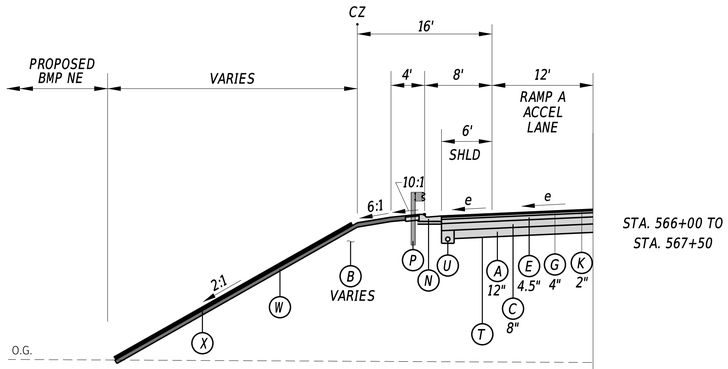
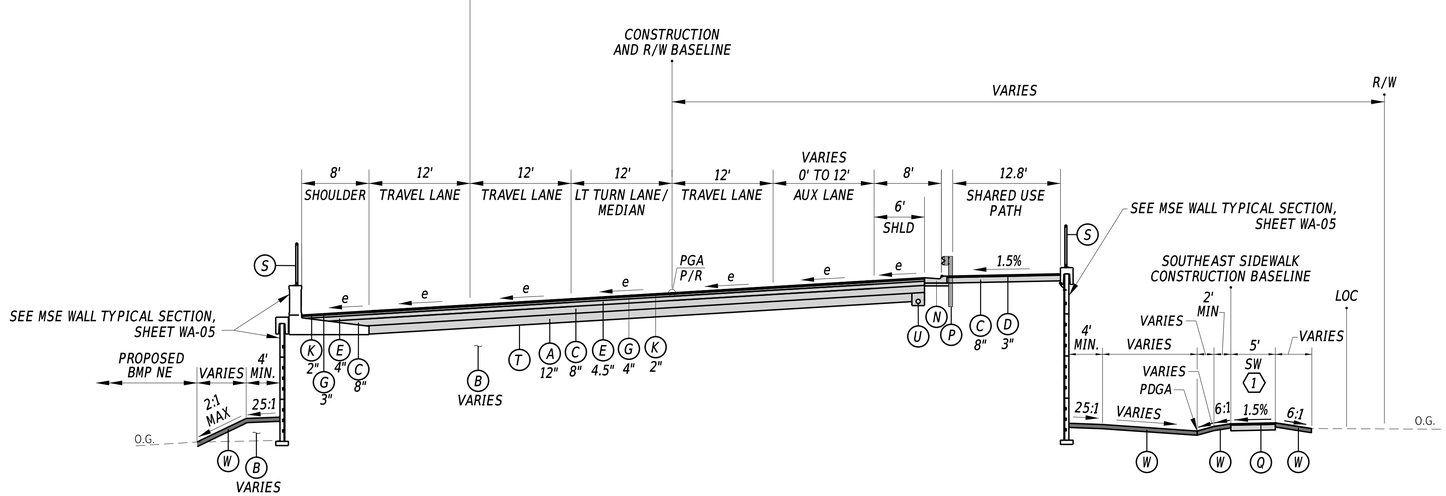
- (P) ITEM 720021 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31
- (Q) ITEM 705001 - PCC SIDEWALK, 4"
- (R) ITEM 705002 - PCC SIDEWALK, 6"
- (S) ITEM 727007 - BRIDGE SAFETY FENCE, TYPE 1
- (T) ITEM 708001 - GEOTEXTILES, STABILIZATION
- (U) ITEM 709001 - PERFORATED PIPE UNDERDRAINS, 6" (WHERE SHOWN ON PLANS)
- (V) ITEM 760010 - PAVEMENT MILLING, BITUMINOUS CONCRETE PAVEMENT
- (W) ITEM 908004 - TOPSOIL, 6" DEPTH OR ITEM 908010 - TOPSOILING, 6" DEPTH
  ITEM 908014 - PERMANENT GRASS SEEDING, DRY GROUND
  ITEM 908026 - EROSION CONTROL MULCH
- (X) ITEM 908020 - EROSION CONTROL BLANKET MULCH
- (Y) SAFETY EDGE (INCIDENTAL TO RESPECTIVE SUPERPAVE ITEMS)
- (Z) ITEM 720023 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 3-31
- (AA) ITEM 626504 - ALUMINUM PEDESTRIAN RAILING
- (BB) ITEM 701507 - CURB RETAINING WALL, TYPE 1
- (CC) ITEM 722001 - HIGH TENSION CABLE BARRIER





SR 18 / SR 404 - TYPICAL SUPERELEVATED SECTION

STATION 565+10 TO STATION 567+50

MATERIAL	LIFT THICKNESS	
	MINIMUM	MAXIMUM
BITUMINOUS CONCRETE, TYPE 'C' (4.75 MM MIX)	0.5"	1"
BITUMINOUS CONCRETE, TYPE 'C' (9.25 MM MIX)	1.25"	2"
BITUMINOUS CONCRETE, TYPE 'C' (12.5 MM MIX)	1.5"	2"
BITUMINOUS CONCRETE, TYPE 'B' (19 MM MIX), (76-22, 70-22)	2.25"	4"
BITUMINOUS CONCRETE, TYPE 'B' (19 MM MIX), (64-22)	2.25"	6"
GRADED AGGREGATE BASE COURSE	4"	8"

(1) SEE SHEET 61 FOR LOCATION AND DETAILS OF SOUTHEAST SIDEWALK CONNECTION

NOTES:

1. PGA - POINT OF GRADE APPLICATION
   PDGA - POINT OF DITCH GRADE APPLICATION
   P/R - POINT OF ROTATION
2. THE PGA IS APPLIED TO THE TOP OF THE FINAL PAVEMENT SURFACE. IN AREAS WHERE THE PGA IS LOCATED WITHIN THE RAISED MEDIAN, ITS VERTICAL LOCATION SHALL BE THE TOP OF ADJACENT PAVEMENT ELEVATION PROJECTED AT THE PROPOSED CROSS SLOPE TO THE CONSTRUCTION BASELINE.
3. MAXIMUM ALGEBRAIC DIFFERENCE OF CROSS SLOPES SHALL NOT EXCEED 8%.
4. EROSION CONTROL BLANKET IS REQUIRED ON ALL EMBANKMENT SLOPES STEEPER THAN 3:1 AND/OR SLOPES THAT ARE 50' OR LONGER.
5. THE CONTRACTOR SHALL USE ITEM 401037 AT VARIABLE DEPTH AS NEEDED TO REACH THE PROPOSED ROADWAY PROFILE GRADE AND ACHIEVE THE CROSS SLOPES AS SHOWN ON TYPICAL SECTIONS FOR SR 18 / SR 404 AT INTERSECTION WITH CARMEAN WAY, SHEET 9 AND US 113 SB RT TURN / SHOULDER, SHEET 8.
6. WHEN PROPOSED PAVEMENT WIDTH IS LESS THAN 4', USE PROPOSED PATCHING PAVEMENT ITEMS AT THE SAME DEPTH AS INDICATED ON TYPICAL SECTIONS.

   ITEM 301002 - GABC, PATCHING
   ITEM 401029 - SUPERPAVE TYPE C, PG64-22 PATCHING
   ITEM 401030 - SUPERPAVE TYPE B, PG64-22 PATCHING

ADDENDA / REVISIONS		NOT TO SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	TYPICAL SECTIONS	SECTION
				T201412701	DESIGNED BY: M. FOX		WRA
				COUNTY	CHECKED BY: T. OLIVER		SHEET NO.
				SUSSEX			12

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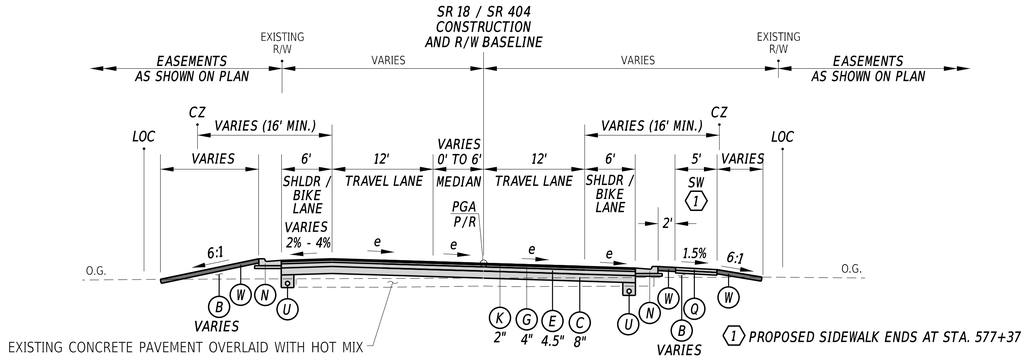
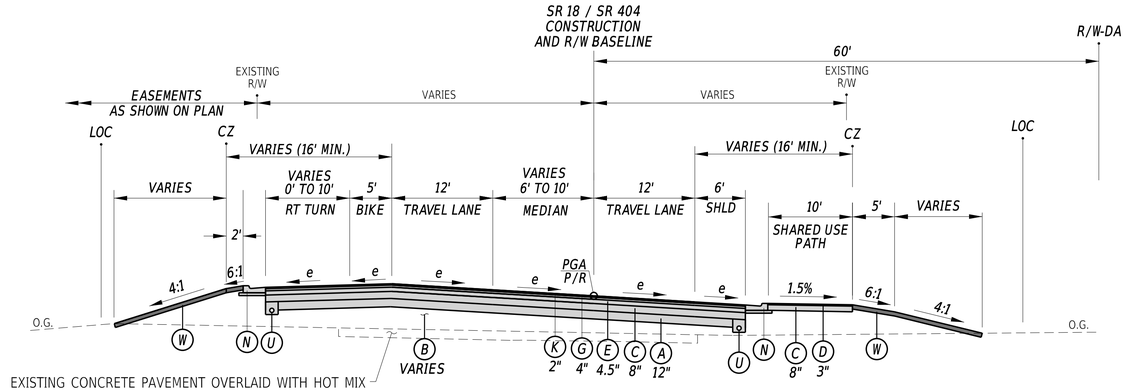


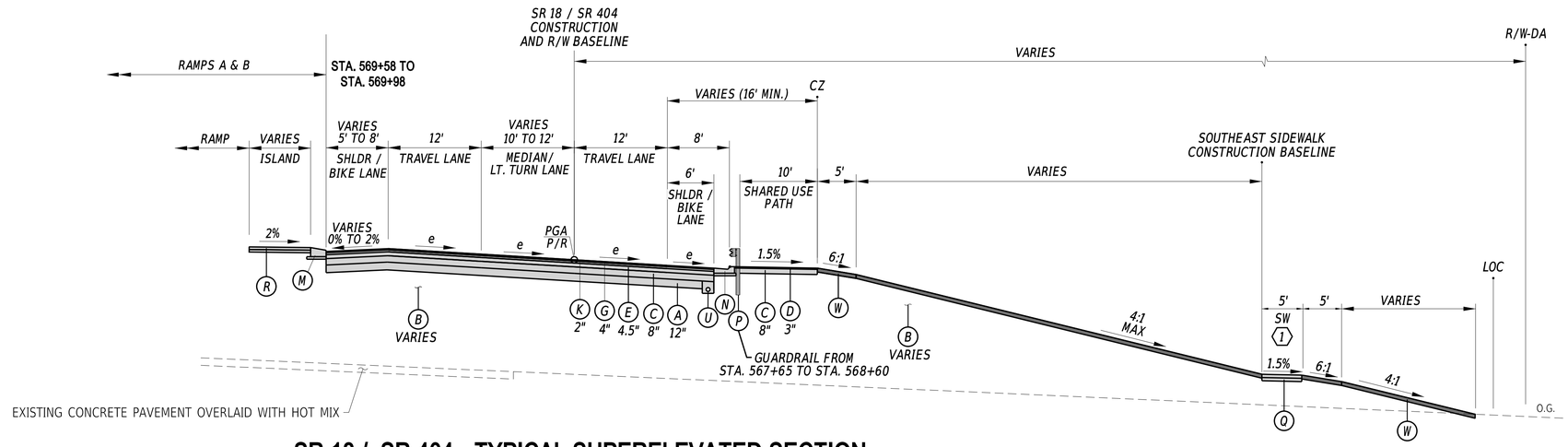
SR 18 / SR 404 - TYPICAL SUPERELEVATED SECTION

STATION 572+25 TO STATION 578+63



SR 18 / SR 404 - TYPICAL SUPERELEVATED SECTION

STATION 570+50 TO STATION 572+25



SR 18 / SR 404 - TYPICAL SUPERELEVATED SECTION

STATION 567+65 TO STATION 570+50

LEGEND

- (A) ITEM 209001 - BORROW, TYPE A
- (B) ITEM 209006 - BORROW, TYPE F
- (C) ITEM 301001 - GABC
- (D) ITEM 401005 - SUPERPAVE TYPE C, PG 64-22 (CARBONATE STONE)
- (E) ITEM 401014 - SUPERPAVE TYPE B, PG 64-22
- (G) ITEM 401016 - SUPERPAVE TYPE B, PG 76-22
- (H) ITEM 401037 - SUPERPAVE TYPE B, PG 64-22, WEDGE
- (K) ITEM 401046 - SUPERPAVE TYPE C, PG 76-22 (NON-CARBONATE STONE)
- (M) ITEM 701014 - PCC CURB, TYPE 2
- (N) ITEM 701016 - I. PCC CURB AND GUTTER, TYPE 1-4
- (P) ITEM 720021 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31
- (Q) ITEM 705001 - PCC SIDEWALK, 4"
- (R) ITEM 705002 - PCC SIDEWALK, 6"
- (S) ITEM 727007 - BRIDGE SAFETY FENCE, TYPE 1
- (T) ITEM 708001 - GEOTEXTILES, STABILIZATION
- (U) ITEM 709001 - PERFORATED PIPE UNDERDRAINS, 6" (WHERE SHOWN ON PLANS)
- (V) ITEM 760010 - PAVEMENT MILLING, BITUMINOUS CONCRETE PAVEMENT
- (W) ITEM 908004 - TOPSOIL, 6" DEPTH OR ITEM 908010 - TOPSOILING, 6" DEPTH
  ITEM 908014 - PERMANENT GRASS SEEDING, DRY GROUND
  ITEM 908026 - EROSION CONTROL MULCH
- (X) ITEM 908020 - EROSION CONTROL BLANKET MULCH
- (Y) SAFETY EDGE (INCIDENTAL TO RESPECTIVE SUPERPAVE ITEMS)
- (Z) ITEM 720023 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 3-31
- (AA) ITEM 626504 - ALUMINUM PEDESTRIAN RAILING
- (BB) ITEM 701507 - CURB RETAINING WALL, TYPE 1
- (CC) ITEM 722001 - HIGH TENSION CABLE BARRIER

MATERIAL	LIFT THICKNESS	
	MINIMUM	MAXIMUM
BITUMINOUS CONCRETE, TYPE 'C' (4.75 MM MIX)	0.5"	1"
BITUMINOUS CONCRETE, TYPE 'C' (9.25 MM MIX)	1.25"	2"
BITUMINOUS CONCRETE, TYPE 'C' (12.5 MM MIX)	1.5"	2"
BITUMINOUS CONCRETE, TYPE 'B' (19 MM MIX), (76-22, 70-22)	2.25"	4"
BITUMINOUS CONCRETE, TYPE 'B' (19 MM MIX), (64-22)	2.25"	6"
GRADED AGGREGATE BASE COURSE	4"	8"

NOTES:

1. PGA - POINT OF GRADE APPLICATION
   PDGA - POINT OF DITCH GRADE APPLICATION
   P/R - POINT OF ROTATION
2. THE PGA IS APPLIED TO THE TOP OF THE FINAL PAVEMENT SURFACE. IN AREAS WHERE THE PGA IS LOCATED WITHIN THE RAISED MEDIAN, ITS VERTICAL LOCATION SHALL BE THE TOP OF ADJACENT PAVEMENT ELEVATION PROJECTED AT THE PROPOSED CROSS SLOPE TO THE CONSTRUCTION BASELINE.
3. MAXIMUM ALGEBRAIC DIFFERENCE OF CROSS SLOPES SHALL NOT EXCEED 8%.
4. EROSION CONTROL BLANKET IS REQUIRED ON ALL EMBANKMENT SLOPES STEEPER THAN 3:1 AND/OR SLOPES THAT ARE 50' OR LONGER.
5. THE CONTRACTOR SHALL USE ITEM 401037 AT VARIABLE DEPTH AS NEEDED TO REACH THE PROPOSED ROADWAY PROFILE GRADE AND ACHIEVE THE CROSS SLOPES AS SHOWN ON TYPICAL SECTIONS FOR SR 18 / SR 404 AT INTERSECTION WITH CARMEAN WAY, SHEET 9 AND US 113 SB RT TURN / SHOULDER, SHEET 8.
6. WHEN PROPOSED PAVEMENT WIDTH IS LESS THAN 4', USE PROPOSED PATCHING PAVEMENT ITEMS AT THE SAME DEPTH AS INDICATED ON TYPICAL SECTIONS.

   ITEM 301002 - GABC, PATCHING
   ITEM 401029 - SUPERPAVE TYPE C, PG64-22 PATCHING
   ITEM 401030 - SUPERPAVE TYPE B, PG64-22 PATCHING

ADDENDA / REVISIONS	NOT TO SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	TYPICAL SECTIONS	SECTION
			T201412701	DESIGNED BY: M. FOX		WRA
			COUNTY	CHECKED BY: T. OLIVER		SHEET NO.
			SUSSEX			13

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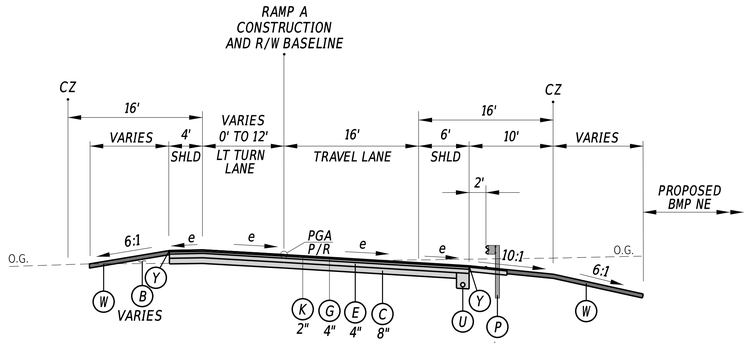
FILL SLOPE RATIO CHART	
HEIGHT OF EMBANKMENT	SLOPE RATIO
0' TO 5'	6:1
5' TO 10'	4:1
10' TO 15'	3:1
>15'	2:1

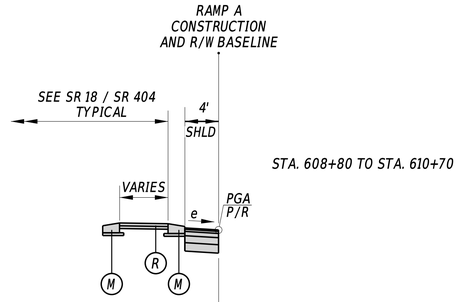
LEGEND

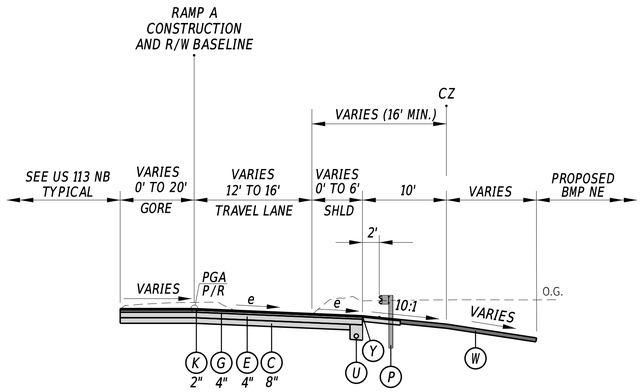
- (A) ITEM 209001 - BORROW, TYPE A
- (B) ITEM 209006 - BORROW, TYPE F
- (C) ITEM 301001 - GABC
- (D) ITEM 401005 - SUPERPAVE TYPE C, PG 64-22 (CARBONATE STONE)
- (E) ITEM 401014 - SUPERPAVE TYPE B, PG 64-22
- (G) ITEM 401016 - SUPERPAVE TYPE B, PG 76-22
- (H) ITEM 401037 - SUPERPAVE TYPE B, PG 64-22, WEDGE
- (K) ITEM 401046 - SUPERPAVE TYPE C, PG 76-22 (NON-CARBONATE STONE)
- (M) ITEM 701014 - PCC CURB, TYPE 2
- (N) ITEM 701016 - I. PCC CURB AND GUTTER, TYPE 1-4
- (P) ITEM 720021 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31
- (Q) ITEM 705001 - PCC SIDEWALK, 4"
- (R) ITEM 705002 - PCC SIDEWALK, 6"
- (S) ITEM 727007 - BRIDGE SAFETY FENCE, TYPE 1
- (T) ITEM 708001 - GEOTEXTILES, STABILIZATION
- (U) ITEM 709001 - PERFORATED PIPE UNDERDRAINS, 6" (WHERE SHOWN ON PLANS)
- (V) ITEM 760010 - PAVEMENT MILLING, BITUMINOUS CONCRETE PAVEMENT
- (W) ITEM 908004 - TOPSOIL, 6" DEPTH OR ITEM 908010 - TOPSOILING, 6" DEPTH
  ITEM 908014 - PERMANENT GRASS SEEDING, DRY GROUND
  ITEM 908026 - EROSION CONTROL MULCH
- (X) ITEM 908020 - EROSION CONTROL BLANKET MULCH
- (Y) SAFETY EDGE (INCIDENTAL TO RESPECTIVE SUPERPAVE ITEMS)
- (Z) ITEM 720023 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 3-31
- (AA) ITEM 626504 - ALUMINUM PEDESTRIAN RAILING
- (BB) ITEM 701507 - CURB RETAINING WALL, TYPE 1
- (CC) ITEM 722001 - HIGH TENSION CABLE BARRIER



RAMP A - TYPICAL SUPERELEVATED SECTION

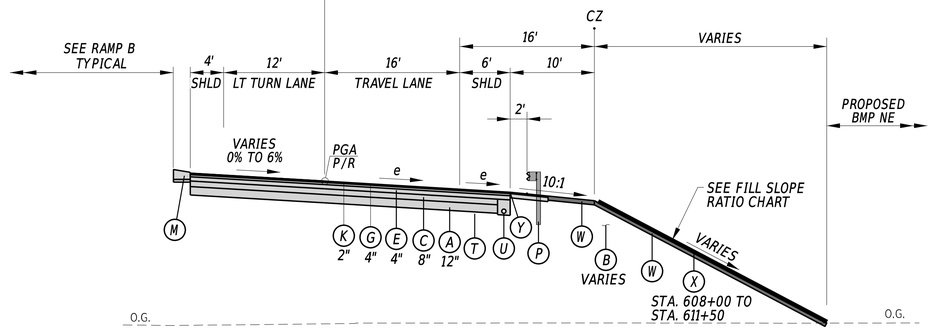
STATION 602+00 TO STATION 606+25





RAMP A - TYPICAL SUPERELEVATED SECTION

STATION 600+00 TO STATION 602+00



RAMP A - TYPICAL SUPERELEVATED SECTION

STATION 606+25 TO STATION 611+50

MATERIAL	LIFT THICKNESS	
	MINIMUM	MAXIMUM
BITUMINOUS CONCRETE, TYPE 'C' (4.75 MM MIX)	0.5"	1"
BITUMINOUS CONCRETE, TYPE 'C' (9.25 MM MIX)	1.25"	2"
BITUMINOUS CONCRETE, TYPE 'C' (12.5 MM MIX)	1.5"	2"
BITUMINOUS CONCRETE, TYPE 'B' (19 MM MIX), (76-22, 70-22)	2.25"	4"
BITUMINOUS CONCRETE, TYPE 'B' (19 MM MIX), (64-22)	2.25"	6"
GRADED AGGREGATE BASE COURSE	4"	8"

NOTES:

1. PGA - POINT OF GRADE APPLICATION
   PDGA - POINT OF DITCH GRADE APPLICATION
   P/R - POINT OF ROTATION
2. THE PGA IS APPLIED TO THE TOP OF THE FINAL PAVEMENT SURFACE. IN AREAS WHERE THE PGA IS LOCATED WITHIN THE RAISED MEDIAN, ITS VERTICAL LOCATION SHALL BE THE TOP OF ADJACENT PAVEMENT ELEVATION PROJECTED AT THE PROPOSED CROSS SLOPE TO THE CONSTRUCTION BASELINE.
3. MAXIMUM ALGEBRAIC DIFFERENCE OF CROSS SLOPES SHALL NOT EXCEED 8%.
4. EROSION CONTROL BLANKET IS REQUIRED ON ALL EMBANKMENT SLOPES STEEPER THAN 3:1 AND/OR SLOPES THAT ARE 50' OR LONGER.
5. THE CONTRACTOR SHALL USE ITEM 401037 AT VARIABLE DEPTH AS NEEDED TO REACH THE PROPOSED ROADWAY PROFILE GRADE AND ACHIEVE THE CROSS SLOPES AS SHOWN ON TYPICAL SECTIONS FOR SR 18 / SR 404 AT INTERSECTION WITH CARMEAN WAY, SHEET 9 AND US 113 SB RT TURN / SHOULDER, SHEET 8.
6. WHEN PROPOSED PAVEMENT WIDTH IS LESS THAN 4', USE PROPOSED PATCHING PAVEMENT ITEMS AT THE SAME DEPTH AS INDICATED ON TYPICAL SECTIONS.

   ITEM 301002 - GABC, PATCHING
   ITEM 401029 - SUPERPAVE TYPE C, PG64-22 PATCHING
   ITEM 401030 - SUPERPAVE TYPE B, PG64-22 PATCHING

ADDENDA / REVISIONS		NOT TO SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	TYPICAL SECTIONS	SECTION
				T201412701	DESIGNED BY: M. FOX		WRA
				COUNTY	CHECKED BY: T. OLIVER		SHEET NO.
				SUSSEX			14

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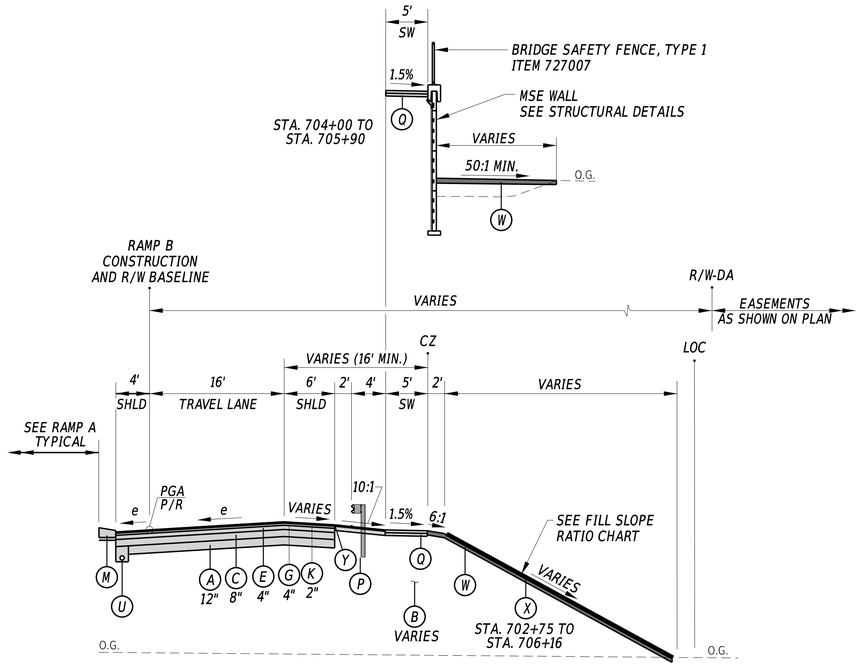
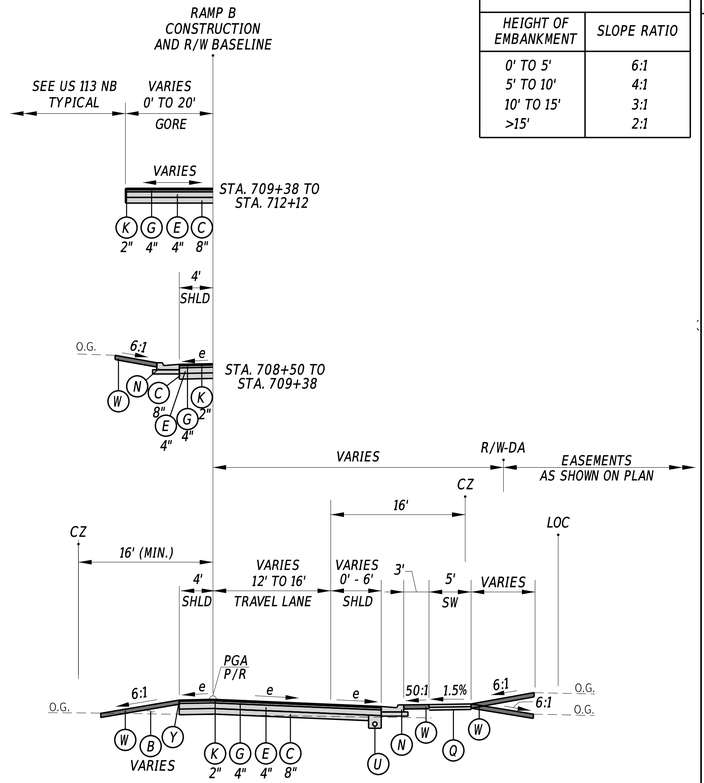


RAMP B - TYPICAL SUPERELEVATED SECTION

STATION 702+00 TO STATION 706+16

FILL SLOPE RATIO CHART	
HEIGHT OF EMBANKMENT	SLOPE RATIO
0' TO 5'	6:1
5' TO 10'	4:1
10' TO 15'	3:1
>15'	2:1

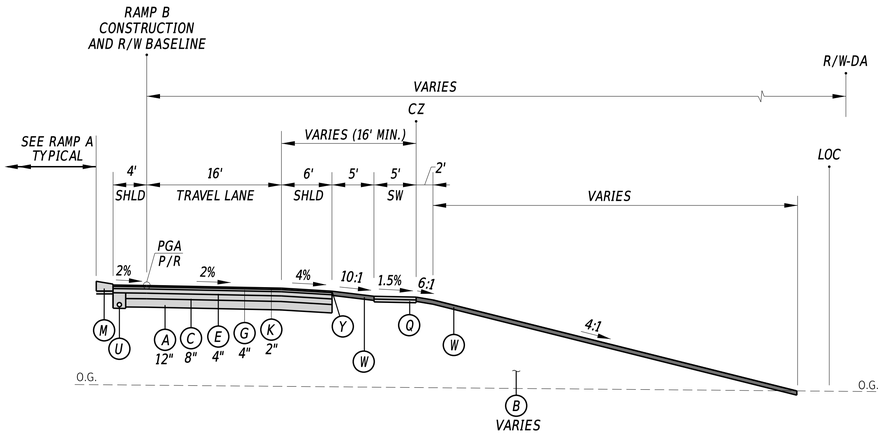


RAMP B - TYPICAL SUPERELEVATED SECTION

STATION 707+60 STATION 712+12

LEGEND

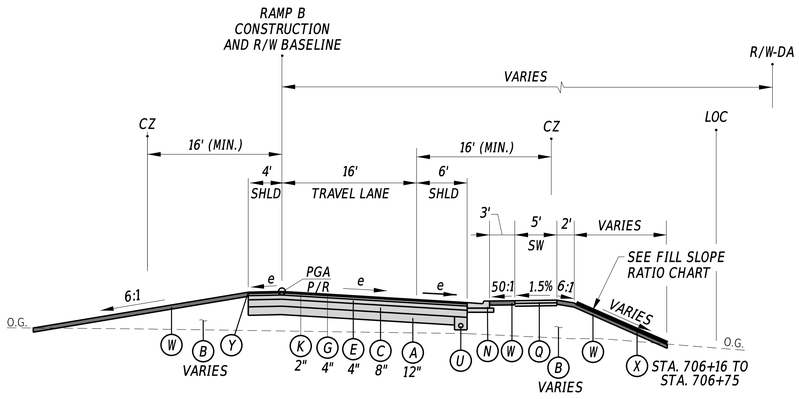
- (A) ITEM 209001 - BORROW, TYPE A
- (B) ITEM 209006 - BORROW, TYPE F
- (C) ITEM 301001 - GABC
- (D) ITEM 401005 - SUPERPAVE TYPE C, PG 64-22 (CARBONATE STONE)
- (E) ITEM 401014 - SUPERPAVE TYPE B, PG 64-22
- (G) ITEM 401016 - SUPERPAVE TYPE B, PG 76-22
- (H) ITEM 401037 - SUPERPAVE TYPE B, PG 64-22, WEDGE
- (K) ITEM 401046 - SUPERPAVE TYPE C, PG 76-22 (NON-CARBONATE STONE)
- (M) ITEM 701014 - PCC CURB, TYPE 2
- (N) ITEM 701016 - I. PCC CURB AND GUTTER, TYPE 1-4
- (P) ITEM 720021 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31
- (Q) ITEM 705001 - PCC SIDEWALK, 4"
- (R) ITEM 705002 - PCC SIDEWALK, 6"
- (S) ITEM 727007 - BRIDGE SAFETY FENCE, TYPE 1
- (T) ITEM 708001 - GEOTEXTILES, STABILIZATION
- (U) ITEM 709001 - PERFORATED PIPE UNDERDRAINS, 6" (WHERE SHOWN ON PLANS)
- (V) ITEM 760010 - PAVEMENT MILLING, BITUMINOUS CONCRETE PAVEMENT
- (W) ITEM 908004 - TOPSOIL, 6" DEPTH OR ITEM 908010 - TOPSOILING, 6" DEPTH
  ITEM 908014 - PERMANENT GRASS SEEDING, DRY GROUND
  ITEM 908026 - EROSION CONTROL MULCH
- (X) ITEM 908020 - EROSION CONTROL BLANKET MULCH
- (Y) SAFETY EDGE (INCIDENTAL TO RESPECTIVE SUPERPAVE ITEMS)
- (Z) ITEM 720023 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 3-31
- (AA) ITEM 626504 - ALUMINUM PEDESTRIAN RAILING
- (BB) ITEM 701507 - CURB RETAINING WALL, TYPE 1
- (CC) ITEM 722001 - HIGH TENSION CABLE BARRIER



RAMP B - TYPICAL NORMAL SECTION

STATION 701+00 TO STATION 702+00

MATERIAL	LIFT THICKNESS	
	MINIMUM	MAXIMUM
BITUMINOUS CONCRETE, TYPE 'C' (4.75 MM MIX)	0.5"	1"
BITUMINOUS CONCRETE, TYPE 'C' (9.25 MM MIX)	1.25"	2"
BITUMINOUS CONCRETE, TYPE 'C' (12.5 MM MIX)	1.5"	2"
BITUMINOUS CONCRETE, TYPE 'B' (19 MM MIX), (76-22, 70-22)	2.25"	4"
BITUMINOUS CONCRETE, TYPE 'B' (19 MM MIX), (64-22)	2.25"	6"
GRADED AGGREGATE BASE COURSE	4"	8"



RAMP B - TYPICAL SUPERELEVATED SECTION

STATION 706+16 TO STATION 707+60

NOTES:

1. PGA - POINT OF GRADE APPLICATION
   PDGA - POINT OF DITCH GRADE APPLICATION
   P/R - POINT OF ROTATION
2. THE PGA IS APPLIED TO THE TOP OF THE FINAL PAVEMENT SURFACE. IN AREAS WHERE THE PGA IS LOCATED WITHIN THE RAISED MEDIAN, ITS VERTICAL LOCATION SHALL BE THE TOP OF ADJACENT PAVEMENT ELEVATION PROJECTED AT THE PROPOSED CROSS SLOPE TO THE CONSTRUCTION BASELINE.
3. MAXIMUM ALGEBRAIC DIFFERENCE OF CROSS SLOPES SHALL NOT EXCEED 8%.
4. EROSION CONTROL BLANKET IS REQUIRED ON ALL EMBANKMENT SLOPES STEEPER THAN 3:1 AND/OR SLOPES THAT ARE 50' OR LONGER.
5. THE CONTRACTOR SHALL USE ITEM 401037 AT VARIABLE DEPTH AS NEEDED TO REACH THE PROPOSED ROADWAY PROFILE GRADE AND ACHIEVE THE CROSS SLOPES AS SHOWN ON TYPICAL SECTIONS FOR SR 18 / SR 404 AT INTERSECTION WITH CARMEAN WAY, SHEET 9 AND US 113 SB RT TURN / SHOULDER, SHEET 8.
6. WHEN PROPOSED PAVEMENT WIDTH IS LESS THAN 4', USE PROPOSED PATCHING PAVEMENT ITEMS AT THE SAME DEPTH AS INDICATED ON TYPICAL SECTIONS.

   ITEM 301002 - GABC, PATCHING
   ITEM 401029 - SUPERPAVE TYPE C, PG64-22 PATCHING
   ITEM 401030 - SUPERPAVE TYPE B, PG64-22 PATCHING

ADDENDA / REVISIONS		NOT TO SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	TYPICAL SECTIONS	SECTION
				T201412701	DESIGNED BY: M. FOX		WRA
				COUNTY			SHEET NO.
				SUSSEX	CHECKED BY: T. OLIVER		15

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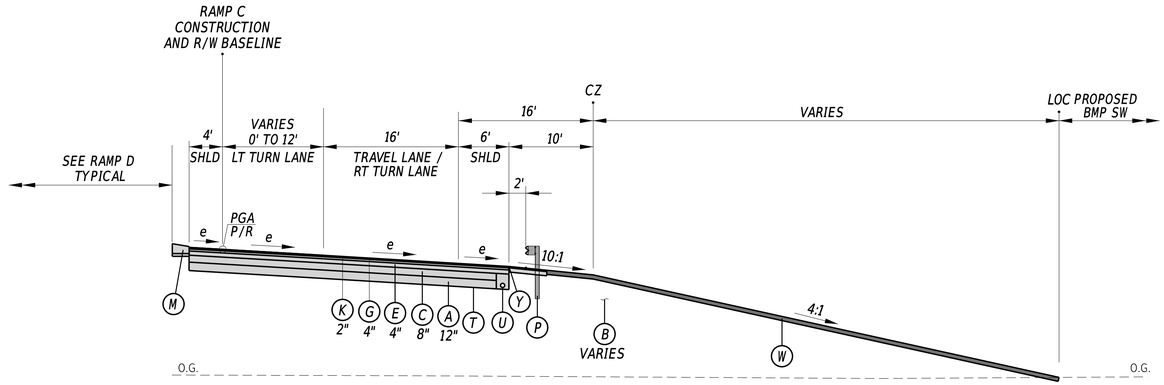
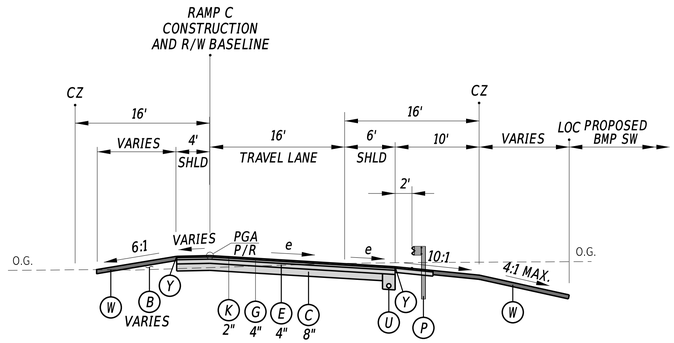


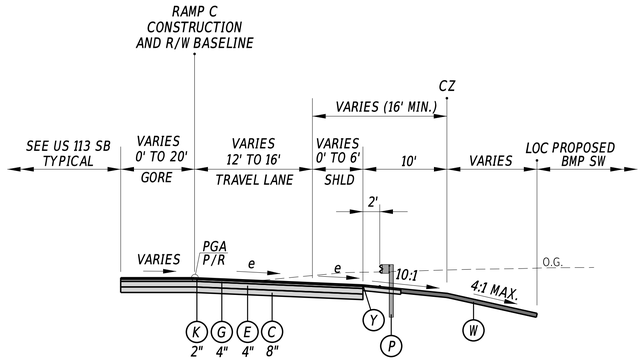
RAMP C - TYPICAL SUPERELEVATED SECTION

STATION 805+40 TO STATION 810+70



RAMP C - TYPICAL SUPERELEVATED SECTION

STATION 801+80 TO STATION 805+40



RAMP C - TYPICAL SUPERELEVATED SECTION

STATION 800+00 TO STATION 801+80

LEGEND

- (A) ITEM 209001 - BORROW, TYPE A
- (B) ITEM 209006 - BORROW, TYPE F
- (C) ITEM 301001 - GABC
- (D) ITEM 401005 - SUPERPAVE TYPE C, PG 64-22 (CARBONATE STONE)
- (E) ITEM 401014 - SUPERPAVE TYPE B, PG 64-22
- (G) ITEM 401016 - SUPERPAVE TYPE B, PG 76-22
- (H) ITEM 401037 - SUPERPAVE TYPE B, PG 64-22, WEDGE
- (K) ITEM 401046 - SUPERPAVE TYPE C, PG 76-22 (NON-CARBONATE STONE)
- (M) ITEM 701014 - PCC CURB, TYPE 2
- (N) ITEM 701016 - I. PCC CURB AND GUTTER, TYPE 1-4
- (P) ITEM 720021 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31
- (Q) ITEM 705001 - PCC SIDEWALK, 4"
- (R) ITEM 705002 - PCC SIDEWALK, 6"
- (S) ITEM 727007 - BRIDGE SAFETY FENCE, TYPE 1
- (T) ITEM 708001 - GEOTEXTILES, STABILIZATION
- (U) ITEM 709001 - PERFORATED PIPE UNDERDRAINS, 6" (WHERE SHOWN ON PLANS)
- (V) ITEM 760010 - PAVEMENT MILLING, BITUMINOUS CONCRETE PAVEMENT
- (W) ITEM 908004 - TOPSOIL, 6" DEPTH OR ITEM 908010 - TOPSOILING, 6" DEPTH
  ITEM 908014 - PERMANENT GRASS SEEDING, DRY GROUND
  ITEM 908026 - EROSION CONTROL MULCH
- (X) ITEM 908020 - EROSION CONTROL BLANKET MULCH
- (Y) SAFETY EDGE (INCIDENTAL TO RESPECTIVE SUPERPAVE ITEMS)
- (Z) ITEM 720023 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 3-31
- (AA) ITEM 626504 - ALUMINUM PEDESTRIAN RAILING
- (BB) ITEM 701507 - CURB RETAINING WALL, TYPE 1
- (CC) ITEM 722001 - HIGH TENSION CABLE BARRIER

MATERIAL	LIFT THICKNESS	
	MINIMUM	MAXIMUM
BITUMINOUS CONCRETE, TYPE 'C' (4.75 MM MIX)	0.5"	1"
BITUMINOUS CONCRETE, TYPE 'C' (9.25 MM MIX)	1.25"	2"
BITUMINOUS CONCRETE, TYPE 'C' (12.5 MM MIX)	1.5"	2"
BITUMINOUS CONCRETE, TYPE 'B' (19 MM MIX), (76-22, 70-22)	2.25"	4"
BITUMINOUS CONCRETE, TYPE 'B' (19 MM MIX), (64-22)	2.25"	6"
GRADED AGGREGATE BASE COURSE	4"	8"

NOTES:

1. PGA - POINT OF GRADE APPLICATION
   PDGA - POINT OF DITCH GRADE APPLICATION
   P/R - POINT OF ROTATION
2. THE PGA IS APPLIED TO THE TOP OF THE FINAL PAVEMENT SURFACE. IN AREAS WHERE THE PGA IS LOCATED WITHIN THE RAISED MEDIAN, ITS VERTICAL LOCATION SHALL BE THE TOP OF ADJACENT PAVEMENT ELEVATION PROJECTED AT THE PROPOSED CROSS SLOPE TO THE CONSTRUCTION BASELINE.
3. MAXIMUM ALGEBRAIC DIFFERENCE OF CROSS SLOPES SHALL NOT EXCEED 8%.
4. EROSION CONTROL BLANKET IS REQUIRED ON ALL EMBANKMENT SLOPES STEEPER THAN 3:1 AND/OR SLOPES THAT ARE 50' OR LONGER.
5. THE CONTRACTOR SHALL USE ITEM 401037 AT VARIABLE DEPTH AS NEEDED TO REACH THE PROPOSED ROADWAY PROFILE GRADE AND ACHIEVE THE CROSS SLOPES AS SHOWN ON TYPICAL SECTIONS FOR SR 18 / SR 404 AT INTERSECTION WITH CARMEAN WAY, SHEET 9 AND US 113 SB RT TURN / SHOULDER, SHEET 8.
6. WHEN PROPOSED PAVEMENT WIDTH IS LESS THAN 4', USE PROPOSED PATCHING PAVEMENT ITEMS AT THE SAME DEPTH AS INDICATED ON TYPICAL SECTIONS.

   ITEM 301002 - GABC, PATCHING
   ITEM 401029 - SUPERPAVE TYPE C, PG64-22 PATCHING
   ITEM 401030 - SUPERPAVE TYPE B, PG64-22 PATCHING

ADDENDA / REVISIONS		NOT TO SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	TYPICAL SECTIONS	SECTION
				T201412701	DESIGNED BY: M. FOX		WRA
				COUNTY	CHECKED BY: T. OLIVER		SHEET NO.
				SUSSEX			16

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FILL SLOPE RATIO CHART	
HEIGHT OF EMBANKMENT	SLOPE RATIO
0' TO 5'	6:1
5' TO 10'	4:1
10' TO 15'	3:1
>15'	2:1

LEGEND

- (A) ITEM 209001 - BORROW, TYPE A
- (B) ITEM 209006 - BORROW, TYPE F
- (C) ITEM 301001 - GABC
- (D) ITEM 401005 - SUPERPAVE TYPE C, PG 64-22 (CARBONATE STONE)
- (E) ITEM 401014 - SUPERPAVE TYPE B, PG 64-22
- (G) ITEM 401016 - SUPERPAVE TYPE B, PG 76-22
- (H) ITEM 401037 - SUPERPAVE TYPE B, PG 64-22, WEDGE
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- (U) ITEM 709001 - PERFORATED PIPE UNDERDRAINS, 6" (WHERE SHOWN ON PLANS)
- (V) ITEM 760010 - PAVEMENT MILLING, BITUMINOUS CONCRETE PAVEMENT
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  ITEM 908014 - PERMANENT GRASS SEEDING, DRY GROUND
  ITEM 908026 - EROSION CONTROL MULCH
- (X) ITEM 908020 - EROSION CONTROL BLANKET MULCH
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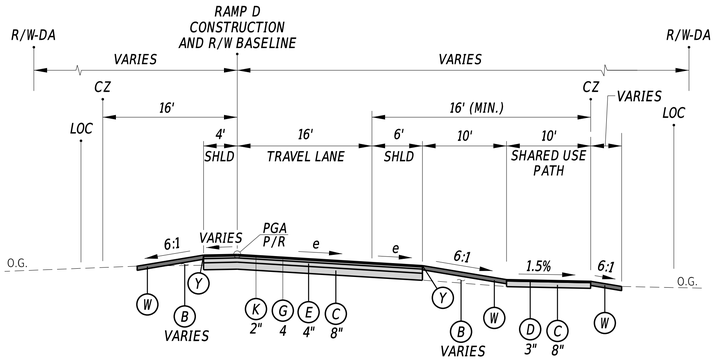
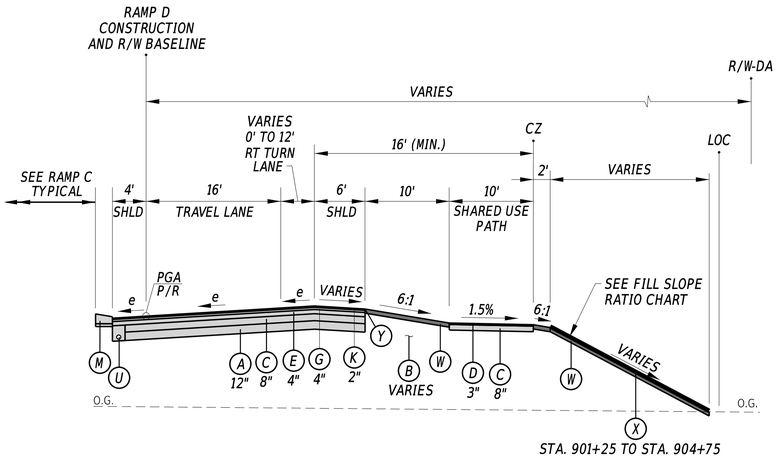
- (Z) ITEM 720023 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 3-31
- (AA) ITEM 626504 - ALUMINUM PEDESTRIAN RAILING
- (BB) ITEM 701507 - CURB RETAINING WALL, TYPE 1
- (CC) ITEM 722001 - HIGH TENSION CABLE BARRIER



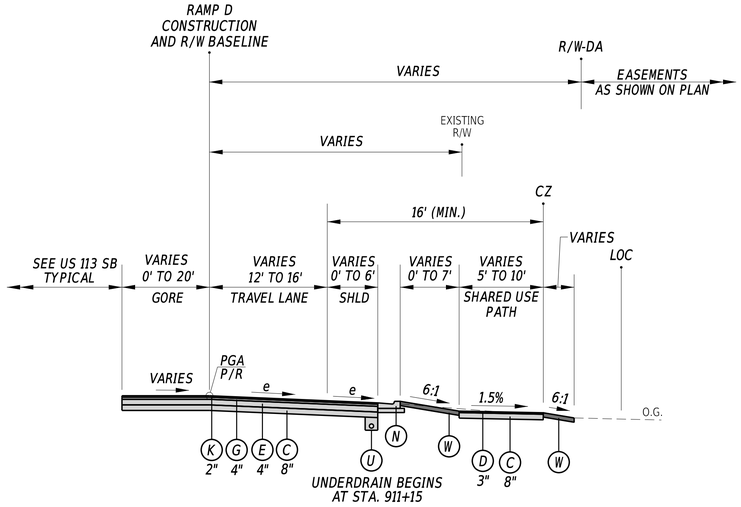
RAMP D - TYPICAL SUPERELEVATED SECTION

STATION 907+00 TO STATION 910+60



RAMP D - TYPICAL SUPERELEVATED SECTION

STATION 901+00 TO STATION 907+00



RAMP D - TYPICAL SUPERELEVATED SECTION

STATION 910+60 STATION 914+00

MATERIAL	LIFT THICKNESS	
	MINIMUM	MAXIMUM
BITUMINOUS CONCRETE, TYPE 'C' (4.75 MM MIX)	0.5"	1"
BITUMINOUS CONCRETE, TYPE 'C' (9.25 MM MIX)	1.25"	2"
BITUMINOUS CONCRETE, TYPE 'C' (12.5 MM MIX)	1.5"	2"
BITUMINOUS CONCRETE, TYPE 'B' (19 MM MIX), (76-22, 70-22)	2.25"	4"
BITUMINOUS CONCRETE, TYPE 'B' (19 MM MIX), (64-22)	2.25"	6"
GRADED AGGREGATE BASE COURSE	4"	8"

NOTES:

1. PGA - POINT OF GRADE APPLICATION
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3. MAXIMUM ALGEBRAIC DIFFERENCE OF CROSS SLOPES SHALL NOT EXCEED 8%.
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5. THE CONTRACTOR SHALL USE ITEM 401037 AT VARIABLE DEPTH AS NEEDED TO REACH THE PROPOSED ROADWAY PROFILE GRADE AND ACHIEVE THE CROSS SLOPES AS SHOWN ON TYPICAL SECTIONS FOR SR 18 / SR 404 AT INTERSECTION WITH CARMEAN WAY, SHEET 9 AND US 113 SB RT TURN / SHOULDER, SHEET 8.
6. WHEN PROPOSED PAVEMENT WIDTH IS LESS THAN 4', USE PROPOSED PATCHING PAVEMENT ITEMS AT THE SAME DEPTH AS INDICATED ON TYPICAL SECTIONS.

   ITEM 301002 - GABC, PATCHING
   ITEM 401029 - SUPERPAVE TYPE C, PG64-22 PATCHING
   ITEM 401030 - SUPERPAVE TYPE B, PG64-22 PATCHING

ADDENDA / REVISIONS		NOT TO SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	TYPICAL SECTIONS	SECTION
				T201412701	DESIGNED BY: M. FOX		WRA
				COUNTY	CHECKED BY: T. OLIVER		SHEET NO.
				SUSSEX			17

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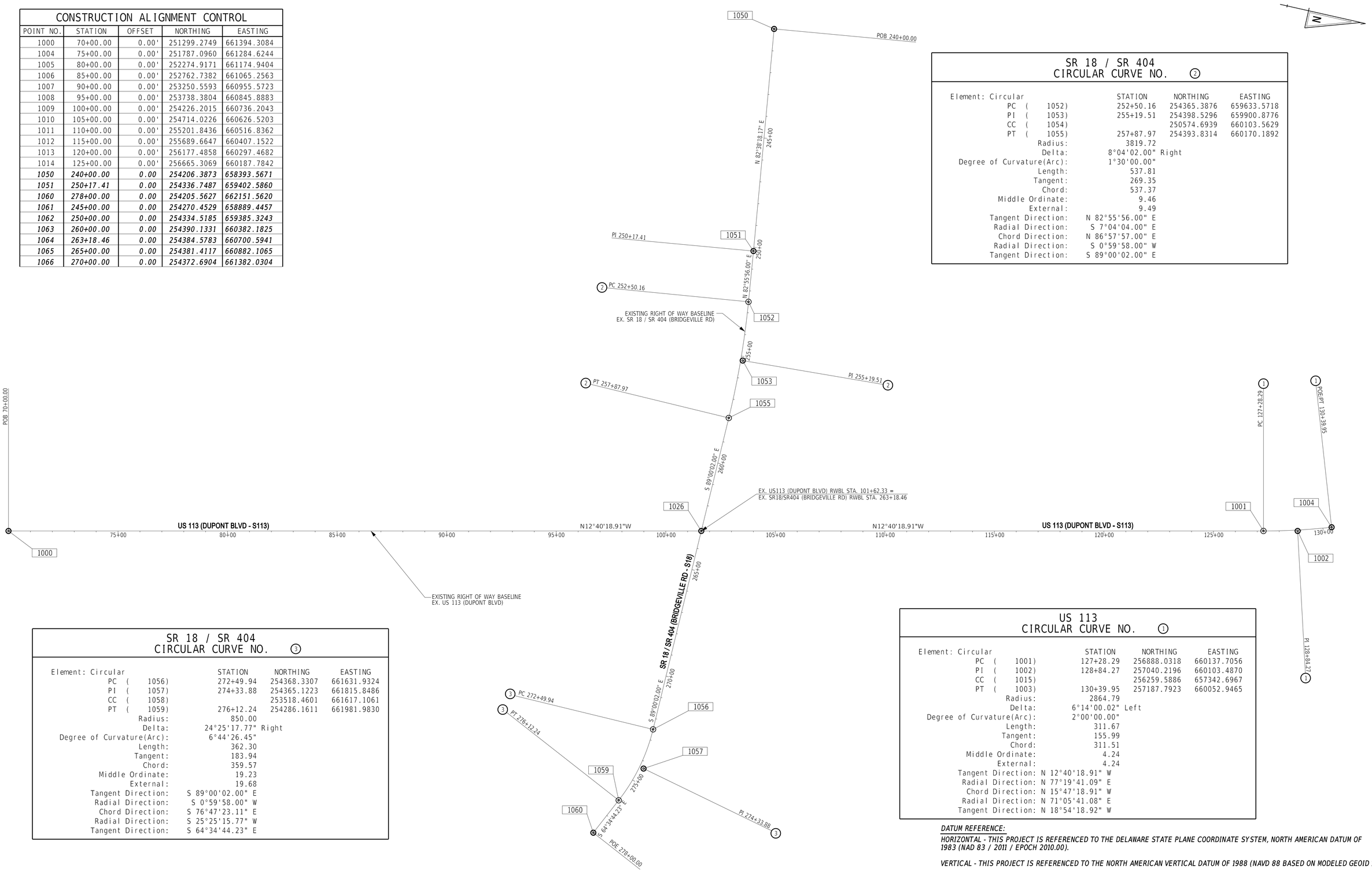
CONSTRUCTION ALIGNMENT CONTROL

POINT NO.	STATION	OFFSET	NORTHING	EASTING
1000	70+00.00	0.00'	251299.2749	661394.3084
1004	75+00.00	0.00'	251787.0960	661284.6244
1005	80+00.00	0.00'	252274.9171	661174.9404
1006	85+00.00	0.00'	252762.7382	661065.2563
1007	90+00.00	0.00'	253250.5593	660955.5723
1008	95+00.00	0.00'	253738.3804	660845.8883
1009	100+00.00	0.00'	254226.2015	660736.2043
1010	105+00.00	0.00'	254714.0226	660626.5203
1011	110+00.00	0.00'	255201.8436	660516.8362
1012	115+00.00	0.00'	255689.6647	660407.1522
1013	120+00.00	0.00'	256177.4858	660297.4682
1014	125+00.00	0.00'	256665.3069	660187.7842
1050	*240+00.00*	*0.00*	*254206.3873*	*658393.5671*
1051	*250+17.41*	*0.00*	*254336.7487*	*659402.5860*
1060	*278+00.00*	*0.00*	*254205.5627*	*662151.5620*
1061	*245+00.00*	*0.00*	*254270.4529*	*658889.4457*
1062	*250+00.00*	*0.00*	*254334.5185*	*659385.3243*
1063	*260+00.00*	*0.00*	*254390.1331*	*660382.1825*
1064	*263+18.46*	*0.00*	*254384.5783*	*660700.5941*
1065	*265+00.00*	*0.00*	*254381.4117*	*660882.1065*
1066	*270+00.00*	*0.00*	*254372.6904*	*661382.0304*



SR 18 / SR 404 CIRCULAR CURVE NO. (2)

Element: Circular		STATION	NORTHING	EASTING
PC (1052)		252+50.16	254365.3876	659633.5718
PI (1053)		255+19.51	254398.5296	659900.8776
CC (1054)			250574.6939	660103.5629
PT (1055)		257+87.97	254393.8314	660170.1892
Radius:	3819.72			
Delta:	8°04'02.00"	Right		
Degree of Curvature(Arc):	1°30'00.00"			
Length:	537.81			
Tangent:	269.35			
Chord:	537.37			
Middle Ordinate:	9.46			
External:	9.49			
Tangent Direction:	N 82°55'56.00" E			
Radial Direction:	S 7°04'04.00" E			
Chord Direction:	N 86°57'57.00" E			
Radial Direction:	S 0°59'58.00" W			
Tangent Direction:	S 89°00'02.00" E			

US 113 CIRCULAR CURVE NO. (1)

Element: Circular		STATION	NORTHING	EASTING
PC (1001)		127+28.29	256888.0318	660137.7056
PI (1002)		128+84.27	257040.2196	660103.4870
CC (1015)			256259.5886	657342.6967
PT (1003)		130+39.95	257187.7923	660052.9465
Radius:	2864.79			
Delta:	6°14'00.02"	Left		
Degree of Curvature(Arc):	2°00'00.00"			
Length:	311.67			
Tangent:	155.99			
Chord:	311.51			
Middle Ordinate:	4.24			
External:	4.24			
Tangent Direction:	N 12°40'18.91" W			
Radial Direction:	N 77°19'41.09" E			
Chord Direction:	N 15°47'18.91" W			
Radial Direction:	N 71°05'41.08" E			
Tangent Direction:	N 18°54'18.92" W			

SR 18 / SR 404 CIRCULAR CURVE NO. (3)

Element: Circular		STATION	NORTHING	EASTING
PC (1056)		272+49.94	254368.3307	661631.9324
PI (1057)		274+33.88	254365.1223	661815.8486
CC (1058)			253518.4601	661617.1061
PT (1059)		276+12.24	254286.1611	661981.9830
Radius:	850.00			
Delta:	24°25'17.77"	Right		
Degree of Curvature(Arc):	6°44'26.45"			
Length:	362.30			
Tangent:	183.94			
Chord:	359.57			
Middle Ordinate:	19.23			
External:	19.68			
Tangent Direction:	S 89°00'02.00" E			
Radial Direction:	S 0°59'58.00" W			
Chord Direction:	S 76°47'23.11" E			
Radial Direction:	S 25°25'15.77" W			
Tangent Direction:	S 64°34'44.23" E			

DATUM REFERENCE:

HORIZONTAL - THIS PROJECT IS REFERENCED TO THE DELAWARE STATE PLANE COORDINATE SYSTEM, NORTH AMERICAN DATUM OF 1983 (NAD 83 / 2011 / EPOCH 2010.00).

VERTICAL - THIS PROJECT IS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88 BASED ON MODELED GEOID 12A).

ADDENDA / REVISIONS

SCALE 0 200 400 600 FEET

US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO.	N/A
T201412701	DESIGNED BY:	S. BEALL
COUNTY	CHECKED BY:	T. OLIVER
SUSSEX		

EXISTING HORIZONTAL AND VERTICAL CONTROL

SECTION
WRA
SHEET NO.
18

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CONSTRUCTION ALIGNMENT CONTROL
US 113 SB

POINT NO.	STATION	OFFSET	NORTHING	EASTING
30000	300+00.00	0.00'	251286.5516	661337.7212
30001	359+00.00	0.00'	257042.8404	660043.4497
30002	305+00.00	0.00'	251774.3727	661228.0371
30003	310+00.00	0.00'	252262.1938	661118.3531
30004	315+00.00	0.00'	252750.0149	661008.6691
30005	320+00.00	0.00'	253237.8359	660898.9851
30006	325+00.00	0.00'	253725.6570	660789.3011
30007	330+00.00	0.00'	254213.4781	660679.6170
30008	335+00.00	0.00'	254701.2992	660569.9330
30009	340+00.00	0.00'	255189.1203	660460.2490
30010	345+00.00	0.00'	255676.9414	660350.5650
30011	350+00.00	0.00'	256164.7625	660240.8809
30012	355+00.00	0.00'	256652.5836	660131.1969

CONSTRUCTION & RW BASELINE ALIGNMENT CONTROL
SR 18 / SR 404

POINT NO.	STATION	OFFSET	NORTHING	EASTING
50000	544+00.00	0.00'	254257.6398	658790.2700
50010	579+30.00	0.00'	254178.3972	662207.3176
50011	563+48.58	0.00'	254154.6650	660692.8409
50012	564+65.69	0.00'	254165.0959	660809.3916
50017	550+00.00	0.00'	254333.8559	659385.4087
50018	548+07.11	0.00'	254309.8028	659194.0201
50019	545+00.00	0.00'	254270.4527	658889.4438

CONSTRUCTION ALIGNMENT CONTROL
US 113 NB

POINT NO.	STATION	OFFSET	NORTHING	EASTING
40000	400+00.00	0.00'	251311.9983	661450.8957
40004	460+00.00	0.00'	257157.0897	660102.5712
40005	405+00.00	0.00'	251799.8194	661341.2116
40006	410+00.00	0.00'	252287.6405	661231.5276
40007	415+00.00	0.00'	252775.4615	661121.8436
40008	420+00.00	0.00'	253263.2826	661012.1596
40009	425+00.00	0.00'	253751.1037	660902.4755
40010	430+00.00	0.00'	254238.9248	660792.7915
40011	435+00.00	0.00'	254726.7459	660683.1075
40012	440+00.00	0.00'	255214.5670	660573.4235
40013	445+00.00	0.00'	255702.3881	660463.7395
40014	450+00.00	0.00'	256190.2092	660354.0554
40015	455+00.00	0.00'	256678.0303	660244.3714

CONSTRUCTION & RW BASELINE ALIGNMENT CONTROL
CARMEAN WAY

POINT NO.	STATION	OFFSET	NORTHING	EASTING
50500	9+20.00	0.00'	254584.8411	659622.7633
50501	10+91.59	0.00'	254413.4390	659630.8500
50502	11+39.94	0.00'	254365.4599	659636.8799

CONSTRUCTION & RW BASELINE ALIGNMENT CONTROL
US 113 NB RAMP A

POINT NO.	STATION	OFFSET	NORTHING	EASTING
60000	600+00.00	0.00'	254339.1214	660782.5624
60004	612+71.18	0.00'	254229.1357	660958.7220

CONSTRUCTION & RW BASELINE ALIGNMENT CONTROL
US 113 NB RAMP B

POINT NO.	STATION	OFFSET	NORTHING	EASTING
70000	700+00.00	0.00'	254328.2331	661301.4436
70007	712+11.53	0.00'	255175.2359	660594.5664

CONSTRUCTION & RW BASELINE ALIGNMENT CONTROL
US 113 SB RAMP C

POINT NO.	STATION	OFFSET	NORTHING	EASTING
80000	800+00.00	0.00'	254055.7600	660702.7795
80004	811+63.97	0.00'	254215.5131	660364.1531

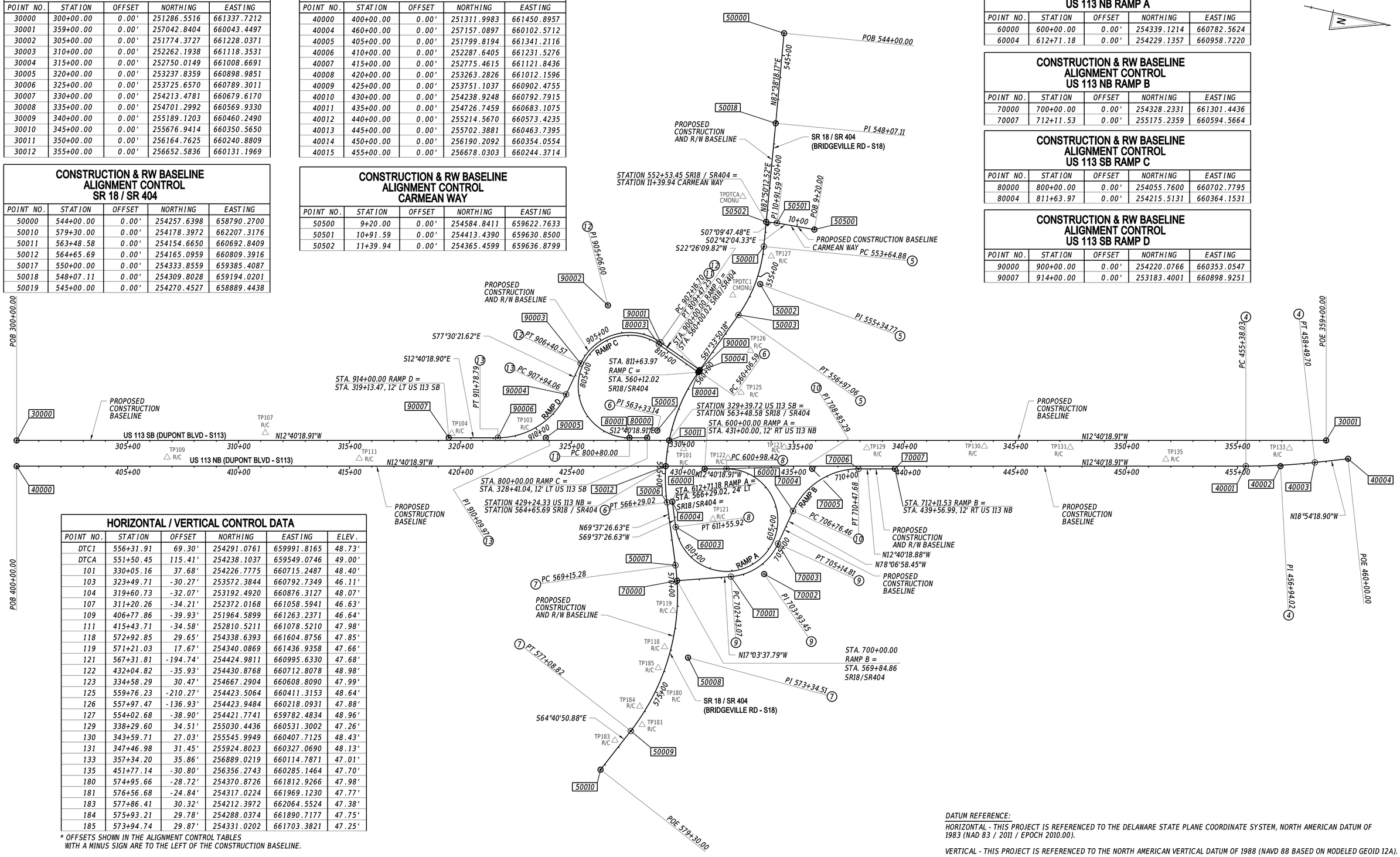
CONSTRUCTION & RW BASELINE ALIGNMENT CONTROL
US 113 SB RAMP D

POINT NO.	STATION	OFFSET	NORTHING	EASTING
90000	900+00.00	0.00'	254220.0766	660353.0547
90007	914+00.00	0.00'	253183.4001	660898.9251

HORIZONTAL / VERTICAL CONTROL DATA

POINT NO.	STATION	OFFSET	NORTHING	EASTING	ELEV.
DTC1	556+31.91	69.30'	254291.0761	659991.8165	48.73'
DTCA	551+50.45	115.41'	254238.1037	659549.0746	49.00'
101	330+05.16	37.68'	254226.7775	660715.2487	48.40'
103	323+49.71	-30.27'	253572.3844	660792.7349	46.11'
104	319+60.73	-32.07'	253192.4920	660876.3127	48.07'
107	311+20.26	-34.21'	252372.0168	661058.5941	46.63'
109	406+77.86	-39.93'	251964.5899	661263.2371	46.64'
111	415+43.71	-34.58'	252810.5211	661078.5210	47.98'
118	572+92.85	29.65'	254338.6393	661604.8756	47.85'
119	571+21.03	17.67'	254340.0869	661436.9358	47.66'
121	567+31.81	-194.74'	254424.9811	660995.6330	47.68'
122	432+04.82	-35.93'	254430.8768	660712.8078	48.98'
123	334+58.29	30.47'	254667.2904	660608.8090	47.99'
125	559+76.23	-210.27'	254423.5064	660411.3153	48.64'
126	557+97.47	-136.93'	254423.9484	660218.0931	47.88'
127	554+02.68	-38.90'	254421.7741	659782.4834	48.96'
129	338+29.60	34.51'	255030.4436	660531.3002	47.26'
130	343+59.71	27.03'	255545.9949	660407.7125	48.43'
131	347+46.98	31.45'	255924.8023	660327.0690	48.13'
133	357+34.20	35.86'	256889.0219	660114.7871	47.01'
135	451+77.14	-30.80'	256356.2743	660285.1464	47.70'
180	574+95.66	-28.72'	254370.8726	661812.9266	47.98'
181	576+56.68	-24.84'	254317.0224	661969.1230	47.77'
183	577+86.41	30.32'	254212.3972	662064.5524	47.38'
184	575+93.21	29.78'	254288.0374	661890.7177	47.75'
185	573+94.74	29.87'	254331.0202	661703.3821	47.25'

** OFFSETS SHOWN IN THE ALIGNMENT CONTROL TABLES WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION BASELINE.*



DATUM REFERENCE:

HORIZONTAL - THIS PROJECT IS REFERENCED TO THE DELAWARE STATE PLANE COORDINATE SYSTEM, NORTH AMERICAN DATUM OF 1983 (NAD 83 / 2011 / EPOCH 2010.00).

VERTICAL - THIS PROJECT IS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88 BASED ON MODELED GEOID 12A).

ADDENDA / REVISIONS

SCALE 0 200 400 600 FEET

US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION

CONTRACT T201412701	BRIDGE NO. N/A	PROPOSED HORIZONTAL AND VERTICAL CONTROL	SECTION WRA
COUNTY SUSSEX	DESIGNED BY: S. BEALL		SHEET NO. 19
	CHECKED BY: T. OLIVER		

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US 113 NB
CIRCULAR CURVE NO. ④

Element: Circular	STATION	NORTHING	EASTING
PC (40001)	455+38.03	256715.1376	660236.0280
PI (40002)	456+94.02	256867.3252	660201.8094
CC (40017)		256086.6944	657441.0190
PT (40003)	458+49.70	257014.8977	660151.2689
Radius:	2864.79		
Delta:	6°13'59.99" Left		
Degree of Curvature(Arc):	2°00'00.00"		
Length:	311.67		
Tangent:	155.99		
Chord:	311.51		
Middle Ordinate:	4.24		
External:	4.24		
Tangent Direction:	N 12°40'18.91" W		
Radial Direction:	N 77°19'41.09" E		
Chord Direction:	N 15°47'18.90" W		
Radial Direction:	N 71°05'41.10" E		
Tangent Direction:	N 18°54'18.90" W		

SR 18 / SR 404
CIRCULAR CURVE NO. ⑤

Element: Circular	STATION	NORTHING	EASTING
PC (50001)	553+64.88	254379.3552	659747.4437
PI (50002)	555+34.77	254400.5390	659916.0012
CC (50013)		253741.3738	659827.6231
PT (50003)	556+97.06	254335.7026	660073.0255
Radius:	643.00		
Delta:	29°35'57.30" Right		
Degree of Curvature(Arc):	8°54'38.51"		
Length:	332.18		
Tangent:	169.88		
Chord:	328.50		
Middle Ordinate:	21.33		
External:	22.06		
Tangent Direction:	N 82°50'12.52" E		
Radial Direction:	S 7°09'47.48" E		
Chord Direction:	S 82°21'48.83" E		
Radial Direction:	S 22°26'09.82" W		
Tangent Direction:	S 67°33'50.18" E		

SR 18 / SR 404
CIRCULAR CURVE NO. ⑥

Element: Circular	STATION	NORTHING	EASTING
PC (50004)	560+06.59	254217.5683	660359.1294
PI (50005)	563+33.14	254092.9399	660660.9613
CC (50014)		254987.5152	660677.0457
PT (50006)	566+29.02	254206.6375	660967.0783
Radius:	833.00		
Delta:	42°48'43.19" Left		
Degree of Curvature(Arc):	6°52'41.68"		
Length:	622.43		
Tangent:	326.55		
Chord:	608.05		
Middle Ordinate:	57.46		
External:	61.72		
Tangent Direction:	S 67°33'50.18" E		
Radial Direction:	S 22°26'09.82" W		
Chord Direction:	S 88°58'11.78" E		
Radial Direction:	S 20°22'33.37" E		
Tangent Direction:	N 69°37'26.63" E		

SR 18 / SR 404
CIRCULAR CURVE NO. ⑦

Element: Circular	STATION	NORTHING	EASTING
PC (50007)	569+15.28	254306.3073	661235.4274
PI (50008)	573+34.51	254452.2748	661628.4272
CC (50015)		253373.5662	661581.8649
PT (50009)	577+08.82	254272.9858	662007.3874
Radius:	995.00		
Delta:	45°41'42.50" Right		
Degree of Curvature(Arc):	5°45'30.13"		
Length:	793.54		
Tangent:	419.23		
Chord:	772.68		
Middle Ordinate:	78.07		
External:	84.71		
Tangent Direction:	N 69°37'26.63" E		
Radial Direction:	S 20°22'33.37" E		
Chord Direction:	S 87°31'42.12" E		
Radial Direction:	S 25°19'09.12" W		
Tangent Direction:	S 64°40'50.88" E		

US 113 NB RAMP A
CIRCULAR CURVE NO. ⑧

Element: Circular	STATION	NORTHING	EASTING
PC (60001)	600+98.42	254435.1408	660760.9730
CC (60002)		254485.8148	660986.3463
PT (60003)	611+55.92	254269.2688	661066.7755
Radius:	231.00		
Delta:	262°17'45.53" Right		
Degree of Curvature(Arc):	24°48'12.12"		
Length:	1057.50		
Tangent:	-1.00		
Chord:	347.89		
Middle Ordinate:	-1.00		
External:	-1.00		
Tangent Direction:	N 12°40'18.91" W		
Radial Direction:	N 77°19'41.09" E		
Chord Direction:	S 61°31'26.14" E		
Radial Direction:	N 20°22'33.37" W		
Tangent Direction:	S 69°37'26.63" W		

US 113 NB RAMP B
CIRCULAR CURVE NO. ⑨

Element: Circular	STATION	NORTHING	EASTING
PC (70001)	702+43.07	254560.6270	661230.1252
PI (70002)	703+93.45	254704.3835	661186.0084
CC (70008)		254485.8148	660986.3463
PT (70003)	705+14.81	254735.3495	661038.8577
Radius:	255.00		
Delta:	61°03'20.66" Left		
Degree of Curvature(Arc):	22°28'08.16"		
Length:	271.73		
Tangent:	150.37		
Chord:	259.06		
Middle Ordinate:	35.35		
External:	41.04		
Tangent Direction:	N 17°03'37.79" W		
Radial Direction:	N 72°56'22.21" E		
Chord Direction:	N 47°35'18.12" W		
Radial Direction:	N 11°53'01.55" E		
Tangent Direction:	N 78°06'58.45" W		

US 113 NB RAMP B
CIRCULAR CURVE NO. ⑩

Element: Circular	STATION	NORTHING	EASTING
PC (70004)	706+76.46	254768.6387	660880.6670
PI (70005)	708+85.29	254811.6411	660676.3188
CC (70009)		255086.6731	660947.5933
PT (70006)	710+47.68	255015.3785	660630.5095
Radius:	325.00		
Delta:	65°26'39.57" Right		
Degree of Curvature(Arc):	17°37'46.09"		
Length:	371.22		
Tangent:	208.82		
Chord:	351.37		
Middle Ordinate:	51.58		
External:	61.31		
Tangent Direction:	N 78°06'58.45" W		
Radial Direction:	N 11°53'01.55" E		
Chord Direction:	N 45°23'38.67" W		
Radial Direction:	N 77°19'41.12" E		
Tangent Direction:	N 12°40'18.88" W		

US 113 SB RAMP C
CIRCULAR CURVE NO. ⑪

Element: Circular	STATION	NORTHING	EASTING
PC (80001)	800+80.00	253977.7086	660720.3290
CC (80002)		253927.0346	660494.9556
PT (80003)	809+47.25	254015.1963	660281.4409
Radius:	231.00		
Delta:	215°06'28.73" Right		
Degree of Curvature(Arc):	24°48'12.12"		
Length:	867.25		
Tangent:	-1.00		
Chord:	440.49		
Middle Ordinate:	-1.00		
External:	-1.00		
Tangent Direction:	S 12°40'18.91" E		
Radial Direction:	S 77°19'41.09" W		
Chord Direction:	N 85°07'04.54" W		
Radial Direction:	S 67°33'50.18" E		
Tangent Direction:	N 22°26'09.82" E		

US 113 SB RAMP D
CIRCULAR CURVE NO. ⑫

Element: Circular	STATION	NORTHING	EASTING
PC (90001)	902+16.70	254019.7761	660270.3493
PI (90002)	905+06.00	253752.3753	660159.9377
CC (90008)		253927.0346	660494.9556
PT (90003)	906+40.57	253689.7892	660442.3857
Radius:	243.00		
Delta:	99°56'31.44" Left		
Degree of Curvature(Arc):	23°34'42.64"		
Length:	423.87		
Tangent:	289.30		
Chord:	372.14		
Middle Ordinate:	86.71		
External:	134.81		
Tangent Direction:	S 22°26'09.82" W		
Radial Direction:	N 67°33'50.18" W		
Chord Direction:	S 27°32'05.90" E		
Radial Direction:	S 12°29'38.38" W		
Tangent Direction:	S 77°30'21.62" E		

US 113 SB RAMP D
CIRCULAR CURVE NO. ⑬

Element: Circular	STATION	NORTHING	EASTING
PC (90004)	907+94.06	253656.5848	660592.2351
PI (90005)	910+09.97	253609.8749	660803.0345
CC (90009)		253324.6365	660518.6804
PT (90006)	911+78.79	253399.2216	660850.3988
Radius:	340.00		
Delta:	64°50'02.72" Right		
Degree of Curvature(Arc):	16°51'06.12"		
Length:	384.73		
Tangent:	215.91		
Chord:	364.53		
Middle Ordinate:	52.98		
External:	62.76		
Tangent Direction:	S 77°30'21.62" E		
Radial Direction:	S 12°29'38.38" W		
Chord Direction:	S 45°05'20.26" E		
Radial Direction:	S 77°19'41.10" W		
Tangent Direction:	S 12°40'18.90" E		

ADDENDA / REVISIONS		NOT TO SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO.	N/A	HORIZONTAL AND VERTICAL CONTROL	SECTION
				T201412701	DESIGNED BY:	S. BEALL		WRA
				COUNTY				SHEET NO.
				SUSSEX	CHECKED BY:	T. OLIVER		20

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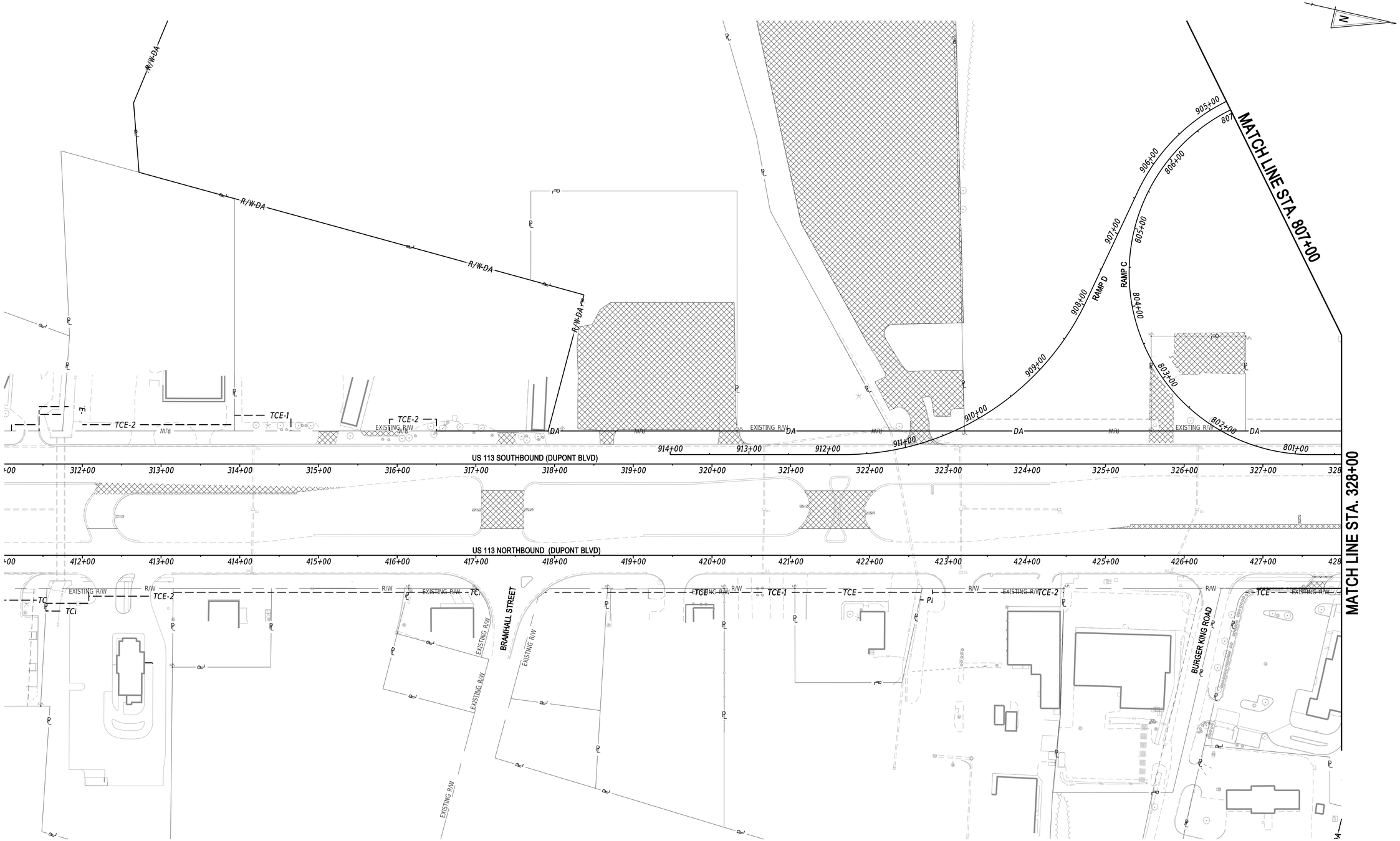

ADDENDA / REVISIONS

SCALE
0 60 120 180
FEET

US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO.	N/A
T201412701	DESIGNED BY:	S. BEALL
COUNTY	CHECKED BY:	T. OLIVER
SUSSEX		

PAVEMENT REMOVAL AND DEMOLITION PLAN

SECTION
WRA
SHEET NO.
21

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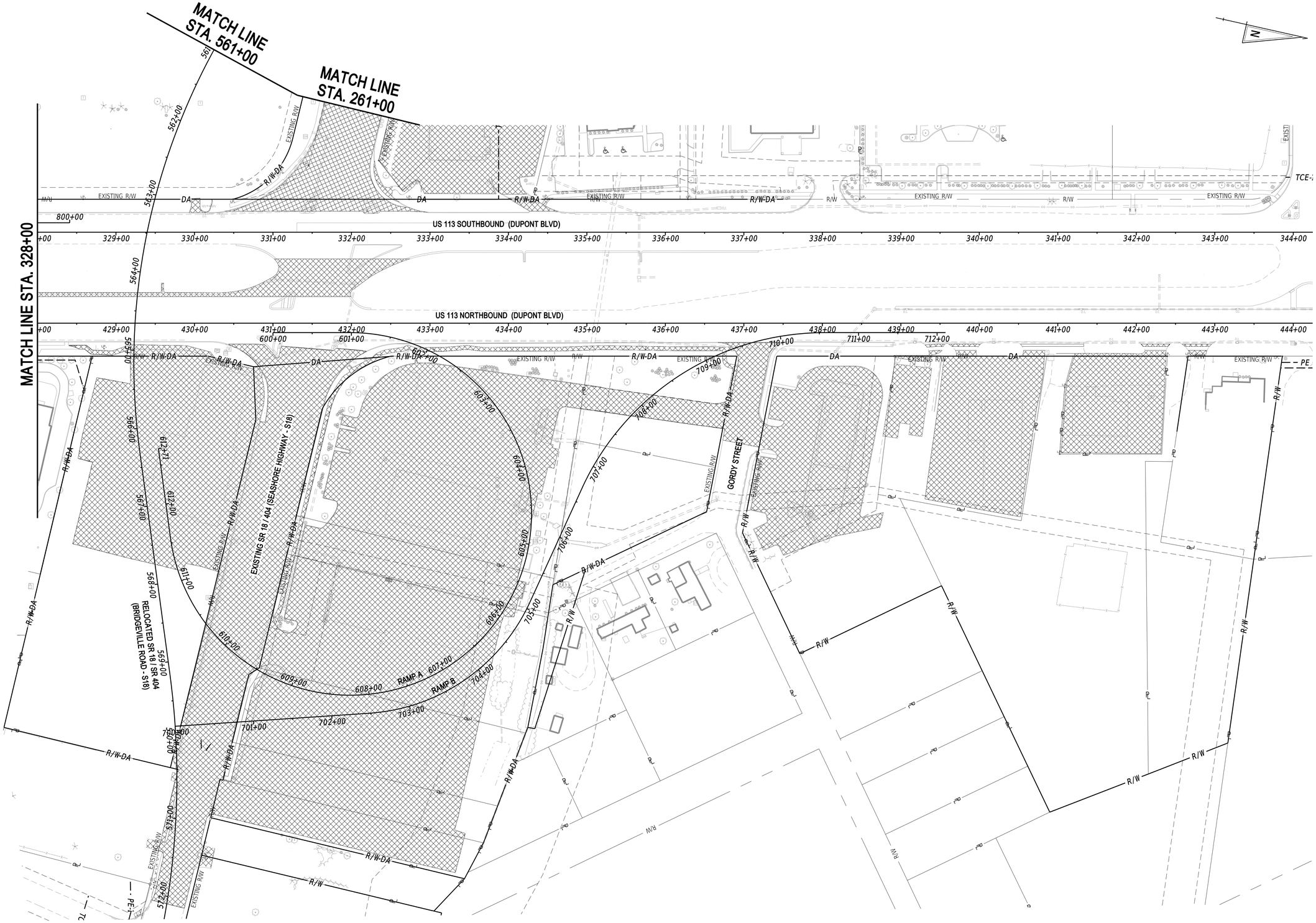

ADDENDA / REVISIONS		SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	PAVEMENT REMOVAL AND DEMOLITION PLAN	SECTION
		0 60 120 180 FEET		T201412701	DESIGNED BY: S. BEALL		WRA
				COUNTY	CHECKED BY: T. OLIVER		SHEET NO.
				SUSSEX			22

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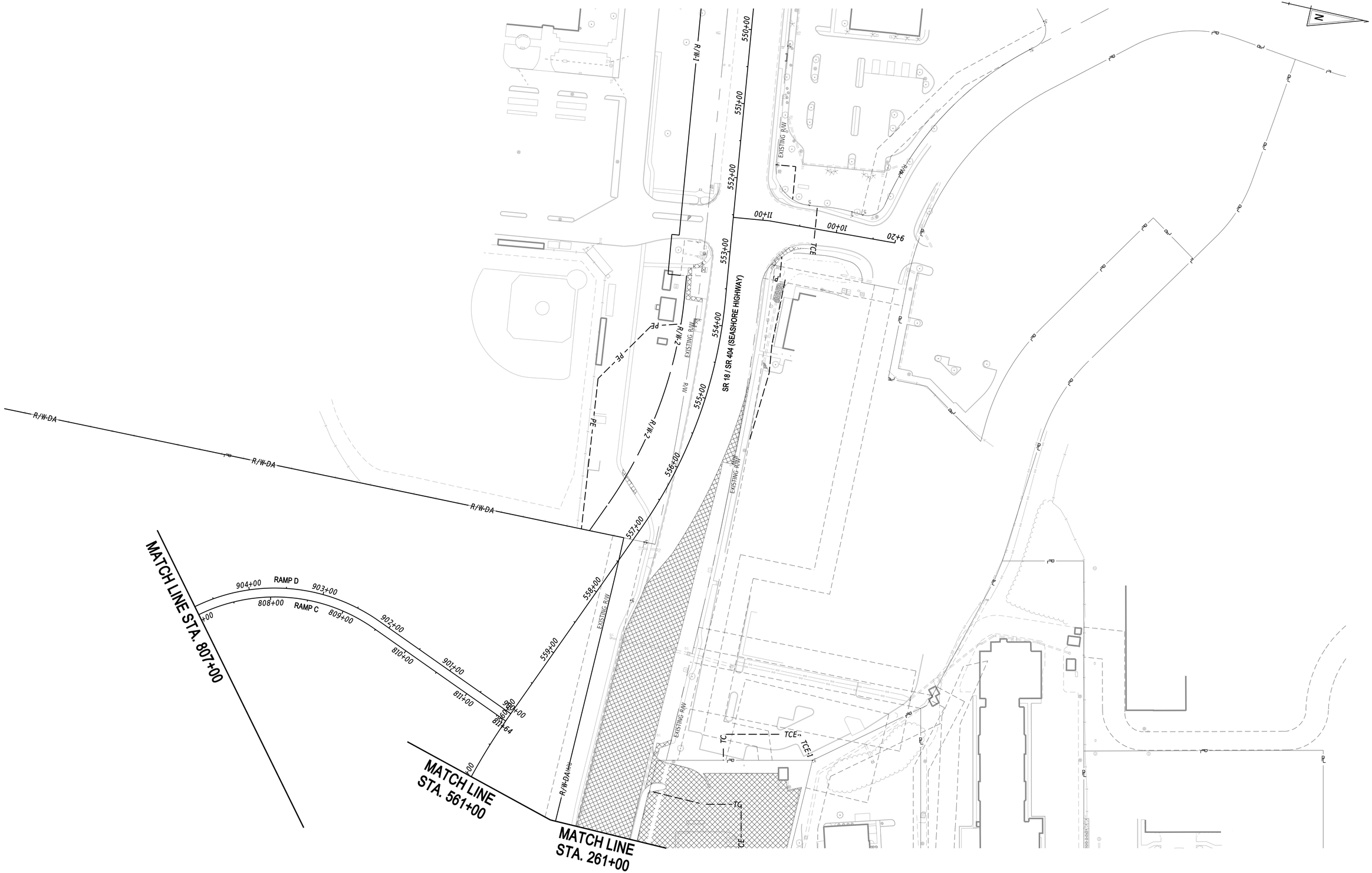

ADDENDA / REVISIONS		SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO.	N/A	PAVEMENT REMOVAL AND DEMOLITION PLAN	SECTION
		0 60 120 180 FEET		T201412701	DESIGNED BY:	S. BEALL		WRA
				COUNTY	CHECKED BY:	T. OLIVER		SHEET NO.
				SUSSEX				23

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BARRIER END SECTION SCHEDULE		
NO.	ITEM DESCRIPTION / TYPE	EACH
1	TL-3 END ANCHORAGE *	1

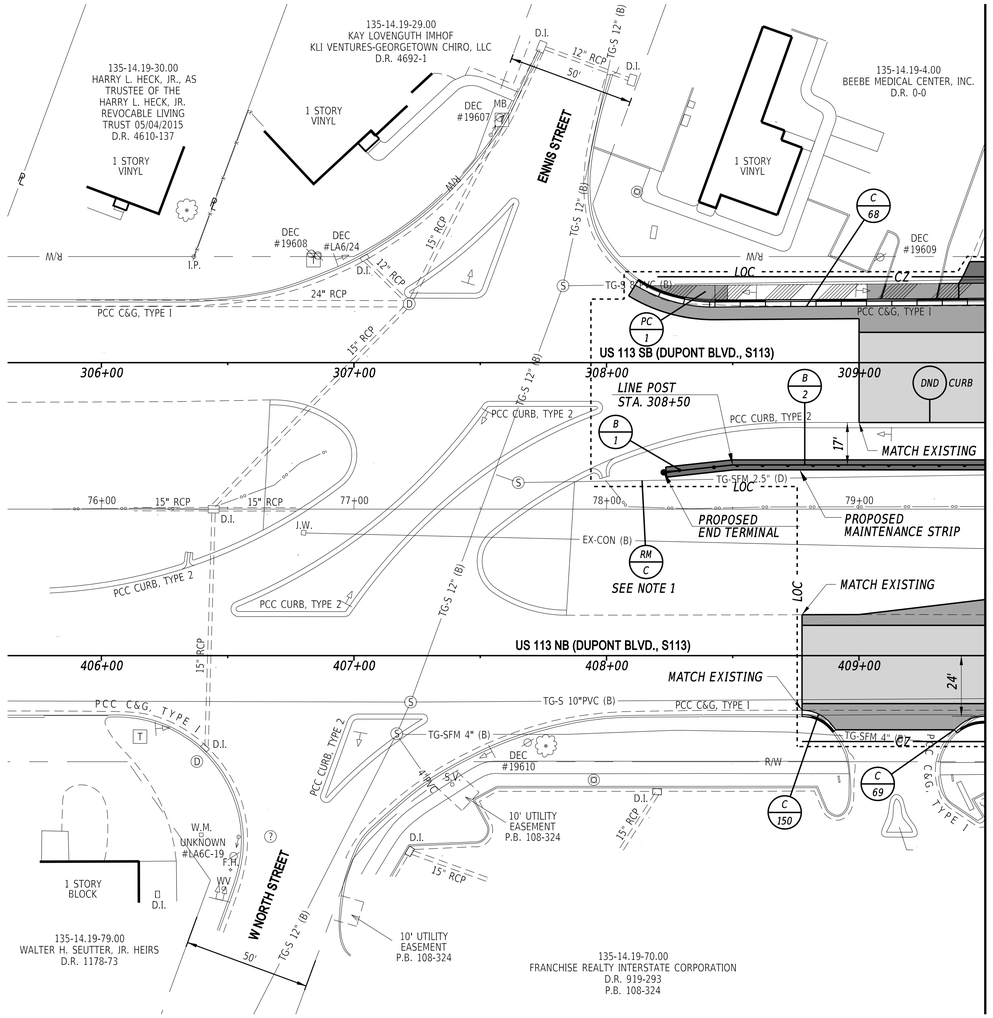
* NOTE: LENGTH DEPENDS ON MANUFACTURER

BARRIER SCHEDULE		
NO.	ITEM DESCRIPTION / TYPE	LENGTH
2	TL-4 HIGH TENSION CABLE BARRIER	100'

NOTE:

1. THE EXISTING 2.5" SANITARY FORCE MAIN HAS BEEN ABANDONED AND SHALL BE REMOVED BY THE CONTRACTOR WITHIN THE LIMITS OF THE LOC. THE REMOVAL OF THE FORCE MAIN SHALL BE PAID FOR UNDER ITEM 211000.

CURB SCHEDULE		
NO.	ITEM DESCRIPTION / TYPE	LENGTH
68	I.PCC CURB AND GUTTER, TYPE 1-4	140'
69	I.PCC CURB AND GUTTER, TYPE 1-4	13'
150	I.PCC CURB AND GUTTER, TYPE 1-4	15'



CURB SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
1	I.PCC CURB AND GUTTER, TYPE 1-4	306'
4	I.PCC CURB AND GUTTER, TYPE 1-4	163'
5	I.PCC CURB AND GUTTER, TYPE 1-4	417'
57*	PCC CURB, TYPE 2	283'
58	I.PCC CURB AND GUTTER, TYPE 1-4	194'
59	I.PCC CURB AND GUTTER, TYPE 1-4	182'
60	I.PCC CURB AND GUTTER, TYPE 1-4	189'
76	I.PCC CURB AND GUTTER, TYPE 1-4	117'
307	PCC CURB, TYPE 2	6'

* COST FOR CONSTRUCTION OF CURB IS INCIDENTAL TO ITEM 702000 - TRIANGULAR CHANNELIZING ISLANDS.

DRAINAGE INLET SCHEDULE

NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
99	410+15.44	*	72" x 24"	1	**	42.03
100	410+63.44	*	34" x 24"	4	**	41.58
+101	411+55.43	*	72" x 72"	4	**	40.69
110	415+19.67	*	34" x 24"	4	**	45.26
111	414+15.55	*	34" x 24"	4	**	44.00
112	414+16.53	*	48" x 48"	2	45.25	41.50
113	413+13.41	*	34" x 24"	4	*	44.15

MANHOLE SCHEDULE

NO.	STATION	OFFSET	TYPE/SIZE	T.G. EL.	INVERT EL.
132	314+17.64	24.00' LT.	48" x 48"	47.51	41.26

DRAINAGE PIPE SCHEDULE

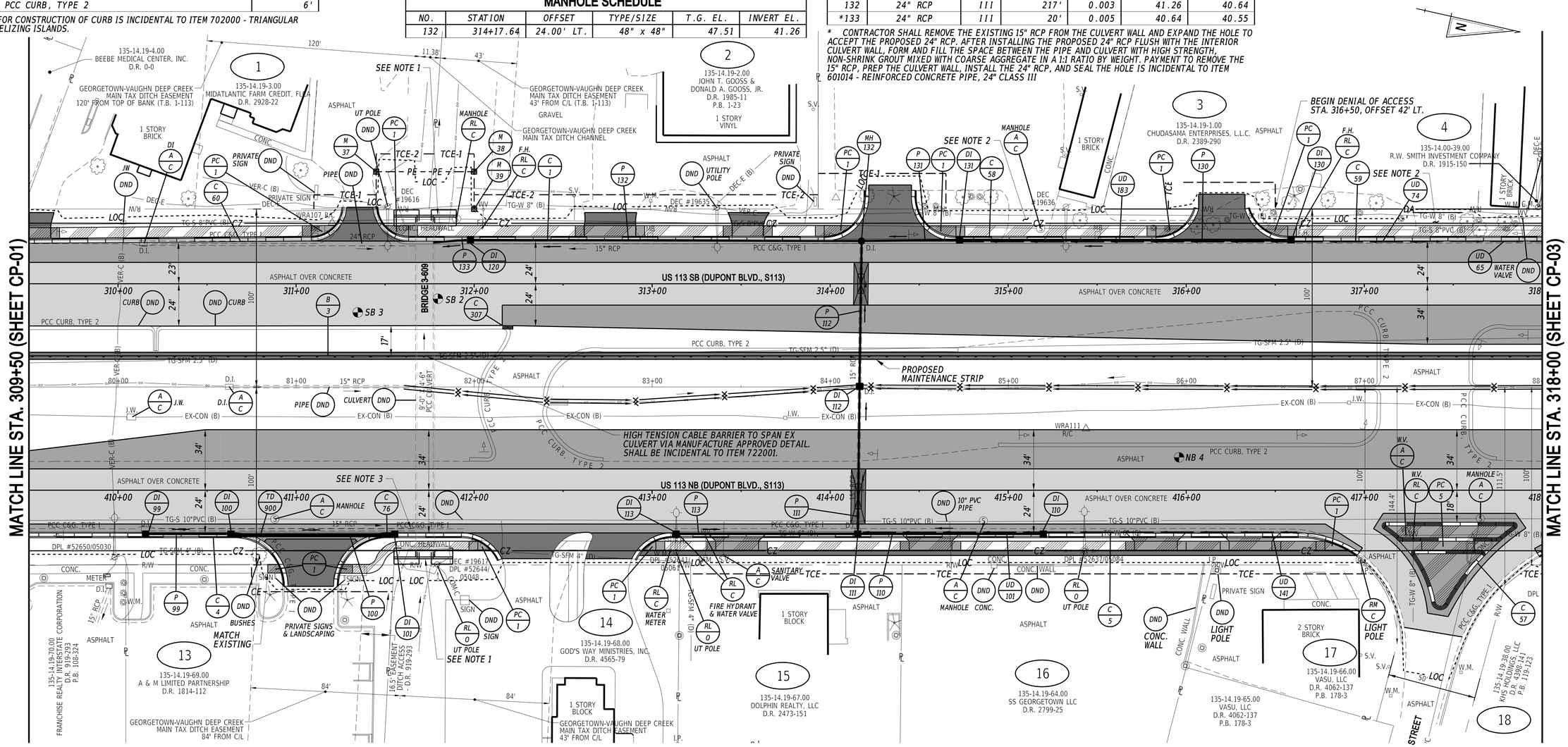
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INVERT EL.	DIS. EL.
99	15" RCP	III	45'	0.010	42.03	41.58
100	15" RCP	III	89'	0.010	41.58	40.69
110	15" RCP	III	102'	0.012	45.26	44.00
111	15" RCP	III	80'	0.022	44.00	42.25
112	24" RCP	III	79'	0.003	41.50	41.26
113	15" RCP	IV	99'	0.002	44.15	44.00
130	15" RCP	III	184'	0.009	45.16	43.50
131	15" RCP	III	52'	0.018	43.50	42.55
132	24" RCP	III	217'	0.003	41.26	40.64
*133	24" RCP	III	20'	0.005	40.64	40.55

* CONTRACTOR SHALL REMOVE THE EXISTING 15" RCP FROM THE CULVERT WALL AND EXPAND THE HOLE TO ACCEPT THE PROPOSED 24" RCP. AFTER INSTALLING THE PROPOSED 24" RCP FLUSH WITH THE INTERIOR CULVERT WALL, FORM AND FILL THE SPACE BETWEEN THE PIPE AND CULVERT WITH HIGH STRENGTH, NON-SHRINK GROUT MIXED WITH COARSE AGGREGATE IN A 1:1 RATIO BY WEIGHT. PAYMENT TO REMOVE THE 15" RCP, PREP THE CULVERT WALL, INSTALL THE 24" RCP, AND SEAL THE HOLE IS INCIDENTAL TO ITEM 601014 - REINFORCED CONCRETE PIPE, 24" CLASS III

TRENCH DRAIN SCHEDULE

NO.	SLOPE	LENGTH	INV. IN EL.	* INV. OUT EL.
900	0.002	89'	44.48	44.31

* NOTE: TERMINATION OF TRENCH DRAIN AND CONNECTION TO DRAINAGE INLET SHALL BE DONE WITH MANUFACTURER RECOMMENDATIONS. PAYMENT FOR ALL MATERIALS AND WORK REQUIRED TO CONNECT TRENCH DRAIN DISCHARGE TO DRAINAGE INLET SHALL BE INCIDENTAL TO ITEM 709502 - TRENCH DRAIN, 8" WIDE.



DRAINAGE INLET SCHEDULE

NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
120	311+97.94	*	48" x 48"	4	**	40.64
130	316+59.00	*	34" x 24"	4	**	45.16
131	314+72.66	*	34" x 24"	4	**	43.50

* MATCH PROPOSED CURBLINE
** MATCH FLOWLINE OF PROPOSED CURB
\+ INLET SHALL BE CAST IN PLACE AS A DOGHOUSE INLET IN ACCORDANCE WITH DELDOT STANDARD CONSTRUCTION DETAIL D-5.

BARRIER SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
3	TL-4 HIGH TENSION CABLE BARRIER	850'

ROADWAY CORE SCHEDULE

NO.	STATION	OFFSET	DESCRIPTION
SB 2	311+79.66	8.39' RT.	7" HMA / 9" PCC / 8+" FILL
SB 3	311+34.66	16.08' RT.	15" HMA / ORIGINAL
NB 4	415+96.01	18.47' LT.	17" HMA / 8+" FILL

RIGHT-OF-WAY MONUMENT SCHEDULE

NO.	TYPE	STATION	OFFSET	NORTHING	EASTING
*2	CONCRETE	312+72.02	-370.80	252446.2450	660696.9135
*3	CONCRETE	312+65.11	-459.25	252420.0994	660612.1379
*4	CONCRETE	313+77.11	-729.64	252470.0599	660323.7637
*5	CONCRETE	315+40.86	-687.83	252638.9898	660328.6340
37	CAPPED REBAR	311+45.00	-63.00	252389.8417	661025.0793
38	CAPPED REBAR	312+00.00	-63.00	252443.5020	661013.0141
39	CAPPED REBAR	312+00.00	-42.00	252448.1087	661033.5025

* DOES NOT SHOW ON PLAN SHEET

NOTES:

1. THE CONTRACTOR SHALL REMOVE THE EXISTING PCC HEADWALL, INSTALL THE PROPOSED CULVERT EXTENSION AND NEW PCC HEADWALL. THE LIMIT OF CONSTRUCTION SHALL BE ESTABLISHED IN ACCORDANCE WITH THE ENVIRONMENTAL COMPLIANCE PLANS, BRIDGE CONSTRUCTION PLANS AND ASSOCIATED PERMITS.
2. THE CONTRACTOR SHALL SAWCUT THE EXISTING PAVEMENT AND REMOVE THE EXISTING PAVED ENTRANCE TO THE R/W LINE. THE ENTRANCE SHALL NOT BE REMOVED UNTIL THE NEW ENTRANCES ARE CONSTRUCTED AS SHOWN.
3. THE CONTRACTOR SHALL TIE THE EXISTING 15" RCP PIPES FROM BRIDGE 3-609 INTO DOGHOUSE INLET DI-101. THE REMAINING UPSTREAM SECTIONS OF THE PIPE SHALL BE REMOVED.

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION

CONTRACT	T201412701	
COUNTY	SUSSEX	
BRIDGE NO.	3-609	
DESIGNED BY: S. BEALL		
CHECKED BY: T. OLIVER		

CONSTRUCTION PLAN

CP-02
SECTION WRA
SHEET NO. 25

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ROADWAY CORE SCHEDULE

NO.	STATION	OFFSET	DESCRIPTION
NB 5	423+59.26	9.27' LT.	5" HMA / 9" PCC / 10+" FILL
NB 6	425+18.26	23.77' LT.	16.5" HMA
SB 9	320+36.59	6.70' LT.	7" HMA / 9.25" PCC / 4+" FILL
SB 10	319+63.59	18.09' LT.	7.5" HMA / 4+" DIRTY FILL
NB 11	423+90.77	15.99' RT.	4" HMA / 9" PCC / 8+" FILL

CURB SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
6	I.PCC CURB AND GUTTER, TYPE 1-4	676'
7	I.PCC CURB AND GUTTER, TYPE 1-4	379'
11	I.PCC CURB AND GUTTER, TYPE 1-4	158'
12	I.PCC CURB AND GUTTER, TYPE 1-4	349'
13	I.PCC CURB AND GUTTER, TYPE 1-4	326'
15	I.PCC CURB AND GUTTER, TYPE 1-4	54'
77	PCC CURB, TYPE 1-4	64'
78	PCC CURB, TYPE 1-4	34'

UNDERDRAIN OUTLETS

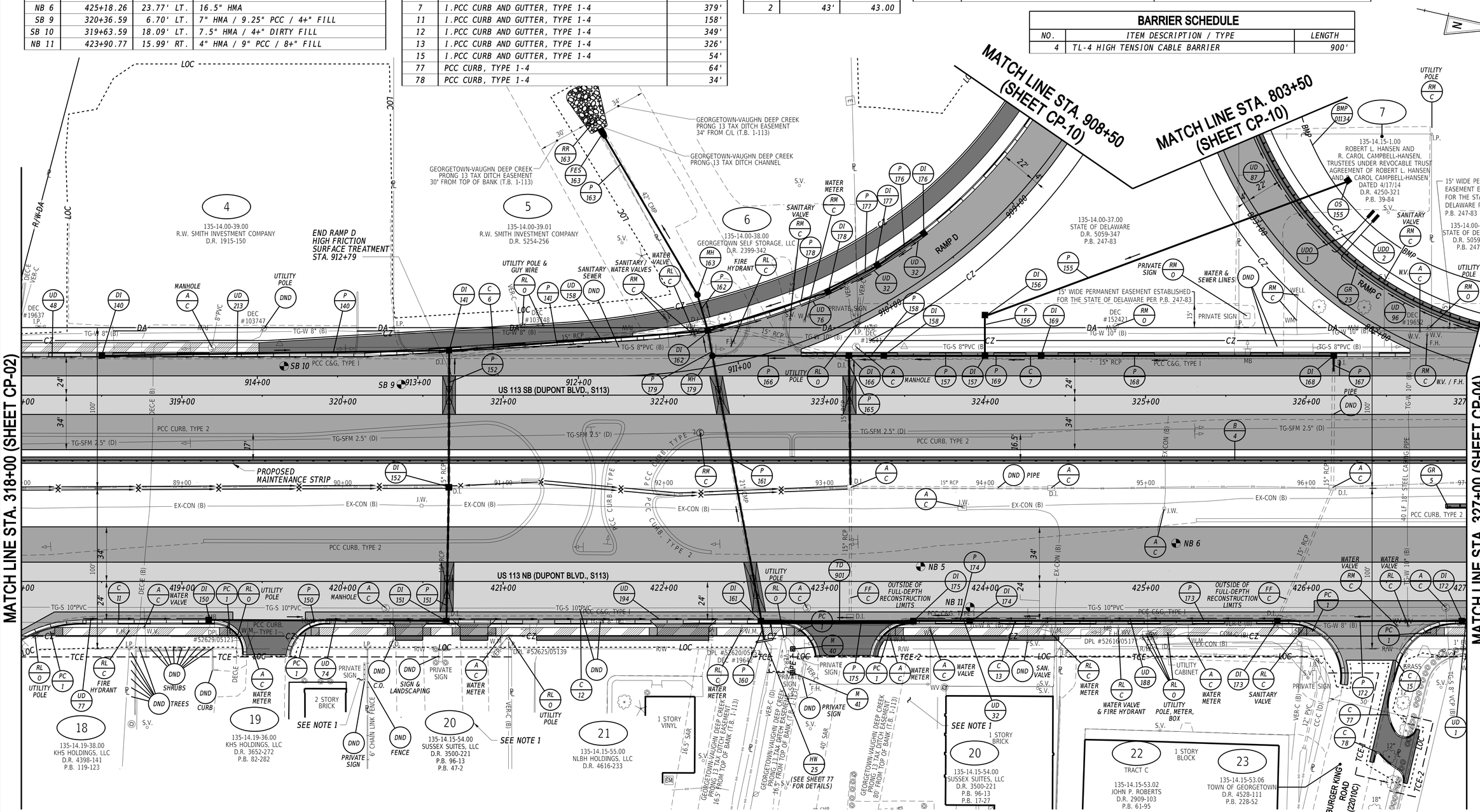
NO.	LENGTH	DIS. EL.
1	43'	43.00
2	43'	43.00

DELDOT SWM FACILITY SCHEDULE

NO.	TYPE / DESCRIPTION	LOCATION
01134	WET EXTENDED DETENTION POND	RAMP C INFIELD

BARRIER SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
4	TL-4 HIGH TENSION CABLE BARRIER	900'



NOTES:

1. *THE BRITTINGHAM COMMERCIAL STRIP (LABELED AS PARCEL 20; 135-14.15-54.00) IS ELIGIBLE FOR LISTING IN THE NATIONAL REGISTER OF HISTORIC PLACES. SHOULD ANY UNFORESEEN DAMAGE OCCUR TO THE PROPERTY AS A RESULT OF THE PROJECT. DELDOT ENVIRONMENTAL STEWARDSHIP MUST BE NOTIFIED IMMEDIATELY AT (302) 760-4887 AND DOT_EnvironmentalStudies@delaware.gov*
2. *CONSTRUCTION SCHEDULES FOR DRAINAGE INLETS, MANHOLES, PIPES, AND BMP OUTLET STRUCTURE ARE PROVIDED ON CP-04A.*
3. *HIGH FRICTION SURFACE TREATMENT IS ONLY APPLIED TO THE TRAVEL LANES, NOT SHOULDERS.*

RIGHT-OF-WAY MONUMENT SCHEDULE

NO.	TYPE	STATION	OFFSET	NORTHING	EASTING
*6	CONCRETE	318+37.34	-215.05	253031.9618	660724.8519
*7	CONCRETE	906+04.83	598.81	253140.7271	660194.3419
40	CAPPED REBAR	422+80.32	42.00	253545.9862	660991.6433
41	CAPPED REBAR	422+80.23	56.83	253549.1528	661006.1349

** DOES NOT SHOW ON PLAN SHEET*

GUARDRAIL SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
5	GUARDRAIL END TREATMENT, TYPE 1-31, TEST LEVEL 3	426+88	48' LT.	50'
23	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	801+40	24' RT.	188'

TRENCH DRAIN SCHEDULE

NO.	SLOPE	LENGTH	INV. IN EL.	* INV. OUT EL.
901	0.002	92'	44.60	44.42

** NOTE: TERMINATION OF TRENCH DRAIN AND CONNECTION TO DRAINAGE INLET SHALL BE DONE WITH MANUFACTURER RECOMMENDATIONS. PAYMENT FOR ALL MATERIALS AND WORK REQUIRED TO CONNECT TRENCH DRAIN DISCHARGE TO DRAINAGE INLET SHALL BE INCIDENTAL TO ITEM 709502 - TRENCH DRAIN, 8" WIDE.*

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION

CONTRACT	T201412701
COUNTY	SUSSEX
BRIDGE NO.	N/A
DESIGNED BY:	S. BEALL
CHECKED BY:	T. OLIVER

CONSTRUCTION PLAN

CP-03 | SECTION WRA | SHEET NO. 26

8/19/2025
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DNREC BROWNFIELD (DE-1601). IMPORTED BORROW AND FILL MATERIAL WILL NEED TO BE SAMPLED PRIOR TO PLACEMENT. ALL SOIL/GROUNDWATER REMOVED FROM PARCEL NEEDS TO BE REMOVED BY ENVIRONMENTAL REP.

MATCH LINE STA. 801+40 (SHEET CP-03)

MATCH LINE STA. 562+00 (SHEET CP-10)

MATCH LINE STA. 261+00 (SHEET CP-10)

MATCH LINE STA. 327+00 (SHEET CP-03)

MATCH LINE STA. 335+75 (SHEET CP-05)

MATCH LINE STA. 566+00 (SHEET CP-11)

MATCH LINE STA. 265+25 (SHEET CP-11)

MATCH LINE STA. 603+50 (SHEET CP-11)

INSTALL GUARDRAIL POST CAPS (721515) ON POSTS ADJACENT TO SHARED USE PATH

BEGIN RAMP C HIGH FRICTION SURFACE TREATMENT STA. 800+00

15' WIDE PERMANENT EASEMENT ESTABLISHED FOR THE STATE OF DELAWARE PER P.B. 247-83

135-14.00-37.00
STATE OF DELAWARE
D.R. 5059-347
P.B. 247-83

SEE NOTE 2

TRAFFIC CAMERA POLE

EXISTING SR 18 / SR 404 (SEASHORE HIGHWAY)

RELOCATED SR 18/SR 404

POTENTIAL GROUNDWATER CONTAMINATION ISSUES. IF GROUNDWATER IS ENCOUNTERED HERE, WILL NEED ENV. CONSULTANT OVERSIGHT AND POTENTIAL REMOVAL.

135-14.00-36.00
OTAC DELAWARE PROPERTIES LLC
D.R. 2559-349

END DENIAL OF ACCESS STA. 334+31.71, OFFSET 42' LT.

GEORGETOWN-VAUGHN DEEP CREEK PRONG 9 TAX DITCH EASEMENT VARIABLE WIDTH PER P.B. 200-5

135-14.00-35.02
NORTH SALISBURY HOLDINGS, LLC
D.R. 4235-93
P.B. 200-27
P.B. 62-312
P.B. 63-119

ACCESS EASEMENT P.B. 200-5

30' UTILITY ACCESS EASEMENT P.B. 200-5

10' WIDE PERMANENT EASEMENT ESTABLISHED FOR THE STATE OF DELAWARE PER P.B. 200-27

US 113 SB (DUPONT BLVD., S113)

US 113 NB (DUPONT BLVD., S113)

RAMP C

RAMP A

LINE POST STA. 328+50

PROPOSED END TERMINAL

BEGIN RAMP A HIGH FRICTION SURFACE TREATMENT STA. 600+00

EXISTING SR 18 / SR 404 (BRIDGEVILLE ROAD)

24
135-14.15-53.03
POTOMAC FOODS REAL ESTATE, LLC
D.R. 5071-24
P.B. 61-95

25
135-14.15-52.00
STATE OF DELAWARE, ACTING BY AND THROUGH THE DEPARTMENT OF TRANSPORTATION
D.R. 5586-217
P.B. 253-60

26
135-14.15-23.00
TWO FARMS, INC.
D.R. 3973-59
P.B. 168-75

27
135-14.15-8.00
TWO FARMS, INC.
D.R. 3973-59
P.B. 168-75

SEE SHEET 61 FOR SIDEWALK PLAN AND PROFILE

INSTALL GUARDRAIL POST CAPS (721515) ON POSTS ADJACENT TO SHARED USE PATH

POTENTIALLY PETROLEUM CONTAMINATED SOIL. EXCAVATION WORK HERE WILL REQUIRE OVERSIGHT AND POTENTIAL SOIL REMOVAL.

POTENTIALLY PETROLEUM CONTAMINATED SOIL. EXCAVATION WORK HERE WILL REQUIRE OVERSIGHT AND POTENTIAL SOIL REMOVAL.

NOTES:

1. *SEE SHEET CP-04A FOR PROPOSED CONSTRUCTION SCHEDULES.*
2. *EXISTING SCAM094 CCTV CAMERA AND BLUETOOTH READER SBT0010 SHALL BE RELOCATED. SEE NEW CCTV LOCATION ON SHEET SS-09.*
3. *THE CONTRACTOR SHALL REMOVE THE VERIZON VAULT NEAR STA. 431+50 RT IN PROPOSED BMP XX. THE REMOVAL OF THE VAULT SHALL BE PAID FOR UNDER ITEM 211000.*
4. *HIGH FRICTION SURFACE TREATMENT IS ONLY APPLIED TO THE TRAVEL LANES, NOT SHOULDERS.*

ADDENDA / REVISIONS	SCALE 0 30 60 90 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. N/A	CONSTRUCTION PLAN	CP-04
			COUNTY SUSSEX	DESIGNED BY: S. BEALL		SECTION WRA
				CHECKED BY: T. OLIVER		SHEET NO. 27

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CONSTRUCTION SCHEDULES CP-03

DRAINAGE INLET SCHEDULE

NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
140	318+50.03	*	34" x 24"	4	**	45.00
141	912+19.34	*	48" x 48"	4	**	41.34
150	419+16.73	*	34" x 24"	4	**	44.80
151	420+64.72	*	48" x 30"	4	**	42.17
152	320+66.19	57.39' RT.	48" x 48"	2	45.24	41.54
156	324+00.00	49.00' LT.	48" x 48"	2	46.00	41.06
157	324+00.00	*	48" x 30"	4	**	40.97
158	323+36.98	*	48" x 30"	1	**	40.73
161	422+60.47	*	66" x 48"	1	**	40.46
162	911+85.20	*	72" x 72"	4	**	40.08
166	323+15.37	*	48" x 48"	4	**	40.64
168	326+17.19	*	48" x 30"	4	**	41.88
169	324+35.00	*	48" x 30"	4	**	41.16
172	426+96.94	*	34" x 24"	4	**	44.10
173	425+82.00	*	34" x 24"	4	**	43.26
174	423+90.51	*	34" x 24"	4	**	43.07
175	423+55.46	*	34" x 24"	1	**	43.03
176	909+55.42	*	48" x 30"	4	**	41.32
177	909+92.96	*	48" x 30"	1	**	40.96
178	910+30.37	*	48" x 30"	4	**	40.60

* MATCH PROPOSED CURBLINE
** MATCH FLOWLINE OF PROPOSED CURB

MANHOLE SCHEDULE

NO.	STATION	OFFSET	TYPE/SIZE	T.G. EL.	INVERT EL.
*163	911+17.35	45.68' RT	84" x 84"	45.25	39.98
*179	911+14.94	6.60' RT	72" x 72"	46.33	40.13

* MANHOLE TO BE PAID FOR UNDER ITEM #602036 - MANHOLE, SPECIAL.

DRAINAGE PIPE SCHEDULE

NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INT. EL.	DIS. EL.
140	15" RCP	III	214'	0.017	45.00	41.34
141	30" RCP	III	160'	0.007	41.34	40.22
150	15" RCP	III	146'	0.018	44.80	42.17
151	15" RCP	III	80'	0.008	42.17	41.54
152	21" RCP	III	80'	0.002	41.54	41.34
155+	14" X 23" ERCP	III	239'	0.004	42.00	41.06
156	18" RCP	III	22'	0.004	41.06	40.97
157	18" RCP	III	60'	0.004	40.97	40.73
158	18" RCP	III	18'	0.005	40.73	40.64
160	36" RCP	III	12'	0.005	40.62	40.56
161	42" RCP	III	165'	0.002	40.46	40.13
162	34" X 53" ERCP	III	24'	0.004	40.08	39.98
163	34" X 53" ERCP	III	108'	0.003	39.98	39.63
165	24" RCP	III	8'	0.009	41.41	41.34
166	24" RCP	III	84'	0.004	40.64	40.27
167*	15" RCP	III	8'	0.027	42.10	41.88
168	15" RCP	III	179'	0.004	41.88	41.16
169	15" RCP	III	32'	0.006	41.16	40.97
172	15" RCP	III	112'	0.008	44.10	43.26
173	15" RCP	III	189'	0.001	43.26	43.07
174	15" RCP	III	32'	0.001	43.07	43.03
175	15" RCP	III	92'	0.027	43.03	40.56
176	18" RCP	III	32'	0.005	41.32	41.16
177	18" RCP	III	32'	0.005	40.96	40.80
178	18" RCP	III	76'	0.005	40.60	40.22
179	34" X 53" ERCP	III	13'	0.004	40.13	40.08

\+ SEE STORM WATER PLANS FOR DETAIL. INCLUDE CLASS A CONCRETE BEDDING UNDER OUTFALL PIPE FOR FIRST 24' OF PIPE RUN. PAYMENT SHALL BE INCIDENTAL TO PROPOSED PIPE BEING INSTALLED.
* FIELD VERIFY INVERTS AND EXTEND PIPE FROM THE FIRST STRUCTURALLY INTACT JOINT. POUR A CONCRETE COLLAR AROUND NEW JOINT. PAYMENT SHALL BE INCIDENTAL TO PROPOSED PIPE BEING INSTALLED.

BMP OUTLET STRUCTURE SCHEDULE **

NO.	STATION	OFFSET	BOX SIZE	T.S. EL. *	INVERT EL.
155	802+85.60	57.27' RT.	48" x 48"	44.00	42.00

* TOP OF STRUCTURE ELEVATION
** SEE STORMWATER MANAGEMENT PLANS AND DETAILS FOR TRASH RACK DETAIL.

FLARED END SECTION SCHEDULE

NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
163	34" X 53"	0.004	NO

RIPRAP SCHEDULE

NO.	TYPE	AREA (SY)
163	R-4	55

CONSTRUCTION SCHEDULES CP-04

DRAINAGE INLET SCHEDULE

NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
170	428+69.72	106.98' RT.	34" x 24"	2	49.49	45.36
171	428+63.96	*	34" x 24"	4	**	44.94
180	334+74.11	*	34" x 24"	4	**	41.94
181	334+72.02	*	48" x 30"	4	**	43.00
183	335+50.26	*	48" x 30"	1	**	40.34
+ 211	335+66.45	*	66" x 66"	1	**	40.22
218	435+20.10	*	48" x 48"	1	**	40.32
230	435+01.51	64.50' RT.	66" x 48"	2	46.97	40.44
231	435+07.74	*	66" x 48"	4	**	40.26
232	435+17.63	*	66" x 48"	4	**	40.03
233	335+24.04	*	66" x 66"	4	**	39.83
234	335+33.24	*	66" x 48"	4	**	39.59
+235	335+36.22	43.74' LT.	66" x 66"	2	45.80	39.45

* MATCH PROPOSED CURBLINE
** MATCH FLOWLINE OF PROPOSED CURB
\+ DRAINAGE INLET SHALL BE CAST IN PLACE AS A DOGHOUSE INLET IN ACCORDANCE WITH DELDOT STANDARD NO. D-5.

DRAINAGE PIPE SCHEDULE

NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INT. EL.	DIS. EL.
170	15" RCP	III	80'	0.005	45.36	44.94
171	15" RCP	III	165'	0.005	44.94	44.10
180	15" RCP	III	57'	0.041	41.94	39.59
181	15" RCP	III	49'	0.065	43.00	39.83
182	18" RCP	III	40'	0.046	42.20	40.34
183	18" RCP	III	14'	0.054	40.34	39.59
211	36" RCP	III	40'	0.010	40.22	39.83
218	18" RCP	III	10'	0.006	40.32	40.26
228	18" RCP	III	122'	0.005	40.94	40.32
230	36" RCP	III	40'	0.004	40.44	40.26
231	36" RCP	III	61'	0.004	40.26	40.03
232	36" RCP	III	41'	0.005	40.03	39.83
233	36" RCP	III	57'	0.004	39.83	39.59
234	36" RCP	III	17'	0.008	39.59	39.45
455	36" RCP	III	84'	0.001	40.54	40.44

GUARDRAIL SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
1	G.R. TO BARRIER CONNECTION, APPROACH TYPE 3-31	562+55	30' RT.	25'
2	END ANCHORAGE 31	328+69	47' RT.	14'
3	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	328+83	47' RT.	109'
4	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 3-31	329+92	47' RT.	583'
6	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	427+39	48' LT.	238'
7	END ANCHORAGE 31	429+77	48' LT.	14'
8	G.R. TO BARRIER CONNECTION, APPROACH TYPE 3-31	565+46	30' RT.	25'
19	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	565+60	30' RT.	32'
20	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	562+30	30' RT.	32'
24	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	328+81	26' RT.	174'
25	GUARDRAIL END TREATMENT, TYPE 1-31, TEST LEVEL 3	329+33	28' RT.	50'
26	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	430+78	26' RT.	346'
27	GUARDRAIL END TREATMENT, TYPE 1-31, TEST LEVEL 3	430+27	28' RT.	50'

CURB SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
16	I.PCC CURB AND GUTTER, TYPE 1-4	57'
17	I.PCC CURB AND GUTTER, TYPE 1-4	542'
18	I.PCC CURB AND GUTTER, TYPE 1-4	135'
19	PCC CURB, TYPE 2	109'
20	I.PCC CURB AND GUTTER, TYPE 1-4	227'
21	I.PCC CURB AND GUTTER, TYPE 1-4	285'
22	I.PCC CURB AND GUTTER, TYPE 1-4	57'
308	PCC CURB LAYDOWN CURB FOR GUARDRAIL	85'
309	PCC CURB LAYDOWN CURB FOR GUARDRAIL	85'

ROADWAY CORE SCHEDULE

NO.	STATION	OFFSET	DESCRIPTION
SB 1	334+41.78	18.22' RT.	17" HMA / ORIGINAL
SB 8	334+19.98	6.51' LT.	14" HMA / 8+" FILL

RIGHT-OF-WAY MONUMENT SCHEDULE

NO.	TYPE	STATION	OFFSET	NORTHING	EASTING
8	CONCRETE	428+69.53	42.00	254120.8440	660862.3899
42	CAPPED REBAR	428+45.00	42.00	254096.9137	660867.7705
43	CAPPED REBAR	565+48.32	64.06	254120.3220	660906.5808
44	CONCRETE	334+31.71	-42.00	254625.4587	660543.9368

BARRIER END SECTION SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	EACH
5	TL-3 END ANCHORAGE *	1

* NOTE: LENGTH DEPENDS ON MANUFACTURER

BARRIER SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
9	TL-4 HIGH TENSION CABLE BARRIER	150'

UNDERDRAIN OUTLETS

NO.	LENGTH	DIS. EL.
3	44'	43.00
4	44'	43.00

DELDOT SWM FACILITY SCHEDULE

NO.	TYPE / DESCRIPTION	LOCATION
01135	WET EXTENDED DETENTION POND	RAMP A INFIELD

ADDENDA / REVISIONS

NOT TO SCALE

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	T201412701
COUNTY	SUSSEX
BRIDGE NO.	N/A
DESIGNED BY:	S. BEALL
CHECKED BY:	T. OLIVER

CONSTRUCTION PLAN

	CP-04A
SECTION	WRA
SHEET NO.	28

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MATCH LINE STA. 335+75 (SHEET CP-04)

MATCH LINE STA. 345+00 (SHEET CP-06)

MATCH LINE STA. 708+20 (SHEET CP-11)

US 113 SB (DUPONT BLVD., S113)

US 113 NB (DUPONT BLVD., S113)

COLLEGE PARK LANE

LITTLE LANKFORD LANE

WOLFE ROAD

GORDY STREET (S22024B)

RAMP B

135-14.00-35.02 NORTH SALISBURY BRICK HOLDINGS, LLC D.R. 4235-53 P.B. 200-27 3" D.R. 62-312 P.B. 63-119

135-14.00-35.04 GEORGETOWN HOTEL LLC D.R. 4905-172 P.B. 260-66

135-14.00-35.10 COLLEGE PARK RETAIL, LLC D.R. 4905-169 P.B. 260-66

135-14.00-35.04 GEORGETOWN, SC, LLC D.R. 3134-193 P.B. 69-124 P.B. 66-140

135-14.00-35.11 TOWN OF GEORGETOWN D.R. 5157-73

135-14.00-35.01 J & P MANAGEMENT, INC. D.R. 2450-61 P.B. 62-312 P.B. 63-119

27 — 135-14.15-8.00 TWO FARMS, INC. D.R. 3973-59 P.B. 168-75

28 — 135-14.15-9.00 CATO DEVELOPMENT, INC. D.R. 2609-14 P.B. 71-132

29 — 135-14.15-7.00 STATE OF DELAWARE, ACTING BY AND THROUGH THE DEPARTMENT OF TRANSPORTATION D.R. 5526-52

30 — 135-14.15-6.00 STATE OF DELAWARE THROUGH DEPARTMENT OF TRANSPORTATION D.R. 5421-169

31 — 135-14.00-58.00 KHWAJA GHARIB NAWAZ, LLC D.R. 4839-346

32 — 135-14.00-58.01 STATE OF DELAWARE, THROUGH THE DEPARTMENT OF TRANSPORTATION D.R. 5759-4

33 — 135-14.00-61.00 KHWAJA GHARIB NAWAZ, LLC D.R. 4839-346

34 — 135-14.00-62.01 DHW REALTY, LLC D.R. 4087-61

9 — 135-14.00-35.11 TOWN OF GEORGETOWN D.R. 5157-73

10 — 135-14.00-35.04 GEORGETOWN, SC, LLC D.R. 3134-193 P.B. 69-124 P.B. 66-140

GEORGETOWN-VAUGHN DEEP CREEK PRONG 9 TAX DITCH EASEMENT 25' WIDE

EXISTING 50' WIDE UTILITY EASEMENT (P.B. 63-119)

ACCESS EASEMENT P.B. 200-5

30' UTILITY EASEMENT P.B. 63-119

20' UTILITY EASEMENT P.B. 63-119

UTILITY EASEMENT P.B. 63-119

21' WIDE PERMANENT EASEMENT FOR THE STATE OF DELAWARE P.B. 188-37

8.85' CROSS ACCESS EASEMENT - P.B. 260-66

30' WIDE UTILITY EASEMENT FOR TOWN OF GEORGETOWN P.B. 188-37

GEORGETOWN-VAUGHN DEEP CREEK SUB 4 PRONG 9 TAX DITCH EASEMENT 10' FROM C/L (T.B. 1-113)

SAW CUT (LIMIT OF PAVEMENT REMOVAL)

SEE NOTE 1 (TYP.)

BEGIN DENIAL OF ACCESS STA. 441+19.37, OFFSET 42' RT.

END DENIAL OF ACCESS STA. 440+86.00, OFFSET 42' RT.

END RAMP B HIGH FRICTION SURFACE TREATMENT STA. 711+48

END DENIAL OF ACCESS STA. 443+86.08, OFFSET 42' RT.

RIPRAP, CURB, SIDEWALK, PED CONNECTION

TEST STATION

WATER VALVE

FIRE HYDRANT

MANHOLE

JUNCTION WELL

BUS SHELTER

BILLBOARD

UTILITY POLE

S.V.

TREES

NOTES:

1. THE CONTRACTOR SHALL COORDINATE WITH UTILITIES TO LOCATE THE EXISTING UNDERGROUND FACILITIES. POST SPACING SHALL BE ADJUSTED ACCORDINGLY TO AVOID CONFLICT.
2. SEE SHEET CP-05A FOR PROPOSED CONSTRUCTION SCHEDULES.
3. HIGH FRICTION SURFACE TREATMENT IS ONLY APPLIED TO THE TRAVEL LANES, NOT SHOULDERS.

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION

CONTRACT	T201412701
COUNTY	SUSSEX
BRIDGE NO.	N/A
DESIGNED BY:	S. BEALL
CHECKED BY:	T. OLIVER

CONSTRUCTION PLAN

CP-05

SECTION WRA

SHEET NO. 29

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GUARDRAIL SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
32	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 3-31	335+75	46' RT.	749'
33	GUARDRAIL END TREATMENT, TYPE 3-31	343+24	46' LT.	50'

RIGHT-OF-WAY MONUMENT SCHEDULE

NO.	TYPE	STATION	OFFSET	NORTHING	EASTING
*11	CONCRETE	705+90.95	340.01	255083.7563	661034.3659
*12	CONCRETE	712+06.46	322.47	255241.0274	660910.2994
45	CAPPED REBAR	443+84.96	50.00	255601.1160	660537.7582
46	CAPPED REBAR	344+68.16	-75.41	255629.3330	660283.9748
70	CAPPED REBAR	344+74.17	-75.38	255635.2080	660282.6911

* DOES NOT SHOW ON PLAN SHEET

CURB SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
23	I.PCC CURB AND GUTTER, TYPE 1-4	175'
24	I.PCC CURB AND GUTTER, TYPE 1-4	460'
26	I.PCC CURB AND GUTTER, TYPE 1-4	746'
28	PCC CURB, TYPE 2	1246'
29*	PCC CURB, TYPE 2	111'
30	I.PCC CURB AND GUTTER, TYPE 1-4	109'
31	I.PCC CURB AND GUTTER, TYPE 1-4	842'
70	I.PCC CURB AND GUTTER, TYPE 1-4	58'
82	PCC CURB, TYPE 2	830'
95	I.PCC CURB AND GUTTER, TYPE 1-4	89'
306	PCC CURB LAYDOWN CURB FOR GUARDRAIL	50'

* COST FOR CONSTRUCTION OF CURB IS INCIDENTAL TO ITEM 702000 - TRIANGULAR CHANNELIZING ISLANDS.

DRAINAGE PIPE SCHEDULE

NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INVERT EL.	DIS. EL.
184	18" RCP	III	73'	0.005	42.77	42.40
185	18" RCP	III	87'	0.005	43.40	42.97
186	14" X 23" ERCP	IV	95'	0.017	45.20	43.60
190	12" RCP	IV	16'	0.006	46.81	46.71
198	15" RCP	III	107'	0.004	45.78	45.36
200	15" RCP	III	26'	0.020	45.36	44.83
201	15" RCP	III	26'	0.013	45.20	44.85
202	15" RCP	III	148'	0.004	44.54	43.95
203	15" RCP	III	26'	0.004	43.95	43.84
204	15" RCP	III	112'	0.004	44.99	44.54
205	15" RCP	III	277'	0.004	44.73	43.63
206	18" RCP	III	247'	0.008	43.63	41.76
207	18" RCP	III	25'	0.009	41.98	41.76
208	24" RCP	III	210'	0.006	41.76	40.51
210	30" RCP	III	18'	0.016	40.51	40.22
212	15" RCP	III	37'	0.016	45.52	44.93
213	15" RCP	III	18'	0.003	44.88	44.83
219	18" RCP	III	17'	0.003	40.99	40.94
220	15" RCP	III	158'	0.004	44.30	43.63
221	15" RCP	III	168'	0.004	43.63	42.93
222	18" RCP	III	128'	0.005	42.93	42.35
223	18" RCP	III	111'	0.004	42.35	41.91
224	18" RCP	III	118'	0.004	41.91	41.44
225	18" RCP	III	87'	0.003	41.44	41.17
226	18" RCP	III	32'	0.003	41.17	41.07
227	18" RCP	III	25'	0.003	41.07	40.99
229	18" RCP	III	32'	0.003	41.17	41.07
700	15" RCP	III	33'	0.008	42.80	42.54
701	15" RCP	III	46'	0.008	42.54	42.17
702	15" RCP	III	24'	0.008	42.17	41.98
704	15" RCP	III	111'	0.014	43.50	41.98
705	15" RCP	III	76'	0.010	44.27	43.50
800	15" RCP	III	25'	0.004	44.83	44.73
801	15" RCP	III	32'	0.004	45.32	45.19
802	15" RCP	III	32'	0.005	45.19	45.03
803	15" RCP	III	35'	0.005	45.03	44.85
804	15" RCP	III	32'	0.008	44.85	44.59
805	15" RCP	III	32'	0.008	44.59	44.33
806	15" RCP	III	32'	0.008	44.33	44.07
807	15" RCP	III	29'	0.008	44.07	43.84
808	15" RCP	III	25'	0.008	43.84	43.63
809	15" RCP	III	32'	0.008	44.10	43.84
810	15" RCP	III	48'	0.008	44.48	44.10

DRAINAGE INLET SCHEDULE

NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
182	335+93.24	*	48" x 30"	4	**	42.20
184	336+68.06	35.71' LT.	48" x 30"	2	46.51	42.77
185	337+57.71	32.35' LT.	48" x 48"	2	47.00	43.40
198	444+37.87	*	34" x 24"	4	**	45.78
200	443+29.19	*	34" x 24"	4	**	45.36
201	441+87.26	*	34" x 24"	4	**	45.20
202	439+00.00	*	34" x 24"	4	**	44.54
203	440+50.00	*	34" x 24"	4	**	43.95
204	437+56.23	*	34" x 24"	4	**	44.99
205	343+29.19	*	34" x 24"	4	**	44.73
206	340+50.00	*	48" x 30"	4	**	43.63
208	338+00.00	*	48" x 48"	4	**	41.76
210	335+87.11	*	48" x 48"	4	**	40.51
212	343+68.95	*	34" x 24"	4	**	45.52
213	443+50.33	*	48" x 30"	4	**	44.88
219	708+96.34	*	48" x 30"	1	**	40.99
220	444+70.56	*	34" x 24"	4	**	44.30
221	443+10.56	*	34" x 24"	4	**	43.63
222	441+40.56	*	48" x 30"	4	**	42.93
223	440+10.56	*	48" x 30"	4	**	42.35
224	711+52.24	*	48" x 30"	4	**	41.91
225	710+30.81	*	48" x 30"	4	**	41.44
226	709+33.76	*	48" x 30"	4	**	41.17
227	708+96.34	*	48" x 30"	1	**	41.07
228	436+45.14	*	48" x 30"	4	**	40.94
229	708+58.61	*	48" x 30"	4	**	41.17
700	439+11.00	*	34" x 24"	4	**	42.80
701	438+75.87	*	34" x 24"	4	**	42.54
702	438+27.14	*	34" x 24"	4	**	42.17
703	438+00.11	*	48" x 30"	4	**	41.98
704	436+86.37	*	48" x 30"	4	**	43.50
705	436+08.15	*	34" x 24"	4	**	44.27
800	443+29.05	*	34" x 24"	4	**	44.83
801	442+94.11	*	34" x 24"	4	**	45.32
802	442+59.19	*	34" x 24"	4	**	45.19
803	442+24.14	*	34" x 24"	4	**	45.03
804	441+87.00	*	34" x 24"	4	**	44.85
805	441+51.98	*	34" x 24"	4	**	44.59
806	441+17.00	*	34" x 24"	4	**	44.33
807	440+81.97	*	34" x 24"	4	**	44.07
808	440+50.00	*	48" x 30"	4	**	43.84
809	440+15.00	*	34" x 24"	4	**	44.10
810	439+65.00	*	34" x 24"	4	**	44.48

* MATCH PROPOSED CURBLINE
** MATCH FLOWLINE OF PROPOSED CURB

FLARED END SECTION SCHEDULE

NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
186	14" X 23"	0.017	YES
190	12" RCP	0.006	NO
191	12" RCP	0.006	NO

RIPRAP SCHEDULE

NO.	TYPE	AREA (SY)
600	R-4	6
601	R-4	7
602	R-4	7
603	R-4	7
604	R-4	7
605	R-4	7
606	R-4	7

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ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	T201412701
COUNTY	SUSSEX
BRIDGE NO.	N/A
DESIGNED BY:	S. BEALL
CHECKED BY:	T. OLIVER

CONSTRUCTION PLAN

CP-05A
SECTION
WRA
SHEET NO.
30

CURB SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
32	1.PCC CURB AND GUTTER, TYPE 1-4	674'
35	1.PCC CURB AND GUTTER, TYPE 1-4	517'
56	1.PCC CURB AND GUTTER, TYPE 1-4	340'
71	1.PCC CURB AND GUTTER, TYPE 1-4	28'

DRAINAGE INLET SCHEDULE

NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
239	446+58.24	*	34" x 24"	4	**	45.65
240	447+69.22	*	34" x 24"	4	**	45.56
241	448+89.96	*	34" x 24"	4	**	45.38
242	450+17.22	*	34" x 24"	4	**	45.25
243	452+48.58	*	34" x 24"	4	**	44.98
244	453+20.42	*	34" x 24"	4	**	44.77
245	453+55.39	*	34" x 24"	1	**	44.67
246	453+90.40	*	48" x 30"	4	**	44.57

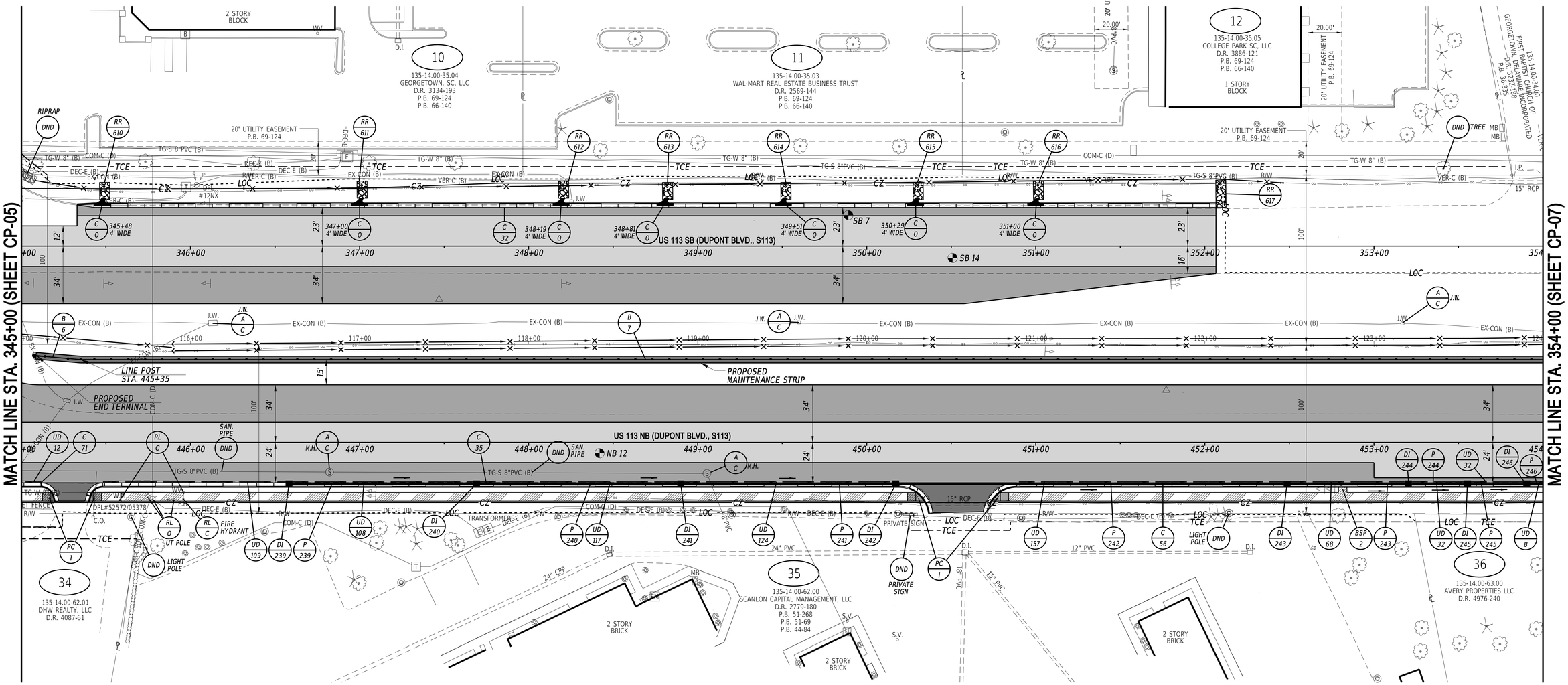
* MATCH PROPOSED CURBLINE
** MATCH FLOWLINE OF PROPOSED CURB

DRAINAGE PIPE SCHEDULE

NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INVERT EL.	DIS. EL.
239	15" RCP	III	108'	0.001	45.65	45.56
240	15" RCP	III	118'	0.002	45.56	45.38
241	15" RCP	III	125'	0.001	45.38	45.25
242	15" RCP	III	229'	0.001	45.25	44.98
243	15" RCP	III	69'	0.003	44.98	44.77
244	15" RCP	III	32'	0.003	44.77	44.67

RIPRAP SCHEDULE

NO.	TYPE	AREA (SY)
610	R-4	7
611	R-4	7
612	R-4	7
613	R-4	7
614	R-4	7
615	R-4	7
616	R-4	7
617	R-4	11



ROADWAY CORE SCHEDULE

NO.	STATION	OFFSET	DESCRIPTION
SB 7	349+89.10	18.42' LT.	9" HMA / 9" MILLINGS
NB 12	448+41.94	6.41' RT.	1" HMA / 10.5" PCC / 4+" CRUSHED CONC.
SB 14	350+50.79	7.00' RT.	.75" HMA / 10.5" PCC / 3+" CR

BARRIER END SECTION SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	EACH
6	TL-3 END ANCHORAGE *	1

* NOTE: LENGTH DEPENDS ON MANUFACTURER

BARRIER SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
7	TL-4 HIGH TENSION CABLE BARRIER	865'

DRAINAGE PIPE SCHEDULE

NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INVERT EL.	DIS. EL.
245	15" RCP	III	32'	0.003	44.67	44.57
246	18" RCP	III	91'	0.003	44.57	44.30

ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	T201412701	BRIDGE NO.	N/A
COUNTY	SUSSEX	DESIGNED BY:	S. BEALL
		CHECKED BY:	T. OLIVER

CONSTRUCTION PLAN

CP-06
SECTION WRA
SHEET NO. 31

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CURB SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
37	1.PCC CURB AND GUTTER, TYPE 1-4	380'

FLARED END SECTION SCHEDULE

NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
251	14" X 23" ERCP	0.020	YES

DRAINAGE PIPE SCHEDULE

NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INVERT EL.	DIS. EL.
247	18" RCP	III	128'	0.001	44.30	44.11
251	14" X 23" ERCP	III	20'	0.020	44.50	44.11
900*	15" RCP	IV	10'	0.110	45.00	43.90

* CONNECT THE PROPOSED PIPE TO THE EXISTING DRAINAGE INLET IN ACCORDANCE WITH STANDARD SPECIFICATIONS SECTION 602.3.B.9 AND AS DIRECTED BY THE ENGINEER. ALL COSTS TO CONNECT TO THE EXISTING INLET ARE INCIDENTAL TO THE PIPE BEING INSTALLED.

ROADWAY CORE SCHEDULE

NO.	STATION	OFFSET	DESCRIPTION
NB 13	454+50.94	18.50' RT.	14" HMA / 5+" CRUSHED CONC.

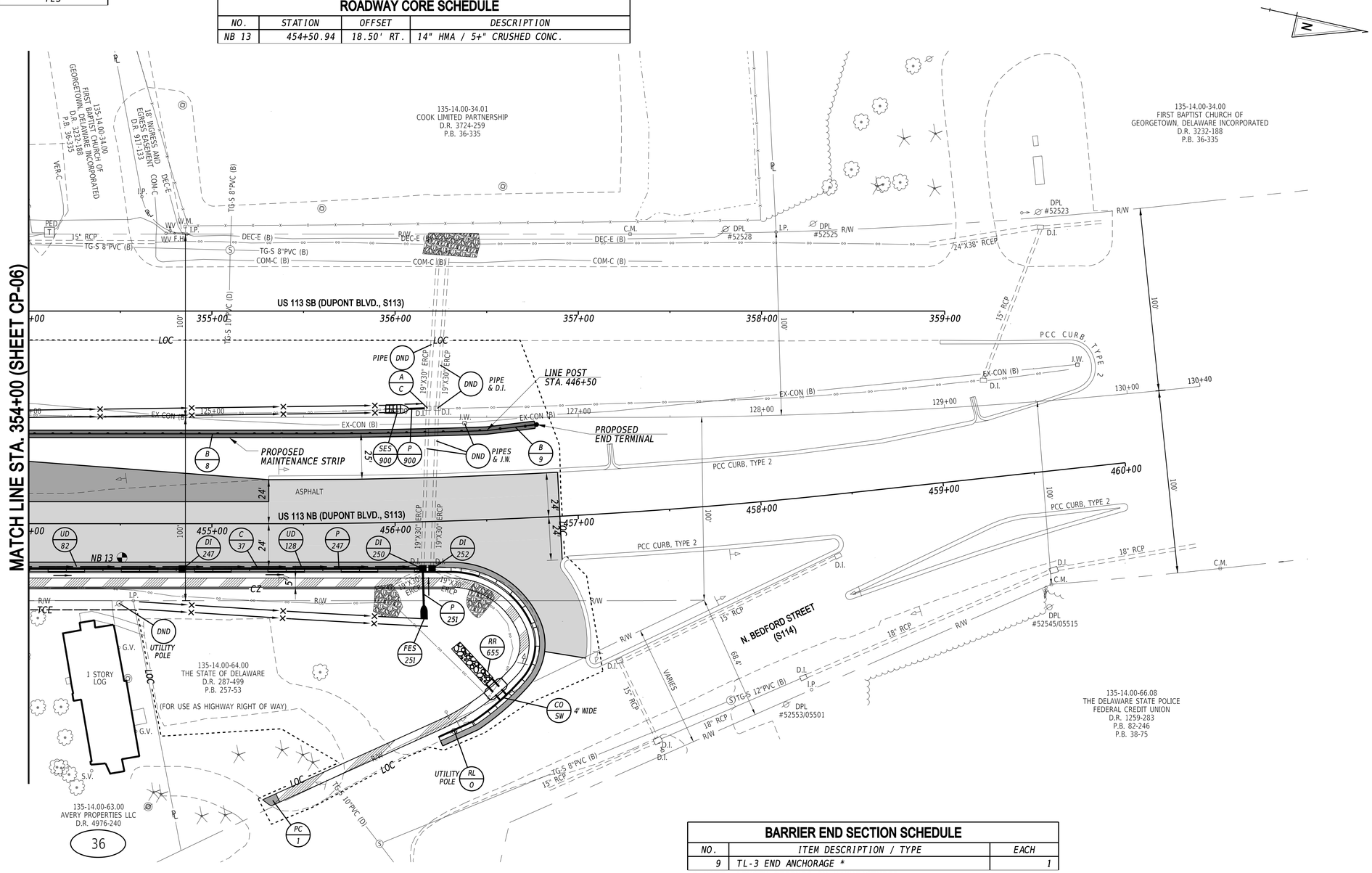
DRAINAGE INLET SCHEDULE

NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
247	454+83.89	*	48" x 30"	4	**	44.30
250	456+14.42	*	48" x 30"	4	**	44.11
252	456+19.40	*	48" x 30"	4	**	44.11

* MATCH PROPOSED CURBLINE
** MATCH FLOWLINE OF PROPOSED CURB

RIPRAP SCHEDULE

NO.	TYPE	AREA (SY)
655	R-4	18



BARRIER END SECTION SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	EACH
9	TL-3 END ANCHORAGE *	1

* NOTE: LENGTH DEPENDS ON MANUFACTURER

SAFETY END SECTION SCHEDULE

NO.	SIZE	TYPE	GRATE SLOPE
900	15"	METAL	6:1

BARRIER SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
8	TL-4 HIGH TENSION CABLE BARRIER	250'

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	T201412701	
COUNTY	SUSSEX	
BRIDGE NO.	N/A	
DESIGNED BY:	S. BEALL	
CHECKED BY:	T. OLIVER	

CONSTRUCTION PLAN

CP-07
SECTION WRA
SHEET NO. 32

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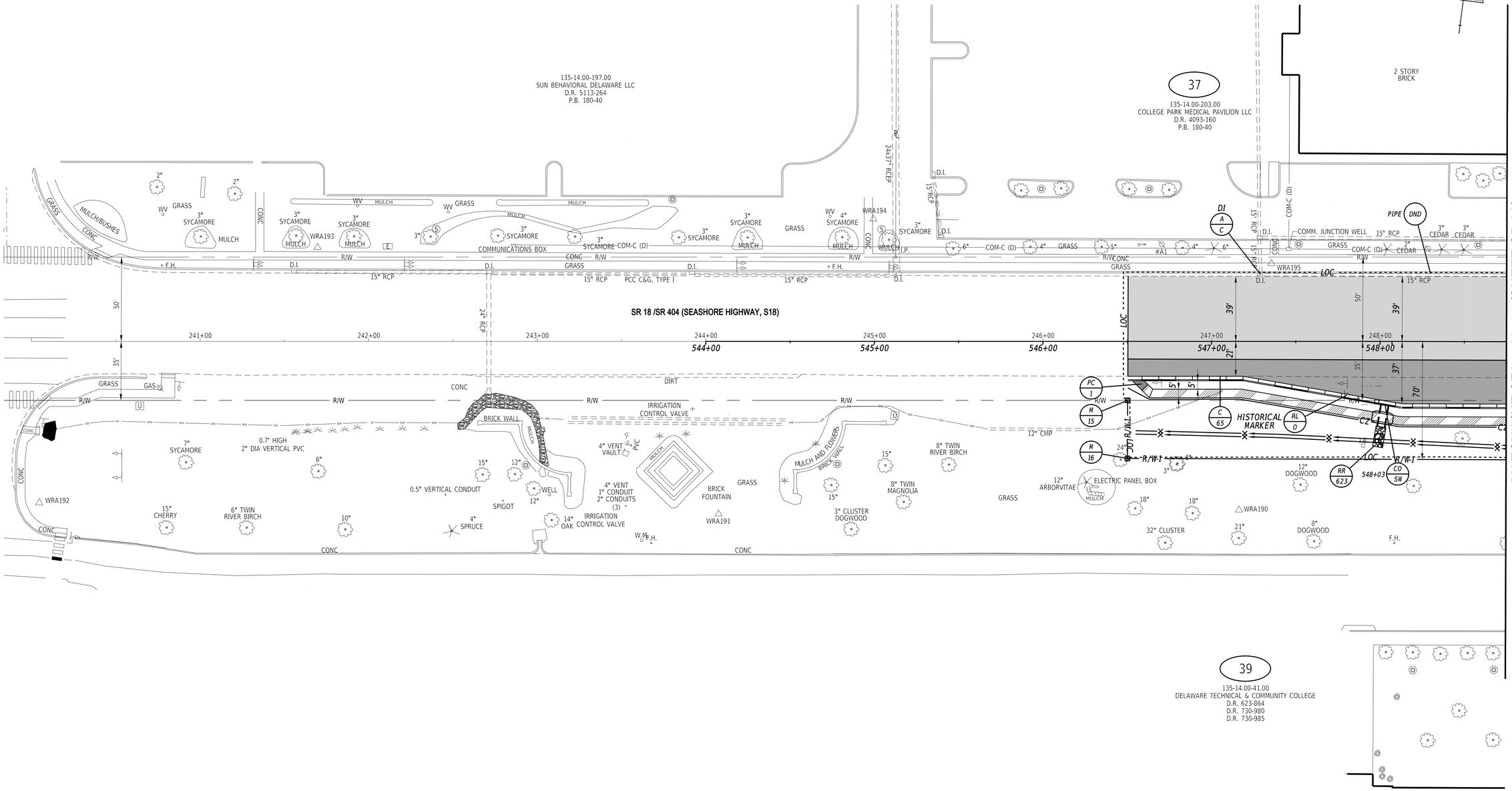
CURB SCHEDULE		
NO.	ITEM DESCRIPTION / TYPE	LENGTH
65	I.PCC CURB AND GUTTER, TYPE 1-4	226'

RIGHT-OF-WAY MONUMENT SCHEDULE					
NO.	TYPE	STATION	OFFSET	NORTHING	EASTING
15	CONCRETE	546+50.27	35.00	254254.9962	659042.9654
16	CONCRETE	546+50.15	69.46	254220.8081	659047.2620

RIPRAP SCHEDULE		
NO.	TYPE	AREA (SY)
623	R-4	8



MATCH LINE STA. 548+75 (SHEET CP-09)

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ADDENDA / REVISIONS		SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	CONSTRUCTION PLAN	CP-08
		0 30 60 90 FEET		T201412701			SECTION
				COUNTY	DESIGNED BY: S. BEALL		WRA
				SUSSEX	CHECKED BY: T. OLIVER		SHEET NO. 33

DRAINAGE INLET SCHEDULE

NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
302	557+01.60	*	48" x 48"	4	**	47.08
311	556+45.33	*	34" x 24"	4	**	51.59

* MATCH PROPOSED CURBLINE
** MATCH FLOWLINE OF PROPOSED CURB

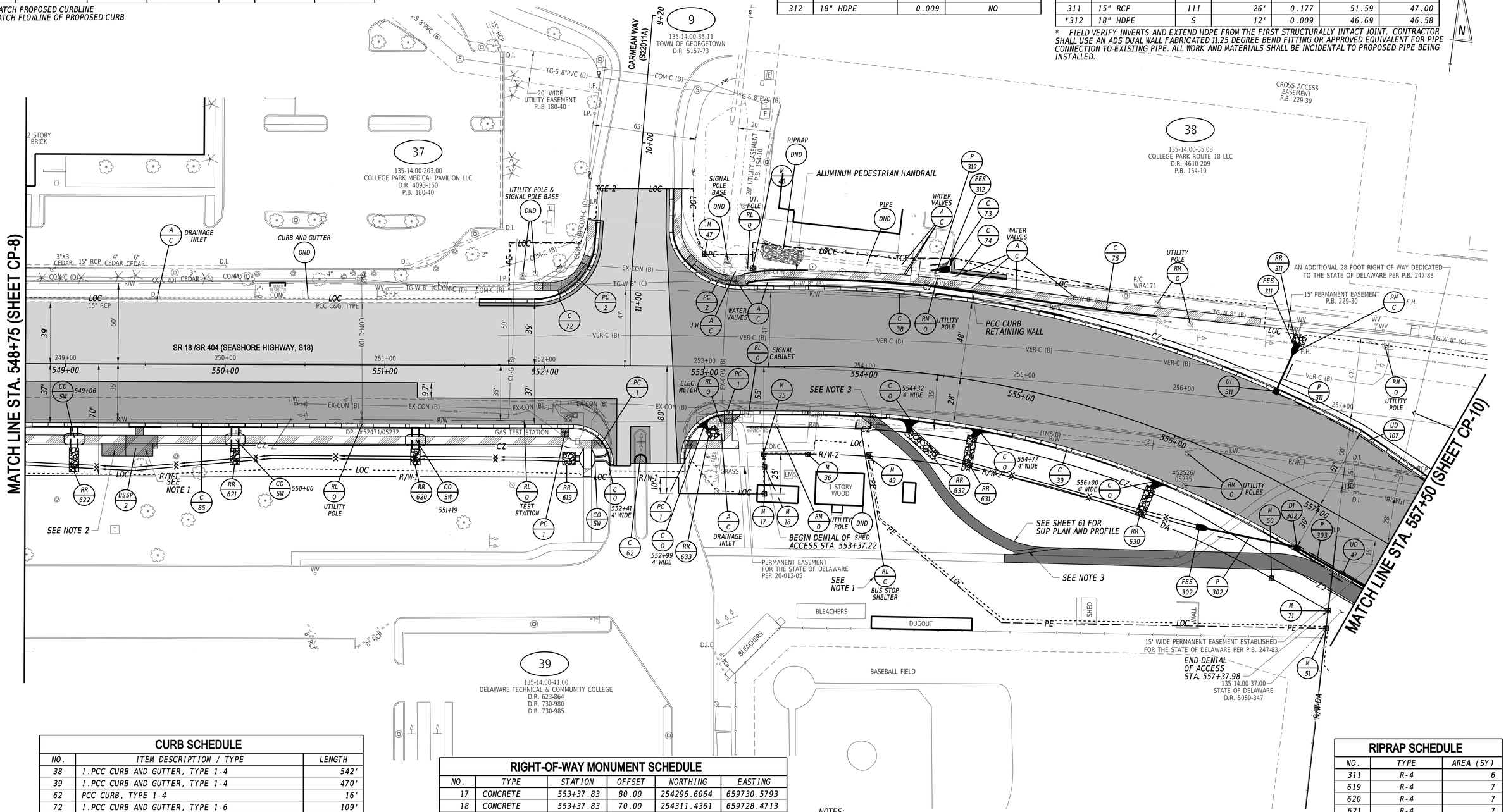
FLARED END SECTION SCHEDULE

NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
302	24" RCP	0.003	YES
311	15" RCP	0.177	NO
312	18" HDPE	0.009	NO

DRAINAGE PIPE SCHEDULE

NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INT. EL.	DIS. EL.
302	24" RCP	III	58'	0.003	47.25	47.08
303	24" RCP	III	61'	0.003	47.08	46.90
311	15" RCP	III	26'	0.177	51.59	47.00
*312	18" HDPE	S	12'	0.009	46.69	46.58

* FIELD VERIFY INVERTS AND EXTEND HDPE FROM THE FIRST STRUCTURALLY INTACT JOINT. CONTRACTOR SHALL USE AN ADS DUAL WALL FABRICATED 11.25 DEGREE BEND FITTING OR APPROVED EQUIVALENT FOR PIPE CONNECTION TO EXISTING PIPE. ALL WORK AND MATERIALS SHALL BE INCIDENTAL TO PROPOSED PIPE BEING INSTALLED.



CURB SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
38	I.PCC CURB AND GUTTER, TYPE 1-4	542'
39	I.PCC CURB AND GUTTER, TYPE 1-4	470'
62	PCC CURB, TYPE 1-4	16'
72	I.PCC CURB AND GUTTER, TYPE 1-6	109'
73	PCC CURB, TYPE 1-6	4'
74	PCC CURB, TYPE 1, MODIFIED	35'
75	CURB RETAINING WALL	245'
85	I.PCC CURB AND GUTTER, TYPE 1-4	383'

RIGHT-OF-WAY MONUMENT SCHEDULE

NO.	TYPE	STATION	OFFSET	NORTHING	EASTING
17	CONCRETE	553+37.83	80.00	254296.6064	659730.5793
18	CONCRETE	553+37.83	70.00	254311.4361	659728.4713
35	CONCRETE	553+37.22	55.00	254321.3349	659726.8538
36	CONCRETE	553+64.88	55.00	254324.7845	659754.3020
47	CAPPED REBAR	552+99.95	-70.00	254440.7126	659674.2939
48	CAPPED REBAR	553+30.00	-61.39	254435.9151	659705.1782
49	CAPPED REBAR	554+06.27	55.00	254328.2923	659791.9760
50	CONCRETE	556+97.06	55.00	254284.8658	660052.0346
51	CAPPED REBAR	557+42.36	65.16	254258.1849	660090.0289
71	CONCRETE	557+37.98	55.00	254269.2492	660089.8557

RIPRAP SCHEDULE

NO.	TYPE	AREA (SY)
311	R-4	6
619	R-4	7
620	R-4	7
621	R-4	7
622	R-4	10
630	R-4	14
631	R-4	14
632	R-4	16
633	R-4	4

NOTES:

1. INSTALL BUS STOP PAD WITH SHELTER, TYPE 2 (17'x8') LOCATED NEAR STA. 549+40 RT. IN ACCORDANCE WITH STANDARD CONSTRUCTION DETAIL M-9. THE EXISTING BUS SHELTER NEAR STA. 554+00 RT. SHALL BE REMOVED AND RE-INSTALLED BY THE CONTRACTOR ONCE PCC PAD IS COMPLETE. THE CONTRACTOR SHALL CONTACT DELAWARE TRANSIT CORPORATION'S (DTC) FACILITIES COORDINATOR AT (302)576-6094 TO COORDINATE INSTALLATION OF THE RELOCATED BUS SHELTER AND TRASH RECEPTACLE. BUS SHELTER RELOCATION SHALL BE PAID FOR UNDER ITEM 615519.
2. INSTALL 15'X8' BIKE RACK IN ACCORDANCE WITH STANDARD CONSTRUCTION DETAIL M-4 AND CONSTRUCTION DETAIL SHOWN ON SHEET 79.
3. SEE STANDARD CONSTRUCTION DETAILS FOR DIRECTIONAL TACTILE SURFACE INDICATOR DETAIL.

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO.	N/A
T201412701	DESIGNED BY:	S. BEALL
COUNTY	CHECKED BY:	T. OLIVER
SUSSEX		

CONSTRUCTION PLAN

CP-09
SECTION: WRA
SHEET NO.: 34

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DRAINAGE INLET SCHEDULE

NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
303	558+34.19	*	48" x 48"	4	**	46.90
305	558+60.10	*	48" x 30"	4	**	51.40
330	558+23.16	*	48" x 30"	4	**	49.00
+331	558+21.91	92.00	66" x 48"	2	47.23	43.45
332	560+00.79	*	48" x 30"	4	**	56.00
340	561+93.66	*	48" x 30"	4	**	66.41
341	561+06.66	*	48" x 30"	4	**	64.60
342	561+06.66	*	48" x 30"	4	**	63.73
343	561+52.86	*	48" x 30"	4	**	63.27
344	903+71.61	*	48" x 30"	4	**	50.77
345	906+34.62	*	34" x 24"	4	**	50.00
347	902+00.00	*	48" x 30"	4	**	56.00

* MATCH PROPOSED CURBLINE
** MATCH FLOWLINE OF PROPOSED CURB
+ DOGHOUSE INLET. CONTRACTOR SHALL CONFIRM INVERT AND LOCATION OF EX. PIPE PRIOR TO FURNISHING INLET.

FLARED END SECTION SCHEDULE

NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
304	24" RCP	0.003	NO
332	15" RCP	0.137	NO
343	18" RCP	0.100	NO
344	18" RCP	0.066	NO
345	18" RCP	0.080	NO
346	24" RCP	0.006	NO
347	15" RCP	0.085	NO
348	24" RCP	0.076	YES

RIPRAP SCHEDULE

NO.	TYPE	AREA (SY)
304	R-4	4
332	R-4	14
343	R-4	14
345	R-4	14
346	R-4	34
347	R-4	14
+348	R-4	59
*350	R-4	94

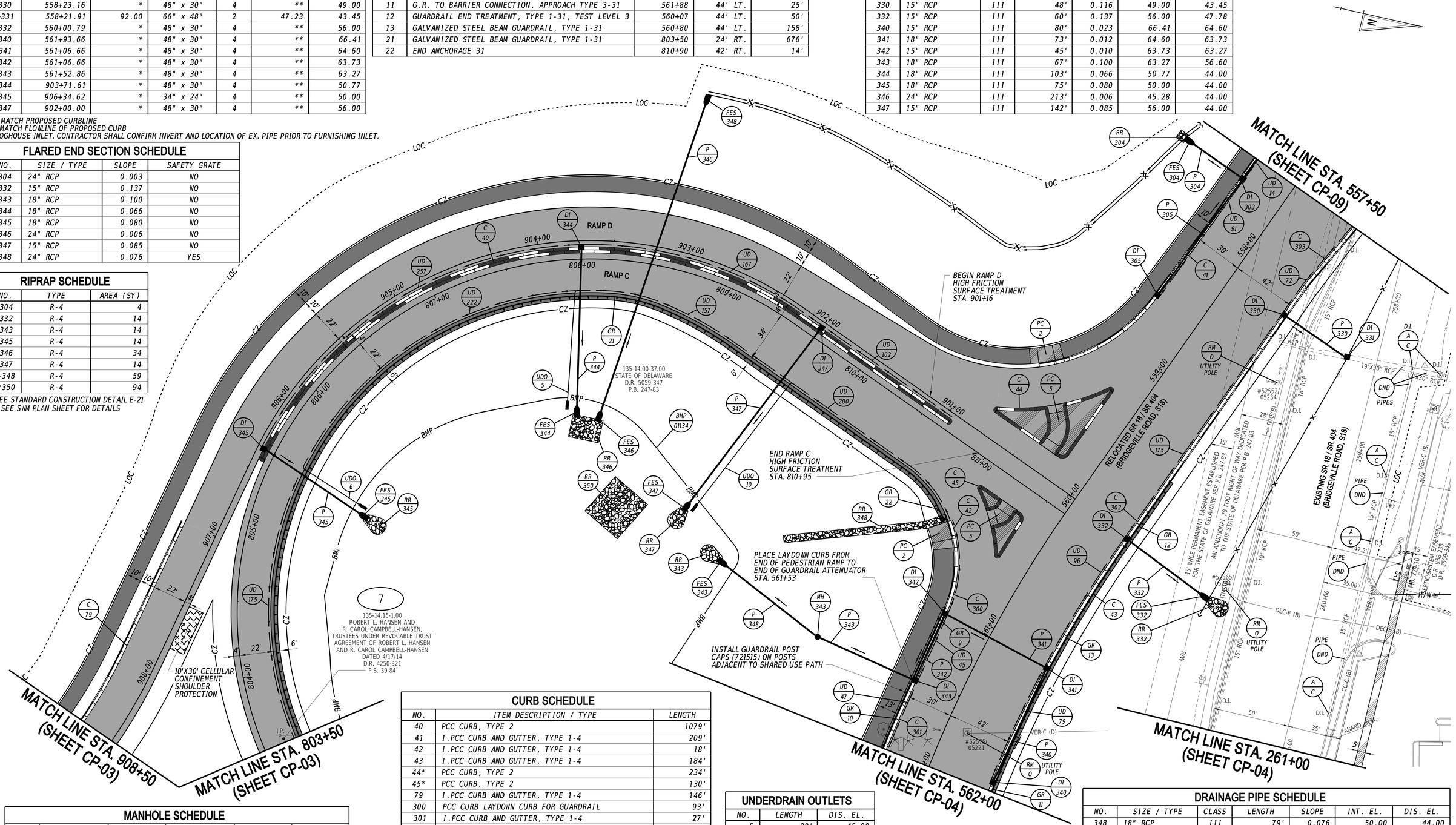
\+ SEE STANDARD CONSTRUCTION DETAIL E-21
* SEE SWM PLAN SHEET FOR DETAILS

GUARDRAIL SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
9	GUARDRAIL END TREATMENT, TYPE 1-31, TEST LEVEL 3	561+07	34' RT.	50'
10	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	561+57	32' RT.	43'
11	G.R. TO BARRIER CONNECTION, APPROACH TYPE 3-31	561+88	44' LT.	25'
12	GUARDRAIL END TREATMENT, TYPE 1-31, TEST LEVEL 3	560+07	44' LT.	50'
13	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	560+80	44' LT.	158'
21	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	803+50	24' RT.	676'
22	END ANCHORAGE 31	810+90	42' RT.	14'

DRAINAGE PIPE SCHEDULE

NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INT. EL.	DIS. EL.
304	24" RCP	III	39'	0.003	46.90	46.80
305	15" RCP	III	91'	0.044	51.40	47.40
330	15" RCP	III	48'	0.116	49.00	43.45
332	15" RCP	III	60'	0.137	56.00	47.78
340	15" RCP	III	80'	0.023	66.41	64.60
341	18" RCP	III	73'	0.012	64.60	63.73
342	15" RCP	III	45'	0.010	63.73	63.27
343	18" RCP	III	67'	0.100	63.27	56.60
344	18" RCP	III	103'	0.066	50.77	44.00
345	18" RCP	III	75'	0.080	50.00	44.00
346	24" RCP	III	213'	0.006	45.28	44.00
347	15" RCP	III	142'	0.085	56.00	44.00



CURB SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
40	PCC CURB, TYPE 2	1079'
41	I.PCC CURB AND GUTTER, TYPE 1-4	209'
42	I.PCC CURB AND GUTTER, TYPE 1-4	18'
43	I.PCC CURB AND GUTTER, TYPE 1-4	184'
44*	PCC CURB, TYPE 2	234'
45*	PCC CURB, TYPE 2	130'
79	I.PCC CURB AND GUTTER, TYPE 1-4	146'
300	PCC CURB LAYDOWN CURB FOR GUARDRAIL	93'
301	I.PCC CURB AND GUTTER, TYPE 1-4	27'
302	PCC CURB LAYDOWN CURB FOR GUARDRAIL	150'
303	I.PCC CURB AND GUTTER, TYPE 1-4	105'

* COST FOR CONSTRUCTION OF CURB IS INCIDENTAL TO ITEM 702000 - TRIANGULAR CHANNELIZING ISLANDS.

UNDERDRAIN OUTLETS

NO.	LENGTH	DIS. EL.
5	80'	45.00
6	51'	45.00
10	108'	45.00

MANHOLE SCHEDULE

NO.	STATION	OFFSET	TYPE/SIZE	T.G. EL.	INVERT EL.
343	560+46.18	100.49' RT	48" x 48"	60.00	50.00

DRAINAGE PIPE SCHEDULE

NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INT. EL.	DIS. EL.
348	18" RCP	III	79'	0.076	50.00	44.00

NOTE:
1. HIGH FRICTION SURFACE TREATMENT IS ONLY APPLIED TO THE TRAVEL LANES, NOT SHOULDERS.

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO.	N/A
T201412701	DESIGNED BY:	S. BEALL
COUNTY	CHECKED BY:	T. OLIVER
SUSSEX		

CONSTRUCTION PLAN

CP-10 | SECTION WRA | SHEET NO. 35

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FLARED END SECTION SCHEDULE

NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
403	15" RCP	0.047	NO
408	18" RCP	0.143	NO
420	15" RCP	0.034	NO
421	15" RCP	0.072	NO
451	24" RCP	0.009	YES

DRAINAGE INLET SCHEDULE

NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
421	704+41.68	*	48" x 30"	4	**	51.72
452	706+16.57	61.20' RT.	48" x 30"	2	45.00	41.16
455	707+15.22	33.74' LT.	66" x 66"	2	45.96	40.54

CURB SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
48	I.PCC CURB AND GUTTER, TYPE 1-4	213'
49	I.PCC CURB AND GUTTER, TYPE 1-4	221'
50	PCC CURB, TYPE 2	702'
51	PCC CURB, TYPE 2	469'
52	I.PCC CURB AND GUTTER, TYPE 1-4	32'
64*	PCC CURB, TYPE 2	73'
96	I.PCC CURB AND GUTTER, TYPE 1-4	98'
304	PCC CURB LAYDOWN CURB FOR GUARDRAIL	150'
305	I.PCC CURB AND GUTTER, TYPE 1-4	221'

* COST FOR CONSTRUCTION OF CURB IS INCIDENTAL TO ITEM 702000 - TRIANGULAR CHANNELIZING ISLANDS.

CURB SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
310	PCC CURB LAYDOWN CURB FOR GUARDRAIL	106'

UNDERDRAIN OUTLETS

NO.	LENGTH	DIS. EL.
7	66'	47.00
8	54'	46.00
9	37'	45.00
11	41'	47.65

MATCH LINE STA. 566+00 (SHEET CP-04)

MATCH LINE STA. 265+50 (SHEET CP-04)

MATCH LINE STA. 603+50 (SHEET CP-04)

MATCH LINE STA. 708+20 (SHEET CP-05)

MATCH LINE STA. 571+00 (SHEET CP-12)

24 — 135-14.15-53.03 POTOMAC FOODS REAL ESTATE, LLC D.R. 5071-24 P.B. 61-95 — 1 STY CONC/STONE "BURGER KING"

25 — 18-IT-6 — 135-14.15-52.00 STATE OF DELAWARE, ACTING BY AND THROUGH THE DEPARTMENT OF TRANSPORTATION D.R. 5586-217 P.B. 253-60

26 — 135-14.15-23.00 TWO FARMS, INC. D.R. 3973-53 P.B. 168-75

27 — 135-14.15-8.00 TWO FARMS, INC. D.R. 3973-59 P.B. 168-75

40 — 135-14.15-51.00 MARY R. BRITTINGHAM FOR LIFE JERRY E. HAMMOND, SR. D.R. 2715-65

41 — 135-14.15-24.00 38 ROUTE 18, LIMITED LIABILITY D.R. 4286-311 P.B. 168-75

42 — 135-14.15-25.00 38 ROUTE 18, LIMITED LIABILITY D.R. 4286-311 P.B. 168-75

43 — 135-14.15-26.00 38 ROUTE 18, LIMITED LIABILITY D.R. 4286-311 P.B. 168-75

44 — 135-14.15-27.00 38 ROUTE 18, LIMITED LIABILITY D.R. 4286-311 P.B. 168-75

45 — 135-14.15-28.00 FROG BEACH, LLC. D.R. 4511-295 P.B. 168-75

46 — 135-14.15-29.00 C&C REAL ESTATE HOLDINGS LLC D.R. 4687-218

64 — 135-14.15-22.00 TWO FARMS, INC. D.R. 3973-59 P.B. 168-75

65 — 135-14.15-20.00 PHILLIP MORRIS JR. D.R. 1983-284

135-14.15-21.00 NORMAN S. WHALEY AND ANNA JANE WHALEY D.R. 0-0

135-14.15-19.00 LANCE B. MEARS AND KRISTEN H./MEARS D.R. 4977-265

RELOCATED SR 18 (SR 404) BRIDGEVILLE ROAD, S18

EXISTING SR 18 (SR 404) BRIDGEVILLE ROAD, S18)

RAMP A

RAMP B

GOFF DRIVE (S22047A)

GORDY STREET (S22048B)

INSTALL GUARDRAIL POST CAPS (721515) ON POSTS ADJACENT TO SHARED USE PATH

SEE SHEET 61 FOR SIDEWALK PLAN AND PROFILE

END RAMP A HIGH FRICTION SURFACE TREATMENT STA. 612+56

BEGIN RAMP B HIGH FRICTION SURFACE TREATMENT STA. 701+43

END RAMP A HIGH FRICTION SURFACE TREATMENT STA. 700+64 (RAMP B)

INSTALL GUARDRAIL POST CAPS (721515) ON POSTS ADJACENT TO SIDEWALK

10'X30' CELLULAR CONFINEMENT SHOULDER PROTECTION

BEGIN MSE WALL STA. 704+00

END MSE WALL STA. 705+90

10' PERMANENT PUBLIC USE EASEMENT P.B. 168-75

20' PERMANENT DRAINAGE EASEMENT P.B. 168-75

20' CROSS ACCESS EASEMENT - P.B. 168-75

30' CROSS ACCESS EASEMENT P.B. 168-75

GEORGETOWN-VAUGHN DEEP CREEK PRONG 9 TAX DITCH EASEMENT 80' FROM TOP OF BANK (T.B. 1-113)

GEORGETOWN-VAUGHN DEEP CREEK SUB 4 PRONG 9 TAX DITCH EASEMENT 10' FROM C/L (T.B. 1-113)

GEORGETOWN-VAUGHN DEEP CREEK PRONG 9 TAX DITCH CHANNEL

DPL #52632/05234

DPL #52649/05234

DPL #52634/05242

VERIZON #P36

VERIZON #LA P35

VERIZON #LA P34-1

RIPRAP SCHEDULE

NO.	TYPE	AREA (SY)
640	R-4	18
642*	R-4	45

* SEE STANDARD CONSTRUCTION DETAIL E-21

RIPRAP SCHEDULE

NO.	TYPE	AREA (SY)
408	R-4	48
420	R-4	14
421	R-4	14
461	R-4	12
462	R-4	48
*463	R-4	100

* SEE SWM PLAN SHEET FOR DETAILS

MANHOLE SCHEDULE

NO.	STATION	OFFSET	TYPE/SIZE	T.G. EL.	INVERT EL.
453	706+00.56	20.34' RT.	72" x 72"	48.90	41.00
454	706+62.30	14.86' LT.	72" x 72"	48.71	40.75

FLARED END SECTION SCHEDULE

NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
461	24" RCP	0.006	NO
462	24" RCP	0.006	NO

BMP OUTLET STRUCTURE SCHEDULE **

NO.	STATION	OFFSET	BOX SIZE	T.S. EL. *	INVERT EL.
450	603+92.42	64.86' RT.	48" x 48"	45.00	43.00

* TOP OF STRUCTURE ELEVATION

** SEE STORMWATER MANAGEMENT PLANS AND DETAILS FOR TRASH RACK DETAIL.

DRAINAGE PIPE SCHEDULE

NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INT. EL.	DIS. EL.
452	24" RCP	III	22'	0.007	41.16	41.00
453	36" RCP	III	76'	0.003	41.00	40.75
454	36" RCP	III	56'	0.004	40.75	40.54
455	36" RCP	III	84'	0.001	40.54	40.44
460	24" RCP	III	254'	0.006	46.50	45.00

RIGHT-OF-WAY MONUMENT SCHEDULE

NO.	TYPE	STATION	OFFSET	NORTHING	EASTING
19	CONCRETE	707+43.46	207.17	254978.7760	660900.2428
20	CONCRETE	705+25.17	44.00	254780.5411	661037.7746
21	CONCRETE	704+31.19	69.28	254764.7276	661151.7693
22	CONCRETE	703+95.71	102.65	254765.1554	661209.6909
23	CONCRETE	703+42.74	161.85	254750.7046	661308.2059
*24	CONCRETE	703+21.66	197.24	254743.3901	661358.0700
52	CONCRETE	707+33.34	154.27	254928.2742	660883.8822
53	CONCRETE	705+71.82	44.00	254790.1500	661092.1300

* NOTE: ROW MONUMENT DOES NOT SHOW ON PLAN SHEET

DRAINAGE PIPE SCHEDULE

NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INT. EL.	DIS. EL.
403	15" RCP	III	59'	0.047	50.00	47.20
404	15" RCP	III	44'	0.030	51.50	50.20
406	18" RCP	III	64'	0.005	61.51	61.19
407	15" RCP	III	139'	0.083	67.20	55.60
408	18" RCP	III	74'	0.143	55.60	45.00
420	15" RCP	III	104'	0.034	48.51	45.00
421	15" RCP	III	93'	0.072	51.72	45.00
450	14" X 23" ERCP	III	134'	0.005	43.00	42.36
451	24" RCP	III	140'	0.009	42.24	41.00

DRAINAGE INLET SCHEDULE

NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
403	569+90.40	*	34" x 24"	4	**	50.00
404	569+42.96	*	34" x 24"	4	**	51.50
406	567+52.08	*	34" x 24"	4	**	61.51
407	566+06.33	*	34" x 24"	4	**	67.20
408	611+50.82	*	48" x 30"	4	**	55.60
420	702+41.07	*	48" x 30"	4	**	48.51

* MATCH PROPOSED CURBLINE ** MATCH FLOWLINE OF PROPOSED CURB

GUARDRAIL SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
14	GUARDRAIL END TREATMENT, TYPE 1-31, TEST LEVEL 3	568+19	32' RT.	50'
16	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	566+25	44' LT.	195'
17	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	566+00	32' RT.	221'
18	G.R. TO BARRIER CONNECTION, APPROACH TYPE 3-31	566+00	44' LT.	25'
28	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	603+50	24' RT.	646'
29	GUARDRAIL END TREATMENT, TYPE 1-31, TEST LEVEL 3	701+91	24' RT.	50'
30	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	702+43	24' RT.	383'
31	END ANCHORAGE 31	706+00	24' RT.	14'

NOTE:

1. HIGH FRICTION SURFACE TREATMENT IS ONLY APPLIED TO THE TRAVEL LANES, NOT SHOULDERS.

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO.	3-610
T201412701	DESIGNED BY:	S. BEALL
COUNTY	CHECKED BY:	T. OLIVER
SUSSEX		

CONSTRUCTION PLAN

SECTION	WRA
SHEET NO.	36

CP-11

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RIPRAP SCHEDULE

NO.	TYPE	AREA (SY)
641	R-4	12
650	R-4	7

ROADWAY CORE SCHEDULE

NO.	STATION	OFFSET	DESCRIPTION
EB 1	574+54.17	13.04' RT.	6" HMA / 4+" FILL
WB 2	574+56.11	20.56' LT.	5.25" HMA / 6.5" PCC / 8+" FILL

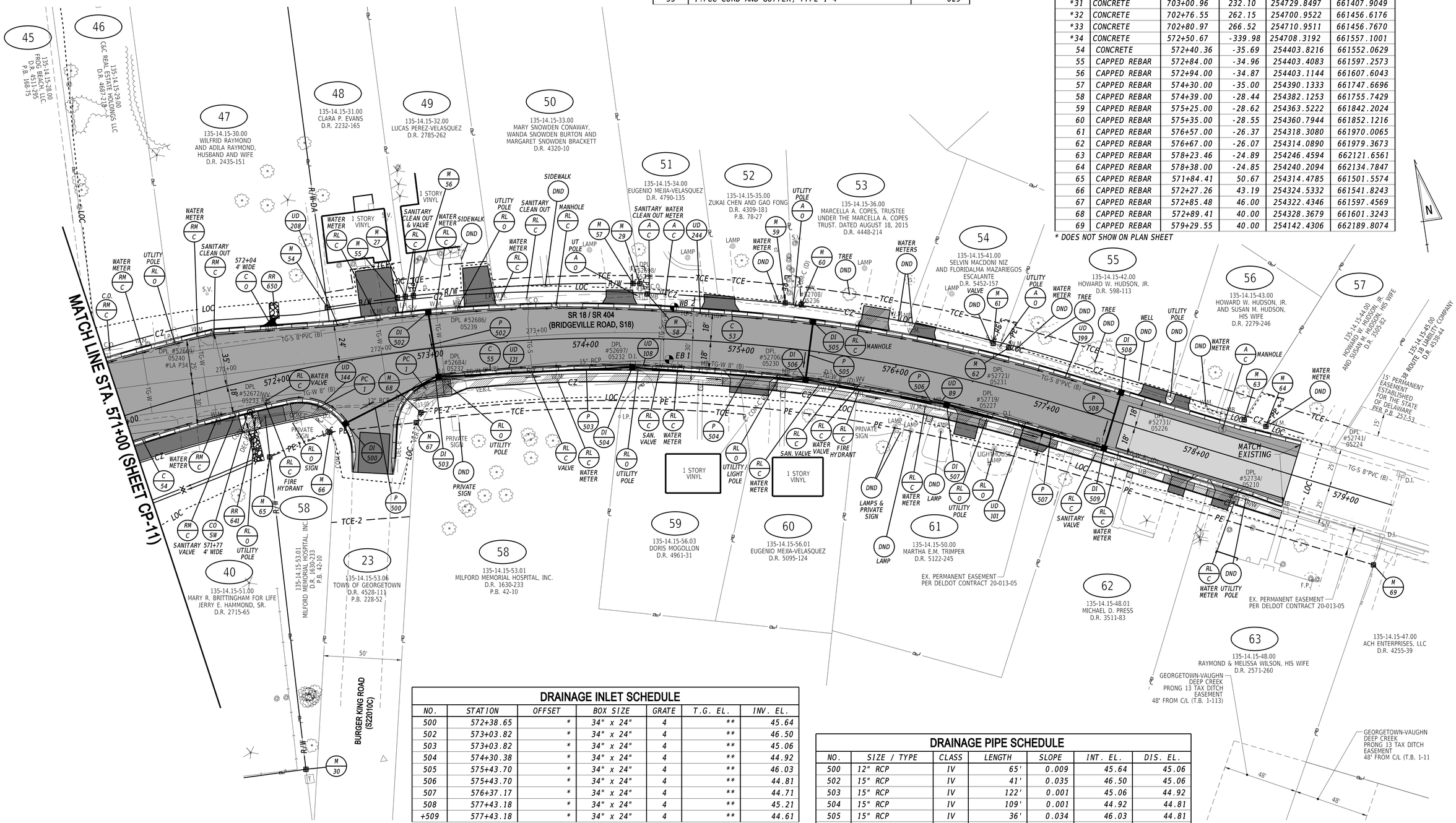
CURB SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
53	I.PCC CURB AND GUTTER, TYPE 1-4	777'
54	I.PCC CURB AND GUTTER, TYPE 1-4	178'
55	I.PCC CURB AND GUTTER, TYPE 1-4	629'

RIGHT-OF-WAY MONUMENT SCHEDULE

NO.	TYPE	STATION	OFFSET	NORTHING	EASTING
27	CONCRETE	572+88.98	-35.00	254403.3611	661602.4160
29	CONCRETE	574+34.36	-35.00	254389.3971	661752.1219
30	CONCRETE	571+52.96	250.13	254113.3697	661495.0943
*31	CONCRETE	703+00.96	232.10	254729.8497	661407.9049
*32	CONCRETE	702+76.55	262.15	254700.9522	661456.6176
*33	CONCRETE	702+80.97	266.52	254710.9511	661456.7670
*34	CONCRETE	572+50.67	-339.98	254708.3192	661557.1001
54	CONCRETE	572+40.36	-35.69	254403.8216	661552.0629
55	CAPPED REBAR	572+84.00	-34.96	254403.4083	661597.2573
56	CAPPED REBAR	572+94.00	-34.87	254403.1144	661607.6043
57	CAPPED REBAR	574+30.00	-35.00	254390.1333	661747.6696
58	CAPPED REBAR	574+39.00	-28.44	254382.1253	661755.7429
59	CAPPED REBAR	575+25.00	-28.62	254363.5222	661842.2024
60	CAPPED REBAR	575+35.00	-28.55	254360.7944	661852.1216
61	CAPPED REBAR	576+57.00	-26.37	254318.3080	661970.0065
62	CAPPED REBAR	576+67.00	-26.07	254314.0890	661979.3673
63	CAPPED REBAR	578+23.46	-24.89	254246.4594	662121.6561
64	CAPPED REBAR	578+38.00	-24.85	254240.2094	662134.7847
65	CAPPED REBAR	571+84.41	50.67	254314.4785	661501.5574
66	CAPPED REBAR	572+27.26	43.19	254324.5332	661541.8243
67	CAPPED REBAR	572+85.48	46.00	254322.4346	661597.4569
68	CAPPED REBAR	572+89.41	40.00	254328.3679	661601.3243
69	CAPPED REBAR	579+29.55	40.00	254142.4306	662189.8074

* DOES NOT SHOW ON PLAN SHEET



DRAINAGE INLET SCHEDULE

NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
500	572+38.65	*	34" x 24"	4	**	45.64
502	573+03.82	*	34" x 24"	4	**	46.50
503	573+03.82	*	34" x 24"	4	**	45.06
504	574+30.38	*	34" x 24"	4	**	44.92
505	575+43.70	*	34" x 24"	4	**	46.03
506	575+43.70	*	34" x 24"	4	**	44.81
507	576+37.17	*	34" x 24"	4	**	44.71
508	577+43.18	*	34" x 24"	4	**	45.21
+509	577+43.18	*	34" x 24"	4	**	44.61

* MATCH PROPOSED CURBLINE
** MATCH FLOWLINE OF PROPOSED CURB
\+ INLET SHALL BE CAST IN PLACE AS A DOGHOUSE INLET IN ACCORDANCE WITH DELDOT STANDARD CONSTRUCTION DETAIL D-5.

DRAINAGE PIPE SCHEDULE

NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INT. EL.	DIS. EL.
500	12" RCP	IV	65'	0.009	45.64	45.06
502	15" RCP	IV	41'	0.035	46.50	45.06
503	15" RCP	IV	122'	0.001	45.06	44.92
504	15" RCP	IV	109'	0.001	44.92	44.81
505	15" RCP	IV	36'	0.034	46.03	44.81
506	15" RCP	IV	90'	0.001	44.81	44.71
507	15" RCP	IV	102'	0.001	44.71	44.61
508	15" RCP	IV	36'	0.017	45.21	44.61

ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	T201412701
COUNTY	SUSSEX
BRIDGE NO.	3-610
DESIGNED BY:	S. BEALL
CHECKED BY:	T. OLIVER

CONSTRUCTION PLAN

CP-12	
SECTION	WRA
SHEET NO.	37

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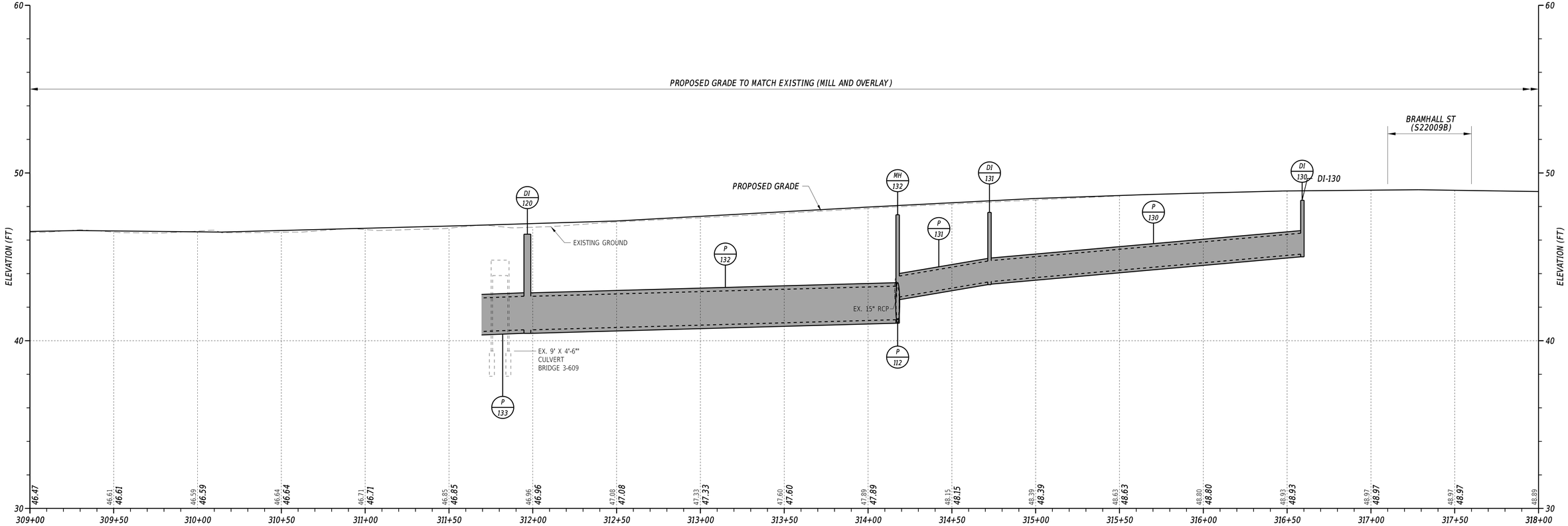

US 113 SOUTHBOUND
(DUPONT BLVD., S113)

VERTICAL SCALE FEET
9
6
3
0

ADDENDA / REVISIONS	SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. 3-609	PROFILES	SECTION
	0 30 60 90 FEET		T201412701	DESIGNED BY: S. BEALL		WRA
			COUNTY SUSSEX	CHECKED BY: T. OLIVER		SHEET NO. 38

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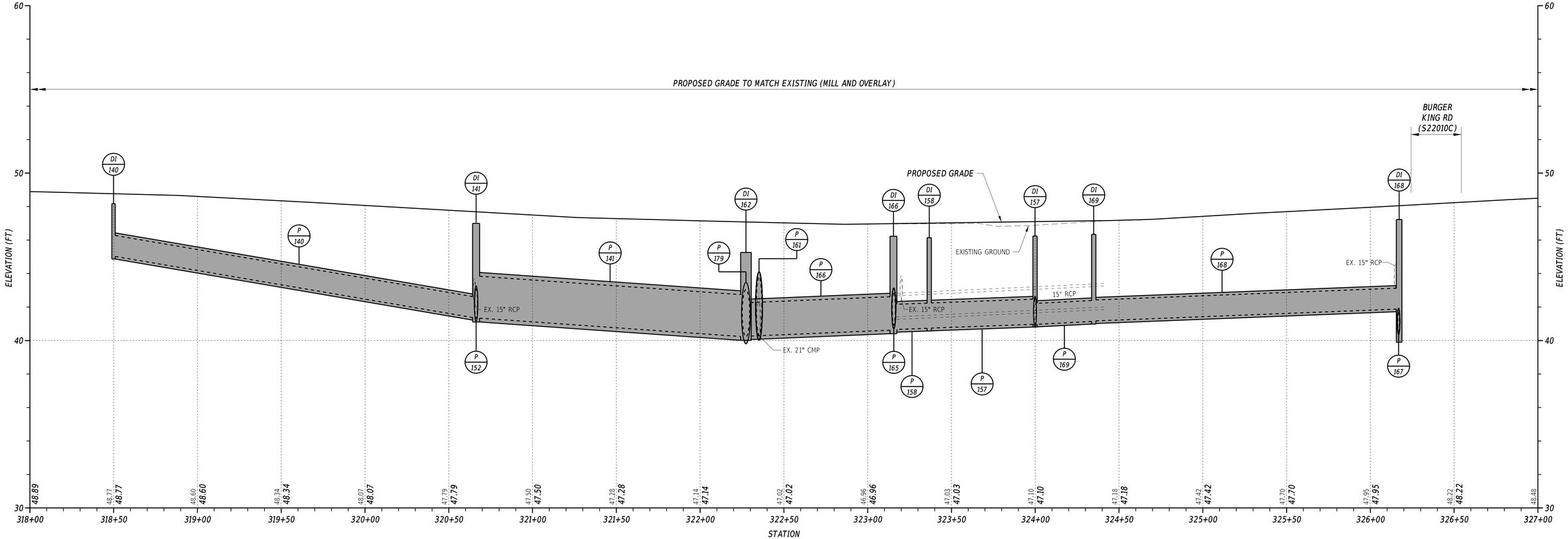

US 113 SOUTHBOUND (DUPONT BLVD., S113)

VERTICAL SCALE FEET: 0, 3, 6, 9

ADDENDA / REVISIONS	SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	PROFILES	SECTION
	0 30 60 90 FEET		T201412701	DESIGNED BY: S. BEALL		WRA
			COUNTY	CHECKED BY: T. OLIVER		SHEET NO.
			SUSSEX			39

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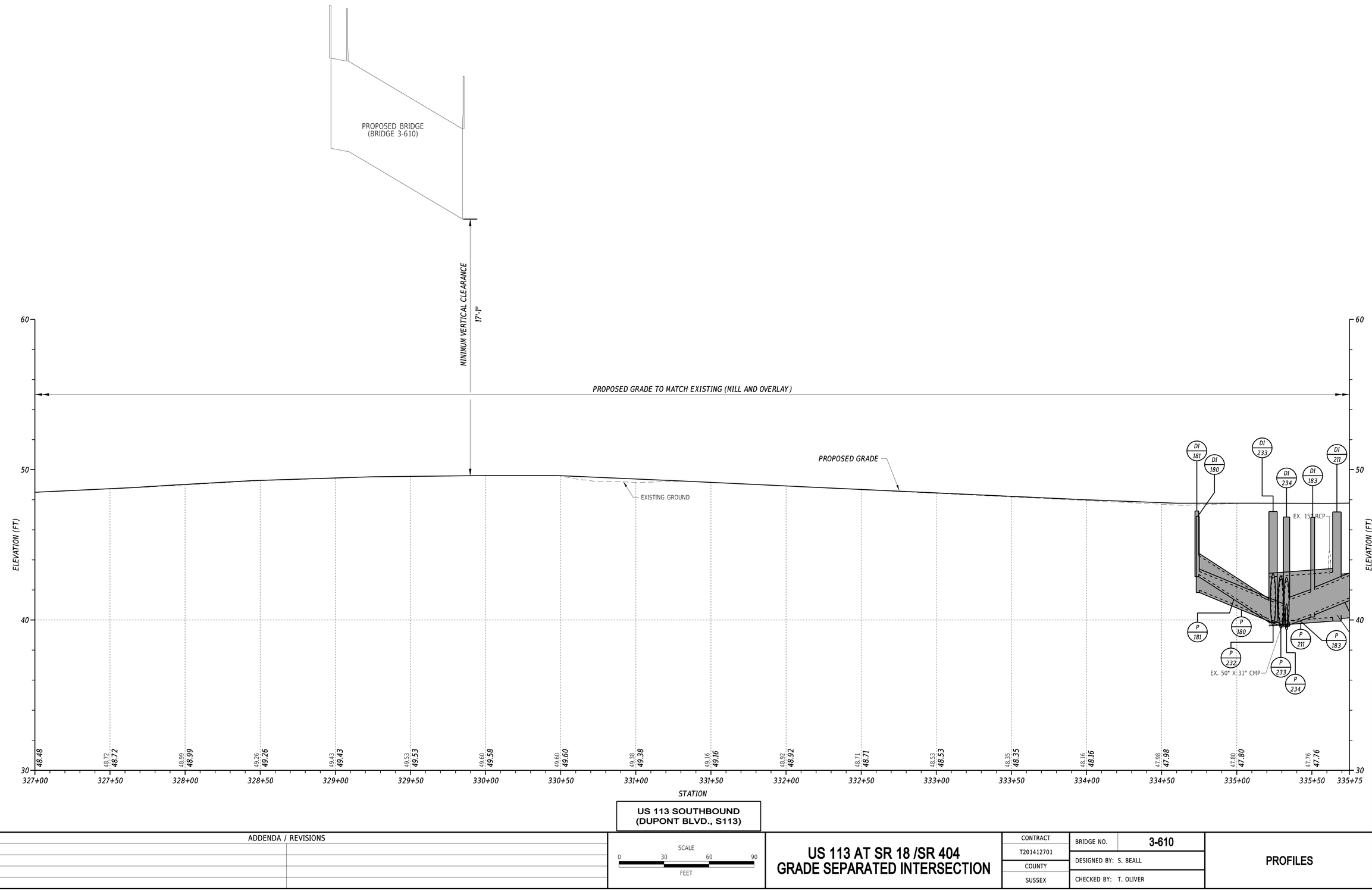

US 113 SOUTHBOUND (DUPONT BLVD., S113)

ADDENDA / REVISIONS	

SCALE
0 30 60 90
FEET

US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO.	3-610
T201412701	DESIGNED BY: S. BEALL	
COUNTY	CHECKED BY: T. OLIVER	
SUSSEX		

PROFILES

SECTION
WRA
SHEET NO.
40

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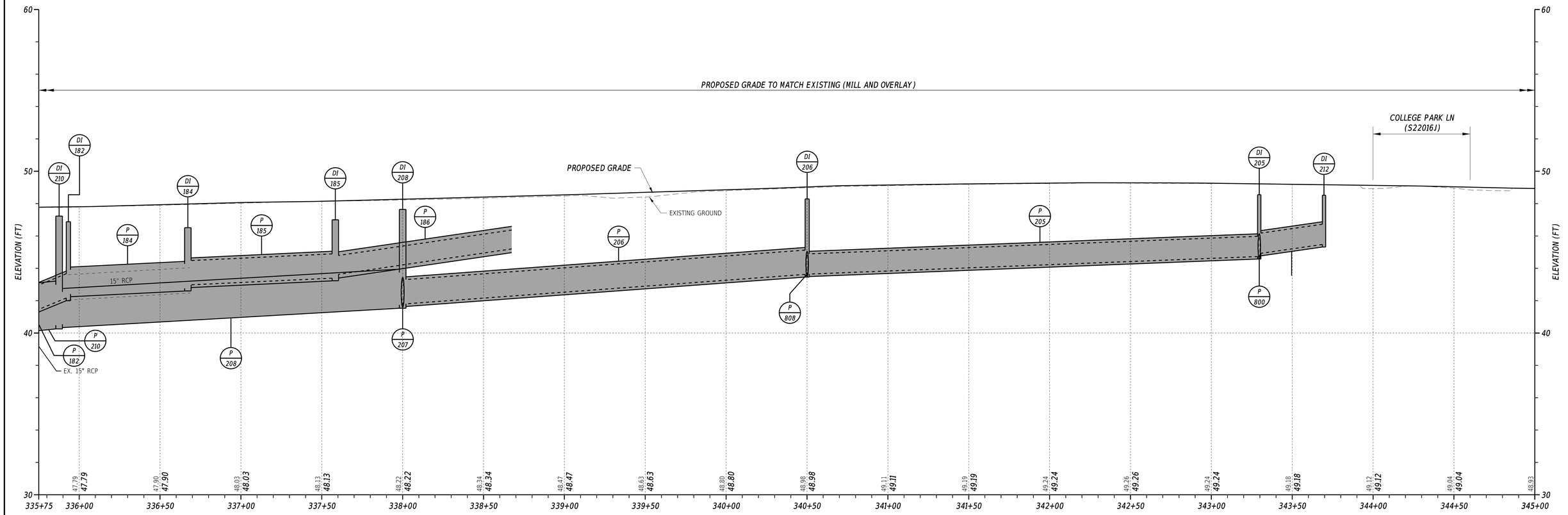

US 113 SOUTHBOUND
(DUPONT BLVD., S113)

VERTICAL SCALE FEET 0 3 6 9

ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. N/A	PROFILES	SECTION WRA
				COUNTY SUSSEX	DESIGNED BY: S. BEALL		SHEET NO. 41
					CHECKED BY: T. OLIVER		

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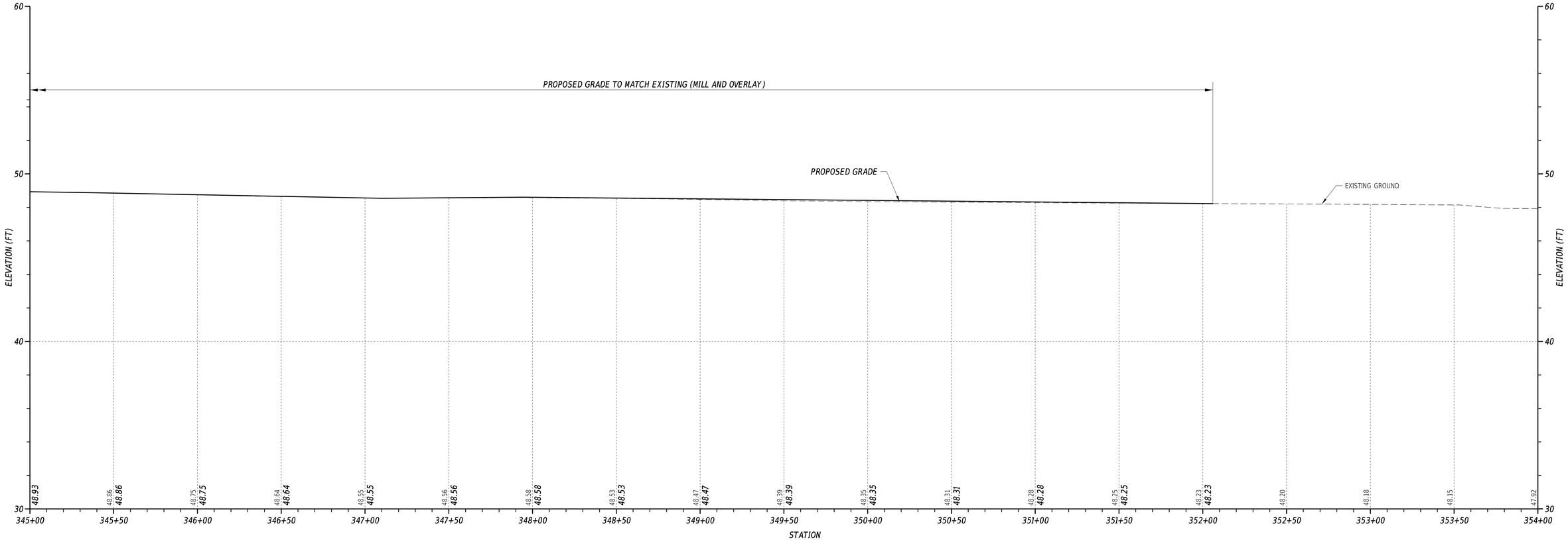

US 113 SOUTHBOUND
(DUPONT BLVD., S113)

VERTICAL SCALE FEET
9
6
3
0

ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. N/A	PROFILES	SECTION WRA
				COUNTY SUSSEX	DESIGNED BY: S. BEALL		SHEET NO. 42
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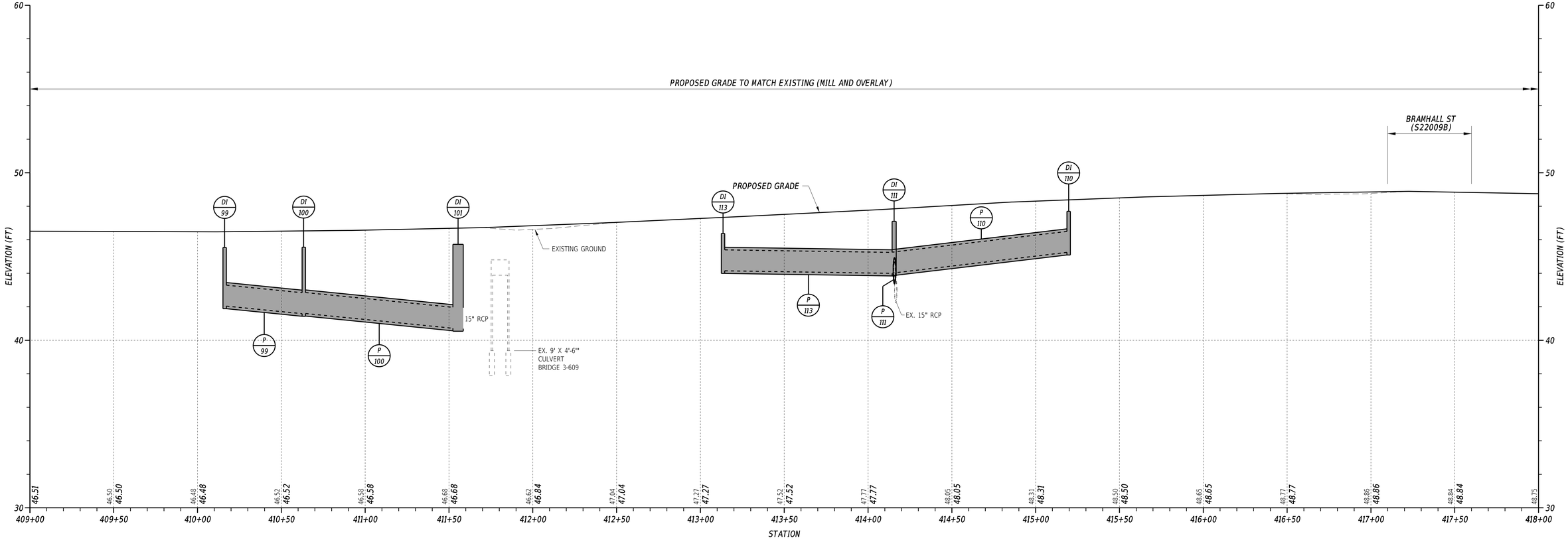

US 113 NORTHBOUND
(DUPONT BLVD., S113)

VERTICAL SCALE FEET
9
6
3
0

ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. 3-609	PROFILES	SECTION WRA
				COUNTY SUSSEX	DESIGNED BY: S. BEALL		SHEET NO. 43
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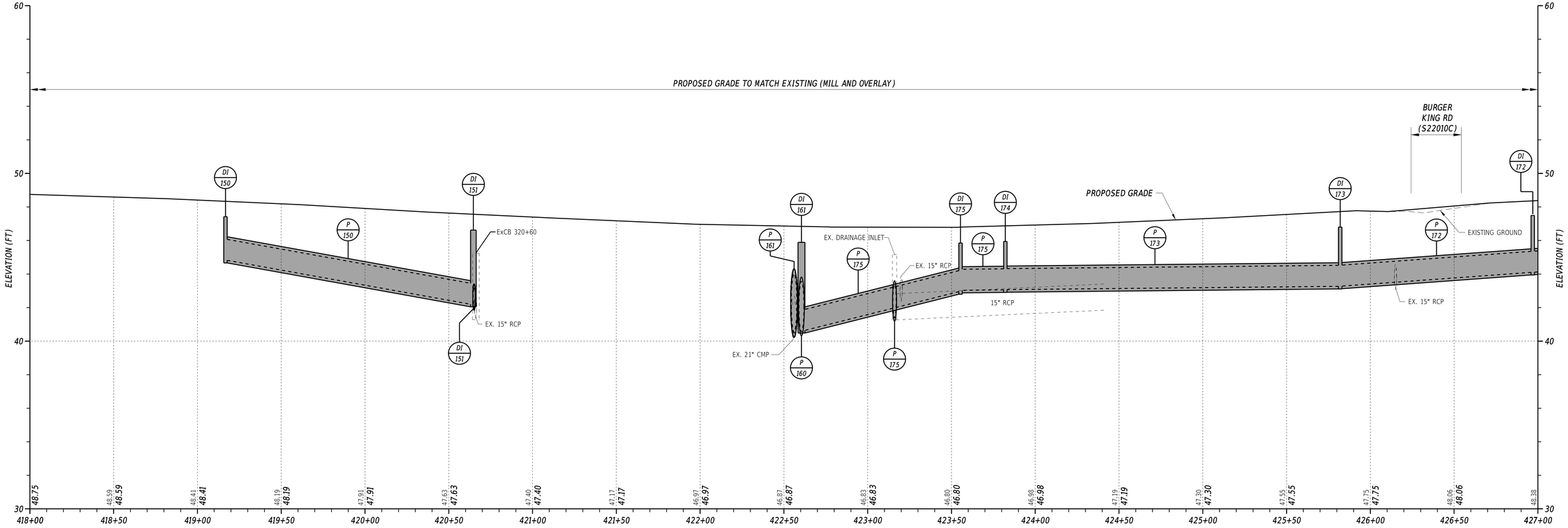

US 113 NORTHBOUND (DUPONT BLVD., S113)

VERTICAL SCALE FEET 0 3 6 9

ADDENDA / REVISIONS	SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	PROFILES	SECTION
	0 30 60 90 FEET		T201412701	DESIGNED BY: S. BEALL		WRA
			COUNTY	CHECKED BY: T. OLIVER		SHEET NO.
			SUSSEX			44

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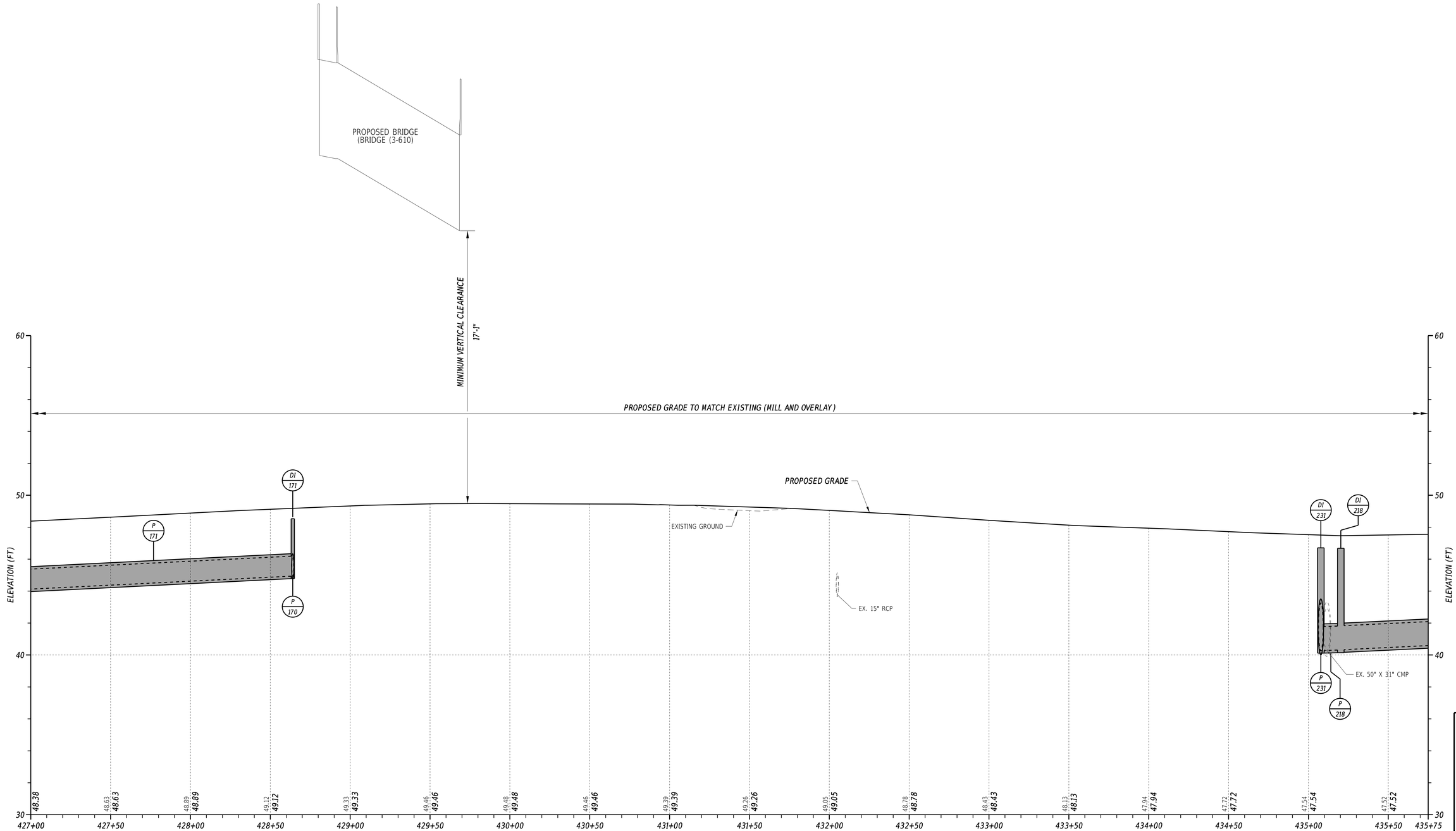

US 113 NORTHBOUND (DUPONT BLVD., S113)

ADDENDA / REVISIONS	

SCALE
0 30 60 90
FEET

US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO.	3-610
T201412701	DESIGNED BY: S. BEALL	
COUNTY	CHECKED BY: T. OLIVER	
SUSSEX		

PROFILES

SECTION
WRA
SHEET NO.
45

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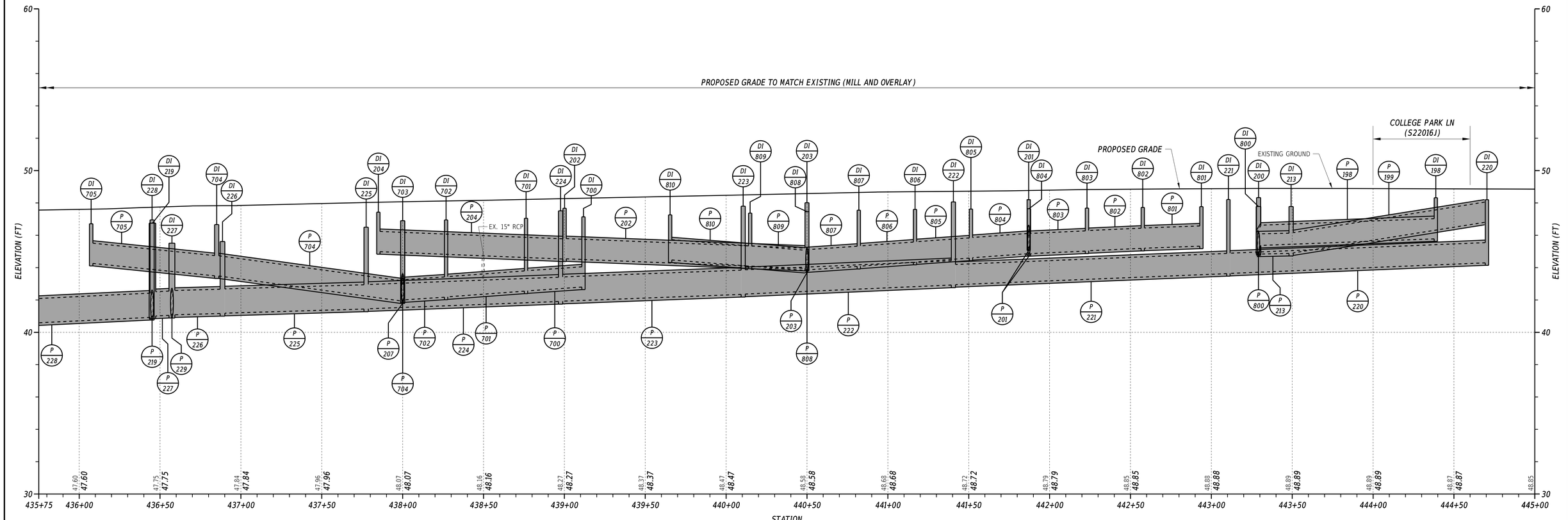

US 113 NORTHBOUND
(DUPONT BLVD., S113)

VERTICAL SCALE FEET: 0, 3, 6, 9

ADDENDA / REVISIONS		SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	PROFILES	SECTION
		0 30 60 90 FEET		T201412701	DESIGNED BY: S. BEALL		WRA
				COUNTY	CHECKED BY: T. OLIVER		SHEET NO.
				SUSSEX			46

8/13/2025
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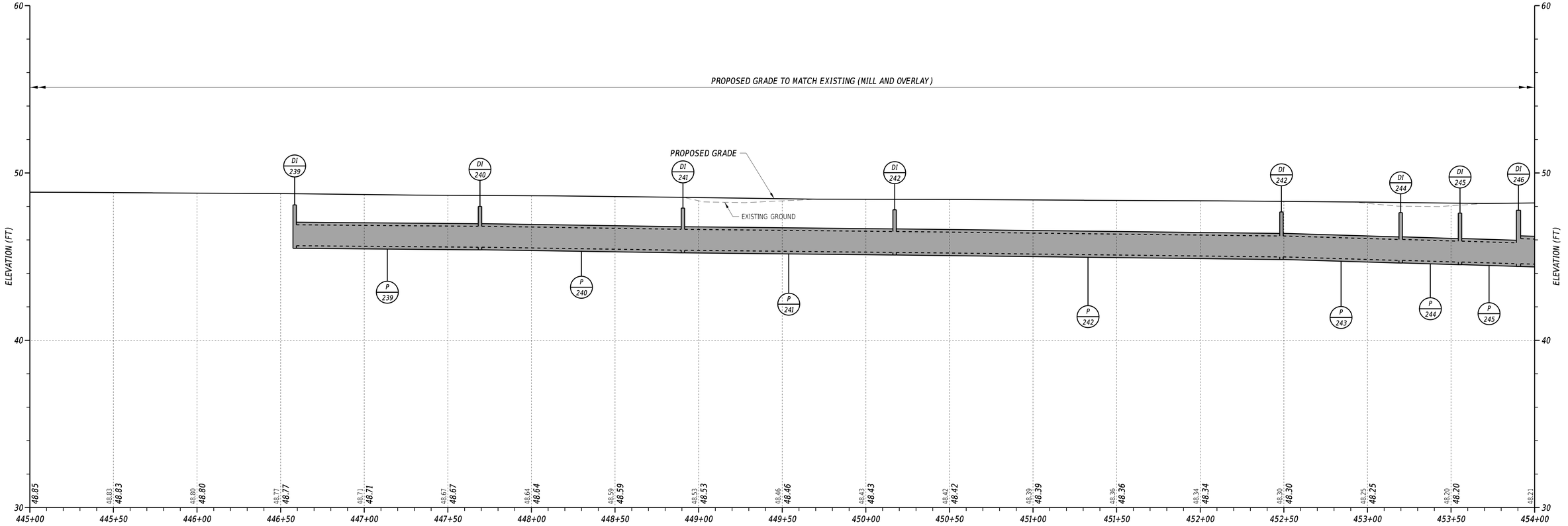

US 113 NORTHBOUND (DUPONT BLVD., S113)

VERTICAL SCALE FEET 0 3 6 9

ADDENDA / REVISIONS	SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	PROFILES	SECTION
	0 30 60 90 FEET		T201412701	DESIGNED BY: S. BEALL		WRA
			COUNTY	CHECKED BY: T. OLIVER		SHEET NO.
			SUSSEX			47

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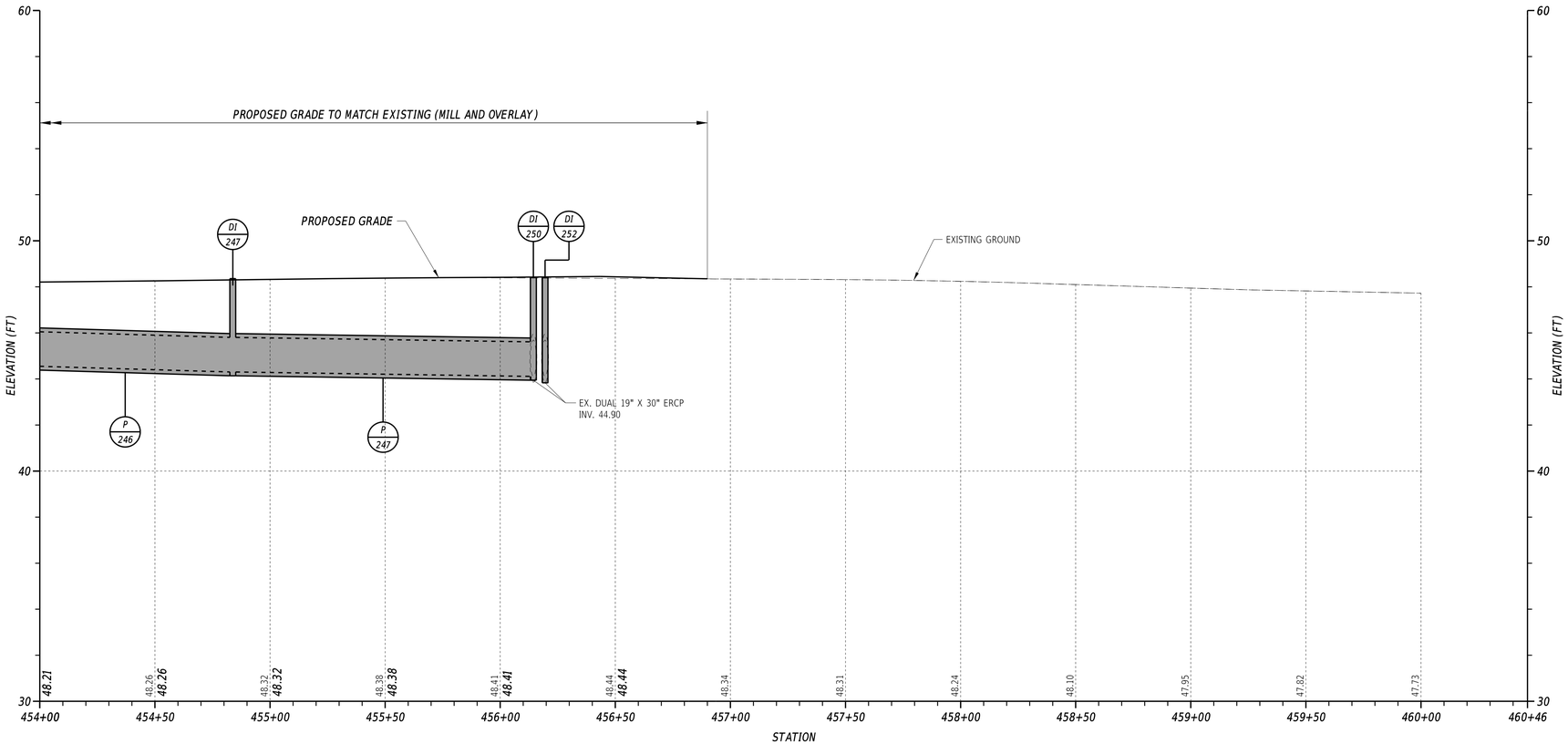

US 113 NORTHBOUND
(DUPONT BLVD., S113)

VERTICAL SCALE FEET 0 3 6 9

ADDENDA / REVISIONS	SCALE 0 30 60 90 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. N/A	PROFILES	SECTION WRA
			COUNTY SUSSEX	DESIGNED BY: S. BEALL		SHEET NO. 48
				CHECKED BY: T. OLIVER		

8/13/2025
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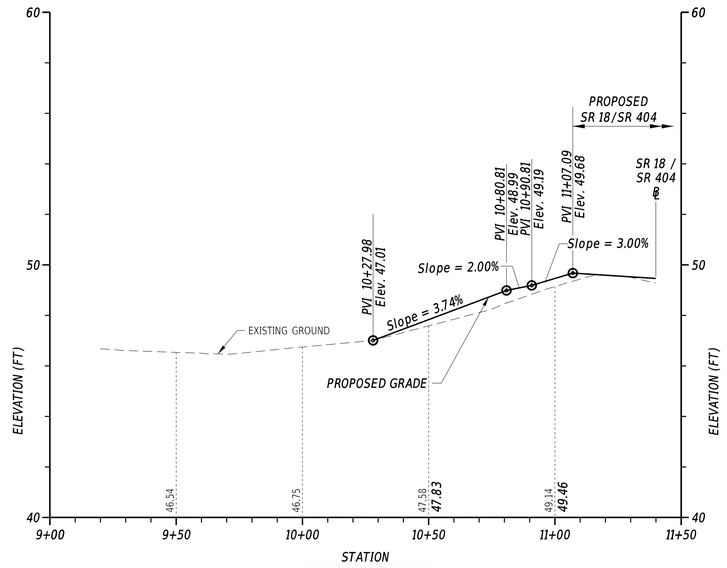
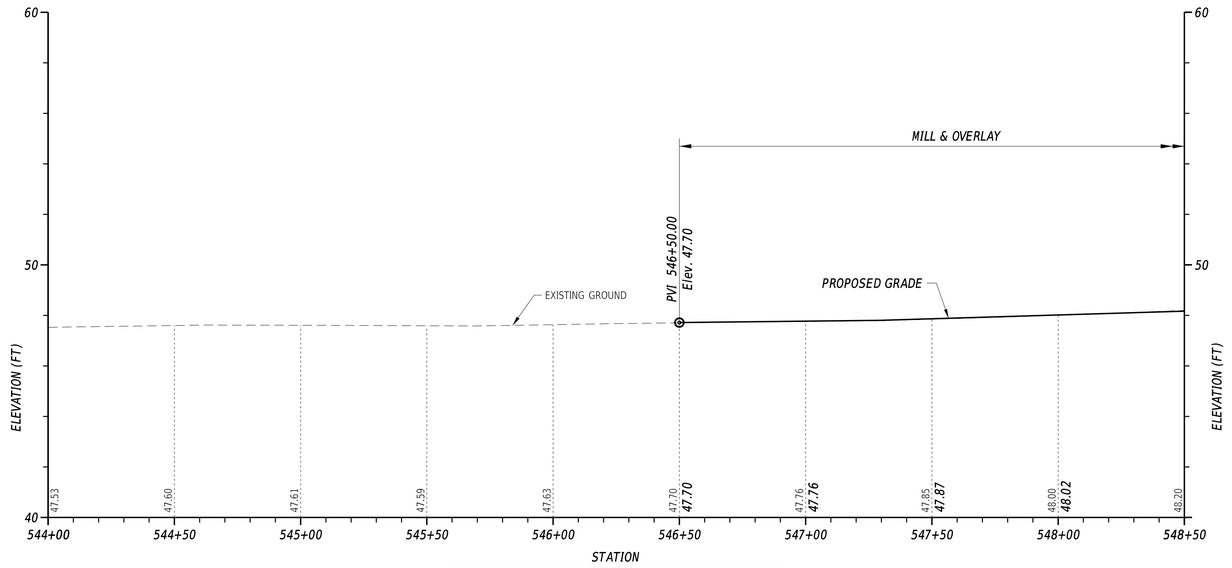
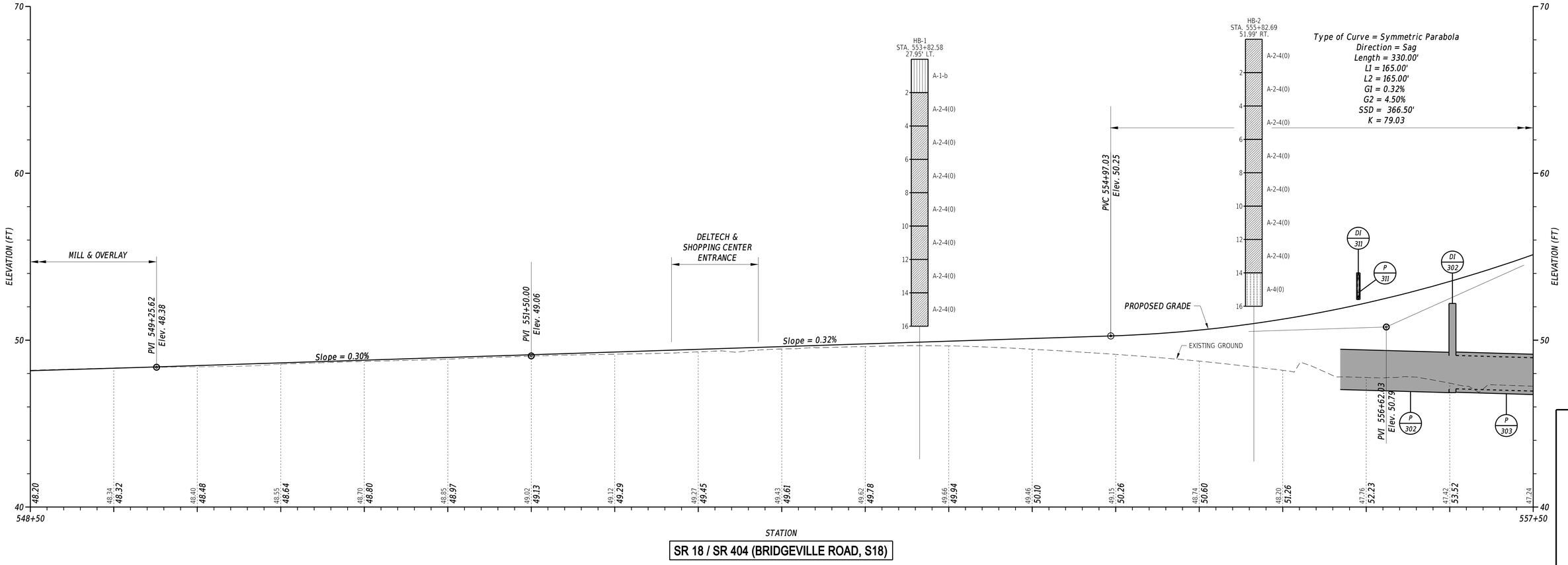


CARMEAN WAY



SR 18 / SR 404 (BRIDGEVILLE ROAD, S18)



SR 18 / SR 404 (BRIDGEVILLE ROAD, S18)

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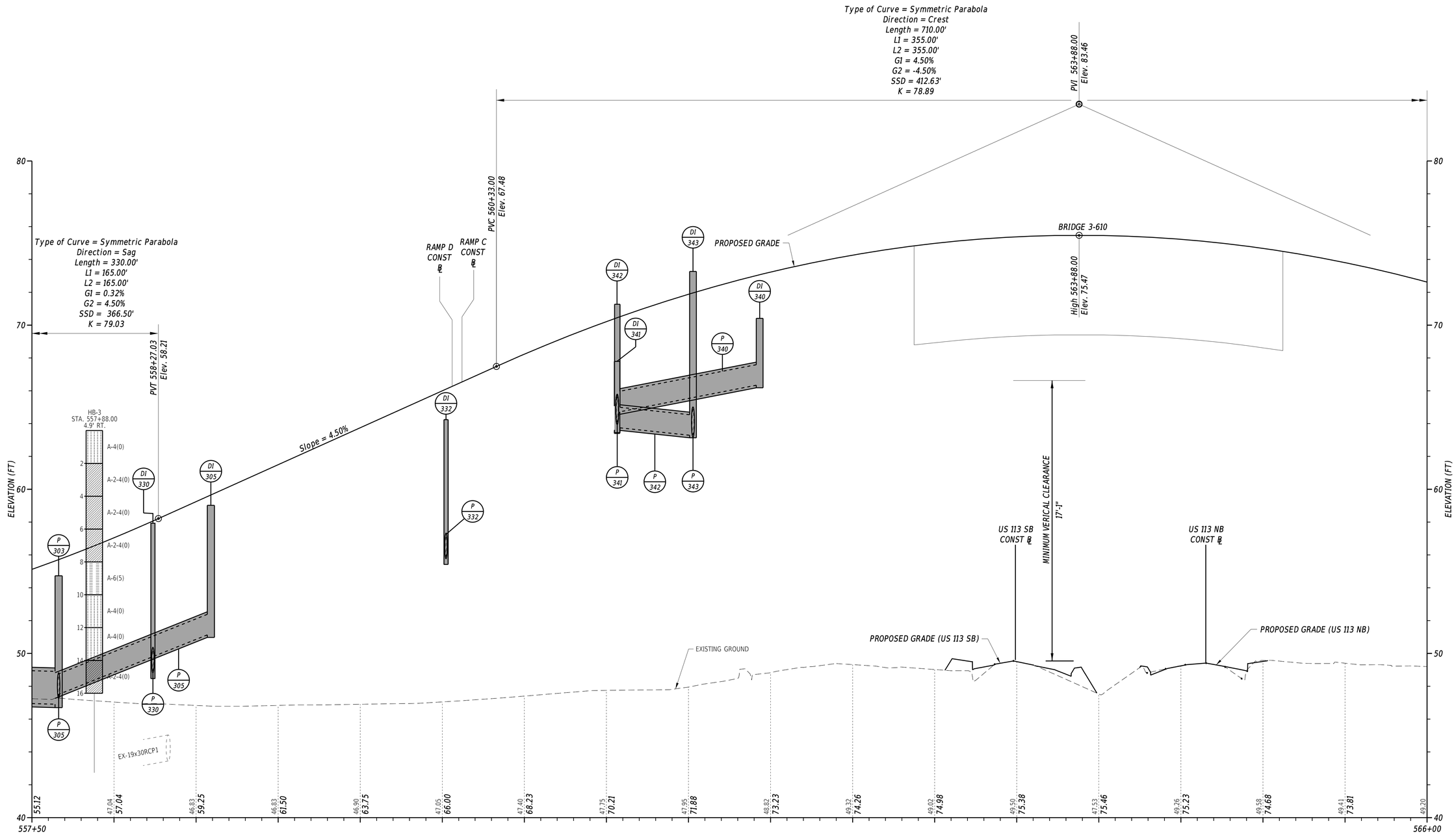
ADDENDA / REVISIONS	SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	PROFILES	SECTION
	0 30 60 90 FEET		T201412701	DESIGNED BY: S. BEALL		WRA
			COUNTY	CHECKED BY: T. OLIVER		SHEET NO.
			SUSSEX			49



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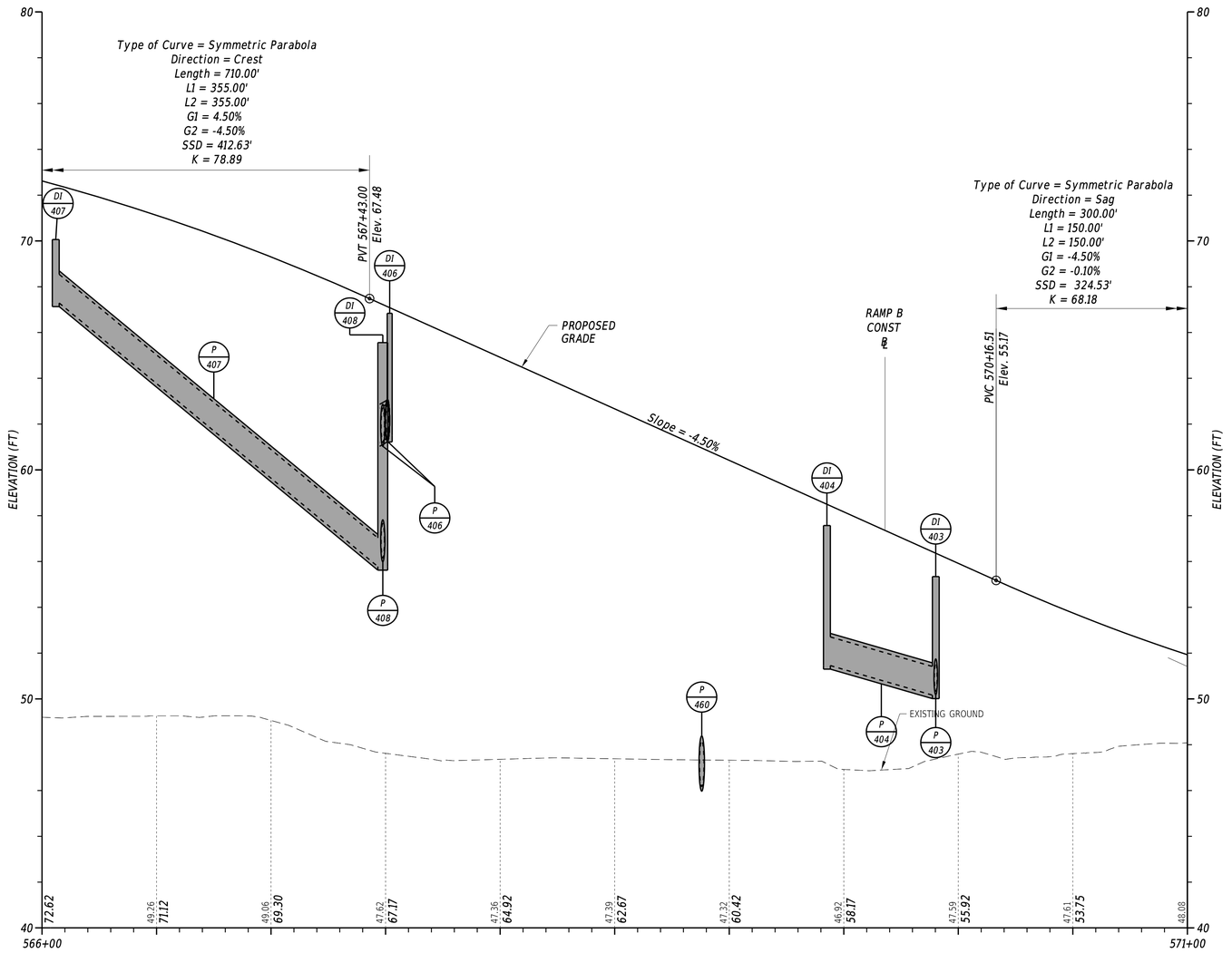
ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. 3-610	PROFILES	SECTION WRA
				COUNTY SUSSEX	DESIGNED BY: S. BEALL		SHEET NO. 50
					CHECKED BY: T. OLIVER		



SR 18 / SR 404 (BRIDGEVILLE ROAD, S18)

VERTICAL SCALE FEET 0 3 6 9

ADDENDA / REVISIONS	SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	PROFILES	SECTION
	0 30 60 90 FEET		T201412701	DESIGNED BY: S. BEALL		WRA
			COUNTY	CHECKED BY: T. OLIVER		SHEET NO.
			SUSSEX			51

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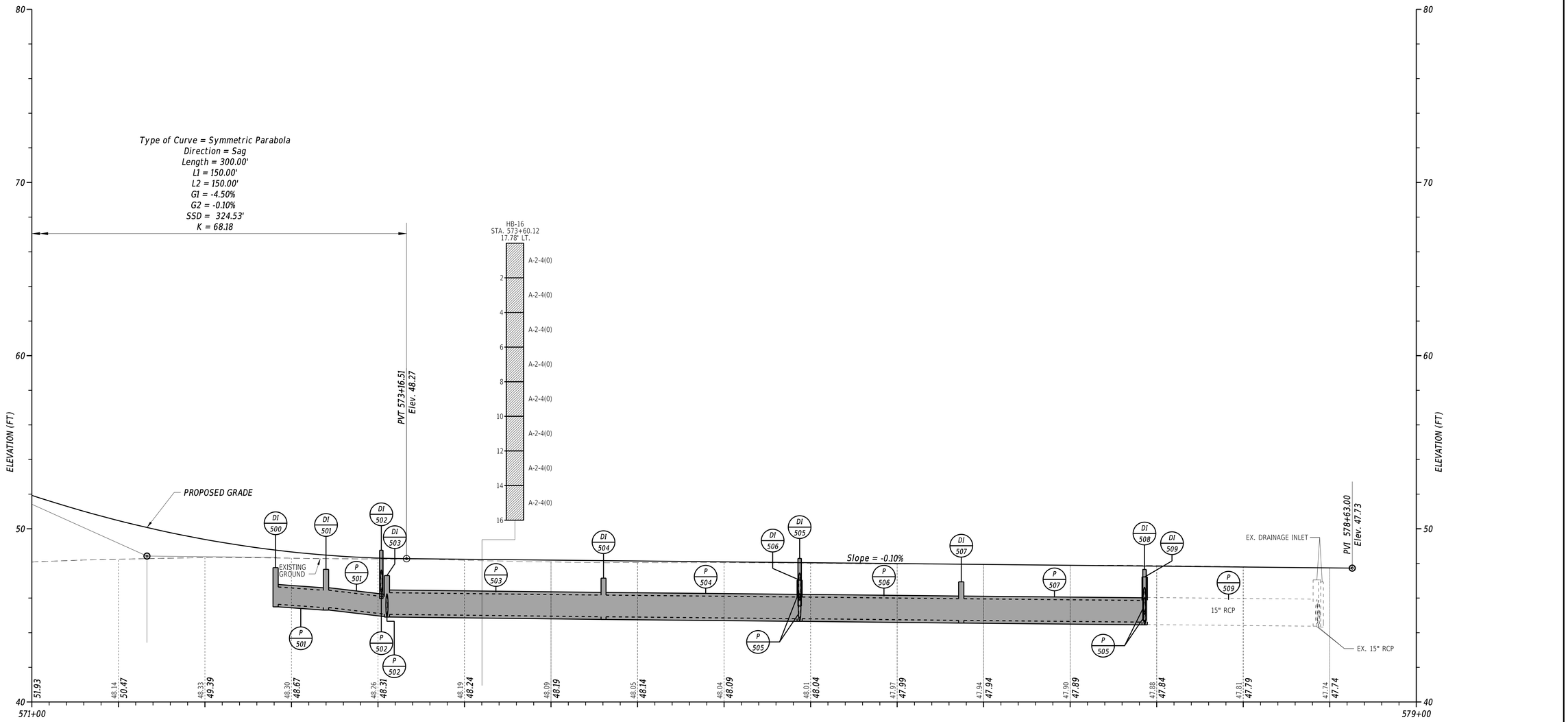

SR 18 / SR 404 (BRIDGEVILLE ROAD, S18)

VERTICAL SCALE FEET: 9, 6, 3, 0

ADDENDA / REVISIONS	SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	PROFILES	SECTION
	0 30 60 90 FEET		T201412701	DESIGNED BY: S. BEALL		WRA
			COUNTY	CHECKED BY: T. OLIVER		SHEET NO.
			SUSSEX			52

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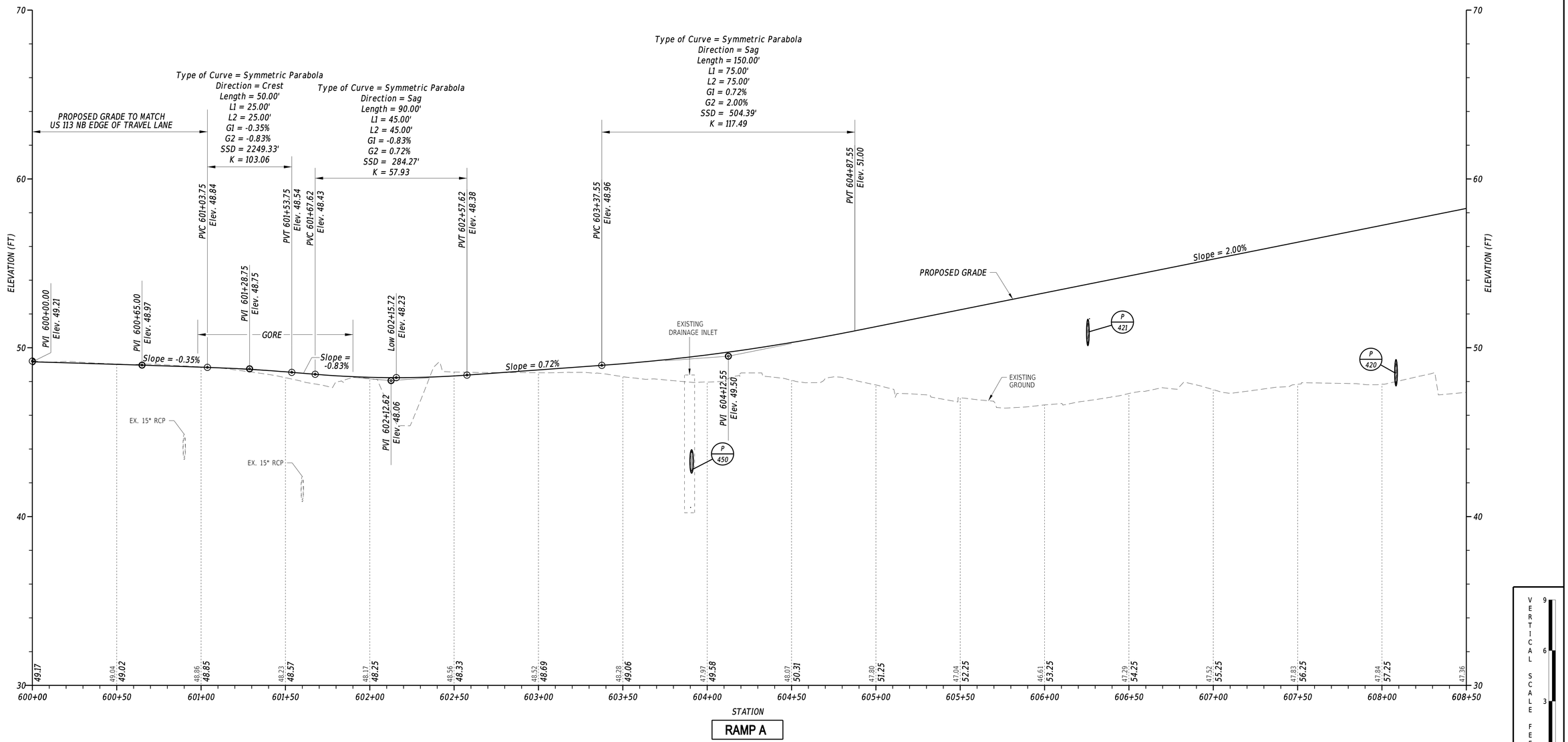

RAMP A

ADDENDA / REVISIONS	SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	PROFILES	SECTION
	0 30 60 90 FEET		T201412701	DESIGNED BY: S. BEALL		WRA
			COUNTY	CHECKED BY: T. OLIVER		SHEET NO.
			SUSSEX			53

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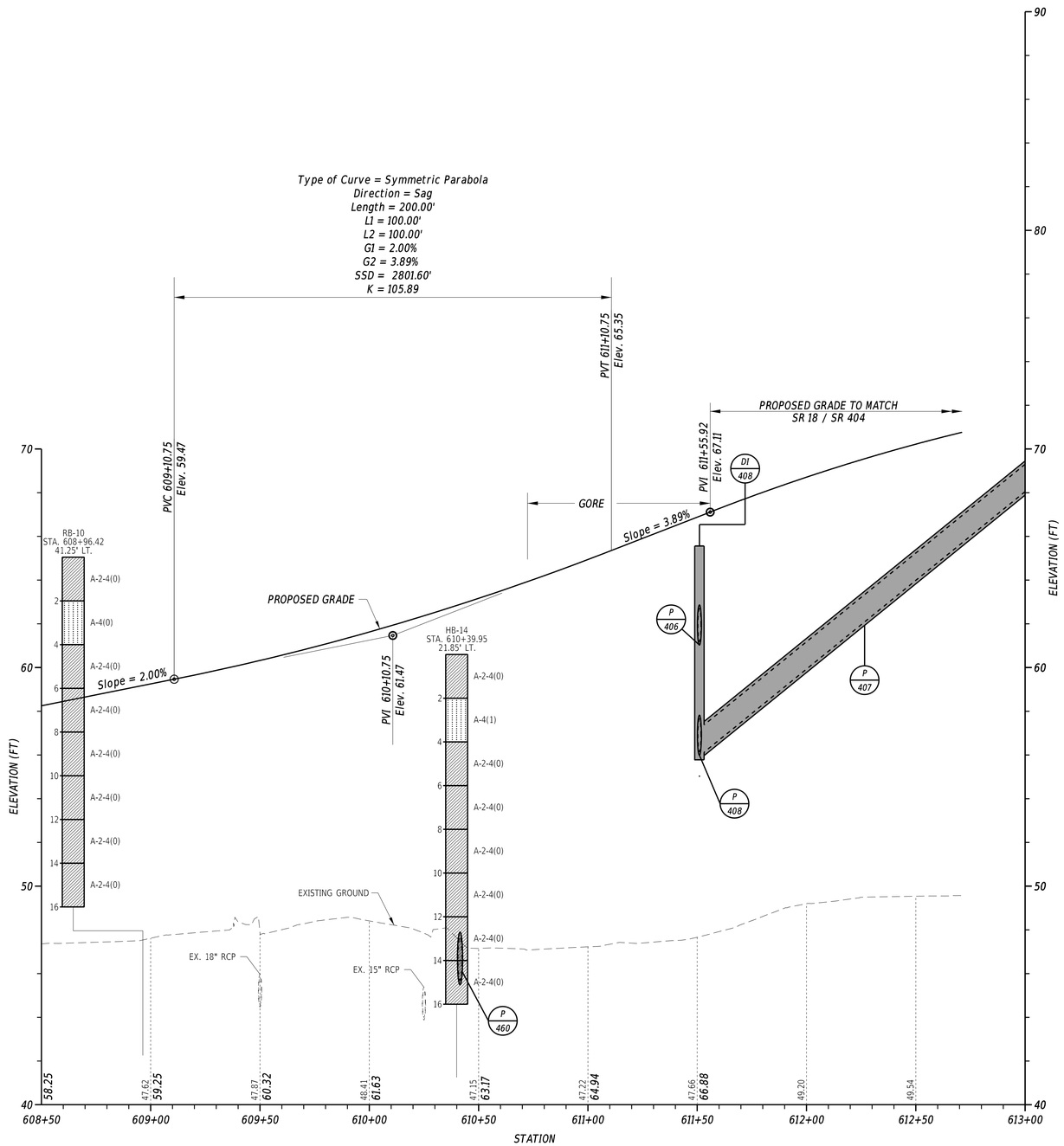

RAMP A

VERTICAL SCALE FEET 0 3 6 9

ADDENDA / REVISIONS	SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	PROFILES	SECTION
	0 30 60 90 FEET		T201412701	DESIGNED BY: S. BEALL		WRA
			COUNTY	CHECKED BY: T. OLIVER		SHEET NO.
			SUSSEX			54

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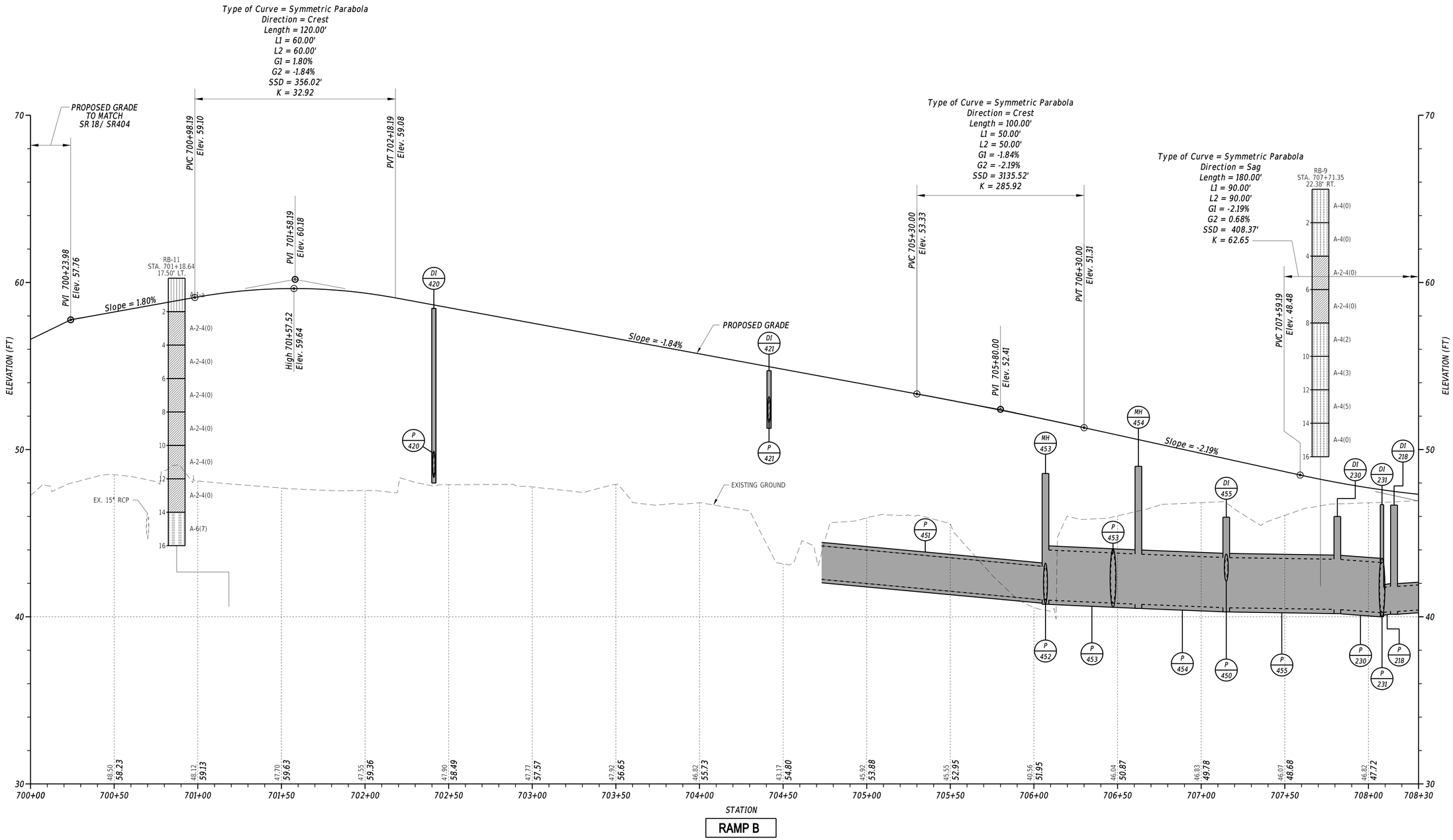

RAMP B

VERTICAL SCALE FEET
9
6
3
0

ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. N/A	PROFILES	SECTION WRA
				COUNTY SUSSEX	DESIGNED BY: S. BEALL		SHEET NO. 55
					CHECKED BY: T. OLIVER		

8/13/2025
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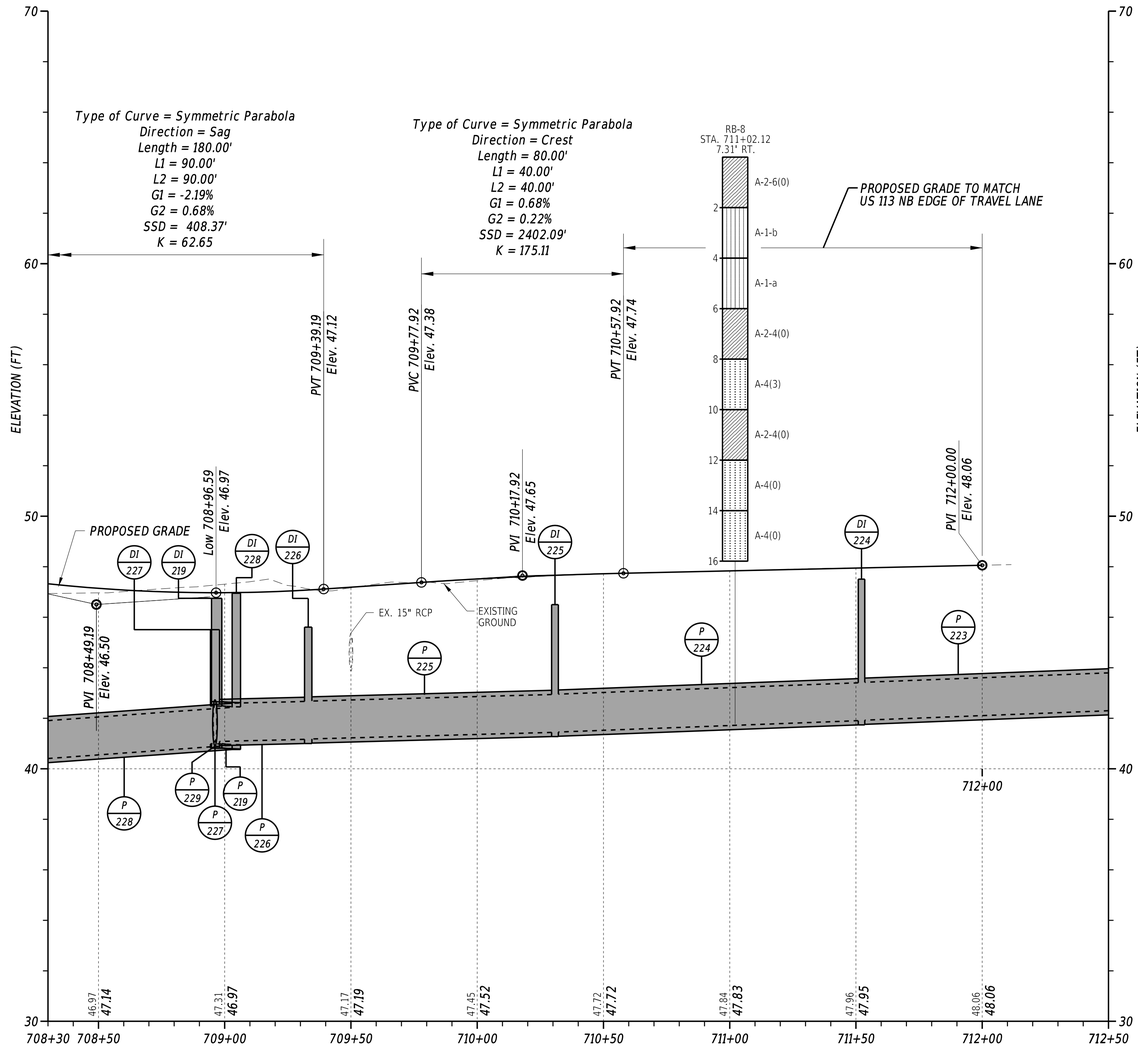

RAMP B

VERTICAL SCALE FEET 0 3 6 9

ADDENDA / REVISIONS	SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	PROFILES	SECTION
	0 30 60 90 FEET		T201412701	DESIGNED BY: S. BEALL		WRA
			COUNTY	CHECKED BY: T. OLIVER		SHEET NO.
			SUSSEX			56

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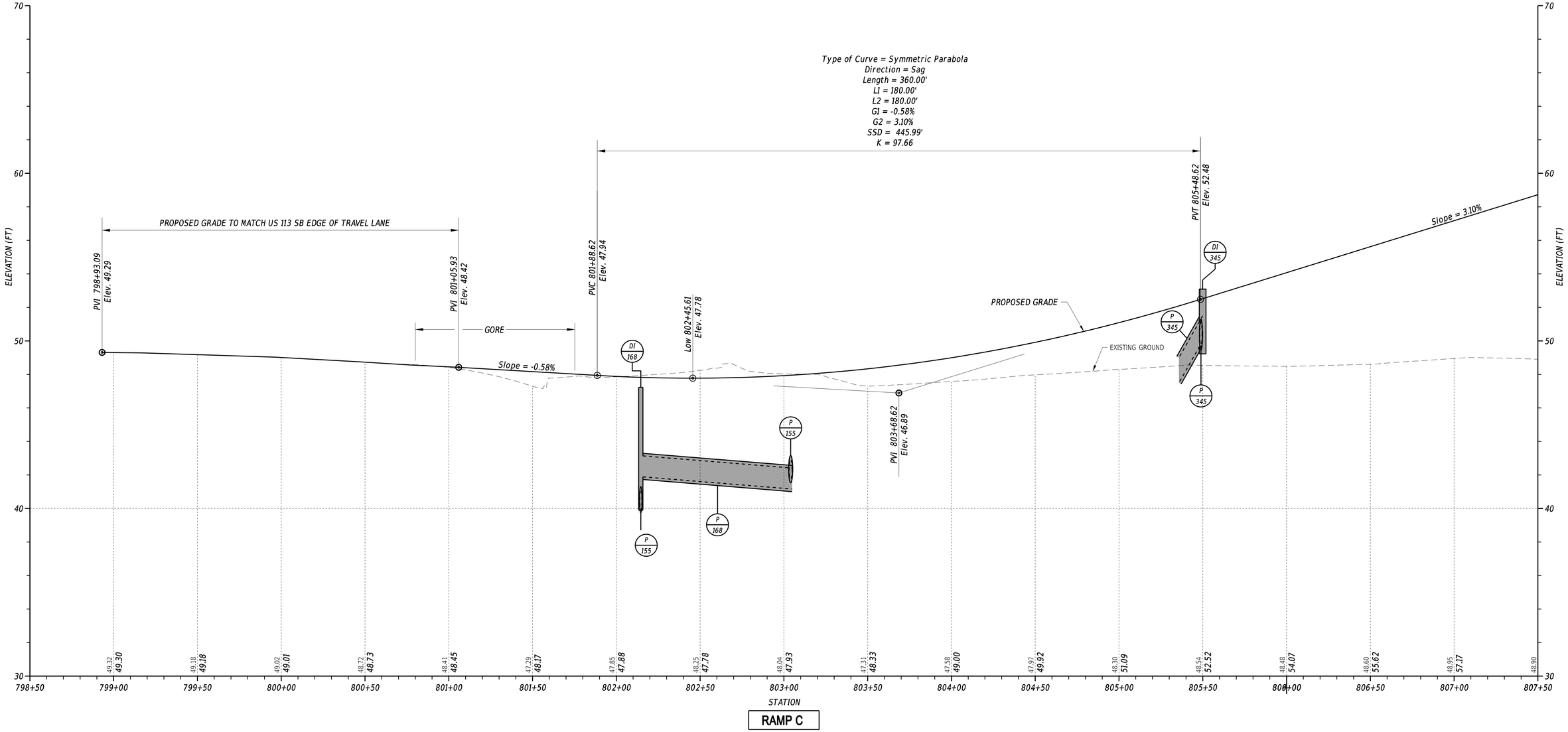

RAMP C

VERTICAL SCALE FEET 0 3 6 9

ADDENDA / REVISIONS	SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. N/A	PROFILES	SECTION WRA
	0 30 60 90 FEET		COUNTY SUSSEX	DESIGNED BY: S. BEALL		SHEET NO. 57
				CHECKED BY: T. OLIVER		

8/13/2025
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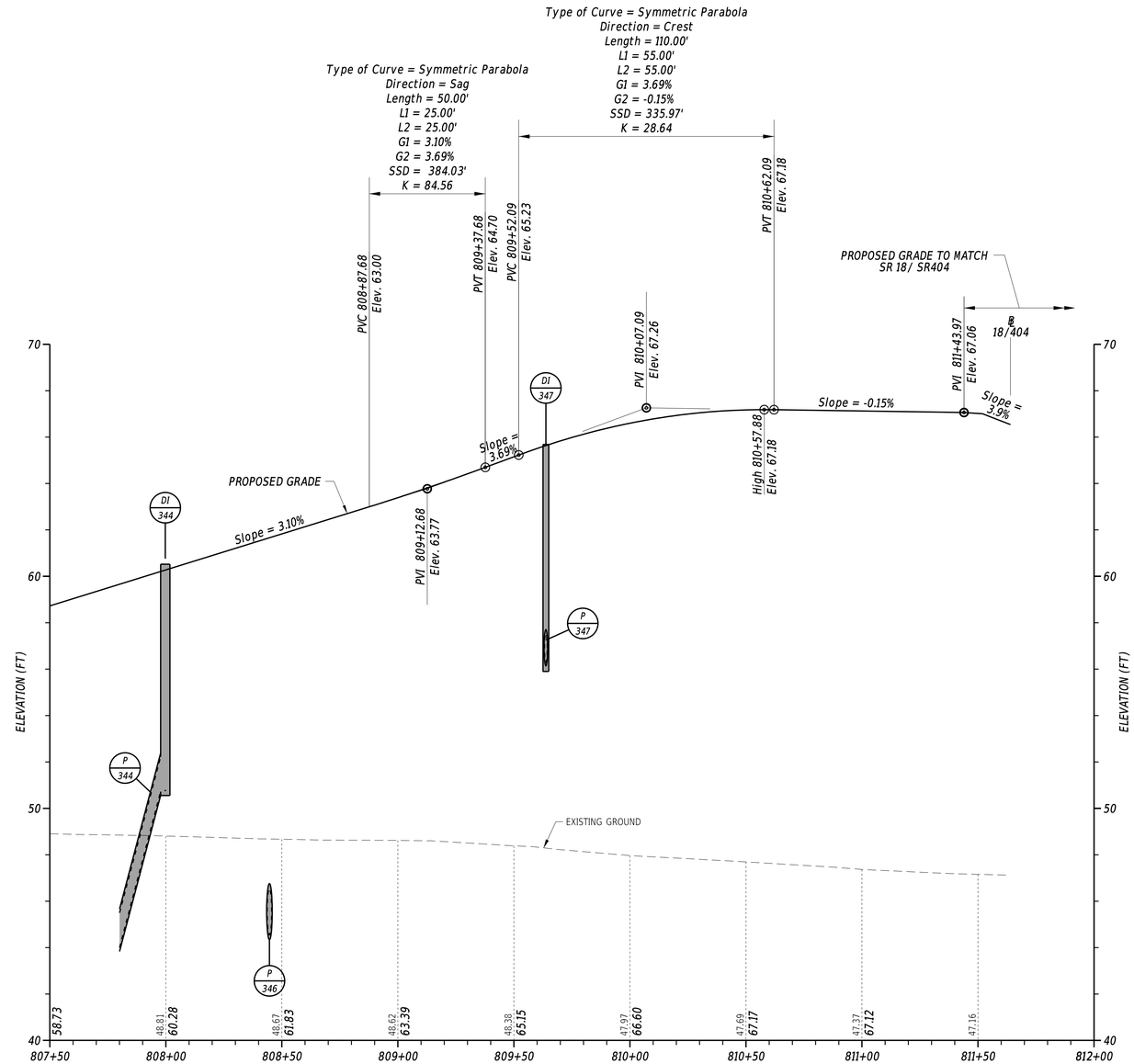

RAMP C

VERTICAL SCALE FEET 0 3 6 9

ADDENDA / REVISIONS	SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	PROFILES	SECTION
	0 30 60 90 FEET		T201412701	DESIGNED BY: S. BEALL		WRA
			COUNTY	CHECKED BY: T. OLIVER		SHEET NO.
			SUSSEX			58

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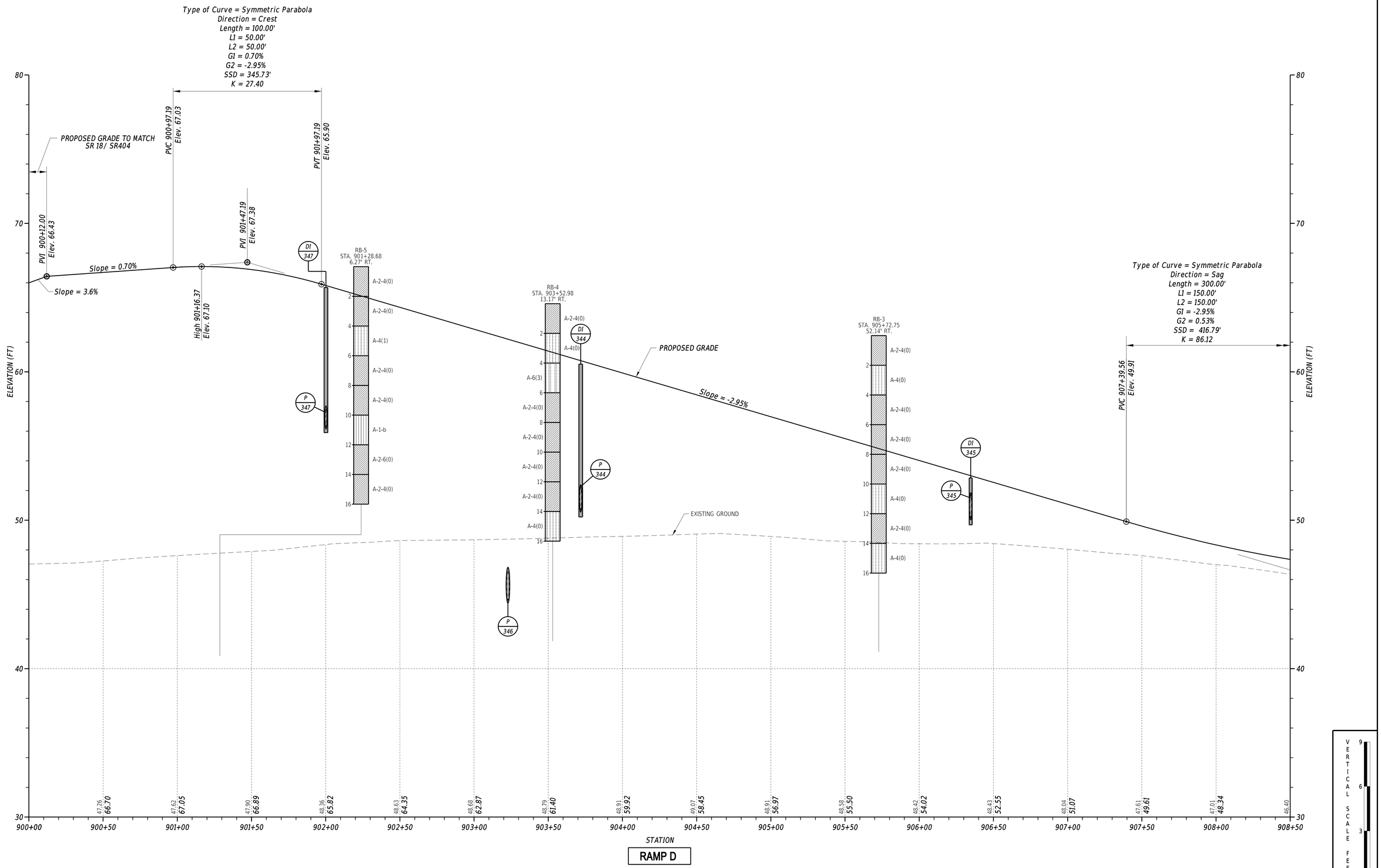

RAMP D

ADDENDA / REVISIONS	SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	PROFILES	SECTION
	0 30 60 90 FEET		T201412701	DESIGNED BY: S. BEALL		WRA
			COUNTY	CHECKED BY: T. OLIVER		SHEET NO.
			SUSSEX			59

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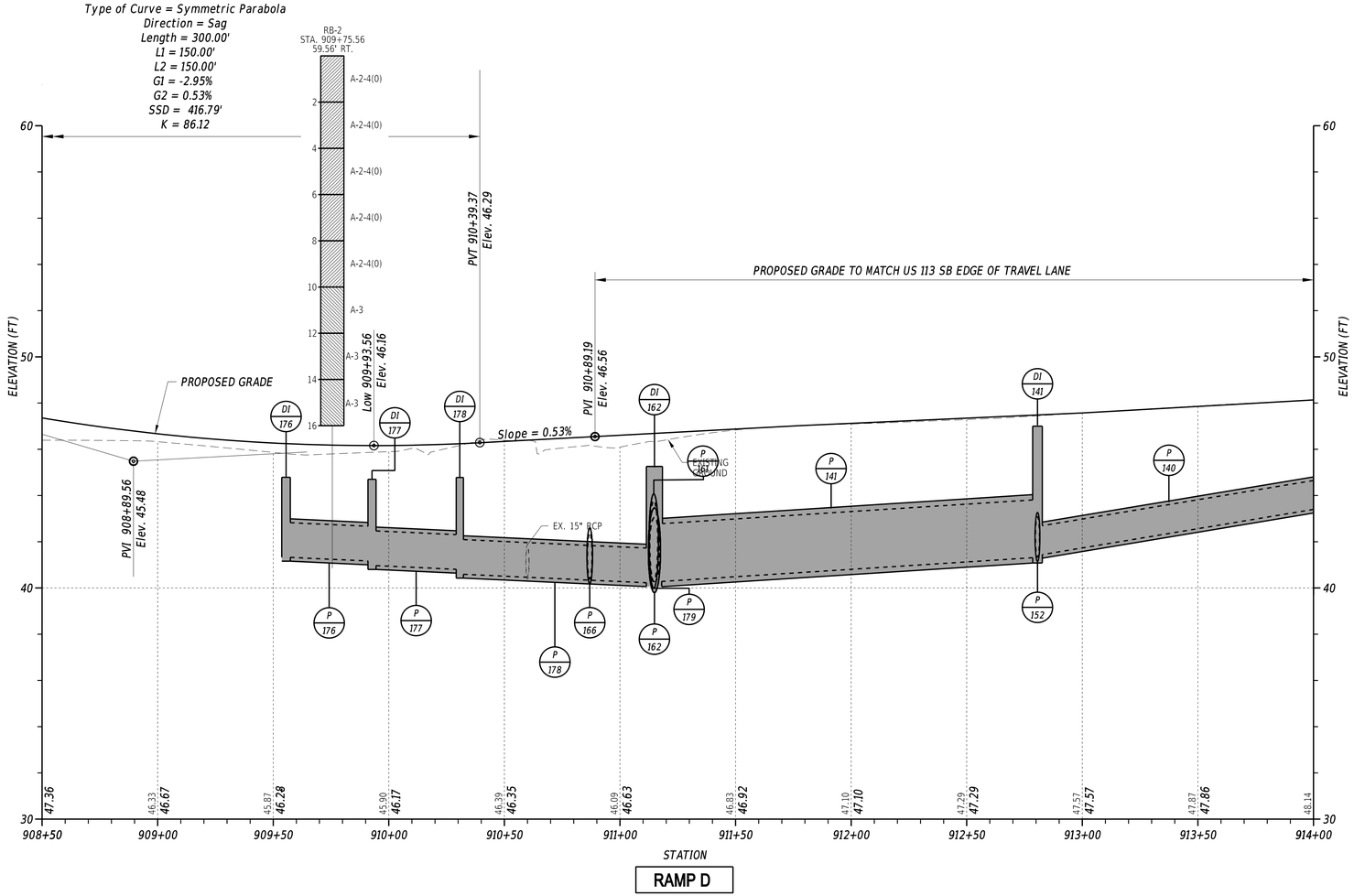

RAMP D

VERTICAL SCALE FEET 0 3 6 9

ADDENDA / REVISIONS	SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	PROFILES	SECTION
	0 30 60 90 FEET		T201412701	DESIGNED BY: S. BEALL		WRA
			COUNTY	CHECKED BY: T. OLIVER		SHEET NO.
			SUSSEX			60

8/13/2025
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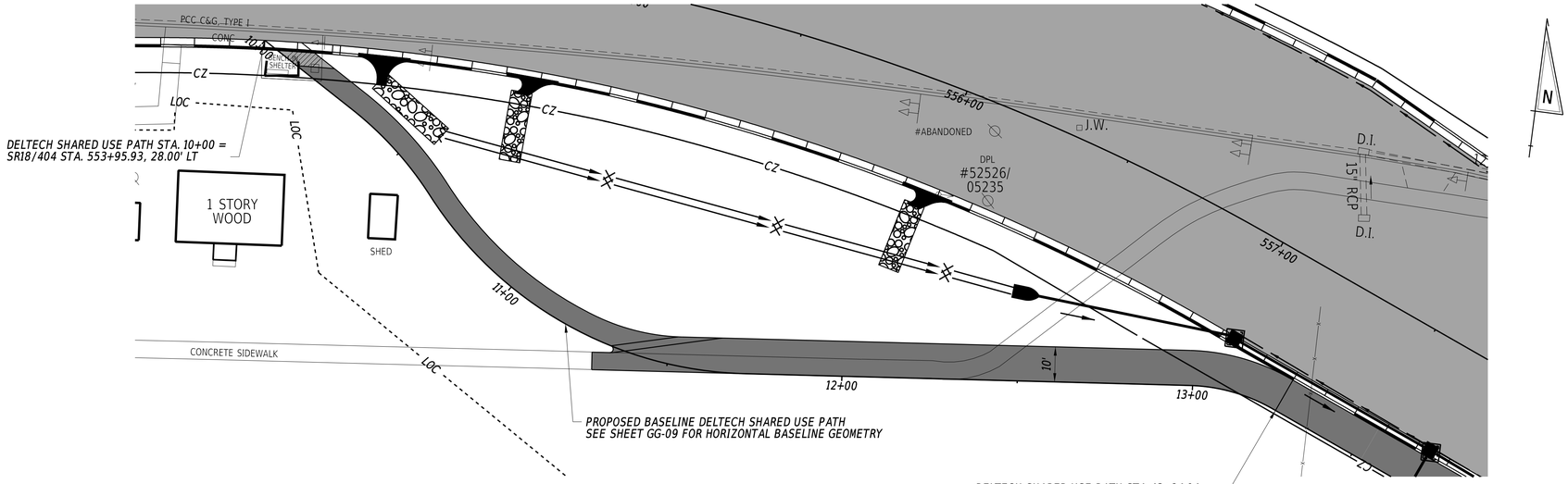
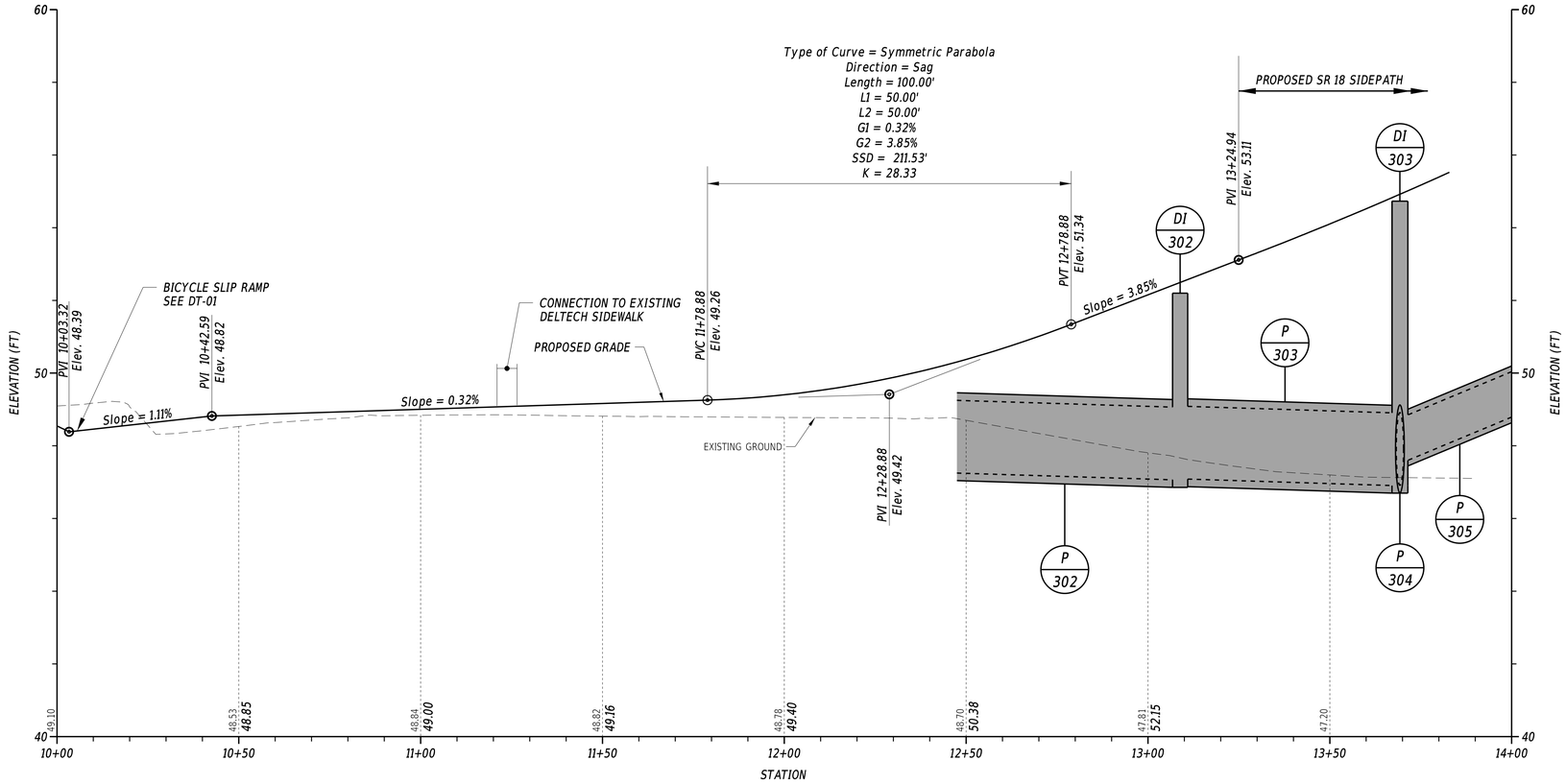


PLAN



DELTECH SHARED USE PATH

VERTICAL SCALE FEET 0 2 4 6

ADDENDA / REVISIONS		SCALE 0 20 40 60 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. N/A	PROFILES	SECTION WRA
				COUNTY SUSSEX	DESIGNED BY: S. BEALL		SHEET NO. 61
					CHECKED BY: T. OLIVER		

8/13/2025
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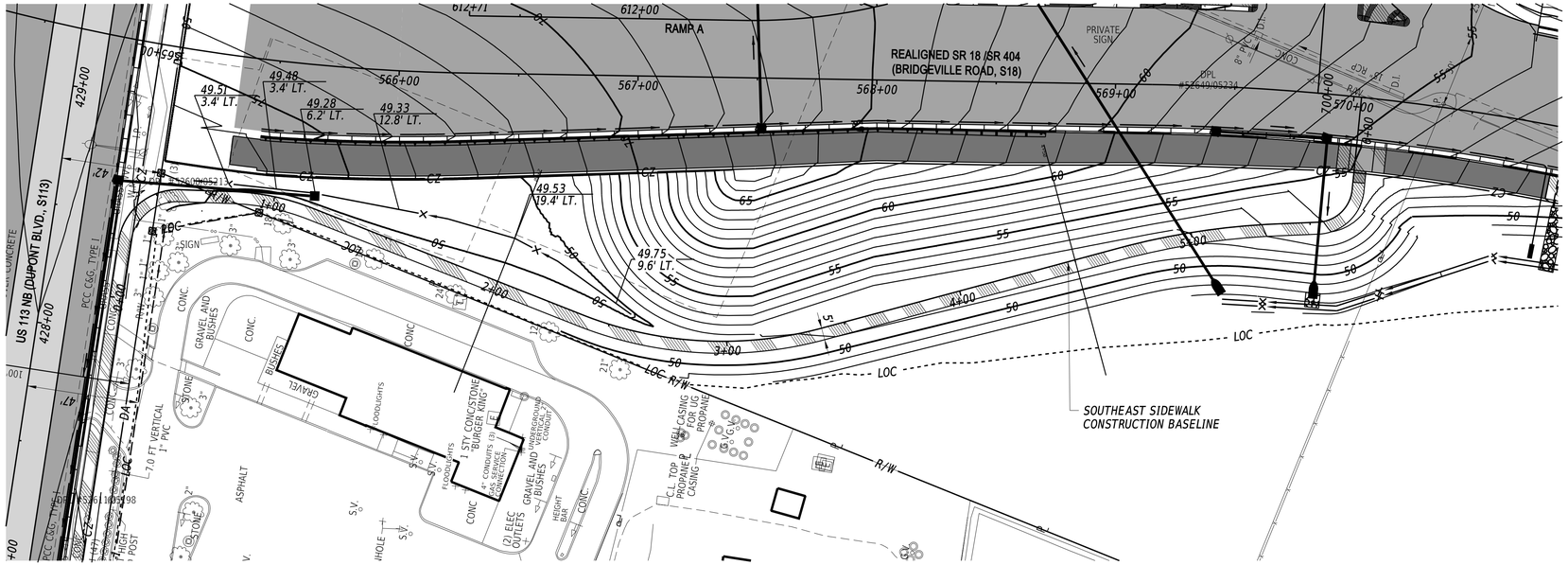
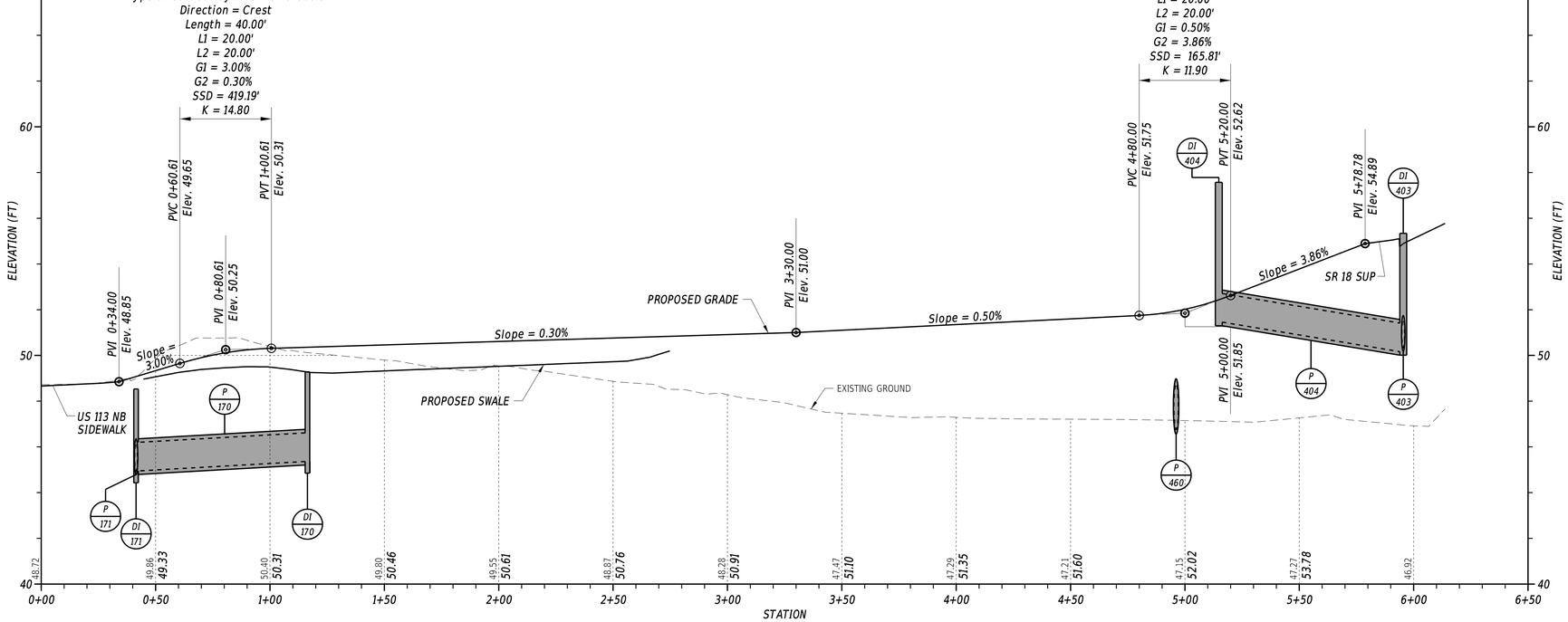


PLAN



SOUTHEAST SIDEWALK

VERTICAL SCALE FEET 0 2 4 6

ADDENDA / REVISIONS	SCALE 0 30 60 90 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. N/A	PROFILES	SECTION WRA
			COUNTY SUSSEX	DESIGNED BY: S. BEALL		SHEET NO. 62
				CHECKED BY: T. OLIVER		

8/13/2025
10:58:07 AM
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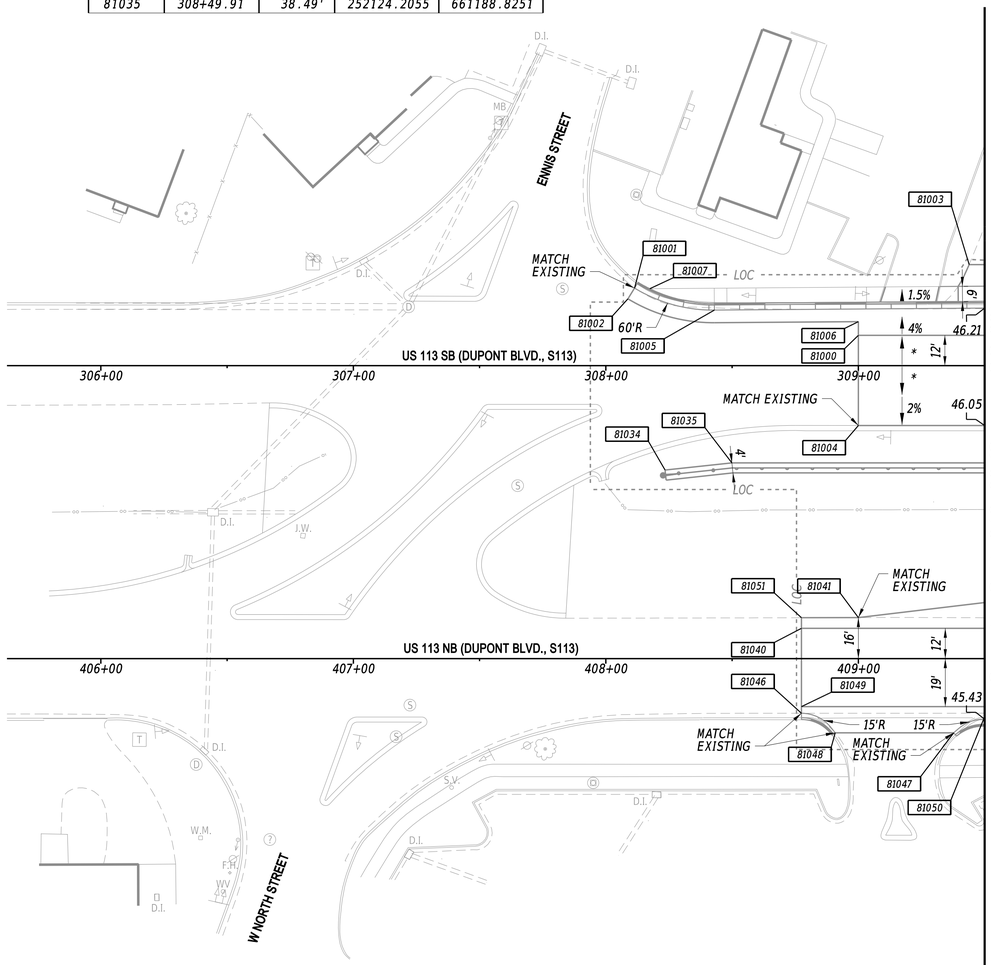
COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
81000	309+00.01	-12.00'	252162.0087	661128.5796
81001	308+11.36	-30.74'	252071.4078	661129.7472
81002	308+08.76	-26.46'	252069.8099	661134.4850
81003	309+43.88	-40.00'	252198.6634	661091.6390
81004	309+00.01	-23.69'	252169.8375	661163.3982
81005	308+42.99	-22.00'	252104.1848	661131.3314
81006	309+00.01	-17.43'	252160.8178	661123.2828
81007	308+17.39	-30.47'	252077.3505	661128.6791
81034	308+23.44	41.33'	252099.0004	661197.4131
81035	308+49.91	38.49'	252124.2055	661188.8251



COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
81040	408+77.45	-12.00'	252165.4423	661246.7036
81041	409+00.00	-16.25'	252186.5123	661237.6098
81046	408+77.45	21.64'	252172.8218	661279.5240
81047	409+37.75	29.37'	252233.3469	661273.8425
81048	408+90.83	29.37'	252187.5736	661284.1344
81049	408+77.45	19.00'	252172.2427	661276.9486
81050	409+49.59	24.00'	252243.7274	661266.0004
81051	408+77.45	-16.19'	252164.5229	661242.6148

NOTES:

1. OFFSETS SHOWN IN THE GEOMETRY TABLES WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION BASELINE.
2. UNLESS OTHERWISE NOTED, POINT GEOMETRY ADJACENT TO CURB AND CURB AND GUTTER IS GIVEN AT THE EDGE OF PAVEMENT.
3. UNLESS OTHERWISE NOTED, EDGE OF PAVEMENT ELEVATIONS ALONG INTERSECTION CURVES ARE GIVEN AT 10 FOOT INTERVALS.
4. RADII ARE GIVEN TO THE EDGE OF PAVEMENT.
5. PROPOSED PAVEMENT OR CURBS THAT TIE INTO EXISTING PAVEMENT OR EXISTING CURBS SHALL MATCH THE EXISTING PAVEMENT OR EXISTING CURB ELEVATIONS.
6. ALL WORK REQUIRED FOR CALCULATING AND STAKING OF GRADES SHALL BE PAID FOR UNDER ITEM 763501 - CONSTRUCTION ENGINEERING.
7. CROSS SLOPES LABELED WITH AN ASTERISK MATCH EXISTING SLOPES.

ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT T201412701	BRIDGE NO. 3-609	GRADES AND GEOMETRICS
COUNTY SUSSEX	DESIGNED BY: S. BEALL	
	CHECKED BY: T. OLIVER	

GG-01
SECTION
WRA
SHEET NO.
63

8/20/2025
11:08:51 AM
N:\32149-001\CADD\GG01_SR18.dgn

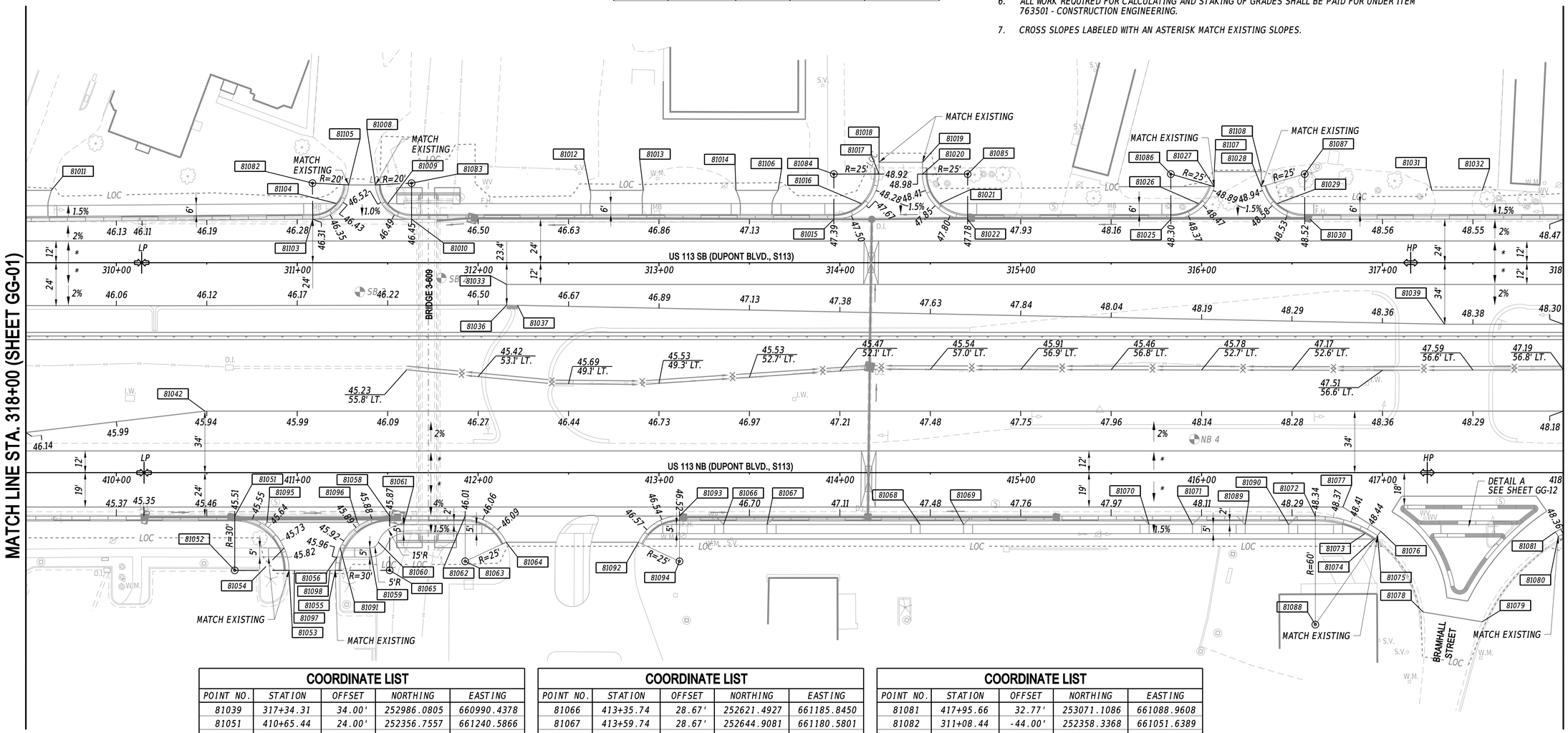
COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
81008	311+43.26	-42.99'	252392.5323	661044.9889
81009	311+50.12	-32.66'	252401.4889	661053.5544
81010	311+63.23	-24.00'	252416.1857	661059.1329
81011	309+64.07	-40.00'	252218.3643	661087.2093
81012	312+61.99	-40.00'	252509.0251	661021.8558
81013	312+91.37	-40.00'	252537.6931	661015.4099
81014	313+42.55	-40.00'	252587.6232	661004.1834

COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
81015	313+96.66	-24.00'	252643.9287	661007.9252
81016	314+11.89	-32.66'	252656.8879	660996.1282
81017	314+21.66	-49.00'	252662.8354	660978.0497
81018	314+21.66	-55.52'	252661.4039	660971.6834
81019	314+45.66	-55.52'	252684.8193	660966.4183
81020	314+45.66	-49.00'	252686.2509	660972.7851
81021	314+55.43	-32.66'	252699.3645	660986.5775
81022	314+70.66	-24.00'	252716.1262	660991.6917
81025	315+83.00	-24.00'	252825.7288	660967.0477

COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
81026	315+98.23	-32.67'	252838.6880	660955.2507
81027	316+07.00	-42.00'	252845.1956	660944.2196
81028	316+33.00	-42.00'	252870.5614	660938.5163
81029	316+41.77	-32.67'	252881.1645	660945.7000
81030	316+59.97	-24.00'	252900.8218	660950.1650
81031	317+27.28	-40.00'	252962.9862	660919.7850
81032	317+55.16	-40.00'	252990.1853	660913.6694
81033	312+15.81	12.00'	252475.3793	661082.7191
81036	312+15.81	23.42'	252477.8849	661093.8631
81037	312+21.81	23.54'	252483.7644	661092.6665

NOTES:

1. *OFFSETS SHOWN IN THE GEOMETRY TABLES WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION BASELINE.*
2. *UNLESS OTHERWISE NOTED, POINT GEOMETRY ADJACENT TO CURB AND CURB AND GUTTER IS GIVEN AT THE EDGE OF PAVEMENT.*
3. *UNLESS OTHERWISE NOTED, EDGE OF PAVEMENT ELEVATIONS ALONG INTERSECTION CURVES ARE GIVEN AT 10 FOOT INTERVALS.*
4. *RADII ARE GIVEN TO THE EDGE OF PAVEMENT.*
5. *PROPOSED PAVEMENT OR CURBS THAT TIE INTO EXISTING PAVEMENT OR EXISTING CURBS SHALL MATCH THE EXISTING PAVEMENT OR EXISTING CURB ELEVATIONS.*
6. *ALL WORK REQUIRED FOR CALCULATING AND STAKING OF GRADES SHALL BE PAID FOR UNDER ITEM 763501 - CONSTRUCTION ENGINEERING.*
7. *CROSS SLOPES LABELED WITH AN ASTERISK MATCH EXISTING SLOPES.*



COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
81039	317+34.31	34.00'	252986.0805	660990.4378
81051	410+65.44	24.00'	252356.7557	661240.5866
81052	410+65.44	54.00'	252363.3367	661269.8559
81053	410+95.44	54.00'	252392.6060	661263.2748
81054	410+92.80	41.68'	252387.3200	661251.8336
81055	411+21.11	54.00'	252417.6433	661257.6482
81056	411+22.01	46.68'	252416.9216	661250.3026
81058	411+51.11	24.00'	252440.3309	661221.7952
81059	411+40.13	41.68'	252433.4974	661241.4508
81060	411+44.81	38.43'	252437.3545	661237.2495
81061	411+58.87	28.67'	252448.9259	661224.6457
81062	411+92.85	24.00'	252481.0553	661212.6385
81063	411+92.85	49.00'	252486.5395	661237.0295
81064	412+15.52	38.47'	252506.3546	661221.7862
81065	411+51.11	54.00'	252446.9119	661251.0644

COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
81066	413+35.74	28.67'	252621.4927	661185.8450
81067	413+59.74	28.67'	252644.9081	661180.5801
81068	414+44.39	28.67'	252727.4935	661162.0112
81069	414+68.39	28.67'	252750.9089	661156.7464
81070	415+70.95	28.67'	252850.9716	661134.2478
81071	415+94.95	28.67'	252874.3870	661128.9830
81072	416+62.88	24.00'	252939.6345	661109.5293
81073	416+90.33	33.67'	252968.5393	661112.9382
81074	416+95.23	36.67'	252973.9775	661114.7903
81075	416+97.28	34.85'	252975.5818	661112.5626
81076	416+99.00	32.39'	252976.7211	661109.7874
81077	416+78.13	19.00'	252953.4228	661101.3043
81078	417+22.54	77.07'	253009.4833	661148.2186
81079	417+55.07	82.45'	253042.4070	661146.3271
81080	417+97.20	35.35'	253073.1761	661091.1346

COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
81081	417+95.66	32.77'	253071.1086	661088.9608
81082	311+08.44	-44.00'	252358.3368	661051.6389
81083	311+63.23	-44.00'	252411.7982	661039.6200
81084	313+96.66	-44.00'	252638.4444	660983.5341
81085	314+70.66	-49.00'	252710.6419	660967.3006
81086	315+83.00	-49.00'	252820.2445	660942.6566
81087	316+57.00	-49.00'	252892.4419	660926.4231
81088	416+62.88	84.00'	252952.7966	661168.0679
81089	416+24.12	28.67'	252902.8474	661122.5838
81090	416+48.12	28.67'	252926.2628	661117.3190
81091	411+23.75	41.68'	252417.5225	661245.0427
81092	412+88.65	38.47'	252577.6982	661205.7449
81093	413+11.32	24.00'	252596.6469	661186.6483
81094	413+11.32	49.00'	252602.1311	661211.0394
81095	410+83.29	27.44'	252374.9239	661240.0274

COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
81096	411+33.26	27.44'	252423.6719	661229.0666
81097	410+98.44	54.00'	252395.5329	661262.6167
81098	411+18.11	54.00'	252414.7164	661258.3066
81103	311+08.59	-24.00'	252362.8709	661071.1182
81104	311+21.64	-32.76'	252373.6796	661059.7040
81105	311+28.41	-42.99'	252378.0469	661048.2459
81106	313+65.89	-40.00'	252610.3925	660999.0638
81107	316+07.00	-50.34'	252843.3668	660936.0862
81108	316+33.00	-50.34'	252868.7327	660930.3829

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO. N/A
T201412701	DESIGNED BY: S. BEALL
COUNTY	CHECKED BY: T. OLIVER
SUSSEX	

GRADES AND GEOMETRICS

GG-02
SECTION WRA
SHEET NO. 64

8/20/2025 11:08:52 AM N:\32149-001\CADD\GG02_SR18.dgn

COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
82000	319+47.95	-32.67'	253179.8852	660878.5330
82001	913+33.00	12.00'	253246.1320	660872.5206
82003	911+65.23	26.60'	253405.5246	660821.4648
82004	911+58.07	22.00'	253413.1598	660824.1106
82005	911+65.18	24.60'	253406.0814	660823.3858
82006	910+60.35	-4.00'	253510.1301	660808.3839
82007	322+85.54	-24.00'	253511.1527	660812.9320
82008	326+64.68	-24.00'	253881.0584	660729.7607
82009	801+77.60	-4.00'	253880.0347	660725.2077
82011	422+28.00	36.67'	253493.7725	660997.9171
82012	318+57.15	-40.00'	253089.6918	660891.2959
82013	318+77.48	-40.00'	253109.5295	660886.8355
82014	320+08.95	-40.00'	253237.7904	660857.9967
82015	320+32.43	-40.00'	253260.6977	660852.8461
82019	326+86.86	70.37'	253923.4001	660816.9705
82020	418+06.12	33.67'	253081.5113	661087.5370
82021	418+20.63	19.00'	253092.4493	661070.0449
82023	418+38.27	24.00'	253110.7583	661071.0530
82024	419+20.29	24.00'	253190.7829	661053.0599
82025	419+34.21	33.67'	253206.4810	661059.4382

COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
82026	419+40.29	43.90'	253214.6611	661068.0883
82027	419+20.29	44.00'	253195.1703	661072.5728
82028	419+31.69	19.00'	253200.8043	661045.6819
82029	419+64.93	45.69'	253239.0899	661064.4291
82030	419+89.71	24.00'	253258.5082	661037.8323
82031	419+89.71	49.00'	253263.9924	661062.2233
82032	419+73.47	33.67'	253244.7864	661050.8255
82033	419+76.89	19.00'	253244.9038	661035.7663
82034	420+32.91	28.67'	253301.6840	661032.9075
82035	420+32.91	36.67'	253303.4389	661040.7127
82036	420+49.99	36.67'	253320.0984	661036.9669
82037	420+49.99	28.67'	253318.3435	661029.1617
82038	420+73.28	28.67'	253341.0633	661024.0533
82039	420+73.28	36.67'	253342.8183	661031.8584
82040	420+90.48	36.67'	253359.6052	661028.0839
82041	420+90.48	28.67'	253357.8503	661020.2788
82042	421+96.00	28.67'	253460.7970	660997.1318
82043	421+20.77	36.67'	253389.1561	661021.4396
82044	422+28.00	28.67'	253492.0176	660990.1120

COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
82045	422+72.11	24.00'	253534.0318	660975.8822
82046	422+96.95	46.13'	253563.1154	660992.0227
82047	422+72.11	49.00'	253539.5160	661000.2733
82048	422+88.35	33.67'	253551.9947	660981.7513
82049	419+31.69	24.00'	253201.9011	661050.5601
82050	423+28.62	46.13'	253594.0207	660985.0738
82051	423+53.46	24.00'	253613.3962	660958.0375
82052	423+53.46	49.00'	253618.8804	660982.4286
82053	423+37.22	33.67'	253599.6694	660971.0319
82054	419+76.89	24.00'	253246.0006	661040.6445
82055	424+46.00	36.67'	253706.4625	660950.0949
82056	425+89.13	24.00'	253843.3268	660906.3388

MATCH LINE STA. 908+50 (SHEET GG-10)

MATCH LINE STA. 803+50 (SHEET GG-10)

MATCH LINE STA. 801+40 (SHEET GG-04)

MATCH LINE STA. 318+00 (SHEET GG-02)

MATCH LINE STA. 327+00 (SHEET GG-04)

US 113 SB (DUPONT BLVD., S113)

US 113 NB (DUPONT BLVD., S113)

FULL SUPERELEVATION e = 0.06

104' SUPERELEVATION TRANSITION

RAMP C

RAMP D

BMP

WELL

MATCH EXISTING

DETAIL E SEE SHEET 76 FOR CURB ELEVATIONS

BURGER KING ROAD (222010C)

COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
82057	426+23.73	64.27'	253885.9188	660938.0357
82058	425+89.13	59.00'	253851.0047	660940.4863
82059	426+09.22	33.67'	253865.0493	660911.3626
82060	426+05.00	12.00'	253856.1786	660891.1496
82061	426+56.00	49.08'	253914.0746	660916.1354
82062	426+93.12	24.00'	253944.7817	660883.5272
82063	426+93.12	64.00'	253953.5564	660922.5529
82064	426+71.35	33.67'	253925.6687	660897.7327
82065	419+40.30	45.69'	253215.0622	661069.8316
82066	322+73.25	-62.50'	253490.7180	660778.0661
82067	321+36.12	-44.15'	253360.9591	660826.0521

COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
82068	426+24.77	49.08'	253883.6046	660922.9864
82069	426+54.21	49.08'	253912.3262	660916.5285
82070	426+25.71	64.57'	253887.9139	660937.8956
82071	426+51.87	68.74'	253914.3571	660936.2264
82072	426+55.15	93.92'	253923.0782	660960.0779
82073	426+68.85	91.94'	253936.0123	660955.1312
82074	426+70.79	92.43'	253938.0114	660955.1907
82075	426+62.95	125.93'	253937.7070	660989.5905
82076	426+61.00	125.48'	253935.7070	660989.5831
82077	426+57.27	116.57'	253930.1134	660981.7064
82078	426+46.16	107.01'	253917.1823	660974.8174

COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
82079	426+42.68	107.85'	253913.9700	660976.4003
82080	426+39.61	112.27'	253911.9403	660981.3880
82081	426+41.56	112.72'	253913.9403	660981.3999

NOTES:

1. OFFSETS SHOWN IN THE GEOMETRY TABLES WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION BASELINE.
2. UNLESS OTHERWISE NOTED, POINT GEOMETRY ADJACENT TO CURB AND CURB AND GUTTER IS GIVEN AT THE EDGE OF PAVEMENT.
3. UNLESS OTHERWISE NOTED, EDGE OF PAVEMENT ELEVATIONS ALONG INTERSECTION CURVES ARE GIVEN AT 10 FOOT INTERVALS.
4. RADII ARE GIVEN TO THE EDGE OF PAVEMENT.
5. PROPOSED PAVEMENT OR CURBS THAT TIE INTO EXISTING PAVEMENT OR EXISTING CURBS SHALL MATCH THE EXISTING PAVEMENT OR EXISTING CURB ELEVATIONS.
6. ALL WORK REQUIRED FOR CALCULATING AND STAKING OF GRADES SHALL BE PAID FOR UNDER ITEM 763501 - CONSTRUCTION ENGINEERING.
7. CROSS SLOPES LABELED WITH AN ASTERISK MATCH EXISTING SLOPES.

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO. 3-610
T201412701	DESIGNED BY: S. BEALL
COUNTY	CHECKED BY: T. OLIVER
SUSSEX	

GRADES AND GEOMETRICS

GG-03
SECTION: WRA
SHEET NO.: 65

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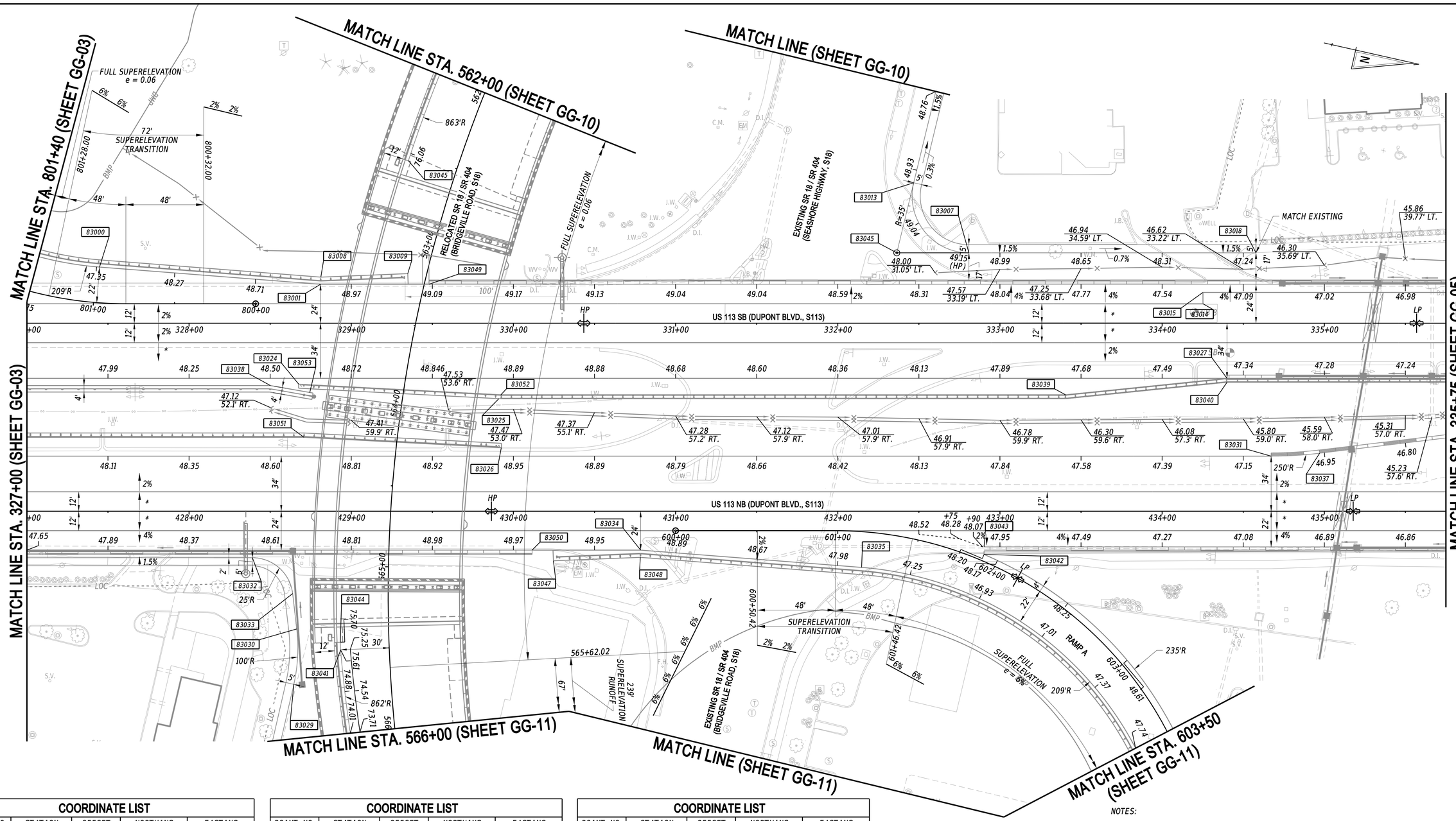

COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
83000	800+97.99	22.00'	253956.8791	660701.8138
83001	328+81.04	-24.00'	254092.1533	660682.2971
83007	332+80.85	-43.40'	254477.9634	660575.6607
83008	328+81.26	-28.44'	254091.3926	660677.9215
83009	329+34.83	-30.58'	254143.1863	660664.0798
83013	332+46.83	-86.63'	254435.2900	660540.9547
83014	334+25.17	-12.00'	254625.6548	660574.6417
83015	334+25.17	-19.00'	254624.1192	660567.8122
83018	334+57.87	-43.40'	254650.6766	660536.8271
83024	328+67.63	37.65'	254092.5910	660745.3928
83025	329+91.04	46.56'	254214.9462	660727.0126
83026	429+92.50	-39.25'	254223.0014	660756.1404
83027	434+40.00	-82.00'	254650.2192	660616.2669

COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
83029	428+64.57	106.81'	254130.2254	660926.7062
83030	428+66.38	72.63'	254124.4902	660892.9603
83031	434+67.23	-34.00'	254687.3168	660657.1240
83032	428+39.02	28.67'	254088.1577	660856.0731
83033	428+63.86	50.80'	254117.2427	660872.2179
83034	430+78.45	24.00'	254320.7327	660798.9966
83035	601+16.41	22.00'	254455.9702	660779.4881
83037	434+97.16	-35.80'	254716.1183	660648.8059
83038	328+50.19	38.49'	254075.7575	660750.0288
83039	333+40.46	44.19'	254555.3384	660648.0429
83040	334+40.06	36.38'	254650.7994	660618.5708

COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
83041	565+50.27	29.99'	254153.7694	660899.8138
83042	601+91.11	-4.00'	254527.9096	660755.1472
83043	432+90.20	22.00'	254526.8859	660750.5942
83044	565+45.50	30.00'	254152.5010	660895.0372
83045	332+36.38	-43.40'	254434.5803	660585.4152
83047	430+24.67	30.57'	254269.6975	660817.2070
83048	430+78.25	28.44'	254321.5078	660803.3684
83049	329+47.95	-24.00'	254157.4289	660667.6202
83050	430+11.53	24.00'	254255.4363	660813.6782
83051	428+70.88	-45.63'	254102.9389	660776.6022
83052	329+92.29	44.19'	254215.6510	660724.4198
83053	328+74.43	42.76'	254100.3462	660748.8813

NOTES:

1. OFFSETS SHOWN IN THE GEOMETRY TABLES WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION BASELINE.
2. UNLESS OTHERWISE NOTED, POINT GEOMETRY ADJACENT TO CURB AND CURB AND GUTTER IS GIVEN AT THE EDGE OF PAVEMENT.
3. UNLESS OTHERWISE NOTED, EDGE OF PAVEMENT ELEVATIONS ALONG INTERSECTION CURVES ARE GIVEN AT 10 FOOT INTERVALS.
4. RADII ARE GIVEN TO THE EDGE OF PAVEMENT.
5. PROPOSED PAVEMENT OR CURBS THAT TIE INTO EXISTING PAVEMENT OR EXISTING CURBS SHALL MATCH THE EXISTING PAVEMENT OR EXISTING CURB ELEVATIONS.
6. ALL WORK REQUIRED FOR CALCULATING AND STAKING OF GRADES SHALL BE PAID FOR UNDER ITEM 763501 - CONSTRUCTION ENGINEERING.
7. CROSS SLOPES LABELED WITH AN ASTERISK MATCH EXISTING SLOPES.

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION

CONTRACT	T201412701
COUNTY	SUSSEX
BRIDGE NO.	N/A
DESIGNED BY:	S. BEALL
CHECKED BY:	T. OLIVER

GRADES AND GEOMETRICS

GG-04

SECTION WRA

SHEET NO. 66

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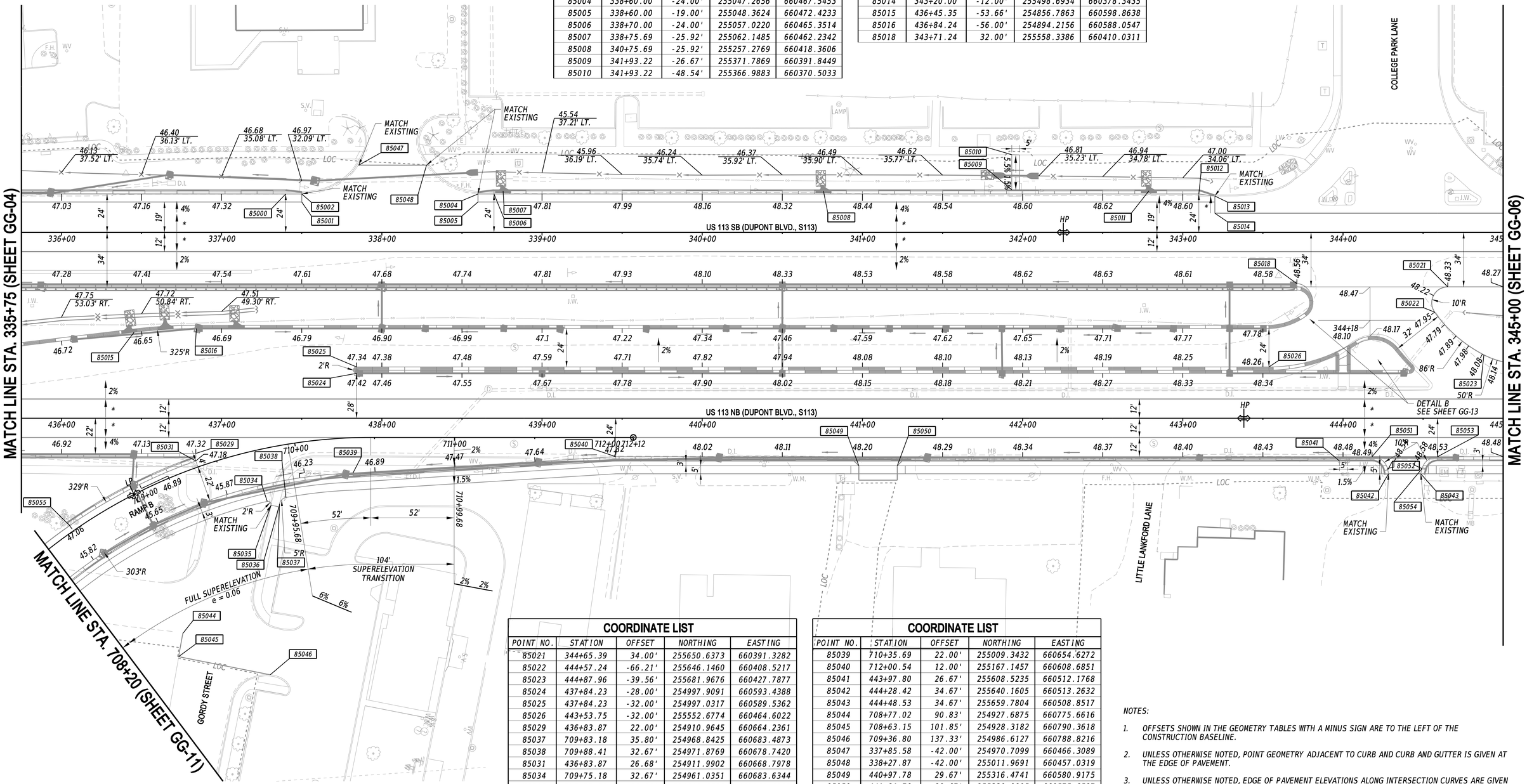
COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
85000	337+40.00	-24.00'	254930.1885	660493.8693
85001	337+50.00	-19.00'	254941.0418	660496.5538
85002	337+50.00	-23.97'	254939.9526	660491.7095
85004	338+60.00	-24.00'	255047.2656	660467.5453
85005	338+60.00	-19.00'	255048.3624	660472.4233
85006	338+70.00	-24.00'	255057.0220	660465.3514
85007	338+75.69	-25.92'	255062.1485	660462.2342
85008	340+75.69	-25.92'	255257.2769	660418.3606
85009	341+93.22	-26.67'	255371.7869	660391.8449
85010	341+93.22	-48.54'	255366.9883	660370.5033

COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
85011	342+78.86	-26.00'	255455.4798	660373.7103
85012	343+10.00	-24.00'	255486.3045	660368.8295
85013	343+20.00	-22.69'	255496.3484	660367.9142
85014	343+20.00	-12.00'	255498.6934	660378.3435
85015	436+45.35	-53.66'	254856.7863	660598.8638
85016	436+84.24	-56.00'	254894.2156	660588.0547
85018	343+71.24	32.00'	255558.3386	660410.0311



COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
85021	344+65.39	34.00'	255650.6373	660391.3282
85022	444+57.24	-66.21'	255646.1460	660408.5217
85023	444+87.96	-39.56'	255681.9676	660427.7877
85024	437+84.23	-28.00'	254997.9091	660593.4388
85025	437+84.23	-32.00'	254997.0317	660589.5362
85026	443+53.75	-32.00'	255552.6774	660464.6022
85029	436+83.87	22.00'	254910.9645	660664.2361
85037	709+83.18	35.80'	254968.8425	660683.4873
85038	709+88.41	32.67'	254971.8769	660678.7420
85031	436+83.87	26.68'	254911.9902	660668.7978
85034	709+75.18	32.67'	254961.0351	660683.6344
85035	709+77.20	35.55'	254963.8965	660685.4737
85036	709+82.39	37.50'	254968.8966	660685.3267

COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
85039	710+35.69	22.00'	255009.3432	660654.6272
85040	712+00.54	12.00'	255167.1457	660608.6851
85041	443+97.80	26.67'	255608.5235	660512.1768
85042	444+28.42	34.67'	255640.1605	660513.2632
85043	444+48.53	34.67'	255659.7804	660508.8517
85044	708+77.02	90.83'	254927.6875	660775.6616
85045	708+63.15	101.85'	254928.3182	660790.3618
85046	709+36.80	137.33'	254986.6127	660788.8216
85047	337+85.58	-42.00'	254970.7099	660466.3089
85048	338+27.87	-42.00'	255011.9691	660457.0319
85049	440+97.78	29.67'	255316.4741	660580.9175
85050	441+21.78	29.67'	255339.8895	660575.6527
85051	444+18.13	24.00'	255627.7818	660505.1135
85052	444+27.97	32.19'	255639.1756	660510.9509
85053	444+59.04	24.00'	255667.6920	660496.1399
85054	444+49.36	31.48'	255659.8914	660505.5595
85055	708+50.00	-4.00'	254844.0208	660725.4202

NOTES:

1. OFFSETS SHOWN IN THE GEOMETRY TABLES WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION BASELINE.
2. UNLESS OTHERWISE NOTED, POINT GEOMETRY ADJACENT TO CURB AND CURB AND GUTTER IS GIVEN AT THE EDGE OF PAVEMENT.
3. UNLESS OTHERWISE NOTED, EDGE OF PAVEMENT ELEVATIONS ALONG INTERSECTION CURVES ARE GIVEN AT 10 FOOT INTERVALS.
4. RADII ARE GIVEN TO THE EDGE OF PAVEMENT.
5. PROPOSED PAVEMENT OR CURBS THAT TIE INTO EXISTING PAVEMENT OR EXISTING CURBS SHALL MATCH THE EXISTING PAVEMENT OR EXISTING CURB ELEVATIONS.
6. ALL WORK REQUIRED FOR CALCULATING AND STAKING OF GRADES SHALL BE PAID FOR UNDER ITEM 763501 - CONSTRUCTION ENGINEERING.
7. CROSS SLOPES LABELED WITH AN ASTERISK MATCH EXISTING SLOPES.

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO.	N/A
T201412701	DESIGNED BY: S. BEALL	
COUNTY	CHECKED BY: T. OLIVER	
SUSSEX		

GRADES AND GEOMETRICS

GG-05
SECTION
WRA
SHEET NO.
67

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COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
86000	345+32.89	-12.00'	255706.3948	660331.6429
86001	345+32.89	-24.42'	255703.6706	660319.5270
86002	345+42.89	-23.00'	255713.7382	660318.7172
86003	345+47.89	-23.00'	255718.6164	660317.6203
86004	347+00.00	-23.00'	255867.0244	660284.2516
86005	349+50.67	-23.00'	256111.5884	660229.2626
86007	352+06.57	-23.00'	256361.2549	660173.1264
86008	352+06.57	-18.00'	256362.3518	660178.0046
86009	445+08.43	-49.28'	255699.7989	660413.8139
86010	445+34.89	-47.00'	255726.1160	660410.2309

COORDINATE LIST

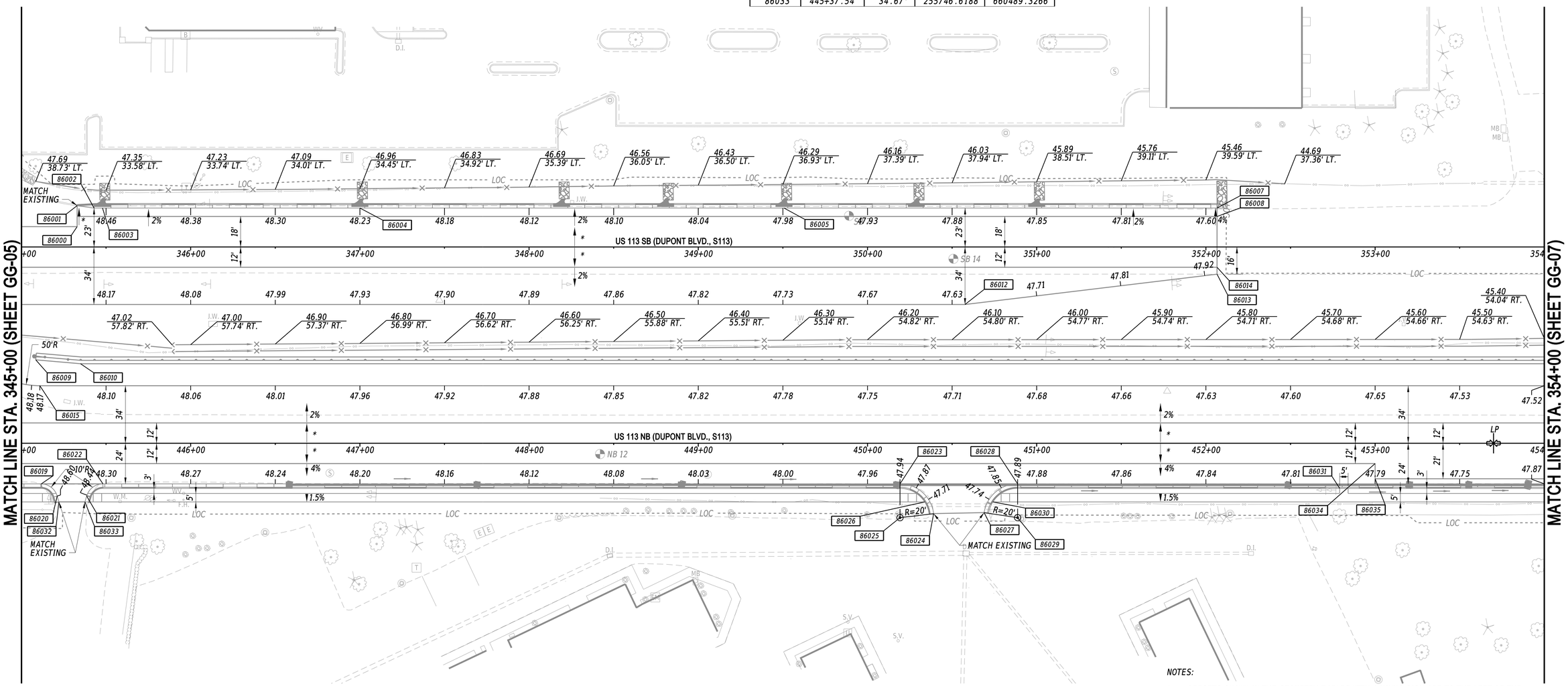
POINT NO.	STATION	OFFSET	NORTHING	EASTING
86012	350+57.65	34.00'	256228.4629	660261.4071
86013	352+06.57	16.06'	256369.8236	660211.2356
86014	352+06.57	12.00'	256368.9328	660207.2739
86015	445+10.87	-34.00'	255705.5345	660428.1831
86019	445+11.71	24.07'	255719.0904	660484.6542
86020	445+21.10	31.22'	255729.8232	660489.5690
86021	445+38.53	31.23'	255746.8306	660485.7586
86022	445+48.14	24.00'	255754.6194	660476.5947

COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
86023	450+19.22	24.00'	256214.2285	660373.2540
86024	450+39.08	41.64'	256237.4734	660386.1042
86025	450+19.22	44.00'	256218.6158	660392.7668
86026	450+33.82	34.67'	256230.8055	660380.4597
86027	450+68.94	41.01'	256266.4703	660378.9473
86028	450+88.72	24.00'	256282.0321	660358.0087
86029	450+88.72	44.00'	256286.4195	660377.5215
86030	450+74.11	34.67'	256270.1218	660371.6197
86031	452+79.03	26.67'	256468.2971	660318.8612
86032	445+22.10	34.67'	255731.5536	660492.7139
86033	445+37.54	34.67'	255746.6188	660489.3266

COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
86034	453+00.00	12.00'	256485.5342	660299.9527
86035	453+00.00	21.00'	256487.5086	660308.7335



NOTES:

1. OFFSETS SHOWN IN THE GEOMETRY TABLES WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION BASELINE.
2. UNLESS OTHERWISE NOTED, POINT GEOMETRY ADJACENT TO CURB AND CURB AND GUTTER IS GIVEN AT THE EDGE OF PAVEMENT.
3. UNLESS OTHERWISE NOTED, EDGE OF PAVEMENT ELEVATIONS ALONG INTERSECTION CURVES ARE GIVEN AT 10 FOOT INTERVALS.
4. RADII ARE GIVEN TO THE EDGE OF PAVEMENT.
5. PROPOSED PAVEMENT OR CURBS THAT TIE INTO EXISTING PAVEMENT OR EXISTING CURBS SHALL MATCH THE EXISTING PAVEMENT OR EXISTING CURB ELEVATIONS.
6. ALL WORK REQUIRED FOR CALCULATING AND STAKING OF GRADES SHALL BE PAID FOR UNDER ITEM 763501 - CONSTRUCTION ENGINEERING.
7. CROSS SLOPES LABELED WITH AN ASTERISK MATCH EXISTING SLOPES.

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO.	N/A
T201412701	DESIGNED BY: S. BEALL	
COUNTY	CHECKED BY: T. OLIVER	
SUSSEX		

GRADES AND GEOMETRICS

GG-06
SECTION
WRA
SHEET NO.
68

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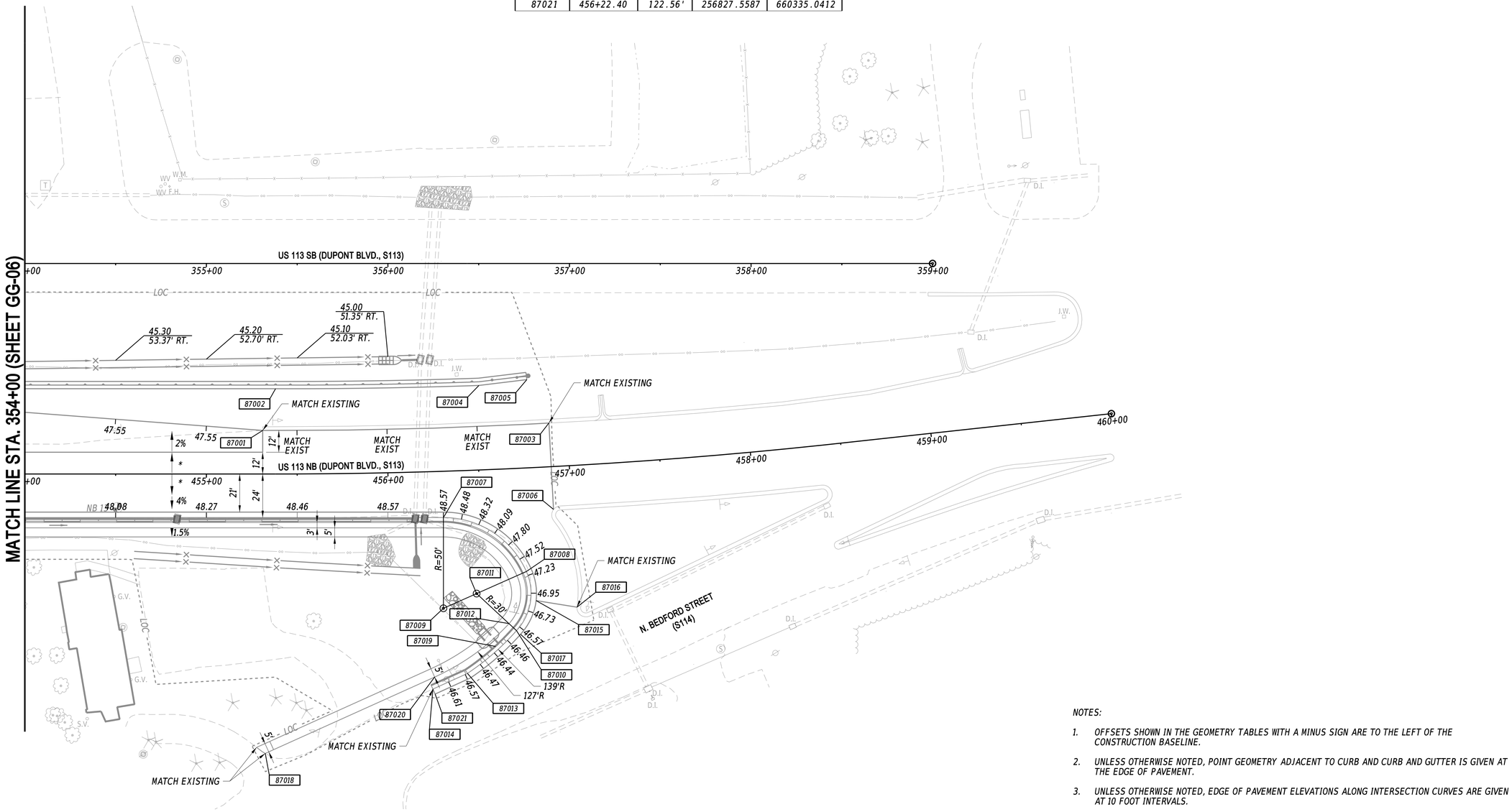
COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
87001	455+31.01	-24.01'	256703.0143	660214.1412
87002	455+38.10	-47.00'	256704.8895	660190.1590
87003	456+90.00	-24.07'	256855.9272	660175.6070
87004	456+51.99	-46.57'	256813.7807	660163.8309
87005	456+78.92	-48.59'	256838.8042	660154.9283
87006	456+90.00	23.53'	256868.8160	660221.4264
87007	456+29.76	25.48'	256810.6717	660239.1468
87008	456+73.62	57.01'	256861.7950	660258.1366
87009	456+28.20	75.46'	256821.6401	660287.9289
87010	456+66.87	89.28'	256863.6412	660291.0839

COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
87011	456+46.30	67.99'	256837.7021	660276.0120
87012	456+63.01	85.25'	256858.7416	660288.2370
87013	456+39.86	111.76'	256842.4381	660320.0267
87014	456+21.29	119.79'	256825.7491	660332.6485
87015	456+78.09	73.28'	256870.5256	660272.6041
87016	456+99.81	78.09'	256893.2869	660271.2057
87017	456+68.91	91.42'	256866.2351	660292.5911
87018	455+32.44	153.98'	256743.4573	660387.4829
87019	456+55.33	97.49'	256854.2821	660302.1257
87020	456+22.42	113.18'	256825.2510	660325.9540
87021	456+22.40	122.56'	256827.5587	660335.0412



NOTES:

1. *OFFSETS SHOWN IN THE GEOMETRY TABLES WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION BASELINE.*
2. *UNLESS OTHERWISE NOTED, POINT GEOMETRY ADJACENT TO CURB AND CURB AND GUTTER IS GIVEN AT THE EDGE OF PAVEMENT.*
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6. *ALL WORK REQUIRED FOR CALCULATING AND STAKING OF GRADES SHALL BE PAID FOR UNDER ITEM 763501 - CONSTRUCTION ENGINEERING.*
7. *CROSS SLOPES LABELED WITH AN ASTERISK MATCH EXISTING SLOPES.*

GG-07

ADDENDA / REVISIONS	

SCALE
0 30 60 90
FEET

US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO.	N/A
T201412701	DESIGNED BY: S. BEALL	
COUNTY	CHECKED BY: T. OLIVER	
SUSSEX		

GRADES AND GEOMETRICS

SECTION
WRA
SHEET NO.
69

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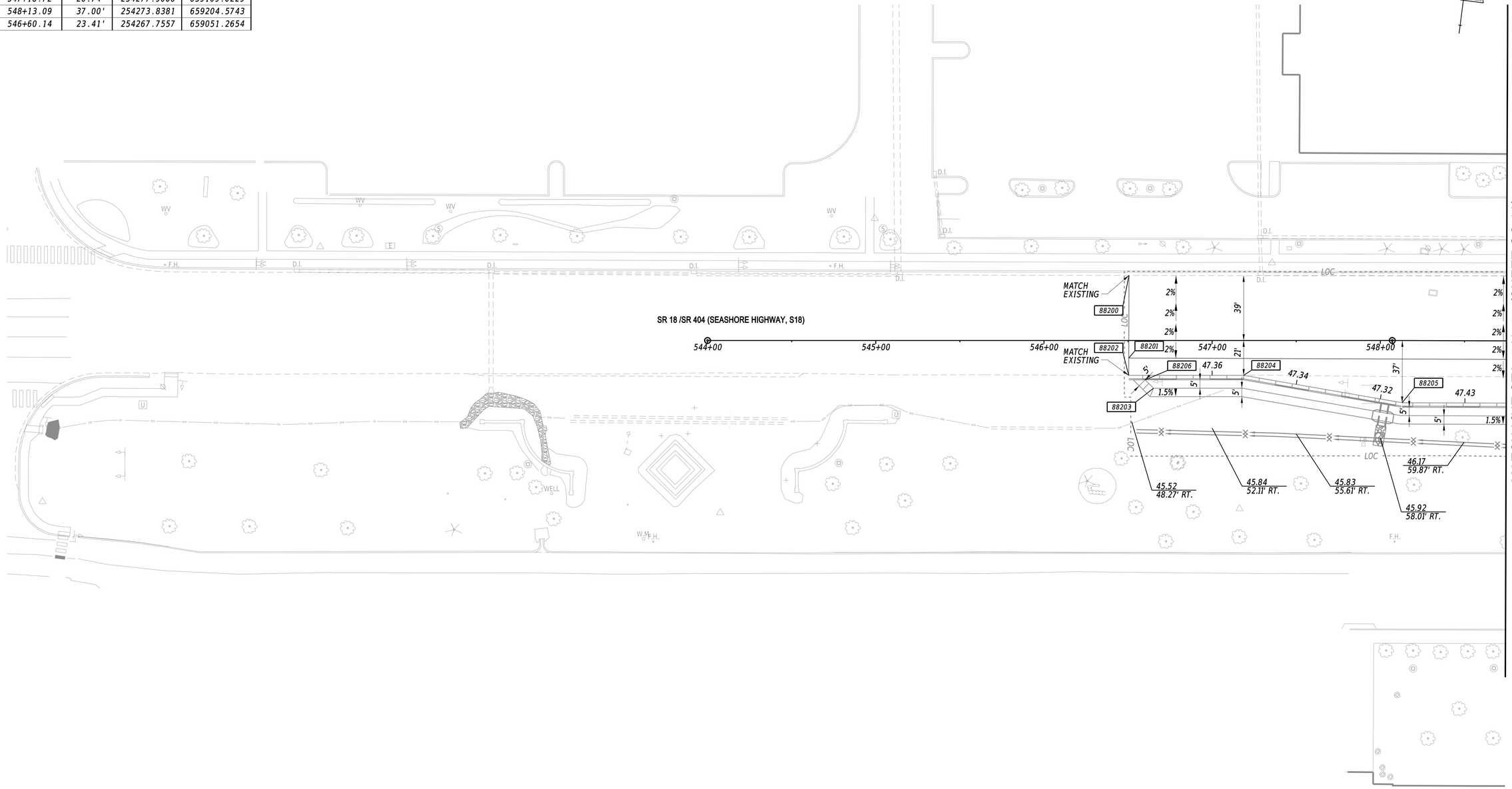
COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
88200	546+50.57	-38.75'	254328.1760	659033.8124
88201	546+50.40	10.46'	254279.3530	659039.9483
88202	546+50.40	20.74'	254269.1527	659041.2662
88203	546+65.14	28.41'	254263.4376	659056.8649
88204	547+18.72	20.74'	254277.9066	659109.0229
88205	548+13.09	37.00'	254273.8381	659204.5743
88206	546+60.14	23.41'	254267.7557	659051.2654



ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. N/A	GRADES AND GEOMETRICS	GG-08
				COUNTY SUSSEX	DESIGNED BY: S. BEALL		SECTION WRA
					CHECKED BY: T. OLIVER		SHEET NO. 70

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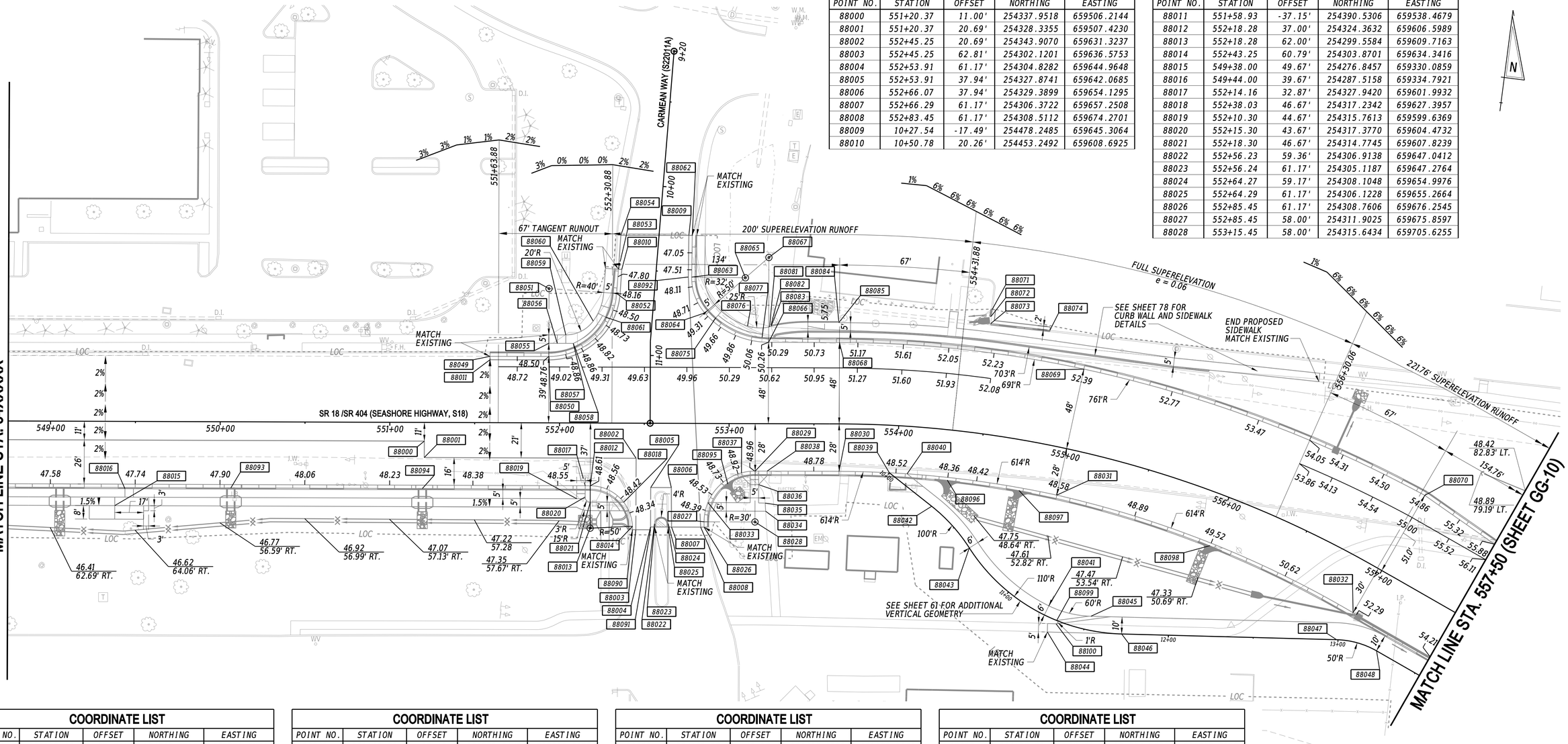

COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
88000	551+20.37	11.00'	254337.9518	659506.2144
88001	551+20.37	20.69'	254328.3355	659507.4230
88002	552+45.25	20.69'	254343.9070	659631.3237
88003	552+45.25	62.81'	254302.1201	659636.5753
88004	552+53.91	61.17'	254304.8282	659644.9648
88005	552+53.91	37.94'	254327.8741	659642.0685
88006	552+66.07	37.94'	254329.3899	659654.1295
88007	552+66.29	61.17'	254306.3722	659657.2508
88008	552+83.45	61.17'	254308.5112	659674.2701
88009	10+27.54	-17.49'	254478.2485	659645.3064
88010	10+50.78	20.26'	254453.2492	659608.6925

COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
88011	551+58.93	-37.15'	254390.5306	659538.4679
88012	552+18.28	37.00'	254324.3632	659606.5989
88013	552+18.28	62.00'	254299.5584	659609.7163
88014	552+43.25	60.79'	254303.8701	659634.3416
88015	549+38.00	49.67'	254276.8457	659330.0859
88016	549+44.00	39.67'	254287.5158	659334.7921
88017	552+14.16	32.87'	254327.9420	659601.9932
88018	552+38.03	46.67'	254317.2342	659627.3957
88019	552+10.30	44.67'	254315.7613	659599.6369
88020	552+15.30	43.67'	254317.3770	659604.4732
88021	552+18.30	46.67'	254314.7745	659607.8239
88022	552+56.23	59.36'	254306.9138	659647.0412
88023	552+56.24	61.17'	254305.1187	659647.2764
88024	552+64.27	59.17'	254308.1048	659654.9976
88025	552+64.29	61.17'	254306.1228	659655.2664
88026	552+85.45	61.17'	254308.7606	659676.2545
88027	552+85.45	58.00'	254311.9025	659675.8597
88028	553+15.45	58.00'	254315.6434	659705.6255

COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
88029	553+15.45	28.00'	254345.4092	659701.8846
88030	553+64.88	28.01'	254351.5627	659750.9366
88031	555+00.18	28.00'	254354.1312	659880.0739
88032	556+97.72	30.00'	254307.7221	660062.1854
88033	552+87.67	46.67'	254323.4246	659676.6522
88034	553+21.73	51.67'	254322.7108	659711.0700
88035	553+21.43	46.86'	254327.4467	659710.1712
88036	553+17.55	36.00'	254337.7336	659704.9659
88037	553+07.36	29.11'	254343.3005	659694.0029
88038	553+22.55	28.00'	254346.2946	659708.9293
88039	10+00.01	0.00'	254354.5597	659780.4866
88040	10+08.60	-6.00'	254355.2718	659790.9440
88041	11+25.16	-6.00'	254288.7771	659883.7760
88042	10+31.81	0.00'	254338.1706	659807.7367
88043	10+65.06	0.00'	254316.6506	659832.8882
88044	11+30.75	8.40'	254273.3552	659884.8842
88045	11+52.48	-8.33'	254285.8964	659909.1974
88046	11+72.43	0.00'	254277.8151	659928.4508
88047	12+99.16	0.00'	254290.7219	660054.5300
88048	13+23.90	0.00'	254287.1751	660078.7578

COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
88049	551+58.93	-39.15'	254392.5148	659538.2167
88050	551+93.68	-39.18'	254396.8807	659572.6953
88051	10+65.52	62.11'	254436.5529	659567.5844
88052	10+65.11	22.11'	254438.8527	659607.5182
88053	10+50.80	22.26'	254453.1342	659606.6958
88054	10+30.72	22.47'	254473.1843	659605.5378
88055	551+93.55	-46.90'	254404.5285	659571.5984
88056	551+98.55	-46.91'	254405.1566	659576.5588
88057	552+07.97	-46.92'	254406.3400	659585.9043
88058	552+08.78	-45.09'	254404.6298	659586.9413
88059	10+90.30	50.16'	254410.7451	659580.8910
88060	10+82.48	34.58'	254420.9116	659595.8826
88061	10+79.54	27.50'	254424.1832	659602.8089
88062	10+27.40	-19.49'	254478.4787	659647.2931
88063	10+51.92	-21.17'	254454.0638	659650.1223
88064	10+72.36	-30.58'	254434.0905	659660.4848
88065	10+49.76	-52.76'	254457.7090	659681.5785
88066	553+23.12	-48.00'	254421.7732	659700.0258
88067	553+23.12	-98.00'	254471.3829	659693.7906
88068	553+64.88	-48.00'	254426.9806	659741.4583

COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
88069	554+99.99	-48.00'	254429.8736	659886.3592
88070	557+00.00	-51.05'	254381.7630	660095.2245
88071	554+45.85	-73.49'	254457.8599	659828.2655
88072	554+45.64	-69.18'	254453.5525	659828.0281
88073	554+46.05	-65.08'	254449.4561	659828.4825
88074	554+77.86	-66.52'	254449.9819	659863.5672
88076	553+10.67	-57.54'	254429.6851	659686.4830
88077	553+19.27	-50.82'	254424.0945	659695.8529
88081	553+23.68	-57.08'	254430.8510	659699.4408
88082	553+24.50	-58.04'	254431.9025	659700.1403
88083	553+24.61	-57.55'	254431.4316	659700.3084
88084	553+64.45	-60.42'	254439.2469	659739.4848
88085	553+64.45	-59.67'	254438.5028	659739.5783
88090	552+43.28	62.81	254301.8749	659634.6247
88091	552+53.91	62.81'	254303.2001	659645.1694
88092	10+52.06	-19.17'	254453.8336	659648.1356
88093	550+06.40	39.00'	254295.9584	659396.6225
88094	551+19.30	39.00'	254310.0365	659508.6408
88095	552+99.31	35.67'	254335.7829	659686.8353
88096	554+31.91	29.59'	254354.6526	659814.8795

COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
88097	554+76.68	29.59'	254354.0553	659857.5709
88098	555+99.88	30.60'	254336.1535	659973.4581
88099	11+33.11	0.00'	254280.8099	659889.4618
88100	11+33.50	1.94'	254278.8384	659889.3490

NOTES:

1. OFFSETS SHOWN IN THE GEOMETRY TABLES WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION BASELINE.
2. UNLESS OTHERWISE NOTED, POINT GEOMETRY ADJACENT TO CURB AND CURB AND GUTTER IS GIVEN AT THE EDGE OF PAVEMENT.
3. UNLESS OTHERWISE NOTED, EDGE OF PAVEMENT ELEVATIONS ALONG INTERSECTION CURVES ARE GIVEN AT 10 FOOT INTERVALS.
4. RADII ARE GIVEN TO THE EDGE OF PAVEMENT.
5. PROPOSED PAVEMENT OR CURBS THAT TIE INTO EXISTING PAVEMENT OR EXISTING CURBS SHALL MATCH THE EXISTING PAVEMENT OR EXISTING CURB ELEVATIONS.
6. ALL WORK REQUIRED FOR CALCULATING AND STAKING OF GRADES SHALL BE PAID FOR UNDER ITEM 763501 - CONSTRUCTION ENGINEERING.

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO.	N/A
T201412701	DESIGNED BY: S. BEALL	GRADES AND GEOMETRICS
COUNTY	CHECKED BY: T. OLIVER	
SUSSEX		

GG-09 | SECTION WRA | SHEET NO. 71

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COORDINATE LIST

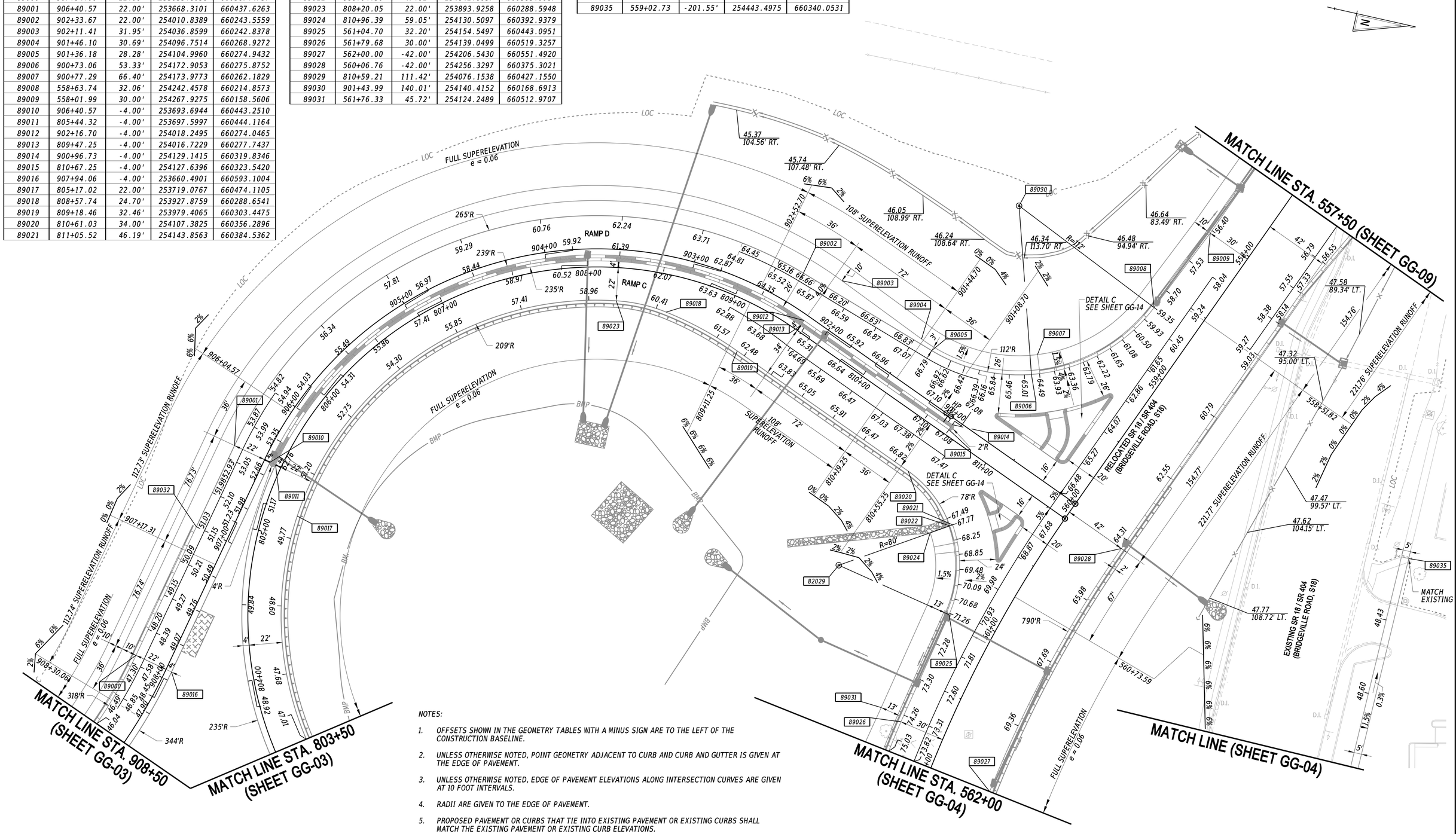
POINT NO.	STATION	OFFSET	NORTHING	EASTING
89000	907+94.06	22.00'	253635.1058	660587.4757
89001	906+40.57	22.00'	253668.3101	660437.6263
89002	902+33.67	22.00'	254010.8389	660243.5559
89003	902+11.41	31.95'	254036.8599	660242.8378
89004	901+46.10	30.69'	254096.7514	660268.9272
89005	901+36.18	28.28'	254104.9960	660274.9432
89006	900+73.06	53.33'	254172.9053	660275.8752
89007	900+77.29	66.40'	254173.9773	660262.1829
89008	558+63.74	32.06'	254242.4578	660214.8573
89009	558+01.99	30.00'	254267.9275	660158.5606
89010	906+40.57	-4.00'	253693.6944	660443.2510
89011	805+44.32	-4.00'	253697.5997	660444.1164
89012	902+16.70	-4.00'	254018.2495	660274.0465
89013	809+47.25	-4.00'	254016.7229	660277.7437
89014	900+96.73	-4.00'	254129.1415	660319.8346
89015	810+67.25	-4.00'	254127.6396	660323.5420
89016	907+94.06	-4.00'	253660.4901	660593.1004
89017	805+17.02	22.00'	253719.0767	660474.1105
89018	808+57.74	24.70'	253927.8759	660288.6541
89019	809+18.46	32.46'	253979.4065	660303.4475
89020	810+61.03	34.00'	254107.3825	660356.2896
89021	811+05.52	46.19'	254143.8563	660384.5362

COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
89022	811+04.36	47.82'	254142.1637	660385.6017
89023	808+20.05	22.00'	253893.9258	660288.5948
89024	810+96.39	59.05'	254130.5097	660392.9379
89025	561+04.70	32.20'	254154.5497	660443.0951
89026	561+79.68	30.00'	254139.0499	660519.3257
89027	562+00.00	-42.00'	254206.5430	660551.4920
89028	560+06.76	-42.00'	254256.3297	660375.3021
89029	810+59.21	111.42'	254076.1538	660427.1550
89030	901+43.99	140.01'	254140.4152	660168.6913
89031	561+76.33	45.72'	254124.2489	660512.9707

COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
89032	907+00.00	22.00'	253655.4539	660495.6459
89035	559+02.73	-201.55'	254443.4975	660340.0531



NOTES:

1. *OFFSETS SHOWN IN THE GEOMETRY TABLES WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION BASELINE.*
2. *UNLESS OTHERWISE NOTED, POINT GEOMETRY ADJACENT TO CURB AND CURB AND GUTTER IS GIVEN AT THE EDGE OF PAVEMENT.*
3. *UNLESS OTHERWISE NOTED, EDGE OF PAVEMENT ELEVATIONS ALONG INTERSECTION CURVES ARE GIVEN AT 10 FOOT INTERVALS.*
4. *RADII ARE GIVEN TO THE EDGE OF PAVEMENT.*
5. *PROPOSED PAVEMENT OR CURBS THAT TIE INTO EXISTING PAVEMENT OR EXISTING CURBS SHALL MATCH THE EXISTING PAVEMENT OR EXISTING CURB ELEVATIONS.*
6. *ALL WORK REQUIRED FOR CALCULATING AND STAKING OF GRADES SHALL BE PAID FOR UNDER ITEM 763501 - CONSTRUCTION ENGINEERING.*

ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. 3-610	GRADES AND GEOMETRICS	GG-10
				COUNTY SUSSEX	DESIGNED BY: S. BEALL		SECTION WRA
					CHECKED BY: T. OLIVER		SHEET NO. 72

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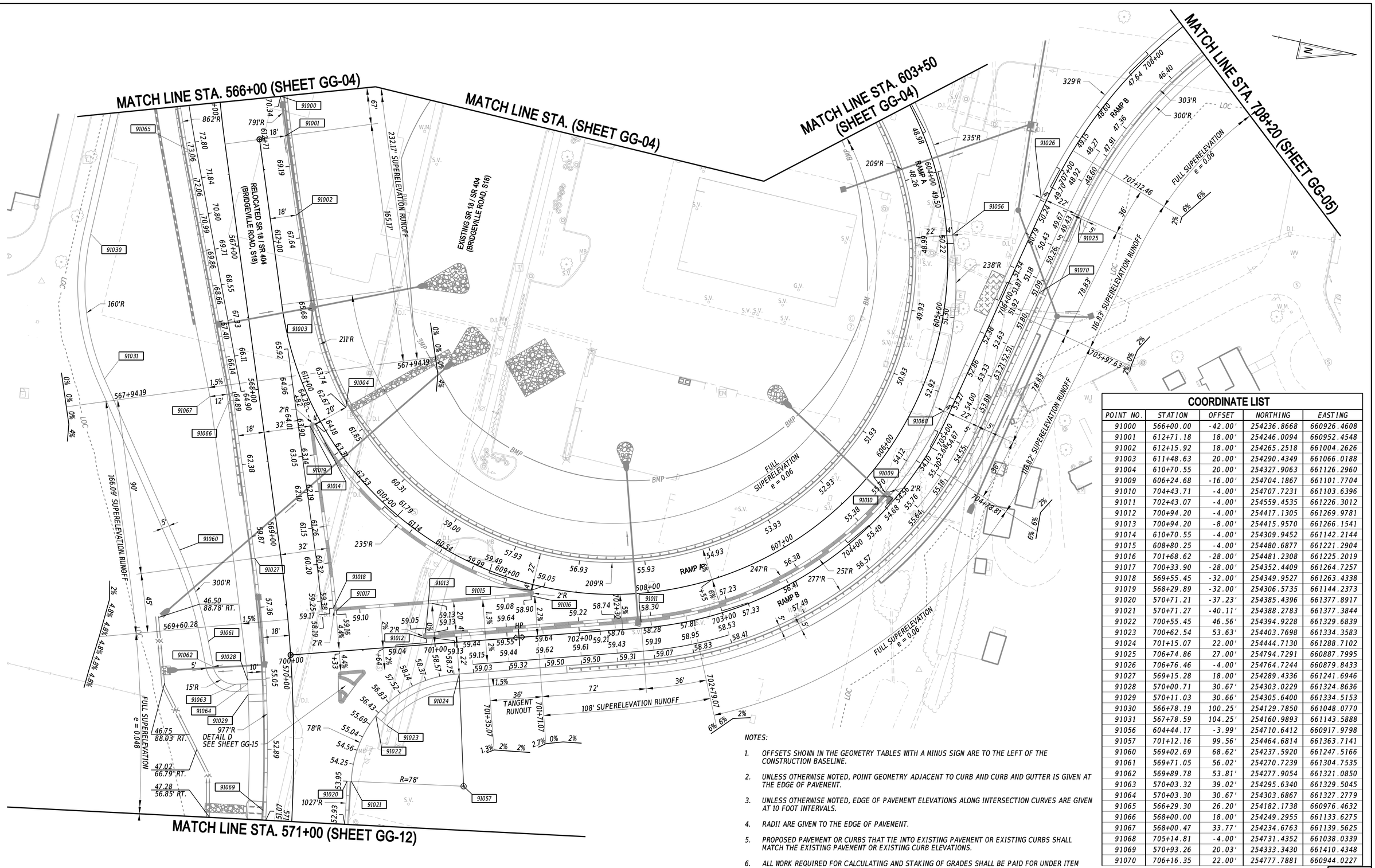

COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
91000	566+00.00	-42.00'	254236.8668	660926.4608
91001	612+71.18	18.00'	254246.0094	660952.4548
91002	612+15.92	18.00'	254265.2518	661004.2626
91003	611+48.63	20.00'	254290.4349	661066.0188
91004	610+70.55	20.00'	254327.9063	661126.2960
91009	606+24.68	-16.00'	254704.1867	661101.7704
91010	704+43.71	-4.00'	254707.7231	661103.6396
91011	702+43.07	-4.00'	254559.4535	661226.3012
91012	700+94.20	-4.00'	254417.1305	661269.9781
91013	700+94.20	-8.00'	254415.9570	661266.1541
91014	610+70.55	-4.00'	254309.9452	661142.2144
91015	608+80.25	-4.00'	254480.6877	661221.2904
91016	701+68.62	-28.00'	254481.2308	661225.2019
91017	700+33.90	-28.00'	254352.4409	661264.7257
91018	569+55.45	-32.00'	254349.9527	661263.4338
91019	568+29.89	-32.00'	254306.5735	661144.2373
91020	570+71.21	-37.23'	254385.4396	661377.8917
91021	570+71.27	-40.11'	254388.2783	661377.3844
91022	700+55.45	46.56'	254394.9228	661329.6839
91023	700+62.54	53.63'	254403.7698	661334.3583
91024	701+15.07	22.00'	254444.7130	661288.7102
91025	706+74.86	27.00'	254794.7291	660887.7995
91026	706+76.46	-4.00'	254764.7244	660879.8433
91027	569+15.28	18.00'	254289.4336	661241.6946
91028	570+00.71	30.67'	254303.0229	661324.8636
91029	570+11.03	30.66'	254305.6400	661334.5153
91030	566+78.19	100.25'	254129.7850	661048.0770
91031	567+78.59	104.25'	254160.9893	661143.5888
91056	604+44.17	-3.99'	254710.6412	660917.9798
91057	701+12.16	99.56'	254464.6814	661363.7141
91060	569+02.69	68.62'	254237.5920	661247.5166
91061	569+71.05	56.02'	254270.7239	661304.7535
91062	569+89.78	53.81'	254277.9054	661321.0850
91063	570+03.32	39.02'	254295.6340	661329.5045
91064	570+03.30	30.67'	254303.6867	661327.2779
91065	566+29.30	26.20'	254182.1738	660976.4632
91066	568+00.00	18.00'	254249.2955	661133.6275
91067	568+00.47	33.77'	254234.6763	661139.5625
91068	705+14.81	-4.00'	254731.4352	661038.0339
91069	570+93.26	20.03'	254333.3430	661410.4348
91070	706+16.35	22.00'	254777.7881	660944.0227

NOTES:

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ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO.	3-610
T201412701	DESIGNED BY: S. BEALL	GRADES AND GEOMETRICS
COUNTY	CHECKED BY: T. OLIVER	
SUSSEX		

GG-11

SECTION	SHEET NO.
WRA	73

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COORDINATE LIST

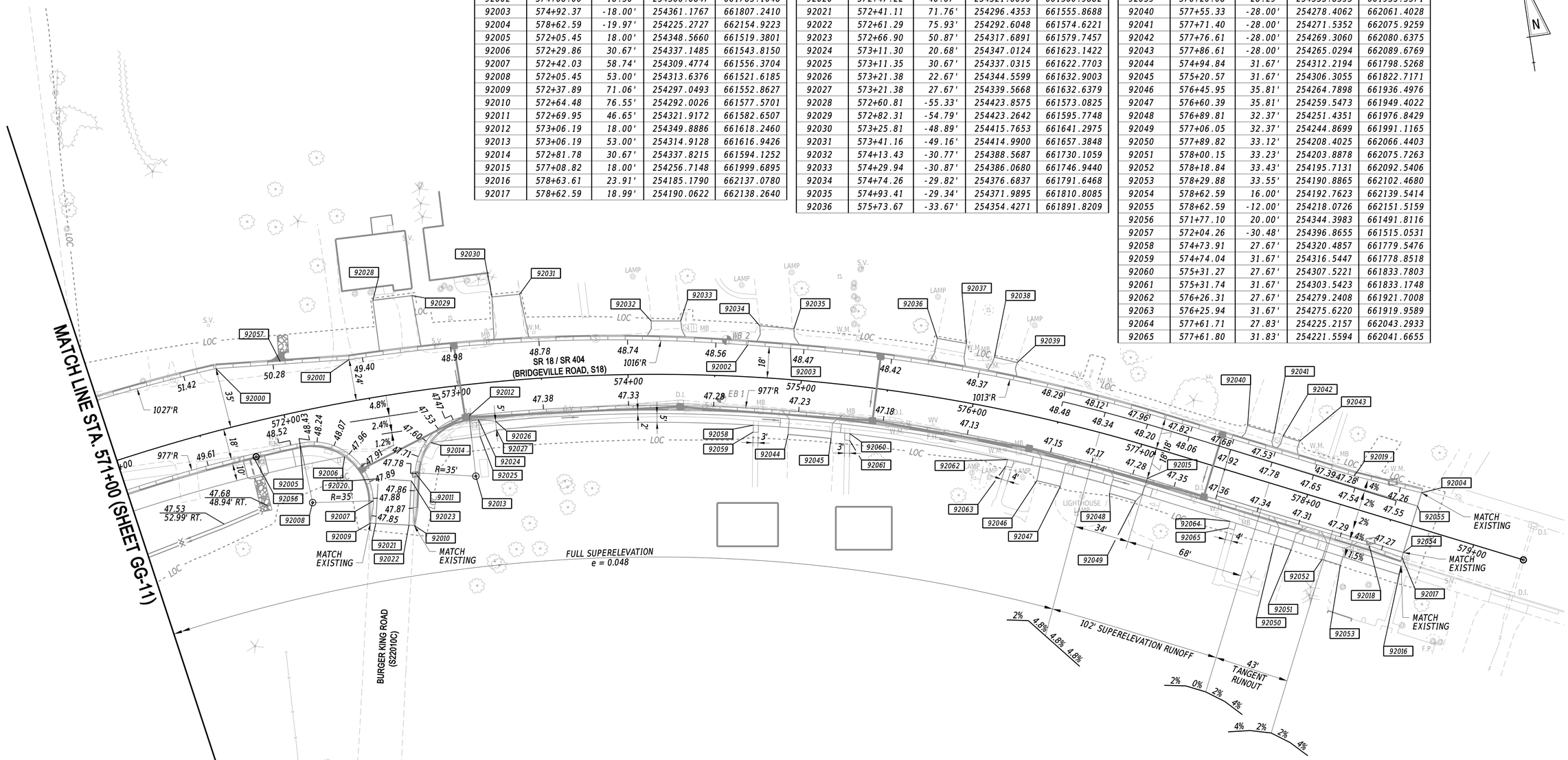
POINT NO.	STATION	OFFSET	NORTHING	EASTING
92000	571+68.45	-35.00'	254398.2980	661477.8232
92001	572+42.47	-23.95'	254392.1481	661554.5660
92002	574+68.06	-18.30'	254366.6847	661783.1048
92003	574+92.37	-18.00'	254361.1767	661807.2410
92004	578+62.59	-19.97'	254225.2727	662154.9223
92005	572+05.45	18.00'	254348.5660	661519.3801
92006	572+29.86	30.67'	254337.1485	661543.8150
92007	572+42.03	58.74'	254309.4774	661556.3704
92008	572+05.45	53.00'	254313.6376	661521.6185
92009	572+37.89	71.06'	254297.0493	661552.8627
92010	572+64.48	76.55'	254292.0026	661577.5701
92011	572+69.95	46.65'	254321.9172	661582.6507
92012	573+06.19	18.00'	254349.8886	661618.2460
92013	573+06.19	53.00'	254314.9128	661616.9426
92014	572+81.78	30.67'	254337.8215	661594.1252
92015	577+08.82	18.00'	254256.7148	661999.6895
92016	578+63.61	23.91'	254185.1790	662137.0780
92017	578+62.59	18.99'	254190.0622	662138.2640

COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
92018	578+42.59	18.00'	254199.5077	662120.6073
92019	578+22.59	-18.00'	254240.6027	662117.9243
92020	572+47.22	46.67'	254321.6696	661560.9882
92021	572+41.11	71.76'	254296.4353	661555.8688
92022	572+61.29	75.93'	254292.6048	661574.6221
92023	572+66.90	50.87'	254317.6891	661579.7457
92024	573+11.30	20.68'	254347.0124	661623.1422
92025	573+11.35	30.67'	254337.0315	661622.7703
92026	573+21.38	22.67'	254344.5599	661632.9003
92027	573+21.38	27.67'	254339.5668	661632.6379
92028	572+60.81	-55.33'	254423.8575	661573.0825
92029	572+82.31	-54.79'	254423.2642	661595.7748
92030	573+25.81	-48.89'	254415.7653	661641.2975
92031	573+41.16	-49.16'	254414.9900	661657.3848
92032	574+13.43	-30.77'	254388.5687	661730.1059
92033	574+29.94	-30.87'	254386.0680	661746.9440
92034	574+74.26	-29.82'	254376.6837	661791.6468
92035	574+93.41	-29.34'	254371.9895	661810.8085
92036	575+73.67	-33.67'	254354.4271	661891.8209

COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
92037	575+90.16	-33.56'	254349.0549	661907.9933
92038	576+06.96	-28.70'	254338.8305	661922.7989
92039	576+20.08	-28.29'	254333.8593	661935.3571
92040	577+55.33	-28.00'	254278.4062	662061.4028
92041	577+71.40	-28.00'	254271.5352	662075.9259
92042	577+76.61	-28.00'	254269.3060	662080.6375
92043	577+86.61	-28.00'	254265.0294	662089.6769
92044	574+94.84	31.67'	254312.2194	661798.5268
92045	575+20.57	31.67'	254306.3055	661822.7171
92046	576+45.95	35.81'	254264.7898	661936.4976
92047	576+60.39	35.81'	254259.5473	661949.4022
92048	576+89.81	32.37'	254251.4351	661976.8429
92049	577+06.05	32.37'	254244.8699	661991.1165
92050	577+89.82	33.12'	254208.4025	662066.4403
92051	578+00.15	33.23'	254203.8878	662075.7263
92052	578+18.84	33.43'	254195.7131	662092.5406
92053	578+29.88	33.55'	254190.8865	662102.4680
92054	578+62.59	16.00'	254192.7623	662139.5414
92055	578+62.59	-12.00'	254218.0726	662151.5159
92056	571+77.10	20.00'	254344.3983	661491.8116
92057	572+04.26	-30.48'	254396.8655	661515.0531
92058	574+73.91	27.67'	254320.4857	661779.5476
92059	574+74.04	31.67'	254316.5447	661778.8518
92060	575+31.27	27.67'	254307.5221	661833.7803
92061	575+31.74	31.67'	254303.5423	661833.1748
92062	576+26.31	27.67'	254279.2408	661921.7008
92063	576+25.94	31.67'	254275.6220	661919.9589
92064	577+61.71	27.83'	254225.2157	662043.2933
92065	577+61.80	31.83'	254221.5594	662041.6655



NOTES:

1. OFFSETS SHOWN IN THE GEOMETRY TABLES WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION BASELINE.
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6. ALL WORK REQUIRED FOR CALCULATING AND STAKING OF GRADES SHALL BE PAID FOR UNDER ITEM 763501 - CONSTRUCTION ENGINEERING.

ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO.	N/A
T201412701	DESIGNED BY: S. BEALL	
COUNTY	CHECKED BY: T. OLIVER	
SUSSEX		

GRADES AND GEOMETRICS

GG-12

SECTION	WRA
SHEET NO.	74

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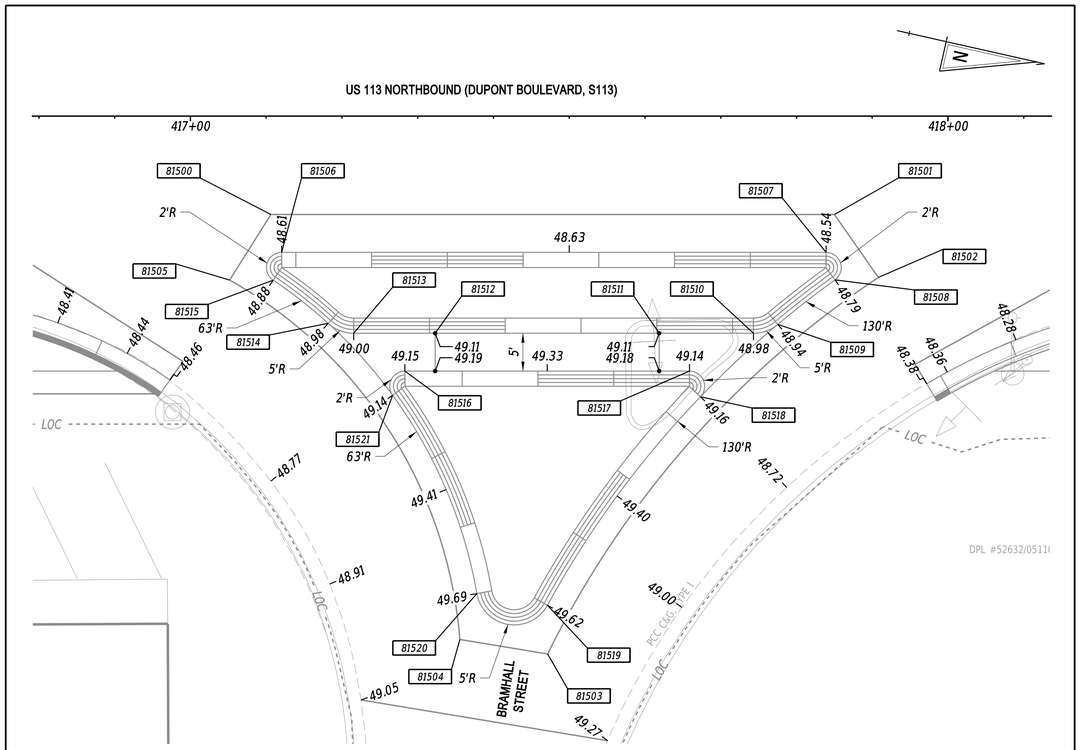
COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
81500	417+10.62	13.00'	252983.8067	661088.3228
81501	417+85.01	13.00'	253056.3817	661072.0047
81502	417+90.81	21.30'	253063.8652	661078.8300
81503	417+47.16	71.00'	253032.1744	661136.8985
81504	417+35.57	69.09'	253020.4479	661137.5722
81505	417+05.18	21.64'	252980.3890	661097.9480
81506	417+12.04	18.00'	252986.2842	661092.8906
81507	417+83.91	18.00'	253056.4062	661077.1240
81508	417+85.08	21.62'	253058.3420	661080.4015
81509	417+77.54	27.50'	253052.2686	661087.7879
81510	417+74.32	28.67'	253049.3892	661089.6347

COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
81511	417+61.88	28.67'	253037.2497	661092.3642
81512	417+32.30	28.67'	253008.3959	661098.8518
81513	417+21.56	28.67'	252997.9101	661101.2095
81514	417+18.19	27.36'	252994.3391	661100.6762
81515	417+10.92	21.66'	252985.9981	661096.7059
81516	417+28.30	33.67'	253005.5901	661104.6075
81517	417+65.88	33.67'	253042.2491	661096.3649
81518	417+67.32	37.05'	253044.3994	661099.3509
81519	417+47.12	64.57'	253030.7285	661130.6281
81520	417+37.81	63.03'	253021.3091	661131.1692
81521	417+26.69	36.84'	253004.7100	661108.0623

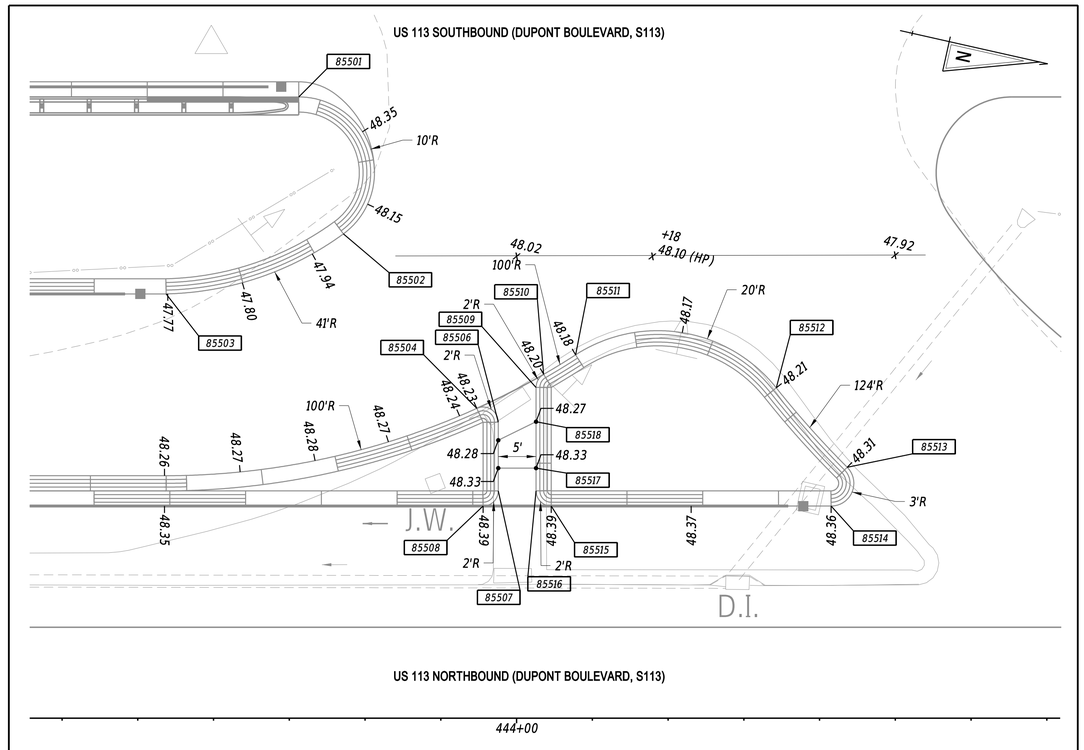


DETAIL A

SCALE: AS NOTED

COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
85501	443+71.24	-82.00'	255558.7784	660411.9812
85502	443+77.14	-63.92'	255568.4960	660428.3249
85503	443+53.75	-56.00'	255547.4137	660441.1856
85504	443+94.76	-40.89'	255590.7360	660446.9293
85506	443+97.58	-39.07'	255593.8915	660448.0875
85507	443+97.58	-30.00'	255595.8813	660456.9373
85508	443+95.58	-28.00'	255594.3687	660459.3273
85509	444+02.58	-43.65'	255597.7635	660442.5220
85510	444+03.58	-45.38'	255598.3596	660440.6123

COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
85511	444+07.79	-47.96'	255601.9080	660437.1773
85512	444+34.28	-43.60'	255628.7080	660435.6155
85513	444+43.65	-33.11'	255640.1497	660443.7950
85514	444+41.52	-28.00'	255639.1911	660449.2490
85515	444+04.58	-28.00'	255603.1495	660457.3527
85516	444+02.58	-30.00'	255600.7595	660455.8404
85517	444+02.58	-33.00'	255600.1014	660452.9133
85518	444+02.58	-39.14'	255598.7556	660446.9279



DETAIL B

SCALE: AS NOTED

NOTES:

1. *OFFSETS SHOWN IN THE GEOMETRY TABLES WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION BASELINE.*
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ADDENDA / REVISIONS

SCALE
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FEET

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO.	N/A	GRADES AND GEOMETRICS
T201412701	DESIGNED BY: S. BEALL		
COUNTY			
SUSSEX	CHECKED BY: T. OLIVER		

GG-13

SECTION
WRA
SHEET NO.
75

COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
89500	811+09.30	16.00'	254158.8670	660358.0738
89501	811+23.66	16.00'	254172.1467	660363.5571
89502	811+25.66	18.00'	254173.2320	660366.1690
89503	811+25.66	21.53'	254171.8831	660369.4358
89504	811+25.13	23.07'	254170.8047	660370.6569
89505	811+22.48	26.46'	254167.0651	660372.7755
89506	811+19.74	26.85'	254164.3825	660372.0943
89507	811+08.35	19.76'	254156.5574	660361.1910
89508	811+30.16	32.88'	254171.7065	660381.6393
89509	811+33.01	29.24'	254175.7341	660379.3575
89510	811+35.66	21.53'	254181.1262	660373.2523
89511	811+35.66	18.00'	254182.4750	660369.9856
89512	811+37.66	16.00'	254185.0870	660368.9003
89513	811+39.36	16.00'	254186.6590	660369.5494
89514	560+32.26	20.00'	254189.4288	660375.9359
89515	560+57.95	20.00'	254180.5212	660400.6953
89516	811+41.99	48.46'	254176.6955	660400.5588
89517	811+30.36	35.57'	254170.8709	660384.2054
89518	900+76.31	19.74'	254157.0765	660305.6818
89519	900+51.08	37.97'	254187.3549	660298.4629
89520	900+48.34	37.93'	254189.8715	660299.5512
89521	900+42.08	31.83'	254193.3341	660307.5750
89522	900+38.29	22.87'	254193.4110	660317.2984
89523	900+38.29	18.00'	254191.5513	660321.8023
89524	900+40.29	16.00'	254188.9394	660322.8877
89525	900+75.33	16.00'	254156.5546	660309.5158
89526	900+41.35	47.76'	254200.0818	660293.1256
89527	900+23.74	72.30'	254225.7257	660277.1631
89528	559+28.70	20.00'	254228.8106	660279.4984
89529	559+79.02	20.00'	254209.6052	660326.0112
89530	900+25.00	16.00'	254203.0754	660328.7245
89531	900+26.29	16.00'	254201.8797	660328.2308
89532	900+28.29	18.00'	254200.7943	660325.6189
89533	900+28.29	22.87'	254202.6540	660321.1150
89534	900+35.10	39.00'	254202.5156	660303.6128
89535	900+41.26	44.99'	254199.1102	660295.7214

NOTES:

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2. UNLESS OTHERWISE NOTED, POINT GEOMETRY ADJACENT TO CURB AND CURB AND GUTTER IS GIVEN AT THE EDGE OF PAVEMENT.
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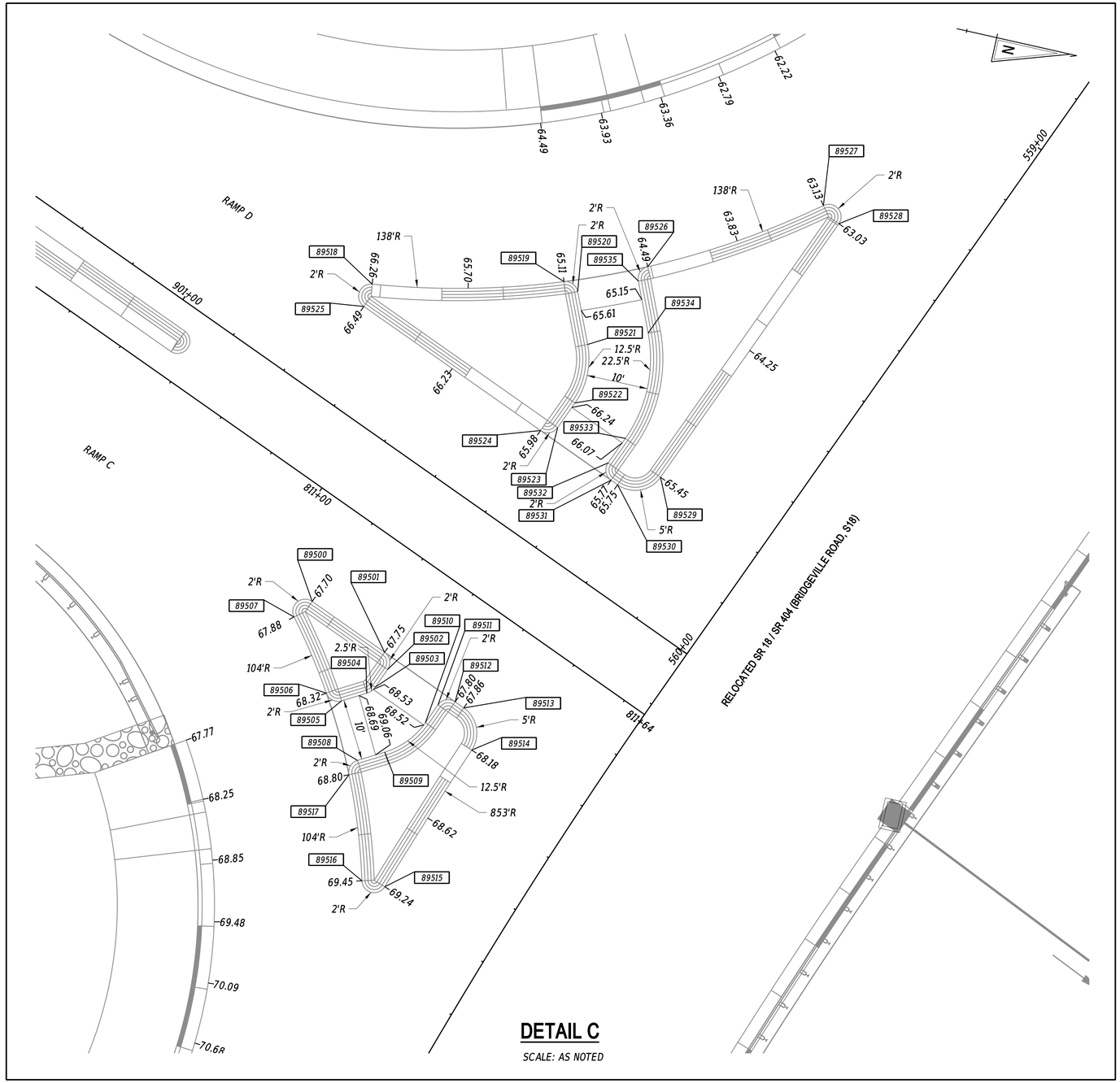

DETAIL C

SCALE: AS NOTED

ADDENDA / REVISIONS		SCALE 0 10 20 30 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. N/A	GRADES AND GEOMETRICS	GG-14
				COUNTY SUSSEX	DESIGNED BY: S. BEALL		SECTION WRA
					CHECKED BY: T. OLIVER		SHEET NO. 76

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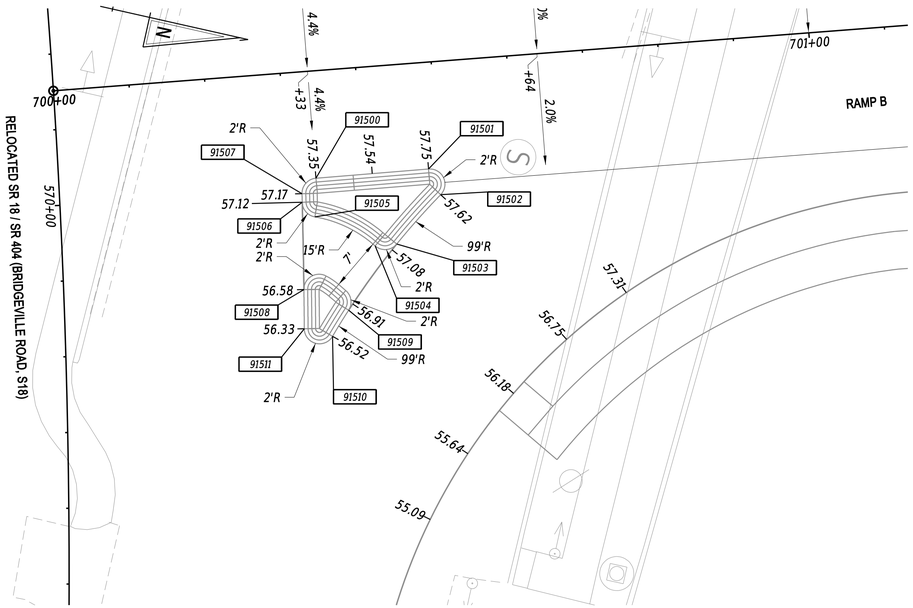
COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
91500	700+33.66	14.15'	254364.5766	661305.0947
91501	700+48.57	14.08'	254378.8169	661300.6490
91502	700+49.91	17.58'	254381.1173	661303.6046
91503	700+43.63	23.62'	254376.8917	661311.2226
91504	700+40.77	23.66'	254374.1697	661312.1004
91505	700+33.12	19.23'	254365.5527	661310.1024
91506	700+31.61	17.18'	254363.5094	661308.5915
91507	700+31.67	16.05'	254363.2332	661307.4924
91508	700+30.95	28.69'	254366.2489	661319.7848
91509	700+36.62	31.86'	254372.6081	661321.1515
91510	700+34.24	35.13'	254371.2893	661324.9783
91511	700+30.60	33.85'	254367.4378	661324.8203

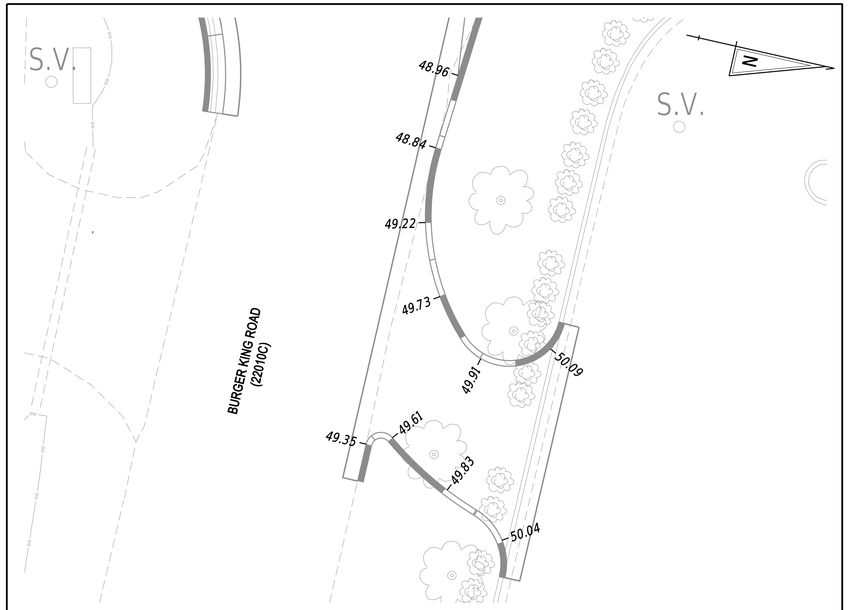
NOTES:

1. OFFSETS SHOWN IN THE GEOMETRY TABLES WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION BASELINE.
2. UNLESS OTHERWISE NOTED, POINT GEOMETRY ADJACENT TO CURB AND CURB AND GUTTER IS GIVEN AT THE EDGE OF PAVEMENT.
3. UNLESS OTHERWISE NOTED, EDGE OF PAVEMENT ELEVATIONS ALONG INTERSECTION CURVES ARE GIVEN AT 10 FOOT INTERVALS.
4. RADII ARE GIVEN TO THE EDGE OF PAVEMENT.
5. PROPOSED PAVEMENT OR CURBS THAT TIE INTO EXISTING PAVEMENT OR EXISTING CURBS SHALL MATCH THE EXISTING PAVEMENT OR EXISTING CURB ELEVATIONS.
6. ALL WORK REQUIRED FOR CALCULATING AND STAKING OF GRADES SHALL BE PAID FOR UNDER ITEM 763501 - CONSTRUCTION ENGINEERING.



DETAIL D

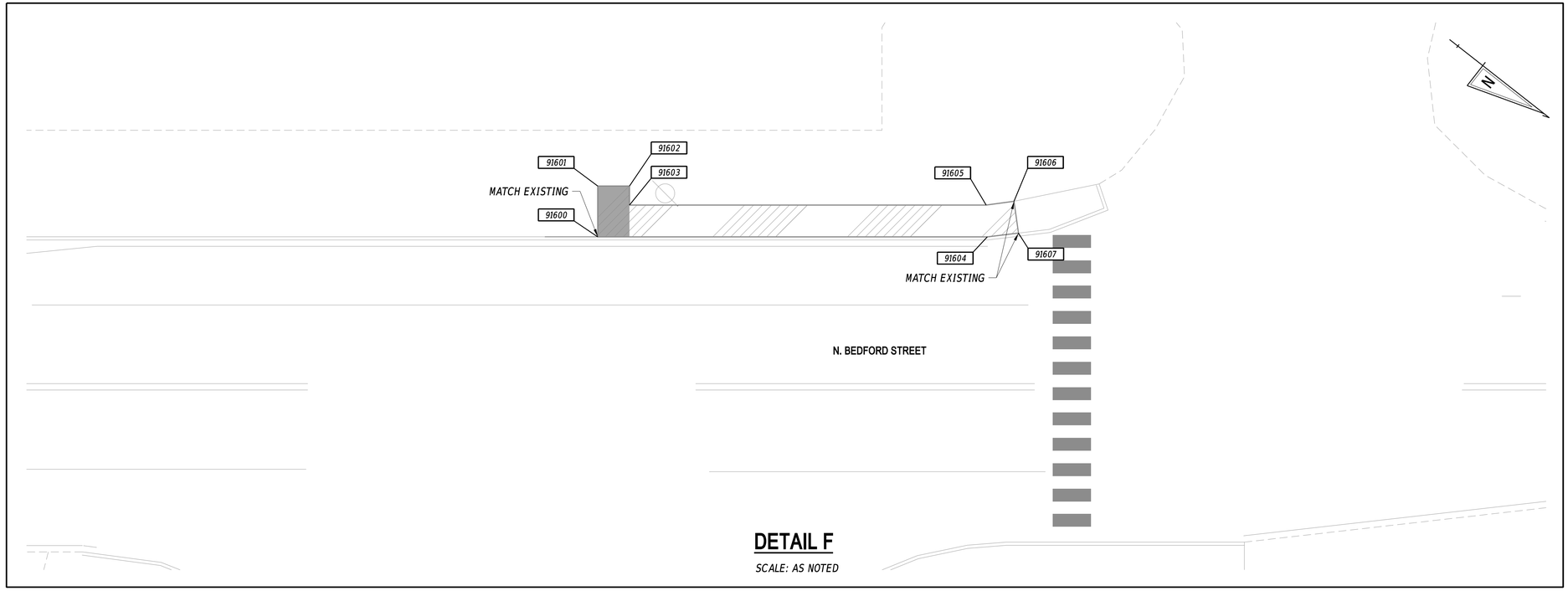
SCALE: AS NOTED



DETAIL E

SCALE: AS NOTED

COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
91600	N/A	N/A	256239.6750	660795.2289
91601	N/A	N/A	256234.7347	660788.9331
91602	N/A	N/A	256238.6682	660785.8465
91603	N/A	N/A	256240.5202	660788.2066
91604	N/A	N/A	256288.0029	660757.3071
91605	N/A	N/A	256284.7678	660753.4856
91606	N/A	N/A	256287.8501	660750.2957
91607	N/A	N/A	256291.4881	660753.8229



DETAIL F

SCALE: AS NOTED

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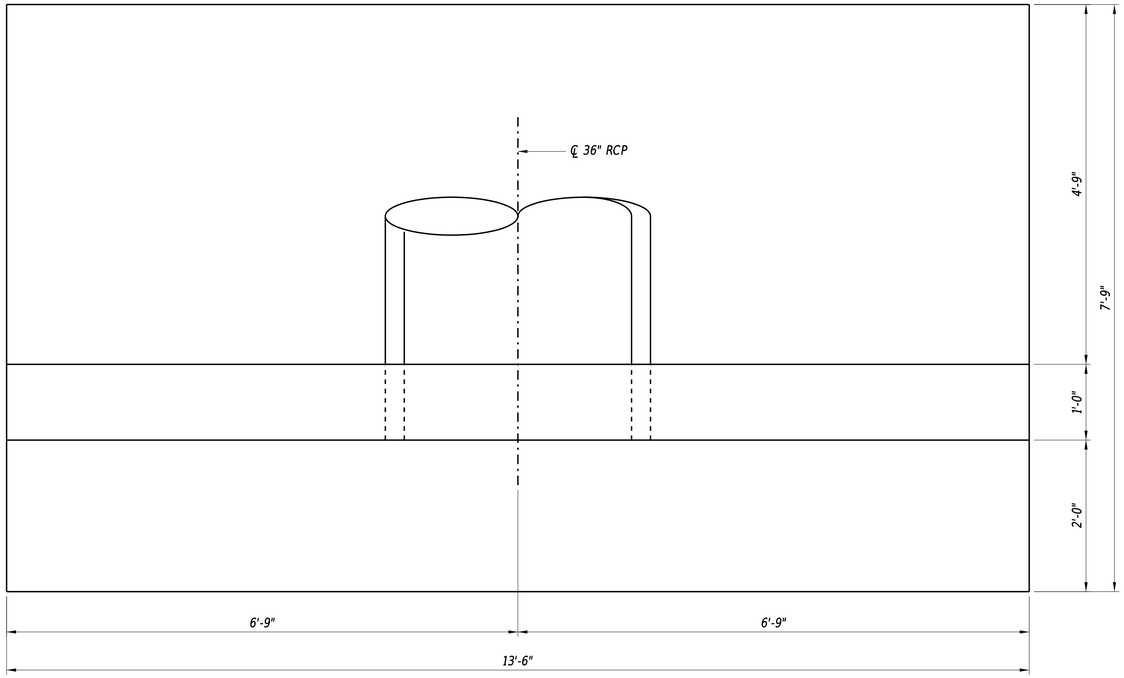
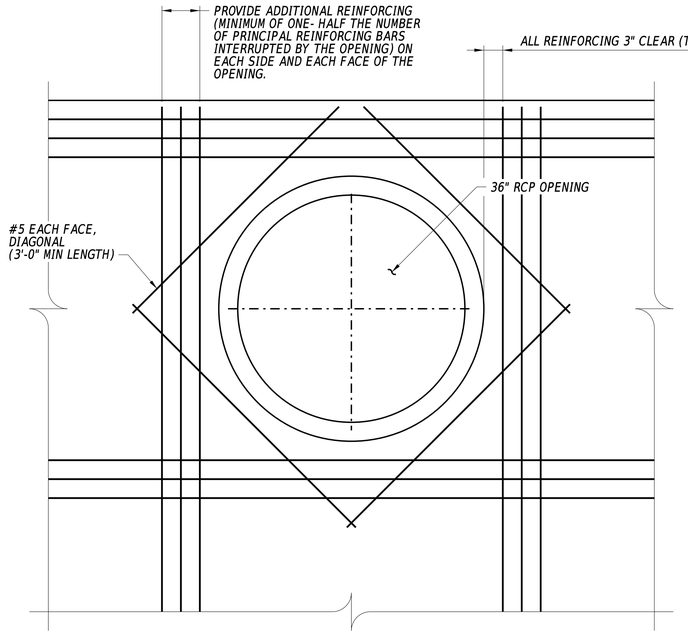
ADDENDA / REVISIONS		SCALE 0 10 20 30 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. N/A	GRADES AND GEOMETRICS	GG-15 SECTION WRA
				COUNTY SUSSEX	DESIGNED BY: S. BEALL		SHEET NO. 77
					CHECKED BY: T. OLIVER		



PLAN

1" = 1'-0"

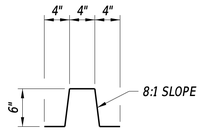


ADDITIONAL REINFORCING AROUND OPENING

1" = 1'-0"

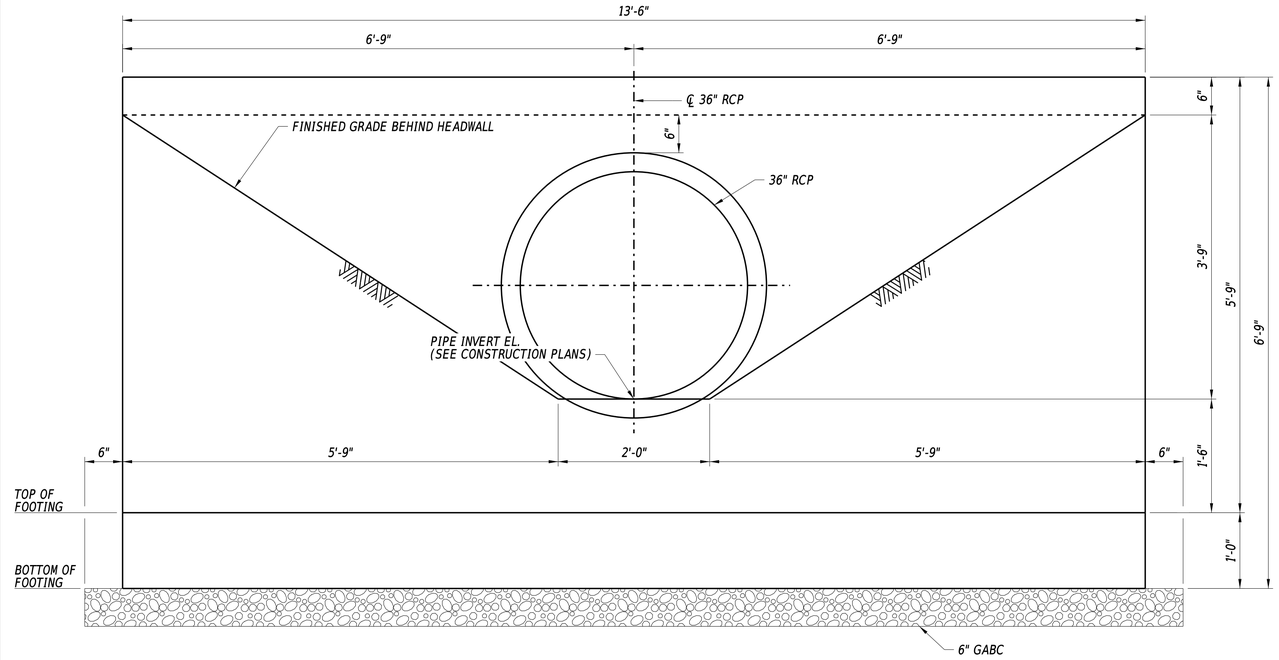
NOTES:

1. MINIMUM FACTORED BEARING RESISTANCE FOR THE HEADWALL IS 0.89 KSF.
2. KEYS ARE NOMINAL SIZE.
3. CONCRETE SHALL BE CLASS A, 4,500 PSI.
4. 6" GABC SHALL BE INCIDENTAL TO THE CONTRACT UNIT COST FOR THE HEADWALL.



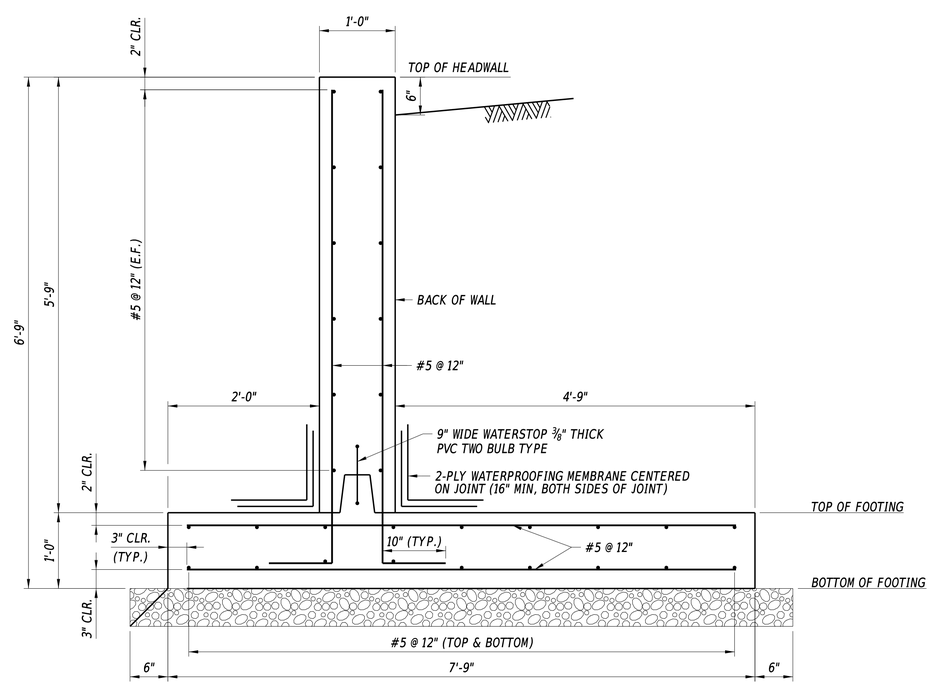
CONSTRUCTION JOINT DETAIL

1" = 1'-0"



ELEVATION

1" = 1'-0"



TYPICAL SECTION

1" = 1'-0"

ADDENDA / REVISIONS	

SCALE
0 1 2 3
FEET

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO. N/A
T201412701	DESIGNED BY: J. KELLEY
COUNTY	CHECKED BY: T. OLIVER
SUSSEX	

CONSTRUCTION DETAILS
HEADWALL 25
PLAN AND ELEVATION

SECTION
WRA
SHEET NO.
78

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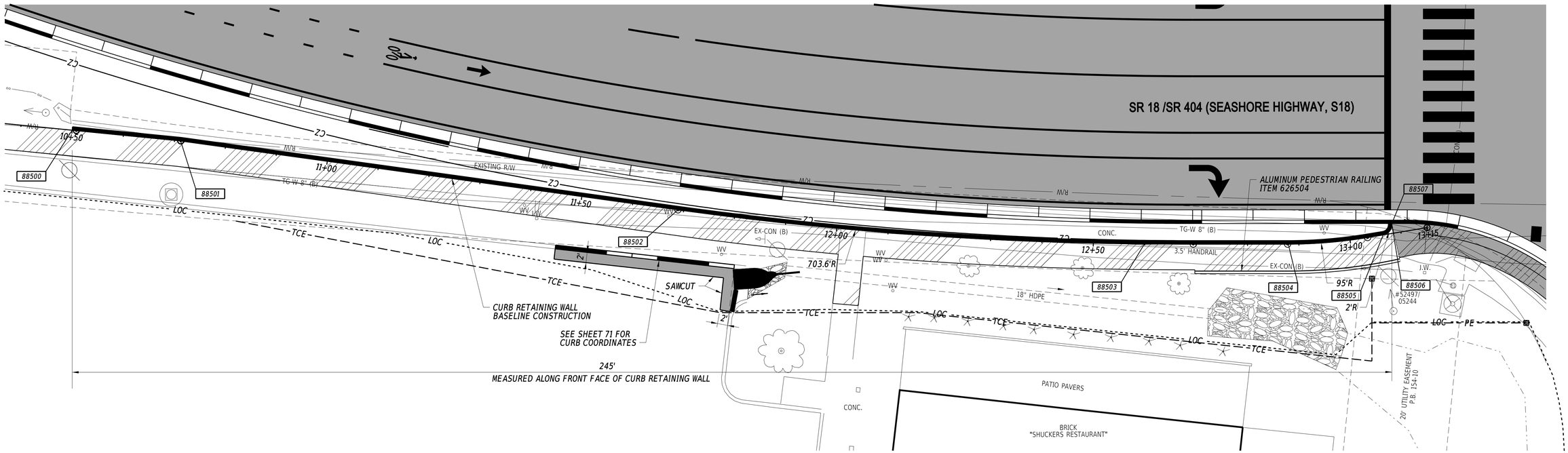
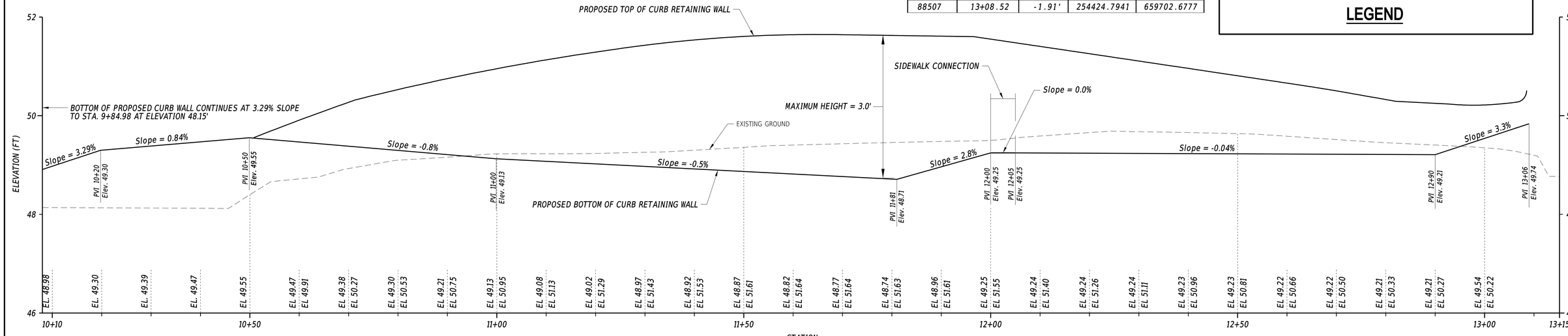


PLAN

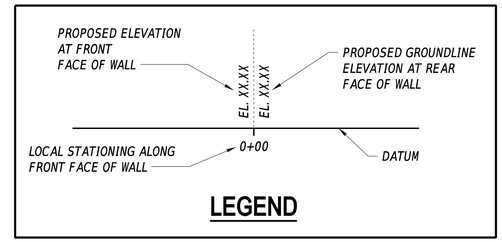
COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
88500	10+50.00	0.00'	254438.7795	659959.6787
88501	10+71.20	0.00'	254438.2134	659938.4823
88502	11+68.89	0.00'	254439.4549	659840.8086
88503	12+59.96	0.00'	254434.7230	659749.9199
88504	12+87.93	0.00'	254431.2746	659722.1629
88505	13+06.51	0.00'	254427.1962	659704.0611
88506	13+08.49	-1.67'	254425.0301	659702.6480
88507	13+08.52	-1.91'	254424.7941	659702.6777



ELEVATION

SCALE: HORIZONTAL: 1" = 10'
VERTICAL: 1" = 1'



LEGEND

ADDENDA / REVISIONS		SCALE AS NOTED	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	CONSTRUCTION DETAILS RETAINING WALL PLAN AND ELEVATION	SECTION
				T201412701	DESIGNED BY: WRA		WRA
				COUNTY	CHECKED BY: T. OLIVER		SHEET NO.
				SUSSEX			79

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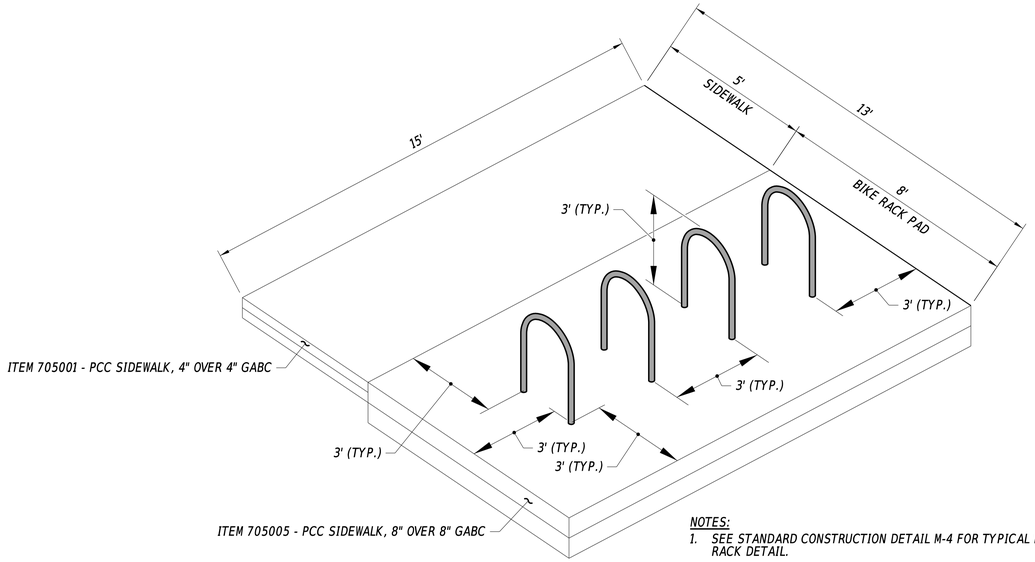
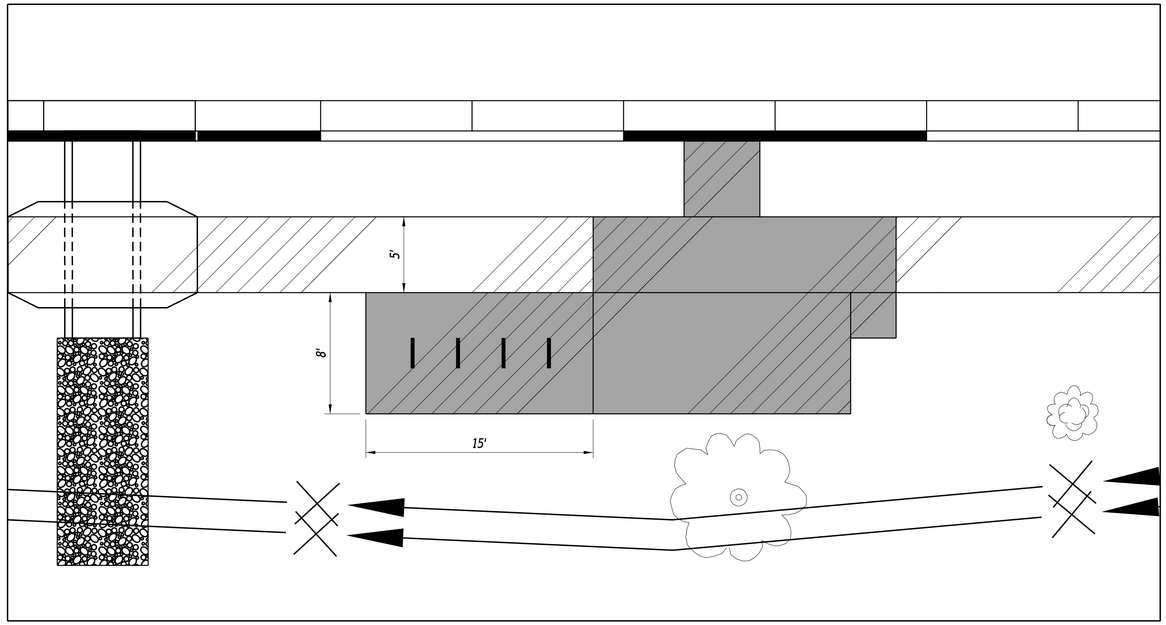


NOTES:
1. SEE STANDARD CONSTRUCTION DETAIL M-4 FOR TYPICAL BIKE RACK DETAIL.
2. BIKE RACKS SHALL BE PAID FOR UNDER 705511 - BIKE RACKS (EA).

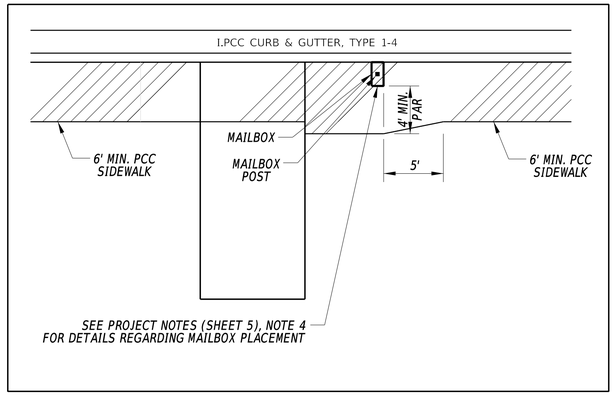
BIKE RACK LAYOUT

NOT TO SCALE



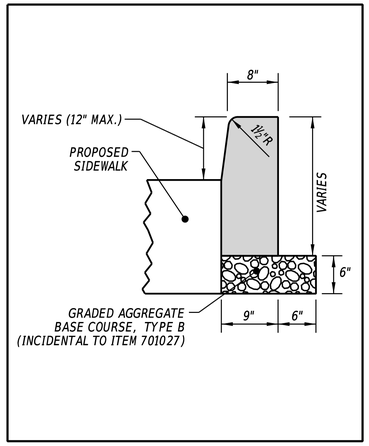
BIKE RACK LAYOUT - PLAN VIEW

SCALE: 1"=5'



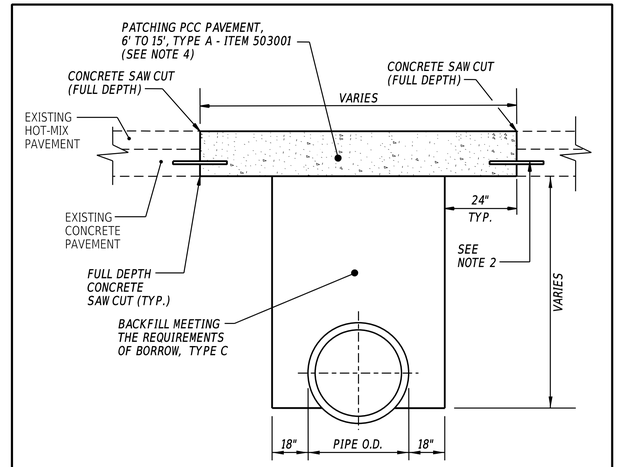
MAILBOX PLACEMENT DETAIL WITHOUT GRASS STRIP

SCALE: NONE



P.C.C. CURB, TYPE 1, MODIFIED

NOT TO SCALE



COMPOSITE PAVEMENT

NOTES:
1. SEE STANDARD DETAILS FOR PIPE BEDDING.
2. PCC PAVEMENT PATCH SHALL BE DOWELED INTO ADJACENT CONCRETE PER STANDARD DETAILS.
3. PROPOSED PAVEMENT PATCH SHALL MATCH CROSS SECTION OF THE EXISTING ROADWAY, OR AS DIRECTED BY THE ENGINEER.
4. CONTRACTOR SHALL MILL PCC PAVEMENT AND OVERLAY WITH TYPE C HOT-MIX AS PART OF FINAL PAVEMENT OPERATIONS ALONG US 113.

PAVEMENT PATCH AND PIPE TRENCH

SCALE: NONE

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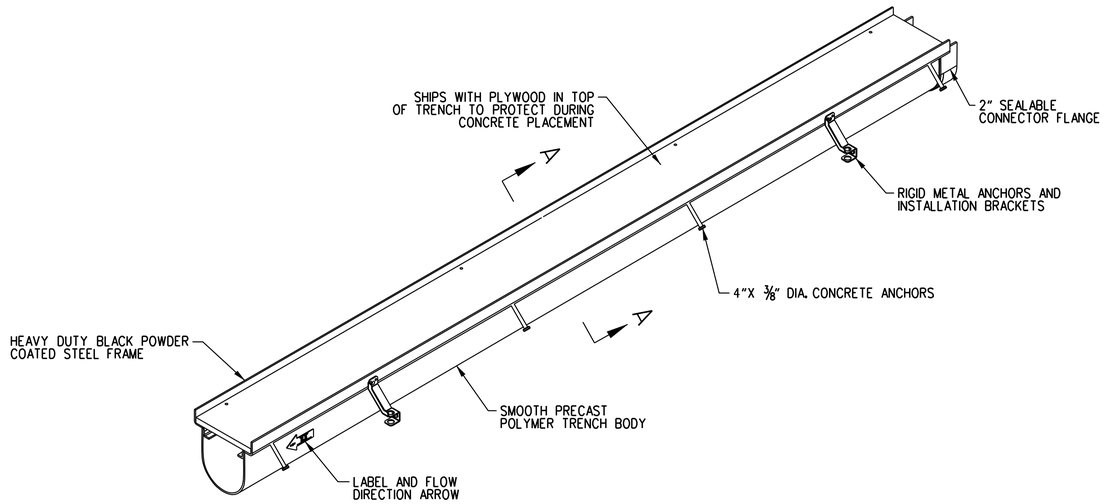
ADDENDA / REVISIONS		SCALE AS NOTED	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	CONSTRUCTION DETAILS	SECTION
				T201412701	DESIGNED BY: J. SINCLAIR		WRA
				COUNTY	CHECKED BY: D. POLLET		SHEET NO.
				SUSSEX			80

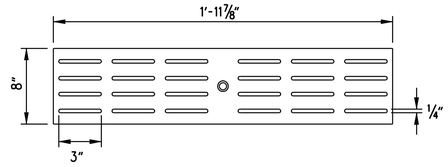


TYPICAL TRENCH ISOMETRIC - ITEM 709502

NOT TO SCALE

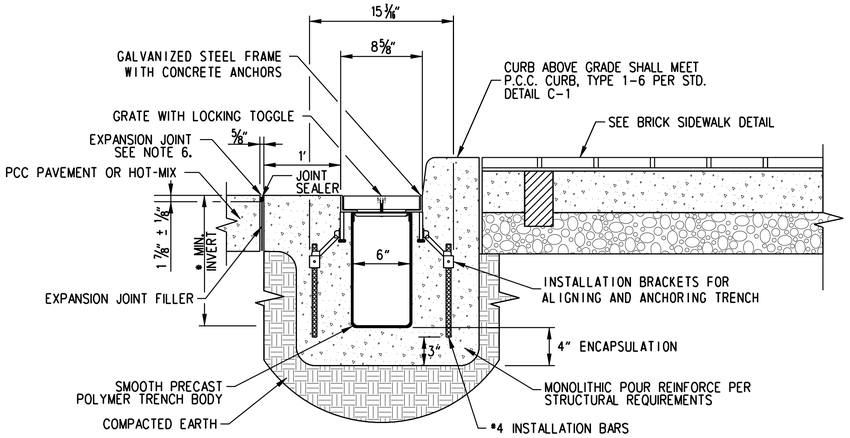
NOTES:

1. GRATE MATERIAL IS 304 B STAINLESS STEEL
2. GRATES ARE LOAD CLASS C, EXCEEDS H-20 LOADING
3. GRATES ARE ADA COMPLIANT AND HEEL PROOF
4. BOTTOM OF GRATE HAS A BEAD BLAST FINISH AND TOP HAS A BRUSHED FINISH
5. GRATE OPEN AREA 18.0 IN.^{2}/LF



DUCTILE IRON ADA AND HEEL PROOF GRATE

NOT TO SCALE



NOTES:

1. STANDARD SLOPE IS 0.5% UNLESS OTHERWISE SPECIFIED
2. REINFORCE ACCORDING TO STRUCTURAL REQUIREMENTS
3. TRENCH DRAIN MUST BE 1/8" BELOW FINISHED CONCRETE GRADE
4. • REFER TO TRENCH DRAIN SCHEDULE ON THE CONSTRUCTION PLANS FOR INVERTS.
5. PERFORM CONCRETE WORK PER SECTION 701.02 AND 701.03 OF THE STANDARD SPECIFICATIONS. CAST CURB AND CONCRETE AROUND STEEL FRAME AT ONE TIME. ALIGN CONTRACTION JOINTS ON EACH SIDE OF STEEL FRAME. KEEP JOINTS AT LEAST 6" FROM INSTALLATION BRACKETS AND CONCRETE ANCHORS.
6. CUT EXPANSION JOINT FILLER MATERIAL IN STRIPS AND PLACE ALONG BOTTOM OF PCC SLAB SO TOP OF STRIP IS 1 7/8" ± 1/8" BELOW THE TOP OF PCC PAVEMENT. INSTALL JOINT SEALING MATERIAL ABOVE JOINT FILLER MATERIAL AND 1/4" ± 1/8" BELOW THE SURFACE OF THE PCC PAVEMENT.

SECTION A-A

NOT TO SCALE

ADDENDA / REVISIONS		SCALE AS NOTED	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	T201412701	BRIDGE NO.	N/A	CONSTRUCTION DETAILS	SECTION	WRA
				COUNTY	SUSSEX	DESIGNED BY:	S. BEALL		SHEET NO.	81
						CHECKED BY:	J. KELLEY			

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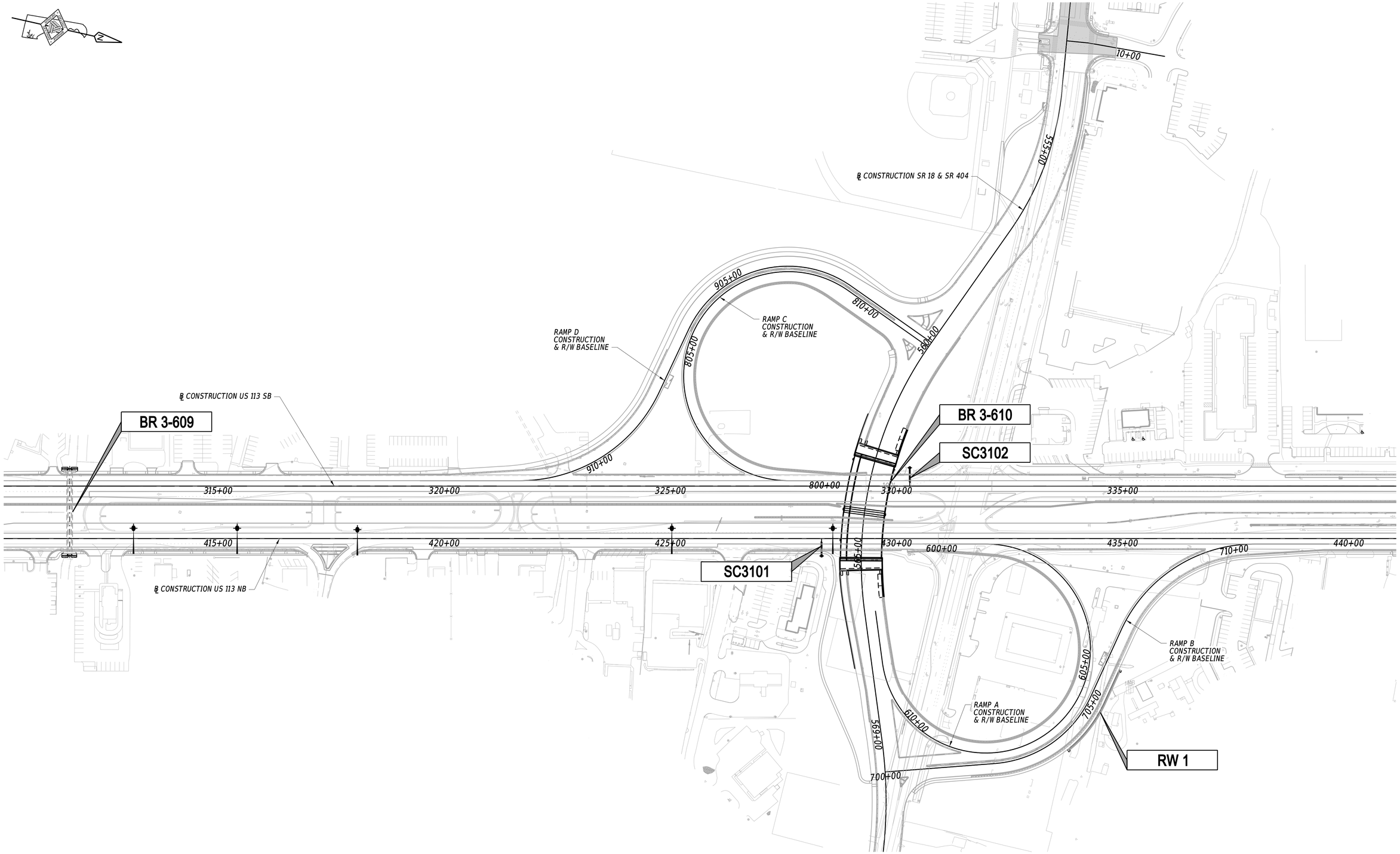

STRUCTURE LOCATION PLAN

ADDENDA / REVISIONS		SCALE 0 100 200 300 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO.	STRUCTURE LOCATION PLAN	SL-01 SECTION WRA
				COUNTY SUSSEX	DESIGNED BY: R. SEDAR		SHEET NO. 82
					CHECKED BY: W. GESCHREI		

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SECTION 200

1. REMOVAL OF STRUCTURES AND OBSTRUCTIONS:
ITEMS TO BE REMOVED UNDER ITEM # 211000 - REMOVAL OF STRUCTURES AND OBSTRUCTIONS ASSOCIATING WITH BRIDGE 3-609 SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING: PORTIONS OF EXISTING HEADWALLS AND PORTIONS OF EXISTING WINGWALLS.

SECTION 600

2. PORTLAND CEMENT CONCRETE:

USE PORTLAND CEMENT CONCRETE FOR CAST-IN-PLACE ELEMENTS AS FOLLOWS:
(f'c = 28-DAY COMPRESSIVE STRENGTH)
CLASS A - HEADWALL FOOTINGS, WINGWALLS AND CAST-IN-PLACE CULVERT (f'c = 4.5 ksi)

A HIGHER CLASS CONCRETE MAY BE SUBSTITUTED FOR A LOWER CLASS CONCRETE AT NO ADDITIONAL COST TO DELDOT WITH APPROVAL OF THE BRIDGE DESIGN ENGINEER.

- CHAMFER ALL EXPOSED EDGES ¾" X ¾" UNLESS OTHERWISE NOTED.
- DO NOT SLIP-FORM BARRIERS, UNLESS OTHERWISE APPROVED BY THE DEPARTMENT.
- SILICONE-BASED ACRYLIC CONCRETE SEALER SHALL BE APPLIED TO FACE OF WINGWALLS, FACE OF HEADWALL AND THE REMAINING EXPOSED CONCRETE SURFACES.

3. BAR REINFORCEMENT:

- REINFORCING STEEL SHALL CONFORM TO AASHTO M31 (ASTM A615), GRADE 60.
- REINFORCING STEEL SHALL HAVE A 3" CLEAR COVER IF CAST AGAINST EARTH OR A 2" CLEAR COVER ELSEWHERE, UNLESS OTHERWISE SPECIFIED ON THE PLANS.
- ALL REINFORCING STEEL SHALL BE PROTECTED WITH FUSION BONDED EPOXY. EPOXY COATED REINFORCING STEEL SHALL CONFORM TO ASTM A775.
- ANY FIELD CUTTING OR FIELD BENDING MUST BE APPROVED BY THE ENGINEER. PAYMENT SHALL BE INCIDENTAL TO THE BAR REINFORCEMENT ITEM.
- GALVANIZED REINFORCING STEEL MAY BE SUBSTITUTED FOR EPOXY-COATED REINFORCING STEEL AT NO ADDITIONAL COST TO DELDOT WITH APPROVAL OF THE BRIDGE DESIGN ENGINEER.
- WELDING OF REINFORCEMENT DURING FABRICATION OR CONSTRUCTION IS NOT PERMITTED UNLESS SPECIFIED.

SECTION 700

4. SAWCUTTING:
ALL PAVED AREAS TO BE RECONSTRUCTED OR WIDENED SHALL BE SAWCUT AT THE POINT WHERE THE NEW PAVEMENT IS TO TIE INTO THE EXISTING PAVEMENT. ALL HOT-MIX OR P.C.C. SAWCUTTING SHALL BE FULL DEPTH, UNLESS OTHERWISE NOTED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.

MISCELLANEOUS

5. DESIGN SPECIFICATIONS:

(A) DELDOT BRIDGE DESIGN MANUAL, 2024 EDITION
(B) AASHTO LRFD BRIDGE SPECIFICATIONS, 2020, 9TH EDITION, CUSTOMARY U.S. UNITS.
(C) PROVIDE MATERIALS AND PERFORM WORK IN ACCORDANCE WITH THE DELDOT STANDARD SPECIFICATIONS, JANUARY 2024.

6. LOADING:

DESIGN LIVE LOADS INCLUDE HL-93 LOADING.

7. EXISTING CONDITIONS:

-ALL EXISTING DIMENSIONS AND ELEVATIONS SHOWN ARE BASED ON THE BEST AVAILABLE INFORMATION AND ARE APPROXIMATE ONLY. FIELD VERIFY ALL EXISTING DIMENSIONS, GEOMETRY, AND ELEVATIONS AS NECESSARY PRIOR TO ORDERING ANY MATERIALS AND COMMENCING CONSTRUCTION TO ENSURE PROPER FIT OF THE PROPOSED CONSTRUCTION. PAYMENT UNDER ITEM #763501 - CONSTRUCTION ENGINEERING.
-DO NOT CONSIDER ANY OF THE DATA ON THE EXISTING STRUCTURE SUPPLIED IN THE ORIGINAL DESIGN DRAWINGS OR MADE AVAILABLE BY THE DEPARTMENT OR ITS AUTHORIZED AGENTS AS ACCURATE REPRESENTATIONS OF ANY OF THE CONDITIONS THAT WILL BE ENCOUNTERED IN THE FIELD.

8. HYDRAULIC DATA:

DRAINAGE AREA:	128 ACRES
DRAINAGE FREQ:	50 YEARS
DESIGN DISCHARGE:	226 CFS
100 YEAR DISCHARGE:	247 CFS
EXISTING (DESIGN STORM) WSE:	45.46 FT
EXISTING (DESIGN STORM) VELOCITY:	5.63 FPS
EXISTING 100-YEAR WSE:	45.95 FT
EXISTING 100-YEAR VELOCITY:	6.10 FPS
EXISTING WATERWAY OPENING:	40 SQ. FT.
PROPOSED (DESIGN STORM) WSE:	45.36 FT
PROPOSED (DESIGN STORM) VELOCITY:	5.63 FPS
PROPOSED 100-YEAR WSE:	45.82 FT
PROPOSED 100-YEAR VELOCITY:	6.10 FPS
PROPOSED WATERWAY OPENING:	40 SQ. FT.

INDEX OF CULVERT SHEETS

BR. SHEET NO	TABLE OF CONTENTS
83	INDEX OF BRIDGE SHEETS, BRIDGE PROJECT NOTES & QUANTITIES
84	GENERAL PLAN AND ELEVATION
85	WORKING POINT LAYOUT
86	CULVERT REPAIR PLAN
87	FENCE DETAILS 1
88	FENCE DETAILS 2
89	INLET PLAN, ELEVATION, TYPICAL SECTION & DETAILS
90	OUTLET PLAN, ELEVATION, TYPICAL SECTION & DETAILS
91	CULVERT REINFORCEMENT
92	INLET REINFORCEMENT
93	OUTLET REINFORCEMENT
94	REBAR SCHEDULE
95	BORING LOG

TOTAL CULVERT SHEETS: 13

QUANTITIES

ITEM NO	ITEM TITLE	UNIT	QUANTITY
203000	CHANNEL EXCAVATION	CY	126
207001	PIPE, CULVERT AND STRUCTURE BACKFILLING	CY	49
207002	PIPE, CULVERT AND STRUCTURE EXCAVATION	CY	138
207022	STRUCTURAL BACKFILL, BORROW TYPE B, PROVIDING ONLY	CY	49
211000	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LS	1
302002	DELAWARE NO. 3 STONE	TON	23
302005	DELAWARE NO. 57 STONE	TON	80
610000	PCC MASONRY, CLASS A	CY	43
610009	PCC MASONRY, CLASS B	CY	35
611001	BAR REINFORCEMENT, EPOXY COATED	LB	6,300
611010	EPOXY COATED WELDED WIRE FABRIC REINFORCEMENT	LB	440
613002	SILANE-BASED CONCRETE SEALER	SF	330
628040	SHALLOW SPALL REPAIR	CF	2
628041	DEEP SPALL REPAIR	CF	6
628070	DRILLING HOLES AND INSTALLING DOWELS	EACH	106
707002	RIPRAP, R-5	SY	90
707021	CHANNEL BED FILL	CY	67
708001	GEOTEXTILES, STABILIZATION	SY	152
708002	GEOTEXTILES, SEPARATION	SY	152
708003	GEOTEXTILES, RIPRAP	SY	90
727007	BRIDGE SAFETY FENCE, TYPE 1	LF	68

ADDENDA / REVISIONS

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO.	3-609
T201412701	DESIGNED BY: R. SEDAR	
COUNTY		
SUSSEX	CHECKED BY: W. GESCHREI	

INDEX OF CULVERT SHEETS, CULVERT PROJECT NOTES & QUANTITIES

GN-01
SECTION
WRA
SHEET NO.
83

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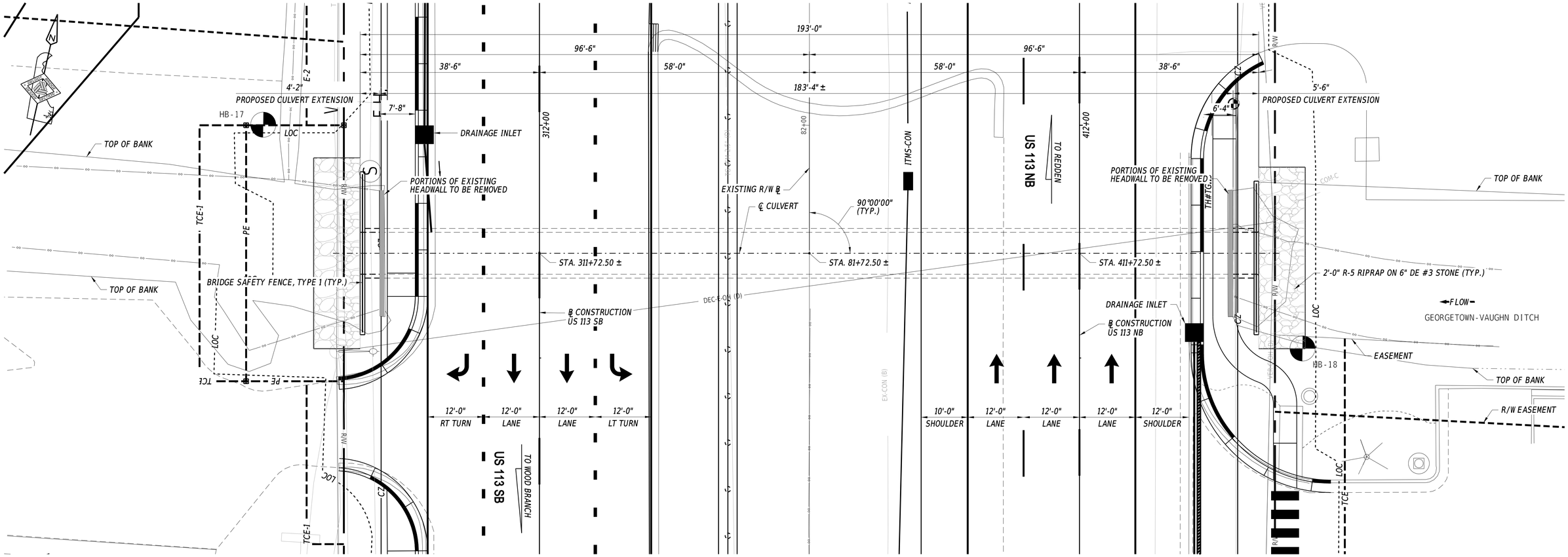
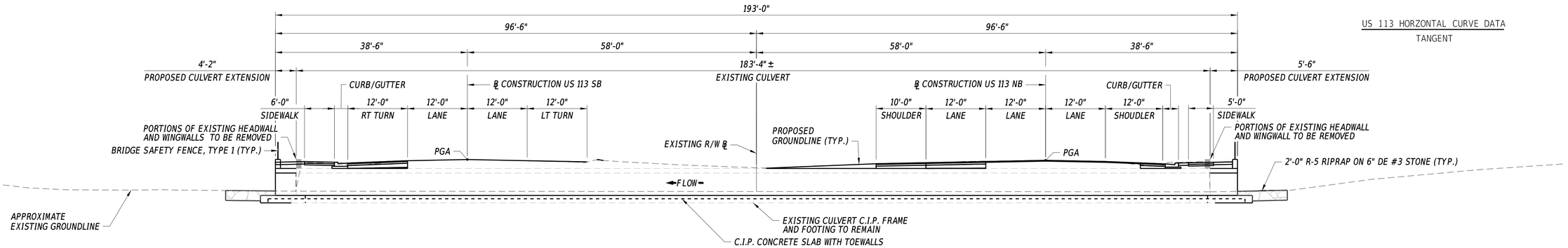


PLAN

3/32" = 1'-0"

US 113 VERTICAL CURVE DATA
MATCH EXISTING

US 113 HORZONTAL CURVE DATA
TANGENT



DATUM = EL. 20.00

ELEVATION

3/32" = 1'-0"

ADDENDA / REVISIONS	SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. 3-609	GENERAL PLAN AND ELEVATION	GP-01
	0 11 21 32 FEET		T201412701	DESIGNED BY: R. SEDAR		SECTION WRA
			COUNTY SUSSEX	CHECKED BY: W. GESCHREI		SHEET NO. 84

8/14/2025
9:47:58 AM
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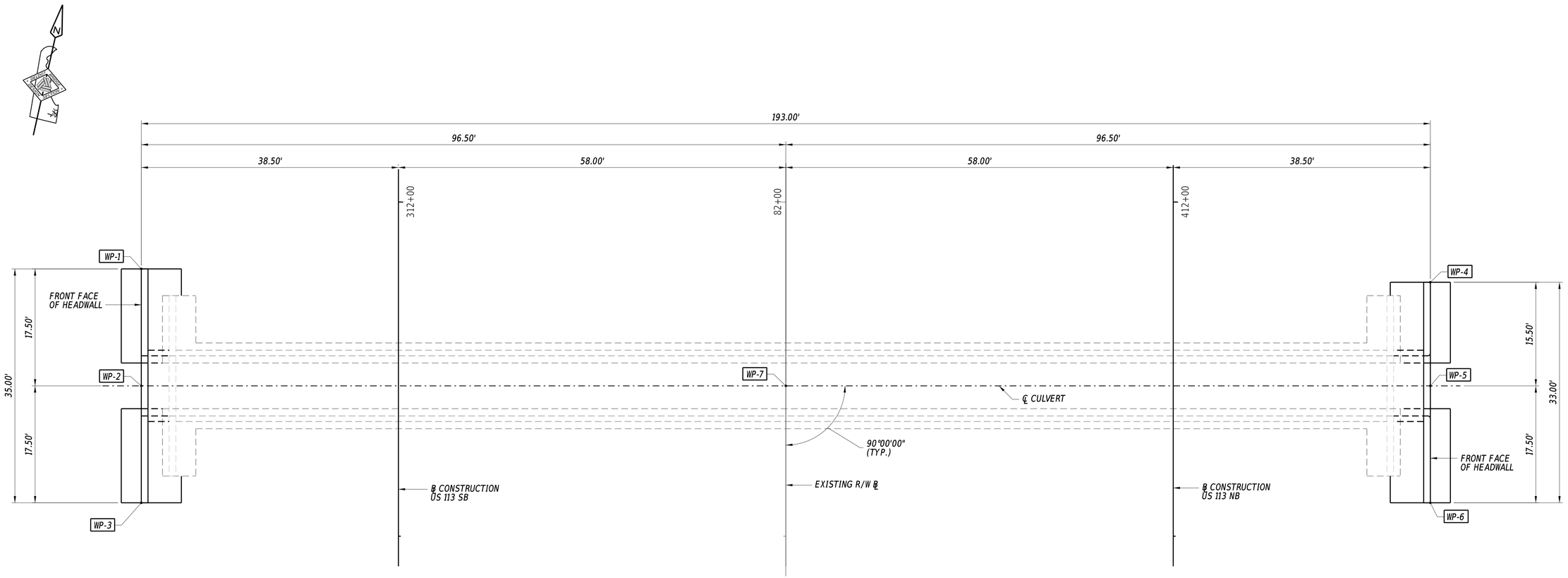

WORKING POINT LAYOUT

⅛" = 1'-0"

WORKING POINT COORDINATES

NO.	STATION	OFFSET	NORTHING	EASTING
WP-1	81+90.00	96.50' LT	252439.1201	661039.1110
WP-2	81+72.50	96.50' LT	252422.0464	661042.9499
WP-3	81+55.00	96.50' LT	252404.9726	661046.7889
WP-4	81+88.00	96.50' RT	252479.5068	661227.8486
WP-5	81+72.50	96.50' RT	252464.3844	661231.2488
WP-6	81+55.00	96.50' RT	252447.3107	661235.0878
WP-7	81+72.50	0.00'	252443.2154	661137.0994

8/14/2025
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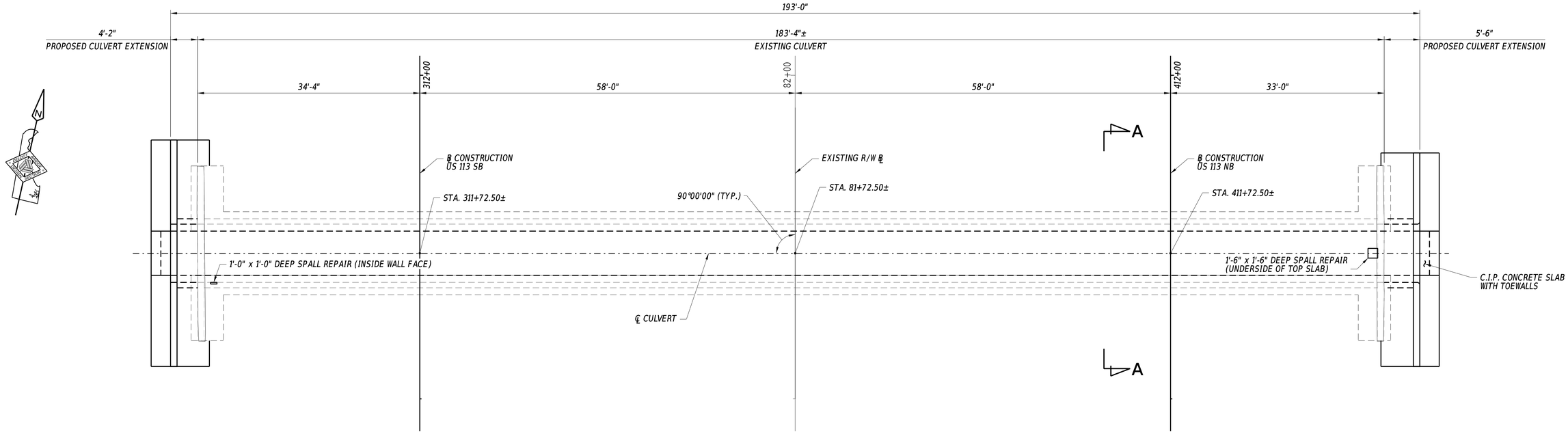
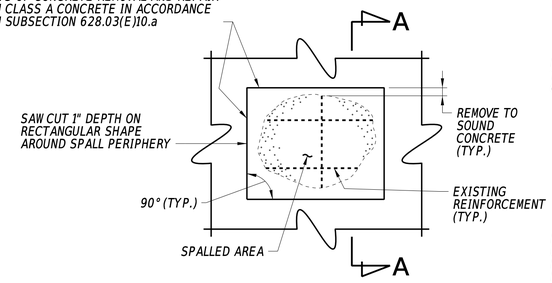
ADDENDA / REVISIONS	SCALE: AS NOTED	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. 3-609	WORKING POINT LAYOUT	WP-01 SECTION WRA
			COUNTY SUSSEX	DESIGNED BY: R. SEDAR		SHEET NO. 85
				CHECKED BY: W. GESCHREI		



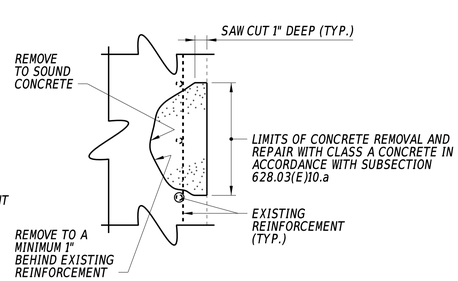
CULVERT REPAIR PLAN

1/8" = 1'-0"

LIMITS OF CONCRETE REMOVAL AND REPAIR WITH CLASS A CONCRETE IN ACCORDANCE WITH SUBSECTION 628.03(E)10.a



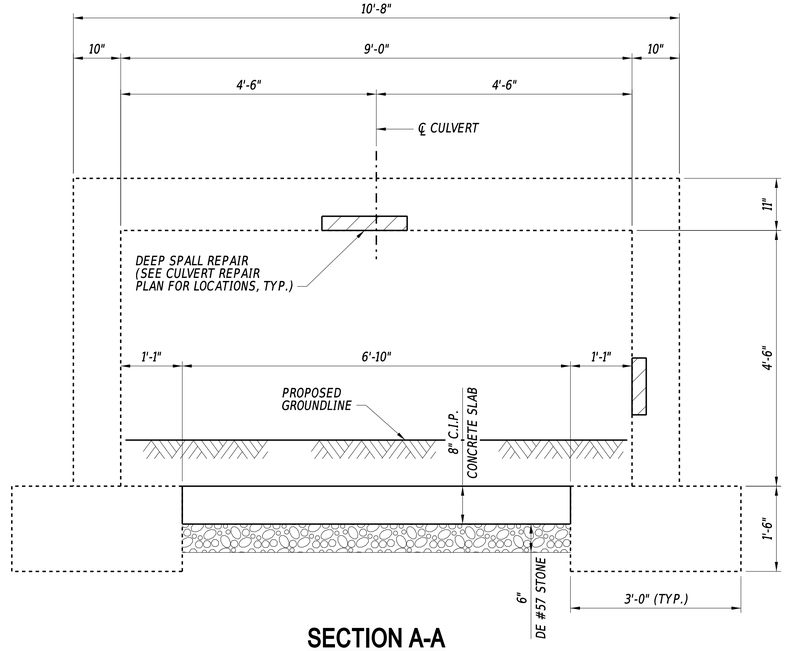
PLAN



SECTION A-A

DEEP SPALL REPAIR (ITEM 628041)

NOT TO SCALE



SECTION A-A

3/4" = 1'-0"

NOTES:

1. DEEP SPALL REPAIRS ARE DEFINED AS PATCHES THAT EXTEND BELOW THE TOP OF MAT OF REINFORCEMENT. SPALLS WITH EXPOSED REINFORCEMENT AND DELAMINATED CONCRETE HAVE BEEN ASSUMED AS DEEP SPALL REPAIRS
2. ALL WORK INVOLVING METHODS OF CONCRETE REMOVAL; CLEANING OF CONCRETE SURFACE AND EXISTING REINFORCEMENT; REPAIRING OR REPLACING DAMAGED REINFORCEMENT AS RESULT OF CONSTRUCTION ACTIVITIES OR SECTION LOSS; PRESENCE OF CONTRACTION OR EXPANSION JOINTS; SURFACE PREPARATION; AND CONCRETE PLACEMENT SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 628.3.4 OF THE STANDARD SPECIFICATIONS. PAYMENT INCIDENTAL TO ITEM 628041 - DEEP SPALL REPAIR.
3. FOR ANY DEEP SPALL REPAIR TO TAKE PLACE WITHIN THE SPLASH ZONE THE CONTRACTOR SHALL SUBMIT A WORKING DRAWING IN ACCORDANCE WITH SECTION 628.3.4.

ADDENDA / REVISIONS	SCALE: AS NOTED	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. 3-609	CULVERT REPAIR PLAN	DT-01
			COUNTY SUSSEX	DESIGNED BY: R. SEDAR		SECTION WRA
				CHECKED BY: W. GESCHREI		SHEET NO. 86

8/14/2025
11:56:56 AM
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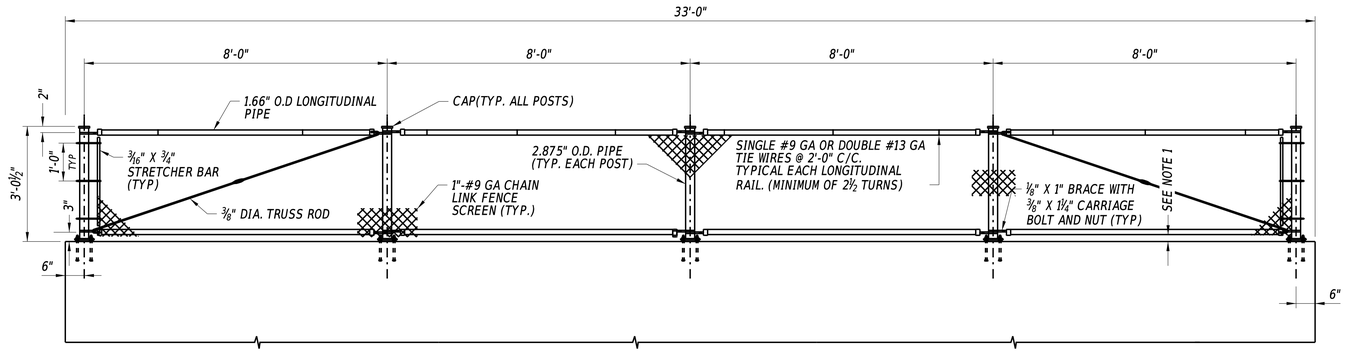
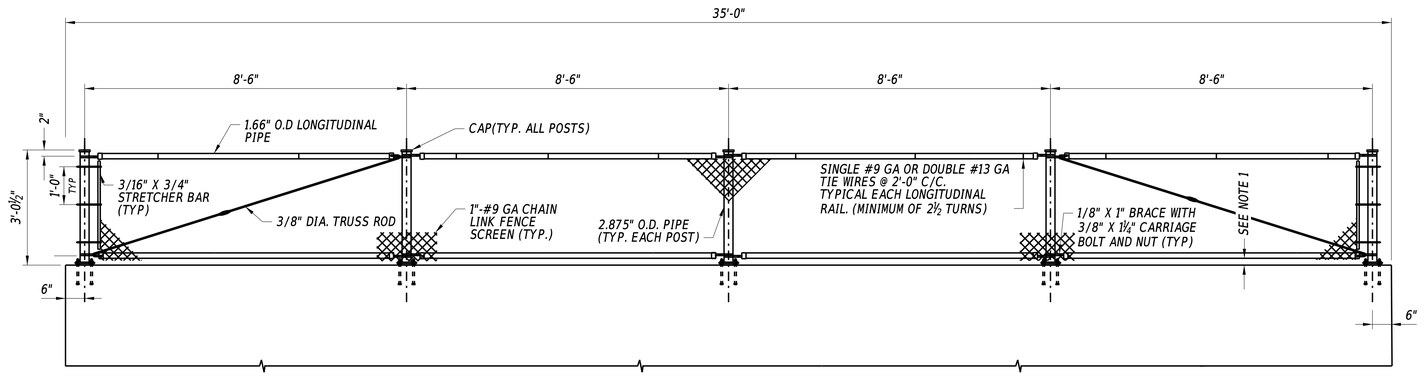


BRIDGE SAFETY FENCE, TYPE 1 - INLET ELEVATION

½" = 1'-0"



BRIDGE SAFETY FENCE, TYPE 1 - OUTLET ELEVATION

½" = 1'-0"

NOTES:

1. MINIMUM ½" TO MAXIMUM 1" OF CLEARANCE BETWEEN TOP OF HEADWALL AND BOTTOM OF CHAIN LINK FENCE SCREEN

ADDENDA / REVISIONS	SCALE: AS NOTED	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. 3-609	FENCE DETAILS 1	DT-02
			COUNTY SUSSEX	DESIGNED BY: R. SEDAR		SECTION WRA
				CHECKED BY: W. GESCHREI		SHEET NO. 87

8/14/2025
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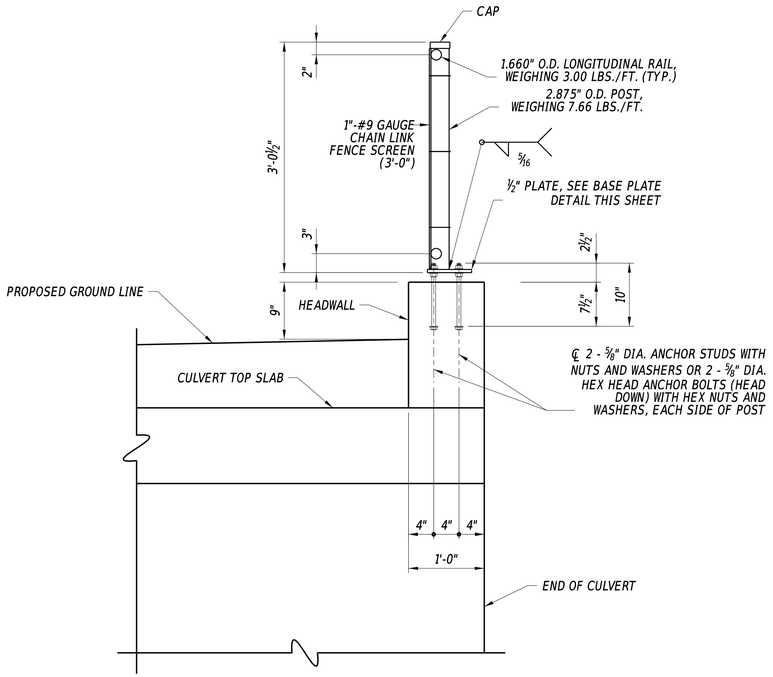
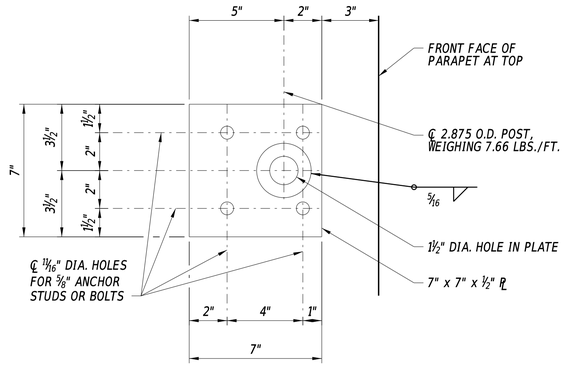


FENCE TYPICAL SECTION

1" = 1'-0"



NOTE:

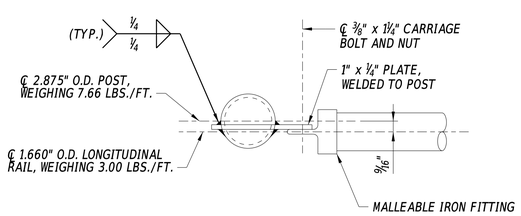
BASE PLATE SHALL BE COATED WITH A CAULKING COMPOUND PRIOR TO INSTALLATION. SEE CHAIN LINK FENCE NOTE 13 FOR ADDITIONAL INFORMATION.

BASE PLATE DETAIL

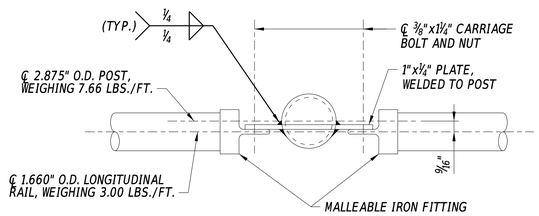
3" = 1'-0"

NOTES:

1. FOR FENCE POST SPACING, SEE DWG DT-02. CONTRACTOR SHALL ADJUST FENCE POST SPACING AS REQUIRED TO CLEAR BARRIER AND PARAPET JOINTS. FOR ADDITIONAL FENCE POST DETAILS, SEE DWG. DT-02.
2. POSTS AND RAILS SHALL CONFORM TO ASTM F 1083, SCHEDULE 80. FABRIC SHALL BE 1"-#9 GAUGE CHAIN LINK FENCE IN CONFORMANCE WITH AASHTO M 181.
3. ALL CHAIN LINK FABRIC, POSTS, RAILS, TIES, BANDS, BARS, BRACES, FITTINGS AND HARDWARE SHALL BE PVC COATED. PVC COLOR FOR ALL ELEMENTS OF FENCE SHALL BE BROWN CONFORMING TO COLOR NO. 10059 OF AMS STD-595A.
4. ALL PLATES SHALL BE STEEL CONFORMING TO ASTM A 709, GRADE 36.
5. ANCHOR STUDS OR ANCHOR BOLTS SHALL CONFORM TO ASTM A 276, TYPE 430 OR TYPE 304 STAINLESS STEEL ANNEALED, HOT-FINISHED, ULTIMATE STRENGTH 70,000 psi MIN., 20% MIN. ELONGATION. THREADS MAY BE ROLLED OR CUT.
6. EPOXY GROUT FOR ANCHOR STUDS IN CORED HOLES SHALL BE A SAND AND EPOXY MIXED BY VOLUME IN CONFORMANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. THE GROUT SHALL BE CAPABLE OF DEVELOPING A MINIMUM COMPRESSIVE STRENGTH OF 6500 PSI IN 72 HOURS WHEN TESTED IN CONFORMANCE WITH ASTM C 579.
7. ALL LONGITUDINAL RAILS SHALL BE PARALLEL TO TOP OF PARAPET.
8. ALL POSTS SHALL BE SET NORMAL TO TOP OF PARAPET.
9. THE CHAIN LINK FENCE SHALL BE TRUE TO LINE, TAUT, TIGHT FIT TO TOP OF PARAPET, WITH 1/2" TO 1" CLEAR TO TOP OF PARAPET, AND SHALL COMPLY WITH THE BEST PRACTICE FOR FENCE CONTRUCTION OF THIS TYPE.
10. POSTS AND RAILS SHALL BE PERMANENTLY POSITIONED BEFORE FABRIC IS PLACED.
11. BEFORE PLACING FENCING, PLACE 1/2" TO 1" THICK MATERIAL (WOOD, ETC.) ON TOP OF PARAPET TO ENSURE THE DESIRED GAP IS ACHIEVED. AFTER FENCE IS RIGIDLY ATTACHED, THIS TEMPORARY BLOCKING SHALL BE REMOVED.
12. AS AN OPTION, THE CONTRACTOR MAY SET THE ANCHOR STUDS AFTER PLACING CONCRETE BARRIER USING 7/8" DIA. CORED HOLES AND AN APPROVED EPOXY GROUT. NUTS AND WASHERS SHALL BE OMITTED FROM THE EMBEDDED ENDS OF ANCHOR STUDS. IF CONTRACTOR ELECTS TO PLACE ANCHOR STUDS AFTER PLACING CONCRETE PARAPET, NEWLY PLACED REBARS SHALL BE LOCATED SO THAT CORING DOES NOT DAMAGE THE REBAR. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THIS OPTION.
13. COAT ALL SURFACES OF BASE PLATES IN CONTACT WITH CONCRETE WITH A CAULKING COMPOUND JUST PRIOR TO BASE PLATE INSTALLATION. AFTER POSTS AND RAILS ARE PERMANENTLY POSITIONED SEAL THE ENTIRE PERIMETER OF THE BASE PLATE BETWEEN METAL SURFACES AND THE CONCRETE WITH A CAULKING COMPOUND. CAULKING COMPOUND SHALL ADHERE TO STEEL AND CONCRETE SURFACES AND MEET THE REQUIREMENTS OF ASTM C 834 OR ASTM C 920. PAYMENT FOR THE CAULKING COMPOUND SHALL BE INCIDENTAL TO ITEM NO. 727007 - BRIDGE SAFETY FENCE, TYPE 1.



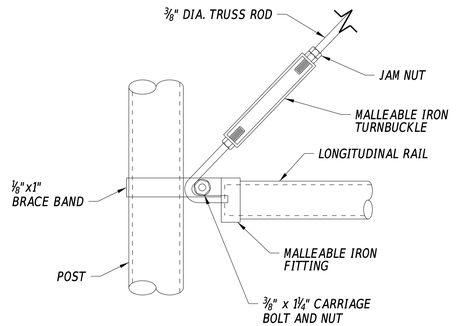
END POST



INTERMEDIATE POST

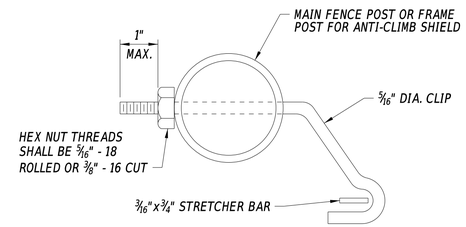
TOP LONGITUDINAL RAIL - POST ATTACHMENT

3" = 1'-0"



TRUSS ROD ATTACHMENT

3" = 1'-0"



STRETCHER BAR ATTACHMENT

6" = 1'-0"

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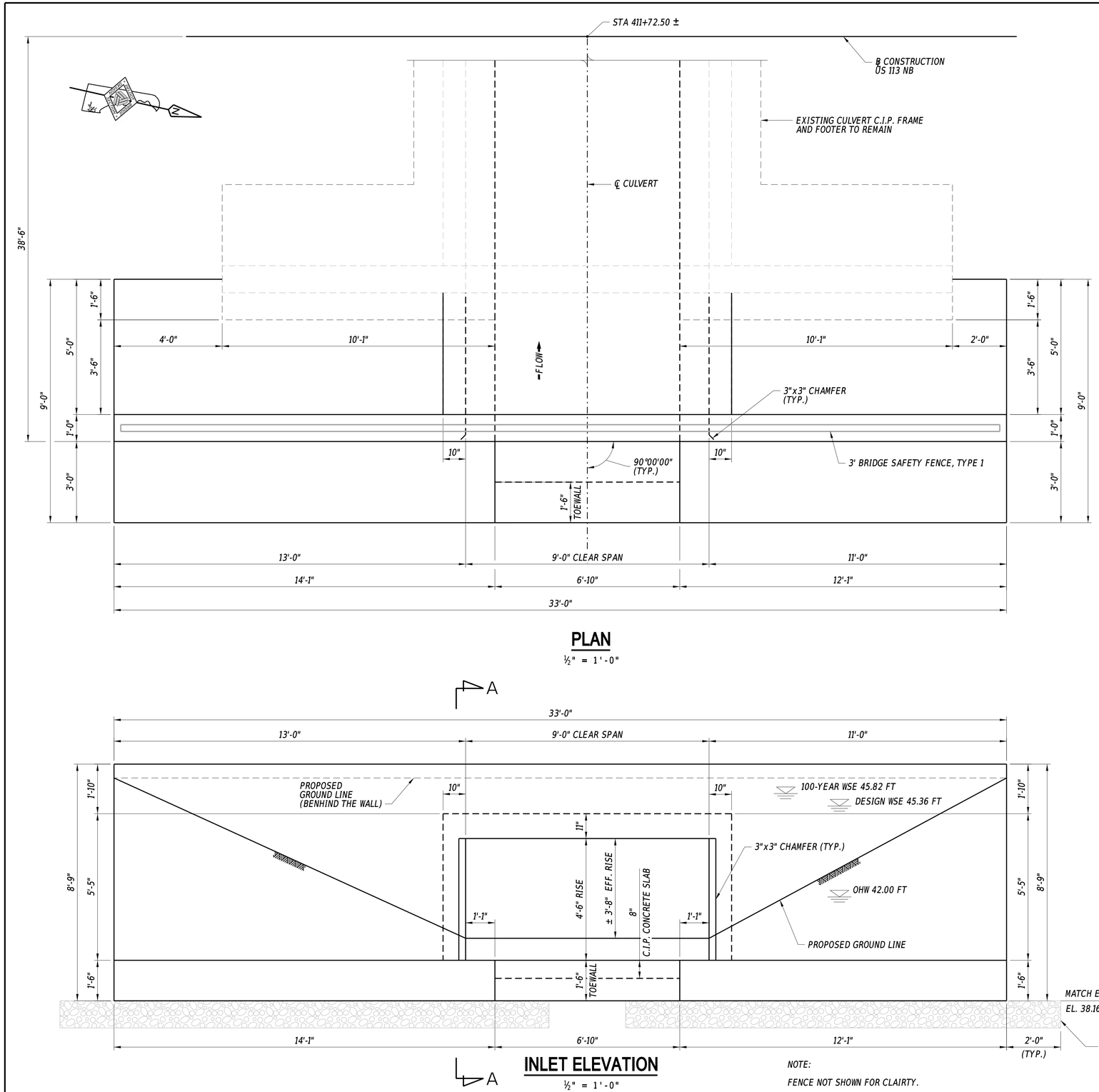
ADDENDA / REVISIONS	SCALE: AS NOTED	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. 3-609	FENCE DETAILS 2	DT-03
			COUNTY SUSSEX	DESIGNED BY: R. SEDAR		SECTION WRA
				CHECKED BY: W. GESCHREI		SHEET NO. 88



PLAN

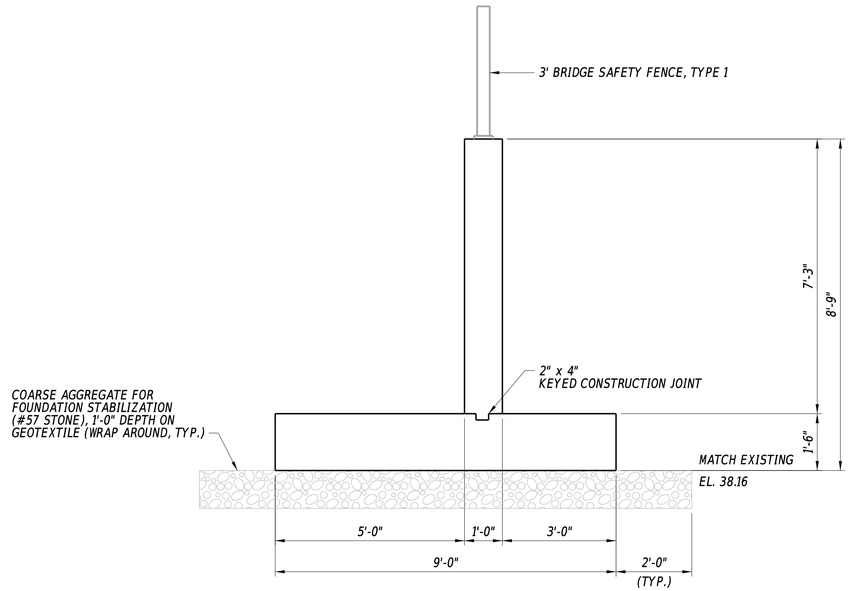
½" = 1'-0"

INLET ELEVATION

½" = 1'-0"

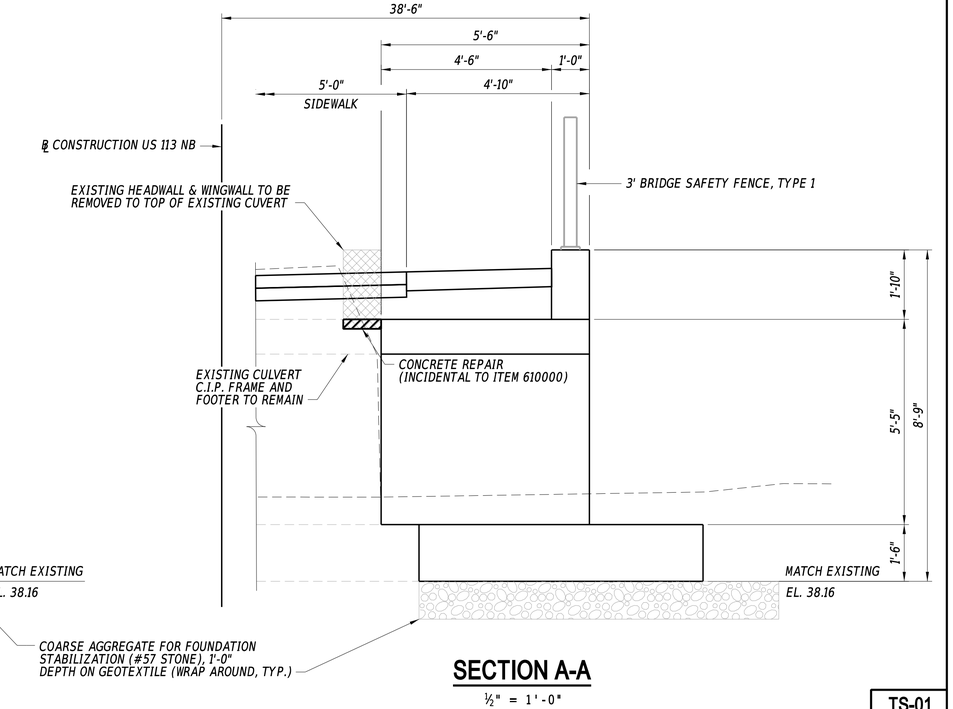
NOTE:

FENCE NOT SHOWN FOR CLAIRTY.



WING WALL TYPICAL SECTION

½" = 1'-0"



SECTION A-A

½" = 1'-0"

ADDENDA / REVISIONS	SCALE 0 2 4 6 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. 3-609	INLET PLAN, ELEVATION, TYPICAL SECTION & DETAILS	TS-01
			COUNTY SUSSEX	DESIGNED BY: R. SEDAR		SECTION WRA
				CHECKED BY: W. GESCHREI		SHEET NO. 89

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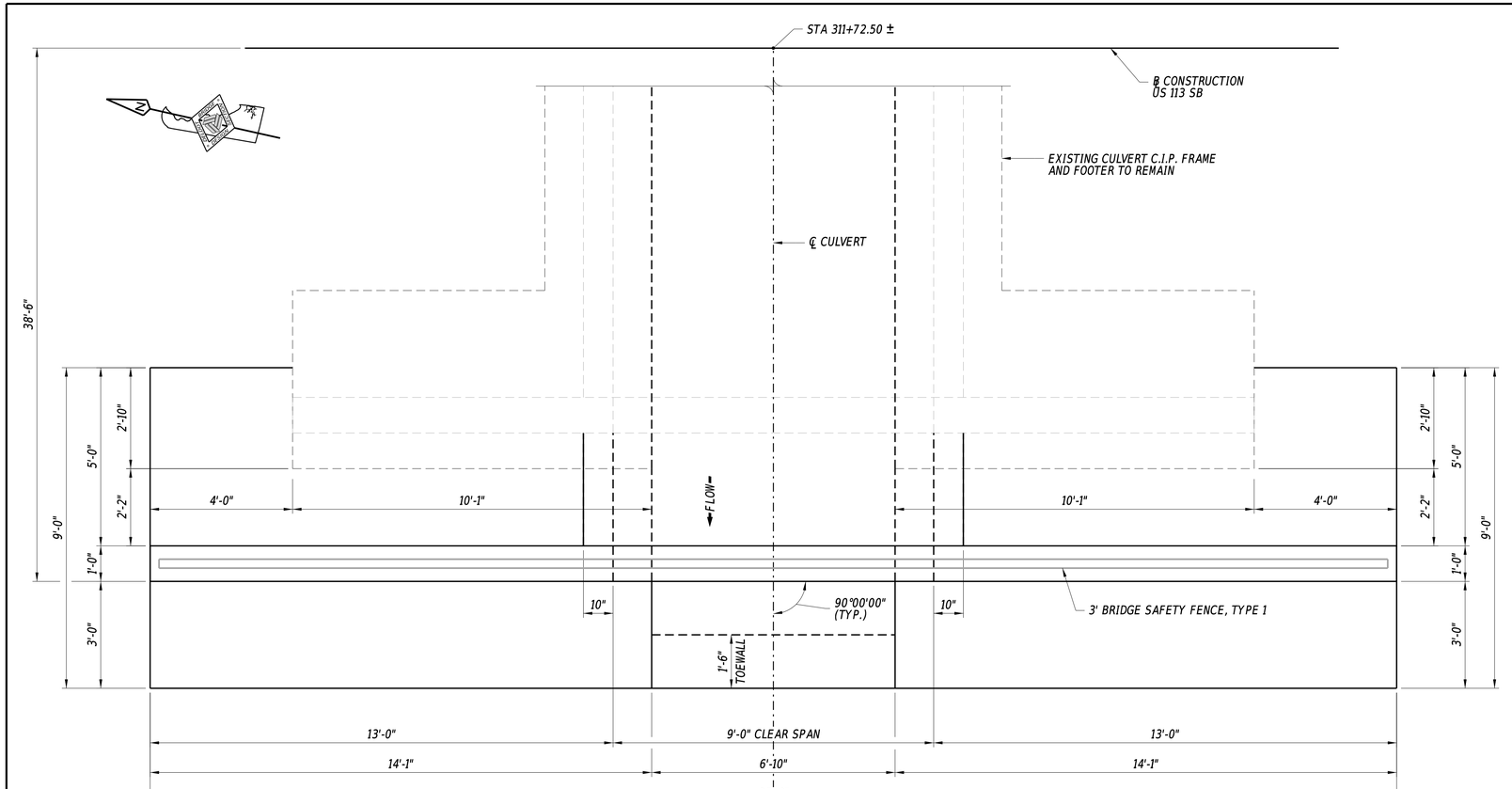
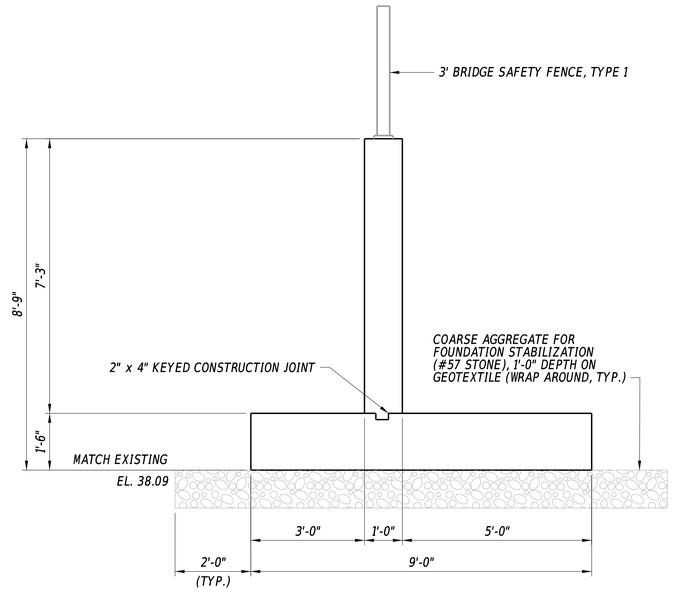


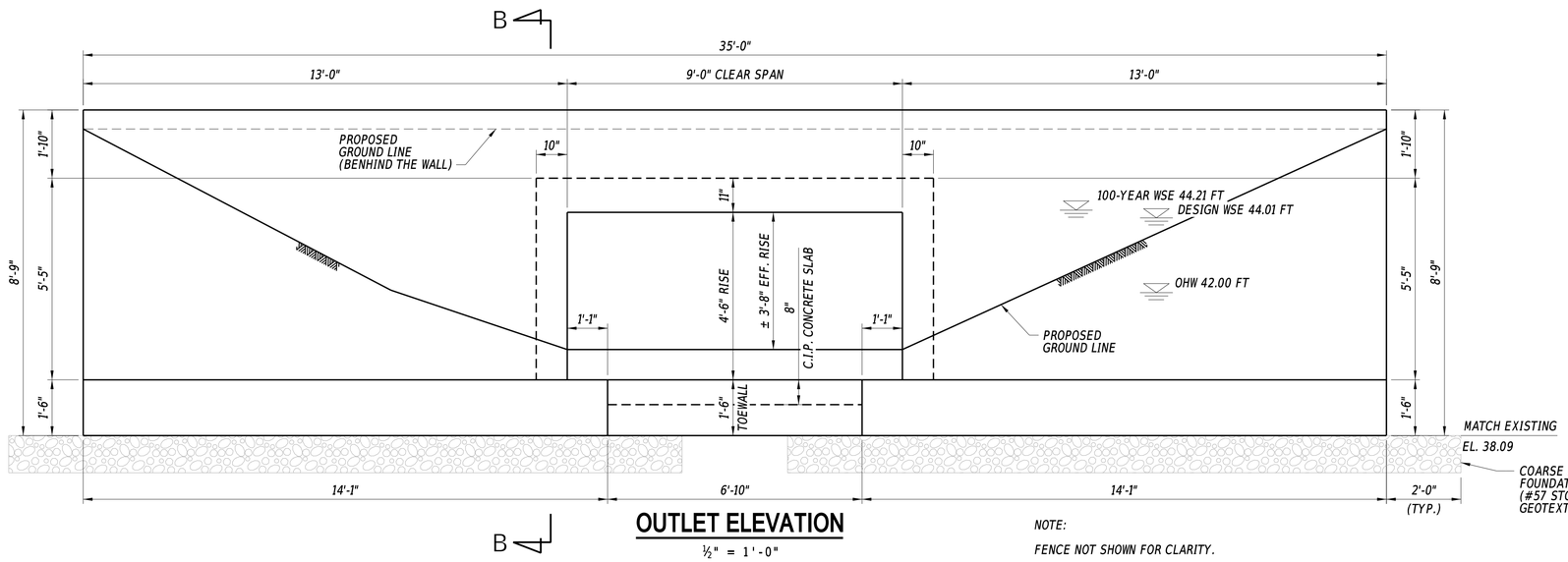
PLAN

½" = 1'-0"



WING WALL TYPICAL SECTION

½" = 1'-0"

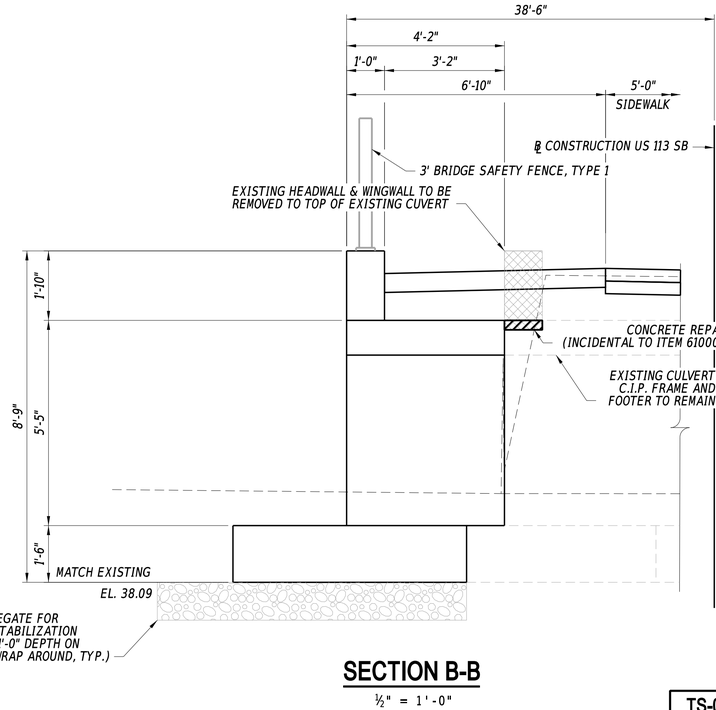


OUTLET ELEVATION

½" = 1'-0"

NOTE:

FENCE NOT SHOWN FOR CLARITY.



SECTION B-B

½" = 1'-0"

ADDENDA / REVISIONS

SCALE
0 2 4 6
FEET

US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO.	3-609
T201412701	DESIGNED BY: R. SEDAR	
COUNTY	CHECKED BY: W. GESCHREI	
SUSSEX		

OUTLET PLAN, ELEVATION, TYPICAL SECTION & DETAILS

TS-02
SECTION
WRA
SHEET NO.
90

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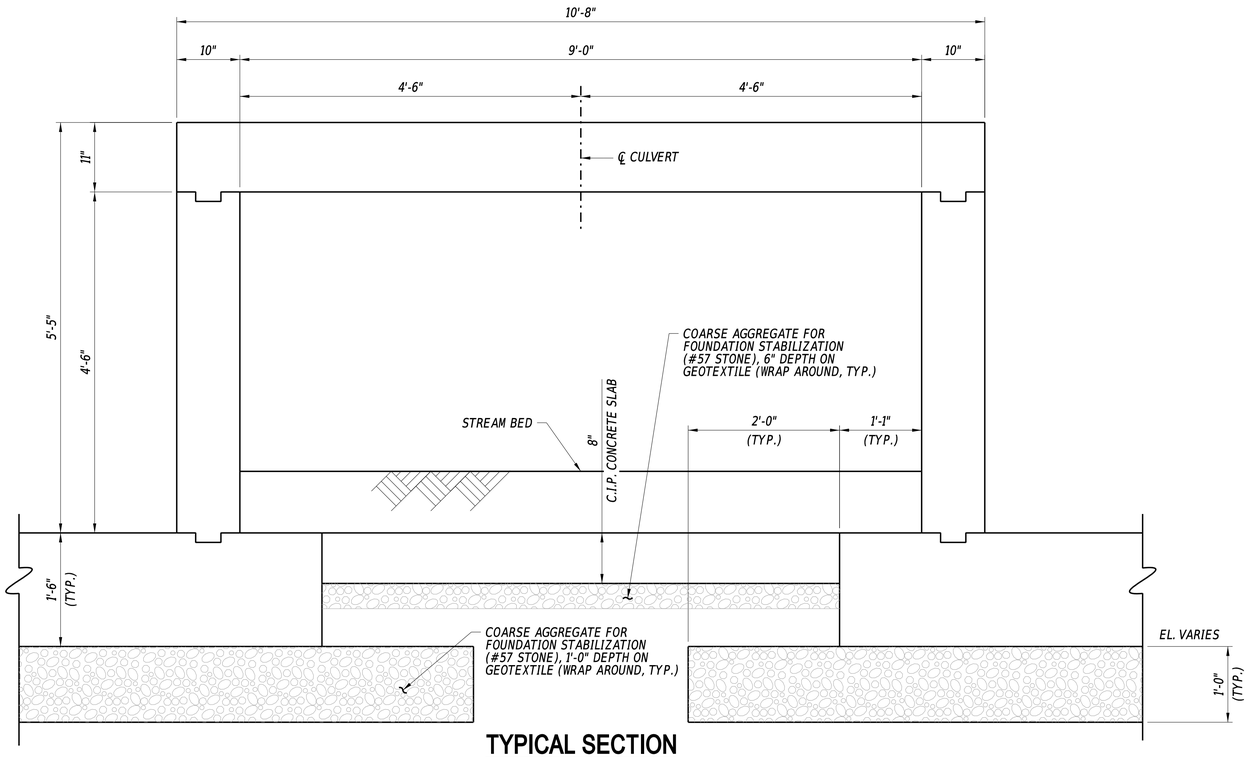
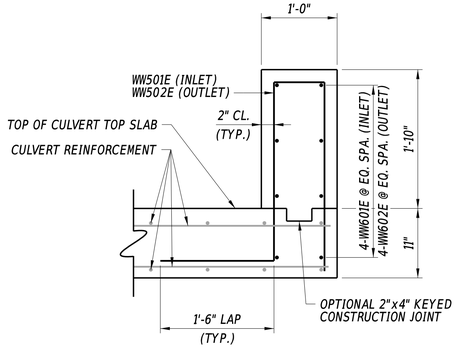


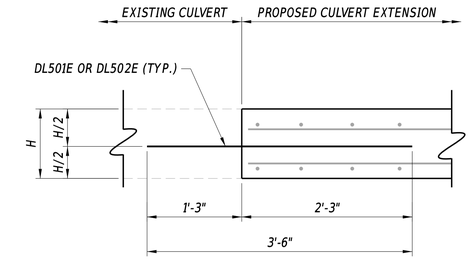
TYPICAL SECTION

1" = 1'-0"



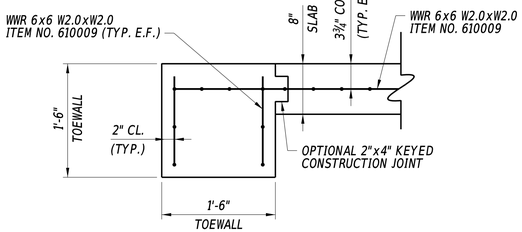
HEADWALL DETAIL

1" = 1'-0"



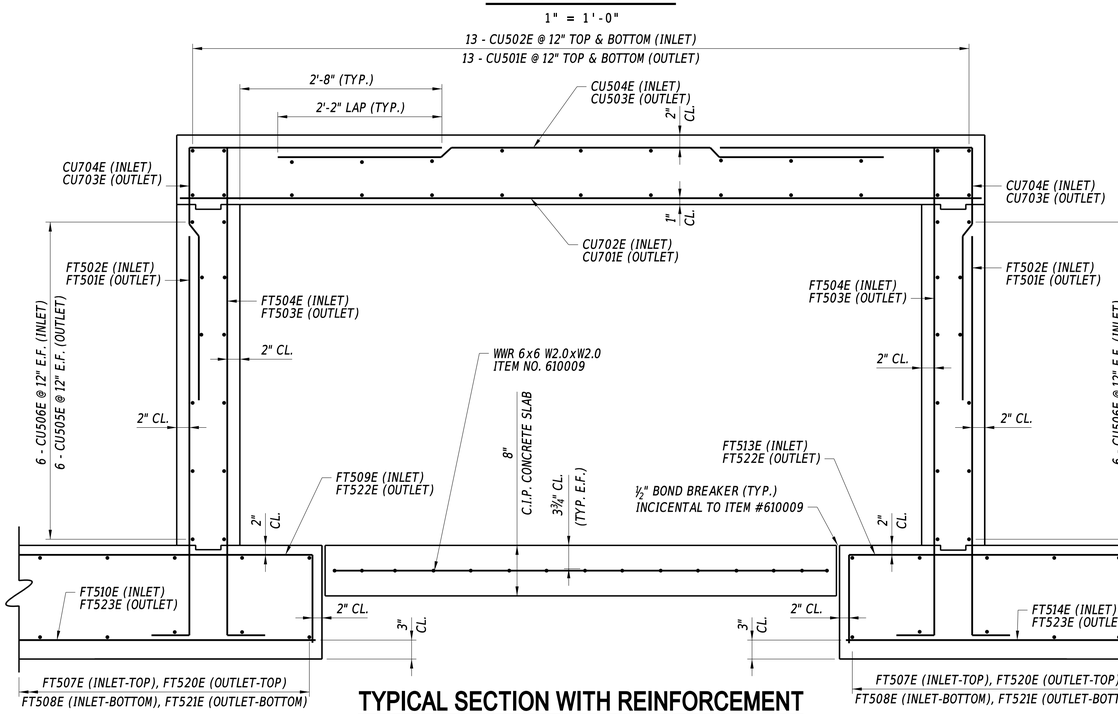
DOWEL DETAIL

1" = 1'-0"



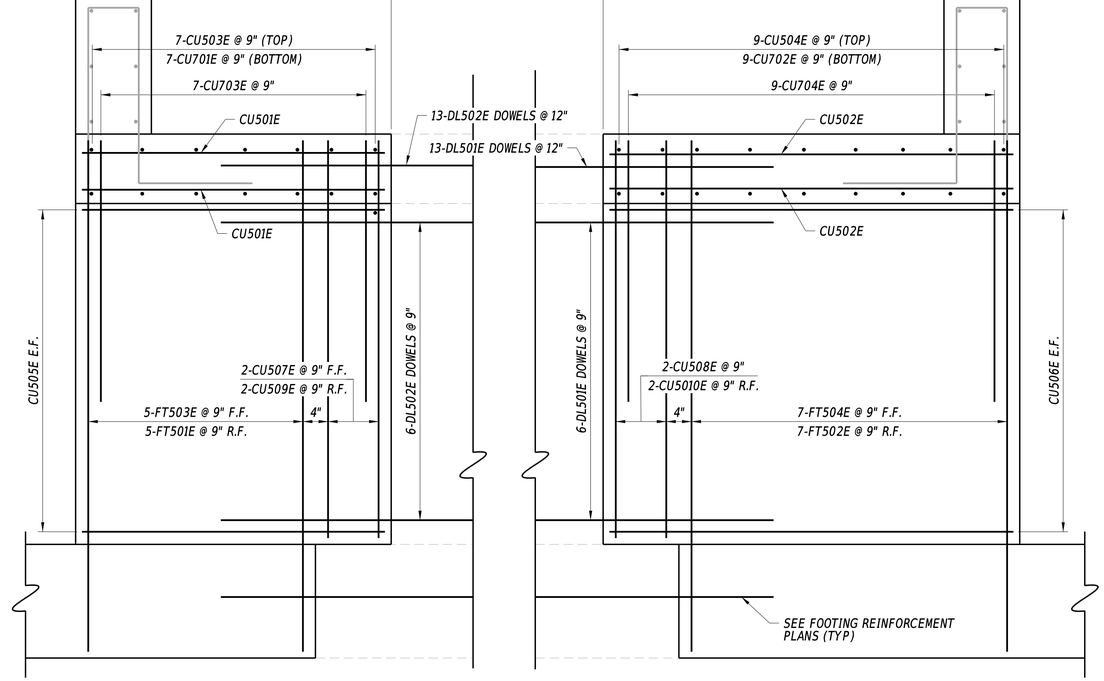
TOEWALL ALONG SLAB

1" = 1'-0"



TYPICAL SECTION WITH REINFORCEMENT

1" = 1'-0"



ELEVATION WITH REINFORCEMENT

1" = 1'-0"

ADDENDA / REVISIONS

SCALE: AS NOTED

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO.	3-609
T201412701	DESIGNED BY: R. SEDAR	
COUNTY		
SUSSEX	CHECKED BY: W. GESCHREI	

CULVERT REINFORCEMENT

TS-03
SECTION
WRA
SHEET NO.
91

8/14/2025
9:48:47 AM
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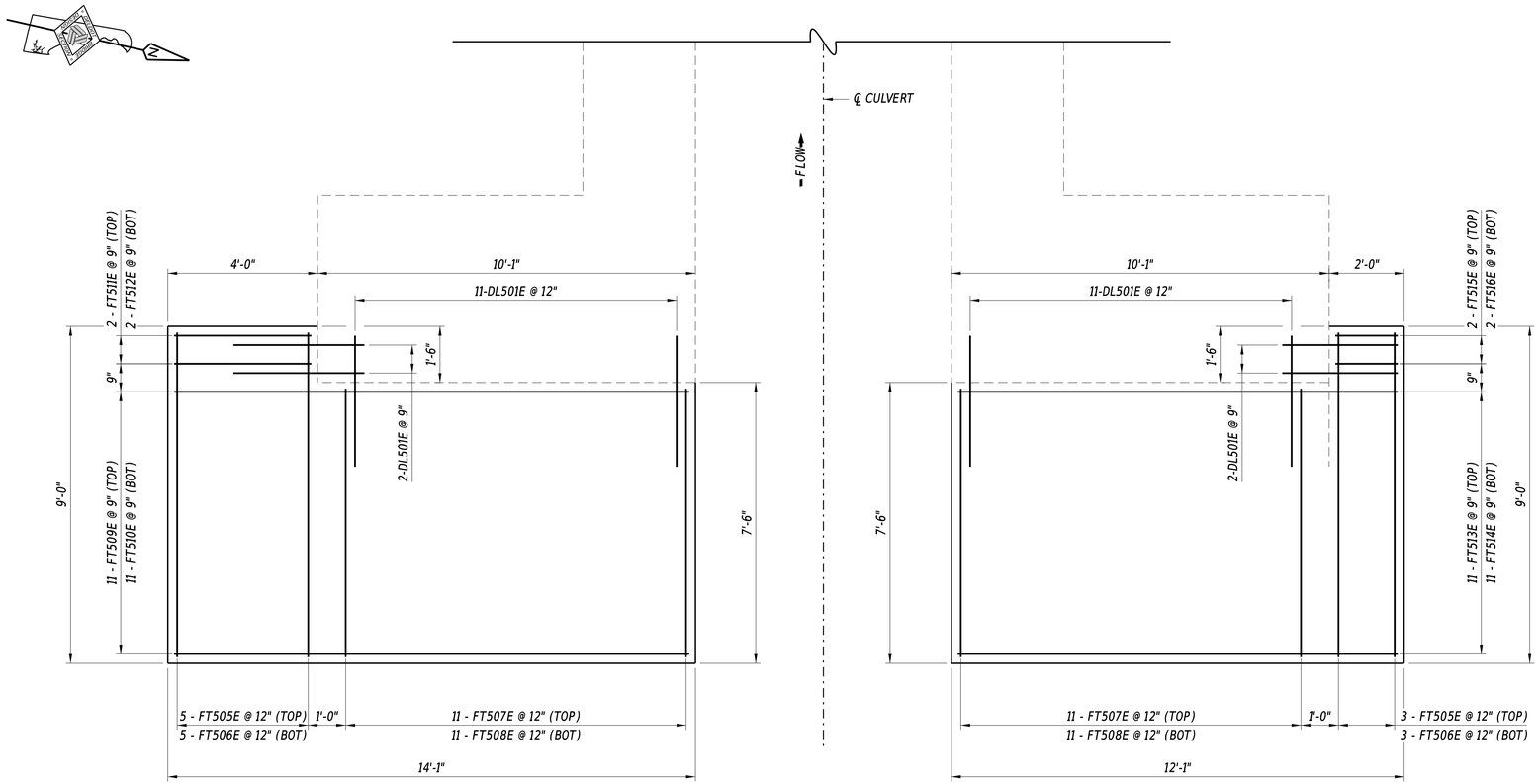
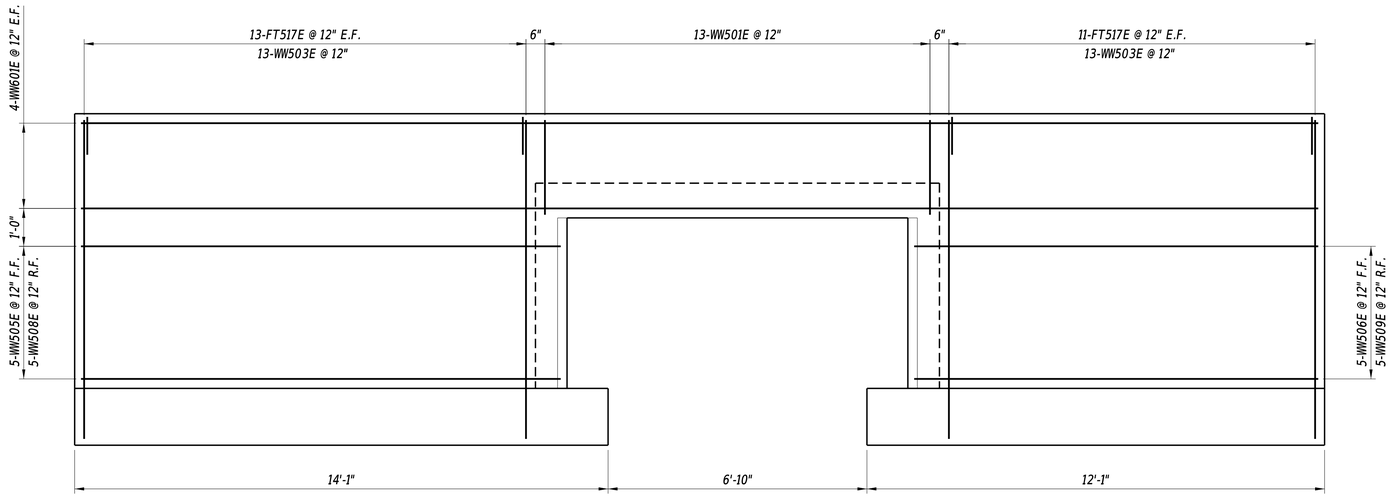
NOTES:

1. FOR HEADWALL DETAIL SEE DWG NO. TS-03
2. C.I.P. CONCRETE SLAB THROUGH CULVERT NOT SHOWN FOR CLARITY.



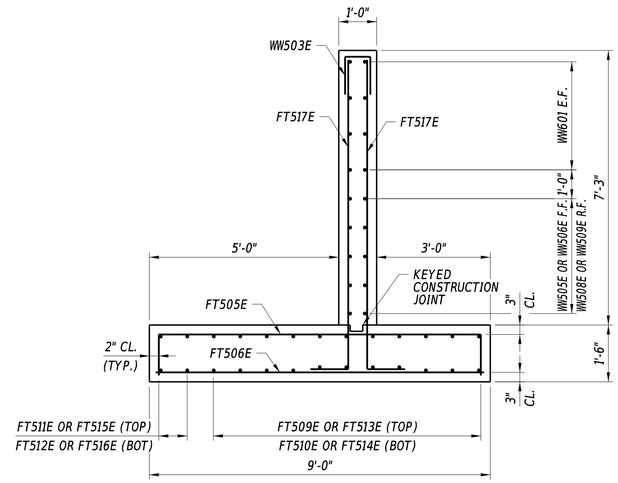
INLET FOOTING REINFORCEMENT PLAN

½" = 1'-0"



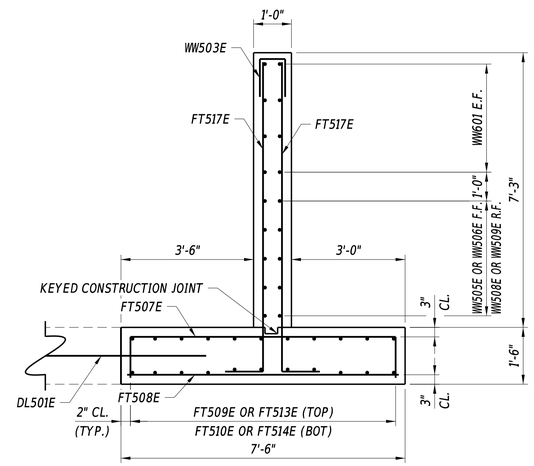
INLET REINFORCEMENT ELEVATION

½" = 1'-0"



INLET WING WALL END REINFORCEMENT SECTION

½" = 1'-0"



INLET WING WALL REINFORCEMENT SECTION

½" = 1'-0"

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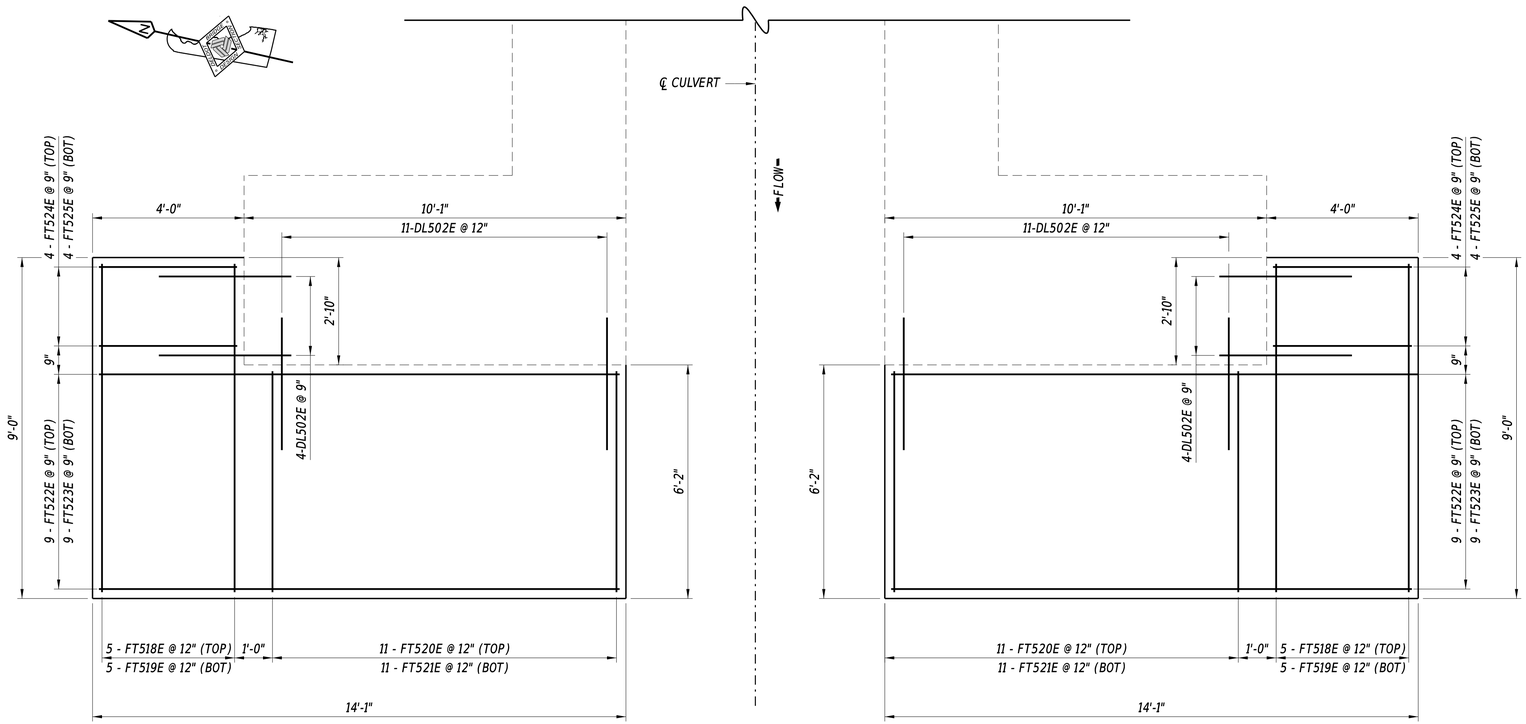
ADDENDA / REVISIONS	SCALE: AS NOTED	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. 3-609	INLET REINFORCEMENT	TS-04
			COUNTY SUSSEX	DESIGNED BY: R. SEDAR		SECTION WRA
				CHECKED BY: W. GESCHREI		SHEET NO. 92

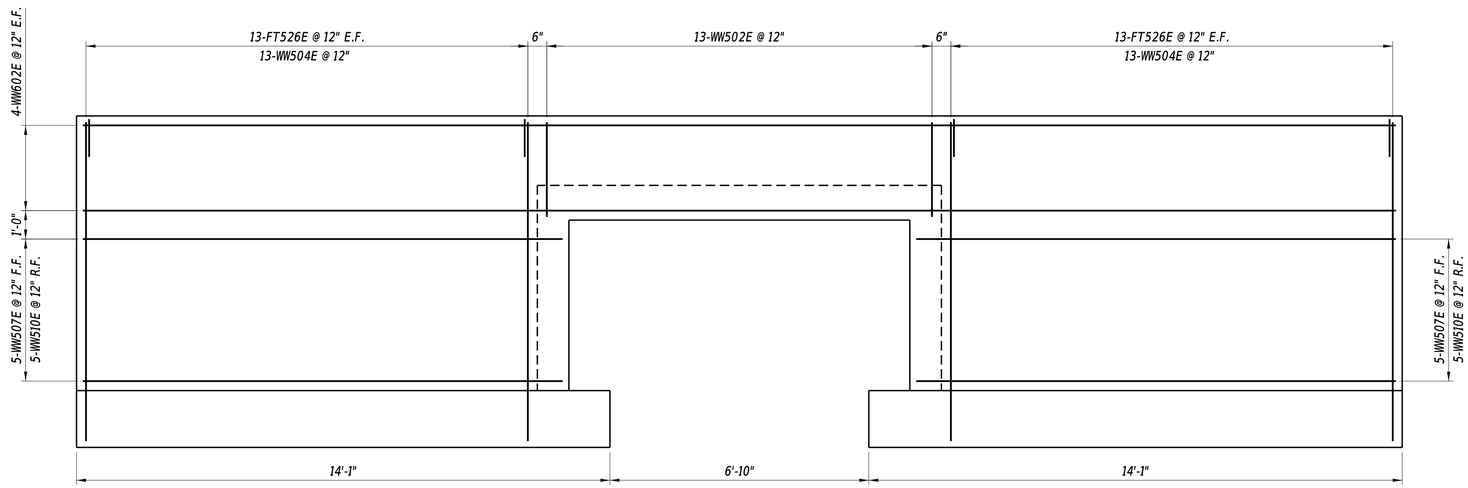
NOTES:

1. FOR HEADWALL DETAIL, SEE DWG. NO. TS-03.
2. C.I.P. CONCRETE SLAB THROUGH CULVERT NOT SHOWN FOR CLARITY.



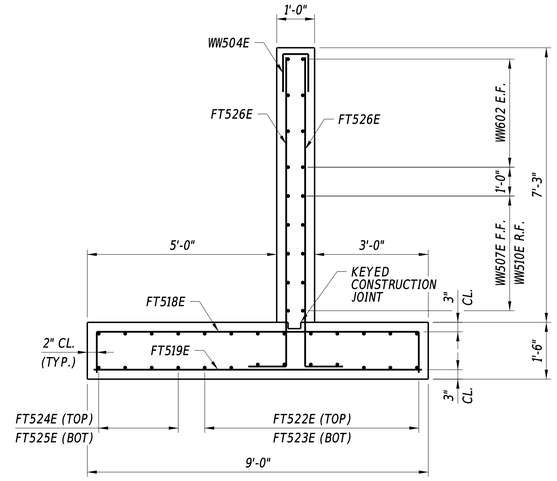
OUTLET FOOTING REINFORCEMENT PLAN

½" = 1'-0"



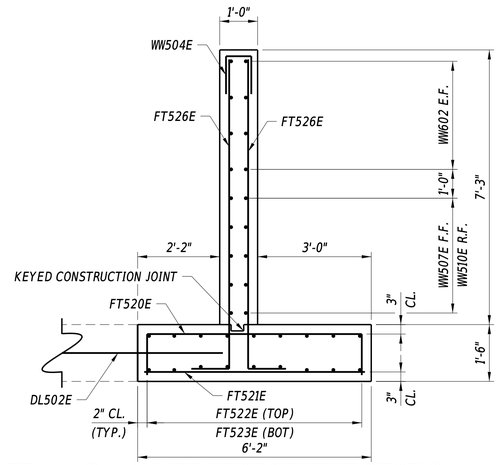
OUTLET REINFORCEMENT ELEVATION

½" = 1'-0"



OUTLET WING WALL END REINFORCEMENT SECTION

½" = 1'-0"



OUTLET WING WALL REINFORCEMENT SECTION

½" = 1'-0"

ADDENDA / REVISIONS	SCALE: AS NOTED	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. 3-609	OUTLET REINFORCEMENT	TS-05
			COUNTY SUSSEX	DESIGNED BY: R. SEDAR		SECTION WRA
				CHECKED BY: W. GESCHREI		SHEET NO. 93

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(1) ANY MARK NUMBER WITH SUFFIX 'E' DENOTES EPOXY COATED REINFORCING STEEL.

(2) ALL MARK 'LOCATION PREFIXES' SHALL CONSIST OF TWO LETTERS AND ARE AS FOLLOWS: AB = ABUTMENT, AS = APPROACH SLAB, BC = BOX CULVERT, BW = BACKWALL, CL = COLUMN, DK = DECK, DL = DOWEL, FT = FOOTING, HW = HEADWALL, MS = MISC. BARS, PA = PARAPET, PR = PIER, SC = SHEETPILE CAP, SL = SLAB, TW = TOEWALL, WL = WALL (UNIQUE LOCATION), WW = WINGWALL, CU= CULVERT

SPECIFICATIONS					BENDING DIMENSIONS (FEET-INCHES / QUARTER INCH)										
QTY.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F / R	G	H	J	K	O
13	5	6-11	WW501E	S5		2-5	0-8	2-4			1-6				
13	5	6-11	WW502E	S5		2-5	0-8	2-4			1-6				
37	5	2-10	WW503E	17		1-0	0-10	1-0							
39	5	2-10	WW504E	17		1-0	0-10	1-0							
5	5	13-5	WW505E	17		0-10	12-7								
5	5	11-5	WW506E	17		0-10	10-7								
10	5	13-5	WW507E	17		0-10	12-7								
5	5	13-5	WW508E	17		0-10	12-7								
5	5	11-5	WW509E	17		0-10	10-7								
10	5	13-5	WW510E	17		0-10	12-7								
8	6	32-8	WW601E	STR	32-8										
8	6	34-8	WW602E	STR	34-8										
26	5	3-10	CU501E	STR	3-10										
26	5	5-2	CU502E	STR	5-2										
7	5	8-0	CU503E	STR	8-0										
9	5	8-0	CU504E	STR	8-0										
24	5	3-10	CU505E	STR	3-10										
24	5	5-2	CU506E	STR	5-2										
4	5	5-1	CU507E	STR	5-1										
4	5	5-1	CU508E	STR	5-1										
4	5	4-2	CU509E	STR	4-2										
4	5	4-2	CU510E	STR	4-2										
7	7	10-4	CU701E	STR	10-4										
9	7	10-4	CU702E	STR	10-4										
14	7	6-8	CU703E	17		3-4	3-4								
18	7	6-8	CU704E	17		3-4	3-4								
10	5	6-2	FT501E	17		0-10	5-4								
14	5	6-2	FT502E	17		0-10	5-4								
10	5	7-4	FT503E	17		0-10	6-6								
14	5	7-4	FT504E	17		0-10	6-6								
8	5	10-8	FT505E	17		1-0	8-8	1-0							
8	5	8-8	FT506E	STR	8-8										
22	5	9-2	FT507E	17		1-0	7-2	1-0							
22	5	7-2	FT508E	STR	7-2										
11	5	15-9	FT509E	17		1-0	13-9	1-0							
11	5	13-9	FT510E	STR	13-9										

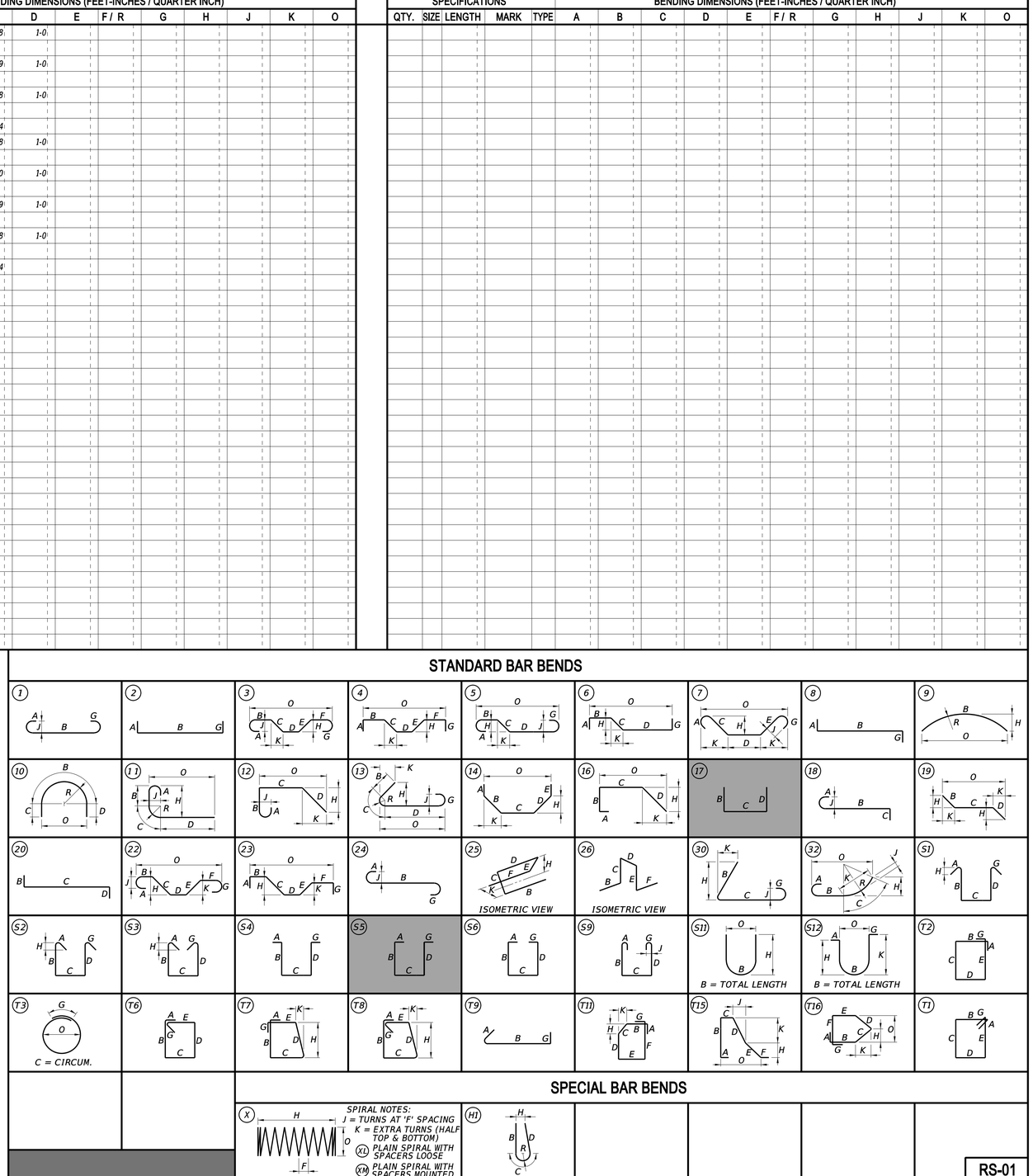
SPECIFICATIONS					BENDING DIMENSIONS (FEET-INCHES / QUARTER INCH)										
QTY.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F / R	G	H	J	K	O
2	5	5-8	FT511E	17		1-0	3-8	1-0							
2	5	3-8	FT512E	STR	3-8										
11	5	13-9	FT513E	17		1-0	11-9	1-0							
11	5	11-9	FT514E	STR	11-9										
2	5	3-8	FT515E	17		1-0	1-8	1-0							
2	5	1-8	FT516E	STR	1-8										
48	5	9-2	FT517E	17		0-10	8-4								
10	5	10-8	FT518E	17		1-0	8-8	1-0							
10	5	8-8	EF519E	STR	8-8										
22	5	7-10	FT520E	17		1-0	5-10	1-0							
22	5	5-10	FT521E	STR	5-10										
18	5	15-9	FT522E	17		1-0	13-9	1-0							
18	5	13-9	FT523E	STR	13-9										
8	5	5-8	FT524E	17		1-0	3-8	1-0							
8	5	3-8	FT525E	STR	3-8										
52	5	9-2	FT526E	17		0-10	8-4								
51	5	3-6	DL501E	STR	3-6										
55	5	3-6	DL502E	STR	3-6										

SPECIFICATIONS					BENDING DIMENSIONS (FEET-INCHES / QUARTER INCH)										
QTY.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F / R	G	H	J	K	O

ASTM STANDARD ENGLISH REINFORCING BARS				RECOMMENDED END HOOKS, APPLICABLE TO ALL GRADES				STIRRUP AND TIE HOOKS, APPLICABLE TO ALL GRADES			
	NOMINAL DIMENSIONS				180° HOOKS		90° HOOKS		90° HOOK	135° HOOK	
BAR SIZE	DIAMETER (INCHES)	AREA² (INCHES)	WEIGHT (LBS. / FT.)	D	A OR G	J	A OR G	D	A OR G	A OR G	A OR G
3	0.375	0.110	0.376	2¼"	5"	3"	6"	1½"	4"	4"	2½"
4	0.500	0.200	0.668	3"	6"	4"	8"	2"	4½"	4½"	3"
5	0.625	0.310	1.043	3¾"	7"	5"	10"	2½"	6"	5½"	3¾"
6	0.750	0.440	1.502	4½"	8"	6"	1-0"	4½"	1-0"	8"	4½"
7	0.875	0.600	2.044	5¼"	10"	7"	1-2"	5¼"	1-2"	9"	5¼"
8	1.000	0.790	2.670	6"	11"	8"	1-4"	6"	1-4"	10½"	6"
9	1.128	1.000	3.400	9½"	1-3"	11¾"	1-7"				
10	1.270	1.270	4.303	10¾"	1-5"	1-1¼"	1-10"				
11	1.410	1.560	5.313	1-0"	1-7"	1-2¾"	2-0"				
14	1.693	2.250	7.650	1-6¼"	2-3"	1-9¾"	2-7"				
18	2.257	4.000	13.600	2-0"	3-0"	2-4½"	3-5"				

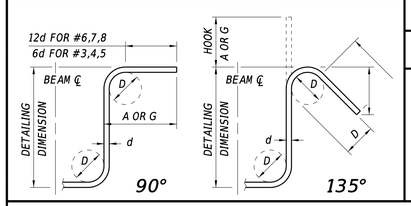
NOTES:
1. FIGURES SHOWN IN CIRCLES REPRESENT BAR BEND TYPES.
2. STANDARD BAR BENDS INCLUDE ONLY THOSE TYPES BELOW, INDICATED AS SUCH.
3. ALL DIMENSIONS OUT-TO-OUT, EXCEPT "A" AND "G" ON STD. 180° AND 135° HOOKS.
4. "J" DIMENSIONS ON 180° HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD 'ACI' HOOKS ARE TO BE USED.
5. WHERE "J" IS NOT SHOWN, "J" WILL BE KEPT EQUAL TO OR LESS THAN "H" ON TYPES 3, 5 AND 22. WHERE "J" CAN EXCEED "H", IT SHALL BE SHOWN.
6. "H" DIMENSIONS OF STIRRUPS TO BE SHOWN AS NEEDED TO FIT WITHIN THE CONCRETE.
7. UNLESS OTHERWISE NOTED, DIAMETER "D" IS THE SAME FOR ALL BENDS AND HOOKS ON A BAR (EXCEPT FOR BEND TYPES 11 AND 13).
8. WHERE SLOPE DIFFERS FROM 45° OFFSET, "H" AND "K" MUST BE SHOWN.
9. WHERE BARS ARE TO BE BENT MORE ACCURATELY THAN STANDARD BENDING TOLERANCES, BENDING DIMENSIONS REQUIRING CLOSER FABRICATION SHOULD HAVE LIMITS INDICATED.
10. FOR RECOMMENDED DIAMETER "D", OF BENDS, HOOKS, ETC., REFER TO TABLE ABOVE, 'CRSI' OR 'ACI' TABLES WHERE APPLICABLE AND REQUIRED.
11. TYPE S1-S6, S11, T1-T3 AND T6-T9 APPLICABLE TO BAR SIZES #3 THROUGH #8.

STANDARD BAR BENDS

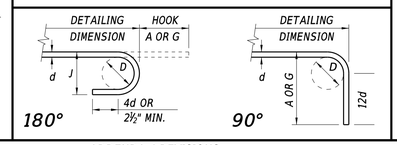


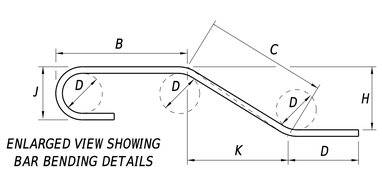
SPECIAL BAR BENDS

STIRRUP AND TIE HOOKS



180° AND 90° END HOOKS





ADDENDA / REVISIONS

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	T201412701	BRIDGE NO.	3-609
COUNTY	SUSSEX	DESIGNED BY:	R. SEDAR
		CHECKED BY:	W. GESCHREI

REBAR SCHEDULE

SECTION	WRA
SHEET NO.	94

RS-01

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BORING: HB-17 | **DATE DRILLED:** 1/29/20
STATION: 312+00.12 | **OFFSET:** 59.32' | **ELEVATION:** 45.10' | **NORTHING:** 252444.428 | **EASTING:** 661016.576
COMMENTS: N/A

SAMPLE INFORMATION

NO.	DEPTH	BLOWS / 6"	DESCRIPTION	CLASS / G.I.	REMARKS
1	0.0 2.0		MOIST GRAY SILTY FINE TO COARSE SAND.	A-2-4(0)	
2	2.0 4.0		MOIST GRAY COARSE TO FINE SAND W/SOME SILT.	A-2-4(0)	
3	4.0 6.0	5 5 5 6	WET LOOSE GRAY SILTY FINE TO COARSE SAND.	A-2-4(0)	
4	6.0 8.0	6 7 5 6	WET MEDIUM DENSE GRAY FINE TO COARSE SAND W/SOME SILT.	A-2-4(0)	CULVERT OUTLET: BOTTOM OF FOOTING EL. 38.09
5	8.0 10.0	2 1 2 3	WET VERY LOOSE GRAY FINE TO COARSE SAND W/SOME SILT.	A-2-4(0)	9.0' TO WATER
6	10.0 12.0	2 2 3 6	WET LOOSE GRAY FINE TO COARSE SAND W/SOME SILT.	A-2-4(0)	
7	12.0 14.0	2 3 2 2	WET LOOSE GRAY COARSE TO FINE SAND W/TRACE SILT AND FINE GRAVEL.	A-3	
8	14.0 16.0	5 6 4 7	WET LOOSE GRAY FINE TO COARSE SAND W/TRACE FINE GRAVEL AND SILT.	A-3	
9	16.0 18.0	8 6 7 7	WET MEDIUM DENSE GRAY FINE TO COARSE SAND W/SOME SILT.	A-2-4(0)	
10	18.0 23.0	5 5 7 12	WET MEDIUM DENSE GRAY FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	
11	23.0 28.0	7 6 4 4	WET LOOSE GRAY COARSE TO FINE SAND W/TRACE FINE GRAVEL AND SILT.	A-1-B	
12	28.0 30.0	5 5 6 10	WET MEDIUM DENSE GRAY COARSE TO FINE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	

BORING: HB-18 | **DATE DRILLED:** 1/29/20
STATION: 411+52.05 | **OFFSET:** 47.91' | **ELEVATION:** 45.30' | **NORTHING:** 252446.495 | **EASTING:** 661244.919
COMMENTS: N/A

SAMPLE INFORMATION

NO.	DEPTH	BLOWS / 6"	DESCRIPTION	CLASS / G.I.	REMARKS
1	0.0 2.0		WET GRAY CLAYEY FINE TO COARSE SANDY SILT.	A-4(0)	
2	2.0 4.0		WET GRAY SILTY FINE TO COARSE SAND W/TRACE FINE GRAVEL.	A-2-4(0)	
3	4.0 6.0	7 6 5 5	WET MEDIUM DENSE GRAY SILTY FINE SAND W/TRACE COARSE SAND.	A-2-4(0)	
4	6.0 8.0	6 5 4 2	WET LOOSE GRAY FINE TO COARSE SAND W/SOME SILT.	A-2-4(0)	CULVERT INLET: BOTTOM OF FOOTING EL. 38.16
5	8.0 10.0	5 6 5 7	WET MEDIUM DENSE GRAY COARSE TO FINE SAND W/TRACE SILT.	A-3	9.6' TO WATER
6	10.0 12.0	7 7 7 7	WET MEDIUM DENSE GRAY COARSE TO FINE SAND W/SOME SILT.	A-1-B	
7	12.0 14.0	4 5 4 5	WET LOOSE GRAY FINE TO COARSE SAND W/TRACE SILT.	A-3	
8	14.0 16.0	5 6 7 7	WET MEDIUM DENSE GRAY COARSE TO FINE SAND W/TRACE FINE GRAVEL AND SILT.	A-1-B	
9	16.0 18.0	6 6 6 6	WET MEDIUM DENSE GRAY COARSE TO FINE SAND W/TRACE SILT.	A-1-B	
10	18.0 23.0	9 13 12 11	WET MEDIUM DENSE GRAY COARSE TO FINE SAND W/TRACE FINE GRAVEL AND SILT.	A-1-B	
11	23.0 28.0	13 14 17 15	WET DENSE BROWN FINE TO COARSE SAND W/TRACE SILT.	A-3	
12	28.0 30.0	21 22 21 24	WET DENSE BROWN FINE TO COARSE SAND AND FINE GRAVEL W/TRACE SILT.	A-1-B	
			END BORING		

ADDENDA / REVISIONS

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	T201412701
COUNTY	SUSSEX
BRIDGE NO.	3-609
DESIGNED BY:	R. SEDAR
CHECKED BY:	W. GESCHREI

BORING LOG

BL-01	
SECTION	WRA
SHEET NO.	95

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SECTION 600

1. *PORTLAND CEMENT CONCRETE:*

USE PORTLAND CEMENT CONCRETE FOR CAST-IN-PLACE ELEMENTS AS FOLLOWS:
(f'c = 28-DAY COMPRESSIVE STRENGTH)
CLASS A - ABUTMENTS, STEMS, BACKWALLS, PIER AND PARAPET (f'c = 4.5 ksi)
CLASS B - PIER FOOTINGS NOT EXPOSED (f'c = 3.0 ksi)
CLASS D - CONCRETE DECK SLAB, MOMENT SLAB, APPROACH SLAB AND SLEEPER SLAB (f'c = 4.5 ksi)

- CHAMFER ALL EXPOSED EDGES ¾" X ¾" UNLESS OTHERWISE NOTED.

SUPPLY THE CONCRETE FOR THE BACKWALL, BRIDGE DECK, APPROACH SLAB, AND PARAPETS THAT INCLUDES A SHRINKAGE-REDUCING/COMPENSATING ADMIXTURE. THE ADMIXTURE MAY BE SUPPLIED BY ONE PRODUCT THAT PROVIDES BOTH EXPANSION AND PORE WATER SURFACE TENSION OR TWO SEPARATED PRODUCTS EACH ADDED AT DOSAGE RECOMMENDED BY MANUFACTURER'S TECHNICAL DATA SHEET AND HAVING THE FOLLOWING CHARACTERISTICS:
(a.) DESIGNED TO PROVIDE BOTH OF THE FOLLOWING CHARACTERISTICS:
(i.) EXPANDS AT A RATE THAT CLOSELY COMPENSATES FOR THE SHRINKAGE OF THE CONCRETE MIX.
(ii.) REDUCES THE CAPILLARY SURFACE TENSION OF THE CONCRETE PORE WATER.
(b.) PROVIDES AT LEAST 80% SHRINKAGE REDUCTION AS MEASURED AND DOCUMENTED BY FIELD PERFORMANCE.
(c.) FORMULATED FOR USE IN FREEZING AND THAWING WEATHER.
ALL ADMIXTURES MUST BE COMPATIBLE WITH ALL OTHER CONCRETE-MIX DESIGN CONSTITUENTS. CALCIUM CHLORIDE IS NOT PERMITTED; NO CHEMICAL ADMIXTURE WHICH CONTAINS MORE THAN 0.1% CHLORIDE BY WEIGHT, WILL BE PERMITTED FOR USE. DOSAGE RATE AND MIXING SEQUENCE WILL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

- SLIP FORMING OF PARAPET & BARRIERS IS NOT ALLOWED.

2. *BAR REINFORCEMENT:*

- REINFORCING STEEL SHALL CONFORM TO AASHTO M31 (ASTM A615), GRADE 60.
- REINFORCING STEEL SHALL HAVE A 3" CLEAR COVER IF CAST AGAINST EARTH OR A 2" CLEAR COVER ELSEWHERE, UNLESS OTHERWISE SPECIFIED ON THE PLANS.
- ALL REINFORCING STEEL SHALL BE PROTECTED WITH FUSION BONDED EPOXY. EPOXY COATED REINFORCING STEEL SHALL CONFORM TO ASTM A775.
- ANY FIELD CUTTING OR FIELD BENDING MUST BE APPROVED BY THE ENGINEER. PAYMENT SHALL BE INCIDENTAL TO THE BAR REINFORCEMENT ITEM.
- GALVANIZED REINFORCING STEEL MAY BE SUBSTITUTED FOR EPOXY-COATED REINFORCING STEEL AT NO ADDITIONAL COST TO DELDOT WITH APPROVAL OF THE BRIDGE DESIGN ENGINEER.
- WELDING OF REINFORCEMENT DURING FABRICATION OR CONSTRUCTION IS NOT PERMITTED UNLESS SPECIFIED.

3. *CONCRETE SEALER:*

- REFER TO DIAGRAMS ON SHEET TS-01 FOR LIMITS OF SILICONE-BASED ACRYLIC CONCRETE SEALER AND SILANE-BASED CONCRETE SEALER. PAYMENT WILL BE MADE UNDER ITEM NO. 613001 OR ITEM NO. 613002.

- APPLY SILICONE-BASED SEALER TO FACE OF BACKWALL, SURFACE OF BEAM SEATS AND BEARING PEDESTALS. PAYMENT WILL BE MADE UNDER ITEM NO. 613001.

4. *STRUCTURAL STEEL:*

PROVIDE STRUCTURAL STEEL CONFORMING TO AASHTO M270 (ASTM A709, GRADE 50W) (UNLESS NOTED OTHERWISE) AND GRADE HPS 70W (TOP & BOTTOM FLANGES OVER PIER). THE ADDITIONAL REQUIREMENTS FOR CHARPY V-NOTCH TESTING (DENOTED AS 'CVN' ON PLANS) OF AASHTO M270 FOR PRIMARY LOAD CARRYING MEMBERS SHALL BE INCLUDED. SUPPLEMENTAL NOTCH TOUGHNESS REQUIREMENTS ARE MANDATORY FOR:

- TOP AND BOTTOM GIRDER FLANGES
- GIRDER WEB PLATES
- GIRDER FIELD SPLICE PLATES
- ALL DIAPHRAGM MEMBERS, CROSS FRAME MEMBERS, GUSSET PLATES AND CONNECTION PLATES

ALL FASTENERS ARE ⅞" DIAMETER ASTM F3125 GR A325 HIGH STRENGTH BOLTS, TYPE 3, UNLESS OTHERWISE NOTED.

REAM SUBDRILLED OR SUBPUNCHED HOLES FOR FIELD SPLICES IN THE FABRICATION SHOP.

IF GIRDERS CAN BE FABRICATED IN LENGTHS LONGER THAN THE SECTIONS SHOWN ON THE PLANS BY ELIMINATING FIELD SPLICES, FIELD SPLICES MAY BE OMITTED AT THE REQUEST OF THE CONTRACTOR. THE CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR SECURING A HAULING PERMIT. APPROVAL FOR ELIMINATION OF A FIELD SPLICE AT THE SHOP DRAWING STAGE DOES NOT OBLIGATE THE DEPARTMENT TO ISSUE A HAULING PERMIT.

IF GIRDERS CANNOT BE SHIPPED IN THE LENGTHS SHOWN ON THE PLANS, THE CONTRACTOR MAY SUBMIT FOR APPROVAL A WORKING DRAWING OF ADDITIONAL FIELD SPLICE(S) WITH A PRIOR APPROVAL OF THE BRIDGE DESIGN ENGINEER. THE WORKING DRAWING MUST SHOW AT THE MINIMUM THE LOCATIONS OF THE FIELD SPLICES AND SPLICE DETAILS, AND MUST BE STAMPED BY A PROFESSIONAL ENGINEER REGISTERED BY THE STATE OF DELAWARE. NO COMPENSATION WILL BE ALLOWED FOR ANY ADDITIONAL FIELD SPLICES.

PROVIDE MATERIALS AND PERFORM WORK IN ACCORDANCE WITH AASHTO/AWS D1.5M/D.15 2015 BRIDGE WELDING CODE, AND CONTRACT DOCUMENTS. MAKE TACK WELDS WITH THE SAME TYPE OF ELECTRODE AND INCORPORATE IN THE FINAL WELD. NO OTHER TACK WELDING WILL BE PERMITTED.

DO NOT MAKE WELDS BY MANUAL SHIELDED METAL ARC PROCESS FOR PRIMARY GIRDER WELDS SUCH AS FLANGE TO WEB WELDS OR FOR SHOP SPLICES OF WEB AND FLANGES.

DO NOT USE FORM SUPPORT SYSTEMS THAT WILL CAUSE UNACCEPTABLE OVERSTRESS OR DEFORMATION TO PERMANENT BRIDGE MEMBERS.

THE FASCIA GIRDERS ARE DESIGNED FOR A TEMPORARY CONSTRUCTION LOAD APPLIED TO THE WEB WITHIN 6" OF THE BOTTOM FLANGE AT APPROXIMATELY 4'-0" INTERVALS. THIS LOAD APPROXIMATES THE HORIZONTAL COMPONENT OF A DECK SLAB OVERHANG FORM SUPPORT BRACKET AND CONSISTS OF A 0.3506 kip/ft ALLOWANCE FOR THE WEIGHT OF THE CONCRETE, FORMS, AND DECK FINISHING MACHINE.

GIRDER WEBS SHALL BE ERECTED IN THE STEEL DEAD LOAD FIT CONDITION AS DESCRIBED IN SECTION 106.8.9.1.3 OF THE DELDOT BRIDGE DESIGN MANUAL.

USE STANDARD HOLES ON DIAPHRAGM CONNECTORS. ALL BOLTS ON DIAPHRAGMS MUST BE FINGER TIGHT AT ERECTION. BOLTS ARE TO BE TORQUED BEFORE CONCRETE DECK IS POURED.

DO NOT WELD PERMANENT METAL DECK FORMS OR OTHER ATTACHMENTS TO GIRDER TOP FLANGES IN TENSION ZONES. TENSION ZONES OF TOP FLANGE ARE DESIGNATED ON THE PLANS. THREADED STUDS FOR THE SUPPORT OF THE DECK OVERHANG FORMING BRACKET ARE PERMITTED PROVIDED THE THREADED STUD IS ATTACHED WITH THE SAME WELDING PROCESSING AS THE SHEAR STUDS.

VERTICALLY ADJUST STAY-IN-PLACE FORMS TO ATTAIN FINISHED LINES AND GRADES REQUIRED ON THE PLANS.

SET ANCHOR BOLTS TO TEMPLATE OR IN PRE-FORMED HOLES. DO NOT DRILL UNLESS SPECIFICALLY INDICATED ON PLANS. FILL THE PRE-FORMED HOLES WITH NON-SHRINK GROUT. IN MASONRY PLATES, FILL THE CLEARANCE BETWEEN ANCHOR BOLTS AND HOLES WITH APPROVED NON-HARDENING CAULKING COMPOUND.

STABILITY OF PARTIAL GIRDERS AND COMPLETED GIRDERS IS TO BE MAINTAINED BY THE CONTRACTOR DURING ERECTION UNTIL ALL GIRDERS AND DIAPHRAGMS ARE IN-PLACE AND ALL BOLTS ARE PROPERLY INSTALLED. ERECTION LOADS INCLUDING SELF-WEIGHT OF THE STEEL MEMBERS, WIND LOADING AND CONSTRUCTION LIVE LOAD EFFECTS ARE TO BE EVALUATED BY THE CONTRACTOR FOR STABILITY, STRESSES AND DEFLECTIONS ON THE STEEL MEMBERS DURING ANY STAGE OF ERECTION.

AN ALTERNATE SLAB PLACEMENT SEQUENCE MAY BE PERMITTED AT THE REQUEST OF THE CONTRACTOR. SUBMIT FOR REVIEW AND APPROVAL TO THE DEPARTMENT A REVISED SLAB PLACEMENT SEQUENCE WITH SUPPORT CALCULATIONS AND COMPUTER STRESS ANALYSIS. SATISFY THE REQUIREMENTS OF THE ORIGINAL SLAB PLACEMENT SEQUENCE. OBTAIN WRITTEN APPROVAL PRIOR TO THE USE OF THE REVISED SLAB PLACEMENT SEQUENCE AND/OR CAMBER VALUES. NO COMPENSATION WILL BE ALLOWED FOR THE DEVELOPMENT AND APPROVAL OF THE REVISED SLAB PLACEMENT SEQUENCE AND CAMBER VALUES. THE DEPARTMENT WILL BE THE SOLE JUDGE OF THE ACCEPTABILITY OF THE REVISED SLAB PLACEMENT SEQUENCE AND CAMBER VALUES.

BLAST CLEAN THE FLAYING SURFACES OF SPLICES AND CONNECTIONS THAT REMAIN UNASSEMBLED FOR A PERIOD OF 12 MONTHS OR MORE FOLLOWING THE INITIAL CLEANING.

OVERHEAD WELDING IS NOT PERMITTED IN THE FIELD UNLESS OTHERWISE SPECIFIED ON THE PLANS.

PAINTING OF NEW STEEL SHALL BE IN ACCORDANCE WITH SECTION 616. PAINT COLOR SHALL BE BROWN (NO. 10059 of AMS-STD-595A).

5. *DECK SLAB:*

THE DECK SLAB THICKNESS INCLUDES ½" INTEGRAL WEARING SURFACE.

6. *BRIDGE SAFETY FENCE:*

ALL POSTS, BRACES, FITTINGS, CHAIN LINK FENCING AND HARDWARE SHALL BE PVC COATED. NUTS, BOLTS AND WASHERS SHALL ALSO BE PVC COATED AND TOUCHED UP AFTER INSTALLATION. PRECOATED LONGITUDINAL RAILS, IF CUT, SHALL HAVE THE CUT END COATED WITH PVC TOUCH UP MATERIAL SUPPLIED BY THE MANUFACTURER PRIOR TO ERECTION. PVC COLOR FOR ALL ELEMENTS OF FENCE SHALL BE BROWN (NO. 10059 of AMS-STD-595A) UNLESS OTHERWISE NOTED. PAYMENT FOR PVC COATING SHALL BE INCIDENTAL TO ITEM 727007 BRIDGE SAFETY FENCE, TYPE 1 AND ITEM 727008 BRIDGE SAFETY FENCE, TYPE 2.

POST SPACING TO BE DETERMINED BY THE CONTRACTOR AND INCLUDED IN THE SHOP DRAWINGS. EACH POST MUST BE A MINIMUM OF 1'-0" FROM ANY BARRIER JOINT.

CONTRACTOR SHALL SUBMIT WORKING DRAWINGS FOR THE FENCE FOR REVIEW BY THE ENGINEER.

CHAIN LINK FENCE INCLUDING ANTI-CLIMB SHIELD ITEMS PAYMENT WILL BE MADE UNDER ITEM NO. 727007 BRIDGE SAFETY FENCE, TYPE 1 AND ITEM 727008 BRIDGE SAFETY FENCE, TYPE 2.

MISCELLANEOUS

7. *DESIGN SPECIFICATIONS:*

(A) DELDOT BRIDGE DESIGN MANUAL, 2024 EDITION
(B) AASHTO LRFD BRIDGE SPECIFICATIONS, 2020, 9TH EDITION, CUSTOMARY U.S. UNITS.
(C) PROVIDE MATERIALS AND PERFORM WORK IN ACCORDANCE WITH THE DELDOT STANDARD SPECIFICATIONS, JANUARY 2024.

8. *LOADING:*

- DEAD LOADS INCLUDE 25 PSF FOR FUTURE WEARING SURFACE ON DECK SLAB AND 15 PSF FOR STAY-IN-PLACE FORMS (INCLUDES CONCRETE IN FORM CORRUGATIONS).
- DESIGN LIVE LOADS INCLUDE HL-93 LOADING.
- FATIGUE DESIGN IS BASED ON THE FOLLOWING ONE DIRECTIONAL TRAFFIC VOLUMES: ADTT = 20,080 (2040).
- LIVE LOAD DISTRIBUTION TO THE GIRDERS IS BASED ON THE GRILLAGE METHOD.
- THERMAL LOADS AND MOVEMENTS ARE BASED ON THE MODERATE TEMPERATURE RANGE AS STIPULATED IN THE AASHTO LRFD DESIGN SPECIFICATIONS AS 0° to 120° . THE NORMAL TEMPERATURE SHALL BE CONSIDERED TO BE 68° F.
- LIVE LOAD DEFLECTION SHALL BE LIMITED TO L/1000.
- FOR SEISMIC LOADS, CONSIDER SEISMIC PERFORMANCE ZONE 1, WITH A SITE CLASS = E AND OPERATIONAL CATEGORY = CRITICAL.
- FOR REINFORCEMENT DISTRIBUTION REQUIREMENTS, CONSIDER CLASS 1 EXPOSURE CRITERIA FOR DECKS.
- BARRIERS HAVE BEEN DESIGNED ACCORDING TO AASHTO MANUAL FOR ADDRESSING SAFETY HARDWARE (MASH) TEST LEVEL 4 (TL-4).

9. *ROADWAY CLEARANCES:*

A MINIMUM VERTICAL CLEARANCE OF 17'-6" SHALL BE MAINTAINED ABOVE ALL ROADWAYS.

10. *EMBANKMENTS:*

BRIDGE EMBANKMENTS SHALL SIT UNDISTURBED FOR A MINIMUM 30 DAY PERIOD AFTER BEING CONSTRUCTED TO THE FINAL ROADWAY SUBGRADE ELEVATION, OR AS DIRECTED BY THE ENGINEER. THE SETTLEMENT SHALL NOT EXCEED 0.01 FOOT PER WEEK FOR A PERIOD OF TWO WEEKS BEFORE RESUMING WORK ON THE EMBANKMENT, OR AS DIRECTED BY THE ENGINEER. THE ENGINEER WILL NOTIFY THE CONTRACTOR, IN WRITING, WITHIN TEN BUSINESS DAYS WHEN THE EMBANKMENT QUARANTINE PERIOD CAN BE LIFTED.

11. *EXISTING CONDITIONS :*

ALL EXISTING DIMENSIONS AND ELEVATIONS SHOWN ARE BASED ON THE BEST AVAILABLE INFORMATION AND ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING DIMENSIONS, GEOMETRY, AND ELEVATIONS AS NECESSARY PRIOR TO ORDERING ANY MATERIALS AND COMMENCING CONSTRUCTION TO ENSURE PROPER FIT OF THE PROPOSED CONSTRUCTION. PAYMENT WILL BE INCIDENTAL TO ITEM #763501 - CONSTRUCTION ENGINEERING.

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TOTAL BRIDGE SHEETS: 85

ADDENDA / REVISIONS	

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO.	3-610
T201412701	DESIGNED BY: R. SEDAR	
COUNTY	CHECKED BY: W. GESCHREI	
SUSSEX		

INDEX OF BRIDGE SHEETS & BRIDGE PROJECT NOTES

GN-01

SECTION
WRA
SHEET NO.
96

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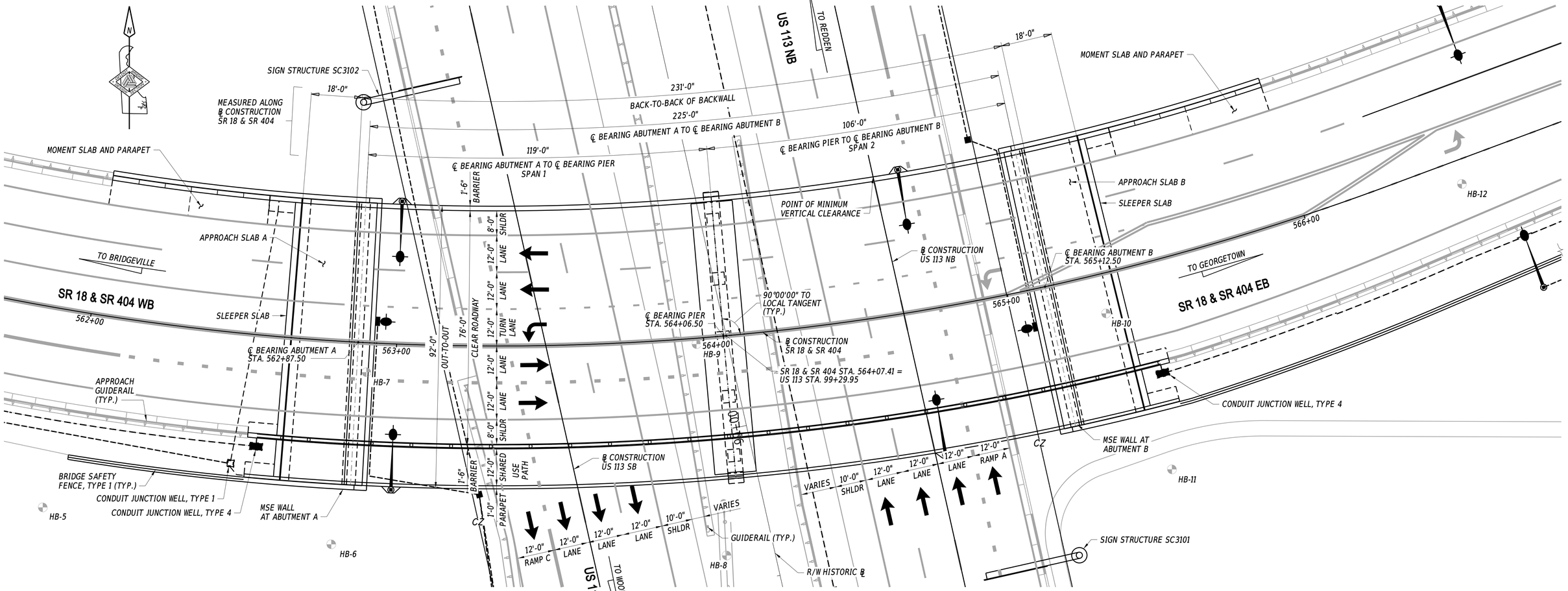
QUANTITIES

ITEM Nº	ITEM TITLE	UNIT	QUANTITY
202518	SETTLEMENT MONUMENT	EACH	11
207001	PIPE, CULVERT AND STRUCTURE BACKFILL	CY	241
207002	PIPE, CULVERT AND STRUCTURE EXCAVATION	CY	3089
207022	STRUCTURE BACKFILL, BORROW TYPE B, PROVIDING ONLY	CY	241
301001	GABC	CY	233
302005	DELAWARE NO. 57 STONE	TON	27
604001	PROTECTIVE SHIELD	LS	1
604005	FORM LINERS	SF	5410
605024	PROVIDE STEEL H PILES, HP 14x73	LF	7465
605074	PROVIDE STEEL H INDICATOR OR TEST PILES, HP 14x73	LF	723
605124	INSTALL STEEL H PILES, HP 14x73	LF	7465
605174	INSTALL STEEL H INDICATOR OR TEST PILES, HP 14x73	LF	723
605200	PILE RESTRIKE	EACH	30
605201	DYNAMIC PILE TESTING BY CONTRACTOR FOR TEST PILE INITIAL DRIVE	EACH	7
605202	DYNAMIC PILE TESTING BY CONTRACTOR FOR RESTRIKE OR PRODUCTION PILE	EACH	30
607001	MECHANICALLY STABILIZED EARTH WALLS	LS	1
610001	PCC MASONRY, ABUTMENT FOOTING, CLASS A	CY	104
610002	PCC MASONRY, ABUTMENT ABOVE FOOTING, CLASS A	CY	59
610004	PCC MASONRY, PIER ABOVE FOOTING, CLASS A	CY	163
610008	PCC MASONRY, PARAPET, CLASS A	CY	174
610012	PCC MASONRY, PIER FOOTING, CLASS B	CY	189
610017	PCC MASONRY, SUPERSTRUCTURE, CLASS D	CY	704
610018	PCC MASONRY, APPROACH SLAB, CLASS D	CY	330
611001	BAR REINFORCEMENT, EPOXY COATED	LB	417100
613001	SILICONE-BASED ACRYLIC CONCRETE SEALER	SF	11760
613002	SILANE-BASED CONCRETE SEALER	SF	23990
613003	HIGH MOLECULAR WEIGHT METHACRYLATE CONCRETE SEALER	SF	23990
613006	AESTHETIC STAINING	SF	29230
615001	STEEL STRUCTURES	LS	1
623002	DISC BEARINGS	EACH	27
624000	PREFABRICATED EXPANSION JOINT SYSTEM, 3"	LF	184
727007	BRIDGE SAFETY FENCE, TYPE 1	LF	654
727008	BRIDGE SAFETY FENCE, TYPE 2	LF	308

LOAD RATING SUMMARY

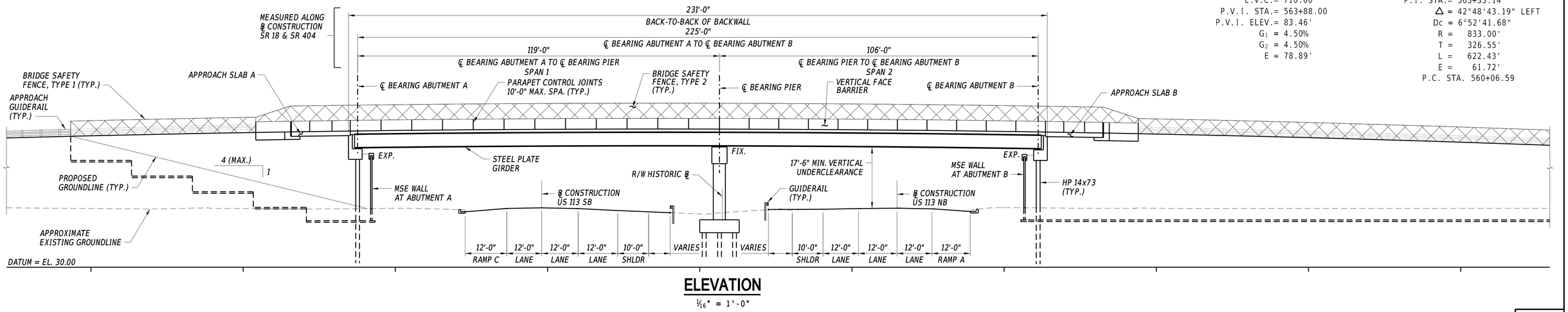
DESIGN VEHICLE	RATING FACTOR	RATING WT (TON)	CONTROLLING MEMBER	CONTROLLING PT.	LOAD EFFECT
HL-93 TRUCK (INVENTORY)	1.71	N/A	SPAN 1: GIRDER 7	0.00 FT	STRENGTH I
HL-93 TANDEM (INVENTORY)	1.51	N/A	SPAN 1: GIRDER 7	0.00 FT	STRENGTH I
HL-93 TRUCK TRAIN (INVENTORY)	1.76	N/A	SPAN 1: GIRDER 7	122.14 FT	STRENGTH I
HS-20 (INVENTORY)	2.15	77.40	SPAN 1: GIRDER 7	0.00 FT	STRENGTH I
HL-93 TRUCK (OPERATING)	2.22	N/A	SPAN 1: GIRDER 7	0.00 FT	STRENGTH I
HL-93 TANDEM (OPERATING)	1.96	N/A	SPAN 1: GIRDER 7	0.00 FT	STRENGTH I
HL-93 TRUCK TRAIN (OPERATING)	2.28	N/A	SPAN 1: GIRDER 7	122.14 FT	STRENGTH I
HS-20 (OPERATING)	2.79	100.44	SPAN 1: GIRDER 7	0.00 FT	STRENGTH I
DE S220 TRAIN & LEGAL-LANE (LEGAL)	4.47	89.40	SPAN 1: GIRDER 7	0.00 FT	STRENGTH I
DE S335 (LEGAL)	2.70	94.50	SPAN 1: GIRDER 7	0.00 FT	STRENGTH I
DE S437 (LEGAL)	2.65	97.10	SPAN 1: GIRDER 7	0.00 FT	STRENGTH I
DE T330 (LEGAL)	4.18	125.40	SPAN 1: GIRDER 7	0.00 FT	STRENGTH I
DE T435 (LEGAL)	3.25	113.75	SPAN 1: GIRDER 7	0.00 FT	STRENGTH I
DE T540 (LEGAL)	3.32	132.80	SPAN 1: GIRDER 7	0.00 FT	STRENGTH I

NOTE: LOAD RATING DOES NOT INCLUDE FUTURE WEARING SURFACE.



PLAN

1/16" = 1'-0"



ELEVATION

1/16" = 1'-0"

SR 18 & SR 404 VERTICAL CURVE DATA

L.V.C.= 710.00'
P.V.I. STA.= 563+88.00
P.V.I. ELEV.= 83.46'
G_1 = 4.50%
G_2 = 4.50%
E = 78.89'

SR 18 & SR 404 HORIZONTAL CURVE DATA

P.I. STA.= 563+33.14
△ = 42°48'43.19" LEFT
Dc = 6°52'41.68"
R = 833.00'
T = 326.55'
L = 622.43'
E = 61.72'
P.C. STA. 560+06.59

ADDENDA / REVISIONS

SCALE
0 16 32 48
FEET

US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO.	3-610
T201412701	DESIGNED BY: R. SEDAR	
COUNTY		
SUSSEX	CHECKED BY: W. GESCHREI	

GENERAL PLAN AND ELEVATION

GP-01
SECTION
WRA
SHEET NO.
98

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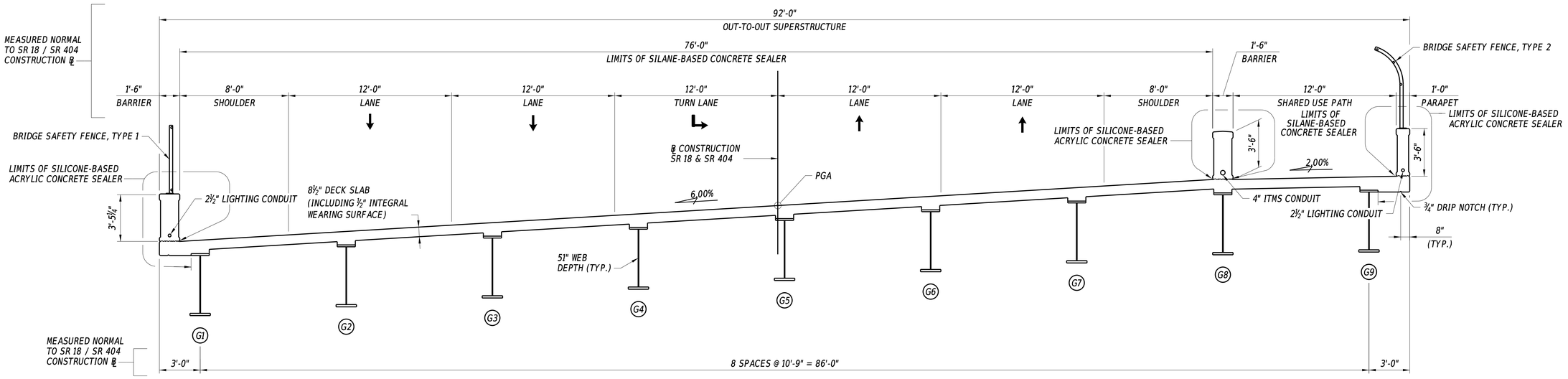

TYPICAL SECTION

¼" = 1'-0"

ADDENDA / REVISIONS

SCALE
0 4 8 12
FEET

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	T201412701
COUNTY	SUSSEX
BRIDGE NO.	3-610
DESIGNED BY:	R. SEDAR
CHECKED BY:	W. GESCHREI

TYPICAL SECTION

TS-01	
SECTION	WRA
SHEET NO.	99

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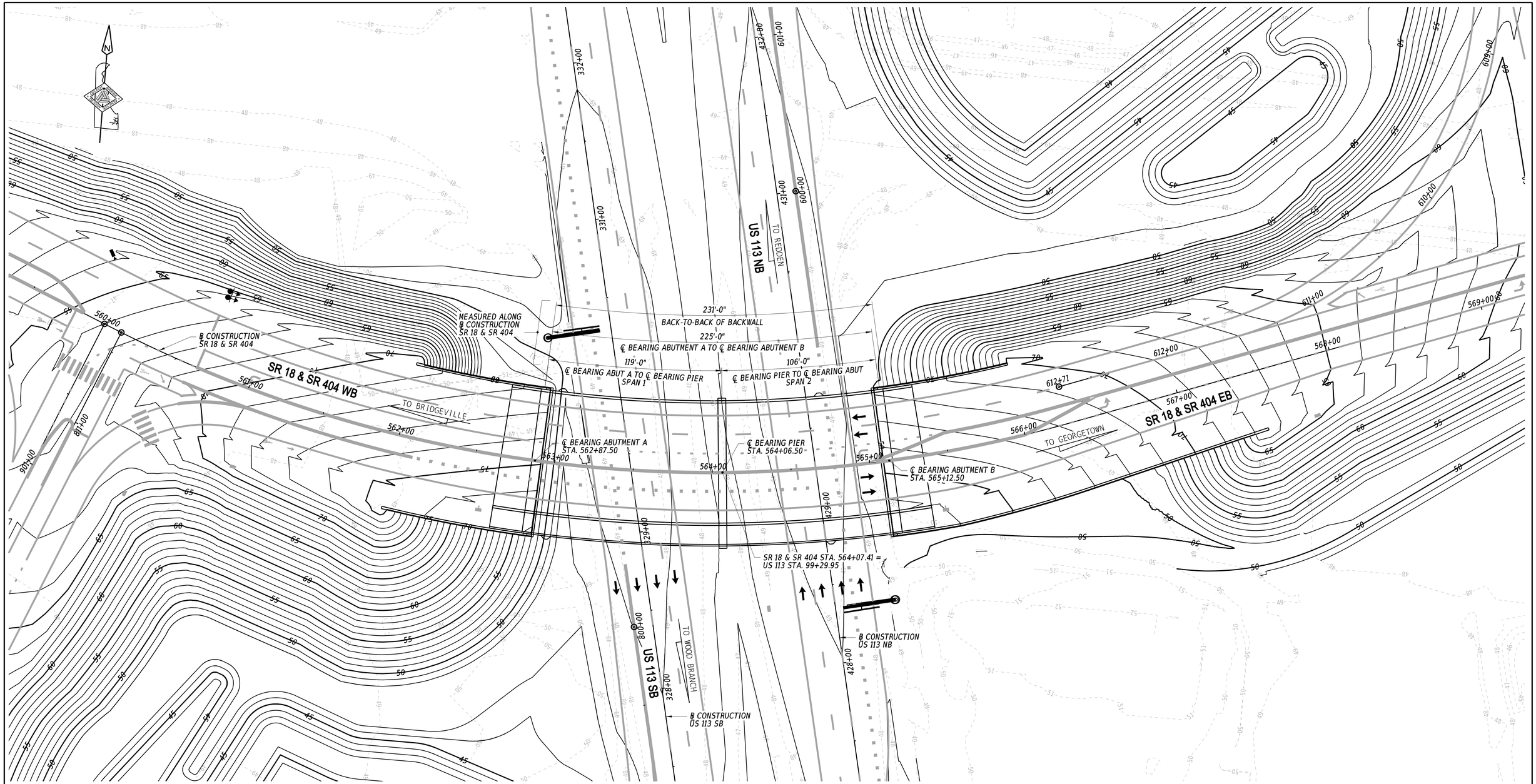

PLAN

1" = 30'-0"

NOTES:

1. *FOR ADDITIONAL INFORMATION, SEE DWG. NOS. GP-01, FT-01, FT-02.*

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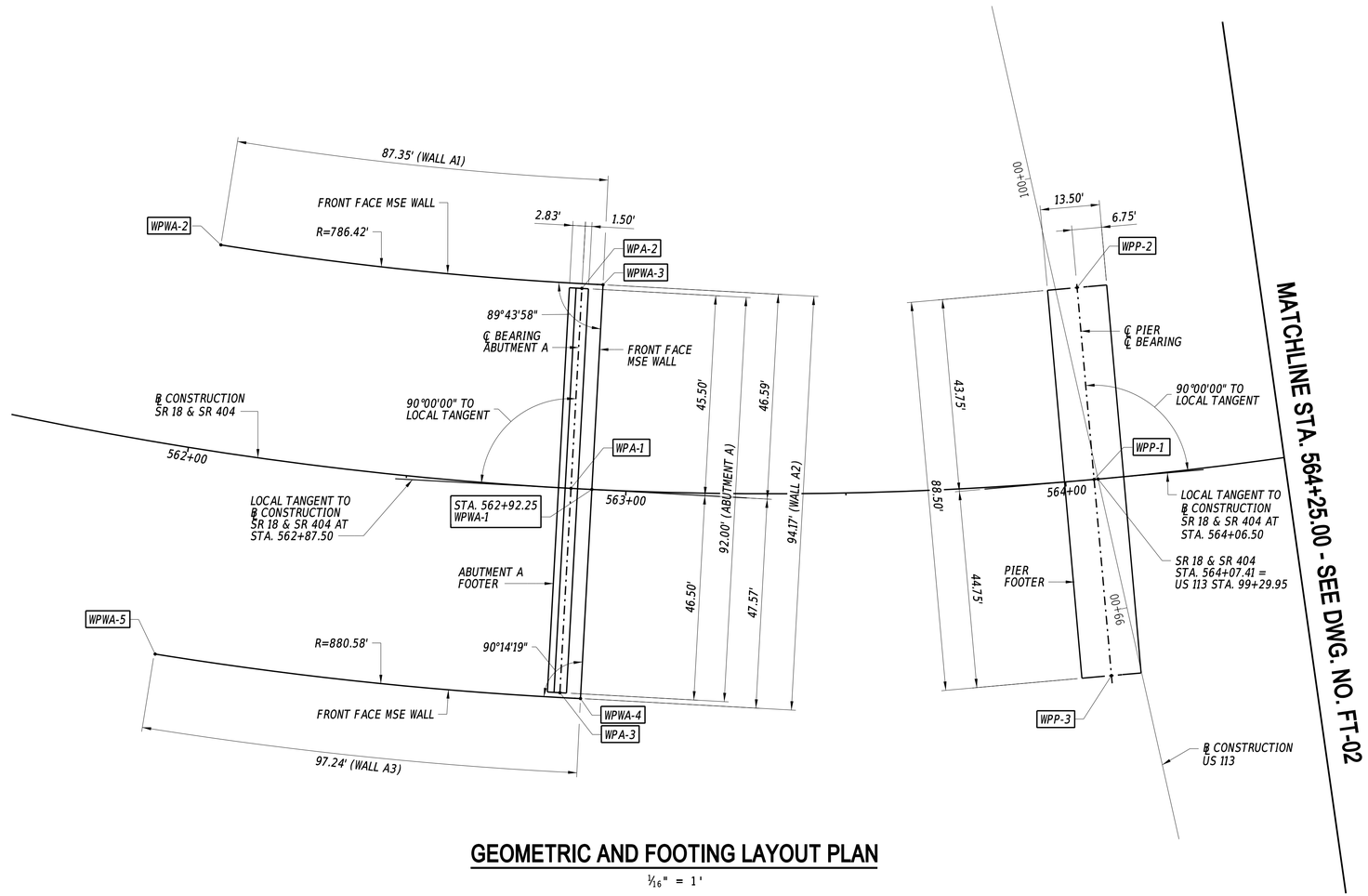
ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. 3-610	GRADING PLAN	GR-01
				COUNTY SUSSEX	DESIGNED BY: R. SEDAR		SECTION WRA
					CHECKED BY: W. GESCHREI		SHEET NO. 100



GEOMETRIC AND FOOTING LAYOUT PLAN

1/16" = 1'

WORKING POINT COORDINATES

NO.	STATION	OFFSET	NORTHING	EASTING
WPA-1	562+87.50	0.00'	254155.7457	6604631.7860
WPA-2	562+87.50	45.50' LT	254201.1785	660634.2581
WPA-3	562+87.50	46.50' RT	254109.3144	660629.2595
WPWA-1	562+92.25	0.00'	254155.5011	660636.5297
WPWA-2	562+00.00	46.58' LT	254211.0685	660552.2193
WPWA-3	562+92.46	46.59' LT	254202.0165	660639.0608
WPWA-4	562+92.05	47.57' RT	254107.9874	660633.9443
WPWA-5	562+00.00	47.58' RT	254118.0956	660537.2725
WPP-1	564+06.50	0.00'	254157.7750	660750.6675
WPP-2	564+06.50	43.75' LT	254201.3538	660746.8008
WPP-3	564+06.50	44.75' RT	254113.2002	660754.6226

ADDENDA / REVISIONS

SCALE
0 16 32 48
FEET

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	T201412701
COUNTY	SUSSEX
BRIDGE NO.	3-610
DESIGNED BY:	R. SEDAR
CHECKED BY:	W. GESCHREI

GEOMETRIC AND
FOOTING LAYOUT
PLAN - I

FT-01
SECTION
WRA
SHEET NO.
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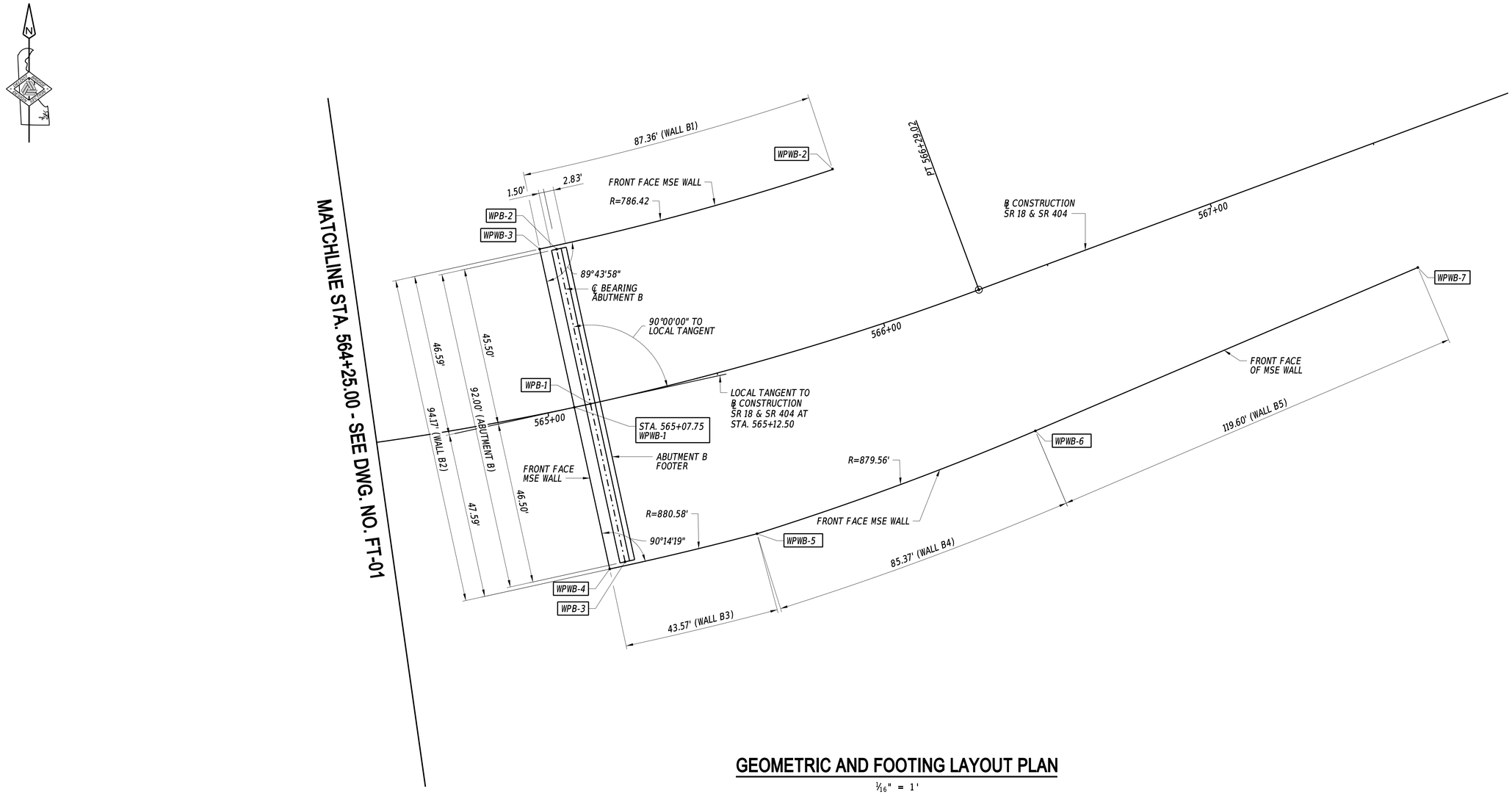

GEOMETRIC AND FOOTING LAYOUT PLAN

1/16" = 1'

WORKING POINT COORDINATES

NO.	STATION	OFFSET	NORTHING	EASTING
WPB-1	565+12.50	0.00'	254173.8270	660855.3727
WPB-2	565+12.50	45.50' LT	254218.2772	660845.6321
WPB-3	565+12.50	46.50' RT	254128.4051	660865.3273
WPWB-1	565+07.75	0.00'	254172.8234	660850.7299
WPWB-2	566+00.00	46.58' LT	254241.2163	660925.0156
WPWB-3	565+07.54	46.59' LT	254218.3276	660840.7573
WPWB-4	565+07.95	47.59' RT	254126.3425	660860.9166
WPWB-5	565+49.22	47.58' RT	254136.4896	660903.2807
WPWB-6	566+30.13	43.70' RT	254166.0574	660983.3363
WPWB-7	567+49.60	37.97' RT	254213.0284	661093.3304

ADDENDA / REVISIONS

SCALE
0 16 32 48
FEET

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	T201412701	
COUNTY	SUSSEX	
BRIDGE NO.	3-610	
DESIGNED BY:	R. SEDAR	
CHECKED BY:	W. GESCHREI	

GEOMETRIC AND FOOTING LAYOUT PLAN - II

FT-02
SECTION WRA
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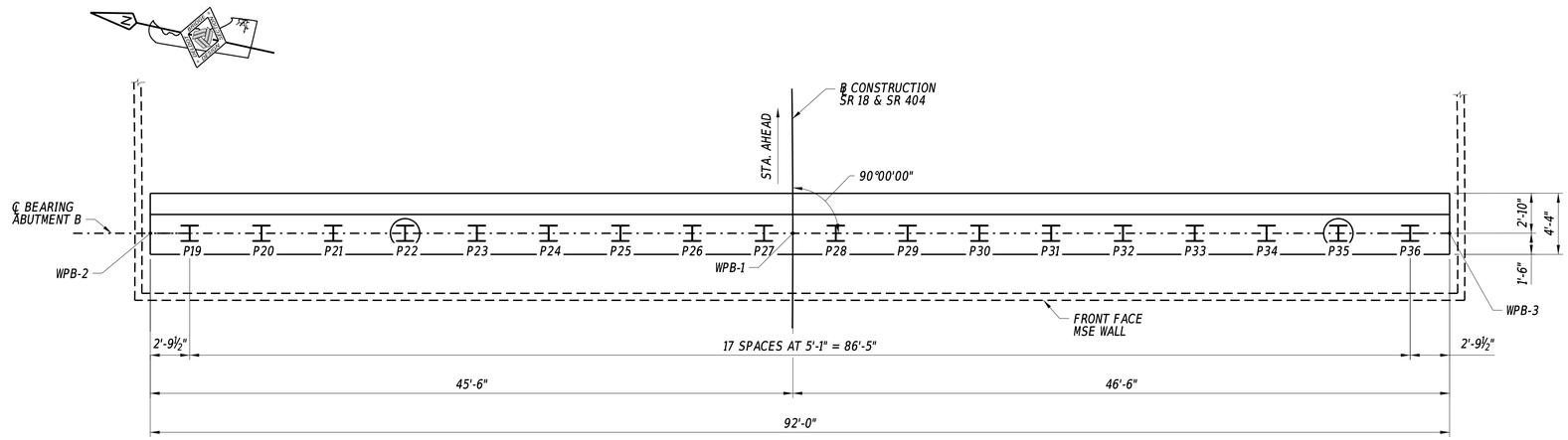
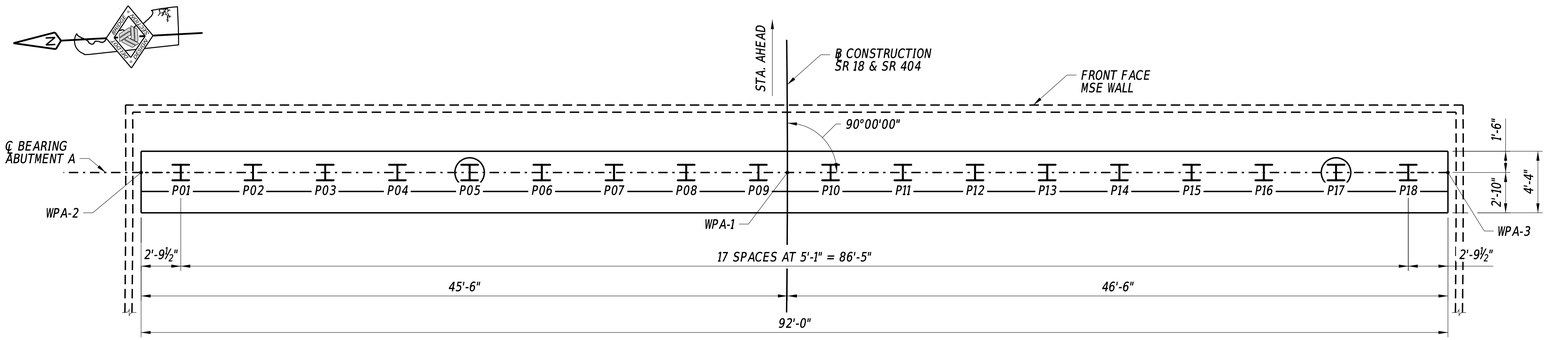


ABUTMENT B PILE LAYOUT

3/16" = 1'-0"

ABUTMENT B PILE COORDINATES				
NO.	STATION	OFFSET	NORTHING	EASTING
P19	565+12.50	42.71' LT	254215.5453	660846.2298
P20	565+12.50	37.63' LT	254210.5798	660847.3180
P21	565+12.50	32.54' LT	254205.6143	660848.4063
P22	565+12.50	27.46' LT	254200.6488	660849.4945
P23	565+12.50	22.38' LT	254195.6833	660850.5827
P24	565+12.50	17.29' LT	254190.7179	660851.6709
P25	565+12.50	12.21' LT	254185.7524	660852.7592
P26	565+12.50	7.13' LT	254180.7869	660853.8474
P27	565+12.50	2.04' LT	254175.8214	660854.9356
P28	565+12.50	3.04' RT	254170.8559	660856.0239
P29	565+12.50	8.13' RT	254165.8904	660857.1121
P30	565+12.50	13.21' RT	254160.9249	660858.2003
P31	565+12.50	18.29' RT	254155.9594	660859.2886
P32	565+12.50	23.38' RT	254150.9940	660860.3768
P33	565+12.50	28.46' RT	254146.0285	660861.4650
P34	565+12.50	33.54' RT	254141.0630	660862.5532
P35	565+12.50	38.63' RT	254136.0975	660863.6415
P36	565+12.50	43.71' RT	254131.1320	660864.7297

PILE DATA							
SUBSTRUCTURE UNIT	DESIGN DATA				ACTUAL FIELD DATA		
	PILE SIZE	MIN. TIP ELEVATION	EST. TIP ELEVATION	EST. PRODUCTION PILE LENGTH	MIN. TIP ELEVATION	AVG. TIP ELEVATION	MAX. TIP ELEVATION
ABUTMENT B	HP 14x73	-15.00	-35.00	98' TO 103'			

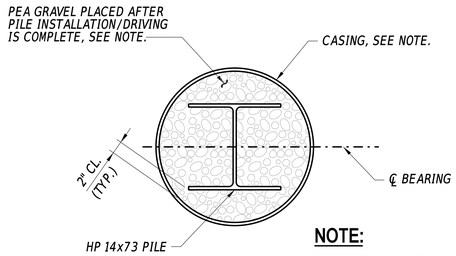


ABUTMENT A PILE LAYOUT

3/16" = 1'-0"

ABUTMENT A PILE COORDINATES				
NO.	STATION	OFFSET	NORTHING	EASTING
P01	562+87.50	42.71' LT	254198.3910	660634.1064
P02	562+87.50	37.63' LT	254193.3125	660633.8302
P03	562+87.50	32.54' LT	254188.2393	660633.5540
P04	562+87.50	27.46' LT	254183.1635	660633.2778
P05	562+87.50	22.38' LT	254178.0877	660633.0016
P06	562+87.50	17.29' LT	254173.0119	660632.7254
P07	562+87.50	12.21' LT	254167.9360	660632.4492
P08	562+87.50	7.13' LT	254162.8602	660632.1730
P09	562+87.50	2.04' LT	254157.7844	660631.8968
P10	562+87.50	3.04' RT	254152.7085	660631.6207
P11	562+87.50	8.13' RT	254147.6327	660631.3445
P12	562+87.50	13.21' RT	254142.5569	660631.0683
P13	562+87.50	18.29' RT	254137.4810	660630.7921
P14	562+87.50	23.38' RT	254130.4052	660630.5159
P15	562+87.50	28.46' RT	254127.3294	660630.2397
P16	562+87.50	33.54' RT	254122.2536	660629.9635
P17	562+87.50	38.63' RT	254117.1777	660629.6873
P18	562+87.50	43.71' RT	254112.1019	660629.4111

PILE DATA							
SUBSTRUCTURE UNIT	DESIGN DATA				ACTUAL FIELD DATA		
	PILE SIZE	MIN. TIP ELEVATION	EST. TIP ELEVATION	EST. PRODUCTION PILE LENGTH	MIN. TIP ELEVATION	AVG. TIP ELEVATION	MAX. TIP ELEVATION
ABUTMENT A	HP 14x73	-15.00	-35.00	98' TO 103'			



NOTE:

PAYMENT FOR CASING AND PEA GRAVEL WILL BE INCIDENTAL TO ITEM NO. 607001 - MECHANICALLY STABILIZED EARTH WALLS. FOR MATERIAL REQUIREMENTS OF PEA GRAVEL/CASING SEE THE STANDARD SPECIFICATIONS.

ABUTMENT PILE CASING DETAIL

1" = 1'-0"

NOTES:

1. CASINGS FOR SEPARATING THE PILES FROM THE MSE WALL BACKFILL SHALL BE INSTALLED AT PILE LOCATIONS PRIOR TO CONSTRUCTING THE MSE WALL.
2. REFER TO PILE DETAILS SHEET FOR MORE INFORMATION.

LEGEND:

I - DENOTES HP 14x73 PILE

(I) - DENOTES TEST PILE

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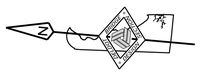
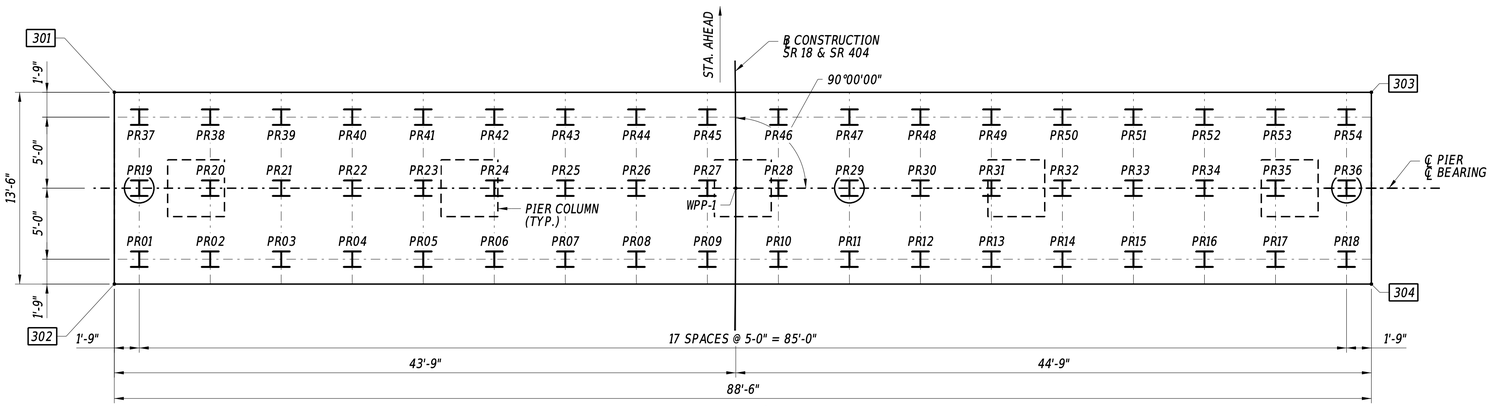
ADDENDA / REVISIONS	SCALE: AS NOTED	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. 3-610	PILE LAYOUT PLAN - ABUTMENT A AND B	PL-01 SECTION WRA
			COUNTY SUSSEX	DESIGNED BY: R. SEDAR		SHEET NO. 103
				CHECKED BY: W. GESCHREI		





PIER PILE LAYOUT PLAN

3/16" = 1'-0"

PIER PILE COORDINATES

NO.	STATION	OFFSET	NORTHING	EASTING
PR01	564+01.23	41.98' LT	254199.1688	660741.9750
PR02	564+01.27	36.98' LT	254194.1884	660742.4169
PR03	564+01.30	31.98' LT	254189.2079	660742.8588
PR04	564+01.33	26.98' LT	254184.2275	660743.3007
PR05	564+01.36	21.98' LT	254179.2471	660743.7426
PR06	564+01.40	16.98' LT	254174.2666	660744.1845
PR07	564+01.43	11.98' LT	254169.2862	660744.6264
PR08	564+01.46	6.98' LT	254164.3058	660745.0683
PR09	564+01.49	1.99' LT	254159.3253	660745.5102
PR10	564+01.52	3.01' RT	254154.3449	660745.9522
PR11	564+01.55	8.01' RT	254149.3644	660746.3941
PR12	564+01.58	13.01' RT	254144.3840	660746.8360
PR13	564+01.61	18.01' RT	254139.4036	660747.2779
PR14	564+01.63	23.01' RT	254134.4231	660747.7198
PR15	564+01.66	28.01' RT	254129.4427	660748.1617
PR16	564+01.69	33.01' RT	254124.4623	660748.6036
PR17	564+01.72	38.01' RT	254119.4818	660749.0455
PR18	564+01.75	43.01' RT	254114.5014	660749.4874
PR19	564+06.50	42.00' LT	254199.6107	660746.9555
PR20	564+06.50	37.00' LT	254194.6303	660747.3974
PR21	564+06.50	32.00' LT	254189.6498	660747.8393
PR22	564+06.50	27.00' LT	254184.6694	660748.2812
PR23	564+06.50	22.00' LT	254179.6890	660748.7231
PR24	564+06.50	17.00' LT	254174.7085	660749.1650
PR25	564+06.50	12.00' LT	254169.7281	660749.6069
PR26	564+06.50	7.00' LT	254164.7477	660750.0488
PR27	564+06.50	2.00' LT	254159.7672	660750.4907
PR28	564+06.50	3.00' RT	254154.7868	660750.9326
PR29	564+06.50	8.00' RT	254149.8063	660751.3745
PR30	564+06.50	13.00' RT	254144.8259	660751.8164
PR31	564+06.50	18.00' RT	254139.8455	660752.2583
PR32	564+06.50	23.00' RT	254134.8650	660752.7002
PR33	564+06.50	28.00' RT	254129.8846	660753.1421
PR34	564+06.50	33.00' RT	254124.9042	660753.5840
PR35	564+06.50	38.00' RT	254119.9237	660754.0259
PR36	564+06.50	43.00' RT	254114.9433	660754.4679
PR37	564+11.77	41.98' LT	254200.0526	660751.9359
PR38	564+11.73	36.98' LT	254195.0722	660752.3778
PR39	564+11.70	31.98' LT	254190.0917	660752.8197
PR40	564+11.67	26.98' LT	254185.1113	660753.2616
PR41	564+11.64	21.98' LT	254180.1309	660753.7035
PR42	564+11.60	16.98' LT	254175.1504	660754.1454
PR43	546+11.57	11.98' LT	254170.1700	660754.5873
PR44	564+11.54	6.98' LT	254165.1896	660755.0292
PR45	546+11.51	1.99' LT	254160.2091	660755.4711
PR46	546+11.48	3.01' RT	254155.2287	660755.9131
PR47	546+11.45	8.01' RT	254150.2482	660756.3550
PR48	564+11.42	13.01' RT	254145.2678	660756.7969
PR49	546+11.39	18.01' RT	254140.2874	660757.2388
PR50	546+11.37	23.01' RT	254135.3069	660757.6807
PR51	546+11.34	28.01' RT	254130.3265	660758.1226
PR52	564+11.31	33.01' RT	254125.3461	660758.5645
PR53	546+11.28	38.01' RT	254120.3656	660759.0064
PR54	546+11.25	43.01' RT	254115.3852	660759.4483

PIER FTG. WORKING POINTS

NO.	STATION	OFFSET	NORTHING	EASTING
301	564+13.62	46.48' LT	254201.4524	660753.5244
302	563+99.38	43.76' LT	254200.7572	660740.0772
303	564+12.91	47.51' RT	254113.7967	660761.3461
304	564+00.09	44.86' RT	254112.6036	660747.8990

PILE DATA

SUBSTRUCTURE UNIT	DESIGN DATA				ACTUAL FIELD DATA		
	PILE SIZE	MIN. TIP ELEVATION	EST. TIP ELEVATION	EST. PRODUCTION PILE LENGTH	MIN. TIP ELEVATION	AVG. TIP ELEVATION	MAX. TIP ELEVATION
PIER	HP 14x73	-25.00	-40.00	83'			

LEGEND:

300 - DENOTES WORKING POINTS

I - DENOTES HP 14x73 PILE

(I) - DENOTES TEST PILE

ADDENDA / REVISIONS

SCALE
0 5 11 16
FEET

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO.	3-610
T201412701	DESIGNED BY: R. SEDAR	
COUNTY	CHECKED BY: W. GESCHREI	
SUSSEX		

PILE LAYOUT PLAN - PIER

PL-02

SECTION
WRA
SHEET NO.
104

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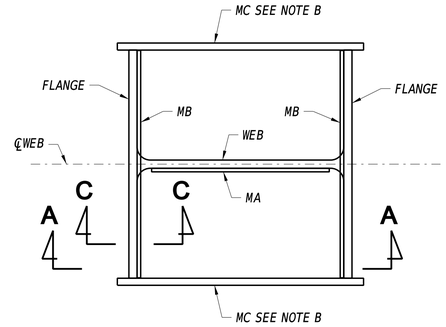
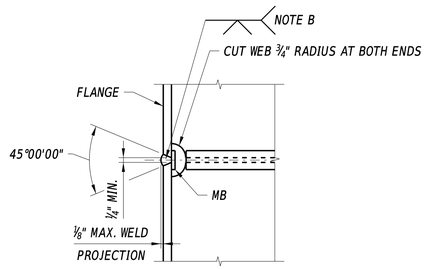
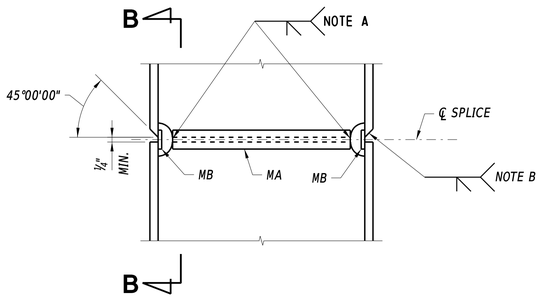


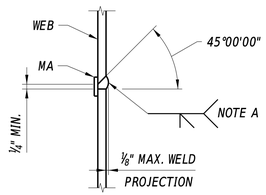
PLAN



SECTION C-C
ALTERNATE FLANGE WELD



SECTION A-A



SECTION B-B

SPLICE MATERIAL REQUIREMENTS
HP 14"
1 BAR MA 1"x¼"x1'-0"
2 BARS MB 1"x¼"x1'-2½"
2 BARS MC 3"x⅜"x1'-3"

NOTES:

NOTE A: END OF WELD SHALL BE SMOOTH AND FLUSH WITH WEB CUT, ¼" MIN. EFFECTIVE THROAT.

NOTE B: BAR MC SHALL BE TACK WELDED TO FLANGE AT SPLICE TO BACK UP END OF FLANGE WELD, REMOVE MC AFTER WELD IS COMPLETED. END OF WELD MUST BE SMOOTH AND FLUSH EDGE OF FLANGE. GRIND WELD SMOOTH WITH EDGE OF FLANGE IF PILE IS UNSUPPORTED IN WELD AREA SUCH AS IN AIR, WATER, OR SOFT MUD, ¼" MIN. EFFECTIVE THROAT.

NOTE C: LET WELDS COOL TO AIR TEMPERATURE BEFORE RESUMING THE PILE DRIVING.

NOTE D: NO PILE SPLICING SHALL BE ALLOWED ON ANY PORTION OF PILE THAT IS TO REMAIN EXPOSED OR TO BE ABOVE FINISHED GROUNDLINE IN COMPLETED STRUCTURE.

NOTE E: ALL SPLICE MATERIALS SHALL BE ASTM 709, GRADE 50.

NOTE F: THE 0.25 INCH THICKNESS FOR MA AND MB BARS SPECIFIED IN THE 'SPLICE MATERIAL REQUIREMENTS' TABLE MAY BE REDUCED TO A MINIMUM OF 0.203 INCH THICKNESS

STEEL H-PILE SPLICE DETAILS

3"=1'-0"

PROJECT SPECIFIC PILE NOTES:

1. PILE TYPE:
   THIS PROJECT SHALL UTILIZE HP 14x73 PILES CONFORMING TO ASTM A 709, GRADE 50.
2. ESTIMATED PRODUCTION PILE LENGTH VARIES BETWEEN SUBSTRUCTURE UNITS, SEE PILE DATA TABLES ON PILE LAYOUT PLAN SHEETS FOR ESTIMATED PRODUCTION PILE LENGTH.
3. REQUIRED TEST PILE LENGTH IS 10'-0" LONGER THAN THE ESTIMATED PRODUCTION PILE LENGTH.
4. ALL PILES SHALL BE DRIVEN TO A NOMINAL BEARING RESISTANCE OF 324 KIPS. THE NOMINAL BEARING RESISTANCE PROVIDES A FACTORED BEARING RESISTANCE OF 210 KIPS USING A RESISTANCE FACTOR OF 0.65.
5. RESTRIKES SHALL BE PERFORMED A MINIMUM OF 14 DAYS AFTER INITAL DRIVING.
6. RESTRIKES ARE TO BE PERFORMED ON PILES WHERE INITIAL PILE DRIVING HAS NOT OCCURRED WITHIN 25 FEET FOR A MINIMUM OF 14 DAYS.
7. IF LANE CLOSURES ARE REQUIRED TO PERFORM PILE RESTRIKES, THE RESTRIKES SHALL BE PERFORMED DURING OVERNIGHT LANE CLOSURES.
8. REFER TO THE PILE DATA TABLE FOR MINIMUM TIP ELEVATION.

GENERAL PILE NOTES:

1. FOR MORE INFORMATION REGARDING PILE DRIVING, INSTALLATION, MATERIALS, AND FABRICATION, REFER TO SECTION 605 - DRIVEN PILES OF THE STANDARD SPECIFICATIONS.
2. EACH TEST PILE SHALL BE DYNAMICALLY TESTED BY THE CONTRACTOR IN ACCORDANCE WITH ITEM #605201 - DYNAMIC PILE TESTING BY CONTRACTOR. THE QUANTITY FOR DYNAMIC PILE TESTING SHALL INCLUDE ONE FOR THE INITIAL DRIVE AND ONE FOR THE RE-STRIKE OF EACH TEST PILE. THE NEED TO RE-STRIKE EITHER A TEST PILE OR A PRODUCTION PILE SHALL BE THE SOLE DECISION OF THE ENGINEER.
3. WAVE EQUATION ANALYSIS SHALL BE SUBMITTED BY THE CONTRACTOR FOR REVIEW BY THE ENGINEER (ELECTRONIC PREFERRED, OTHERWISE 8 COPIES MINIMUM).
4. FOR PILE DATA TABLES, SEE RESPECTIVE PILE LAYOUT PLAN SHEET ON DWGS. PL-01 THROUGH PL-02.
5. DRIVE TEST PILES AT EACH LOCATION SHOWN ON THE PLANS, PRODUCTION PILES WILL BE ORDERED BASED ON THE RESULTS OF THE TEST PILE DRIVING.

STEEL H-PILE NOTES:

1. STEEL H-PILE SPLICE DETAILS APPLY ONLY TO HP 14" PILES.
2. THE CONTRACTOR MAY CONSIDER USING ALTERNATE STEEL H-PILE SPLICE DETAILS. ALL ALTERNATE DETAILS FOR STEEL H-PILE SPLICING SHALL BE SUBMITTED TO THE DEPARTMENT FOR APPROVAL, HOWEVER THERE IS NO GUARANTEE THE ALTERNATE SPLICE DETAIL WILL BE ACCEPTED. THE DEPARTMENT OR ENGINEER MAY REJECT ANY ALTERNATE FOR ANY REASON. USE OF ALTERNATE SPLICE DETAILS SHALL BE AT NO ADDITIONAL COST TO THE DEPARTMENT.

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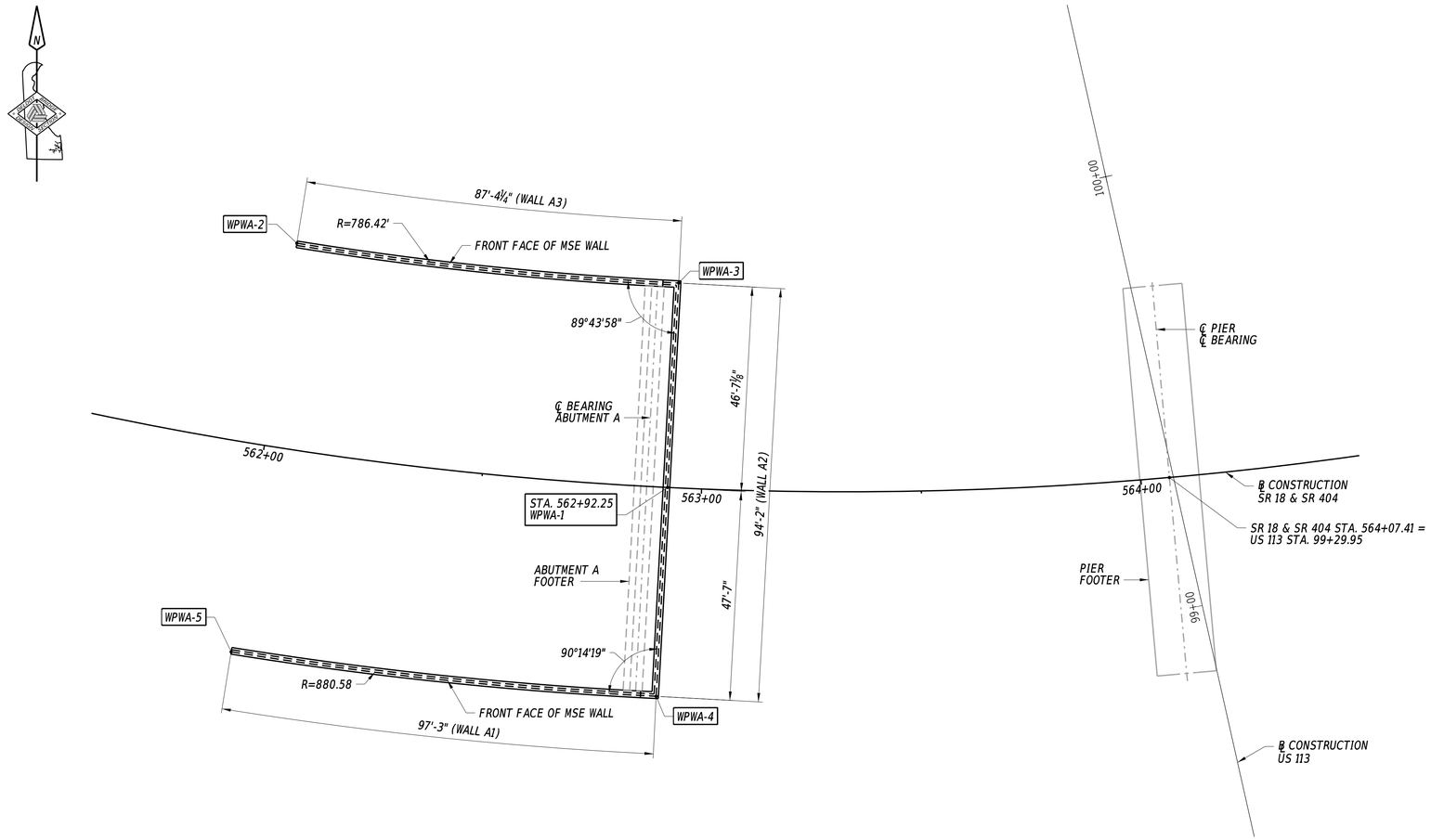
ADDENDA / REVISIONS		SCALE 0 0 1 1 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. 3-610	STEEL H-PILE DETAILS	PL-03 SECTION WRA
				COUNTY SUSSEX	DESIGNED BY: R. SEDAR		SHEET NO. 105
					CHECKED BY: W. GESCHREI		



MSE WALL A LAYOUT PLAN

1/16" = 1'

MSE WALL WORKING POINTS

NO.	STATION	OFFSET	NORTHING	EASTING
WPWA-1	562+92.25	0.00'	254155.5011	660636.5297
WPWA-2	562+00.00	46.58' LT	254211.0685	660552.2193
WPWA-3	562+92.46	46.59' LT	254202.0165	660639.0608
WPWA-4	562+92.05	47.57' RT	254107.9874	660633.9443
WPWA-5	562+00.00	47.58' RT	254118.0956	660537.2725

NOTES:

1. WORKING POINT SHOWN ARE TO THE FRONT FACE OF THE MSE WALL PANELS.
2. DIMENSIONS SHOWN FOR MSE WALLS ARE MEASURED FROM WORKING POINT TO WORKING POINT ALONG FRONT FACE OF MSE WALL PANELS.

ADDENDA / REVISIONS

SCALE
0 16 32 48
FEET

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	T201412701	
COUNTY	SUSSEX	
BRIDGE NO.	3-610	
DESIGNED BY:	R. SEDAR	
CHECKED BY:	W. GESCHREI	

MSE WALL A LAYOUT PLAN

WA-01
SECTION: WRA
SHEET NO.: 106

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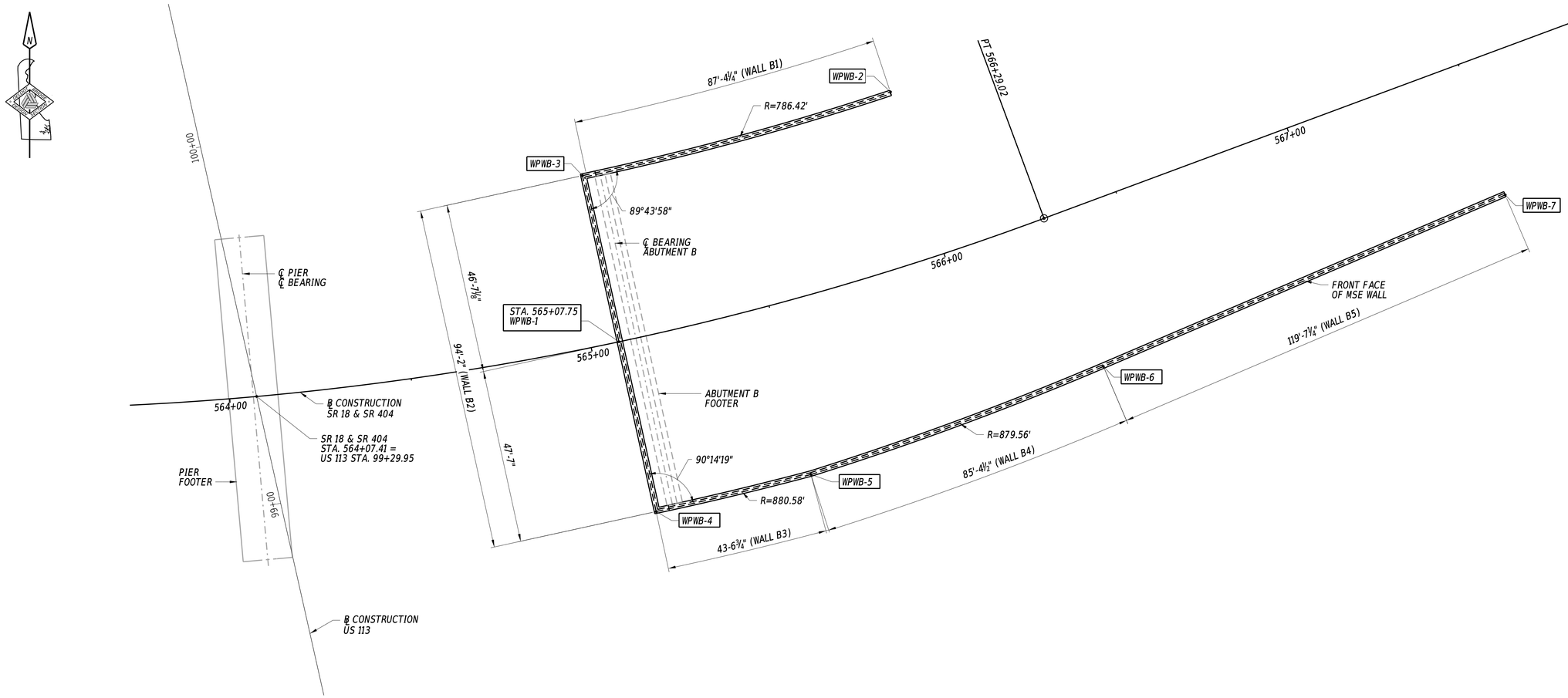

MSE WALL B LAYOUT PLAN

1/16" = 1'

MSE WALL WORKING POINTS				
NO.	STATION	OFFSET	NORTHING	EASTING
WPWB-1	565+08.83	0.00'	254172.8234	660850.7299
WPWB-2	566+00.00	46.58' LT	254241.2163	660925.0156
WPWB-3	565+07.54	46.59' LT	254218.3276	660840.7573
WPWB-4	565+07.95	47.59' RT	254126.34.25	660860.9166
WPWB-5	565+49.22	47.58' RT	254136.4896	660903.2807
WPWB-6	566+30.13	43.70' RT	254166.0574	660983.3363
WPWB-7	567+49.60	37.97' RT	254213.0284	661093.3304

NOTES:

1. WORKING POINT SHOWN ARE TO THE FRONT FACE OF THE MSE WALL PANELS.
2. DIMENSIONS SHOWN FOR MSE WALLS ARE MEASURED FROM WORKING POINT TO WORKING POINT ALONG FRONT FACE OF MSE WALL PANELS.

ADDENDA / REVISIONS		SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. 3-610	MSE WALL B LAYOUT PLAN	WA-02
		0 16 32 48		T201412701			SECTION
		FEET		COUNTY	DESIGNED BY: R. SEDAR		WRA
				SUSSEX	CHECKED BY: W. GESCHREI		SHEET NO.
							107

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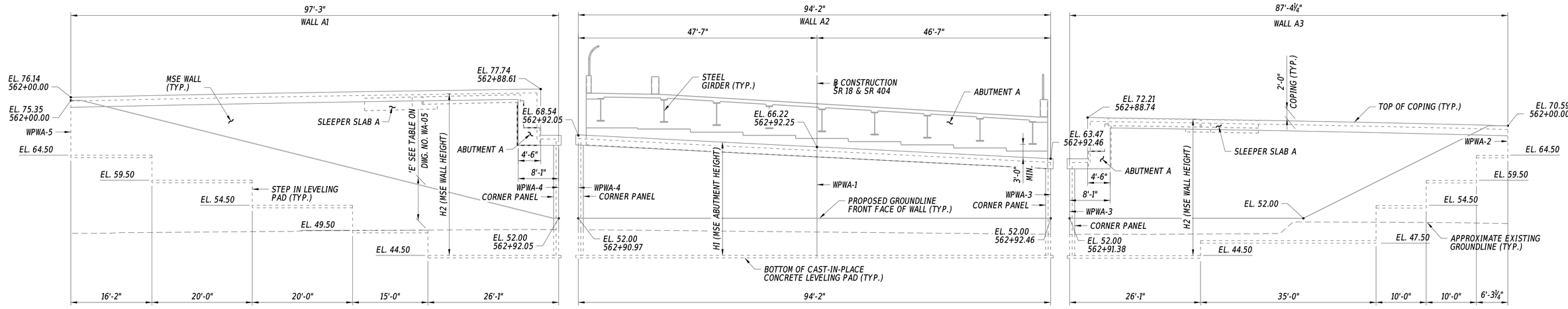

DATUM = 30.00 **DATUM = 30.00**

DEVELOPED ELEVATION - WALL A

1" = 10'-0"

MECHANICALLY STABILIZED EARTH (MSE) WALL NOTES:

1. *DESIGN:*
THE INTERNAL STABILITY OF THE MSE WALL SHALL BE DESIGNED BY THE PROPRIETARY WALL MANUFACTURER USING THE SOIL PROPERTIES PROVIDED AT EACH MSE WALL LOCATION. THE INTERNAL STABILITY CALCULATIONS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF DELAWARE AS INDICATED IN THE PROJECT SPECIFICATIONS. DESIGN SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS. ALL MSE WALL PANEL TYPES AND RELATED ITEMS SHALL BE DETAILED ON SHOP DRAWINGS AND SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL.

2. *CONCRETE:*
ALL CONCRETE PROPERTIES SHALL BE IN ACCORDANCE WITH THE DELAWARE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.

ALL EXPOSED EDGES SHALL BE CHAMFERED ¾" UNLESS NOTED OTHERWISE.

3. *ARCHITECTURAL FINISH:*
THE FRONT FACE OF THE MSE WALL PANELS SHALL HAVE A FORM LINER FINISH. SEE DWG. NO. WA-06 FOR AESTHETIC DETAILS.

4. *SERVICE LIFE:*
ALL MSE WALL COMPONENTS SHALL BE DESIGNED FOR A MINIMUM SERVICE LIFE OF 100 YEARS.

5. *REINFORCING STRIPS:*
MSE REINFORCING STRIP LENGTHS SHALL NOT BE LESS THAN MINIMUM LENGTHS LISTED IN MSE WALL DATA TABLE, DWG. NO. WA-05. REINFORCING STRIPS SHALL BE LOCATED TO CLEAR ABUTMENT CASING PILES WITH 2" MINIMUM CLEARANCE AND A MAXIMUM 15 DEGREE SKEW.

6. *BEARING RESISTANCE:*
FACTORED MSE LOADS CALCULATED AT THE BOTTOM OF THE MSE WALL SHALL NOT EXCEED MAXIMUM FACTORED BEARING RESISTANCES LISTED IN MSE WALL DATA TABLE, DWG. NO. WA-05.

7. *LEVELING PAD:*
LEVELING PAD STEPS MAY BE LOCATED AT THE DISCRETION OF THE PROPRIETARY WALL MANUFACTURER PROVIDED THAT THE MINIMUM EMBEDMENT IS MAINTAINED AS SPECIFIED IN MSE WALL DATA TABLE, DWG. WA-05. ANY CHANGES TO THE STEP LOCATIONS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

8. *SLIP JOINTS:*
SLIP JOINT LOCATIONS SHOWN ON WALL ELEVATION DRAWINGS ARE MINIMUM REQUIRED JOINTS. THE PROPRIETARY WALL MANUFACTURER MAY ADD SLIP JOINTS AS REQUIRED. SLIP JOINT LOCATIONS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

9. *WALL BACKFILL:*
MSE WALL BACKFILL SHALL CONSIST OF DELAWARE NO. 57 COARSE AGGREGATE WITH MINIMUM SOIL FRICTION ANGLE OF 34 DEGREES.

10. *RETAINED SOIL:*
MSE WALLS SHALL BE DESIGNED TO RESIST FORCES FROM RETAINED FILL WITH THE FOLLOWING PARAMETERS:

WALLS NOS.:	*A1, A2, A3, B1, B2, B3, B4 & B5*
SOIL FRICTION ANGLE:	*30 DEGREES*
TOTAL UNIT WEIGHT:	*120 PCF*

11. *SURCHARGE:*
MSE WALL DESIGN SHALL INCLUDE A MINIMUM TRAFFIC SURCHARGE OF 250 PSF APPLIED UNIFORMLY ALONG THE ROADWAY SURFACE.

12. *ADDITIONAL LATERAL LOAD:*
ABUTMENT ANCHORS AND WALL REINFORCEMENT AT WALL A2 & B2 SHALL BE DESIGNED TO RESIST FORCES APPLIED TO THE EXPANSION BEARINGS AT ABUTMENT. MSE WALL STABILITY CALCULATIONS SHALL INCLUDE APPLIED SUPERSTRUCTURE LOADING. LOADS = 2.50 KIPS/FT.

13. *FOUNDATION PROOF-ROLL:*
AFTER EXCAVATION TO THE BOTTOM OF THE MSE WALL AND PRIOR TO INSTALLING WALL FOOTINGS, WALL LEVELING PAD AND BACKFILL, THE EXPOSED FOUNDATION SOIL SHALL BE PROOF-ROLLED WITH MULTIPLE PASSES OF WALL COMPACTION EQUIPMENT. NO DENSITY TEST IS REQUIRED. UNSUITABLE FOUNDATION MATERIAL SUCH AS ORGANIC SOIL, SATURATED SOIL OR DEBRIS SHALL BE REMOVED AND REPLACED WITH DELAWARE NO. 57 STONE PLACED ON AN APPROVED GEOTEXTILE SEPARATION FABRIC IN ACCORDANCE WITH SECTION 708.

14. *SEPARATION FABRIC:*
REINFORCED FILL FOR ALL MSE WALLS SHALL BE SEPARATED FROM FOUNDATION SOILS USING AN APPROVED GEOTEXTILE SEPARATION FABRIC IN ACCORDANCE WITH SECTION 708. PAYMENT FOR GEOTEXTILE SHALL BE INCIDENTAL TO ITEM NO. 607001.

15. *MINIMUM JOINT WIDTH:*
MSE WALL PANELS SHALL BE CONSTRUCTED WITH A MINIMUM ½" JOINT WIDTH AFTER INSTALLATION.

16. *WALL MONITORING:*
THREE-DIMENSIONAL MONITORING POINTS SHALL BE INSTALLED ON THE FRONT FACE OF THE MSE WALL PANELS ABOVE THE FINISHED GRADE AT THE BOTTOM OF THE WALL ACCORDING TO SPECIAL PROVISION FOR SETTLEMENT MONUMENTS. MONITORING POINTS SHALL BE FIXABLE SURVEY TARGETS INSTALLED AT EVERY WALL END, CORNER, AND A MINIMUM OF EVERY 100 FEET ALONG EACH MSE WALL ALIGNMENT. A PLAN SHALL BE SUBMITTED TO THE DEPARTMENT SHOWING MONITORING POINT TYPE, LOCATION, ELEVATION, NAME OR NUMBER DESIGNATION, AND THREE DIMENSIONAL COORDINATE SYSTEM. SURVEY READINGS SHALL PROVIDE THE THREE-DIMENSIONAL COORDINATES OF EACH MONITORING POINT.

AT A MINIMUM, MONITORING POINTS SHALL BE SURVEYED TWICE WEEKLY FOR THE DURATION OF MSE WALL CONSTRUCTION AND WEEKLY FOR THE REMAINDER OF CONSTRUCTION (ABUTMENT CONCRETE AND PAVEMENT). READINGS SHALL BE PERFORMED BY THE CONTRACTOR'S SURVEYOR. UPDATED SURVEY READINGS SHALL BE PROVIDED TO THE ENGINEER FOR REVIEW EVERY WEEK. MONITORING POINT READINGS SHALL BE USED TO DETERMINE THE END OF SETTLEMENT QUARANTINE PERIOD.

17. *SETTLEMENT AND QUARANTINE PERIOD:*
MSE WALL SHALL UNDERGO A SETTLEMENT QUARANTINE PERIOD. THE SETTLEMENT QUARANTINE PERIOD SHALL BEGIN AFTER COMPLETION OF MSE WALL FILL IN THE AREA AND EXTEND FOR A MINIMUM OF 30 DAYS OR AS DETERMINED BY THE ENGINEER. THE END OF THE SETTLEMENT QUARANTINE PERIOD SHALL BE DETERMINED BY THE ENGINEER BASED ON REVIEW OF SETTLEMENT MONITORING READINGS. ABUTMENT CONCRETE, PAVEMENT, AND MSE WALL COPING SHALL NOT BE INSTALLED IN THE AREA PRIOR TO THE END OF THE SETTLEMENT QUARANTINE PERIOD.

18. *WALL SYSTEM:*
ONLY ONE MSE WALL SYSTEM SHALL BE USED ON THIS PROJECT.

19. *TEMPORARY SUPPORT OF EMBANKMENT:*

TEMPORARY SUPPORT OF EMBANKMENT IS REQUIRED AT THE REAR FACE OF BOTH ABUTMENT CAPS AND BACKWALLS TO ALLOW THE UNDERLYING SOILS TO PRECONSOLIDATE UNDER THE FINAL REQUIRED SOIL PRESSURE PRIOR TO FILLING THE PILE SLEEVES AND ABUTMENT CAP CONSTRUCTION. THE LIMITS OF THE TEMPORARY SUPPORT OF EMBANKMENT SHALL BE THE FULL ABUTMENT HEIGHT OVER THE FULL ABUTMENT LENGTH. THE TEMPORARY SUPPORT OF EMBANKMENT SHALL BE DESIGNED BY THE MSE WALL DESIGNER TO RESIST THE FULL HORIZONTAL EARTH PRESSURE AND HORIZONTAL SOIL PRESSURE DUE TO SURCHARGE OF SOIL AND THE CONTRACTOR'S EQUIPMENT AND MATERIALS. ALL MSE WALL REINFORCING STRIPS SHALL BE DESIGNED FOR A MINIMUM SERVICE LIFE OF 100 YEARS. THE DESIGN OF THE TEMPORARY SUPPORT OF EMBANKMENT SHALL BE COMPATIBLE WITH THE ABUTMENT ANCHORS SHOWN ON DWG. NOS. AB-02 AND AB-04. PAYMENT FOR CONSTRUCTION OF THE TEMPORARY SUPPORT OF EMBANKMENT WILL BE MADE UNDER ITEM 607001 - MECHANICALLY STABILIZED EARTH WALLS. SEE THE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

NOTES:

1. *FOR GEOMETRIC LAYOUT, SEE DWG. NO. WA-01.*
2. *ALL LINEAR DIMENSIONS GIVEN ALONG THE FRONT FACE OF MSE WALL.*
3. *ABUTMENT A PILES NOT SHOWN FOR CLARITY.*
4. *CONTRACTION AND EXPANSION JOINTS IN CONCRETE COPING SHALL ALIGN WITH THE VERTICAL JOINTS IN THE MSE WALL PANELS OR BE PLACED AS RECOMMENDED BY THE MSE WALL MANUFACTURER.*

ADDENDA / REVISIONS		SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. 3-610	MSE WALL A ELEVATION AND MSE WALL NOTES	WA-03 SECTION
		0 10 20 30 FEET		T201412701			WRA
				COUNTY	DESIGNED BY: R. SEDAR		SHEET NO.
				SUSSEX	CHECKED BY: W. GESCHREI		108

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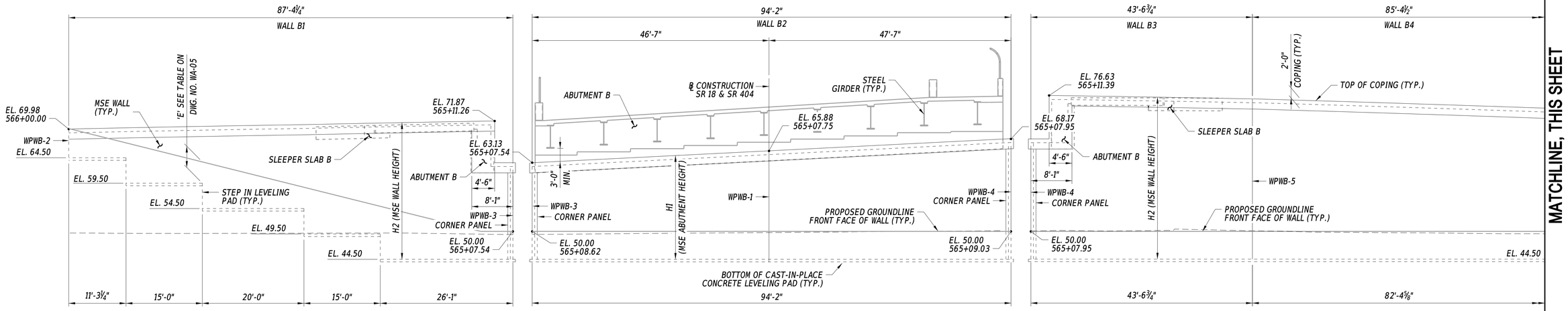

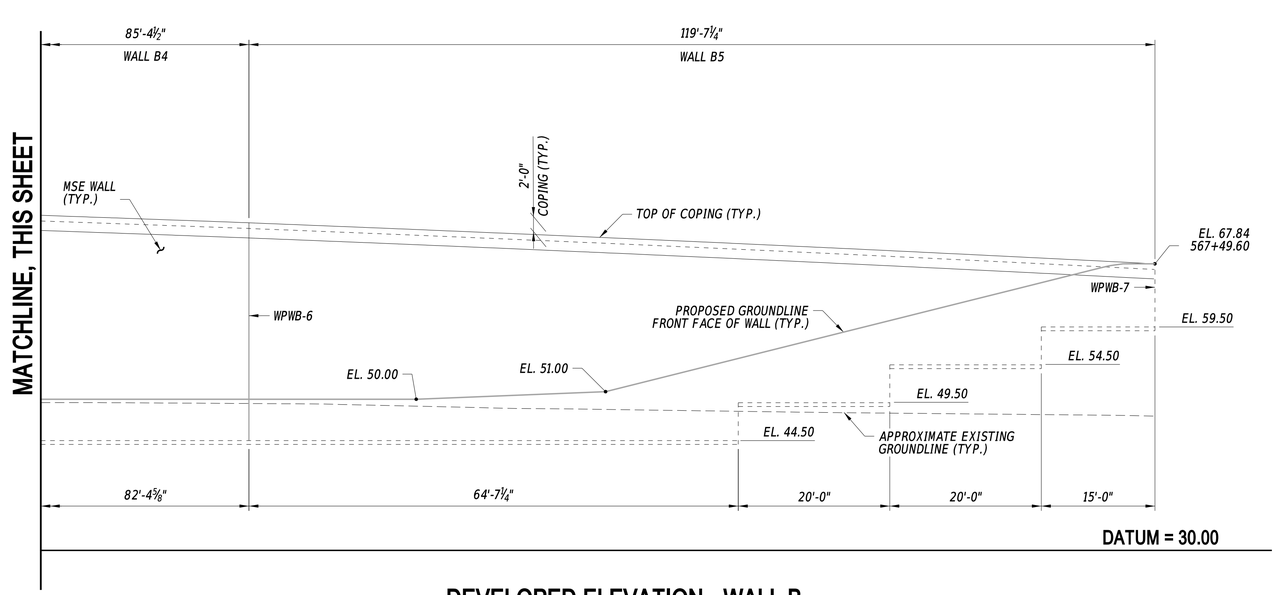

DEVELOPED ELEVATION - WALL B

1" = 10'-0"

NOTES:

1. FOR GEOMETRIC LAYOUT, SEE DWG. NO. WA-02.
2. ALL LINEAR DIMENSIONS GIVEN ALONG THE FRONT FACE OF MSE WALL.
3. ABUTMENT B PILES NOT SHOWN FOR CLARITY.
4. CONTRACTION AND EXPANSION JOINTS IN CONCRETE COPING SHALL ALIGN WITH THE VERTICAL JOINTS IN THE MSE WALL PANELS OR BE PLACED AS RECOMMENDED BY THE MSE WALL MANUFACTURER.
5. FOR MECHANICALLY STABILIZED EARTH (MSE) WALL NOTES, SEE DWG. NO. WA-03.

ADDENDA / REVISIONS	SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. 3-610	MSE WALL B ELEVATION	WA-04
	0 10 20 30 FEET		T201412701	DESIGNED BY: R. SEDAR		SECTION WRA
			COUNTY SUSSEX	CHECKED BY: W. GESCHREI		SHEET NO. 109

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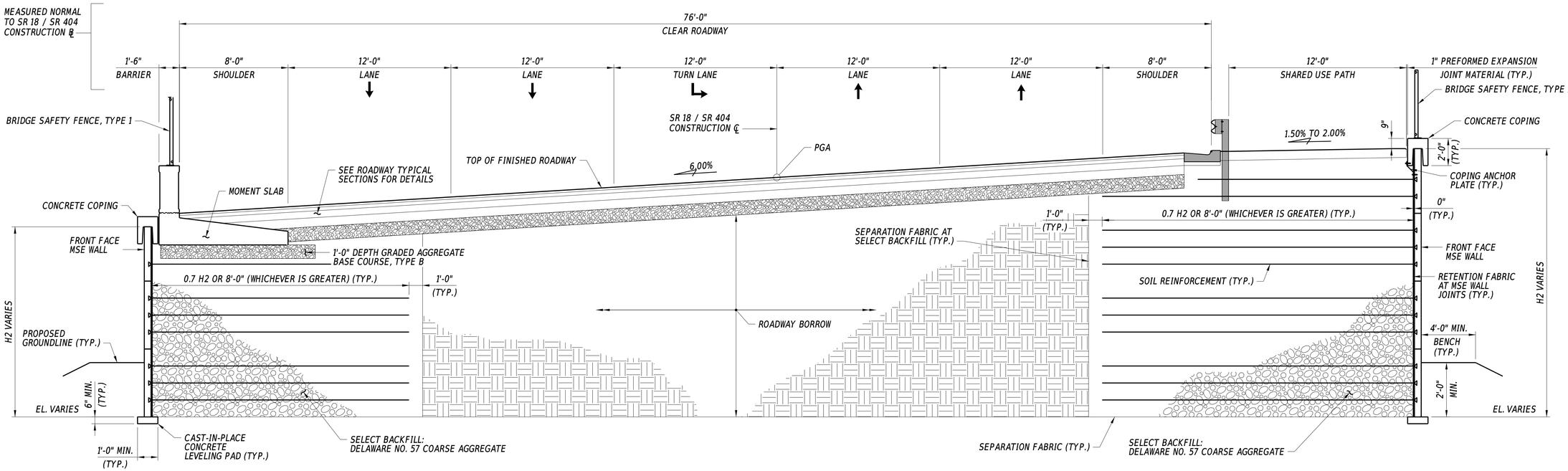

MSE WALL TYPICAL SECTION

¼" = 1'-0"

MSE WALL DATA

WALL	STATION RANGE (FROM - TO)	MIN REINFORCING STRAP LENGTH 'L' (FT.)	MIN WALL TOE EMBEDMENT 'E' (FT.)	MAXIMUM FACTORED BEARING RESISTANCE (KSF)
A1	WPWA-5 - 562+00.00	22.0	2.00	6.0
	WPWA-4 - 562+92.05			
A2	WPWA-4 - 562+92.05	39.0	4.00	4.0
	WPWA-3 - 562+92.46			
A3	WPWA-3 - 562+92.46	20.0	2.00	6.0
	WPWA-2 - 562+00.00			
B1	WPWB-2 - 566+00.00	18.0	2.00	6.0
	WPWB-3 - 565+07.54			
B2	WPWB-3 - 565+07.54	38.0	4.00	4.0
	WPWB-4 - 565+07.95			
B3	WPWB-4 - 565+07.95	26.0	2.00	6.0
	WPWB-5 - 565+49.22			
B4	WPWB-5 - 565+49.22	26.0	2.00	6.0
	WPWB-6 - 566+30.13			
B5	WPWB-6 - 566+30.13	23.0	2.00	6.0
	WPWB-7 - 567+49.60			

NOTES:

1. FOR MSE WALL LAYOUT, SEE DWG. NO. WA-01 AND WA-02.
2. FOR MSE WALL ELEVATIONS, SEE DWG. NO. WA-03 AND WA-04.
3. FOR MOMENT SLAB DETAILS, SEE DWG. NO. MS-01 THROUGH MS-03.
4. MSE WALL SHALL BE IN CONFORMANCE WITH SECTION 607 OF THE STANDARD SPECIFICATIONS.
5. STRENGTH FACTORED BEARING RESISTANCE CALCULATED USING A RESISTANCE FACTOR OF 0.65.
6. EXTREME EVENT BEARING RESISTANCE CALCULATED USING A RESISTANCE FACTOR OF 1.00.
7. AREAS OF FILL BETWEEN REINFORCED BACKFILL SECTIONS WILL NOT BE MEASURED BUT WILL BE CONSIDERED INCIDENTAL TO ITEMS 607001 - MECHANICALLY STABILIZED EARTH WALLS.

ADDENDA / REVISIONS

SCALE 0 4 8 12 FEET

US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO. 3-610
T201412701	DESIGNED BY: R. SEDAR
COUNTY	CHECKED BY: W. GESCHREI
SUSSEX	

MSE WALL TYPICAL SECTION

WA-05

SECTION	SHEET NO.
WRA	110

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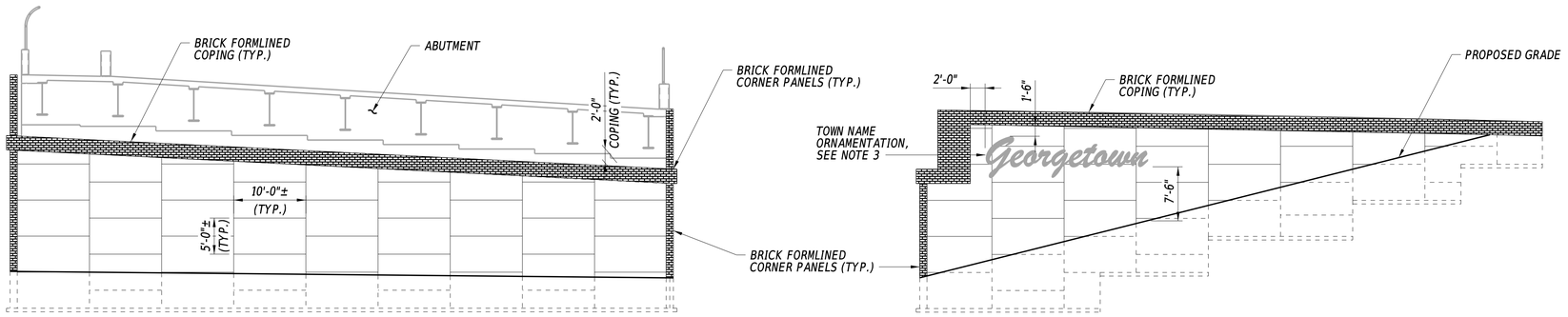
TOWN NAME ORNAMENTATION

1" = 5'-0"



FRONT AESTHETIC ELEVATION

1" = 10'-0"

SIDE AESTHETIC ELEVATION

1" = 10'-0"

AESTHETIC TREATMENT NOTES:

1. EXPOSED FACES OF ABUTMENTS WILL BE TAN.
2. ALL EXPOSED MSE WALL FACES OUTSIDE OF FORM LINER AREAS WILL BE TAN.
3. ALL BRICK PATTERN AREAS WILL BE CAST USING SAND TEXTURED BRICK FORM LINER. THE SIZE OF THE BRICKS WILL BE APPROXIMATELY 2¼" X 8" WITH ½" MORTAR JOINTS. A SAMPLE OF THE FORM LINER PATTERN WILL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
4. ALL ACCENT BRICKS WILL BE BROWN. THE REMAINING BRICKS WILL BE SIENNA. ALL MORTAR JOINTS WILL BE TAN.
5. PRIOR TO STAINING THE MSE WALLS, PROVIDE A STAINED SAMPLE PANEL FOR APPROVAL. THE SAMPLE PANEL SHALL INCLUDE BOTH BRICK FORM LINER AND SMOOTH FINISHES WITH ALL ASSOCIATED STAIN COLORS.
6. TOWN NAME ORNAMENTATION LETTERS WILL BE BROWN.
7. TOWN NAME ORNAMENTATION SHALL BE CAST ONTO AS FEW MSE WALL PANELS AS IS PRACTICABLE. THE FONT, "BRUSH SCRIPT MT", WILL BE USED UNLESS OTHERWISE COORDINATED WITH THE TOWN.
8. ALL LETTERS WILL BE RAISED 3" OVER PANEL FACES AND LETTER EDGES WILL BE BEVELED ½". LETTER EDGES CREATED BY INTERSECTIONS WITH PANEL JOINTS WILL ALSO BE BEVELED ½". THE HEIGHT OF THE TEXT IS MEASURED FROM THE TEXT BASELINE TO THE TOP OF THE TEXT. THE HEIGHT DOES NOT INCLUDED DESCENDERS AND TAILS BELOW THE TEXT BASELINE.
9. COLORS:
   A. ALL COLOR SPECIFIED AS TAN WILL BE NO. 33617 (SAND) OF AEROSPACE MATERIAL SPECIFICATION - STANDARD 595A.
   B. WHEN APPLIED TO CONCRETE, ALL COLOR SPECIFIED AS BROWN WILL BE NO. 30059 OF AEROSPACE MATERIAL SPECIFICATION - STANDARD 595A.
   C. ALL COLOR SPECIFIED AS SIENNA WILL BE NO. 32169 OF AEROSPACE MATERIAL SPECIFICATION - STANDARD 595A.
10. FORM LINERS FOR MSE WALL COMPONENTS WILL NOT BE MEASURED. COST OF FORM LINERS SHALL BE INCIDENTAL TO ITEM 607001 - MECHANICALLY STABILIZED EARTH WALLS. PAYMENT FOR STAINING MSE WALLS WILL BE MADE UNDER ITEM 613006 - AESTHETIC STAINING.

NOTES:

1. IF MSE WALL UTILIZES SLIP PANELS, SLIP PANELS ARE TO HAVE BRICK FORMLINER PATTERN.
2. ONLY THE FRONT FACE OF THE COPING , CORNER PANELS, AND SLIP PANELS ARE REQUIRED TO BE FORMLINED.
3. THE MSE WALL FABRICATOR SHALL MINIMIZE THE BUMBER OF PANEL JOINTS THAT FALL WITHIN THE TOWN NAME ORNAMENTATION.

ADDENDA / REVISIONS		SCALE: AS NOTED	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. 3-610	MSE WALL DETAILS	WA-06
				T201412701	DESIGNED BY: R. SEDAR		SECTION
				COUNTY			WRA
				SUSSEX	CHECKED BY: W. GESCHREI		SHEET NO.
							111

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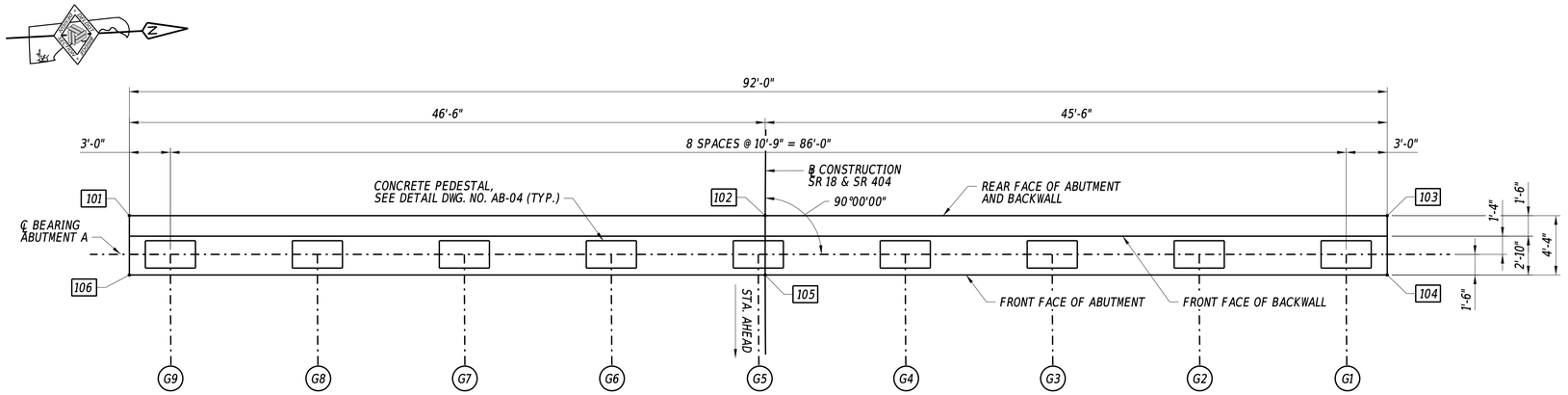
ABUTMENT A WORKING POINTS

PT.	STATION	OFFSET	NORTHING	EASTING
101	562+84.82	46.50' RT	254109.4683	660626.4306
102	562+84.67	0.00'	254155.9045	660628.9571
103	562+84.50	45.50' LT	254201.3324	660631.4290
104	562+89.09	45.50' LT	254201.0970	660635.7559
105	562+89.00	0.00	254155.6656	660633.2838
106	562+88.92	46.50' RT	254109.2329	660630.7572

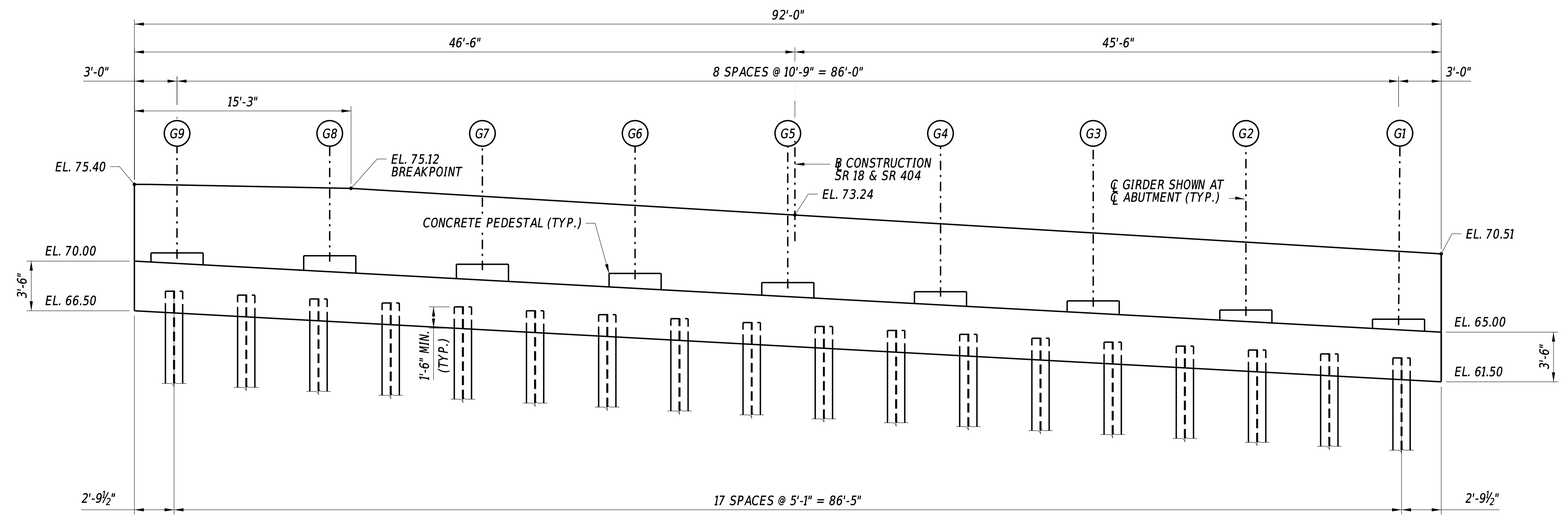
ABUTMENT A PEDESTAL ELEVATIONS

PT.	ELEVATION
G1	65.91
G2	66.55
G3	67.20
G4	67.84
G5	68.49
G6	69.13
G7	69.78
G8	70.38
G9	70.58



ABUTMENT A PLAN

$\frac{3}{16}$" = 1'-0"



ABUTMENT A ELEVATION

$\frac{3}{16}$" = 1'-0"

LEGEND:

103 - DENOTES WORKING POINT

ADDENDA / REVISIONS		SCALE 0 5 11 16 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. 3-610	ABUTMENT A PLAN AND ELEVATION	AB-01 SECTION
				COUNTY SUSSEX	DESIGNED BY: R. SEDAR		WRA
					CHECKED BY: W. GESCHREI		SHEET NO. 112

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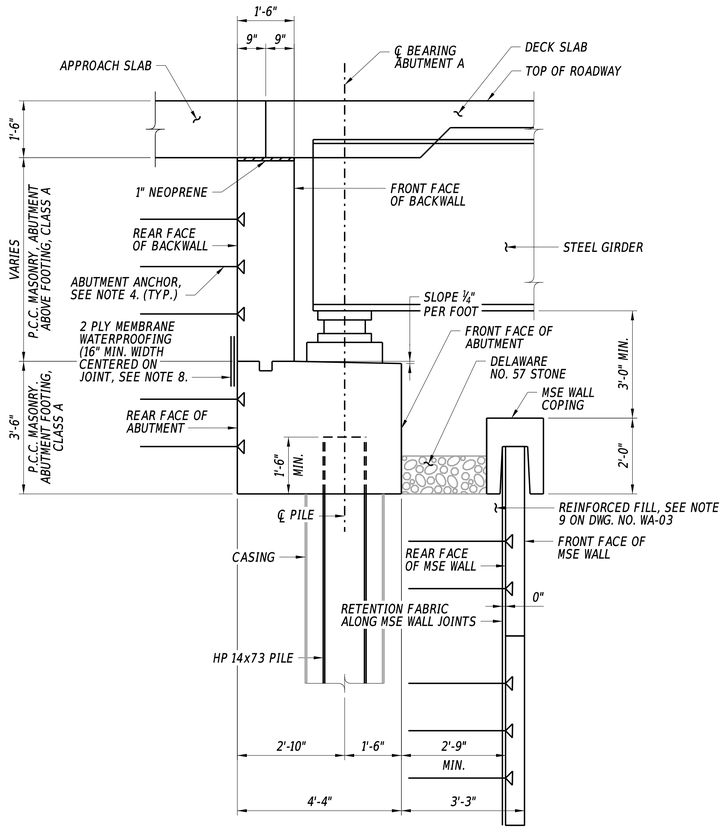
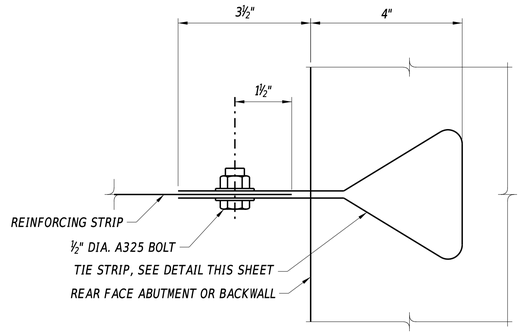


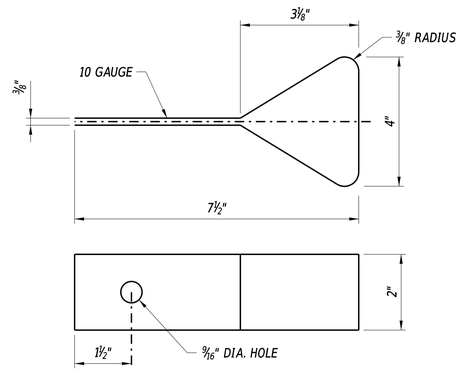
ABUTMENT A TYPICAL SECTION

½" = 1'-0"



ABUTMENT ANCHOR DETAIL

NOT TO SCALE

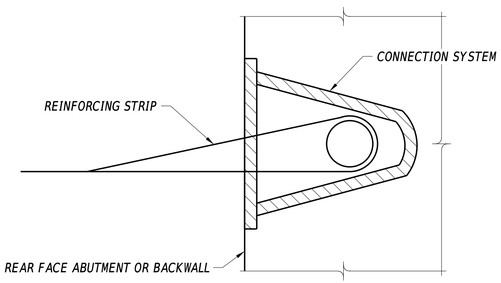


TIE STRIP DETAIL

NOT TO SCALE

ABUTMENT ANCHOR NOTES:

1. *THE ABUTMENT ANCHOR SHOWN CONSISTING OF A TIE STRIP ATTACHED TO A REINFORCING STRIP MAY BE MODIFIED PER THE MSE WALL MANUFACTURER'S RECOMMENDATIONS. ANY CHANGES TO THE ABUTMENT ANCHOR DETAIL SHOWN SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.*
2. *ABUTMENT ANCHORS SHALL BE IN ACCORDANCE WITH THE MSE WALL MANUFACTURER'S RECOMMENDATIONS.*



ALTERNATE ABUTMENT ANCHOR DETAIL

NOT TO SCALE

NOTES:

1. *FOR PILE LAYOUT, SEE DWG. NO. PL-01.*
2. *FOR ABUTMENT A PLAN AND ELEVATION, SEE DWG. NO. AB-01.*
3. *FOR ABUTMENT A MSE WALL ELEVATIONS AND NOTES, SEE DWG. NO. WA-03.*
4. *PROVIDE ABUTMENT ANCHORS IN SELECT BACKFILL. SEE ABUTMENT ANCHOR DETAIL THIS SHEET. ABUTMENT ANCHORS SHALL BE DESIGNED FOR A MINIMUM FACTORED HORIZONTAL FORCE OF 2.0 KIPS PER FOOT OF ABUTMENT LENGTH. THE POINT OF APPLICATION OF FORCES SHALL BE AT THE CENTER OF BEARINGS. DESIGN OF ABUTMENT ANCHORS SHALL BE COMPATIBLE WITH THE TEMPORARY SUPPORT OF EMBANKMENT DESIGN. PAYMENT FOR ABUTMENT ANCHORS WILL BE INCIDENTAL TO ITEM 607001 - MECHANICALLY STABILIZED EARTH WALLS.*
5. *PROPRIETARY WALL MANUFACTURER SHALL DESIGN AND CONTRACTOR SHALL CONSTRUCT FINAL WALL AND FACING SUCH THAT THE FINAL WALL FACING IS AT THE REQUIRED ELEVATION AFTER SETTLEMENT HAS TAKEN PLACE.*
6. *THE ANTICIPATED SETTLEMENT IS 4 INCHES BEHIND THE FACE OF WALL.*
7. *TOP OF BACKWALL SHALL BE STEEL TROWEL FINISHED. TWO LAYERS OF WHITE POLYETHYLENE FILM SHALL BE PLACED ON TOP OF THE BACKWALLS PRIOR TO PLACEMENT OF THE APPROACH AND DECK SLAB REINFORCEMENT. THE FILM SHALL BE FASTENED TO THE FRONT FACE OF THE BACKWALL AND LAPPED 2'-0" MINIMUM WITH THE FILM PLACED ON THE FINISHED SUBGRADE FOR THE APPROACH SLAB. COST SHALL BE INCIDENTAL TO ITEM 610018 - PCC MASONRY, APPROACH SLAB, CLASS D. FOR ADDITIONAL REQUIREMENTS, SEE DWG. NO. GN-01.*
8. *MEMBRANE WATERPROOFING SHALL BE INCIDENTAL TO ITEM 610001 - PCC MASONRY, ABUTMENT FOOTING, CLASS A. FOR ADDITIONAL REQUIREMENTS, REFER TO SECTION 1045 - CONCRETE COATINGS AND MEMBRANES OF THE STANDARD SPECIFICATIONS.*
9. *SILICONE-BASED ACRYLIC CONCRETE SEALER SHALL BE APPLIED TO FRONT FACE OF BACKWALL, THE BEAM SEATS AND BEARING PEDESTALS. PAYMENT WILL BE MADE UNDER ITEM 613001. CONTRACTOR SHALL REMOVE DEBRIS FROM THE BEAM SEAT PRIOR TO APPLICATION OF SILICONE-BASED ACRYLIC CONCRETE SEALER. PAYMENT FOR THIS WORK WILL BE INCIDENTAL TO ITEM 613001.*

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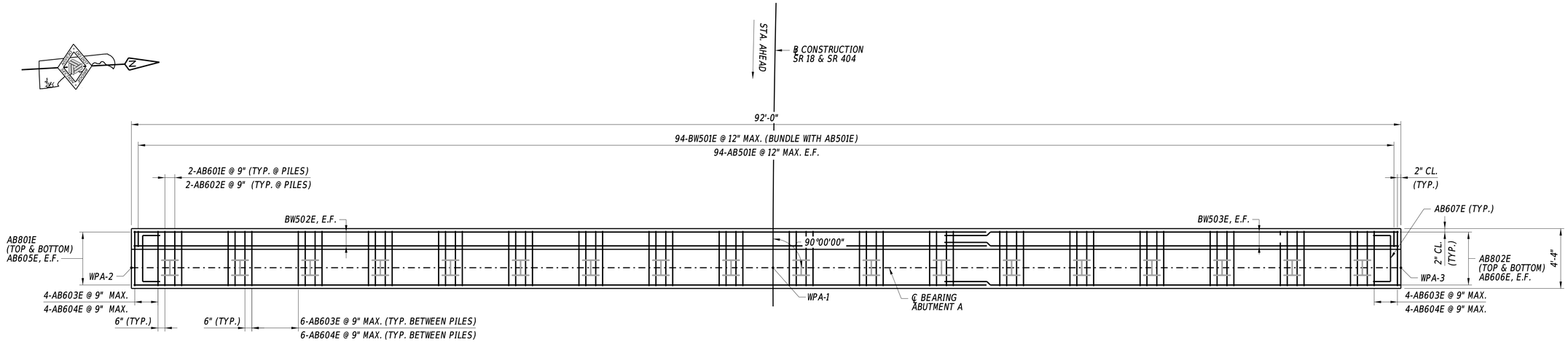
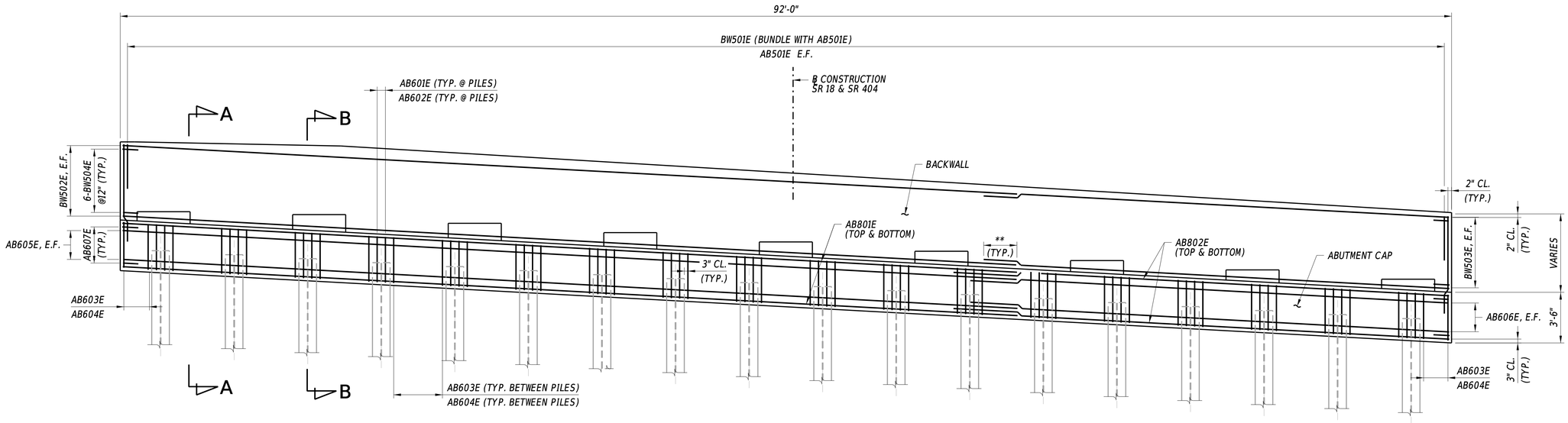
ADDENDA / REVISIONS	SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. 3-610	ABUTMENT A TYPICAL SECTION	AB-02
	0 2 4 6		T201412701	DESIGNED BY: R. SEDAR		SECTION
	FEET		COUNTY			WRA
			SUSSEX	CHECKED BY: W. GESCHREI		SHEET NO.
						113



ABUTMENT A REINFORCEMENT PLAN

¼" = 1'-0"



ABUTMENT A REINFORCEMENT ELEVATION

¼" = 1'-0"

LEGEND:

** MINIMUM LAP FOR BW502E AND BW503E = 2'-11"
MINIMUM LAP FOR AB605E AND AB606E = 3'-6"
MINIMUM LAP FOR AB801E AND AB802E = 4'-8"

NOTES:

1. SPACE REINFORCING STEEL AS NECESSARY TO CLEAR ANCHOR BOLTS. FOR ADDITIONAL INFORMATION, SEE DWG. NO. BR-02.
2. FOR ADDITIONAL REINFORCEMENT DETAILS, SEE DWG. NO. AB-04.
3. FOR SECTIONS A-A AND B-B, SEE DWG. NO. AB-04.
4. FOR WORKING POINTS, SEE DWG. NO. FT-01.

ADDENDA / REVISIONS		SCALE 0 4 8 12 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. 3-610	ABUTMENT A REINFORCEMENT PLAN AND ELEVATION	AB-03 SECTION WRA SHEET NO. 114
				COUNTY SUSSEX	DESIGNED BY: R. SEDAR		
					CHECKED BY: W. GESCHREI		

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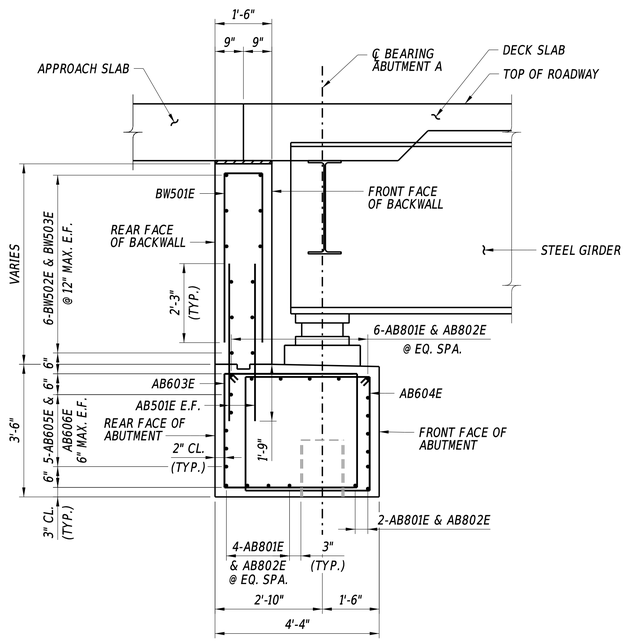
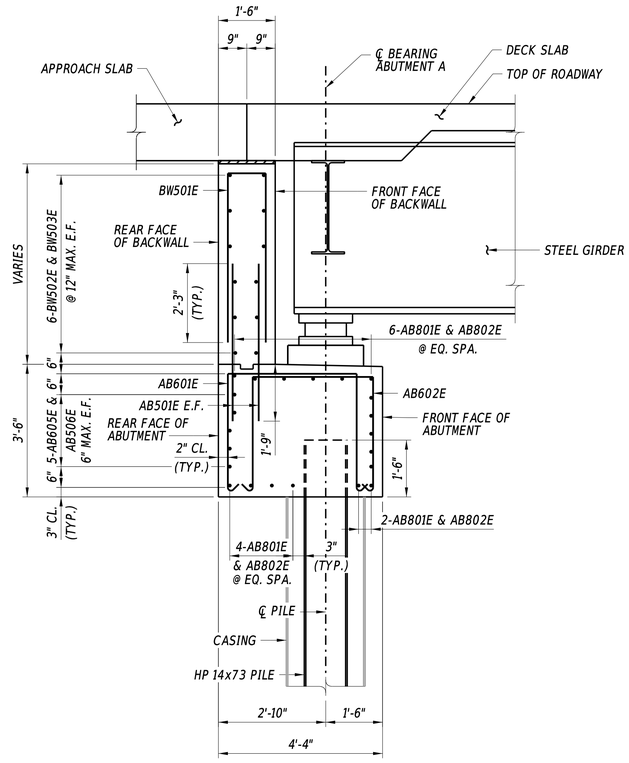


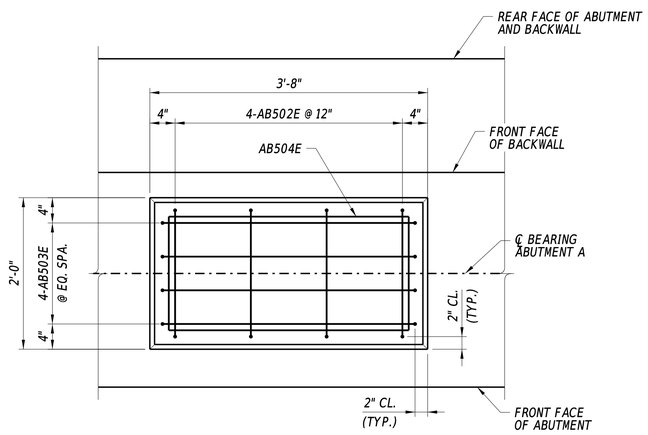
SECTION A-A

½" = 1'-0"

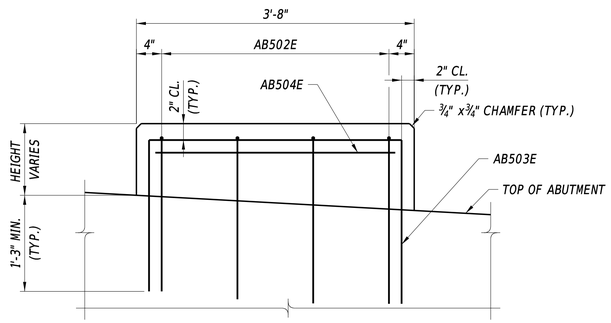


SECTION B-B

½" = 1'-0"



PLAN



ELEVATION

ABUTMENT A CONCRETE PEDESTAL DETAILS

1" = 1'-0"

NOTES:

1. *FOR LOCATION OF SECTION A-A & B-B, SEE DWG. NO. AB-03.*

ADDENDA / REVISIONS	SCALE: AS NOTED	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. 3-610	ABUTMENT A REINFORCEMENT DETAILS	AB-04
			COUNTY SUSSEX	DESIGNED BY: R. SEDAR		SECTION WRA
				CHECKED BY: W. GESCHREI		SHEET NO. 115

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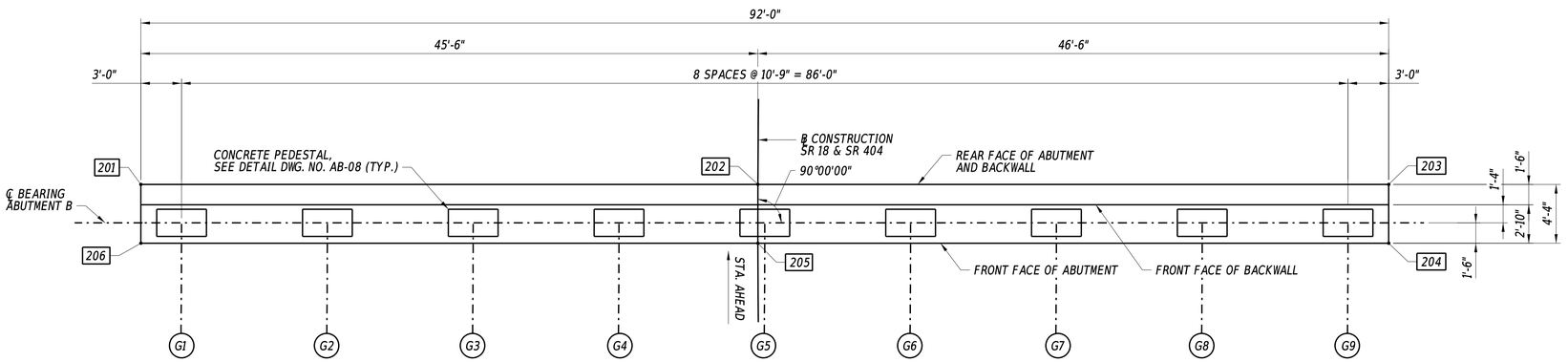
ABUTMENT B WORKING POINTS

PT.	STATION	OFFSET	NORTHING	EASTING
201	565+15.50	45.49' LT	254218.8788	660848.3998
202	565+15.33	0.00'	254174.4383	660858.1393
203	565+15.18	46.50' RT	254129.0116	660868.0950
204	565+11.08	46.50' RT	254128.0840	660863.8621
205	565+11.00	0.00'	254173.5072	660853.9072
206	565+10.91	45.50' LT	254217.9511	660844.1669

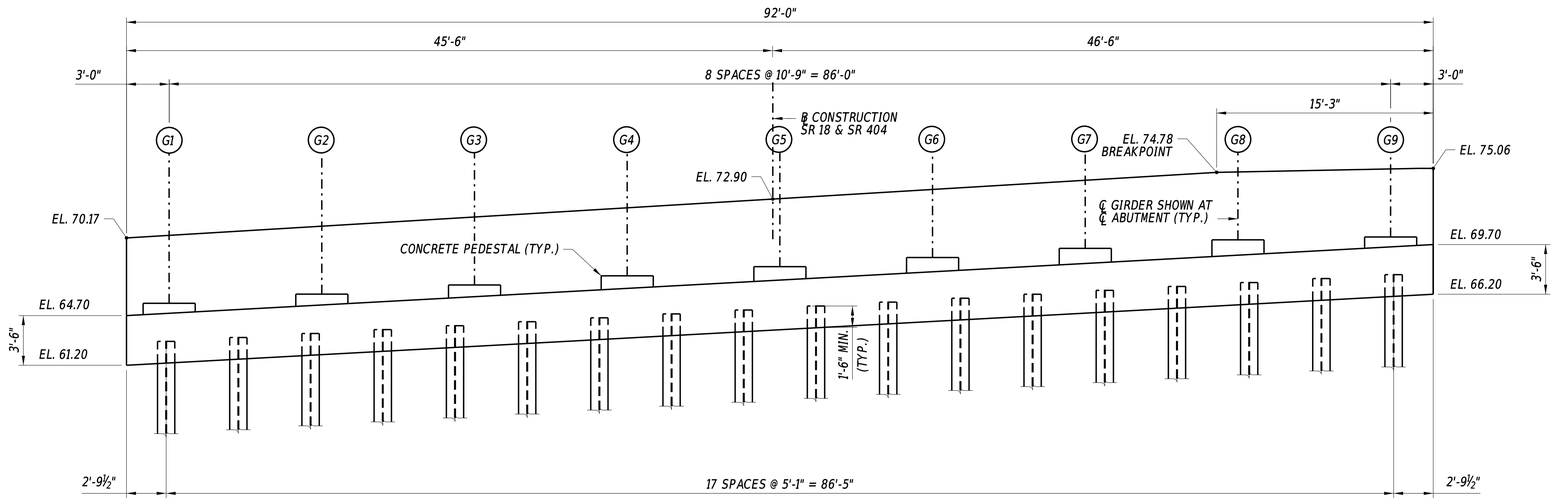
ABUTMENT B PEDESTAL ELEVATIONS

PT.	ELEVATION
G1	65.57
G2	66.21
G3	66.86
G4	67.50
G5	68.15
G6	68.79
G7	69.44
G8	70.04
G9	70.24



ABUTMENT B PLAN

3/16" = 1'-0"



ABUTMENT B ELEVATION

3/16" = 1'-0"

LEGEND:

203 - DENOTES WORKING POINT

ADDENDA / REVISIONS		SCALE 0 5 11 16 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. 3-610	ABUTMENT B PLAN AND ELEVATION	AB-05 SECTION WRA SHEET NO. 116
				COUNTY SUSSEX	DESIGNED BY: R. SEDAR		
					CHECKED BY: W. GESCHREI		

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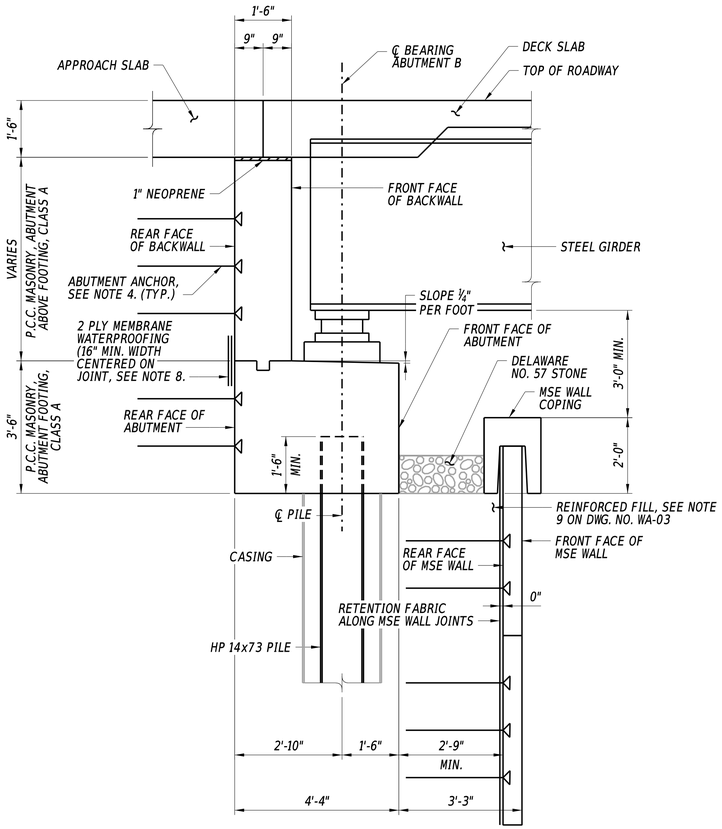
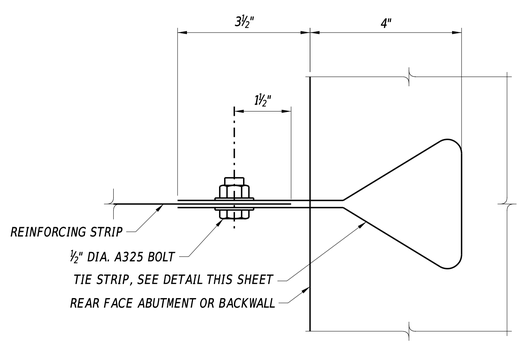


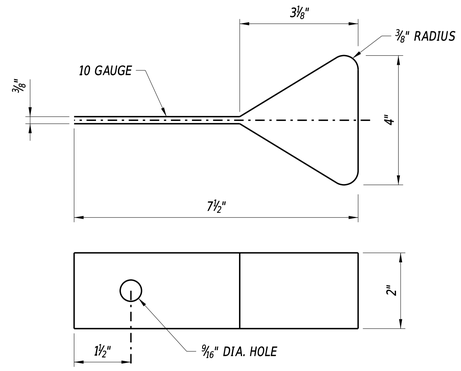
ABUTMENT B TYPICAL SECTION

½" = 1'-0"



ABUTMENT ANCHOR DETAIL

NOT TO SCALE

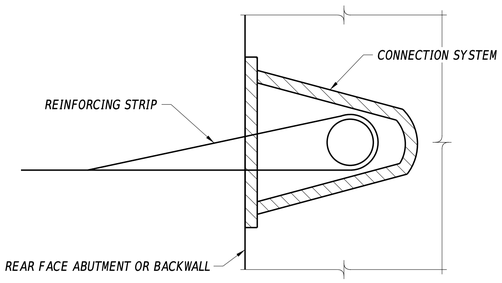


TIE STRIP DETAIL

NOT TO SCALE

ABUTMENT ANCHOR NOTES:

1. THE ABUTMENT ANCHOR SHOWN CONSISTING OF A TIE STRIP ATTACHED TO A REINFORCING STRIP MAY BE MODIFIED PER THE MSE WALL MANUFACTURER'S RECOMMENDATIONS. ANY CHANGES TO THE ABUTMENT ANCHOR DETAIL SHOWN SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
2. ABUTMENT ANCHORS SHALL BE IN ACCORDANCE WITH THE MSE WALL MANUFACTURER'S RECOMMENDATIONS.



ALTERNATE ABUTMENT ANCHOR DETAIL

NOT TO SCALE

NOTES:

1. FOR PILE LAYOUT, SEE DWG. NO. PL-01.
2. FOR ABUTMENT B PLAN AND ELEVATION, SEE DWG. NO. AB-05.
3. FOR ABUTMENT B MSE WALL ELEVATIONS AND NOTES, SEE DWG. NO. WA-04.
4. PROVIDE ABUTMENT ANCHORS IN SELECT BACKFILL. SEE ABUTMENT ANCHOR DETAIL THIS SHEET. ABUTMENT ANCHORS SHALL BE DESIGNED FOR A MINIMUM FACTORED HORIZONTAL FORCE OF 2.0 KIPS PER FOOT OF ABUTMENT LENGTH. THE POINT OF APPLICATION OF FORCES SHALL BE AT THE CENTER OF BEARINGS. DESIGN OF ABUTMENT ANCHORS SHALL BE COMPATIBLE WITH THE TEMPORARY SUPPORT OF EMBANKMENT DESIGN. PAYMENT FOR ABUTMENT ANCHORS WILL BE INCIDENTAL TO ITEM 607001 - MECHANICALLY STABILIZED EARTH WALLS.
5. PROPRIETARY WALL MANUFACTURER SHALL DESIGN AND CONTRACTOR SHALL CONSTRUCT FINAL WALL AND FACING SUCH THAT THE FINAL WALL FACING IS AT THE REQUIRED ELEVATION AFTER SETTLEMENT HAS TAKEN PLACE.
6. THE ANTICIPATED SETTLEMENT IS 4 INCHES BEHIND THE FACE OF WALL.
7. TOP OF BACKWALL SHALL BE STEEL TROWEL FINISHED. TWO LAYERS OF WHITE POLYETHYLENE FILM SHALL BE PLACED ON TOP OF THE BACKWALLS PRIOR TO PLACEMENT OF THE APPROACH AND DECK SLAB REINFORCEMENT. THE FILM SHALL BE FASTENED TO THE FRONT FACE OF THE BACKWALL AND LAPPED 2'-0" MINIMUM WITH THE FILM PLACED ON THE FINISHED SUBGRADE FOR THE APPROACH SLAB. COST SHALL BE INCIDENTAL TO ITEM 610018 - PCC MASONRY, APPROACH SLAB, CLASS D. FOR ADDITIONAL REQUIREMENTS, SEE DWG. NO. GN-01.
8. MEMBRANE WATERPROOFING SHALL BE INCIDENTAL TO ITEM 610001 - PCC MASONRY, ABUTMENT FOOTING, CLASS A. FOR ADDITIONAL REQUIREMENTS, REFER TO SECTION 1045 - CONCRETE COATINGS AND MEMBRANES OF THE STANDARD SPECIFICATIONS.
9. SILICONE-BASED ACRYLIC CONCRETE SEALER SHALL BE APPLIED TO FRONT FACE OF BACKWALL, THE BEAM SEATS AND BEARING PEDESTALS. PAYMENT WILL BE MADE UNDER ITEM 613001. CONTRACTOR SHALL REMOVE DEBRIS FROM THE BEAM SEAT PRIOR TO APPLICATION OF SILICONE-BASED ACRYLIC CONCRETE SEALER. PAYMENT FOR THIS WORK WILL BE INCIDENTAL TO ITEM 613001.

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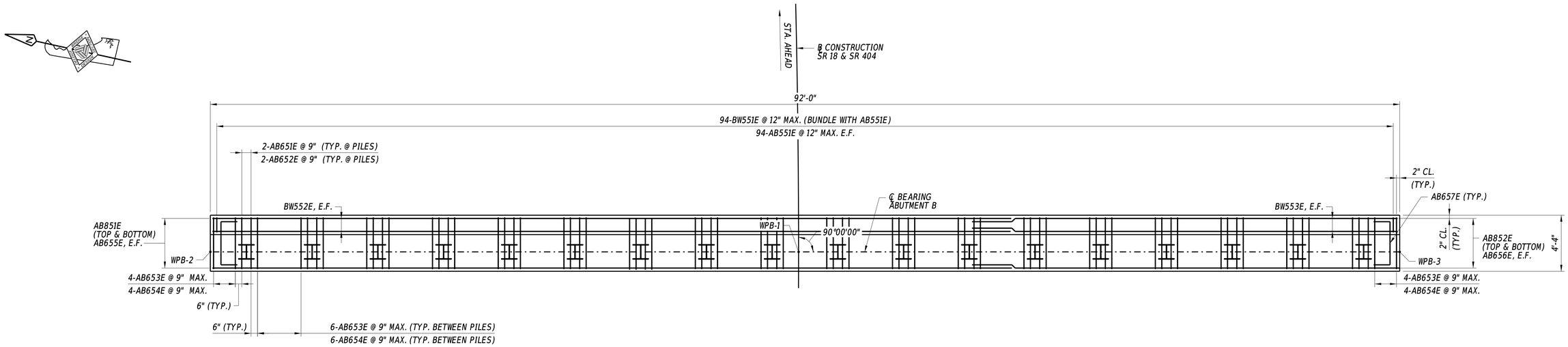
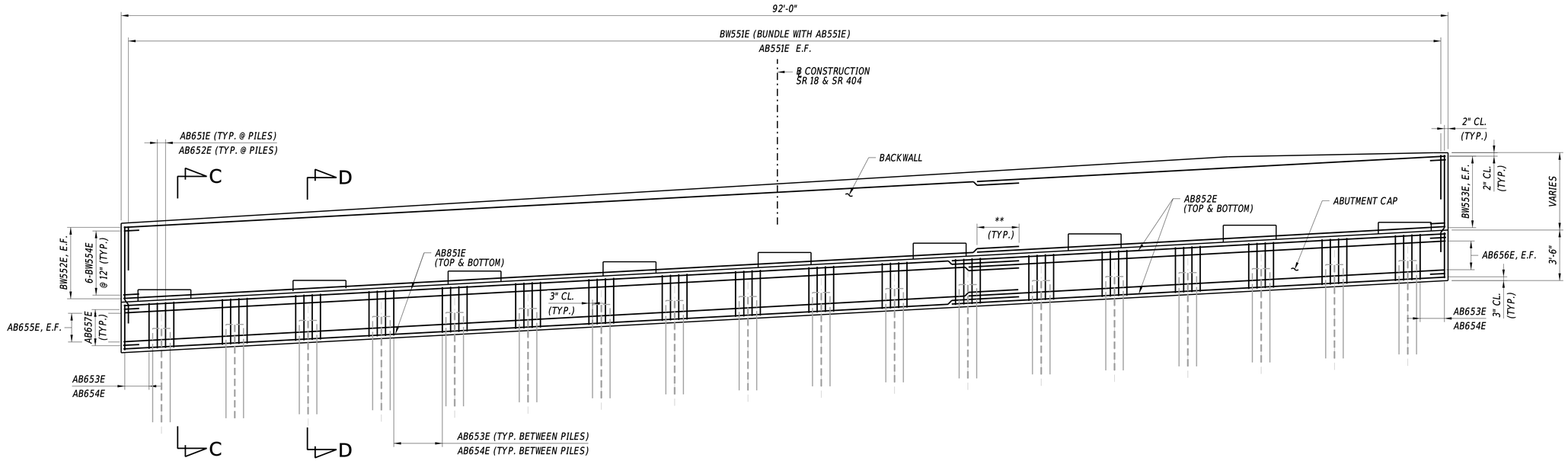
ADDENDA / REVISIONS		SCALE 0 2 4 6 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. 3-610	ABUTMENT B TYPICAL SECTION	AB-06
				COUNTY SUSSEX	DESIGNED BY: R. SEDAR		SECTION WRA
					CHECKED BY: W. GESCHREI		SHEET NO. 117



ABUTMENT B REINFORCEMENT PLAN

¼" = 1'-0"



ABUTMENT B REINFORCEMENT ELEVATION

¼" = 1'-0"

LEGEND:

** MINIMUM LAP FOR BW552E AND BW553E = 2'-11"
MINIMUM LAP FOR AB655E AND AB656E = 3'-6"
MINIMUM LAP FOR AB851E AND AB852E = 4'-8"

NOTES:

1. SPACE REINFORCING STEEL AS NECESSARY TO CLEAR ANCHOR BOLTS. FOR ADDITIONAL INFORMATION, SEE DWG. NO. BR-02
2. FOR ADDITIONAL REINFORCEMENT DETAILS, SEE DWG. NO. AB-08.
3. FOR SECTIONS C-C AND D-D, SEE DWG. NO. AB-08.
4. FOR WORKING POINT, SEE DWG. NO. FT-02.

ADDENDA / REVISIONS	SCALE 0 4 8 12 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. 3-610	ABUTMENT B REINFORCEMENT PLAN AND ELEVATION	AB-07 SECTION
			COUNTY SUSSEX	DESIGNED BY: R. SEDAR		WRA SHEET NO.
				CHECKED BY: W. GESCHREI		118

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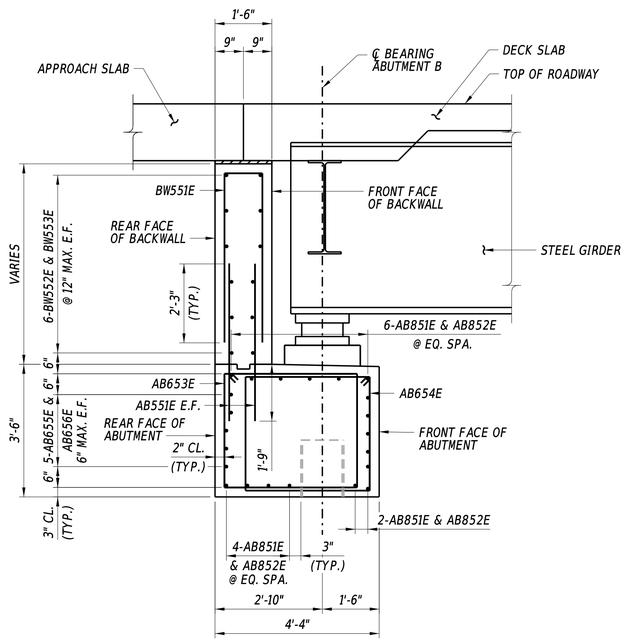
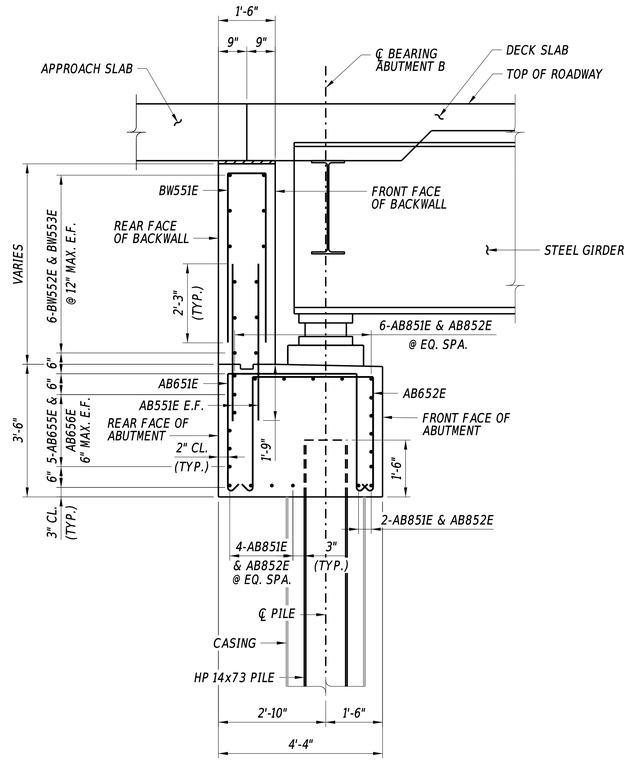


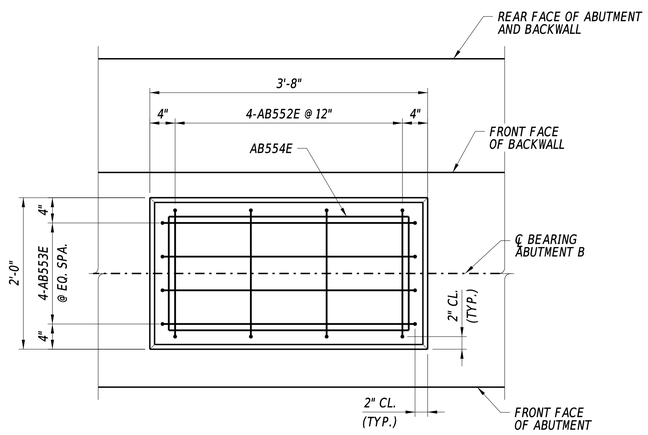
SECTION C-C

½" = 1'-0"

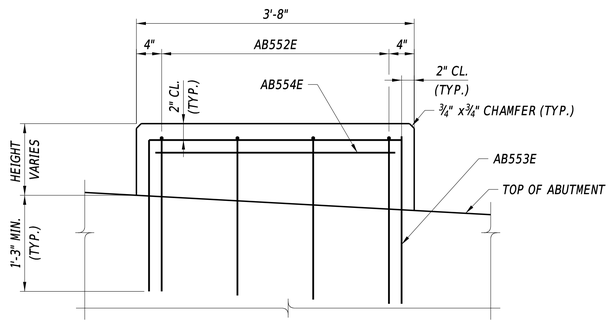


SECTION D-D

½" = 1'-0"



PLAN



ELEVATION

ABUTMENT B CONCRETE PEDESTAL DETAILS

1" = 1'-0"

NOTES:

1. *FOR LOCATION OF SECTION C-C & D-D, SEE DWG. NO. AB-07.*

ADDENDA / REVISIONS	SCALE: AS NOTED	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. 3-610	ABUTMENT B REINFORCEMENT DETAILS	AB-08
			COUNTY SUSSEX	DESIGNED BY: R. SEDAR		SECTION WRA
				CHECKED BY: W. GESCHREI		SHEET NO. 119

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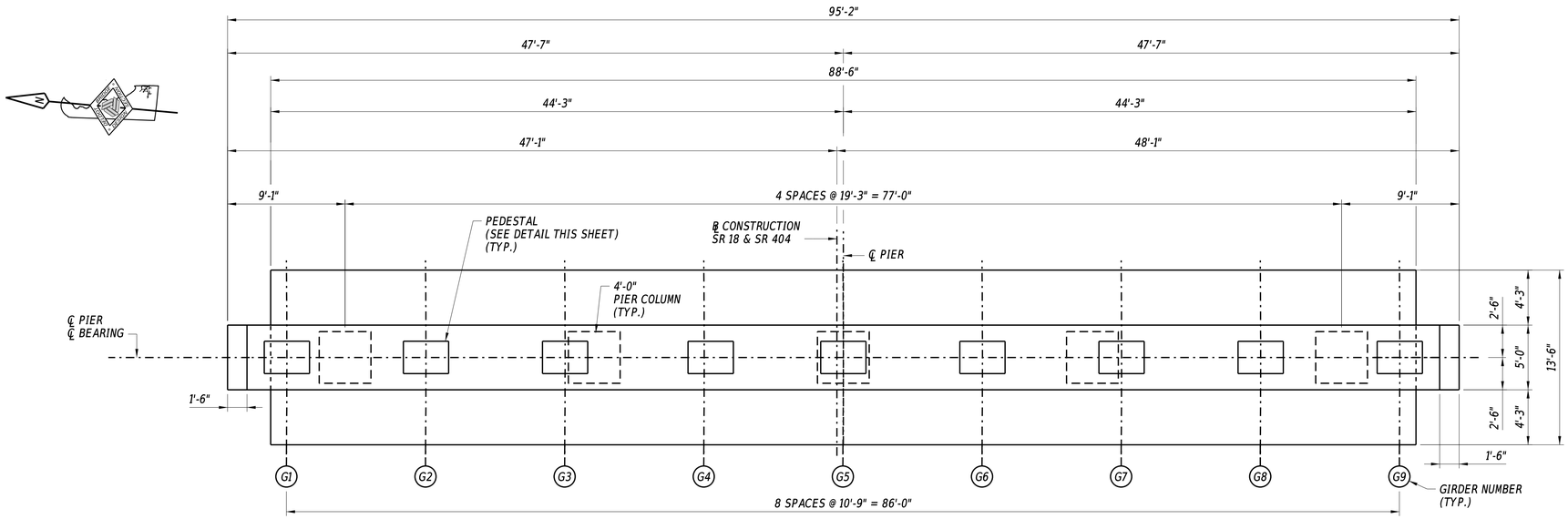
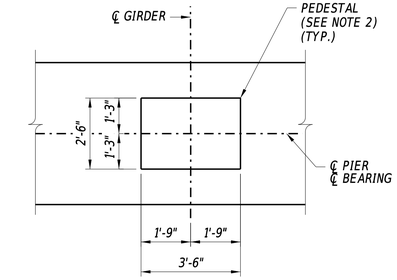
PIER PEDESTAL ELEVATIONS	
PT.	ELEVATION
G1	66.57
G2	67.21
G3	67.86
G4	68.50
G5	69.15
G6	69.79
G7	70.44
G8	71.04
G9	71.24



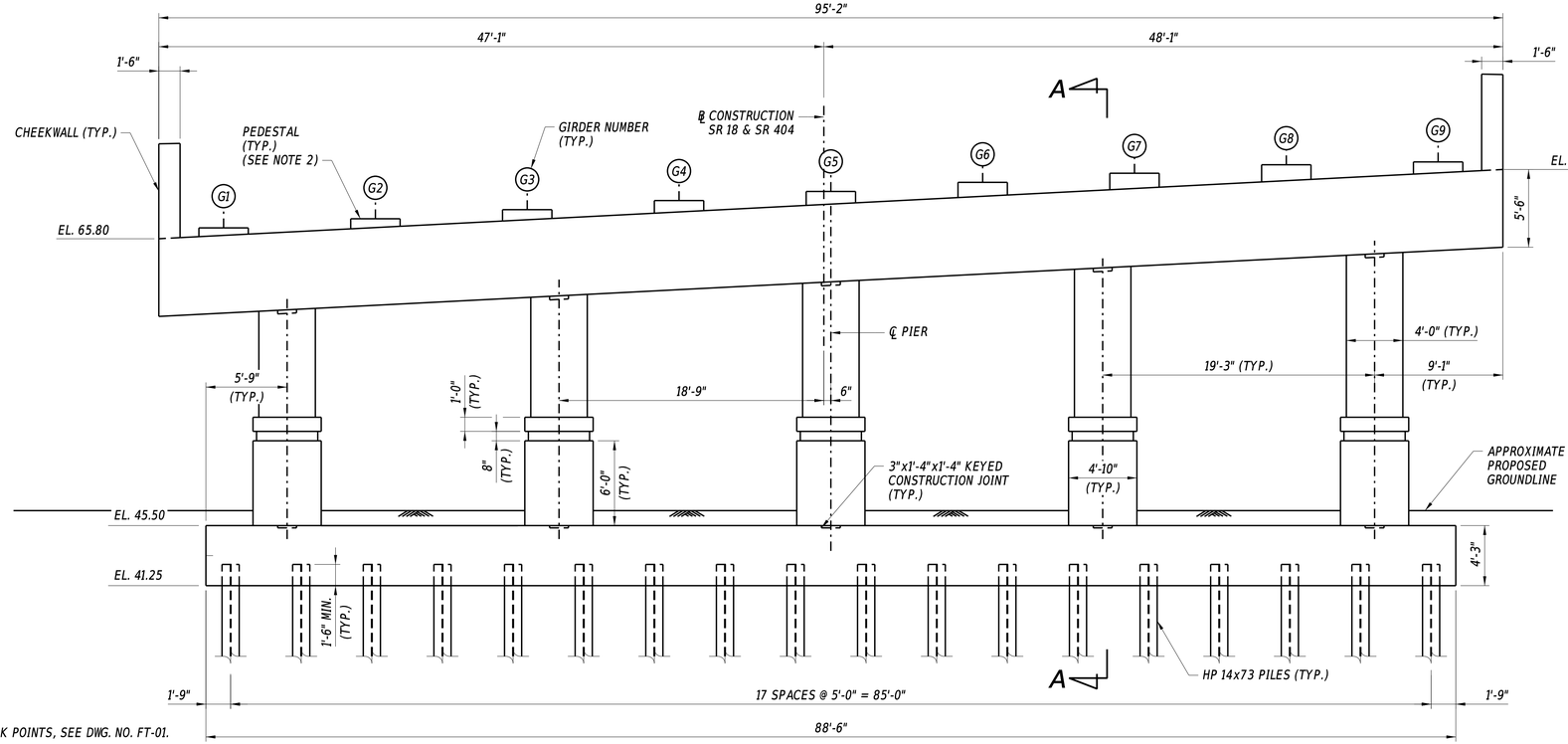
PIER FOOTING AND PIER CAP PLAN

3/16" = 1'-0"



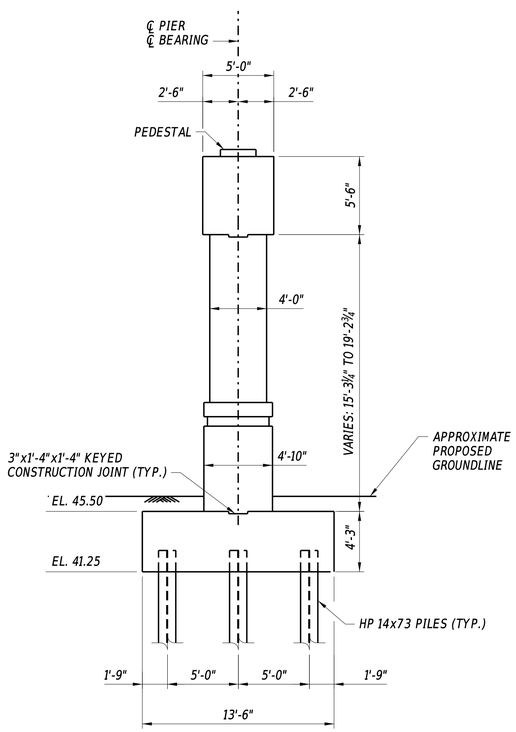
PEDESTAL DETAIL

3/8" = 1'-0"



PIER ELEVATION

3/16" = 1'-0"



SECTION A-A

3/16" = 1'-0"

NOTES:

1. FOR PIER FOOTING WORK POINTS, SEE DWG. NO. FT-01.
2. SILICONE-BASED ACRYLIC CONCRETE SEALER SHALL BE APPLIED TO TOP AND SIDES OF PEDESTALS, PAYMENT WILL BE MADE UNDER ITEM NO. 613001. CONTRACTOR SHALL REMOVE DEBRIS FROM THE PEDESTALS PRIOR TO APPLICATION OF EPOXY CONCRETE SEALER. PAYMENT FOR THIS WORK WILL BE INCIDENTAL TO ITEM 613001.

ADDENDA / REVISIONS		SCALE: AS NOTED	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. 3-610	REINFORCED CONCRETE PIER - PLAN AND ELEVATION	PR-01
				T201412701	DESIGNED BY: R. SEDAR		SECTION WRA
				COUNTY SUSSEX	CHECKED BY: W. GESCHREI		SHEET NO. 120

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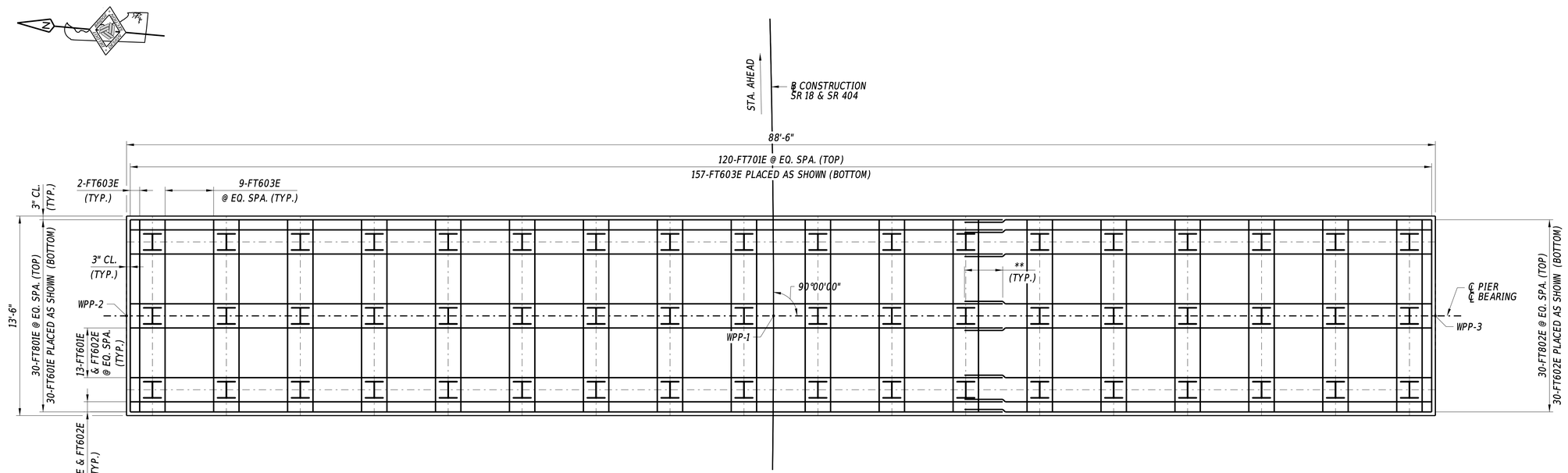

PIER FOOTING REINFORCEMENT PLAN

¼" = 1'-0"

LEGEND:

** MIN LAP FOR FT601E AND FT602E = 4'-1"
MIN LAP FOR FT801E AND FT802E = 5'-8"

NOTES:

1. FOR ADDITIONAL REINFORCEMENT DETAILS, SEE DWG. NOS. PR-03 & PR-04.
2. FT604E & FT605E NOT SHOWN FOR CLARITY, SEE DWG. NO. PR-04.
3. LAPS SHALL BE STAGGERED ALONG THE FOOTING.
4. FOR WORKING POINTS, SEE DWG. NO. FT-01.

ADDENDA / REVISIONS	SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. 3-610	PIER REINFORCEMENT FOOTING PLAN	PR-02
	0 4 8 12 FEET		T201412701	DESIGNED BY: R. SEDAR		SECTION WRA
			COUNTY SUSSEX	CHECKED BY: W. GESCHREI		SHEET NO. 121

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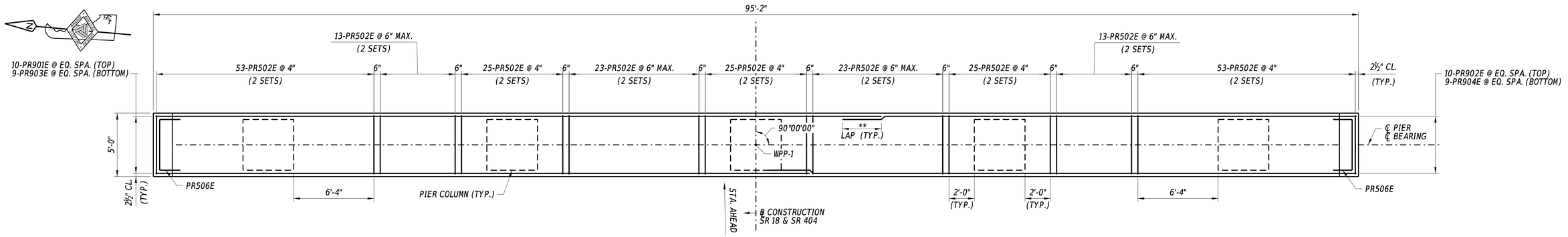
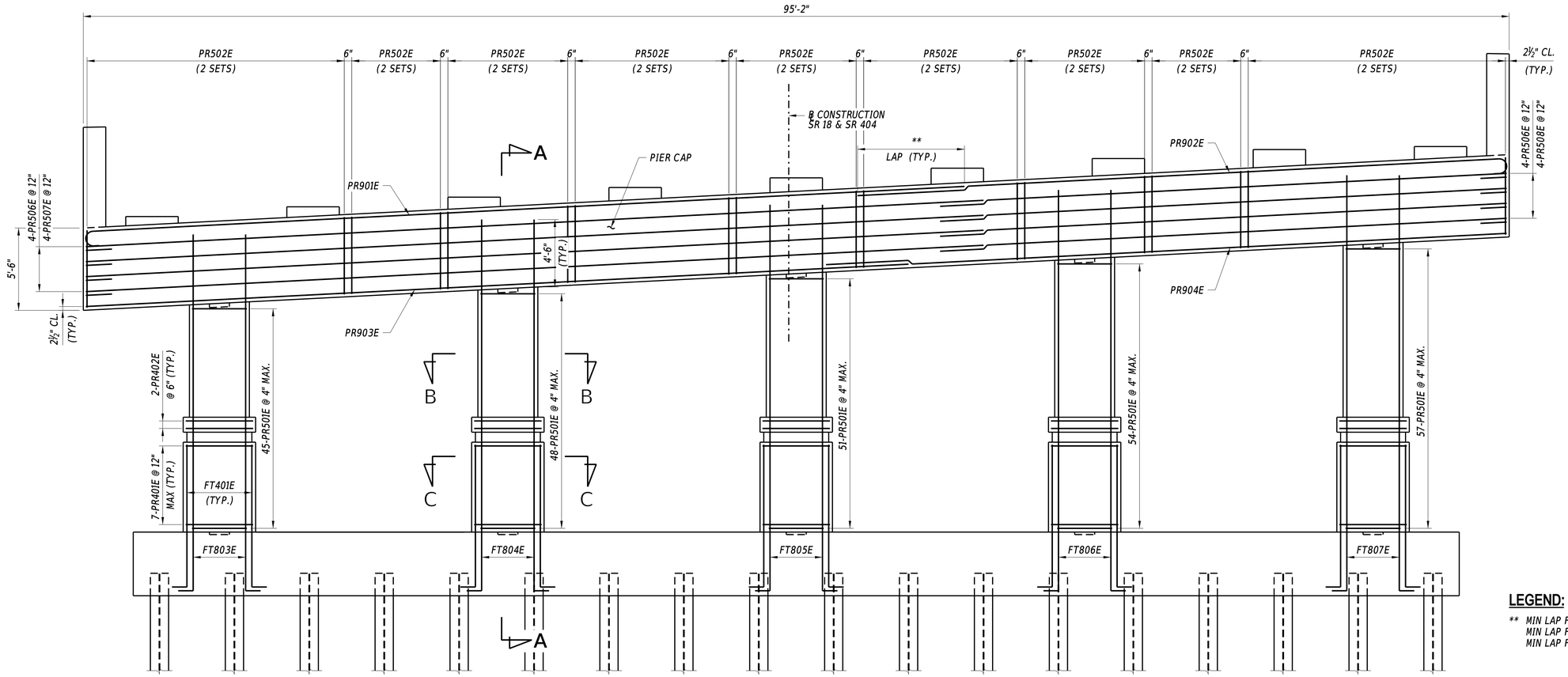


PIER CAP REINFORCEMENT PLAN

¼" = 1'-0"



PIER CAP & COLUMN REINFORCEMENT ELEVATION

¼" = 1'-0"

LEGEND:

** MIN LAP FOR PR901E & PR902E = 7'-2"
MIN LAP FOR PR506E & PR507E = 2'-11"
MIN LAP FOR PR903E & PR904E = 5'-9"

NOTES:

1. FOR ADDITIONAL REINFORCEMENT DETAILS, SEE DWG. NOS. PR-02 & PR-04.
2. FOR SECTION A-A, B-B & C-C, SEE DWG. NO. PR-04.

ADDENDA / REVISIONS		SCALE 0 4 8 12 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. 3-610	PIER REINFORCEMENT PLAN AND ELEVATION	PR-03
				COUNTY SUSSEX	DESIGNED BY: R. SEDAR		SECTION WRA
					CHECKED BY: W. GESCHREI		SHEET NO. 122

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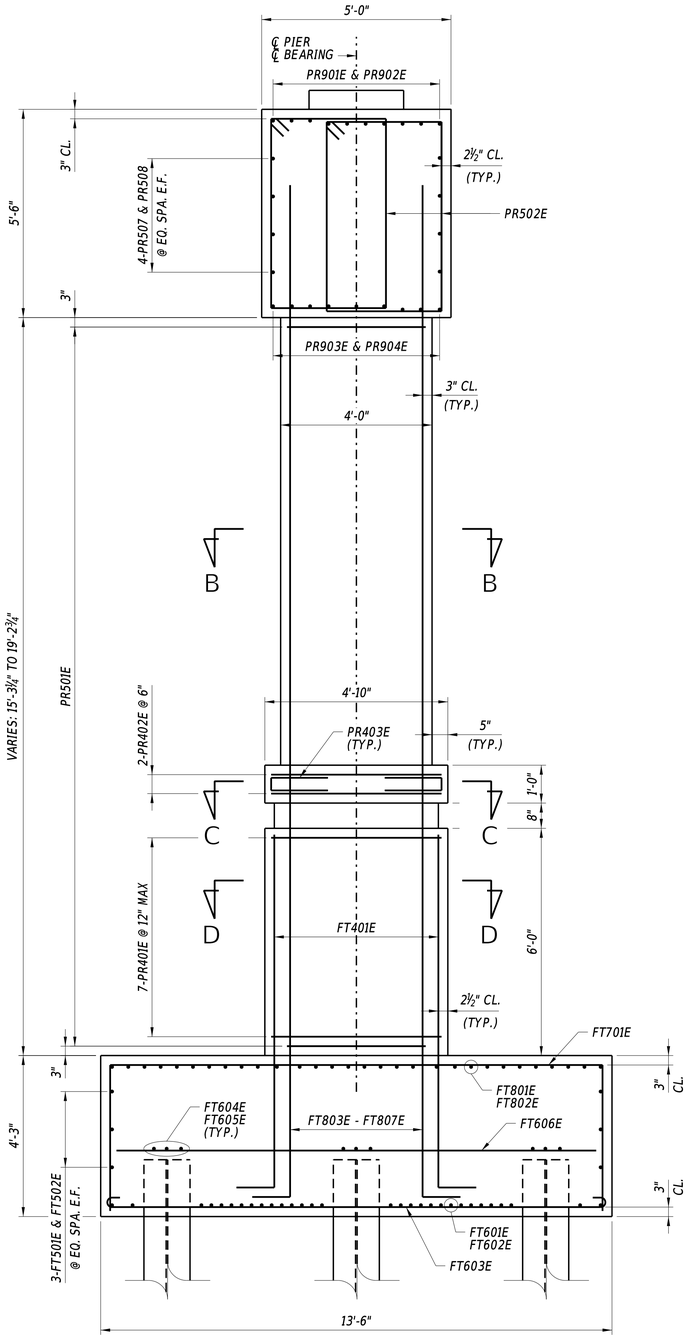
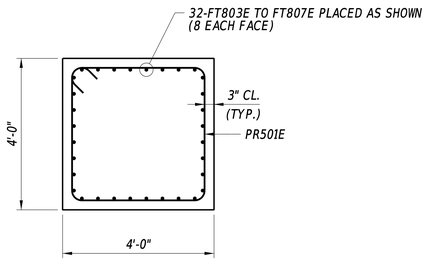


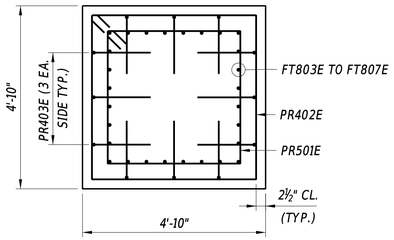
SECTION A-A

½" = 1'-0"



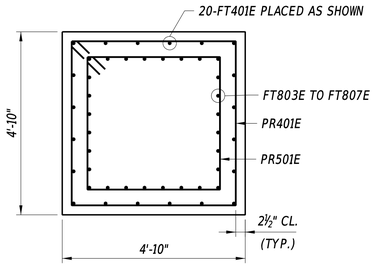
SECTION B-B

½" = 1'-0"



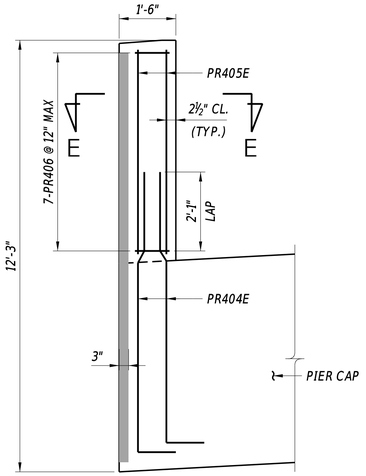
SECTION C-C

½" = 1'-0"



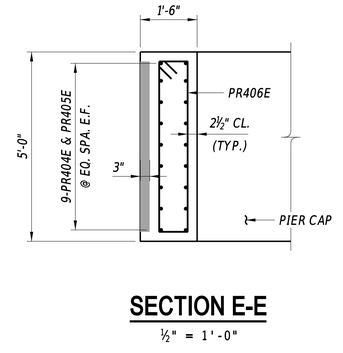
SECTION D-D

½" = 1'-0"



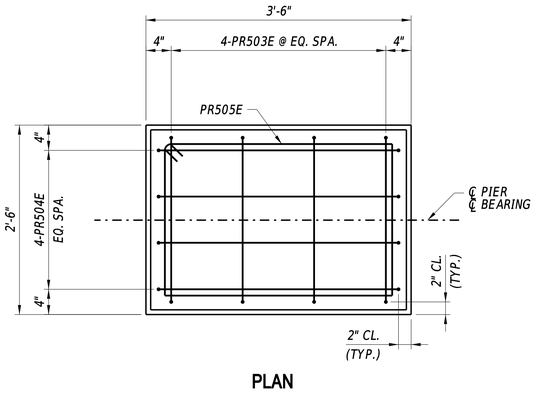
CHEEKWALL ELEVATION

½" = 1'-0"

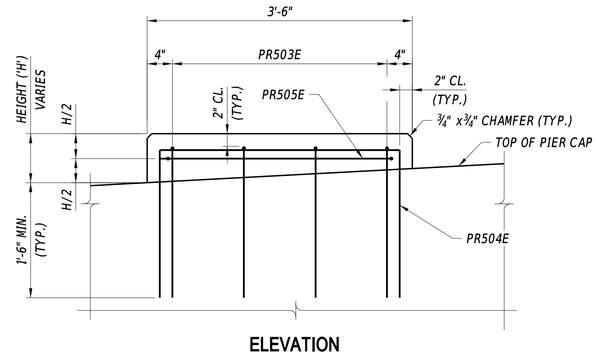


SECTION E-E

½" = 1'-0"



PLAN



ELEVATION

PIER CONCRETE PEDESTAL DETAILS

1" = 1'-0"

NOTES:

1. *FOR ADDITIONAL REINFORCEMENT DETAILS, SEE DWG. NOS. PR-02 & PR-03.*

ADDENDA / REVISIONS	SCALE: AS NOTED	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. 3-610	PIER REINFORCEMENT DETAILS	PR-04
			COUNTY SUSSEX	DESIGNED BY: R. SEDAR		SECTION WRA
				CHECKED BY: W. GESCHREI		SHEET NO. 123

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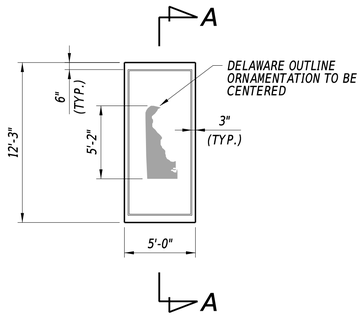
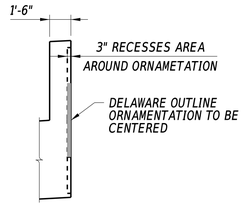


ORNAMENTATION ELEVATION

3/16" = 1'-0"

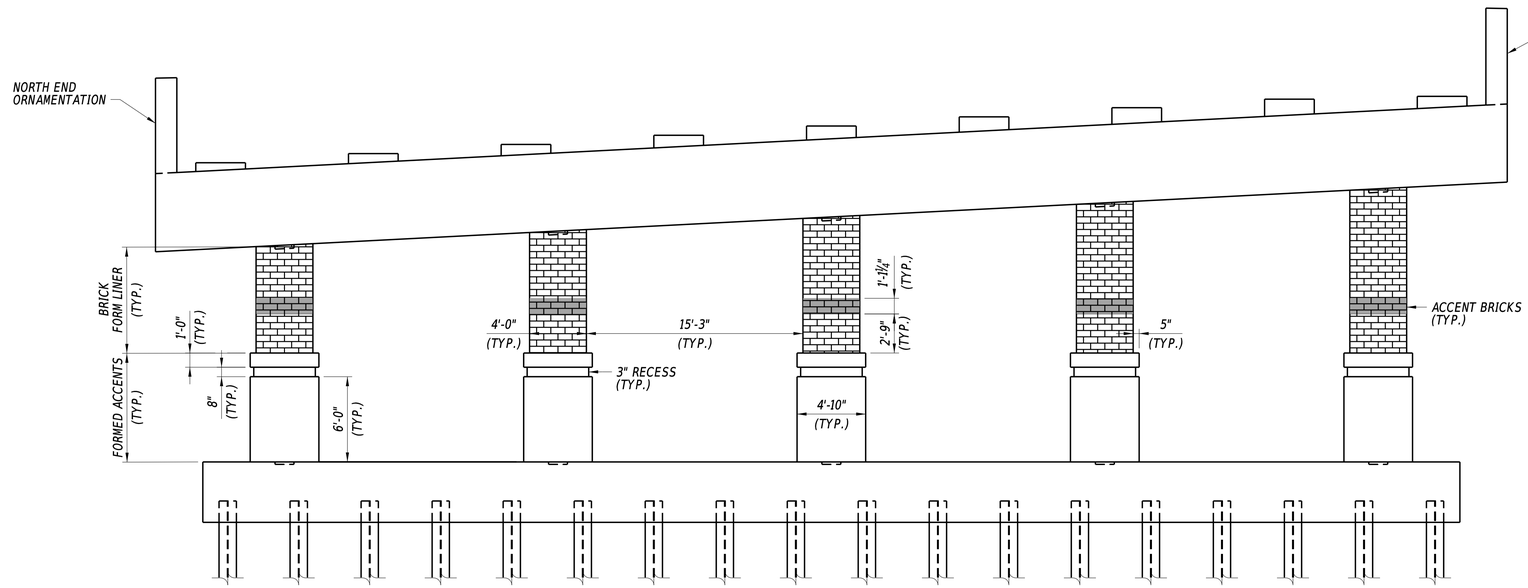


ORNAMENTATION SECTION A-A

3/16" = 1'-0"

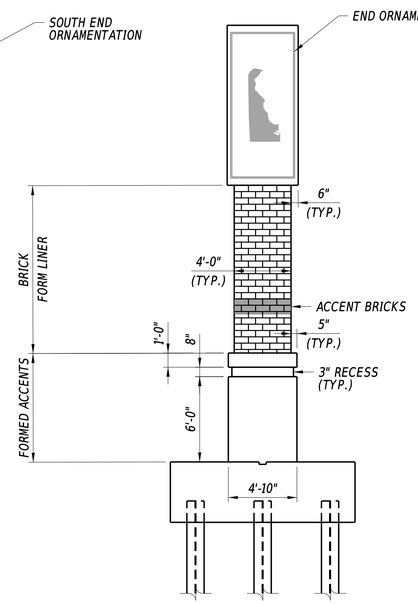
AESTHETIC TREATMENT NOTES:

1. ALL EXPOSED PIER FACES OUTSIDE OF FORM LINER AREAS WILL BE TAN.
2. ALL EXPOSED FACES OF PIER PROTECTION BARRIERS WILL BE TAN.
3. ALL BRICK PATTERN AREAS WILL BE CAST USING SAND TEXTURED BRICK FORM LINER. THE SIZE OF THE BRICKS WILL BE APPROXIMATELY 2¼" X 8" WITH ½" MORTAR JOINTS.
4. ALL ACCENT BRICKS WILL BE BROWN. THE REMAINING BRICKS WILL BE SIENNA. ALL MORTAR JOINTS WILL BE TAN.
5. PRIOR TO STAINING THE PIER, PROVIDE A STAINED SAMPLE PANEL FOR APPROVAL. THE SAMPLE PANEL SHALL INCLUDE BOTH BRICK FORM LINER AND SMOOTH FINISHES WITH ALL ASSOCIATED STAIN COLORS.
6. DELAWARE OUTLINE ORNAMENTATION SHOWN IN ORNAMENTATION DETAILS SHALL BE ADDED AT BOTH ENDS OF THE PIER CAP.
7. DELAWARE OUTLINE ORNAMENTATION WILL BE BROWN.
8. COLORS:
   A. ALL COLOR SPECIFIED AS TAN WILL BE NO. 33617 (SAND) OF AEROSPACE MATERIAL SPECIFICATION - STANDARD 595A.
   B. WHEN APPLIED TO CONCRETE, ALL COLOR SPECIFIED AS BROWN WILL BE NO. 30059 OF AEROSPACE MATERIAL SPECIFICATION - STANDARD 595A.
   C. ALL COLOR SPECIFIED AS SIENNA WILL BE NO. 32169 OF AEROSPACE MATERIAL SPECIFICATION - STANDARD 595A.



PIER AESTHETIC ELEVATION

3/16" = 1'-0"



PIER AESTHETIC ELEVATION (SIDE)

3/16" = 1'-0"

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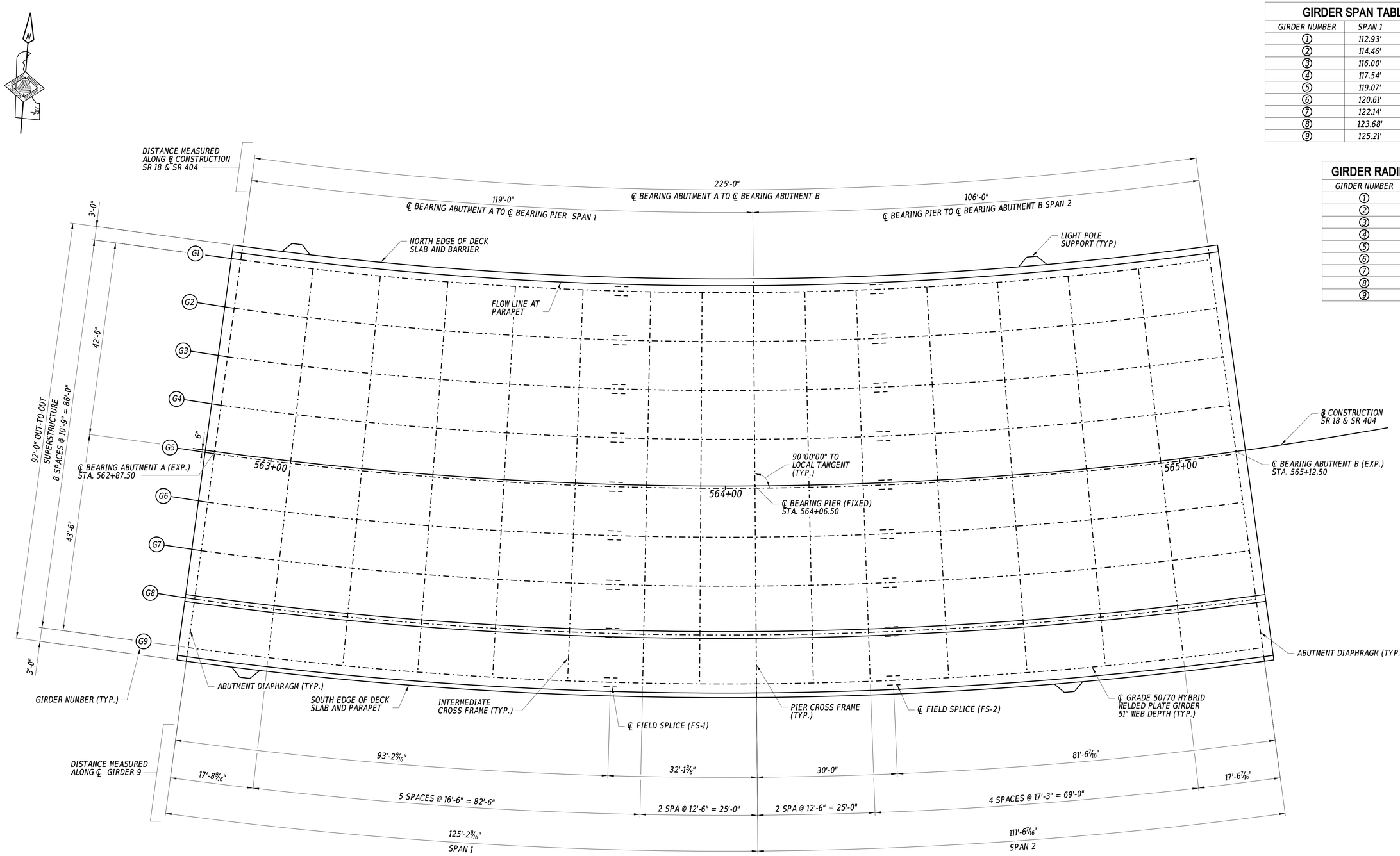
ADDENDA / REVISIONS		SCALE 0 5 11 16 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. 3-610	REINFORCED CONCRETE PIER DETAILS	PR-05 SECTION
				COUNTY SUSSEX	DESIGNED BY: R. SEDAR		WRA
					CHECKED BY: W. GESCHREI		SHEET NO. 124

GIRDER SPAN TABLE

GIRDER NUMBER	SPAN 1	SPAN 2
①	112.93'	100.59'
②	114.46'	101.96'
③	116.00'	103.33'
④	117.54'	104.70'
⑤	119.07'	106.06'
⑥	120.61'	107.43'
⑦	122.14'	108.80'
⑧	123.68'	110.17'
⑨	125.21'	111.54'

GIRDER RADII TABLE

GIRDER NUMBER	RADIUS
①	790.50'
②	801.25'
③	812.00'
④	822.75'
⑤	833.50'
⑥	844.25'
⑦	855.00'
⑧	865.75'
⑨	876.50'



FRAMING PLAN

3/32" = 1'-0"

NOTES:

1. ALL GIRDERS ARE CONCENTRIC TO THE ℄ CONSTRUCTION SR 18 & SR 404.
2. FIELD SPLICES, INTERMEDIATE, ABUTMENT AND PIER CROSS FRAMES ARE RADIAL TO ℄ CONSTRUCTION SR 18 & SR 404.
3. FOR CROSS FRAME DETAILS, SEE DWG. NO. BM-02.
4. FOR FIELD SPLICE DETAILS, SEE DWG. NO. BM-04.

ADDENDA / REVISIONS			

SCALE
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FEET

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO.	3-610
T201412701	DESIGNED BY: R. SEDAR	
COUNTY		
SUSSEX	CHECKED BY: W. GESCHREI	

FRAMING PLAN

FR-01
SECTION
WRA
SHEET NO.
125

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DISC BEARING NOTES:

1. *IN ORDER TO COORDINATE TOP OF PEDESTAL ELEVATIONS AND ANCHOR BOLT LOCATIONS, THE CONCRETE FOR PIER CAP AND ABUTMENT BEAM SEATS SHALL NOT BE POURED PRIOR TO RECEIVING APPROVED BEARING WORKING DRAWINGS FOR THIS CONTRACT.*

2. *CONDUCT HANDLING AND INSTALLATION OF DISC BEARINGS IN SUCH A MANNER AS TO PROTECT THE BEARINGS. IN ADDITION, PARTICULAR ATTENTION SHALL BE GIVEN TO PROTECTING ALL SLIDING SURFACES OF THE BEARINGS AND ANY PROTECTIVE COATINGS ON THE BEARINGS. DISC BEARINGS ARE TO BE SUPPLIED WITH REQUIRED PROTECTIVE COATINGS AS NOTED IN THE SPECIAL PROVISIONS. BEARINGS MAY NOT BE DISASSEMBLED FOR ANY FURTHER COATING APPLICATION OR COATING TOUCH- UP AT JOB SITE.*

3. *AT THE PIER AND ABUTMENT, THE CONTRACTOR SHALL VERIFY THE TOP OF PIER CAP AND ABUTMENT STEM ELEVATION PRIOR TO POURING THE CONCRETE PEDESTALS.*

4. *PROTECT THE PTFE AND STAINLESS STEEL SURFACES FROM DIRT, DEBRIS, WELD SPATTER, BLASTING SAND/GRIT, GRINDING PARTICLES, PAINT, AND PAINT OVER SPRAY.*

5. *REMOVE BANDING WHICH SECURES BEARINGS AS A UNIT ONLY AFTER BEARING IS SET IN PLACE AND PRIOR TO POSITIONING SOLE PLATE FOR GIRDER INSTALLATION. THESE BEARINGS MAY NOT BE DISASSEMBLED AT THE JOB SITE UNDER ANY CIRCUMSTANCES WITHOUT APPROVAL OF THE ENGINEER AND THE APPROVAL OR PRESENCE OF THE MANUFACTURER'S REPRESENTATIVE.*

6. *BLOCK GIRDERS AT EXPANSION BEARINGS DURING ERECTION IN ORDER TO PROTECT THE BEARINGS FROM IMPACT AND/OR ECCENTRIC LOADS, STABILIZE THE GIRDER, AND ENSURE PROPER BRIDGE AND GIRDER ALIGNMENT.*

7. *DO NOT POSITION DISC BEARINGS BY MEANS OF STRIKING.*

8. *AT 60 DEGREES FAHRENHEIT THE SOLE PLATE SHALL BE CENTERED OVER THE LOWER BEARING ASSEMBLY, FOR OTHER INSTALLATION TEMPERATURES, THE SOLE PLATE POSITION SHALL BE ADJUSTED. REFER TO BEARING DEVICE SETTING TABLES ON SUBSEQUENT DRAWINGS.*

9. *THE SOLE PLATES SHALL BE TAPERED TO THE LONGITUDINAL SLOPE SHOWN, AND SHALL BE SIZED FOR THE MOVEMENTS SHOWN IN THE BEARING SCHEDULE. ADDITIONALLY, THE SOLE PLATE SHALL BE MINIMUM 1" WIDER THAN THE GIRDER BOTTOM FLANGE ON EACH SIDE TO ALLOW THE PLACEMENT OF A HORIZONTAL WELD.*

10. *FOR GUIDED EXPANSION BEARINGS, STAINLESS STEEL SURFACES SHALL EXTEND A MINIMUM OF 1" EACH WAY BEYOND THE SPECIFIC MOVEMENT RANGE. WHERE VALUES OF MOVEMENT ARE NOT SPECIFIED, STAINLESS STEEL SURFACES SHALL EXTEND 1" MINIMUM BEYOND THE LOWER ASSEMBLY CONTACT SURFACE.*

11. *ALL BEARINGS SHALL BE FULLY REMOVEABLE WITH A FOUR -PLATE CONFIGURATION AS SHOWN ON THESE PLANS.*

12. *PROVIDE MATERIALS AND WORKMANSHIP IN ACCORDANCE WITH DELDOT STANDARD SPECIFICATIONS AND ANSI/AASHTO/D1.5 BRIDGE WELDING CODE.*

13. *GRIND SMOOTH ALL STEEL SURFACES AND EDGES AND REMOVE ANY SHARP PROTRUSIONS. FABRICATION TOLERANCES AND LIMITATIONS ON SURFACE FINISH WILL BE IN ACCORDANCE WITH DELDOT STANDARD SPECIFICATIONS.*

14. *PAINT ALL STEEL SURFACES IN ACCORDANCE WITH SECTION 616 OF DELDOT STANDARD SPECIFICATIONS. APPLY ALL COATS IN THE FABRICATION SHOP ONLY. DO NOT PAINT PTFE OR STAINLESS STEEL. APPLY ONLY PRIME COAT TO THE CONTACT AREA BETWEEN THE BEAM BOTTOM FLANGE AND SOLE PLATE AND THE BOTTOM SIDE OF THE MASONRY PLATE.*

15. *ROUND ALL PTFE CORNERS TO ACCOMMODATE THE MACHINED RECESS IN STEEL GUIDE PLATE/PISTON.*

16. *ETCH PTFE ON ONE SIDE FOR BONDING INTO THE MACHINE RECESS.*

17. *PTFE ON THE SIDE OF THE GUIDE PLATE MUST BE PIGMENTED.*

18. *PRIOR TO APPLICATION OF ADHESIVE, CLEAN ALL MATING STEEL AND PTFE SURFACES BY GRIT BLASTING AND DEGREASING. APPLY ADHESIVE AS PER THE MANUFACTURER'S RECOMMENDATION.*

19. *MARK THE THICKER EDGE OF THE SOLE PLATE AS SUCH FOR THE PURPOSE OF FIELD IDENTIFICATION. PLACE MARK ON THE EDGE OF SOLE PLATE SO THAT IT WILL BE VISIBLE AFTER BEARING INSTALLATION. IN THE CASE OF A SOLE PLATE WITH A COMPOUND BEVEL, PLATE THE MARK ON EITHER EDGE OF THE THICKEST SOLE PLATE CORNER.*

20. *MARK CENTERLINE OF GUIDED AND NON -GUIDED BEARINGS ON THE SIDES OF THE MASONRY PLATE AND SOLE PLATE. THE CENTERLINE IDENTIFICATION MARKS WILL BE USEFUL TO LOCATE OFFSET DISTANCE IN THE FIELD. USE INDELIBLE INK TO PLACE ALL MARKS.*

21. *MARK EACH BEARING WITH THE NAME OF THE MANUFACTURER AND TYPE OR MODEL NUMBER. PLACE THE IDENTIFICATION MARK IN A PERMANENT MANNER AND LOCATION SO THAT IT IS VISIBLE AFTER ERECTION.*

22. *THE CONTRACTOR IS RESPONSIBLE TO NOTIFY THE ENGINEER OF ANY PROPOSED VARIATION FROM BEARING DIMENSIONS PROVIDED HEREIN DURING FABRICATION.*

23. *ENSURE ALL BEARING SURFACES, INCLUDING THE BEARING SEAT, ARE LEVEL PRIOR TO INSTALLATION OF BEARINGS UNLESS NOTED OTHERWISE.*

24. *TEST ONE BEARING PER TYPE OR PER LOT SIZE OF 25 FOR A HORIZONTAL FORCE CAPACITY PRIOR TO SHIPMENT.*

25. *IN THE EVENT OF DAMAGE TO PROTECTIVE COATINGS, MAKE REPAIRS AS QUICKLY AS POSSIBLE IN ORDER TO AVOID MOISTURE INTRODUCED COATING FAILURE. PROPERLY PREPARE STEEL SURFACES IN AREA OF DAMAGED COATINGS BY REMOVING ALL LOOSE COATINGS AND RUST AND BY PROVIDING REQUIRED STEEL PROFILE FOR COATING ADHERENCE. PERFORM RECOATING WITHIN 8 HOURS OF STEEL PREPARATION.*

26. *WHEN WELDING THE SOLE PLATE TO THE GIRDER FLANGE, ENSURE SURFACES CONTAINING THE PTFE SURFACE DO NOT EXCEED 250 DEGREES FAHRENHEIT, TO AVOID DAMAGING THE PTFE.*

27. *ANCHOR BOLTS SHALL BE GRADE 55, MINIMUM.*

ADDENDA / REVISIONS							
			US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. 3-610	BEARING NOTES	BR-01
				T201412701			SECTION
				COUNTY	DESIGNED BY: R. SEDAR		WRA
				SUSSEX	CHECKED BY: W. GESCHREI		SHEET NO. 126

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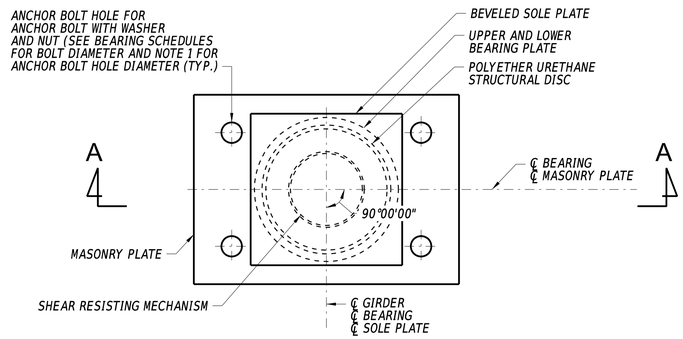
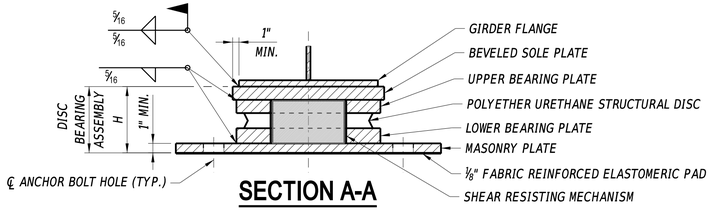


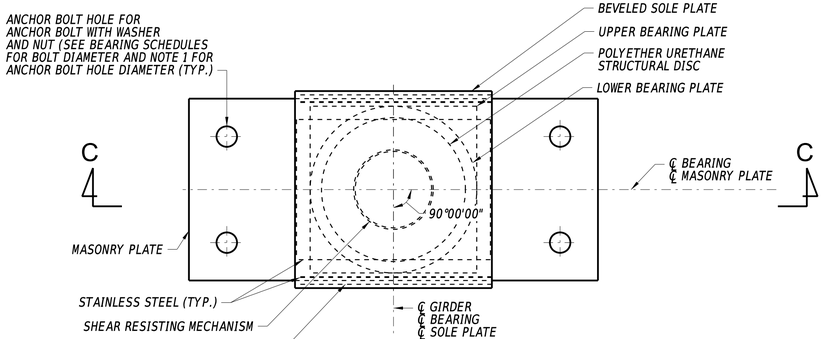
PLAN



SECTION A-A

FIXED DISC BEARING

NOT TO SCALE



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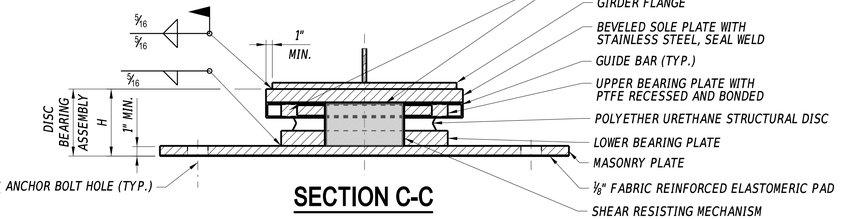

SECTION C-C

GUIDED TRANSVERSE EXPANSION DISC BEARING

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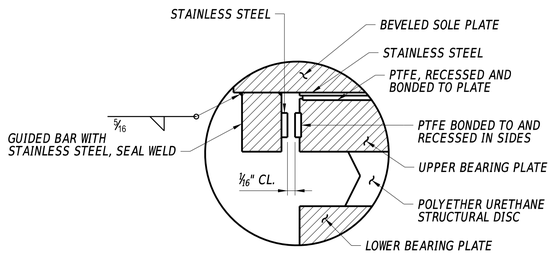
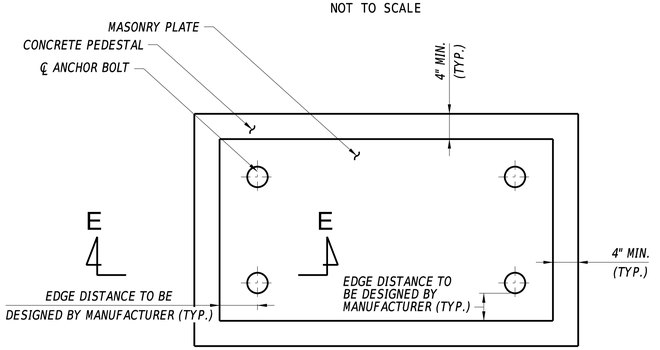


NOTE:

GUIDED LONGITUDINAL EXPANSION DISC BEARING SHOWN.
GUIDED TRANSVERSE EXPANSION DISC BEARING SIMILAR.

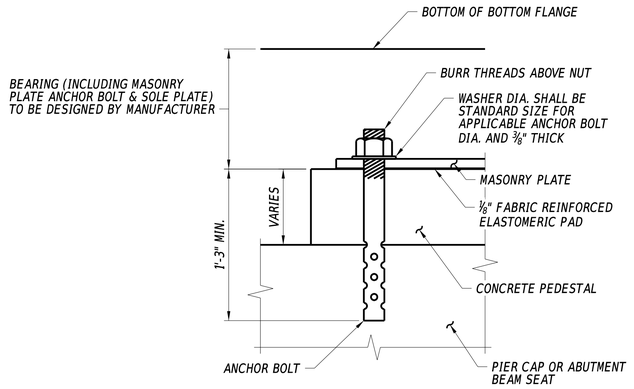
GUIDE BAR DETAIL

NOT TO SCALE



ANCHOR BOLT DETAIL

NOT TO SCALE



SECTION E-E

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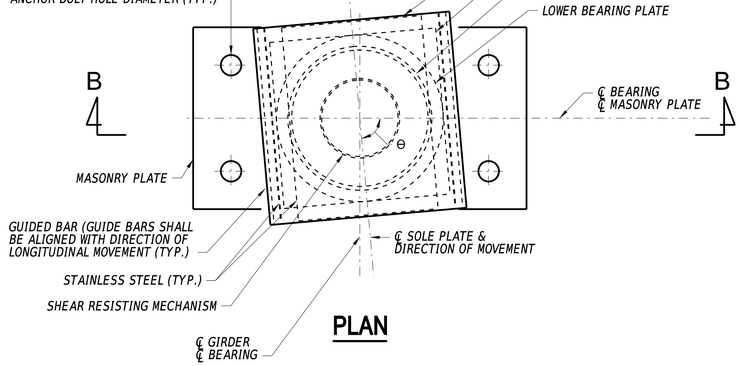

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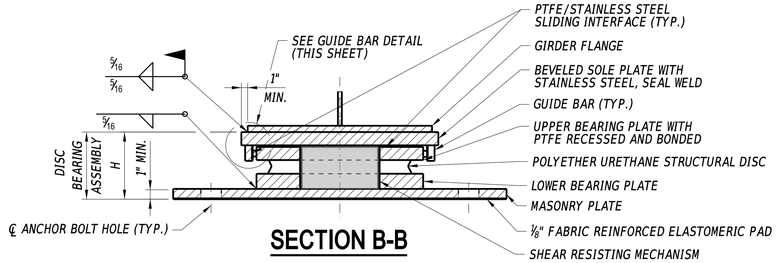
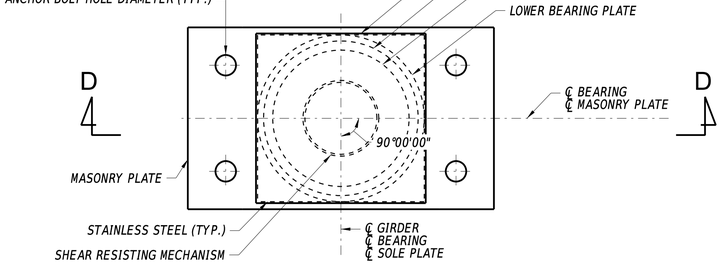


SECTION B-B

GUIDED LONGITUDINAL EXPANSION DISC BEARING

NOT TO SCALE



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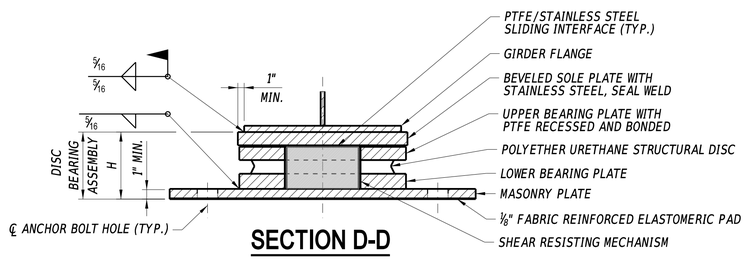

SECTION D-D

NON-GUIDED EXPANSION DISC BEARING

NOT TO SCALE

NOTES:

1. ANCHOR BOLTS HOLE DIAMETER SHALL BE ½" LARGER THAN ANCHOR BOLT.
2. FABRICATOR SHALL DETERMINE BEARING PLATE DIMENSIONS AND H.
3. MINIMUM WELD SIZE SHOWN. WELD SHALL BE DESIGNED BY THE FABRICATOR.
4. FOR ADDITIONAL DISC BEARING DETAILS AND NOTES, SEE DWG. NO. BR-01 & BR-03.

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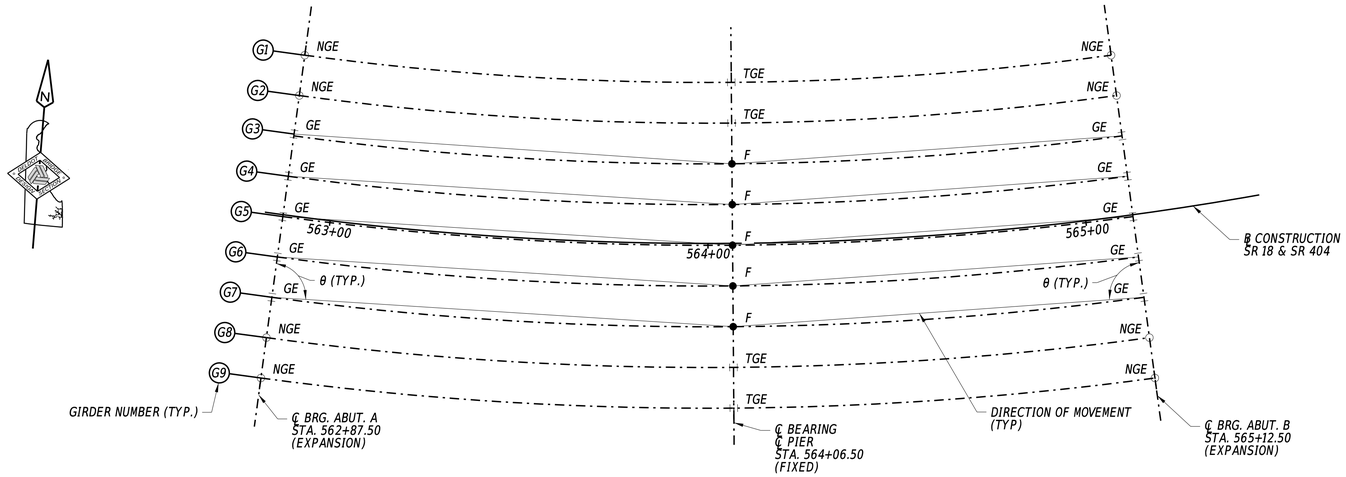
ADDENDA / REVISIONS	SCALE: AS NOTED	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. 3-610	BEARING DETAILS	BR-02
			COUNTY SUSSEX	DESIGNED BY: R. SEDAR		SECTION WRA
				CHECKED BY: W. GESCHREI		SHEET NO. 127



BEARING ORIENTATION / LOCATION PLAN

1" = 20'-0"

HIGH LOAD MULTI-ROTATIONAL BEARING SCHEDULE

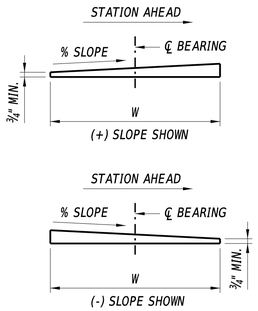
	BEARING LOCATION		ABUTMENT A ③④⑤⑥⑦	ABUTMENT B ③④⑤⑥⑦	ABUTMENT A ①②⑧⑨	ABUTMENT B ①②⑧⑨	PIER ③④⑤⑥⑦	PIER ①②⑧⑨
	BEARING TYPE	QUANTITY	GE 5	GE 5	NGE 4	NGE 4	FIX 5	TGE 4
AASHTO SERVICE LOADS (K)	VERTICAL DESIGN LOAD	DL	110	83	134	105	323	388
		TOTAL VERTICAL DESIGN LOAD	222	192	242	208	513	581
	HORIZONTAL DESIGN LOAD	TRANSVERSE	19	19	*	*	23	*
		LONGITUDINAL	*	*	*	*	19	20
AASHTO STRENGTH LOADS (K)	VERTICAL DESIGN LOAD	TOTAL VERTICAL DESIGN LOAD	335	296	357	312	744	828
	HORIZONTAL DESIGN LOAD	TRANSVERSE	25	25	*	*	30	*
		LONGITUDINAL	*	*	*	*	23	24
AASHTO EXTREME EVENT LOADS (K)	VERTICAL DESIGN LOAD	TOTAL VERTICAL DESIGN LOAD	165	137	187	156	417	483
	HORIZONTAL DESIGN LOAD	TRANSVERSE	63	52	*	*	166	*
		LONGITUDINAL	*	*	*	*	143	168
THERMAL MOVEMENT (MAXIMUM ONE WAY LONGITUDINAL MOVEMENT, NOT INCLUDING 1" CONSTRUCTION TOLERANCE)			0.57 IN	0.51 IN	0.59 IN	0.52 IN	0.00 IN	0.00 IN
		θ	85° 54' 27"	86° 21' 16"	N/A	N/A	N/A	N/A
		SOLE PLATE GRADE (6)	1.27%	-1.58%	1.27%	-1.58%	-0.23%	-0.23%
		ANCHOR BOLT SIZE	1 1/2 IN	1 1/2 IN	1 1/2 IN	1 1/2 IN	2 IN	2 IN
		TOTAL BEARING HEIGHT (8, 9)	10 IN	10 IN	10 IN	10 IN	9 1/2 IN	9 1/2 IN

BEARING DEVICE SETTING (INCHES)

TEMPERATURE AT TIME OF SETTING	ABUTMENT A ℄ SOLE PLATE, ℄ BRG.	PIER ℄ SOLE PLATE, ℄ BRG.	ABUTMENT B ℄ SOLE PLATE, ℄ BRG.
	STATIONS AHEAD →		
10	-0.46	0.00	-0.41
30	-0.28	0.00	-0.25
50	-0.09	0.00	-0.08
70	0.09	0.00	0.08
90	0.28	0.00	0.25

BEARING DEVICE SETTING NOTES:

1. BEARING SETTING SHALL BE MADE IN EARLY MORNING PREFERABLY BEFORE SUN HEAT AFFECTS LENGTH.
2. SET SOLE PLATES IN DIRECTION SHOWN FOR TEMPERATURES ABOVE 60°F, AND IN THE OPPOSITE DIRECTION FOR TEMPERATURES BELOW 60°F.
3. SETTING FOR OTHER TEMPERATURES IS PROPORTIONAL.
4. TEMPERATURE OF STRUCTURE (STEEL AND/OR DECK SLAB), NOT AIR TEMPERATURE.



BEVELED SOLE PLATE DETAIL

NOTE TO SCALE

BEARING SCHEDULE NOTES:

1. THE MAXIMUM ALLOWABLE BEARING PRESSURE ON THE PTFE FIBER PAD IS 3,500 PSI.
2. THE MAXIMUM ALLOWABLE COEFFICIENT OF FRICTION IS 0.045. THIS VALUE IS BASED ON THE MAXIMUM ALLOWABLE BEARING PRESSURE FOR THE PTFE FABRIC PAD.
3. THE MAXIMUM ALLOWABLE BEARING PRESSURE ON CONCRETE IS 1,050 PSI.
4. THE MINIMUM GUIDE BAR CLEARANCE EACH SIDE IS $\frac{1}{16}$".
5. FRICTIONAL RESISTANCE OF THE BEARINGS SLIDING SURFACES HAS NOT BEEN INCLUDED IN THE SPECIFIED HORIZONTAL LOADS.
6. GRADE FOR THE SOLE PLATE IS MEASURED AS THE INSTANTANEOUS TOP OF DECK SLOPE ALONG THE CENTERLINE GIRDER AT THE INTERSECTION WITH THE CENTERLINE BEARING.
7. FIXED AND EXPANSION BEARINGS SHALL BE DESIGNED TO PROVIDE A MINIMUM HORIZONTAL LOAD CAPACITY GREATER THAN OR EQUAL TO THE LARGER OF THE SEISMIC DESIGN LOAD OR THE RESULTANT OF THE TRANSVERSE AND LONGITUDINAL LOADS.
8. BEARING HEIGHT IS MEASURED FROM BOTTOM OF THE MASONRY PLATE TO THE TOP OF BEVELED SOLE PLATE AT THE CENTERLINE OF BEARING. HEIGHT SHALL TAKE INTO ACCOUNT ADDITIONAL THICKNESS AT CENTERLINE REQUIRED FOR BEVEL.
9. FOR INFORMATION ONLY. FINAL BEARING HEIGHT SHALL BE DESIGNED BY THE BEARING MANUFACTURER.
10. TRANSVERSE INDICATES THE DIRECTION PERPENDICULAR TO THE BASELINE OF CONSTRUCTION. LONGITUDINAL INDICATES THE DIRECTION TANGENT TO THE BASELINE OF CONSTRUCTION.
11. EXPANSION BEARINGS SHALL BE DESIGNED WITH A 1" CONSTRUCTION TOLERANCE FOR THE EXPANSION OF THE BEARING. THIS TOLERANCE IS IN ADDITION TO THE THERMAL MOVEMENT INDICATED IN THE BEARING SCHEDULE.
12. FIXED AND EXPANSION BEARINGS SHALL BE DESIGNED FOR A MINIMUM ROTATION OF 0.025 RADIANS WHICH INCLUDES A CONSTRUCTION TOLERANCE OF 0.005 RADIANS.
13. SEISMIC AND THE RESULTANT OF LONGITUDINAL AND TRANSVERSE LOADS ARE NOT TO BE APPLIED SIMULTANEOUSLY.

BEARING SCHEDULE LEGEND:

- (X) = GIRDER NUMBER
- GE = GUIDED EXPANSION, SEE DWG. NO. BR-01.
- NGE = NON-GUIDED EXPANSION, SEE DWG. NO. BR-01.
- TGE = TRANSVERSLY-GUIDED EXPANSION, SEE DWG. NO. BR-01.
- FIX = FIXED, SEE DWG. NO. BR-01.
- DL = DEAD LOAD
- K = KIPS
- N/A = NOT APPLICABLE
- * = FRICTIONAL RESISTANCE HAS NOT BEEN TABULATED AND SHALL BE COMPUTED BY FABRICATOR IN ACCORDANCE WITH SPECIAL PROVISION.

ADDENDA / REVISIONS

SCALE 0 20 40 60 FEET

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO. 3-610
T201412701	DESIGNED BY: R. SEDAR
COUNTY	CHECKED BY: W. GESCHREI
SUSSEX	

BEARING SCHEDULE

BR-03
SECTION WRA
SHEET NO. 128

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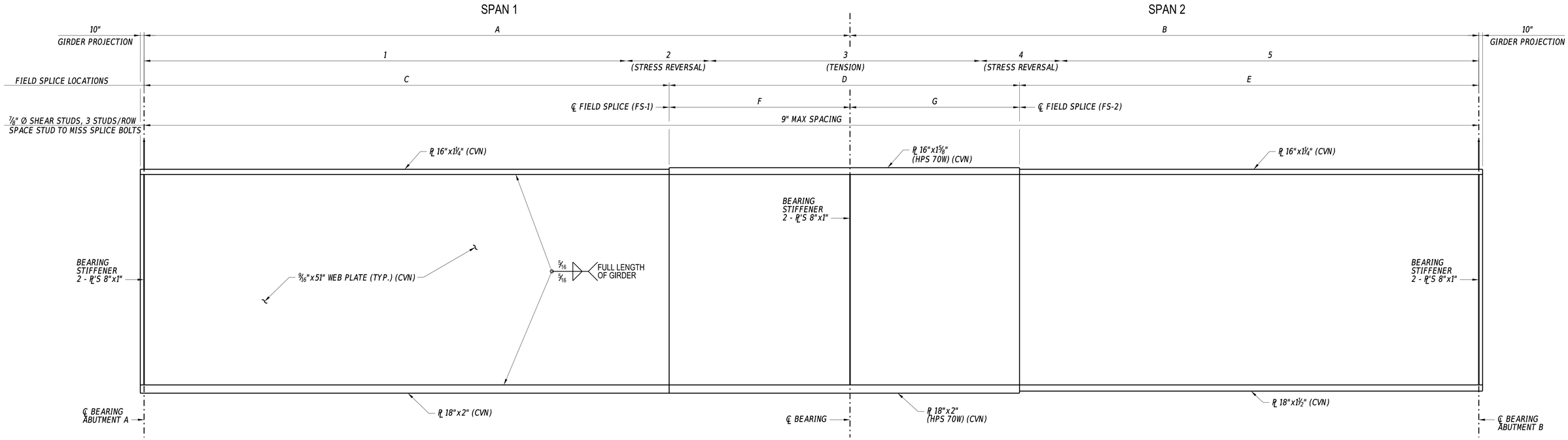
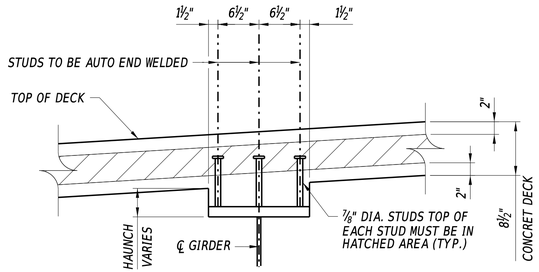


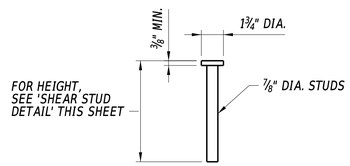
GIRDER ELEVATION

NOT TO SCALE



SHEAR STUD DETAIL

1" = 1'-0"



STUD DETAIL

1½" = 1'-0"

GIRDER ELEVATION SCHEDULE

GIRDER	A	B	C	D	E	F	G	1	2	3	4	5	RADIUS
①	112'-11 1/8"	100'-7 1/8"	84'-0 13/16"	55'-11"	73'-6 7/16"	28'-10 5/16"	27'-0 11/16"	73'-10 7/8"	20'-10 1/8"	37'-6 3/8"	24'-3 3/4"	56'-11 1/8"	790.50'
②	114'-5 9/16"	101'-11 1/2"	85'-2 9/16"	56'-8 1/8"	74'-6 7/16"	29'-3 1/16"	27'-5 1/16"	75'-9 1/2"	21'-0 3/4"	36'-0 1/4"	25'-7 3/8"	57'-11 1/4"	801.25'
③	116'-0"	103'-3 15/16"	86'-4 1/4"	57'-5 1/4"	75'-6 7/16"	29'-7 3/4"	27'-9 1/2"	76'-2 1/8"	21'-11 7/8"	36'-7 1/4"	27'-2 1/4"	57'-4 1/2"	812.00'
④	117'-6 7/16"	104'-8 3/8"	87'-6"	58'-2 3/8"	76'-6 7/16"	30'-0 7/16"	28'-1 15/16"	76'-4"	22'-10 5/8"	37'-10"	29'-0 5/8"	56'-1 5/8"	822.75'
⑤	119'-0 7/8"	106'-0 3/4"	88'-7 11/16"	58'-11 1/2"	77'-6 7/16"	30'-5 3/16"	28'-6 5/16"	77'-4 3/4"	23'-0 5/8"	38'-6 3/4"	29'-1"	57'-0 1/2"	833.50'
⑥	120'-7 5/16"	107'-5 3/16"	89'-9 7/16"	59'-8 5/8"	78'-6 7/16"	30'-9 7/8"	28'-10 3/4"	78'-11 1/2"	22'-9 7/8"	38'-11"	29'-0 3/4"	58'-3 3/8"	844.25'
⑦	122'-1 11/16"	108'-9 5/8"	90'-11 1/8"	60'-5 3/4"	79'-6 7/16"	31'-2 9/16"	29'-3 3/16"	81'-3 1/4"	21'-6 3/8"	39'-11 3/8"	28'-1 3/8"	60'-1"	855.00'
⑧	123'-8 1/8"	110'-2"	92'-0 7/8"	61'-2 7/8"	80'-6 7/16"	31'-7 5/16"	29'-7 9/16"	82'-1 5/8"	21'-7 3/4"	41'-11"	26'-11 3/8"	61'-2 1/4"	865.75'
⑨	125'-2 9/16"	111'-6 7/16"	93'-2 9/16"	62'-0"	81'-6 7/16"	32'-0"	30'-0"	80'-9 1/2"	23'-9"	42'-11 3/4"	29'-2 7/8"	59'-11 7/8"	876.50'

NOTES:

1. THE GIRDERS SHALL BE PLUMB UNDER FULL DEAD LOAD.
2. THE CONTRACTOR IS RESPONSIBLE FOR THE ENTIRE ERECTION OF THE BRIDGE, THE CONTRACTOR SHALL SUBMIT DRAWINGS SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF DELAWARE, ILLUSTRATING FULLY THE PROPOSED METHOD OF ERECTION.

   THE DRAWINGS SHALL SHOW DETAILS OF ALL TEMPORARY SHORING, FASEWORK, BRACING, GUYS, DEAD-MEN, LIFTING DEVICES AND ATTACHMENT TO BRIDGE MEMBERS. THE DRAWINGS SHALL ALSO INCLUDE THE SEQUENCE OF ERECTION, LOCATION OF CRANES, CRANE CAPACITIES, LOCATION OF LIFTING POINTS ON THE BRIDGE MEMBERS AND WEIGHTS OF MEMBERS. THE PLANS AND DRAWINGS SHALL BE COMPLETE IN DETAIL FOR ALL ANTICIPATED PHASES AND CONDITIONS DURING ERECTION.
3. THERE SHALL BE NO FIELD WELDING TO THE TOP FLANGE, EXCEPT FOR SHEAR STUDS, IN THE TENSION & STRESS REVERSAL REGIONS.
4. INTERMEDIATE DIAPHRAGM CONNECTION PLATES, SPACING NOT SHOWN, FOR LOCATION OF INTERMEDIATE DIAPHRAGM CONNECTION PLATES, SEE DWG. NO. FR-01.
5. FOR INTERMEDIATE DIAPHRAGM CONNECTION PLATE DETAILS, SEE DWG. NO. BM-02.
6. FOR FIELD SPLICE DETAILS, SEE DWG. NO. BM-04.

ADDENDA / REVISIONS	SCALE: AS NOTED	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. 3-610	GIRDER ELEVATION	BM-01
			COUNTY SUSSEX	DESIGNED BY: R. SEDAR		SECTION WRA
				CHECKED BY: W. GESCHREI		SHEET NO. 129

8/14/2025
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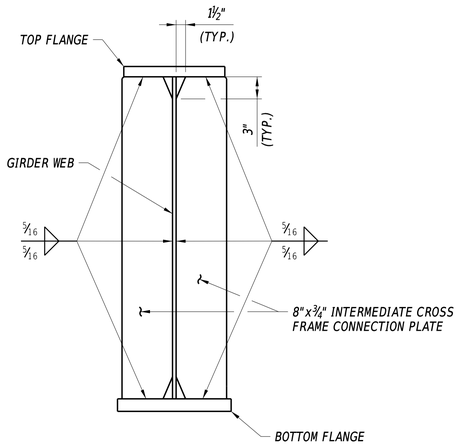
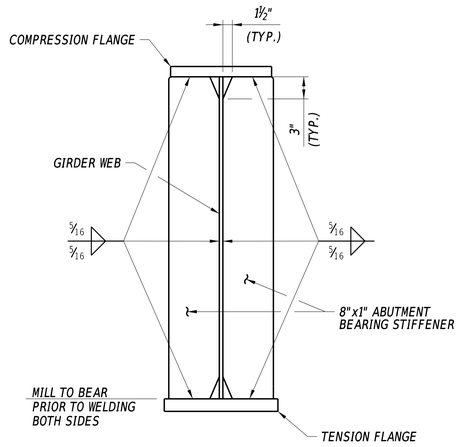


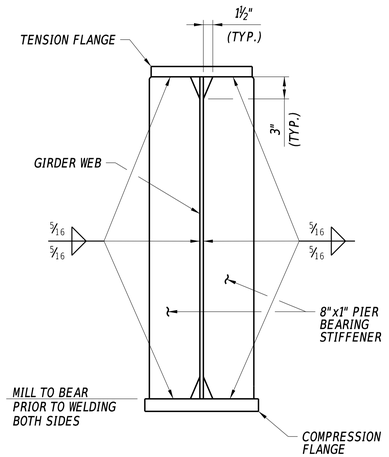
INTERMEDIATE CROSS FRAME CONNECTION PLATES

1" = 1'-0"



ABUTMENT BEARING STIFFENER

1" = 1'-0"



PIER BEARING STIFFENER

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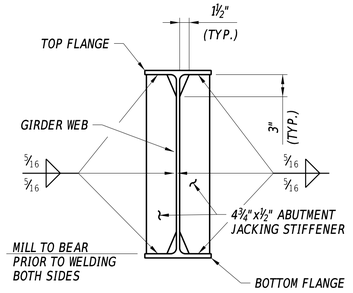

ABUTMENT JACKING STIFFENER

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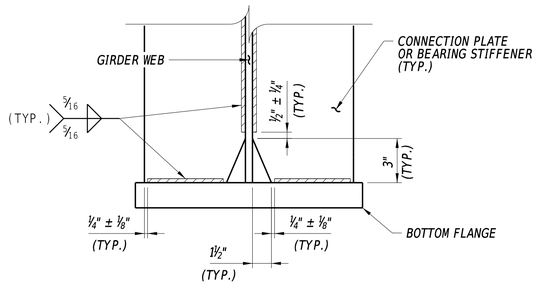
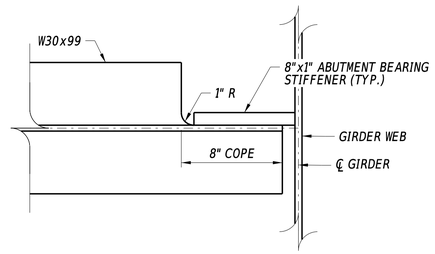


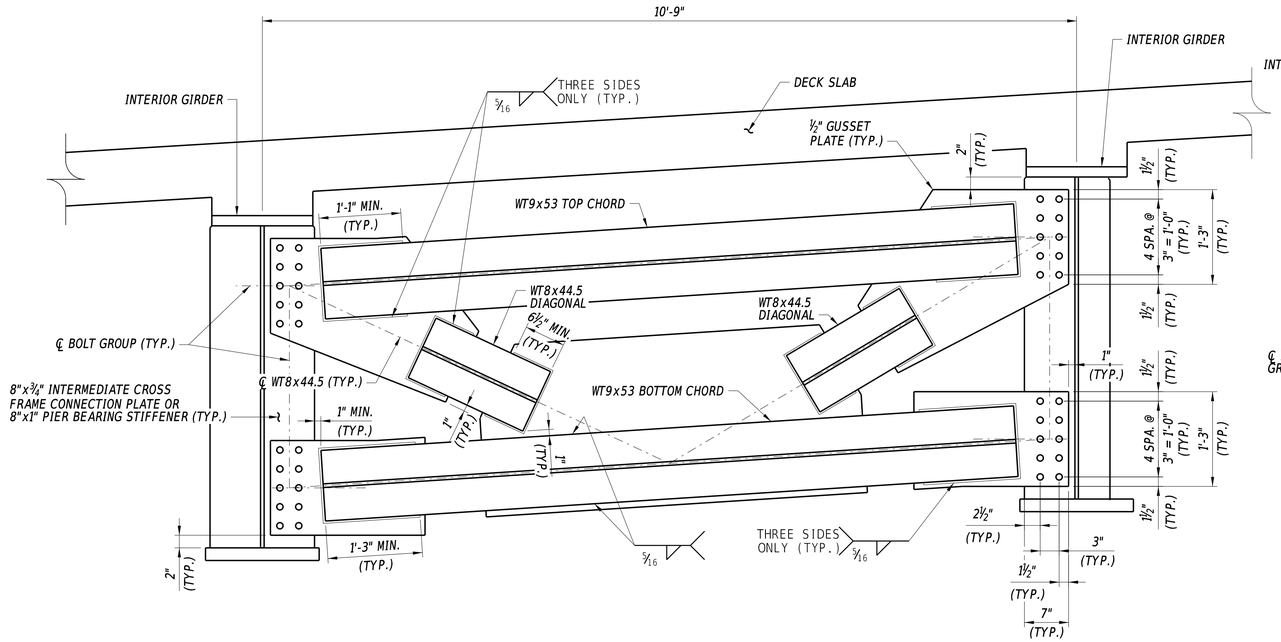
WELD TERMINATION DETAIL

1½" = 1'-0"



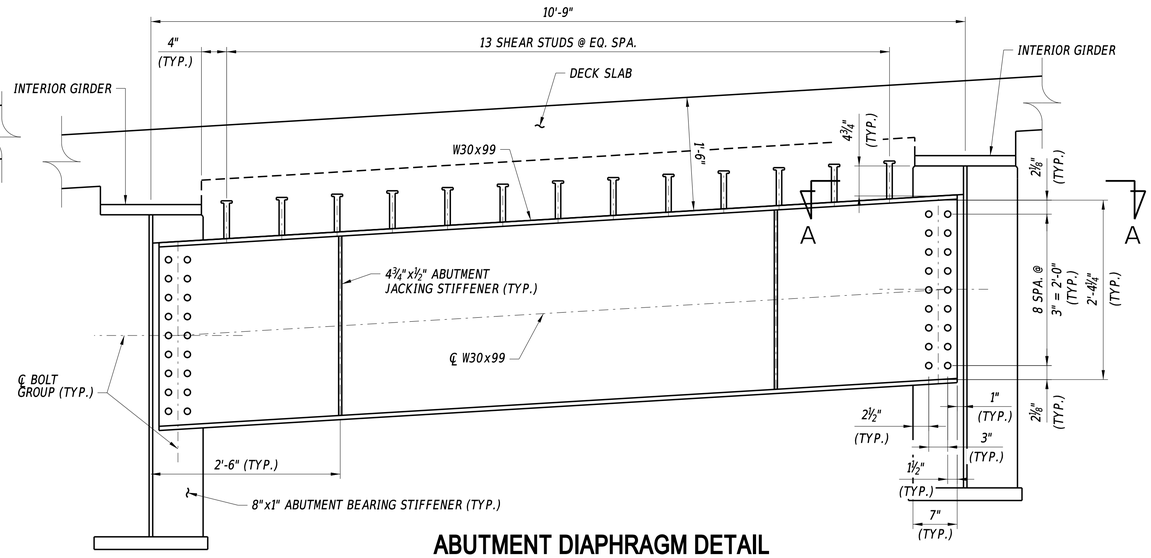
SECTION A-A

1½" = 1'-0"



PIER AND INTERMEDIATE CROSS FRAME DETAIL

1" = 1'-0"



ABUTMENT DIAPHRAGM DETAIL

1" = 1'-0"

NOTES:

1. FOR CROSS FRAME LOCATIONS, SEE DWG. NO. FR-01.
2. CROSS FRAME CONNECTIONS DESIGNED AS A SLIP CRITICAL CONNECTION WITH CLASS A SURFACE CONDITIONS.
3. ALL BOLTS TO BE 1" ∅ HIGH STRENGTH BOLTS CONFORMING TO ASTM F3125 GR 490, TYPE 3. ALL BOLT HOLES SHALL BE 1⅛" ∅ . ALL BOLTS SHALL BE FABRICATED WITH THREADS THAT ARE EXCLUDED FROM THE SHEAR PLANE.
4. THE MINIMUM ACCEPTABLE EDGE DISTANCE FOR ANY HOLE SHALL BE 1½".
5. BOLTS NOT SHOWN IN CROSS FRAME FOR CLARITY.
6. THE GIRDERS ARE REQUIRED TO BE PLUMB UNDER FULL DEAD LOAD.

ADDENDA / REVISIONS	SCALE: AS NOTED	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. 3-610	CROSS FRAME DETAILS	BM-02 SECTION WRA
			COUNTY SUSSEX	DESIGNED BY: R. SEDAR		SHEET NO. 130
				CHECKED BY: W. GESCHREI		

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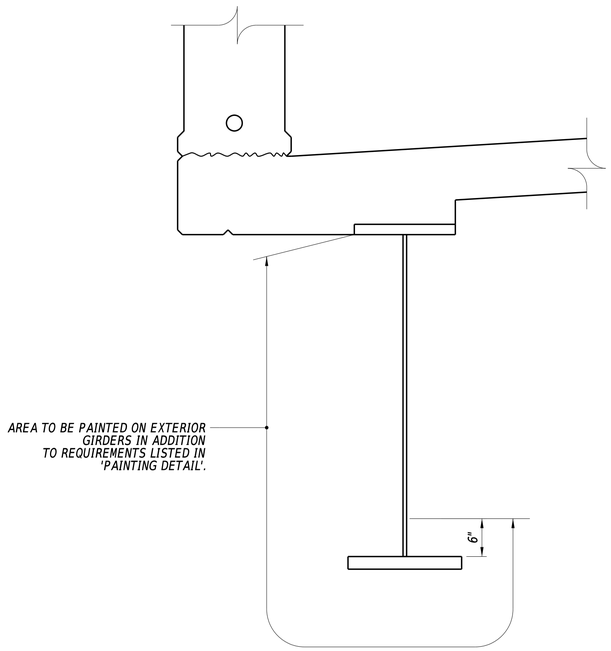
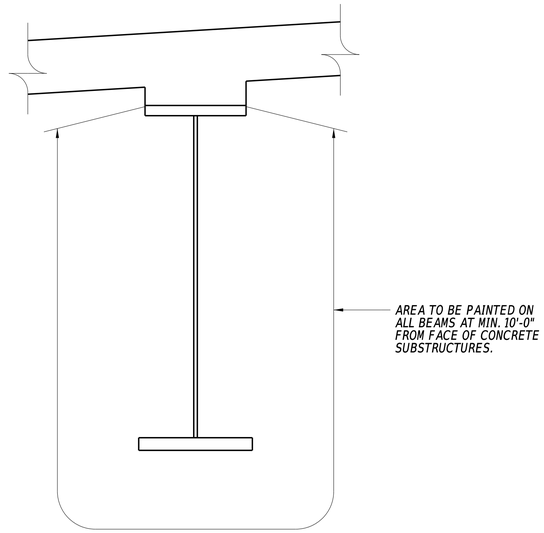


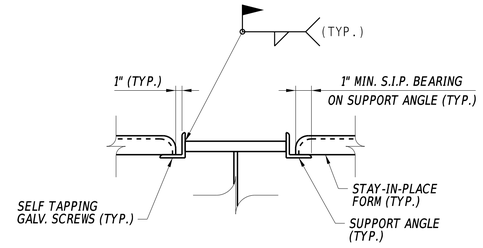
FASCIA BEAM PAINTING DETAIL

1" = 1'-0"



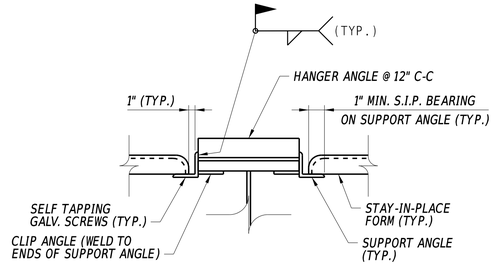
PAINTING DETAIL

1" = 1'-0"



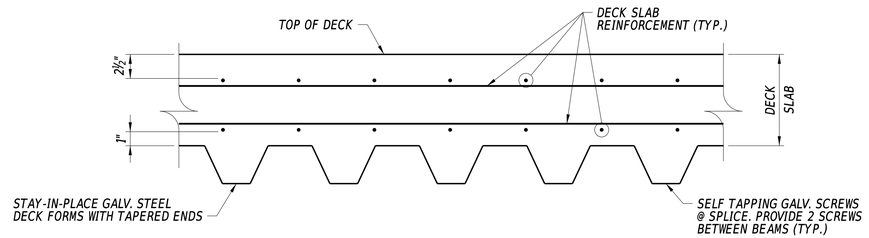
COMPRESSION FLANGE STAY-IN -PLACE FORM CONNECTION DETAIL

1" = 1'-0"



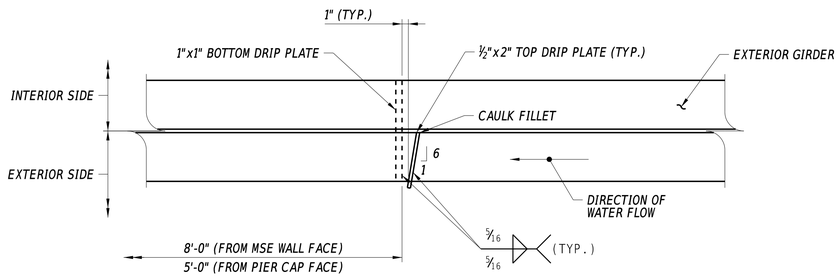
TENSION FLANGE STAY-IN-PLACE FORM CONNECTION DETAIL

1" = 1'-0"



STAY-IN-PLACE STEEL FORM DETAIL

NOT TO SCALE



DRIP PLATE DETAILS

1" = 1'-0"

STAY-IN-PLACE FORM NOTES:

1. IN ADDITION TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS, CALCULATIONS AND DRAWINGS FOR THE S.I.P. FORMS MUST BE SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF DELAWARE AND SUBMITTED FOR REVIEW AND APPROVAL. PAYMENT SHALL BE INCIDENTAL TO ITEM 610017 - PCC MASONRY, SUPERSTRUCTURE, CLASS D.
2. ALL ANGLES, WELDS, AND INSERTS MUST BE DESIGNED BY THE CONTRACTOR AND SUBMITTED FOR REVIEW AND APPROVAL.
3. NO WELDING OF STAY-IN-PLACE FORMS TO TOP FLANGE IN TENSION & STRESS REVERSAL REGIONS.
4. STAY-IN-PLACE FORMS SHALL BE VERTICALLY ADJUSTED TO ATTAIN FINISHED LINES AND GRADES REQUIRED ON THE PLANS.

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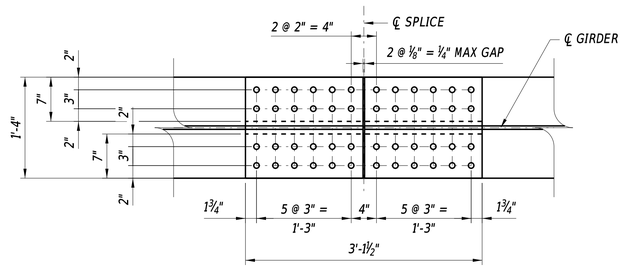
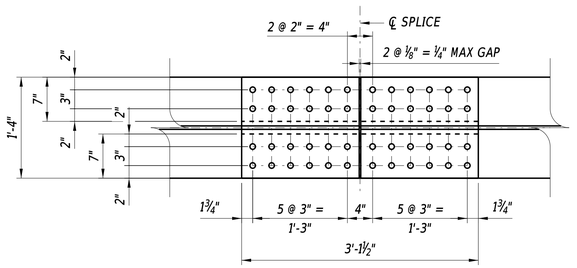
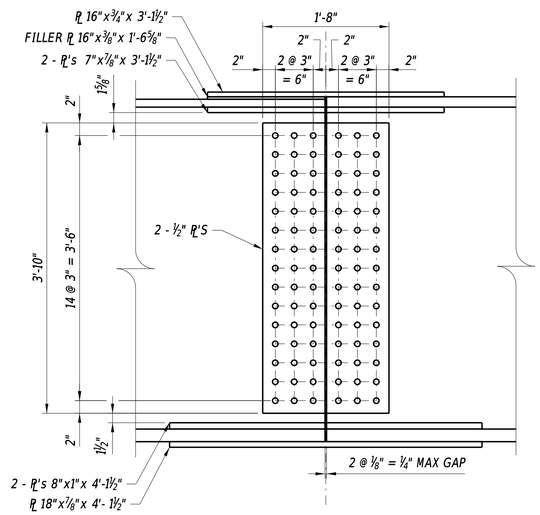
ADDENDA / REVISIONS	SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. 3-610	BEAM DETAILS	BM-03
	0 1 2 3 FEET		T201412701	DESIGNED BY: R. SEDAR		SECTION WRA
			COUNTY SUSSEX	CHECKED BY: W. GESCHREI		SHEET NO. 131



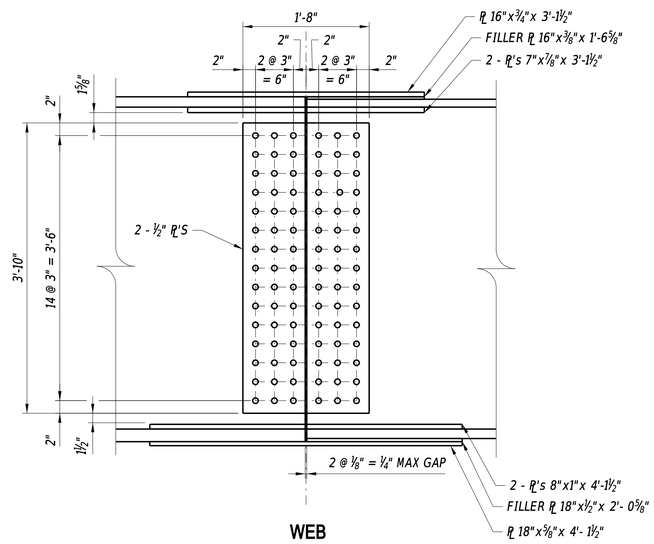
TOP FLANGE



TOP FLANGE



WEB



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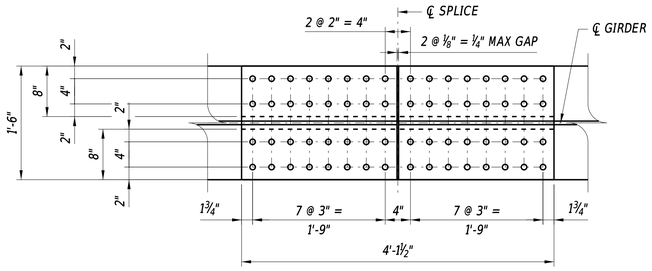
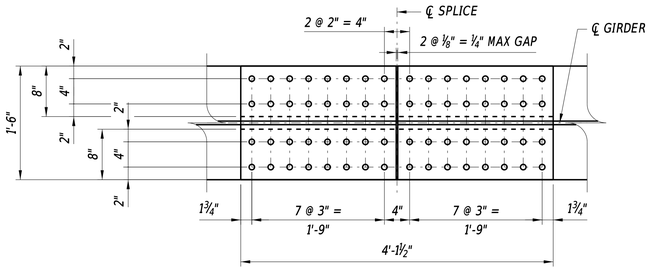


BOTTOM FLANGE

FIELD SPLICE DETAIL FS-1

1" = 1'-0"



BOTTOM FLANGE

FIELD SPLICE DETAIL FS-2

1" = 1'-0"

SPLICE NOTES:

1. FOR LOCATION OF FIELD SPLICES, SEE DWG. NO. FP-01.
2. FIELD SPLICES DESIGNED AS A SLIP CRITICAL CONNECTION WITH CLASS A SURFACE CONDITIONS.
3. ALL BOLTS TO BE ⅞" DIAMETER HIGH STRENGTH BOLTS CONFORMING TO A325, TYPE 3. ALL BOLT HOLES SHALL BE 15/16" DIAMETER. ALL BOLTS SHALL BE FABRICATED WITH THREADS THAT ARE EXCLUDED FROM THE SHEAR PLANE.
4. THE MINIMUM ACCEPTABLE EDGE DISTANCE FOR ANY HOLE SHALL BE 1½".
5. BOLT HEADS SHALL BE ON THE EXTERIOR FACE OF THE EXTERIOR GIRDER AND THE BOTTOM OF THE BOTTOM FLANGE.
6. BOLTS NOT SHOWN IN SPLICES FOR CLARITY.
7. SPACE SHEAR STUDS TO MISS TOP FLANGE SPLICE BOLTS.
8. ON EACH SIDE OF THE ℄ SPLICE A MINIMUM OF 50 PERCENT OF THE WEB, TOP FLANGE, AND BOTTOM FLANGE SPLICE BOLTS SHALL BE IN PLACE BEFORE THE GIRDER IS LEFT UNSUPPORTED.
9. FIELD SPLICES SHALL BE COMPLETELY SHOP ASSEMBLED AND MATCH MARKED AFTER ALL SHOP WELDING HAS BEEN COMPLETED. CONTACT SURFACES SHALL BE FREE OF ALL OIL AND DIRT.

ADDENDA / REVISIONS	SCALE 0 1 2 3 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. 3-610	SPLICE DETAILS	BM-04 SECTION WRA SHEET NO. 132
			COUNTY SUSSEX	DESIGNED BY: R. SEDAR		
				CHECKED BY: W. GESCHREI		

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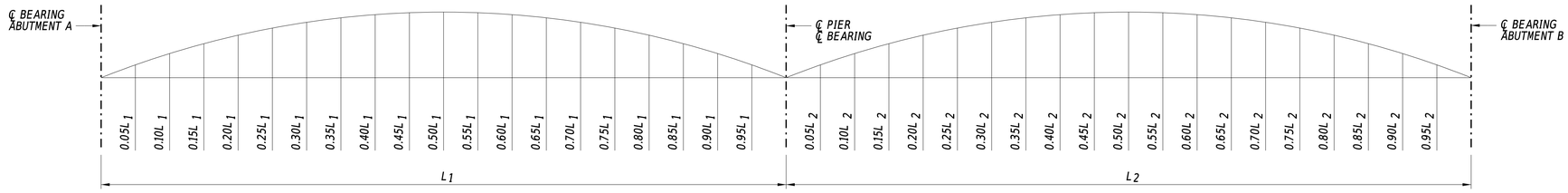

DEFLECTION AND TOTAL CAMBER (INCHES)

	LOCATION	℄ BRG. ABUT. A	0.05L 1	0.10L 1	0.15L 1	0.20L 1	0.25L 1	0.30L 1	0.35L 1	0.40L 1	0.45L 1	0.50L 1	0.55L 1	0.60L 1	0.65L 1	0.70L 1	0.75L 1	0.80L 1	0.85L 1	0.90L 1	0.95L 1	℄ BRG. PIER	0.05L 2	0.10L 2	0.15L 2	0.20L 2	0.25L 2	0.30L 2	0.35L 2	0.40L 2	0.45L 2	0.50L 2	0.55L 2	0.60L 2	0.65L 2	0.70L 2	0.75L 2	0.80L 2	0.85L 2	0.90L 2	0.95L 2	℄ BRG. ABUT. B
GIRDER 1	DLS	0	1/8	3/16	1/4	3/8	7/16	7/16	1/2	1/2	1/2	1/2	7/16	7/16	3/8	5/16	1/4	3/16	1/8	1/16	0	0	0	0	0	1/16	1/16	1/8	1/8	3/16	3/16	1/4	1/4	1/4	1/4	1/4	3/16	3/16	1/8	1/8	1/16	0
	DLC	0	5/16	9/16	13/16	1 1/16	1 1/4	1 3/8	1 1/2	1 9/16	1 9/16	1 1/2	1 7/16	1 5/16	1 1/8	15/16	3/4	9/16	3/8	3/16	1/16	0	0	0	1/8	3/16	5/16	3/8	1/2	5/8	3/4	3/4	13/16	7/8	13/16	13/16	11/16	5/8	1/2	5/16	3/16	0
	SDL	0	1/16	1/8	1/8	3/16	3/16	1/4	1/4	1/4	1/4	1/4	1/4	3/16	3/16	3/16	1/8	1/8	1/16	1/16	0	0	0	0	1/16	1/16	1/16	1/8	1/8	1/8	3/16	3/16	3/16	3/16	3/16	3/16	3/16	1/8	1/8	1/16	1/16	0
	TD&C	0	1/2	7/8	1 3/16	1 5/8	1 7/8	2 1/16	2 1/4	2 5/16	2 5/16	2 1/4	2 1/8	1 15/16	1 11/16	1 7/16	1 1/8	7/8	9/16	5/16	1/16	0	0	0	3/16	5/16	7/16	5/8	3/4	15/16	1 1/8	1 3/16	1 1/4	1 5/16	1 1/4	1 1/4	1 1/16	15/16	3/4	1/2	5/16	0
	VCO	0	1/2	1	1 3/8	1 3/4	2	2 1/4	2 7/16	2 9/16	2 11/16	2 11/16	2 11/16	2 9/16	2 7/16	2 1/4	2	1 3/4	1 3/8	1	1/2	0	3/8	3/4	1 1/16	1 3/8	1 5/8	1 13/16	1 15/16	2 1/16	2 1/8	2 1/8	2 1/8	2 1/16	1 15/16	1 13/16	1 5/8	1 3/8	1 1/16	3/4	3/8	0
	TRC	0	1	1 7/8	2 9/16	3 3/8	3 7/8	4 5/16	4 11/16	4 7/8	5	4 15/16	4 13/16	4 1/2	4 1/8	3 11/16	3 1/8	2 5/8	1 15/16	1 5/16	9/16	0	3/8	3/4	1 1/4	1 11/16	2 1/16	2 7/16	2 11/16	3	3 1/4	3 5/16	3 3/8	3 3/8	3 3/16	3 1/16	2 11/16	2 5/16	1 13/16	1 1/4	11/16	0

	LOCATION	℄ BRG. ABUT. A	0.05L 1	0.10L 1	0.15L 1	0.20L 1	0.25L 1	0.30L 1	0.35L 1	0.40L 1	0.45L 1	0.50L 1	0.55L 1	0.60L 1	0.65L 1	0.70L 1	0.75L 1	0.80L 1	0.85L 1	0.90L 1	0.95L 1	℄ BRG. PIER	0.05L 2	0.10L 2	0.15L 2	0.20L 2	0.25L 2	0.30L 2	0.35L 2	0.40L 2	0.45L 2	0.50L 2	0.55L 2	0.60L 2	0.65L 2	0.70L 2	0.75L 2	0.80L 2	0.85L 2	0.90L 2	0.95L 2	℄ BRG. ABUT. B
GIRDER 2	DLS	0	1/8	3/16	5/16	3/8	7/16	1/2	9/16	9/16	9/16	9/16	9/16	1/2	7/16	3/8	5/16	3/16	1/8	1/16	1/16	0	0	0	0	1/16	1/16	1/8	1/8	3/16	1/4	1/4	1/4	1/4	1/4	1/4	3/16	1/8	1/8	1/16	0
	DLC	0	3/8	11/16	15/16	1 1/4	1 7/16	1 5/8	1 11/16	1 3/4	1 3/4	1 3/4	1 5/8	1 1/2	1 5/16	1 1/16	7/8	5/8	7/16	1/4	1/8	0	0	0	0	1/8	3/16	5/16	7/16	5/8	11/16	13/16	7/8	15/16	1	15/16	15/16	13/16	11/16	9/16	3/8	3/16	0
	SDL	0	0	1/16	1/16	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/16	1/16	1/16	1/16	0	0	0	0	0	0	0	1/16	1/16	1/16	1/16	1/16	1/8	1/8	1/8	1/8	1/8	1/16	1/16	1/16	1/16	0	0
	TD&C	0	1/2	15/16	1 5/16	1 3/4	2	2 1/4	2 3/8	2 7/16	2 7/16	2 7/16	2 5/16	2 1/8	1 7/8	1 1/2	1 1/4	7/8	5/8	5/16	3/16	0	0	0	1/8	1/4	7/16	5/8	13/16	15/16	1 1/8	1 1/4	1 5/16	1 3/8	1 5/16	1 5/16	1 1/8	15/16	3/4	9/16	1/4	0
	VCO	0	1/2	1	1 3/8	1 3/4	2	2 1/4	2 7/16	2 9/16	2 11/16	2 11/16	2 11/16	2 9/16	2 7/16	2 1/4	2	1 3/4	1 3/8	1	1/2	0	3/8	3/4	1 1/16	1 3/8	1 5/8	1 13/16	1 15/16	2 1/16	2 1/8	2 1/8	2 1/8	2 1/16	1 15/16	1 13/16	1 5/8	1 3/8	1 1/16	3/4	3/8	0
	TRC	0	1	1 15/16	2 11/16	3 1/2	4	4 1/2	4 13/16	5	5 1/8	5 1/8	5	4 11/16	4 5/16	3 3/4	3 1/4	2 5/8	2	1 5/16	11/16	0	3/8	3/4	1 3/16	1 5/8	2 1/16	2 7/16	2 3/4	3	3 1/4	3 3/8	3 7/16	3 7/16	3 1/4	3 1/8	2 3/4	2 5/16	1 13/16	1 5/16	5/8	0

	LOCATION	℄ BRG. ABUT. A	0.05L 1	0.10L 1	0.15L 1	0.20L 1	0.25L 1	0.30L 1	0.35L 1	0.40L 1	0.45L 1	0.50L 1	0.55L 1	0.60L 1	0.65L 1	0.70L 1	0.75L 1	0.80L 1	0.85L 1	0.90L 1	0.95L 1	℄ BRG. PIER	0.05L 2	0.10L 2	0.15L 2	0.20L 2	0.25L 2	0.30L 2	0.35L 2	0.40L 2	0.45L 2	0.50L 2	0.55L 2	0.60L 2	0.65L 2	0.70L 2	0.75L 2	0.80L 2	0.85L 2	0.90L 2	0.95L 2	℄ BRG. ABUT. B
GIRDER 3	DLS	0	1/8	1/4	5/16	7/16	1/2	9/16	5/8	5/8	5/8	5/8	9/16	9/16	1/2	3/8	5/16	1/4	3/16	1/16	1/16	0	0	0	0	1/16	1/16	1/8	3/16	3/16	1/4	1/4	1/4	5/16	5/16	1/4	1/4	3/16	3/16	1/8	1/16	0
	DLC	0	3/8	3/4	1 1/16	1 3/8	1 5/8	1 13/16	1 15/16	2	2	1 15/16	1 13/16	1 5/8	1 7/16	1 3/16	15/16	11/16	7/16	1/4	1/8	0	0	0	0	1/8	1/4	3/8	1/2	11/16	13/16	15/16	1	1 1/16	1 1/16	1 1/16	1	15/16	13/16	5/8	7/16	1/4	0
	SDL	0	0	0	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	1/16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1/16	0	0	0	0	0	0	0	0
	TD&C	0	1/2	1	1 7/16	1 7/8	2 3/16	2 7/16	2 5/8	2 11/16	2 11/16	2 5/8	2 7/16	2 1/4	2	1 5/8	1 5/16	15/16	5/8	5/16	3/16	0	0	0	0	1/8	5/16	7/16	5/8	7/8	1	1 3/16	1 1/4	1 5/16	1 7/16	1 3/8	1 1/4	1 3/16	1	13/16	9/16	5/16	0
	VCO	0	1/2	1	1 3/8	1 3/4	2	2 1/4	2 7/16	2 9/16	2 11/16	2 11/16	2 11/16	2 9/16	2 7/16	2 1/4	2	1 3/4	1 3/8	1	1/2	0	3/8	3/4	1 1/16	1 3/8	1 5/8	1 13/16	1 15/16	2 1/16	2 1/8	2 1/8	2 1/8	2 1/16	1 15/16	1 13/16	1 5/8	1 3/8	1 1/16	3/4	3/8	0
	TRC	0	1	2	2 13/16	3 5/8	4 3/16	4 11/16	5 1/16	5 1/4	5 3/8	5 5/16	5 1/8	4 13/16	4 7/16	3 7/8	3 5/16	2 11/16	2	1 5/16	11/16	0	3/8	3/4	1 3/16	1 11/16	2 1/16	2 7/16	2 13/16	3 1/16	3 5/16	3 3/8	3 7/16	3 1/2	3 5/16	3 1/16	2 13/16	2 3/8	1 7/8	1 5/16	11/16	0

	LOCATION	℄ BRG. ABUT. A	0.05L 1	0.10L 1	0.15L 1	0.20L 1	0.25L 1	0.30L 1	0.35L 1	0.40L 1	0.45L 1	0.50L 1	0.55L 1	0.60L 1	0.65L 1	0.70L 1	0.75L 1	0.80L 1	0.85L 1	0.90L 1	0.95L 1	℄ BRG. PIER	0.05L 2	0.10L 2	0.15L 2	0.20L 2	0.25L 2	0.30L 2	0.35L 2	0.40L 2	0.45L 2	0.50L 2	0.55L 2	0.60L 2	0.65L 2	0.70L 2	0.75L 2	0.80L 2	0.85L 2	0.90L 2	0.95L 2	℄ BRG. ABUT. B
GIRDER 4	DLS	0	1/8	1/4	3/8	1/2	9/16	5/8	11/16	11/16	11/16	11/16	5/8	9/16	1/2	7/16	3/8	1/4	3/16	1/8	1/16	0	0	0	0	1/16	1/16	1/8	3/16	3/16	1/4	1/4	5/16	5/16	5/16	5/16	1/4	1/4	3/16	1/8	1/16	0
	DLC	0	7/16	13/16	1 1/8	1 7/16	1 3/4	1 15/16	2 1/16	2 1/8	2 1/8	2 1/16	1 15/16	1 3/4	1 9/16	1 5/16	1	3/4	1/2	1/4	1/8	0	0	0	0	1/8	1/4	3/8	9/16	11/16	13/16	15/16	1 1/16	1 1/8	1 1/8	1 1/8	1 1/16	1	13/16	11/16	7/16	1/4	0
	SDL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TD&C	0	9/16	1 1/16	1 1/2	1 15/16	2 5/16	2 9/16	2 3/4	2 13/16	2 13/16	2 3/4	2 9/16	2 5/16	2 1/16	1 3/4	1 3/8	1	11/16	3/8	3/16	0	0	0	0	1/8	5/16	7/16	11/16	7/8	1	1 3/16	1 5/16	1 7/16	1 7/16	1 7/16	1 3/8	1 1/4	1 1/16	7/8	9/16	5/16	0
	VCO	0	1/2	1	1 3/8	1 3/4	2	2 1/4	2 7/16	2 9/16	2 11/16	2 11/16	2 11/16	2 9/16	2 7/16	2 1/4	2	1 3/4	1 3/8	1	1/2	0	3/8	3/4	1 1/16	1 3/8	1 5/8	1 13/16	1 15/16	2 1/16	2 1/8	2 1/8	2 1/8	2 1/16	1 15/16	1 13/16	1 5/8	1 3/8	1 1/16	3/4	3/8	0
	TRC	0	1 1/16	2 1/16	2 7/8	3 11/16	4 5/16	4 13/16	5 3/16	5 3/8	5 1/2	5 7/16	5 1/4	4 7/8	4 1/2	4	3 3/8	2 3/4	2 1/16	1 3/8	11/16	0	3/8	3/4	1 3/16	1 11/16	2 1/16	2 1/2	2 13/16	3 1/16	3 5/16	3 7/16	3 9/16	3 1/2	3 3/8	3 3/16	2 7/8	2 7/16	1 15/16	1 5/16	11/16	0

LEGEND:

DLS = DENOTES DEFLECTION DUE TO STRUCTURAL STEEL

DLC = DENOTES DEFLECTION DUE TO CONCRETE SLAB, HAUNCH, & S.I.P. FORMS

SDL = DENOTES DEFLECTION DUE TO PARAPET

TD&C = DENOTES TOTAL DEAD LOAD DEFLECTION & CAMBER

VCO = DENOTES CAMBER FOR VERTICAL CURVE ORDINATE DUE TO ROADWAY PROFILE

STEEL GIRDER CAMBER NOTES:

1. ALL GIRDERS SHALL BE CAMBERED FOR DEAD LOAD ORDINATES TO THE DIMENSIONS SHOWN ON THESE PLANS. THE CAMBER TOLERANCES IS ZERO UNDER TO ¾ INCH OVER.
2. AFTER THE ERECTION OF STEEL AND THE CONNECTIONS OF THE STEEL DIAPHRAGMS ARE COMPLETE, THE CONTRACTOR SHALL OBTAIN ELEVATIONS AT TWENTIETH POINTS SHOWN ON THE TOP FLANGES OF ALL GIRDERS TO DETERMINE THE REQUIRED HAUNCH THICKNESS. ALL THE DATA SHALL BE SUBMITTED WITH DETAILS OF STAY-IN-PLACE FORMS FOR REVIEW AND APPROVAL BY THE ENGINEER IN THE FIELD.
3. AFTER THE ERECTION OF STEEL AND THE CONNECTIONS OF THE STEEL DIAPHRAGMS ARE COMPLETE, THE CONTRACTOR SHALL VERIFY THAT ALL UNDER CLEARANCES ARE SUFFICIENT AFTER SUBTRACTING THE CALCULATED TOTAL DEAD LOAD DEFLECTION.
4. VARY THICKNESS OF HAUNCH TO ACCOUNT FOR ANY INACCURACIES IN CAMBER.
5. POSITIVE CAMBER VALUES IN THE TABLE INDICATE THE UPWARD DIRECTION.

ADDENDA / REVISIONS		SCALE: AS NOTED	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. 3-610	CAMBER DIAGRAM - I	BM-05
				T201412701			SECTION
				COUNTY	DESIGNED BY: R. SEDAR		WRA
				SUSSEX	CHECKED BY: W. GESCHREI		SHEET NO.
							133

8/14/2025
9:51:12 AM
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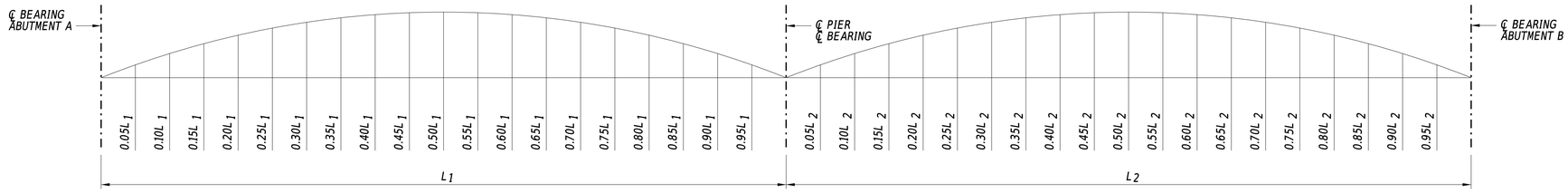

DEFLECTION AND TOTAL CAMBER (INCHES)

LOCATION		℄ BRG. ABUT. A	0.05L 1	0.10L 1	0.15L 1	0.20L 1	0.25L 1	0.30L 1	0.35L 1	0.40L 1	0.45L 1	0.50L 1	0.55L 1	0.60L 1	0.65L 1	0.70L 1	0.75L 1	0.80L 1	0.85L 1	0.90L 1	0.95L 1	℄ BRG. PIER	0.05L 2	0.10L 2	0.15L 2	0.20L 2	0.25L 2	0.30L 2	0.35L 2	0.40L 2	0.45L 2	0.50L 2	0.55L 2	0.60L 2	0.65L 2	0.70L 2	0.75L 2	0.80L 2	0.85L 2	0.90L 2	0.95L 2	℄ BRG. ABUT. B
GIRDER 5	DLS	0	1/8	1/4	3/8	1/2	9/16	5/8	11/16	3/4	3/4	11/16	11/16	5/8	9/16	7/16	3/8	1/4	3/16	1/8	1/16	0	0	0	0	1/16	1/16	1/8	3/16	1/4	1/4	5/16	5/16	5/16	5/16	5/16	1/4	1/4	3/16	1/8	1/16	0
	DLC	0	7/16	13/16	1 1/4	1 9/16	1 13/16	2 1/16	2 3/16	2 1/4	2 1/4	2 3/16	2 1/16	1 7/8	1 5/8	1 3/8	1 1/8	13/16	9/16	5/16	1/8	0	0	0	1/8	1/4	3/8	9/16	3/4	7/8	1	1 1/8	1 3/16	1 3/16	1 3/16	1 1/8	1	7/8	11/16	1/2	1/4	0
	SDL	0	0	0	0	0	0	1/16	1/16	1/16	1/16	1/16	1/16	1/16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TD&C	0	9/16	1 1/16	1 5/8	2 1/16	2 3/8	2 3/4	2 15/16	3 1/16	3 1/16	2 15/16	2 13/16	2 9/16	2 3/16	1 13/16	1 1/2	1 1/16	3/4	7/16	3/16	0	0	0	1/8	5/16	7/16	11/16	15/16	1 1/8	1 1/4	1 7/16	1 1/2	1 1/2	1 1/2	1 7/16	1 1/4	1 1/8	7/8	5/8	5/16	0
	VCO	0	1/2	1	1 3/8	1 3/4	2	2 1/4	2 7/16	2 9/16	2 11/16	2 11/16	2 11/16	2 9/16	2 7/16	2 1/4	2	1 3/4	1 3/8	1	1/2	0	3/8	3/4	1 1/16	1 3/8	1 5/8	1 13/16	1 15/16	2 1/16	2 1/8	2 1/8	2 1/8	2 1/16	1 15/16	1 13/16	1 5/8	1 3/8	1 1/16	3/4	3/8	0
	TRC	0	1 1/16	2 1/16	3	3 13/16	4 3/8	5	5 3/8	5 5/8	5 3/4	5 5/8	5 1/2	5 1/8	4 5/8	4 1/16	3 1/2	2 13/16	2 1/8	1 7/16	11/16	0	3/8	3/4	1 3/16	1 11/16	2 1/16	2 1/2	2 7/8	3 3/16	3 3/8	3 9/16	3 5/8	3 9/16	3 7/16	3 1/4	2 7/8	2 1/2	1 15/16	1 3/8	11/16	0

LOCATION		℄ BRG. ABUT. A	0.05L 1	0.10L 1	0.15L 1	0.20L 1	0.25L 1	0.30L 1	0.35L 1	0.40L 1	0.45L 1	0.50L 1	0.55L 1	0.60L 1	0.65L 1	0.70L 1	0.75L 1	0.80L 1	0.85L 1	0.90L 1	0.95L 1	℄ BRG. PIER	0.05L 2	0.10L 2	0.15L 2	0.20L 2	0.25L 2	0.30L 2	0.35L 2	0.40L 2	0.45L 2	0.50L 2	0.55L 2	0.60L 2	0.65L 2	0.70L 2	0.75L 2	0.80L 2	0.85L 2	0.90L 2	0.95L 2	℄ BRG. ABUT. B
GIRDER 6	DLS	0	1/8	1/4	7/16	1/2	5/8	11/16	3/4	3/4	3/4	3/4	11/16	5/8	9/16	1/2	3/8	5/16	3/16	1/8	1/16	0	0	0	0	1/16	1/16	1/8	3/16	1/4	1/4	5/16	5/16	5/16	5/16	5/16	1/4	1/4	3/16	1/8	1/16	0
	DLC	0	7/16	7/8	1 1/4	1 5/8	1 15/16	2 1/8	2 5/16	2 3/8	2 3/8	2 5/16	2 3/16	2	1 3/4	1 7/16	1 3/16	7/8	9/16	5/16	1/8	0	0	0	0	1/8	1/4	7/16	9/16	3/4	7/8	1 1/16	1 1/8	1 1/4	1 1/4	1 1/4	1 3/16	1 1/16	7/8	11/16	1/2	1/4	0
	SDL	0	0	1/16	1/16	1/16	1/16	1/8	1/8	1/8	1/8	1/8	1/8	1/16	1/16	1/16	1/16	1/16	0	0	0	0	0	0	0	0	0	0	0	0	0	1/16	1/16	1/16	1/16	1/16	1/16	0	0	0	0	0
	TD&C	0	9/16	1 3/16	1 3/4	2 3/16	2 5/8	2 15/16	3 3/16	3 1/4	3 1/4	3 3/16	3	2 11/16	2 3/8	2	1 5/8	1 1/4	3/4	7/16	3/16	0	0	0	1/8	5/16	1/2	11/16	15/16	1 1/8	1 5/16	1 1/2	1 5/8	1 5/8	1 5/8	1 9/16	1 3/8	1 1/8	7/8	5/8	5/16	0
	VCO	0	1/2	1	1 3/8	1 3/4	2	2 1/4	2 7/16	2 9/16	2 11/16	2 11/16	2 11/16	2 9/16	2 7/16	2 1/4	2	1 3/4	1 3/8	1	1/2	0	3/8	3/4	1 1/16	1 3/8	1 5/8	1 13/16	1 15/16	2 1/16	2 1/8	2 1/8	2 1/8	2 1/16	1 15/16	1 13/16	1 5/8	1 3/8	1 1/16	3/4	3/8	0
	TRC	0	1 1/16	2 3/16	3 1/8	3 15/16	4 5/8	5 3/16	5 5/8	5 13/16	5 15/16	5 7/8	5 11/16	5 1/4	4 13/16	4 1/4	3 5/8	3	2 1/8	1 7/16	11/16	0	3/8	3/4	1 3/16	1 11/16	2 1/8	2 1/2	2 7/8	3 3/16	3 7/16	3 5/8	3 3/4	3 11/16	3 9/16	3 3/8	3	2 1/2	1 15/16	1 3/8	11/16	0

LOCATION		℄ BRG. ABUT. A	0.05L 1	0.10L 1	0.15L 1	0.20L 1	0.25L 1	0.30L 1	0.35L 1	0.40L 1	0.45L 1	0.50L 1	0.55L 1	0.60L 1	0.65L 1	0.70L 1	0.75L 1	0.80L 1	0.85L 1	0.90L 1	0.95L 1	℄ BRG. PIER	0.05L 2	0.10L 2	0.15L 2	0.20L 2	0.25L 2	0.30L 2	0.35L 2	0.40L 2	0.45L 2	0.50L 2	0.55L 2	0.60L 2	0.65L 2	0.70L 2	0.75L 2	0.80L 2	0.85L 2	0.90L 2	0.95L 2	℄ BRG. ABUT. B
GIRDER 7	DLS	0	1/8	5/16	7/16	9/16	5/8	11/16	3/4	13/16	13/16	3/4	3/4	11/16	5/8	1/2	3/8	5/16	3/16	1/8	1/16	0	0	0	0	1/16	1/8	1/8	3/16	1/4	1/4	5/16	5/16	5/16	5/16	5/16	5/16	1/4	3/16	1/8	1/16	0
	DLC	0	1/2	15/16	1 5/16	1 11/16	2	2 1/4	2 3/8	2 1/2	2 1/2	2 7/16	2 1/4	2 1/16	1 13/16	1 9/16	1 3/16	7/8	5/8	5/16	1/8	0	0	0	1/8	1/4	7/16	9/16	13/16	15/16	1 1/16	1 3/16	1 1/4	1 5/16	1 1/4	1 3/16	1 1/16	15/16	3/4	1/2	1/4	0
	SDL	0	1/16	1/16	1/8	3/16	3/16	1/4	1/4	1/4	1/4	1/4	1/4	3/16	3/16	1/8	1/8	1/16	1/16	1/16	0	0	0	0	0	0	1/16	1/16	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/16	1/16	0	0
	TD&C	0	11/16	1 5/16	1 7/8	2 7/16	2 13/16	3 3/16	3 3/8	3 9/16	3 9/16	3 7/16	3 1/4	2 15/16	2 5/8	2 3/16	1 11/16	1 1/4	7/8	1/2	3/16	0	0	0	1/8	5/16	5/8	3/4	1 1/16	1 5/16	1 7/16	1 5/8	1 11/16	1 3/4	1 11/16	1 5/8	1 1/2	1 5/16	1	11/16	5/16	0
	VCO	0	1/2	1	1 3/8	1 3/4	2	2 1/4	2 7/16	2 9/16	2 11/16	2 11/16	2 11/16	2 9/16	2 7/16	2 1/4	2	1 3/4	1 3/8	1	1/2	0	3/8	3/4	1 1/16	1 3/8	1 5/8	1 13/16	1 15/16	2 1/16	2 1/8	2 1/8	2 1/8	2 1/16	1 15/16	1 13/16	1 5/8	1 3/8	1 1/16	3/4	3/8	0
	TRC	0	1 3/16	2 5/16	3 1/4	4 3/16	4 13/16	5 7/16	5 13/16	6 1/8	6 1/4	6 1/4	6 1/8	5 15/16	5 1/2	5 1/16	4 7/16	3 11/16	3	2 1/4	1 1/2	11/16	0	3/8	3/4	1 3/16	1 11/16	2 1/4	2 9/16	3	3 3/8	3 9/16	3 3/4	3 13/16	3 13/16	3 5/8	3 7/16	3 1/8	2 11/16	2 1/16	1 7/16	11/16	0

LOCATION		℄ BRG. ABUT. A	0.05L 1	0.10L 1	0.15L 1	0.20L 1	0.25L 1	0.30L 1	0.35L 1	0.40L 1	0.45L 1	0.50L 1	0.55L 1	0.60L 1	0.65L 1	0.70L 1	0.75L 1	0.80L 1	0.85L 1	0.90L 1	0.95L 1	℄ BRG. PIER	0.05L 2	0.10L 2	0.15L 2	0.20L 2	0.25L 2	0.30L 2	0.35L 2	0.40L 2	0.45L 2	0.50L 2	0.55L 2	0.60L 2	0.65L 2	0.70L 2	0.75L 2	0.80L 2	0.85L 2	0.90L 2	0.95L 2	℄ BRG. ABUT. B
GIRDER 8	DLS	0	3/16	5/16	7/16	9/16	11/16	3/4	13/16	13/16	13/16	13/16	3/4	11/16	5/8	1/2	7/16	5/16	3/16	1/8	1/16	0	0	0	0	1/16	1/8	1/8	3/16	1/4	5/16	5/16	5/16	3/8	3/8	5/16	5/16	1/4	3/16	1/8	1/16	0
	DLC	0	1/2	15/16	1 3/8	1 13/16	2 1/8	2 3/8	2 1/2	2 5/8	2 5/8	2 9/16	2 3/8	2 3/16	1 7/8	1 5/8	1 5/16	15/16	5/8	3/8	1/8	0	0	0	0	1/8	1/4	7/16	5/8	13/16	15/16	1 1/8	1 3/16	1 5/16	1 5/16	1 5/16	1 1/4	1 1/8	15/16	3/4	1/2	1/4	0
	SDL	0	1/16	3/16	1/4	5/16	5/16	3/8	7/16	7/16	7/16	7/16	3/8	3/8	5/16	1/4	3/16	1/8	1/8	1/16	0	0	0	0	0	1/16	1/16	1/8	1/8	3/16	3/16	1/4	1/4	1/4	1/4	1/4	1/4	1/4	3/16	1/8	1/8	1/16	0
	TD&C	0	3/4	1 7/16	2 1/16	2 11/16	3 1/8	3 1/2	3 3/4	3 7/8	3 7/8	3 13/16	3 1/2	3 1/4	2 13/16	2 3/8	1 15/16	1 3/8	15/16	9/16	3/16	0	0	0	0	3/16	3/8	11/16	7/8	1 3/16	1 3/8	1 11/16	1 3/4	1 7/8	1 15/16	1 15/16	1 13/16	1 11/16	1 3/8	1 1/16	3/4	3/8	0
	VCO	0	1/2	1	1 3/8	1 3/4	2	2 1/4	2 7/16	2 9/16	2 11/16	2 11/16	2 11/16	2 9/16	2 7/16	2 1/4	2	1 3/4	1 3/8	1	1/2	0	3/8	3/4	1 1/16	1 3/8	1 5/8	1 13/16	1 15/16	2 1/16	2 1/8	2 1/8	2 1/8	2 1/16	1 15/16	1 13/16	1 5/8	1 3/8	1 1/16	3/4	3/8	0
	TRC	0	1 1/4	2 7/16	3 7/16	4 7/16	5 1/8	5 3/4	6 3/16	6 7/16	6 9/16	6 1/2	6 3/16	5 13/16	5 1/4	4 5/8	3 15/16	3 1/8	2 5/16	1 9/16	11/16	0	3/8	3/4	1 1/4	1 3/4	2 5/16	2 11/16	3 1/8	3 7/16	3 13/16	3 7/8	4	4	3 7/8	3 5/8	3 5/16	2 3/4	2 1/8	1 1/2	3/4	0

LOCATION		℄ BRG. ABUT. A	0.05L 1	0.10L 1	0.15L 1	0.20L 1	0.25L 1	0.30L 1	0.35L 1	0.40L 1	0.45L 1	0.50L 1	0.55L 1	0.60L 1	0.65L 1	0.70L 1	0.75L 1	0.80L 1	0.85L 1	0.90L 1	0.95L 1	℄ BRG. PIER	0.05L 2	0.10L 2	0.15L 2	0.20L 2	0.25L 2	0.30L 2	0.35L 2	0.40L 2	0.45L 2	0.50L 2	0.55L 2	0.60L 2	0.65L 2	0.70L 2	0.75L 2	0.80L 2	0.85L 2	0.90L 2	0.95L 2	℄ BRG. ABUT. B
GIRDER 9	DLS	0	3/16	5/16	7/16	9/16	11/16	3/4	13/16	7/8	7/8	7/8	13/16	3/4	5/8	9/16	7/16	5/16	1/4	1/8	1/16	0	0	0	0	1/16	1/8	1/8	3/16	1/4	5/16	5/16	3/8	3/8	3/8	5/16	5/16	1/4	3/16	1/8	1/16	0
	DLC	0	1/2	1	1 7/16	1 7/8	2 3/16	2 1/2	2 5/8	2 3/4	2 3/4	2 11/16	2 1/2	2 5/16	2	1 11/16	1 5/16	1	11/16	3/8	1/8	0	0	0	0	1/8	1/4	7/16	5/8	13/16	15/16	1 1/8	1 1/4	1 5/16	1 3/8	1 3/8	1 1/4	1 3/16	1	13/16	9/16	5/16	0
	SDL	0	1/8	3/16	5/16	3/8	1/2	1/2	9/16	9/16	9/16	9/16	1/2	1/2	7/16	3/8	5/16	3/16	1/8	1/16	0	0	0	0	0	1/16	1/16	1/8	3/16	1/4	1/4	5/16	3/8	3/8	3/8	3/8	5/16	5/16	1/4	3/16	1/8	1/16	0
	TD&C	0	13/16	1 1/2	2 3/16	2 13/16	3 3/8	3 3/4	4	4 3/16	4 3/16	4 1/8	3 13/16	3 9/16	3 1/16	2 5/8	2 1/16	1 1/2	1 1/16	9/16	3/16	0	0	0	0	3/16	3/8	11/16	15/16	1 1/4	1 7/16	1 3/4	1 15/16	2 1/16	2 1/8	2 1/8	1 7/8	1 13/16	1 1/2	1 3/16	13/16	7/16	0
	VCO	0	1/2	1	1 3/8	1 3/4	2	2 1/4	2 7/16	2 9/16	2 11/16	2 11/16	2 11/16	2 9/16	2 7/16	2 1/4	2	1 3/4	1 3/8	1	1/2	0	3/8	3/4	1 1/16	1 3/8	1 5/8	1 13/16	1 15/16	2 1/16	2 1/8	2 1/8	2 1/8	2 1/16	1 15/16	1 13/16	1 5/8	1 3/8	1 1/16	3/4	3/8	0
	TRC	0	1 5/16	2 1/2	3 9/16	4 9/16	5 3/8	6	6 7/16	6 3/4	6 7/8	6 13/16	6 1/2	6 1/8	5 1/2	4 7/8	4 1/16	3 1/4	2 7/16	1 9/16	11/16	0	3/8	3/4	1 1/4	1 3/4	2 5/16	2 3/4	3 3/16	3 1/2	3 7/8	4 1/16	4 3/16	4 3/16	4 1/16	3 11/16	3 7/16	2 7/8	2 1/4	1 9/16	13/16	0

8/14/2025
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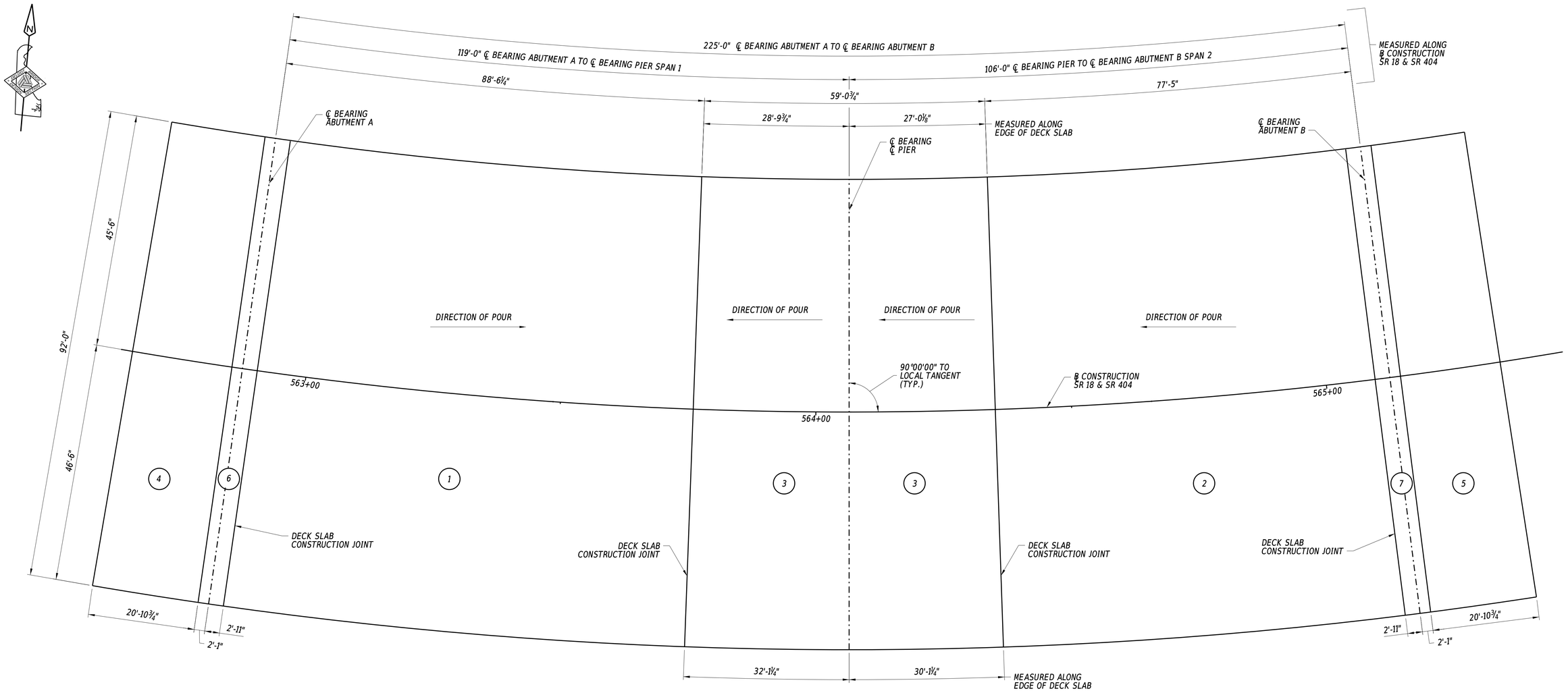
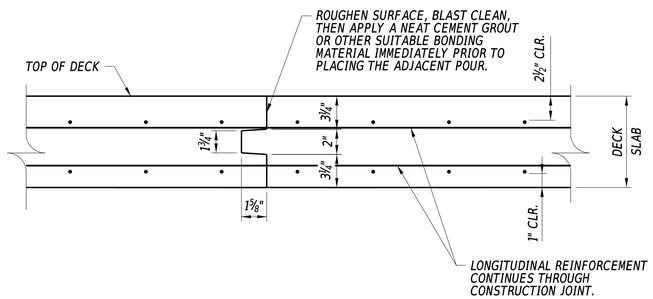
ADDENDA / REVISIONS	SCALE: AS NOTED	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. 3-610	CAMBER DIAGRAM - II	BM-06
			COUNTY SUSSEX	DESIGNED BY: R. SEDAR		SECTION WRA
				CHECKED BY: W. GESCHREI		SHEET NO. 134



DECK SLAB POUR SEQUENCE

1" = 10'



DECK SLAB CONSTRUCTION JOINT

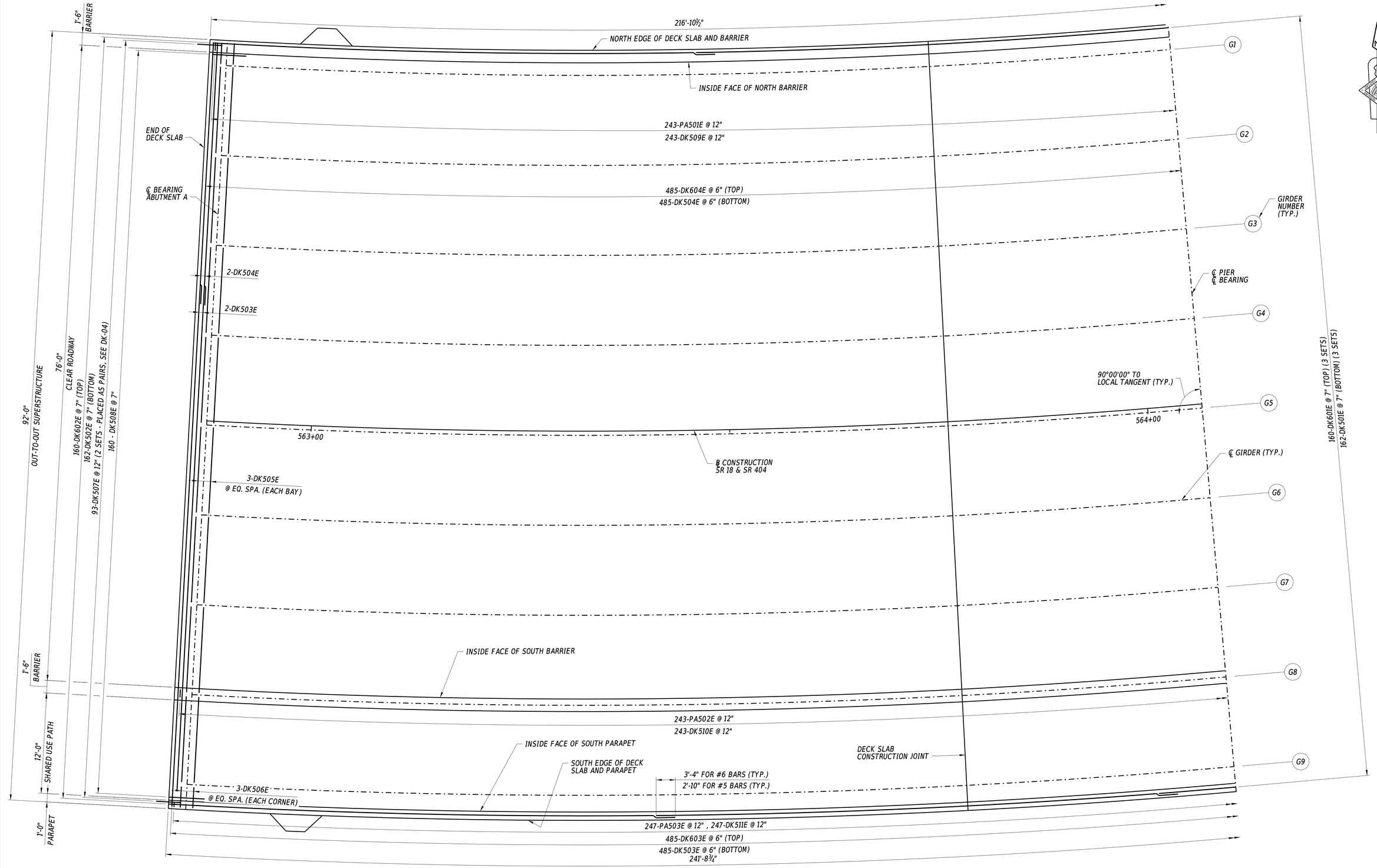
NOT TO SCALE

NOTES:

1. FOR GENERAL PLAN AND ELEVATION, SEE DWG. NO. GP-01.
2. FOR DECK SLAB PLAN, SEE DWG. NOS. DK-02 & DK-03.
3. THE CONTRACTOR SHALL SCHEDULE DECK & APPROACH SLAB POURS TO BE COMPLETED AT LEAST FOUR HOURS BEFORE THE PEAK AMBIENT TEMPERATURE OF THE CONCRETE PLACEMENT DAY.
4. CHANGES TO THE PLACEMENT SEQUENCE OR ALTERNATIVE DECK PLACEMENT SEQUENCES PROPOSED BY THE CONTRACTOR DURING CONSTRUCTION MUST BE SUBMITTED FOR APPROVAL. THE SUBMITTAL SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF DELAWARE. THE SUBMITTAL SHALL INCLUDE CALCULATIONS FOR THE REVISED DECK PLACEMENT SEQUENCE ANALYSIS DETERMINING THE EFFECTS ON DEAD LOAD STRESSES, BRACING, AND CAMBER.

ADDENDA / REVISIONS		SCALE 0 10 20 30 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. 3-610	DECK SLAB POUR SEQUENCE	DK-01
				COUNTY SUSSEX	DESIGNED BY: R. SEDAR		SECTION WRA
					CHECKED BY: W. GESCHREI		SHEET NO. 135

8/14/2025
9:51:19 AM
N:\32149-001\CADD\Bridge\54 - DK01.dgn

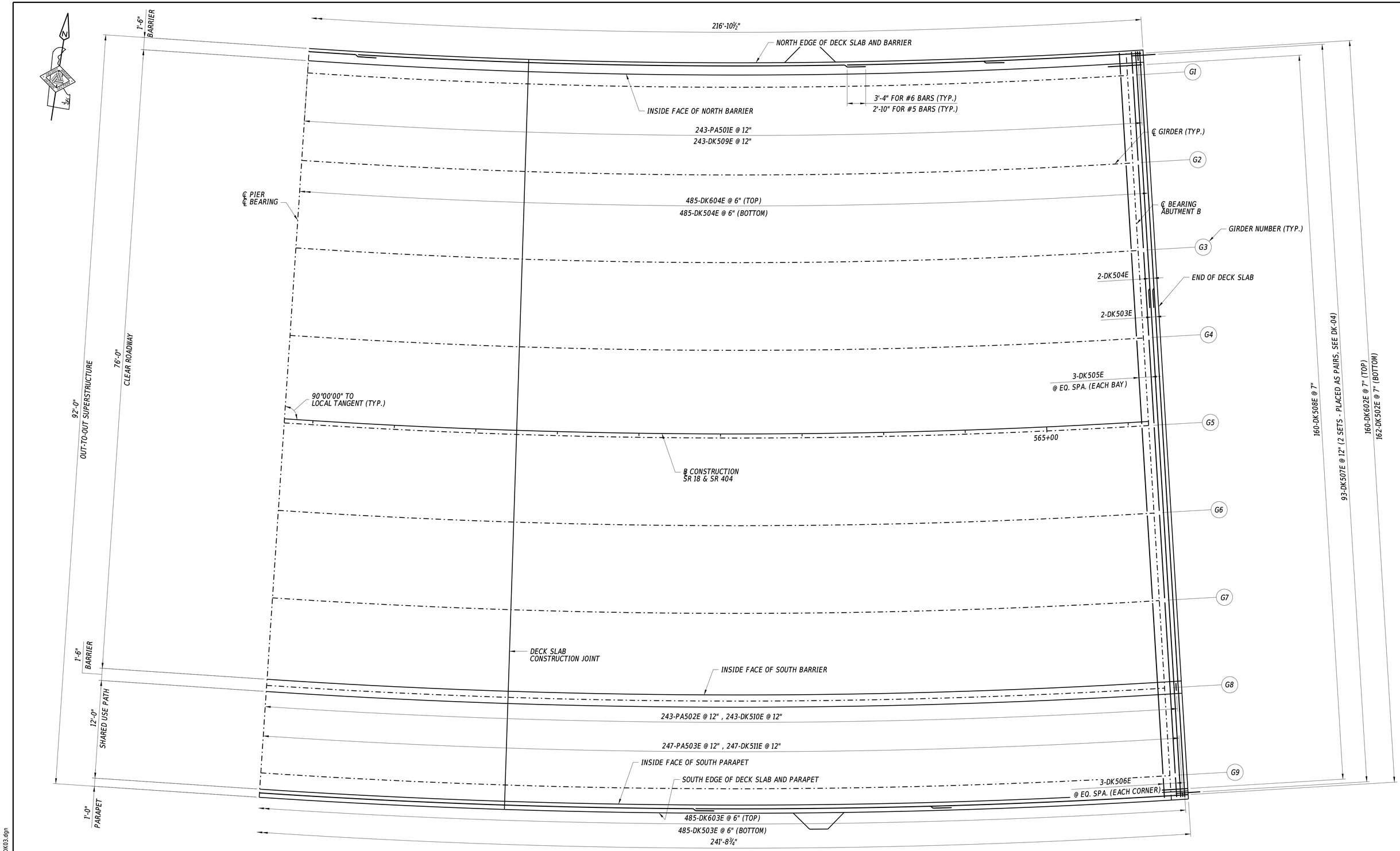


DECK SLAB REINFORCEMENT PLAN

3/16" = 1'-0"

ADDENDA / REVISIONS	SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. 3-610	DECK SLAB REINFORCEMENT PLAN - SPAN 1	DK-02
	0 5 11 16 FEET		T201412701	DESIGNED BY: R. SEDAR		SECTION WRA
			COUNTY SUSSEX	CHECKED BY: W. GESCHREI		SHEET NO. 136

8/14/2025 9:51:20 AM N:\32149-D01\CADD\Bridge\S5 - DK02.dgn



DECK SLAB REINFORCEMENT PLAN

$\frac{3}{16}$" = 1'-0"

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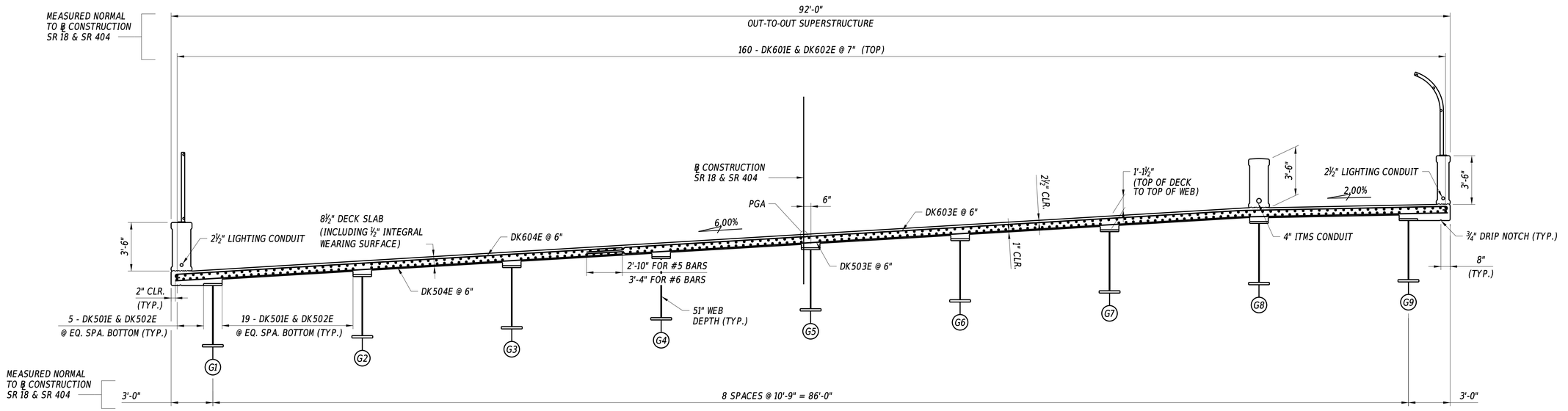
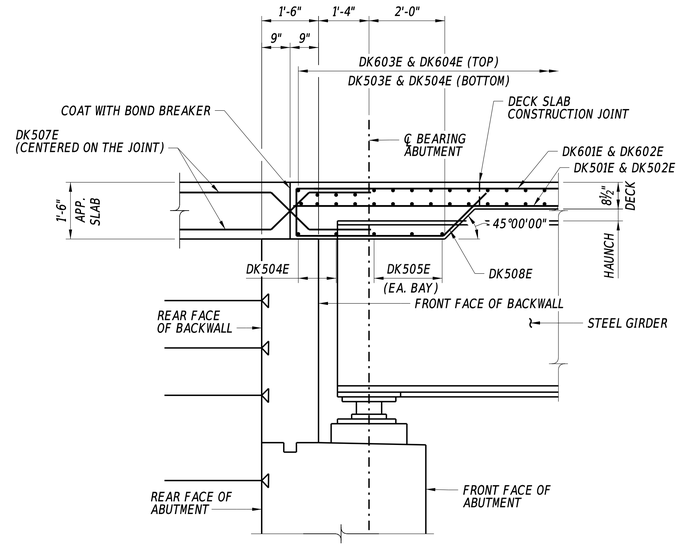
N:\32149-00\11CADD\Bridge\56 - DK03.dgn

ADDENDA / REVISIONS		SCALE 0 5 11 16 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. 3-610	DECK SLAB REINFORCEMENT PLAN - SPAN 2	DK-03
				COUNTY SUSSEX	DESIGNED BY: R. SEDAR		SECTION WRA
					CHECKED BY: W. GESCHREI		SHEET NO. 137



DECK TYPICAL REINFORCEMENT SECTION

¼" = 1'-0"



TYPICAL DECK REINFORCEMENT SECTION AT ABUTMENTS

½" = 1'-0"

NOTES:

1. *STAY-IN-PLACE FORMS NOT SHOWN FOR CLARITY, SEE DWG. NO. BM-03 FOR DETAILS.*

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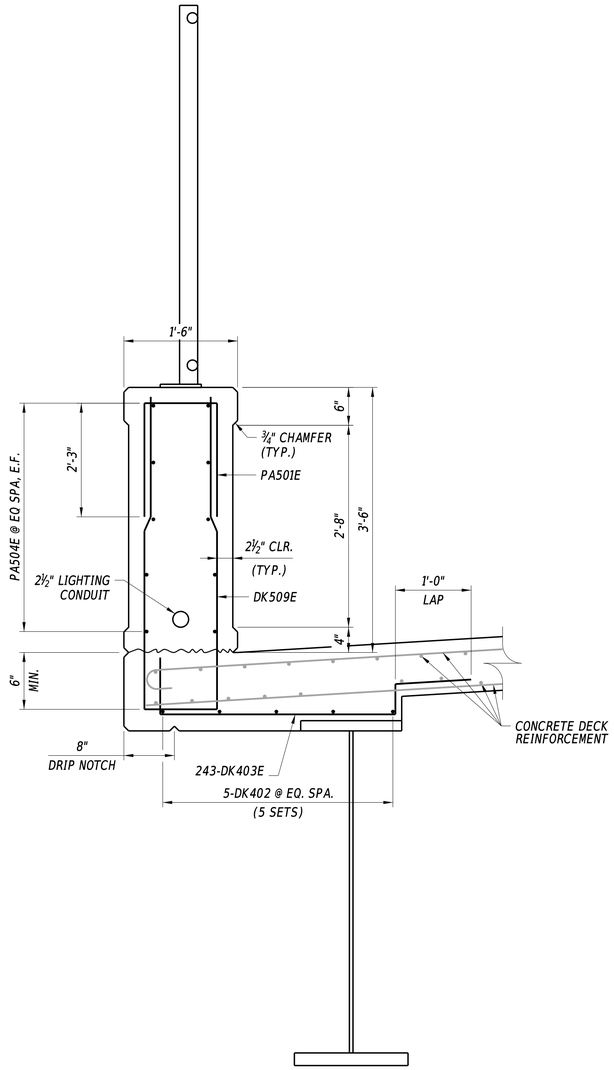
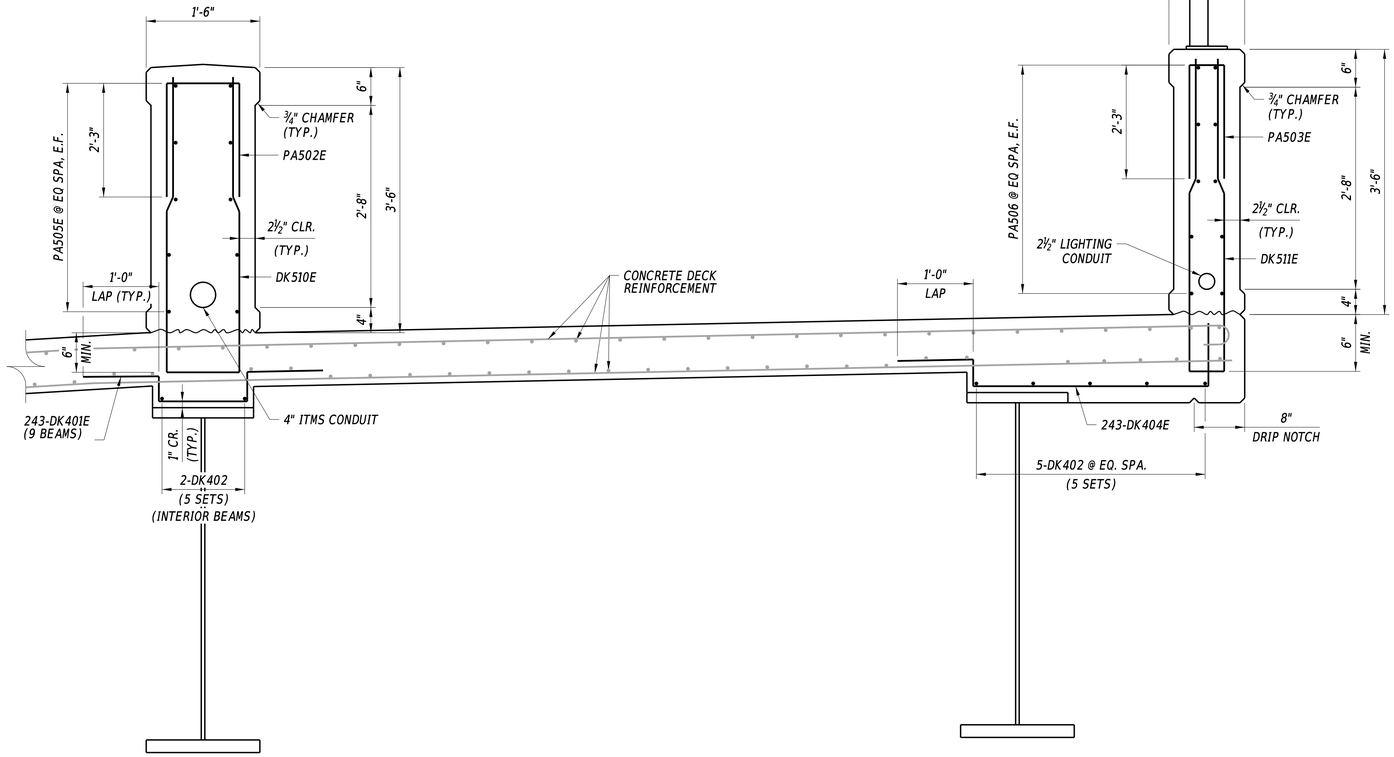
ADDENDA / REVISIONS		SCALE AS NOTED	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. 3-610	DECK TYPICAL REINFORCEMENT SECTION	DK-04
				COUNTY SUSSEX	DESIGNED BY: R. SEDAR		SECTION WRA
					CHECKED BY: W. GESCHREI		SHEET NO. 138



NORTH BARRIER TYPICAL REINFORCEMENT DETAIL

1" = 1'-0"



SOUTH BARRIER AND SOUTH PARAPET TYPICAL REINFORCEMENT DETAIL

1" = 1'-0"

NOTES:

1. FOR DECK SLAB REINFORCEMENT PLAN, SEE DWG. NOS. DK-02 & DK-03.
2. FOR DECK TYPICAL REINFORCEMENT SECTION, SEE DWG. NO. DK-04.
3. FOR PARAPET REINFORCEMENT LAYOUT, SEE DWG. NOS. DK-02, DK-03 & DK-06

ADDENDA / REVISIONS	SCALE			CONTRACT	BRIDGE NO.	3-610		DK-05
	0 1 2 3 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION		T201412701	DESIGNED BY: R. SEDAR		BARRIER/PARAPET TYPICAL REINFORCEMENT DETAILS	SECTION
				COUNTY				WRA
				SUSSEX	CHECKED BY: W. GESCHREI			SHEET NO.
								139

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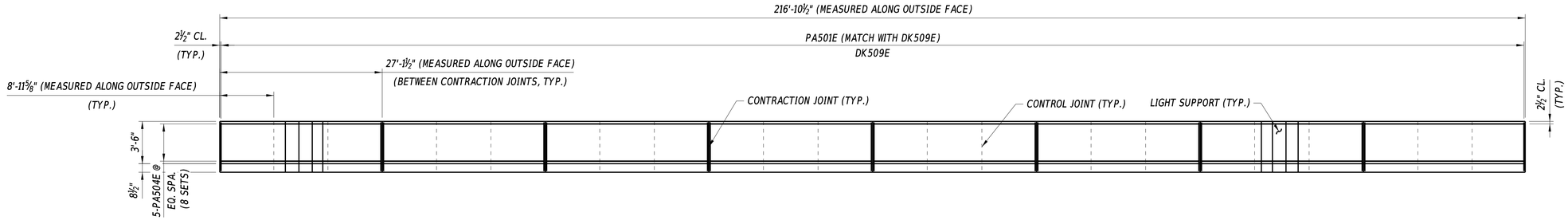
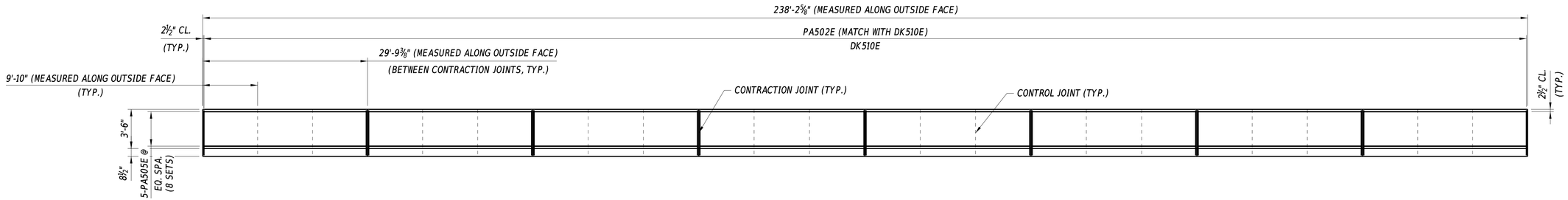


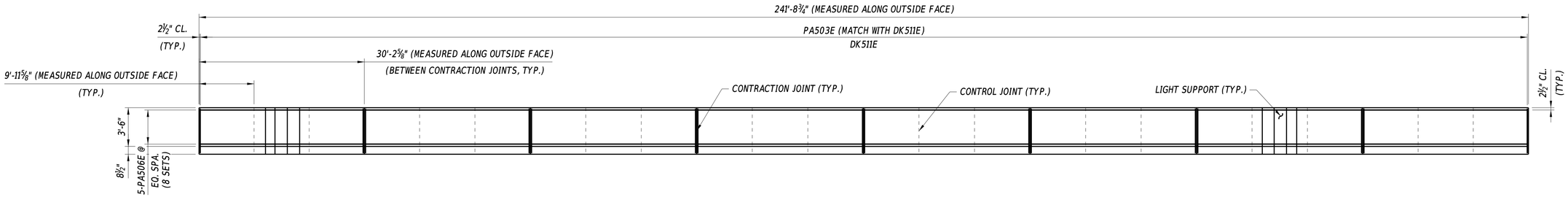
NORTH BARRIER REINFORCEMENT ELEVATION

1" = 10' (HORIZONTAL)
1" = 5" (VERTICAL)



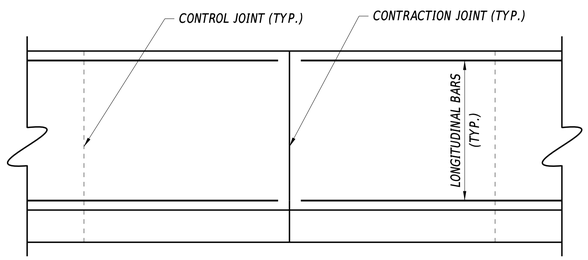
SOUTH BARRIER REINFORCEMENT ELEVATION

1" = 10' (HORIZONTAL)
1" = 5" (VERTICAL)



SOUTH PARAPET REINFORCEMENT ELEVATION

1" = 10' (HORIZONTAL)
1" = 5" (VERTICAL)



BARRIER CONTRACTION JOINT DETAIL

NOT TO SCALE

NOTES:

1. FOR ADDITIONAL INFORMATION ON PLACEMENT OF DK509E, DK510E & DK511E BARS, SEE DECK SLAB TYPICAL REINFORCEMENT PLAN ON DWG. NOS. DK-02 & DK-03.
2. FOR DECK SLAB CONSTRUCTION JOINT LOCATIONS AND DECK POUR SEQUENCE, SEE DWG. NO. DK-01.

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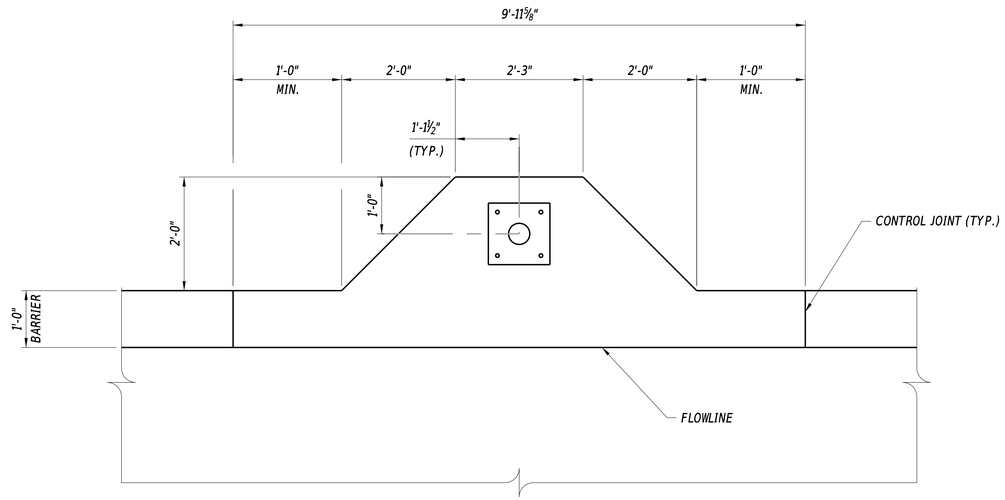
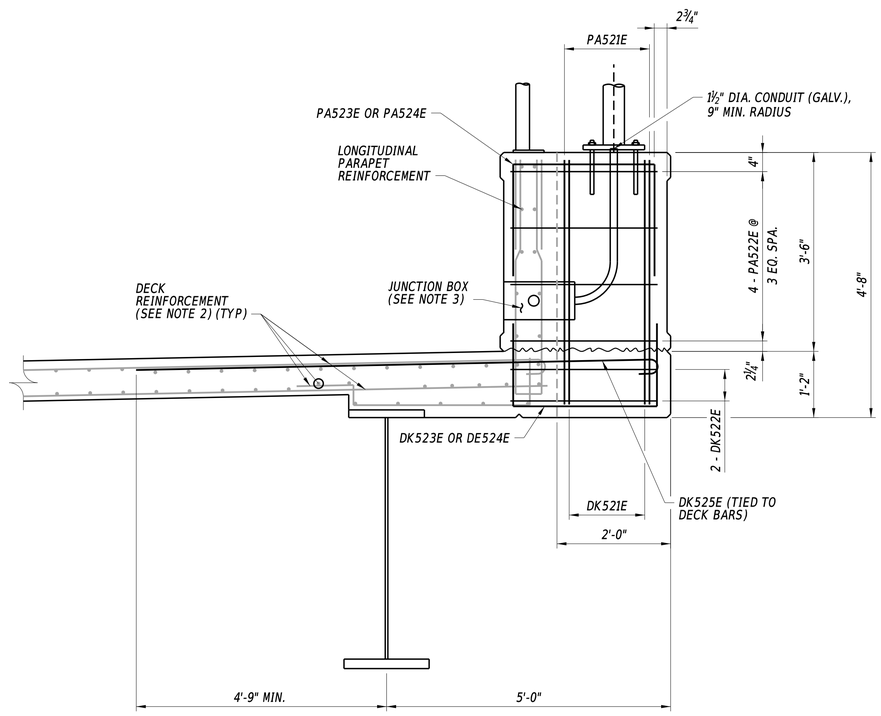
ADDENDA / REVISIONS	SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. 3-610	BARRIER AND PARAPET REINFORCEMENT ELEVATION	DK-06
	0 10 20 30 FEET		T201412701	DESIGNED BY: R. SEDAR		SECTION WRA
			COUNTY SUSSEX	CHECKED BY: W. GESCHREI		SHEET NO. 140



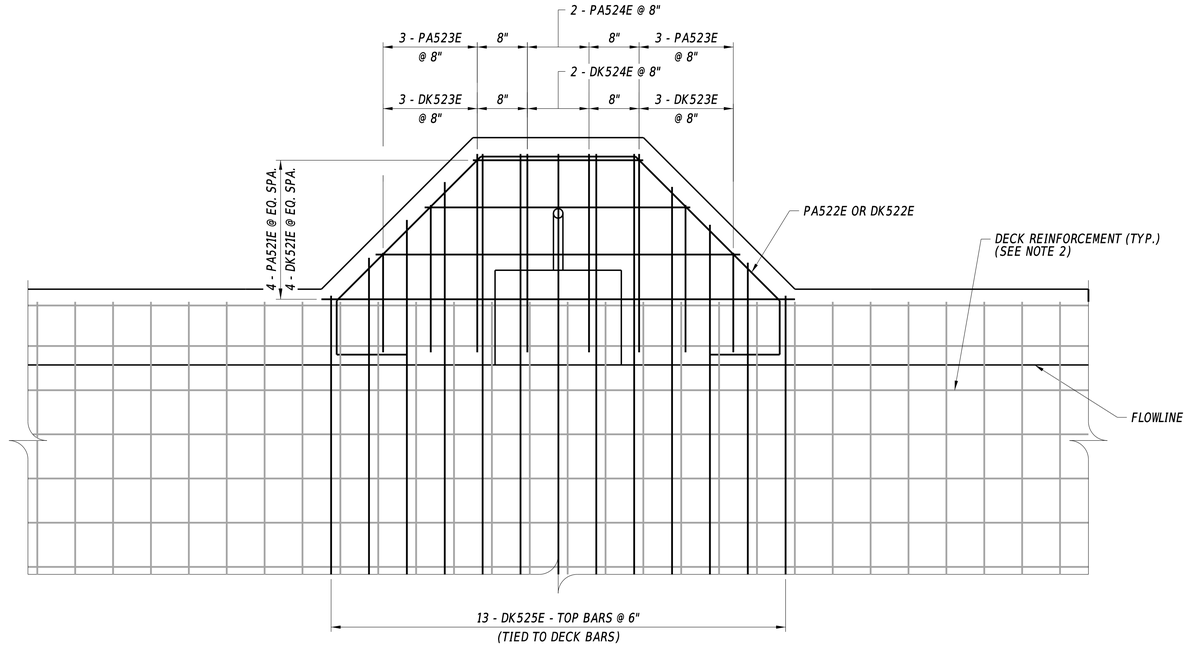
SOUTH PARAPET LIGHT BRACKET PLAN

¾" = 1'-0"



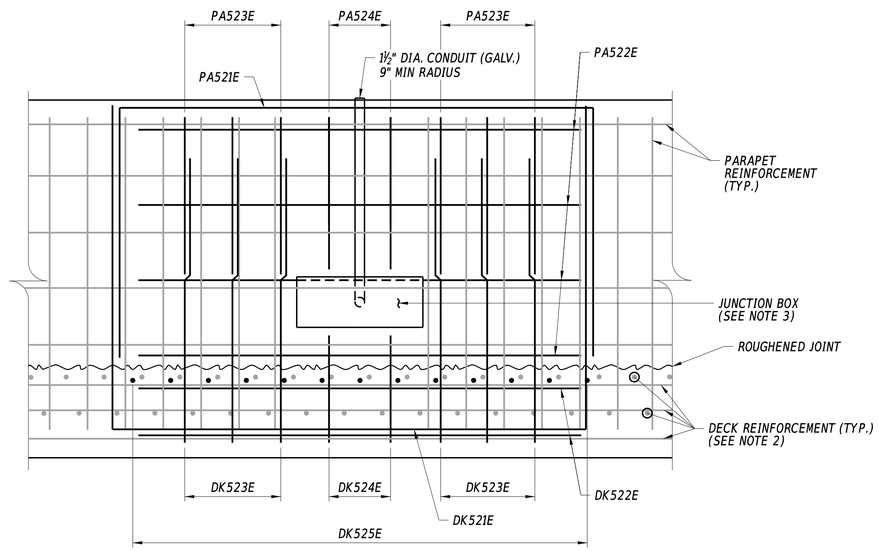
SOUTH PARAPET TYPICAL REINFORCEMENT DETAIL

¾" = 1'-0"



LIGHT BRACKET - REINFORCEMENT PLAN

1" = 1'-0"



SOUTH PARAPET LIGHT BRACKET ELEVATION

1" = 1'-0"

NOTES:

1. DETAIL SHOWN WITH CONTROL JOINT CONTINOUS REINFORCEMENT.
2. SEE DWG. DK-02 THROUGH DK-04 FOR DECK REINFORCEMENT DETAILS.
3. ALL LIGHTING JUNCTION BOXES SHALL BE 12" LONG x 8" HIGH x 8" DEEP NEMA 4X STAINLESS STEEL JUNCTION BOXES WITH COVERS MOUNTED IN THE FRONT FACE OF THE BARRIER.

ADDENDA / REVISIONS		SCALE AS NOTED	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. 3-610	SOUTH PARAPET LIGHT BRACKET DETAIL	DK-07
				T201412701	DESIGNED BY: R. SEDAR		SECTION
				COUNTY			WRA
				SUSSEX	CHECKED BY: W. GESCHREI		SHEET NO.
							141

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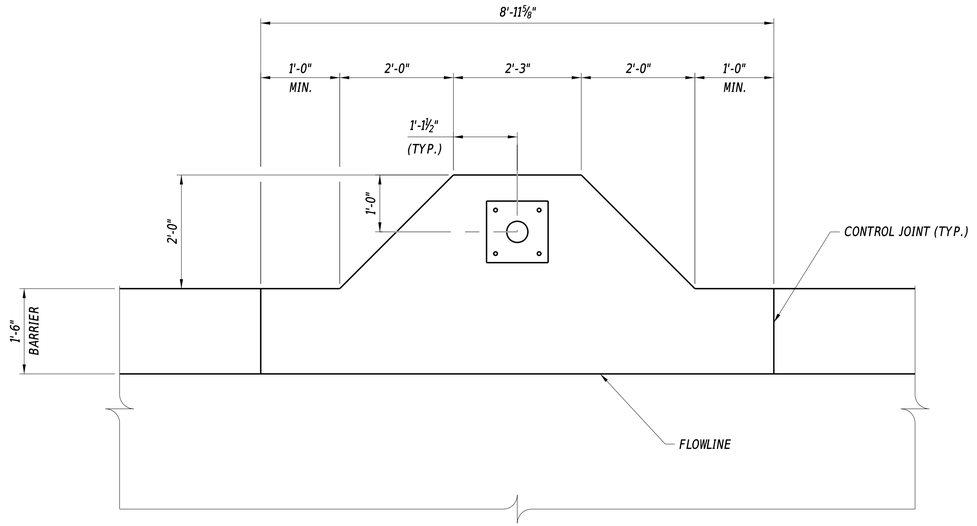
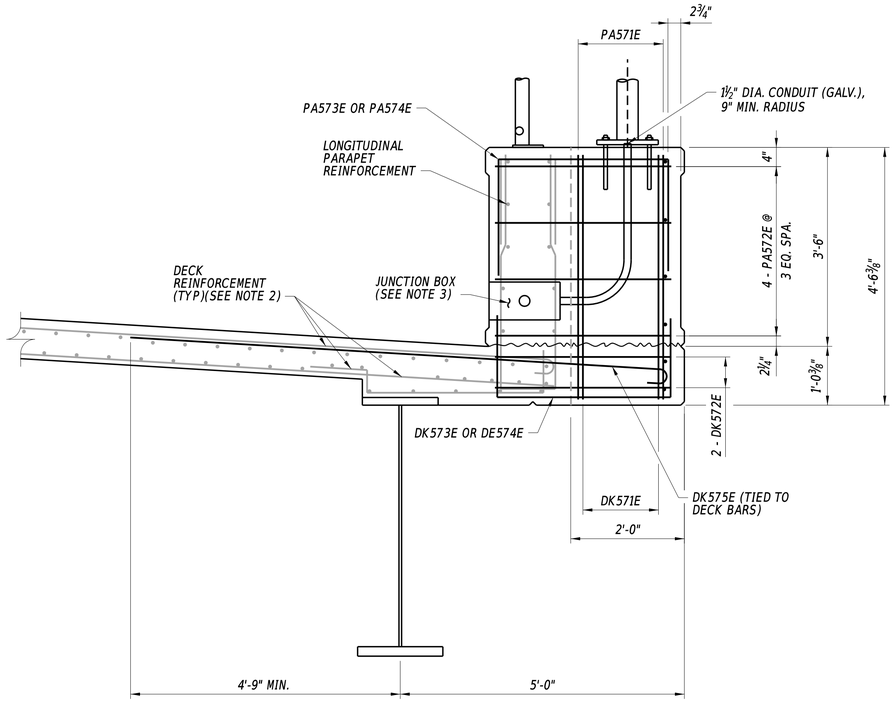


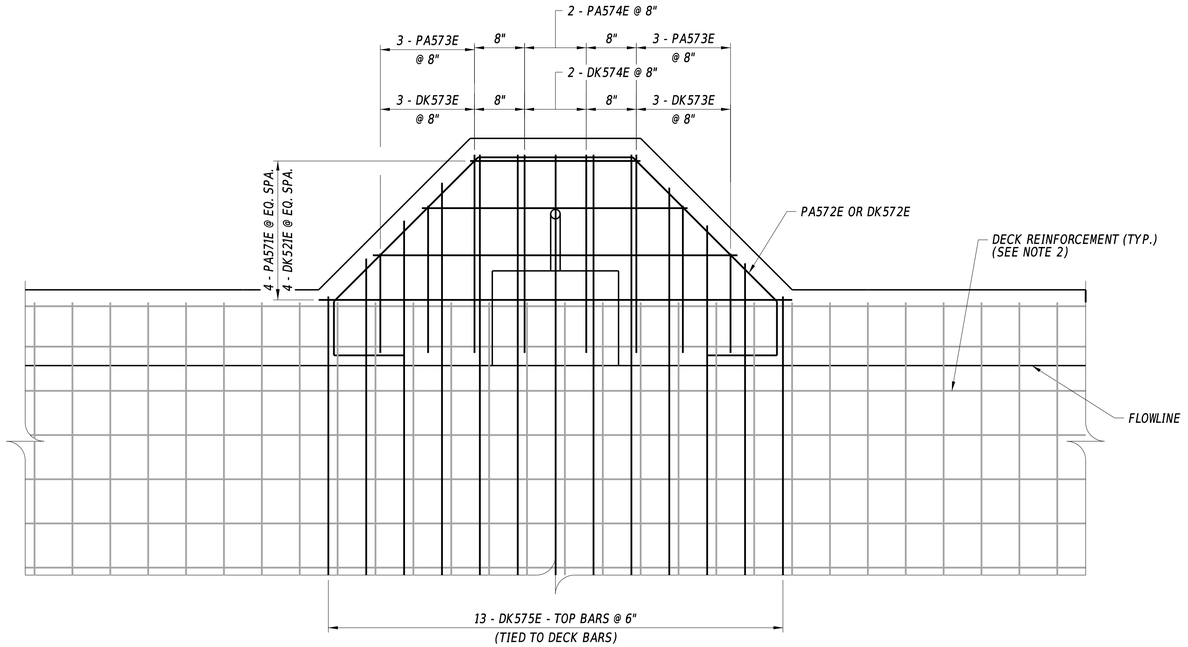
NORTH BARRIER LIGHT BRACKET PLAN

¾" = 1'-0"



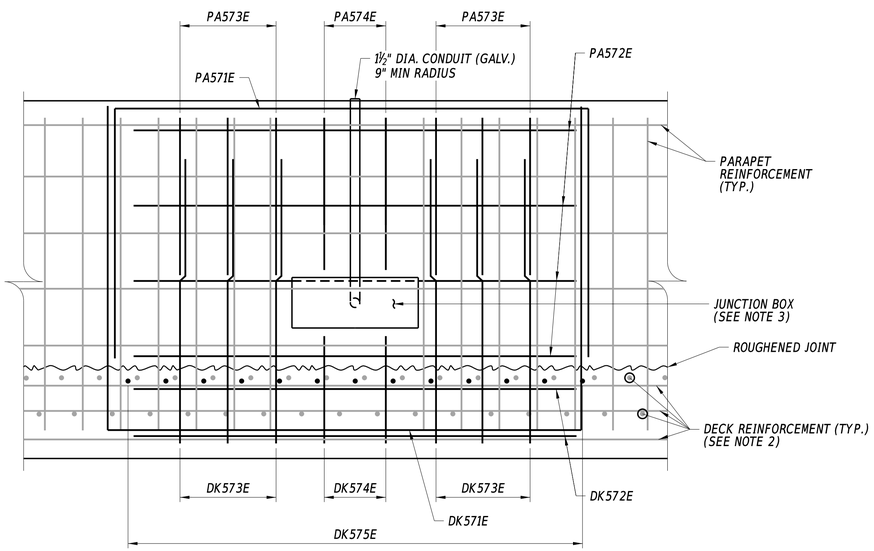
NORTH BARRIER TYPICAL REINFORCEMENT DETAIL

1" = 1'-0"



LIGHT BRACKET - REINFORCEMENT PLAN

1" = 1'-0"



NORTH BARRIER LIGHT BRACKET ELEVATION

1" = 1'-0"

NOTES:

1. DETAIL SHOWN WITH CONTROL JOINT CONTINOUS REINFORCEMENT.
2. SEE DWG. DK-02 THROUGH DK-04 FOR DECK REINFORCEMENT DETAILS.
3. ALL LIGHTING JUNCTION BOXES SHALL BE 12" LONG x 8" HIGH x 8" DEEP NEMA 4X STAINLESS STEEL JUNCTION BOXES WITH COVERS MOUNTED IN THE FRONT FACE OF THE BARRIER.

ADDENDA / REVISIONS		SCALE AS NOTED	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. 3-610	NORTH BARRIER LIGHT BRACKET DETAIL	DK-08
				T201412701	DESIGNED BY: R. SEDAR		SECTION
				COUNTY			WRA
				SUSSEX	CHECKED BY: W. GESCHREI		SHEET NO.
							142

8/14/2025
9:51:34 AM
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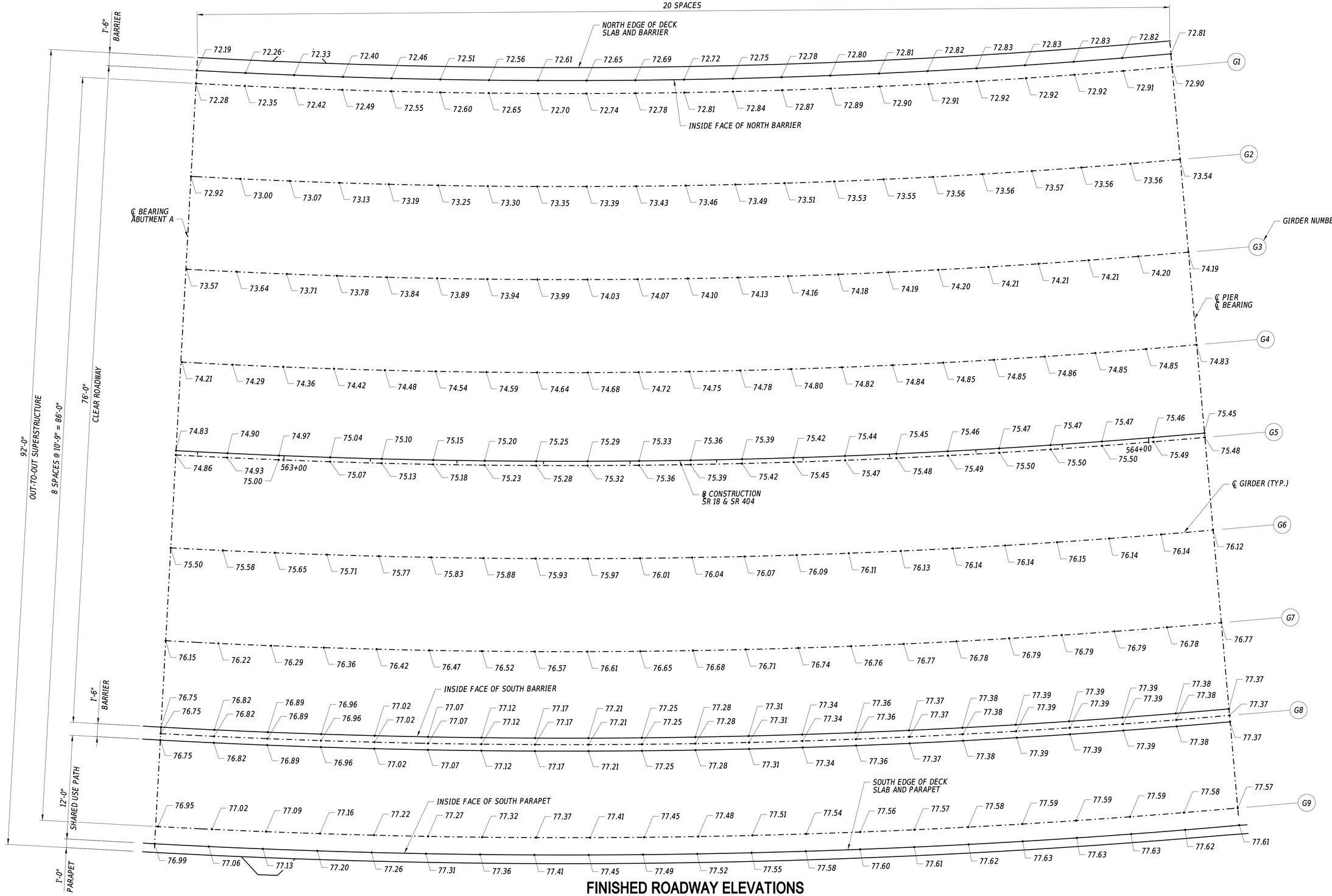

FINISHED ROADWAY ELEVATIONS

$\frac{3}{16}$" = 1'-0"

ADDENDA / REVISIONS	SCALE 0 5 11 16 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. 3-610	DECK ELEVATIONS - SPAN 1	DE-01
			COUNTY SUSSEX	DESIGNED BY: R. SEDAR		SECTION WRA
				CHECKED BY: W. GESCHREI		SHEET NO. 143

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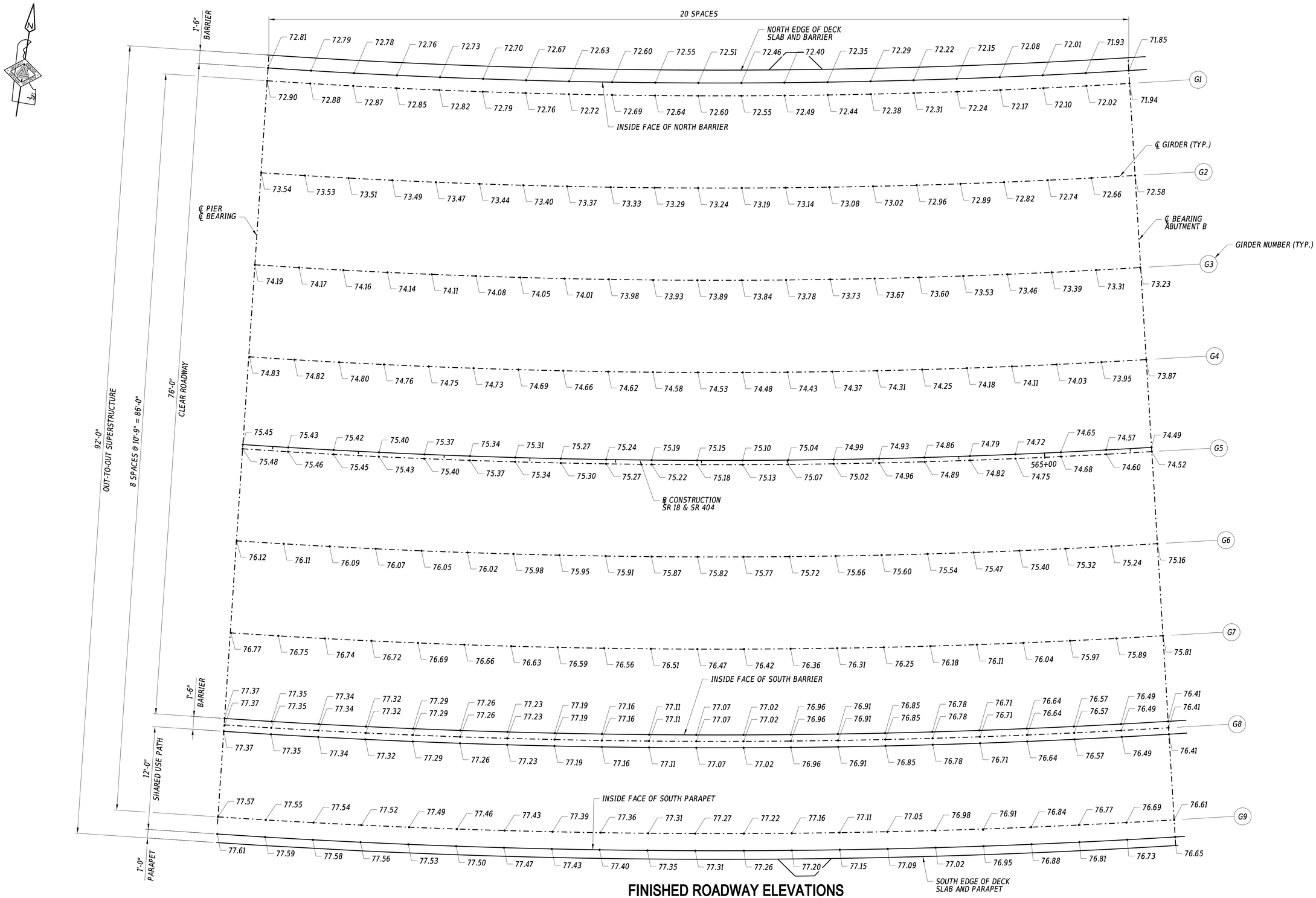

FINISHED ROADWAY ELEVATIONS

3/16" = 1'-0"

ADDENDA / REVISIONS

SCALE 0 5 11 16 FEET

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO.	3-610
T201412701	DESIGNED BY: R. SEDAR	
COUNTY		
SUSSEX	CHECKED BY: W. GESCHREI	

DECK ELEVATIONS - SPAN 2

DE-02
SECTION: WRA
SHEET NO.: 144

8/14/2025
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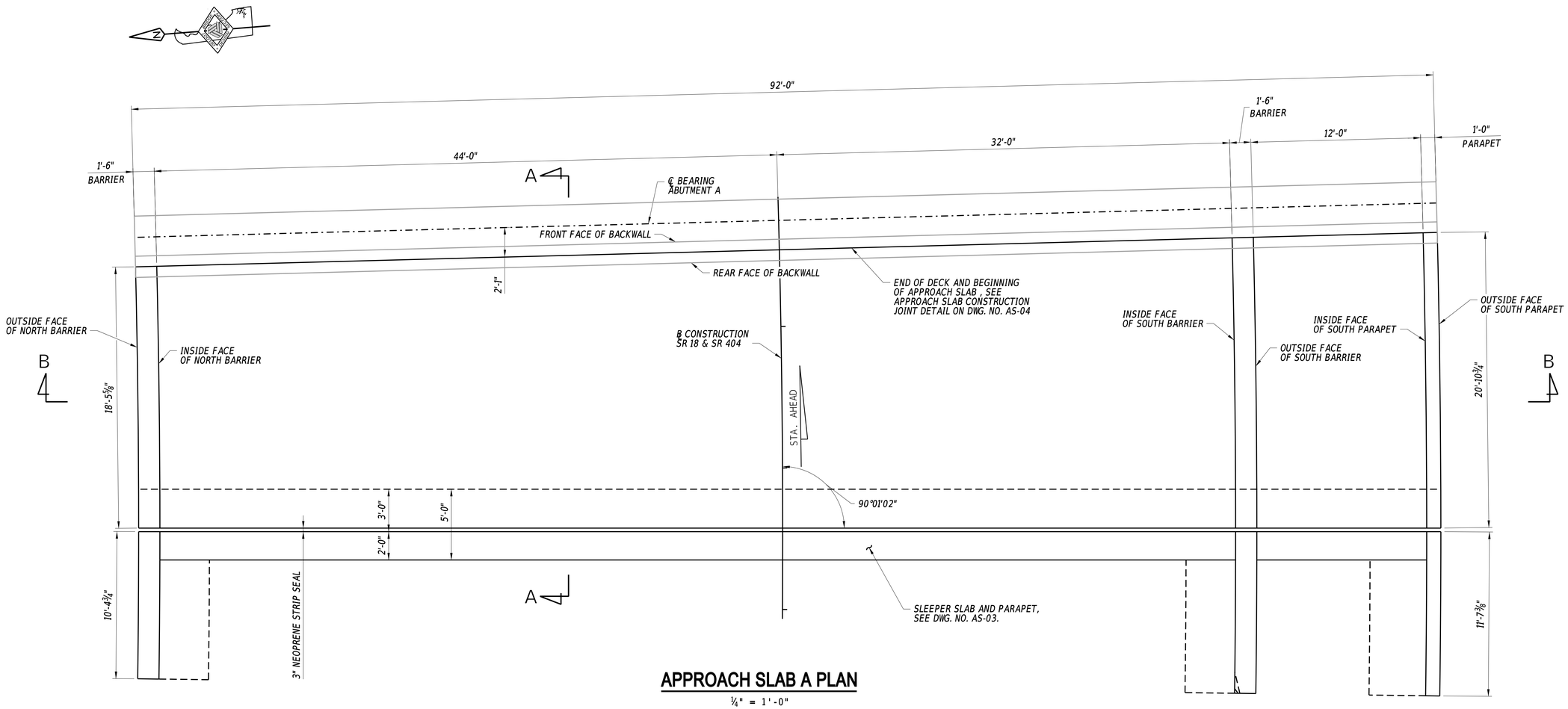

APPROACH SLAB A PLAN

¼" = 1'-0"

NOTES:

1. FOR APPROACH SLAB A REINFORCEMENT PLAN, SEE DWG. NO. AS-02.
2. FOR SECTION A-A, SEE DWG. NO. AS-04.
3. FOR SECTION B-B, SEE DWG. NO. AS-05.
4. APPROACH SLAB BARRIER AND PARAPET SHALL BE CONSTRUCTED PARALLEL TO ℄ CONSTRUCTION SR 18 AND SR 404.

ADDENDA / REVISIONS		SCALE 0 4 8 12 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. 3-610	APPROACH SLAB A PLAN	AS-01 SECTION WRA SHEET NO. 145
				COUNTY SUSSEX	DESIGNED BY: R. SEDAR		
					CHECKED BY: W. GESCHREI		

9/5/2025
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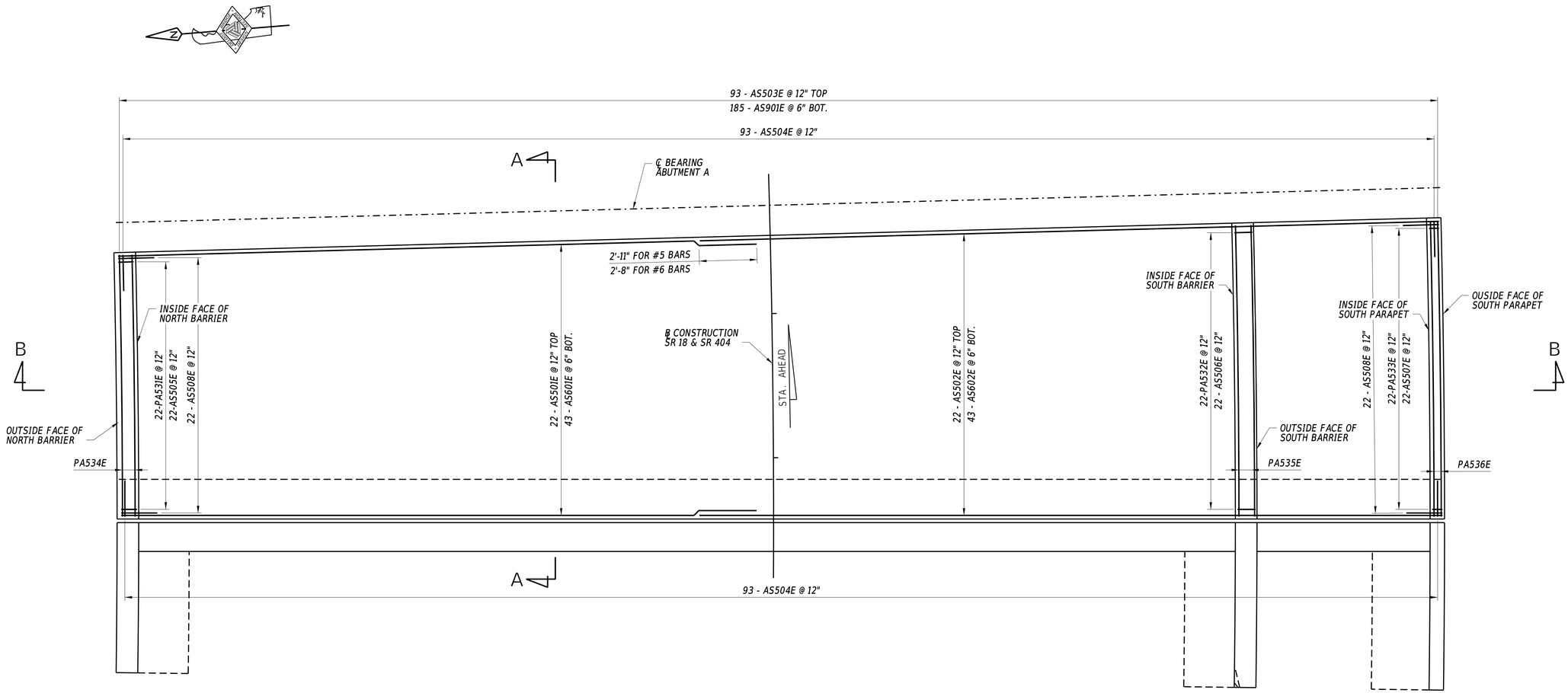


APPROACH SLAB A REINFORCEMENT PLAN

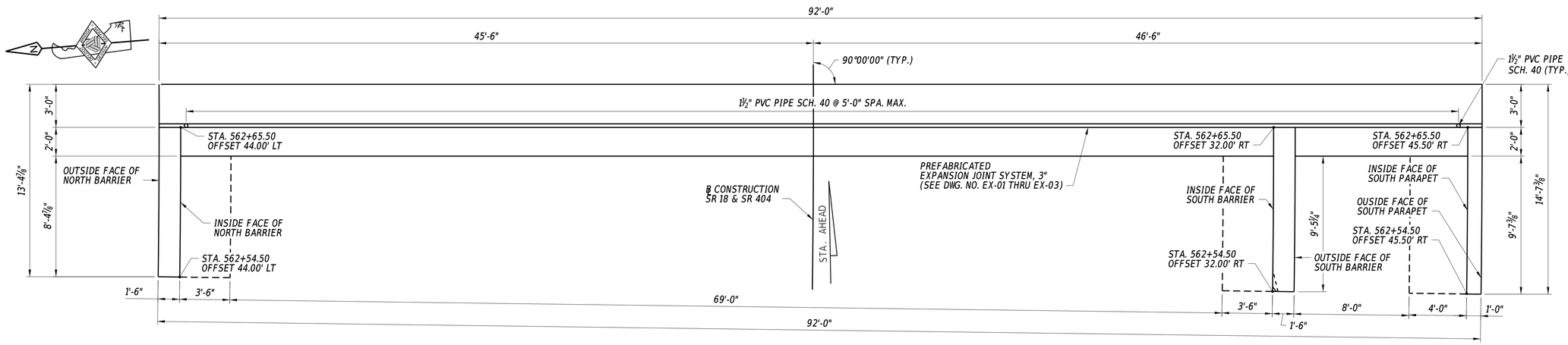
¼" = 1'-0"

NOTES:

1. *FOR SECTION A-A, SEE DWG. NO. AS-04.*
2. *FOR SECTION B-B, SEE DWG. NO. AS-05.*

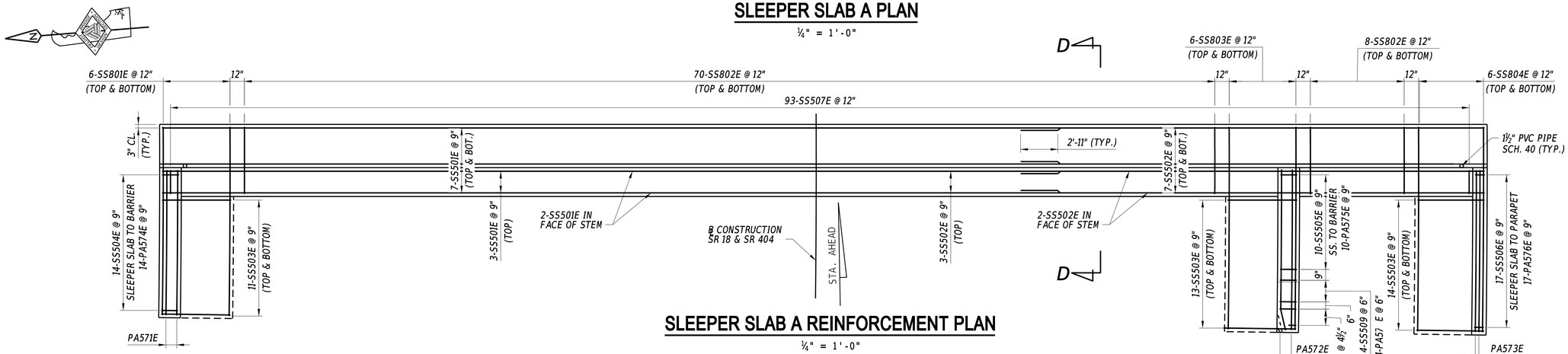
9/10/2025
8:42:21 AM
N:\32149-001\CADD\Bridge\63 - AS02.dgn

ADDENDA / REVISIONS	SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. 3-610	APPROACH SLAB A REINFORCEMENT PLAN	AS-02
	0 4 8 12 FEET		T201412701	DESIGNED BY: R. SEDAR		SECTION WRA
			COUNTY SUSSEX	CHECKED BY: W. GESCHREI		SHEET NO. 146



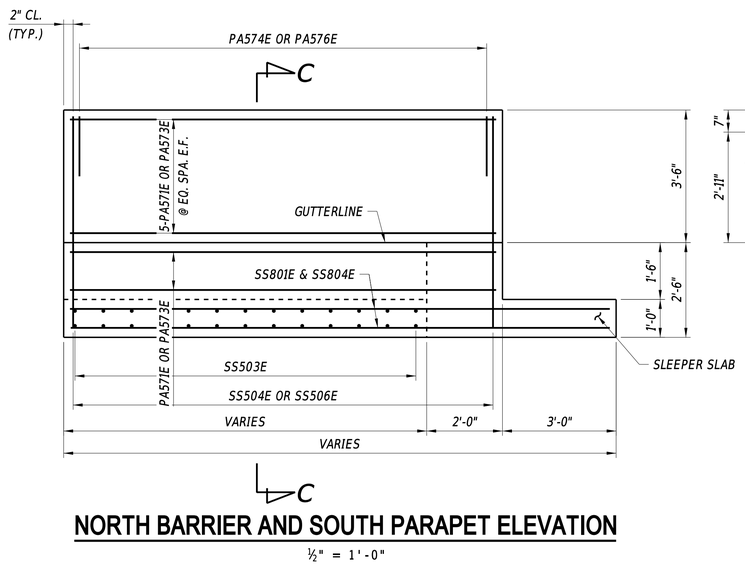
SLEEPER SLAB A PLAN

¼" = 1'-0"



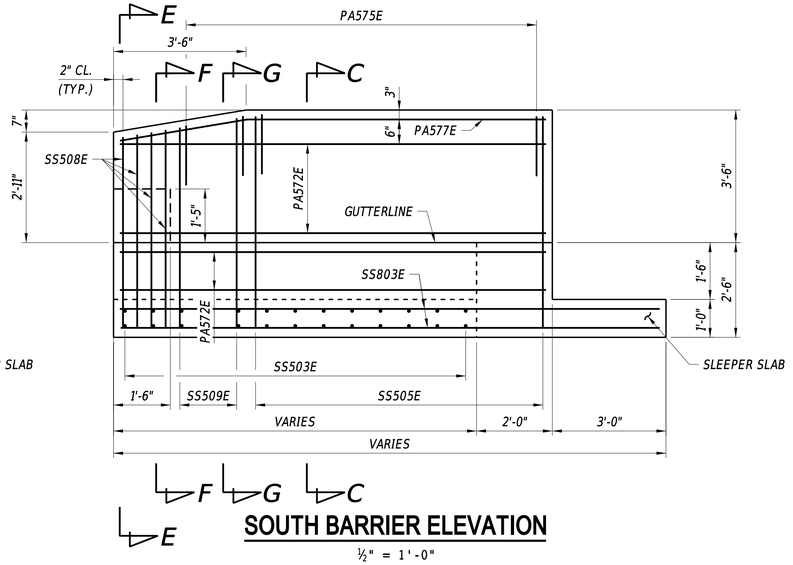
SLEEPER SLAB A REINFORCEMENT PLAN

¼" = 1'-0"



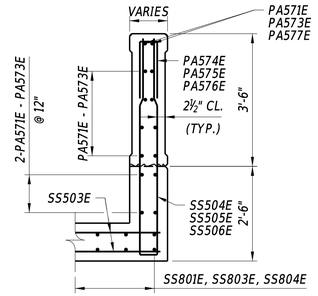
NORTH BARRIER AND SOUTH PARAPET ELEVATION

½" = 1'-0"



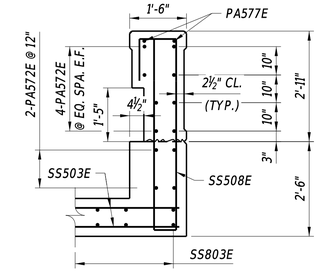
SOUTH BARRIER ELEVATION

½" = 1'-0"



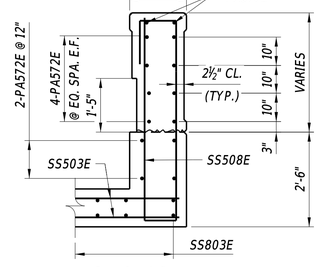
SECTION C-C

½" = 1'-0"



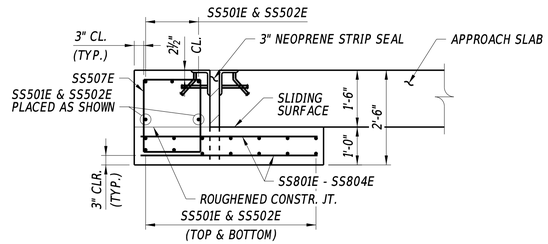
SECTION E-E

½" = 1'-0"



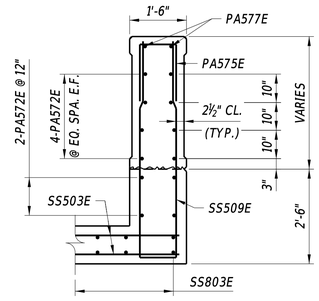
SECTION F-F

½" = 1'-0"



SECTION D-D

½" = 1'-0"



SECTION G-G

½" = 1'-0"

NOTES:

1. SLEEPER SLAB BARRIERS AND PARAPET SHALL BE CONSTRUCTED PARALLEL TO ℄ CONSTRUCTION SR 18 & SR 404.
2. FOR APPROACH SLAB PLAN AND DETAILS, SEE DWG. NO. AS-01, AS-02 & AS-04.
3. PAYMENT FOR SLEEPER SLAB CONCRETE WILL BE MADE UNDER ITEM 610018 - PCC MASONRY, APPROACH SLAB, CLASS D.

ADDENDA / REVISIONS	SCALE: AS NOTED	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. 3-610	SLEEPER SLAB A REINFORCEMENT PLAN	AS-03
			COUNTY SUSSEX	DESIGNED BY: R. SEDAR		SECTION WRA
				CHECKED BY: W. GESCHREI		SHEET NO. 147

9/10/2025
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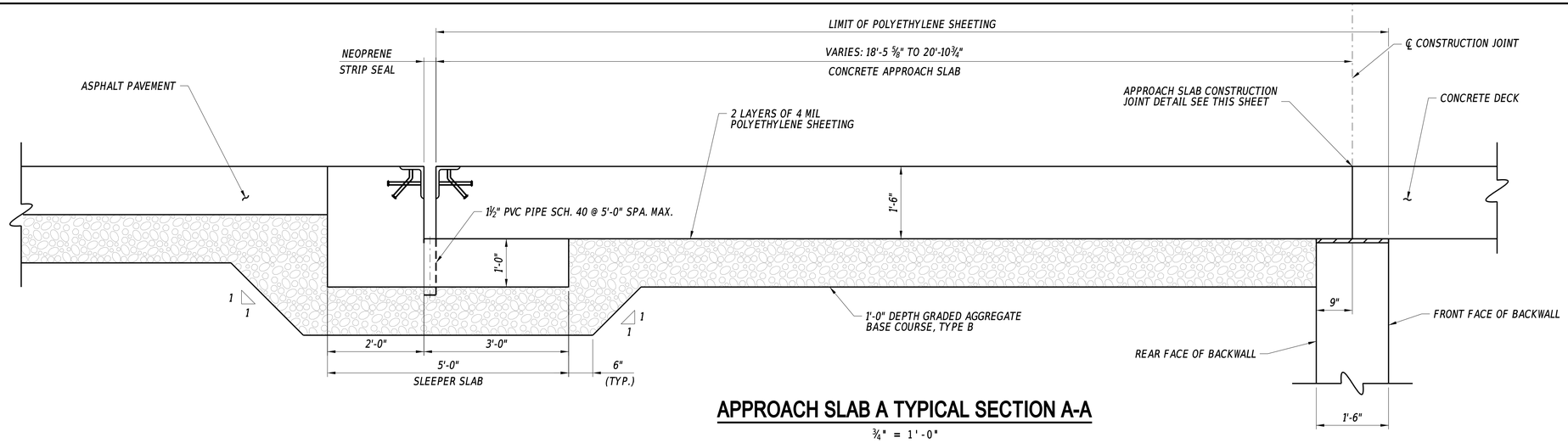
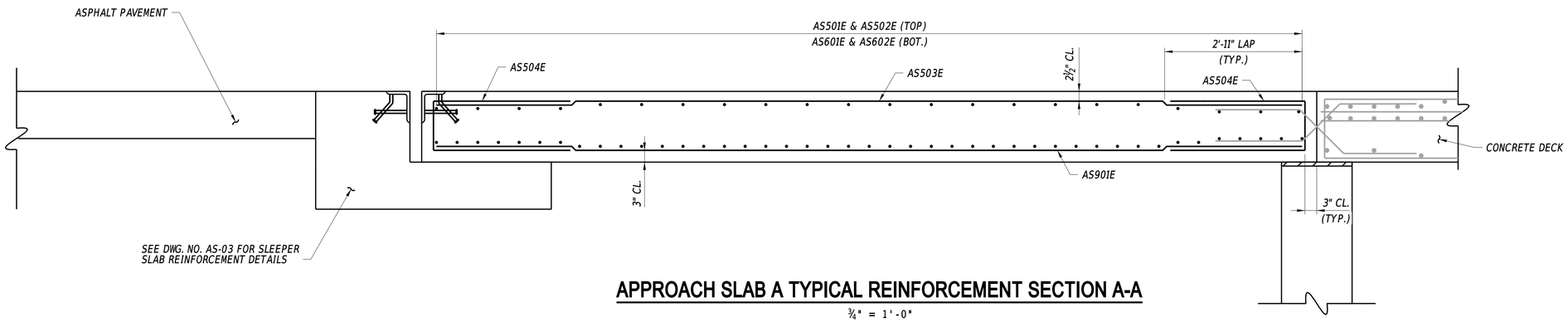


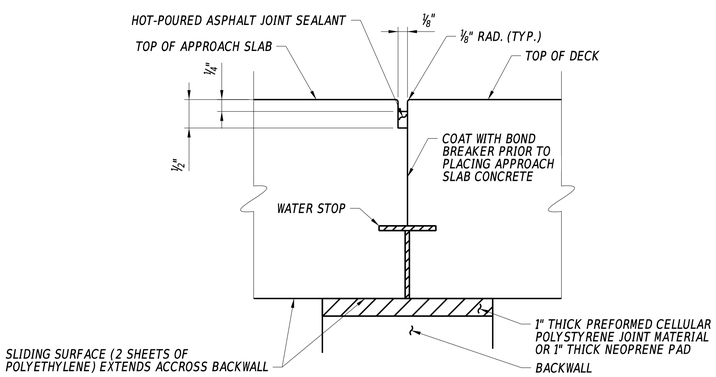
APPROACH SLAB A TYPICAL SECTION A-A

¾" = 1'-0"



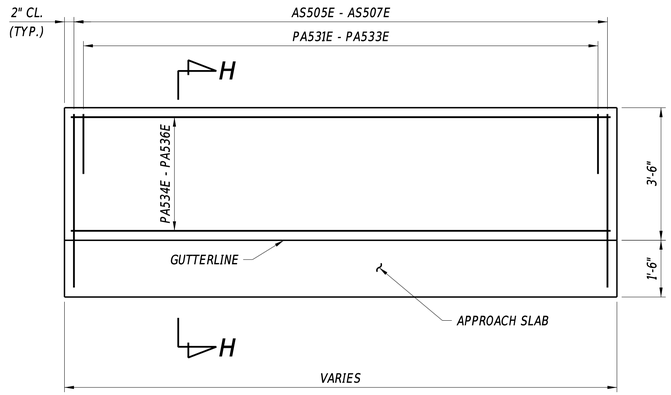
APPROACH SLAB A TYPICAL REINFORCEMENT SECTION A-A

¾" = 1'-0"



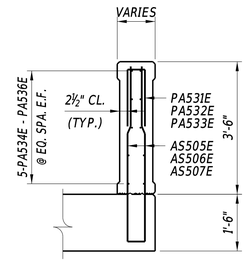
APPROACH SLAB CONSTRUCTION JOINT DETAIL

NOT TO SCALE



BARRIER OR PARAPET ELEVATION

NOT TO SCALE



SECTION H-H

NOT TO SCALE

NOTES:

1. PAYMENT FOR MATERIAL AND INSTALLATION OF EXPANSION MATERIAL, HOT-POURED JOINT SEALANT BETWEEN APPROACH SLAB AND DECK SLAB AND WATER STOP SHALL BE INCIDENTAL TO ITEM NO. 610018 - PCC MASONRY, APPROACH SLAB, CLASS D.
2. FOR SECTION CUT A-A, SEE DWG. NOS. AS-01 & AS-02.
3. FOR BARRIER AESTHETIC DETAILS, SEE DWG. NO. BA-01 THROUGH BA-03.

ADDENDA / REVISIONS

SCALE
0 1 3 4
FEET

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO.	3-610
T201412701	DESIGNED BY: R. SEDAR	
COUNTY	CHECKED BY: W. GESCHREI	
SUSSEX		

APPROACH SLAB A DETAILS - I

AS-04
SECTION
WRA
SHEET NO.
148

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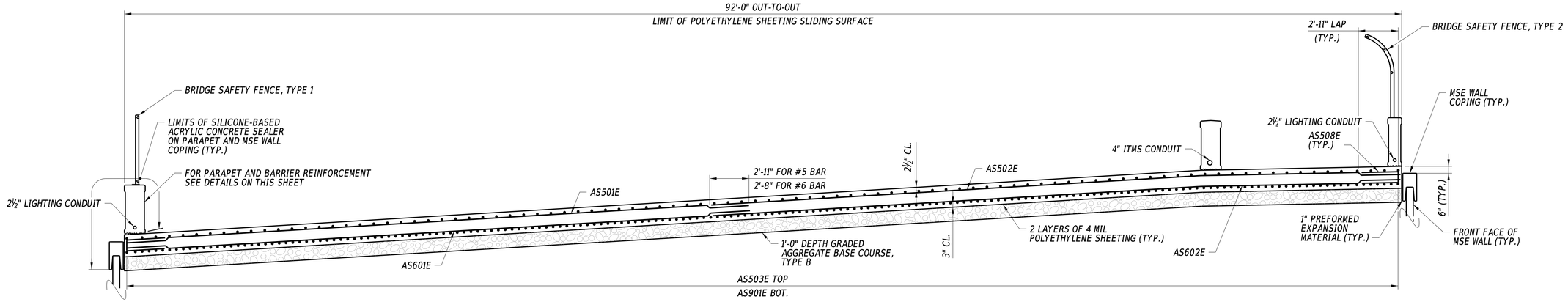
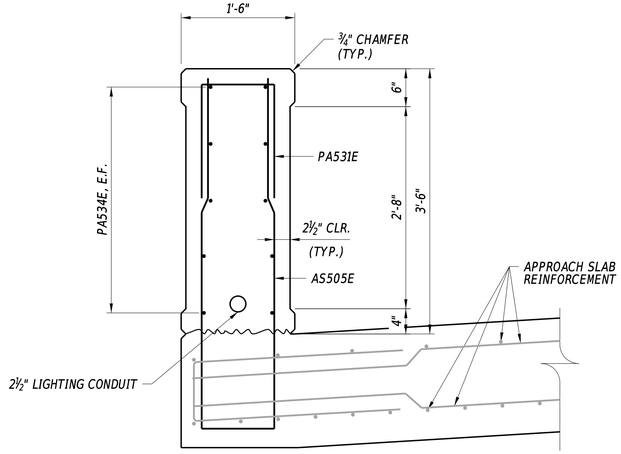


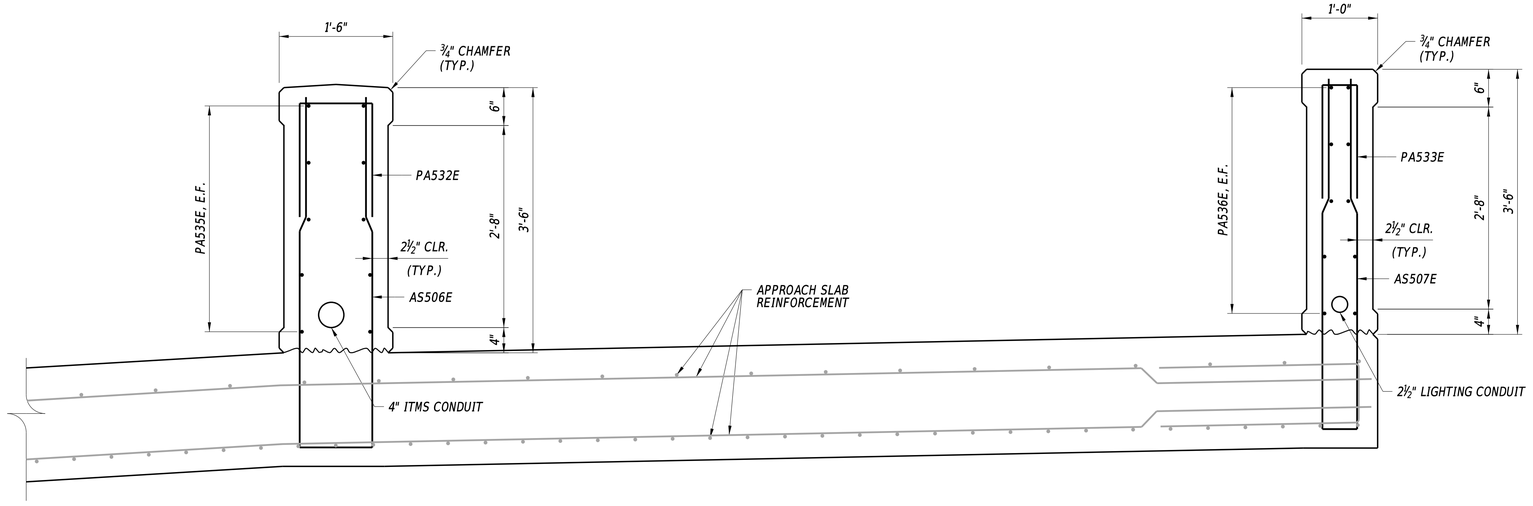
SECTION B-B

¼" = 1'-0"



NORTH BARRIER TYPICAL REINFORCEMENT DETAIL

1" = 1'-0"



SOUTH BARRIER AND SOUTH PARAPET TYPICAL REINFORCEMENT DETAIL

1" = 1'-0"

NOTES:

1. FOR SECTION CUT B-B, SEE DWG. NOS. AS-01 & AS-02.
2. FOR BARRIER AESTHETIC DETAILS, SEE DWG. NO. BA-01 AND BA-02.
3. SAFETY FENCE NOT SHOWN ON BARRIER TYPICAL SECTION OR PARAPET TYPICAL SECTION FOR CLAITY.

ADDENDA / REVISIONS	SCALE: AS NOTED	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. 3-610	APPROACH SLAB A DETAILS - II	AS-05 SECTION
			COUNTY SUSSEX	DESIGNED BY: R. SEDAR		WRA SHEET NO.
				CHECKED BY: W. GESCHREI		149

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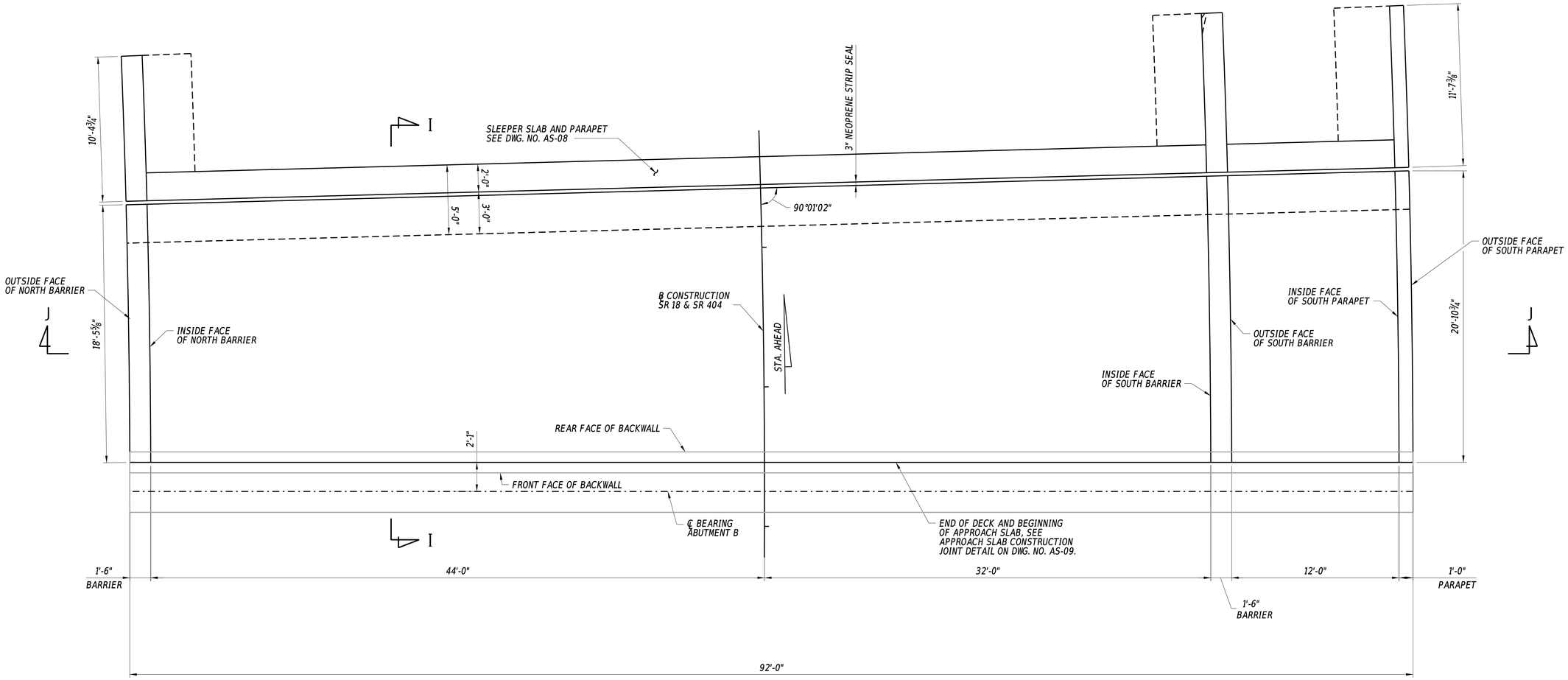

APPROACH SLAB B PLAN

¼" = 1'-0"

NOTES:

1. FOR APPROACH SLAB B REINFORCEMENT PLAN, SEE DWG. NO. AS-07.
2. FOR SECTION I-I, SEE DWG. NO. AS-09.
3. FOR SECTION J-J, SEE DWG. NO. AS-10.

9/8/2025
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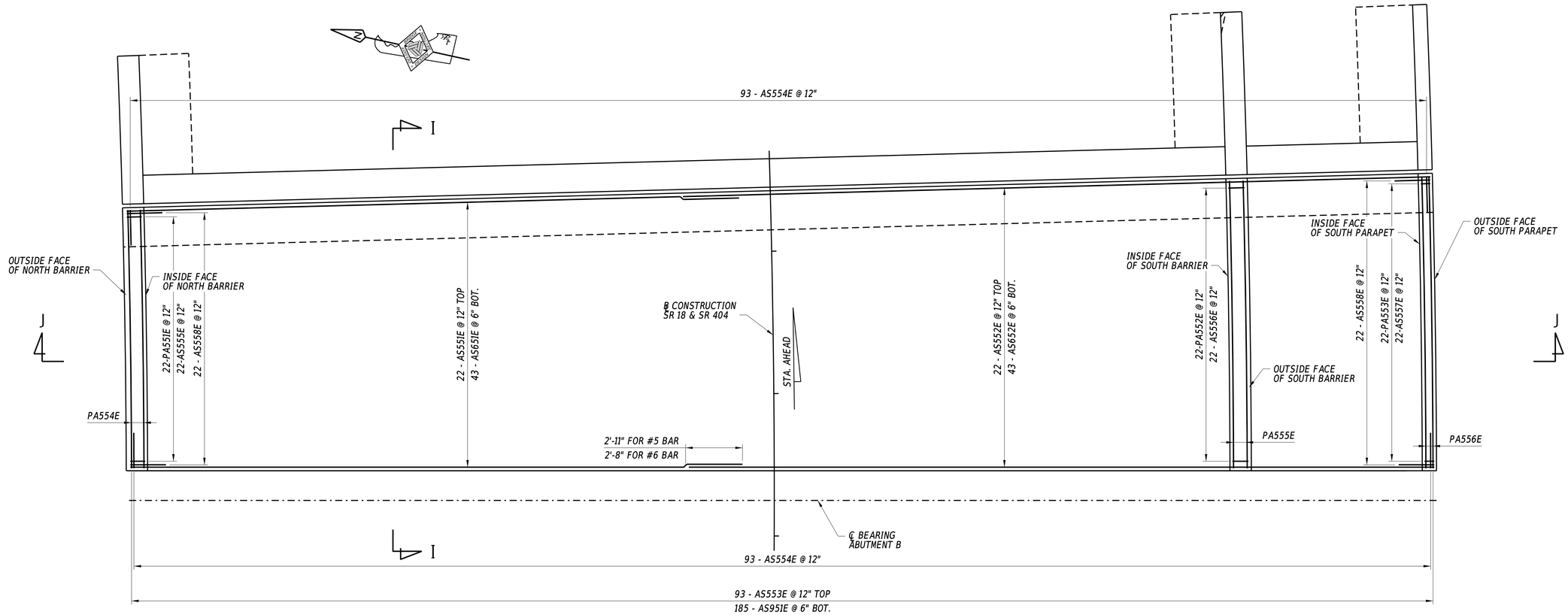
ADDENDA / REVISIONS	SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. 3-610	APPROACH SLAB B PLAN	AS-06
	0 4 8 12 FEET		T201412701	DESIGNED BY: R. SEDAR		SECTION WRA
			COUNTY SUSSEX	CHECKED BY: W. GESCHREI		SHEET NO. 150



APPROACH SLAB B REINFORCEMENT PLAN

¼" = 1'-0"

NOTES:

1. FOR SECTION I-I, SEE DWG. NO. AS-09.
2. FOR SECTION J-J, SEE DWG. NO. AS-10.

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ADDENDA / REVISIONS	SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. 3-610	APPROACH SLAB B REINFORCEMENT PLAN	AS-07
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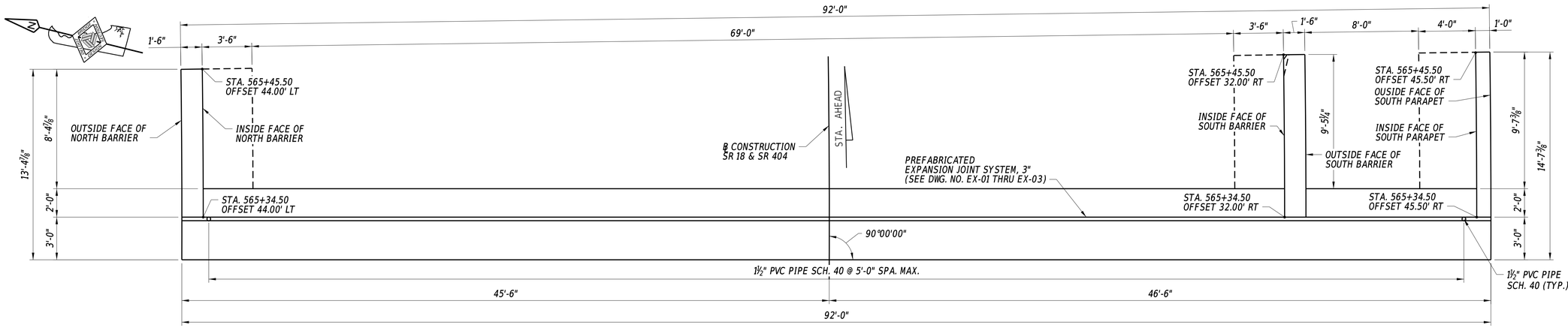
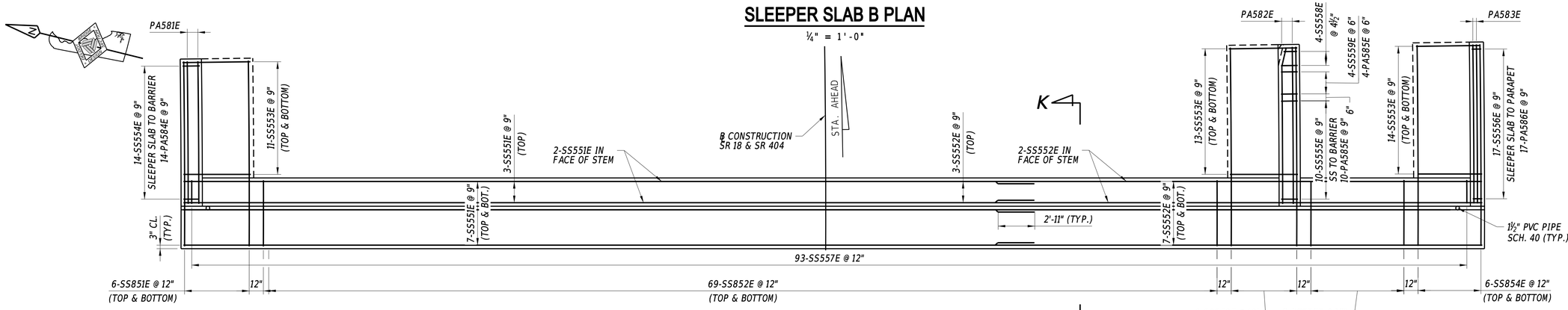
			COUNTY SUSSEX	CHECKED BY: W. GESCHREI		SHEET NO. 151



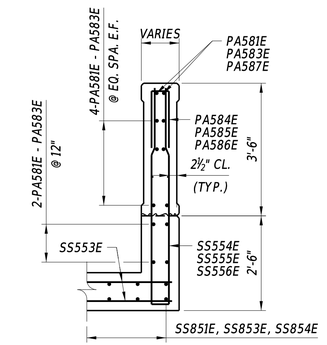
SLEEPER SLAB B PLAN

¼" = 1'-0"



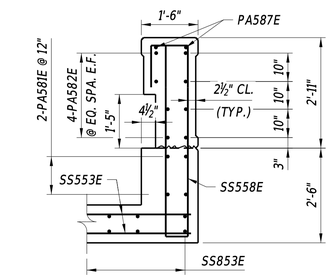
SLEEPER SLAB B REINFORCEMENT PLAN

¼" = 1'-0"



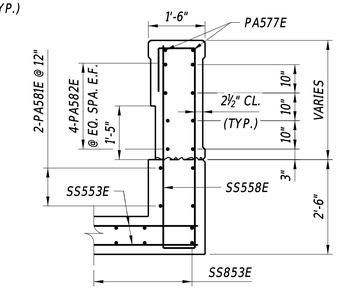
SECTION L-L

½" = 1'-0"



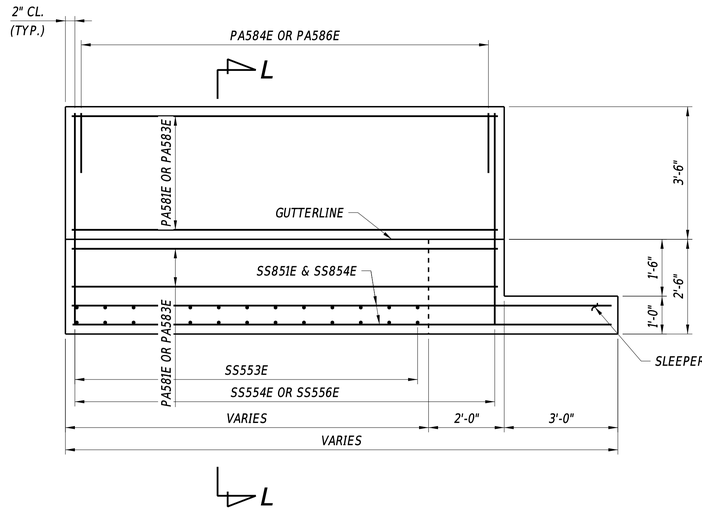
SECTION LL-LL

½" = 1'-0"



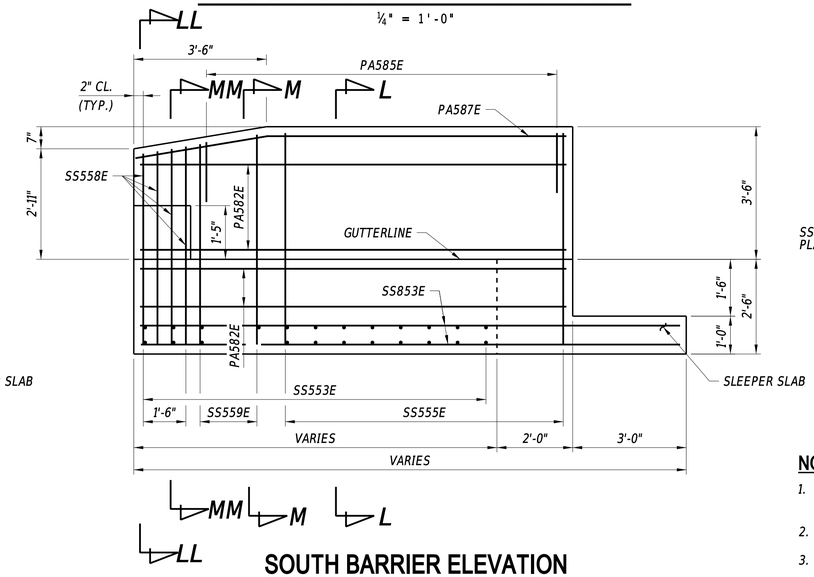
SECTION MM-MM

½" = 1'-0"



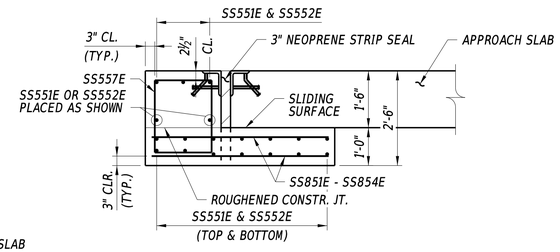
NORTH BARRIER AND SOUTH PARAPET ELEVATION

½" = 1'-0"



SOUTH BARRIER ELEVATION

½" = 1'-0"



SECTION K-K

½" = 1'-0"

NOTES:

1. SLEEPER SLAB BARRIERS AND PARAPET SHALL BE CONSTRUCTED PARALLEL TO ℄ CONSTRUCTION SR 18 & SR 404.
2. FOR APPROACH SLAB PLAN AND DETAILS, SEE DWG. NO. AS-06, AS-07 & AS-09.
3. PAYMENT FOR SLEEPER SLAB CONCRETE WILL BE MADE UNDER ITEM 610018 - PCC MASONRY, APPROACH SLAB, CLASS D.

9/10/2025
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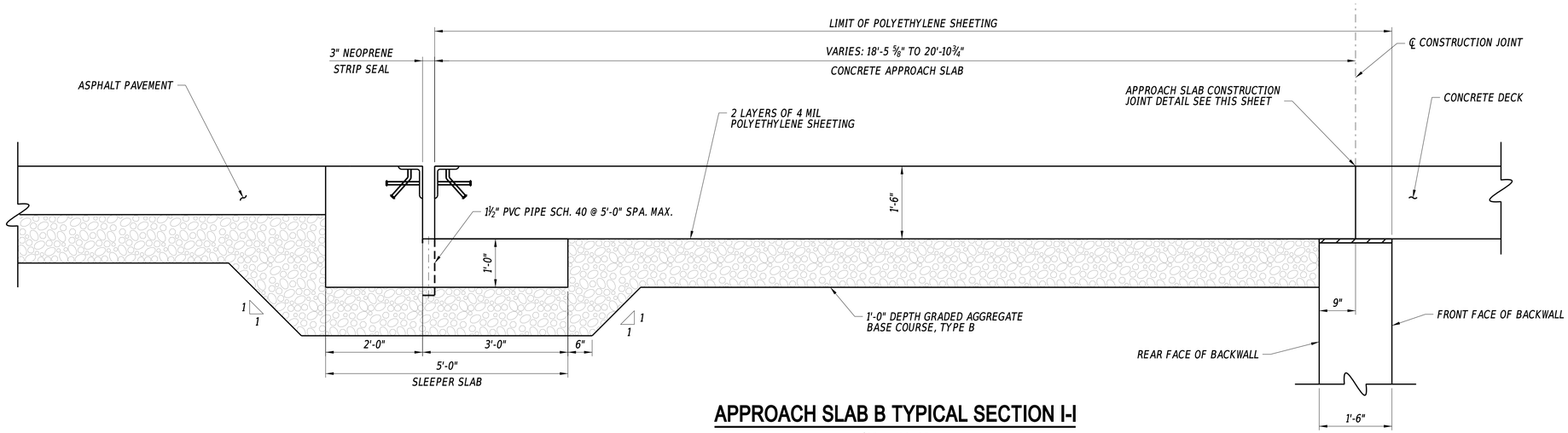
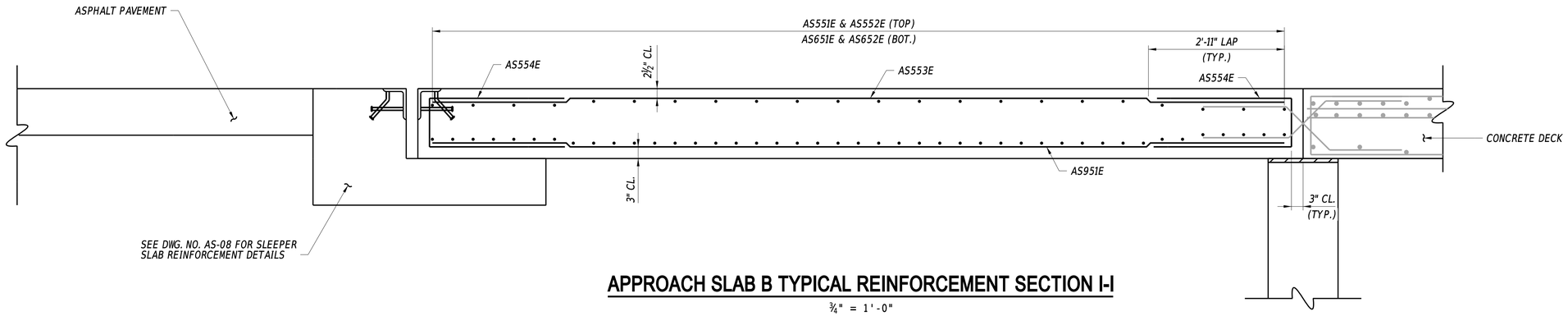
ADDENDA / REVISIONS	SCALE: AS NOTED	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. 3-610	SLEEPER SLAB B REINFORCEMENT PLAN	AS-08 SECTION WRA
			COUNTY SUSSEX	DESIGNED BY: R. SEDAR		SHEET NO. 152
				CHECKED BY: W. GESCHREI		



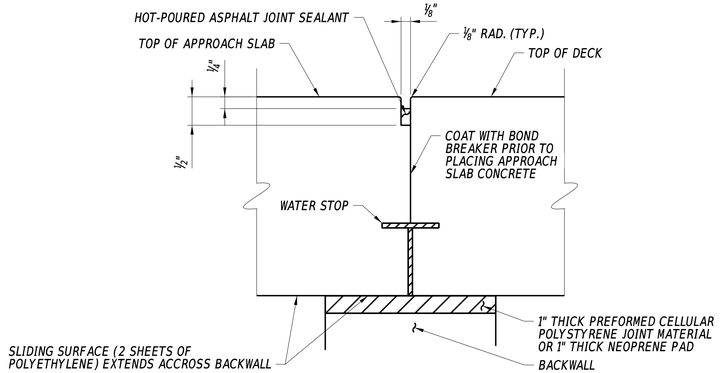
APPROACH SLAB B TYPICAL SECTION I-I

¾" = 1'-0"



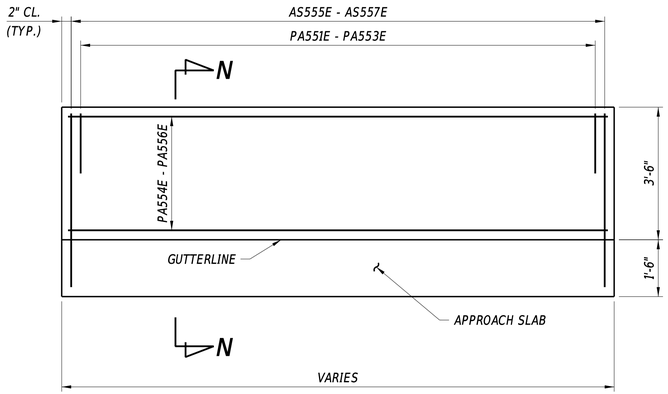
APPROACH SLAB B TYPICAL REINFORCEMENT SECTION I-I

¾" = 1'-0"



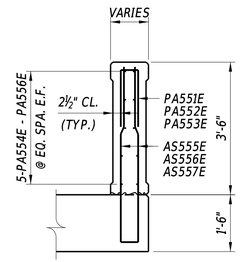
APPROACH SLAB CONSTRUCTION JOINT DETAIL

NOT TO SCALE



BARRIER OR PARAPET ELEVATION

NOT TO SCALE



SECTION N-N

NOT TO SCALE

NOTES:

1. PAYMENT FOR MATERIAL AND INSTALLATION OF EXPANSION MATERIAL, HOT-POURED JOINT SEALANT BETWEEN APPROACH SLAB AND DECK SLAB AND WATER STOP SHALL BE INCIDENTAL TO ITEM NO. 610018 - PCC MASONRY, APPROACH SLAB, CLASS D.
2. FOR SECTION CUT I-I, SEE DWG. NOS. AS-06 & AS-07.
3. FOR BARRIER AESTETIC DETAILS, SEE DWG. NO. BA-01 THROUGH BA-03.

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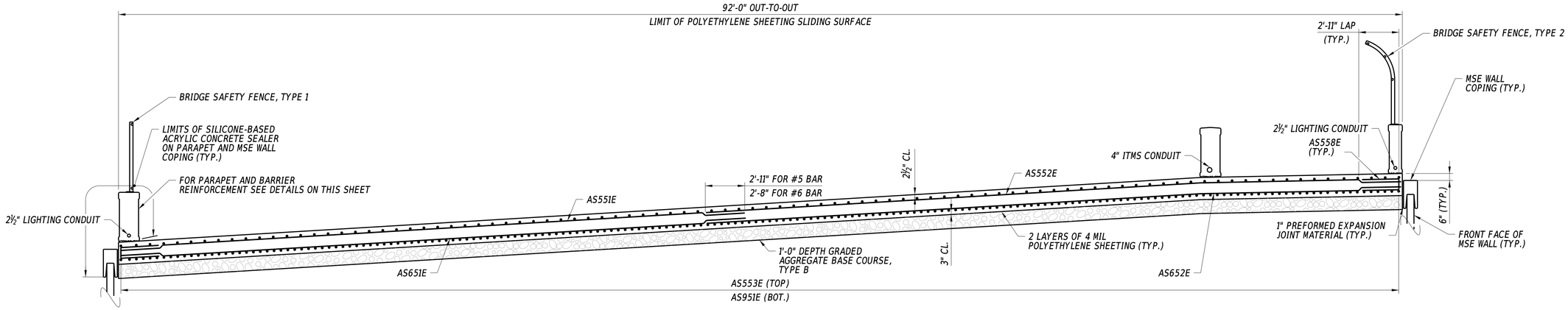
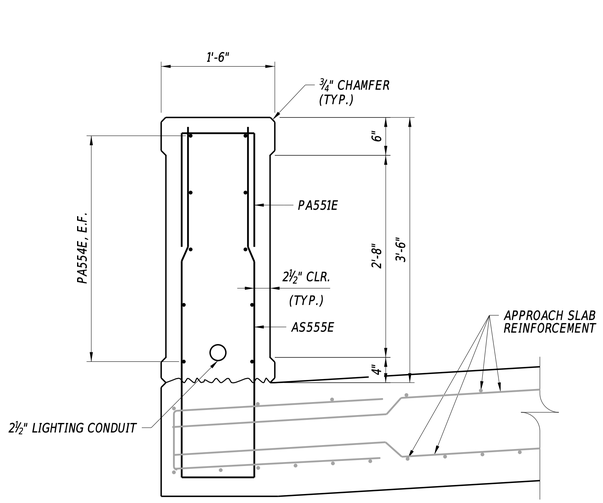
ADDENDA / REVISIONS	SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. 3-610	APPROACH SLAB B DETAILS - I	AS-09
	0 1 3 4 FEET		T201412701	DESIGNED BY: R. SEDAR		SECTION WRA
			COUNTY SUSSEX	CHECKED BY: W. GESCHREI		SHEET NO. 153



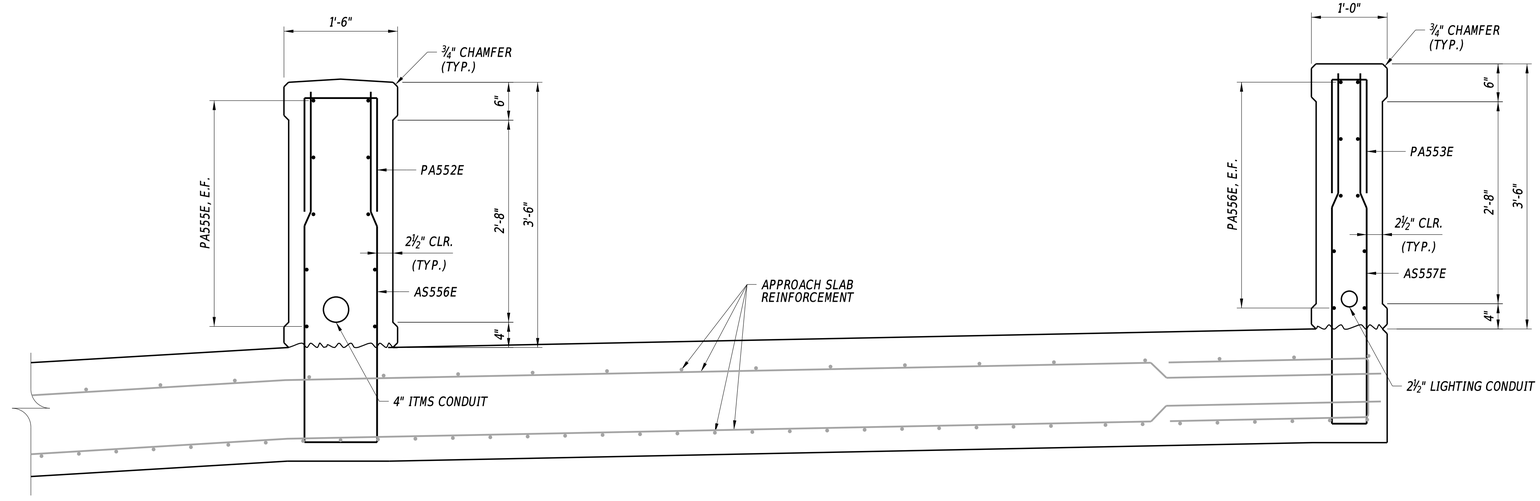
SECTION J-J

¼" = 1'-0"



NORTH BARRIER TYPICAL REINFORCEMENT DETAIL

1" = 1'-0"



SOUTH BARRIER AND SOUTH PARAPET TYPICAL REINFORCEMENT DETAIL

1" = 1'-0"

NOTES:

1. FOR SECTION CUT J-J, SEE DWG. NOS. AS-06 & AS-07.
2. SAFETY FENCE NOT SHOWN ON BARRIER TYPICAL SECTION OR PARAPET TYPICAL SECTION FOR CLAITY.

ADDENDA / REVISIONS		SCALE: AS NOTED	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. 3-610	APPROACH SLAB B DETAILS - II	AS-10
				COUNTY SUSSEX	DESIGNED BY: R. SEDAR		SECTION WRA
					CHECKED BY: W. GESCHREI		SHEET NO. 154

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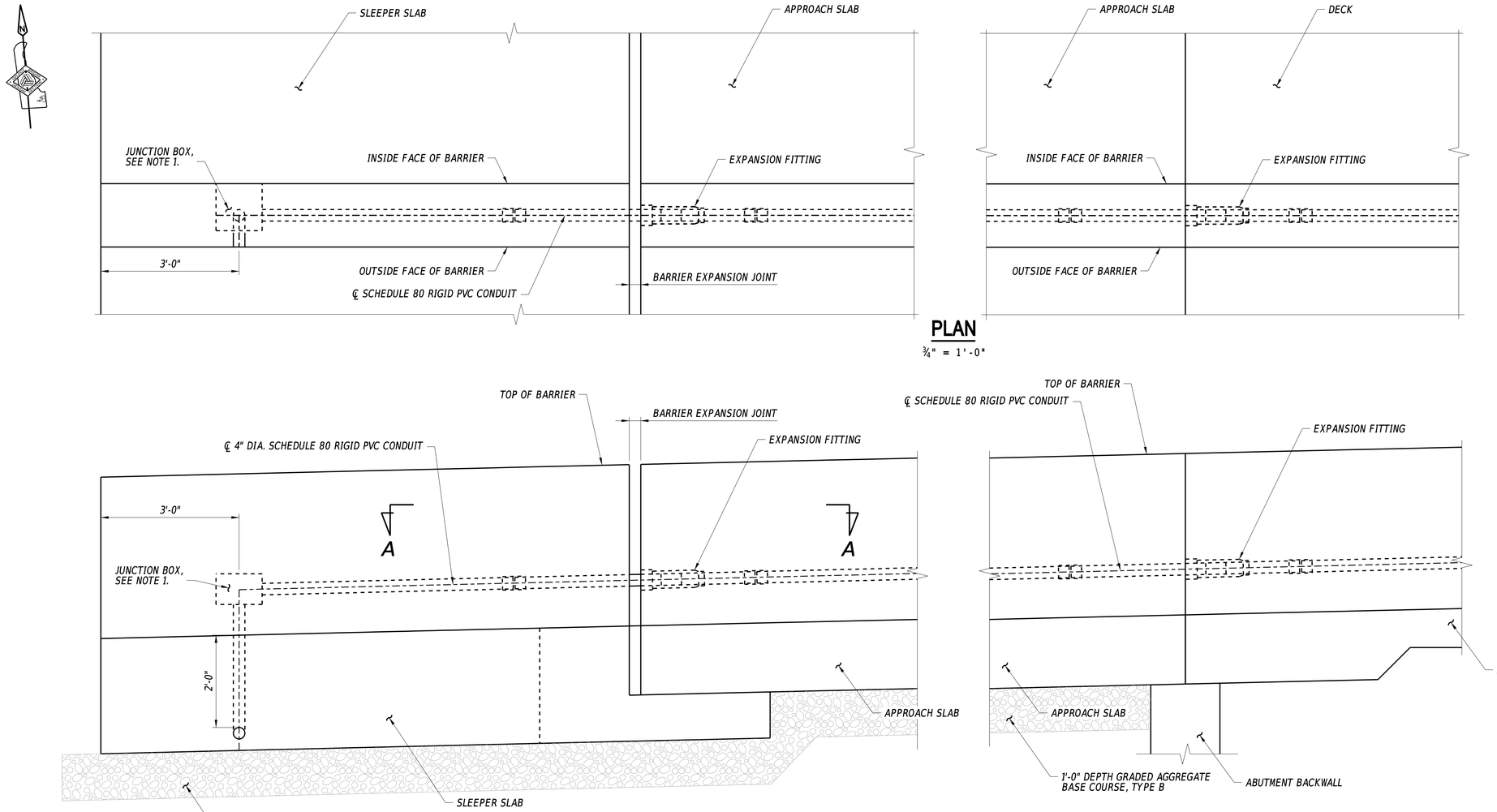
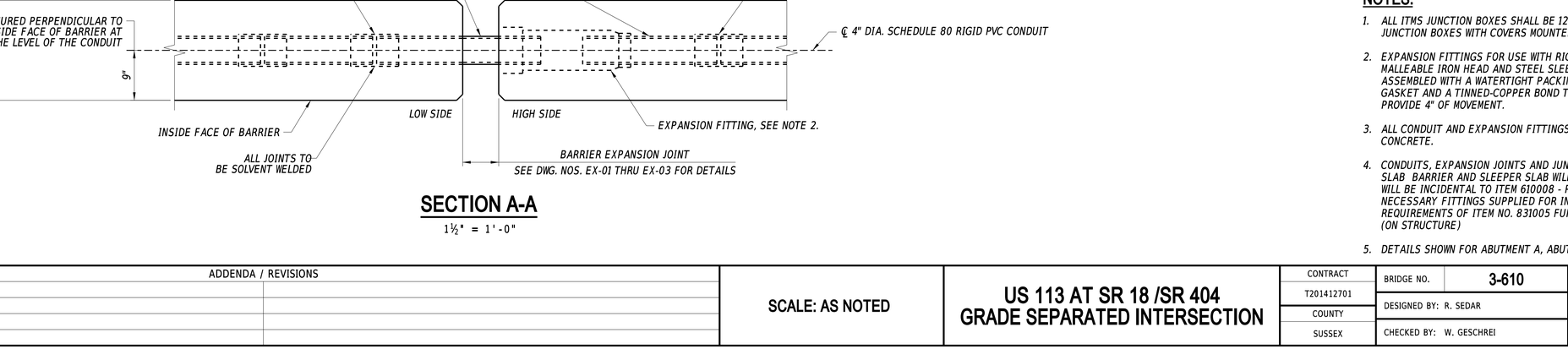


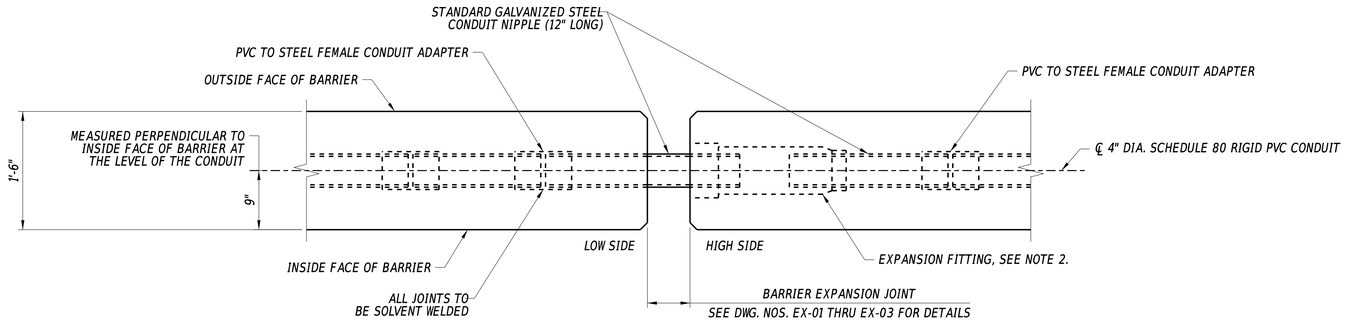
PLAN

¾" = 1'-0"



ELEVATION

¾" = 1'-0"



SECTION A-A

1½" = 1'-0"

NOTES:

1. ALL ITMS JUNCTION BOXES SHALL BE 12" LONG x 8" HIGH x 8" DEEP NEMA 4X STAINLESS STEEL JUNCTION BOXES WITH COVERS MOUNTED IN THE FRONT FACE OF THE BARRIER.
2. EXPANSION FITTINGS FOR USE WITH RIGID GALVANIZED STEEL CONDUIT SHALL CONSIST OF A MALLEABLE IRON HEAD AND STEEL SLEEVE WHICH SHALL BE HOT-DIPPED GALVANIZED AND ASSEMBLED WITH A WATERTIGHT PACKING GLAND, AN INSULATED BUSHING, PRESSURE RING AND GASKET AND A TINNED-COPPER BOND TO ASSURE CONTINUITY OF GROUND. THE FITTING SHALL PROVIDE 4" OF MOVEMENT.
3. ALL CONDUIT AND EXPANSION FITTINGS SHALL BE U.L. APPROVED FOR ENCASEMENT IN CONCRETE.
4. CONDUITS, EXPANSION JOINTS AND JUNCTION BOXES INSTALLED IN THE BRIDGE APPROACH SLAB BARRIER AND SLEEPER SLAB WILL NOT BE MEASURED AND PAID FOR SEPARATELY BUT WILL BE INCIDENTAL TO ITEM 610008 - PCC MASONRY, PARAPET, CLASS A. CONDUITS AND ALL NECESSARY FITTINGS SUPPLIED FOR INSTALLATION IN BARRIERS SHALL MEET THE MATERIAL REQUIREMENTS OF ITEM NO. 831005 FURNISH & INSTALL UP TO 4" SCHEDULE 80 PVC CONDUIT (ON STRUCTURE)
5. DETAILS SHOWN FOR ABUTMENT A, ABUTMENT B SIMILAR.

ADDENDA / REVISIONS		SCALE: AS NOTED	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	T201412701	BRIDGE NO.	3-610	APPROACH SLAB BARRIER CONDUIT DETAIL	AS-11
				COUNTY	SUSSEX	DESIGNED BY: R. SEDAR			SECTION WRA
						CHECKED BY: W. GESCHREI			SHEET NO. 155

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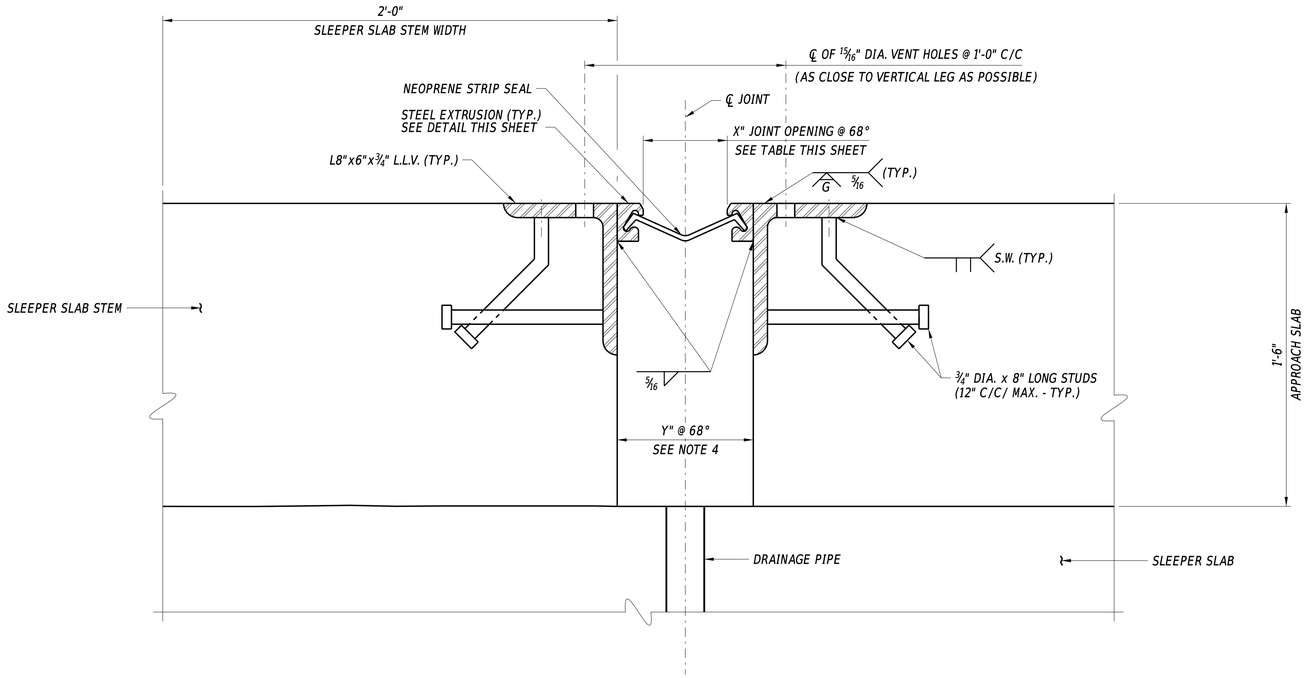
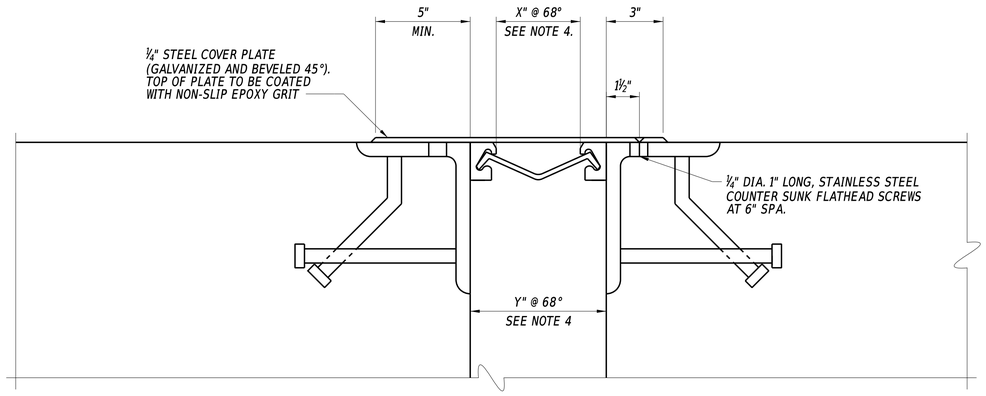


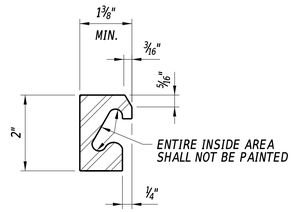
APPROACH SLAB JOINT ASSEMBLY DETAIL

SCALE: 3" = 1'-0"



JOINT SECTION AT SIDEWALK

SCALE: 3" = 1'-0"



STEEL EXTRUSION DETAIL

SCALE: 6" = 1'-0"

STRIP SEAL EXPANSION JOINT NOTES:

1. STEEL FOR DECK JOINTS AND STEEL EXTRUSIONS SHALL BE AASHTO M 270, GR. 36 (ASTM A36) AT MINIMUM.
2. NEOPRENE EXTRUSION TO MEET ASTM D2628-91 MODIFIED, (RECOVERY TESTS EXCLUDED).
3. THE EXPANSION JOINT SHALL BE CAPABLE OF SEALING THE APPROACH SLAB TO SLEEPER SLAB TO PREVENT MOISTURE AND OTHER CONTAMINANTS FROM DESCENDING THROUGH THE JOINT.
4. THE CONTRACTOR SHALL ADJUST THE OPEN JOINT (Y) AS REQUIRED BY THE WIDTH OF THE STEEL EXTRUSION USED SO AS TO PROVIDE A JOINT OPENING EQUAL TO X" + 2 x WIDTH OF STEEL EXTRUSION AT 68°F.
5. THE STRIP SEAL SHALL BE INSTALLED IN ONE PIECE ACROSS THE APPROACH SLAB WIDTH. SPLICING OF THE STRIP SEAL IS NOT PERMITTED.
6. THE EXPANSION JOINT SYSTEM IS PAID FOR UNDER ITEM 624000 - PREFABRICATED EXPANSION JOINT SYSTEM, 3".
7. STEEL EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED. ENTIRE JOINT ASSEMBLY AND EXTRUSION SHALL BE PAINTED AFTER FABRICATION USING AND APPROVED URETHANE SYSTEM IN CONFORMANCE WITH SECTION 624 OF THE STANDARD SPECIFICATION. PAYMENT FOR GALVANIZING AND PAINTING WILL BE INCIDENTAL TO ITEM 624000 - PREFABRICATED EXPANSION JOINT SYSTEM, 3". PAINT COLOR SHALL MATCH THE BEAMS/GIRDERS.
8. LUBRICANT - ADHESIVE FOR USE IN INSTALLING AND BONDING NEOPRENE SEAL ELEMENTS TO STEEL JOINT COMPONENTS SHALL BE A ONE QUART MOISTURE - CURING POLYURETHANE AND HYDROCARBON SOLVENT MIXTURE HAVING THE FOLLOWING PHYSICAL PROPERTIES:

   AVERAGE WEIGHT, POUNDS 8±10% PER GALLON
   SOLIDS CONTENT65%
   ADHESIVE SHALL REMAIN LIQUID FROM 5°F TO 120°F
   FILM STRENGTH, AS PER ASTM D-412 2,000 PSI
   ELONGATION 250%

9. STEEL EXTRUSIONS AND JOINT ANGLES SHALL BE CONTINUOUS ACROSS THE FULL WIDTH OF THE BRIDGE. A FIELD WELDED SPLICE IS PERMITTED, PROVIDE SPLICE DETAILS WITH SHOP DRAWING SUBMISSION. PAYMENT FOR WELDING IS INCIDENTAL TO ITEM 624000 - PREFABRICATED EXPANSION JOINT SYSTEM, 3".
10. ANCHOR PLATE AND STEEL EXTRUSION SHALL BE WELDED TO BE WATERTIGHT AT CONSTRUCTION JOINTS. PAYMENT INCIDENTAL TO ITEM 624000 - PREFABRICATED EXPANSION JOINT SYSTEM, 3".
11. AT AREAS WHERE STEEL MEMBERS ARE TO BE SPLICED, USE OF COMPLETE JOINT PENETRATION (CJP) AND PARTIAL JOINT PENETRATION (PJP) WELD ARE BOTH PERMITTED. THE THICKENESS OF PJP WELD MUST BE MINIMUM HALF OF THE STEEL MEMBER THICKNESS.

APPROACH SLAB JOINT OPENINGS, X

TEMPERATURE °F	10°	30°	50°	70°	90°
ABUTMENT A	2 5/16"	2 1/8"	1 7/8"	1 5/8"	1 3/8"
ABUTMENT B	2 1/4"	2 1/16"	1 7/8"	1 5/8"	1 7/16"

NOTES:

1. FOR APPROACH SLAB PLAN AND DETAILS, SEE DWG. NOS. AS-01 THROUGH AS-11.
2. FOR SLEEPER SLAB PLAN AND SECTIONS, SEE DWG. NOS. AS-03 & AS-08.
3. APPROACH SLAB AND SLEEPER SLAB REINFORCEMENT NOT SHOWN FOR CLARITY. SEE DWG. NOS. AS-01 THROUGH AS-11 FOR MORE INFORMATION.

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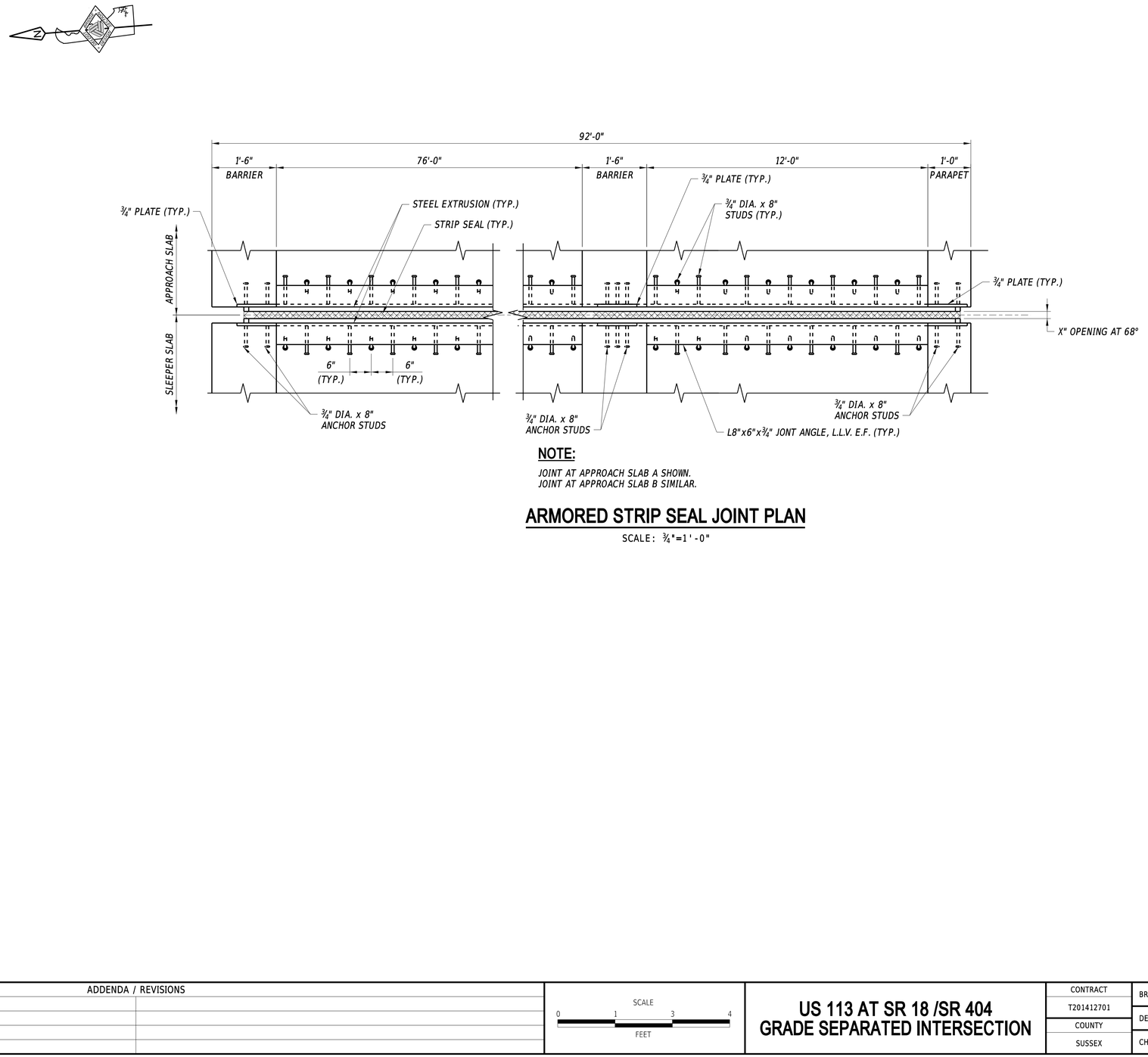
ADDENDA / REVISIONS		SCALE: AS NOTED	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. 3-610	APPROACH SLAB JOINT DETAILS - I	EX-01 SECTION WRA SHEET NO. 156
				COUNTY SUSSEX	DESIGNED BY: R. SEDAR		
					CHECKED BY: W. GESCHREI		



NOTE:

JOINT AT APPROACH SLAB A SHOWN.
JOINT AT APPROACH SLAB B SIMILAR.

ARMORED STRIP SEAL JOINT PLAN

SCALE: ¾"=1'-0"

NOTES:

1. *FOR APPROACH SLAB PLAN AND DETAILS, SEE DWG. NOS. AS-01 THROUGH AS-11.*
2. *FOR SLEEPER SLAB PLAN AND SECTIONS, SEE DWG. NOS. AS-03 & AS-08.*
3. *APPROACH SLAB AND SLEEPER SLAB REINFORCEMENT NOT SHOWN FOR CLARITY. SEE DWG. NOS. AS-01 THROUGH AS-11 FOR MORE INFORMATION.*

ADDENDA / REVISIONS		SCALE 0 1 3 4 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. 3-610	APPROACH SLAB JOINT DETAILS - II	EX-02
				COUNTY SUSSEX	DESIGNED BY: R. SEDAR		SECTION WRA
					CHECKED BY: W. GESCHREI		SHEET NO. 157

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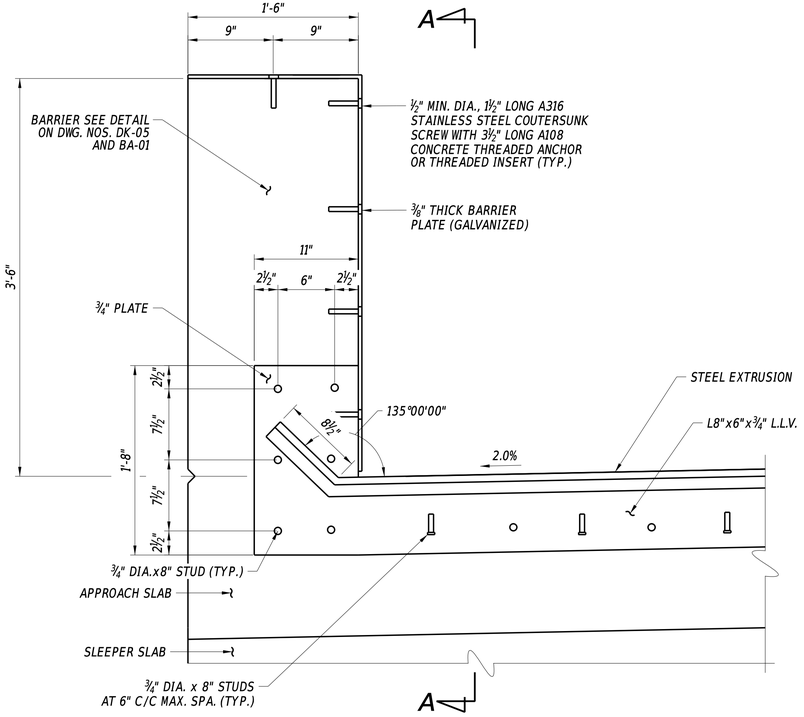
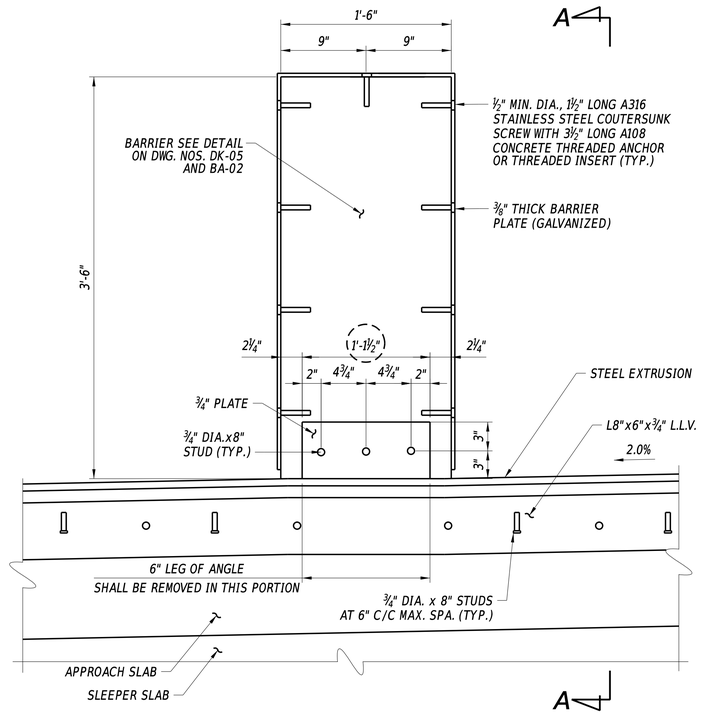


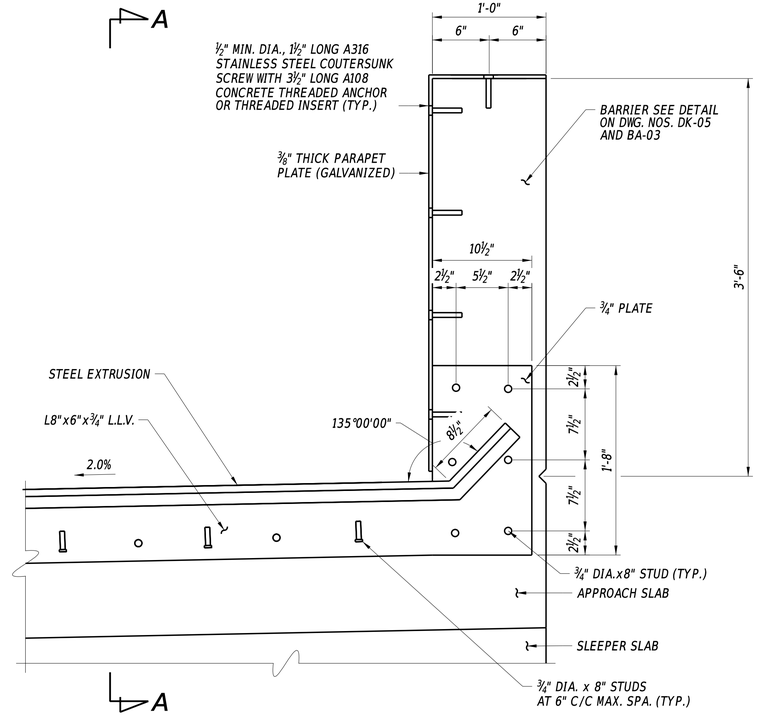
TYPICAL SECTION AT JOINT (LEFT)

SCALE: 1½" = 1'-0"



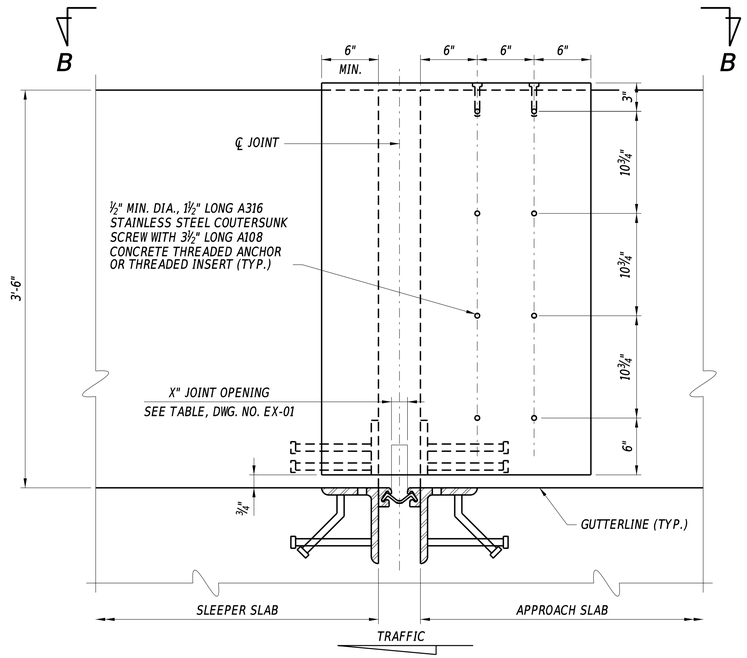
TYPICAL SECTION AT JOINT (MIDDLE)

SCALE: 1½" = 1'-0"



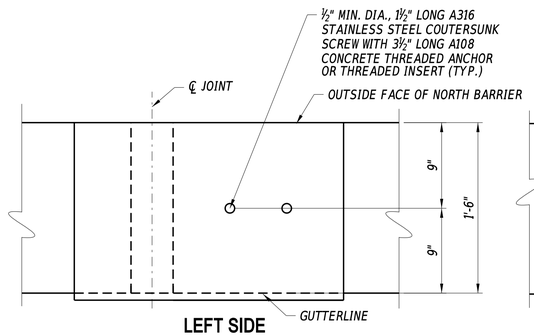
TYPICAL SECTION AT JOINT (RIGHT)

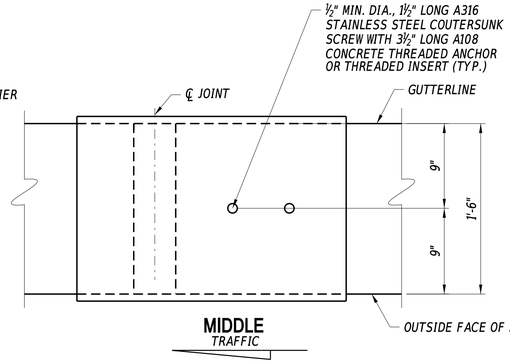
SCALE: 1½" = 1'-0"



SECTION A-A

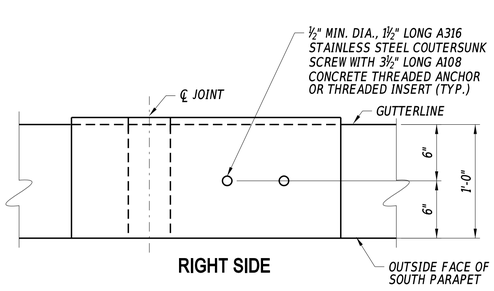
SCALE: 1½" = 1'-0"





SECTION B-B

SCALE: 1½" = 1'-0"



PARAPET JOINT PLATE NOTES:

1. PLACE PARAPET CONCRETE WITH STEEL BENT PLATES, INSERTS, AND BOLTS IN PLACE TO ENSURE PROPER ALIGNMENT OF INSERTS AND HOLES IN THE STEEL PLATE. REMOVE PLATES TO INSTALL SEAL. APPLY APPROVED BONDBREAKER TO SLIDING PLATES PRIOR TO PLACEMENT OF CONCRETE.
2. USE TYPE 316 STAINLESS STEEL COUNTERSUNK FLATHEAD SCREWS WITH ASTM A108 CONCRETE THREADED ANCHOR OR THREADED INSERT. HEAD OF SCREWS SHALL BE FLUSH WITH FACE OF STEEL PLATE.
3. THE CONTRACTOR SHALL SUBMIT WORKING DRAWINGS OF TRAFFIC BARRIER PLATES FOR APPROVAL.
4. ⅜" PARAPET PLATE SHALL BE GALVANIZED STEEL. PARAPET PLATE SHALL BE PAINTED TO MATCH STEEL GIRDER.
6. PAYMENT FOR PARAPET JOINT PLATES SHALL BE INCIDENTAL TO ITEM 624000 - PREFABRICATED EXPANSION JOINT SYSTEM, 3".

NOTES:

1. FOR APPROACH SLAB PLAN AND DETAILS, SEE DWG. NOS. AS-01 THROUGH AS-11.
2. FOR SLEEPER SLAB PLAN AND SECTIONS, SEE DWG. NO. AS-03 & AS-08.
3. APPROACH SLAB AND SLEEPER SLAB REINFORCEMENT NOT SHOWN FOR CLARITY. SEE DWG. NO. AS-01 THROUGH AS-11 FOR MORE INFORMATION.

ADDENDA / REVISIONS

SCALE
0 1 1 2
FEET

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO.	3-610
T201412701	DESIGNED BY: R. SEDAR	
COUNTY	CHECKED BY: W. GESCHREI	
SUSSEX		

APPROACH SLAB JOINT DETAILS - III

EX-03
SECTION
WRA
SHEET NO.
158

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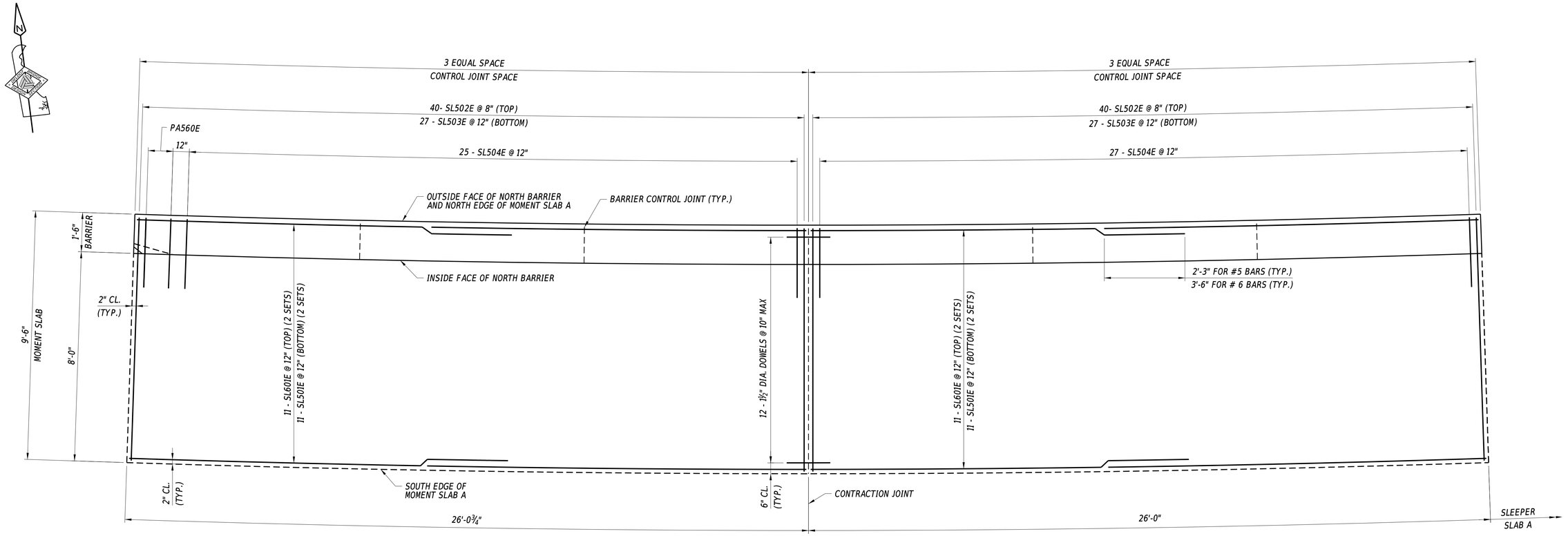
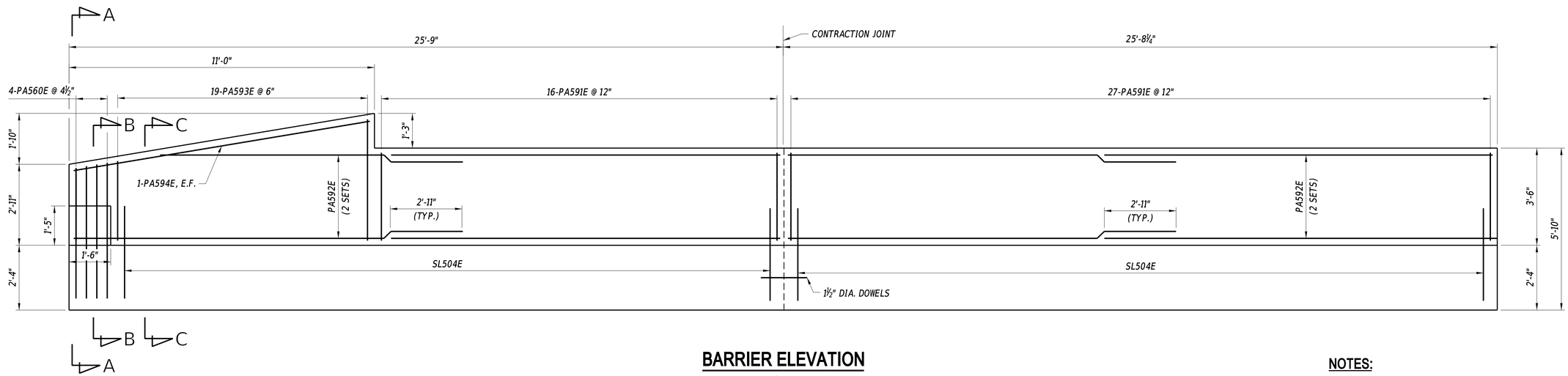


MOMENT SLAB A PLAN

SCALE: ½" = 1'-0"



BARRIER ELEVATION

SCALE: ½" = 1'-0"

NOTES:

1. FOR ADDITIONAL INFORMATION ON MOMENT SLABS INCLUDING TYPICAL SECTION, REINFORCEMENT, DETAILS AND NOTES, DEE DWG. NO. MS-03.

ADDENDA / REVISIONS	SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. 3-610	MOMENT SLAB A PLAN	MS-01
	0 2 4 6 FEET		COUNTY SUSSEX	DESIGNED BY: R. SEDAR		SECTION WRA
				CHECKED BY: W. GESCHREI		SHEET NO. 159

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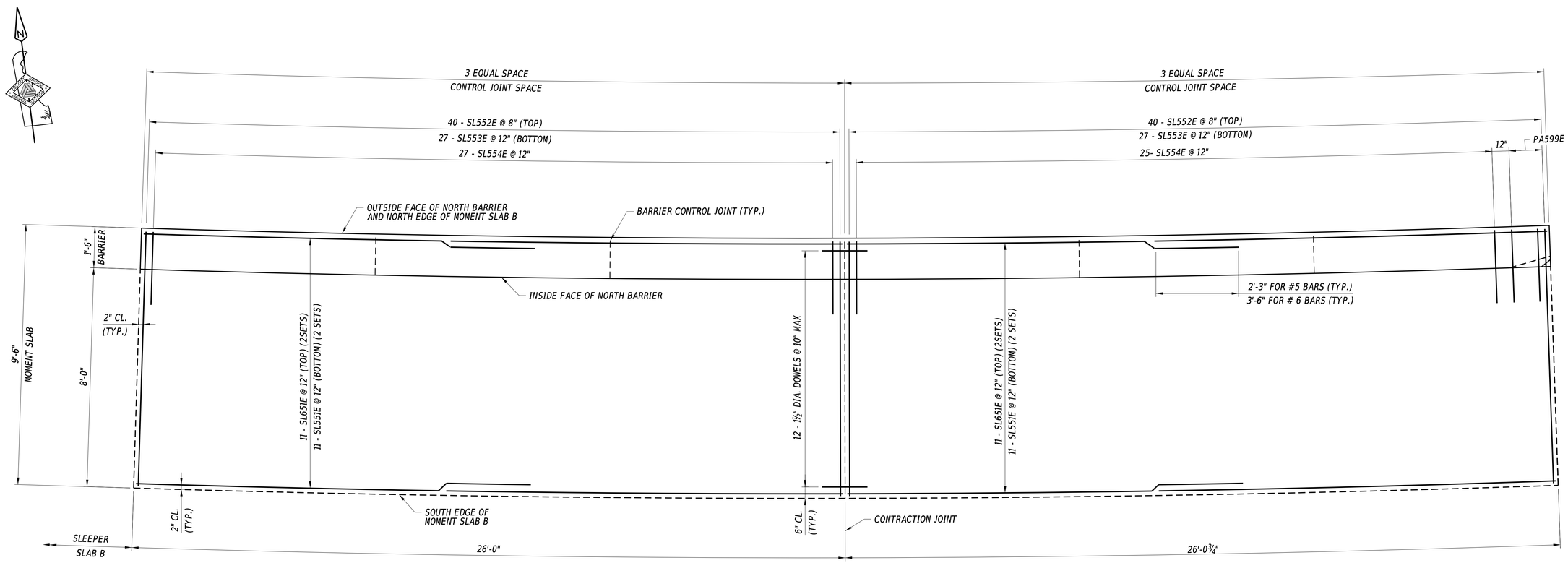
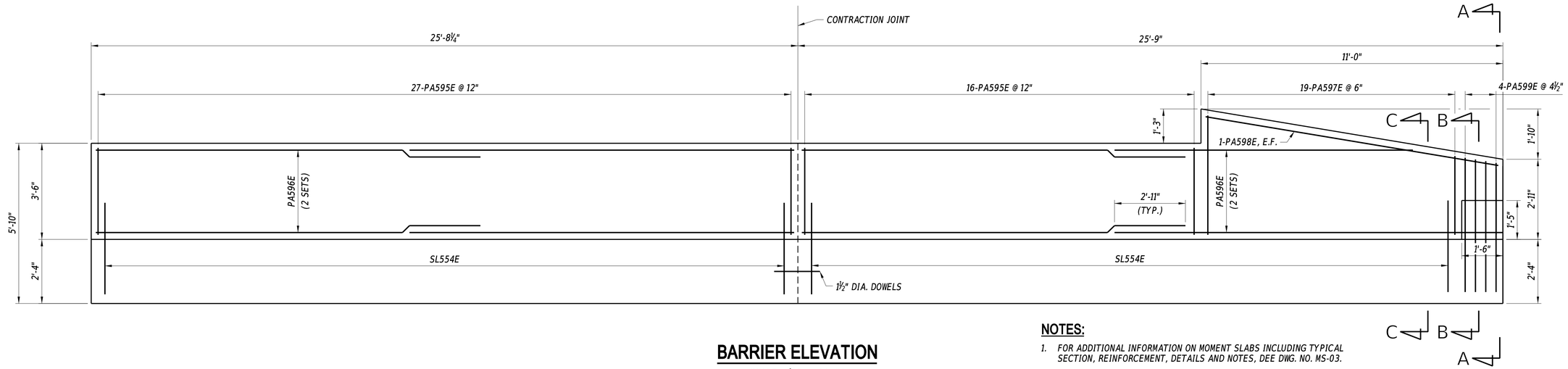


MOMENT SLAB B PLAN

SCALE: ½" = 1'-0"



BARRIER ELEVATION

SCALE: ½" = 1'-0"

NOTES:

1. FOR ADDITIONAL INFORMATION ON MOMENT SLABS INCLUDING TYPICAL SECTION, REINFORCEMENT, DETAILS AND NOTES, DEE DWG. NO. MS-03.
2. FOR SECTIONS A-A THROUGH C-C, SEE DWG. NO. MS-03.

ADDENDA / REVISIONS	SCALE		CONTRACT	BRIDGE NO. 3-610		MS-02
	0 2 4 6 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	T201412701	DESIGNED BY: R. SEDAR	MOMENT SLAB B PLAN	SECTION WRA
			COUNTY SUSSEX	CHECKED BY: W. GESCHREI		SHEET NO. 160

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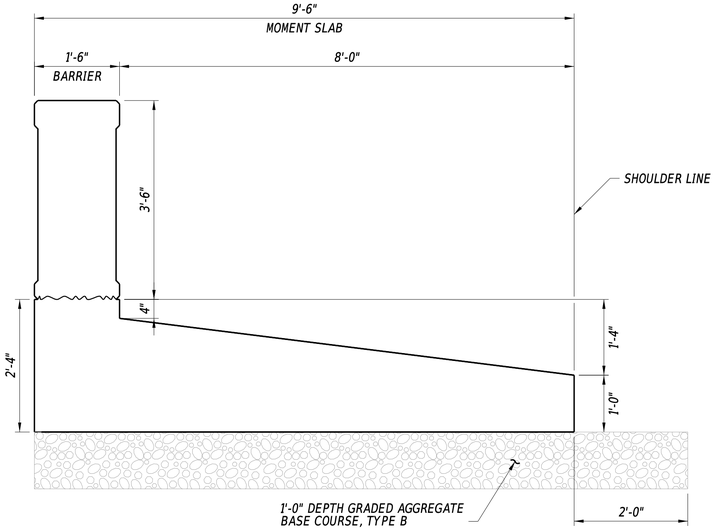
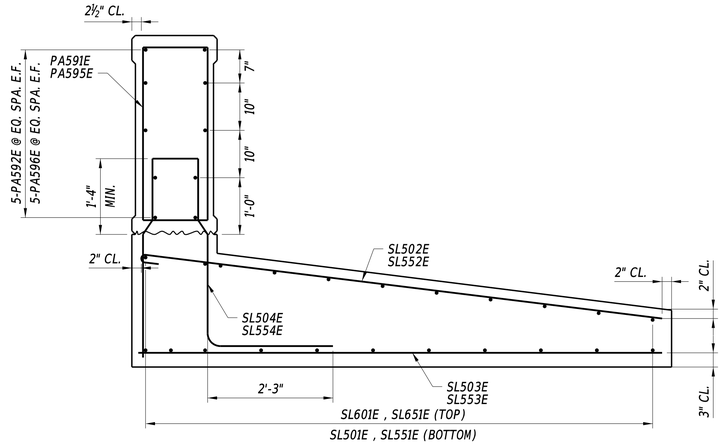


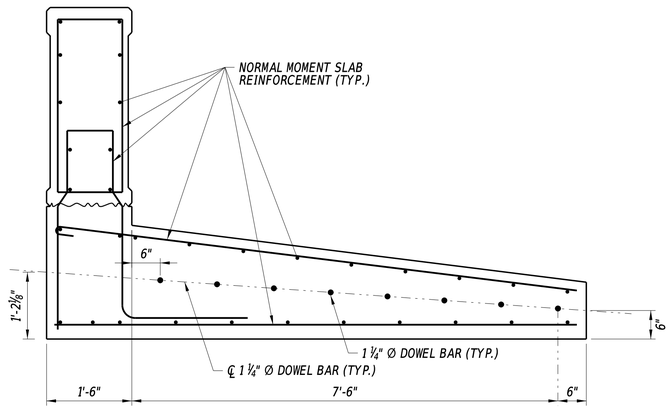
MOMENT SLAB TYPICAL SECTION

¾" = 1'-0"



MOMENT SLAB REINFORCEMENT TYPICAL SECTION

¾" = 1'-0"



MOMENT SLAB JOINT TYPICAL SECTION

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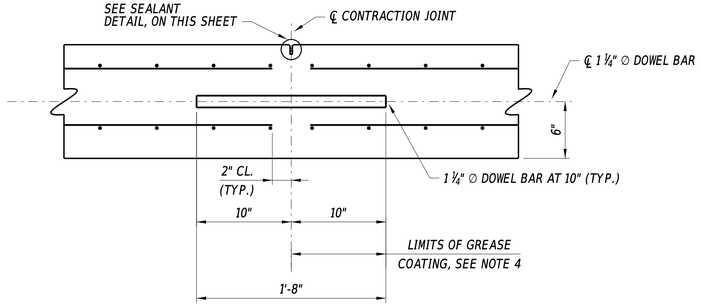
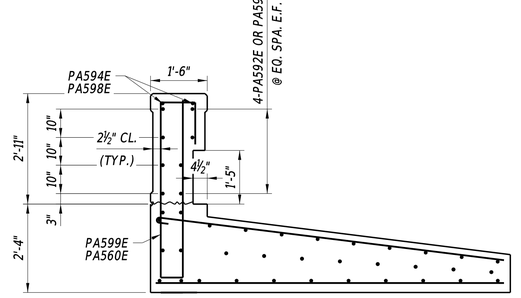


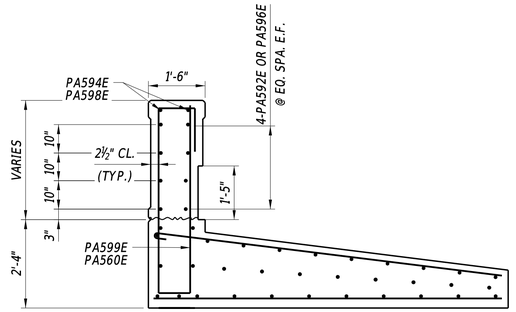
TYPICAL CONTRACTION JOINT SECTION

1 ½" = 1'-0"



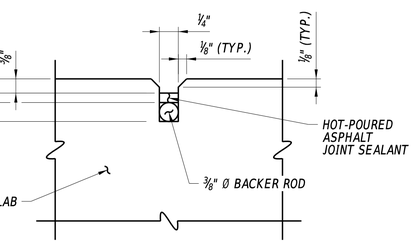
SECTION A-A

½" = 1'-0"



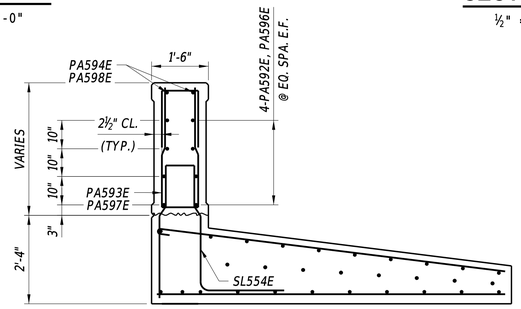
SECTION B-B

½" = 1'-0"



SEALANT DETAIL

NOT TO SCALE



SECTION C-C

½" = 1'-0"

NOTES:

1. TOLERANCE ON ALL JOINT SEALANT DETAILS DIMENSIONS SHOWN WITHOUT RANGES SHALL BE PLUS 1/16", MINUS 0".
2. PAYMENT FOR CONSTRUCTION OF MOMENT SLAB WILL BE MADE UNDER ITEM NO. 610018 - PCC MASONRY, APPROACH SLAB, CLASS D. PAYMENT FOR THE PREFORMED CORK JOINT FILLER, SILICONE SEALER, DOWEL BARS AND METAL EXPANSION SLEEVES SHALL BE INCIDENTAL TO THIS ITEM.
3. DOWELS SHALL BE ASSEMBLED IN A RIGID FRAMEWORK, SEE STANDARD P-1. THE EXPANSION JOINT FRAME WORK SHALL PROVIDE ADEQUATE SUPPORT TO MAINTAIN THE PROPER HORIZONTAL AND VERTICAL ALIGNMENT.
4. THE FREE MOVING OR UNANCHORED END OF ALL DOWEL BARS IN BOTH CONTRACTION JOINTS SHALL BE COATED AFTER INSTALLATION OF THE DEVICE UPON THE SUBGRADE AND IMMEDIATELY PRIOR TO THE POURING OF THE CONCRETE WITH GRAPHITE GREASE APPLIED WITH A GLOVED HAND. THIS SAME END OF ALL EXPANSION JOINT DOWELS SHALL BE CAPPED WITH A SNUG FITTING, CLOSED END METAL EXPANSION SLEEVE TEMPORARILY SECURED TO THE BAR SO AS TO PROVIDE A 1" LONG OPEN SOCKET BEYOND THE BAR END TO LAP BACK 2" ON THE BAR AT THE TIME OF INSTALLATION.
5. FOR SECTIONS CUT A-A THROUGH C-C, SEE DWG. NO. MS-02.

ADDENDA / REVISIONS		SCALE: AS NOTED	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. 3-610	MOMENT SLAB DETAILS	MS-03
				T201412701	DESIGNED BY: R. SEDAR		SECTION
				COUNTY			WRA
				SUSSEX	CHECKED BY: W. GESCHREI		SHEET NO.
							161

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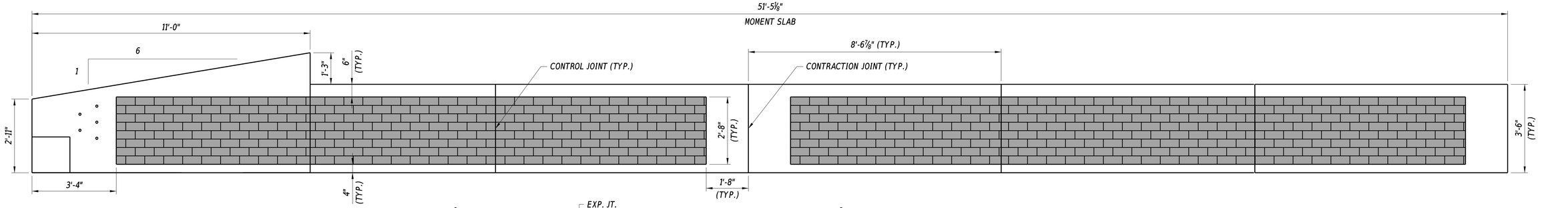
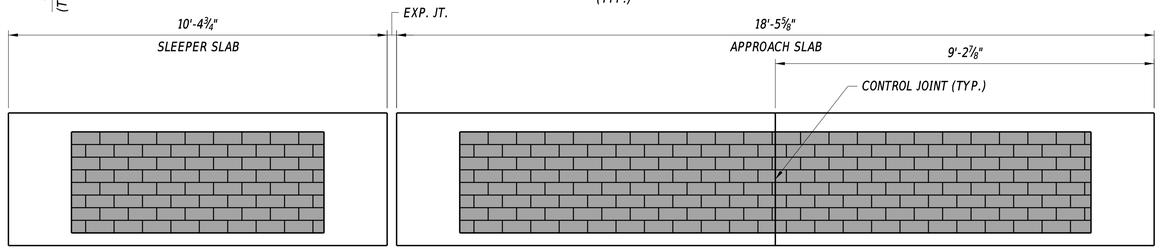
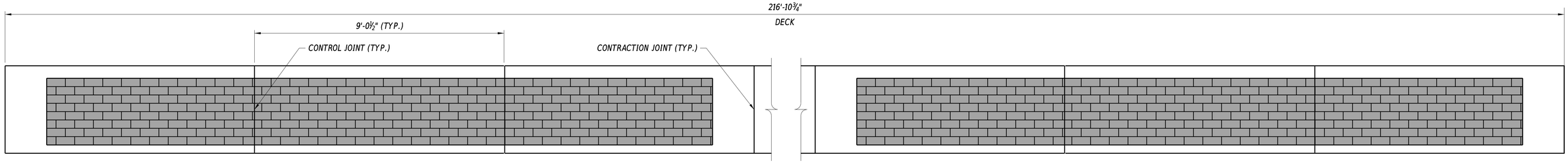
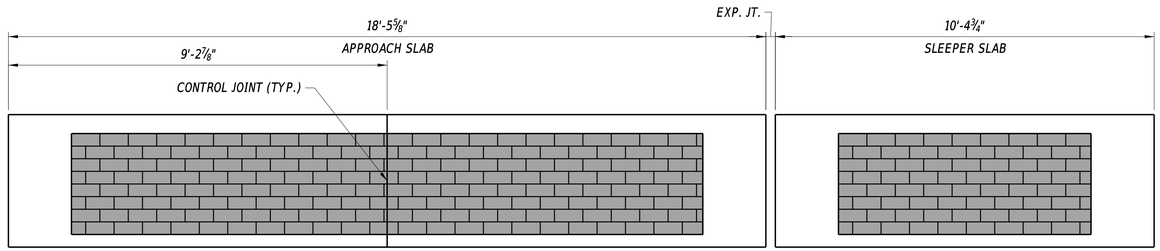


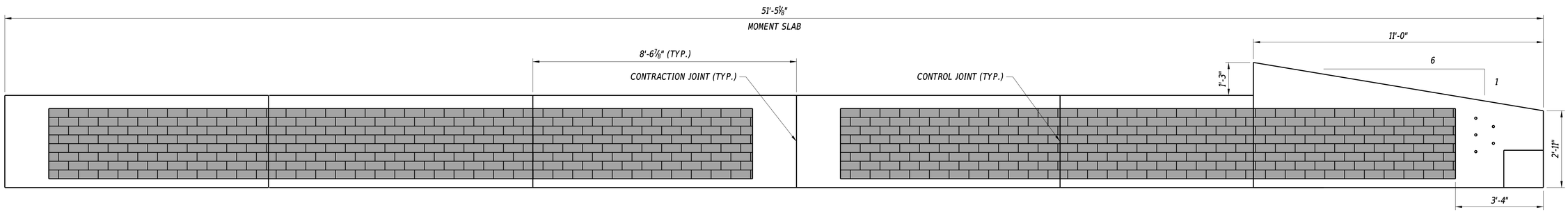






NOTES:

1. BARRIER LENGTHS ARE MEASURED ALONG THE REAR FACE.
2. ALL BRICK AREAS WILL BE CAST USING SAND TEXTURED BRICK FORMLINER. THE SIZE OF THE BRICKS WILL BE APPROXIMATELY 2¼" X 8" WITH ½" MORTAR JOINTS.
3. BRICKS WILL BE SIENNA, NO. 10059 OF AMS STD-595A.
4. ALL MORTAR JOINTS WILL BE TAN, NO. 33617 (SAND) OF AMS STD-595A.



EXTERIOR SEGMENT ELEVATION FOR NORTH BARRIER

½" = 1'-0"

ADDENDA / REVISIONS

SCALE
0 2 4 6
FEET

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO.	3-610
T201412701	DESIGNED BY: R. SEDAR	
COUNTY	CHECKED BY: W. GESCHREI	
SUSSEX		

NORTH BARRIER AESTHETIC DETAIL

BA-01	
SECTION	WRA
SHEET NO.	162

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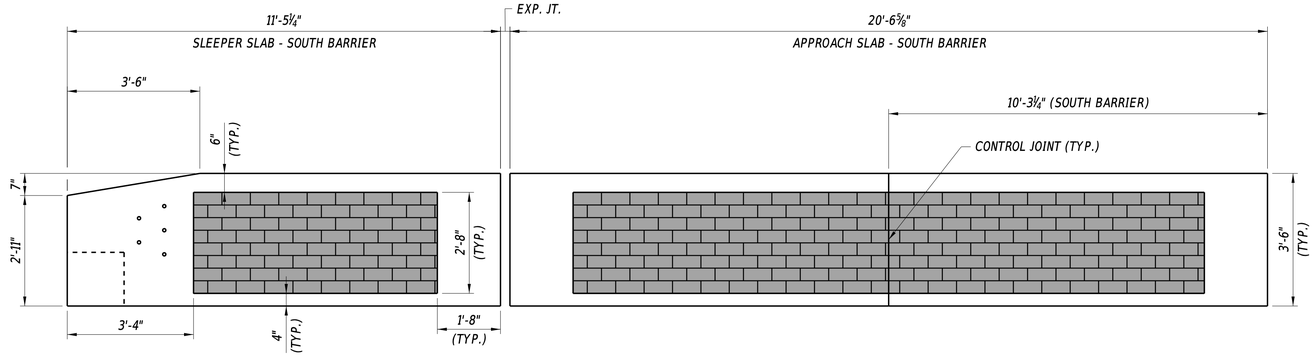

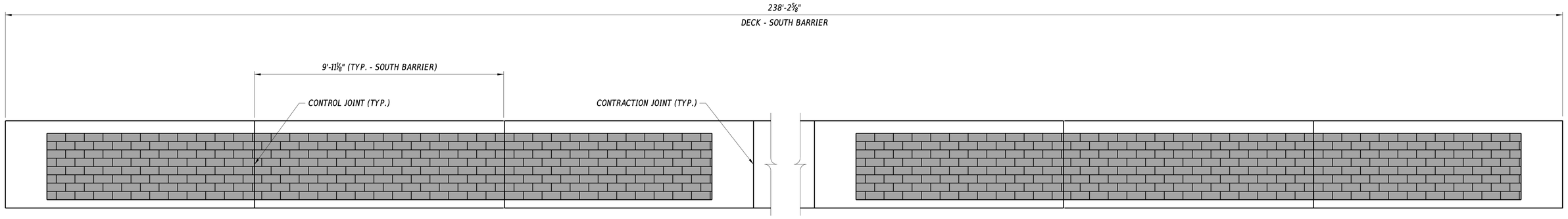

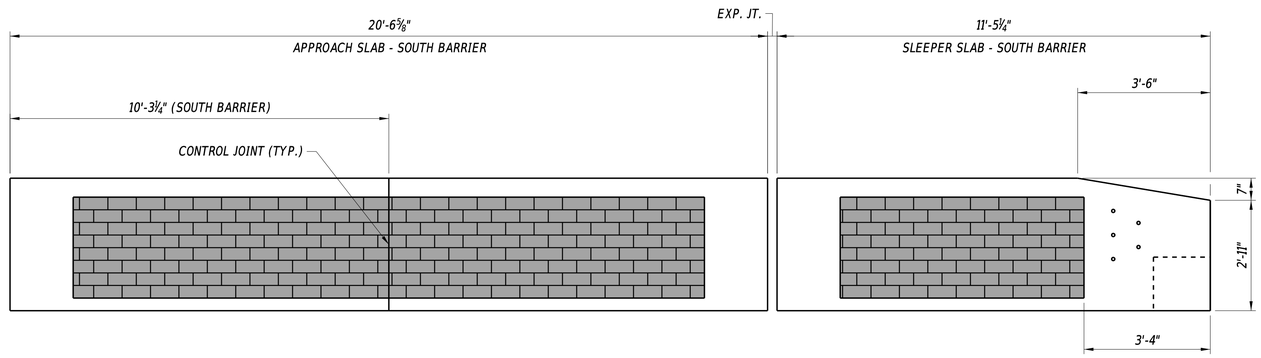

EXTERIOR SEGMENT ELEVATION FOR SOUTH BARRIER

½" = 1'-0"

NOTES:

1. BARRIER LENGTHS ARE MEASURED ALONG THE REAR FACE.
2. ALL BRICK AREAS WILL BE CAST USING SAND TEXTURED BRICK FORMLINER. THE SIZE OF THE BRICKS WILL BE APPROXIMATELY 2¼" X 8" WITH ½" MORTAR JOINTS.
3. BRICKS WILL BE SIENNA, NO. 10059 OF AMS STD-595A.
4. ALL MORTAR JOINTS WILL BE TAN, NO. 33617 (SAND) OF AMS STD-595A.

ADDENDA / REVISIONS

SCALE
0 2 4 6
FEET

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO. 3-610
T201412701	DESIGNED BY: R. SEDAR
COUNTY	CHECKED BY: W. GESCHREI
SUSSEX	

SOUTH BARRIER AESTHETIC DETAIL

BA-02
SECTION
WRA
SHEET NO.
163

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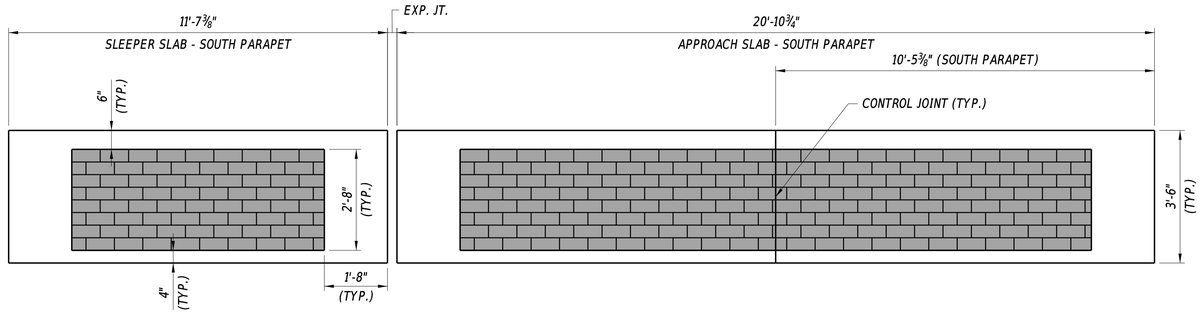

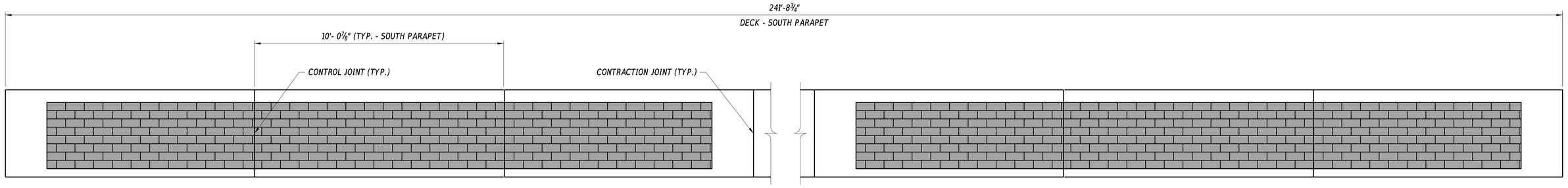

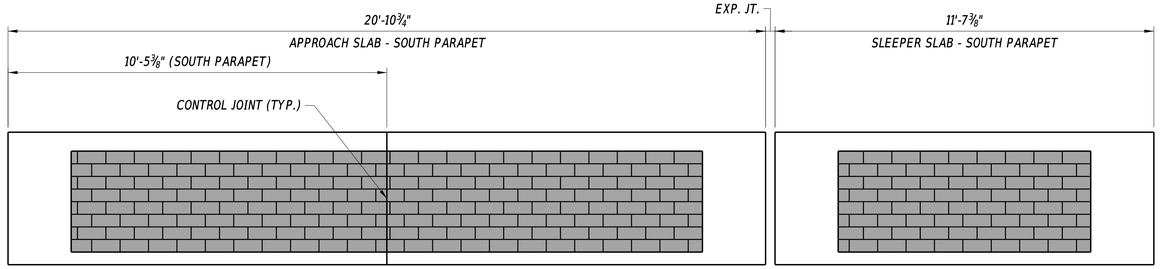

EXTERIOR SEGMENT ELEVATION FOR SOUTH PARAPET

½" = 1'-0"

NOTES:

1. PARAPET LENGTHS ARE MEASURED ALONG THE REAR FACE.
2. ALL BRICK AREAS WILL BE CAST USING SAND TEXTURED BRICK FORMLINER. THE SIZE OF THE BRICKS WILL BE APPROXIMATELY 2¼" X 8" WITH ½" MORTAR JOINTS.
3. BRICKS WILL BE SIENNA, NO. 10059 OF AMS STD-595A.
4. ALL MORTAR JOINTS WILL BE TAN, NO. 33617 (SAND) OF AMS STD-595A.

ADDENDA / REVISIONS

SCALE
0 2 4 6
FEET

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO. 3-610
T201412701	DESIGNED BY: R. SEDAR
COUNTY	CHECKED BY: W. GESCHREI
SUSSEX	

SOUTH PARAPET AESTHETIC DETAIL

BA-03
SECTION
WRA
SHEET NO.
164

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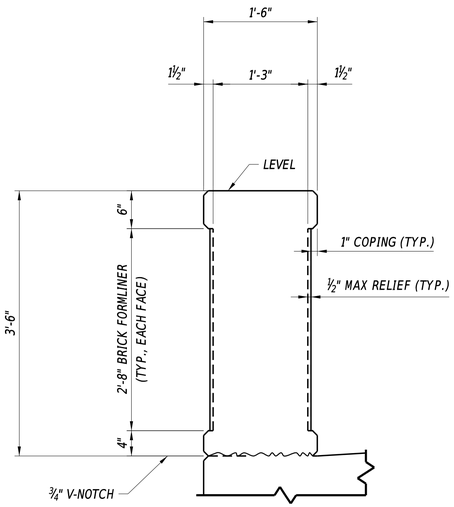
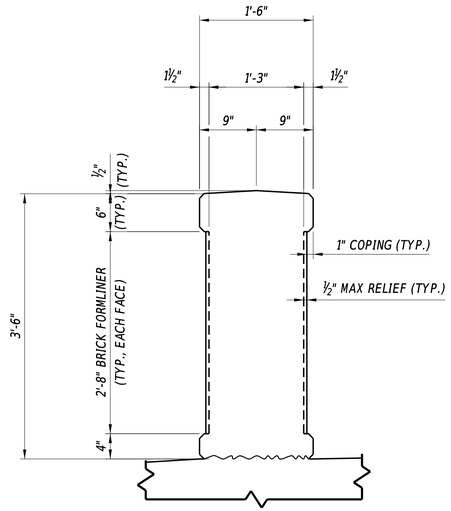


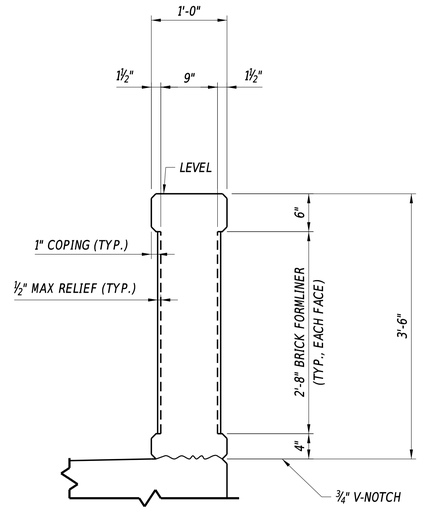
NORTH BARRIER TYPICAL AESTHETIC DETAIL

1" = 1'-0"



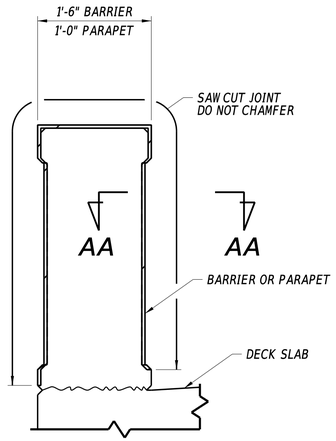
SOUTH BARRIER TYPICAL AESTHETIC DETAIL

1" = 1'-0"



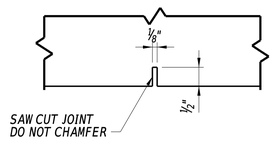
SOUTH PARAPET TYPICAL AESTETIC DETAIL

1" = 1'-0"



BARRIER/PARAPET CONTROL JOINT

1" = 1'-0"



SECTION AA-AA

6" = 1'-0"

NOTES:

1. ALL EXPOSED BARRIER FACES OUTSIDE OF FORM LINER AREAS WILL BE TAN.
2. ALL BRICK PATTERN AREAS WILL BE CAST USING SAND TEXTURED BRICK FORM LINER. THE SIZE OF THE BRICKS WILL BE APPOXIMATELY 2½" x 8" WITH ½" MORTAR JOINTS.
3. ALL BRICKS WILL BE SIENNA. ALL MORTAR JOINTS WILL BE TAN.
4. PRIOR TO STAINING THE BARRIERS AND PARAPET, PROVIDE A STAINED SAMPLE PANEL FOR APPROVAL. THE SAMPLE PANEL SHALL INCLUDE BOTH BRICK FORM LINER AND SMOOTH FINISHES WITH ALL ASSOCIATED STAIN COLORS.
5. COLORS:
   A. ALL COLOR SPECIFIED AS TAN WILL BE NO. 33617 (SAND) OF AEROSPACE MATERIAL SPECIFICATION - STANDARD 595A.
   B. WHEN APPLIED TO CONCRETE, ALL COLOR SPECIFIED AS BROWN WILL BE NO. 30059 OF AEROSPACE MATERIAL SPECIFICATION - STANDARD 595A.
   C. ALL COLOR SPECIFIED AS SIENNA WILL BE NO. 32169 OF AEROSPACE MATERIAL SPECIFICATION - STANDARD 595A..

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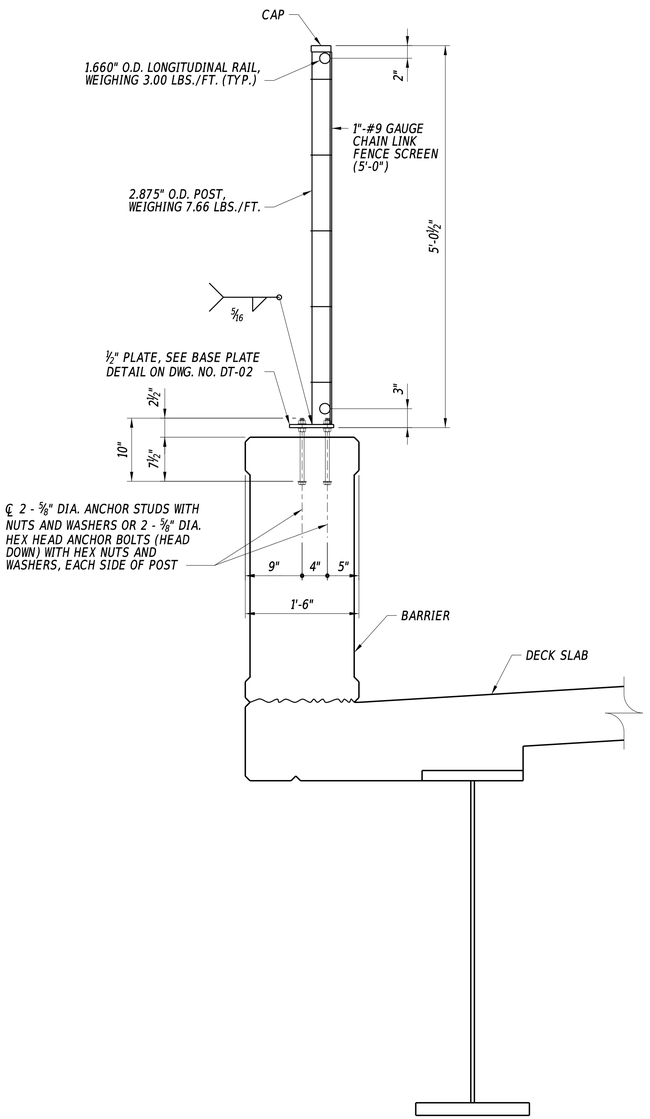
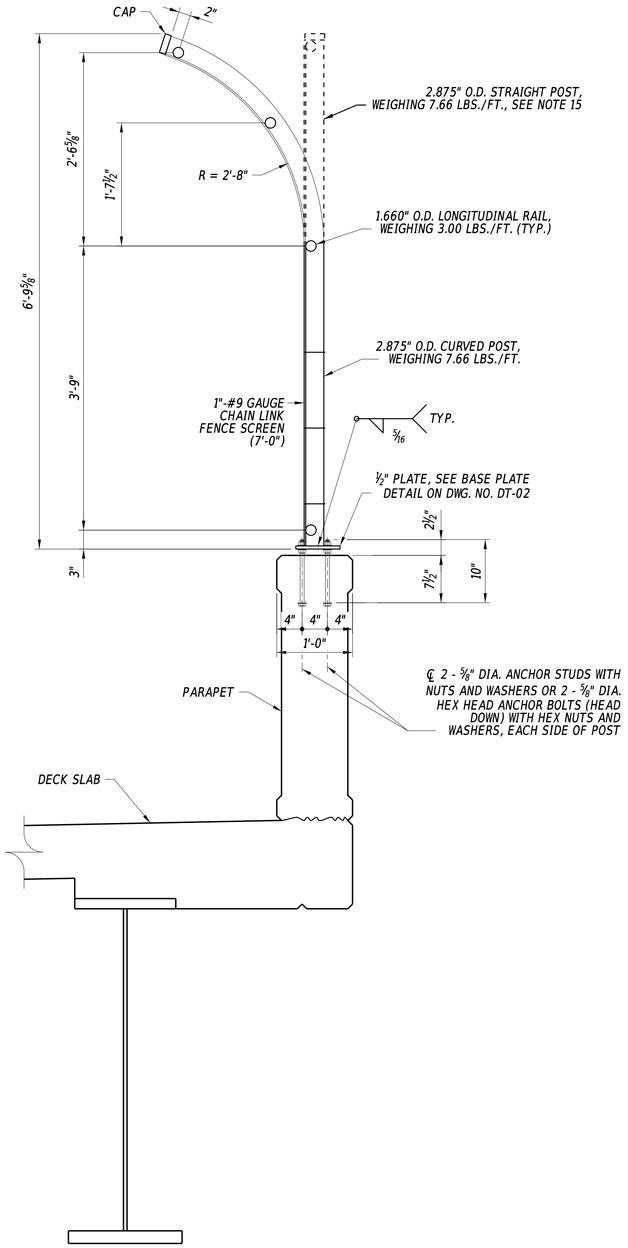
ADDENDA / REVISIONS	SCALE: AS NOTED	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. 3-610	BARRIER AND PARAPET AESTHETIC DETAILS	BA-04
			COUNTY SUSSEX	DESIGNED BY: R. SEDAR		SECTION WRA
				CHECKED BY: W. GESCHREI		SHEET NO. 165



SAFETY FENCE, TYPE 1 TYPICAL SECTION

1" = 1'-0"



SAFETY FENCE, TYPE 2 TYPICAL SECTION

1" = 1'-0"

NOTES:

1. FOR FENCE POST SPACING, SEE DWG. DT-02 AND DT-03 CONTRACTOR SHALL ADJUST FENCE POST SPACING AS REQUIRED TO CLEAR BARRIER AND PARAPET JOINTS. FOR ADDITIONAL FENCE POST DETAILS, SEE DWG. DT-04
2. POSTS AND RAILS SHALL CONFORM TO ASTM F 1083, SCHEDULE 80. FABRIC SHALL BE 1"-#9 GAUGE CHAIN LINK FENCE IN CONFORMANCE WITH AASHTO M 181.
3. ALL CHAIN LINK FABRIC, POSTS, RAILS, TIES, BANDS, BARS, BRACES, FITTINGS AND HARDWARE SHALL BE PVC COATED. PVC COLOR FOR ALL ELEMENTS OF FENCE SHALL BE BROWN CONFORMING TO COLOR NO. 30059 OF AMS STD-595A.
4. ALL PLATES SHALL BE STEEL CONFORMING TO ASTM A 709, GRADE 36.
5. ANCHOR STUDS OR ANCHOR BOLTS SHALL CONFORM TO ASTM A 276, TYPE 430 OR TYPE 304 STAINLESS STEEL ANNEALED, HOT-FINISHED, ULTIMATE STRENGTH 70,000 psi MIN., 20% MIN. ELONGATION. THREADS MAY BE ROLLED OR CUT.
6. EPOXY GROUT FOR ANCHOR STUDS IN CORED HOLES SHALL BE A SAND AND EPOXY MIXED BY VOLUME IN CONFORMANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. THE GROUT SHALL BE CAPABLE OF DEVELOPING A MINIMUM COMPRESSIVE STRENGTH OF 6500 PSI IN 72 HOURS WHEN TESTED IN CONFORMANCE WITH ASTM C 579.
7. ALL LONGITUDINAL RAILS SHALL BE PARALLEL TO TOP OF PARAPET.
8. ALL POSTS SHALL BE SET NORMAL TO TOP OF PARAPET.
9. THE CHAIN LINK FENCE SHALL BE TRUE TO LINE, TAUT, TIGHT FIT TO TOP OF PARAPET, WITH ½" TO 1" CLEAR TO TOP OF PARAPET, AND SHALL COMPLY WITH THE BEST PRACTICE FOR FENCE CONTRUCTION OF THIS TYPE.
10. POSTS AND RAILS SHALL BE PERMANENTLY POSITIONED BEFORE FABRIC IS PLACED.
11. BEFORE PLACING FENCING, PLACE ½" TO 1" THICK MATERIAL (WOOD, ETC.) ON TOP OF PARAPET TO ENSURE THE DESIRED GAP IS ACHIEVED. AFTER FENCE IS RIGIDLY ATTACHED, THIS TEMPORARY BLOCKING SHALL BE REMOVED.
12. AS AN OPTION, THE CONTRACTOR MAY SET THE ANCHOR STUDS AFTER PLACING CONCRETE BARRIER USING ⅞" DIA. CORED HOLES AND AN APPROVED EPOXY GROUT. NUTS AND WASHERS SHALL BE OMITTED FROM THE EMBEDDED ENDS OF ANCHOR STUDS. IF CONTRACTOR ELECTS TO PLACE ANCHOR STUDS AFTER PLACING CONCRETE PARAPET, NEWLY PLACED REBARS SHALL BE LOCATED SO THAT CORING DOES NOT DAMAGE THE REBAR. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THIS OPTION.
13. COAT ALL SURFACES OF BASE PLATES IN CONTACT WITH CONCRETE WITH A CAULKING COMPOUND JUST PRIOR TO BASE PLATE INSTALLATION. AFTER POSTS AND RAILS ARE PERMANENTLY POSITIONED SEAL THE ENTIRE PERIMETER OF THE BASE PLATE BETWEEN METAL SURFACES AND THE CONCRETE WITH A CAULKING COMPOUND. CAULKING COMPOUND SHALL ADHERE TO STEEL AND CONCRETE SURFACES AND MEET THE REQUIREMENTS OF ASTM C 834 OR ASTM C 920. PAYMENT FOR THE CAULKING COMPOUND SHALL BE INCIDENTAL TO ITEM NO. 727007 - BRIDGE SAFETY FENCE, TYPE 1 AND ITEM NO. 727008 - BRIDGE SAFETY FENCE, TYPE 2.
14. FOR ANTI-CLIMB SHIELD LOCATIONS, SEE DWG. NO. DT-02. FOR ANTI-CLIMB SHIELD DETAILS, SEE DWG. NO. DT-04. PAYMENT FOR INSTALLATION OF ANTI-CLIMB SHIELDS WILL BE INCIDENTAL TO ITEM NO. 727007 - BRIDGE SAFETY FENCE, TYPE 1 AND ITEM NO. 727008 - BRIDGE SAFETY FENCE, TYPE 2.
15. WELD ADDITIONAL STRAIGHT POST TO CURVED POST AT SECOND INTERIOR POST OF SPAN (TYPICAL FOR SOUTH PARAPET AT ENDS OF SPAN 1 AND SPAN 2).

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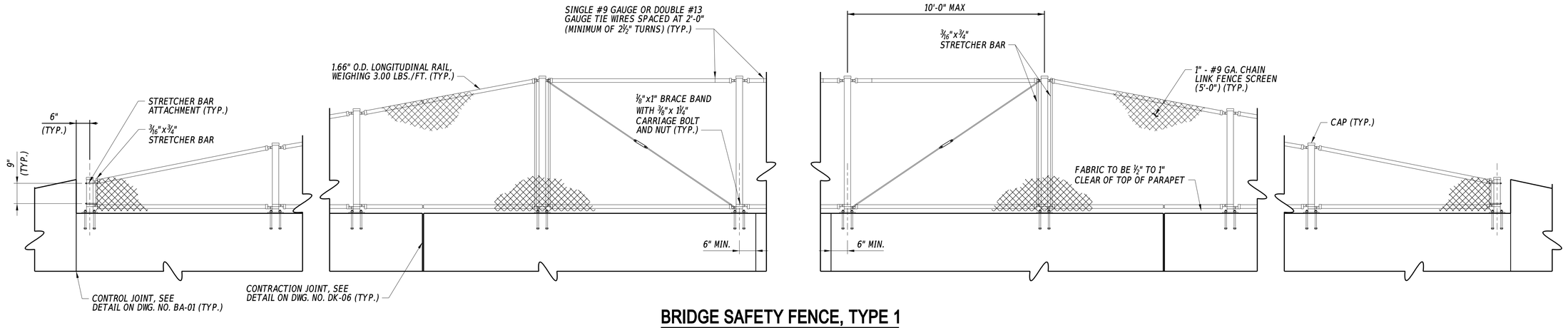
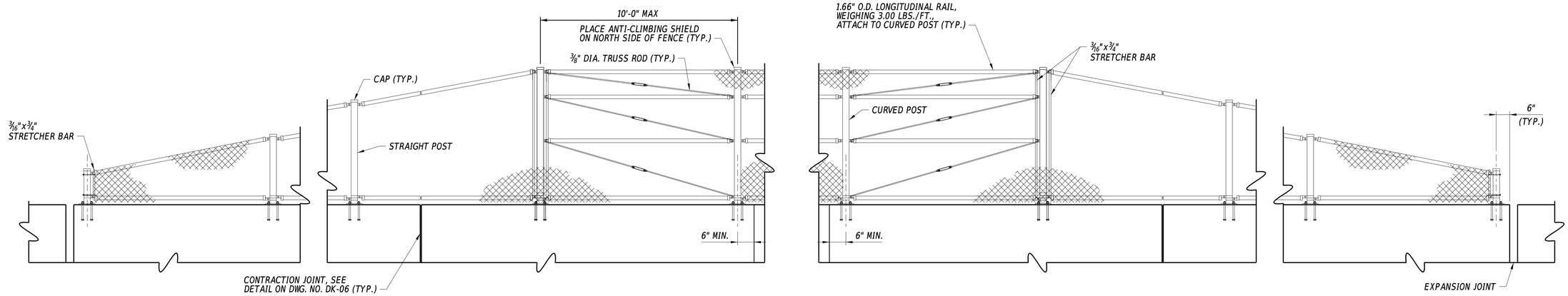
ADDENDA / REVISIONS		SCALE 0 1 2 3 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. 3-610	FENCE DETAILS 1	DT-01 SECTION WRA SHEET NO. 166
				COUNTY SUSSEX	DESIGNED BY: R. SEDAR		
					CHECKED BY: W. GESCHREI		



BRIDGE SAFETY FENCE, TYPE 1

½" = 1'-0"



BRIDGE SAFETY FENCE, TYPE 2

½" = 1'-0"

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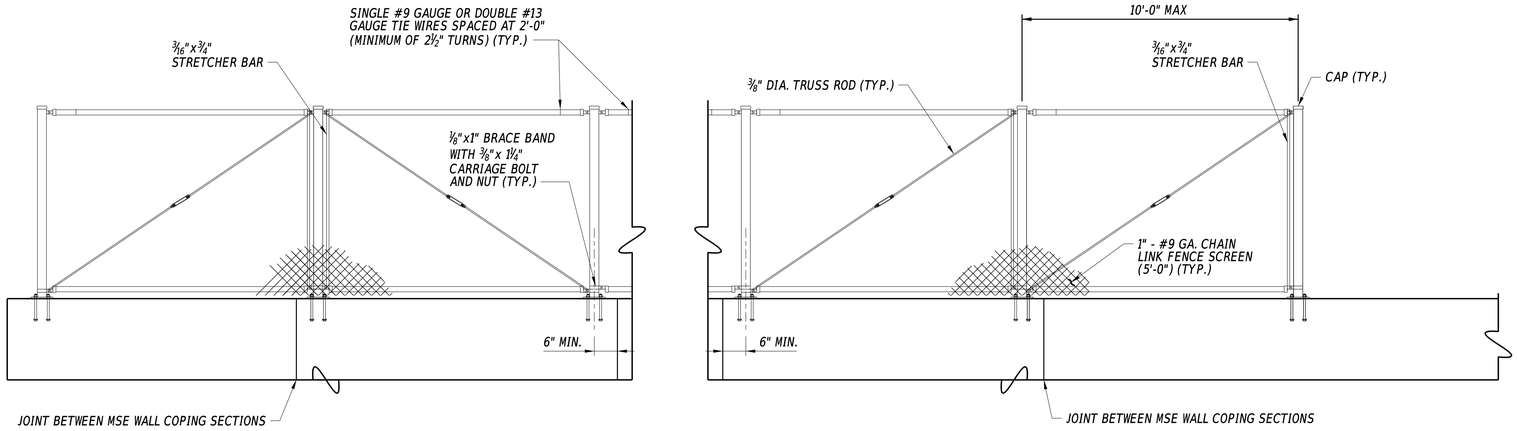
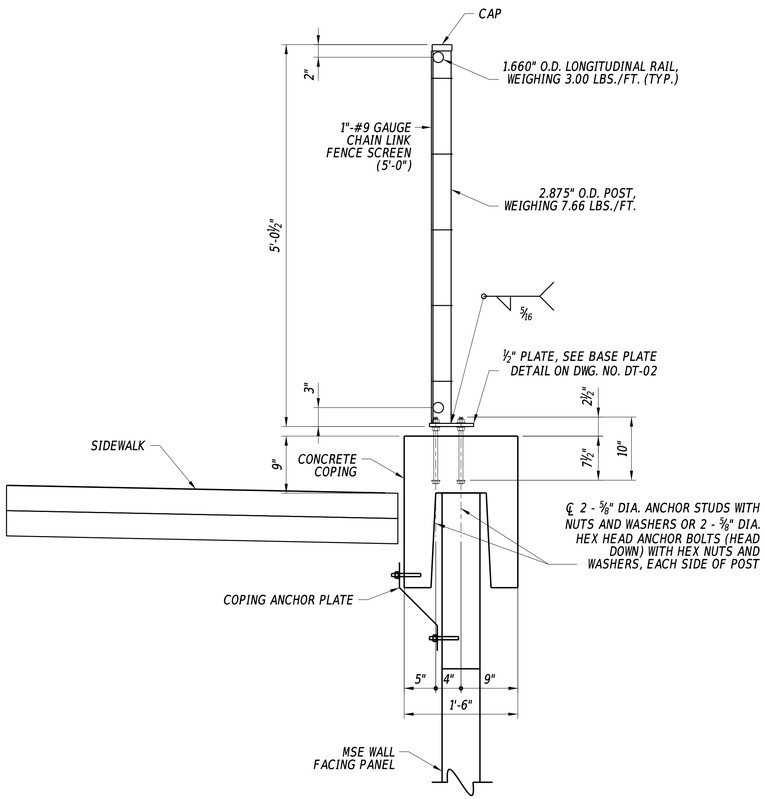
ADDENDA / REVISIONS	SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. 3-610	FENCE DETAILS 2	DT-02
	0 1 2 3 FEET		T201412701	DESIGNED BY: R. SEDAR		SECTION WRA
			COUNTY SUSSEX	CHECKED BY: W. GESCHREI		SHEET NO. 167



BRIDGE SAFETY FENCE, TYPE 1 (MSE WALL)

½" = 1'-0"



FENCE TYPICAL SECTION

1" = 1'-0"

ADDENDA / REVISIONS	SCALE: AS NOTED	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. 3-610	FENCE DETAILS 3	DT-03
			COUNTY SUSSEX	DESIGNED BY: R. SEDAR		SECTION WRA
				CHECKED BY: W. GESCHREI		SHEET NO. 168

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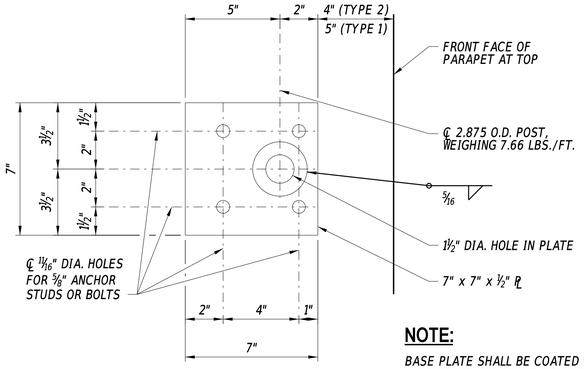
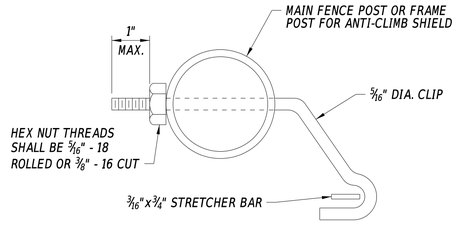


BASE PLATE DETAIL

3" = 1'-0"

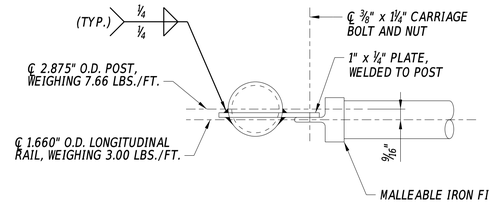
NOTE:

BASE PLATE SHALL BE COATED WITH A CAULKING COMPOUND PRIOR TO INSTALLATION. SEE CHAIN LINK FENCE NOTE 13 ON DWG. NO. DT-01 FOR ADDITIONAL INFORMATION.



STRETCHER BAR ATTACHMENT

6" = 1'-0"



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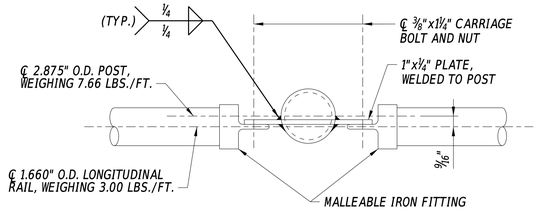
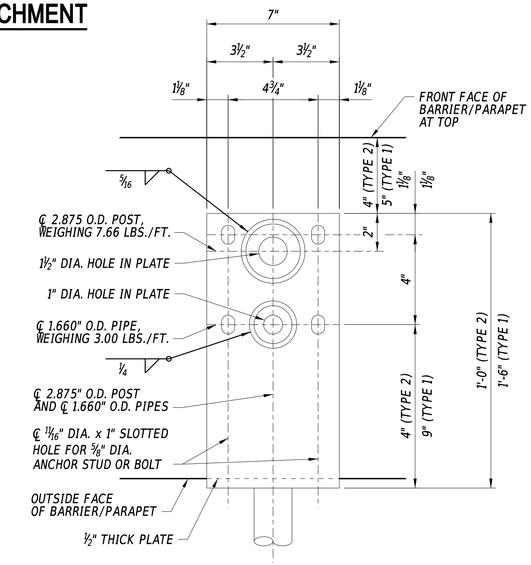


INTERMEDIATE POST

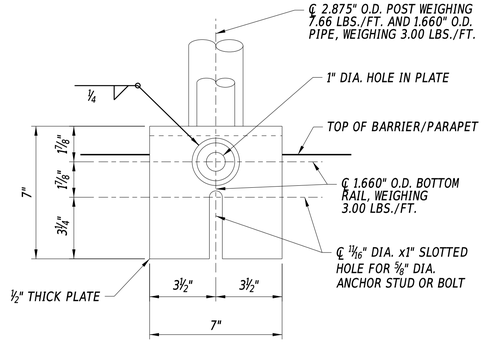


TOP LONGITUDINAL RAIL - POST ATTACHMENT

3" = 1'-0"

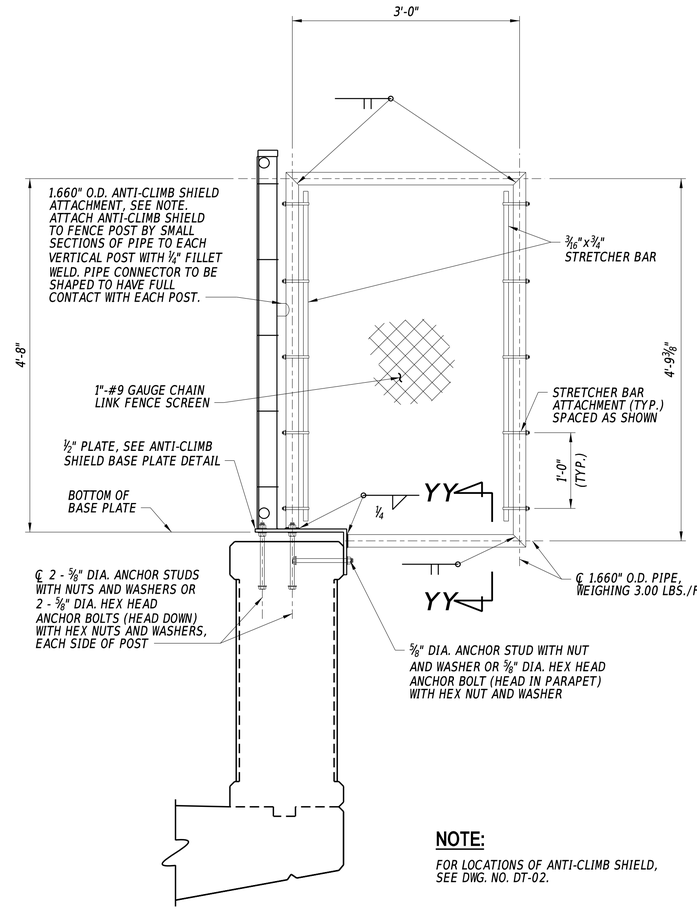
NOTE:

BASE PLATE SHALL BE COATED WITH A CAULKING COMPOUND PRIOR TO INSTALLATION. SEE CHAIN LINK FENCE NOTE 13 ON DWG. NO. DT-01 FOR ADDITIONAL INFORMATION.



SECTION YY-YY

3" = 1'-0"

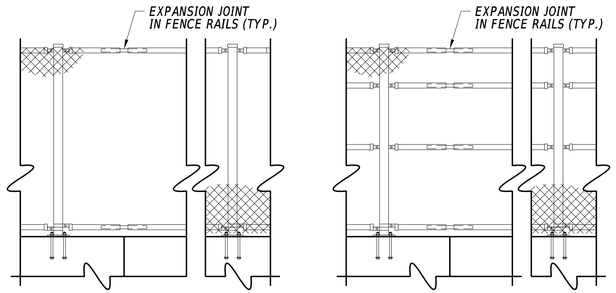


ANTI-CLIMB SHIELD DETAIL

1" = 1'-0"

NOTE:

FOR LOCATIONS OF ANTI-CLIMB SHIELD, SEE DWG. NO. DT-02.

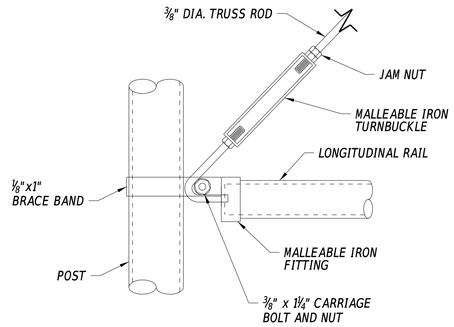


TYPE 1 FENCE

TYPE 2 FENCE

SAFETY FENCE EXPANSION JOINT DETAIL

½" = 1'-0"



TRUSS ROD ATTACHMENT

3" = 1'-0"

NOTES:

1. *FOR BRIDGE SAFETY FENCE NOTES, SEE DWG. NO. DT-01*

8/14/2025
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N:\32149-001\CADD\Bridge\80e-DT-04.dgn

ADDENDA / REVISIONS	SCALE: AS NOTED	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. 3-610	FENCE DETAILS 4	DT-04
			COUNTY SUSSEX	DESIGNED BY: R. SEDAR		SECTION WRA
				CHECKED BY: W. GESCHREI		SHEET NO. 169

(1) *ANY MARK NUMBER WITH SUFFIX 'E' DENOTES EPOXY COATED REINFORCING STEEL.*

(2) *ALL MARK 'LOCATION PREFIXES' SHALL CONSIST OF TWO LETTERS AND ARE AS FOLLOWS:* *AB = ABUTMENT, AS = APPROACH SLAB, BC = BOX CULVERT, BW = BACKWALL, CL = COLUMN, DK = DECK, DL = DOWEL, FT = FOOTING, HW = HEADWALL, MS = MISC. BARS, PA = PARAPET, PR = PIER, SC = SHEETPILE CAP, SL = SLAB, TW = TOEWALL, WL = WALL (UNIQUE LOCATION), WW = WINGWALL*

SPECIFICATIONS					BENDING DIMENSIONS (FEET-INCHES / QUARTER INCH)									
QTY.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F / R	G	H	J	K	O
94	5	11-4	BW501E	17		5-1	1-2	5-1							
12	5	60-0	BW502E	STR	60-0										
12	5	35-0	BW503E	STR	35-0										
12	5	4-1	BW504E	17		1-6	1-1	1-6							
188	5	4-2	AB501E	STR	4-2										
36	5	6-8	AB502E	17		2-6	1-8	2-6							
36	5	8-4	AB503E	17		2-6	3-4	2-6							
9	5	10-10	AB504E	T1	0-5	1-8	3-4	1-8	3-4		0-5				
36	6	11-0	AB601E	S2	0-8	3-1	3-6	3-1			0-8	0-4			
36	6	10-9	AB602E	S2	0-8	3-1	3-3	3-1			0-8	0-4			
110	6	14-8	AB603E	T1	0-8	3-1	3-7	3-1	3-7		0-8				
110	6	14-0	AB604E	T1	0-8	3-1	3-3	3-1	3-3		0-8				
10	6	60-0	AB605E	STR	60-0										
10	6	35-6	AB606E	STR	35-6										
10	6	7-10	AB607E	17		2-0	3-10	2-0							
12	8	60-0	AB801E	STR	60-0										
12	8	36-9	AB802E	STR	36-9										

SPECIFICATIONS					BENDING DIMENSIONS (FEET-INCHES / QUARTER INCH)									
QTY.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F / R	G	H	J	K	O
94	5	11-4	BW551E	17		5-1	1-2	5-1							
12	5	60-0	BW552E	STR	60-0										
12	5	35-0	BW553E	STR	35-0										
12	5	4-1	BW554E	17		1-6	1-1	1-6							
188	5	4-2	AB551E	STR	4-2										
36	5	6-0	AB552E	17		2-3	1-6	2-3							
36	5	7-8	AB553E	17		2-3	3-2	2-3							
9	5	10-10	AB554E	T1	0-5	1-8	3-4	1-8	3-4		0-5				
36	6	11-0	AB651E	S2	0-8	3-1	3-6	3-1			0-8	0-4			
36	6	10-9	AB652E	S2	0-8	3-1	3-3	3-1			0-8	0-4			
110	6	14-8	AB653E	T1	0-8	3-1	3-7	3-1	3-7		0-8				
110	6	14-0	AB654E	T1	0-8	3-1	3-3	3-1	3-3		0-8				
10	6	60-0	AB655E	STR	60-0										
10	6	35-6	AB656E	STR	35-6										
10	6	7-10	AB657E	17		2-0	3-10	2-0							
12	8	60-0	AB851E	STR	60-0										
12	8	36-9	AB852E	STR	36-9										

SPECIFICATIONS					BENDING DIMENSIONS (FEET-INCHES / QUARTER INCH)									
QTY.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F / R	G	H	J	K	O
100	4	10-4.0	FT401E	2	0-8.0	9-8.0									
6	5	60-0.0	FT501E	STR	60-0.0										
6	5	30-0.0	FT502E	STR	30-0.0										
30	6	60-0.0	FT601E	1	0-8.0	59-4.0							0-6.0		
30	6	32-7.0	FT602E	1	0-8.0	31-11.0							0-6.0		
160	6	14-4.0	FT603E	1	0-8.0	13-0.0					0-8.0		0-6.0		
9	6	60-0.0	FT604E	STR	60-0.0										
9	6	31-3.0	FT605E	STR	31-3.0										
39	6	13-0.0	FT606E	STR	13-0.0										
120	7	20-6.0	FT701E	17		3-9.0	13-0.0	3-9.0							
30	8	60-0.0	FT801E	1	0-11.0	59-1.0							0-8.0		
30	8	35-8.0	FT802E	1	0-11.0	34-9.0							0-8.0		
32	8	25-3.0	FT803E	2	1-4.0	23-11.0									
32	8	26-3.0	FT804E	2	1-4.0	24-11.0									
32	8	27-3.0	FT805E	2	1-4.0	25-11.0									
32	8	28-3.0	FT806E	2	1-4.0	26-11.0									
32	8	29-3.0	FT807E	2	1-4.0	27-11.0									
35	4	18-5.0	PR401E	T1	0-4.2	4-5.0	4-5.0	4-5.0	4-5.0		0-4.2				
10	4	18-5.0	PR402E	T1	0-4.2	4-5.0	4-5.0	4-5.0	4-5.0		0-4.2				
60	4	3-7.0	PR403E	17		1-6.0	0-7.0	1-6.0							
36	4	8-2.0	PR404E	2	0-8.0	7-6.0									
36	4	6-6.0	PR405E	STR	6-6.0										
14	4	11-7.0	PR406E	T1	0-4.2	0-10.0	4-7.0	0-10.0	4-7.0		0-4.2				
255	5	14-11.0	PR501E	T1	0-5.2	3-6.0	3-6.0	3-6.0	3-6.0		0-5.2				
506	5	17-1.0	PR502E	T1	0-5.2	3-0.0	5-1.0	3-0.0	5-1.0		0-5.2				
36	5	7-8.3	PR503E	17		2-10.0	2-0.3	2-10.0							
36	5	8-8.3	PR504E	17		2-10.0	3-0.3	2-10.0							
9	5	11-7.0	PR505E	T1	0-5.2	3-2.0	2-2.0	3-2.0	2-2.0		0-5.2				
8	5	7-11.0	PR506E	17		1-9.0	4-5.0	1-9.0							
8	5	60-0.0	PR507E	STR	60-0.0										
8	5	38-0.0	PR508E	STR	38-0.0										
9	9	60-0.0	PR901E	1	1-3.0	58-9.0							0-11.3		
9	9	44-8.0	PR902E	1	1-3.0	43-5.0							0-11.3		
9	9	60-0.0	PR903E	STR	60-0.0										
9	9	40-9.0	PR904E	STR	40-9.0										

ASTM STANDARD ENGLISH REINFORCING BARS			
BAR SIZE	NOMINAL DIMENSIONS DIAMETER (INCHES)	NOMINAL DIMENSIONS AREA² (INCHES²)	NOMINAL DIMENSIONS WEIGHT (LBS. / FT.)
3	0.375	0.110	0.376
4	0.500	0.200	0.668
5	0.625	0.310	1.043
6	0.750	0.440	1.502
7	0.875	0.600	2.044
8	1.000	0.790	2.670
9	1.128	1.000	3.400
10	1.270	1.270	4.303
11	1.410	1.560	5.313
14	1.693	2.250	7.650
18	2.257	4.000	13.600

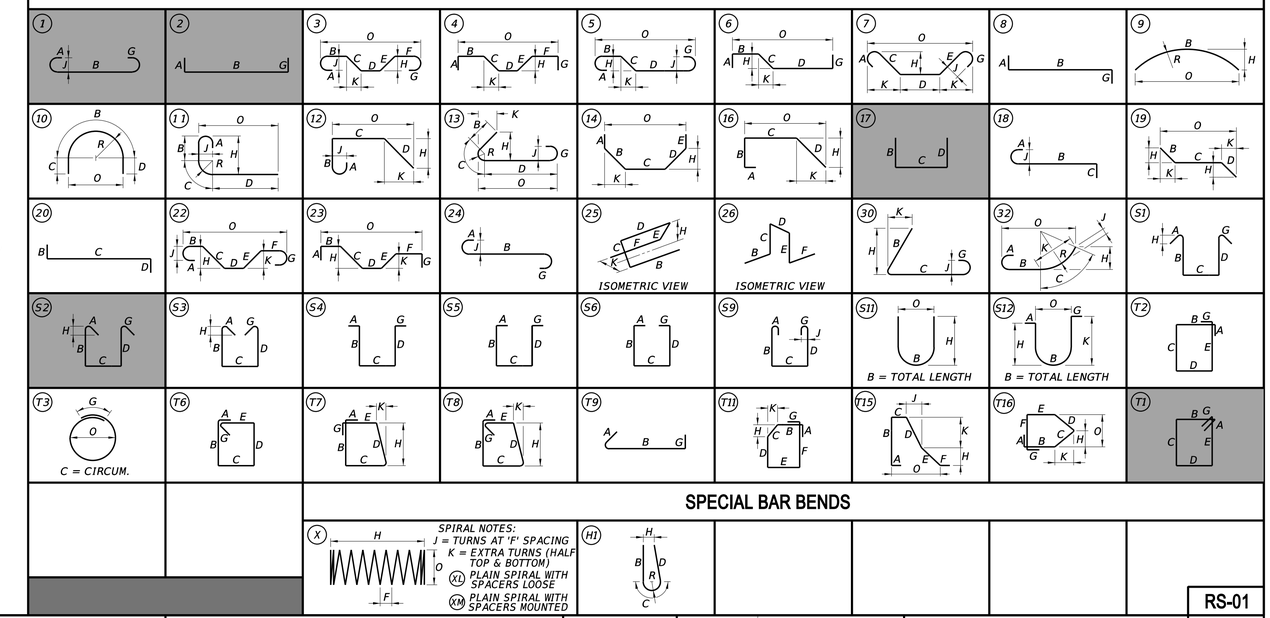
RECOMMENDED END HOOKS, APPLICABLE TO ALL GRADES					
	180° HOOKS			90° HOOKS	
BAR SIZE	D	A OR G	J	A OR G	
3	2¼"	5"	3"	6"	
4	3"	6"	4"	8"	
5	3¾"	7"	5"	10"	
6	4½"	8"	6"	1-0"	
7	5¼"	10"	7"	1-2"	
8	6"	11"	8"	1-4"	
9	9½"	1-3"	11¾"	1-7"	
10	10¾"	1-5"	1-1¼"	1-10"	
11	1-0"	1-7"	1-2¾"	2-0"	
14	1-6¼"	2-3"	1-9¾"	2-7"	
18	2-0"	3-0"	2-4½"	3-5"	

STIRRUP AND TIE HOOKS, APPLICABLE TO ALL GRADES			
	90° HOOK	135° HOOK	
BAR SIZE	D	A OR G	A OR G
3	1½"	4"	4"
4	2"	4½"	4½"
5	2½"	6"	5½"
6	4½"	1-0"	8"
7	5½"	1-2"	9"
8	6"	1-4"	10½"

NOTES:

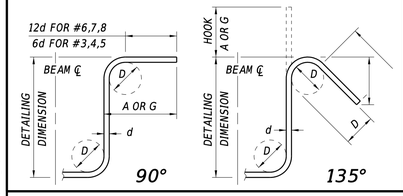
1. *FIGURES SHOWN IN CIRCLES REPRESENT BAR BEND TYPES.*
2. *STANDARD BAR BENDS INCLUDE ONLY THOSE TYPES BELOW, INDICATED AS SUCH.*
3. *ALL DIMENSIONS OUT-TO-OUT, EXCEPT "A" AND "G" ON STD. 180° AND 135° HOOKS.*
4. *"J" DIMENSIONS ON 180° HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD 'ACI' HOOKS ARE TO BE USED.*
5. *WHERE "J" IS NOT SHOWN, "J" WILL BE KEPT EQUAL TO OR LESS THAN "H" ON TYPES 3, 5 AND 22. WHERE "J" CAN EXCEED "H", IT SHALL BE SHOWN.*
6. *"H" DIMENSIONS OF STIRRUPS TO BE SHOWN AS NEEDED TO FIT WITHIN THE CONCRETE.*
7. *UNLESS OTHERWISE NOTED, DIAMETER "D" IS THE SAME FOR ALL BENDS AND HOOKS ON A BAR (EXCEPT FOR BEND TYPES 11 AND 13).*
8. *WHERE SLOPE DIFFERS FROM 45° OFFSET, "H" AND "K" MUST BE SHOWN.*
9. *WHERE BARS ARE TO BE BENT MORE ACCURATELY THAN STANDARD BENDING TOLERANCES, BENDING DIMENSIONS REQUIRING CLOSER FABRICATION SHOULD HAVE LIMITS INDICATED.*
10. *FOR RECOMMENDED DIAMETER "D", OF BENDS, HOOKS, ETC., REFER TO TABLE ABOVE, 'CRSI' OR 'ACI' TABLES WHERE APPLICABLE AND REQUIRED.*
11. *TYPE S1-S6, S11, T1-T3 AND T6-T9 APPLICABLE TO BAR SIZES #3 THROUGH #8.*

STANDARD BAR BENDS

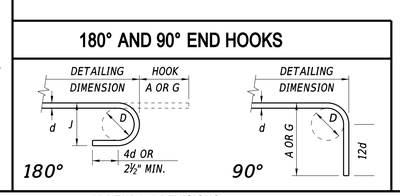


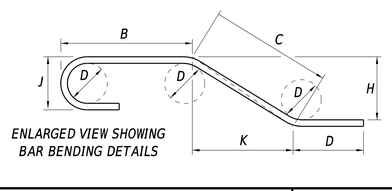
SPECIAL BAR BENDS

STIRRUP AND TIE HOOKS



180° AND 90° END HOOKS





ADDENDA / REVISIONS

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US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	T201412701	BRIDGE NO.	3-610
COUNTY	SUSSEX	DESIGNED BY:	R. SEDAR
		CHECKED BY:	W. GESCHREI

REBAR SCHEDULE - I

	RS-01
SECTION	WRA
SHEET NO.	170

(1) ANY MARK NUMBER WITH SUFFIX 'E' DENOTES EPOXY COATED REINFORCING STEEL.

(2) ALL MARK 'LOCATION PREFIXES' SHALL CONSIST OF TWO LETTERS AND ARE AS FOLLOWS: AB = ABUTMENT, AS = APPROACH SLAB, BC = BOX CULVERT, BW = BACKWALL, CL = COLUMN, DK = DECK, DL = DOWEL, FT = FOOTING, HW = HEADWALL, MS = MISC. BARS, PA = PARAPET, PR = PIER, SC = SHEETPILE CAP, SL = SLAB, TW = TOEWALL, WL = WALL (UNIQUE LOCATION), WW = WINGWALL

SPECIFICATIONS					BENDING DIMENSIONS (FEET-INCHES / QUARTER INCH)										
QTY.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F / R	G	H	J	K	O
1701	4	3-8 2	DK401E	S4	1-0 0	0-2 3	1-2 0	0-3 3			1-0 0				
120	4	51-3 0	DK402E	STR	51-3 0										
243	4	5-2 3	DK403E	S4		0-9 0	3-2 0	0-3 3			1-0 0				
243	4	5-3 1	DK404E	S4		0-10 0	3-2 0	0-3 1			1-0 0				
486	5	60-0 0	DK501E	STR	60-0 0										
324	5	36-1 0	DK502E	STR	36-6 0	VARY 2 EA									
		24-0 0			24-0 0										
489	5	60-0 0	DK503E	STR	60-0 0										
489	5	35-0 0	DK504E	STR	35-0 0										
48	5	10-5 0	DK505E	STR	10-5 0										
12	5	6-1 3	DK506E	17		2-6 0	1-1 3	2-6 0							
372	5	6-6 0	DK507E	6		2-9 0	1-0 0	2-9 0				1-0 0		1-0 0	6-6 0
320	5	7-8 0	DK508E	16	2-0 0	1-3 0	3-9 0	1-8 0				1-2 0		1-2 0	
243	5	8-11 2	DK509E	17		4-0 0	0-11 2	4-0 0							
243	5	8-11 2	DK510E	17		4-0 0	0-11 2	4-0 0							
247	5	8-5 2	DK511E	17		4-0 0	0-5 2	4-0 0							
480	6	60-0 0	DK601E	STR	60-0 0										
320	6	37-5 0	DK602E	STR	37-5 0	VARY 2 EA									
		25-0 0			25-0 0										
485	6	60-0 0	DK603E	1	0-7 0	59-5 0									
485	6	36-7 0	DK604E	1	0-7 0	36-0 0									
243	5	5-5 2	PA501E	17		2-3 0	0-11 2	2-3 0							
243	5	5-5 2	PA502E	17		2-3 0	0-11 2	2-3 0							
247	5	4-11 2	PA503E	17		2-3 0	0-5 2	2-3 0							
80	5	26-9 2	PA504E	STR	26-9 2										
80	5	29-5 2	PA505E	STR	29-5 2										
80	5	29-10 2	PA506E	STR	29-10 2										

SPECIFICATIONS					BENDING DIMENSIONS (FEET-INCHES / QUARTER INCH)										
QTY.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F / R	G	H	J	K	O
22	5	60-0 0	AS501E	STR	60-0 0										
22	5	34-7 0	AS502E	STR	34-7 0										
93	5	17-11 3	AS503E	STR	17-11 3	VARY 1 EA									
		20-4 0			20-4 0										
186	5	6-10 2	AS504E	17		2-11 0	1-0 2	2-11 0							
22	5	10-1 2	AS505E	17		4-7 0	0-11 2	4-7 0							
22	5	10-1 2	AS506E	17		4-7 0	0-11 2	4-7 0							
22	5	9-7 2	AS507E	17		4-7 0	0-5 2	4-7 0							
43	6	60-0 0	AS601E	STR	60-0 0										
43	6	34-4 0	AS602E	STR	34-4 0										
185	9	17-11 3	AS901E	STR	17-11 3	VARY 1 EA									
		20-4 0			20-4 0										
22	5	5-5 2	PA531E	17		2-3 0	0-11 2	2-3 0							
22	5	5-5 2	PA532E	17		2-3 0	0-11 2	2-3 0							
22	5	4-11 2	PA533E	17		2-3 0	0-5 2	2-3 0							
10	5	18-1 2	PA534E	STR	18-1 2										
10	5	20-2 2	PA535E	STR	20-2 2										
10	5	20-6 2	PA536E	STR	20-6 2										
4	5	8-7 0	PA521E	17		3-2 0	2-3 0	3-2 0	VARY 1 EA						
		11-8 0				3-2 0	5-4 0	3-2 0							
4	5	10-9 0	PA522E	14	0-10 0	2-10 0	2-3 0	2-10 0	0-10 0	1-0 0	1-0 0	2-0 0		2-0 0	
4	5	8-5 0	PA523E	17		3-2 0	2-1 0	3-2 0	VARY 1 EA						
		7-4 0				3-2 0	1-0 0	3-2 0							
4	5	7-8 0	PA524E	17		1-11 0	2-7 0	3-2 0							
4	5	8-7 0	DK521E	17		3-2 0	2-3 0	3-2 0	VARY 1 EA						
		11-8 0				3-2 0	5-4 0	3-2 0							
2	5	10-9 0	DK522E	14	0-10 0	2-10 0	2-3 0	2-10 0	0-10 0	1-0 0	1-0 0	2-0 0		2-0 0	
6	5	8-5 0	DK523E	17		3-2 0	2-1 0	3-2 0	VARY 1 EA						
		7-4 0				3-2 0	1-0 0	3-2 0							
4	5	7-1 0	DK524E	17		1-4 0	2-7 0	3-2 0							
13	5	10-7 0	DK525E	1		10-0 0					0-10 0		0-7 0		

SPECIFICATIONS					BENDING DIMENSIONS (FEET-INCHES / QUARTER INCH)										
QTY.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F / R	G	H	J	K	O
22	5	60-0 0	AS551E	STR	60-0 0										
22	5	34-7 0	AS552E	STR	34-7 0										
93	5	17-11 3	AS553E	STR	17-11 3	VARY 1 EA									
		20-4 0			20-4 0										
186	5	6-10 2	AS554E	17		2-11 0	1-0 2	2-11 0							
22	5	10-1 2	AS555E	17		4-7 0	0-11 2	4-7 0							
22	5	10-1 2	AS556E	17		4-7 0	0-11 2	4-7 0							
22	5	9-7 2	AS557E	17		4-7 0	0-5 2	4-7 0							
43	6	60-0 0	AS651E	STR	60-0 0										
43	6	34-4 0	AS652E	STR	34-4 0										
185	9	17-11 3	AS951E	STR	17-11 3	VARY 1 EA									
		20-4 0			20-4 0										
22	5	5-5 2	PA551E	17		2-3 0	0-11 2	2-3 0							
22	5	5-5 2	PA552E	17		2-3 0	0-11 2	2-3 0							
22	5	4-11 2	PA553E	17		2-3 0	0-5 2	2-3 0							
10	5	18-1 2	PA554E	STR	18-1 2										
10	5	20-2 2	PA555E	STR	20-2 2										
10	5	20-6 2	PA556E	STR	20-6 2										
4	5	8-7 0	PA571E	17		3-2 0	2-3 0	3-2 0	VARY 1 EA						
		11-8 0				3-2 0	5-4 0	3-2 0							
4	5	12-7 0	PA572E	14	1-4 0	2-10 0	2-3 0	2-10 0	1-4 0	1-0 0	1-0 0	2-0 0		2-0 0	
4	5	8-11 0	PA573E	17		3-2 0	2-7 0	3-2 0	VARY 1 EA						
		7-10 0				3-2 0	1-6 0	3-2 0							
4	5	7-8 0	PA574E	17		3-2 0	2-7 0	3-2 0							
4	5	8-7 0	DK571E	17		3-2 0	2-3 0	3-2 0	VARY 1 EA						
		11-8 0				3-2 0	5-4 0	3-2 0							
2	5	10-9 0	DK572E	14	1-4 0	2-10 0	2-3 0	2-10 0	1-4 0	1-0 0	1-0 0	2-0 0		2-0 0	
6	5	12-7 0	DK573E	17		3-2 0	2-7 0	3-2 0	VARY 1 EA						
		7-10 0				3-2 0	1-6 0	3-2 0							
4	5	7-1 0	DK574E	17		1-0 0	2-7 0	3-2 0							
13	5	10-7 0	DK575E	1		10-0 0						0-10 0		0-7 0	

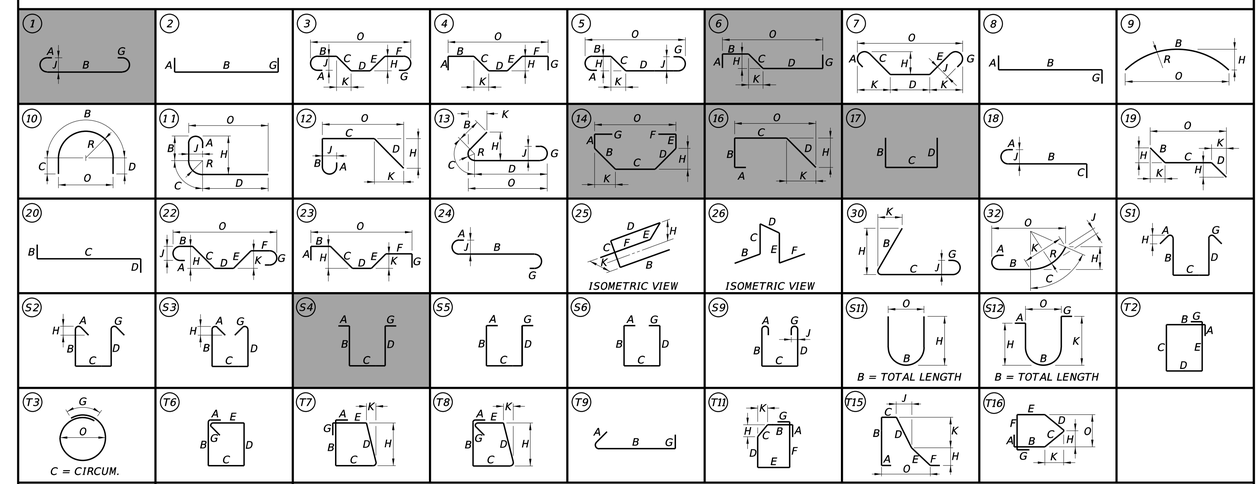
ASTM STANDARD ENGLISH REINFORCING BARS			
	NOMINAL DIMENSIONS		
BAR SIZE	DIAMETER (INCHES)	AREA² (INCHES)	WEIGHT (LBS. / FT.)
3	0.375	0.110	0.376
4	0.500	0.200	0.668
5	0.625	0.310	1.043
6	0.750	0.440	1.502
7	0.875	0.600	2.044
8	1.000	0.790	2.670
9	1.128	1.000	3.400
10	1.270	1.270	4.303
11	1.410	1.560	5.313
14	1.693	2.250	7.650
18	2.257	4.000	13.600

RECOMMENDED END HOOKS, APPLICABLE TO ALL GRADES					
	180° HOOKS			90° HOOKS	
BAR SIZE	D	A OR G	J	A OR G	
3	2¼"	5"	3"	6"	
4	3"	6"	4"	8"	
5	3¾"	7"	5"	10"	
6	4½"	8"	6"	1-0"	
7	5¼"	10"	7"	1-2"	
8	6"	11"	8"	1-4"	
9	9½"	1-3"	11¾"	1-7"	
10	10¾"	1-5"	1-1¼"	1-10"	
11	1-0"	1-7"	1-2¾"	2-0"	
14	1-6¼"	2-3"	1-9¾"	2-7"	
18	2-0"	3-0"	2-4½"	3-5"	

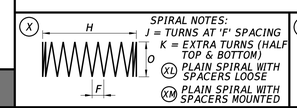
STIRRUP AND TIE HOOKS, APPLICABLE TO ALL GRADES			
	90° HOOK	135° HOOK	
BAR SIZE	D	A OR G	A OR G
3	1½"	4"	4"	2½"
4	2"	4½"	4½"	3"
5	2½"	6"	5½"	3¾"
6	4½"	1-0"	8"	4½"
7	5½"	1-2"	9"	5¼"
8	6"	1-4"	10½"	6"

NOTES:
1. FIGURES SHOWN IN CIRCLES REPRESENT BAR BEND TYPES.
2. STANDARD BAR BENDS INCLUDE ONLY THOSE TYPES BELOW, INDICATED AS SUCH.
3. ALL DIMENSIONS OUT-TO-OUT, EXCEPT "A" AND "G" ON STD. 180° AND 135° HOOKS.
4. "J" DIMENSIONS ON 180° HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD 'ACI' HOOKS ARE TO BE USED.
5. WHERE "J" IS NOT SHOWN, "J" WILL BE KEPT EQUAL TO OR LESS THAN "H" ON TYPES 3, 5 AND 22. WHERE "J" CAN EXCEED "H", IT SHALL BE SHOWN.
6. "H" DIMENSIONS OF STIRRUPS TO BE SHOWN AS NEEDED TO FIT WITHIN THE CONCRETE.
7. UNLESS OTHERWISE NOTED, DIAMETER "D" IS THE SAME FOR ALL BENDS AND HOOKS ON A BAR (EXCEPT FOR BEND TYPES 11 AND 13).
8. WHERE SLOPE DIFFERS FROM 45° OFFSET, "H" AND "K" MUST BE SHOWN.
9. WHERE BARS ARE TO BE BENT MORE ACCURATELY THAN STANDARD BENDING TOLERANCES, BENDING DIMENSIONS REQUIRING CLOSER FABRICATION SHOULD HAVE LIMITS INDICATED.
10. FOR RECOMMENDED DIAMETER "D", OF BENDS, HOOKS, ETC., REFER TO TABLE ABOVE, 'CRSI' OR 'ACI' TABLES WHERE APPLICABLE AND REQUIRED.
11. TYPE S1-S6, S11, T1-T3 AND T6-T9 APPLICABLE TO BAR SIZES #3 THROUGH #8.

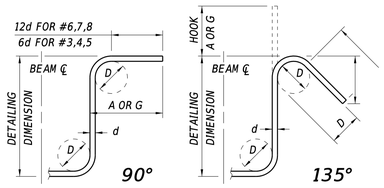
STANDARD BAR BENDS



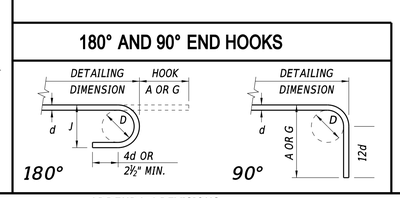
SPECIAL BAR BENDS

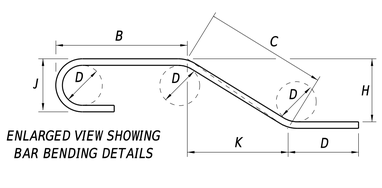


STIRRUP AND TIE HOOKS



180° AND 90° END HOOKS





ADDENDA / REVISIONS

8/14/2025
9:52:45 AM
N:\32149\001\CADD\Bridge\82 - RS02.dgn

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO. 3-610
T201412701	DESIGNED BY: R. SEDAR
COUNTY	CHECKED BY: W. GESCHREI
SUSSEX	

REBAR SCHEDULE - II

RS-02
SECTION
WRA
SHEET NO.
171

(1) ANY MARK NUMBER WITH SUFFIX 'E' DENOTES EPOXY COATED REINFORCING STEEL.

(2) ALL MARK 'LOCATION PREFIXES' SHALL CONSIST OF TWO LETTERS AND ARE AS FOLLOWS: AB = ABUTMENT, AS = APPROACH SLAB, BC = BOX CULVERT, BW = BACKWALL, CL = COLUMN, DK = DECK, DL = DOWEL, FT = FOOTING, HW = HEADWALL, MS = MISC. BARS, PA = PARAPET, PR = PIER, SC = SHEETPILE CAP, SL = SLAB, TW = TOEWALL, WL = WALL (UNIQUE LOCATION), WW = WINGWALL, SS = SLEEPER SLAB

SPECIFICATIONS					BENDING DIMENSIONS (FEET-INCHES / QUARTER INCH)									
QTY.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F / R	G	H	J	K	O
19	5	60-0 0	SS501E	STR	60-0 0										
19	5	34-9 0	SS502E	STR	34-9 0										
76	5	4-6 0	SS503E	STR	4-6 0										
14	5	12-1 2	SS504E	17		5-7 0	0-11 2	5-7 0							
10	5	12-1 2	SS505E	17		5-7 0	0-11 2	5-7 0							
17	5	11-7 2	SS506E	17		5-7 0	0-5 2	5-7 0							
93	5	8-0 0	SS507E	T1	0-5 2	2-0 2	1-6 0	2-0 2	1-6 0		0-5 2				
4	5	12-10 2	SS508E	T2	1-2 0	0-11 2	5-1 0	0-7 0	5-1 0						
		13-7 0			1-2 0	0-11 2	5-3 0	0-11 2	5-3 0						
4	5	7-1 2	SS509E	17	5-7 0	0-11 2	0-7 0								
		11-5 2			5-3 0	0-11 2	5-3 0								
12	8	12-11 0	SS801E	STR	12-11 0										
156	8	4-6 0	SS802E	STR	4-6 0										
12	8	13-11 0	SS803E	STR	13-11 0										
12	8	14-1 0	SS804E	STR	14-1 0										
14	5	10-1 0	PA571E	STR	10-1 0										
12	5	11-1 0	PA572E	STR	11-1 0										
14	5	11-3 0	PA573E	STR	11-3 0										
14	5	5-5 2	PA574E	17		2-3 0	0-11 2	2-3 0							
14	5	5-5 2	PA575E	17		2-3 0	0-11 2	2-3 0							
17	5	4-11 2	PA576E	17		2-3 0	0-5 2	2-3 0							
2	5	5-6 0	PA577E	6		2-1 0	3-5 0					0-6 0	3-3 0		

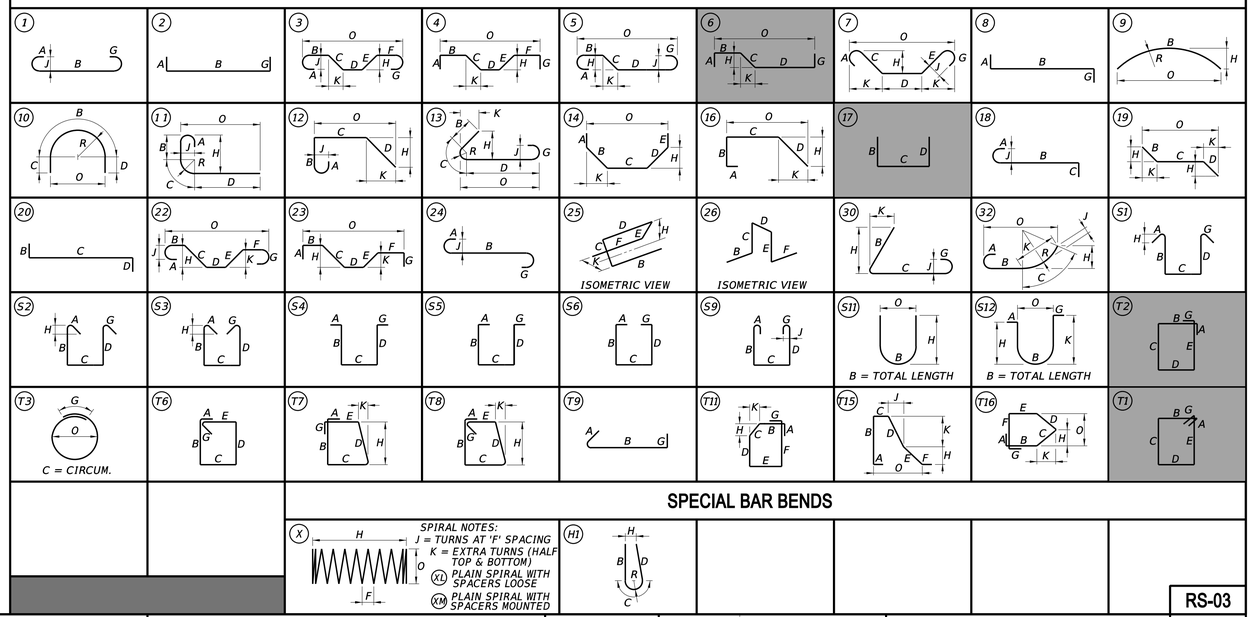
SPECIFICATIONS					BENDING DIMENSIONS (FEET-INCHES / QUARTER INCH)									
QTY.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F / R	G	H	J	K	O
19	5	60-0 0	SS551E	STR	60-0 0										
19	5	34-9 0	SS552E	STR	34-9 0										
76	5	4-6 0	SS553E	STR	4-6 0										
14	5	12-1 2	SS554E	17		5-7 0	0-11 2	5-7 0							
10	5	12-1 2	SS555E	17		5-7 0	0-11 2	5-7 0							
17	5	11-7 2	SS556E	17		5-7 0	0-5 2	5-7 0							
93	5	8-0 0	SS557E	T1	0-5 2	2-0 2	1-6 0	2-0 2	1-6 0		0-5 2				
4	5	7-1 2	SS558E	17	5-7 0	0-11 2	0-7 0								
		11-5 2			5-3 0	0-11 2	5-3 0								
4	5	11-1 2	SS559E	T2		5-1 0	0-11 2	5-1 0							
		12-1 2				5-7 0	0-11 2	5-7 0							
12	8	12-11 0	SS851E	STR	12-11 0										
156	8	4-6 0	SS852E	STR	4-6 0										
12	8	13-11 0	SS853E	STR	13-11 0										
12	8	14-1 0	SS854E	STR	14-1 0										
14	5	10-1 0	PA581E	STR	10-1 0										
12	5	11-1 0	PA582E	STR	11-1 0										
14	5	11-3 0	PA583E	STR	11-3 0										
14	5	5-5 2	PA584E	17		2-3 0	0-11 2	2-3 0							
14	5	5-5 2	PA585E	17		2-3 0	0-11 2	2-3 0							
17	5	4-11 2	PA586E	17		2-3 0	0-5 2	2-3 0							
2	5	5-6 0	PA587E	6		2-1 0	3-5 0					0-6 0	3-3 0		

SPECIFICATIONS					BENDING DIMENSIONS (FEET-INCHES / QUARTER INCH)									
QTY.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F / R	G	H	J	K	O

ASTM STANDARD ENGLISH REINFORCING BARS				RECOMMENDED END HOOKS, APPLICABLE TO ALL GRADES				STIRRUP AND TIE HOOKS, APPLICABLE TO ALL GRADES			
	NOMINAL DIMENSIONS				180° HOOKS		90° HOOKS		90° HOOK	135° HOOK	
BAR SIZE	DIAMETER (INCHES)	AREA² (INCHES)	WEIGHT (LBS. / FT.)	D	A OR G	J	A OR G	D	A OR G	A OR G	A OR G
3	0.375	0.110	0.376	2¼"	5"	3"	6"	1½"	4"	4"	2½"
4	0.500	0.200	0.668	3"	6"	4"	8"	2"	4½"	4½"	3"
5	0.625	0.310	1.043	3¾"	7"	5"	10"	2½"	6"	5½"	3¾"
6	0.750	0.440	1.502	4½"	8"	6"	1-0"	4½"	1-0"	8"	4½"
7	0.875	0.600	2.044	5¼"	10"	7"	1-2"	5¼"	1-2"	9"	5¼"
8	1.000	0.790	2.670	6"	11"	8"	1-4"	6"	1-4"	10½"	6"
9	1.128	1.000	3.400	9½"	1-3"	11¾"	1-7"				
10	1.270	1.270	4.303	10¾"	1-5"	1-1¼"	1-10"				
11	1.410	1.560	5.313	1-0"	1-7"	1-2¾"	2-0"				
14	1.693	2.250	7.650	1-6¼"	2-3"	1-9¾"	2-7"				
18	2.257	4.000	13.600	2-0"	3-0"	2-4½"	3-5"				

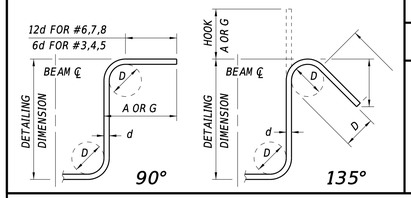
NOTES:
1. FIGURES SHOWN IN CIRCLES REPRESENT BAR BEND TYPES.
2. STANDARD BAR BENDS INCLUDE ONLY THOSE TYPES BELOW, INDICATED AS SUCH.
3. ALL DIMENSIONS OUT-TO-OUT, EXCEPT "A" AND "G" ON STD. 180° AND 135° HOOKS.
4. "J" DIMENSIONS ON 180° HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD 'ACI' HOOKS ARE TO BE USED.
5. WHERE "J" IS NOT SHOWN, "J" WILL BE KEPT EQUAL TO OR LESS THAN "H" ON TYPES 3, 5 AND 22. WHERE "J" CAN EXCEED "H", IT SHALL BE SHOWN.
6. "H" DIMENSIONS OF STIRRUPS TO BE SHOWN AS NEEDED TO FIT WITHIN THE CONCRETE.
7. UNLESS OTHERWISE NOTED, DIAMETER "D" IS THE SAME FOR ALL BENDS AND HOOKS ON A BAR (EXCEPT FOR BEND TYPES 11 AND 13).
8. WHERE SLOPE DIFFERS FROM 45° OFFSET, "H" AND "K" MUST BE SHOWN.
9. WHERE BARS ARE TO BE BENT MORE ACCURATELY THAN STANDARD BENDING TOLERANCES, BENDING DIMENSIONS REQUIRING CLOSER FABRICATION SHOULD HAVE LIMITS INDICATED.
10. FOR RECOMMENDED DIAMETER "D", OF BENDS, HOOKS, ETC., REFER TO TABLE ABOVE, 'CRSI' OR 'ACI' TABLES WHERE APPLICABLE AND REQUIRED.
11. TYPE S1-S6, S11, T1-T3 AND T6-T9 APPLICABLE TO BAR SIZES #3 THROUGH #8.

STANDARD BAR BENDS

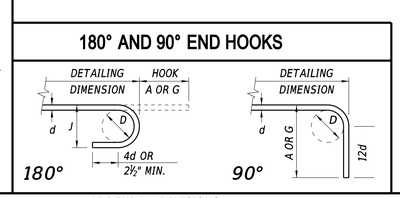


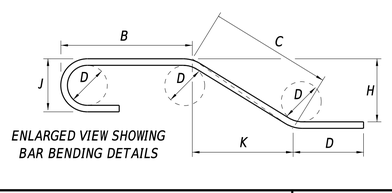
SPECIAL BAR BENDS

STIRRUP AND TIE HOOKS



180° AND 90° END HOOKS





ADDENDA / REVISIONS

US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION

CONTRACT	T201412701	BRIDGE NO.	3-610
COUNTY	SUSSEX	DESIGNED BY:	R. SEDAR
		CHECKED BY:	W. GESCHREI

REBAR SCHEDULE - III

RS-03	
SECTION	WRA
SHEET NO.	172

9/10/2025
11:27:30 AM
N:\32149-001\CADD\Bridge\83 - RS03.dgn

(1) ANY MARK NUMBER WITH SUFFIX 'E' DENOTES EPOXY COATED REINFORCING STEEL.

(2) ALL MARK 'LOCATION PREFIXES' SHALL CONSIST OF TWO LETTERS AND ARE AS FOLLOWS: AB = ABUTMENT, AS = APPROACH SLAB, BC = BOX CULVERT, BW = BACKWALL, CL = COLUMN, DK = DECK, DL = DOWEL, FT = FOOTING, HW = HEADWALL, MS = MISC. BARS, PA = PARAPET, PR = PIER, SC = SHEETPILE CAP, SL = SLAB, TW = TOEWALL, WL = WALL (UNIQUE LOCATION), WW = WINGWALL

SPECIFICATIONS					BENDING DIMENSIONS (FEET-INCHES / QUARTER INCH)										
QTY.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F / R	G	H	J	K	O
44	5	14-0.0	SL501E	STR	14-0.0										
80	5	9-9.0	SL502E	1	0-7.0	9-2.0							0-5.0		
54	5	9-2.0	SL503E	STR	9-2.0										
54	5	11-2.2	SL504E	S4	2-3.0	4-0.0	0-11.2	4-0.0							
44	6	14-8.0	SL601E	STR	14-8.0										
43	5	9-2.0	PA591E	T1	0-5.2	3-2.0	0-11.2	3-2.0	0-11.2		0-5.2				
40	5	14-4.0	PA592E	STR	14-4.0										
19	5	8-0.0	PA593E	T1	0-5.2	2-7.0	0-11.2	2-7.0	0-11.2		0-5.2				
		11-8.0			0-5.2	4-5.0	0-11.2	4-5.0	0-11.2		0-5.2				
2	5	10-9.0	PA594E	STR	10-9.0										
4	5	12-6.2	PA560E	T2	1-2.0	0-11.2	4-11.0	0-7.0	4-11.0						
		13-3.0			1-2.0	0-11.2	5-1.0	0-11.2	5-1.0						

SPECIFICATIONS					BENDING DIMENSIONS (FEET-INCHES / QUARTER INCH)										
QTY.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F / R	G	H	J	K	O
44	5	14-0.0	SL551E	STR	14-0.0										
80	5	9-9.0	SL552E	1	0-7.0	9-2.0							0-5.0		
54	5	9-2.0	SL553E	STR	9-2.0										
62	5	11-2.2	SL554E	S4	2-3.0	4-0.0	0-11.2	4-0.0							
44	6	14-8.0	SL651E	STR	14-8.0										
43	5	9-2.0	PA595E	T1	0-5.2	3-2.0	0-11.2	3-2.0	0-11.2		0-5.2				
40	5	14-4.0	PA596E	STR	14-4.0										
19	5	8-8.0	PA597E	T1	0-5.2	2-11.0	0-11.2	2-11.0	0-11.2		0-5.2				
		11-8.0			0-5.2	4-5.0	0-11.2	4-5.0	0-11.2		0-5.2				
2	5	10-9.0	PA598E	STR	10-9.0										
4	5	12-6.2	PA599E	T2	1-2.0	0-11.2	4-11.0	0-7.0	4-11.0						
		13-3.0			1-2.0	0-11.2	5-1.0	0-11.2	5-1.0						

SPECIFICATIONS					BENDING DIMENSIONS (FEET-INCHES / QUARTER INCH)										
QTY.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F / R	G	H	J	K	O

ASTM STANDARD ENGLISH REINFORCING BARS

BAR SIZE	NOMINAL DIMENSIONS: DIAMETER (INCHES)	NOMINAL DIMENSIONS: AREA² (INCHES²)	NOMINAL DIMENSIONS: WEIGHT (LBS. / FT.)
3	0.375	0.110	0.376
4	0.500	0.200	0.668
5	0.625	0.310	1.043
6	0.750	0.440	1.502
7	0.875	0.600	2.044
8	1.000	0.790	2.670
9	1.128	1.000	3.400
10	1.270	1.270	4.303
11	1.410	1.560	5.313
14	1.693	2.250	7.650
18	2.257	4.000	13.600

RECOMMENDED END HOOKS, APPLICABLE TO ALL GRADES

BAR SIZE	180° HOOKS: D	180° HOOKS: A OR G	180° HOOKS: J	90° HOOKS: A OR G
3	2¼"	5"	3"	6"
4	3"	6"	4"	8"
5	3¾"	7"	5"	10"
6	4½"	8"	6"	1-0"
7	5¼"	10"	7"	1-2"
8	6"	11"	8"	1-4"
9	9½"	1-3"	11¾"	1-7"
10	10¾"	1-5"	1-1¼"	1-10"
11	1-0"	1-7"	1-2¾"	2-0"
14	1-6¼"	2-3"	1-9¾"	2-7"
18	2-0"	3-0"	2-4½"	3-5"

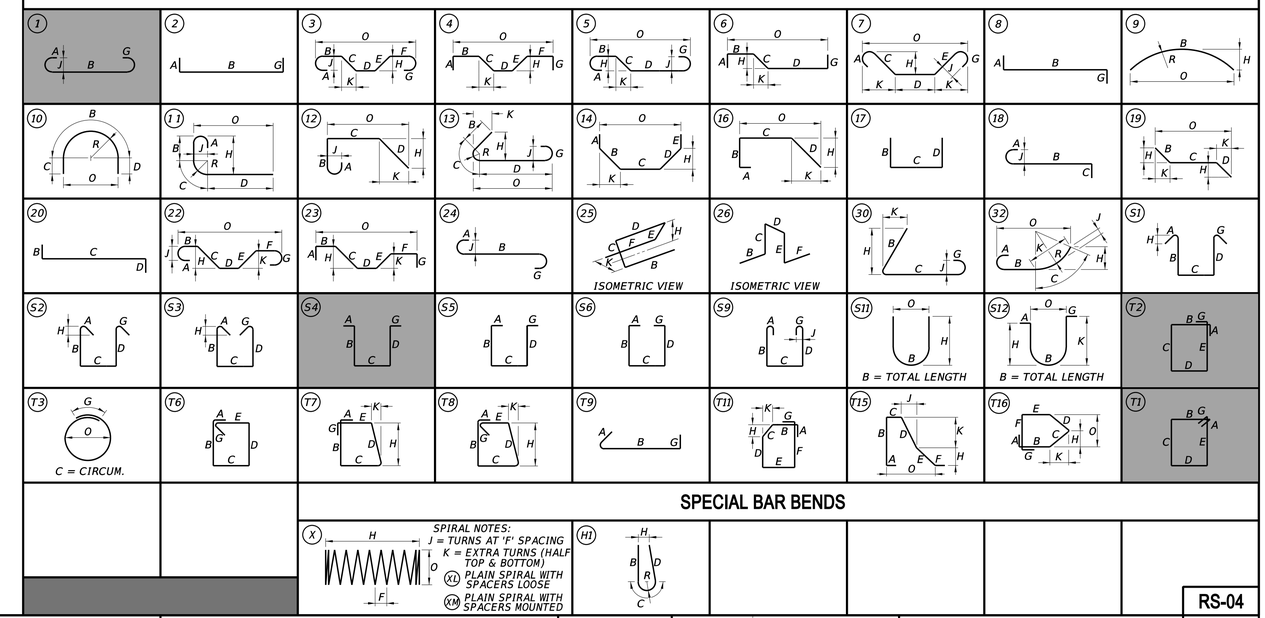
STIRRUP AND TIE HOOKS, APPLICABLE TO ALL GRADES

BAR SIZE	90° HOOK: D	90° HOOK: A OR G	135° HOOK: A OR G	135° HOOK: A OR G
3	1½"	4"	4"	2½"
4	2"	4½"	4½"	3"
5	2½"	6"	5½"	3¾"
6	4½"	1-0"	8"	4½"
7	5½"	1-2"	9"	5¼"
8	6"	1-4"	10½"	6"

NOTES:

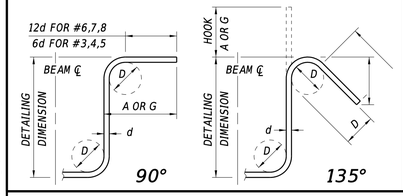
1. *FIGURES SHOWN IN CIRCLES REPRESENT BAR BEND TYPES.*
2. *STANDARD BAR BENDS INCLUDE ONLY THOSE TYPES BELOW, INDICATED AS SUCH.*
3. *ALL DIMENSIONS OUT-TO-OUT, EXCEPT "A" AND "G" ON STD. 180° AND 135° HOOKS.*
4. *"J" DIMENSIONS ON 180° HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD 'ACI' HOOKS ARE TO BE USED.*
5. *WHERE "J" IS NOT SHOWN, "J" WILL BE KEPT EQUAL TO OR LESS THAN "H" ON TYPES 3, 5 AND 22. WHERE "J" CAN EXCEED "H", IT SHALL BE SHOWN.*
6. *"H" DIMENSIONS OF STIRRUPS TO BE SHOWN AS NEEDED TO FIT WITHIN THE CONCRETE.*
7. *UNLESS OTHERWISE NOTED, DIAMETER "D" IS THE SAME FOR ALL BENDS AND HOOKS ON A BAR (EXCEPT FOR BEND TYPES 11 AND 13).*
8. *WHERE SLOPE DIFFERS FROM 45° OFFSET, "H" AND "K" MUST BE SHOWN.*
9. *WHERE BARS ARE TO BE BENT MORE ACCURATELY THAN STANDARD BENDING TOLERANCES, BENDING DIMENSIONS REQUIRING CLOSER FABRICATION SHOULD HAVE LIMITS INDICATED.*
10. *FOR RECOMMENDED DIAMETER "D", OF BENDS, HOOKS, ETC., REFER TO TABLE ABOVE, 'CRSI' OR 'ACI' TABLES WHERE APPLICABLE AND REQUIRED.*
11. *TYPE S1-S6, S11, T1-T3 AND T6-T9 APPLICABLE TO BAR SIZES #3 THROUGH #8.*

STANDARD BAR BENDS

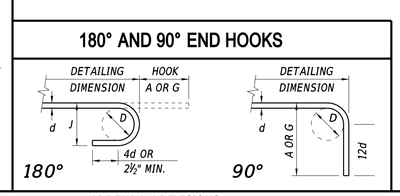


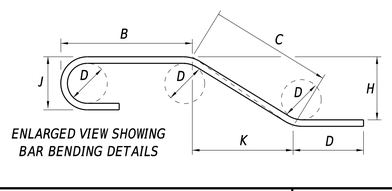
SPECIAL BAR BENDS

STIRRUP AND TIE HOOKS



180° AND 90° END HOOKS





ADDENDA / REVISIONS

9/10/2025
10:20:22 AM
N:\32149-001\CADD\Bridge\84 - RS04.dgn

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	T201412701
COUNTY	SUSSEX
BRIDGE NO.	3-610
DESIGNED BY:	R. SEDAR
CHECKED BY:	W. GESCHREI

REBAR SCHEDULE - IV

RS-04	
SECTION	WRA
SHEET NO.	173

BORING: HB-1 | **DATE DRILLED:** 10/16/18
STATION: 553+82.58 | **OFFSET:** 27.95' | **ELEVATION:** 50.00' | **NORTHING:** 254409.1 | **EASTING:** 659762.3
COMMENTS: N/A

NO.	DEPTH	BLOWS / 6"	DESCRIPTION	CLASS / G.I.	REMARKS
1	0.0		MOIST GRAY COARSE TO FINE SAND AND FINE GRAVEL W/SOME SILT.	A-1-B	
	2.0				
2	2.0		MOIST GRAY SILTY FINE TO COARSE SAND W/ TRACE FINE GRAVEL.	A-2-4(0)	
	4.0				
3	4.0	16	MOIST LOOSE GRAY SILTY FINE TO COARSE SAND W/SOME FINE	A-2-4(0)	
		4	GRAVEL.		
		3			
	6.0	3			
4	6.0	4	MOIST MEDIUM DENSE GRAY CLAYEY FINE TO COARSE SAND W/SOME	A-2-4(0)	
		8	SILT, TRACE OF FINE GRAVEL.		
		9			
	8.0	11			
5	8.0	8	WET MEDIUM DENSE GRAY SILTY FINE SAND W/SOME COARSE SAND,	A-2-4(0)	
		9	TRACE OF FINE GRAVEL.		8.6' TO WATER
		9			
	10.0	13			
6	10.0	5	WET LOOSE BROWN FINE TO COARSE SAND W/SOME SILT, TRACE OF	A-2-4(0)	
		4	FINE GRAVEL.		
		4			
	12.0	4			
7	12.0	2	WET LOOSE BROWN FINE TO COARSE SAND W/SOME SILT.	A-2-4(0)	
		3			
		3			
	14.0	5			
8	14.0	1	WET VERY LOOSE BROWN FINE TO COARSE SAND W/SOME SILT, TRACE	A-2-4(0)	
		2	OF FINE GRAVEL.		
		2			
	16.0	3			
			END BORING		

BORING: HB-2 | **DATE DRILLED:** 10/8/18
STATION: 555+82.69 | **OFFSET:** 51.99' | **ELEVATION:** 48.50' | **NORTHING:** 254318.9 | **EASTING:** 659953.0
COMMENTS: N/A

NO.	DEPTH	BLOWS / 6"	DESCRIPTION	CLASS / G.I.	REMARKS
1	0.0	1	MOIST LOOSE BROWN SILTY FINE SAND W/SOME COARSE SAND, TRACE	A-2-4(0)	
		1	OF FINE GRAVEL.		
		4			
	2.0	4			
2	2.0	4	MOIST LOOSE BROWN SILTY FINE TO COARSE SAND W/TRACE FINE	A-2-4(0)	
		4	GRAVEL.		
		6			
	4.0	5			
3	4.0	8	MOIST MEDIUM DENSE GRAY SILTY FINE TO COARSE SAND W/TRACE	A-2-4(0)	
		8	FINE GRAVEL.		
		9			
	6.0	11			
4	6.0	8	MOIST MEDIUM DENSE GRAY SILTY FINE SAND W/SOME COARSE SAND.	A-2-4(0)	
		9			
		11			
	8.0	13			
5	8.0	7	WET MEDIUM DENSE BROWN FINE TO COARSE SAND W/SOME SILT.	A-2-4(0)	
		7			8.6' TO WATER
		7			
	10.0	7			
6	10.0	2	WET FIRM BROWN CLAYEY FINE SANDY SILT W/TRACE COARSE SAND.	A-4(2)	
		3			
		2			
	12.0	3			
7	12.0	3	WET VERY LOOSE BROWN SILTY COARSE TO FINE SAND.	A-2-4(0)	
		2			
		2			
	14.0	2			
8	14.0	3	SATURATED FIRM BROWN FINE SANDY SILT W/ TRACE COARSE SAND.	A-4(0)	
		1			
		4			
	16.0	5			
9	16.0	1	SATURATED LOOSE BROWN SILTY FINE SAND.	A-2-4(0)	
		1			
		4			
	18.0	5			
10	18.0	2	SATURATED LOOSE BROWN COARSE TO FINE SAND W/TRACE FINE GRAVEL	A-1-B	
		2	AND SILT.		
		3			
	24.0	4			
11	24.0	2	SATURATED LOOSE BROWN FINE SAND W/SOME COARSE SAND AND SILT.	A-2-4(0)	
		2			
		3			
	28.0	6			
12	28.0	2	SATURATED VERY LOOSE BROWN FINE GRAVELLY COARSE TO FINE SAND	A-1-B	
		1	W/TRACE SILT.		
		1			
	30.0	1			
			END BORING		

BORING: HB-3 | **DATE DRILLED:** 10/8/18
STATION: 557+88.00 | **OFFSET:** 4.94' | **ELEVATION:** 47.00' | **NORTHING:** 254296.4 | **EASTING:** 660155.2
COMMENTS: N/A

NO.	DEPTH	BLOWS / 6"	DESCRIPTION	CLASS / G.I.	REMARKS
1	0.0	2	MOIST FIRM GRAY FINE SANDY SILT W/SOME COARSE SAND, TRACE OF	A-4(0)	
		3	FINE GRAVEL.		
		3			
	2.0	2			
2	2.0	3	MOIST MEDIUM DENSE GRAY CLAYEY FINE TO COARSE SAND W/SOME	A-2-4(0)	
		5	SILT, TRACE OF FINE GRAVEL.		
		6			
	4.0	7			

BORING: HB-3 CONT.

NO.	DEPTH	BLOWS / 6"	DESCRIPTION	CLASS / G.I.	REMARKS
3	4.0	2	WET LOOSE GRAY SILTY FINE SAND W/SOME COARSE SAND.	A-2-4(0)	
		3			
		4			
	6.0	7			
4	6.0	4	WET LOOSE GRAY FINE SAND W/SOME COARSE SAND AND SILT.	A-2-4(0)	
		4			
		4			
	8.0	4			
5	8.0	2	WET FIRM GRAY SILTY FINE SANDY CLAY W/TRACE COARSE SAND.	A-6(5)	
		2			
		3			9.0' TO WATER
	10.0	3			
6	10.0	2	WET FIRM GRAY FINE SANDY SILT W/SOME COARSE SAND.	A-4(0)	
		3			
		3			
	12.0	3			
7	12.0	2	WET FIRM GRAY FINE SANDY SILT W/SOME COARSE SAND.	A-4(0)	
		3			
		2			
	14.0	2			
8	14.0	1	WET VERY LOOSE GRAY SILTY FINE SAND W/TRACE COARSE SAND.	A-2-4(0)	
		1			
		1			
	16.0	1			
9	16.0	1	WET LOOSE GRAY SILTY FINE SAND W/SOME COARSE SAND, TRACE OF	A-2-4(0)	
		1	FINE GRAVEL.		
		6			
	18.0	9			
10	18.0	5	WET MEDIUM DENSE BROWN COARSE TO FINE SAND W/SOME SILT, TRACE	A-1-B	
		6	OF FINE GRAVEL.		
		9			
	24.0	12			
11	24.0	5	WET LOOSE BROWN FINE TO COARSE SAND W/SOME SILT, TRACE OF	A-2-4(0)	
		5	FINE GRAVEL.		
		5			
	28.0	5			
12	28.0	5	WET MEDIUM DENSE BROWN FINE TO COARSE SAND W/SOME SILT, TRACE	A-2-4(0)	
		5	OF FINE GRAVEL.		
		6			
	30.0	7			
			END BORING		

BORING: HB-4 | **DATE DRILLED:** 10/9/18
STATION: 560+76.29 | **OFFSET:** 9.19' | **ELEVATION:** 47.70' | **NORTHING:** 254184.9 | **EASTING:** 660421.8
COMMENTS: N/A

NO.	DEPTH	BLOWS / 6"	DESCRIPTION	CLASS / G.I.	REMARKS
1	0.0	2	MOIST SOFT GRAY FINE SANDY SILT W/SOME COARSE SAND.	A-4(0)	
		2			
		2			
	2.0	2			
2	2.0	2	WET FIRM GRAY FINE SANDY CLAY W/SOME COARSE SAND AND SILT,	A-6(3)	
		2	TRACE OF FINE GRAVEL.		
		5			
	4.0	8			
3	4.0	4	WET MEDIUM DENSE GRAY SILTY FINE SAND W/SOME COARSE SAND AND	A-2-4(0)	
		9	CLAY, TRACE OF FINE GRAVEL.		
		7			
	6.0	7			
4	6.0	4	WET MEDIUM DENSE GRAY SILTY FINE SAND W/SOME COARSE SAND.	A-2-4(0)	
		7			
		9			7.0' TO WATER
	8.0	9			
5	8.0	3	WET LOOSE GRAY COARSE TO FINE SAND W/TRACE OF SILT.	A-1-B	
		4			
		5			
	10.0	6			
6	10.0	2	WET LOOSE GRAY COARSE TO FINE SAND W/TRACE FINE GRAVEL AND	A-1-B	
		3	SILT.		
		3			
	12.0	3			
7	12.0	3	WET LOOSE GRAY COARSE TO FINE SAND W/TRACE SILT AND FINE	A-1-B	
		5	GRAVEL.		
		3			
	14.0	5			
8	14.0	2	SATURATED LOOSE GRAY FINE SAND W/SOME COARSE SAND AND SILT.	A-2-4(0)	
		3			
		3			
	16.0	5			
9	16.0	2	SATURATED MEDIUM DENSE GRAY FINE TO COARSE SAND W/SOME SILT.	A-2-4(0)	
		4			
		7			
	18.0	7			
10	18.0	5	SATURATED LOOSE GRAY SILTY FINE TO COARSE SAND W/TRACE FINE	A-2-4(0)	
		2	GRAVEL.		
		3			
	24.0	2			
11	24.0	7	SATURATED MEDIUM DENSE GRAY FINE TO COARSE SAND W/SOME FINE	A-1-B	
		6	GRAVEL AND SILT.		
		10			
	29.0	10			
12	29.0	10	SATURATED MEDIUM DENSE GRAY FINE TO COARSE SAND W/SOME SILT,	A-2-4(0)	
		12	TRACE OF FINE GRAVEL.		
		11			
	34.0	12			
13	34.0	6	SATURATED MEDIUM DENSE GRAY COARSE TO FINE SAND W/SOME SILT,	A-2-4(0)	
		10	TRACE OF FINE GRAVEL.		
		11			
	39.0	11			
14	39.0	11	SATURATED MEDIUM DENSE GRAY FINE TO COARSE SAND W/SOME SILT.	A-2-4(0)	
		4			
		7			
	44.0	7			

BORING: HB-4 CONT.

NO.	DEPTH	BLOWS / 6"	DESCRIPTION	CLASS / G.I.	REMARKS
15	44.0	7	SATURATED MEDIUM DENSE BROWN COARSE TO FINE SAND W/TRACE FINE	A-1-B	
		8	GRAVEL AND SILT.		
		13			
	48.0	16			
16	48.0	11	SATURATED MEDIUM DENSE BROWN COARSE SAND W/SOME FINE GRAVEL,	A-1-B	
		10	TRACE OF FINE SAND AND SILT.		
		14			
	50.0	14			
			END BORING		

BORING: HB-5 | **DATE DRILLED:** 10/11/18
STATION: 561+94.75 | **OFFSET:** 64.56' | **ELEVATION:** 49.20' | **NORTHING:** 254102.2 | **EASTING:** 660529.0
COMMENTS: N/A

NO.	DEPTH	BLOWS / 6"	DESCRIPTION	CLASS / G.I.	REMARKS
1	0.0	1	MOIST LOOSE BROWN SILTY FINE SAND W/SOME COARSE SAND, TRACE	A-2-4(0)	
		3	OF FINE GRAVEL.		
		2			
	2.0	2			
2	2.0	3	MOIST STIFF GRAY FINE SANDY CLAY W/SOME SILT AND COARSE SAND,	A-6(1)	
		5	TRACE OF FINE GRAVEL.		
		7			
	4.0	9			
3	4.0	5	MOIST MEDIUM DENSE GRAY SILTY FINE TO COARSE SAND W/TRACE	A-2-4(0)	
		7	FINE GRAVEL.		
		10			
	6.0	14			
4	6.0	1	MOIST DENSE GRAY SILTY FINE TO COARSE SAND W/TRACE FINE	A-2-4(0)	
		14	GRAVEL.		
		20			7.4' TO WATER
	8.0	20			
5	8.0	4	WET MEDIUM DENSE GRAY COARSE TO FINE SAND W/TRACE SILT AND	A-1-B	
		8	FINE GRAVEL.		
		8			
	10.0	7			
6	10.0	4	WET MEDIUM DENSE GRAY COARSE TO FINE SAND W/TRACE FINE GRAVEL	A-1-B	
		7	AND SILT.		
		8			
	12.0	9			
7	12.0	7	WET MEDIUM DENSE GRAY COARSE TO FINE SAND W/TRACE FINE GRAVEL	A-1-B	
		7	AND SILT.		
		8			
	14.0	7			
8	14.0	2	WET LOOSE GRAY FINE SAND W/SOME COARSE SAND AND SILT.	A-2-4(0)	
		2			
		3			
	16.0	3			
9	16.0	4	WET LOOSE GRAY FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE	A-2-4(0)	
		4	GRAVEL.		
		6			
	18.0	9			
10	18.0	1	WET LOOSE GRAY FINE TO COARSE SAND W/SOME SILT.	A-2-4(0)	
		2			
		5			
	24.0	5			
11	24.0	2	WET VERY STIFF GRAY FINE SANDY SILT W/SOME COARSE SAND, TRACE	A-4(0)	
		5	OF FINE GRAVEL.		
		13			
	29.0	14			
12	29.0	5	WET MEDIUM DENSE BROWN FINE TO COARSE SAND W/SOME SILT, TRACE	A-2-4(0)	
		7	OF FINE GRAVEL.		
		6			
	34.0	4			
13	34.0	5	WET MEDIUM DENSE GRAY COARSE TO FINE SAND W/TRACE FINE GRAVEL	A-1-B	
		12	AND SILT.		
		17			
	39.0	14			
14	39.0	7	WET LOOSE GRAY FINE TO COARSE SAND W/SOME SILT.	A-2-4(0)	
		5			
		5			
	44.0	5			
15	44.0	10	WET MEDIUM DENSE GRAY FINE TO COARSE SAND W/TRACE FINE GRAVEL	A-3	
		10	AND SILT.		
		9			
	48.0	9			
16	48.0	8	WET MEDIUM DENSE GRAY FINE TO COARSE SAND W/TRACE FINE GRAVEL	A-1-B	
		10	AND SILT.		
		10			
	50.0	17			
			END BORING		

ADDENDA / REVISIONS

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO.	3-610
T201412701	DESIGNED BY:	R. SEDAR
COUNTY	CHECKED BY:	W. GESCHREI
SUSSEX		

BORING LOG - I

BL-01	
SECTION	
WRA	
SHEET NO.	
174	

8/14/2025
9:52:50 AM
N:\32149-001\CADD\Bridge\85 - BL01.dgn

BORING: HB-6 | **DATE DRILLED:** 10/22/18
STATION: 562+83.17 | **OFFSET:** 66.04' | **ELEVATION:** 50.00' | **NORTHING:** 254090.1 | **EASTING:** 660623.5
COMMENTS: N/A

SAMPLE INFORMATION

NO.	DEPTH	BLOWS / 6"	DESCRIPTION	CLASS / G.I.	REMARKS
1	0.0	1 2 2	MOIST VERY LOOSE GRAY FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	
	2.0	3			
2	2.0	5 6 5	MOIST MEDIUM DENSE GREEN SILTY FINE SAND W/SOME COARSE SAND, TRACE OF FINE GRAVEL.	A-2-4(0)	
	4.0	4			
3	4.0	8 9 7	MOIST STIFF GRAY FINE SANDY CLAY W/SOME COARSE SAND AND SILT, TRACE OF FINE GRAVEL.	A-6(0)	
	6.0	7			
4	6.0	10 13 14	MOIST MEDIUM DENSE GRAY CLAYEY FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-6(1)	7.3' TO WATER
	8.0	17			
5	8.0	5 4 5	WET LOOSE GRAY COARSE TO FINE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	
	10.0	4			
6	10.0	2 3 4	WET LOOSE GRAY FINE TO COARSE SAND W/SOME SILT.	A-2-4(0)	
	12.0	4			
7	12.0	7 7 7	WET MEDIUM DENSE GRAY COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL AND FINE SAND.	A-1-B	
	14.0	8			
8	14.0	4 4 3	WET LOOSE GRAY FINE TO COARSE SAND W/SOME SILT.	A-2-4(0)	
	16.0	3			
9	16.0	1 1 3	WET VERY LOOSE GRAY FINE TO COARSE SAND W/TRACE SILT.	A-3	
	18.0	4			
10	18.0	2 3 7	WET LOOSE GRAY FINE TO COARSE SAND W/TRACE SILT.	A-3	
	23.0	7			
11	23.0	3 4 8	WET MEDIUM DENSE BROWN FINE TO COARSE SAND W/SOME SILT.	A-2-4(0)	
	28.0	11			
12	28.0	10 11 13	WET MEDIUM DENSE BROWN COARSE TO FINE SAND W/TRACE FINE GRAVEL AND SILT.	A-1-B	
	33.0	9			
13	33.0	3 3 4	WET FIRM BROWN CLAYEY FINE SANDY SILT W/TRACE COARSE SAND AND FINE GRAVEL.	A-4(3)	
	38.0	12			
14	38.0	1 2 1	WET VERY LOOSE BROWN FINE SAND W/SOME SILT AND COARSE SAND.	A-2-4(0)	
	43.0	2			
15	43.0	2 3 9	WET MEDIUM DENSE BROWN SILTY FINE SAND W/SOME COARSE SAND, TRACE OF FINE GRAVEL.	A-2-4(0)	
	48.0	9			
16	48.0	5 8 6	WET MEDIUM DENSE BROWN FINE TO COARSE SAND W/SOME FINE GRAVEL, TRACE OF SILT.	A-3	
	53.0	6			
17	53.0	2 2 8	WET LOOSE BROWN FINE SAND W/SOME SILT, TRACE OF COARSE SAND AND FINE GRAVEL.	A-2-4(0)	
	58.0	9			
18	58.0	5 5 9	WET MEDIUM DENSE BROWN FINE SAND W/SOME COARSE SAND AND SILT.	A-2-4(0)	
	63.0	12			
19	63.0	10 13 13	WET MEDIUM DENSE BROWN FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	
	68.0	10			
20	68.0	7 11 13	WET MEDIUM DENSE BROWN COARSE SAND W/SOME FINE GRAVEL AND FINE SAND, TRACE OF SILT.	A-1-B	
	73.0	10			
21	73.0	10 15 30	WET DENSE BROWN COARSE SAND W/SOME FINE SAND, TRACE OF FINE GRAVEL AND SILT.	A-1-B	
	78.0	30			
22	78.0	10 12 12	WET MEDIUM DENSE BROWN COARSE SAND W/SOME FINE GRAVEL, TRACE OF FINE SAND AND SILT.	A-1-B	
	83.0	13			
23	83.0	8 16 19	WET DENSE BROWN FINE GRAVELLY COARSE SAND W/SOME FINE SAND, TRACE OF SILT.	A-1-B	ABUTMENT A: ESTIMATED PILE TIP EL. -35.00
	88.0	18			
24	88.0	9 12 12	WET MEDIUM DENSE BROWN COARSE SAND W/SOME FINE SAND, TRACE OF FINE GRAVEL AND SILT.	A-1-B	
	93.0	13			
25	93.0	9 11 14	WET MEDIUM DENSE BROWN FINE SAND W/SOME SILT, TRACE OF COARSE SAND AND FINE GRAVEL.	A-2-4(0)	
	98.0	18			

BORING: HB-6 CONT.

SAMPLE INFORMATION

NO.	DEPTH	BLOWS / 6"	DESCRIPTION	CLASS / G.I.	REMARKS
26	98.0	8 10 20	WET MEDIUM DENSE BROWN FINE TO COARSE SAND AND FINE GRAVEL W/TRACE SILT.	A-1-B	
	100.0	30			
			END BORING		

BORING: HB-7 | **DATE DRILLED:** 11/1/18
STATION: 562+90.63 | **OFFSET:** 9.62' | **ELEVATION:** 49.10' | **NORTHING:** 254146.0 | **EASTING:** 660634.4
COMMENTS: N/A

SAMPLE INFORMATION

NO.	DEPTH	BLOWS / 6"	DESCRIPTION	CLASS / G.I.	REMARKS
1	0.0	1 1 1	WET SOFT GRAY FINE SANDY SILT W/SOME COARSE SAND.	A-4(0)	
	2.0	1			
2	2.0	1 3 7	WET STIFF GRAY CLAYEY FINE SANDY SILT W/SOME COARSE SAND.	A-4(0)	
	4.0	5			
3	4.0	3 6 10	WET STIFF GRAY FINE SANDY CLAY W/SOME COARSE SAND AND SILT.	A-6(3)	
	6.0	14			
4	6.0	12 14 14	WET MEDIUM DENSE GRAY SILTY COARSE TO FINE SAND.	A-2-4(0)	
	8.0	14			
5	8.0	2 2 4	WET LOOSE GRAY SILTY FINE TO COARSE SAND.	A-2-4(0)	9.4' TO WATER
	10.0	4			
6	10.0	4 3 2	WET LOOSE GRAY FINE TO COARSE SAND W/SOME SILT.	A-2-4(0)	
	12.0	4			
7	12.0	2 2 4	WET LOOSE GRAY COARSE TO FINE SAND W/TRACE FINE GRAVEL AND SILT.	A-1-B	
	14.0	5			
8	14.0	2 2 1	WET VERY LOOSE GRAY FINE SAND W/SOME COARSE SAND AND SILT.	A-2-4(0)	
	16.0	4			
9	16.0	1 2 2	WET VERY LOOSE GRAY FINE TO COARSE SAND W/SOME SILT.	A-2-4(0)	
	18.0	4			
10	18.0	2 5 6	WET MEDIUM DENSE GRAY FINE TO COARSE SAND W/TRACE SILT.	A-3	
	23.0	4			
11	23.0	8 4 3	WET LOOSE GRAY FINE TO COARSE SAND W/SOME SILT.	A-2-4(0)	
	28.0	5			
12	28.0	9 10 6	WET MEDIUM DENSE BROWN COARSE TO FINE SAND W/SOME FINE GRAVEL, TRACE OF SILT.	A-1-B	
	33.0	8			
13	33.0	5 1 6	WET LOOSE BROWN FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	
	38.0	3			
14	38.0	5 5 6	WET MEDIUM DENSE BROWN COARSE TO FINE SAND W/TRACE FINE GRAVEL AND SILT.	A-1-B	
	43.0	6			
15	43.0	3 3 5	WET LOOSE BROWN FINE SAND W/SOME COARSE SAND AND SILT.	A-2-4(0)	
	48.0	6			
16	48.0	8 8 9	WET MEDIUM DENSE BROWN COARSE SAND W/SOME FINE GRAVEL AND FINE SAND, TRACE OF SILT.	A-1-B	
	53.0	9			
17	53.0	6 6 7	WET MEDIUM DENSE BROWN FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-3	
	58.0	8			
18	58.0	5 4 6	WET LOOSE SAND COARSE TO FINE SAND W/TRACE FINE GRAVEL AND SILT.	A-2-4(0)	
	63.0	10			
19	63.0	5 9 8	WET MEDIUM DENSE BROWN COARSE TO FINE SAND W/TRACE FINE GRAVEL AND SILT.	A-1-B	
	68.0	10			
20	68.0	9 9 12	WET MEDIUM DENSE BROWN FINE GRAVELLY COARSE SAND W/SOME FINE SAND, TRACE OF SILT.	A-1-B	
	73.0	20			
21	73.0	10 15 16	WET DENSE GRAY COARSE SAND W/SOME FINE GRAVEL, FINE SAND AND SILT.	A-1-B	
	78.0	16			
22	78.0	10 12 16	WET MEDIUM DENSE BROWN COARSE SAND W/SOME FINE GRAVEL, TRACE OF COARSE SAND AND SILT.	A-1-B	
	84.0	22			
23	84.0	7 8 8	WET MEDIUM DENSE BROWN COARSE TO FINE SAND W/SOME FINE GRAVEL, TRACE OF SILT.	A-1-B	ABUTMENT A: ESTIMATED PILE TIP EL. -35.00
	89.0	11			

BORING: HB-7 CONT.

SAMPLE INFORMATION

NO.	DEPTH	BLOWS / 6"	DESCRIPTION	CLASS / G.I.	REMARKS
24	89.0	5 12 13	WET MEDIUM DENSE BROWN FINE TO COARSE SAND W/TRACE FINE GRAVEL AND SILT.	A-3	
	94.0	16			
25	94.0	2 5 8	WET MEDIUM DENSE BROWN FINE SAND W/TRACE COARSE SAND AND SILT.	A-3	
	98.0	12			
26	98.0	5 6 10	WET MEDIUM DENSE BROWN FINE SAND W/TRACE COARSE SAND AND SILT.	A-3	
	100.0	10			
			END BORING		

ADDENDA / REVISIONS

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	T201412701
COUNTY	SUSSEX
BRIDGE NO.	3-610
DESIGNED BY:	R. SEDAR
CHECKED BY:	W. GESCHREI

BORING LOG - II

BL-02	
SECTION	WRA
SHEET NO.	175

8/14/2025
9:52:52 AM
N:\32149-001\CADD\Bridge\86 - BL02.dgn

BORING: HB-8 | **DATE DRILLED:** 11/15/18
STATION: 564+01.65 | **OFFSET:** 71.27' | **ELEVATION:** 47.70' | **NORTHING:** 254086.3 | **EASTING:** 660751.7
COMMENTS: N/A

NO.	DEPTH	BLOWS / 6"	DESCRIPTION	CLASS / G.I.	REMARKS
1	0.0	2	WET STIFF GRAY FINE SANDY SILT W/SOME COARSE SAND AND CLAY.	A-4(0)	
		4			
		5			
	2.0	6			
2	2.0	8	WET VERY STIFF GRAY FINE SANDY CLAY W/SOME COARSE SAND AND SILT.	A-6(1)	
		9			
		14			
	4.0	16			
3	4.0	2	WET MEDIUM DENSE GRAY SILTY FINE TO COARSE SAND.	A-2-4(0)	
		6			
		10			
	6.0	12			
4	6.0	2	WET MEDIUM DENSE GRAY SILTY FINE TO COARSE SAND W/TRACE FINE GRAVEL.	A-2-4(0)	
		6			PIER:
		10			BOTTOM OF FOOTING EL. -41.25
	8.0	13			
5	8.0	2	WET LOOSE BROWN FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	
		4			
		5			
	10.0	5			10.0' TO WATER
6	10.0	2	WET VERY LOOSE BROWN FINE TO COARSE SAND W/SOME SILT.	A-2-4(0)	
		2			
		2			
	12.0	3			
7	12.0	2	WET FIRM BROWN FINE SANDY SILT W/TRACE COARSE SAND.	A-4(0)	
		3			
		5			
	14.0	6			
8	14.0	2	WET STIFF BROWN FINE SANDY SILT W/SOME COARSE SAND, TRACE OF FINE GRAVEL.	A-4(0)	
		4			
		5			
	16.0	6			
9	16.0	1	WET SOFT BROWN FINE SANDY SILT W/TRACE COARSE SAND.	A-4(0)	
		2			
		2			
	18.0	4			
10	18.0	3	WET LOOSE BROWN SILTY FINE SAND W/SOME COARSE SAND.	A-2-4(0)	
		2			
		3			
	24.0	5			
11	24.0	11	WET MEDIUM DENSE BROWN COARSE TO FINE SAND W/SOME FINE GRAVEL, TRACE OF SILT.	A-1-B	
		10			
		13			
	29.0	15			
12	29.0	4	WET LOOSE BROWN FINE GRAVELLY FINE SAND W/SOME COARSE SAND AND SILT.	A-2-4(0)	
		6			
		4			
	34.0	7			
13	34.0	9	WET MEDIUM DENSE BROWN COARSE TO FINE SAND W/SOME FINE GRAVEL AND SILT.	A-1-B	
		7			
		8			
	39.0	7			
14	39.0	5	WET MEDIUM DENSE BROWN FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	
		6			
		5			
	44.0	7			
15	44.0	6	WET MEDIUM DENSE BROWN FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	
		9			
		12			
	49.0	13			
16	49.0	3	WET MEDIUM DENSE BROWN FINE TO COARSE SAND W/TRACE FINE GRAVEL AND SILT.	A-3	
		5			
		6			
	54.0	12			
17	54.0	8	WET MEDIUM DENSE BROWN COARSE TO FINE SAND W/SOME FINE GRAVEL AND SILT.	A-1-B	
		10			
		11			
	59.0	12			
18	59.0	50/2	WET DENSE BROWN SILTY FINE SAND W/SOME COARSE SAND AND FINE GRAVEL.	A-2-4(0)	
	64.0				
19	64.0	50/3	WET VERY DENSE BROWN FINE SAND W/SOME SILT, TRACE OF COARSE SAND AND FINE GRAVEL.	A-2-4(0)	
	69.0				
20	69.0	14	WET MEDIUM DENSE BROWN COARSE TO FINE SAND W/TRACE FINE GRAVEL AND SILT.	A-1-B	
		14			
		16			
	74.0	14			
21	74.0	14	WET DENSE BROWN COARSE SAND W/SOME FINE GRAVEL AND FINE SAND, TRACE OF SILT.	A-1-B	
		20			
		26			
	79.0	16			
22	79.0	9	WET DENSE BROWN COARSE SAND W/TRACE FINE GRAVEL AND FINE SAND, TRACE OF SILT.	A-1-B	
		16			
		24			
	84.0	24			
23	84.0	3	WET MEDIUM DENSE GRAY FINE SAND W/SOME COARSE SAND, TRACE OF FINE GRAVEL AND SILT.	A-3	
		3			PIER:
		16			ESTIMATED PILE TIP EL. -40.00
	89.0	24			
24	89.0	1	WET MEDIUM DENSE GRAY FINE TO COARSE SAND W/TRACE FINE GRAVEL AND SILT.	A-3	
		8			
		14			
	94.0	13			
25	94.0	6	WET MEDIUM DENSE BROWN FINE SAND W/TRACE COARSE SAND AND SILT.	A-3	
		11			
		14			
	98.0	16			
26	98.0	2	WET LOOSE BROWN FINE SAND W/TRACE COARSE SAND, FINE GRAVEL AND SILT.	A-3	
		3			
		4			
	100.0	7			
			END BORING		

BORING: HB-9 | **DATE DRILLED:** 11/12/18
STATION: 653+97.55 | **OFFSET:** 1.91' | **ELEVATION:** 47.70' | **NORTHING:** 254155.1 | **EASTING:** 660741.9
COMMENTS: N/A

NO.	DEPTH	BLOWS / 6"	DESCRIPTION	CLASS / G.I.	REMARKS
1	0.0	1	WET FIRM GRAY CLAYEY FINE SANDY SILT W/ SOME COARSE SAND.	A-4(0)	
		2			
		5			
	2.0	4			
2	2.0	5	WET STIFF GRAY SILTY FINE SANDY CLAY W/ TRACE COARSE SAND.	A-6(2)	
		7			
		9			
	4.0	9			4.0' TO WATER
3	4.0	3	WET MEDIUM DENSE GRAY SILTY FINE TO COARSE SAND W/TRACE FINE GRAVEL.	A-2-4(0)	
		7			
		7			
	6.0	7			
4	6.0	6	WET MEDIUM DENSE GRAY SILTY FINE SAND W/SOME COARSE SAND.	A-2-4(0)	
		7			PIER:
		8			BOTTOM OF FOOTING EL. -41.25
	8.0	9			
5	8.0	2	WET LOOSE BROWN COARSE TO FINE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-1-B	
		3			
		2			
	10.0	3			
6	10.0	1	WET VERY LOOSE BROWN FINE TO COARSE SAND W/SOME SILT.	A-2-4(0)	
		1			
		2			
	12.0	2			
7	12.0	2	WET VERY LOOSE BROWN COARSE TO FINE SAND W/TRACE FINE GRAVEL AND SILT.	A-1-B	
		2			
		2			
	14.0	2			
8	14.0	1	WET FIRM BROWN SILTY FINE SANDY CLAY W/ TRACE COARSE SAND.	A-6(6)	
		2			
		4			
	16.0	2			
9	16.0	2	WET STIFF BROWN FINE SANDY SILT W/SOME COARSE SAND.	A-4(0)	
		4			
		8			
	18.0	6			
10	18.0	2	WET FIRM BROWN FINE SANDY SILT W/TRACE COARSE SAND.	A-4(0)	
		2			
		6			
	24.0	8			
11	24.0	8	WET MEDIUM DENSE BROWN FINE TO COARSE SAND W/SOME FINE GRAVEL, TRACE OF SILT.	A-1-B	
		9			
		15			
	29.0	11			
12	29.0	2	WET LOOSE BROWN FINE TO COARSE SAND W/TRACE SILT AND FINE GRAVEL.	A-3	
		3			
		2			
	34.0	7			
13	34.0	2	WET FIRM BROWN SILTY CLAY W/SOME COARSE SAND, TRACE OF FINE GRAVEL AND FINE SAND.	A-6(6)	
		2			
		6			
	39.0	7			
14	39.0	WH	WET LOOSE BROWN COARSE TO FINE SAND W/TRACE FINE GRAVEL AND SILT.	A-1-B	
		3			
		5			
	44.0	7			
15	44.0	3	WET MEDIUM DENSE BROWN FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	
		5			
		6			
	49.0	7			
16	49.0	3	WET MEDIUM DENSE BROWN COARSE TO FINE SAND W/TRACE FINE GRAVEL AND SILT.	A-1-B	
		4			
		7			
	54.0	8			
17	54.0	6	WET MEDIUM DENSE BROWN COARSE TO FINE SAND W/TRACE SILT.	A-1-B	
		7			
		21			
	59.0	24			
18	59.0	3	WET MEDIUM DENSE BROWN FINE TO COARSE SAND W/SOME FINE GRAVEL, TRACE OF SILT.	A-1-B	
		10			
		17			
	64.0	19			
19	64.0	2	WET MEDIUM DENSE BROWN FINE SAND W/SOME SILT, TRACE OF COARSE SAND AND FINE GRAVEL.	A-2-4(0)	
		10			
		14			
	69.0	25			
20	69.0	1	WET LOOSE BROWN COARSE SAND W/SOME FINE GRAVEL, TRACE OF FINE SAND AND SILT.	A-1-B	
		2			
		5			
	74.0	10			
21	74.0	3	WET MEDIUM DENSE BROWN COARSE SAND W/SOME FINE SAND, TRACE OF FINE GRAVEL AND SILT.	A-1-B	
		6			
		6			
	79.0	8			
22	79.0	4	WET MEDIUM DENSE BROWN COARSE SAND W/SOME FINE GRAVEL, TRACE OF FINE SAND AND SILT.	A-1-B	
		10			
		11			
	84.0	14			
23	84.0	12	WET MEDIUM DENSE GRAY FINE TO COARSE SAND AND FINE GRAVEL W/TRACE SILT.	A-1-B	
		15			PIER:
		17			ESTIMATED PILE TIP EL. -40.00
	89.0	24			
24	89.0	5	WET MEDIUM DENSE GRAY FINE TO COARSE SAND W/TRACE FINE GRAVEL AND SILT.	A-3	
		12			
		10			
	94.0	9			
25	94.0	1	WET VERY LOOSE GRAY FINE SAND W/TRACE COARSE SAND, FINE GRAVEL AND SILT.	A-3	
		2			
		1			
	98.0	7			

BORING: HB-9 CONT.

NO.	DEPTH	BLOWS / 6"	DESCRIPTION	CLASS / G.I.	REMARKS
26	98.0	3	WET MEDIUM DENSE GRAY FINE SAND W/TRACE COARSE SAND, FINE GRAVEL AND SILT.	A-3	
		3			
		9			
	100.0	10			
			END BORING		

ADDENDA / REVISIONS

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	T201412701
COUNTY	SUSSEX
BRIDGE NO.	3-610
DESIGNED BY:	R. SEDAR
CHECKED BY:	W. GESCHREI

BORING LOG - III

BL-03
SECTION: WRA
SHEET NO.: 176

8/14/2025
9:32:54 AM
N:\32149-001\CADD\Bridge\87 - BL03.dgn

BORING: HB-10 | **DATE DRILLED:** 10/25/18
STATION: 565+29.77 | **OFFSET:** 12.94' | **ELEVATION:** 49.60' | **NORTHING:** 254165.1 | **EASTING:** 660875.2
COMMENTS: N/A

SAMPLE INFORMATION

NO.	DEPTH	BLOWS / 6"	DESCRIPTION	CLASS / G.I.	REMARKS
1	0.0	1	MOIST LOOSE GRAY SILTY FINE TO COARSE SAND W/TRACE FINE	A-2-4(0)	
		2	GRAVEL.		
		4			
	2.0	2			
2	2.0	2	MOIST VERY LOOSE GRAY SILTY FINE SAND W/SOME COARSE SAND.	A-2-4(0)	
		1			
		2			
	4.0	4			
3	4.0	6	WET STIFF GRAY FINE SANDY CLAY W/SOME SILT, TRACE OF COARSE	A-6(2)	
		7	SAND.		
		6			
	6.0	6			
4	6.0	11	WET MEDIUM DENSE GRAY SILTY FINE SAND W/SOME COARSE SAND.	A-2-4(0)	
		13			
		13			7.0' TO WATER
	8.0	12			
5	8.0	8	WET LOOSE BROWN FINE TO COARSE SAND W/SOME SILT, TRACE OF	A-2-4(0)	
		5	FINE GRAVEL.		
		5			
	10.0	7			
6	10.0	2	WET MEDIUM DENSE BROWN FINE TO COARSE SAND W/SOME SILT.	A-2-4(0)	
		6			
		6			
	12.0	7			
7	12.0	1	WET LOOSE BROWN COARSE TO FINE SAND W/SOME SILT, TRACE OF	A-1-B	
		2	FINE GRAVEL.		
		5			
	14.0	3			
8	14.0	3	WET FIRM BROWN CLAYEY FINE SANDY SILT W/SOME COARSE SAND.	A-4(1)	
		2			
		4			
	16.0	7			
9	16.0	1	WET LOOSE BROWN FINE TO COARSE SAND W/SOME SILT.	A-2-4(0)	
		3			
		6			
	18.0	7			
10	18.0	5	WET MEDIUM DENSE BROWN FINE TO COARSE SAND W/SOME SILT.	A-2-4(0)	
		6			
		11			
	24.0	10			
11	24.0	6	WET MEDIUM DENSE BROWN FINE TO COARSE SAND W/SOME SILT, TRACE	A-2-4(0)	
		7	OF FINE GRAVEL.		
		7			
	29.0	15			
12	29.0	8	WET MEDIUM DENSE BROWN COARSE TO FINE SAND W/SOME SILT, TRACE	A-2-4(0)	
		8	OF FINE GRAVEL.		
		8			
	34.0	9			
13	34.0	6	WET MEDIUM DENSE BROWN COARSE TO FINE SAND W/SOME FINE	A-1-B	
		12	GRAVEL, TRACE OF SILT.		
		13			
	39.0	12			
14	39.0	6	WET MEDIUM DENSE BROWN FINE TO COARSE SAND W/TRACE FINE	A-3	
		6	GRAVEL AND SILT.		
		6			
	44.0	8			
15	44.0	12	WET MEDIUM DENSE BROWN COARSE TO FINE SAND W/TRACE FINE	A-1-B	
		14	GRAVEL AND SILT.		
		10			
	49.0	15			
16	49.0	3	WET MEDIUM DENSE BROWN FINE TO COARSE SAND W/SOME FINE	A-1-B	
		9	GRAVEL, TRACE OF SILT.		
		9			
	53.0	11			
17	53.0	19	WET MEDIUM DENSE BROWN FINE TO COARSE SAND W/TRACE FINE	A-3	
		7	GRAVEL AND SILT.		
		11			
	59.0	11			
18	59.0	9	WET MEDIUM DENSE BROWN COARSE TO FINE SAND W/TRACE FINE	A-1-B	
		7	GRAVEL AND SILT.		
		12			
	64.0	34			
19	64.0	18	WET DENSE BROWN SILTY FINE TO COARSE SAND W/SOME FINE GRAVEL.	A-2-4(0)	
		19			
		20			
	69.0	18			
20	69.0	19	WET VERY DENSE BROWN COARSE SAND W/SOME FINE GRAVEL AND FINE	A-1-B	
		22	SAND, TRACE OF SILT.		
		35			
	73.0	50			
21	73.0	19	WET MEDIUM DENSE BROWN FINE TO COARSE SAND W/TRACE FINE	A-3	
		9	GRAVEL AND SILT.		
		11			
	79.0	12			
22	79.0	33	WET MEDIUM DENSE BROWN COARSE TO FINE SAND W/SOME FINE	A-1-B	
		15	GRAVEL, TRACE OF SILT.		
		15			
	84.0	15			
23	84.0	33	WET VERY DENSE BROWN FINE TO COARSE SAND W/TRACE FINE GRAVEL	A-3	ABUTMENT B:
	89.0	50/4	AND SILT.		ESTIMATED PILE TIP EL. -35.00
24	89.0	17	WET DENSE BROWN COARSE SAND W/SOME FINE SAND AND FINE GRAVEL,	A-1-B	
		23	TRACE OF SILT.		
	94.0	50			
25	94.0	50	WET VERY DENSE BROWN COARSE SAND W/SOME FINE GRAVEL, TRACE OF	A-1-B	
	98.0	50/3	FINE SAND AND SILT.		
26	98.0	2	WET MEDIUM DENSE BROWN FINE GRAVELLY COARSE SAND W/TRACE FINE	A-1-B	
		6	SAND AND SILT.		
		8			
	100.0	10			
			END BORING		

BORING: HB-11 | **DATE DRILLED:** 10/29/18
STATION: 565+38.07 | **OFFSET:** 67.35' | **ELEVATION:** 50.40' | **NORTHING:** 254114.4 | **EASTING:** 660896.7
COMMENTS: N/A

SAMPLE INFORMATION

NO.	DEPTH	BLOWS / 6"	DESCRIPTION	CLASS / G.I.	REMARKS
1	0.0	1	MOIST LOOSE BROWN SILTY FINE TO COARSE SAND.	A-2-4(0)	
		3			
		6			
	2.0	8			
2	2.0	6	MOIST LOOSE BROWN SILTY FINE SAND W/SOME COARSE SAND.	A-2-4(0)	
		4			
		6			
	4.0	5			
3	4.0	5	WET STIFF BROWN FINE SANDY CLAY W/SOME SILT, TRACE OF COARSE	A-6(2)	
		5	SAND.		
		7			
	6.0	9			
4	6.0	8	WET VERY STIFF BROWN FINE SANDY CLAY W/ SOME SILT, TRACE OF	A-6(1)	
		9	COARSE SAND.		
		7			
	8.0	12			
5	8.0	7	WET MEDIUM DENSE BROWN SILTY FINE TO COARSE SAND W/TRACE FINE	A-2-4(0)	
		7	GRAVEL.		
		7			
	10.0	7			
6	10.0	2	WET MEDIUM DENSE BROWN FINE TO COARSE SAND W/TRACE SILT AND	A-3	
		7	FINE GRAVEL.		
		8			
	12.0	7			
7	12.0	4	WET LOOSE BROWN FINE TO COARSE SAND W/SOME SILT, TRACE OF	A-2-4(0)	
		6	FINE GRAVEL.		
		3			
	14.0	5			
8	14.0	2	WET FIRM BROWN CLAYEY FINE SANDY SILT W/SOME COARSE SAND.	A-4(2)	
		3			
		4			15.0' TO WATER
	16.0	6			
9	16.0	2	WET LOOSE BROWN SILTY FINE SAND W/SOME COARSE SAND.	A-2-4(0)	
		2			
		3			
	18.0	6			
10	18.0	2	WET LOOSE BROWN FINE SAND W/SOME SILT, TRACE OF COARSE SAND.	A-2-4(0)	
		4			
		3			
	23.0	8			
11	23.0	2	WET MEDIUM DENSE BROWN SILTY FINE TO COARSE SAND.	A-2-4(0)	
		8			
		7			
	29.0	5			
12	29.0	8	WET MEDIUM DENSE BROWN COARSE TO FINE SAND W/SOME SILT, TRACE	A-1-B	
		14	OF FINE GRAVEL.		
		12			
	34.0	12			
13	34.0	3	WET STIFF BROWN SILTY CLAY W/TRACE COARSE TO FINE SAND AND	A-6(9)	
		3	FINE GRAVEL.		
		7			
	39.0	16			
14	39.0	WR	WET VERY LOOSE BROWN FINE TO COARSE SAND W/SOME SILT, TRACE	A-2-4(0)	
		WR	OF FINE GRAVEL.		
		2			
	44.0	7			
15	44.0	5	WET MEDIUM DENSE BROWN COARSE TO FINE SAND W/TRACE SILT AND	A-1-B	
		6	FINE GRAVEL.		
		8			
	49.0	13			
16	49.0	WH	WET VERY LOOSE BROWN COARSE TO FINE SAND W/TRACE FINE GRAVEL	A-1-B	
		WH	AND SILT.		
		2			
	54.0	7			
17	54.0	5	WET MEDIUM DENSE BROWN FINE SAND W/SOME SILT, TRACE OF COARSE	A-2-4(0)	
		7	SAND AND FINE GRAVEL.		
		9			
	59.0	13			
18	59.0	15	WET DENSE BROWN COARSE TO FINE SAND W/TRACE FINE GRAVEL AND	A-1-B	
		15	SILT.		
		31			
	64.0	34			
19	64.0	3	WET MEDIUM DENSE BROWN COARSE TO FINE SAND W/SOME FINE	A-1-B	
		8	GRAVEL, TRACE OF SILT.		
		12			
	69.0	18			
20	69.0	12	WET DENSE BROWN COARSE TO FINE SAND AND FINE GRAVEL, TRACE OF	A-1-B	
		15	SILT.		
		21			
	74.0	20			
21	74.0	10	WET MEDIUM DENSE BROWN FINE TO COARSE SAND W/SOME FINE	A-1-B	
		10	GRAVEL, TRACE OF SILT.		
		11			
	79.0	15			
22	79.0	12	WET MEDIUM DENSE BROWN COARSE SAND W/SOME FINE SAND, TRACE OF	A-1-B	
		11	FINE GRAVEL AND SILT.		
		14			
	84.0	21			
23	84.0	5	WET MEDIUM DENSE BROWN FINE TO COARSE SAND W/TRACE FINE	A-3	
		7	GRAVEL AND SILT.		ABUTMENT B:
		17			ESTIMATED PILE TIP EL. -35.00
	89.0	30			
24	89.0	8	WET MEDIUM DENSE BROWN COARSE TO FINE SAND W/TRACE FINE	A-1-B	
		8	GRAVEL AND SILT.		
		15			
	94.0	33			
25	94.0	15	WET DENSE BROWN FINE GRAVELLY COARSE SAND W/SOME FINE SAND,	A-1-B	
		12	TRACE OF SILT.		
		19			
	98.0	25			
26	98.0	47	WET VERY BROWN COARSE SAND W/SOME FINE GRAVEL, TRACE OF FINE	A-1-B	
	100.0	50/3	SAND AND SILT.		

BORING: HB-11 CONT.

SAMPLE INFORMATION

NO.	DEPTH	BLOWS / 6"	DESCRIPTION	CLASS / G.I.	REMARKS
	98.0		END BORING		
	100.0				

BORING: HB-12 | **DATE DRILLED:** 10/31/18
STATION: 566+51.76 | **OFFSET:** 7.76' | **ELEVATION:** 49.00' | **NORTHING:** 254207.3 | **EASTING:** 660991.1
COMMENTS: N/A

SAMPLE INFORMATION

NO.	DEPTH	BLOWS / 6"	DESCRIPTION	CLASS / G.I.	REMARKS
1	0.5		MOIST GRAY SILTY FINE TO COARSE SAND.	A-2-4(0)	
	2.0				
2	2.0	1	WET FIRM BROWN CLAYEY FINE SANDY SILT W/TRACE COARSE SAND.	A-4(0)	
		2			
		3			
	4.0	4			
3	4.0	5	WET STIFF BROWN CLAYEY FINE SANDY SILT W/TRACE COARSE SAND.	A-4(0)	
		7			
		8			
	6.0	11			
4	6.0	7	WET MEDIUM DENSE BROWN SILTY FINE SAND W/TRACE COARSE SAND.	A-2-4(0)	
		8			
		7			
	8.0	8			
5	8.0	6	WET LOOSE GRAY COARSE TO FINE SAND W/SOME SILT.	A-1-B	
		4			
		5			
	10.0	6			
6	10.0	3	WET MEDIUM DENSE GRAY FINE TO COARSE SAND W/SOME SILT.	A-2-4(0)	
		5			
		7			11.0' TO WATER
	12.0	12			
7	12.0	3	WET MEDIUM DENSE GRAY COARSE TO FINE SAND W/SOME SILT.	A-2-4(0)	
		7			
		9			
	14.0	9			
8	14.0	1	WET LOOSE GRAY SILTY FINE TO COARSE SAND.	A-2-4(0)	
		4			
		3			
	16.0	5			
9	16.0	3	WET LOOSE GRAY SILTY FINE TO COARSE SAND.	A-2-4(0)	
		3			
		6			
	18.0	8			
10	18.0	1	SATURATED FIRM BROWN CLAYEY FINE SANDY SILT W/TRACE COARSE	A-4(2)	
		3	SAND.		
		4			
	24.0	5			
11	24.0	WH	SATURATED VERY LOOSE BROWN FINE TO COARSE SAND W/SOME SILT,	A-2-4(0)	
		1	TRACE OF FINE GRAVEL.		
		2			
	29.0	3			
12	29.0	4	SATURATED LOOSE BROWN COARSE TO FINE SAND W/SOME FINE GRAVEL	A-1-B	
		2	AND SILT.		
		3			
	34.0	1			
13	34.0	9	SATURATED MEDIUM DENSE BROWN COARSE TO FINE SAND W/TRACE FINE	A-1-B	
		7	GRAVEL AND SILT.		
		7			
	39.0	7			
14	39.0	1	SATURATED LOOSE BROWN COARSE TO FINE SAND W/TRACE FINE GRAVEL	A-1-B	
		4	AND SILT.		
		4			
	44.0	6			
15	44.0	6	SATURATED MEDIUM DENSE BROWN COARSE SAND W/SOME FINE GRAVEL,	A-1-B	
		7	TRACE OF FINE SAND AND SILT.		
		10			
	48.0	10			
16	48.0	6	SATURATED MEDIUM DENSE BROWN COARSE TO FINE SAND W/SOME FINE	A-1-B	
		7	GRAVEL, TRACE OF SILT.		
		8			
	50.0	9			
			END BORING		

ADDENDA / REVISIONS

US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION

CONTRACT	T201412701
COUNTY	SUSSEX
BRIDGE NO.	3-610
DESIGNED BY:	R. SEDAR
CHECKED BY:	W. GESCHREI

BORING LOG - IV

	BL-04
SECTION	WRA
SHEET NO.	177

8/14/2025
9:32:56 AM
N:\32149-001\CADD\Bridge\88 - BL04.dgn

BORING: HB-13 | **DATE DRILLED:** 10/24/18
STATION: 567+63.16 | **OFFSET:** 62.46' | **ELEVATION:** 47.70' | **NORTHING:** 254194.8 | **EASTING:** 661114.6
COMMENTS: N/A

NO.	DEPTH	BLOWS / 6"	DESCRIPTION	CLASS / G.I.	REMARKS
1	0.0	2	MOIST FIRM GRAY FINE SANDY SILT W/SOME COARSE SAND, TRACE OF FINE GRAVEL.	A-4(0)	
		4			
		3			
	2.0	3			
2	2.0	6	WET STIFF BROWN CLAYEY FINE SANDY SILT W/TRACE COARSE SAND.	A-4(0)	
		4			
		5			
	4.0	6			
3	4.0	4	WET MEDIUM DENSE BROWN SILTY FINE SAND W/SOME COARSE SAND.	A-2-4(0)	
		4			
		7			
	6.0	6			
4	6.0	6	WET MEDIUM DENSE GRAY SILTY FINE SAND W/SOME COARSE SAND.	A-2-4(0)	6.2' TO WATER
		8			
		10			
	8.0	9			
5	8.0	3	WET LOOSE GRAY SILTY FINE SAND W/SOME COARSE SAND.	A-2-4(0)	
		2			
		3			
	10.0	5			
6	10.0	2	WET LOOSE GRAY FINE SAND W/SOME COARSE SAND AND SILT.	A-2-4(0)	
		3			
		5			
	12.0	8			
7	12.0	2	WET LOOSE GRAY FINE TO COARSE SAND W/SOME SILT.	A-2-4(0)	
		2			
		5			
	14.0	6			
8	14.0	2	WET SOFT BROWN CLAYEY FINE SANDY SILT W/SOME COARSE SAND.	A-4(0)	
		1			
		2			
	16.0	3			
9	16.0	3	WET VERY STIFF BROWN CLAYEY FINE SANDY SILT W/SOME COARSE SAND.	A-4(0)	
		8			
		9			
	18.0	11			
10	18.0	3	WET FIRM BROWN CLAYEY FINE SANDY SILT W/SOME COARSE SAND.	A-4(2)	
		3			
		4			
	24.0	4			
11	24.0	4	WET LOOSE GRAY FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	
		5			
		5			
	29.0	11			
12	29.0	3	WET FIRM BROWN COARSE SANDY CLAY W/SOME FINE SAND AND SILT, TRACE OF FINE GRAVEL.	A-6(2)	
		4			
		4			
	34.0	4			
13	34.0	2	WET FIRM BROWN CLAY W/SOME COARSE TO FINE SAND AND SILT, TRACE OF FINE GRAVEL.	A-6(3)	
		3			
		4			
	39.0	4			
14	39.0	3	WET VERY LOOSE BROWN COARSE TO FINE SAND W/TRACE FINE GRAVEL AND SILT.	A-1-B	
		1			
		2			
	44.0	6			
15	44.0	4	WET MEDIUM DENSE BROWN COARSE TO FINE SAND W/TRACE FINE GRAVEL AND SILT.	A-1-B	
		10			
		11			
	48.0	10			
16	48.0	1	WET LOOSE BROWN FINE SAND W/SOME COARSE SAND AND SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	
		4			
		5			
	50.0	9			
			END BORING		

BORING: HB-14 | **DATE DRILLED:** 10/31/18
STATION: 568+65.96 | **OFFSET:** 33.35' | **ELEVATION:** 47.30' | **NORTHING:** 254320.4 | **EASTING:** 661177.6
COMMENTS: N/A

NO.	DEPTH	BLOWS / 6"	DESCRIPTION	CLASS / G.I.	REMARKS
1	0.0	1	MOIST LOOSE GRAY SILTY FINE SAND W/SOME COARSE SAND, TRACE OF FINE GRAVEL.	A-2-4(0)	
		3			
		2			
	2.0	1			
2	2.0	3	WET FIRM GRAY CLAYEY FINE SANDY SILT W/ TRACE COARSE SAND AND FINE GRAVEL.	A-4(1)	
		3			
		3			
	4.0	5			
3	4.0	2	WET LOOSE GRAY SILTY FINE SAND W/TRACE COARSE SAND.	A-2-4(0)	
		3			
		5			
	6.0	6			
4	6.0	8	WET MEDIUM DENSE GRAY SILTY FINE TO COARSE SAND.	A-2-4(0)	6.0' TO WATER
		8			
		7			
	8.0	7			
5	8.0	1	WET VERY LOOSE GRAY SILTY FINE SAND W/TRACE COARSE SAND.	A-2-4(0)	
		1			
		2			
	10.0	2			
6	10.0	2	WET LOOSE GRAY FINE SAND W/SOME COARSE SAND AND SILT.	A-2-4(0)	
		3			
		6			
	12.0	7			
7	12.0	4	WET LOOSE GRAY FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	
		3			
		4			
	14.0	5			

BORING: HB-14 CONT.

NO.	DEPTH	BLOWS / 6"	DESCRIPTION	CLASS / G.I.	REMARKS
8	14.0	WR	WET VERY LOOSE GRAY FINE SAND W/SOME COARSE SAND AND SILT.	A-2-4(0)	
		1			
		2			
	16.0	2			
9	16.0	2	WET LOOSE GRAY FINE SAND W/SOME SILT, TRACE OF COARSE SAND.	A-2-4(0)	
		2			
		3			
	18.0	5			
10	18.0	3	WET LOOSE GRAY FINE TO COARSE SAND W/SOME SILT.	A-2-4(0)	
		4			
		4			
	24.0	8			
11	24.0	2	WET VERY LOOSE GRAY FINE SAND W/SOME COARSE SAND AND SILT.	A-2-4(0)	
		2			
		2			
	29.0	3			
12	29.0	2	WET LOOSE GRAY FINE SAND W/SOME SILT, TRACE OF COARSE SAND.	A-2-4(0)	
		2			
		3			
	34.0	3			
13	34.0	3	WET LOOSE GRAY FINE TO COARSE SAND W/TRACE SILT.	A-3	
		4			
		5			
	38.0	6			
14	38.0	4	WET LOOSE GRAY FINE SAND W/SOME SILT, TRACE OF COARSE SAND AND FINE GRAVEL.	A-2-4(0)	
		2			
		4			
	40.0	6			
			END BORING		

BORING: HB-15 | **DATE DRILLED:** 10/16/18
STATION: 570+86.26 | **OFFSET:** 36.07' | **ELEVATION:** 47.70' | **NORTHING:** 254316.3 | **EASTING:** 661406.6
COMMENTS: N/A

NO.	DEPTH	BLOWS / 6"	DESCRIPTION	CLASS / G.I.	REMARKS
1	0.0		MOIST BROWN CLAYEY FINE SANDY SILT W/SOME COARSE SAND.	A-4(0)	
	2.0				
2	2.0		WET BROWN CLAYEY FINE SANDY SILT W/SOME COARSE SAND.	A-4(1)	
	4.0				
3	4.0	3	WET LOOSE GRAY SILTY FINE SAND W/SOME COARSE SAND.	A-2-4(0)	
		3			
		4			
	6.0	6			
4	6.0	6	WET MEDIUM DENSE GRAY FINE TO COARSE SAND W/SOME SILT.	A-2-4(0)	
		7			
		7			
	8.0	7			7.7' TO WATER
5	8.0	3	WET LOOSE BROWN SILTY FINE TO COARSE SAND.	A-2-4(0)	
		3			
		3			
	10.0	3			
6	10.0	3	WET LOOSE BROWN FINE TO COARSE SAND W/SOME SILT.	A-3	
		3			
		7			
	12.0	6			
7	12.0	5	WET MEDIUM DENSE BROWN FINE TO COARSE SAND W/SOME SILT.	A-2-4(0)	
		9			
		11			
	14.0	12			
8	14.0	7	WET LOOSE BROWN COARSE TO FINE SAND W/TRACE FINE GRAVEL AND SILT.	A-1-B	
		7			
		1			
	16.0	1			
9	16.0	3	WET LOOSE BROWN COARSE TO FINE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-1-B	
		4			
		5			
	18.0	6			
10	18.0	8	WET MEDIUM DENSE BROWN COARSE TO FINE SAND W/TRACE FINE GRAVEL AND SILT.	A-1-B	
		9			
		5			
	24.0	13			
11	24.0	4	WET MEDIUM DENSE BROWN COARSE TO FINE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-1-B	
		6			
		6			
	28.0	7			
12	28.0	6	WET MEDIUM DENSE BROWN COARSE TO FINE SAND W/TRACE FINE GRAVEL AND SILT.	A-1-B	
		11			
		13			
	30.0	14			
			END BORING		

BORING: HB-16 | **DATE DRILLED:** 10/16/18
STATION: 573+61.12 | **OFFSET:** 17.78' | **ELEVATION:** 47.80' | **NORTHING:** 254382.1 | **EASTING:** 661674.4
COMMENTS: N/A

NO.	DEPTH	BLOWS / 6"	DESCRIPTION	CLASS / G.I.	REMARKS
1	1.0		MOIST GRAY SILTY FINE TO COARSE SAND W/ SOME CLAY, TRACE OF FINE GRAVEL.	A-2-4(0)	
	2.0				
2	2.0		MOIST BROWN FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	
	4.0				
3	4.0	3	MOIST VERY LOOSE GRAY SILTY FINE TO COARSE SAND W/SOME FINE GRAVEL.	A-2-4(0)	4.6' TO WATER
		1			
		1			
	6.0	4			
4	6.0	3	WET LOOSE GRAY FINE SAND AND FINE GRAVEL W/SOME COARSE SAND AND SILT.	A-2-4(0)	
		5			
		3			
	8.0	4			
5	8.0	5	WET LOOSE GRAY FINE TO COARSE SAND W/SOME SILT AND FINE GRAVEL.	A-2-4(0)	
		5			
		4			
	10.0	3			

BORING: HB-16 CONT.

NO.	DEPTH	BLOWS / 6"	DESCRIPTION	CLASS / G.I.	REMARKS
6	10.0	2	WET VERY LOOSE GRAY FINE SAND W/SOME COARSE SAND, FINE GRAVEL AND SILT.	A-2-4(0)	
		1			
		1			
	12.0	1			
7	12.0	1	WET LOOSE GRAY FINE SAND W/SOME COARSE SAND AND SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	
		3			
		3			
	14.0	2			
8	14.0	3	WET MEDIUM DENSE GRAY FINE SAND W/SOME COARSE SAND, FINE GRAVEL AND SILT.	A-2-4(0)	
		5			
		7			
	16.0	10			
			END BORING		

BORING: RB-1 | **DATE DRILLED:** 10/15/18
STATION: 319+98.45 | **OFFSET:** 19.35' | **ELEVATION:** 47.10' | **NORTHING:** 253232.1 | **EASTING:** 660880.4
COMMENTS: N/A

NO.	DEPTH	BLOWS / 6"	DESCRIPTION	CLASS / G.I.	REMARKS
1	0.5		MOIST GRAY SILT AND FINE GRAVEL W/SOME FINE TO COARSE SAND.	A-2-4(0)	
	2.0				
2	2.0		MOIST GRAY FINE SANDY SILT W/SOME COARSE SAND, TRACE OF FINE GRAVEL.	A-4(0)	
	4.0				
3	4.0	10	WET LOOSE BROWN FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	
		4			
		3			
	6.0	3			
4	6.0	2	WET LOOSE BROWN FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	
		3			6.5' TO WATER
		2			
	8.0	2			
5	8.0	3	WET LOOSE BROWN FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	
		3			
		4			
	10.0	3			
6	10.0	2	WET VERY LOOSE BROWN FINE TO COARSE SAND W/SOME SILT.	A-2-4(0)	
		1			
		2			
	12.0	3			
7	12.0	1	WET LOOSE BROWN COARSE TO FINE SAND W/TRACE FINE GRAVEL AND SILT.	A-1-B	
		4			
		6			
	14.0	6			
8	14.0	8	WET MEDIUM DENSE BROWN COARSE TO FINE SAND W/TRACE FINE GRAVEL AND SILT.	A-1-B	
		7			
		7			
	16.0	7			
			END BORING		

BORING: RB-2 | **DATE DRILLED:** 10/10/18
STATION: 909+75.56 | **OFFSET:** 59.56' | **ELEVATION:** 45.60' | **NORTHING:** 253529.5 | **EASTING:** 660710.2
COMMENTS: N/A

NO.	DEPTH	BLOWS / 6"	DESCRIPTION	CLASS / G.I.	REMARKS
1	0.0	3	WET LOOSE GRAY SILTY FINE SAND W/SOME COARSE SAND.	A-2-4(0)	
		4			
		5			
	2.0	5			
2	2.0	6	WET MEDIUM DENSE GRAY SILTY FINE SAND W/SOME COARSE SAND.	A-2-4(0)	
		5			
		6			
	4.0	7			
3	4.0	3	WET LOOSE BROWN FINE TO COARSE SAND W/SOME SILT.	A-2-4(0)	
		5			
		3			5.4' TO WATER
	6.0	4			
4	6.0	3	WET LOOSE BROWN FINE TO COARSE SAND W/SOME SILT.	A-2-4(0)	
		5			
		5			
	8.0	4			
5	8.0	3	WET LOOSE BROWN FINE TO COARSE SAND W/SOME SILT.	A-2-4(0)	
		4			
		5			
	10.0	7			
6	10.0	2	WET LOOSE BROWN FINE TO COARSE SAND W/TRACE SILT.	A-3	
		3			
		3			
	12.0	2			
7	12.0	3	WET LOOSE BROWN FINE TO COARSE SAND W/TRACE FINE GRAVEL AND SILT.	A-3	
		4			
		6			
	14.0	6			
8	14.0	3	WET LOOSE BROWN FINE TO COARSE SAND W/TRACE SILT.	A-3	
		3			
		4			
	16.0	3			
9	16.0	4	WET LOOSE BROWN FINE TO COARSE SAND W/TRACE SILT.	A-3	
		5			
		5			
	18.0	8			
10	18.0	4	WET MEDIUM DENSE BROWN FINE TO COARSE SAND W/TRACE SILT AND FINE GRAVEL.	A-3	
		6			
		6			
	20.0	8			
			END BORING		

ADDENDA / REVISIONS

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	T201412701
COUNTY	SUSSEX
BRIDGE NO.	3-610
DESIGNED BY:	R. SEDAR
CHECKED BY:	W. GESCHREI

BORING LOG - V

	BL-05
SECTION	WRA
SHEET NO.	178

8/14/2025
9:52:58 AM
N:\32149-001\CADD\Bridge\89 - BL05.dgn

BORING: RB-3 | **DATE DRILLED:** 10/10/18
STATION: 905+72.75 | **OFFSET:** 52.14' | **ELEVATION:** 48.40' | **NORTHING:** 253667.6 | **EASTING:** 660354.2
COMMENTS: N/A

NO.	DEPTH	BLOWS / 6"	DESCRIPTION	CLASS / G.I.	REMARKS
1	0.0	2	MOIST VERY LOOSE BROWN SILTY FINE SAND W/SOME COARSE SAND.	A-2-4(0)	
		2			
		1			
	2.0	2			
2	2.0	2	WET STIFF BROWN FINE SANDY SILT W/TRACE COARSE SAND.	A-4(0)	
		5			
		7			
	4.0	12			
3	4.0	11	WET DENSE BROWN SILTY FINE TO COARSE SAND W/TRACE FINE GRAVEL.	A-2-4(0)	4.6' TO WATER
		12			
		20			
	6.0	20			
4	6.0	11	WET MEDIUM DENSE BROWN SILTY FINE SAND W/SOME COARSE SAND.	A-2-4(0)	
		12			
		16			
	8.0	16			
5	8.0	6	WET LOOSE BROWN FINE SAND W/SOME COARSE SAND AND SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	
		4			
		4			
	10.0	4			
6	10.0	2	WET STIFF BROWN FINE SANDY SILT W/TRACE COARSE SAND.	A-4(0)	
		3			
		6			
	12.0	6			
7	12.0	4	WET LOOSE BROWN SILTY FINE SAND W/TRACE COARSE SAND.	A-2-4(0)	
		4			
		5			
	14.0	6			
8	14.0	4	WET STIFF BROWN FINE SANDY SILT W/TRACE COARSE SAND.	A-4(0)	
		3			
		4			
	16.0	4			
9	16.0	4	WET STIFF BROWN FINE SANDY SILT W/TRACE COARSE SAND.	A-4(0)	
		3			
		4			
	18.0	7			
10	18.0	3	WET LOOSE BROWN FINE SAND W/SOME SILT, TRACE OF COARSE SAND.	A-2-4(0)	
		4			
		3			
	20.0	5			
			END BORING		

BORING: RB-4 | **DATE DRILLED:** 10/12/18
STATION: 903+52.98 | **OFFSET:** 13.17' | **ELEVATION:** 48.80' | **NORTHING:** 253883.9 | **EASTING:** 660242.4
COMMENTS: N/A

NO.	DEPTH	BLOWS / 6"	DESCRIPTION	CLASS / G.I.	REMARKS
1	0.0	1	WET VERY LOOSE BROWN SILTY FINE SAND W/ SOME COARSE SAND.	A-2-4(0)	
		1			
		1			
	2.0	1			
2	2.0	2	WET FIRM BROWN CLAYEY FINE SANDY SILT W/SOME COARSE SAND.	A-4(0)	2.1' TO WATER
		3			
		3			
	4.0	4			
3	4.0	2	WET VERY STIFF GRAY FINE TO COARSE SANDY CLAY W/SOME SILT.	A-6(3)	
		7			
		12			
	6.0	15			
4	6.0	19	WET DENSE GRAY SILTY FINE TO COARSE SAND.	A-2-4(0)	
		17			
		14			
	8.0	16			
5	8.0	2	WET LOOSE GRAY FINE TO COARSE SAND W/SOME SILT.	A-2-4(0)	
		2			
		3			
	10.0	2			
6	10.0	2	WET LOOSE GRAY FINE SAND W/SOME COARSE SAND AND SILT.	A-2-4(0)	
		2			
		3			
	12.0	3			
7	12.0	1	WET LOOSE GRAY FINE SAND W/SOME COARSE SAND AND SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	
		3			
		2			
	14.0	4			
8	14.0	1	SATURATED SOFT GRAY FINE SANDY SILT W/TRACE COARSE SAND.	A-4(0)	
		2			
		2			
	16.0	1			
9	16.0	1	SATURATED VERY LOOSE GRAY FINE SAND W/SOME SILT, TRACE OF COARSE SAND.	A-2-4(0)	
		2			
		2			
	18.0	2			
10	18.0	2	SATURATED LOOSE GRAY SILTY FINE SAND W/ TRACE COARSE SAND.	A-2-4(0)	
		3			
		3			
	24.0	4			
11	24.0	3	SATURATED VERY LOOSE GRAY FINE SAND W/SOME SILT, TRACE OF COARSE SAND AND FINE GRAVEL.	A-2-4(0)	
		1			
		1			
	28.0	1			
12	28.0	7	SATURATED LOOSE GRAY FINE TO COARSE SAND W/TRACE FINE GRAVEL AND SILT.	A-3	
		3			
		5			
	30.0	6			
			END BORING		

BORING: RB-5 | **DATE DRILLED:** 10/12/18
STATION: 901+28.68 | **OFFSET:** 6.27' | **ELEVATION:** 47.80' | **NORTHING:** 254103.5 | **EASTING:** 660298.1
COMMENTS: N/A

NO.	DEPTH	BLOWS / 6"	DESCRIPTION	CLASS / G.I.	REMARKS
1	0.0	1	MOIST VERY LOOSE BROWN SILTY FINE SAND W/SOME COARSE SAND, TRACE OF FINE GRAVEL.	A-2-4(0)	
		1			
		1			
	2.0	1			
2	2.0	4	MOIST MEDIUM DENSE BROWN SILTY FINE SAND W/SOME COARSE SAND.	A-2-4(0)	
		5			
		8			
	4.0	6			
3	4.0	2	MOIST STIFF GRAY CLAYEY FINE SANDY SILT W/TRACE COARSE SAND.	A-4(1)	4.5' TO WATER
		5			
		7			
	6.0	4			
4	6.0	20	MOIST DENSE GRAY SILTY FINE TO COARSE SAND.	A-2-4(0)	
		18			
		13			
	8.0	4			
5	8.0	3	WET MEDIUM DENSE GRAY FINE SAND W/SOME COARSE SAND AND SILT.	A-2-4(0)	
		6			
		6			
	10.0	7			
6	10.0	2	WET MEDIUM DENSE GRAY COARSE TO FINE SAND W/SOME FINE GRAVEL, TRACE OF SILT.	A-1-B	
		6			
		5			
	12.0	3			
7	12.0	2	WET VERY LOOSE GRAY CLAYEY COARSE TO FINE SAND W/SOME SILT AND FINE GRAVEL.	A-2-6(0)	
		2			
		2			
	14.0	2			
8	14.0	1	WET LOOSE GRAY SILTY FINE SAND W/SOME COARSE SAND, TRACE OF FINE GRAVEL.	A-2-4(0)	
		2			
		3			
	16.0	4			
9	16.0	1	WET VERY LOOSE GRAY FINE TO COARSE SAND W/SOME SILT.	A-2-4(0)	
		1			
		3			
	18.0	3			
10	18.0	1	WET STIFF GRAY FINE SANDY SILT W/SOME COARSE SAND.	A-4(0)	
		6			
		6			
	24.0	9			
11	24.0	5	WET LOOSE GRAY FINE TO COARSE SAND W/SOME SILT.	A-2-4(0)	
		4			
		3			
	29.0	5			
12	29.0	5	WET LOOSE GRAY FINE TO COARSE SAND W/SOME SILT.	A-2-4(0)	
		5			
		3			
	34.0	3			
13	34.0	4	WET VERY LOOSE GRAY FINE SAND W/SOME COARSE SAND AND SILT.	A-2-4(0)	
		1			
		2			
	38.0	4			
14	38.0	7	WET MEDIUM DENSE GRAY COARSE TO FINE SAND W/TRACE FINE GRAVEL AND SILT.	A-1-B	
		8			
		10			
	40.0	12			
			END BORING		

BORING: RB-6 | **DATE DRILLED:** 10/15/18
STATION: 800+79.51 | **OFFSET:** 8.33' | **ELEVATION:** 47.80' | **NORTHING:** 253978.4 | **EASTING:** 660712.1
COMMENTS: N/A

NO.	DEPTH	BLOWS / 6"	DESCRIPTION	CLASS / G.I.	REMARKS
1	0.0		MOIST BROWN SILTY FINE TO COARSE SAND W/TRACE FINE GRAVEL.	A-2-4(0)	
	2.0				
2	2.0		MOIST BROWN SILTY FINE SAND W/SOME COARSE SAND.	A-2-4(0)	
	4.0				
3	4.0	3	MOIST LOOSE BROWN SILTY FINE SAND W/SOME COARSE SAND.	A-2-4(0)	
		3			
		5			
	6.0	10			
4	6.0	13	MOIST MEDIUM DENSE GRAY SILTY COARSE TO FINE SAND.	A-2-4(0)	6.6' TO WATER
		12			
		13			
	8.0	13			
5	8.0	2	WET MEDIUM DENSE BROWN SILTY FINE TO COARSE SAND.	A-2-4(0)	
		6			
		6			
	10.0	5			
6	10.0	3	WET LOOSE BROWN FINE TO COARSE SAND W/SOME SILT.	A-2-4(0)	
		4			
		6			
	12.0	5			
7	12.0	3	WET LOOSE BROWN COARSE TO FINE SAND W/SOME SILT.	A-1-B	
		4			
		6			
	14.0	4			
8	14.0	1	WET LOOSE BROWN COARSE TO FINE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-1-B	
		1			
		6			
	16.0	6			
9	16.0	4	WET LOOSE BROWN FINE TO COARSE SAND W/SOME SILT.	A-2-4(0)	
		5			
		5			
	18.0	5			
10	18.0	5	WET MEDIUM DENSE BROWN FINE TO COARSE SAND W/SOME SILT.	A-2-4(0)	
		10			
		12			
	20.0	12			
			END BORING		

BORING: RB-7 | **DATE DRILLED:** 10/10/18
STATION: 803+52.77 | **OFFSET:** 45.83' | **ELEVATION:** 47.00' | **NORTHING:** 253700.3 | **EASTING:** 660653.8
COMMENTS: N/A

NO.	DEPTH	BLOWS / 6"	DESCRIPTION	CLASS / G.I.	REMARKS
1	0.0	2	MOIST FIRM GRAY FINE SANDY SILT W/SOME COARSE SAND, TRACE OF CLAY.	A-4(0)	
		3			
		2			
	2.0	2			
2	2.0	9	MOIST MEDIUM DENSE GRAY SILTY FINE SAND W/SOME COARSE SAND AND CLAY.	A-2-4(0)	
		8			
		10			
	4.0	9			
3	4.0	5	WET MEDIUM DENSE GRAY FINE TO COARSE SAND W/SOME SILT.	A-2-4(0)	
		7			
		10			
	6.0	7			5.9' TO WATER
4	6.0	8	WET MEDIUM DENSE GRAY FINE TO COARSE SAND W/SOME SILT.	A-2-4(0)	
		7			
		6			
	8.0	5			
5	8.0	4	WET LOOSE GRAY FINE TO COARSE SAND W/SOME SILT.	A-2-4(0)	
		5			
		5			
	10.0	7			
6	10.0	2	WET MEDIUM DENSE GRAY FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	
		4			
		7			
	12.0	10			
7	12.0	4	WET MEDIUM DENSE GRAY COARSE TO FINE SAND W/TRACE SILT.	A-1-B	
		7			
		7			
	14.0	7			
8	14.0	4	WET LOOSE GRAY FINE TO COARSE SAND W/SOME SILT.	A-2-4(0)	
		4			
		6			
	16.0	7			
9	16.0	3	WET MEDIUM DENSE GRAY FINE TO COARSE SAND W/SOME SILT.	A-2-4(0)	
		5			
		8			
	18.0	11			
10	18.0	3	WET LOOSE GRAY FINE TO COARSE SAND W/TRACE SILT.	A-3	
		4			
		6			
	20.0	12			
			END BORING		

BORING: RB-8 | **DATE DRILLED:** 10/15/18
STATION: 711+02.12 | **OFFSET:** 7.31' | **ELEVATION:** 47.40' | **NORTHING:** 255070.1 | **EASTING:** 660625.7
COMMENTS: N/A

NO.	DEPTH	BLOWS / 6"	DESCRIPTION	CLASS / G.I.	REMARKS
1	1.0		MOIST GRAY CLAYEY FINE SAND W/SOME COARSE SAND AND FINE GRAVEL.	A-2-6(0)	
	2.0				
2	2.0		MOIST GRAY SILTY FINE GRAVEL W/SOME COARSE TO FINE SAND.	A-1-B	
	4.0				
3	4.0	10	MOIST MEDIUM DENSE GRAY FINE GRAVEL W/SOME COARSE TO FINE SAND, TRACE OF SILT.	A-1-A	
		9			
		10			
	6.0	12			
4	6.0	12	MOIST MEDIUM DENSE GRAY FINE TO COARSE SAND W/SOME FINE GRAVEL AND SILT.	A-2-4(0)	
		9			
		9			
	8.0	8			7.6' TO WATER
5	8.0	4	WET STIFF GRAY CLAYEY FINE SANDY SILT W/TRACE COARSE SAND.	A-4(3)	
		5			
		5			
	10.0	4			
6	10.0	5	WET LOOSE BROWN SILTY FINE SAND W/SOME COARSE SAND AND FINE GRAVEL.	A-2-4(0)	
		5			
		3			
	12.0	3			
7	12.0	2	WET FIRM BROWN FINE SANDY SILT W/TRACE COARSE SAND AND FINE GRAVEL.	A-4(0)	
		3			
		4			
	14.0	6			
8	14.0	3	WET STIFF BROWN FINE SANDY SILT W/TRACE COARSE SAND.	A-4(0)	
		7			
		9			
	16.0	11			
			END BORING		

ADDENDA / REVISIONS

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO. 3-610
T201412701	DESIGNED BY: R. SEDAR
COUNTY	CHECKED BY: W. GESCHREI
SUSSEX	

BORING LOG - VI

BL-06
SECTION
WRA
SHEET NO.
179

8/14/2025
9:53:00 AM
N:\32149-001\CADD\Bridge\90 - BL06.dgn

BORING: RB-9 | **DATE DRILLED:** 10/17/18
STATION: 707+71.35 | **OFFSET:** 22.38' | **ELEVATION:** 46.10' | **NORTHING:** 254821.0 | **EASTING:** 660802.7
COMMENTS: N/A

NO.	DEPTH	BLOWS / 6"	DESCRIPTION	CLASS / G.I.	REMARKS
1	0.0 2.0		WET GRAY CLAYEY FINE SANDY SILT W/SOME COARSE SAND.	A-4(0)	
2	2.0 4.0		WET BROWN FINE SANDY SILT W/SOME COARSE SAND AND CLAY, TRACE OF FINE GRAVEL.	A-4(0)	
3	4.0 6.0	3 4 5 4	WET LOOSE GRAY SILTY FINE TO COARSE SAND.	A-2-4(0)	
4	6.0 8.0	3 4 4 5	WET LOOSE GRAY FINE TO COARSE SAND W/SOME SILT.	A-2-4(0)	
5	8.0 10.0	2 2 2 3	WET SOFT GRAY CLAYEY FINE SANDY SILT W/ TRACE COARSE SAND.	A-4(2)	
6	10.0 12.0	2 2 3 2	WET FIRM GRAY CLAYEY FINE SANDY SILT W/ TRACE COARSE SAND.	A-4(3)	
7	12.0 14.0	2 3 3 7	WET FIRM GRAY CLAYEY FINE SANDY SILT W/ TRACE COARSE SAND.	A-4(5)	13.2' TO WATER
8	14.0 16.0	2 2 4 5	WET FIRM GRAY FINE SANDY SILT W/SOME COARSE SAND.	A-4(0)	
9	16.0 18.0	2 2 6 9	WET LOOSE GRAY FINE TO COARSE SAND W/SOME SILT.	A-2-4(0)	
10	18.0 24.0	3 5 7 8	WET MEDIUM DENSE GRAY COARSE TO FINE SAND W/TRACE SILT.	A-1-B	
11	24.0 28.0	6 6 5 6	WET MEDIUM DENSE GRAY COARSE TO FINE SAND W/TRACE FINE GRAVEL AND SILT.	A-1-B	
12	28.0 30.0	4 1 1 4	WET VERY LOOSE GRAY FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	
			END BORING		

BORING: RB-10 | **DATE DRILLED:** 10/18/18
STATION: 607+03.58 | **OFFSET:** 41.25' | **ELEVATION:** 47.90' | **NORTHING:** 254675.2 | **EASTING:** 661137.5
COMMENTS: N/A

NO.	DEPTH	BLOWS / 6"	DESCRIPTION	CLASS / G.I.	REMARKS
1	0.5 2.0		MOIST BROWN SILTY FINE SAND W/SOME COARSE SAND AND FINE GRAVEL.	A-2-4(0)	
2	2.0 4.0	1 2 2 3	MOIST SOFT BROWN FINE SANDY SILT W/SOME COARSE SAND AND CLAY.	A-4(0)	3.8' TO WATER
3	4.0 6.0	7 10 7 7	MOIST MEDIUM DENSE GRAY SILTY FINE TO COARSE SAND.	A-2-4(0)	
4	6.0 8.0	5 5 6 5	WET MEDIUM DENSE GRAY FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	
5	8.0 10.0	2 1 2 2	WET VERY LOOSE GRAY SILTY FINE SAND W/SOME COARSE SAND.	A-2-4(0)	
6	10.0 12.0	1 2 1 1	WET VERY LOOSE GRAY FINE TO COARSE SAND W/SOME SILT.	A-2-4(0)	
7	12.0 14.0	1 2 3 3	WET LOOSE GRAY FINE TO COARSE SAND W/SOME SILT.	A-2-4(0)	
8	14.0 16.0	WR WR 1 1	WET VERY LOOSE GRAY FINE TO COARSE SAND W/SOME SILT.	A-2-4(0)	
9	16.0 18.0	1 1 1 1	WET VERY LOOSE GRAY FINE TO COARSE SAND W/SOME SILT.	A-2-4(0)	
10	18.0 24.0	2 4 5 4	WET LOOSE GRAY FINE TO COARSE SAND W/SOME SILT.	A-2-4(0)	
11	24.0 29.0	3 4 3 2	WET LOOSE GRAY FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	
12	29.0 34.0	9 3 4 7	WET LOOSE GRAY COARSE TO FINE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-1-B	
13	34.0 38.0	14 9 8 9	WET MEDIUM DENSE GRAY COARSE TO FINE SAND W/SOME FINE GRAVEL, TRACE OF SILT.	A-1-B	

BORING: RB-10 CONT.

NO.	DEPTH	BLOWS / 6"	DESCRIPTION	CLASS / G.I.	REMARKS
	38.0 40.0	6 6			
			END BORING		

BORING: RB-11 | **DATE DRILLED:** 10/18/18
STATION: 701+18.64 | **OFFSET:** 17.50' | **ELEVATION:** 48.00' | **NORTHING:** 254436.5 | **EASTING:** 661249.9
COMMENTS: N/A

NO.	DEPTH	BLOWS / 6"	DESCRIPTION	CLASS / G.I.	REMARKS
1	0.0 2.0		MOIST GRAY COARSE SANDY FINE GRAVEL W/SOME FINE SAND, TRACE OF SILT.	A-1-A	
2	2.0 4.0	3 4 5 4	MOIST LOOSE GRAY SILTY FINE SAND W/SOME COARSE SAND, TRACE OF FINE GRAVEL.	A-2-4(0)	
3	4.0 6.0	5 6 7 8	MOIST MEDIUM DENSE GRAY SILTY FINE SAND W/TRACE COARSE SAND.	A-2-4(0)	
4	6.0 8.0	8 9 9 9	MOIST MEDIUM DENSE GRAY FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	7.8' TO WATER
5	8.0 10.0	8 4 3 4	NO SIEVE ANALYSIS - INDICATION OF MOIST LOOSE GRAY FINE TO COARSE SAND AND SILT.		
6	10.0 12.0	5 5 5 7	MOIST LOOSE GRAY SILTY FINE SAND W/SOME COARSE SAND, TRACE OF FINE GRAVEL.	A-2-4(0)	
7	12.0 14.0	6 11 8 9	WET MEDIUM DENSE GRAY FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	
8	14.0 16.0	3 2 1 3	WET SOFT BROWN SILTY CLAY W/SOME FINE SAND, TRACE OF COARSE SAND AND FINE GRAVEL.	A-6(7)	
9	16.0 18.0	1 1 4 6	WET FIRM BROWN CLAYEY FINE SANDY SILT W/SOME COARSE SAND, TRACE OF FINE GRAVEL.	A-4(0)	
10	18.0 24.0	1 2 6 10	WET LOOSE BROWN FINE TO COARSE SAND W/SOME SILT.	A-2-4(0)	
11	24.0 29.0	4 3 2 8	WET LOOSE BROWN SILTY FINE SAND W/SOME COARSE SAND.	A-2-4(0)	
12	29.0 34.0	3 3 6 8	WET LOOSE BROWN FINE GRAVELLY COARSE TO FINE SAND W/TRACE SILT.	A-1-B	
13	34.0 38.0	16 11 10 9	WET MEDIUM DENSE BROWN FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	
14	38.0 40.0	9 5 3 9	WET LOOSE BROWN FINE SAND W/SOME COARSE SAND AND SILT.	A-2-4(0)	
			END BORING		

BORING: RB-12 | **DATE DRILLED:** 10/30/18
STATION: 430+65.62 | **OFFSET:** 47.32' | **ELEVATION:** 50.00' | **NORTHING:** 254313.3 | **EASTING:** 660824.6
COMMENTS: N/A

NO.	DEPTH	BLOWS / 6"	DESCRIPTION	CLASS / G.I.	REMARKS
1	0.0 2.0		MOIST GRAY SILTY FINE SAND W/SOME COARSE SAND, TRACE OF FINE GRAVEL.	A-2-4(0)	
2	2.0 4.0		WET GRAY CLAYEY FINE SANDY SILT W/TRACE COARSE SAND.	A-4(1)	
3	4.0 6.0	5 6 10 12	WET STIFF GRAY CLAYEY FINE SANDY SILT W/SOME COARSE SAND.	A-4(0)	
4	6.0 8.0	4 14 10 15	WET MEDIUM DENSE GRAY SILTY COARSE TO FINE SAND.	A-2-4(0)	
5	8.0 10.0	4 4 5 5	WET LOOSE BROWN COARSE TO FINE SAND W/SOME SILT.	A-1-B	9.0' TO WATER
6	10.0 12.0	4 3 2 6	WET LOOSE GRAY SILTY FINE SAND W/SOME COARSE SAND.	A-2-4(0)	
7	12.0 14.0	6 2 1 2	WET VERY LOOSE BROWN SILTY FINE SAND W/ TRACE COARSE SAND.	A-2-4(0)	
8	14.0 16.0	3 3 4 7	WET FIRM BROWN SILTY FINE SANDY CLAY W/ TRACE COARSE SAND.	A-6(12)	
			END BORING		

ADDENDA / REVISIONS

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO.	3-610
T201412701	DESIGNED BY: R. SEDAR	
COUNTY	CHECKED BY: W. GESCHREI	
SUSSEX		

BORING LOG - VII

BL-07
SECTION
WRA
SHEET NO.
180

8/14/2025
9:33:18 AM
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MECHANICALLY STABILIZED EARTH (MSE) WALL NOTES:

1. *DESIGN SPECIFICATIONS:*

   (A) DELDOT BRIDGE DESIGN MANUAL, 2024 EDITION
   (B) AASHTO LRFD BRIDGE SPECIFICATIONS, 2020, 9TH EDITION, CUSTOMARY U.S. UNITS.
   (C) PROVIDE MATERIALS AND PERFORM WORK IN ACCORDANCE WITH THE DELDOT STANDARD SPECIFICATIONS, JANUARY 2024.

2. *MSE WALL DESIGN:*

   THE INTERNAL STABILITY OF THE MSE WALL SHALL BE DESIGNED BY THE PROPRIETARY WALL MANUFACTURER USING THE SOIL PROPERTIES PROVIDED AT EACH MSE WALL LOCATION. THE INTERNAL STABILITY CALCULATIONS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF DELAWARE AS INDICATED IN THE PROJECT SPECIFICATIONS. DESIGN SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS. ALL MSE WALL PANEL TYPES AND RELATED ITEMS SHALL BE DETAILED ON SHOP DRAWINGS AND SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL.

3. *CONCRETE:*

   USE PORTLAND CEMENT CONCRETE FOR CAST-IN-PLACE ELEMENTS AS FOLLOWS:
   (f'c = 28-DAY COMPRESSIVE STRENGTH)
   CLASS A - MSE WALL COPING (f'c = 4.5 ksi)
   CLASS B - MSE WALL LEVELING PAD (f'c = 3.0 ksi)

   ALL PRECAST CONCRETE SHALL BE IN ACCORDANCE WITH THE DELAWARE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.

   ALL EXPOSED EDGES SHALL BE CHAMFERED ¾" UNLESS NOTED OTHERWISE.

4. *BAR REINFORCEMENT:*

   REINFORCING STEEL SHALL CONFORM TO AASHTO M31 (ASTM A615), GRADE 60.

   REINFORCING STEEL SHALL HAVE A 3" CLEAR COVER IF CAST AGAINST EARTH OR A 2" CLEAR COVER ELSEWHERE, UNLESS OTHERWISE SPECIFIED ON THE PLANS.

   ALL REINFORCING STEEL SHALL BE PROTECTED WITH FUSION BONDED EPOXY. EPOXY COATED REINFORCING STEEL SHALL CONFORM TO ASTM A775.

   ANY FIELD CUTTING OR FIELD BENDING MUST BE APPROVED BY THE ENGINEER. PAYMENT SHALL BE INCIDENTAL TO THE BAR REINFORCEMENT ITEM.

   GALVANIZED REINFORCING STEEL MAY BE SUBSTITUTED FOR EPOXY-COATED REINFORCING STEEL AT NO ADDITIONAL COST TO DELDOT WITH APPROVAL OF THE BRIDGE DESIGN ENGINEER.

   WELDING OF REINFORCEMENT DURING FABRICATION OR CONSTRUCTION IS NOT PERMITTED UNLESS SPECIFIED.

5. *ARCHITECTURAL FINISH:*

   THE FRONT FACE OF THE MSE WALL PANELS SHALL HAVE A FORM LINER FINISH. SEE DWG. NO. RW-02 FOR AESTHETIC DETAILS.

6. *SERVICE LIFE:*

   ALL MSE WALL COMPONENTS SHALL BE DESIGNED FOR A MINIMUM SERVICE LIFE OF 100 YEARS.

7. *REINFORCING STRIPS:*

   MSE REINFORCING STRIP LENGTHS SHALL NOT BE LESS THAN MINIMUM LENGTHS LISTED IN MSE WALL DATA TABLE, DWG. NO. RW-01.

8. *BEARING RESISTANCE:*

   FACTORED MSE LOADS CALCULATED AT THE BOTTOM OF THE MSE WALL SHALL NOT EXCEED MAXIMUM FACTORED BEARING RESISTANCES LISTED IN MSE WALL DATA TABLE, DWG. NO. RW-01.

9. *LEVELING PAD:*

   LEVELING PAD STEPS MAY BE LOCATED AT THE DISCRETION OF THE PROPRIETARY WALL MANUFACTURER PROVIDED THAT THE MINIMUM EMBEDMENT IS MAINTAINED AS SPECIFIED IN MSE WALL DATA TABLE, DWG. RW-01. ANY CHANGES TO THE STEP LOCATIONS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

10. *SLIP JOINTS:*

    SLIP JOINT LOCATIONS SHOWN ON WALL ELEVATION DRAWINGS ARE MINIMUM REQUIRED JOINTS. THE PROPRIETARY WALL MANUFACTURER MAY ADD SLIP JOINTS AS REQUIRED. SLIP JOINT LOCATIONS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

11. *WALL BACKFILL:*

    MSE WALL BACKFILL SHALL CONSIST OF DELAWARE NO. 57 COARSE AGGREGATE WITH MINIMUM SOIL FRICTION ANGLE OF 34 DEGREES.

12. *RETAINED SOIL:*

    MSE WALLS SHALL BE DESIGNED TO RESIST FORCES FROM RETAINED FILL WITH THE FOLLOWING PARAMETERS:

    SOIL FRICTION ANGLE:30 DEGREES
    TOTAL UNIT WEIGHT:120 PCF

13. *SURCHARGE:*

    MSE WALL DESIGN SHALL INCLUDE A MINIMUM TRAFFIC SURCHARGE OF 250 PSF APPLIED UNIFORMLY ALONG THE ROADWAY SURFACE.

14. *FOUNDATION PROOF-ROLL:*

    AFTER EXCAVATION TO THE BOTTOM OF THE MSE WALL AND PRIOR TO INSTALLING WALL FOOTINGS, WALL LEVELING PAD AND BACKFILL, THE EXPOSED FOUNDATION SOIL SHALL BE PROOF-ROLLED WITH MULTIPLE PASSES OF WALL COMPACTION EQUIPMENT. NO DENSITY TEST IS REQUIRED. UNSUITABLE FOUNDATION MATERIAL SUCH AS ORGANIC SOIL, SATURATED SOIL OR DEBRIS SHALL BE REMOVED AND REPLACED WITH DELAWARE NO. 57 STONE PLACED ON AN APPROVED GEOTEXTILE SEPARATION FABRIC IN ACCORDANCE WITH SECTION 708.

15. *SEPARATION FABRIC:*

    REINFORCED FILL FOR ALL MSE WALLS SHALL BE SEPARATED FROM FOUNDATION SOILS USING AN APPROVED GEOTEXTILE SEPARATION FABRIC IN ACCORDANCE WITH SECTION 708. PAYMENT FOR GEOTEXTILE SHALL BE INCIDENTAL TO ITEM NO. 607001.

16. *MINIMUM JOINT WIDTH:*

    MSE WALL PANELS SHALL BE CONSTRUCTED WITH A MINIMUM ½" JOINT WIDTH AFTER INSTALLATION.

17. *WALL SYSTEM:*

    ONLY ONE MSE WALL SYSTEM SHALL BE USED ON THIS PROJECT.

18. *BRIDGE SAFETY FENCE:*

    ALL POSTS, BRACES, FITTINGS, CHAIN LINK FENCING AND HARDWARE SHALL BE PVC COATED. NUTS, BOLTS AND WASHERS SHALL ALSO BE PVC COATED AND TOUCHED UP AFTER INSTALLATION. PRECOATED LONGITUDINAL RAILS, IF CUT, SHALL HAVE THE CUT END COATED WTIH PVC TOUCH UP MATERIAL SUPPLIED BY THE MANUFACTURER PRIOR TO ERECTION. PVC COLOR FOR ALL ELEMENTS OF FENCE SHALL BE BROWN (NO. 10059 of AMS-STD-595A) UNLESS OTHERWISE NOTED. PAYMENT FOR PVC COATING SHALL BE INCIDENTAL TO ITEM 727007 BRIDGE SAFETY FENCE, TYPE 1.

    POST SPACING TO BE DETERMINED BY THE CONTRACTOR AND INCLUDED IN THE SHOP DRAWINGS. EACH POST MUST BE A MINIMUM OF 1'-0" FROM ANY MSE WALL COPING JOINT.

    CONTRACTOR SHALL SUBMIT WORKING DRAWINGS FOR THE FENCE FOR REVIEW BY THE ENGINEER.

19. *EXISTING CONDITIONS:*

    ALL EXISTING DIMENSIONS AND ELEVATIONS SHOWN ARE BASED ON THE BEST AVAILABLE INFORMATION AND ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING DIMENSIONS, GEOMETRY, AND ELEVATIONS AS NECESSARY PRIOR TO ORDERING ANY MATERIALS AND COMMENCING CONSTRUCTION TO ENSURE PROPER FIT OF THE PROPOSED CONSTRUCTION. PAYMENT WILL BE INCIDENTAL TO ITEM #763501 - CONSTRUCTION ENGINEERING.

INDEX OF MSE WALL SHEETS

SHEET Nº	TABLE OF CONTENTS
181	PROJECT NOTES & INDEX OF MSE WALL SHEETS
182	GEOMETRIC LAYOUT PLAN
183	GENERAL PLAN & ELEVATION
184	MSE WALL DETAILS
185	MSE WALL AESTHETIC ELEVATION
186	FENCE DETAILS
187	BORING LOG

TOTAL MSE WALL SHEETS: 7

QUANTITIES

ITEM Nº	ITEM TITLE	UNIT	QUANTITY
607001	MECHANICALLY STABILIZED EARTH WALLS	LS	1
613006	AESTHETIC STAINING	SF	2,940
727007	BRIDGE SAFETY FENCE, TYPE 1	LF	205

ADDENDA / REVISIONS

NOT TO SCALE

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT T201412701
COUNTY SUSSEX
BRIDGE NO. RW-1
DESIGNED BY: R. SEDAR
CHECKED BY: W. GESCHREI

PROJECT NOTES & INDEX OF MSE WALL SHEETS

GN-01
SECTION WRA
SHEET NO. 181

8/14/2025
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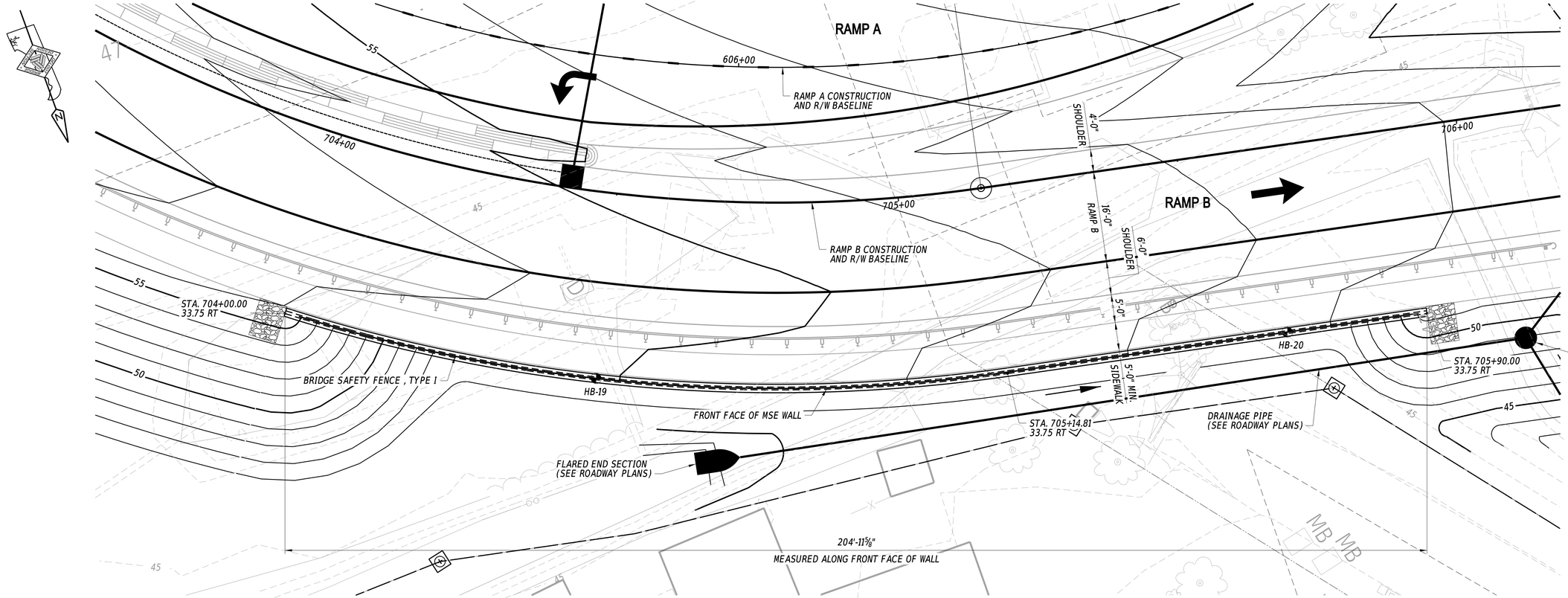
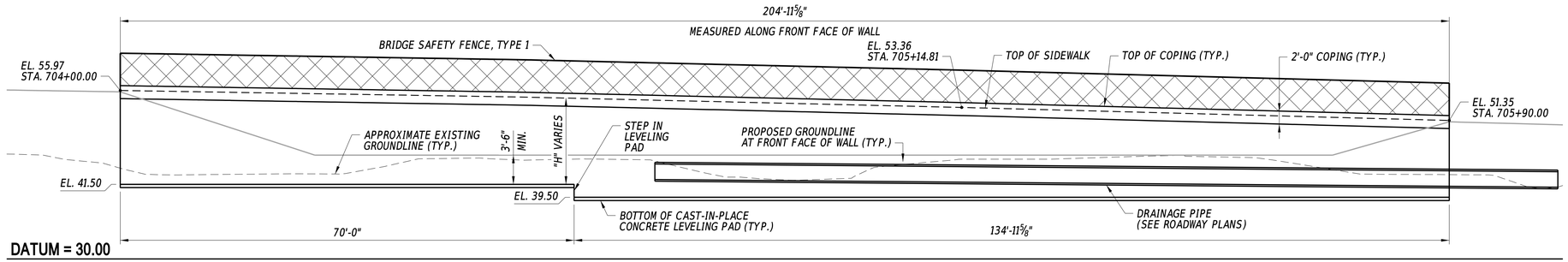


GENERAL PLAN

1" = 10'



DEVELOPED ELEVATION

1" = 10'

NOTES:

1. FOR WALL RW-1 LAYOUT INFORMATION AND WORKING POINT DETAILS, SEE DWG. NO. GL-01.
2. FOR ADDITIONAL DETAILS, SEE DWG. NO. WA-01.

ADDENDA / REVISIONS		SCALE 0 10 20 30 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. RW-1	GENERAL PLAN & ELEVATION	GP-01
				COUNTY SUSSEX	DESIGNED BY: R. SEDAR		SECTION WRA
					CHECKED BY: W. GESCHREI		SHEET NO. 182

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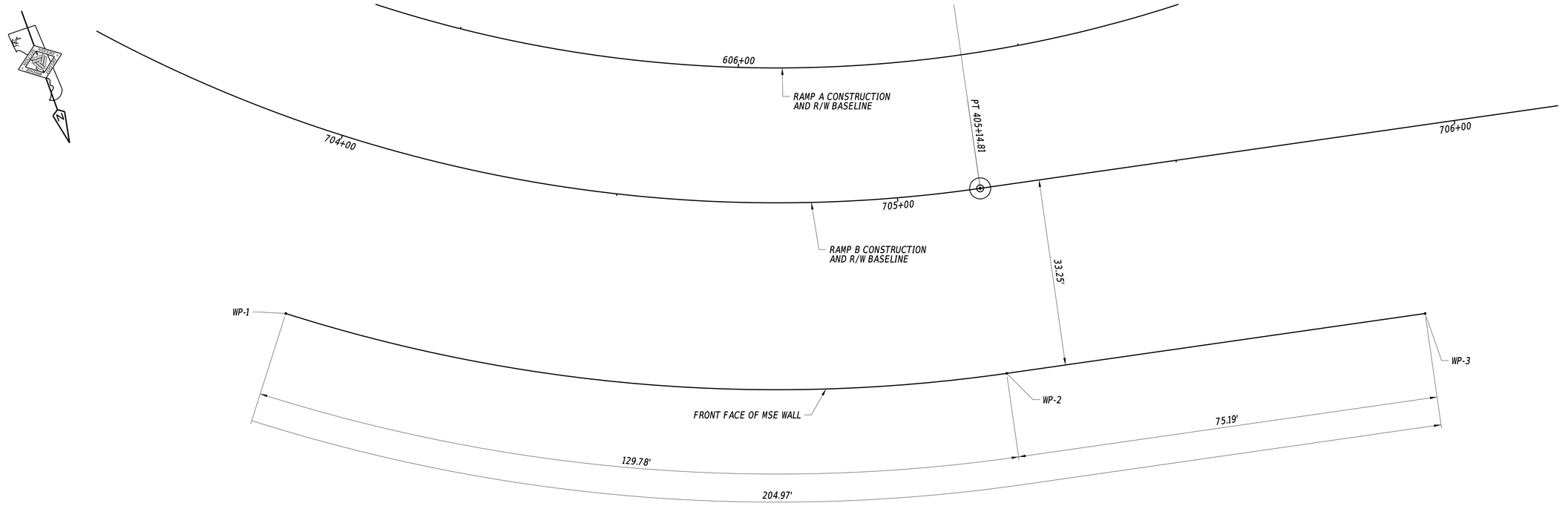

GEOMETRIC LAYOUT PLAN

1" = 10'

WORKING POINT COORDINATES				
WORKING POINT	STA	OFFSET	NORTHING	EASTING
WP-1	704+00.00	33.75' RT	254713.9466	661162.5392
WP-2	705+14.81	33.75' RT	254767.8868	661045.7047
WP-3	705+90.00	33.75' RT	254783.3708	660972.1246

NOTES:

1. WORKING POINTS SHOWN ARE TO THE FRONT FACE OF THE MSE WALL PANELS.
2. WALL RW-1 WORKING POINT OFFSETS ARE PERPENDICULAR TO RAMP B CONSTRUCTION AND R/W BASELINE.

ADDENDA / REVISIONS		SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. RW-1	GEOMETRIC LAYOUT PLAN	GL-01
		0 10 20 30		T201412701	DESIGNED BY: R. SEDAR		SECTION
		FEET		COUNTY			WRA
				SUSSEX	CHECKED BY: W. GESCHREI		SHEET NO.
							183

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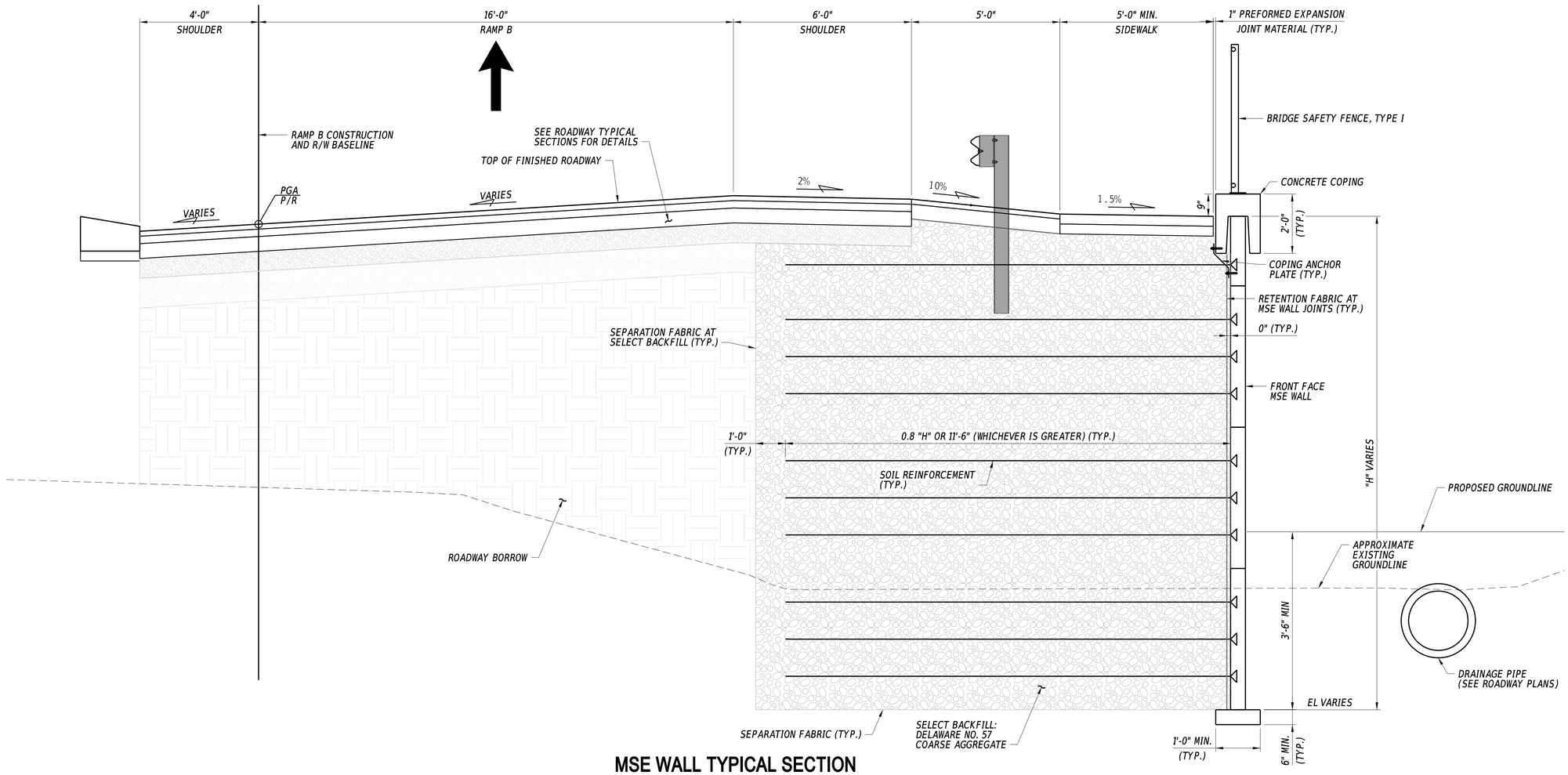

MSE WALL TYPICAL SECTION

½" = 1'-0"

NOTES:

1. FOR MSE WALL GENERAL PLAN & ELEVATION, SEE DWG. GP-01.
2. FOR SERVICE LIMIT STATE, MAXIMUM BEARING RESISTANCE IS 2.5 KSF FOR LESS THAN 2 INCHES OF TOTAL SETTLEMENT. MAXIMUM DIFFERENTIAL SETTLEMENT ALONG THE WALL: 0.002 RADIAN (1:500).
3. REINFORCEMENT SHOULD BE UNIFORM THROUGHOUT THE ENTIRE HEIGHT OF THE WALL.
4. BEARING RESISTANCE FACTOR IS 0.65 BASED ON AASHTO TABLE 10.5.5.2.2-1.
5. A MINIMUM 0.25-INCH JOINT WIDTH BETWEEN PANELS SHOULD BE USED.
6. EXTREME EVENT BEARING RESISTANCE CALCULATED USING A RESISTANCE FACTOR OF 1.00.
7. EMBEDMENT OF WALL BETWEEN STA.705+60 AND 705+90 ACCOUNTS FOR PLACING WALL SUBGRADE 1 FOOT BELOW THE BOTTOM OF STORM DRAIN PIPE INVERT.
8. MSE WALL SHALL BE IN CONFORMANCE WITH SECTION 607 OF THE STANDARD SPECIFICATIONS.

MSE WALL DATA

STATION RANGE (FROM - TO)	MIN REINFORCING STRAP LENGTH 'L' (FT.)	MIN WALL TOE EMBEDMENT 'E' (FT.)	MAXIMUM FACTORED BEARING RESISTANCE (KSF)
704+00 - 705+60	11.5	2.00	3.0
705+60 - 705+90	11.5	2.00	4.1

ADDENDA / REVISIONS

SCALE
0 2 4 6
FEET

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO. RW-1
T201412701	DESIGNED BY: R. SEDAR
COUNTY	CHECKED BY: W. GESCHREI
SUSSEX	

MSE WALL DETAILS

RW-01
SECTION WRA
SHEET NO. 184

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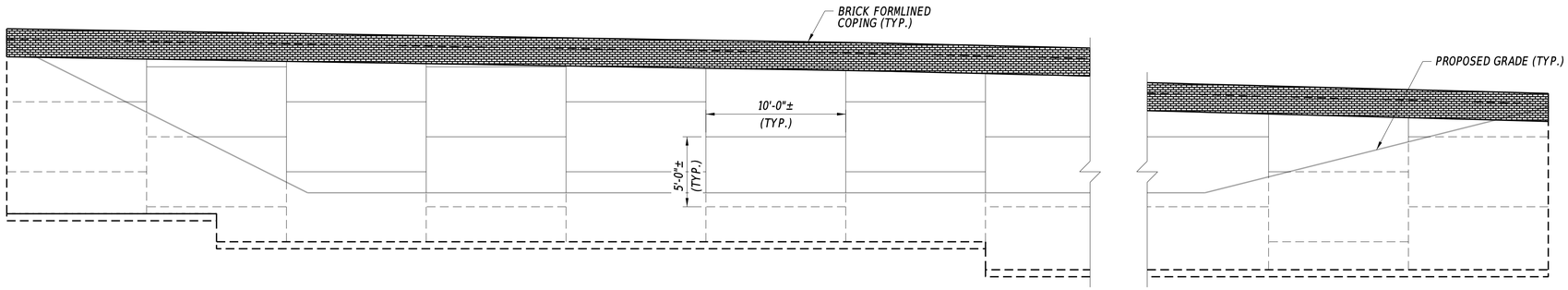

MSE WALL AESTHETIC ELEVATION

1" = 5'-0"

AESTHETIC TREATMENT NOTES:

1. *ALL EXPOSED MSE WALL FACES OUTSIDE OF FORM LINER AREAS WILL BE TAN.*
2. *ALL BRICK PATTERN AREAS WILL BE CAST USING SAND TEXTURED BRICK FORM LINER. THE SIZE OF THE BRICKS WILL BE APPROXIMATELY 2¼" X 8" WITH ½" MORTAR JOINTS. A SAMPLE OF THE FORM LINER PATTERN WILL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.*
3. *ALL BRICKS WILL BE SIENNA. ALL MORTAR JOINTS WILL BE TAN.*
4. *PRIOR TO STAINING THE MSE WALLS, PROVIDE A STAINED SAMPLE PANEL FOR APPROVAL. THE SAMPLE PANEL SHALL INCLUDE BOTH BRICK FORM LINER AND SMOOTH FINISHES WITH ALL ASSOCIATED STAIN COLORS.*
5. *COLORS:*
   - A. *ALL COLOR SPECIFIED AS TAN WILL BE NO. 33617 (SAND) OF AEROSPACE MATERIAL SPECIFICATION - STANDARD 595A.*
   - B. *ALL COLOR SPECIFIED AS SIENNA WILL BE NO. 32169 OF AEROSPACE MATERIAL SPECIFICATION - STANDARD 595A.*
6. *FORM LINERS FOR MSE WALL COMPONENTS WILL NOT BE MEASURED. COST OF FORM LINERS SHALL BE INCIDENTAL TO ITEM 607001 - MECHANICALLY STABILIZED EARTH WALLS. PAYMENT FOR STAINING MSE WALLS WILL BE MADE UNDER ITEM 613006 - AESTHETIC STAINING.*

NOTES:

1. *IF MSE WALL UTILIZES SLIP PANELS, SLIP PANELS ARE TO HAVE BRICK FORMLINER PATTERN.*
2. *ONLY THE FRONT FACE OF THE COPING , AND SLIP PANELS ARE REQUIRED TO BE FORMLINED.*

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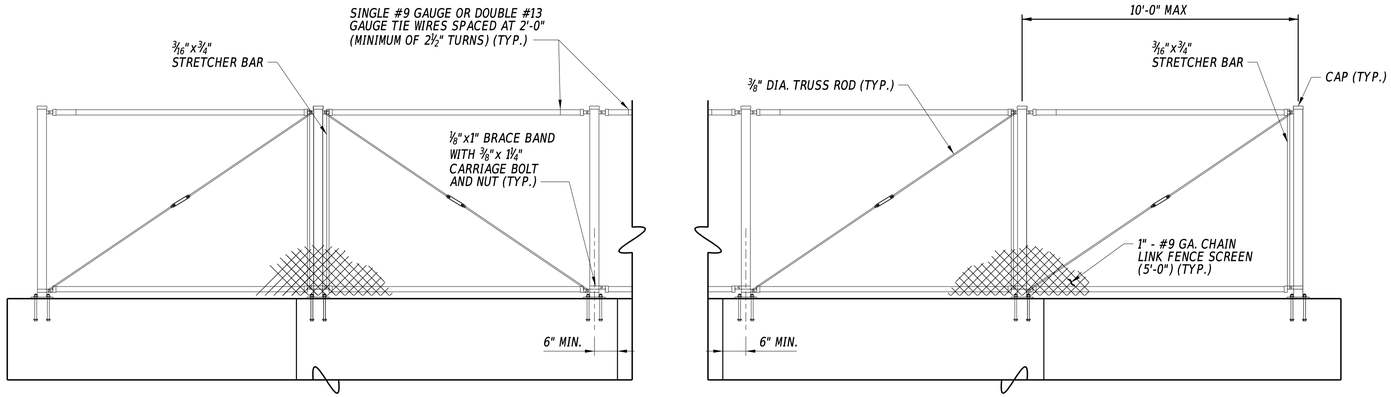
ADDENDA / REVISIONS		SCALE 0 1 2 3 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. RW-1	MSE WALL AESTHETIC ELEVATION	RW-02
				COUNTY SUSSEX	DESIGNED BY: R. SEDAR		SECTION WRA
					CHECKED BY: W. GESCHREI		SHEET NO. 185

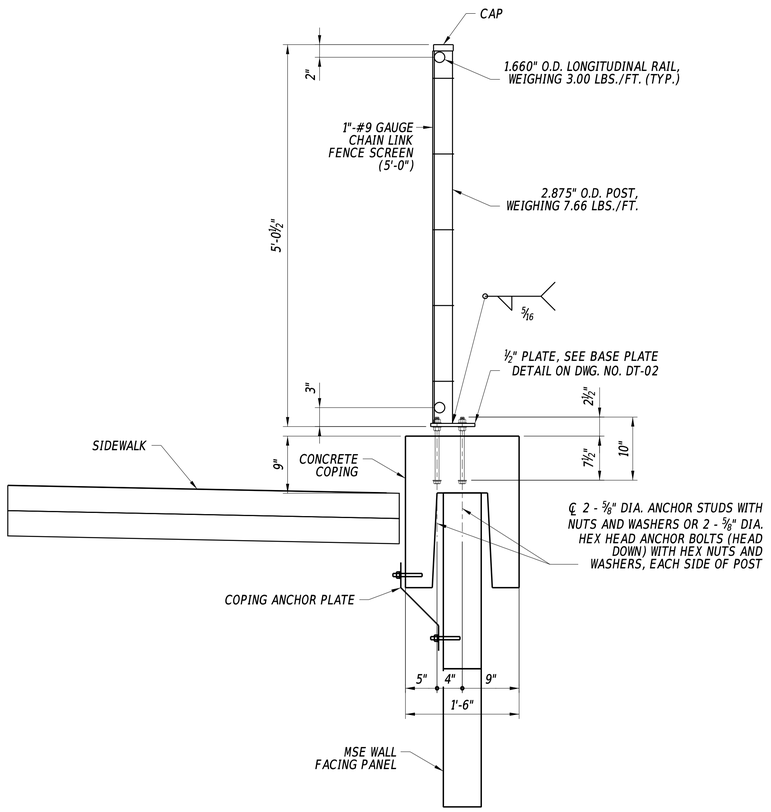


BRIDGE SAFETY FENCE, TYPE 1 (MSE WALL)

½" = 1'-0"

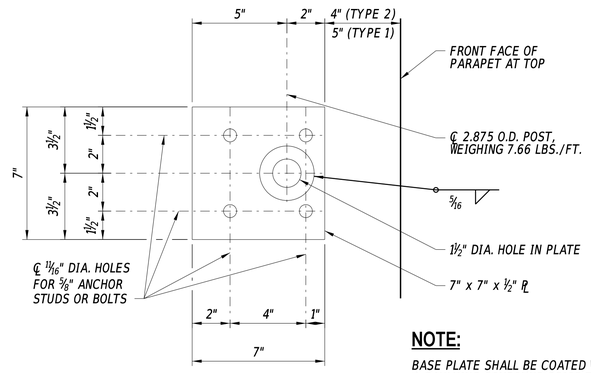
NOTES:

1. FOR FENCE POST SPACING, SEE THIS SHEET. CONTRACTOR SHALL ADJUST FENCE POST SPACING AS REQUIRED TO CLEAR BARRIER AND PARAPET JOINTS.
2. POSTS AND RAILS SHALL CONFORM TO ASTM F 1083, SCHEDULE 80. FABRIC SHALL BE 1"-#9 GAUGE CHAIN LINK FENCE IN CONFORMANCE WITH AASHTO M 181.
3. ALL CHAIN LINK FABRIC, POSTS, RAILS, TIES, BANDS, BARS, BRACES, FITTINGS AND HARDWARE SHALL BE PVC COATED. PVC COLOR FOR ALL ELEMENTS OF FENCE SHALL BE BROWN CONFORMING TO COLOR NO. 30059 OF AMS STD-595A.
4. ALL PLATES SHALL BE STEEL CONFORMING TO ASTM A 709, GRADE 36.
5. ANCHOR STUDS OR ANCHOR BOLTS SHALL CONFORM TO ASTM A 276, TYPE 430 OR TYPE 304 STAINLESS STEEL ANNEALED, HOT-FINISHED, ULTIMATE STRENGTH 70,000 psi MIN., 20% MIN. ELONGATION. THREADS MAY BE ROLLED OR CUT.
6. EPOXY GROUT FOR ANCHOR STUDS IN CORED HOLES SHALL BE A SAND AND EPOXY MIXED BY VOLUME IN CONFORMANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. THE GROUT SHALL BE CAPABLE OF DEVELOPING A MINIMUM COMPRESSIVE STRENGTH OF 6500 PSI IN 72 HOURS WHEN TESTED IN CONFORMANCE WITH ASTM C 579.
7. ALL LONGITUDINAL RAILS SHALL BE PARALLEL TO TOP OF PARAPET.
8. ALL POSTS SHALL BE SET NORMAL TO TOP OF PARAPET.
9. THE CHAIN LINK FENCE SHALL BE TRUE TO LINE, TAUT, TIGHT FIT TO TOP OF PARAPET, WITH ½" TO 1" CLEAR TO TOP OF PARAPET, AND SHALL COMPLY WITH THE BEST PRACTICE FOR FENCE CONTRUCTION OF THIS TYPE.
10. POSTS AND RAILS SHALL BE PERMANENTLY POSITIONED BEFORE FABRIC IS PLACED.
11. BEFORE PLACING FENCING, PLACE ½" TO 1" THICK MATERIAL (WOOD, ETC.) ON TOP OF PARAPET TO ENSURE THE DESIRED GAP IS ACHIEVED. AFTER FENCE IS RIGIDLY ATTACHED, THIS TEMPORARY BLOCKING SHALL BE REMOVED.
12. AS AN OPTION, THE CONTRACTOR MAY SET THE ANCHOR STUDS AFTER PLACING CONCRETE BARRIER USING ⅞" DIA. CORED HOLES AND AN APPROVED EPOXY GROUT. NUTS AND WASHERS SHALL BE OMITTED FROM THE EMBEDDED ENDS OF ANCHOR STUDS. IF CONTRACTOR ELECTS TO PLACE ANCHOR STUDS AFTER PLACING CONCRETE PARAPET, NEWLY PLACED REBARS SHALL BE LOCATED SO THAT CORING DOES NOT DAMAGE THE REBAR. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THIS OPTION.
13. COAT ALL SURFACES OF BASE PLATES IN CONTACT WITH CONCRETE WITH A CAULKING COMPOUND JUST PRIOR TO BASE PLATE INSTALLATION. AFTER POSTS AND RAILS ARE PERMANENTLY POSITIONED SEAL THE ENTIRE PERIMETER OF THE BASE PLATE BETWEEN METAL SURFACES AND THE CONCRETE WITH A CAULKING COMPOUND. CAULKING COMPOUND SHALL ADHERE TO STEEL AND CONCRETE SURFACES AND MEET THE REQUIREMENTS OF ASTM C 834 OR ASTM C 920. PAYMENT FOR THE CAULKING COMPOUND SHALL BE INCIDENTAL TO ITEM NO. 727007 - BRIDGE SAFETY FENCE, TYPE 1.



FENCE TYPICAL SECTION

1" = 1'-0"

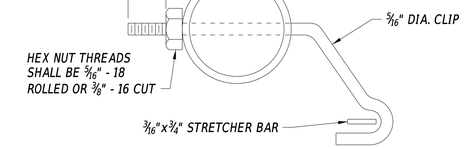


BASE PLATE DETAIL

3" = 1'-0"

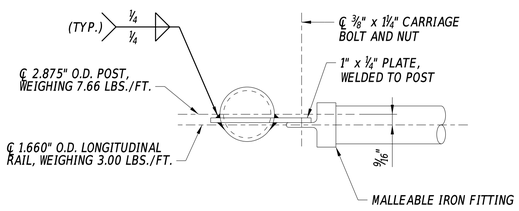
NOTE:

BASE PLATE SHALL BE COATED WITH A CAULKING COMPOUND PRIOR TO INSTALLATION. SEE CHAIN LINK FENCE NOTE 13 FOR ADDITIONAL INFORMATION.

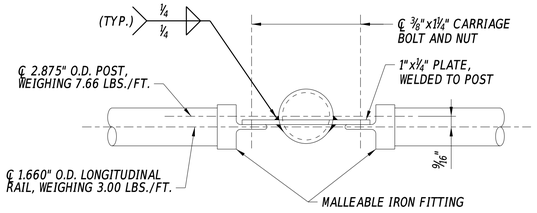


STRETCHER BAR ATTACHMENT

6" = 1'-0"



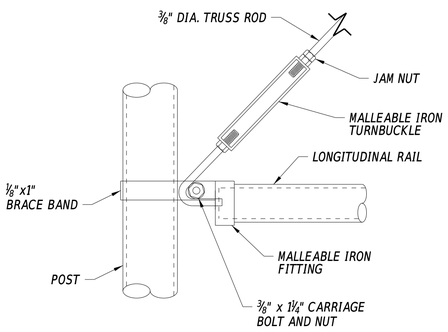
END POST



INTERMEDIATE POST

TOP LONGITUDINAL RAIL - POST ATTACHMENT

3" = 1'-0"



TRUSS ROD ATTACHMENT

3" = 1'-0"

ADDENDA / REVISIONS	SCALE: AS NOTED	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. RW-1	FENCE DETAILS	DT-01
			COUNTY SUSSEX	DESIGNED BY: R. SEDAR		SECTION WRA
				CHECKED BY: W. GESCHREI		SHEET NO. 186

8/14/2025
9:54:03 AM
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BORING: HB-19 | **DATE DRILLED:** 7/30/21
STATION: 704+57 | **OFFSET:** 34.0 FT (RT) | **ELEVATION:** 45.0 FT | **NORTHING:** 254744.991 | **EASTING:** 661108.905
COMMENTS: BOREHOLE CAVED AT DEPTH OF 6.5 FT.

NO.	DEPTH	BLOWS / 6"	SAMPLE INFORMATION DESCRIPTION	CLASS / G.I.	REMARKS
1	0.0	2 3 4	MOIST LOOSE BROWN SILTY FINE TO COARSE SAND W/TRACE FINE GRAVEL. 16" SAMPLE RECOVERY	A-2-4(0)	
	2.0	4			
2	2.0	5 6 7	MOIST MEDIUM DENSE BROWN SILTY COARSE TO FINE SAND W/TRACE FINE GRAVEL. 17" SAMPLE RECOVERY	A-2-4(0)	BOTTOM OF WALL RW-1 (EL 41.5 FT)
	4.0	9			
3	4.0	5 6 4	MOIST LOOSE BROWN FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL. 20" SAMPLE RECOVERY	A-2-4(0)	
	6.0	4			
4	6.0	2 1 1	WET VERY LOOSE BROWN SILTY FINE TO COARSE SAND. 21" SAMPLE RECOVERY	A-2-4(0)	ENCOUNTERED GROUNDWATER LEVEL (EL 38.8 FT)
	8.0	1			
5	8.0	1 2 2	WET VERY LOOSE BROWN FINE TO COARSE SAND W/SOME SILT. 21" SAMPLE RECOVERY	A-2-4(0)	
	10.0	2			
6	10.0	2 1 1	WET VERY LOOSE BROWN FINE TO COARSE SAND W/SOME SILT. 22" SAMPLE RECOVERY	A-2-4(0)	
	12.0	2			
7	12.0	2 3 2	WET LOOSE BROWN FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL. 24" SAMPLE RECOVERY	A-2-4(0)	
	14.0	4			
8	14.0	2 2 3	WET LOOSE BROWN FINE TO COARSE SAND W/SOME SILT. 24" SAMPLE RECOVERY	A-2-4(0)	
	16.0	5			
9	16.0	2 3 2	WET LOOSE BROWN COARSE TO FINE SAND W/SOME SILT. 24" SAMPLE RECOVERY	A-1-B	
	18.0	2			
10	18.0	1 2 4	WET LOOSE BROWN COARSE SAND W/SOME FINE SAND AND SILT. 24" SAMPLE RECOVERY	A-1-B	
	20.0	4			
11	25.0	1 1 2	WET VERY LOOSE BROWN FINE TO COARSE SAND W/SOME SILT. 24" SAMPLE RECOVERY	A-2-4(0)	
	27.0	5			
12	30.0	5 2 2	WET VERY LOOSE BROWN COARSE TO FINE SAND W/TRACE FINE GRAVEL AND SILT. 24" SAMPLE RECOVERY	A-3	
	32.0	1			
13	35.0	1 2 4	WET LOOSE BROWN FINE TO COARSE SAND W/SOME SILT. 24" SAMPLE RECOVERY	A-2-4(0)	
	37.0	6			
14	40.0	4 7 8	WET MEDIUM DENSE BROWN SILTY FINE SAND W/SOME COARSE SAND, TRACE OF FINE GRAVEL. 24" SAMPLE RECOVERY	A-2-4(0)	
	42.0	12			
15	45.0	2 3 5	WET LOOSE BROWN FINE TO COARSE SAND W/SOME SILT. 24" SAMPLE RECOVERY	A-2-4(0)	
	47.0	6			
16	48.0	4 7 8	WET MEDIUM DENSE BROWN FINE TO COARSE SAND W/SOME SILT. 24" SAMPLE RECOVERY	A-2-4(0)	
	50.0	8			
			END BORING		

BORING: HB-20 | **DATE DRILLED:** 7/30/21
STATION: 704+67 | **OFFSET:** 33.0 FT (RT) | **ELEVATION:** 45.0 FT | **NORTHING:** 254793.531 | **EASTING:** 660999.492
COMMENTS: BOREHOLE CAVED AT DEPTH OF 7.2 FT.

NO.	DEPTH	BLOWS / 6"	SAMPLE INFORMATION DESCRIPTION	CLASS / G.I.	REMARKS
1	0.0	4 5 7	MOIST STIFF BROWN FINE TO COARSE SANDY SILT W/TRACE FINE GRAVEL. 10" SAMPLE RECOVERY	A-4(0)	
	2.0	7			
2	2.0	5 4 5	MOIST LOOSE BROWN SILTY FINE TO COARSE SAND W/TRACE FINE GRAVEL. 17" SAMPLE RECOVERY	A-2-4(0)	
	4.0	5			
3	4.0	6 5 4	MOIST LOOSE BROWN SILTY FINE SAND W/SOME COARSE SAND, TRACE OF FINE GRAVEL. 17" SAMPLE RECOVERY	A-2-4(0)	BOTTOM OF WALL RW-1 & ENCOUNTERED GROUNDWATER LEVEL (EL 39.5 FT)
	6.0	4			
4	6.0	1 1 1	WET VERY LOOSE BROWN FINE TO COARSE SAND W/SOME SILT. 21" SAMPLE RECOVERY	A-2-4(0)	
	8.0	1			
5	8.0	1 2 2	WET VERY LOOSE BROWN FINE TO COARSE SAND W/SOME SILT. 20" SAMPLE RECOVERY	A-2-4(0)	
	10.0	2			
6	10.0	2 2 3	WET LOOSE BROWN COARSE SAND W/TRACE FINE SAND AND SILT. 21" SAMPLE RECOVERY	A-1-B	
	12.0	3			
7	12.0	1 1 2	WET VERY LOOSE BROWN FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL. 22" SAMPLE RECOVERY	A-2-4(0)	
	14.0	3			
8	14.0	2 2 3	WET LOOSE BROWN FINE SAND W/SOME COARSE SAND AND SILT, TRACE OF FINE GRAVEL. 24" SAMPLE RECOVERY	A-2-4(0)	
	16.0	3			
9	16.0	2 2 2	WET VERY LOOSE BROWN FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL. 24" SAMPLE RECOVERY	A-2-4(0)	
	18.0	3			
10	18.0	1 2 3	WET LOOSE BROWN FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL. 24" SAMPLE RECOVERY	A-2-4(0)	
	20.0	6			
11	25.0	2 4 7	WET MEDIUM DENSE BROWN FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL. 24" SAMPLE RECOVERY	A-2-4(0)	
	27.0	8			
12	30.0	4 6 6	WET MEDIUM DENSE BROWN COARSE TO FINE SAND W/SOME SILT, TRACE OF FINE GRAVEL. 24" SAMPLE RECOVERY	A-3	
	32.0	7			
13	35.0	3 2 2	WET VERY LOOSE BROWN COARSE TO FINE SAND W/SOME FINE GRAVEL AND SILT. 24" SAMPLE RECOVERY	A-1-B	
	37.0	2			
14	40.0	4 5 7	WET MEDIUM DENSE BROWN COARSE TO FINE SAND W/TRACE FINE GRAVEL AND SILT. 24" SAMPLE RECOVERY	A-1-B	
	42.0	9			
15	45.0	7 4 7	WET MEDIUM DENSE BROWN COARSE TO FINE SAND W/SOME FINE GRAVEL, TRACE OF SILT. 24" SAMPLE RECOVERY	A-1-B	
	47.0	7			
16	48.0	5 8 9	WET MEDIUM DENSE BROWN FINE GRAVELLY COARSE SAND W/SOME FINE SAND, TRACE OF SILT. 24" SAMPLE RECOVERY	A-1-B	
	50.0	8			
			END BORING		

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ADDENDA / REVISIONS					
			US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701 COUNTY SUSSEX	BRIDGE NO. RW-1 DESIGNED BY: R. SEDAR CHECKED BY: W. GESCHREI

BORING LOG

BL-01
SECTION WRA
SHEET NO. 187

SECTION 600

1. PORTLAND CEMENT CONCRETE:

USE PORTLAND CEMENT CONCRETE FOR CAST-IN-PLACE ELEMENTS AS FOLLOWS:
(f'c = 28-DAY COMPRESSIVE STRENGTH)
CLASS A - DRILLED SHAFTS (f'c = 4.5 ksi)

- CHAMFER ALL EXPOSED EDGES ¾" X ¾" UNLESS OTHERWISE NOTED.

2. BAR REINFORCEMENT:

- REINFORCING STEEL SHALL CONFORM TO AASHTO M31 (ASTM A615), GRADE 60.
- REINFORCING STEEL SHALL HAVE A 3" CLEAR COVER IF CAST AGAINST EARTH OR A 2" CLEAR COVER ELSEWHERE, UNLESS OTHERWISE SPECIFIED ON THE PLANS.
- ALL REINFORCING STEEL SHALL BE PROTECTED WITH FUSION BONDED EPOXY. EPOXY COATED REINFORCING STEEL SHALL CONFORM TO ASTM A775.
- ANY FIELD CUTTING OR FIELD BENDING MUST BE APPROVED BY THE ENGINEER. PAYMENT SHALL BE INCIDENTAL TO THE BAR REINFORCEMENT ITEM.
- GALVANIZED REINFORCING STEEL MAY BE SUBSTITUTED FOR EPOXY-COATED REINFORCING STEEL AT NO ADDITIONAL COST TO DELDOT WITH APPROVAL OF THE BRIDGE DESIGN ENGINEER.
- WELDING OF REINFORCEMENT DURING FABRICATION OR CONSTRUCTION IS NOT PERMITTED UNLESS SPECIFIED.

3. STRUCTURAL STEEL:

ALL STRUCTURAL PIPE FOR POSTS AND MAST ARMS SHALL CONFORM TO ASTM A53, GRADE B, TYPE E OR S IN CONFORMANCE WITH SECTION 1039.8.E.1.

ALL STEEL PLATES, SHAPES, AND BACKING RINGS SHALL CONFORM TO AASHTO M270, GRADE 36 OR BETTER, EXCEPT AS NOTED. HANDHOLE COVERS SHALL CONFORM TO ASTM A240, TYPE 302 OR TYPE 304, STAINLESS STEEL AS SPECIFIED IN BDM SECTION 110.3.2.2.

ALL CONNECTION BOLTS (INCLUDING SPLICE BOLTS AND ATTACHMENT BOLTS) SHALL CONFORM TO ASTM F3125, GRADE A325, WASHERS SHALL CONFORM TO ASTM F436, AND NUTS SHALL CONFORM TO ASTM A563, GRADE DH, OR ASTM A194, GRADE 2H.

U-BOLTS SHALL CONFORM TO ASTM A449, TYPE 1.

ANCHOR BOLTS SHALL CONFORM TO AASHTO M314, GRADE 36. ANCHOR NUTS SHALL CONFORM TO ASTM A563, GRADE DH, OR ASTM A194, GRADE 2H. WASHERS SHALL CONFORM TO ASTM F436.

THE STRUCTURE SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M111. STRUCTURE SHALL BE DIPPED IN A SINGLE DIP.

ALL HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M232.

MISCELLANEOUS

4. DESIGN SPECIFICATIONS:

(A) DELDOT BRIDGE DESIGN MANUAL, 2024 EDITION
(B) AASHTO LRFD BRIDGE SPECIFICATIONS, 2020, 9TH EDITION, CUSTOMARY U.S. UNITS.
(C) AASHTO LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINARIES, AND TRAFFIC SIGNALS, 2015, 1ST EDITION, WITH INTERIMS THROUGH 2020.
(D) AWS D1.1 STRUCTURAL WELDING CODE.
(E) PROVIDE MATERIALS AND PERFORM WORK IN ACCORDANCE WITH THE DELDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, JANUARY 2024.

5. LOADING:

- THE DESIGN WIND SPEED IS 140 MPH (3-SECOND GUST SPEED), BASED ON A 1700-YEAR MEAN RECURRENCE INTERVAL IN ACCORDANCE WITH BDM SECTION 110.3.2.3.
- THE STATIC DESIGN SIGN PANEL WEIGHT IS 3 PSF.
- THE DESIGN STATIC SIGN PANEL AREA INCLUDES AN ADDITIONAL 15% INCREASE OVER THE ACTUAL SIGN PANEL AREA IN ACCORDANCE WITH BDM SECTION 110.3.2.4.
- FATIGUE DESIGN IS BASED ON THE FATIGUE CATEGORY II FOR GALLOPING, NATURAL WIND GUSTS, AND TRUCK-INDUCED GUSTS IN ACCORDANCE WITH BDM SECTION 110.3.2.3.

6. GENERAL:

- FORM POSTS FOR SIGN/DMS STRUCTURES TO THE RADII SHOWN ON THE PLANS IN ACCORDANCE WITH THE TUBE AND PIPE ASSOCIATION INTERNATIONAL RECOMMENDED STANDARDS FOR INDUCTION BENDING OF PIPE AND TUBE (TPA-IBS-98).
- STEEL TEMPLATES SHALL BE USED TO SET THE ANCHOR BOLTS PLUMB WHEN POURING THE FOUNDATION.
- BASE PLATES SHALL BE IN FULL CONTACT WITH ALL FLAT WASHERS.
- ALL ANCHOR BOLTS SHALL BE TIGHTENED USING TURN OF NUT METHOD (1/6 TURN AFTER SNUG TIGHT).
- THREADS OF ANCHOR BOLTS SHALL BE BURRED OFF AT FACE OF NUT AFTER POST IS INSTALLED.
- LOCK WASHERS WITH FLAT WASHERS SHALL ONLY BE USED FOR U-BOLT CONNECTIONS, AND NUT SHALL BE TURNED UNTIL THE LOCK WASHER IS FLAT.
- POST AND MAST ARM O.D. DIMENSIONS ARE ACTUAL.
- FIELD VERIFY ALL DIMENSIONS BEFORE ORDERING ANY MATERIALS.
- DO NOT USE GROUT BETWEEN BASE PLATE AND TOP OF DRILLED SHAFT.
- SLOPE TOP OF DRILLED SHAFT 4% FROM CENTER TO NEAR EDGES FOR DRAINAGE.
- PROVIDE DOUBLE NUTS AND WASHERS FOR EACH ANCHOR BOLT.
- PERMANENT CAMBER EQUAL TO L/1000 HAS BEEN PROVIDED IN ADDITION TO THE DEAD LOAD CAMBER, WHERE L IS EQUAL TO THE SIGN/DMS STRUCTURE SPAN LENGTH.
- PRETENSION ANCHOR BOLTS ACCORDING TO THE PROCEDURES IN SECTION 617.03.C.3.b.
- MAST ARM TO POST SPLICES SHALL BE TIGHTENED USING AN INDUSTRY STANDARD STAR PATTERN SIMILAR TO THE STAR PATTERN DEFINED IN SECTION 617.03.C.b.vi TIGHTEN BOLTS TO A SNUG-TIGHT CONDITION IN A STAR PATTERN. AFTER ALL BOLTS ARE SNUG-TIGHT, TIGHTEN ALL BOLTS IN THE SAME STAR PATTERN TO DEVELOP THE MINIMUM REQUIRED BOLT TENSION SPECIFIED IN SECTION 615.03.C.8.d. AFTER TIGHTENING ALL BOLTS IN THE STAR PATTERN, VERIFY THE BOLT TENSION AS SPECIFIED IN SECTION 615.03.C.8.

7. ROADWAY CLEARANCES:

A MINIMUM VERTICAL CLEARANCE OF 17'-9" SHALL BE MAINTAINED ABOVE ALL ROADWAYS.

8. EXISTING CONDITIONS :

ALL EXISTING DIMENSIONS AND ELEVATIONS SHOWN ARE BASED ON THE BEST AVAILABLE INFORMATION AND ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING DIMENSIONS, GEOMETRY, AND ELEVATIONS AS NECESSARY PRIOR TO ORDERING ANY MATERIALS AND COMMENCING CONSTRUCTION TO ENSURE PROPER FIT OF THE PROPOSED CONSTRUCTION. PAYMENT WILL BE INCIDENTAL TO ITEM #763501 - CONSTRUCTION ENGINEERING.

INDEX OF SIGN STRUCTURE SHEETS

SHEET Nº	TABLE OF CONTENTS
188	SIGN STRUCTURE GENERAL NOTES
189	SIGN STRUCTURE SC3101 ELEVATION
190	SIGN STRUCTURE SC3102 ELEVATION
191	SIGN STRUCTURE DETAILS
192	SIGN STRUCTURE MISC DETAILS
193	SIGN STRUCTURE FOUNDATION DETAILS

TOTAL SIGN STRUCTURE SHEETS: 6

QUANTITIES

ITEM Nº	ITEM TITLE	UNIT	QUANTITY
606004	DRILLED SHAFT IN SOIL, 60"	LF	66
617000	STEEL SIGN STRUCTURE, TUBULAR ARCH, CANTILEVER	LS	1

SIGN STRUCTURE LOCATION

SIGN STRUCTURE NUMBER	SIGN STRUCTURE TYPE	BASELINE	STATION	OFFSET	NORTHING	EASTING	WORKING POINT
SC3101	TUBULAR ARCH, CANTILEVER	US 113 NB	428+35.00	38.50' RT.	254086.3895	660866.5495	WP-01
SC3102	TUBULAR ARCH, CANTILEVER	US 113 SB	330+30.00	40.50' LT.	254233.8630	660633.5225	WP-02

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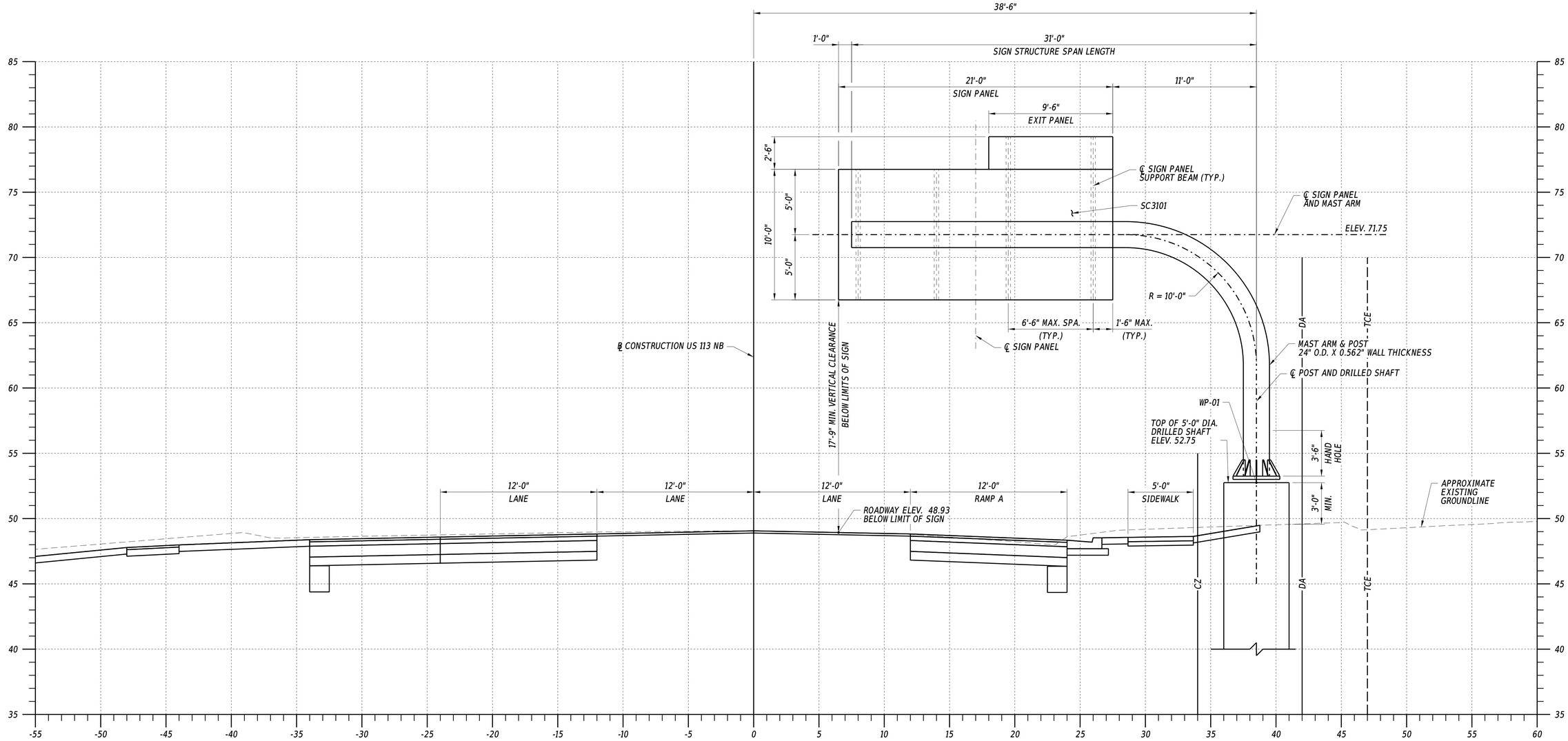
ADDENDA / REVISIONS					
		US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. SC3101 & SC3102	SIGN STRUCTURE GENERAL NOTES
			COUNTY SUSSEX	DESIGNED BY: R. SEDAR	
				CHECKED BY: W. GESCHREI	

ST-01
SECTION WRA
SHEET NO. 188



PROPOSED SIGN STRUCTURE SC3101

¼" = 1'-0"
STA. 428+35.00
BASELINE CONSTRUCTION US 113 NB
(LOOKING STATIONS AHEAD)

NOTES:

1. FOR SIGN STRUCTURE NOTES, SEE SHEET ST-01.
2. FOR SIGN STRUCTURE FOUNDATION INFORMATION, SEE SHEET ST-06.
3. FOR SIGN STRUCTURE DETAILS, SEE SHEET ST-04.
4. WORKING POINT SHOWN AT ℄ POST/DRILLED SHAFT. FOR MORE INFORMATION, SEE SHEET ST-01.

ADDENDA / REVISIONS							
		US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. SC3101 & SC3102	SIGN STRUCTURE SC3101 ELEVATION	ST-02
			COUNTY SUSSEX	DESIGNED BY: R. SEDAR		SECTION WRA
				CHECKED BY: W. GESCHREI		SHEET NO. 189

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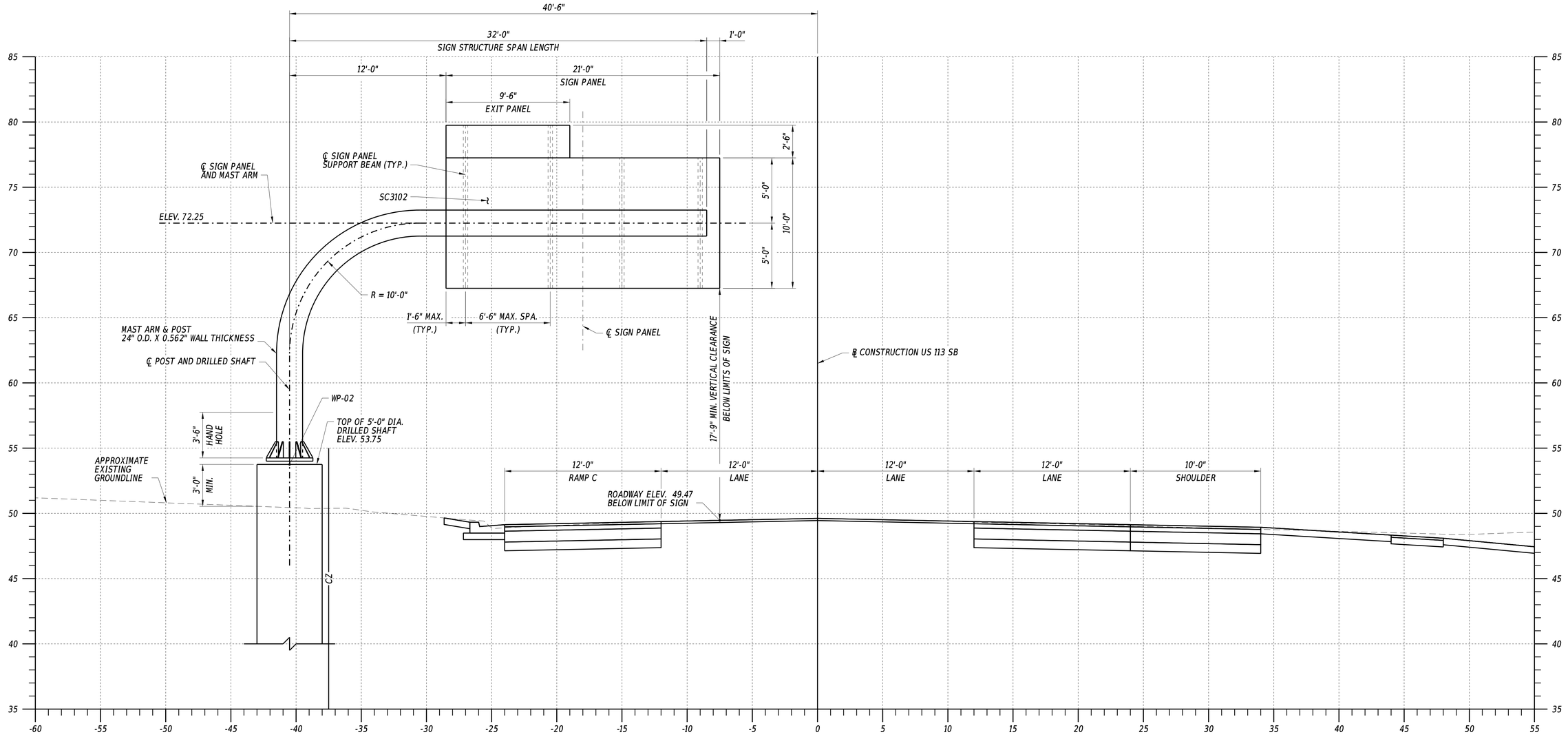

PROPOSED SIGN STRUCTURE SC3102

¼" = 1'-0"

STA. 330+30.00
BASELINE CONSTRUCTION US 113 SB
(LOOKING STATIONS AHEAD)

NOTES:

1. *FOR SIGN STRUCTURE NOTES, SEE SHEET ST-01.*
2. *FOR SIGN STRUCTURE FOUNDATION INFORMATION, SEE SHEET ST-06.*
3. *FOR SIGN STRUCTURE DETAILS, SEE SHEET ST-04.*
4. *WORKING POINT SHOWN AT ℄ POST/DRILLED SHAFT. FOR MORE INFORMATION, SEE SHEET ST-01.*

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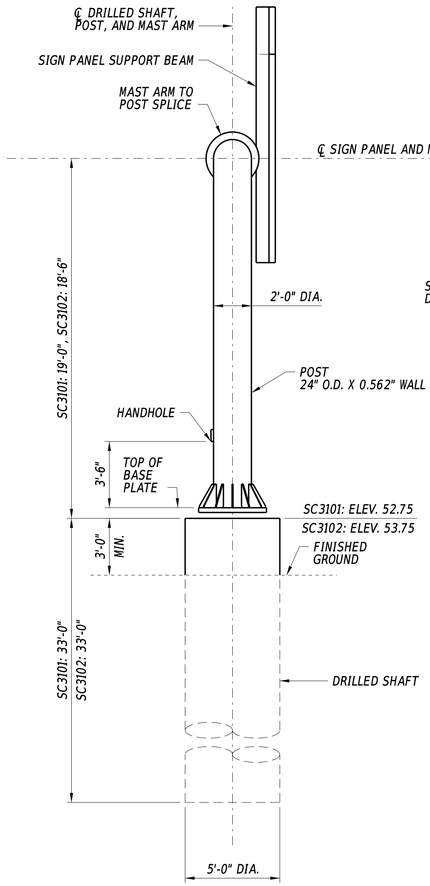
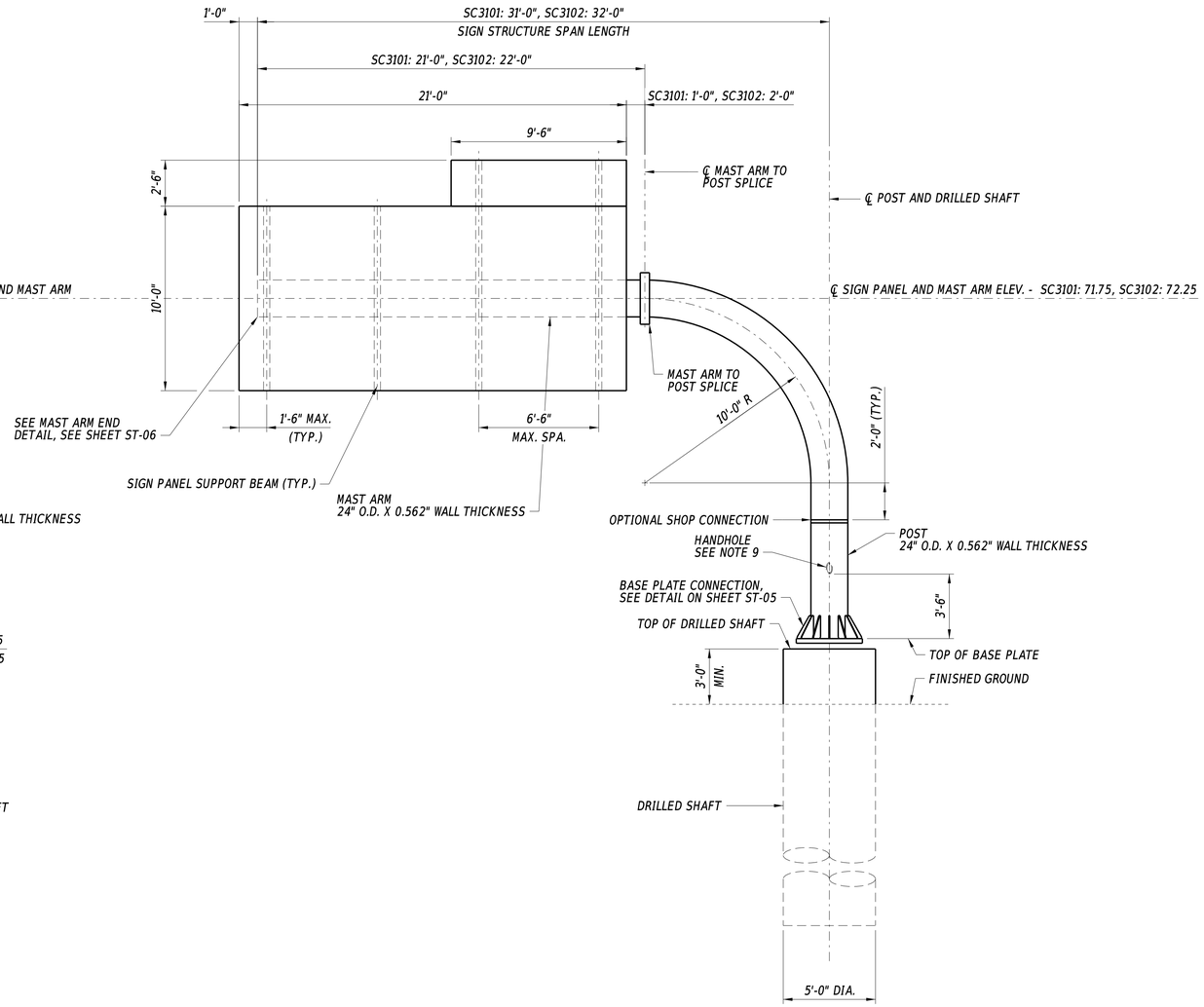
ADDENDA / REVISIONS							
			US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. SC3101 & SC3102	SIGN STRUCTURE SC3102 ELEVATION	ST-03
				COUNTY SUSSEX	DESIGNED BY: R. SEDAR		SECTION WRA
					CHECKED BY: W. GESCHREI		SHEET NO. 190



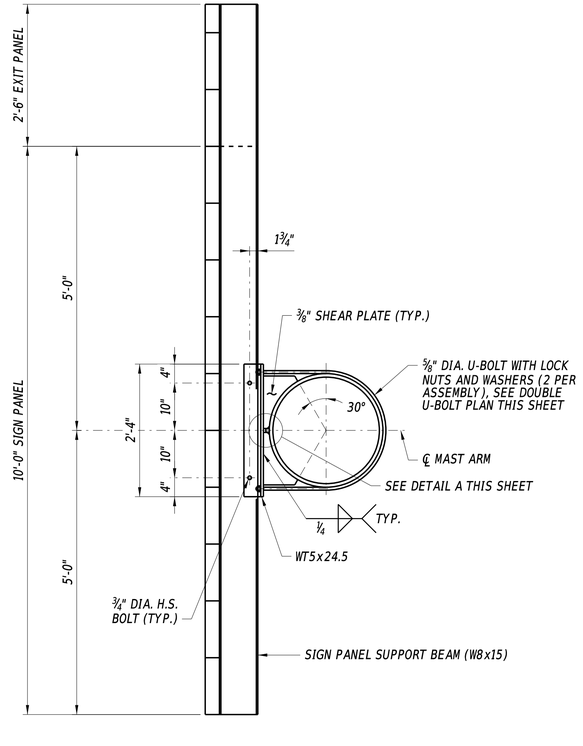
END VIEW

¼" = 1'-0"



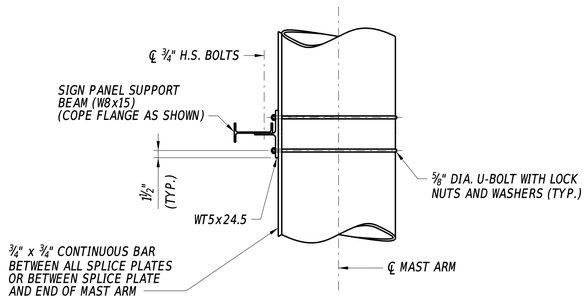
ELEVATION VIEW

¼" = 1'-0"



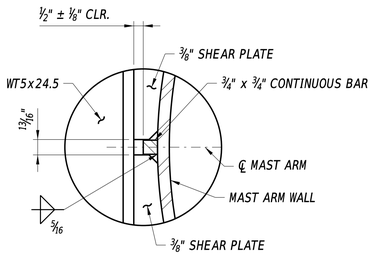
SIGN PANEL SECTION

¾" = 1'-0"



DOUBLE U-BOLT PLAN

¾" = 1'-0"



DETAIL A

3" = 1'-0"

NOTES:

1. FOR SIGN STRUCTURE NOTES, SEE SHEET ST-01.
2. FOR SIGN STRUCTURE DESIGN LOAD NOTES, SEE SHEET ST-01.
3. FOR SIGN STRUCTURE ELEVATIONS, SEE SHEETS ST-02 AND ST-03.
4. FOR MAST ARM TO POST SPLICE DETAIL, SEE SHEET ST-05.
5. FOR BASE PLATE DETAILS, SEE SHEET ST-05.
6. FOR HANDHOLE DETAILS, SEE SHEET ST-05.
7. FOR ADDITIONAL SIGN STRUCTURE DETAILS, SEE SHEET ST-05.
8. FOR SIGN STRUCTURE FOUNDATION DETAILS, SEE SHEET ST-06.
9. HANDHOLE SHALL BE LOCATED ON DOWNSTREAM TRAFFIC FACE OF POST.
10. SUPPLY OF W8x15 SIGN PANEL SUPPORT BEAMS WILL BE PAID FOR UNDER ITEM 822004. INSTALLATION OF W8x15 SIGN PANEL SUPPORT BEAMS WILL BE PAID FOR UNDER ITEM 822005.

ADDENDA / REVISIONS						
			US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. SC3101 & SC3102	SIGN STRUCTURE DETAILS
				COUNTY SUSSEX	DESIGNED BY: R. SEDAR	
					CHECKED BY: W. GESCHREI	

ST-04 | SECTION WRA | SHEET NO. 191

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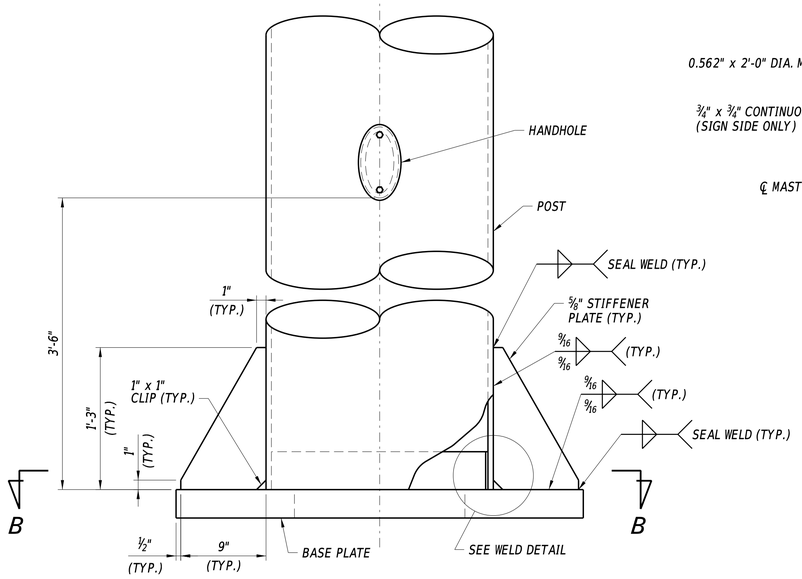
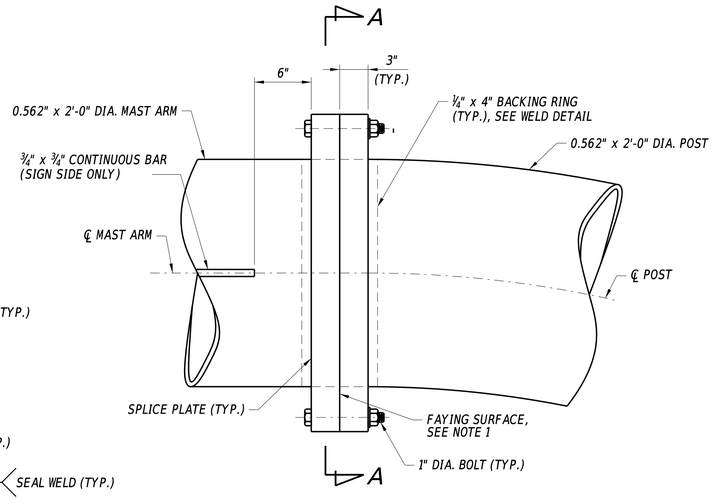


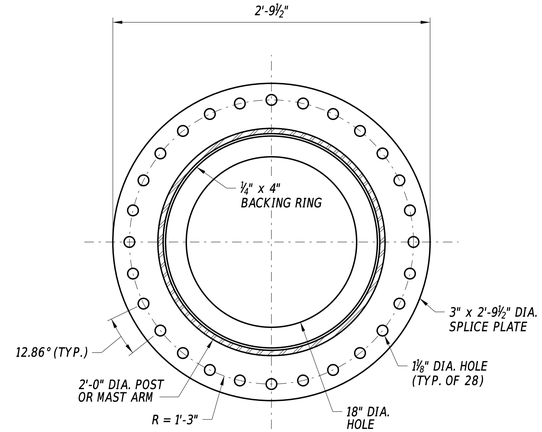
POST BASE ELEVATION DETAIL

1½" = 1'-0"



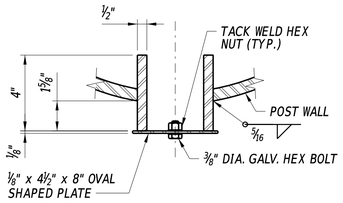
MAST ARM TO POST SPLICE DETAIL

1½" = 1'-0"



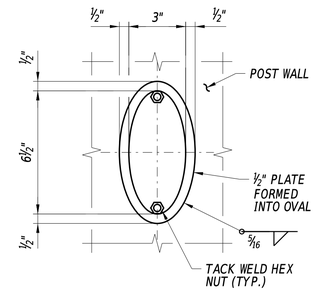
SECTION A-A

1½" = 1'-0"



HANDHOLE - SECTION

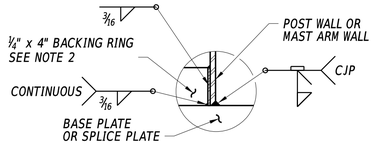
3" = 1'-0"



HANDHOLE - ELEVATION

3" = 1'-0"

NOTE:
⅛" THICK OVAL SHAPED PLATE AND ⅜" DIA. HEX BOLTS NOT SHOWN FOR CLARITY.

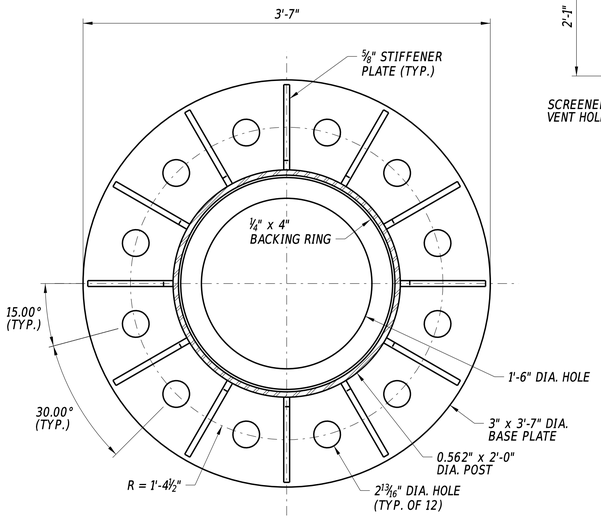


WELD DETAIL

1½" = 1'-0"

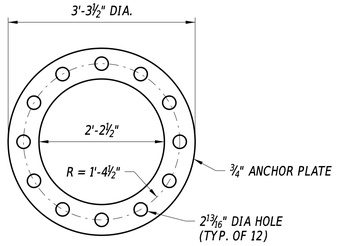
MAST ARM END DETAIL

¾" = 1'-0"



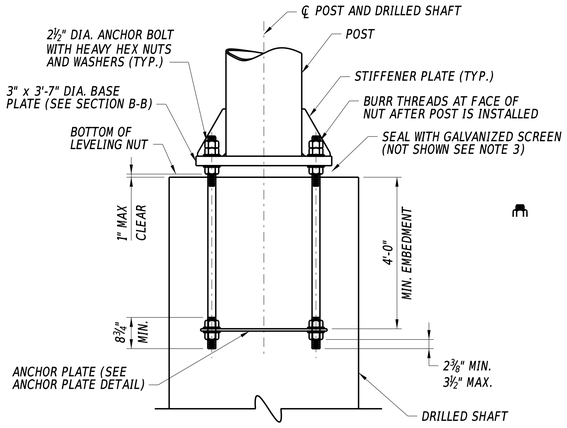
SECTION B-B

1½" = 1'-0"



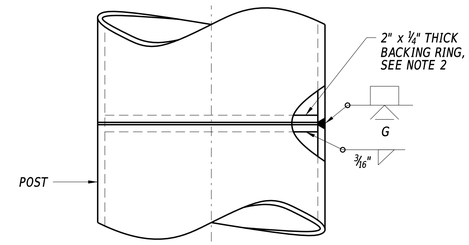
ANCHOR PLATE DETAIL

¾" = 1'-0"



BASE PLATE CONNECTION ELEVATION DETAIL

½" = 1'-0"



OPTIONAL
SHOP CONNECTION DETAIL

1½" = 1'-0"

NOTES:

1. SPLICE PLATE FAYING SURFACES SHALL BE ROUGHENED BY A WIRE BRUSH AFTER HOT DIP GALVANIZED.
2. TOP OF WELD OF THE BACKING RING SHALL BE MADE AFTER ULTRASONIC INSPECTION OF THE GROOVE WELD. BACKING RING MUST BE FABRICATED AS A CONTINUOUS RING.
3. SEAL BASE PLATE TO FOUNDATION GAP WITH GALVANIZED STEEL SCREEN, ½" BY ½" MESH AND 0.063" DIAMETER WIRES. SCREEN IS TO PREVENT ENTRY OF RODENTS WHILE PERMITTING DRAINAGE. SCREEN IS TO BE REMOVABLE AND ATTACHED TO THE BASE PLATE WITH STAINLESS STEEL HARDWARE.
4. FOR SIGN STRUCTURE ELEVATIONS, SEE SHEETS ST-02 AND ST-03.
5. FOR SIGN STRUCTURE DETAILS, SEE SHEET ST-04.
6. FOR SIGN STRUCTURE FOUNDATION DETAILS, SEE SHEET ST-06.

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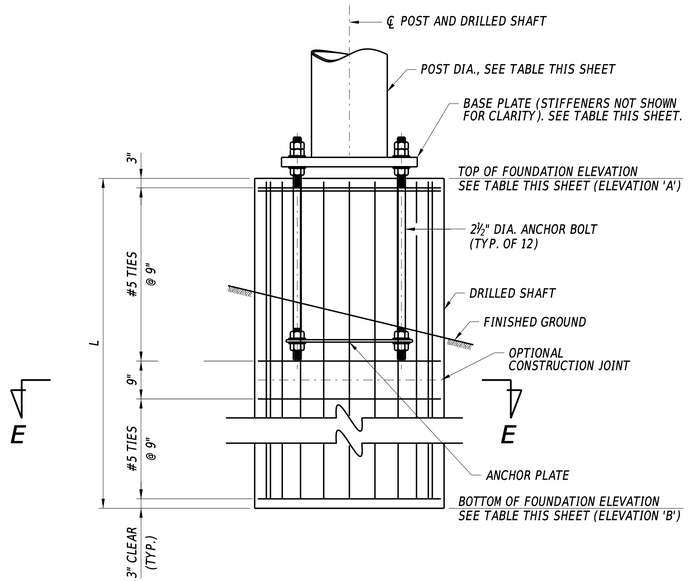
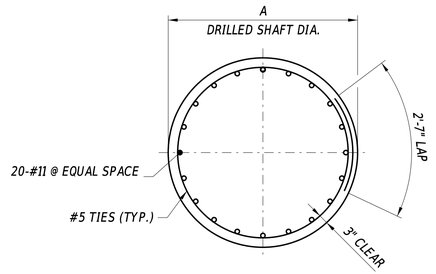
ADDENDA / REVISIONS	SCALE: AS NOTED	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. SC3101 & SC3102	SIGN STRUCTURE MISC DETAILS	ST-05
			COUNTY SUSSEX	DESIGNED BY: R. SEDAR		SECTION WRA
				CHECKED BY: W. GESCHREI		SHEET NO. 192



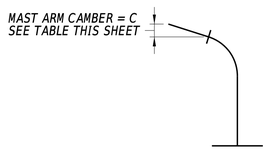


SECTION E-E

½" = 1'-0"

DRILLED SHAFT DIMENSIONS TABLE					
SIGN STRUCTURE NUMBER	DRILLED SHAFT DIA. 'A'	DRILLED SHAFT LENGTH 'L'	ELEVATION TOP-FOUNDATION	POST DIAMETER O.D.	BASE PLATE DIAMETER
SC3101	5'-0"	30'-0"	52.75	24"	3'-7"
SC3102	5'-0"	30'-0"	53.75	24"	3'-7"

DRILLED SHAFT INSTALLATION DATA				
SHAFT/SIGN STRUCTURE NUMBER	DESIGN DATA		ACTUAL FIELD DATA	
	ELEVATION 'A'	ESTIMATED ELEVATION 'B'	ACTUAL ELEVATION 'A'	ACTUAL ELEVATION 'B'
SC3101	52.75	19.75		
SC3102	53.75	20.75		



CAMBER TABLE	
SIGN STRUCTURE NUMBER	MAST ARM CAMBER 'C'
SC3101	2"
SC3102	2⅛"

CAMBER DIAGRAM

NOT TO SCALE

MAST ARM CAMBER MUST INCLUDE BOTH MAST ARM AND MAST/POLE DEFLECTION. BACK RAKING OF MAST ARM IS NOT PERMITTED.

NOTES:

1. ALL DRILLED SHAFT CONSTRUCTION SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATION SECTION 606 EXCEPT AS MODIFIED BELOW.
2. ALL REINFORCEMENT SHALL BE EPOXY COATED UNLESS NOTED OTHERWISE.
3. TEMPORARY STEEL CASING SHALL BE INSTALLED IN DRILLED SHAFT HOLE UNTIL CONCRETE HAS BEEN PLACED.
4. NO PERMANENT CASING SHALL BE USED.
5. FOR SIGN STRUCTURE ELEVATIONS, SEE SHEETS ST-02 AND ST-03.
6. FOR GENERAL NOTES AND SIGN STRUCTURE LOCATONS, SEE SHEET ST-01.

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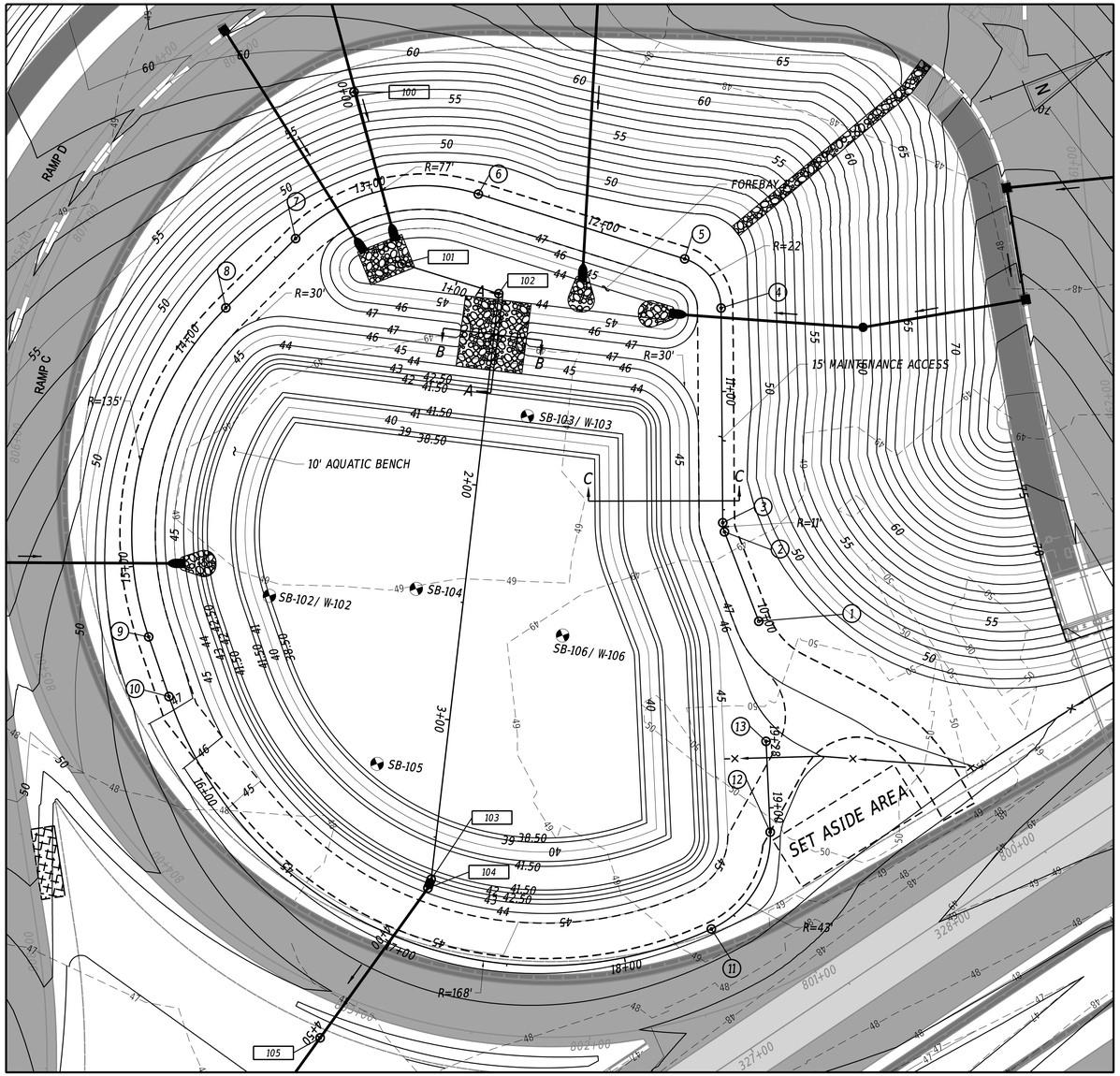
ADDENDA / REVISIONS						
			US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. SC3101 & SC3102	SIGN STRUCTURE FOUNDATION DETAILS
				COUNTY SUSSEX	DESIGNED BY: R. SEDAR	
					CHECKED BY: W. GESCHREI	

ST-06
SECTION WRA
SHEET NO. 193



SWM BMP NO. 01134 - WET EXTENDED DETENTION POND PLAN VIEW

1" = 30'

BMP NO. 01134 - DESIGN SUMMARY

DESIGN STORM	FACILITY INFLOW (CFS)	FACILITY DISCHARGE (CFS)	WATER SURFACE ELEVATION	STORAGE VOLUME (ACRE-FT)
1-YEAR (RPv)	2.91	0.13	42.95	0.408
10-YEAR (Cv)	7.42	0.92	43.28	0.716
100-YEAR (Fv)	22.77	7.38	43.91	1.334

DRAINAGE AREA TO FACILITY: 9.96 ACRES

MANAGEMENT PROVIDED BY FACILITY: WATER QUALITY CONTROL VIA EXTENDED DETENTION FOR 1-YEAR RESOURCE PROTECTION STORM EVENT. WATER QUANTITY CONTROL FOR Cv (10-YEAR) AND Fv (100-YEAR) STORM EVENTS.

PRINCIPAL SPILLWAY BASELINE

POINT NO.	STATION	NORTHING	EASTING
100	0+00.00	253910.6055	660307.2495
101	0+75.55	253903.2027	660382.4314
102	1+18.45	253936.8815	660409.0194
103	3+67.93	253820.6272	660629.7558
104	3+71.93	253817.9785	660632.7532
105	4+50.00	253752.5489	660675.3372

POND EMBANKMENT BASELINE

POINT NO.	STATION	NORTHING	EASTING
1	10+00.00	253989.3646	660578.0640
2	10+40.53	253989.5087	660537.5312
3	10+44.48	253990.2221	660533.6731
4	11+35.33	254022.4099	660448.7151
5	11+63.02	254015.5724	660423.7353
6	12+54.57	253944.0612	660366.5795
7	13+38.24	253865.1257	660356.1833
8	13+79.86	253826.9947	660372.8644
9	15+30.58	253746.2207	660490.8872
10	15+57.25	253745.1027	660517.5322
11	18+38.83	253923.5834	660692.2390
12	18+89.72	253961.6253	660663.0158
13	19+28.17	253973.8697	660626.5596

WET EXTENDED DETENTION POND CONSTRUCTION SEQUENCE AND NOTES

BEFORE ANY CONSTRUCTION BEGINS ON THE WET POND, CONTACT THE DESIGNATED CCR A MINIMUM OF 2 WORKING DAYS IN ADVANCE SO THAT THE REQUIRED FACILITY CONSTRUCTION CHECKLIST CAN BE COMPLETED.

THE STORMWATER POND SHALL FUNCTION AS A SEDIMENT BASIN DURING CONSTRUCTION AND SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 910 OF THE STANDARD SPECIFICATIONS.

A. INITIAL CONSTRUCTION:

1. INSTALL STABILIZED CONSTRUCTION ENTRANCE(S) AS NEEDED AND APPROVED BY THE ENGINEER.
2. CLEAR AND GRUB FOR INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS.
3. INSTALL PERIMETER CONTROLS AS SHOWN ON THE PLANS.
4. CLEAR AND GRUB REMAINING AREA FOR WET POND CONSTRUCTION.
5. EXCAVATE PARTIAL EMBANKMENT AS NEEDED TO CONTRUCT AND INSTALL POND OUTLET STRUCTURE.
6. BLOCK POND OUTLET STRUCTURE WIER FROM ELEVATION 43.10' TO ELEVATION 44.00'. INSTALL SKIMMER DEWATERING DEVICE TO LOW FLOW ORIFICE AND SET DISCHARGE ELEVATION TO 42.50'. DEWATER FOUNDATION AS NEEDED IN ACCORDANCE WITH SECTION 900 OF THE STANDARD SPECIFICATIONS.
7. COMPLETE POND EXCAVATION AS PER FINAL DESIGN ELEVATION. POND EXCAVATION WILL BE PAID FOR UNDER STORMWATER MANAGEMENT POND (ITEM 910008).
8. ALL DISTURBED AREAS MEETING FINAL ELEVATIONS AND GRADES ABOVE THE PERMANENT BOTTOM ELEVATION SHALL BE SEEDED WITH STORMWATER FACILITY SEED MIX (ITEM 908015) AND EROSION CONTROL BLANKET MULCH (ITEM 908020).

B. MAINTENANCE OF WET POND AS A SEDIMENT BASIN DURING CONSTRUCTION:

1. INSPECT THE BASIN THE NEXT WORKDAY FOLLOWING A RAIN EVENT AND MAKE REPAIRS AS NEEDED.
2. ANY EXCESS SEDIMENT AROUND THE OUTFALL AREA WILL BE REMOVED WITHIN TWO WORKING DAYS AND DISPOSED AT A LOCATION APPROVED BY THE ENGINEER.

C. CONVERSION TO PERMANENT EXTENDED DETENTION WET POND:

ALL AREAS DRAINING TO THE FACILITY MUST BE AT FINAL GRADE AND STABILIZED AS APPROVED BY THE STORMWATER ENGINEER PRIOR TO CONVERSION TO PERMANENT WET POND. AN ONSITE MEETING WILL BE CONDUCTED WITH THE STORMWATER ENGINEER OR ENGINEER OF RECORD TO DETERMINE THE E&S REQUIREMENTS.

1. CONVERT THE SEDIMENT BASIN AFTER ALL AREAS DRAINING TO IT HAVE ATTAINED FINAL STABILIZATION AND THE ENGINEER HAS APPROVED THE CONVERSION.
2. REMOVE ANY EXCESS SEDIMENT FROM THE POND BOTTOM ABOVE ELEVATION 38.50.'
3. REMOVE ANY EXCESS SEDIMENT FROM THE FOREBAYS ABOVE ELEVATION 44.00.'
4. INSTALL AGRI DRAIN OR APPROVED EQUIVALENT TO LOW FLOW ORIFICE.
5. COMPLETE STABILIZATION OF ALL DISTURBED AREAS ABOVE PERMANENT POOL ELEVATION WITH TOPSOIL, PERMANENT GRASS SEEDING, STORMWATER (ITEM 908015), AND EROSION CONTROL BLANKET MULCH (ITEM 908020).
6. AFTER ALL SURROUNDING AREAS DRAINING TO THE WET POND HAVE SUFFICIENT VEGETATION, AS APPROVED BY THE ENGINEER, E&S DEVICES SHALL BE REMOVED.

*SURVEY WILL BE COMPLETED BY THE CONTRACTOR AND CERTIFIED BY A DELAWARE PLS BEFORE THE DELDOT INITIAL INSPECTION DATE. THE SURVEY SHALL BE SENT TO THE STORMWATER ENGINEER FOR VERIFICATION. ALL COSTS FOR PREPARING AND SUBMITTING POST CONSTRUCTION VERIFICATION DOCUMENTATION IS INCIDENTAL TO ITEM 910008, STORMWATER MANAGEMENT POND. SURVEY WILL INCLUDE, BUT NOT BE LIMITED TO:

- GENERAL TOPOGRAPHY OF THE WHOLE FACILITY AT 1-FOOT CONTOURS INCLUDING FOREBAYS AND TOP/TOE OF ANY EMBANKMENT.
- INVERTS OF ALL PIPES AND SWALES THAT INFLOW TO THE POND.
- OUTLINE OF ALL RIPRAP AND OBTAIN SPOT ELEVATIONS ON TOP OF THE RIPRAP.
- OUTLET STRUCTURE (OR WEIR WALL) INVERTS OF ANY AND ALL ORIFICES/WEIRS, TOP OF STRUCTURE, OUTLET PIPE, ETC.
- PRIMARY OUTFLOW PIPE OR CHANNEL. FOR A PIPE OUTFALL, INVERTS AT THE ENTRANCE AND EXIT. FOR A PRIMARY OUTFLOW CHANNEL/SWALE, SHOW AT MINIMUM THREE (3) CROSS SECTIONS EQUAL DISTANCE APART AT 50' DOWNSTREAM ALONG WITH THE SLOPE.

DEWATERING NOTES:

1. DEWATER THE EXCAVATION AREA IN ACCORDANCE WITH SECTION 900 OF THE STANDARD SPECIFICATIONS. THE CONTRACTOR MAY DEWATER UP TO 50,000 GALLONS PER DAY IN ACCORDANCE WITH THE STATEWIDE GENERAL PERMIT FOR MINOR DEWATERING ACTIVITIES AND SHALL BE INCIDENTAL TO ITEM 910008 AND ITEM 910006.
2. EACH DEWATERING PUMP SHALL HAVE A FUNCTIONING INSTANTANEOUS/TOTALIZING VOLUME METER INSTALLED PRIOR TO THE WITHDRAW OF GROUNDWATER. THE DEWATERING OPERATION WILL BE CONTINUOUS UNTIL COMPLETION.
3. THE CONTRACTOR SHALL NOTIFY THE DNREC WATER SUPPLY SECTION AT 302-739-9945 48 HOURS PRIOR TO STARTING ANY DEWATERING OPERATION.

WELL READINGS SUMMARY

NO.	WELL DEPTH (FT)	WATER DEPTH BELOW GROUND SURFACE (FT)						AVERAGE DEPTH TO WATER (FT)	GWT ELEVATION
		12/11/2023	12/13/2023	1/10/2024	1/24/2024	2/02/2024	6/12/2024		
W-102	15.0	6.4	5.9	6.1	5.3	5.1	8.6	6.2	42.7'
W-103	10.0	6.0	5.9	6.2	5.3	5.0	7.9	6.1	43.0'
W-106	10.0	6.5	6.2	6.3	5.4	5.1	7.9	6.2	43.0'

SOIL BORING SUMMARY

NO.	TEST DEPTH (FT)	DEPTH TO WATER (FT)	GWT ELEVATION
SB-102	15.0	DRY	-
SB-103	10.0	9.9	39.0'
SB-104	10.0	DRY	-
SB-105	10.0	DRY	-
SB-106	10.0	DRY	-

ADDENDA / REVISIONS		NOT TO SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. N/A	STORMWATER MANAGEMENT PLAN	SECTION WRA
				COUNTY SUSSEX	DESIGNED BY: S. BEALL		SHEET NO. 194
					CHECKED BY: T. OLIVER		

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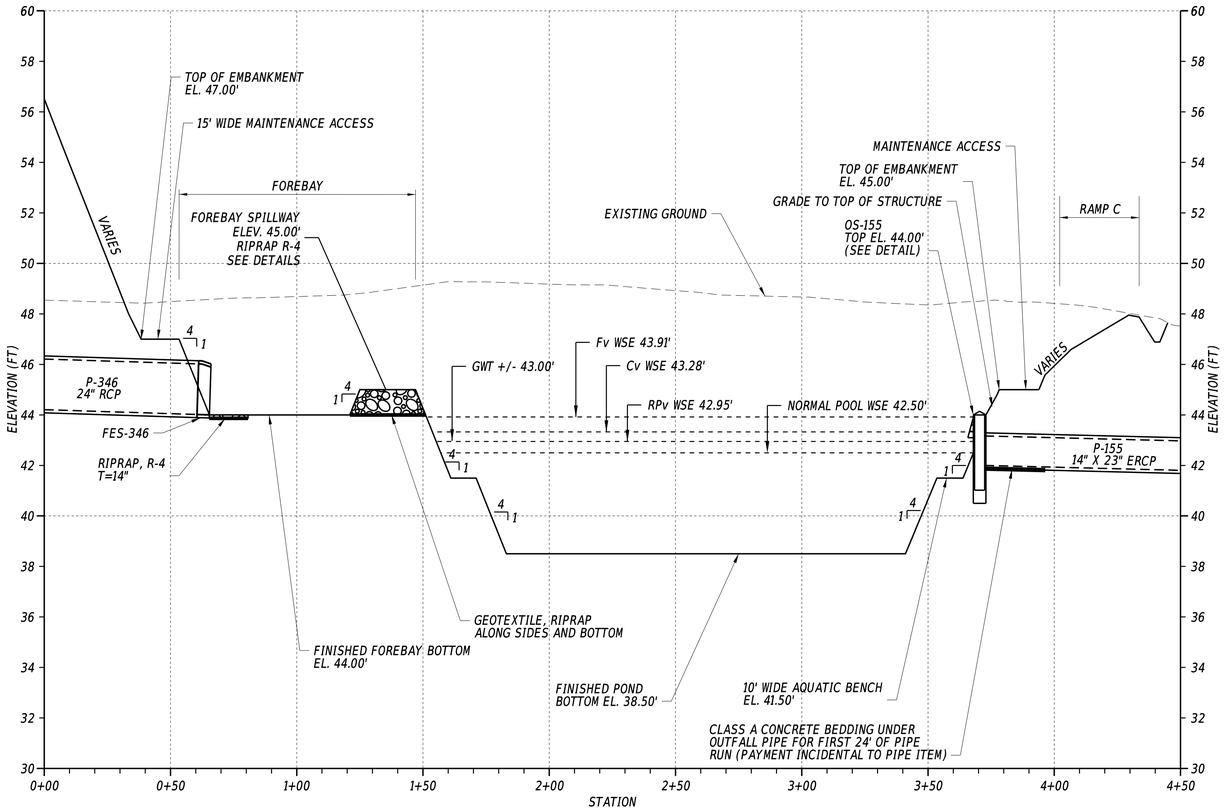
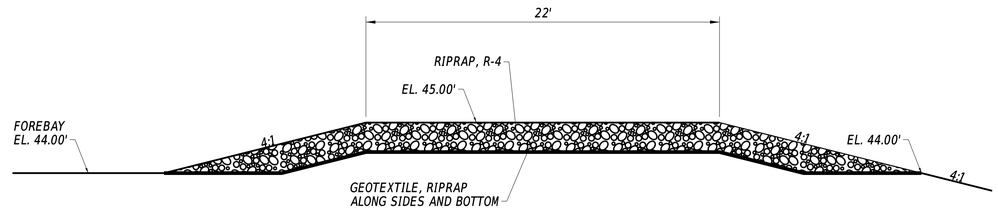


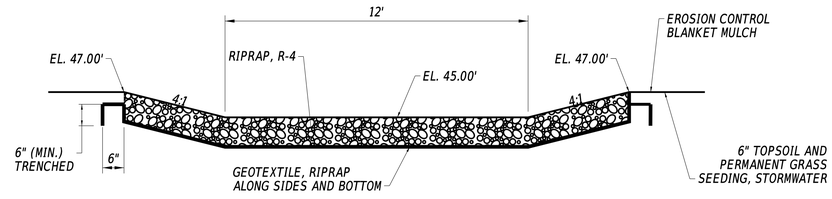
SPILLWAY PROFILE - BMP NO. 01134

HORIZONTAL SCALE 1" = 30'
VERTICAL SCALE 1" = 3'



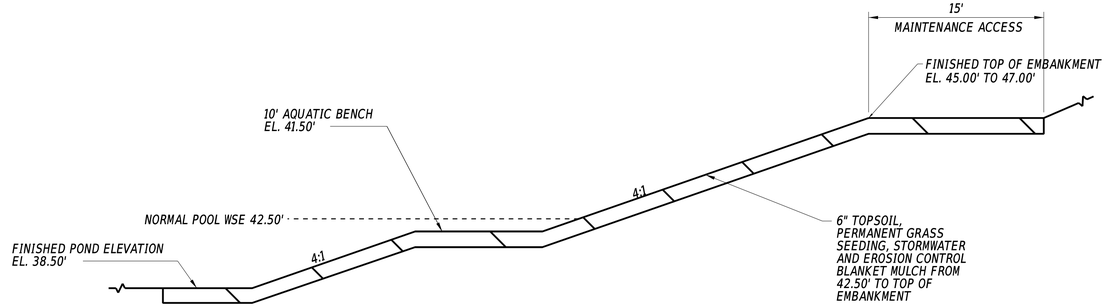
SECTION A-A - FOREBAY SPILLWAY

NOT TO SCALE



SECTION B-B - FOREBAY SPILLWAY

NOT TO SCALE



SECTION C-C

NOT TO SCALE

ADDENDA / REVISIONS		NOT TO SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	STORMWATER MANAGEMENT PLAN	SECTION
				T201412701	DESIGNED BY: A. CARDENAS		WRA
				COUNTY			SHEET NO.
				SUSSEX	CHECKED BY: T. OLIVER		195

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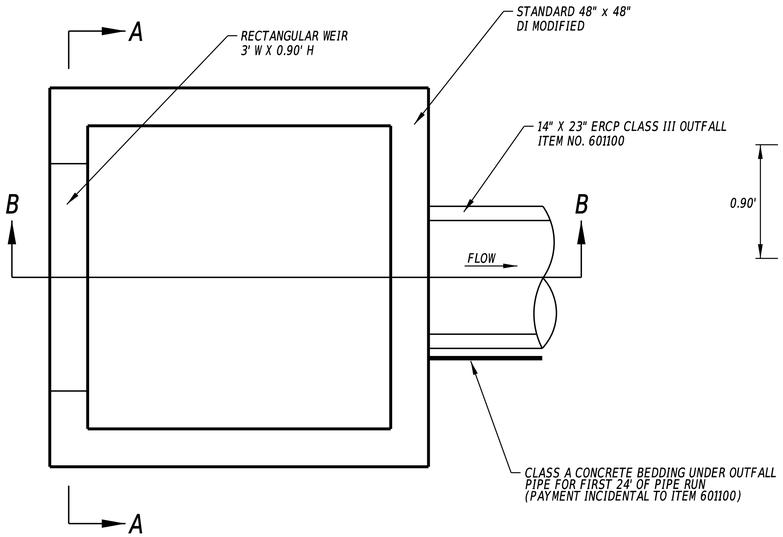
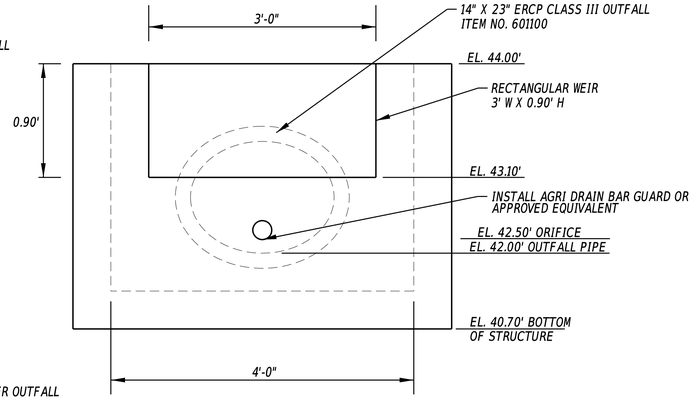


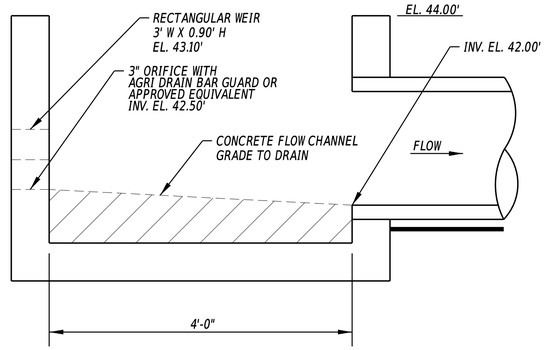
BMP NO. 01134 OUTLET STRUCTURE (OS-155) DETAIL

NOT TO SCALE



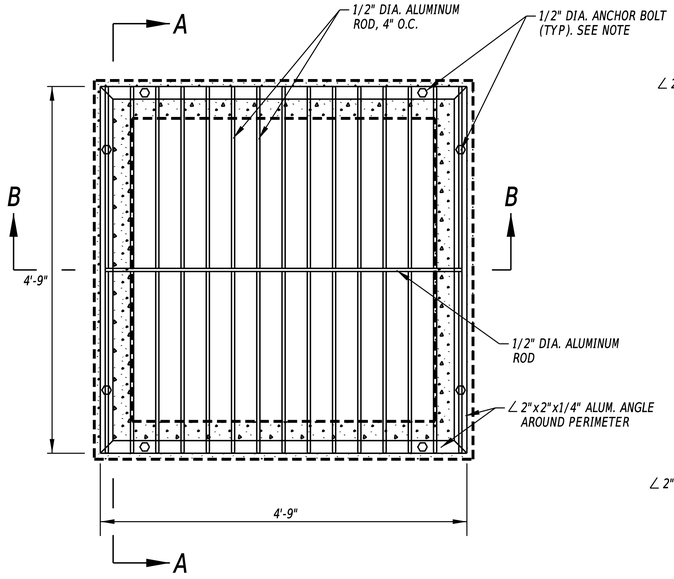
SECTION A-A

NOT TO SCALE



SECTION B-B

NOT TO SCALE

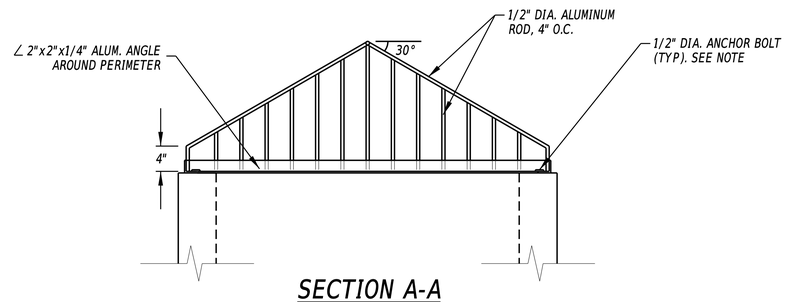


OVERFLOW TRASH RACK DETAIL

NOT TO SCALE

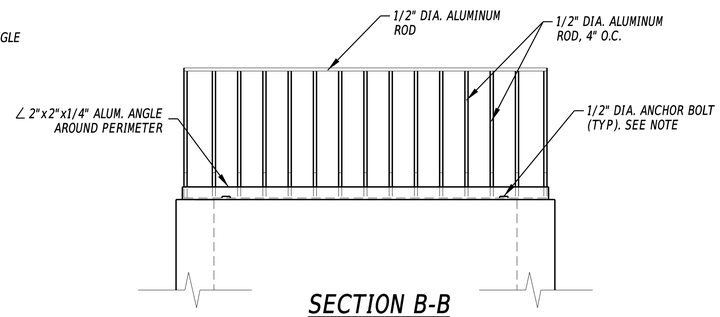
NOTES:

1. ANCHOR BOLTS TO BE STAINLESS STEEL ONLY.
2. TRASH RACK BARS TO BE ALUMINUM ONLY.
3. PAYMENT OF TRASH RACK IS INCIDENTAL TO ITEM 910006.



SECTION A-A

NOT TO SCALE



SECTION B-B

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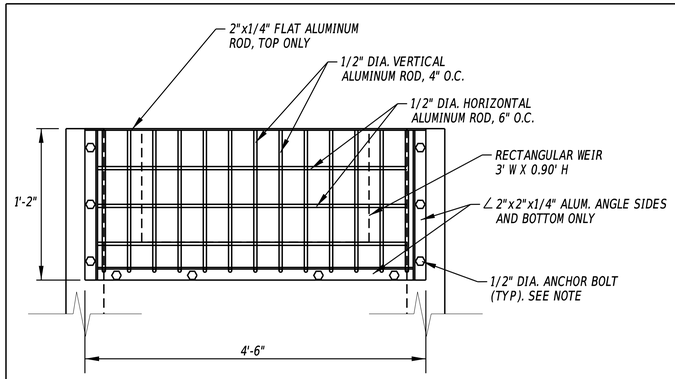

FRONT ELEVATION

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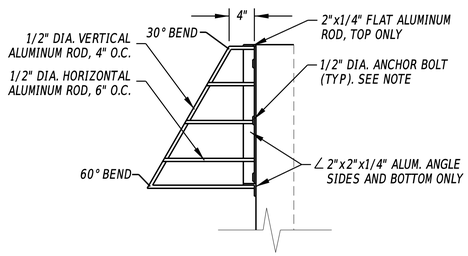

SIDE ELEVATION

NOT TO SCALE

WEIR TRASH RACK DETAIL

NOT TO SCALE

NOTES:

1. ANCHOR BOLTS TO BE STAINLESS STEEL ONLY.
2. TRASH RACK BARS TO BE ALUMINUM ONLY.
3. PAYMENT OF TRASH RACK IS INCIDENTAL TO ITEM 910006.

ADDENDA / REVISIONS		NOT TO SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	T201412701	BRIDGE NO.	N/A	STORMWATER MANAGEMENT PLAN	SECTION	WRA
				COUNTY	SUSSEX	DESIGNED BY: A. CARDENAS			SHEET NO.	196
						CHECKED BY: T. OLIVER				

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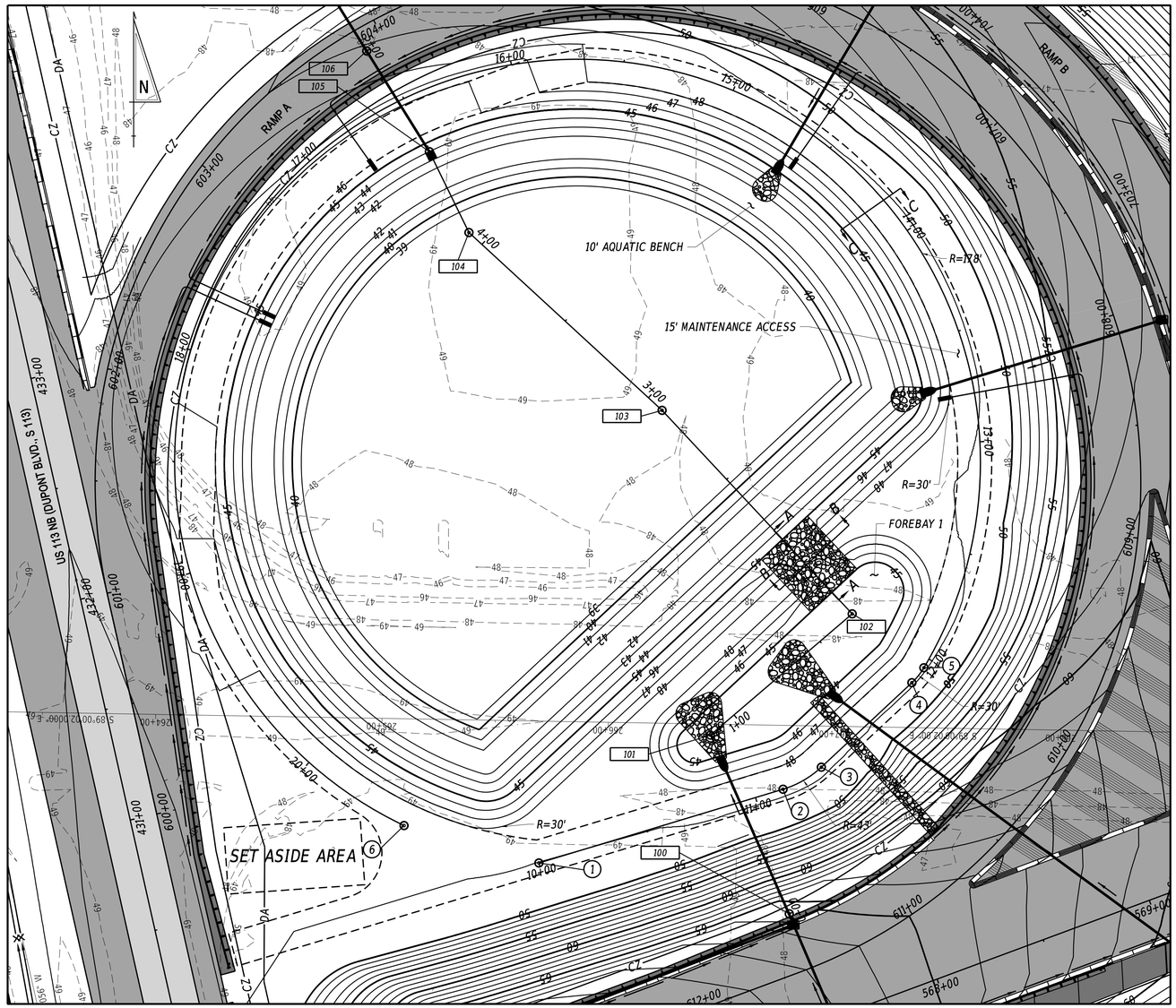

SWM BMP NO. 01135 - WET EXTENDED DETENTION POND

1" = 30'

BMP NO. 01135 - DESIGN SUMMARY

DESIGN STORM	FACILITY INFLOW (CFS)	FACILITY DISCHARGE (CFS)	WATER SURFACE ELEVATION	STORAGE VOLUME (ACRE-FT)
1-YEAR (RPv)	3.82	0.11	43.36	0.468
10-YEAR (Cv)	9.39	0.42	43.89	1.188
100-YEAR (Fv)	26.05	3.32	44.57	2.139

DRAINAGE AREA TO FACILITY: 7.46 ACRES

MANAGEMENT PROVIDED BY FACILITY: WATER QUALITY CONTROL VIA EXTENDED DETENTION FOR 1-YEAR RESOURCE PROTECTION STORM EVENT. WATER QUANTITY CONTROL FOR Cv (10-YEAR) AND Fv (100-YEAR) STORM EVENTS.

PRINCIPAL SPILLWAY BASELINE

POINT NO.	STATION	NORTHING	EASTING
100	0+00.00	254295.0457	661062.0176
101	0+86.29	254374.0021	661027.1977
102	1+68.72	254427.5791	661089.8370
103	2+91.78	254517.5275	661005.8476
104	4+07.79	254596.1088	660920.5144
105	4+47.59	254631.8501	660903.0014
106	5+00.00	254676.3500	660875.3136

POND EMBANKMENT BASELINE

POINT NO.	STATION	NORTHING	EASTING
1	10+00.00	254317.4849	660951.4183
2	11+12.70	254350.0864	661059.2963
3	11+32.38	254359.8190	661076.2037
4	11+87.09	254397.1632	661116.1975
5	11+95.60	254403.7687	661121.5155
6	20+50.58	254334.0259	660891.8306

WET EXTENDED DETENTION POND CONSTRUCTION SEQUENCE AND NOTES

BEFORE ANY CONSTRUCTION BEGINS ON THE WET POND, CONTACT THE DESIGNATED CCR A MINIMUM OF 2 WORKING DAYS IN ADVANCE SO THAT THE REQUIRED FACILITY CONSTRUCTION CHECKLIST CAN BE COMPLETED.

THE STORMWATER POND SHALL FUNCTION AS A SEDIMENT BASIN DURING CONSTRUCTION AND SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 910 OF THE STANDARD SPECIFICATIONS.

A. INITIAL CONSTRUCTION:

1. INSTALL STABILIZED CONSTRUCTION ENTRANCE(S) AS NEEDED AND APPROVED BY THE ENGINEER.
2. CLEAR AND GRUB FOR INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS.
3. INSTALL PERIMETER CONTROLS AS SHOWN ON THE PLANS.
4. CLEAR AND GRUB REMAINING AREA FOR WET POND CONSTRUCTION.
5. EXCAVATE PARTIAL EMBANKMENT AS NEEDED TO CONTRUCT AND INSTALL POND OUTLET STRUCTURE.
6. BLOCK POND OUTLET STRUCTURE WIER FROM ELEVATION 43.75' TO ELEVATION 45.00'. INSTALL SKIMMER DEWATERING DEVICE TO LOW FLOW ORIFICE AND SET DISCHARGE ELEVATION TO 43.00'. DEWATER FOUNDATION AS NEEDED IN ACCORDANCE WITH SECTION 900 OF THE STANDARD SPECIFICATIONS.
7. COMPLETE POND EXCAVATION AS PER FINAL DESIGN ELEVATION. POND EXCAVATION WILL BE PAID FOR UNDER STORMWATER MANAGEMENT POND (ITEM 910008).
8. ALL DISTURBED AREAS MEETING FINAL ELEVATIONS AND GRADES ABOVE THE PERMANENT BOTTOM ELEVATION SHALL BE SEEDED WITH STORMWATER FACILITY SEED MIX (ITEM 908015) AND EROSION CONTROL BLANKET MULCH (ITEM 908020).

B. MAINTENANCE OF WET POND AS A SEDIMENT BASIN DURING CONSTRUCTION:

1. INSPECT THE BASIN THE NEXT WORKDAY FOLLOWING A RAIN EVENT AND MAKE REPAIRS AS NEEDED.
2. ANY EXCESS SEDIMENT AROUND THE OUTFALL AREA WILL BE REMOVED WITHIN TWO WORKING DAYS AND DISPOSED AT A LOCATION APPROVED BY THE ENGINEER.

C. CONVERSION TO PERMANENT EXTENDED DETENTION WET POND:

ALL AREAS DRAINING TO THE FACILITY MUST BE AT FINAL GRADE AND STABILIZED AS APPROVED BY THE STORMWATER ENGINEER PRIOR TO CONVERSION TO PERMANENT WET POND. AN ONSITE MEETING WILL BE CONDUCTED WITH THE STORMWATER ENGINEER OR ENGINEER OF RECORD TO DETERMINE THE E&S REQUIREMENTS.

1. CONVERT THE SEDIMENT BASIN AFTER ALL AREAS DRAINING TO IT HAVE ATTAINED FINAL STABILIZATION AND THE ENGINEER HAS APPROVED THE CONVERSION.
2. REMOVE ANY EXCESS SEDIMENT FROM THE POND BOTTOM ABOVE ELEVATION 39.00.'
3. REMOVE ANY EXCESS SEDIMENT FROM THE FOREBAYS ABOVE ELEVATION 45.00.'
4. INSTALL AGRI DRAIN OR APPROVED EQUIVALENT TO LOW FLOW ORIFICE.
5. COMPLETE STABILIZATION OF ALL DISTURBED AREAS ABOVE PERMANENT POOL ELEVATION WITH TOPSOIL, PERMANENT GRASS SEEDING, STORMWATER (ITEM 908015), AND EROSION CONTROL BLANKET MULCH (ITEM 908020).
6. AFTER ALL SURROUNDING AREAS DRAINING TO THE WET POND HAVE SUFFICIENT VEGETATION, AS APPROVED BY THE ENGINEER, E&S DEVICES SHALL BE REMOVED.

*SURVEY WILL BE COMPLETED BY THE CONTRACTOR AND CERTIFIED BY A DELAWARE PLS BEFORE THE DELDOT INITIAL INSPECTION DATE. THE SURVEY SHALL BE SENT TO THE STORMWATER ENGINEER FOR VERIFICATION. ALL COSTS FOR PREPARINGAND SUBMITTING POST CONSTRUCTION VERIFICATION DOCUMENTATION IS INCIDENTAL TO ITEM 910008, STORMWATER MANAGEMENT POND. SURVEY WILL INCLUDE, BUT NOT BE LIMITED TO:

- GENERAL TOPOGRAPHY OF THE WHOLE FACILITY AT 1-FOOT CONTOURS INCLUDING FOREBAYS AND TOP/TOE OF ANY EMBANKMENT.
- INVERTS OF ALL PIPES AND SWALES THAT INFLOW TO THE POND.
- OUTLINE OF ALL RIPRAP AND OBTAIN SPOT ELEVATIONS ON TOP OF THE RIPRAP.
- OUTLET STRUCTURE (OR WEIR WALL) INVERTS OF ANY AND ALL ORIFICES/WEIRS, TOP OF STRUCTURE, OUTLET PIPE, ETC.
- PRIMARY OUTFLOW PIPE OR CHANNEL. FOR A PIPE OUTFALL, INVERTS AT THE ENTRANCE AND EXIT. FOR A PRIMARY OUTFLOW CHANNEL/SWALE, SHOW AT MINIMUM THREE (3) CROSS SECTIONS EQUAL DISTANCE APART AT 50' DOWNSTREAM ALONG WITH THE SLOPE.

DEWATERING NOTES:

1. DEWATER THE EXCAVATION AREA IN ACCORDANCE WITH SECTION 900 OF THE STANDARD SPECIFICATIONS. THE CONTRACTOR MAY DEWATER UP TO 50,000 GALLONS PER DAY IN ACCORDANCE WITH THE STATEWIDE GENERAL PERMIT FOR MINOR DEWATERING ACTIVITIES AND SHALL BE INCIDENTAL TO ITEM 910008 AND ITEM 910006.
2. EACH DEWATERING PUMP SHALL HAVE A FUNCTIONING INSTANTANEOUS/TOTALIZING VOLUME METER INSTALLED PRIOR TO THE WITHDRAW OF GROUNDWATER. THE DEWATERING OPERATION WILL BE CONTINUOUS UNTIL COMPLETION.
3. THE CONTRACTOR SHALL NOTIFY THE DNREC WATER SUPPLY SECTION AT 302-739-9945 48 HOURS PRIOR TO STARTING ANY DEWATERING OPERATION.

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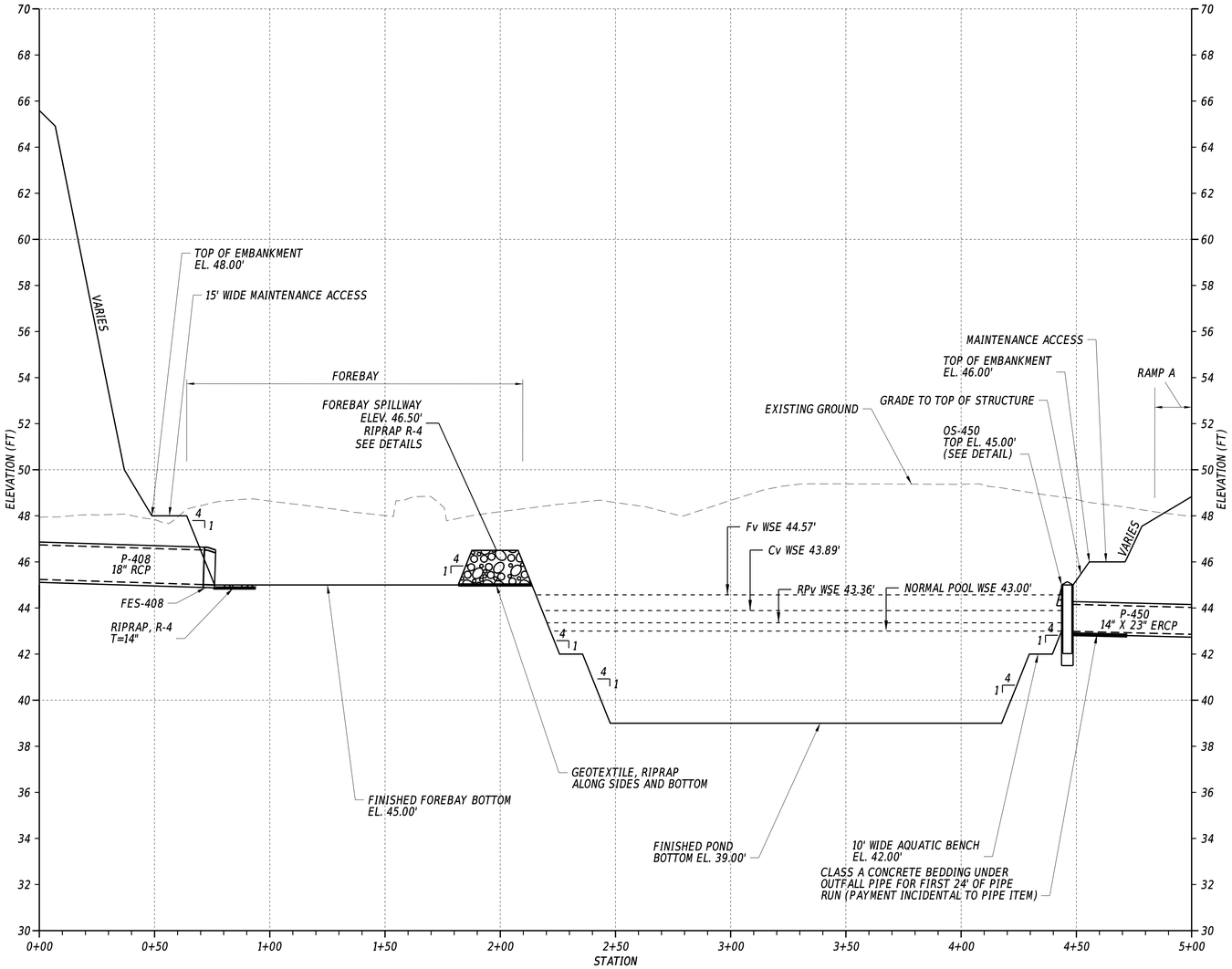
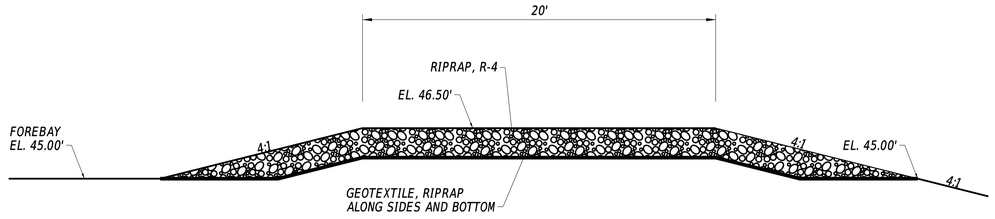
ADDENDA / REVISIONS	NOT TO SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. N/A	STORMWATER MANAGEMENT PLAN	SECTION WRA
			COUNTY SUSSEX	DESIGNED BY: A. CARDENAS		SHEET NO. 197
				CHECKED BY: T. OLIVER		



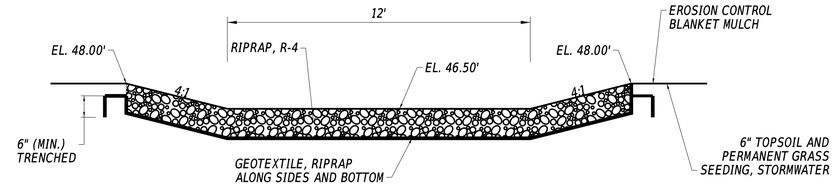
SPILLWAY PROFILE - BMP NO. 01135

HORIZONTAL SCALE 1" = 30'
VERTICAL SCALE 1" = 3'



SECTION A-A - FOREBAY SPILLWAY

NOT TO SCALE



SECTION B-B - FOREBAY SPILLWAY

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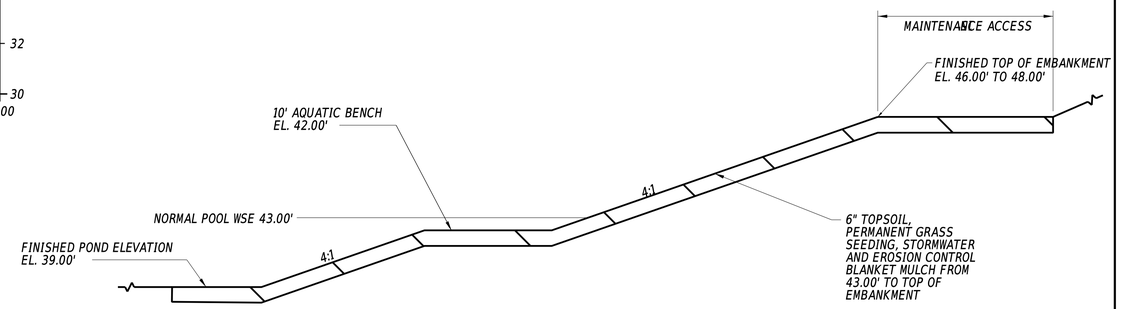

SECTION C-C

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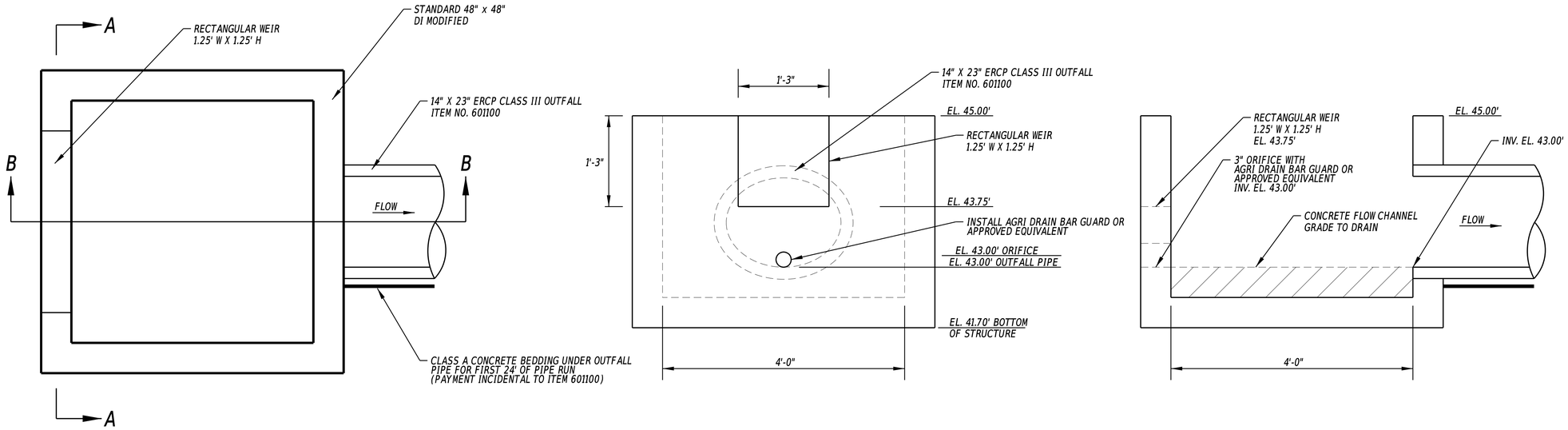
			COUNTY SUSSEX	DESIGNED BY: A. CARDENAS		SHEET NO. 198
				CHECKED BY: T. OLIVER		



BMP NO. 01135 OUTLET STRUCTURE (OS-450) DETAIL

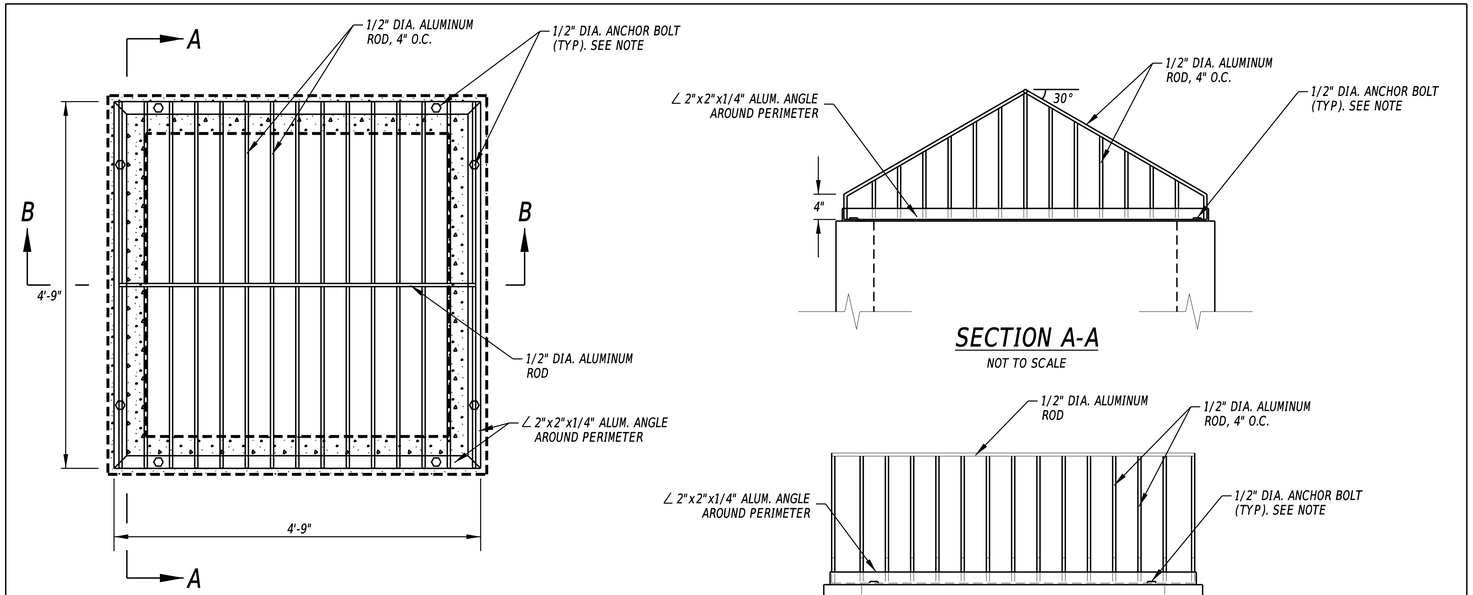
NOT TO SCALE

SECTION A-A

NOT TO SCALE

SECTION B-B

NOT TO SCALE



OVERFLOW TRASH RACK DETAIL

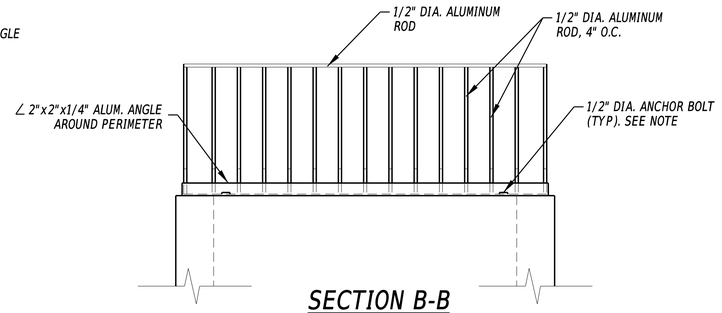
NOT TO SCALE

NOTES:

1. ANCHOR BOLTS TO BE STAINLESS STEEL ONLY.
2. TRASH RACK BARS TO BE ALUMINUM ONLY.
3. PAYMENT OF TRASH RACK IS INCIDENTAL TO ITEM 910006.

SECTION A-A

NOT TO SCALE



SECTION B-B

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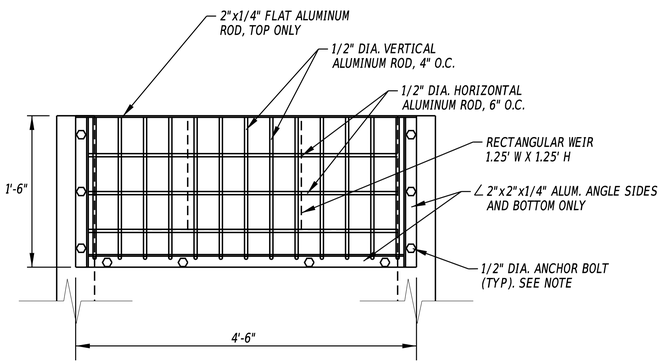
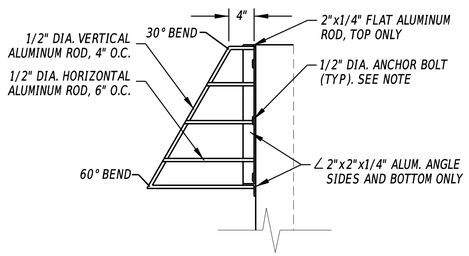


FRONT ELEVATION

NOT TO SCALE



SIDE ELEVATION

NOT TO SCALE

WEIR TRASH RACK DETAIL

NOT TO SCALE

NOTES:

1. ANCHOR BOLTS TO BE STAINLESS STEEL ONLY.
2. TRASH RACK BARS TO BE ALUMINUM ONLY.
3. PAYMENT OF TRASH RACK IS INCIDENTAL TO ITEM 910006.

ADDENDA / REVISIONS		NOT TO SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	T201412701	BRIDGE NO.	N/A	STORMWATER MANAGEMENT PLAN	SECTION	WRA
				COUNTY	SUSSEX	DESIGNED BY: A. CARDENAS			SHEET NO.	199
						CHECKED BY: T. OLIVER				

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NOTES:

WETLANDS DELINEATED BY WHITMAN, REQUARDT & ASSOCIATES
JANUARY 16, 2020 IN ACCORDANCE WITH THE 1987 CORPS OF
ENGINEERS MANUAL AND THE 2012 ATLANTIC AND GULF COASTAL
PLAIN REGIONAL SUPPLEMENT.

SHEETS PREPARED BY: WHITMAN, REQUARDT & ASSOCIATES, LLP
DATE: JANUARY 27, 2020
LAST UPDATED AUGUST 23, 2024

ENVIRONMENTAL COMPLIANCE NOTES

1. GENERAL NOTES:

A. THE PURPOSE OF THESE SHEETS IS TO IDENTIFY THOSE ITEMS ASSOCIATED WITH ENVIRONMENTAL COMPLIANCE. IMPACT CALCULATIONS ARE FOR THE AGENCY PERMIT REPORTING PURPOSES ONLY AND ARE NOT TO BE USED FOR BIDDING PURPOSES.

B. IF A DEPARTURE FROM THE APPROVED PLANS (WHICH WOULD AFFECT ANY NATURAL AND/OR CULTURAL RESOURCES) IS NECESSARY, THE ENVIRONMENTAL STUDIES SECTION SHALL BE CONTACTED AT (302)760-2264 TO ALLOW FOR COORDINATION WITH THE APPROPRIATE RESOURCE AGENCIES AND APPROVAL.

C. USE OF THESE SHEETS DOES NOT ALLEVIATE THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH ALL CONDITIONS SET FORTH IN THE ENVIRONMENTAL STATEMENT AND PERMITS.

2. NATURAL RESOURCE ISSUES:

A. PERMIT REQUIREMENTS/APPROVALS*:
U.S. ARMY CORPS OF ENGINEERS (COE): NWP 14**
DNREC - CONSISTENT WITH DEL. CODE CH 72, SECTION 7217, SPECIAL EXEMPTION A&B**
DNREC - WQC & CZM: ISSUED (PROJECT NOT LOCATED IN A CRW)

* THE PERMITS/APPROVALS LISTED ARE THOSE REQUIRED FOR THIS PROJECT. THE ENVIRONMENTAL STUDIES SECTION IS RESPONSIBLE FOR COORDINATING AND/OR OBTAINING THIS APPROVAL.
** THE CONTRACTOR MUST ENSURE THAT THESE PERMITS/APPROVALS ARE IN THEIR POSSESSION PRIOR TO BEGINNING CONSTRUCTION IN THE PERMITTED AREA(S) AND ENSURE IT IS DISPLAYED ON-SITE DURING THE ENTIRE CONSTRUCTION PERIOD.

B. CONSTRUCTION RESTRICTIONS:
FISHERIES - NONE
ENDANGERED SPECIES - NONE
MIGRATORY BIRDS - NONE

3. CULTURAL RESOURCE ISSUES:

THE BRITTINGHAM COMMERCIAL STRIP (LABELED AS PARCEL 20; 135-14.15-54.00) IS ELIGIBLE FOR LISTING IN THE NATIONAL REGISTER OF HISTORIC PLACES. SHOULD ANY UNFORESEEN DAMAGE OCCUR TO THE PROPERTY AS A RESULT OF THE PROJECT, DELDOT ENVIRONMENTAL STEWARDSHIP MUST BE NOTIFIED IMMEDIATELY AT (302) 760-4887 AND DOT_ENVIRONMENTALSTUDIES@DELAWARE.GOV TO ENSURE THAT THE SHPO, FHWA, AND/OR OTHERS ARE CONSULTED ON WAYS TO REPAIR THE DAMAGE CONSISTENT WITH THE SECRETARY OF THE INTERIOR'S STANDARDS..

4. STREAM RESTORATION AND SLOPE RIPRAP TREATMENT:

A. FOLLOW THE STANDARD SPECIFICATIONS FOR ITEM 707021 - CHANNEL BED FILL IN REGARDS TO THE SALVAGING OF ON-SITE NATURAL STREAM BOTTOM MATERIAL OR THE FURNISHING OF OFFSITE MATERIAL. IF SUFFICIENT SOURCES FOR CHANNEL BED FILL DO NOT EXIST ON-SITE, ANY NEW MATERIAL MUST CONFORM TO THE REQUIREMENTS OF ITEM 707021 - CHANNEL BED FILL. RECESS ALL RIPRAP IN THE CHANNEL BOTTOM (I.E. BELOW THE WATER LINE) ONE FOOT BELOW STREAM BED ELEVATION AND CHOKE WITH BORROW TYPE 'B' SO THAT ALL OF THE VOIDS IN THE RIPRAP ARE FILLED WITH SPECIFIED MATERIAL. PAYMENT UNDER ITEM 209002 - BORROW, TYPE B. COVER THE RIPRAP WITH A MINIMUM OF 12" CHANNEL BED FILL. MATCH THE FINAL ELEVATIONS WITH EXISTING ELEVATIONS AT THE UPSTREAM AND DOWNSTREAM PROJECT LIMITS. THROUGH THE STRUCTURE, ELEVATIONS WILL BE AS NOTED ON THE PLANS. PAYMENT UNDER ITEM 707021 - CHANNEL BED FILL.

B. RESTORE OTHER AREAS OF THE CHANNEL BOTTOM AFFECTED BY CONSTRUCTION (INCLUDING, BUT NOT LIMITED TO, THE LOCATION OF SUMP PITS, STABILIZED OUTFALLS, TEMPORARY PIPES AND/OR SANDBAG DIKES AND DIVERSIONS) TO EXISTING CONDITIONS. FILL ANY CAVITIES OR SCOUR HOLES RESULTING FROM CONSTRUCTION ACTIVITIES WITH CHANNEL BED STABILIZATION MATERIALS AS DIRECTED BY THE ENGINEER.

C. WHEN ALL EROSION AND SEDIMENT CONTROL MEASURES ARE REMOVED AND THE STREAM RETURNS TO ITS NATURAL FLOW CONDITIONS, THE FLOW MUST REMAIN ABOVE GROUND AND ABOVE THE RIPRAP (I.E. THE FLOW CANNOT BE "LOST" IN THE RIPRAP OR BENEATH THE STRUCTURE). IF THIS IS NOT ACHIEVED, THE CONTRACTOR WILL BE REQUIRED TO TAKE CORRECTIVE ACTION AT THE CONTRACTOR'S EXPENSE.

D. CHOKE ALL RIPRAP ON THE STREAM BANK, OUTSIDE OF THE CHANNEL BED, WITH DELAWARE #57 STONE. PLACE JUST ENOUGH CHOKE MATERIAL TO PREVENT THE LOSS OF TOPSOIL THROUGH THE RIPRAP. FINISH FILLING THE VOIDS WITH TOPSOIL SO THAT THE RIPRAP PEAKS ARE BARELY VISIBLE. PLACE AN ADDITIONAL 4-INCH TOPSOIL LAYER ON TOP OF THE RIPRAP. SLOPE SEEDING WILL BE DONE WITH ITEM 908019 - PERMANENT GRASS SEEDING, STREAMBANK. FOLLOWING THE SEEDING OPERATION, INSTALL ITEM 908020 - EROSION CONTROL BLANKET (ECB) MULCH, OR OTHER BLANKET AS SHOWN ON THE PLANS. ECB AT TOW OF SLOPE CAN BE TRENCHED IN OR STAPLED AT 6" ON CENTER. COMPLETE ALL WORK, STARTING WITH THE INITIAL CHOKING WITH TOPSOIL THROUGH THE SEEDING AND MULCHING PRIOR TO ANY RAIN EVENT. DELAWARE #57 STONE IS INCIDENTAL TO THE RIPRAP ITEM. ALL OTHER ITEMS WILL BE PAID FOR UNDER THEIR RESPECTIVE ITEMS.

E. THE TOPSOIL/SEED/MULCH CAN BE PLACED BEFORE OR AFTER THE REMOVAL OF THE STREAM DIVERSION. IF IT OCCURS AFTER STREAM DIVERSION REMOVAL, USE A TURBIDITY CURTAIN OR OTHER APPROVED MEANS TO MINIMIZE IN-STREAM SEDIMENTATION. PAYMENT WILL BE INCIDENTAL TO ITEM 909005 - STREAM DIVERSION.

5. PLANTING GUIDANCE FOR THIS CONTRACT: NONE

6. PROTECTION OF RESOURCES

A. NO EQUIPMENT SHALL TRAVERSE OVER WETLANDS AND/OR SUBAQUEOUS LAND. KEEP CLEARING IN WETLAND AREAS TO A MINIMUM WHEN ABSOLUTELY NECESSARY FOR CONSTRUCTION ACCESS. IN WETLAND AREAS THAT ARE CLEARED, NO GRUBBING EXCEPT WHERE NECESSARY TO CONSTRUCT PROJECT. COMPONENTS SUCH AS FOUNDATIONS AND RIPRAP PROTECTION IS PERMITTED. CUT VEGETATION FLUSH WITH THE GROUND (I.E. NO DISTURBANCE OF THE ROOT MAT). RESTORE TEMPORARILY DISTURBED WETLAND AREAS TO GRADE AND SEED WITH ITEM 908017 - TEMPORARY GRASS SEEDING (ANNUAL RYEGRASS).

B. USE SILT FENCE OR CONSTRUCTION SAFETY FENCE ALONG THE LIMITS OF CONSTRUCTION IN ALL AREAS WHERE WATER/WETLANDS ARE BEING IMPACTED (AS SHOWN ON ENVIRONMENTAL COMPLIANCE SHEETS), AND ALSO IN ANY AREA WHERE WATER/WETLANDS EXIST WITHIN 20 FEET OF THE LIMIT OF CONSTRUCTION (AS SHOWN ON CONSTRUCTION PLAN SHEETS). ANY CONTRACTOR ACCESS BEYOND THE LIMIT OF CONSTRUCTION IS STRICTLY PROHIBITED.

C. USE SANDBAGS OF COMPOST FILTER LOG (CFL) TO SECURE SILT FENCE AT AREAS ADJACENT TO WOODED UPLANDS/ALL WETLANDS IN LIEU OF TRENCHING UNLESS PROPER EROSION AND SEDIMENT CONTROL CANNOT BE MAINTAINED. REMOVE SANDBAGS AND CFLS (AND CONTENTS) IN THEIR ENTIRETY WHEN NO LONGER NEEDED. SANDBAGS/CFLS USED TO SECURE THE SILT FENCE IS INCIDENTAL TO ITEM 905001-SILT FENCE. THE ENVIRONMENTAL STUDIES SECTION (302)-760-2259 OR DOT_ENVIRONMENTALSTUDIES@DELAWARE.GOV) CAN PROVIDE FURTHER GUIDANCE REGARDING THIS METHOD OF INSTALLATION.

D. CLEARLY MARK ALL TREES TO BE REMOVED WITH PAINT PRIOR TO THE EROSION AND SEDIMENT CONTROL PRECONSTRUCTION MEETING.

TEMPORARY OPEN WATER IMPACT AREA SCHEDULE

ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
OT-01	PIPE INSTALLATION	88.57	0.0020	N/A	USACE/DNREC
OT-02	PIPE INSTALLATION	386.31	0.0089	N/A	USACE/DNREC
OT-03	PIPE INSTALLATION	51.77	0.0012	N/A	USACE/DNREC
OT-04	PIPE INSTALLATION	81.30	0.0019	N/A	USACE/DNREC
OT-05	PIPE INSTALLATION	1756.59	0.0403	N/A	USACE/DNREC
OT-06	CULVERT EXTENSION	257.49	0.0059	N/A	USACE/DNREC
OT-07	CULVERT EXTENSION	117.14	0.0027	N/A	USACE/DNREC
TOTAL		2,739.17	0.0629	N/A	USACE/DNREC

PERMANENT OPEN WATER IMPACT AREA SCHEDULE

ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION	LOSS VS. IMPACT
O-01	RAMP CONSTRUCTION	1,420.90	0.0326	N/A	USACE/DNREC	TBD - TAX DITCH
O-02	CULVERT EXTENSION / PCC SLAB	1,629.95	0.0374	N/A	USACE/DNREC	
O-03	HEADWALL	125.78	0.0029	N/A	USACE/DNREC	LOSS
O-04	HEADWALL	116.75	0.0027	N/A	USACE/DNREC	LOSS
TOTAL		3,293.38	0.0756	N/A	USACE/DNREC	

ADDENDA / REVISIONS

NOT TO SCALE

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	T201412701
COUNTY	SUSSEX
BRIDGE NO.	N/A
DESIGNED BY:	L. CALLENS
CHECKED BY:	T. OLIVER

ENVIRONMENTAL COMPLIANCE

SECTION	WRA
SHEET NO.	200

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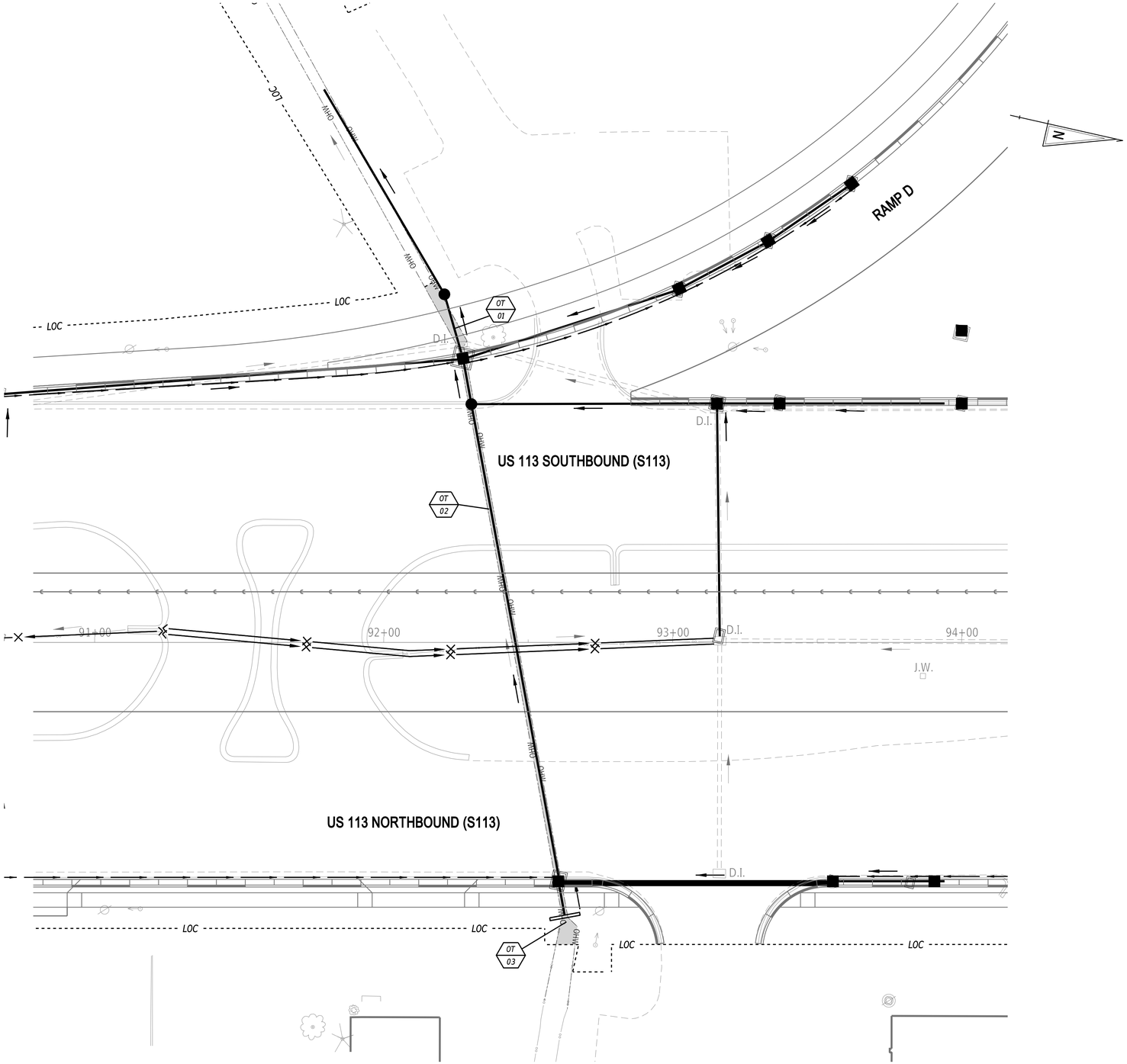

LEGEND

- PERMANENT IMPACT AREA
- TEMPORARY IMPACT AREA
- OHW — ORDINARY HIGH WATER
- WL — WETLAND BOUNDARY
- LOC — LIMIT OF CONSTRUCTION

XX / ?X — IMPACT AREA TYPE ID. (SEE BELOW) / IMPACT AREA ID. AND/OR NUMBER

O = OPEN WATER IMPACT
W = WETLAND IMPACT
T = TEMPORARY IMPACT

TEMPORARY OPEN WATER IMPACT AREA SCHEDULE

ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
OT-01	PIPE INSTALLATION	88.57	0.0020	N/A	USACE/DNREC
OT-02	PIPE INSTALLATION	386.31	0.0089	N/A	USACE/DNREC
OT-03	PIPE INSTALLATION	51.77	0.0012	N/A	USACE/DNREC
TOTAL FOR THIS SHEET		526.65	0.0121	N/A	USACE/DNREC

ADDENDA / REVISIONS

SCALE
0 20 40 60
FEET

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	T201412701	BRIDGE NO.	N/A
COUNTY	SUSSEX	DESIGNED BY:	L. CALLENS
		CHECKED BY:	T. OLIVER

ENVIRONMENTAL COMPLIANCE

SECTION	
WRA	
SHEET NO.	
201	

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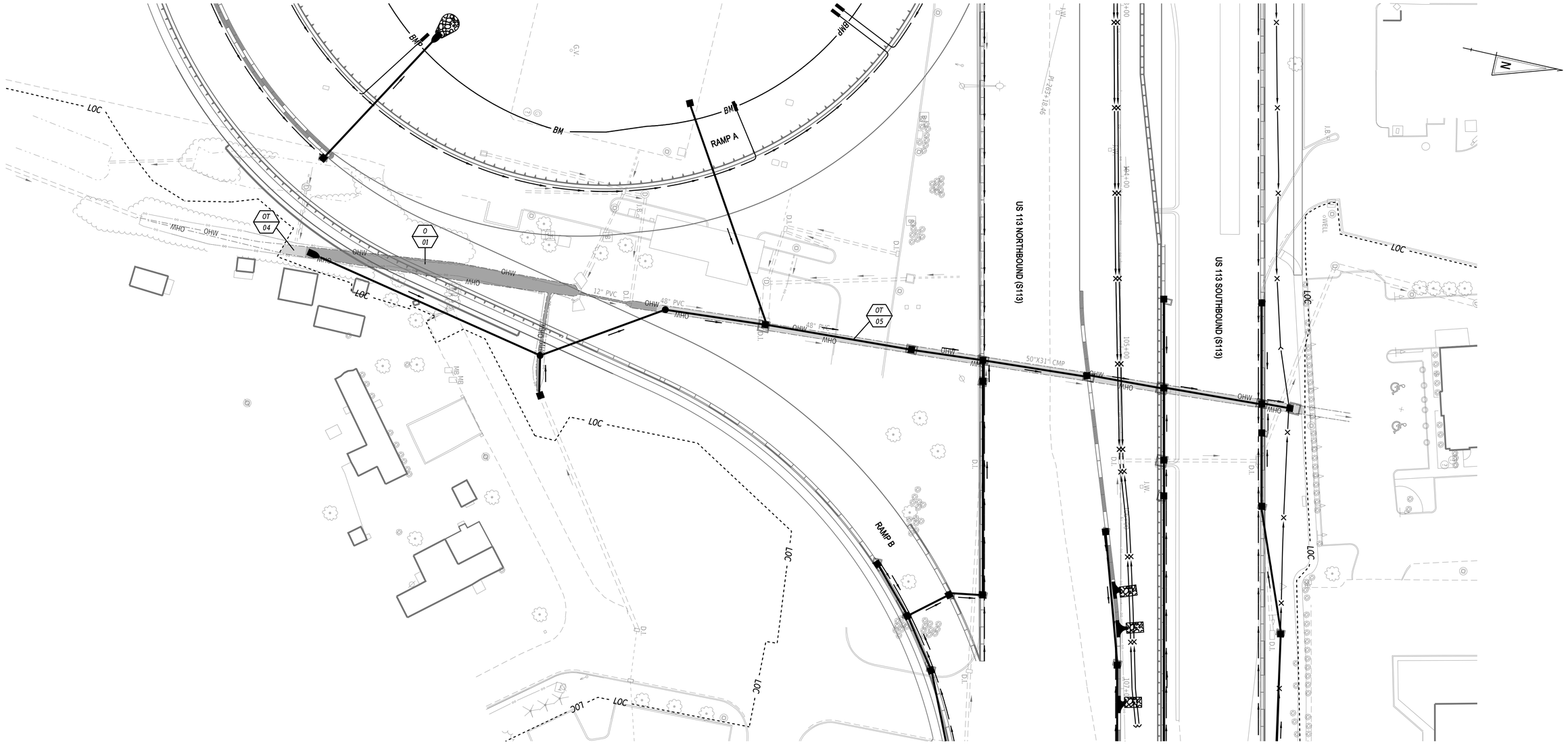

LEGEND

- PERMANENT IMPACT AREA
- TEMPORARY IMPACT AREA
- OHW — ORDINARY HIGH WATER
- LOC — LIMIT OF CONSTRUCTION
- XX / ?X — IMPACT AREA TYPE ID. (SEE BELOW) / IMPACT AREA ID. AND/OR NUMBER
- O = OPEN WATER IMPACT
- T = TEMPORARY IMPACT

TEMPORARY OPEN WATER IMPACT AREA SCHEDULE

ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
OT-04	PIPE INSTALLATION	81.30	0.0019	N/A	USACE/DNREC
OT-05	PIPE INSTALLATION	1756.59	0.0403	N/A	USACE/DNREC
TOTAL FOR THIS SHEET		1837.89	0.0422	N/A	USACE/DNREC

PERMANENT OPEN WATER IMPACT AREA SCHEDULE

ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION	LOSS VS. IMPACT
O-01	RAMP CONSTRUCTION	1420.90	0.0326	N/A	USACE/DNREC	TBD - TAX DITCH
TOTAL FOR THIS SHEET		1420.90	0.0326	N/A	USACE/DNREC	

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO.	N/A	ENVIRONMENTAL COMPLIANCE	SECTION
T201412701	DESIGNED BY: L. CALLENS			WRA
COUNTY				SHEET NO.
SUSSEX	CHECKED BY: T. OLIVER			202

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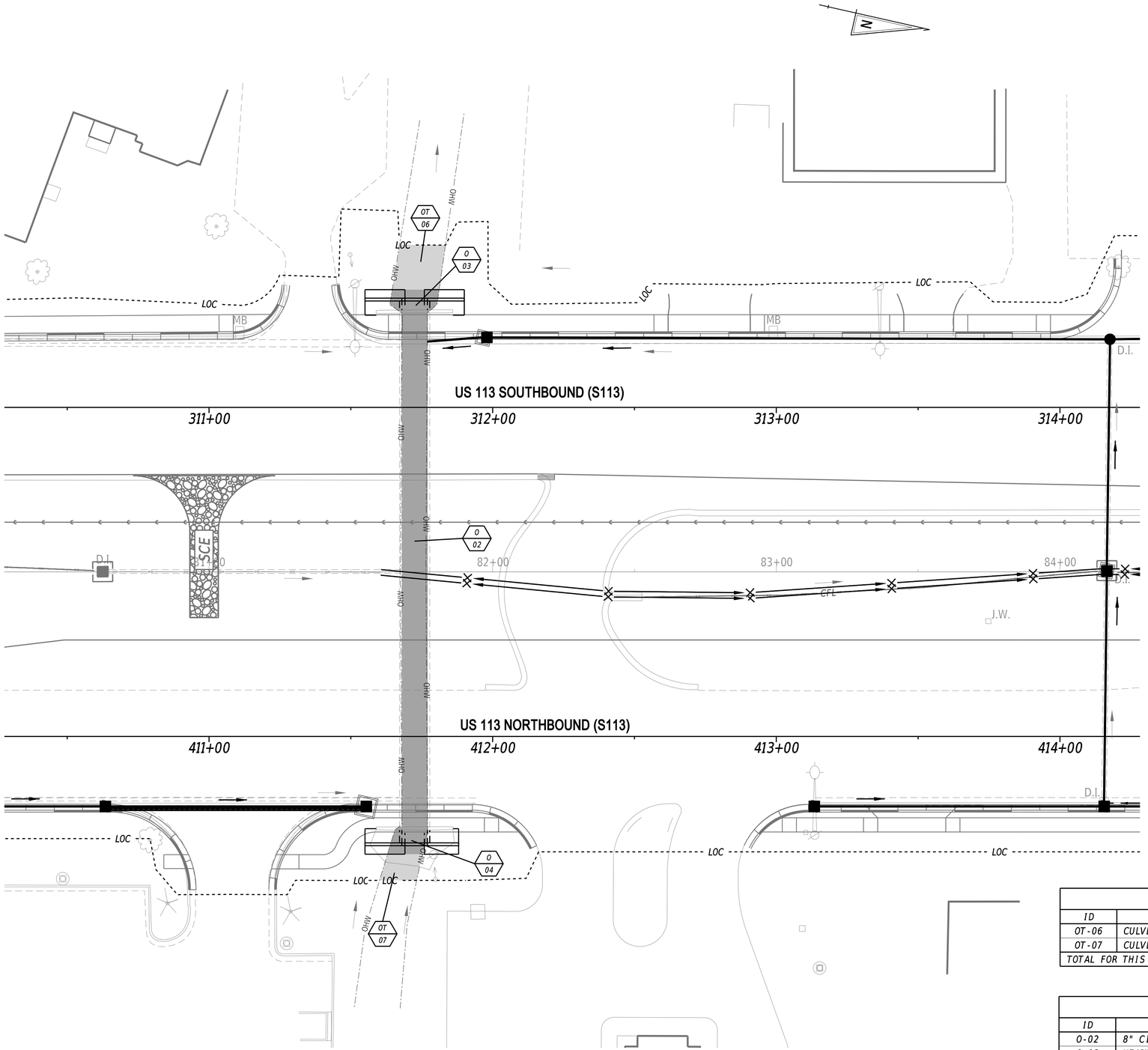

LEGEND

- PERMANENT IMPACT AREA
- TEMPORARY IMPACT AREA
- OHW — ORDINARY HIGH WATER
- LOC — LIMIT OF CONSTRUCTION
- XX / ?X — IMPACT AREA TYPE ID. (SEE BELOW) / IMPACT AREA ID. AND/OR NUMBER
  - O = OPEN WATER IMPACT
  - T = TEMPORARY IMPACT

TEMPORARY OPEN WATER IMPACT AREA SCHEDULE

ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
OT-06	CULVERT EXTENSION	257.49	0.0059	N/A	USACE/DNREC
OT-07	CULVERT EXTENSION	117.14	0.0027	N/A	USACE/DNREC
TOTAL FOR THIS SHEET		374.63	0.0086	N/A	USACE/DNREC

PERMANENT OPEN WATER IMPACT AREA SCHEDULE

ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION	LOSS VS. IMPACT
O-02	8" CIP PCC SLAB	1,629.95	0.0374	N/A	USACE/DNREC	IMPACT
O-03	HEADWALL	125.78	0.0029	N/A	USACE/DNREC	LOSS
O-04	HEADWALL	116.75	0.0027	N/A	USACE/DNREC	LOSS
TOTAL FOR THIS SHEET		1,872.48	0.0430	N/A	USACE/DNREC	

ADDENDA / REVISIONS

SCALE 0 20 40 60 FEET

US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO.	3-609		SECTION
T201412701	DESIGNED BY: L. CALLENS		ENVIRONMENTAL COMPLIANCE	WRA
COUNTY				SHEET NO.
SUSSEX	CHECKED BY: T. OLIVER			203

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GENERAL TRAFFIC CONTROL NOTES

1. AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION (ATSSA) CERTIFIED TRAFFIC CONTROL SUPERVISOR REQUIREMENT FOR THIS PROJECT.

( )	THE CONTRACTOR SHALL NOT BE REQUIRED TO HAVE AN ATSSA SUPERVISOR ASSIGNED TO THIS PROJECT.
(X)	THE CONTRACTOR SHALL HAVE AN ATSSA SUPERVISOR ASSIGNED TO THIS PROJECT AND THAT PERSON'S SOLE RESPONSIBILITY SHALL BE THE MANAGEMENT AND SUPERVISION OF THE PROJECT'S TEMPORARY TRAFFIC CONTROL ACTIVITIES. THIS PERSON SHALL NOT HAVE ANY OTHER ROLE ON THE PROJECT. RESPONSIBILITIES AND REQUIREMENTS OF THE ATSSA SUPERVISOR ARE DEFINED IN SECTION 812 OF THE STANDARD SPECIFICATIONS. PAYMENT FOR ATSSA SUPERVISOR IS INCIDENTAL TO ITEM 801000.

2. MAINTENANCE OF TRAFFIC DURING LANE CLOSURES AND LANE SHIFTS SHALL CONFORM TO THE FOLLOWING TYPICAL APPLICATIONS OF THE DELAWARE MUTCD:
   - TA-3 - WORK ON THE SHOULDER OF A TWO-LANE ROAD
   - TA-3A - WORK ON THE SHOULDER OF A MULTI-LANE, DIVIDED HIGHWAY
   - TA-10 - LANE CLOSURE ON A TWO-LANE ROAD USING FLAGGERS
   - TA-11B - LANE DIVERSION ON A TWO-LANE ROAD WITH LOW TRAFFIC VOLUMES
   - TA-21A - TURN LANE CLOSURE ON THE NEAR SIDE OF AN INTERSECTION
   - TA-27 - CLOSURE AT THE SIDE OR CENTER OF AN INTERSECTION
   - TA-33 - STATIONARY LANE CLOSURE ON A MULTI-LANE, DIVIDED HIGHWAY

   THE CONTRACTOR SHALL ADD THE BICYCLE IN LANE WARNING SIGN (W11-1-DE) TO THE TYPICAL APPLICATION SIGN STACK DURING WORK THAT RESTRICTS USE OF EXISTING SHOULDERS OR BIKE LANES.

3. THE USE OF MILLINGS AND GRADED AGGREGATE BASE COURSE (GABC) IN THE TRAVEL WAY, TEMPORARY TRAVEL WAY, HIGH VOLUME ENTRANCES AND ACCESS RAMP FOR THE PURPOSE OF PROVIDING A TEMPORARY ROADWAY SURFACE, POTHOLE REPAIR, TAPERED EDGE FOR UTILITIES, BUTT JOINTS, AND LONGITUDINAL DROP-OFFS (MILLING AND PAVING OPERATIONS) IS PROHIBITED UNLESS IT IS OTHERWISE DESIGNATED TO BE USED IN THE CONTRACT PLANS. USE COLD PATCH, BITUMINOUS CONCRETE, BITUMINOUS CONCRETE WEDGE, OR TAPER MILL, AS NOTED IN THE CONTRACT DOCUMENTS OR APPROVED BY THE ENGINEER. PAYMENT FOR COLD PATCH, BITUMINOUS CONCRETE OR BITUMINOUS CONCRETE WEDGE SHALL BE PAID AS NOTED IN THE CONTRACT DOCUMENTS. TAPER MILL BITUMINOUS CONCRETE SHALL BE PAID UNDER THE BITUMINOUS CONCRETE MILLING ITEM.

   MILLINGS OR GABC SHALL BE USED AT THE FOLLOWING LOCATIONS WHERE ACCESS TO A BUSINESS, RESIDENCE, OR EDGE DROP OFF NEEDS TO BE MAINTAINED UNLESS OTHERWISE NOTED IN THE PLANS OR DIRECTED BY THE ENGINEER TO USE BITUMINOUS CONCRETE OR COLD PATCH. ALL MILLINGS AND GABC WILL BE ROLLED AND COMPACTED TO HELP PREVENT THE MATERIAL FROM UNRAVELING:

   a. DRIVEWAYS
   b. ENTRANCES
   c. LOW VOLUME ACCESS RAMPS (IDENTIFIED IN THE CONTRACT DOCUMENTS)
   d. EDGE DROP-OFFS ADJACENT TO LIVE ROADWAY (LANES AND SHOULDER) AND THE PROPOSED ROAD CONSTRUCTION
   e. EDGE OF ROADWAY DROP-OFF

   GRADING AND MAINTAINING BASE COURSE THAT IS BEING USED FOR ROADWAY WEDGE/FILLET BETWEEN TRAVEL LANES AND PAVEMENT BOX, EDGE OF TRAVELWAY, DRIVEWAY OR ENTRANCE ACCESS SHALL BE INCIDENTAL TO ITEM NO. 801000 - MAINTENANCE OF TRAFFIC. THE BASE COURSE MATERIAL SHALL BE PLACED AT NO GREATER THAN THE SLOPE SPECIFIED IN TABLE 6G-1 AND SHALL BE COMPACTED. EXCESS BASE COURSE MATERIAL SHALL BE PUSHED AHEAD AND USED IN THE NEXT SEGMENT AND SHALL BE INCIDENTAL TO THE PARTICULAR BASE COURSE PAY ITEM. NO SEPARATE PAYMENT SHALL BE MADE FOR MILLINGS OR GABC TEMPORARY ROADWAY MATERIAL (TRM) USED TO PROTECT EDGE DROP-OFFS, UNLESS THE MATERIAL IS EVENTUALLY UTILIZED AS PART OF A PERMANENT ROADWAY AT WHICH TIME THE MATERIAL WOULD BE PAID FOR UNDER THE RESPECTIVE CONTRACT MATERIAL ITEM.

   VERTICAL DIFFERENCES SHALL BE CORRECTED IN ACCORDANCE WITH TABLE 6G-1 OF THE DELAWARE MUTCD.

4. ACCEPTABLE MATERIALS FOR TEMPORARY PEDESTRIAN PATHS SHALL INCLUDE CONCRETE, HOT-MIX, COMPACTED MILLINGS OR PLYWOOD WALKWAY STRUCTURE. PLYWOOD WALKWAY STRUCTURES SHALL ALSO INCLUDE DETECTABLE EDGING AND RAILINGS IN ACCORDANCE WITH ADA GUIDELINES AND THE DELAWARE MUTCD. TEMPORARY PEDESTRIAN PATHS SHALL BE INCIDENTAL TO ITEM 813503 UNLESS OTHERWISE SPECIFIED IN THE PLANS. STONE OR GRADED AGGREGATE BASE COURSE SHALL NOT BE USED FOR TEMPORARY PEDESTRIAN PATHS.

5. THE CONTRACTOR SHALL PROVIDE ONE TRAFFIC OFFICER FOR ANY OPERATION WHERE AN EXISTING SIGNALIZED INTERSECTION IS PLACED IN FLASH-MODE. THE TRAFFIC OFFICER IS THE ONLY INDIVIDUAL THAT CAN PLACE A TRAFFIC SIGNAL IN FLASH-MODE AND THE TRAFFIC OFFICER MUST STAY ON LOCATION UNTIL THE SIGNAL IS PLACED BACK IN STOP-AND-GO OPERATION IN ACCORDANCE WITH DELDOT'S TEMPORARY TRAFFIC CONTROL WITHIN INTERSECTIONS MEMORANDUM (WWW.MUTCD.DELDOT.GOV).

6. THE CONTRACTOR SHOULD PROVIDE ONE TRAFFIC OFFICER FOR NIGHTTIME CLOSURES OF ANY ROAD OR RAMP AT EACH CLOSURE POINT SHOWN IN THE APPLICABLE DETOUR PLANS. THE TRAFFIC OFFICER SHALL BE PLACED BEHIND THE CLOSURE BARRICADE WITH THE FRONT OF THE VEHICLE FACING APPROACHING TRAFFIC AND ALL EMERGENCY LIGHTS SHALL BE ACTIVATED. THE TRAFFIC OFFICER SHALL PROVIDE A REPORT TO THE ENGINEER AT THE END OF THE DAY'S ACTIVITY IDENTIFYING THE NUMBER OF VEHICLES THAT ATTEMPTED TO DISREGARD THE DETOUR.

7. ADDITIONAL USAGE OF TRAFFIC OFFICERS OUTSIDE OF THE ABOVE REQUIREMENTS SHALL BE APPROVED BY THE ENGINEER IN CONSULTATION WITH THE TRAFFIC SAFETY SECTION.

8. ALL NECESSARY SIGNS, PAVEMENT MARKINGS AND ROADSIDE APPURTENANCES SHALL BE INSTALLED PRIOR TO THE OPENING/REOPENING OF A ROADWAY OR RAMP. A WALKTHROUGH WITH THE ENGINEER, TRAFFIC SAFETY, TRAFFIC CONSTRUCTION AND OTHER PERSONNEL SHALL OCCUR NO LESS THAN 48 HOURS PRIOR TO THE OPENING/REOPENING OF ANY ROAD OR RAMP.

9. THE CONTRACTOR SHALL COORDINATE WITH DELDOT TRAFFIC ONE MONTH IN ADVANCE TO SCHEDULE INSTALLATION OF TEMPORARY TRAFFIC SIGNAL EQUIPMENT AND ADJUSTING EXISTING SIGNAL EQUIPMENT AS NOTED ON THE CONSTRUCTION PHASING AND TEMPORARY SIGNAL PLANS. THE CONTACT PERSON FOR DELDOT TRAFFIC IS THE SIGNAL CONSTRUCTION MANAGER, PHONE NO. 302-222-5920.

10. THE CONTRACTOR SHALL CONTACT DELDOT OFFICE OF INFORMATION TECHNOLOGY(OIT) AT 302-739-9500 UPON NOTICE TO PROCEED TO COORDINATE PHASED FIBER NETWORK MODIFICATIONS DURING CONSTRUCTION.

11. THE CONTRACTOR IS RESPONSIBLE FOR THE MAINTENANCE OF EXISTING PAVEMENT WITHIN THE PROJECT LIMITS FOR THE DURATION OF THE CONTRACT OR AS DIRECTED BY THE ENGINEER OR DESIGNER. REPAIRS WILL BE PAID IN ACCORDANCE WITH THE ITEM FOR EACH TYPE OF MATERIAL THAT IS PLACED.

12. THE CONTRACTOR SHALL CONTACT THE HAULING PERMIT OFFICE AT 302-744-2700 FOR DELDOT'S OVERSIZED OVERWEIGHT PERMIT SYSTEM TO REQUEST POSTING ANY LANE RESTRICTIONS OR ROAD CLOSURES ON THE TEMPORARY ROUTE RESTRICTIONS WEB PAGE AT LEAST 14 DAYS IN ADVANCE OF THE IMPLEMENTATION OF NEW TRAFFIC PATTERNS.

13. WHERE TEMPORARY IMPACT ATTENUATORS ARE LOCATED IN EXISTING EARTH AREAS. THE CONTRACTOR SHALL CONSTRUCT AN UNREINFORCED PCC PAD (8" MINIMUM DEPTH FOR ANCHORING OF THE ATTENUATOR. DIMENSION AND CROSS-SLOPE OF THE PAD SHALL BE PER MANUFACTURE'S SPECIFICATIONS. CONSTRUCTION OF ANCHOR PADS IS INCIDENTAL TO ITEM 809001 - INSTALL TEMPORARY IMPACT ATTENUATOR.

14. WHEN TEMPORARY CONCRETE BARRIER IS LOCATED IN EXISTING EARTH AREAS, THE CONTRACTOR SHALL CONSTRUCT A SUBBASE COMPRISED OF 6" MINIMUM COMPACTED GABC (ITEM 301001) TOPPED WITH 2" MINIMUM TEMPORARY ROADWAY MATERIAL (ITEM 403000). THE SUBBASE WIDTH SHALL INCLUDE THE BARRIER DEFLECTION DISTANCE PER MANUFACTURE'S SPECIFICATIONS AND MATCH THE ADJACENT EDGE OF SHOULDER.

15. TRAFFIC IMPACTS DUE TO CONSTRUCTION ACTIVITIES SHALL BE GOVERNED BY THE FOLLOWING RESTRICTIONS (LANE CLOSURE RESTRICTIONS APPLY TO ALL TURN LANES AND AUXILIARY LANES, UNLESS OTHERWISE NOTED). ROAD USER COSTS WILL BE ASSESSED FOR FAILURE TO OPEN TEMPORARY LANE CLOSURES ON TIME IN ACCORDANCE WITH THE GENERAL DESCRIPTION AND ITEM 763525 - ROAD USER COST.

ALLOWABLE LANE CLOSURE HOURS
US 113 (October 1 - April 30)
(INCLUDING THROUGH AND TURN/AUXILIARY LANES)

	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
SUNDAY	■	■	■	■	■	■	■	■	■										■	■	■	■	■	■
MONDAY	■	■	■	■	■	■	■												■	■	■	■	■	■
TUESDAY	■	■	■	■	■	■	■												■	■	■	■	■	■
WEDNESDAY	■	■	■	■	■	■	■												■	■	■	■	■	■
THURSDAY	■	■	■	■	■	■	■												■	■	■	■	■	■
FRIDAY	■	■	■	■	■	■	■												■	■	■	■	■	■
SATURDAY	■	■	■	■	■	■	■	■	■										■	■	■	■	■	■

■ 2-to-1 lane reduction permitted
□ all lanes open

ALLOWABLE LANE CLOSURE HOURS
US 113 (May 1 - September 30)
(INCLUDING THROUGH AND TURN/AUXILIARY LANES)

	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
SUNDAY	■	■	■	■	■	■	■	■													■	■	■	■
MONDAY	■	■	■	■	■	■	■														■	■	■	■
TUESDAY	■	■	■	■	■	■	■														■	■	■	■
WEDNESDAY	■	■	■	■	■	■	■														■	■	■	■
THURSDAY	■	■	■	■	■	■	■														■	■	■	■
FRIDAY	■	■	■	■	■	■	■														■	■	■	■
SATURDAY	■	■	■	■	■	■	■	■														■	■	■

■ 2-to-1 lane reduction permitted
□ all lanes open

ALLOWABLE LANE CLOSURE HOURS
SR 18 / SR 404 (October 1 - April 30)
(INCLUDING THROUGH AND TURN/AUXILIARY LANES)

	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
SUNDAY	■	■	■	■	■	■	■	■	■										■	■	■	■	■	■
MONDAY	■	■	■	■	■	■	■												■	■	■	■	■	■
TUESDAY	■	■	■	■	■	■	■												■	■	■	■	■	■
WEDNESDAY	■	■	■	■	■	■	■												■	■	■	■	■	■
THURSDAY	■	■	■	■	■	■	■												■	■	■	■	■	■
FRIDAY	■	■	■	■	■	■	■												■	■	■	■	■	■
SATURDAY	■	■	■	■	■	■	■	■	■										■	■	■	■	■	■

■ one turning lane closed/flagger operations permitted
□ all lanes open

ALLOWABLE LANE CLOSURE HOURS
SR 18 / SR 404 (May 1 - September 30)
(INCLUDING THROUGH AND TURN/AUXILIARY LANES)

	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
SUNDAY	■	■	■	■	■	■	■	■													■	■	■	■
MONDAY	■	■	■	■	■	■	■														■	■	■	■
TUESDAY	■	■	■	■	■	■	■														■	■	■	■
WEDNESDAY	■	■	■	■	■	■	■														■	■	■	■
THURSDAY	■	■	■	■	■	■	■														■	■	■	■
FRIDAY	■	■	■	■	■	■	■														■	■	■	■
SATURDAY	■	■	■	■	■	■	■	■														■	■	■

■ one turning lane closed/flagger operations permitted
□ all lanes open

ALLOWABLE LANE CLOSURE HOURS
College Park Lane, Carmean Way, Pondside Drive and Other Named Minor Streets (YEAR LONG)
(INCLUDING THROUGH AND TURN/AUXILIARY LANES)

	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
SUNDAY	■	■	■	■	■	■	■												■	■	■	■	■	■
MONDAY	■	■	■	■	■	■	■												■	■	■	■	■	■
TUESDAY	■	■	■	■	■	■	■												■	■	■	■	■	■
WEDNESDAY	■	■	■	■	■	■	■												■	■	■	■	■	■
THURSDAY	■	■	■	■	■	■	■												■	■	■	■	■	■
FRIDAY	■	■	■	■	■	■	■												■	■	■	■	■	■
SATURDAY	■	■	■	■	■	■	■												■	■	■	■	■	■

■ lane closures permitted
□ all lanes open

TIMING AND SEQUENCING NOTES

1. OVERNIGHT CLOSURES OF US 113 FOR THE OVERHEAD BRIDGE CONSTRUCTION ARE PERMITTED BETWEEN 10:00 PM AND 6:00 AM ON MONDAY, TUESDAY, WEDNESDAY AND THURSDAY NIGHTS ONLY. ONLY ONE DIRECTION OF US 113 SHALL BE CLOSED AT A TIME. US 113 CLOSURES ARE PERMITTED DURING PHASE 1 AND PHASE 2 (A&B) ONLY. ROAD USER COSTS WILL BE ASSESSED FOR FAILURE TO OPEN US 113 BY 6:00 AM IN ACCORDANCE WITH GENERAL DESCRIPTION AND ITEM 763525 - ROAD USER COST.

2. DURING PHASE 1, THE US 113 NORTHBOUND RIGHT-TURN LANE TO SR 18-SR 404 WILL REQUIRE FULL CLOSURE FOR UTILITY RELOCATIONS AND FULL-DEPTH PAVEMENT RECONSTRUCTION. THE TURN-LANE CLOSURE HAS BEEN ALLOTTED 7 CALENDAR DAYS. REFER TO THE CONTRACT BID PROPOSAL FOR THE ONE-TIME INCENTIVE BONUS TO BE PAID FOR COMPLETION WITHIN THE ALLOTED DURATION.

3. DURING PHASE 1, THE US 113 NORTHBOUND RIGHT-TURN LANE TO N. BEDFORD STREET WILL REQUIRE FULL CLOSURE FOR FULL-DEPTH RECONSTRUCTION. THE TURN-LANE CLOSURE HAS BEEN ALLOTTED 14 CALENDAR DAYS. REFER TO THE CONTRACT BID PROPOSAL FOR THE ONE-TIME INCENTIVE BONUS TO BE PAID FOR COMPLETION WITHIN THE ALLOTED DURATION.

4. THE PHASE 2B/3 CLOSURE AND DETOUR OF SR 18/SR 404 HAS BEEN ALLOTTED 169 CALENDAR DAYS. REFER TO THE CONTRACT BID PROPOSAL FOR THE ONE-TIME INCENTIVE BONUS TO BE PAID FOR COMPLETION WITHIN THE ALLOTED DURATION.

5. PHASE 3 HAS BEEN ALLOTTED 108 CALENDAR DAYS FROM THE IMPLEMENTATION OF PHASE 3 TO THE IMPLEMENTATION OF PHASE 4A AND OPENING OF THE GRADE SEPARATED INTERSECTION. REFER TO THE CONTRACT BID PROPOSAL FOR THE ONE-TIME INCENTIVE BONUS TO BE PAID FOR COMPLETION WITHIN THE ALLOTED DURATION.

6. PHASE 4A HAS BEEN ALLOTTED 27 CALENDAR DAYS AND SHALL IMMEDIATELY FOLLOW SUBSTANTIAL COMPLETION OF PHASE 3. REFER TO THE CONTRACT BID PROPOSAL FOR THE ONE-TIME INCENTIVE BONUS TO BE PAID FOR COMPLETION WITHIN THE ALLOTED DURATION.

7. THE TOTAL OF PHASE 4A AND PHASE 4B HAS BEEN ALLOTTED 146 CALENDAR DAYS (PHASE 4A AND 4B WORK TO OCCUR CONCURRENTLY). REFER TO THE CONTRACT BID PROPOSAL FOR THE ONE-TIME INCENTIVE BONUS TO BE PAID FOR COMPLETION WITHIN THE ALLOTED DURATION.

8. THE PHASE 5B PARTIAL CLOSURE AND DETOUR OF THE US 113 / COLLEGE PARK LANE INTERSECTION HAS BEEN ALLOTTED 72 CALENDAR DAYS. PHASE 5B WORK MAY OCCUR CONCURRENTLY WITH PHASE 5A WORK, HOWEVER, THE PHASE 5B DETOUR IS PROHIBITED FROM OCCURRING UNTIL PHASE 4A AND 4B WORK IS SUBSTANTIALLY COMPLETE AND SR 18/SR 404 IS IN THE FINAL CONFIGURATION THROUGHOUT THE PROJECT LIMITS. REFER TO THE CONTRACT BID PROPOSAL FOR THE ONE-TIME INCENTIVE BONUS TO BE PAID FOR COMPLETION WITHIN THE ALLOTED DURATION.

CONSTRUCTION PHASING & M.O.T

	BARRICADE, TYPE 3
	TEMPORARY CONCRETE SAFETY BARRIER - UNPINNED
	TEMPORARY CONCRETE SAFETY BARRIER - PINNED
	TEMPORARY IMPACT ATTENUATOR, NON-GATING, REDIRECTIVE, TL-3
CSF XXX	CONSTRUCTION SAFETY FENCE / LENGTH
CSF	CONSTRUCTION SAFETY FENCE
	CONSTRUCTION WARNING SIGN LOCATION
END ROAD WORK	CONSTRUCTION WARNING SIGN
	CRASH CUSHION ARRAY (50 MPH)
	DRUM - TRAFFIC CONTROL
	FLAGGER LOCATION
	PHASING TRAFFIC FLOW ARROW
	SHORT-TERM WORK ZONE
	TEMPORARY PAVEMENT MARKING ARROW
	TRUCK MOUNTED ATTENUATOR
	WORK AREA - ACTIVE PHASE
	BARRIER LENGTH OF NEED / NO STORAGE OF EQIUPMENT OR MATERIALS

ADDENDA / REVISIONS		NOT TO SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. N/A	GENERAL TRAFFIC CONTROL NOTES	SECTION WRA
				COUNTY SUSSEX	DESIGNED BY: D. WARING		SHEET NO. 204
					CHECKED BY: K. CLEVENGER		

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GENERAL EROSION AND SEDIMENT CONTROL (E&S) NOTES

1) THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) HAS BEEN APPROVED BY DELDOT'S STORMWATER ENGINEER UNDER DELDOT'S DELEGATED AUTHORITY. PLAN APPROVAL IS VALID FOR A FIVE YEAR PERIOD BEGINNING ON THE DATE OF THE STORMWATER ENGINEER'S SIGNATURE. IF THE FINAL ACCEPTANCE OF THE PROJECT IS ANTICIPATED TO EXTEND BEYOND THE FIVE YEARS, NOTIFY THE ENGINEER THREE MONTHS PRIOR TO THE EXPIRATION. ANY DEVIATIONS TO THE SWPPP NEED APPROVAL FROM THE ENGINEER.

DELDOT STORMWATER ENGINEER — DATE: 9/6/2024

"I CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT THESE PLANS MEET THE REQUIREMENTS OF THE DELAWARE SEDIMENT AND STORMWATER REGULATIONS AND THAT ALL CLEARING, GRADING, AND CONSTRUCTION WILL BE ACCOMPLISHED PURSUANT TO THE PLAN."

AMOUNT OF DISTURBED AREA FOR THIS PROJECT	41.35 ACRES
NET REDUCTION IN IMPERVIOUS AREA FOR THE PROJECT	1.97 ACRES
HUC-10 WATERSHED	DEEP CREEK

2) ASSIGN A RESPONSIBLE PERSON TO BE ON SITE DURING ALL EARTH DISTURBING ACTIVITIES AND BE AN ACTIVE DNREC BLUE CARD HOLDER AS DEFINED IN SECTION 6.2 OF THE DELAWARE SEDIMENT AND STORMWATER REGULATIONS (DSSR). BE FAMILIAR WITH AND COMPLY WITH ALL ASPECTS OF THE NPDES CONSTRUCTION GENERAL PERMIT.

3) FILE AS A CO-PERMITTEE IN ACCORDANCE WITH SECTION 901 OF THE STANDARD SPECIFICATIONS. POSTING AND MAINTENANCE OF THE NOI PERMIT COVERAGE IS INCIDENTAL TO THE CONTRACT.

4) REVISIONS TO THE SWPPP OR ENVIRONMENTAL COMPLIANCE PLAN SHEET(S) SHALL BE APPROVED PRIOR TO INITIATION IN THE FIELD. THE ENGINEER IS RESPONSIBLE FOR APPROVING ALL REDLINES AND REVISIONS TO THE SWPPP.

5) IMPLEMENTING AND MAINTAINING POLLUTION PREVENTION DEVICES AND PRACTICES IS REQUIRED UNDER THE DELAWARE CONSTRUCTION GENERAL PERMIT AND THE DSSR AND ARE INCIDENTAL TO THE CONTRACT.

6) A SOIL STOCKPILE, AS DESCRIBED IN THE DELDOT STANDARD SPECIFICATIONS AND DEFINED IN THE DELAWARE EROSION & SEDIMENT CONTROL HANDBOOK, IS ANY LOCATION WITHIN THE LIMITS OF CONSTRUCTION WHERE A TEMPORARY DEPOSIT OF EXCAVATED SOIL IS BEING RESERVED FOR FUTURE USE. A SOIL STOCKPILE SHALL BE LOCATED A MINIMUM OF 50 FEET FROM A STORM DRAIN INLET, OPEN CHANNEL, WETLAND, OR WATERBODY. A REQUEST MAY BE MADE TO THE ENGINEER TO PERMIT LOCATING A SOIL STOCKPILE LESS THAN 50 FEET FROM A STORM DRAIN INLET OR OPEN CHANNEL. UPON APPROVAL, IF ANY PART OF A SOIL STOCKPILE IS LESS THAN 50 FEET FROM A STORM DRAIN INLET OR OPEN CHANNEL, INSTALL A SUPER SILT FENCE PERIMETER TO PROTECT THE SOIL STOCKPILE. THE SUPER SILT FENCE MUST BE CONSTRUCTED IN ACCORDANCE WITH 905.3.B.3 OF THE STANDARD SPECIFICATIONS. THE COST FOR INSTALLATION AND MAINTENANCE OF THE STOCKPILE SUPER SILT FENCE IS INCIDENTAL TO THE CONTRACT.

7) PROTECT AGAINST SEDIMENT OR DEBRIS LADEN RUNOFF FROM LEAVING THE SITE. CHECK PERIMETER CONTROLS DAILY AND ADJUST OR REPAIR TO FULLY CONTAIN AND CONTROL SEDIMENT FROM LEAVING THE SITE. REMOVE ACCUMULATED SEDIMENT BEFORE IT HAS REACHED HALF THE EFFECTIVE CAPACITY OF THE CONTROL. ADJUST OR ALTER MEASURES IN TIMES OF ADVERSE WEATHER CONDITIONS, OR AS DIRECTED BY THE ENGINEER.

8) ANY SEDIMENT LADEN DISCHARGE LEAVING THE LIMIT OF CONSTRUCTION SHALL IMMEDIATELY BE ADDRESSED THROUGH BEST AVAILABLE TECHNOLOGIES TO CONTROL ANY FURTHER SEDIMENT LADEN DISCHARGE. REMEDIATION MAY INCLUDE STANDARD E&S PRACTICES OR OTHER METHODS AS APPROVED BY THE ENGINEER.

9) ALL TEMPORARY CONCENTRATED FLOW AREAS INCLUDING CHANNEL SIDE SLOPES SHALL HAVE EROSION CONTROL BLANKET MULCH AS DIRECTED BY THE ENGINEER. INSTALL WITHIN 7 CALENDAR DAYS UPON CONSTRUCTION INITIATION. A TEMPORARY CONCENTRATED FLOW AREA MAY INCLUDE DITCHES, SWALES, BERMS, CONCENTRATED RUNOFF AREAS, ETC.

10) FOR ANY PERMANENT STORMWATER MANAGEMENT FACILITY, FOLLOW THAT FACILITY'S SEQUENCE OF CONSTRUCTION AS NOTED ON THE STORMWATER MANAGEMENT SHEETS.

11) NO MORE THAN 20 ACRES MAY BE DISTURBED AT ANY TIME. DISTURBANCE OF A SECOND 20 ACRE SECTION MAY NOT PROCEED UNTIL TEMPORARY OR PERMANENT STABILIZATION OF THE FIRST 20 ACRE SECTION IS ACCOMPLISHED AS APPROVED BY THE ENGINEER.

12) MAINTAIN POSITIVE DRAINAGE IN EXISTING AND PROPOSED DRAINAGE SYSTEMS BY CLEANING EXISTING DRAINAGE SYSTEMS, AND PROPERLY DISPOSING OF SEDIMENT THROUGHOUT THE DURATION OF THE PROJECT. CLEANING EXISTING DRAINAGE SYSTEMS SHALL BE PAID UNDER ITEM 601000.

GENERAL E&S SEQUENCE NOTES (FOR ALL PHASES)

1) POST NOI PERMIT COVERAGE SO THAT IT IS VISIBLE IN CLOSE PROXIMITY TO THE CONSTRUCTION SITE AS DIRECTED BY THE ENGINEER. THE NOTICE MUST BE IN ACCORDANCE WITH DELDOT GUIDANCE.

2) INSTALL PERIMETER E&S ITEMS AND SENSITIVE AREA PROTECTIONS PRIOR TO ANY LAND DISTURBING ACTIVITIES. THE ONLY LAND DISTURBANCE ALLOWABLE IS WHAT IS NECESSARY TO INSTALL THE PERIMETER E&S ITEMS.

3) ESTABLISH CONSTRUCTION STAGING AREAS AND INSTALL E&S CONTROLS.

4) ONCE PERIMETER E&S CONTROLS ARE INSTALLED, THEY SHALL BE INSPECTED AND APPROVED BY THE ENGINEER BEFORE ANY OTHER LAND DISTURBING ACTIVITIES CAN BEGIN.

5) INTERIOR EROSION AND SEDIMENT CONTROL ITEMS SHALL BE PLACED AS PER PLAN.

6) NOTIFY THE ENGINEER 48 HOURS BEFORE CONSTRUCTION OF ALL STORMWATER MANAGEMENT FACILITY COMPONENTS IN ACCORDANCE WITH THE STORMWATER MANAGEMENT SHEET FACILITY CONSTRUCTION SEQUENCE.

7) PRIOR TO COMMENCING A NEW PHASE OF CONSTRUCTION, APPROVAL IS REQUIRED FROM THE ENGINEER THAT THE AREAS WITHIN THE PREVIOUS PHASE HAVE BEEN SUFFICIENTLY STABILIZED.

8) COMPLETE PERMANENT STABILIZATION WITHIN SEVEN (7) CALENDAR DAYS UPON REACHING FINAL GRADE.

9) DO NOT REMOVE E&S DEVICES UNLESS DIRECTED BY THE ENGINEER.

10) REFER TO CONSTRUCTION PHASING AND MOT PLANS FOR SEQUENCE OF CONSTRUCTION.

EROSION & SEDIMENT CONTROL	
CFL	COMPOST FILTER LOG
CFL	COMPOST FILTER LOG / LENGTH
DWBAG	DEWATERING BAG
DWB	DEWATERING BASIN
ED	EARTH DIKE
	INLET SEDIMENT CONTROL
	PERIMETER DIKE/SWALE
PST	PORTABLE SEDIMENT TANK
SBD	SANDBAG DIKE
SB	SANDBAG DIVERSION
	COMPOST FILTER LOG CHECK DAM
SCE	STABILIZED CONSTRUCTION ENTRANCE
SF	SILT FENCE / LENGTH
SF	SILT FENCE
RSF	REINFORCED SILT FENCE / LENGTH
RSF	REINFORCED SILT FENCE
SSF	SUPER SILT FENCE / LENGTH
SSF	SUPER SILT FENCE
SP	SUMP PIT
ST	SEDIMENT TRAP / NUMBER
ST	SEDIMENT TRAP
ST	SEDIMENT TRAP WITH INLET AS OUTLET
ST	SEDIMENT TRAP PIPE OUTLET
SW	STILLING WELL
	TEMPORARY SWALE
TSD	TEMPORARY SLOPE DRAIN
XXX	TURBIDITY CURTAIN / LENGTH
T	TURBIDITY CURTAIN

ADDENDA / REVISIONS		NOT TO SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. N/A	EROSION CONTROL NOTES	SECTION WRA
				COUNTY SUSSEX	DESIGNED BY: D. WARING		SHEET NO. 205
					CHECKED BY: K. CLEVENGER		

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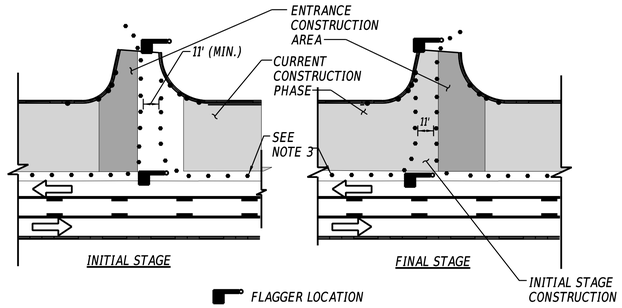
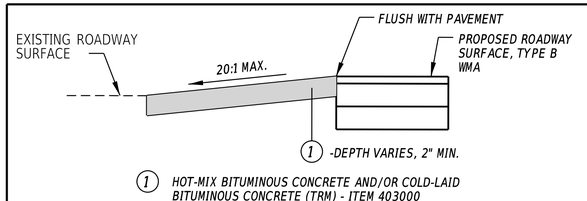


TYPICAL DRIVEWAY/ ENTRANCE RECONSTRUCTION

NOT TO SCALE

NOTES:

1. *THIS DETAIL PROVIDES THE PROPER TRAFFIC CONTROL DEVICES AT DRIVEWAYS AND ENTRANCES THAT ARE TO BE BUILT IN HALF-SECTION UNDER FLAGGER CONTROL. APPLICATION OF THIS DETAIL SHALL BE AS INDICATED ON THE PLANS, DURING ALLOWABLE LANE CLOSURE HOURS ONLY, OR AS DIRECTED BY THE ENGINEER. TRAFFIC CONTROL DEVICES AT ENTRANCES SHALL BE RESET TO MAIN PHASE AT END OF EACH WORKING DAY.*
2. *CHANNELIZATION THROUGH ENTRANCE AREA SHALL BE ACCOMPLISHED WITH DRUMS PLACED AT 11' ON EDGE, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. DRUM LAYOUT SHALL ACCOMMODATE LARGEST DESIGN VEHICLE EXPECTED TO USE ENTRANCE.*
3. *TRAFFIC CONTROL DEVICES ALONG MAINLINE ROADWAY SHALL BE AS SHOWN ON CONSTRUCTION PHASING PLANS.*
4. *DEPENDING ON TRAFFIC VOLUME UTILIZING ENTRANCE AND OTHER SITE-SPECIFIC CONDITIONS, THE NUMBER OF FLAGGERS USED DURING ENTRANCE CONSTRUCTION MAY BE REDUCED FROM 2 TO 1, SUBJECT TO APPROVAL OF DELDOT TRAFFIC ENGINEER OR DESIGNEE.*

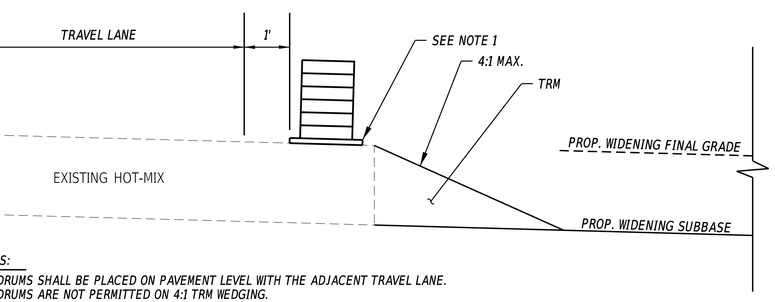


NOTES:

1. *THE MAXIMUM TRANSVERSE SLOPE SHALL BE 20:1.*

TEMPORARY PAVEMENT TRANSITION DETAIL

NOT TO SCALE

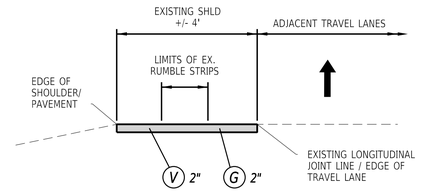


NOTES:

1. *DRUMS SHALL BE PLACED ON PAVEMENT LEVEL WITH THE ADJACENT TRAVEL LANE. DRUMS ARE NOT PERMITTED ON 4:1 TRM WEDGING.*

TYPICAL DRUM PLACEMENT DETAIL

NOT TO SCALE

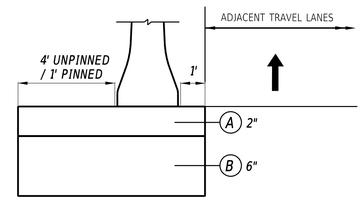


G *ITEM 401046 - SUPERPAVE, TYPE C, PG 76-22 (NON-CARBONATE STONE)*

V *ITEM 760010 - PAVEMENT MILLING, BITUMINOUS CONCRETE PAVEMENT*

RUMBLE STRIP REMOVAL DETAIL

NOT TO SCALE



A *ITEM 403000 - BITUMINOUS CONCRETE AND/OR COLD-LAID BITUMINOUS CONCRETE (TRM)*

B *ITEM 301001 - GRADED AGGREGATE BASE COURSE, TYPE B*

** TO BE USED UNDER TEMPORARY CONCRETE BARRIER*

TEMPORARY PAVEMENT DETAIL

NOT TO SCALE

ADDENDA / REVISIONS		NOT TO SCALE	US 113 AT SR 20 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	TRAFFIC CONTROL DETAILS	SECTION
				T202112702	DESIGNED BY: D. WARING		WRA
				COUNTY	CHECKED BY: K. CLEVENGER		SHEET NO.
				SUSSEX			206

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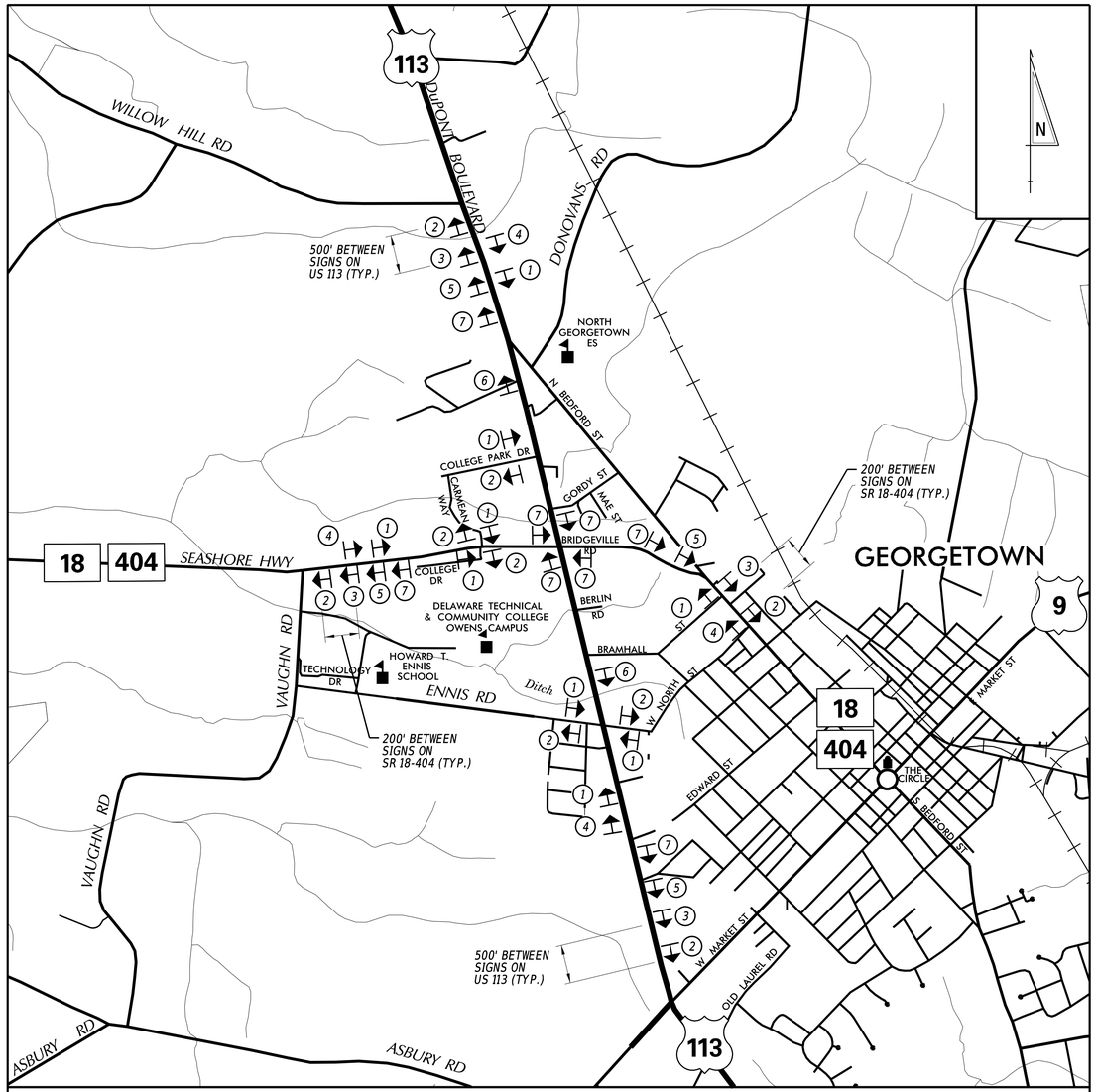
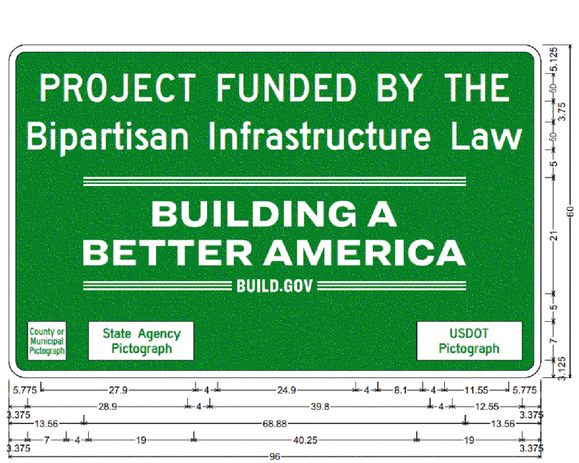


WARNING SIGN LEGEND

END ROAD WORK	ROAD WORK AHEAD	BEGIN HIGHER FINES ZONE	END HIGHER FINES ZONE	PCMS BOARD	PROJECT FUNDED BY THE Bipartisan Infrastructure Law BUILDING A BETTER AMERICA	
G20-2 48"x24"	W20-1 48"x48"	R2-10 24"x30"	R2-11 24"x30"	SEE NOTE 5	SEE NOTE 6	W11-10 (48"x48") SEE NOTE 7
(1)	(2)	(3)	(4)	(5)	(6)	(7)

TRAFFIC CONTROL NOTES:

1. *ALL WARNING SIGNS SHOWN ON THIS SHEET ARE TO BE DISPLAYED THROUGHOUT THE DURATION OF THE CONTRACT AND ARE TO BE PAID UNDER ITEM 810001 - TEMPORARY WARNING SIGNS AND PLAQUES.*
2. *SEE INDIVIDUAL PHASING PLANS FOR PLACEMENT OF TEMPORARY WARNING SIGNS. THE CONTRACTOR SHALL LAY OUT SIGN LOCATIONS FOR APPROVAL BY THE ENGINEER PRIOR TO INSTALLATION. THE COVERING OF ANY CONFLICTING SIGNS SHALL BE INCIDENTAL TO ITEM 810001 - TEMPORARY WARNING SIGNS AND PLAQUES.*
3. *DELDOT TRAFFIC RESERVES THE RIGHT TO MODIFY THE TRAFFIC CONTROL AS FIELD CONDITIONS DICTATE.*
4. *ALL PROPOSED SIGNS ALONG US 113 SHALL BE PLACED ON THE RIGHT EDGE OF ROADWAY AND IN THE MEDIAN.*
5. *THE CONTRACTOR SHALL INSTALL A PORTABLE CHANGEABLE MESSAGE SIGN 10 DAYS PRIOR TO EACH TRAFFIC PATTERN CHANGE WITH THE MESSAGE: "NEW TRAFFIC PATTERN / STARTING MM/DD/YY" AND MAINTAIN THE PCMS FOR 5 DAYS AFTER THE PHASE CHANGE WITH THE MESSAGE: "CAUTION / NEW TRAFFIC PATTERN." THE CONTRACTOR SHALL OBTAIN FINAL APPROVAL OF PCMS BOARD LOCATIONS AND MESSAGES WITH DELDOT'S SOUTH DISTRICT SAFETY OFFICER.*
6. *FABRICATION, SUPPLY AND INSTALLATION OF "BIPARTISAN INFRASTRUCTURE LAW" SIGNAGE TO BE PAID UNDER ITEM 810001 - TEMPORARY WARNING SIGNS AND PLAQUES. SEE SIGN FABRICATION DETAIL BELOW.*
7. *THE CONTRACTOR SHALL INSTALL W11-10 "TRUCK" SIGNS IN ADVANCE OF STABILZED CONSTRUCTION ENTRANCES AND/OR STAGING/STOCKPILING AREAS. LOCATIONS SHOWN ON THIS PLAN ARE APPROXIMATE AND SHALL BE ADJUSTED BY THE CONTRACTOR WHEN CONSTRUCTION ACCESS POINTS ARE ESTABLISHED.*



BIPARTISAN INFRASTRUCTURE LAW SIGN FABRICATION DETAIL

ADDENDA / REVISIONS		NOT TO SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. N/A	WARNING SIGN LOCATION PLAN	SECTION WRA
				COUNTY SUSSEX	DESIGNED BY: D. WARING		SHEET NO. 207
					CHECKED BY: K. CLEVENGER		

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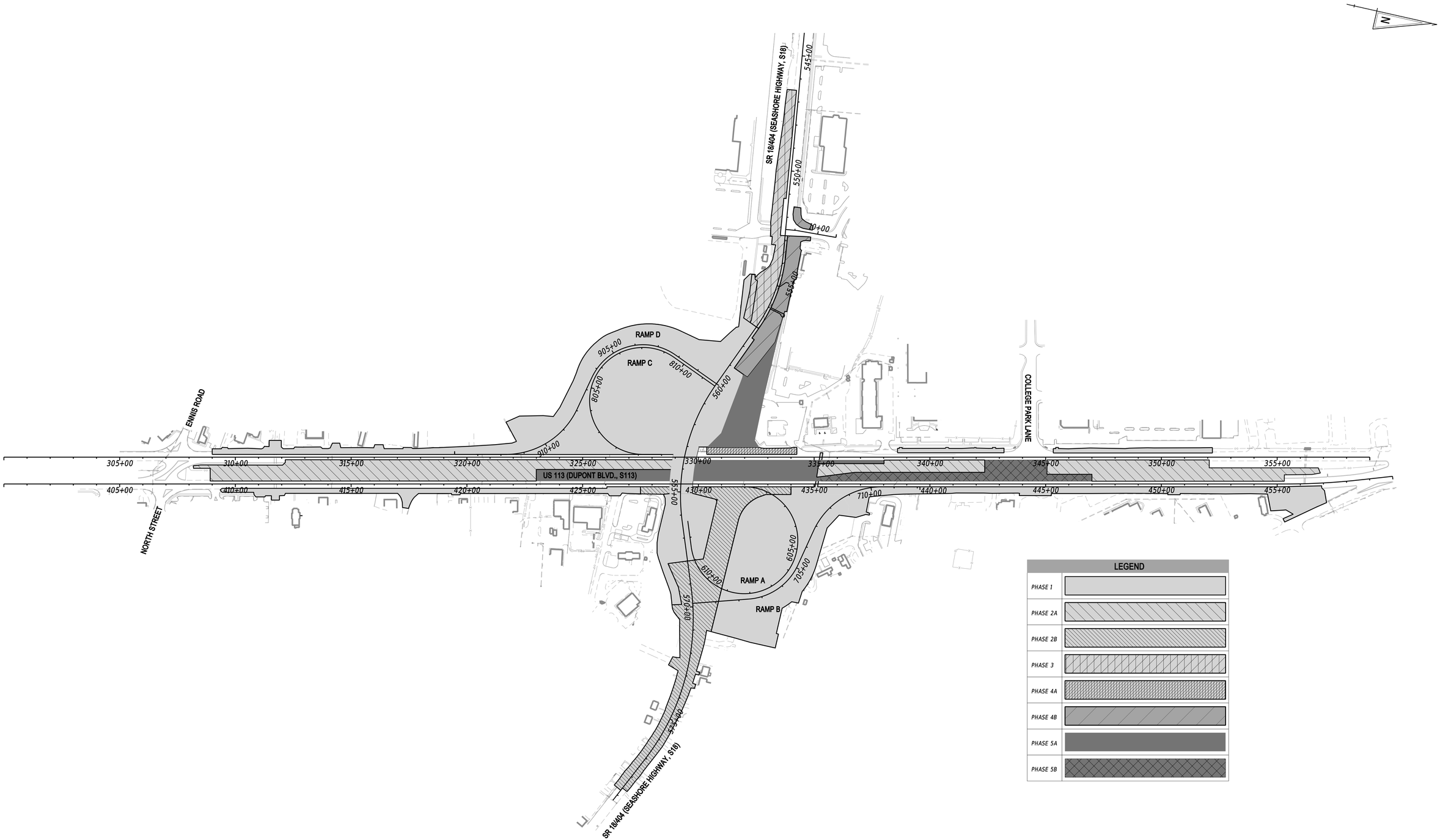

ADDENDA / REVISIONS	

SCALE
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FEET

US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO.	N/A
T201412701	DESIGNED BY: D. WARING	
COUNTY	CHECKED BY: K. CLEVENGER	
SUSSEX		

CONSTRUCTION PHASING AND MOT PLAN OVERVIEW

SECTION
WRA
SHEET NO.
208

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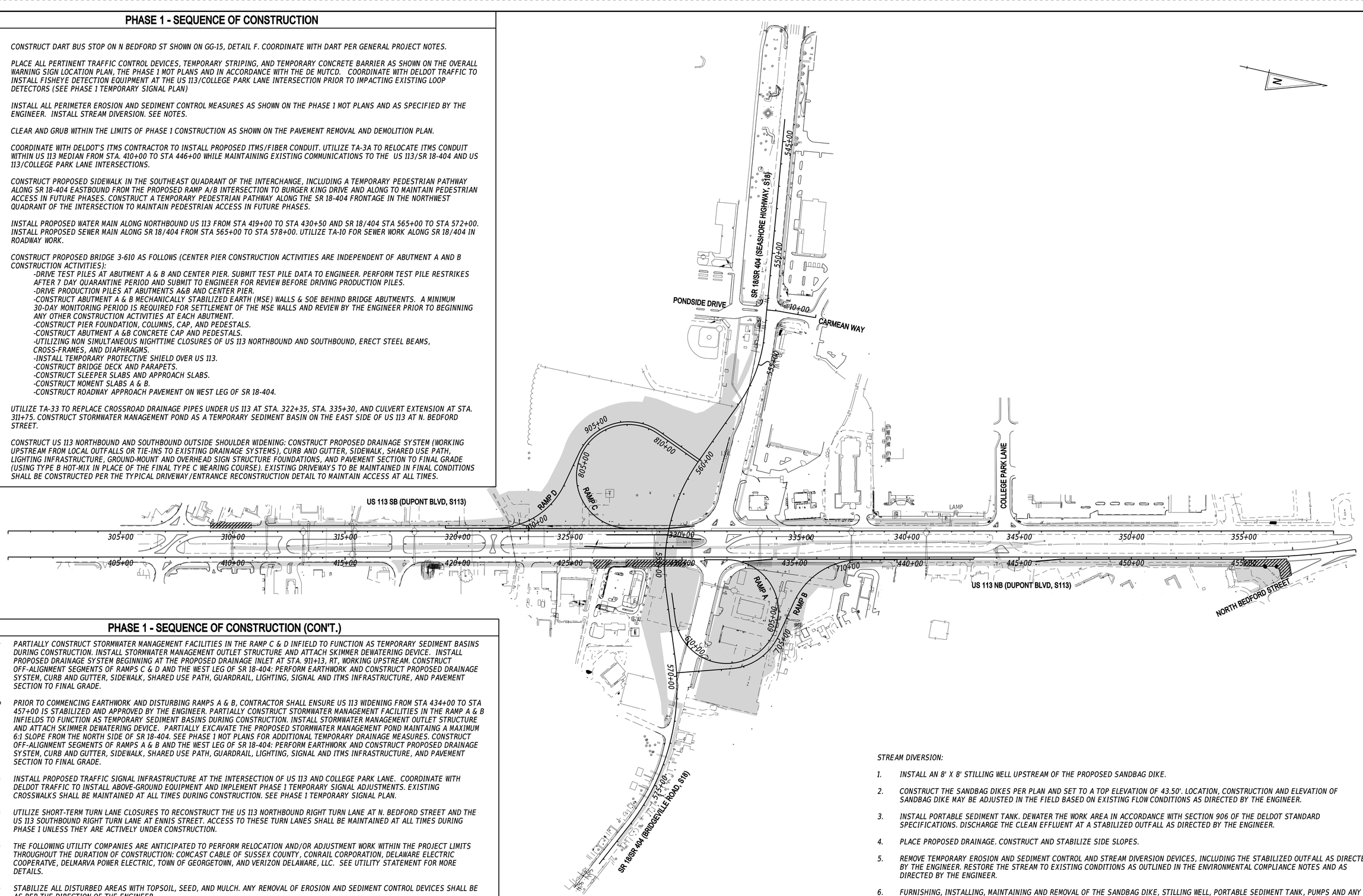
PHASE 1 - SEQUENCE OF CONSTRUCTION

1. CONSTRUCT DART BUS STOP ON N BEDFORD ST SHOWN ON GG-15, DETAIL F. COORDINATE WITH DART PER GENERAL PROJECT NOTES.
2. PLACE ALL PERTINENT TRAFFIC CONTROL DEVICES, TEMPORARY STRIPING, AND TEMPORARY CONCRETE BARRIER AS SHOWN ON THE OVERALL WARNING SIGN LOCATION PLAN, THE PHASE 1 MOT PLANS AND IN ACCORDANCE WITH THE DE MUTCD. COORDINATE WITH DELDOT TRAFFIC TO INSTALL FISHEYE DETECTION EQUIPMENT AT THE US 113/COLLEGE PARK LANE INTERSECTION PRIOR TO IMPACTING EXISTING LOOP DETECTORS (SEE PHASE 1 TEMPORARY SIGNAL PLAN)
3. INSTALL ALL PERIMETER EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN ON THE PHASE 1 MOT PLANS AND AS SPECIFIED BY THE ENGINEER. INSTALL STREAM DIVERSION. SEE NOTES.
4. CLEAR AND GRUB WITHIN THE LIMITS OF PHASE 1 CONSTRUCTION AS SHOWN ON THE PAVEMENT REMOVAL AND DEMOLITION PLAN.
5. COORDINATE WITH DELDOT'S ITMS CONTRACTOR TO INSTALL PROPOSED ITMS/FIBER CONDUIT. UTILIZE TA-3A TO RELOCATE ITMS CONDUIT WITHIN US 113 MEDIAN FROM STA. 410+00 TO STA 446+00 WHILE MAINTAINING EXISTING COMMUNICATIONS TO THE US 113/SR 18-404 AND US 113/COLLEGE PARK LANE INTERSECTIONS.
6. CONSTRUCT PROPOSED SIDEWALK IN THE SOUTHEAST QUADRANT OF THE INTERCHANGE, INCLUDING A TEMPORARY PEDESTRIAN PATHWAY ALONG SR 18-404 EASTBOUND FROM THE PROPOSED RAMP A/B INTERSECTION TO BURGER KING DRIVE AND ALONG TO MAINTAIN PEDESTRIAN ACCESS IN FUTURE PHASES. CONSTRUCT A TEMPORARY PEDESTRIAN PATHWAY ALONG THE SR 18-404 FRONTAGE IN THE NORTHWEST QUADRANT OF THE INTERSECTION TO MAINTAIN PEDESTRIAN ACCESS IN FUTURE PHASES.
7. INSTALL PROPOSED WATER MAIN ALONG NORTHBOUND US 113 FROM STA 419+00 TO STA 430+50 AND SR 18/404 STA 565+00 TO STA 572+00. INSTALL PROPOSED SEWER MAIN ALONG SR 18/404 FROM STA 565+00 TO STA 578+00. UTILIZE TA-10 FOR SEWER WORK ALONG SR 18/404 IN ROADWAY WORK.
8. CONSTRUCT PROPOSED BRIDGE 3-610 AS FOLLOWS (CENTER PIER CONSTRUCTION ACTIVITIES ARE INDEPENDENT OF ABUTMENT A AND B CONSTRUCTION ACTIVITIES):
   - -DRIVE TEST PILES AT ABUTMENT A & B AND CENTER PIER. SUBMIT TEST PILE DATA TO ENGINEER. PERFORM TEST PILE RESTRIKES AFTER 7 DAY QUARANTINE PERIOD AND SUBMIT TO ENGINEER FOR REVIEW BEFORE DRIVING PRODUCTION PILES.
   - -DRIVE PRODUCTION PILES AT ABUTMENTS A&B AND CENTER PIER.
   - -CONSTRUCT ABUTMENT A & B MECHANICALLY STABILIZED EARTH (MSE) WALLS & SOE BEHIND BRIDGE ABUTMENTS. A MINIMUM 30-DAY MONITORING PERIOD IS REQUIRED FOR SETTLEMENT OF THE MSE WALLS AND REVIEW BY THE ENGINEER PRIOR TO BEGINNING ANY OTHER CONSTRUCTION ACTIVITIES AT EACH ABUTMENT.
   - -CONSTRUCT PIER FOUNDATION, COLUMNS, CAP, AND PEDESTALS.
   - -CONSTRUCT ABUTMENT A &B CONCRETE CAP AND PEDESTALS.
   - -UTILIZING NON SIMULTANEOUS NIGHTTIME CLOSURES OF US 113 NORTHBOUND AND SOUTHBOUND, ERECT STEEL BEAMS, CROSS-FRAMES, AND DIAPHRAGMS.
   - -INSTALL TEMPORARY PROTECTIVE SHIELD OVER US 113.
   - -CONSTRUCT BRIDGE DECK AND PARAPETS.
   - -CONSTRUCT SLEEPER SLABS AND APPROACH SLABS.
   - -CONSTRUCT MOMENT SLABS A & B.
   - -CONSTRUCT ROADWAY APPROACH PAVEMENT ON WEST LEG OF SR 18-404.
10. UTILIZE TA-33 TO REPLACE CROSSROAD DRAINAGE PIPES UNDER US 113 AT STA. 322+35, STA. 335+30, AND CULVERT EXTENSION AT STA. 311+75. CONSTRUCT STORMWATER MANAGEMENT POND AS A TEMPORARY SEDIMENT BASIN ON THE EAST SIDE OF US 113 AT N. BEDFORD STREET.
9. CONSTRUCT US 113 NORTHBOUND AND SOUTHBOUND OUTSIDE SHOULDER WIDENING: CONSTRUCT PROPOSED DRAINAGE SYSTEM (WORKING UPSTREAM FROM LOCAL OUTFALLS OR TIE-INS TO EXISTING DRAINAGE SYSTEMS), CURB AND GUTTER, SIDEWALK, SHARED USE PATH, LIGHTING INFRASTRUCTURE, GROUND-MOUNT AND OVERHEAD SIGN STRUCTURE FOUNDATIONS, AND PAVEMENT SECTION TO FINAL GRADE (USING TYPE B HOT-MIX IN PLACE OF THE FINAL TYPE C WEARING COURSE). EXISTING DRIVEWAYS TO BE MAINTAINED IN FINAL CONDITIONS SHALL BE CONSTRUCTED PER THE TYPICAL DRIVEWAY/ENTRANCE RECONSTRUCTION DETAIL TO MAINTAIN ACCESS AT ALL TIMES.



PHASE 1 - SEQUENCE OF CONSTRUCTION (CON'T.)

11. PARTIALLY CONSTRUCT STORMWATER MANAGEMENT FACILITIES IN THE RAMP C & D INFIELD TO FUNCTION AS TEMPORARY SEDIMENT BASINS DURING CONSTRUCTION. INSTALL STORMWATER MANAGEMENT OUTLET STRUCTURE AND ATTACH SKIMMER DEWATERING DEVICE. INSTALL PROPOSED DRAINAGE SYSTEM BEGINNING AT THE PROPOSED DRAINAGE INLET AT STA. 911+13, RT, WORKING UPSTREAM. CONSTRUCT OFF-ALIGNMENT SEGMENTS OF RAMPS C & D AND THE WEST LEG OF SR 18-404: PERFORM EARTHWORK AND CONSTRUCT PROPOSED DRAINAGE SYSTEM, CURB AND GUTTER, SIDEWALK, SHARED USE PATH, GUARDRAIL, LIGHTING, SIGNAL AND ITMS INFRASTRUCTURE, AND PAVEMENT SECTION TO FINAL GRADE.
12. PRIOR TO COMMENCING EARTHWORK AND DISTURBING RAMPS A & B, CONTRACTOR SHALL ENSURE US 113 WIDENING FROM STA 434+00 TO STA 457+00 IS STABILIZED AND APPROVED BY THE ENGINEER. PARTIALLY CONSTRUCT STORMWATER MANAGEMENT FACILITIES IN THE RAMP A & B INFIELDS TO FUNCTION AS TEMPORARY SEDIMENT BASINS DURING CONSTRUCTION. INSTALL STORMWATER MANAGEMENT OUTLET STRUCTURE AND ATTACH SKIMMER DEWATERING DEVICE. PARTIALLY EXCAVATE THE PROPOSED STORMWATER MANAGEMENT POND MAINTAING A MAXIMUM 6:1 SLOPE FROM THE NORTH SIDE OF SR 18-404. SEE PHASE 1 MOT PLANS FOR ADDITIONAL TEMPORARY DRAINAGE MEASURES. CONSTRUCT OFF-ALIGNMENT SEGMENTS OF RAMPS A & B AND THE WEST LEG OF SR 18-404: PERFORM EARTHWORK AND CONSTRUCT PROPOSED DRAINAGE SYSTEM, CURB AND GUTTER, SIDEWALK, SHARED USE PATH, GUARDRAIL, LIGHTING, SIGNAL AND ITMS INFRASTRUCTURE, AND PAVEMENT SECTION TO FINAL GRADE.
13. INSTALL PROPOSED TRAFFIC SIGNAL INFRASTRUCTURE AT THE INTERSECTION OF US 113 AND COLLEGE PARK LANE. COORDINATE WITH DELDOT TRAFFIC TO INSTALL ABOVE-GROUND EQUIPMENT AND IMPLEMENT PHASE 1 TEMPORARY SIGNAL ADJUSTMENTS. EXISTING CROSSWALKS SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. SEE PHASE 1 TEMPORARY SIGNAL PLAN.
14. UTILIZE SHORT-TERM TURN LANE CLOSURES TO RECONSTRUCT THE US 113 NORTHBOUND RIGHT TURN LANE AT N. BEDFORD STREET AND THE US 113 SOUTHBOUND RIGHT TURN LANE AT ENNIS STREET. ACCESS TO THESE TURN LANES SHALL BE MAINTAINED AT ALL TIMES DURING PHASE 1 UNLESS THEY ARE ACTIVELY UNDER CONSTRUCTION.
15. THE FOLLOWING UTILITY COMPANIES ARE ANTICIPATED TO PERFORM RELOCATION AND/OR ADJUSTMENT WORK WITHIN THE PROJECT LIMITS THROUGHOUT THE DURATION OF CONSTRUCTION: COMCAST CABLE OF SUSSEX COUNTY, CONRAIL CORPORATION, DELAWARE ELECTRIC COOPERATVE, DELMARVA POWER ELECTRIC, TOWN OF GEORGETOWN, AND VERIZON DELAWARE, LLC. SEE UTILITY STATEMENT FOR MORE DETAILS.
16. STABILIZE ALL DISTURBED AREAS WITH TOPSOIL, SEED, AND MULCH. ANY REMOVAL OF EROSION AND SEDIMENT CONTROL DEVICES SHALL BE AS PER THE DIRECTION OF THE ENGINEER.

STREAM DIVERSION:

1. INSTALL AN 8' X 8' STILLING WELL UPSTREAM OF THE PROPOSED SANDBAG DIKE.
2. CONSTRUCT THE SANDBAG DIKES PER PLAN AND SET TO A TOP ELEVATION OF 43.50'. LOCATION, CONSTRUCTION AND ELEVATION OF SANDBAG DIKE MAY BE ADJUSTED IN THE FIELD BASED ON EXISTING FLOW CONDITIONS AS DIRECTED BY THE ENGINEER.
3. INSTALL PORTABLE SEDIMENT TANK. DEWATER THE WORK AREA IN ACCORDANCE WITH SECTION 906 OF THE DELDOT STANDARD SPECIFICATIONS. DISCHARGE THE CLEAN EFFLUENT AT A STABILIZED OUTFALL AS DIRECTED BY THE ENGINEER.
4. PLACE PROPOSED DRAINAGE. CONSTRUCT AND STABILIZE SIDE SLOPES.
5. REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL AND STREAM DIVERSION DEVICES, INCLUDING THE STABILIZED OUTFALL AS DIRECTED BY THE ENGINEER. RESTORE THE STREAM TO EXISTING CONDITIONS AS OUTLINED IN THE ENVIRONMENTAL COMPLIANCE NOTES AND AS DIRECTED BY THE ENGINEER.
6. FURNISHING, INSTALLING, MAINTAINING AND REMOVAL OF THE SANDBAG DIKE, STILLING WELL, PORTABLE SEDIMENT TANK, PUMPS AND ANY OTHER MATERIAL NEEDED TO COMPLETE THE STREAM DIVERSION AT THIS LOCATION ARE INCIDENTAL TO ITEM 909005, STREAM DIVERSION.

ADDENDA / REVISIONS		NOT TO SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 1	SECTION
				T201412701	DESIGNED BY: D. WARING		WRA
				COUNTY	CHECKED BY: K. CLEVENGER		SHEET NO.
				SUSSEX			209

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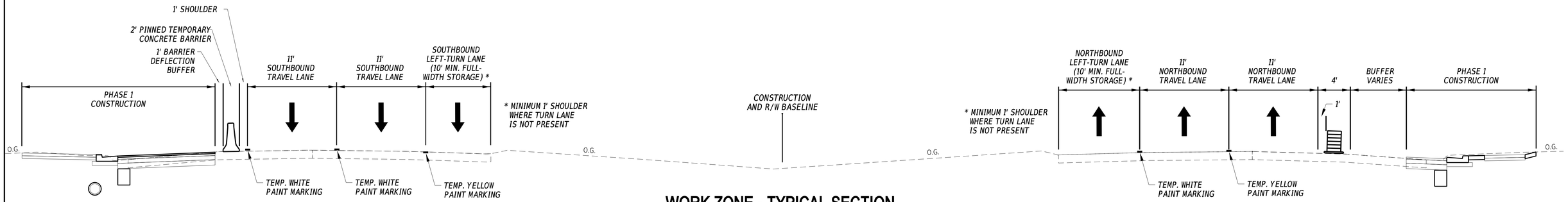
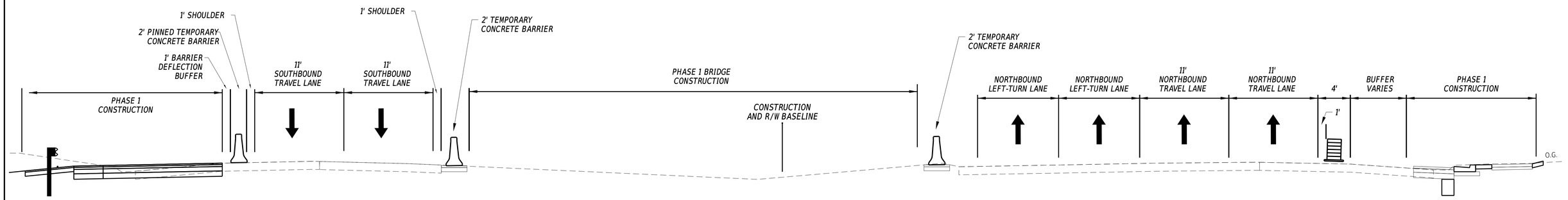


WORK ZONE - TYPICAL SECTION
US 113 PHASE 1

NOT TO SCALE

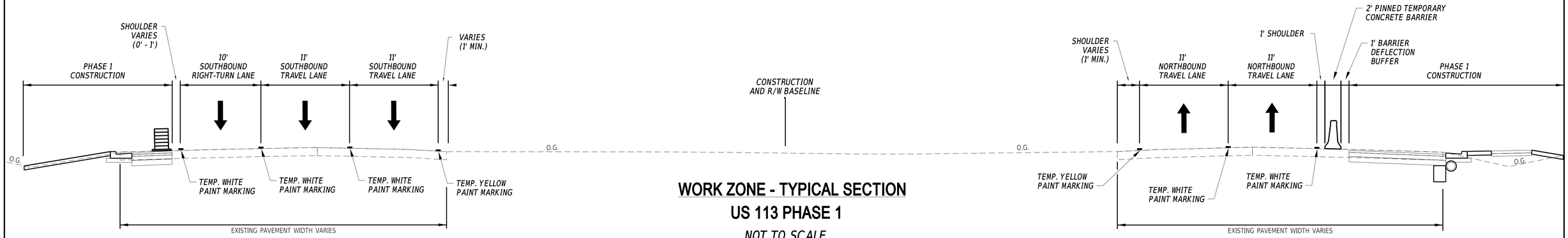
STA. 418+00 TO STA. 426+50



WORK ZONE - TYPICAL SECTION
US 113 PHASE 1

NOT TO SCALE

STA. 426+50 TO STA 430+50



WORK ZONE - TYPICAL SECTION
US 113 PHASE 1

NOT TO SCALE

STA. 430+50 TO STA. 455+03

ADDENDA / REVISIONS		NOT TO SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO.	CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 1	SECTION
				T201412701			WRA
				COUNTY	DESIGNED BY: D. WARING		SHEET NO.
				SUSSEX	CHECKED BY: K. CLEVENGER		210

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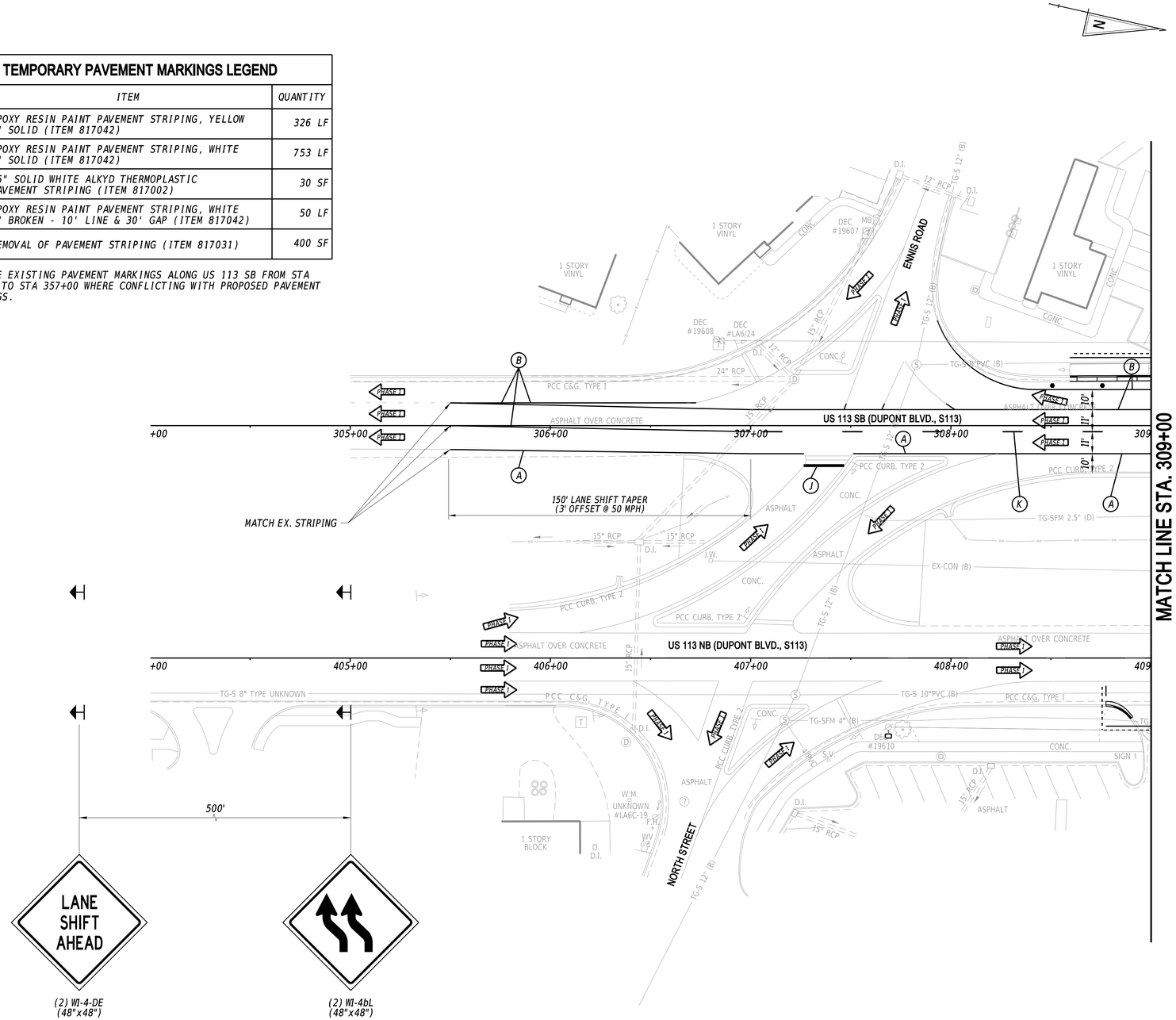
TEMPORARY PAVEMENT MARKINGS LEGEND		
SYM	ITEM	QUANTITY
(A)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID (ITEM 817042)	326 LF
(B)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	753 LF
(J)	16" SOLID WHITE ALKYD THERMOPLASTIC PAVEMENT STRIPING (ITEM 817002)	30 SF
(K)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" BROKEN - 10' LINE & 30' GAP (ITEM 817042)	50 LF
*	REMOVAL OF PAVEMENT STRIPING (ITEM 817031)	400 SF

*REMOVE EXISTING PAVEMENT MARKINGS ALONG US 113 SB FROM STA 305+50 TO STA 357+00 WHERE CONFLICTING WITH PROPOSED PAVEMENT MARKINGS.



TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(A)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID (ITEM 817042)	2,065 LF
(B)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	2,065 LF
(C)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND (ITEM 817002)	62 SF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" DOTTED - 2' LINE & 6' GAP (ITEM 817042)	150 LF
(K)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" BROKEN - 10' LINE & 30' GAP (ITEM 817042)	380 LF
*	REMOVAL OF PAVEMENT STRIPING (ITEM 817031)	1,550 SF

*REMOVE EXISTING PAVEMENT MARKINGS ALONG US 113 SB FROM STA 305+50 TO STA 357+00 AND US 113 NB FROM STA 410+00 TO STA 459+00 WHERE CONFLICTING WITH PROPOSED PAVEMENT MARKINGS.

UTILIZE SHORT-TERM TURN LANE CLOSURES TO RECONSTRUCT THE US 113 SOUTHBOUND RIGHT TURN LANE AT ENNIS STREET. ACCESS TO THESE TURN LANES SHALL BE MAINTAINED AT ALL TIMES DURING PHASE 1 UNLESS THEY ARE ACTIVELY UNDER CONSTRUCTION.

(2) W1-4bR (48"x48")

R11-2 (48"x30")
ROAD CLOSED

(2) W1-4-DE (48"x48")
LANE SHIFT AHEAD

R11-2 (48"x30")
ROAD CLOSED

MATCH LINE STA. 309+00

MATCH LINE STA. 318+00

US 113 SB (DUPONT BLVD., S113)

US 113 NB (DUPONT BLVD., S113)

MATCH EX. STRIPING

200' LANE SHIFT TAPER (4' OFFSET @ 50 MPH)

25' (TYP.)

50' (TYP.)

10' (TYP.)

ROAD CLOSED
R11-2 (48"x30")

STREAM DIVERSION:

1. INSTALL 8' X 8' STILLING WELL UPSTREAM OF THE PROPOSED WORK AREA.
2. CONSTRUCT THE SANDBAG DIKES PER PLAN AND SET TO A TOP ELEVATION OF 43.00'. LOCATION, CONSTRUCTION AND ELEVATION OF SANDBAG DIKE MAY BE ADJUSTED IN THE FIELD BASED ON EXISTING FLOW CONDITIONS AS DIRECTED BY THE ENGINEER.
3. INSTALL DEWATERING BAG. DEWATER THE WORK AREA IN ACCORDANCE WITH SECTION 906 OF THE DELDOT STANDARD SPECIFICATIONS. DISCHARGE THE CLEAN EFFLUENT AT A STABILIZED OUTFALL AS DIRECTED BY THE ENGINEER.
4. INSTALL SUMP PIT AT DOWNSTREAM END OF WORK AREA AS SHOWN ON THE PLAN.
5. EXTEND BRIDGE 3-609 CULVERT AND STABILIZE SIDE SLOPES.
6. REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL AND STREAM DIVERSION DEVICES, INCLUDING THE STABILIZED OUTFALL AS DIRECTED BY THE ENGINEER. RESTORE THE STREAM TO EXISTING CONDITIONS AS OUTLINED IN THE ENVIRONMENTAL COMPLIANCE NOTES AND AS DIRECTED BY THE ENGINEER.
7. FURNISHING, INSTALLING, AND MAINTAINING PUMP AND PUMPING OPERATIONS ARE INCIDENTAL TO ITEM 909005, STREAM DIVERSION. THE ESTIMATED 2-YEAR STORM FLOW IN THIS CHANNEL IS 11 CFS OR 4938 GPM.

RIPRAP SCHEDULE

NO.	TYPE	AREA (SY)
1	R-4	8

ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION

CONTRACT	T201412701	BRIDGE NO.	N/A
COUNTY	SUSSEX	DESIGNED BY: D. WARING	
		CHECKED BY: K. CLEVENGER	

CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 1

SECTION
WRA
SHEET NO.
212

8/13/2025
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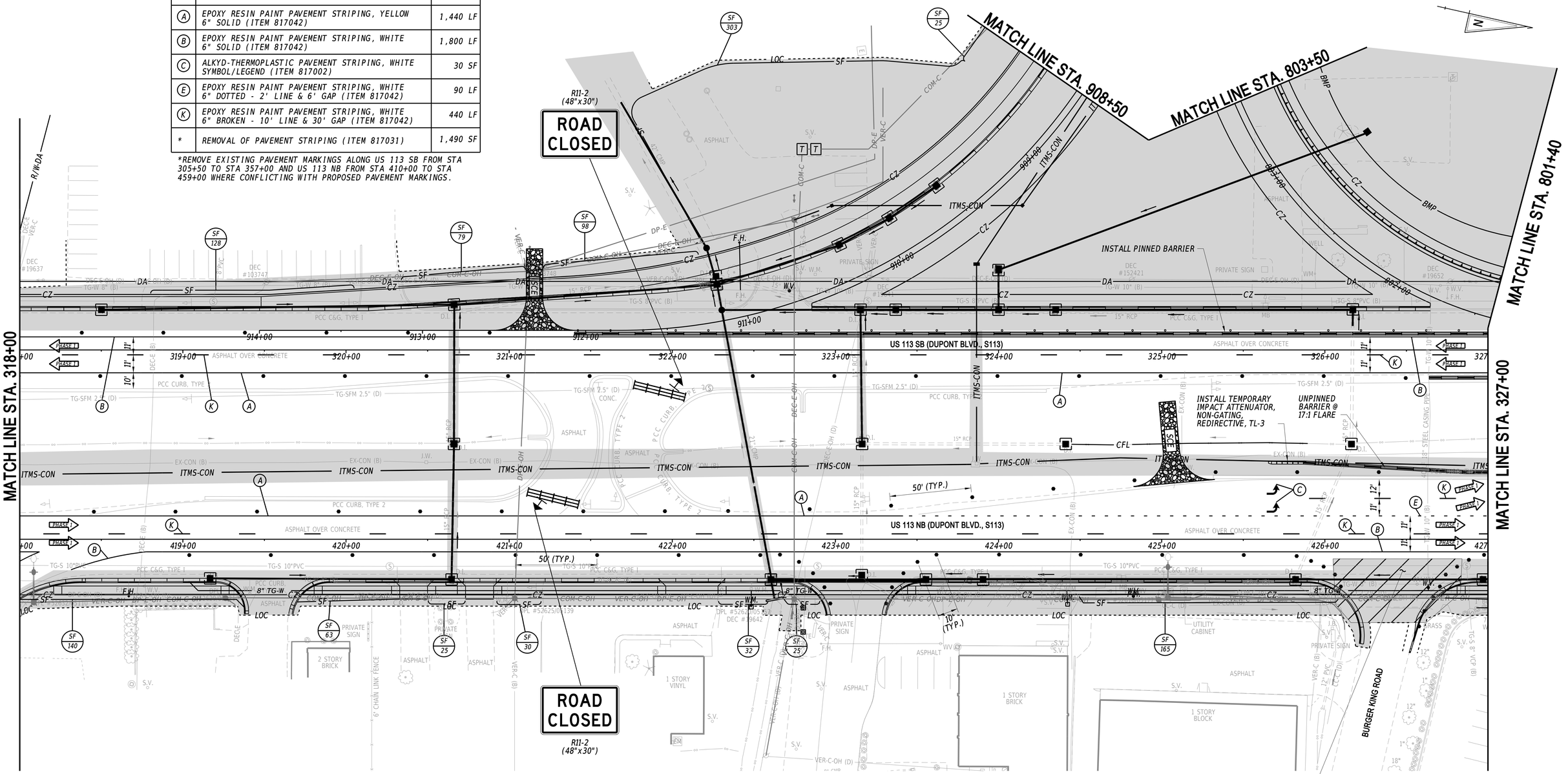
TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(A)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID (ITEM 817042)	1,440 LF
(B)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	1,800 LF
(C)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND (ITEM 817002)	30 SF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" DOTTED - 2' LINE & 6' GAP (ITEM 817042)	90 LF
(K)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" BROKEN - 10' LINE & 30' GAP (ITEM 817042)	440 LF
*	REMOVAL OF PAVEMENT STRIPING (ITEM 817031)	1,490 SF

*REMOVE EXISTING PAVEMENT MARKINGS ALONG US 113 SB FROM STA 305+50 TO STA 357+00 AND US 113 NB FROM STA 410+00 TO STA 459+00 WHERE CONFLICTING WITH PROPOSED PAVEMENT MARKINGS.



ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 1	SECTION WRA
				COUNTY SUSSEX	DESIGNED BY: D. WARING		SHEET NO. 213
					CHECKED BY: K. CLEVENGER		

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TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(A)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID (ITEM 817042)	145 LF
(B)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	3,310 LF
(C)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND (ITEM 817002)	110 SF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" DOTTED - 2' LINE & 6' GAP (ITEM 817042)	100 LF
(J)	16" SOLID WHITE ALKYD THERMOPLASTIC PAVEMENT STRIPING (ITEM 817002)	60 SF
(K)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" BROKEN - 10' LINE & 30' GAP (ITEM 817042)	280 LF
*	REMOVAL OF PAVEMENT STRIPING (ITEM 817031)	1,820 SF

*REMOVE EXISTING PAVEMENT MARKINGS ALONG US 113 SB FROM STA 305+50 TO STA 357+00 AND US 113 NB FROM STA 410+00 TO STA 459+00 WHERE CONFLICTING WITH PROPOSED PAVEMENT MARKINGS.

R9-11(R) (24"x18") SIDEWALK CLOSED AHEAD / CROSS HERE

M4-9b-DE1 (9"x12") END DETOUR

R9-9 (24"x12") SIDEWALK CLOSED

INSTALL TEMPORARY PEDESTRIAN PATH PER STANDARD CONSTRUCTION DETAIL M-13 (2024) TO CONNECT PROPOSED SIDEWALK TO EXISTING RAMP

M4-9b-DE (R) (9"x12")

M4-9b-DE (L) (9"x12")

MATCH LINE STA. 801+40

MATCH LINE STA. 562+00

MATCH LINE STA. 261+00

MATCH LINE STA. 327+00

MATCH LINE STA. 335+75

MATCH LINE STA. 566+00

MATCH LINE STA. 603+50

EXISTING SR 18 / SR 404 (SEASHORE HIGHWAY, S18)

EXISTING SR 18 / SR 404 (BRIDGEVILLE ROAD, S18)

US 113 SB (DUPONT BLVD., S113)

US 113 NB (DUPONT BLVD., S113)

110' BARRIER LENGTH-OF-NEED

UNPINNED BARRIER @ 11:1 FLARE

INSTALL PINNED BARRIER

UNPINNED BARRIER @ 7:1 FLARE

INSTALL UNPINNED BARRIER

NO STORAGE OF EQUIPMENT OR MATERIALS

INSTALL TEMPORARY IMPACT ATTENUATOR, NON-GATING, REDIRECTIVE, TL-3

INSTALL (2) 45 MPH SAND BARREL ARRAYS

CONTRACTOR SHALL MAINTAIN LIGHTING OF US 113 CROSSWALKS VIA TEMPORARY LIGHT PLANTS

RAMP A

RAMP B

C4

IMPLEMENT SHORT-TERM TURN LANE CLOSURE TO COMPLETE UTILITY RELOCATIONS AND RECONSTRUCT THE US 113 NORTHBOUND RIGHT TURN LANE AT SR 18 / SR 404. SEE SEQUENCING AND TIMING NOTES FOR ALLOWABLE DURATION.

INSTALL TEMPORARY PEDESTRIAN PATH PER STANDARD CONSTRUCTION DETAIL M-13 (2021). INSTALL TYPE 2 PEDESTRIAN CHANNELIZING BARRICADES ON BOTH SIDES OF THE PEDESTRIAN PATH.

MAINTAIN EXISTING TRAFFIC SIGNAL AND ALL EXISTING LOOP DETECTORS (EXCEPT US 113 NB/SB ADVANCE PASSAGE LOOPS) FOR THE DURATION OF PHASE 1 AND PHASE 2A CONSTRUCTION. SEE PHASE 2B TEMPORARY SIGNAL PLAN FOR ADDITIONAL INFORMATION.

PRIOR TO COMMENCING EARTHWORK AND DISTURBING CROSSHATCHED AREA (RAMPS A & B), CONTRACTOR SHALL ENSURE US 113 WIDENING FROM STA 434+00 TO STA 457+00 IS STABILIZED AND APPROVED BY THE ENGINEER.

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO. N/A
T201412701	DESIGNED BY: D. WARING
COUNTY	CHECKED BY: K. CLEVENGER
SUSSEX	

CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 1

SECTION WRA

SHEET NO. 214

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MATCH LINE STA. 335+75

MATCH LINE STA. 345+00

US 113 SB (DUPONT BLVD., S113)

US 113 NB (DUPONT BLVD., S113)

336+00 337+00 338+00 339+00 340+00 341+00 342+00 343+00 344+00 345

436+00 437+00 438+00 439+00 440+00 441+00 442+00 443+00 444+00 445

710+00 711+00 712+00 712+12

50' (TYP.)

10' (TYP.)

ITMS-CON

ASPHALT OVER CONCRETE

INSTALL PINNED BARRIER

PRIOR TO COMMENCING EARTHWORK AND DISTURBING CROSSHATCHED AREA (RAMPS A & B), CONTRACTOR SHALL ENSURE US 113 WIDENING FROM STA 434+00 TO STA 457+00 IS STABILIZED AND APPROVED BY THE ENGINEER.

ROAD CLOSED

R11-2 (48"x30")

TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
A	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID (ITEM 817042)	1,310 LF
B	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	2,180 LF
C	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND (ITEM 817002)	40 SF
E	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" DOTTED - 2' LINE & 6' GAP (ITEM 817042)	220 LF
J	16" SOLID WHITE ALKYD THERMOPLASTIC PAVEMENT STRIPING (ITEM 817002)	60 SF
K	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" BROKEN - 10' LINE & 30' GAP (ITEM 817042)	380 LF
*	REMOVAL OF PAVEMENT STRIPING (ITEM 817031)	1,280 SF

*REMOVE EXISTING PAVEMENT MARKINGS ALONG US 113 SB FROM STA 305+50 TO STA 357+00 AND US 113 NB FROM STA 410+00 TO STA 459+00 WHERE CONFLICTING WITH PROPOSED PAVEMENT MARKINGS.

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO.	N/A
T201412701	DESIGNED BY: D. WARING	
COUNTY	CHECKED BY: K. CLEVENGER	
SUSSEX		

CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 1

SECTION
WRA
SHEET NO.
215

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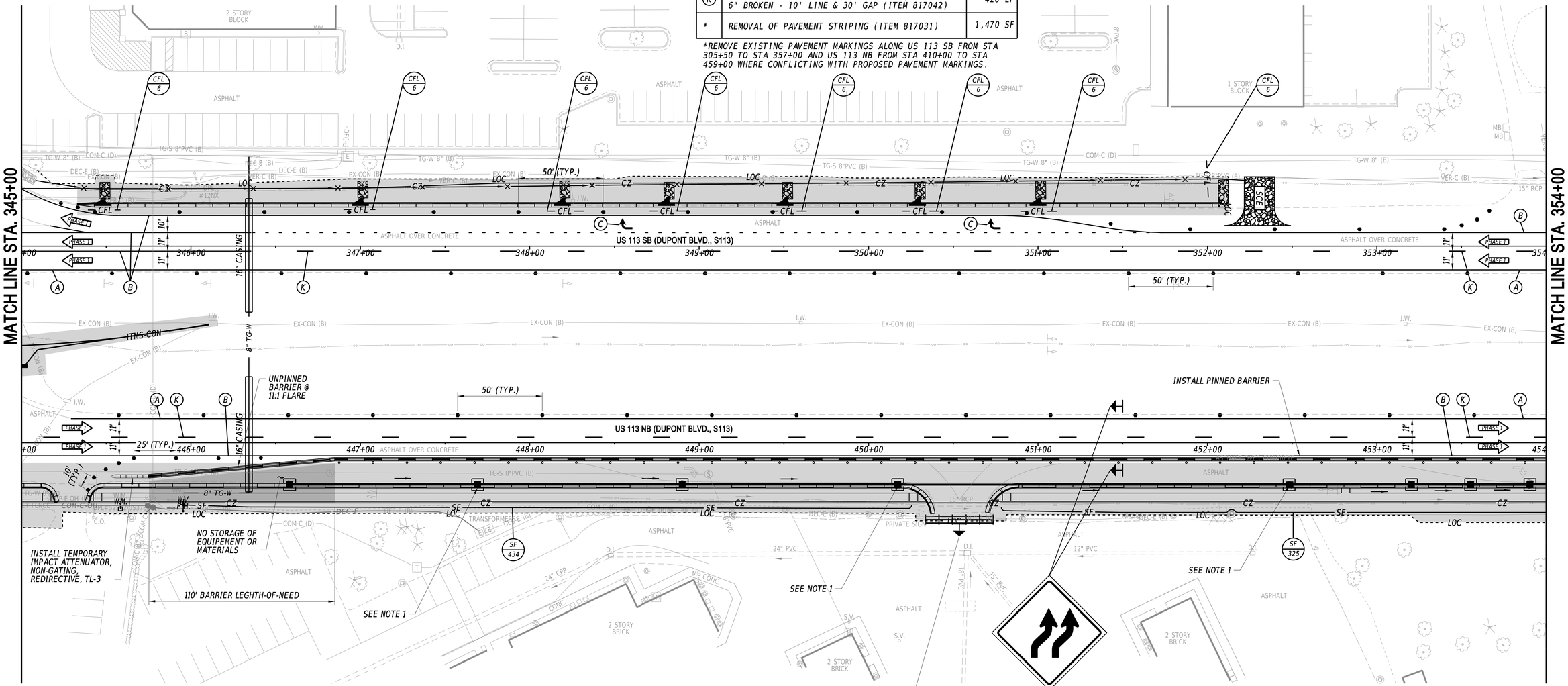
TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(A)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID (ITEM 817042)	1,770 LF
(B)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	2,100 LF
(C)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND (ITEM 817002)	30 SF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" DOTTED - 2' LINE & 6' GAP (ITEM 817042)	130 LF
(K)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" BROKEN - 10' LINE & 30' GAP (ITEM 817042)	420 LF
*	REMOVAL OF PAVEMENT STRIPING (ITEM 817031)	1,470 SF

*REMOVE EXISTING PAVEMENT MARKINGS ALONG US 113 SB FROM STA 305+50 TO STA 357+00 AND US 113 NB FROM STA 410+00 TO STA 459+00 WHERE CONFLICTING WITH PROPOSED PAVEMENT MARKINGS.



NOTES:

1. INLETS ALONG US 113 NB BETWEEN STA 447+50 RT AND STA 456+50 RT SHOULD BE CONSTRUCTED TO TEMPORARY GRADE TO FA CILIATE THE PHASE 2A MOT PATTERN. ADJUSTMENT TO FINAL GRADE SHALL BE PAID FOR UNDER ITEM 602130 - ADJUSTING AND REPAIRING EXISTING INLET.

ADDENDA / REVISIONS		SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO.	N/A	CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 1	SECTION
		0 30 60 90 FEET		T201412701	DESIGNED BY: D. WARING			WRA
				COUNTY	CHECKED BY: K. CLEVENGER			SHEET NO.
				SUSSEX				216

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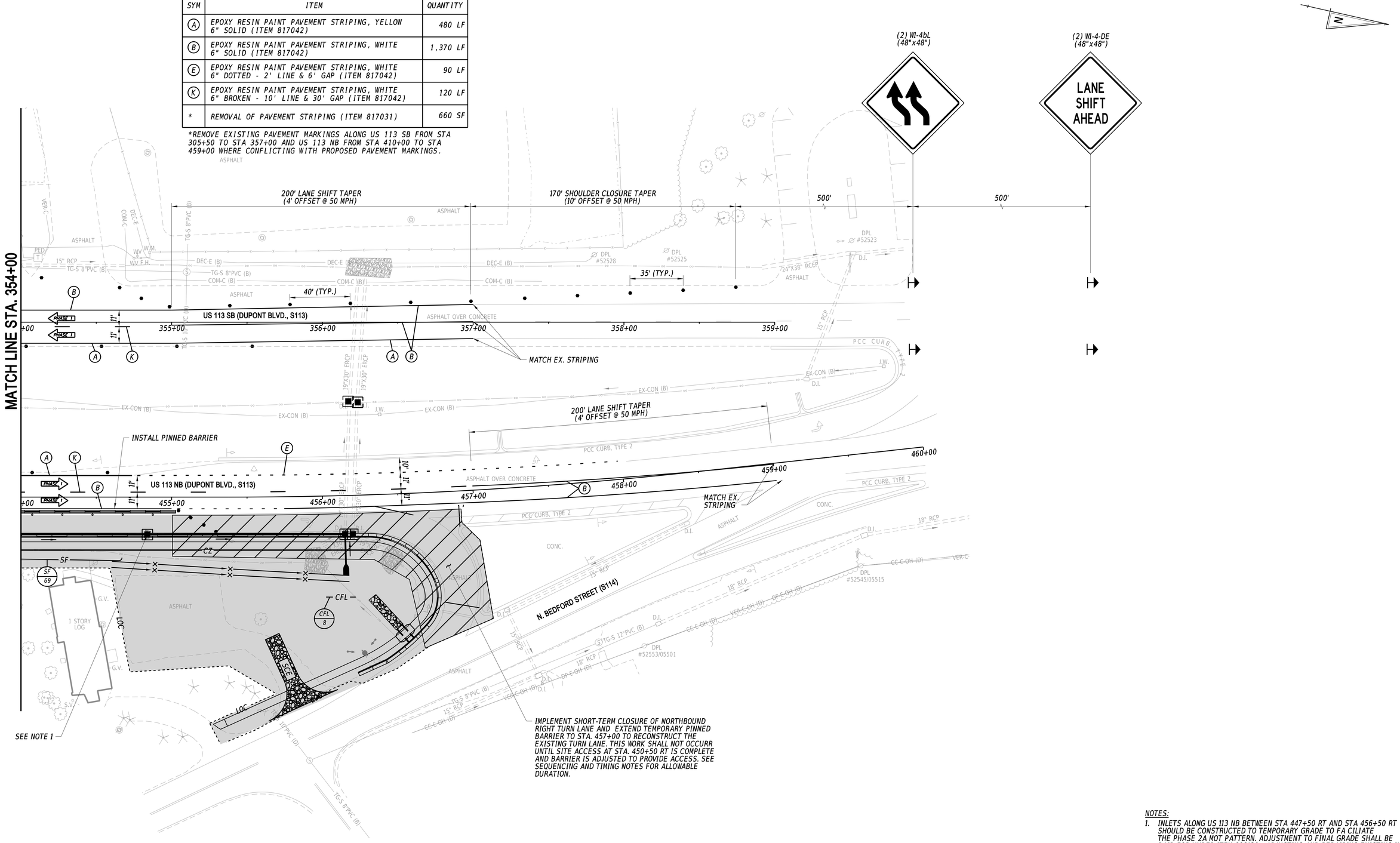
TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(A)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID (ITEM 817042)	480 LF
(B)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	1,370 LF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" DOTTED - 2' LINE & 6' GAP (ITEM 817042)	90 LF
(K)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" BROKEN - 10' LINE & 30' GAP (ITEM 817042)	120 LF
*	REMOVAL OF PAVEMENT STRIPING (ITEM 817031)	660 SF

*REMOVE EXISTING PAVEMENT MARKINGS ALONG US 113 SB FROM STA 305+50 TO STA 357+00 AND US 113 NB FROM STA 410+00 TO STA 459+00 WHERE CONFLICTING WITH PROPOSED PAVEMENT MARKINGS.



IMPLEMENT SHORT-TERM CLOSURE OF NORTHBOUND RIGHT TURN LANE AND EXTEND TEMPORARY PINNED BARRIER TO STA. 457+00 TO RECONSTRUCT THE EXISTING TURN LANE. THIS WORK SHALL NOT OCCURR UNTIL SITE ACCESS AT STA. 450+50 RT IS COMPLETE AND BARRIER IS ADJUSTED TO PROVIDE ACCESS. SEE SEQUENCING AND TIMING NOTES FOR ALLOWABLE DURATION.

NOTES:

1. INLETS ALONG US 113 NB BETWEEN STA 447+50 RT AND STA 456+50 RT SHOULD BE CONSTRUCTED TO TEMPORARY GRADE TO FA CILIATE THE PHASE 2A MOT PATTERN. ADJUSTMENT TO FINAL GRADE SHALL BE PAID FOR UNDER ITEM 602130 - ADJUSTING AND REPAIRING EXISTING INLET.

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION

CONTRACT	T201412701	BRIDGE NO.	N/A
COUNTY	SUSSEX	DESIGNED BY: D. WARING	
		CHECKED BY: K. CLEVENGER	

CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 1

SECTION
WRA
SHEET NO.
217

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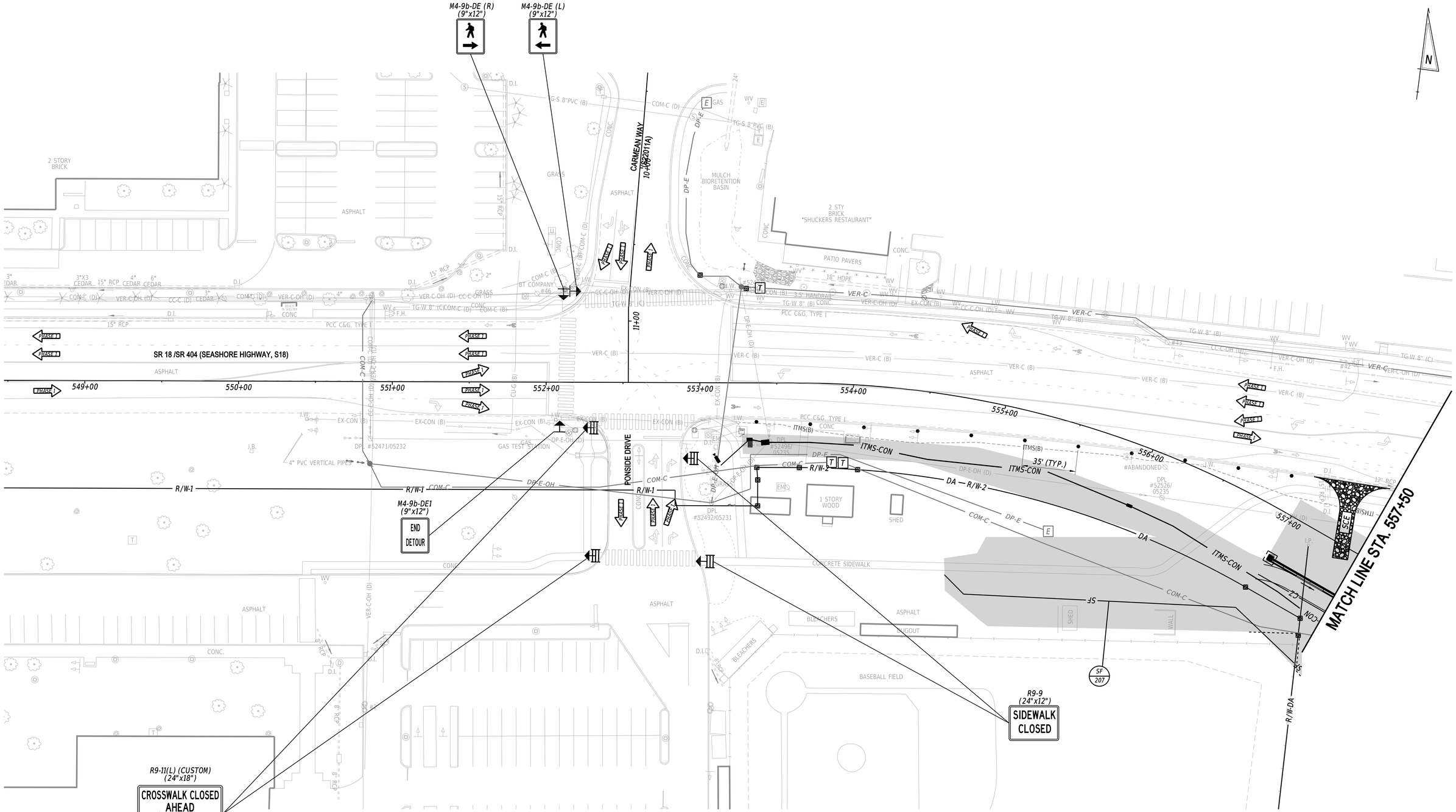

ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 1	SECTION WRA
				COUNTY SUSSEX	DESIGNED BY: D. WARING		SHEET NO. 218
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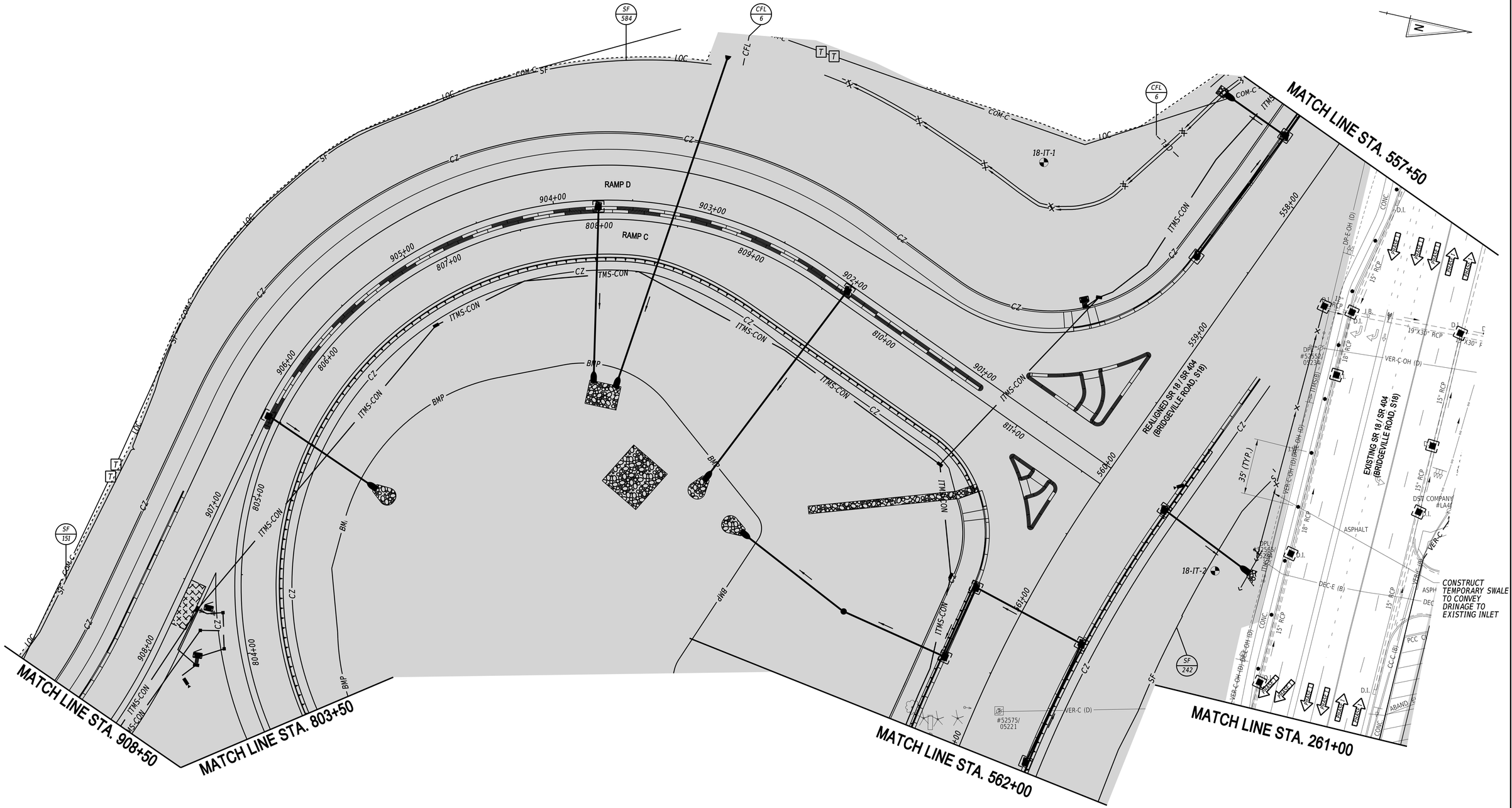

ADDENDA / REVISIONS		SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 1	SECTION
		0 30 60 90 FEET		T201412701			WRA
				COUNTY	DESIGNED BY: D. WARING		SHEET NO.
				SUSSEX	CHECKED BY: K. CLEVENGER		219

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MATCH LINE STA. 566+00

MATCH LINE STA. 603+50

MATCH LINE STA. 708+20

MATCH LINE STA. 571+00

R11-2 (48"x30")

ROAD CLOSED

REALIGNED SR 18 (SR 404) (BRIDGEVILLE ROAD, S18)

EXISTING SR 18 / SR 404 BRIDGEVILLE ROAD, S18)

GOFF DRIVE (S220417A)

GORDY STREET (S220418)

RAMP A

RAMP B

INSTALL TEMPORARY PEDESTRIAN PATH PER STANDARD CONSTRUCTION DETAIL M-13 (2021)

PRIOR TO COMMENCING EARTHWORK AND DISTURBING CROSSHATCHED AREA (RAMPS A & B), CONTRACTOR SHALL ENSURE US 113 WIDENING FROM STA 434+00 TO STA 457+00 IS STABILIZED AND APPROVED BY THE ENGINEER.

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO.	N/A
T201412701	DESIGNED BY: D. WARING	
COUNTY		
SUSSEX	CHECKED BY: K. CLEVENGER	

CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 1

SECTION
WRA
SHEET NO.
220

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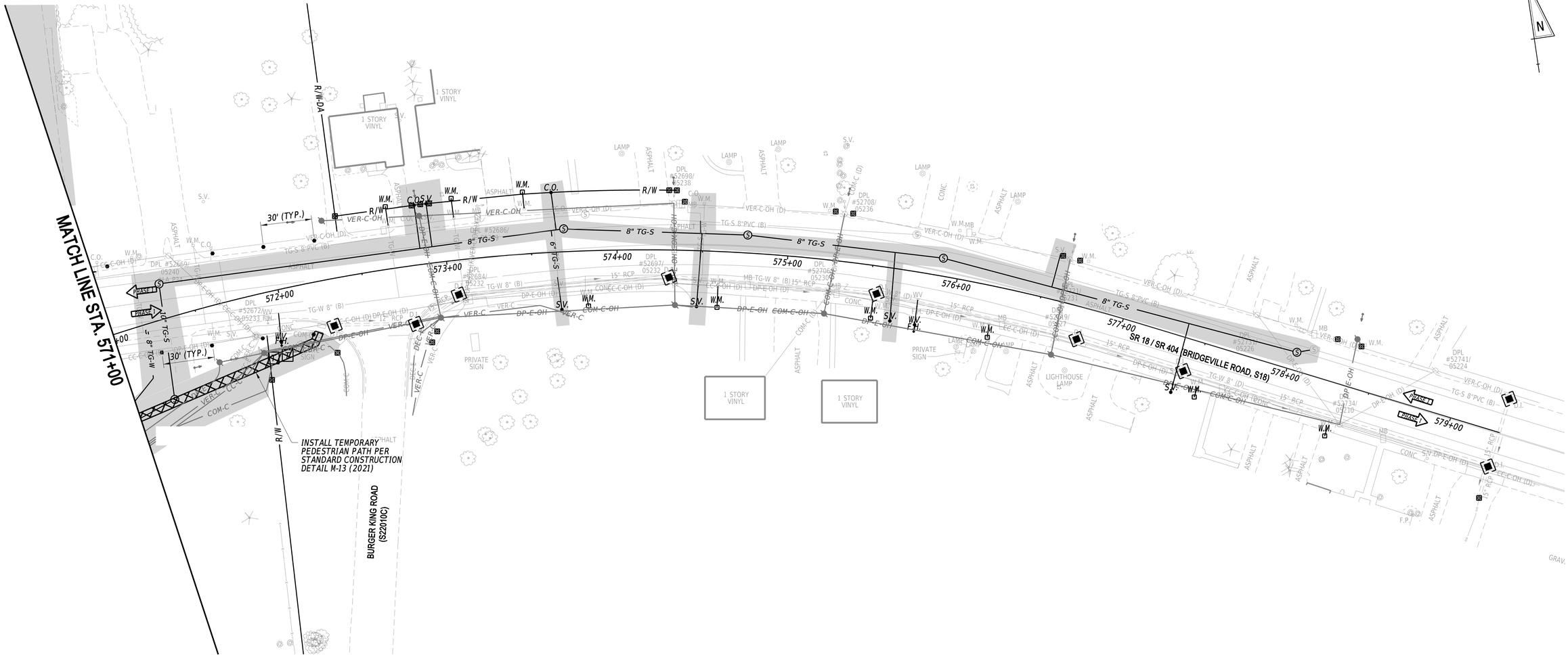
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				COUNTY SUSSEX	DESIGNED BY: D. WARING		SHEET NO. 221
					CHECKED BY: K. CLEVENGER		

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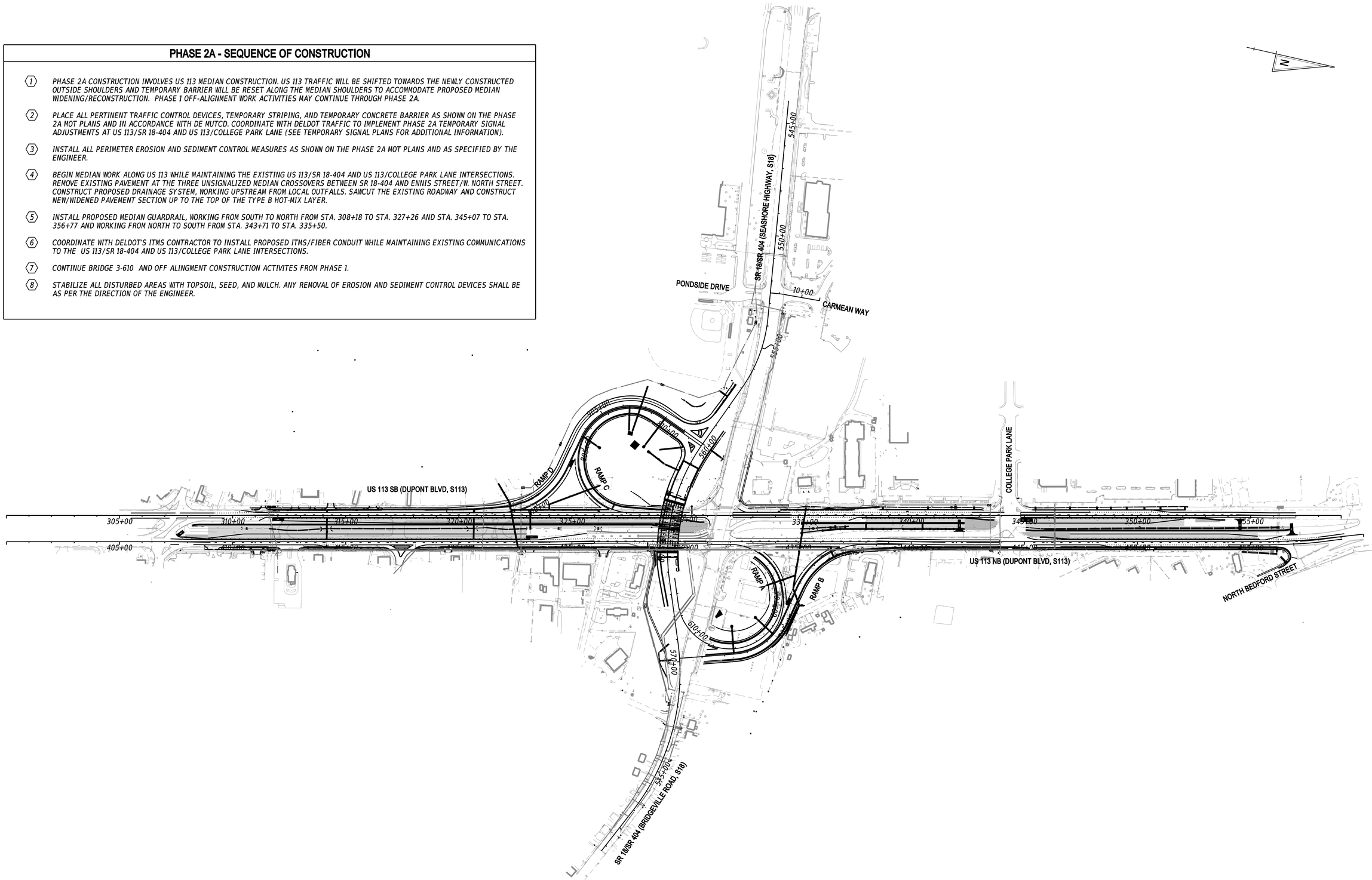
PHASE 2A - SEQUENCE OF CONSTRUCTION

1. PHASE 2A CONSTRUCTION INVOLVES US 113 MEDIAN CONSTRUCTION. US 113 TRAFFIC WILL BE SHIFTED TOWARDS THE NEWLY CONSTRUCTED OUTSIDE SHOULDERS AND TEMPORARY BARRIER WILL BE RESET ALONG THE MEDIAN SHOULDERS TO ACCOMMODATE PROPOSED MEDIAN WIDENING/RECONSTRUCTION. PHASE 1 OFF-ALIGNMENT WORK ACTIVITIES MAY CONTINUE THROUGH PHASE 2A.
2. PLACE ALL PERTINENT TRAFFIC CONTROL DEVICES, TEMPORARY STRIPING, AND TEMPORARY CONCRETE BARRIER AS SHOWN ON THE PHASE 2A MOT PLANS AND IN ACCORDANCE WITH DE MUTCD. COORDINATE WITH DELDOT TRAFFIC TO IMPLEMENT PHASE 2A TEMPORARY SIGNAL ADJUSTMENTS AT US 113/SR 18-404 AND US 113/COLLEGE PARK LANE (SEE TEMPORARY SIGNAL PLANS FOR ADDITIONAL INFORMATION).
3. INSTALL ALL PERIMETER EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN ON THE PHASE 2A MOT PLANS AND AS SPECIFIED BY THE ENGINEER.
4. BEGIN MEDIAN WORK ALONG US 113 WHILE MAINTAINING THE EXISTING US 113/SR 18-404 AND US 113/COLLEGE PARK LANE INTERSECTIONS. REMOVE EXISTING PAVEMENT AT THE THREE UNSIGNALIZED MEDIAN CROSSOVERS BETWEEN SR 18-404 AND ENNIS STREET/W. NORTH STREET. CONSTRUCT PROPOSED DRAINAGE SYSTEM, WORKING UPSTREAM FROM LOCAL OUTFALLS. SAWCUT THE EXISTING ROADWAY AND CONSTRUCT NEW/WIDENED PAVEMENT SECTION UP TO THE TOP OF THE TYPE B HOT-MIX LAYER.
5. INSTALL PROPOSED MEDIAN GUARDRAIL, WORKING FROM SOUTH TO NORTH FROM STA. 308+18 TO STA. 327+26 AND STA. 345+07 TO STA. 356+77 AND WORKING FROM NORTH TO SOUTH FROM STA. 343+71 TO STA. 335+50.
6. COORDINATE WITH DELDOT'S ITMS CONTRACTOR TO INSTALL PROPOSED ITMS/FIBER CONDUIT WHILE MAINTAINING EXISTING COMMUNICATIONS TO THE US 113/SR 18-404 AND US 113/COLLEGE PARK LANE INTERSECTIONS.
7. CONTINUE BRIDGE 3-610 AND OFF ALINGMENT CONSTRUCTION ACTIVITES FROM PHASE 1.
8. STABILIZE ALL DISTURBED AREAS WITH TOPSOIL, SEED, AND MULCH. ANY REMOVAL OF EROSION AND SEDIMENT CONTROL DEVICES SHALL BE AS PER THE DIRECTION OF THE ENGINEER.



ADDENDA / REVISIONS		SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 2A	SECTION
		0 200 400 600 FEET		T201412701	DESIGNED BY: D. WARING		WRA
				COUNTY			SHEET NO.
				SUSSEX	CHECKED BY: K. CLEVENGER		222

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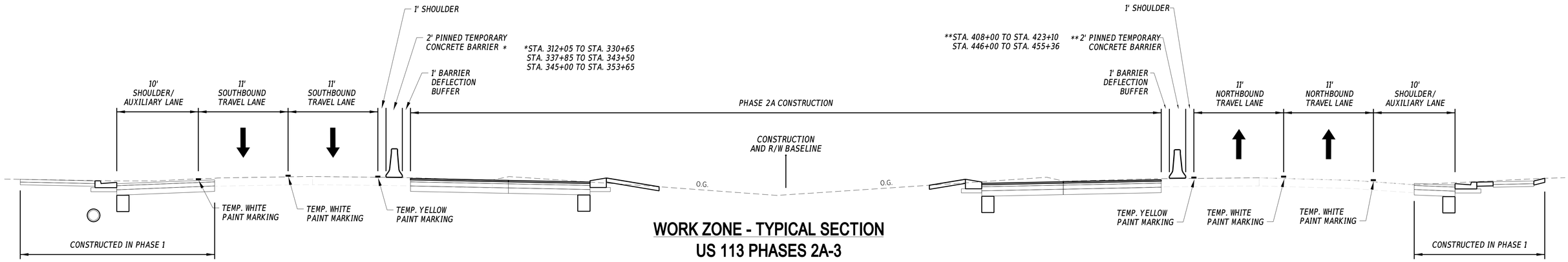

WORK ZONE - TYPICAL SECTION
US 113 PHASES 2A-3

NOT TO SCALE

STA. 409+00 TO STA. 455+36

8/13/2025
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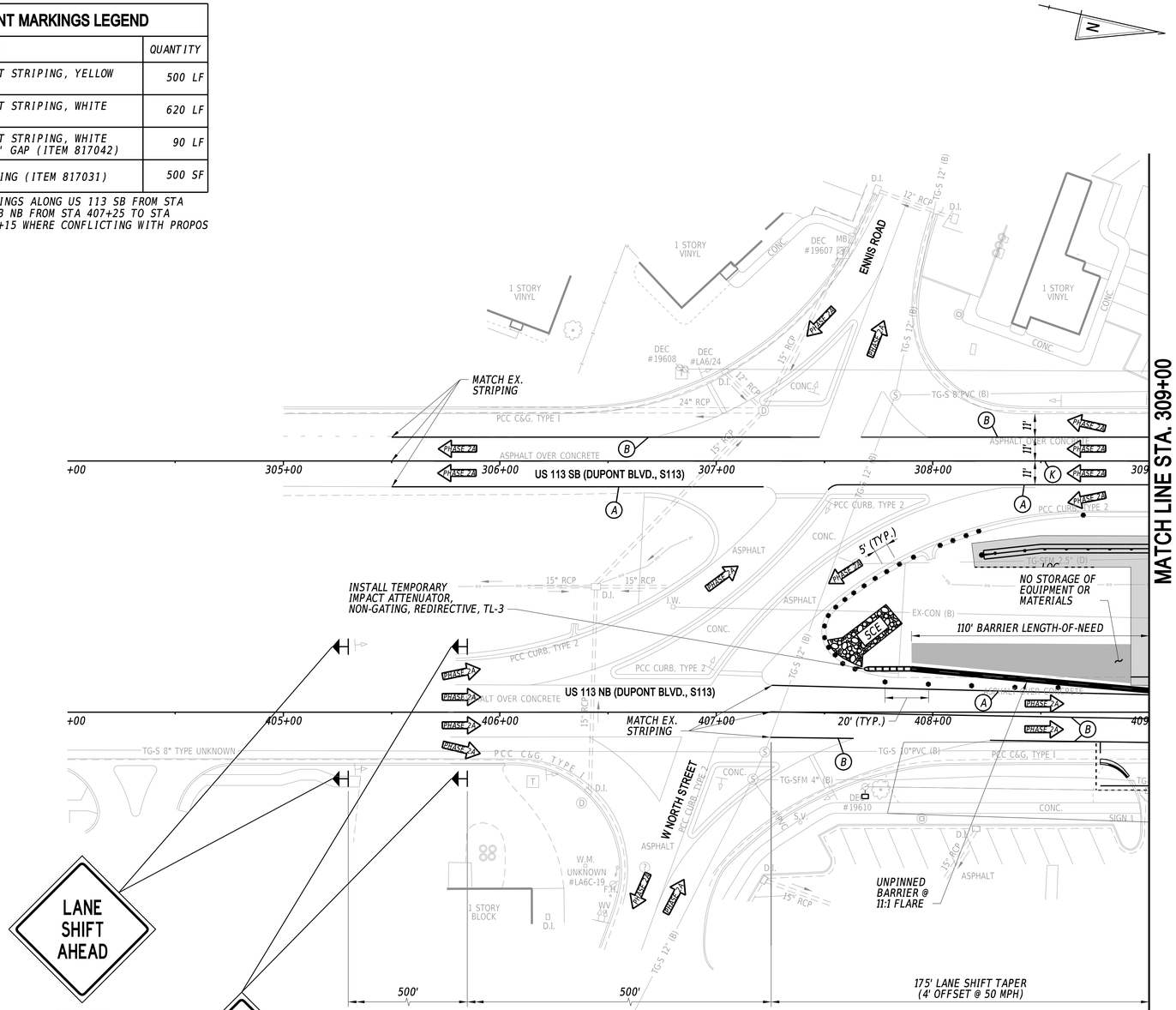
ADDENDA / REVISIONS		NOT TO SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 2A	SECTION
				T201412701			WRA
				COUNTY	DESIGNED BY: D. WARING		SHEET NO.
				SUSSEX	CHECKED BY: K. CLEVENGER		223

TEMPORARY PAVEMENT MARKINGS LEGEND		
SYM	ITEM	QUANTITY
(A)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID (ITEM 817042)	500 LF
(B)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	620 LF
(K)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" BROKEN - 10' LINE & 30' GAP (ITEM 817042)	90 LF
*	REMOVAL OF PAVEMENT STRIPING (ITEM 817031)	500 SF

*REMOVE EXISTING PAVEMENT MARKINGS ALONG US 113 SB FROM STA 305+50 TO STA 357+00 AND US 113 NB FROM STA 407+25 TO STA 426+00 & STA 438+00 TO STA 459+15 WHERE CONFLICTING WITH PROPOSED PAVEMENT MARKINGS.



ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 2A	SECTION WRA
				COUNTY SUSSEX	DESIGNED BY: D. WARING		SHEET NO. 224
					CHECKED BY: K. CLEVENGER		

8/13/2025
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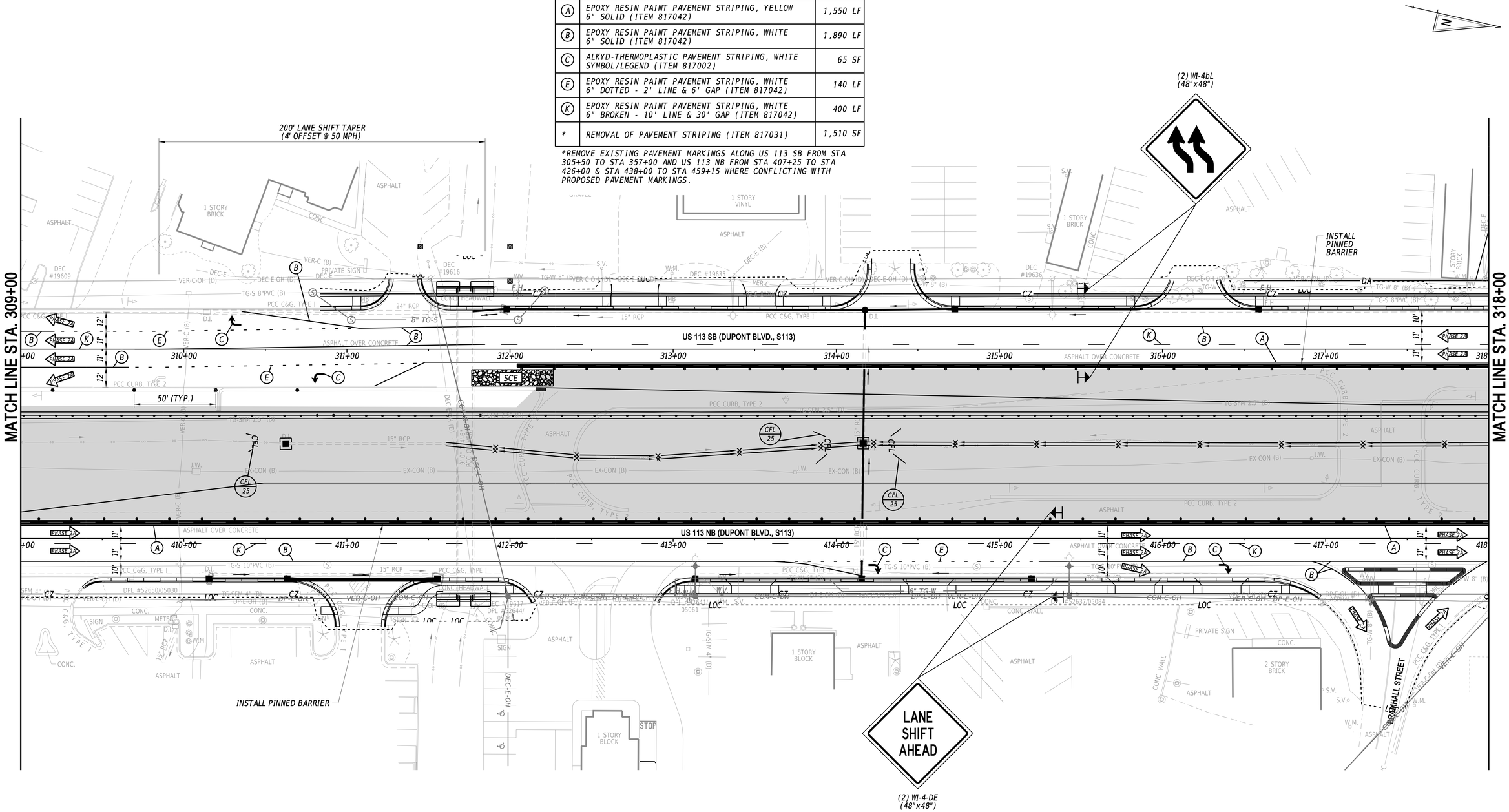
TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(A)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID (ITEM 817042)	1,550 LF
(B)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	1,890 LF
(C)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND (ITEM 817002)	65 SF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" DOTTED - 2' LINE & 6' GAP (ITEM 817042)	140 LF
(K)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" BROKEN - 10' LINE & 30' GAP (ITEM 817042)	400 LF
*	REMOVAL OF PAVEMENT STRIPING (ITEM 817031)	1,510 SF

*REMOVE EXISTING PAVEMENT MARKINGS ALONG US 113 SB FROM STA 305+50 TO STA 357+00 AND US 113 NB FROM STA 407+25 TO STA 426+00 & STA 438+00 TO STA 459+15 WHERE CONFLICTING WITH PROPOSED PAVEMENT MARKINGS.



ADDENDA / REVISIONS	SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 2A	SECTION
	0 30 60 90 FEET		T201412701	DESIGNED BY: D. WARING		WRA
			COUNTY SUSSEX	CHECKED BY: K. CLEVENGER		SHEET NO. 225

8/13/2025
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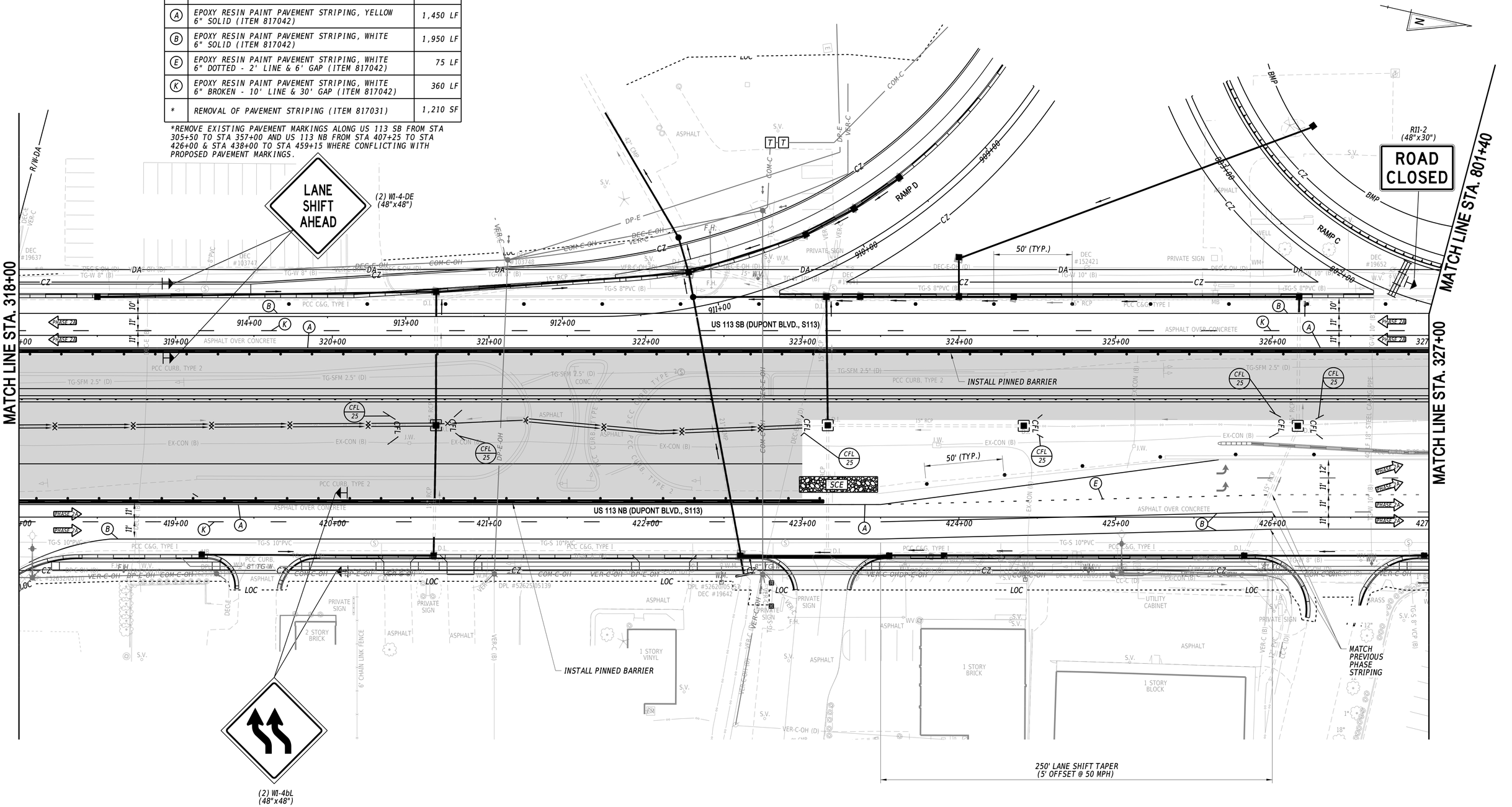
TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(A)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID (ITEM 817042)	1,450 LF
(B)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	1,950 LF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" DOTTED - 2' LINE & 6' GAP (ITEM 817042)	75 LF
(K)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" BROKEN - 10' LINE & 30' GAP (ITEM 817042)	360 LF
*	REMOVAL OF PAVEMENT STRIPING (ITEM 817031)	1,210 SF

*REMOVE EXISTING PAVEMENT MARKINGS ALONG US 113 SB FROM STA 305+50 TO STA 357+00 AND US 113 NB FROM STA 407+25 TO STA 426+00 & STA 438+00 TO STA 459+15 WHERE CONFLICTING WITH PROPOSED PAVEMENT MARKINGS.



ADDENDA / REVISIONS	SCALE		CONTRACT	BRIDGE NO. N/A	SECTION
	0 30 60 90 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	T201412701	DESIGNED BY: D. WARING	WRA
			COUNTY SUSSEX	CHECKED BY: K. CLEVENGER	SHEET NO. 226

CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 2A

8/13/2025
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TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(A)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID (ITEM 817042)	435 LF
(B)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	1,128 LF
(C)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND (ITEM 817002)	54 SF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" DOTTED - 2' LINE & 6' GAP (ITEM 817042)	56 LF
(J)	16" SOLID WHITE ALKYD THERMOPLASTIC PAVEMENT STRIPING (ITEM 817002)	30 SF
(K)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" BROKEN - 10' LINE & 30' GAP (ITEM 817042)	123 LF
*	REMOVAL OF PAVEMENT STRIPING (ITEM 817031)	625 SF

*REMOVE EXISTING PAVEMENT MARKINGS ALONG US 113 SB FROM STA 305+50 TO STA 357+00 AND US 113 NB FROM STA 407+25 TO STA 426+00 & STA 438+00 TO STA 459+15 WHERE CONFLICTING WITH PROPOSED PAVEMENT MARKINGS.

MATCH LINE STA. 801+40

MATCH LINE STA. 327+00

MATCH LINE STA. 335+75

INSTALL PINNED BARRIER

50' (TYP.)

NO STORAGE OF EQUIPMENT OR MATERIALS NORTH OF BRIDGE PIER

MAINTAIN PREVIOUS PHASE TRAFFIC CONTROL AND EROSION AND SEDIMENT CONTROL MEASURES

INSTALL TEMPORARY IMPACT ATTENUATOR, NON-GATING, REDIRECTIVE, TL-3

20' (TYP.)

MAINTAIN BARRIER FROM PHASE 2A

UNPINNED BARRIER @ 7:1 FLARE

EXISTING SR 18 / SR 404 (SEASHORE HIGHWAY, S18)

US 113 SB (DUPONT BLVD., S113)

US 113 NB (DUPONT BLVD., S113)

CONTRACTOR SHALL MAINTAIN LIGHTING OF US 113 CROSSWALKS VIA TEMPORARY LIGHT PLANTS

MAINTAIN EXISTING TRAFFIC SIGNAL AND ALL EXISTING LOOP DETECTORS (EXCPET US 113 NB/SB ADVANCED PASSAGE LOOPS) FOR DURATION OF PHASE 1 AND PHASE 2A CONSTRUCTION. SEE PHASE 2B TEMPORARY SIGNAL PLAN FOR ADDITIONAL INFORMATION.

EXISTING SR 18 / SR 404 (BRIDGEVILLE ROAD, S18)

MAINTAIN PREVIOUS PHASE TRAFFIC CONTROL AND EROSION AND SEDIMENT CONTROL MEASURES

MAINTAIN BARRIER FROM PHASE 2A

RAMP A

(2) W1-4bR (48"x48")

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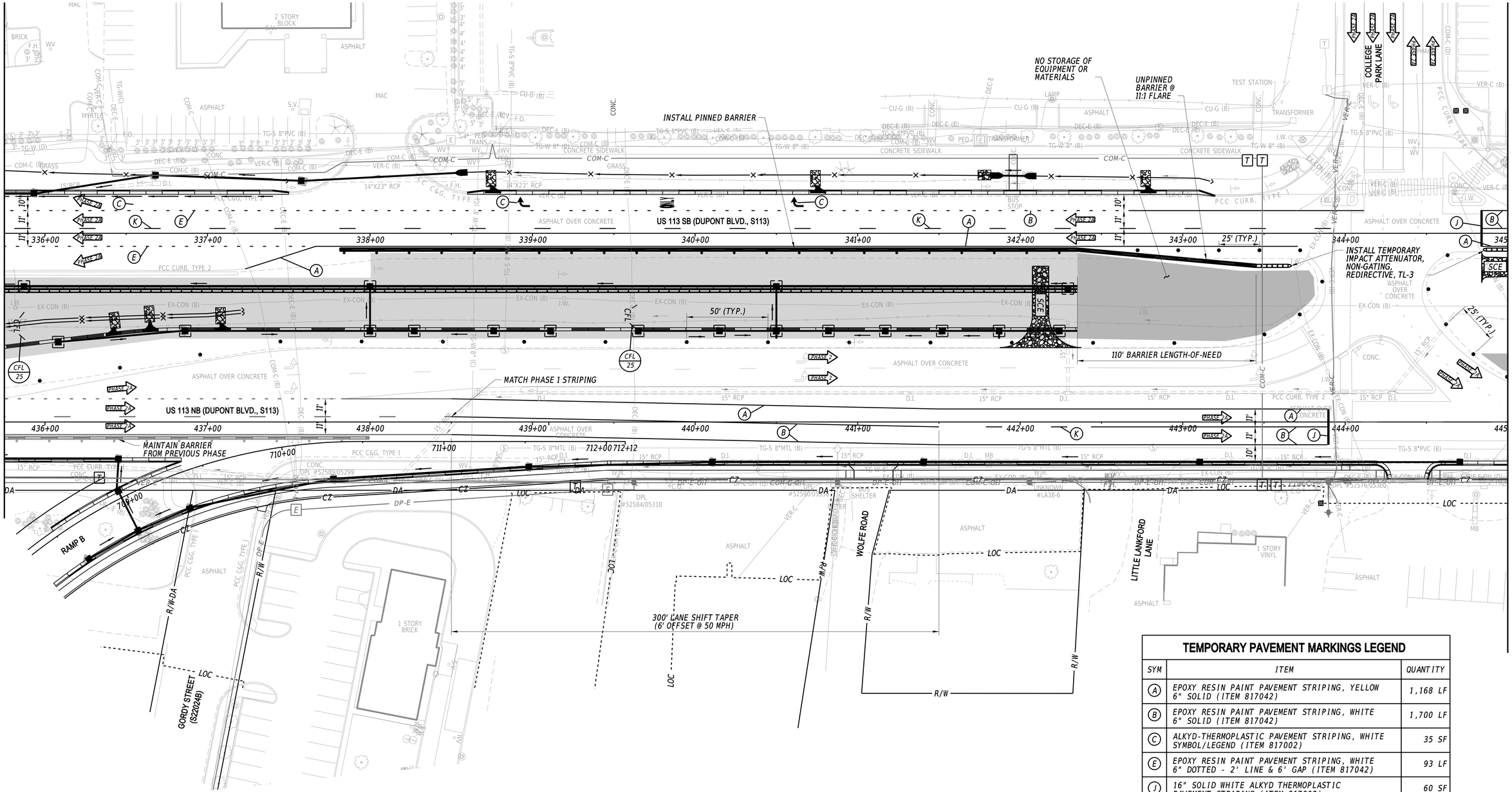
ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 2A	SECTION WRA
				COUNTY SUSSEX	DESIGNED BY: D. WARING		SHEET NO. 227
					CHECKED BY: K. CLEVENGER		



TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(A)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID (ITEM 817042)	1,168 LF
(B)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	1,700 LF
(C)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND (ITEM 817002)	35 SF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" DOTTED - 2' LINE & 6' GAP (ITEM 817042)	93 LF
(J)	16" SOLID WHITE ALKYD THERMOPLASTIC PAVEMENT STRIPING (ITEM 817002)	60 SF
(K)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" BROKEN - 10' LINE & 30' GAP (ITEM 817042)	230 LF
*	REMOVAL OF PAVEMENT STRIPING (ITEM 817031)	1,600 SF

*REMOVE EXISTING PAVEMENT MARKINGS ALONG US 113 SB FROM STA 305+50 TO STA 357+00 AND US 113 NB FROM STA 407+25 TO STA 426+00 & STA 438+00 TO STA 459+15 WHERE CONFLICTING WITH PROPOSED PAVEMENT MARKINGS.

ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO.	N/A
T201412701	DESIGNED BY: D. WARING	
COUNTY	CHECKED BY: K. CLEVENGER	
SUSSEX		

CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 2A

SECTION
WRA
SHEET NO.
228

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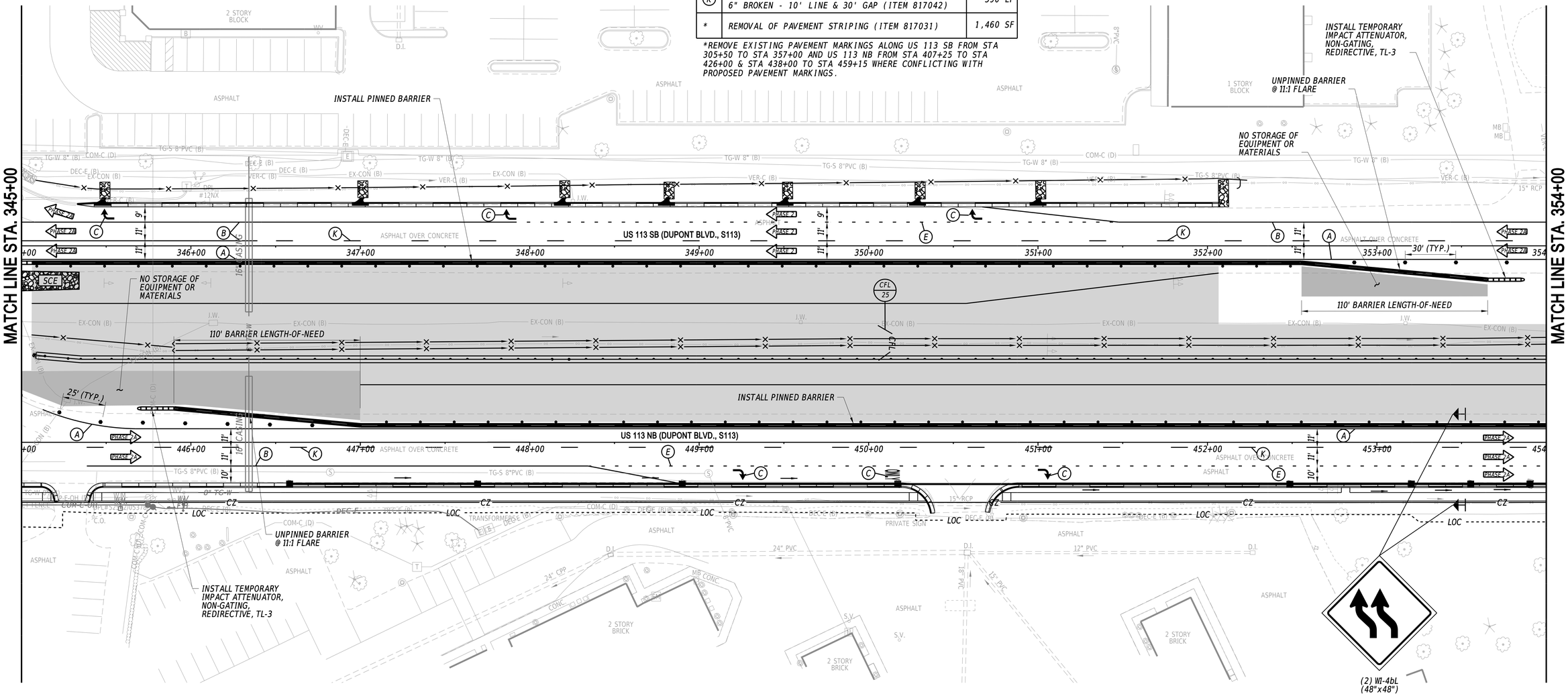
TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(A)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID (ITEM 817042)	1,790 LF
(B)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	1,120 LF
(C)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND (ITEM 817002)	100 SF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" DOTTED - 2' LINE & 6' GAP (ITEM 817042)	230 LF
(K)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" BROKEN - 10' LINE & 30' GAP (ITEM 817042)	390 LF
*	REMOVAL OF PAVEMENT STRIPING (ITEM 817031)	1,460 SF

*REMOVE EXISTING PAVEMENT MARKINGS ALONG US 113 SB FROM STA 305+50 TO STA 357+00 AND US 113 NB FROM STA 407+25 TO STA 426+00 & STA 438+00 TO STA 459+15 WHERE CONFLICTING WITH PROPOSED PAVEMENT MARKINGS.



ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 2A	SECTION WRA
				COUNTY SUSSEX	DESIGNED BY: D. WARING		SHEET NO. 229
					CHECKED BY: K. CLEVENGER		

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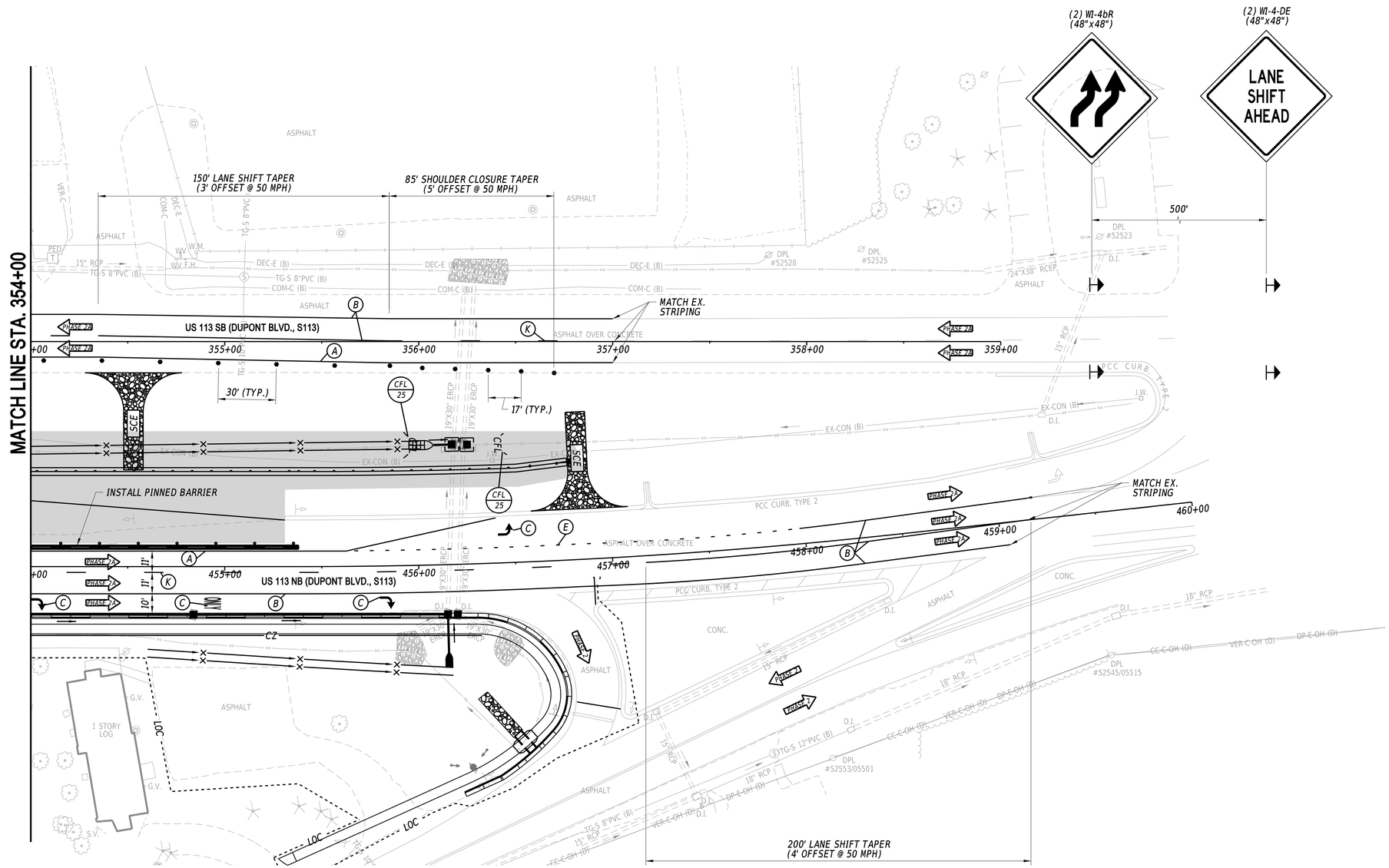

TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(A)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID (ITEM 817042)	540 LF
(B)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	1,290 LF
(C)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND (ITEM 817002)	60 SF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" DOTTED - 2' LINE & 6' GAP (ITEM 817042)	60 LF
(K)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" BROKEN - 10' LINE & 30' GAP (ITEM 817042)	110 LF
*	REMOVAL OF PAVEMENT STRIPING (ITEM 817031)	830 SF

*REMOVE EXISTING PAVEMENT MARKINGS ALONG US 113 SB FROM STA 305+50 TO STA 357+00 AND US 113 NB FROM STA 407+25 TO STA 426+00 & STA 438+00 TO STA 459+15 WHERE CONFLICTING WITH PROPOSED PAVEMENT MARKINGS.

ADDENDA / REVISIONS		SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 2A	SECTION
		0 30 60 90 FEET		T201412701	DESIGNED BY: D. WARING		WRA
				COUNTY	CHECKED BY: K. CLEVENGER		SHEET NO.
				SUSSEX			230

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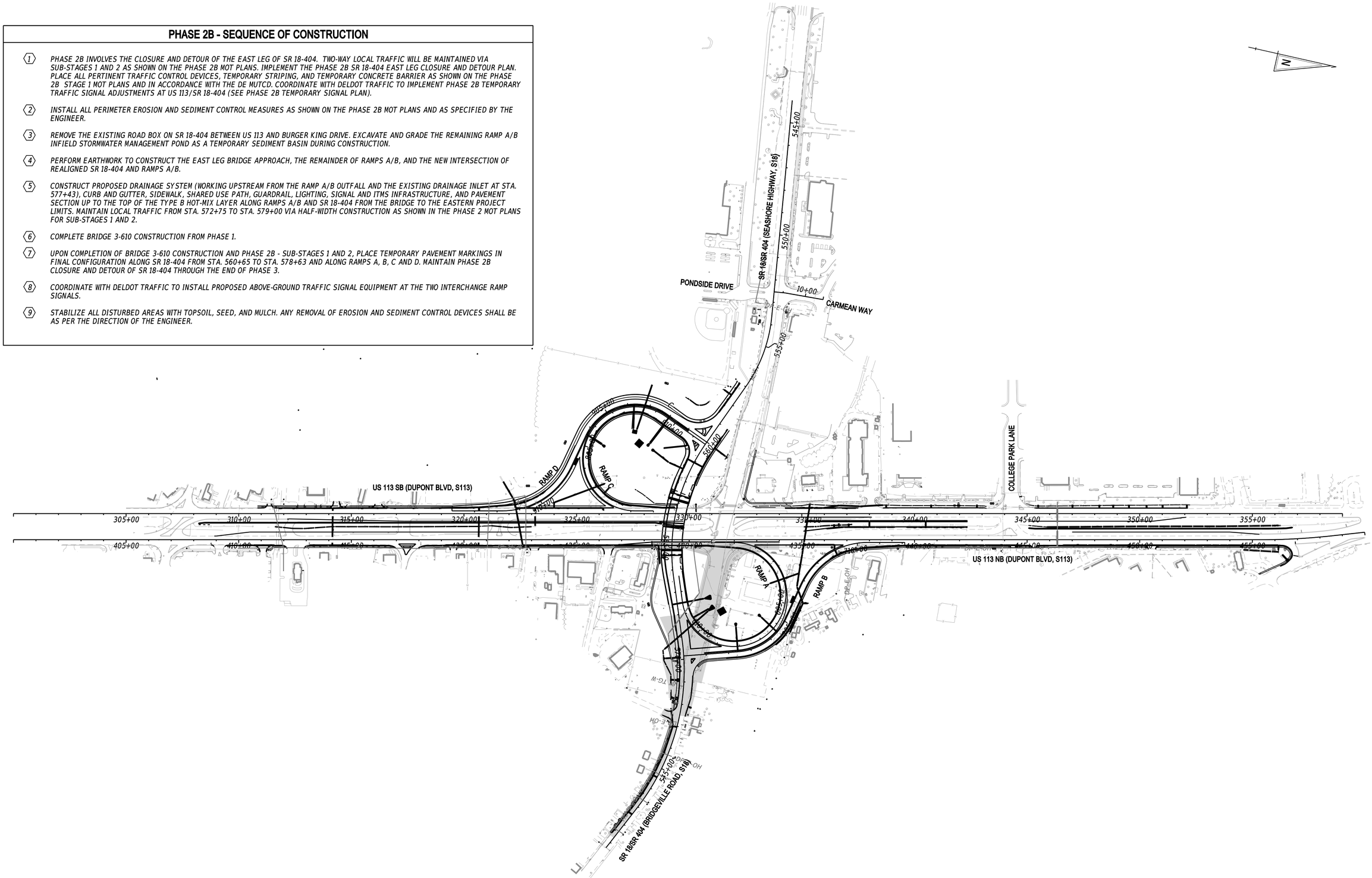
PHASE 2B - SEQUENCE OF CONSTRUCTION

1. PHASE 2B INVOLVES THE CLOSURE AND DETOUR OF THE EAST LEG OF SR 18-404. TWO-WAY LOCAL TRAFFIC WILL BE MAINTAINED VIA SUB-STAGES 1 AND 2 AS SHOWN ON THE PHASE 2B MOT PLANS. IMPLEMENT THE PHASE 2B SR 18-404 EAST LEG CLOSURE AND DETOUR PLAN. PLACE ALL PERTINENT TRAFFIC CONTROL DEVICES, TEMPORARY STRIPING, AND TEMPORARY CONCRETE BARRIER AS SHOWN ON THE PHASE 2B STAGE 1 MOT PLANS AND IN ACCORDANCE WITH THE DE MUTCD. COORDINATE WITH DELDOT TRAFFIC TO IMPLEMENT PHASE 2B TEMPORARY TRAFFIC SIGNAL ADJUSTMENTS AT US 113/SR 18-404 (SEE PHASE 2B TEMPORARY SIGNAL PLAN).
2. INSTALL ALL PERIMETER EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN ON THE PHASE 2B MOT PLANS AND AS SPECIFIED BY THE ENGINEER.
3. REMOVE THE EXISTING ROAD BOX ON SR 18-404 BETWEEN US 113 AND BURGER KING DRIVE. EXCAVATE AND GRADE THE REMAINING RAMP A/B INFIELD STORMWATER MANAGEMENT POND AS A TEMPORARY SEDIMENT BASIN DURING CONSTRUCTION.
4. PERFORM EARTHWORK TO CONSTRUCT THE EAST LEG BRIDGE APPROACH, THE REMAINDER OF RAMPS A/B, AND THE NEW INTERSECTION OF REALIGNED SR 18-404 AND RAMPS A/B.
5. CONSTRUCT PROPOSED DRAINAGE SYSTEM (WORKING UPSTREAM FROM THE RAMP A/B OUTFALL AND THE EXISTING DRAINAGE INLET AT STA. 577+43), CURB AND GUTTER, SIDEWALK, SHARED USE PATH, GUARDRAIL, LIGHTING, SIGNAL AND ITMS INFRASTRUCTURE, AND PAVEMENT SECTION UP TO THE TOP OF THE TYPE B HOT-MIX LAYER ALONG RAMPS A/B AND SR 18-404 FROM THE BRIDGE TO THE EASTERN PROJECT LIMITS. MAINTAIN LOCAL TRAFFIC FROM STA. 572+75 TO STA. 579+00 VIA HALF-WIDTH CONSTRUCTION AS SHOWN IN THE PHASE 2 MOT PLANS FOR SUB-STAGES 1 AND 2.
6. COMPLETE BRIDGE 3-610 CONSTRUCTION FROM PHASE 1.
7. UPON COMPLETION OF BRIDGE 3-610 CONSTRUCTION AND PHASE 2B - SUB-STAGES 1 AND 2, PLACE TEMPORARY PAVEMENT MARKINGS IN FINAL CONFIGURATION ALONG SR 18-404 FROM STA. 560+65 TO STA. 578+63 AND ALONG RAMPS A, B, C AND D. MAINTAIN PHASE 2B CLOSURE AND DETOUR OF SR 18-404 THROUGH THE END OF PHASE 3.
8. COORDINATE WITH DELDOT TRAFFIC TO INSTALL PROPOSED ABOVE-GROUND TRAFFIC SIGNAL EQUIPMENT AT THE TWO INTERCHANGE RAMP SIGNALS.
9. STABILIZE ALL DISTURBED AREAS WITH TOPSOIL, SEED, AND MULCH. ANY REMOVAL OF EROSION AND SEDIMENT CONTROL DEVICES SHALL BE AS PER THE DIRECTION OF THE ENGINEER.



ADDENDA / REVISIONS	SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 2B	SECTION
	0 200 400 600 FEET		T201412701	DESIGNED BY: D. WARING		WRA
			COUNTY SUSSEX	CHECKED BY: K. CLEVENGER		SHEET NO. 231

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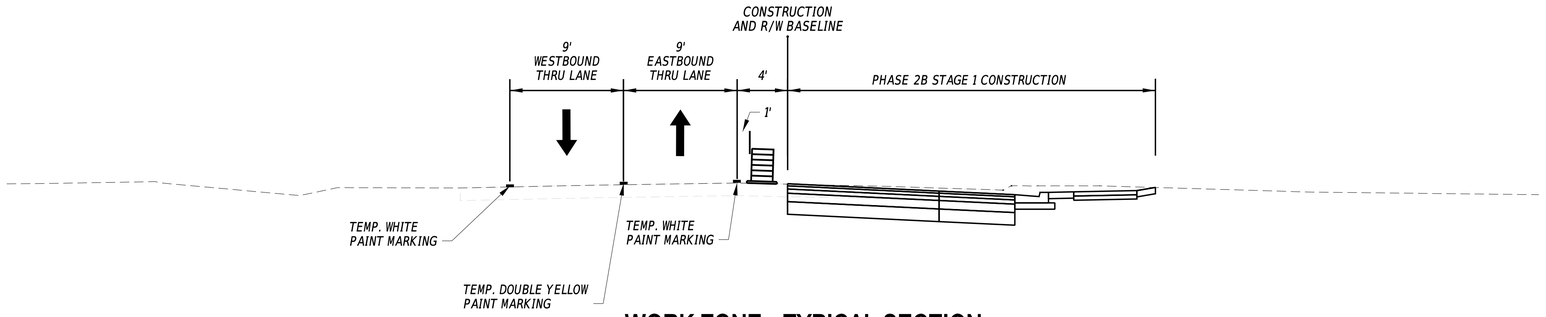
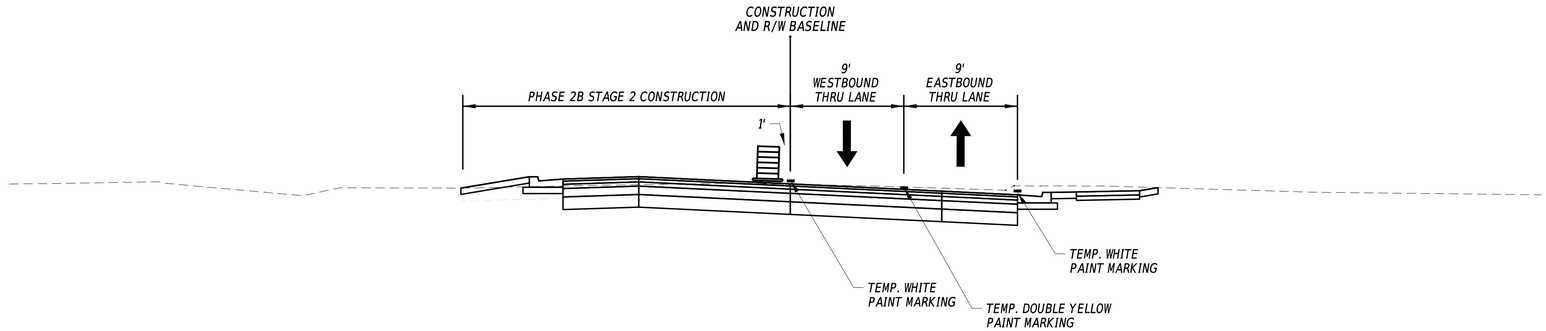


WORK ZONE - TYPICAL SECTION
SR 18/404 - PHASE 2B STAGE 1

NOT TO SCALE

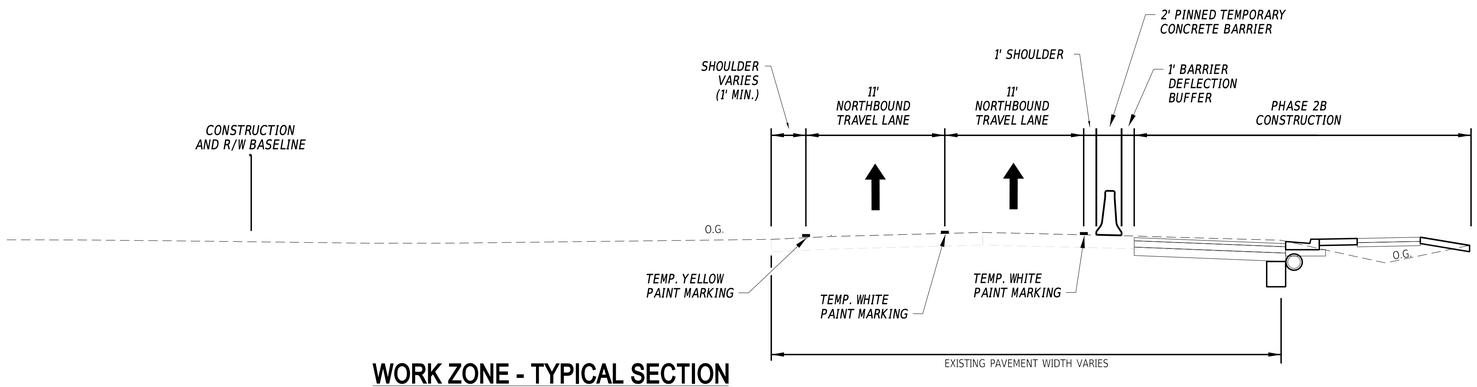
STA. 572+50 TO STA. 579+00



WORK ZONE - TYPICAL SECTION
SR 18/404 - PHASE 2B STAGE 2

NOT TO SCALE

STA. 572+50 TO STA. 579+00



WORK ZONE - TYPICAL SECTION
US 113 PHASE 2B

NOT TO SCALE

STA. 428+50 TO STA. 434+00

ADDENDA / REVISIONS		NOT TO SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 2B	SECTION
				T201412701	DESIGNED BY: D. WARING		WRA
				COUNTY	CHECKED BY: K. CLEVENGER		SHEET NO.
				SUSSEX			232

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TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(B)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	862 LF
(C)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND (ITEM 817002)	10 SF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" DOTTED - 2' LINE & 6' GAP (ITEM 817042)	56 LF
*	REMOVAL OF PAVEMENT STRIPING (ITEM 817031)	150 SF

*REMOVE EXISTING PAVEMENT MARKINGS ALONG US 113 SB FROM STA 332+50 TO STA 337+65 AND US 113 NB FROM STA 427+50 TO STA 432+70 WHERE CONFLICTING WITH PROPOSED PAVEMENT MARKINGS.

N

R3-27 (48"x48")

MAINTAIN TRAFFIC CONTROL FROM PHASE 1 ON THE WEST LEG OF SR 18/404

EXISTING SR 18 / SR 404 (SEASHORE HIGHWAY, S18)

EXISTING SR 18 / SR 404 (BRIDGEVILLE ROAD, S18)

US 113 SB (DUPONT BLVD., S113)

US 113 NB (DUPONT BLVD., S113)

MATCH LINE STA. 335+75

MATCH LINE STA. 566+00

MATCH LINE STA. 603+50

NO STORAGE OF EQUIPMENT OR MATERIALS NORTH OF BRIDGE PIER

MAINTAIN BARRIER FROM PREVIOUS PHASE

INSTALL TEMPORARY IMPACT ATTENUATOR, NON-GATING, REDIRECTIVE, TL-3

INSTALL PINNED BARRIER

MAINTAIN TEMPORARY PEDESTRIAN PATH WITH TYPE 2 PEDESTRIAN CHANNELIZING BARRICADES ON EACH SIDE

CONTRACTOR SHALL MAINTAIN LIGHTING OF US 113 CROSSWALKS VIA TEMPORARY LIGHT PLANTS

INSTALL UNPINNED BARRIER

INSTALL TEMPORARY IMPACT ATTENUATOR, NON-GATING, REDIRECTIVE, TL-3

INSTALL PINNED BARRIER

R3-2 (36"x36")

50' (TYP.)

UNPINNED BARRIER @ 11:1 FLARE

NO STORAGE OF EQUIPMENT OR MATERIALS (110' BARRIER LENGTH-OF-NEED)

END DETOUR
M4-9b-DE-1 (9"x12")

PROVIDE PEDESTRIAN FLAGGERS DURING ANY OVERHEAD CONSTRUCTION ACTIVITIES.

R3-1 (48"x48")

M4-9bR-DE (9"x12")

SIDEWALK CLOSED
R9-9 (36"X18")

M4-9bR-DE (9"x12")

ROAD CLOSED
R11-2 (48"x30")

(2) W1-4bR (48"x48")

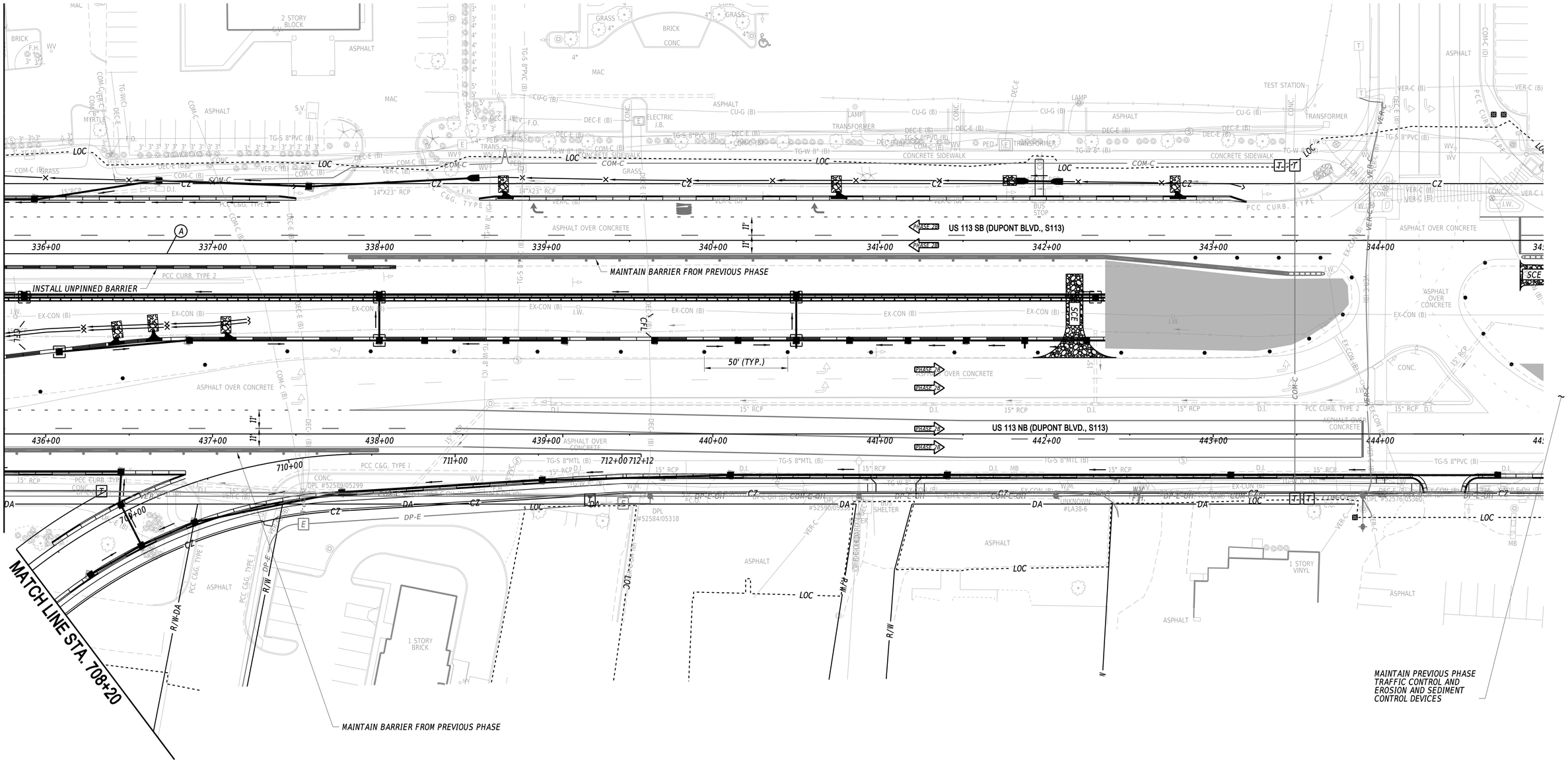
RAMP A

ADDENDA / REVISIONS	SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 2B	SECTION
	0 30 60 90 FEET		T201412701	DESIGNED BY: D. WARING		WRA
			COUNTY SUSSEX	CHECKED BY: K. CLEVENGER		SHEET NO. 233

8/13/2025 11:00:22 AM N:\32149-001\CADD\CS30_SR18_PHASE2B.dgn

TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(A)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID (ITEM 817042)	192 LF



ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 2B	SECTION WRA
				COUNTY SUSSEX	DESIGNED BY: D. WARING		SHEET NO. 234
					CHECKED BY: K. CLEVENGER		

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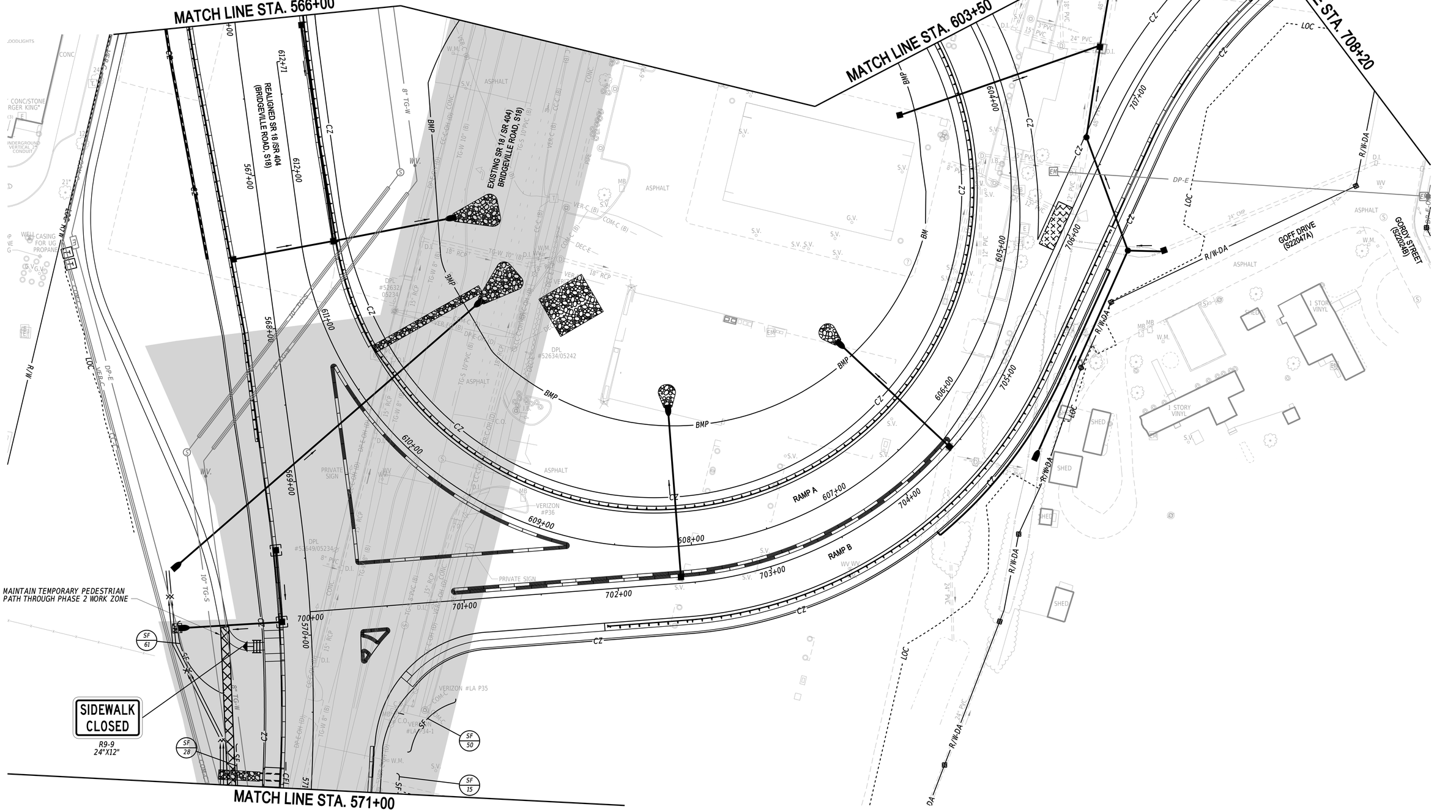

ADDENDA / REVISIONS		SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 2B	SECTION
		0 30 60 90 FEET		T201412701	DESIGNED BY: D. WARING		WRA
				COUNTY	CHECKED BY: K. CLEVENGER		SHEET NO.
				SUSSEX			235

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TEMPORARY PAVEMENT MARKINGS LEGEND		
SYM	ITEM	QUANTITY
(B)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	1,430 LF
(G)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID DOUBLE LINE (ITEM 817042)	1,440 LF
*	REMOVAL OF PAVEMENT STRIPING (ITEM 817031)	480 SF

*REMOVE EXISTING PAVEMENT MARKINGS ALONG SR 18/404 FROM STA 572+50 TO STA 579+50 WHERE CONFLICTING WITH PROPSOED PAVEMENT MARKINGS.

N

MATCH LINE STA. 571+00

(2) R11-2 (48"x30")
ROAD CLOSED

SR 18 / SR 404 (BRIDGEVILLE ROAD, S18)

572+00 573+00 574+00 575+00 576+00 577+00 578+00 579+00

30' (TYP.)

10' (TYP.)

END DETOUR
M4-9b-DE-1 (9"x12")

SIDEWALK CLOSED
R9-9 (36"x18")
M4-9bL-DE (9"x12")

MAINTAIN TEMPORARY PEDESTRIAN PATH THROUGH PHASE 2 WORK ZONE

MAINTAIN EXISTING PEDESTRIAN ACCESS ROUTE VIA TYPE 2 BARRICADES ON THE CLOSED SECTION OF ROADWAY WHILE RECONSTRUCTING SIDEWALK. PLACE BARRICADES ON BOTH SIDES OF TEMPORARY PATH AND PROVIDE 5' MINIMUM CLEAR WIDTH. UTILIZE TEMPORARY PEDESTRIAN CONNECTIONS TO TRANSITION BACK TO EXISTING SIDEWALK.

BURGER KING ROAD (S22010C)

R11-2 (48"x30")
ROAD CLOSED

W1-4R (48"x48")

W1-4-DE (48"x48")
LANE SHIFT AHEAD

105' LANE SHIFT TAPER (14' OFFSET @ 30 MPH)

100' 100'

MATCH EX. STRIPING

W1-4R (48"x48")

SEE SR 18/404 PHASE 2B DETOUR PLAN FOR ADDITIONAL SIGNAGE AND TRAFFIC CONTROL DEVICES

ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 2B - STAGE 1	SECTION WRA
				COUNTY SUSSEX	DESIGNED BY: D. WARING		SHEET NO. 236
					CHECKED BY: K. CLEVENGER		

8/13/2025
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TEMPORARY PAVEMENT MARKINGS LEGEND		
SYM	ITEM	QUANTITY
(B)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	660 LF
(G)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID DOUBLE LINE (ITEM 817042)	1,380 LF
*	REMOVAL OF PAVEMENT STRIPING (ITEM 817031)	280 SF

*REMOVE EXISTING PAVEMENT MARKINGS ALONG SR 18/404 FROM STA 572+50 TO STA 579+50 WHERE CONFLICTING WITH PROPSOED PAVEMENT MARKINGS.

N

MATCH LINE STA. 571+00

R11-2 (48"x30") ROAD CLOSED

R11-2 (48"x30") ROAD CLOSED

SR 18 / SR 404 (BRIDGEVILLE ROAD, S18)

572+00 573+00 574+00 575+00 576+00 577+00 578+00 579+00

MAINTAIN TEMPORARY PEDESTRIAN PATH THROUGH PHASE 2 WORK AREA

BURGER KING ROAD (S22010C)

R11-2 (48"x30") ROAD CLOSED

W1-4L (48"x48")

W1-4-DE (48"x48") LANE SHIFT AHEAD

105' LANE SHIFT TAPER (14' OFFSET @ 30 MPH)

W1-4L (48"x48")

MATCH EX. STRIPING

50' SHOULDER CLOSURE TAPER; PLACE 6 DRUMS AT 10' O.C. (10' OFFSET @ 30 MPH)

SEE SR 18/404 PHASE 2 DETOUR PLAN FOR ADDITIONAL SIGNAGE AND TRAFFIC CONTROL DEVICES

ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 2B - STAGE 2	SECTION WRA
				COUNTY SUSSEX	DESIGNED BY: D. WARING		SHEET NO. 237
					CHECKED BY: K. CLEVENGER		

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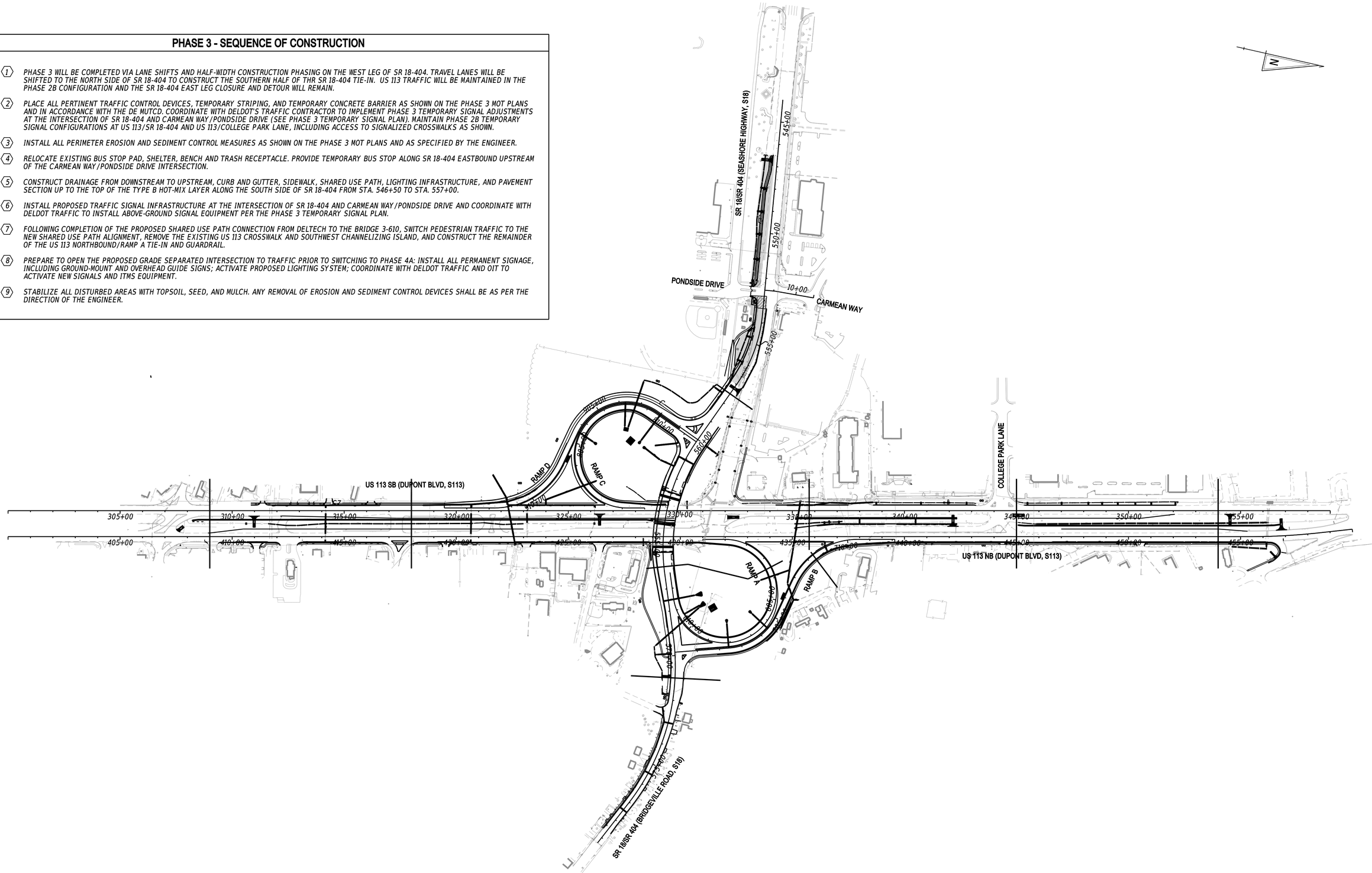
PHASE 3 - SEQUENCE OF CONSTRUCTION

1. PHASE 3 WILL BE COMPLETED VIA LANE SHIFTS AND HALF-WIDTH CONSTRUCTION PHASING ON THE WEST LEG OF SR 18-404. TRAVEL LANES WILL BE SHIFTED TO THE NORTH SIDE OF SR 18-404 TO CONSTRUCT THE SOUTHERN HALF OF THR SR 18-404 TIE-IN. US 113 TRAFFIC WILL BE MAINTAINED IN THE PHASE 2B CONFIGURATION AND THE SR 18-404 EAST LEG CLOSURE AND DETOUR WILL REMAIN.
2. PLACE ALL PERTINENT TRAFFIC CONTROL DEVICES, TEMPORARY STRIPING, AND TEMPORARY CONCRETE BARRIER AS SHOWN ON THE PHASE 3 MOT PLANS AND IN ACCORDANCE WITH THE DE MUTCD. COORDINATE WITH DELDOT'S TRAFFIC CONTRACTOR TO IMPLEMENT PHASE 3 TEMPORARY SIGNAL ADJUSTMENTS AT THE INTERSECTION OF SR 18-404 AND CARMEAN WAY/PONDSIDE DRIVE (SEE PHASE 3 TEMPORARY SIGNAL PLAN). MAINTAIN PHASE 2B TEMPORARY SIGNAL CONFIGURATIONS AT US 113/SR 18-404 AND US 113/COLLEGE PARK LANE, INCLUDING ACCESS TO SIGNALIZED CROSSWALKS AS SHOWN.
3. INSTALL ALL PERIMETER EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN ON THE PHASE 3 MOT PLANS AND AS SPECIFIED BY THE ENGINEER.
4. RELOCATE EXISTING BUS STOP PAD, SHELTER, BENCH AND TRASH RECEPTACLE. PROVIDE TEMPORARY BUS STOP ALONG SR 18-404 EASTBOUND UPSTREAM OF THE CARMEAN WAY/PONDSIDE DRIVE INTERSECTION.
5. CONSTRUCT DRAINAGE FROM DOWNSTREAM TO UPSTREAM, CURB AND GUTTER, SIDEWALK, SHARED USE PATH, LIGHTING INFRASTRUCTURE, AND PAVEMENT SECTION UP TO THE TOP OF THE TYPE B HOT-MIX LAYER ALONG THE SOUTH SIDE OF SR 18-404 FROM STA. 546+50 TO STA. 557+00.
6. INSTALL PROPOSED TRAFFIC SIGNAL INFRASTRUCTURE AT THE INTERSECTION OF SR 18-404 AND CARMEAN WAY/PONDSIDE DRIVE AND COORDINATE WITH DELDOT TRAFFIC TO INSTALL ABOVE-GROUND SIGNAL EQUIPMENT PER THE PHASE 3 TEMPORARY SIGNAL PLAN.
7. FOLLOWING COMPLETION OF THE PROPOSED SHARED USE PATH CONNECTION FROM DELTECH TO THE BRIDGE 3-610, SWITCH PEDESTRIAN TRAFFIC TO THE NEW SHARED USE PATH ALIGNMENT, REMOVE THE EXISTING US 113 CROSSWALK AND SOUTHWEST CHANNELIZING ISLAND, AND CONSTRUCT THE REMAINDER OF THE US 113 NORTHBOUND/RAMP A TIE-IN AND GUARDRAIL.
8. PREPARE TO OPEN THE PROPOSED GRADE SEPARATED INTERSECTION TO TRAFFIC PRIOR TO SWITCHING TO PHASE 4A: INSTALL ALL PERMANENT SIGNAGE, INCLUDING GROUND-MOUNT AND OVERHEAD GUIDE SIGNS; ACTIVATE PROPOSED LIGHTING SYSTEM; COORDINATE WITH DELDOT TRAFFIC AND OIT TO ACTIVATE NEW SIGNALS AND ITMS EQUIPMENT.
9. STABILIZE ALL DISTURBED AREAS WITH TOPSOIL, SEED, AND MULCH. ANY REMOVAL OF EROSION AND SEDIMENT CONTROL DEVICES SHALL BE AS PER THE DIRECTION OF THE ENGINEER.



ADDENDA / REVISIONS	SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 3	SECTION
	0 200 400 600 FEET		T201412701	DESIGNED BY: D. WARING		WRA
			COUNTY			SHEET NO.
			SUSSEX	CHECKED BY: K. CLEVENGER		238

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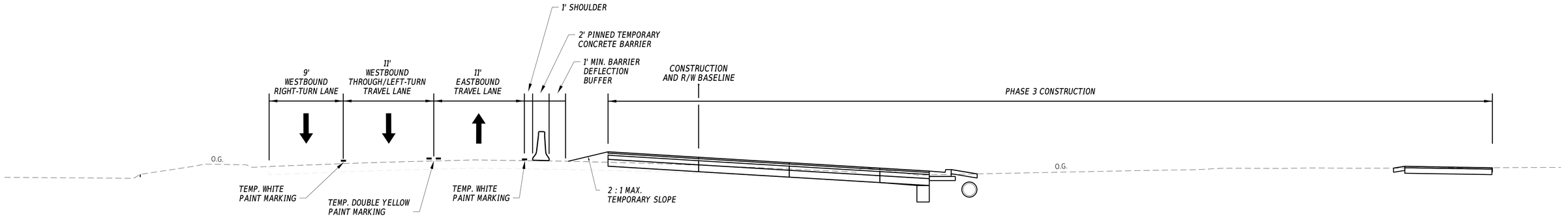

WORK ZONE - TYPICAL SECTION
SR 18/404 - PHASE 3

NOT TO SCALE

STA. 553+50 TO STA. 557+00

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ADDENDA / REVISIONS		NOT TO SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 3	SECTION
				T201412701			WRA
				COUNTY	DESIGNED BY: D. WARING		SHEET NO.
				SUSSEX	CHECKED BY: K. CLEVENGER		239

MATCH LINE STA. 562+00

MATCH LINE STA. 261+00

R9-11a-R (24"x12")
SIDEWALK CLOSED
CROSS HERE

R3-27 (48"x48")

W4-2L (48"x48")

R3-2 (48"x48")

EXISTING SR 18 / SR 404 (SEASHORE HIGHWAY, S18)

NO STORAGE OF EQUIPMENT OR MATERIALS NORTH OF BRIDGE PIER

MAINTAIN BARRIER FROM PHASE 2B

MAINTAIN BARRIER FROM PHASE 2A

CONTRACTOR SHALL MAINTAIN LIGHTING OF US 113 CROSSWALKS VIA TEMPORARY LIGHT PLANTS

US 113 SB (DUPONT BLVD., S113)

US 113 NB (DUPONT BLVD., S113)

MAINTAIN TEMPORARY PEDESTRIAN PATH WITH TYPE 2 PEDESTRIAN CHANNELIZING BARRICADES ALONG EACH SIDE

NO STORAGE OF EQUIPMENT OR MATERIALS

EXISTING SR 18 / SR 404 (BRIDGEVILLE ROAD, S18)

ROAD CLOSED
R11-2 (48"x30")

END DETOUR
M4-9b-DE-1 (9"x12")

M4-9bR-DE (9"x12")

SIDEWALK CLOSED
R9-9 (36"X18")

M4-9bR-DE (9"x12")

R3-1 (48"x48")

MATCHLINE STA. 571+00

RAMP A

TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
Ⓒ	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND (ITEM 817002)	41 SF
Ⓔ	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" DOTTED - 2' LINE & 6' GAP (ITEM 817042)	25 LF
*	REMOVAL OF PAVEMENT STRIPING (ITEM 817031)	13 SF

*REMOVE EXISTING PAVEMENT MARKINGS ALONG EXISTING SR 18/404 FROM STA 545+50 TO STA 562+00 WHERE CONFLICTING WITH PROPSOED PAVEMENT MARKINGS.

ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO.	N/A
T201412701	DESIGNED BY:	D. WARING
COUNTY	CHECKED BY:	K. CLEVENGER
SUSSEX		

CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 3

SECTION
WRA
SHEET NO.
240

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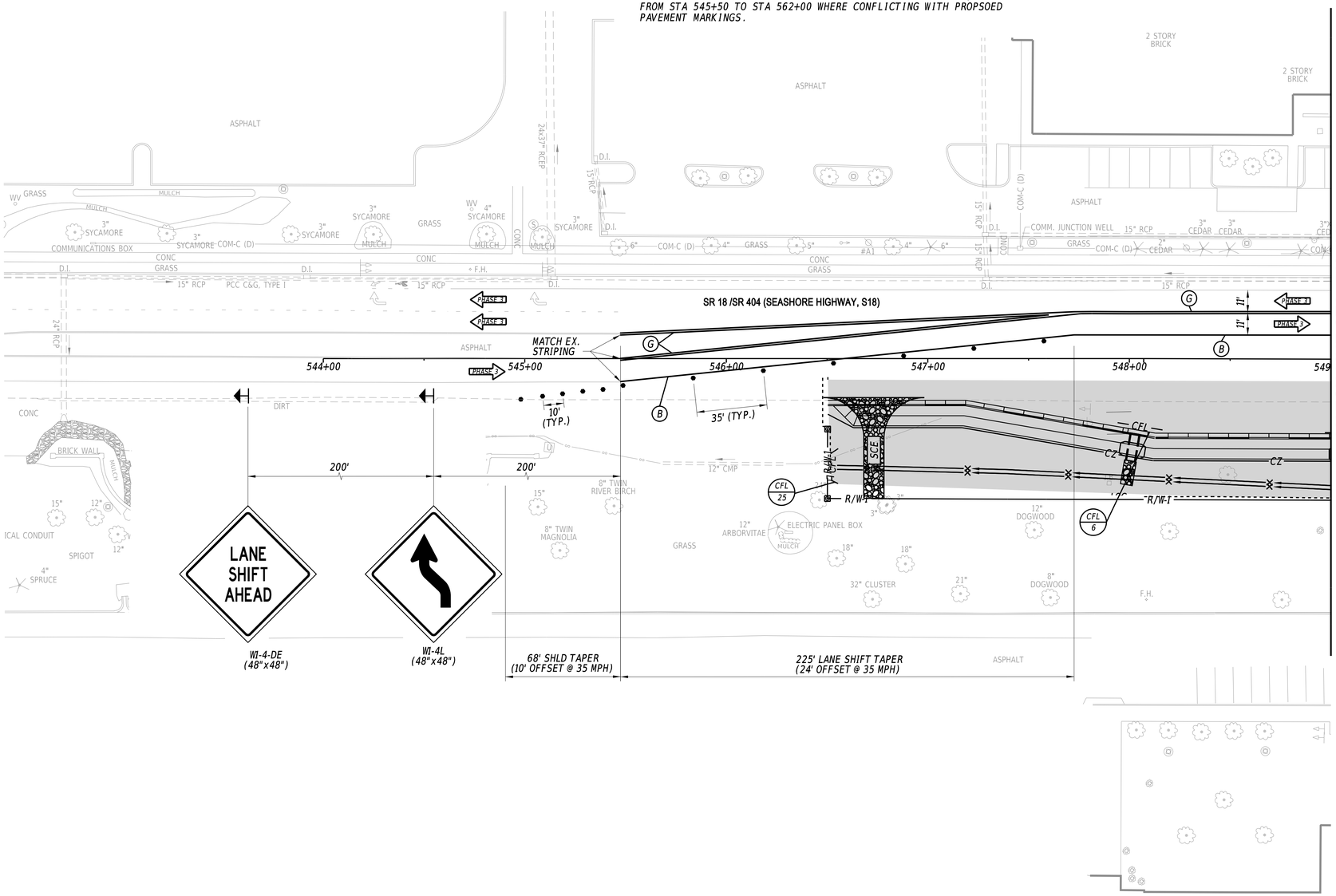
TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(B)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	350 LF
(G)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID DOUBLE LINE (ITEM 817042)	1,160 LF
*	REMOVAL OF PAVEMENT STRIPING (ITEM 817031)	280 SF

*REMOVE EXISTING PAVEMENT MARKINGS ALONG EXISTING SR 18/404 FROM STA 545+50 TO STA 562+00 WHERE CONFLICTING WITH PROPSOED PAVEMENT MARKINGS.



ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 3	SECTION WRA
				COUNTY SUSSEX	DESIGNED BY: D. WARING		SHEET NO. 241
					CHECKED BY: K. CLEVENGER		

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NOTES:

1. *THE CONTRACTOR SHALL COORDINATE WITH THE DELAWARE TRANSIT CORPORATION (DTC) TO MAINTAIN THE EXISTING EASTBOUND BUS STOP OR A TEMPORARY BUS STOP UPSTREAM OF THE CARMEAN WAY/PONDSIDE DRIVE INTERSECTION AT ALL TIMES DURING CONSTRUCTION.*

TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(B)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	1031 LF
(C)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND (ITEM 817002)	90 SF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" DOTTED - 2' LINE & 6' GAP (ITEM 817042)	557 LF
(G)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID DOUBLE LINE (ITEM 817042)	1,900 LF
(J)	16" SOLID WHITE ALKYD THERMOPLASTIC PAVEMENT STRIPING (ITEM 817002)	60 SF
(N)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" DOUBLE DOTTED - 2' LINE & 6' GAP (ITEM 817042)	542 LF
*	REMOVAL OF PAVEMENT STRIPING (ITEM 817031)	1,530 SF

**REMOVE EXISTING PAVEMENT MARKINGS ALONG EXISTING SR 18/404 FROM STA 545+50 TO STA 562+00 WHERE CONFLICTING WITH PROPSOED PAVEMENT MARKINGS.*

MATCH LINE STA. 549+00

SR 18 /SR 404 (SEASHORE HIGHWAY, S18)

PONDSIDE DRIVE

CARMEAN WAY (S22011A)

INSTALL TEMPORARY IMPACT ATTENUATOR, NON-GATING, REDIRECTIVE, TL-3

INSTALL PINNED BARRIER

SEE NOTE 1

TEMPORARY PEDESTRIAN PATHWAY TO SERVICE TEMPORARY DART BUS STOP.

SIDEWALK CLOSED
R9-9 (24"x12")

SIDEWALK CLOSED AHEAD
CROSS HERE
R9-11L (18"x12")

SIDEWALK CLOSED
R9-9 (24"x12")

ROAD CLOSED
R11-2 (48"x30")

MATCH LINE STA. 557+50

ADDENDA / REVISIONS	SCALE	CONTRACT	BRIDGE NO. N/A	SECTION
	0 30 60 90 FEET	T201412701	DESIGNED BY: D. WARING	WRA
	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	COUNTY SUSSEX	CHECKED BY: K. CLEVENGER	SHEET NO. 242
			CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 3	

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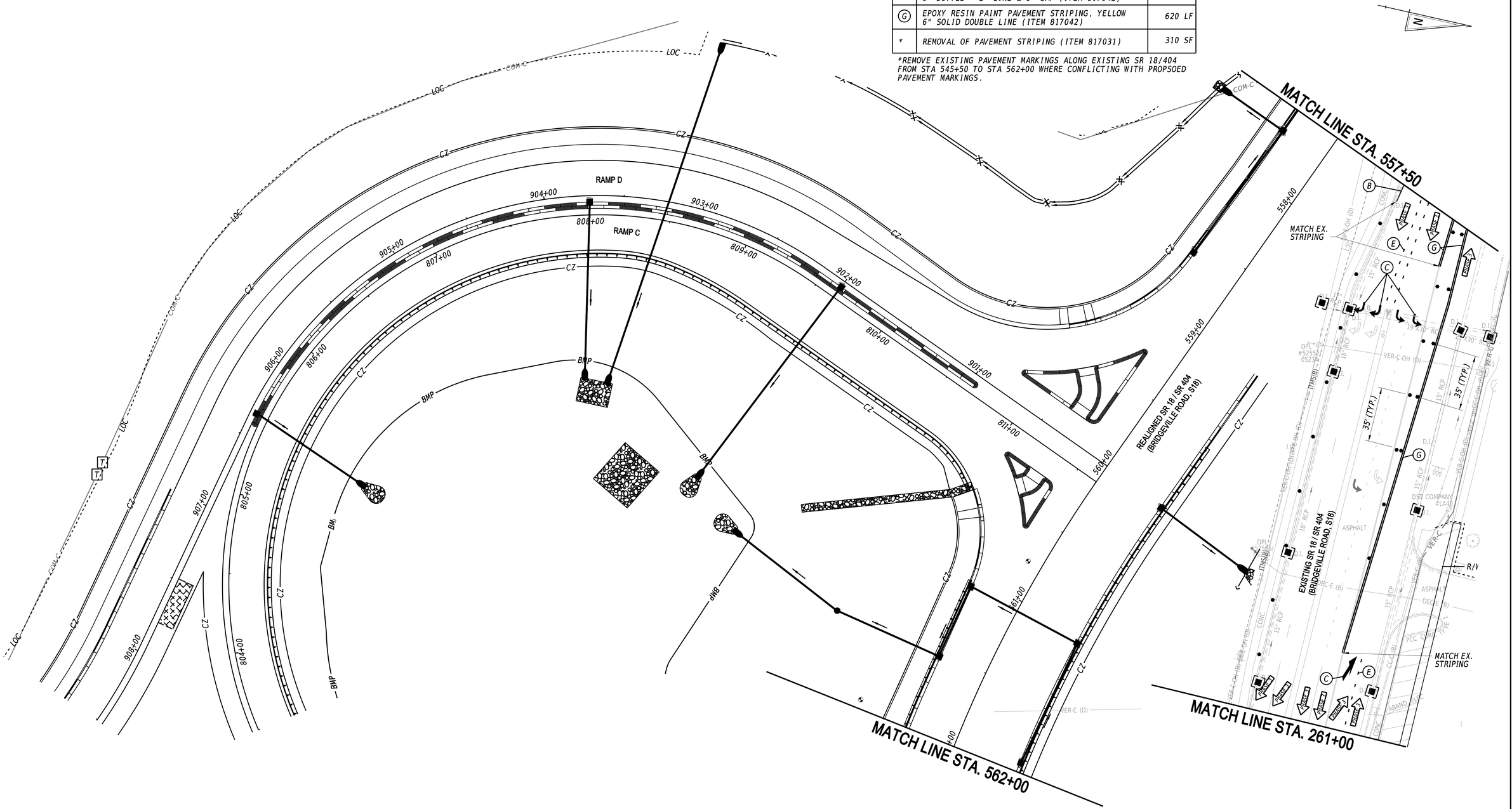
TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(B)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	10 LF
(C)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND (ITEM 817002)	103 SF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" DOTTED - 2' LINE & 6' GAP (ITEM 817042)	50 LF
(G)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID DOUBLE LINE (ITEM 817042)	620 LF
*	REMOVAL OF PAVEMENT STRIPING (ITEM 817031)	310 SF

*REMOVE EXISTING PAVEMENT MARKINGS ALONG EXISTING SR 18/404 FROM STA 545+50 TO STA 562+00 WHERE CONFLICTING WITH PROPSOED PAVEMENT MARKINGS.



ADDENDA / REVISIONS	SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 3	SECTION
	0 30 60 90 FEET		T201412701	DESIGNED BY: D. WARING		WRA
			COUNTY SUSSEX	CHECKED BY: K. CLEVENGER		SHEET NO. 243

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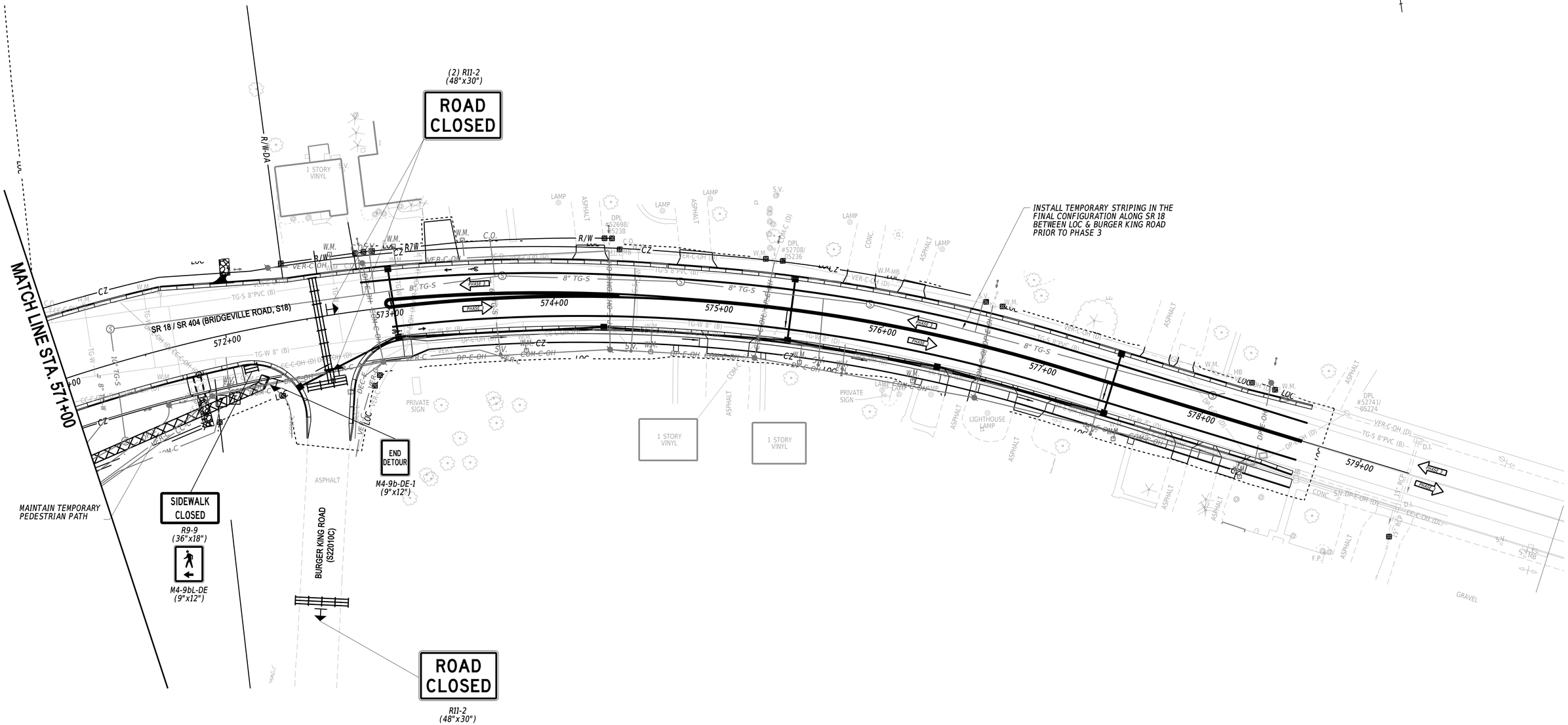
TEMPORARY PAVEMENT MARKINGS LEGEND		
SYM	ITEM	QUANTITY
*	REMOVAL OF PAVEMENT STRIPING (ITEM 817031)	1020 SF

*REMOVE EXISTING PAVEMENT MARKINGS ALONG SR 18/404 FROM STA 545+50 TO STA 562+00 WHERE CONFLICTING WITH PROPSOED PAVEMENT MARKINGS.



ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 3	SECTION WRA
				COUNTY SUSSEX	DESIGNED BY: D. WARING		SHEET NO. 244
					CHECKED BY: K. CLEVENGER		

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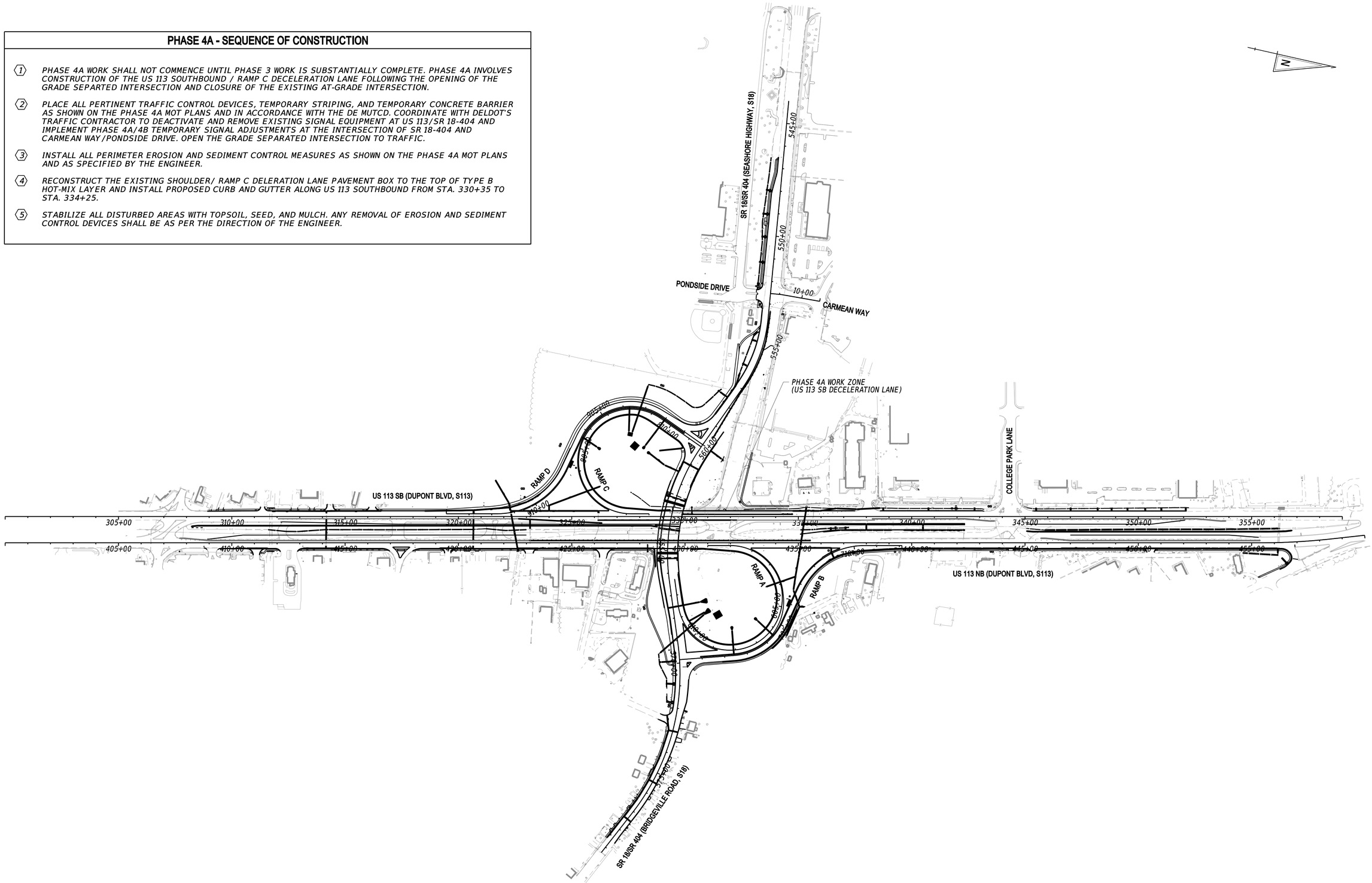
PHASE 4A - SEQUENCE OF CONSTRUCTION

1. *PHASE 4A WORK SHALL NOT COMMENCE UNTIL PHASE 3 WORK IS SUBSTANTIALLY COMPLETE. PHASE 4A INVOLVES CONSTRUCTION OF THE US 113 SOUTHBOUND / RAMP C DECELERATION LANE FOLLOWING THE OPENING OF THE GRADE SEPARATED INTERSECTION AND CLOSURE OF THE EXISTING AT-GRADE INTERSECTION.*
2. *PLACE ALL PERTINENT TRAFFIC CONTROL DEVICES, TEMPORARY STRIPING, AND TEMPORARY CONCRETE BARRIER AS SHOWN ON THE PHASE 4A MOT PLANS AND IN ACCORDANCE WITH THE DE MUTCD. COORDINATE WITH DELDOT'S TRAFFIC CONTRACTOR TO DEACTIVATE AND REMOVE EXISTING SIGNAL EQUIPMENT AT US 113/SR 18-404 AND IMPLEMENT PHASE 4A/4B TEMPORARY SIGNAL ADJUSTMENTS AT THE INTERSECTION OF SR 18-404 AND CARMEAN WAY/PONDSIDE DRIVE. OPEN THE GRADE SEPARATED INTERSECTION TO TRAFFIC.*
3. *INSTALL ALL PERIMETER EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN ON THE PHASE 4A MOT PLANS AND AS SPECIFIED BY THE ENGINEER.*
4. *RECONSTRUCT THE EXISTING SHOULDER/ RAMP C DELERATION LANE PAVEMENT BOX TO THE TOP OF TYPE B HOT-MIX LAYER AND INSTALL PROPOSED CURB AND GUTTER ALONG US 113 SOUTHBOUND FROM STA. 330+35 TO STA. 334+25.*
5. *STABILIZE ALL DISTURBED AREAS WITH TOPSOIL, SEED, AND MULCH. ANY REMOVAL OF EROSION AND SEDIMENT CONTROL DEVICES SHALL BE AS PER THE DIRECTION OF THE ENGINEER.*



ADDENDA / REVISIONS	SCALE		CONTRACT	BRIDGE NO. N/A		SECTION
	0 200 400 600 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	T201412701	DESIGNED BY: D. WARING	CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 4A	WRA
			COUNTY SUSSEX	CHECKED BY: K. CLEVENGER		SHEET NO. 245

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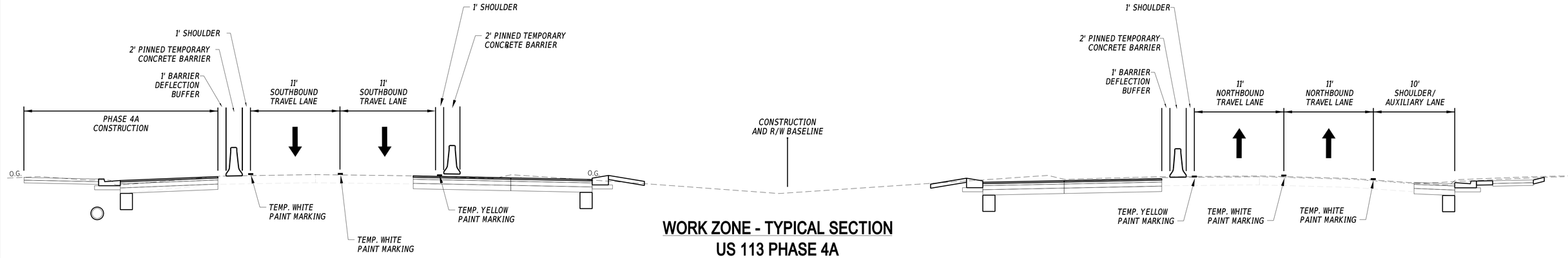
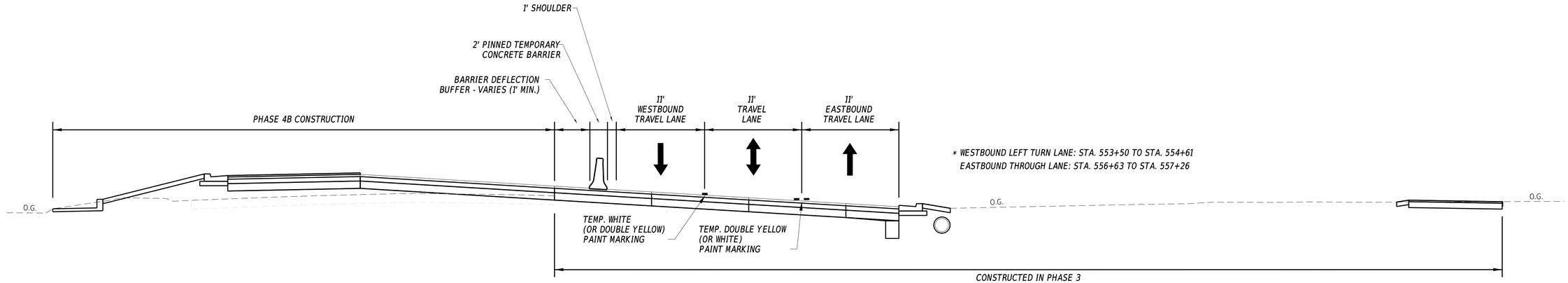


WORK ZONE - TYPICAL SECTION
US 113 PHASE 4A

NOT TO SCALE

STA. 330+35 TO 334+25



WORK ZONE - TYPICAL SECTION
SR 18/404 - PHASE 4A/4B

NOT TO SCALE

STA. 553+50 TO STA. 557+26

ADDENDA / REVISIONS		NOT TO SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 4A	SECTION WRA
				COUNTY SUSSEX	DESIGNED BY: D. WARING		SHEET NO. 246
					CHECKED BY: K. CLEVENGER		

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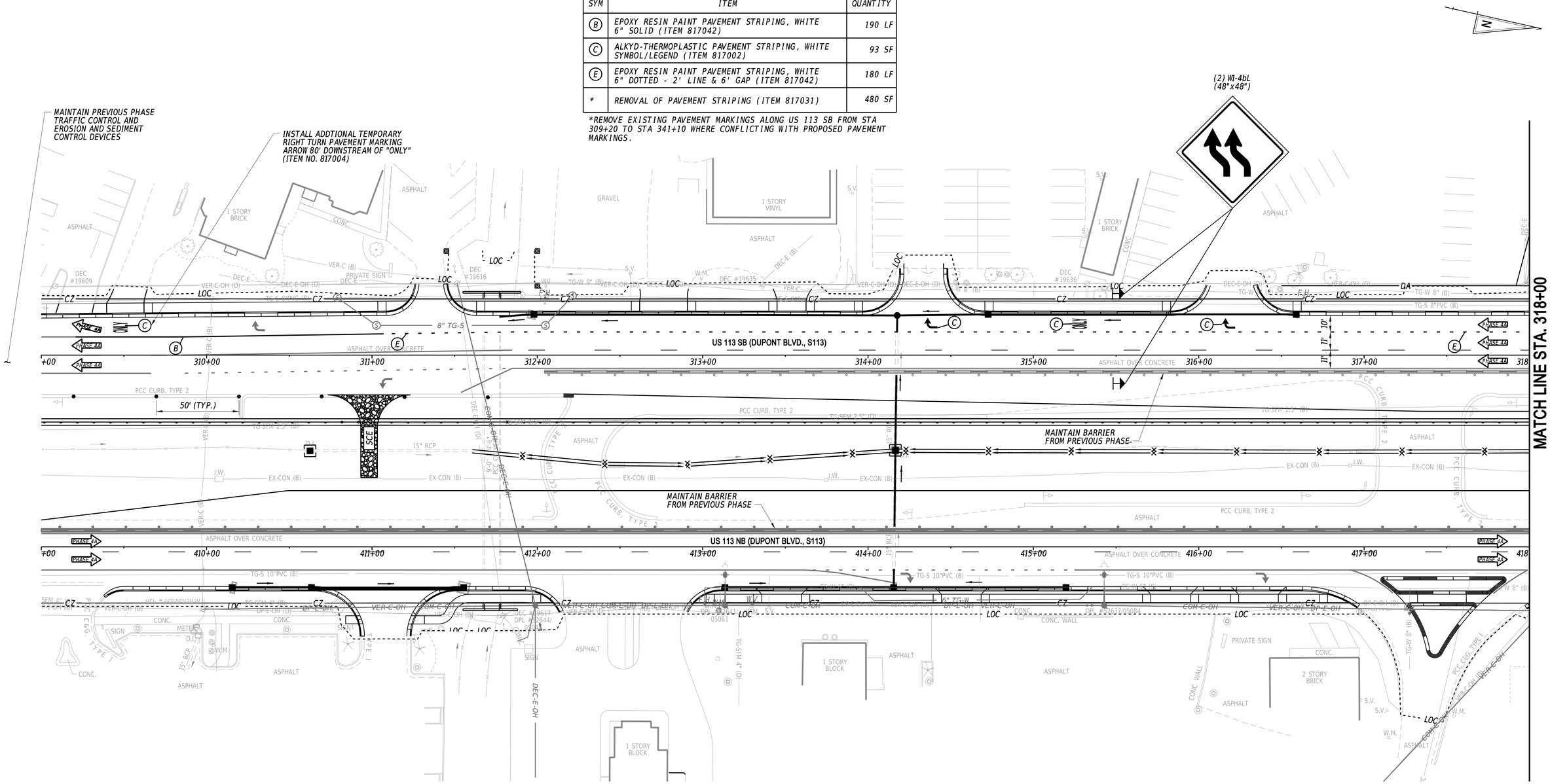
TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(B)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	190 LF
(C)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND (ITEM 817002)	93 SF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" DOTTED - 2' LINE & 6' GAP (ITEM 817042)	180 LF
*	REMOVAL OF PAVEMENT STRIPING (ITEM 817031)	480 SF

*REMOVE EXISTING PAVEMENT MARKINGS ALONG US 113 SB FROM STA 309+20 TO STA 341+10 WHERE CONFLICTING WITH PROPOSED PAVEMENT MARKINGS.



ADDENDA / REVISIONS	SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 4A	SECTION
	0 30 60 90 FEET		T201412701	DESIGNED BY: D. WARING		WRA
			COUNTY SUSSEX	CHECKED BY: K. CLEVENGER		SHEET NO. 247

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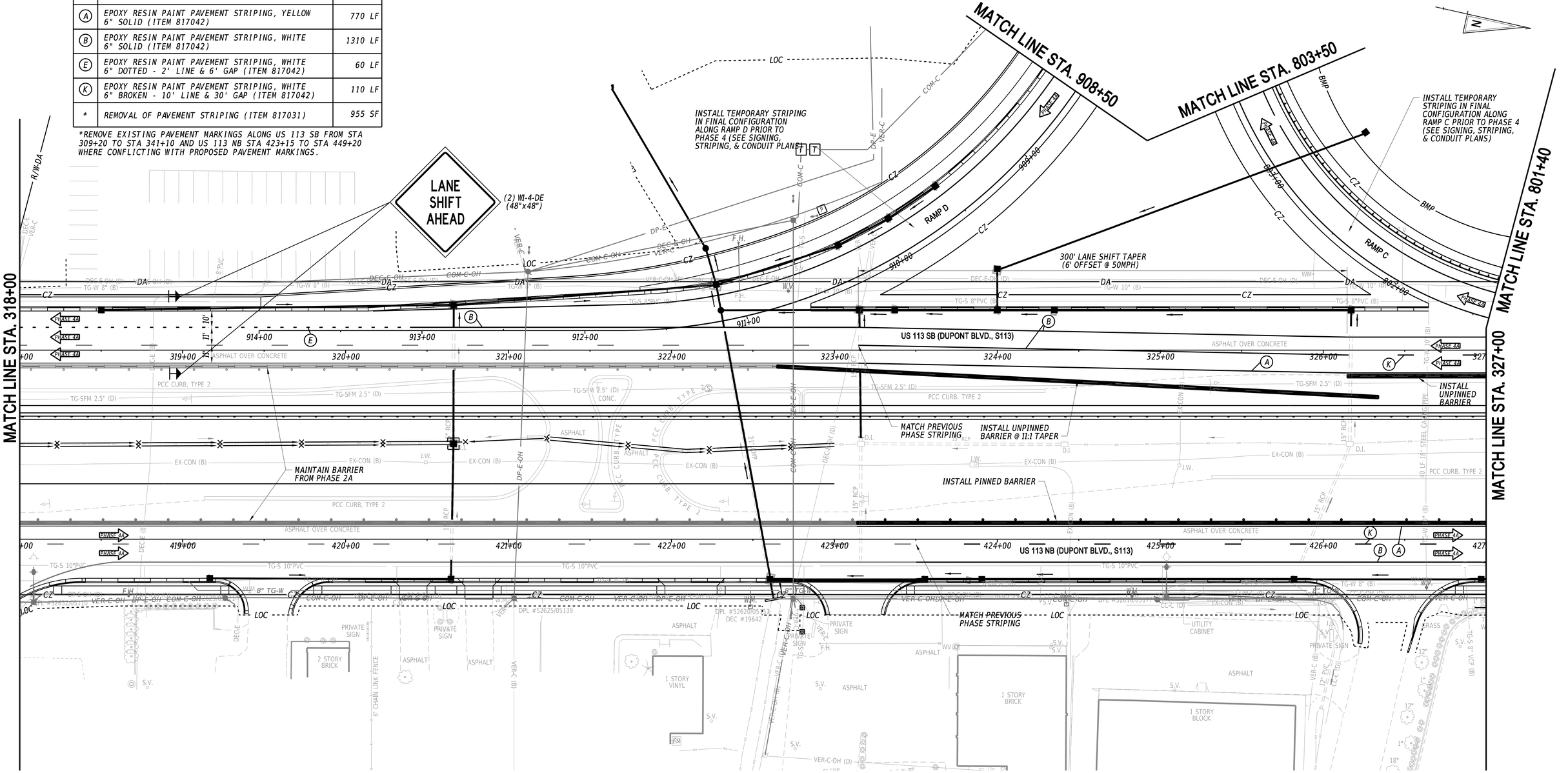
TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(A)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID (ITEM 817042)	770 LF
(B)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	1310 LF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" DOTTED - 2' LINE & 6' GAP (ITEM 817042)	60 LF
(K)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" BROKEN - 10' LINE & 30' GAP (ITEM 817042)	110 LF
*	REMOVAL OF PAVEMENT STRIPING (ITEM 817031)	955 SF

*REMOVE EXISTING PAVEMENT MARKINGS ALONG US 113 SB FROM STA 309+20 TO STA 341+10 AND US 113 NB STA 423+15 TO STA 449+20 WHERE CONFLICTING WITH PROPOSED PAVEMENT MARKINGS.



ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 4A	SECTION WRA
				COUNTY SUSSEX	DESIGNED BY: D. WARING		SHEET NO. 248
					CHECKED BY: K. CLEVENGER		

8/13/2025
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TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(A)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID (ITEM 817042)	1700 LF
(B)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	3031 LF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" DOTTED - 2' LINE & 6' GAP (ITEM 817042)	105 LF
(K)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" BROKEN - 10' LINE & 30' GAP (ITEM 817042)	425 LF
*	REMOVAL OF PAVEMENT STRIPING (ITEM 817031)	240 SF

*REMOVE EXISTING PAVEMENT MARKINGS ALONG US 113 SB FROM STA 309+20 TO STA 341+10 AND US 113 NB STA 423+15 TO STA 449+20 WHERE CONFLICTING WITH PROPOSED PAVEMENT MARKINGS.

MATCH LINE STA. 801+40

MATCH LINE STA. 562+00

MATCH LINE STA. 261+00

MATCH LINE STA. 327+00

MATCH LINE STA. 335+75

(2) W1-4bR (48"x48")

INSTALL TEMPORARY STRIPING IN FINAL CONFIGURATION ALONG RAMP C PRIOR TO PHASE 4 (SEE SIGNING, STRIPING, & CONDUIT PLANS)

REALIGNED SR 18/ SR 404 (BRIDGEVILLE ROAD, S18)

245' LANE MERGE TAPER (12' OFFSET @ 35 MPH)

INSTALL PINNED BARRIER

UNPINNED BARRIER @ 11:1 FLARE

NO STORAGE OF EQUIPMENT OR MATERIALS

US 113 SB (DUPONT BLVD., S113)

US 113 NB (DUPONT BLVD., S113)

TYPE C ARROW PANEL

55' SHOULDER CLOSURE TAPER (8' OFFSET @ 35 MPH)

INSTALL UNPINNED BARRIER

MAINTAIN BARRIER FROM PHASE 2A

INSTALL PINNED BARRIER

W4-2R (48"x48")

INSTALL TEMPORARY STRIPING IN FINAL CONFIGURATION ALONG RAMP A PRIOR TO PHASE 4 (SEE SIGNING, STRIPING, & CONDUIT PLANS)

PLACE TEMPORARY MARKINGS IN FINAL CONFIGURATION ALONG SR 18/SR 404 FROM STA. 559+88 TO THE EASTERN PROJECT LIMITS

RIGHT LANE ENDS

W9-1R (48"x48")

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ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 4A	SECTION WRA
				COUNTY SUSSEX	DESIGNED BY: D. WARING		SHEET NO. 249
					CHECKED BY: K. CLEVENGER		

TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(A)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID (ITEM 817042)	880 LF
(B)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	1720 LF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" DOTTED - 2' LINE & 6' GAP (ITEM 817042)	33 LF
(J)	16" SOLID WHITE ALKYD THERMOPLASTIC PAVEMENT STRIPING (ITEM 817002)	30 SF
(K)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" BROKEN - 10' LINE & 30' GAP (ITEM 817042)	225 LF
*	REMOVAL OF PAVEMENT STRIPING (ITEM 817031)	956 SF

*REMOVE EXISTING PAVEMENT MARKINGS ALONG US 113 SB FROM STA 309+20 TO STA 341+10 AND US 113 NB STA 423+15 TO STA 449+20 WHERE CONFLICTING WITH PROPOSED PAVEMENT MARKINGS.

300' LANE SHIFT TAPER (6' OFFSET @ 50 MPH)

175' SHOULDER CLOSURE TAPER (10' OFFSET @ 50 MPH)

INSTALL TEMPORARY IMPACT ATTENUATOR, NON-GATING, REDIRECTIVE, TL-3

(2) W1-4bL (48"x48")

INSTALL PERMANENT YIELD SIGN (RI-2) AND REMOVE EXISTING ADDED LANE SIGNS (W4-3) - SEE SIGNING AND STRIPING PLANS

MATCH LINE STA. 335+75

MATCH LINE STA. 345+00

US 113 SB (DUPONT BLVD., S113)

US 113 NB (DUPONT BLVD., S113)

MATCH PREVIOUS PHASE STRIPING

MAINTAIN BARRIER FROM PREVIOUS PHASE

NO STORAGE OF EQUIPMENT OR MATERIALS

PLACE TEMPORARY STRIPING ALONG RAMP B IN FINAL CONFIGURATION (SEE SIGNING, STRIPING, & CONDUIT PLANS)

RAMP B

COLLEGE PARK LANE

WOLFE ROAD

LITTLE LANKFORD LANE

GORDY STREET (S220248)

25' (TYP.)

ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 4A	SECTION WRA
				COUNTY SUSSEX	DESIGNED BY: D. WARING		SHEET NO. 250
					CHECKED BY: K. CLEVENGER		

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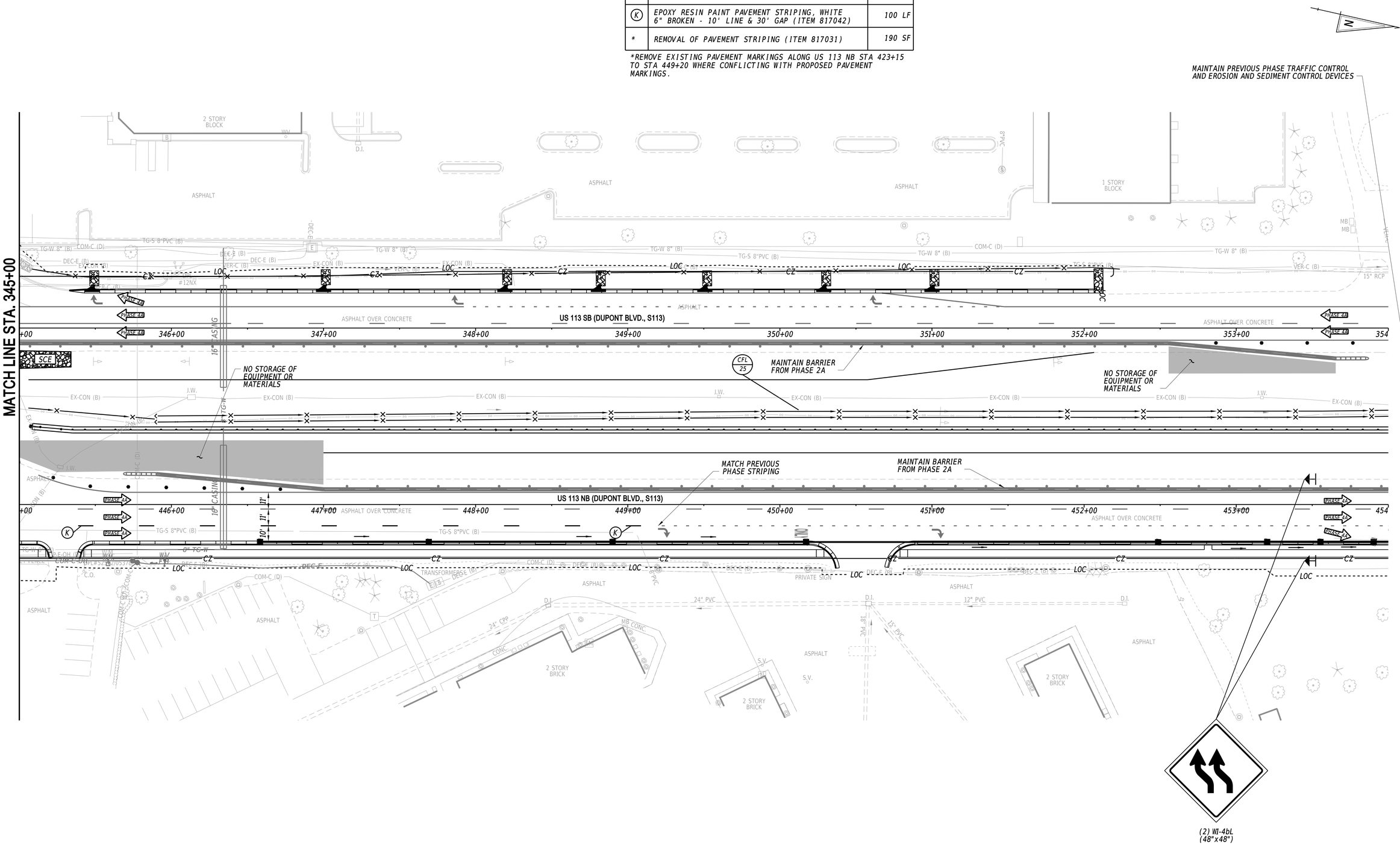
TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(K)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" BROKEN - 10' LINE & 30' GAP (ITEM 817042)	100 LF
*	REMOVAL OF PAVEMENT STRIPING (ITEM 817031)	190 SF

*REMOVE EXISTING PAVEMENT MARKINGS ALONG US 113 NB STA 423+15 TO STA 449+20 WHERE CONFLICTING WITH PROPOSED PAVEMENT MARKINGS.



ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 4A	SECTION WRA
				COUNTY SUSSEX	DESIGNED BY: D. WARING		SHEET NO. 251
					CHECKED BY: K. CLEVENGER		

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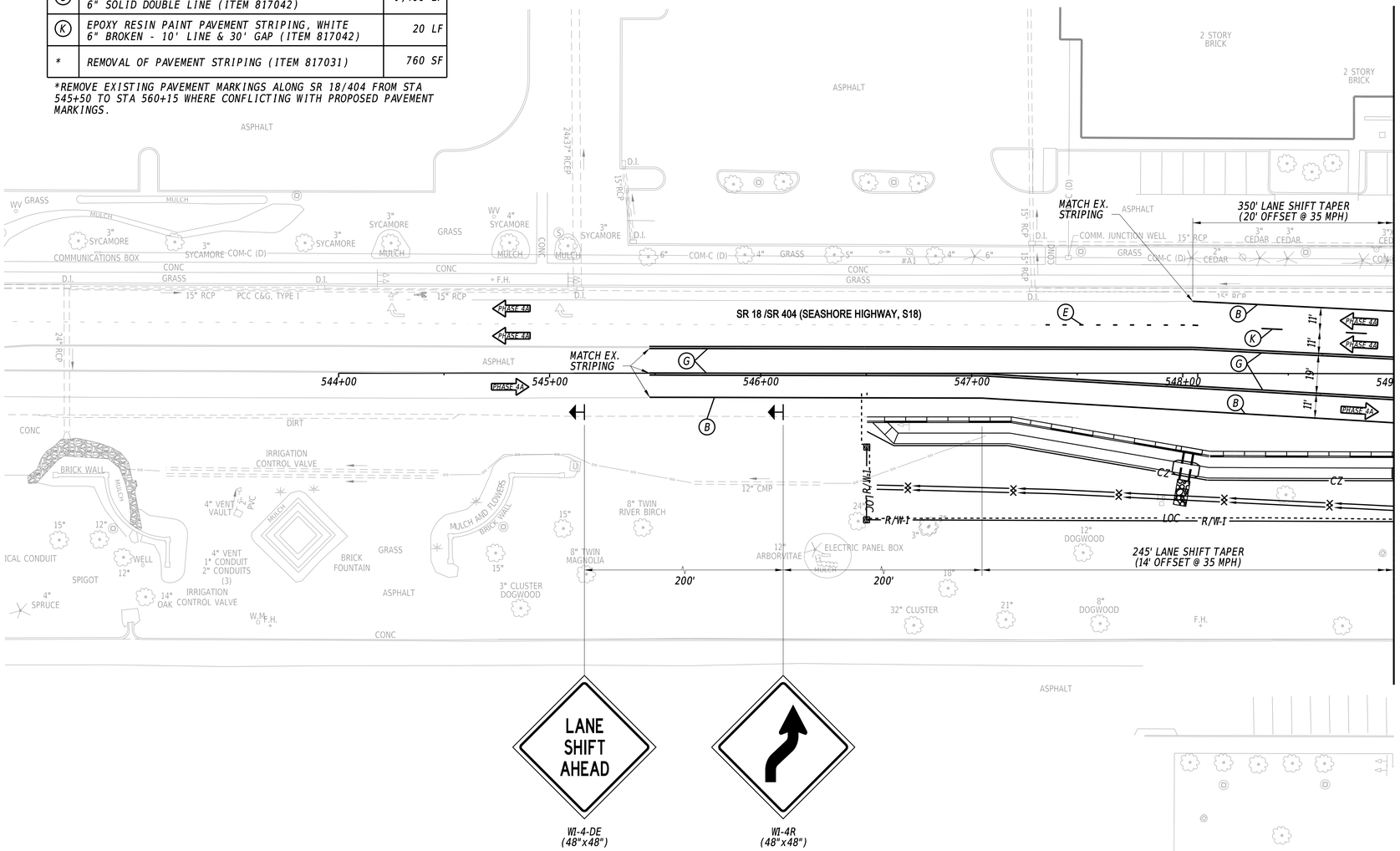
TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(B)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	450 LF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" DOTTED - 2' LINE & 6' GAP (ITEM 817042)	20 LF
(G)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID DOUBLE LINE (ITEM 817042)	1,400 LF
(K)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" BROKEN - 10' LINE & 30' GAP (ITEM 817042)	20 LF
*	REMOVAL OF PAVEMENT STRIPING (ITEM 817031)	760 SF

*REMOVE EXISTING PAVEMENT MARKINGS ALONG SR 18/404 FROM STA 545+50 TO STA 560+15 WHERE CONFLICTING WITH PROPOSED PAVEMENT MARKINGS.



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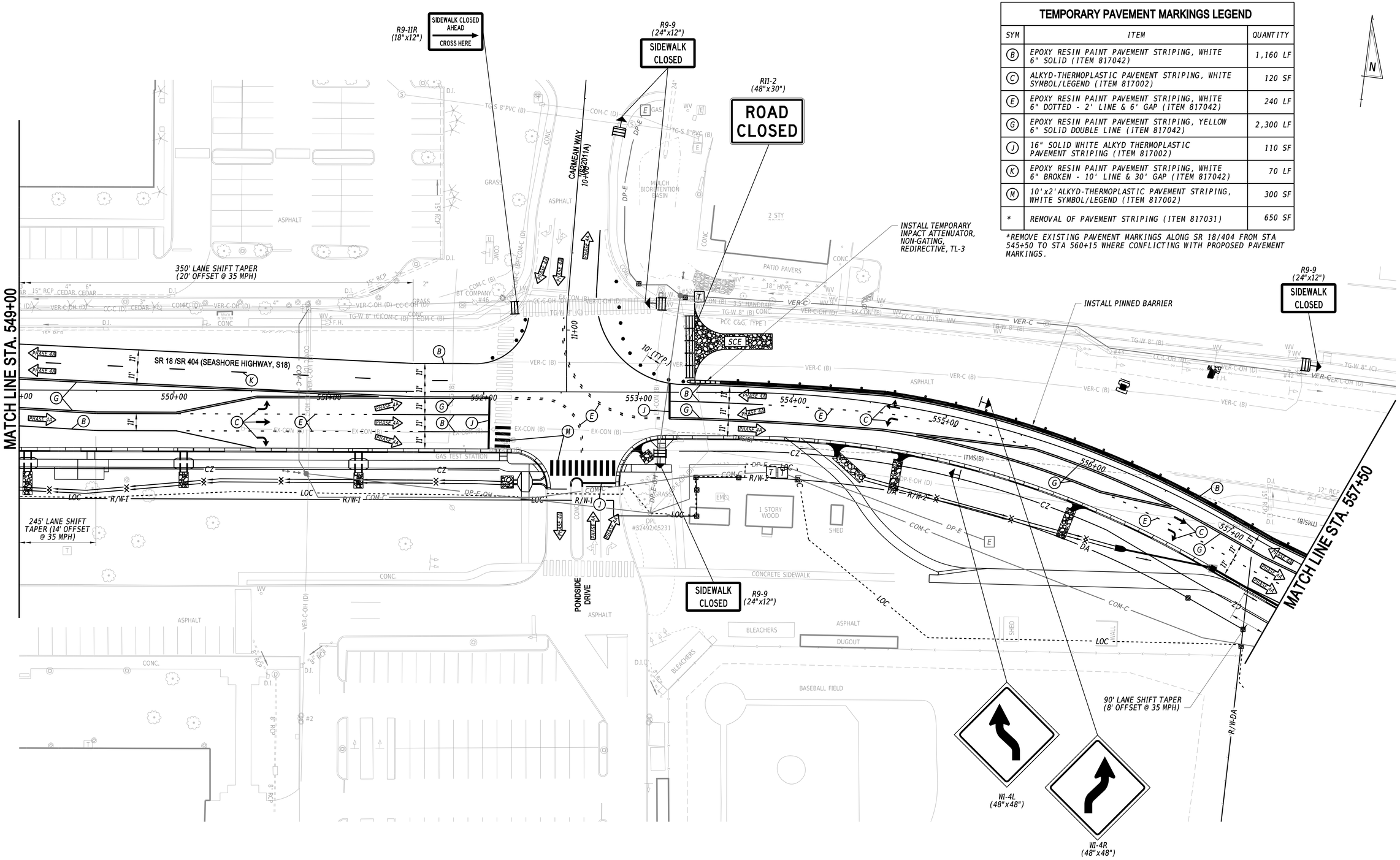
ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 4A	SECTION WRA
				COUNTY SUSSEX	DESIGNED BY: D. WARING		SHEET NO. 252
					CHECKED BY: K. CLEVENGER		

TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(B)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	1,160 LF
(C)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND (ITEM 817002)	120 SF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" DOTTED - 2' LINE & 6' GAP (ITEM 817042)	240 LF
(G)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID DOUBLE LINE (ITEM 817042)	2,300 LF
(J)	16" SOLID WHITE ALKYD THERMOPLASTIC PAVEMENT STRIPING (ITEM 817002)	110 SF
(K)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" BROKEN - 10' LINE & 30' GAP (ITEM 817042)	70 LF
(M)	10'x2' ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND (ITEM 817002)	300 SF
*	REMOVAL OF PAVEMENT STRIPING (ITEM 817031)	650 SF

*REMOVE EXISTING PAVEMENT MARKINGS ALONG SR 18/404 FROM STA 545+50 TO STA 560+15 WHERE CONFLICTING WITH PROPOSED PAVEMENT MARKINGS.



ADDENDA / REVISIONS	SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO.	N/A	CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 4A	SECTION
	0 30 60 90 FEET		T201412701	DESIGNED BY: D. WARING			WRA
			COUNTY	CHECKED BY: K. CLEVENGER			SHEET NO.
			SUSSEX				253

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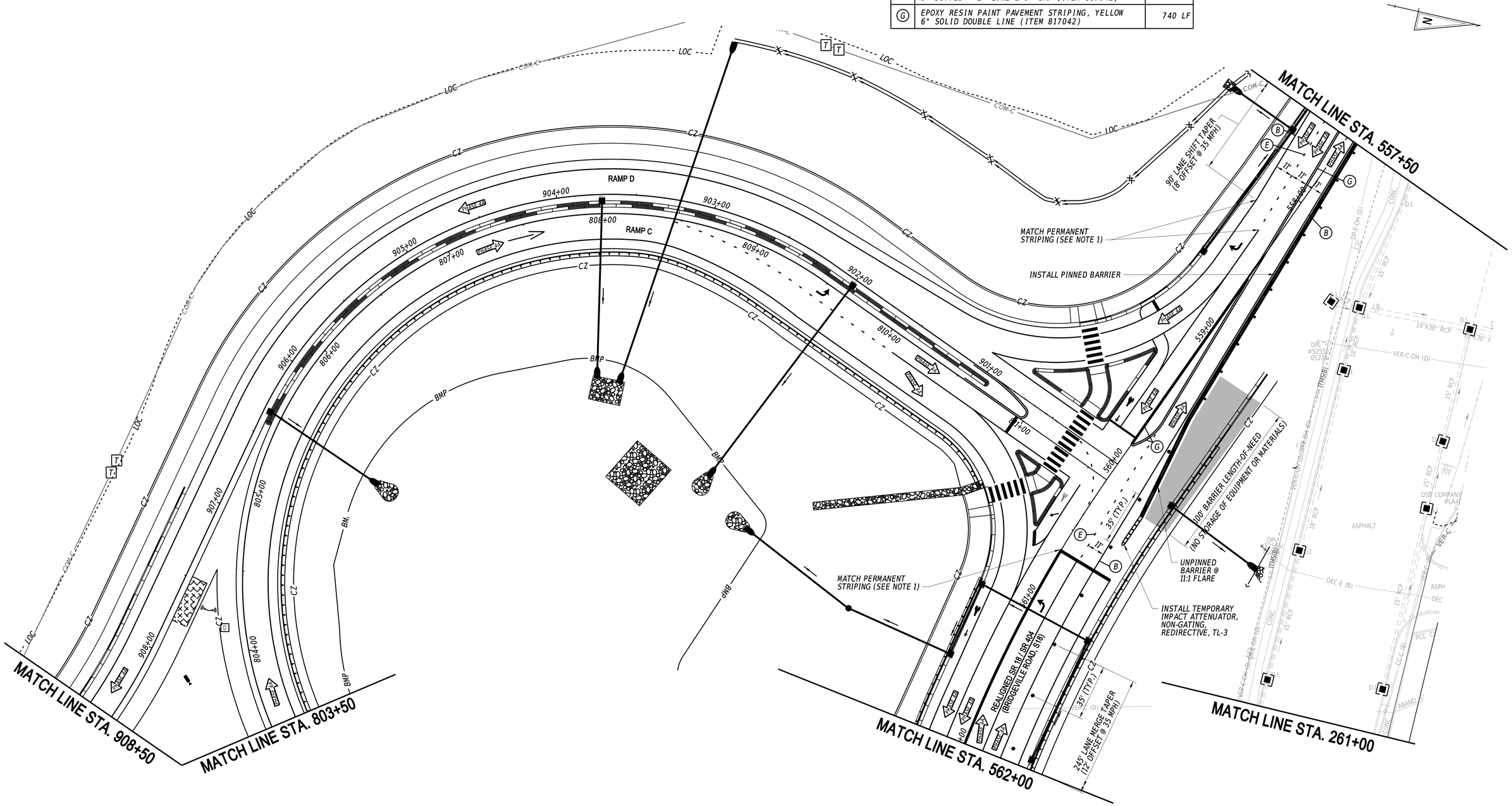
NOTES:

1. INSTALL TEMPORARY PAVEMENT MARKINGS IN THE FINAL CONFIGURATION AND PERMANENT SIGNAGE ALONG ALL INTERCHANGE RAMPS AND SR 18/SR 404 FROM THE EASTERN PROJECT LIMITS TO THE LIMITS OF PHASE 4 TEMPORARY STRIPING, AS SHOWN.

TEMPORARY PAVEMENT MARKINGS LEGEND		
SYM	ITEM	QUANTITY
(B)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	380 LF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" DOTTED - 2' LINE & 6' GAP (ITEM 817042)	40 LF
(G)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID DOUBLE LINE (ITEM 817042)	740 LF



ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 4A	SECTION WRA
				COUNTY SUSSEX	DESIGNED BY: D. WARING		SHEET NO. 254
					CHECKED BY: K. CLEVENGER		

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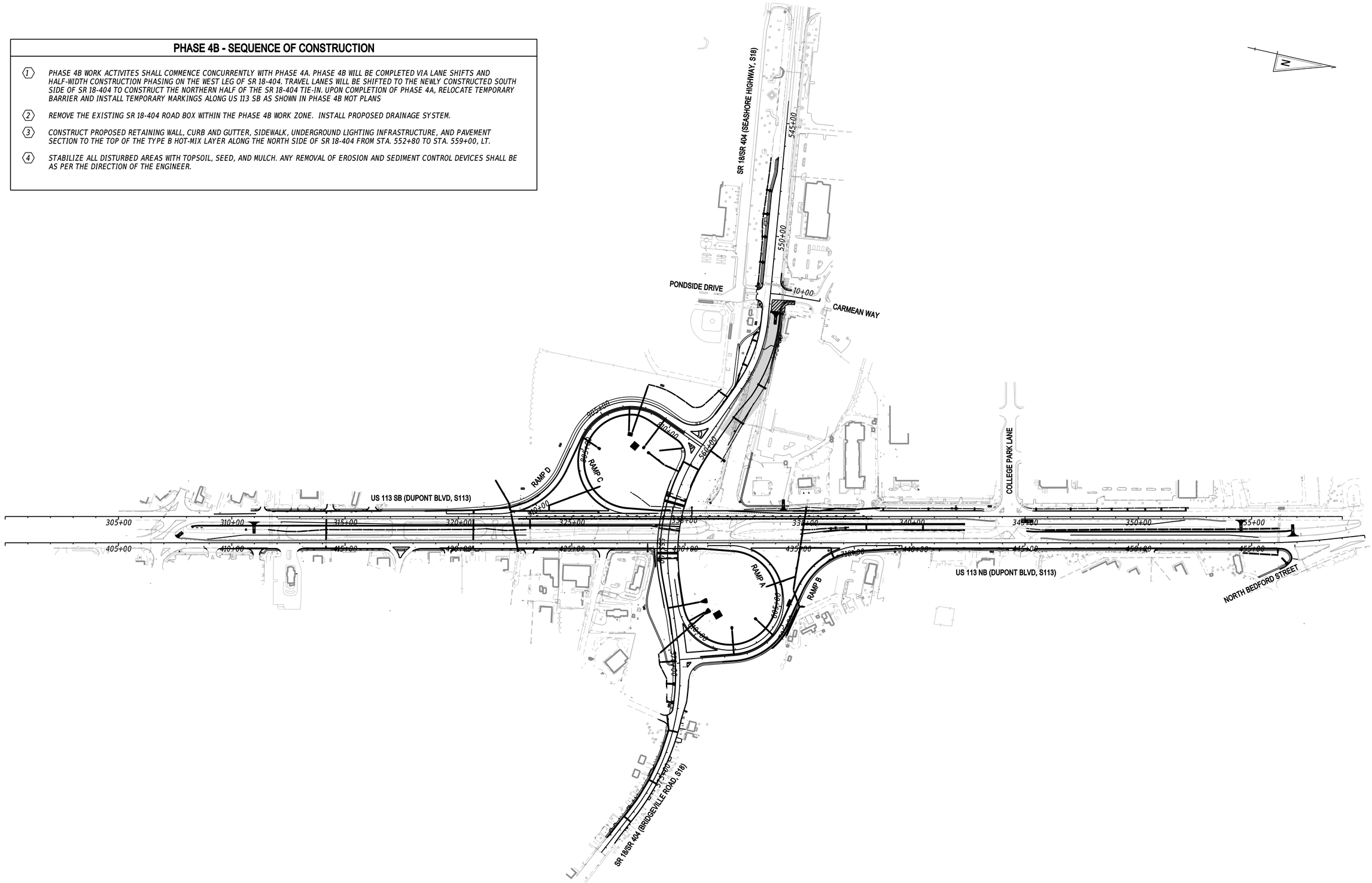
PHASE 4B - SEQUENCE OF CONSTRUCTION

1. PHASE 4B WORK ACTIVITES SHALL COMMENCE CONCURRENTLY WITH PHASE 4A. PHASE 4B WILL BE COMPLETED VIA LANE SHIFTS AND HALF-WIDTH CONSTRUCTION PHASING ON THE WEST LEG OF SR 18-404. TRAVEL LANES WILL BE SHIFTED TO THE NEWLY CONSTRUCTED SOUTH SIDE OF SR 18-404 TO CONSTRUCT THE NORTHERN HALF OF THE SR 18-404 TIE-IN. UPON COMPLETION OF PHASE 4A, RELOCATE TEMPORARY BARRIER AND INSTALL TEMPORARY MARKINGS ALONG US 113 SB AS SHOWN IN PHASE 4B MOT PLANS
2. REMOVE THE EXISTING SR 18-404 ROAD BOX WITHIN THE PHASE 4B WORK ZONE. INSTALL PROPOSED DRAINAGE SYSTEM.
3. CONSTRUCT PROPOSED RETAINING WALL, CURB AND GUTTER, SIDEWALK, UNDERGROUND LIGHTING INFRASTRUCTURE, AND PAVEMENT SECTION TO THE TOP OF THE TYPE B HOT-MIX LAYER ALONG THE NORTH SIDE OF SR 18-404 FROM STA. 552+80 TO STA. 559+00, LT.
4. STABILIZE ALL DISTURBED AREAS WITH TOPSOIL, SEED, AND MULCH. ANY REMOVAL OF EROSION AND SEDIMENT CONTROL DEVICES SHALL BE AS PER THE DIRECTION OF THE ENGINEER.



ADDENDA / REVISIONS	SCALE		CONTRACT		SECTION
	0 200 400 600 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	T201412701	BRIDGE NO. N/A	WRA
			COUNTY	DESIGNED BY: D. WARING	SHEET NO.
			SUSSEX	CHECKED BY: K. CLEVENGER	255

CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 4B

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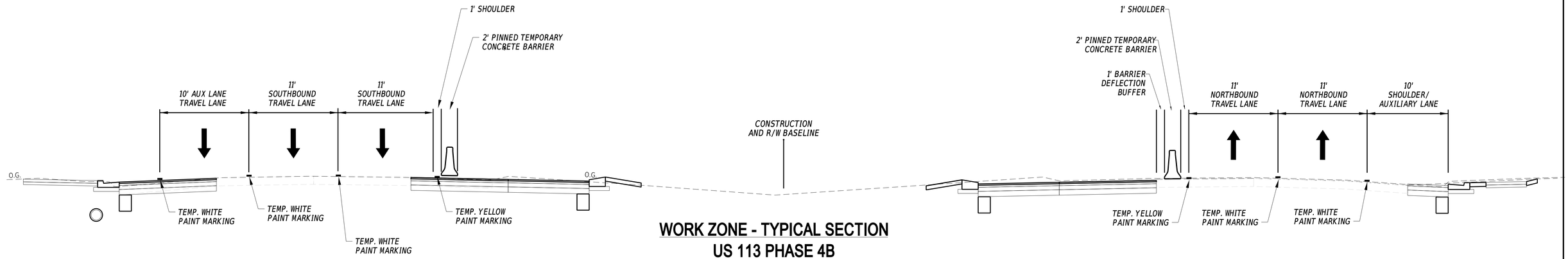
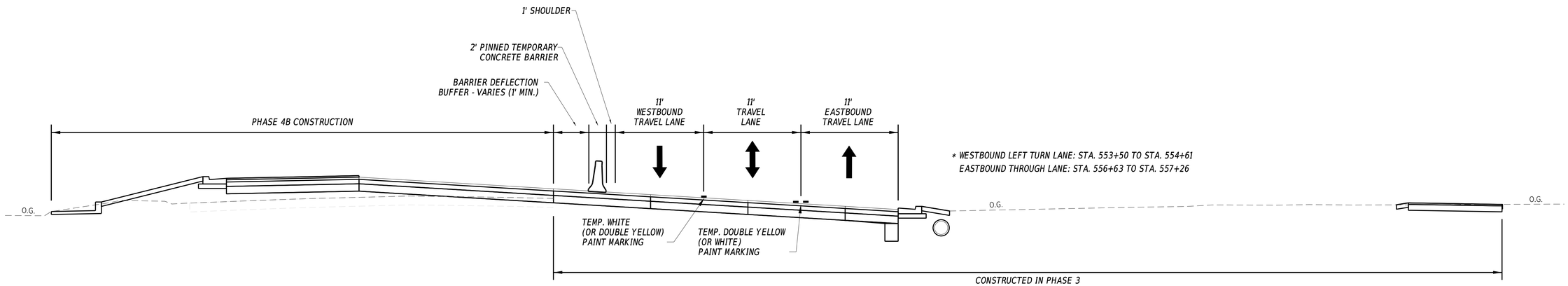


WORK ZONE - TYPICAL SECTION
US 113 PHASE 4B

NOT TO SCALE

STA. 330+35 TO 334+25



WORK ZONE - TYPICAL SECTION
SR 18/404 - PHASE 4A/4B

NOT TO SCALE

STA. 553+50 TO STA. 557+26

ADDENDA / REVISIONS		NOT TO SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 4B	SECTION WRA
				COUNTY SUSSEX	DESIGNED BY: D. WARING		SHEET NO. 256
					CHECKED BY: K. CLEVENGER		

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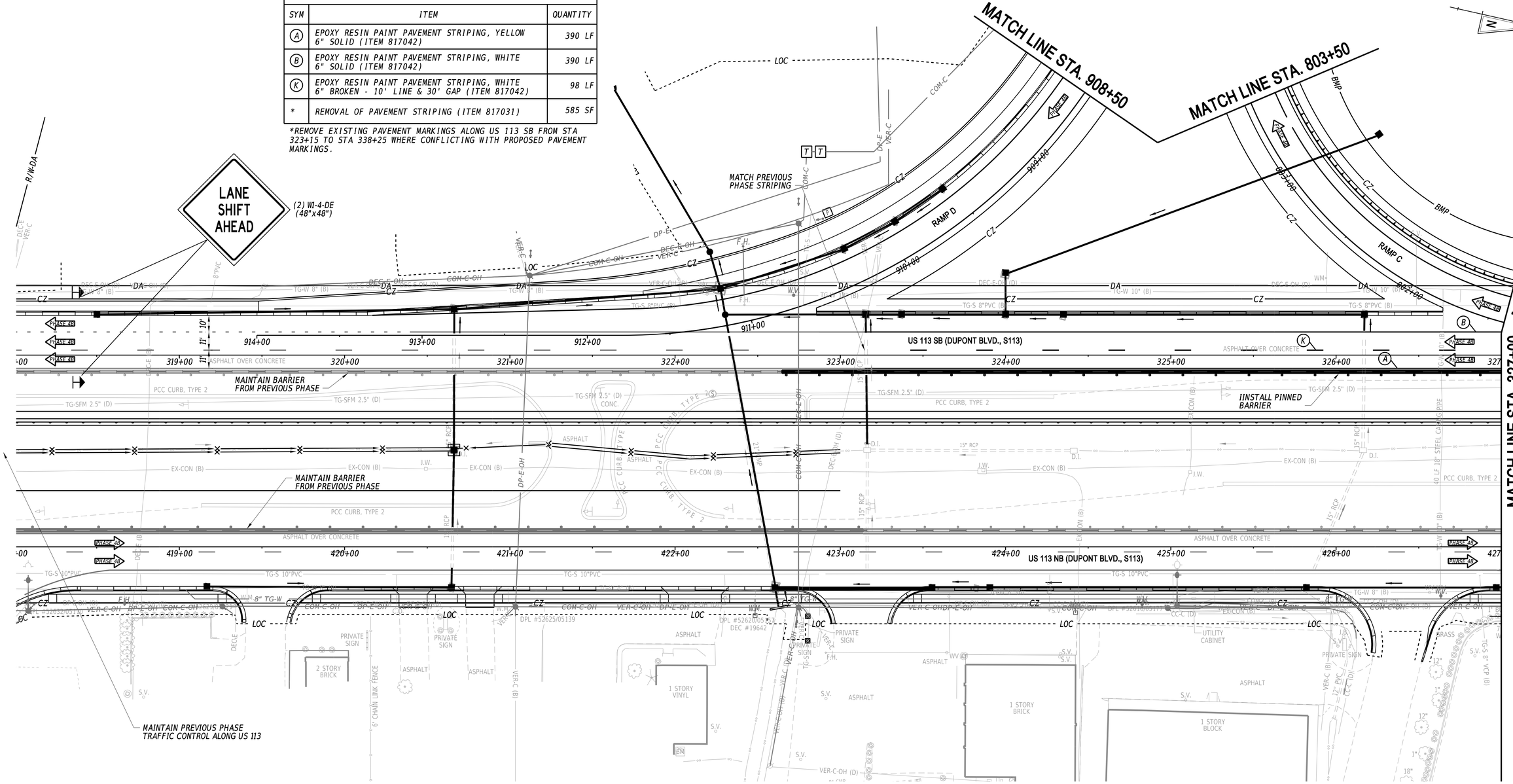
TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(A)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID (ITEM 817042)	390 LF
(B)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	390 LF
(K)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" BROKEN - 10' LINE & 30' GAP (ITEM 817042)	98 LF
*	REMOVAL OF PAVEMENT STRIPING (ITEM 817031)	585 SF

*REMOVE EXISTING PAVEMENT MARKINGS ALONG US 113 SB FROM STA 323+15 TO STA 338+25 WHERE CONFLICTING WITH PROPOSED PAVEMENT MARKINGS.



ADDENDA / REVISIONS		SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 4B	SECTION
		0 30 60 90 FEET		T201412701	DESIGNED BY: D. WARING		WRA
				COUNTY	CHECKED BY: K. CLEVENGER		SHEET NO.
				SUSSEX			257

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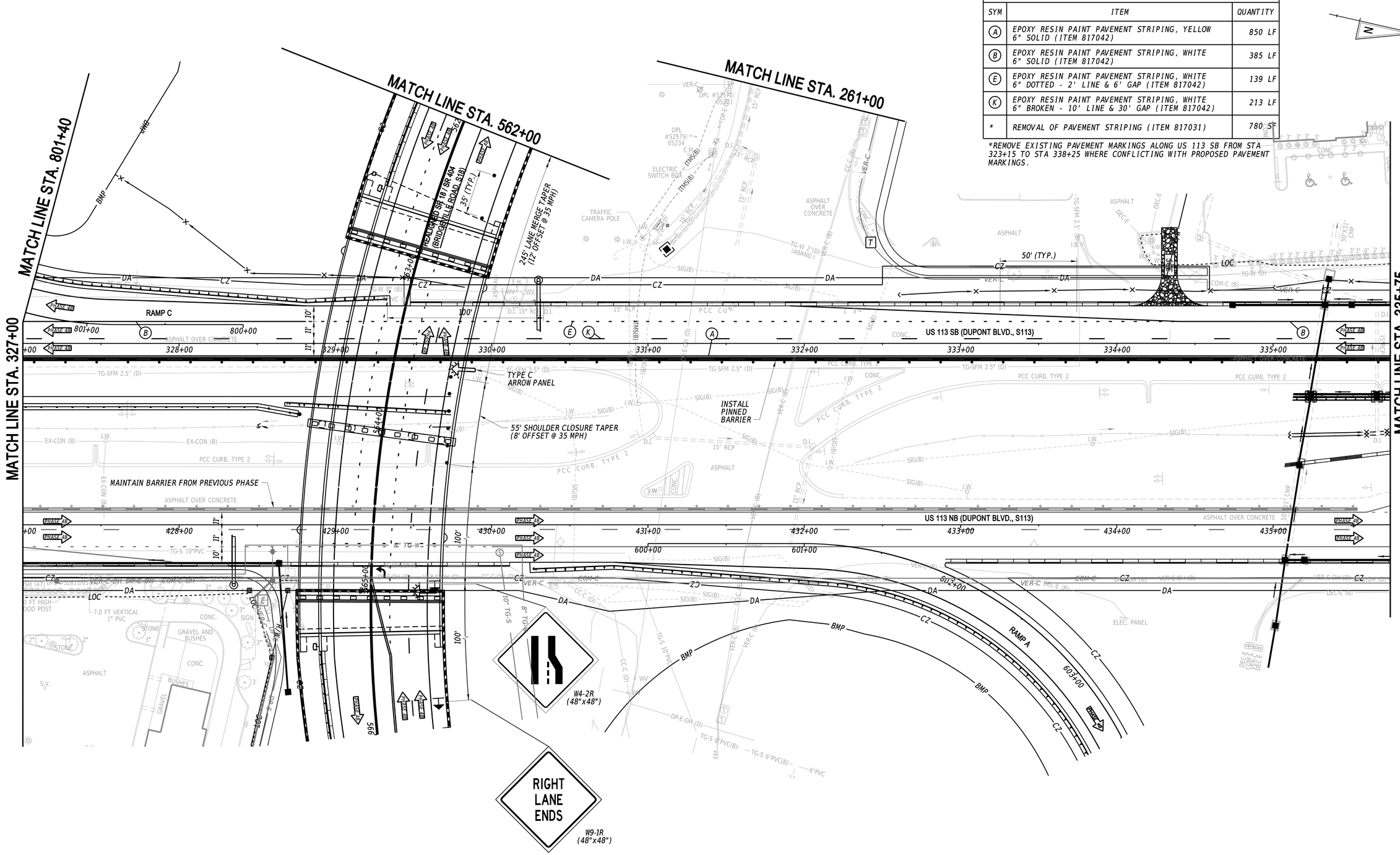
TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(A)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID (ITEM 817042)	850 LF
(B)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	385 LF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" DOTTED - 2' LINE & 6' GAP (ITEM 817042)	139 LF
(K)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" BROKEN - 10' LINE & 30' GAP (ITEM 817042)	213 LF
*	REMOVAL OF PAVEMENT STRIPING (ITEM 817031)	780 SF

*REMOVE EXISTING PAVEMENT MARKINGS ALONG US 113 SB FROM STA 323+15 TO STA 338+25 WHERE CONFLICTING WITH PROPOSED PAVEMENT MARKINGS.



ADDENDA / REVISIONS	SCALE		CONTRACT	BRIDGE NO.	N/A	SECTION
	0 30 60 90 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	T201412701	DESIGNED BY: D. WARING	CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 4B	WRA
			COUNTY	CHECKED BY: K. CLEVENGER		SHEET NO.
			SUSSEX			258

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TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(A)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID (ITEM 817042)	251 LF
(B)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	197 LF
(K)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" BROKEN - 10' LINE & 30' GAP (ITEM 817042)	63 LF
*	REMOVAL OF PAVEMENT STRIPING (ITEM 817031)	128 SF

*REMOVE EXISTING PAVEMENT MARKINGS ALONG US 113 SB FROM STA 323+15 TO STA 338+25 WHERE CONFLICTING WITH PROPOSED PAVEMENT MARKINGS.

MATCH LINE STA. 335+75

N

US 113 SB (DUPONT BLVD., S113)

US 113 NB (DUPONT BLVD., S113)

COLLEGE PARK LANE

NO STORAGE OF EQUIPMENT OR MATERIALS ALLOWED

MAINTAIN BARRIER FROM PREVIOUS PHASE

MAINTAIN PREVIOUS PHASE TRAFFIC CONTROL AND EROSION AND SEDIMENT CONTROL DEVICES FROM PHASE 2A

RAMP B

WOLFE ROAD

LITTLE LANKFORD LANE

GORDY STREET (S22024B)

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO.	N/A
T201412701	DESIGNED BY: D. WARING	
COUNTY	CHECKED BY: K. CLEVENGER	
SUSSEX		

CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 4B

SECTION
WRA
SHEET NO.
259

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R9-11R (18"x12")
SIDEWALK CLOSED AHEAD
CROSS HERE
R9-9 (24"x12")
SIDEWALK CLOSED
R11-2 (48"x30")
ROAD CLOSED
CARMEAN WAY 10+00 (S220111A)
350' LANE SHIFT TAPER (20' OFFSET @ 35 MPH)
MAINTAIN BARRIER FROM PREVIOUS PHASE
R9-9 (24"x12")
SIDEWALK CLOSED
SR 18 /SR 404 (SEASHORE HIGHWAY, S18)
245' LANE SHIFT TAPER (14' OFFSET @ 35 MPH)
MAINTAIN TRAFFIC CONTROL FROM PHASE 4A
PONDSIDE DRIVE
SIDEWALK CLOSED
R9-9 (24"x12")
90' LANE SHIFT TAPER (8' OFFSET @ 35 MPH)
W1-4L (48"x48")
W1-4R (48"x48")
MATCH LINE STA. 557+50
ASPHALT
CONC.
GRASS
BIORETENTION BASIN
2 STY BRICK "SHUCKERS RESTAURANT"
PATIO PAVERS
PCC C&G, TYPE I
1 STORY WOOD
SHED
BLEACHERS
DUGOUT
BASEBALL FIELD
CONCRETE SIDEWALK
GAS TEST STATION
DPL #52492/05231
LOC
CZ
R/W-1
R/W-2
R/W-DA
PHASE 4A
PHASE 4B
SF 106
SF 107
SF 159
SF 170
RSF 159
SCE
N

ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 4B	SECTION WRA
				COUNTY SUSSEX	DESIGNED BY: D. WARING		SHEET NO. 260
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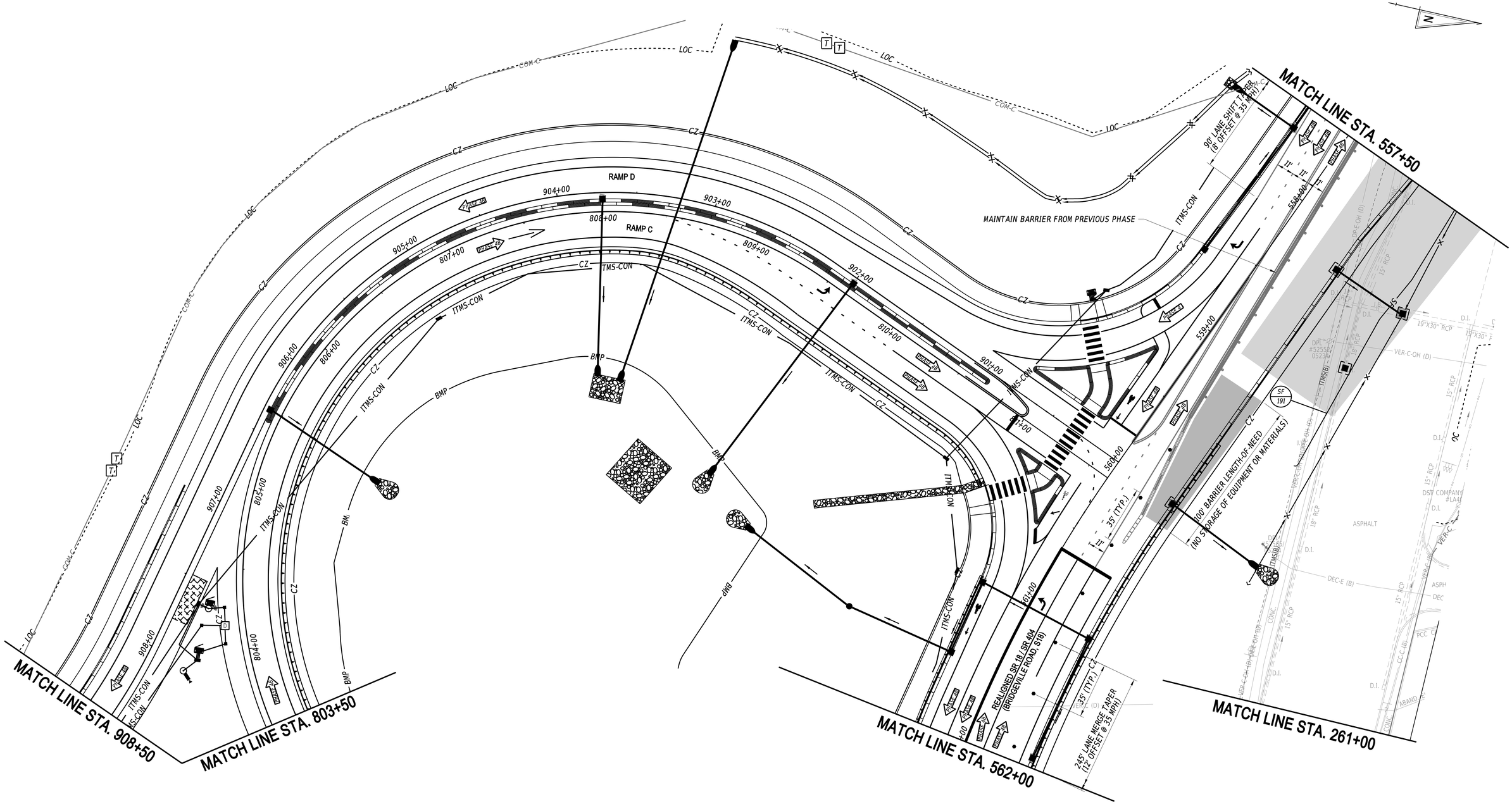

ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 4B	SECTION WRA
				COUNTY SUSSEX	DESIGNED BY: D. WARING		SHEET NO. 261
					CHECKED BY: K. CLEVENGER		

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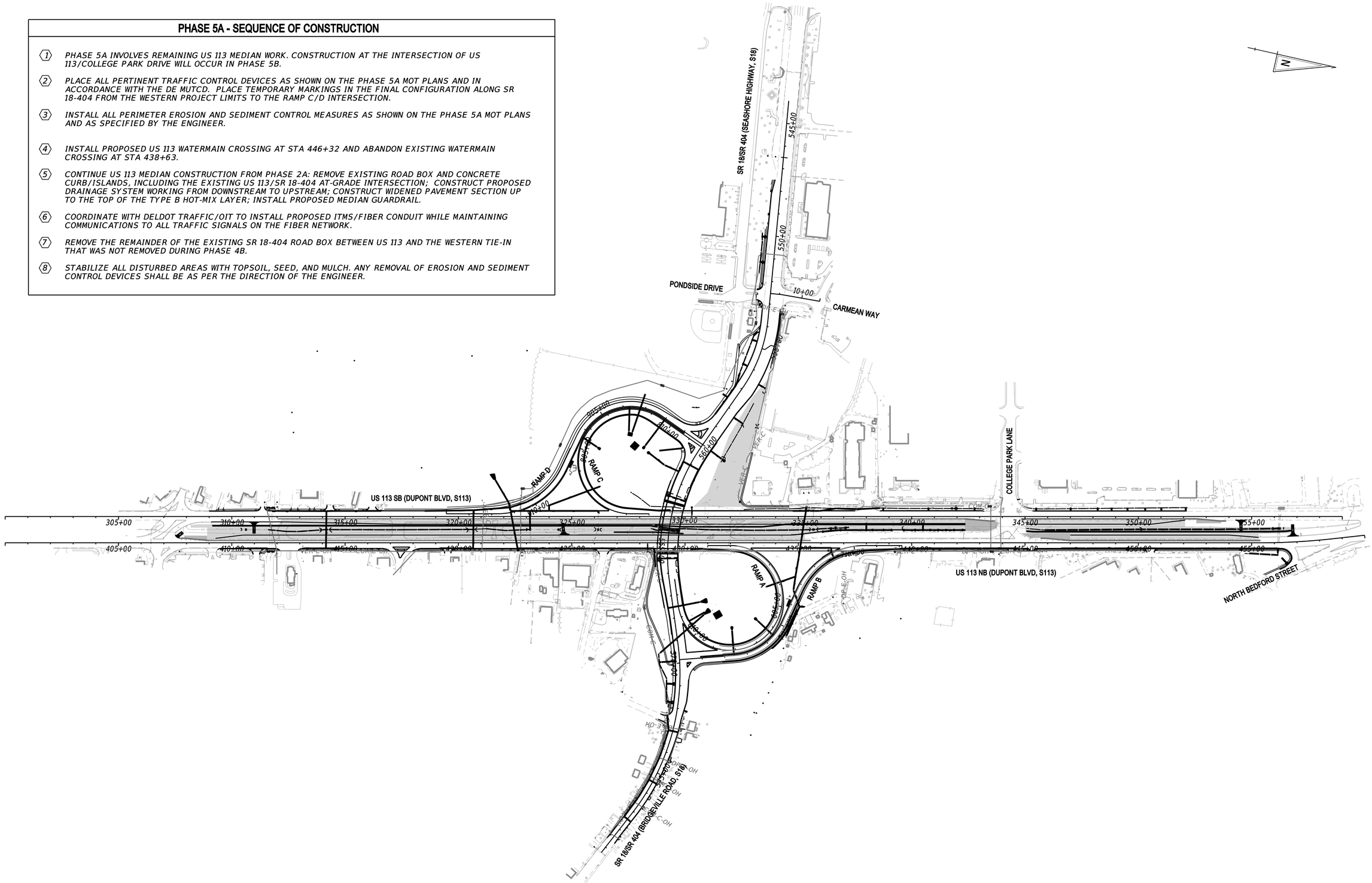
PHASE 5A - SEQUENCE OF CONSTRUCTION

1. PHASE 5A INVOLVES REMAINING US 113 MEDIAN WORK. CONSTRUCTION AT THE INTERSECTION OF US 113/COLLEGE PARK DRIVE WILL OCCUR IN PHASE 5B.
2. PLACE ALL PERTINENT TRAFFIC CONTROL DEVICES AS SHOWN ON THE PHASE 5A MOT PLANS AND IN ACCORDANCE WITH THE DE MUTCD. PLACE TEMPORARY MARKINGS IN THE FINAL CONFIGURATION ALONG SR 18-404 FROM THE WESTERN PROJECT LIMITS TO THE RAMP C/D INTERSECTION.
3. INSTALL ALL PERIMETER EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN ON THE PHASE 5A MOT PLANS AND AS SPECIFIED BY THE ENGINEER.
4. INSTALL PROPOSED US 113 WATERMAIN CROSSING AT STA 446+32 AND ABANDON EXISTING WATERMAIN CROSSING AT STA 438+63.
5. CONTINUE US 113 MEDIAN CONSTRUCTION FROM PHASE 2A: REMOVE EXISTING ROAD BOX AND CONCRETE CURB/ISLANDS, INCLUDING THE EXISTING US 113/SR 18-404 AT-GRADE INTERSECTION; CONSTRUCT PROPOSED DRAINAGE SYSTEM WORKING FROM DOWNSTREAM TO UPSTREAM; CONSTRUCT WIDENED PAVEMENT SECTION UP TO THE TOP OF THE TYPE B HOT-MIX LAYER; INSTALL PROPOSED MEDIAN GUARDRAIL.
6. COORDINATE WITH DELDOT TRAFFIC/OIT TO INSTALL PROPOSED ITMS/FIBER CONDUIT WHILE MAINTAINING COMMUNICATIONS TO ALL TRAFFIC SIGNALS ON THE FIBER NETWORK.
7. REMOVE THE REMAINDER OF THE EXISTING SR 18-404 ROAD BOX BETWEEN US 113 AND THE WESTERN TIE-IN THAT WAS NOT REMOVED DURING PHASE 4B.
8. STABILIZE ALL DISTURBED AREAS WITH TOPSOIL, SEED, AND MULCH. ANY REMOVAL OF EROSION AND SEDIMENT CONTROL DEVICES SHALL BE AS PER THE DIRECTION OF THE ENGINEER.



ADDENDA / REVISIONS	SCALE		CONTRACT	BRIDGE NO.	N/A	SECTION
	0 200 400 600	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	T201412701	DESIGNED BY: D. WARING	CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 5A	WRA
	FEET		COUNTY			SHEET NO.
			SUSSEX	CHECKED BY: K. CLEVENGER		262

8/13/2025
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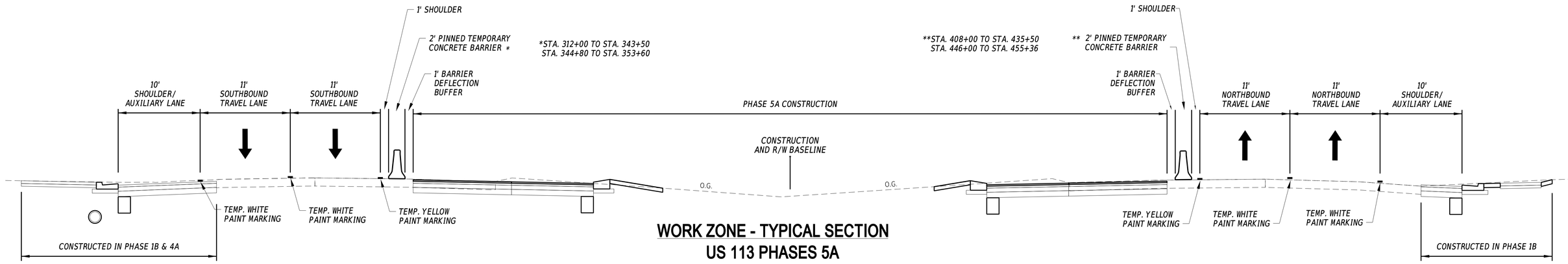

WORK ZONE - TYPICAL SECTION
US 113 PHASES 5A

NOT TO SCALE

STA. 423+00 TO STA. 438+00

8/13/2025
11:01:26 AM
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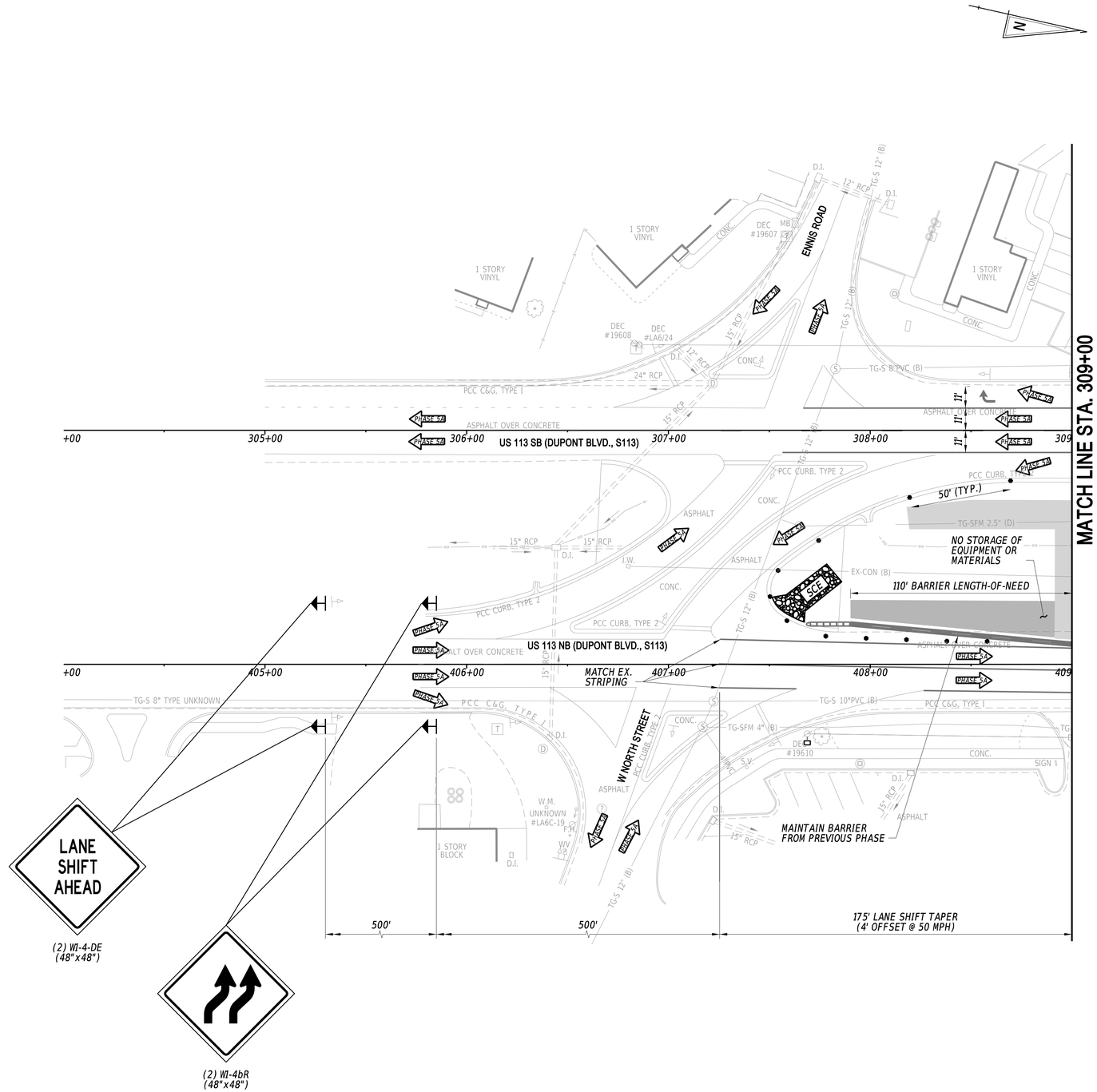
ADDENDA / REVISIONS		NOT TO SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 5A	SECTION
				T201412701			WRA
				COUNTY	DESIGNED BY: D. WARING		SHEET NO.
				SUSSEX	CHECKED BY: K. CLEVENGER		263



ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO.	N/A
T201412701	DESIGNED BY: D. WARING	
COUNTY	CHECKED BY: K. CLEVENGER	
SUSSEX		

CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 5A

SECTION
WRA
SHEET NO.
264

8/13/2025
11:01:28 AM
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MATCH LINE STA. 309+00

MATCH LINE STA. 318+00

200' LANE SHIFT TAPER
(4' OFFSET @ 50 MPH)

(2) W1-4bL
(48"x48")

MAINTAIN BARRIER FROM PREVIOUS PHASE

US 113 SB (DUPONT BLVD., S113)

US 113 NB (DUPONT BLVD., S113)

MAINTAIN BARRIER FROM PREVIOUS PHASE

BRAMHALL STREET

50' (TYP.)

8" TG-S

15" RCP

PHASE 5A

ASPHALT OVER CONCRETE

PCC CURB, TYPE 2

TG-SFM 2.5" (D)

TG-S 10"PVC (B)

TG-SFM 4" (B)

ASPHALT

CONC.

CONC. WALL

1 STORY BRICK

1 STORY VINYL

1 STORY BLOCK

2 STORY BRICK

PRIVATE SIGN

GRAVEL

DEC #19609

DEC #19616

DEC #19635

DEC #19636

DPL #52637/05084

DPL #52639/05030

DPL #52641/05061

DPL #52644/05061

DEC #19617

ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 5A	SECTION WRA
				COUNTY SUSSEX	DESIGNED BY: D. WARING		SHEET NO. 265
					CHECKED BY: K. CLEVENGER		

8/13/2025
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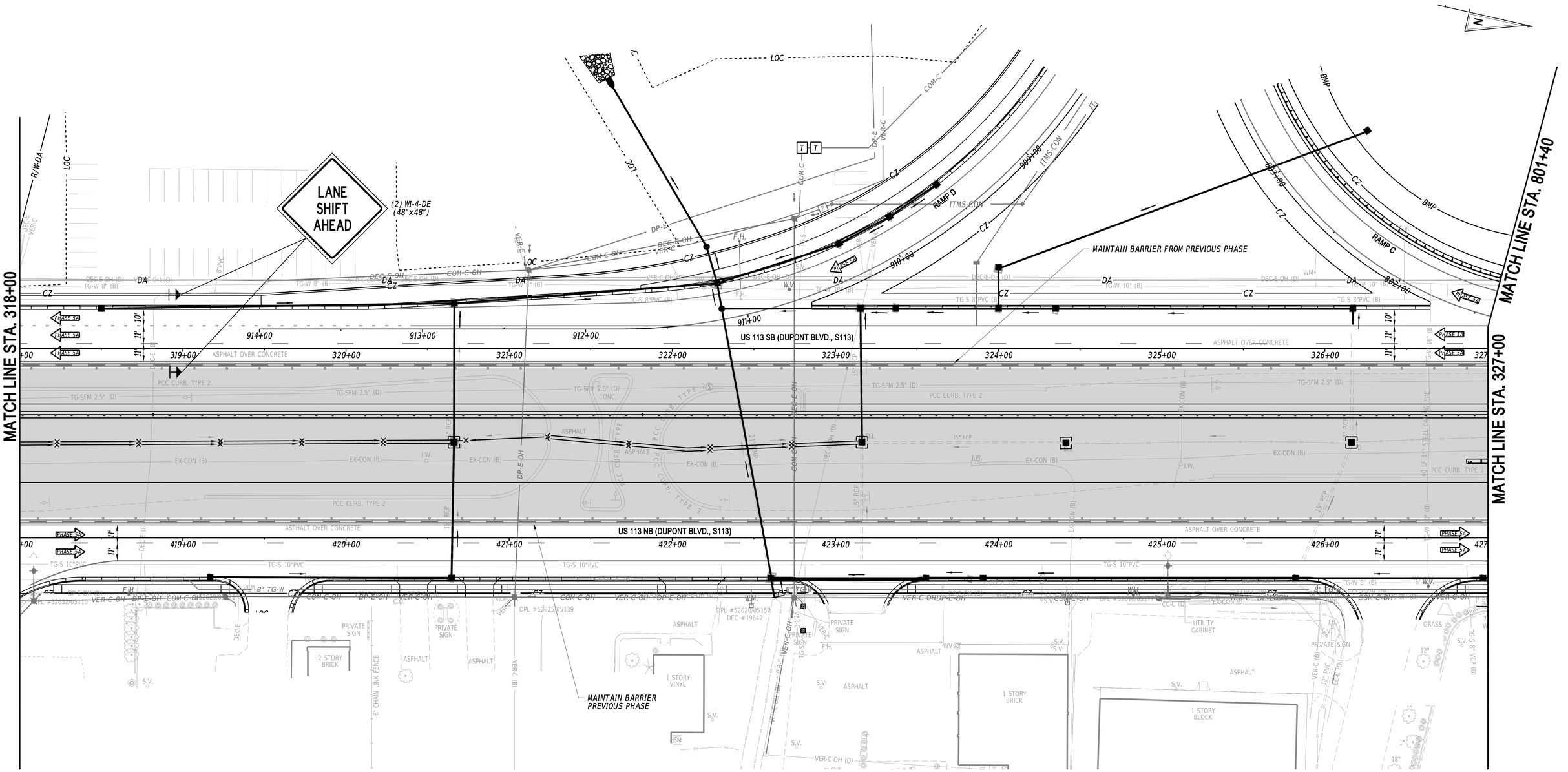

ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 5A	SECTION WRA
				COUNTY SUSSEX	DESIGNED BY: D. WARING		SHEET NO. 266
					CHECKED BY: K. CLEVENGER		

8/13/2025
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INSTALL TEMPORARY STRIPING IN THE FINAL CONFIGURATION ALONG SR 18/404 PRIOR TO PHASE 5 (SEE SIGNING, STRIPING, & CONDUIT PLANS)

REMOVE EXISTING SR 18/404 PAVEMENT

MAINTAIN BARRIER FROM PREVIOUS PHASE

MATCH LINE STA. 801+40

MATCH LINE STA. 327+00

MATCH LINE STA. 335+75

RAMP C

RAMP A

US 113 SB (DUPONT BLVD., S113)

US 113 NB (DUPONT BLVD., S113)

MAINTAIN TRAFFIC CONTROL FROM PHASE 4

MAINTAIN BARRIER FROM PREVIOUS PHASE

INSTALL TEMPORARY STRIPING IN THE FINAL CONFIGURATION ALONG SR 18/404 PRIOR TO PHASE 5 (SEE SIGNING, STRIPING, & CONDUIT PLANS)

ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO.	N/A
T201412701	DESIGNED BY: D. WARING	
COUNTY	CHECKED BY: K. CLEVENGER	
SUSSEX		

CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 5A

SECTION
WRA
SHEET NO.
267

8/13/2025
11:01:33 AM
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MATCH LINE STA. 335+75

MATCH LINE STA. 345+00

US 113 SB (DUPONT BLVD., S113)

US 113 NB (DUPONT BLVD., S113)

MAINTAIN BARRIER FROM PREVIOUS PHASE

NO STORAGE OF EQUIPMENT OR MATERIALS

COLLEGE PARK LANE

RAMP B

GORDY STREET (S22024B)

WOLFE ROAD

LITTLE LANKFORD LANE

1 STORY BRICK

1 STORY VINYL

2 STORY BLOCK

BUS SHELTER

DPL #52584/05318

#52590/05318

#52576/05306

#LA38-6

ASPHALT OVER CONCRETE

PCC CURB, TYPE 2

PCC CURB, TYPE 1

CONCRETE SIDEWALK

TRANSFORMER

TEST STATION

LAMP

ASPHALT

MAC

CONC.

GRASS

BRICK

MYRTLE

14"X23" RCP

15" RCP

TG-S 8"PVC (B)

TG-S 8"MTL (B)

TG-W 8" (B)

TG-W 8" (C)

DEC-E (B)

COM-C (B)

VER-C (B)

EX-CON (B)

CU-G (B)

DP-E

DA

CZ

LOC

R/W

R/W-DA

PHASE 5A

PHASE 5B

710+00

711+00

712+00

712+12

336+00

337+00

338+00

339+00

340+00

341+00

342+00

343+00

344+00

436+00

437+00

438+00

439+00

440+00

441+00

442+00

443+00

444+00

445

8/13/2025
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ADDENDA / REVISIONS		SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 5A	SECTION
		0 30 60 90 FEET		T201412701	DESIGNED BY: D. WARING		WRA
				COUNTY	CHECKED BY: K. CLEVENGER		SHEET NO.
				SUSSEX			268

MATCH LINE STA. 345+00

MATCH LINE STA. 354+00

MAINTAIN BARRIER FROM PREVIOUS PHASE

NO STORAGE OF EQUIPMENT OR MATERIALS

US 113 SB (DUPONT BLVD., S113)

US 113 NB (DUPONT BLVD., S113)

NO STORAGE OF EQUIPMENT OR MATERIALS

MAINTAIN BARRIER FROM PREVIOUS PHASE

(2) W1-4bL (48"x48")

ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 5A	SECTION WRA
				COUNTY SUSSEX	DESIGNED BY: D. WARING		SHEET NO. 269
					CHECKED BY: K. CLEVENGER		

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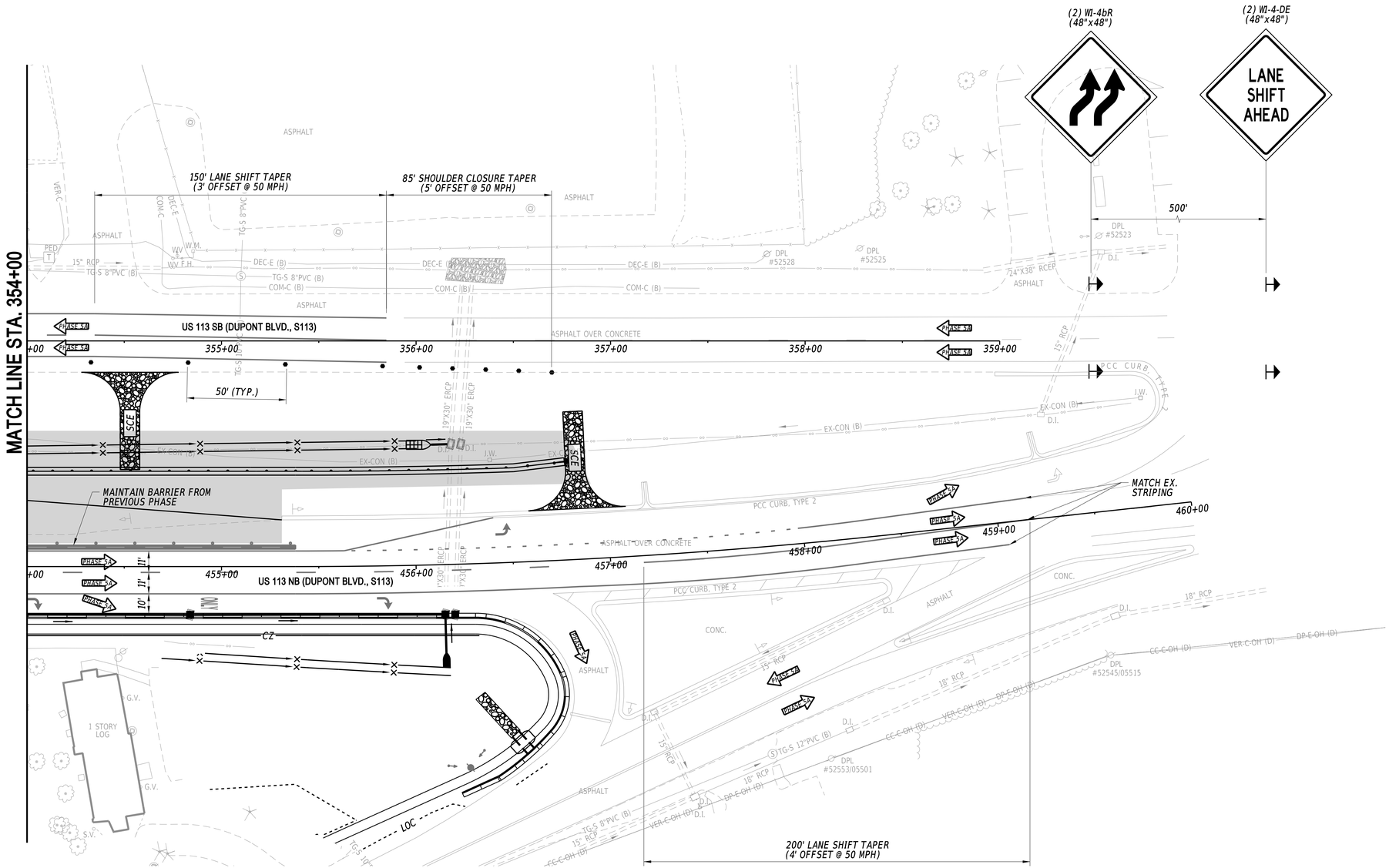

ADDENDA / REVISIONS		SCALE			CONTRACT	BRIDGE NO.	N/A		SECTION
		0 30 60 90	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION		T201412701	DESIGNED BY: D. WARING		CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 5A	WRA
		FEET			COUNTY	CHECKED BY: K. CLEVENGER			SHEET NO.
					SUSSEX				270

8/13/2025
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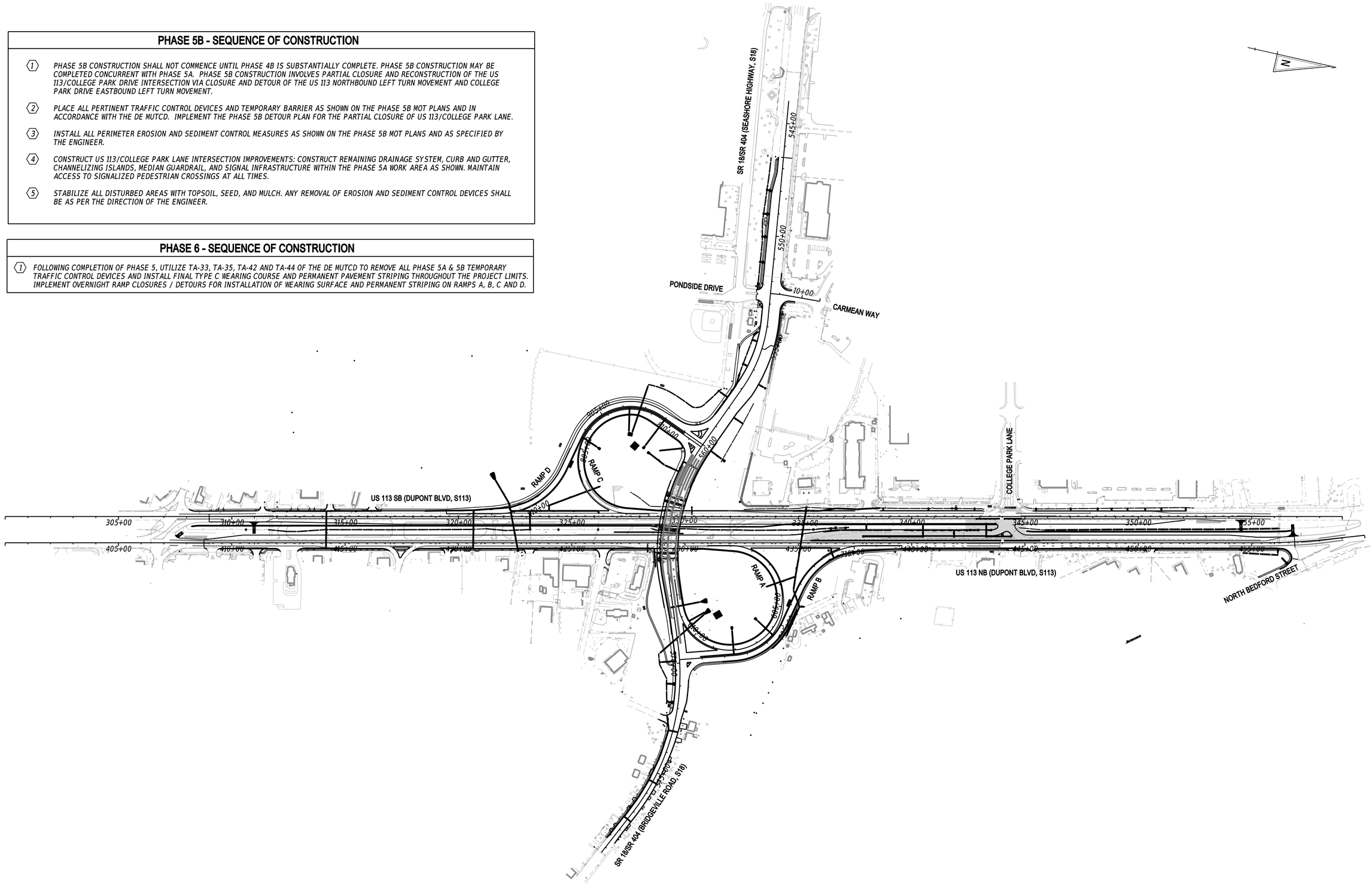
PHASE 5B - SEQUENCE OF CONSTRUCTION

1. PHASE 5B CONSTRUCTION SHALL NOT COMMENCE UNTIL PHASE 4B IS SUBSTANTIALLY COMPLETE. PHASE 5B CONSTRUCTION MAY BE COMPLETED CONCURRENT WITH PHASE 5A. PHASE 5B CONSTRUCTION INVOLVES PARTIAL CLOSURE AND RECONSTRUCTION OF THE US 113/COLLEGE PARK DRIVE INTERSECTION VIA CLOSURE AND DETOUR OF THE US 113 NORTHBOUND LEFT TURN MOVEMENT AND COLLEGE PARK DRIVE EASTBOUND LEFT TURN MOVEMENT.
2. PLACE ALL PERTINENT TRAFFIC CONTROL DEVICES AND TEMPORARY BARRIER AS SHOWN ON THE PHASE 5B MOT PLANS AND IN ACCORDANCE WITH THE DE MUTCD. IMPLEMENT THE PHASE 5B DETOUR PLAN FOR THE PARTIAL CLOSURE OF US 113/COLLEGE PARK LANE.
3. INSTALL ALL PERIMETER EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN ON THE PHASE 5B MOT PLANS AND AS SPECIFIED BY THE ENGINEER.
4. CONSTRUCT US 113/COLLEGE PARK LANE INTERSECTION IMPROVEMENTS: CONSTRUCT REMAINING DRAINAGE SYSTEM, CURB AND GUTTER, CHANNELIZING ISLANDS, MEDIAN GUARDRAIL, AND SIGNAL INFRASTRUCTURE WITHIN THE PHASE 5A WORK AREA AS SHOWN. MAINTAIN ACCESS TO SIGNALIZED PEDESTRIAN CROSSINGS AT ALL TIMES.
5. STABILIZE ALL DISTURBED AREAS WITH TOPSOIL, SEED, AND MULCH. ANY REMOVAL OF EROSION AND SEDIMENT CONTROL DEVICES SHALL BE AS PER THE DIRECTION OF THE ENGINEER.

PHASE 6 - SEQUENCE OF CONSTRUCTION

1. FOLLOWING COMPLETION OF PHASE 5, UTILIZE TA-33, TA-35, TA-42 AND TA-44 OF THE DE MUTCD TO REMOVE ALL PHASE 5A & 5B TEMPORARY TRAFFIC CONTROL DEVICES AND INSTALL FINAL TYPE C WEARING COURSE AND PERMANENT PAVEMENT STRIPING THROUGHOUT THE PROJECT LIMITS. IMPLEMENT OVERNIGHT RAMP CLOSURES / DETOURS FOR INSTALLATION OF WEARING SURFACE AND PERMANENT STRIPING ON RAMPS A, B, C AND D.



ADDENDA / REVISIONS	SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 5B	SECTION
	0 200 400 600 FEET		T201412701	DESIGNED BY: D. WARING		WRA
			COUNTY SUSSEX	CHECKED BY: K. CLEVENGER		SHEET NO. 271

8/13/2025
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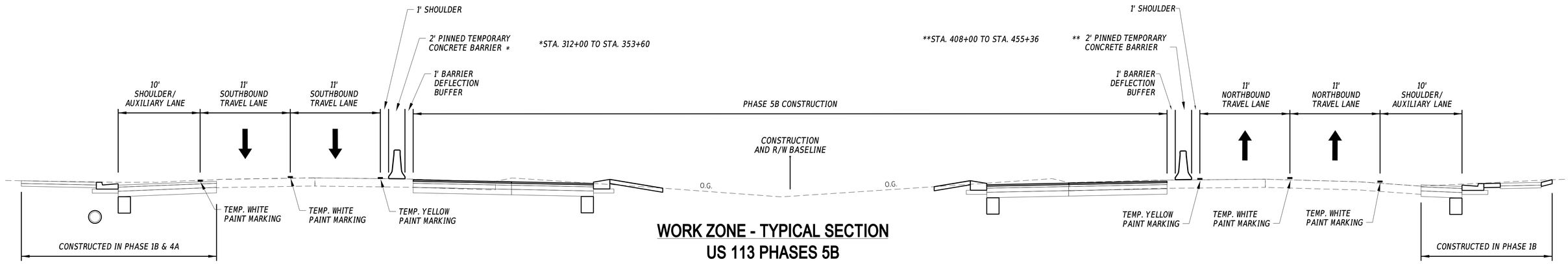

WORK ZONE - TYPICAL SECTION
US 113 PHASES 5B

NOT TO SCALE

STA. 435+25 TO STA. 447+00

ADDENDA / REVISIONS		NOT TO SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 5B	SECTION WRA
				COUNTY SUSSEX	DESIGNED BY: D. WARING		SHEET NO. 272
					CHECKED BY: K. CLEVENGER		

8/13/2025
11:01:43 AM
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TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(A)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID (ITEM 817042)	15 LF

N

MATCH LINE STA. 335+75

MAINTAIN BARRIER FROM PREVIOUS PHASE

MAINTAIN TRAFFIC CONTROL FROM PHASE 4

MAINTAIN PREVIOUS PHASE TRAFFIC CONTROL AND EROSION AND SEDIMENT CONTROL DEVICES

INSTALL PINNED BARRIER

MAINTAIN BARRIER FROM PREVIOUS PHASE

RAMP C

RAMP A

US 113 SB (DUPONT BLVD., S113)

US 113 NB (DUPONT BLVD., S113)

REALIGNED SR 18 / SR 404 (BRIDGEVILLE ROAD, S18)

ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 5B	SECTION WRA
				COUNTY SUSSEX	DESIGNED BY: D. WARING		SHEET NO. 273
					CHECKED BY: K. CLEVENGER		

8/13/2025
11:01:44 AM
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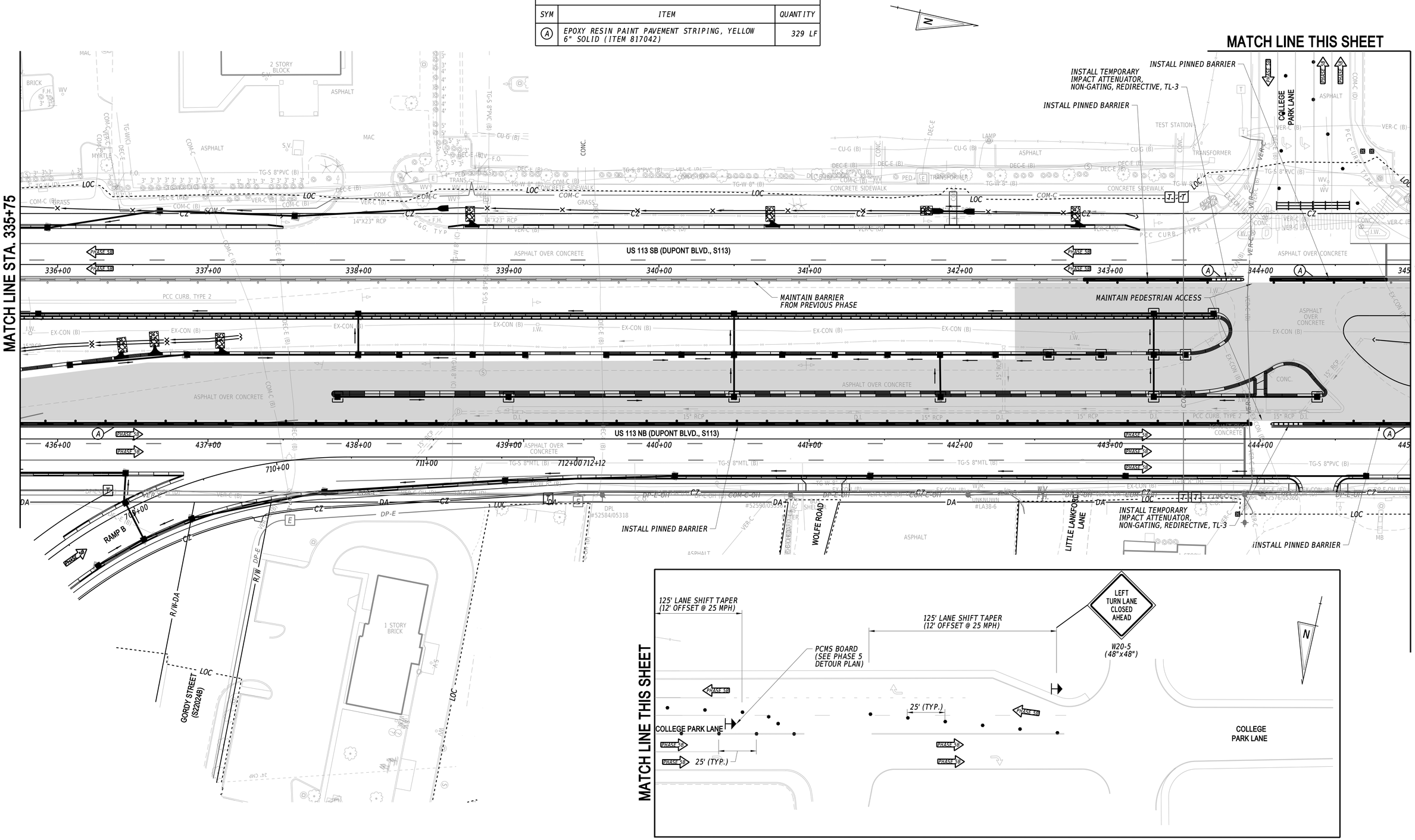
TEMPORARY PAVEMENT MARKINGS LEGEND

SYM	ITEM	QUANTITY
(A)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID (ITEM 817042)	329 LF



ADDENDA / REVISIONS	SCALE	CONTRACT	BRIDGE NO. N/A	SECTION
	0 30 60 90 FEET	T201412701	DESIGNED BY: D. WARING	WRA
		COUNTY: SUSSEX	CHECKED BY: K. CLEVENGER	SHEET NO. 274

US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION

CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 5B

8/13/2025
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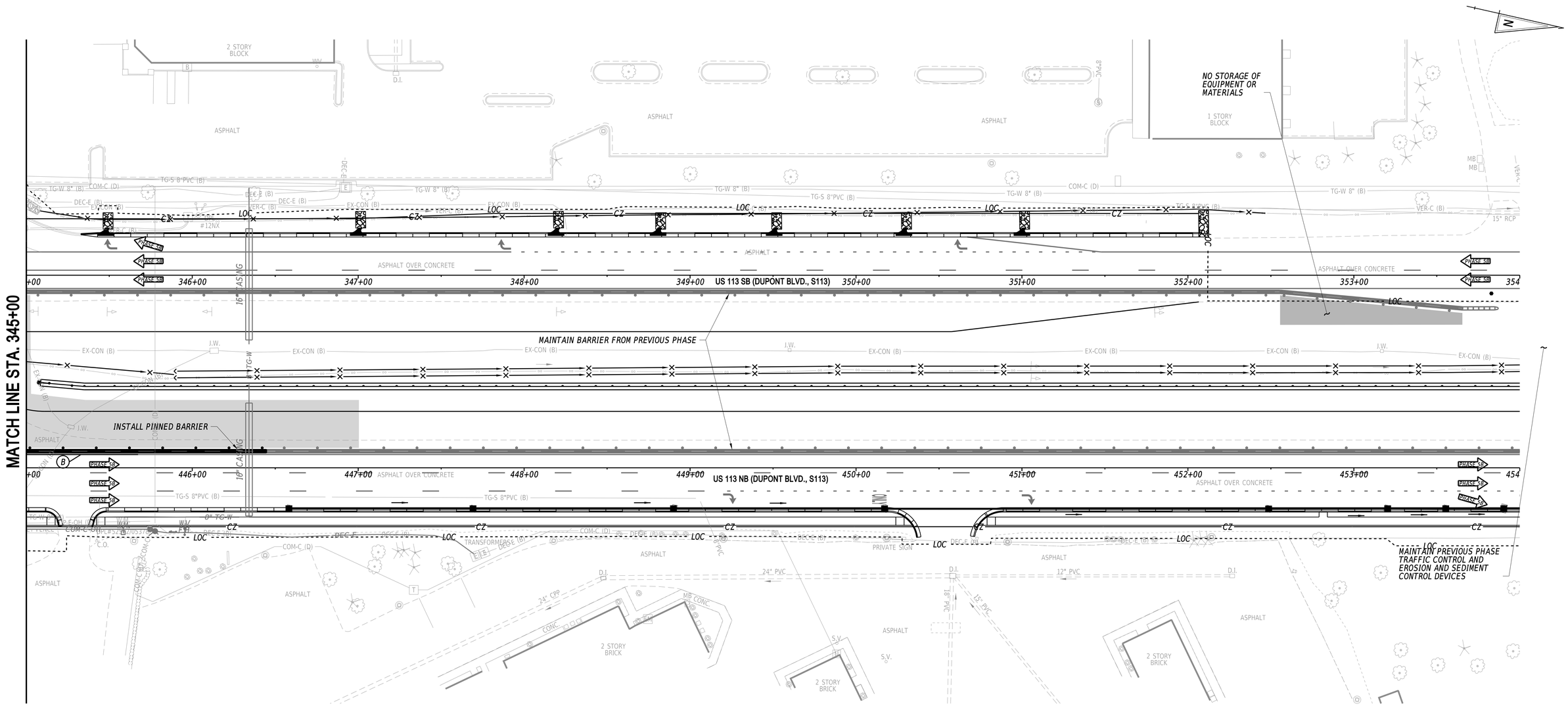

ADDENDA / REVISIONS	SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO.	N/A	CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN - PHASE 5B	SECTION
	0 30 60 90 FEET		T201412701	DESIGNED BY:	D. WARING		WRA
			COUNTY	CHECKED BY:	K. CLEVENGER		SHEET NO.
			SUSSEX				275

8/13/2025
11:01:48 AM
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PORTABLE CHANGEABLE MESSAGE SIGNS

PRIOR TO DETOUR
(10 DAYS PRIOR TO BEGINNING OF DETOUR)

PCMS-1

US113 NB TO CLOSE AT SR404	XX/XX/XX XX PM - XX AM

DURING DETOUR
(DISPLAY FOR ENTIRE DURATION OF OVERNIGHT DETOURS)

PCMS-2

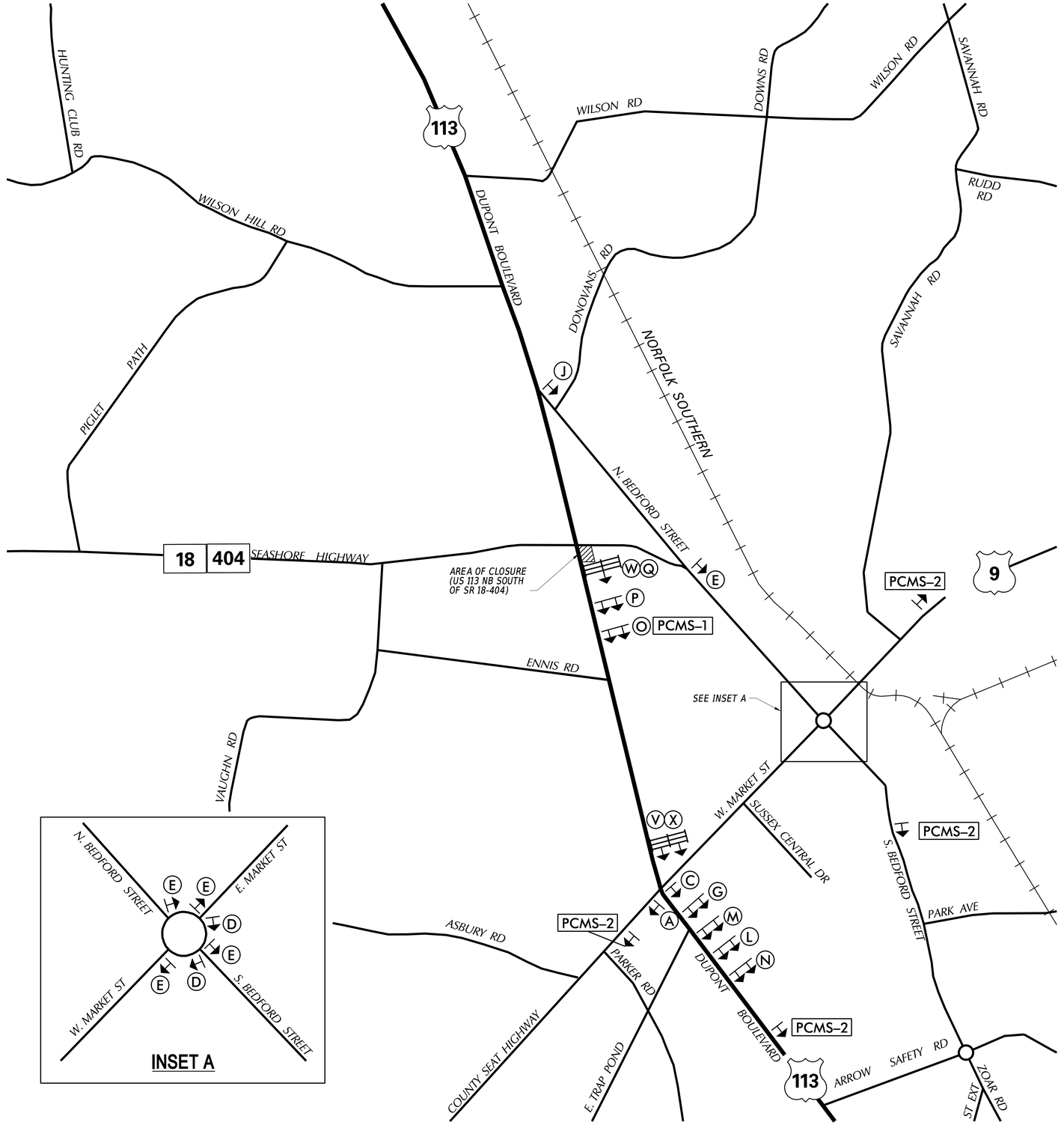
US113 NB CLOSED AT SR404	FOLLOW DETOUR

DETOUR DESCRIPTION
(TO BE USED ON ROAD CLOSURE NOTIFICATION AND TRAFFIC ALERT BY ENGINEER)

MOTORISTS ON NORTHBOUND RT 113/DUPONT BLVD WILL TURN RIGHT ONTO RT 9/WEST MARKET ST, TURN LEFT ONTO NORTH BEDFORD ST VIA THE DOWNTOWN GEORGETOWN TRAFFIC CIRCLE, RETURNING TO NORTHBOUND RT 113/DUPONT BLVD.

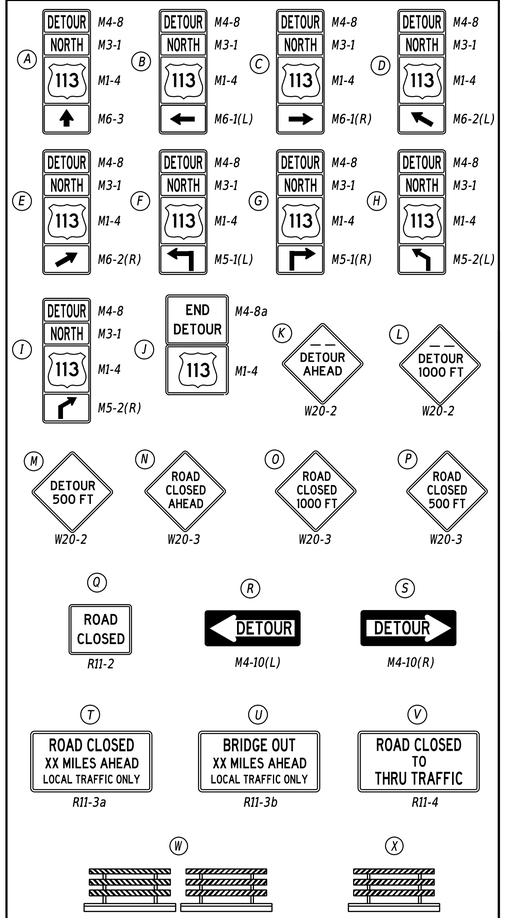
TRUCKS AND HEAVY VEHICLES ON NORTHBOUND RT 113/DUPONT BLVD WILL TURN RIGHT ONTO ARROW SAFETY RD (RT 9 TRUCK BYPASS), CONTINUE THROUGH ON PARK AVE (RT 9 TRUCK BYPASS), TURN RIGHT ONTO RT 9/LEWES-GEORGETOWN HWY, TURN LEFT ONTO RT 30/GRAVEL HILL RD, TURN LEFT ONTO RT 16/MILTON-ELLENDALE HWY, RETURNING TO NORTHBOUND RT 113/DUPONT BLVD.

SPECIAL SIGNS



INSET A

LEGEND



GENERAL NOTES

1. ALL TEMPORARY TRAFFIC CONTROL DEVICES ARE TO BE SUPPLIED AND MAINTAINED BY THE GENERAL CONTRACTOR AND SHALL BE IN COMPLIANCE WITH THIS PLAN AND THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (DE MUTCD) LATEST EDITION.
2. SIGNS "N" THROUGH "Q" AND "T" AND "V", THE WORD "ROAD" SHALL BE CHANGED TO "RAMP", "RR XING" OR "BRIDGE" WHERE APPLICABLE.
3. "W" TYPE 3 BARRICADES AT A ROAD CLOSURE SHALL BE PLACED COMPLETELY ACROSS THE ROADWAY, FROM CURB TO CURB, OR FROM EDGE OF ROAD TO EDGE OF ROAD, WITH THE STRIPES POSITIONED DOWNWARD TOWARD THE CENTER OF THE ROADWAY.
4. BARRICADES SHALL BE A MINIMUM OF 6 FEET WIDE UNLESS DIRECTED BY THE ENGINEER.
5. PAIRS OF SIGN ICONS DENOTE SIGN ASSEMBLIES TO BE INSTALLED ON BOTH THE LEFT AND RIGHT SHOULDERS OF A DIVIDED HIGHWAY.
6. SIGN ASSEMBLIES A THROUGH J SHALL BE FABRICATED ON A SINGLE SIGN PANEL AND SHALL BE PAID AS ONE SIGN UNDER ITEM 810001.

SPECIAL NOTES

1. THE CONTRACTOR SHALL IMPLEMENT TA-37 OF THE DE-MUTCD TO CLOSE BOTH US 113 NORTHBOUND THROUGH LANES APPROACHING BURGER KING DRIVE. PLACE DRUMS AND BARRICADES TO FORCE ALL NORTHBOUND TRAFFIC TO TURN RIGHT ONTO BURGER KING DRIVE AT THE CLOSURE POINT.

PREPARED BY

WRA Whitman, Requardt and Associates, LLP
Engineers • Architects • Environmental Planners Est. 1915

7/12/2024
THIS SEAL APPLIES TO THIS DETOUR PLAN ONLY — DATE

KYLE O. CLEVENGER LICENSE No. 18723 DELAWARE PROFESSIONAL ENGINEER
SEAL

7/12/2024
QA/QC REVIEWER — DATE

"I CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT THIS DETOUR PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES."

CONCURRENCE FOR IMPLEMENTATION

TRAFFIC SAFETY — 07/22/2024 DATE

ADDENDA / REVISIONS	

NOT TO SCALE

US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION

CONTRACT	PERMIT NO.	N/A
T201412701	DESIGNED BY:	A. DOELP
COUNTY	CHECKED BY:	K. CLEVENGER
SUSSEX		

VEHICULAR DETOUR PLAN US 113 NORTHBOUND PHASE 1

SECTION	WRA
SHEET NO.	276

LAST REVISED: 9/11/2018
7/12/2024
12:30:39 PM
N:\321\49-00\1\CAD\DP01_SR18.dgn

PORTABLE CHANGEABLE MESSAGE SIGNS

DURING DETOUR

(DISPLAY FOR ENTIRE DURATION OF OVERNIGHT DETOURS)

PCMS-1

US113 NB CLOSED AT SR404	TRUCKS FOLLOW DETOUR

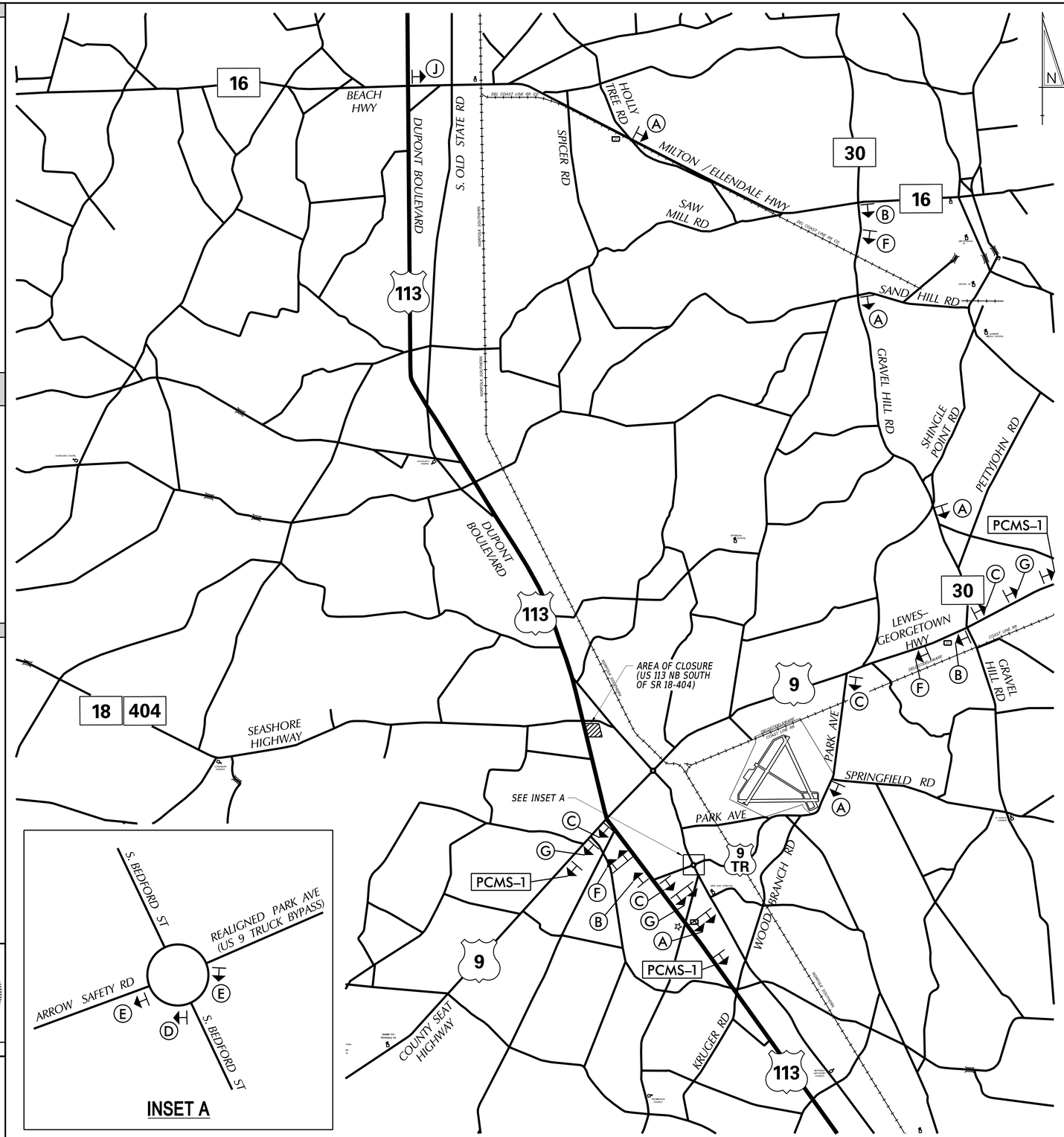
DETOUR DESCRIPTION

(TO BE USED ON ROAD CLOSURE NOTIFICATION AND TRAFFIC ALERT BY ENGINEER)

MOTORISTS ON NORTHBOUND RT 113/DUPONT BLVD WILL TURN RIGHT ONTO RT 9/WEST MARKET ST, TURN LEFT ONTO NORTH BEDFORD ST VIA THE DOWNTOWN GEORGETOWN TRAFFIC CIRCLE, RETURNING TO NORTHBOUND RT 113/DUPONT BLVD.

TRUCKS AND HEAVY VEHICLES ON NORTHBOUND RT 113/DUPONT BLVD WILL TURN RIGHT ONTO ARROW SAFETY RD (RT 9 TRUCK BYPASS), CONTINUE THROUGH ON PARK AVE (RT 9 TRUCK BYPASS), TURN RIGHT ONTO RT 9/LEWES-GEORGETOWN HWY, TURN LEFT ONTO RT 30/GRAVEL HILL RD, TURN LEFT ONTO RT 16/MILTON-ELLENDALE HWY, RETURNING TO NORTHBOUND RT 113/DUPONT BLVD.

SPECIAL SIGNS



INSET A

PREPARED BY

WRA Whitman, Requardt and Associates, LLP
Engineers • Architects • Environmental Planners Est. 1915

THIS SEAL APPLIES TO THIS DETOUR PLAN ONLY — DATE: 7/12/2024

KYLE O. CLEVENGER LICENSE No. 18723 DELAWARE PROFESSIONAL ENGINEER — SEAL

QA/QC REVIEWER — DATE: 7/12/2024

"I CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT THIS DETOUR PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES."

LEGEND

(A) TRUCK M4-4 / DETOUR M4-8 / NORTH / 113 M1-4 / ↑ M6-3	(B) TRUCK M4-4 / DETOUR M4-8 / NORTH / 113 M1-4 / ← M6-1(L)	(C) TRUCK M4-4 / DETOUR M4-8 / NORTH / 113 M1-4 / → M6-1(R)	(D) TRUCK M4-4 / DETOUR M4-8 / NORTH / 113 M1-4 / ↖ M6-2(L)
(E) TRUCK M4-4 / DETOUR M4-8 / NORTH / 113 M1-4 / ↗ M6-2(R)	(F) TRUCK M4-4 / DETOUR M4-8 / NORTH / 113 M1-4 / ↰ M5-1(L)	(G) TRUCK M4-4 / DETOUR M4-8 / NORTH / 113 M1-4 / ↱ M5-1(R)	(H) TRUCK M4-4 / DETOUR M4-8 / NORTH / 113 M1-4 / ↖ M5-2(L)
(I) TRUCK M4-4 / DETOUR M4-8 / NORTH / 113 M1-4 / ↗ M5-2(R)	(J) TRUCK M4-4 / END DETOUR M4-8a / 113 M1-4	(K) DETOUR AHEAD W20-2	(L) DETOUR 1000 FT W20-2
(M) DETOUR 500 FT W20-2	(N) ROAD CLOSED AHEAD W20-3	(O) ROAD CLOSED 1000 FT W20-3	(P) ROAD CLOSED 500 FT W20-3
(Q) ROAD CLOSED R11-2	(R) DETOUR M4-10(L)	(S) DETOUR M4-10(R)	
(T) ROAD CLOSED XX MILES AHEAD LOCAL TRAFFIC ONLY R11-3a	(U) BRIDGE OUT XX MILES AHEAD LOCAL TRAFFIC ONLY R11-3b	(V) ROAD CLOSED TO THRU TRAFFIC R11-4	
(W)	(X)		

GENERAL NOTES

1. *ALL TEMPORARY TRAFFIC CONTROL DEVICES ARE TO BE SUPPLIED AND MAINTAINED BY THE GENERAL CONTRACTOR AND SHALL BE IN COMPLIANCE WITH THIS PLAN AND THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (DE MUTCD) LATEST EDITION.*
2. *SIGNS "N" THROUGH "Q" AND "T" AND "V", THE WORD "ROAD" SHALL BE CHANGED TO "RAMP", "RR XING" OR "BRIDGE" WHERE APPLICABLE.*
3. *"W" TYPE 3 BARRICADES AT A ROAD CLOSURE SHALL BE PLACED COMPLETELY ACROSS THE ROADWAY, FROM CURB TO CURB, OR FROM EDGE OF ROAD TO EDGE OF ROAD, WITH THE STRIPES POSITIONED DOWNWARD TOWARD THE CENTER OF THE ROADWAY.*
4. *BARRICADES SHALL BE A MINIMUM OF 6 FEET WIDE UNLESS DIRECTED BY THE ENGINEER.*
5. *PAIRS OF SIGN ICONS DENOTE SIGN ASSEMBLIES TO BE INSTALLED ON BOTH THE LEFT AND RIGHT SHOULDERS OF A DIVIDED HIGHWAY.*
6. *SIGN ASSEMBLIES A THROUGH J SHALL BE FABRICATED ON A SINGLE SIGN PANEL AND SHALL BE PAID AS ONE SIGN UNDER ITEM 810001.*

CONCURRENCE FOR IMPLEMENTATION

TRAFFIC SAFETY — DATE: 07/22/2024

ADDENDA / REVISIONS		NOT TO SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	PERMIT NO. N/A	TRUCK DETOUR PLAN US 113 NORTHBOUND PHASE 1	SECTION WRA
				COUNTY SUSSEX	DESIGNED BY: A. DOELP		SHEET NO. 277
					CHECKED BY: K. CLEVENGER		

LAST REVISED: 9/11/2018
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PORTABLE CHANGEABLE MESSAGE SIGNS

PRIOR TO DETOUR
(10 DAYS PRIOR TO BEGINNING OF DETOUR)

PCMS-1

US113 SB TO CLOSE AT SR404	XX/XX/XX XX PM - XX AM

DURING DETOUR
(DISPLAY FOR ENTIRE DURATION OF OVERNIGHT DETOURS)

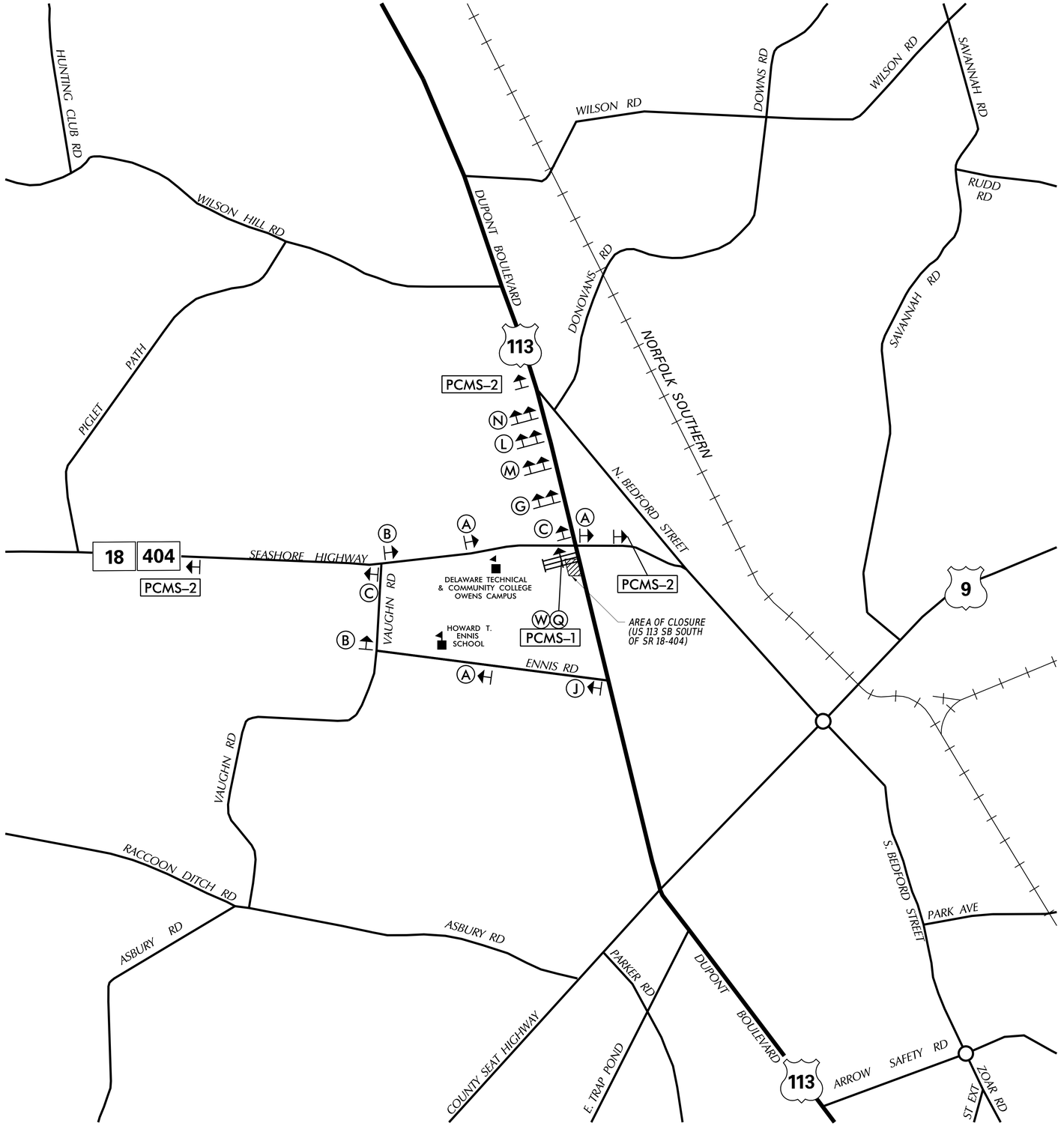
PCMS-2

US113 SB CLOSED AT SR404	FOLLOW DETOUR

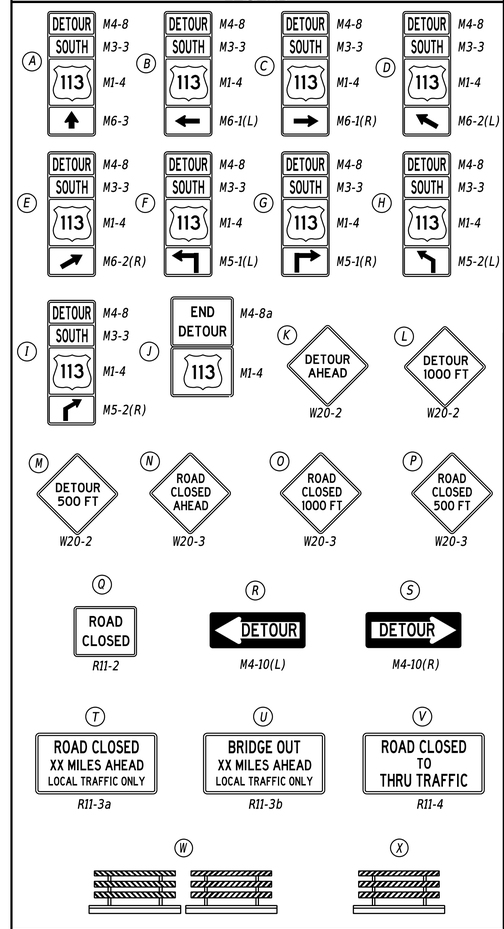
DETOUR DESCRIPTION
(TO BE USED ON ROAD CLOSURE NOTIFICATION AND TRAFFIC ALERT BY ENGINEER)

MOTORISTS ON SOUTHBOUND RT 113/DUPONT BLVD WILL TURN RIGHT ONTO RT 18-404/SEASHORE HWY, TURN LEFT ONTO VAUGHN RD, TURN LEFT ONTO ENNIS RD, RETURNING TO SOUTHBOUND RT 113/DUPONT BLVD.

SPECIAL SIGNS



LEGEND



GENERAL NOTES

1. *ALL TEMPORARY TRAFFIC CONTROL DEVICES ARE TO BE SUPPLIED AND MAINTAINED BY THE GENERAL CONTRACTOR AND SHALL BE IN COMPLIANCE WITH THIS PLAN AND THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (DE MUTCD) LATEST EDITION.*
2. *SIGNS "N" THROUGH "Q" AND "T" AND "V", THE WORD "ROAD" SHALL BE CHANGED TO "RAMP", "RR XING" OR "BRIDGE" WHERE APPLICABLE.*
3. *"W" TYPE 3 BARRICADES AT A ROAD CLOSURE SHALL BE PLACED COMPLETELY ACROSS THE ROADWAY, FROM CURB TO CURB, OR FROM EDGE OF ROAD TO EDGE OF ROAD, WITH THE STRIPES POSITIONED DOWNWARD TOWARD THE CENTER OF THE ROADWAY.*
4. *BARRICADES SHALL BE A MINIMUM OF 6 FEET WIDE UNLESS DIRECTED BY THE ENGINEER.*
5. *PAIRS OF SIGN ICONS DENOTE SIGN ASSEMBLIES TO BE INSTALLED ON BOTH THE LEFT AND RIGHT SHOULDERS OF A DIVIDED HIGHWAY.*
6. *SIGN ASSEMBLIES A THROUGH J SHALL BE FABRICATED ON A SINGLE SIGN PANEL AND SHALL BE PAID AS ONE SIGN UNDER ITEM 810001.*

PREPARED BY

Whitman, Requardt and Associates, LLP
Engineers • Architects • Environmental Planners Est. 1915

KYLE O. CLEVENGER LICENSE No. 18723 DELAWARE PROFESSIONAL ENGINEER

7/12/2024
THIS SEAL APPLIES TO THIS DETOUR PLAN ONLY — DATE

SEAL

7/12/2024
QA/QC REVIEWER — DATE

"I CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT THIS DETOUR PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES."

CONCURRENCE FOR IMPLEMENTATION

TRAFFIC SAFETY — 07/22/2024 DATE

ADDENDA / REVISIONS		NOT TO SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	PERMIT NO. N/A	DETOUR PLAN US 113 SOUTHBOUND PHASE 1	SECTION WRA
				COUNTY SUSSEX	DESIGNED BY: A. DOELP		SHEET NO. 278
					CHECKED BY: K. CLEVENGER		

LAST REVISED: 9/11/2018
7/10/2024
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PORTABLE CHANGEABLE MESSAGE SIGNS

PRIOR TO DETOUR

(10 DAYS PRIOR TO BEGINNING OF DETOUR)

PCMS-1

SR18-404 TO CLOSE AT US113	STARTING XX-XX-XX

DURING DETOUR

(DISPLAY FOR 5 DAYS AFTER IMPLEMENTATION OF DETOUR)

PCMS-2

SR18-404 CLOSED AT US113	FOLLOW DETOUR

DETOUR DESCRIPTION

(TO BE USED ON ROAD CLOSURE NOTIFICATION AND TRAFFIC ALERT BY ENGINEER)

MOTORISTS ON WESTBOUND RT 9-404 DESTINED FOR WESTBOUND RT 18-404 WILL CONTINUE STRAIGHT ONTO WESTBOUND RT 9/W. MARKET ST AT THE GEORGETOWN CIRCLE, TURN RIGHT ONTO RT 113/DUPONT BLVD NORTHBOUND, RETURNING TO RT 18-404.

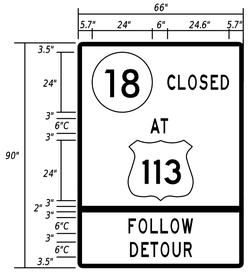
MOTORISTS ON EASTBOUND RT 18-404 WANTING TO CONTINUE TO RT 9-404 EASTBOUND WILL TURN RIGHT ONTO RT 113/DUPONT BLVD SOUTHBOUND, TURN LEFT ONTO RT. 9-404 EASTBOUND, RETURNING TO RT 18-404.

MOTORISTS ON SOUTHBOUND N. BEDFORD STREET WILL CONTINUE STRAIGHT TO THE GEORGETOWN CIRCLE, TURN RIGHT ONTO RT 9/W. MARKET ST, TURN RIGHT ONTO RT 113/DUPONT BLVD NORTHBOUND, RETURNING TO RT 18-404.

MOTORISTS ON NORTHBOUND S. BEDFORD STREET DESTINED FOR WESTBOUND RT 18-404 WILL USE THE THIRD EXIT FROM THE GEORGETOWN CIRCLE TO CONTINUE ON WESTBOUND RT 9/W. MARKET ST, TURN RIGHT ONTO RT 113/DUPONT BLVD NORTHBOUND, RETURNING TO RT 18-404.

SPECIAL SIGNS

(Y)



** SIGN PANEL SHALL CONSIST OF A BLACK LEGEND ON FLUORESCENT ORANGE RETROREFLECTIVE BACKGROUND.*

ROUTE SHIELDS SHALL CONSISTE OF A BLACK LEGEND ON A WHITE RETROREFLECTIVE BACKGROUND.

PREPARED BY

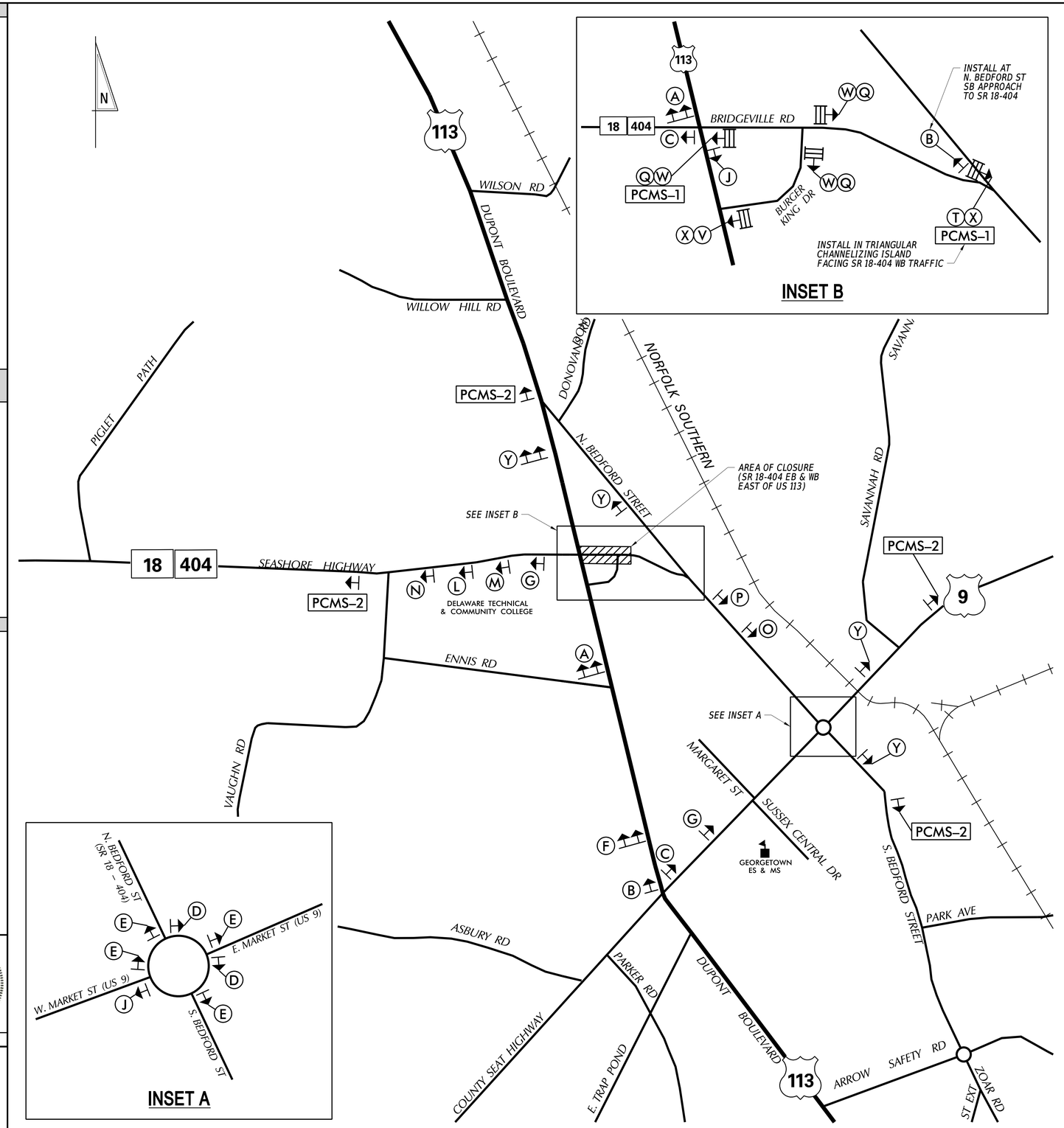
WRA Whitman, Requardt and Associates, LLP
Engineers • Architects • Environmental Planners Est. 1915

KYLE O. CLEVENGER LICENSE No. 18723 DELAWARE PROFESSIONAL ENGINEER

7/12/2024
THIS SEAL APPLIES TO THIS DETOUR PLAN ONLY — DATE — SEAL

7/12/2024
QA/QC REVIEWER — DATE

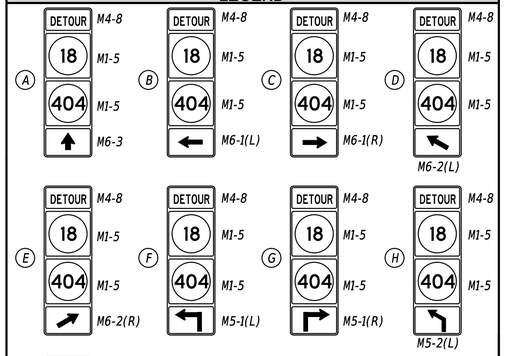
"I CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT THIS DETOUR PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES."



INSET B

INSET A

LEGEND



GENERAL NOTES

1. *ALL TEMPORARY TRAFFIC CONTROL DEVICES ARE TO BE SUPPLIED AND MAINTAINED BY THE GENERAL CONTRACTOR AND SHALL BE IN COMPLIANCE WITH THIS PLAN AND THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (DE MUTCD) LATEST EDITION.*
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4. *BARRICADES SHALL BE A MINIMUM OF 6 FEET WIDE UNLESS DIRECTED BY THE ENGINEER.*
5. *PAIRS OF SIGN ICONS DENOTE SIGN ASSEMBLIES TO BE INSTALLED ON BOTH THE LEFT AND RIGHT SHOULDERS OF A DIVIDED HIGHWAY.*
6. *SIGN ASSEMBLIES A THROUGH J SHALL BE FABRICATED ON A SINGLE SIGN PANEL AND SHALL BE PAID AS ONE SIGN UNDER ITEM 810001.*

CONCURRENCE FOR IMPLEMENTATION

TRAFFIC SAFETY — 07/22/2024 DATE

ADDENDA / REVISIONS		NOT TO SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	PERMIT NO. N/A	DETOUR PLAN SR 18 / SR 404 PHASE 2B	SECTION
				T201412701			WRA
				COUNTY	DESIGNED BY: A. DOELP		SHEET NO.
				SUSSEX	CHECKED BY: K. CLEVENGER		279

LAST REVISED: 9/11/2018
7/10/2024
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PORTABLE CHANGEABLE MESSAGE SIGNS

PRIOR TO DETOUR
(10 DAYS PRIOR TO BEGINNING OF DETOUR)

PCMS-1

COLLEGE PARK LN ACCESS	TO CLOSE STARTING XX-XX-XX

PCMS-2

US113 NB ACCESS TO CLOSE	STARTING XX-XX-XX

DURING DETOUR
(DISPLAY FOR ENTIRE DURATION OF DETOUR)

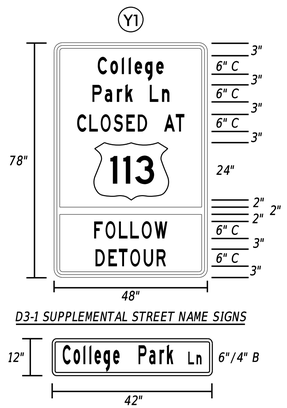
PCMS-3

COLLEGE PARK LN CLOSED	AT US113 FOLLOW DETOUR

PCMS-4

NO ACCESS TO	US113 NB USE SR18-404

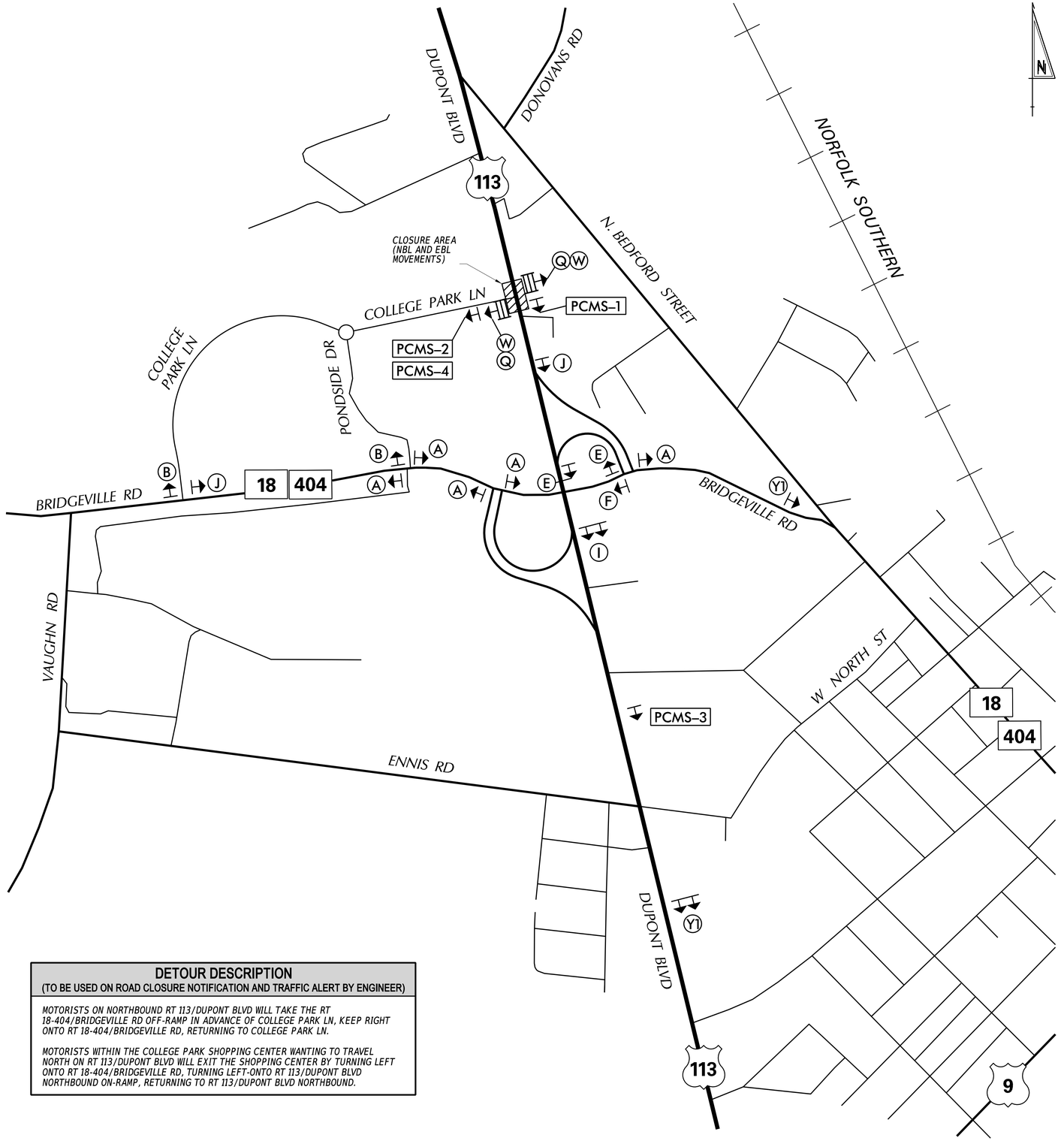
SPECIAL SIGNS



D3-1 SUPPLEMENTAL STREET NAME SIGNS

* *SIGN PANELS SHALL CONSIST OF A BLACK LEGEND ON PRISMATIC FLUORESCENT ORANGE RETROREFLECTIVE BACKGROUND.*

ROUTE SHIELDS SHALL CONSISTE OF A BLACK LEGEND ON A WHITE RETROREFLECTIVE BACKGROUND.

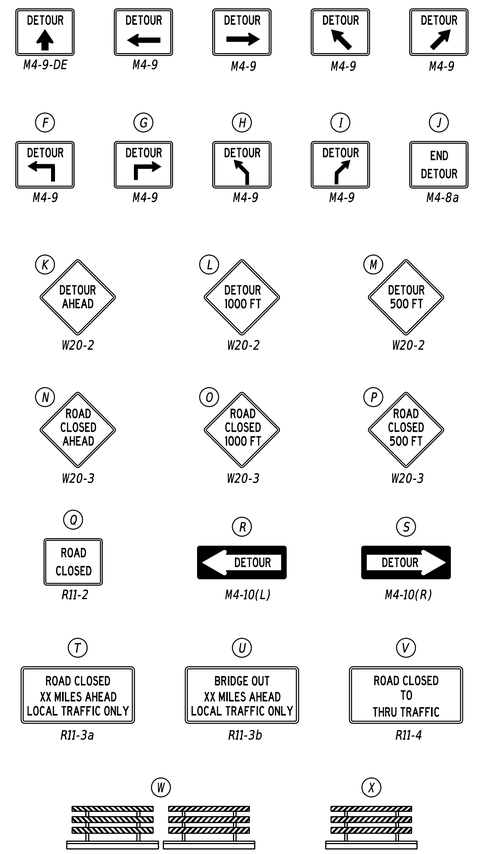


DETOUR DESCRIPTION
(TO BE USED ON ROAD CLOSURE NOTIFICATION AND TRAFFIC ALERT BY ENGINEER)

MOTORISTS ON NORTHBOUND RT 113/DUPONT BLVD WILL TAKE THE RT 18-404/BRIDGEVILLE RD OFF-RAMP IN ADVANCE OF COLLEGE PARK LN, KEEP RIGHT ONTO RT 18-404/BRIDGEVILLE RD, RETURNING TO COLLEGE PARK LN.

MOTORISTS WITHIN THE COLLEGE PARK SHOPPING CENTER WANTING TO TRAVEL NORTH ON RT 113/DUPONT BLVD WILL EXIT THE SHOPPING CENTER BY TURNING LEFT ONTO RT 18-404/BRIDGEVILLE RD, TURNING LEFT-ONTO RT 113/DUPONT BLVD NORTHBOUND ON-RAMP, RETURNING TO RT 113/DUPONT BLVD NORTHBOUND.

LEGEND



GENERAL NOTES

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4. *BARRICADES SHALL BE A MINIMUM OF 6 FEET WIDE UNLESS DIRECTED BY THE ENGINEER.*
5. *PAIRS OF SIGN ICONS DENOTE SIGN ASSEMBLIES TO BE INSTALLED ON BOTH THE LEFT AND RIGHT SHOULDERS OF A DIVIDED HIGHWAY.*
6. *SIGN ASSEMBLIES A THROUGH J SHALL BE FABRICATED ON A SINGLE SIGN PANEL AND SHALL BE PAID AS ONE SIGN UNDER ITEM 810001.*

GENERAL NOTES

1. *REFER TO PHASE 5B MOT PLANS FOR ADDITIONAL TEMPORARY TRAFFIC CONTROL DEVICES AT THE US 113/COLLEGE PARK LN INTERSECTION.*

CONCURRENCE FOR IMPLEMENTATION

TRAFFIC SAFETY — DATE 07/22/2024

PREPARED BY

WRA Whitman, Requardt and Associates, LLP
Engineers • Architects • Environmental Planners Est. 1915

KYLE O. CLEVENGER — LICENSE — No. 18723 — DELAWARE — PROFESSIONAL ENGINEER

THIS SEAL APPLIES TO THIS DETOUR PLAN ONLY — DATE 7/12/2024 — SEAL

QA/QC REVIEWER — DATE 7/12/2024

"I CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT THIS DETOUR PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES."

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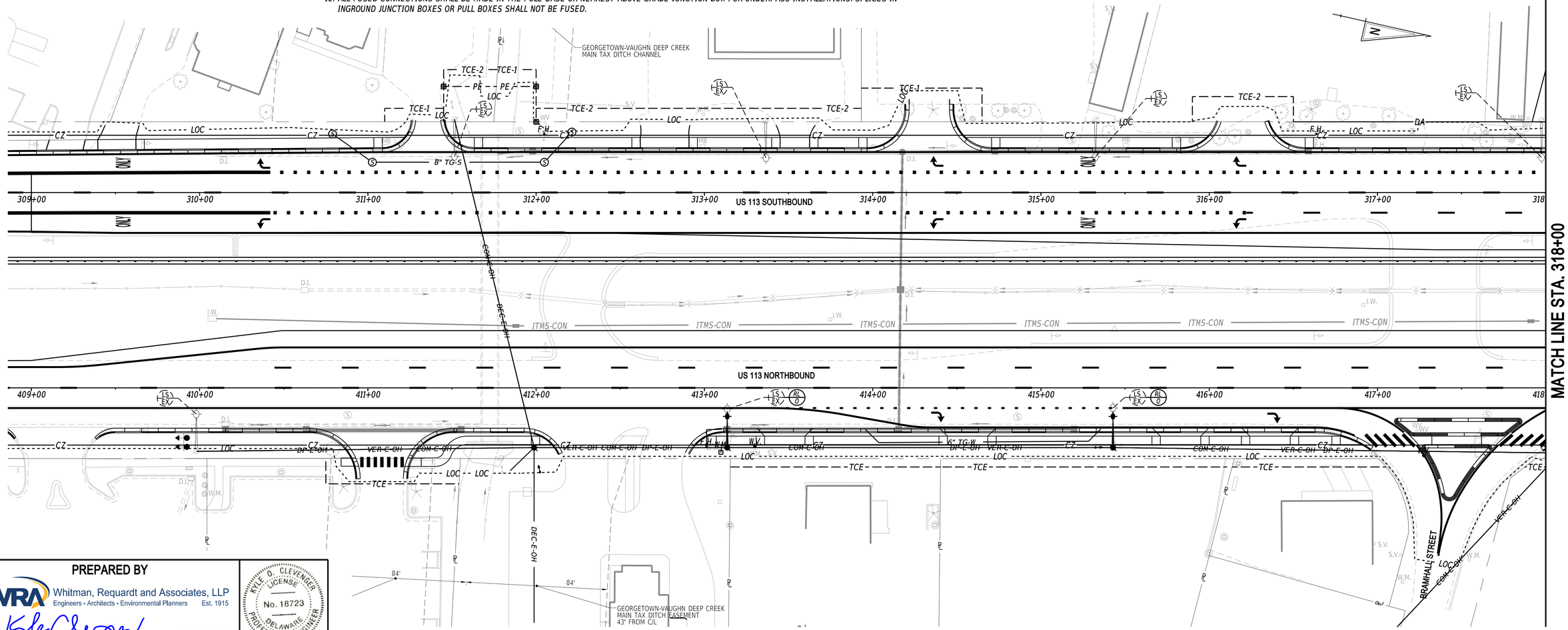
ADDENDA / REVISIONS		NOT TO SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	PERMIT NO.	N/A	DETOUR PLAN COLLEGE PARK LANE PHASE 5B	SECTION
				T201412701				WRA
				COUNTY	DESIGNED BY: A. DOELP			SHEET NO.
				SUSSEX	CHECKED BY: K. CLEVENGER			280

LIGHTING SYMBOL LEGEND

SYMBOL		DESCRIPTION
	–	PROPOSED LIGHTING STANDARD
	–	EXISTING LIGHTING STANDARD
— LI-CON —	–	PROPOSED LIGHTING SERVICE RUN (CONDUIT)
	–	PROPOSED JUNCTION WELL LIGHTING
CA / Y	–	PROPOSED LIGHTING CONTROL AND DISTRIBUTION ENCLOSURE & IDENTIFIER (TYPE)
D P	–	PROPOSED ADDITIONAL DISCONNECT SWITCH & ELECTRIC UTILITY SERVICE EQUIPMENT
LS / EX, LS / #	–	EXISTING & PROPOSED LIGHTING STANDARD IDENTIFIERS
SR / #	–	PROPOSED SERVICE RUN IDENTIFIER
PB / X	–	PROPOSED POLE BASE IDENTIFIER (TYPE)
JW / X	–	PROPOSED JUNCTION WELL IDENTIFIER (TYPE)
RL / O, RM / O	–	RELOCATE & REMOVE BY OTHERS IDENTIFIERS
RM / C, AB	–	REMOVE & ABANDON BY CONTRACTOR IDENTIFIER

PROJECT LIGHTING NOTES:

1. SERVICE RUNS ARE SHOWN IN APPROXIMATE LOCATIONS. THE CONTRACTOR SHALL LOCATE THE SERVICE RUNS IN A MANNER THAT AVOIDS CONFLICTS WITH ALL EXISTING AND PROPOSED FEATURES AS FIELD CONDITIONS DICTATE AND AS APPROVED BY THE ENGINEER.
2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS PRIOR TO WORK.
3. THE LIGHTING CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL THE CONTRACTORS INVOLVED ON THIS CONTRACT AND ADJACENT CONTRACTS. THE LIGHTING CONTRACTOR SHALL COORDINATE WITH THE ENGINEER AND THE GENERAL SUPERINTENDENT ON THE LOCATION OF ALL CONDUIT, JUNCTION WELLS AND POLE BASES TO ELIMINATE CONSTRUCTION CONFLICTS.
4. EXISTING UTILITY LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXACT LOCATIONS PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL PERFORM TEST HOLES PER THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
5. THE CONTRACTOR SHALL CONTACT DELMARVA POWER TO COORDINATE SERVICE DROP LOCATIONS AND TO ENSURE ALL PROPOSED SERVICE FEEDS ARE APPROVED PRIOR TO INSTALLATION OF CABINETS AND ELECTRIC UTLITY SERVICE EQUIPMENT. THE CONTRACTOR SHALL ARRANGE A MEETING WITH DELMARVA POWER, THE ENGINEER AND THE DELDOT TRAFFIC SECTION TO ENSURE THAT POWER IS AVAILABLE WHEN REQUIRED.
6. COLOR CODING SHALL BE PROVIDED THROUGHOUT THE ENTIRE NETWORK FOR SERVICE, FEEDER, BRANCH AND CONTROL CONDUCTORS. EACH PHASE SHALL BE AN INDEPENDENT COLOR. CONDUCTORS SHALL HAVE FACTORY IMPREGNATED COLOR THROUGHOUT THEIR ENTIRE LENGTH.
7. ALL JUNCTION WELL LIDS AND FRAMES SHALL BE BONDED TO THE GROUND WIRE PRESENT IN EACH JUNCTION WELL.
8. PHOTOELECTRIC CONTROL FOR ALL PROPOSED LUMINAIRES SHALL BE AT THE PROPOSED LIGHTING CONTROL AND DISTRIBUTION ENCLOSURES.
9. LIGHTING CABINET COMPONENTS SHALL BE SQUARE D.
10. ALL FUSED CONNECTIONS SHALL BE MADE IN THE POLE BASE OR NEAREST ABOVE GRADE JUNCTION BOX FOR UNDERPASS INSTALLATIONS. SPLICES IN INGROUND JUNCTION BOXES OR PULL BOXES SHALL NOT BE FUSED.
11. ALL CONDUITS SHALL BE BONDED IN A CONTINUOUS RUN FROM THE SOURCE BY A COPPER GROUNDING CONDUCTOR WITH SIZE AS NOTED ON PLANS. 10 FEET OF ADDITIONAL SLACK FOR EACH GROUND WIRE IN EACH JUNCTION WELL SHALL BE PROVIDED AND NEATLY COILED.
12. ALL STATION AND OFFSET INFORMATION SHOWN FOR PROPOSED LIGHTING STANDARDS IS TO THE CENTER OF THE PROPOSED POLE BASE.
13. ALL PROPOSED ROADWAY LIGHTING CONDUITS (SERVICE RUNS) SHALL BE RIGID POLYVINYL CHLORIDE SCHEDULE 80 WHEN INSTALLED BY TRENCHING OR OPEN CUT AND SDR-13.5 HDPE WHEN INSTALLED BY BORING, UNLESS OTHERWISE NOTED ON PLANS. ALL CONDUITS EMBEDDED WITHIN STRUCTURES SHALL BE RIGID POLYVINYL CHLORIDE, SCHEDULE 80, UNLESS OTHERWISE NOTED. CONDUITS MOUNTED TO STRUCTURES SHALL BE 1" DIAMETER RIGID GALVANIZED STEEL CONDUIT, UNLESS OTHERWISE NOTED.
14. ALL PROPOSED LIGHTING STANDARDS ON FOUNDATIONS IN EARTH SHALL BE INSTALLED WITH BREAKAWAY TRANSFORMER BASES WHETHER PROTECTED BY TRAFFIC BARRIER OR UNPROTECTED. PROPOSED LIGHTING STANDARDS MOUNTED TO STRUCTURES SHALL NOT HAVE BREAKAWAY TRANSFORMER BASES.
15. IF ANY UTILITY IS DAMAGED THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND THE OWNER OF THE UTILITY IMMEDIATELY. ANY DAMAGE TO THE UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE UNDER THE DIRECTION OF THE UTLITY OWNER. UNDER NO CIRCUMSTANCE SHALL THE CONTRACTOR BACKFILL AN EXCAVATION OF AN IMPACTED UTILITY WITHOUT PERMISSION FROM THE UTILITY OWNER.
16. (1) 3/4" DIAMETER BY 20' LONG GROUND ROD SHALL BE INSTALLED IN EACH LIGHTING STANDARD POLE BASE. (1) 3/4" DIAMETER BY 10' LONG GROUND ROD SHALL BE INSTALLED IN THE JUNCTION WELL CLOSEST TO THE LIGHTING CONTROL AND DISTRIBUTION ENCLOSURES AND THE COPPER GROUNDING CONDUCTORS FOR EACH RUN OF CIRCUITS SHALL BE CONNECTED TO THE GROUND ROD. (1) 3/4" DIAMETER BY 10' LONG GROUND ROD SHALL BE INSTALLED AT THE LIGHTING CONTROL AND DISTRIBUTION ENCLOSURES WHICH SHALL BE BONDED TO THE GROUND ROD IN THE JUNCTION WELL CLOSEST TO THE LIGHTING CONTROL AND DISTRIBUTION ENCLOSURES. (1) 3/4" DIAMETER BY 10' LONG GROUND ROD SHALL BE INSTALLED AT THE ELECTRIC SERVICE PEDESTAL. GROUND RODS TO BE SEPARATED BY A MINIMUM OF 6 FEET.



PREPARED BY

WRA Whitman, Requardt and Associates, LLP
Engineers • Architects • Environmental Planners Est. 1915

KYLE O. CLEVENGER LICENSE No. 18723 DELAWARE PROFESSIONAL ENGINEER

8/22/2024
THIS SEAL APPLIES TO THIS SHEET ONLY. — DATE

SEAL

CONCURRENCE FOR INSTALLATION

8/23/2024
CHIEF OF TRAFFIC ENGINEERING — DATE

ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO.	N/A	SECTION
T201412701	DESIGNED BY: D. CARSON		WRA
COUNTY	CHECKED BY: M. BUCKLEY		SHEET NO.
SUSSEX			281

LIGHTING PLAN

8/22/2024
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LIGHTING SYMBOL LEGEND

SYMBOL	DESCRIPTION
	– PROPOSED LIGHTING STANDARD
	– EXISTING LIGHTING STANDARD
— LI-CON —	– PROPOSED LIGHTING SERVICE RUN (CONDUIT)
	– PROPOSED JUNCTION WELL LIGHTING
CA X	– PROPOSED LIGHTING CONTROL AND DISTRIBUTION ENCLOSURE & IDENTIFIER (TYPE)
D P	– PROPOSED ADDITIONAL DISCONNECT SWITCH & ELECTRIC UTILITY SERVICE EQUIPMENT
LS EX / LS #	– EXISTING & PROPOSED LIGHTING STANDARD IDENTIFIERS
SR #	– PROPOSED SERVICE RUN IDENTIFIER
PB X	– PROPOSED POLE BASE IDENTIFIER (TYPE)
JW X	– PROPOSED JUNCTION WELL IDENTIFIER (TYPE)
RL 0 / RM 0	– RELOCATE & REMOVE BY OTHERS IDENTIFIERS
RM C / AB	– REMOVE & ABANDON BY CONTRACTOR IDENTIFIER

LIGHTING SERVICE SCHEDULE

SERVICE RUN	DISTANCE (L.F.)	DESCRIPTION	INSTALLATION
1	47	(2)#4,(1)#6 GROUND	(1) 3" TRENCH
2	83	(2)#4,(1)#6 GROUND	(1) 3" TRENCH
3	30	(4)#4,(1)#6 GROUND	(1) 4" TRENCH
4	192	(4)#4,(1)#6 GROUND	(1) 4" TRENCH
5	4	(2)#4,(1)#6 GROUND	(1) 3" TRENCH
6	133	(4)#4,(1)#6 GROUND	(1) 4" TRENCH
7	39	(4)#4,(1)#6 GROUND	(1) 4" TRENCH
8	9	(2)#4,(1)#6 GROUND	(1) 3" TRENCH
9*	154	(4)#4,(1)#6 GROUND	(1) 4" TRENCH
10*	246	(4)#4,(1)#6 GROUND	(1) 4" TRENCH

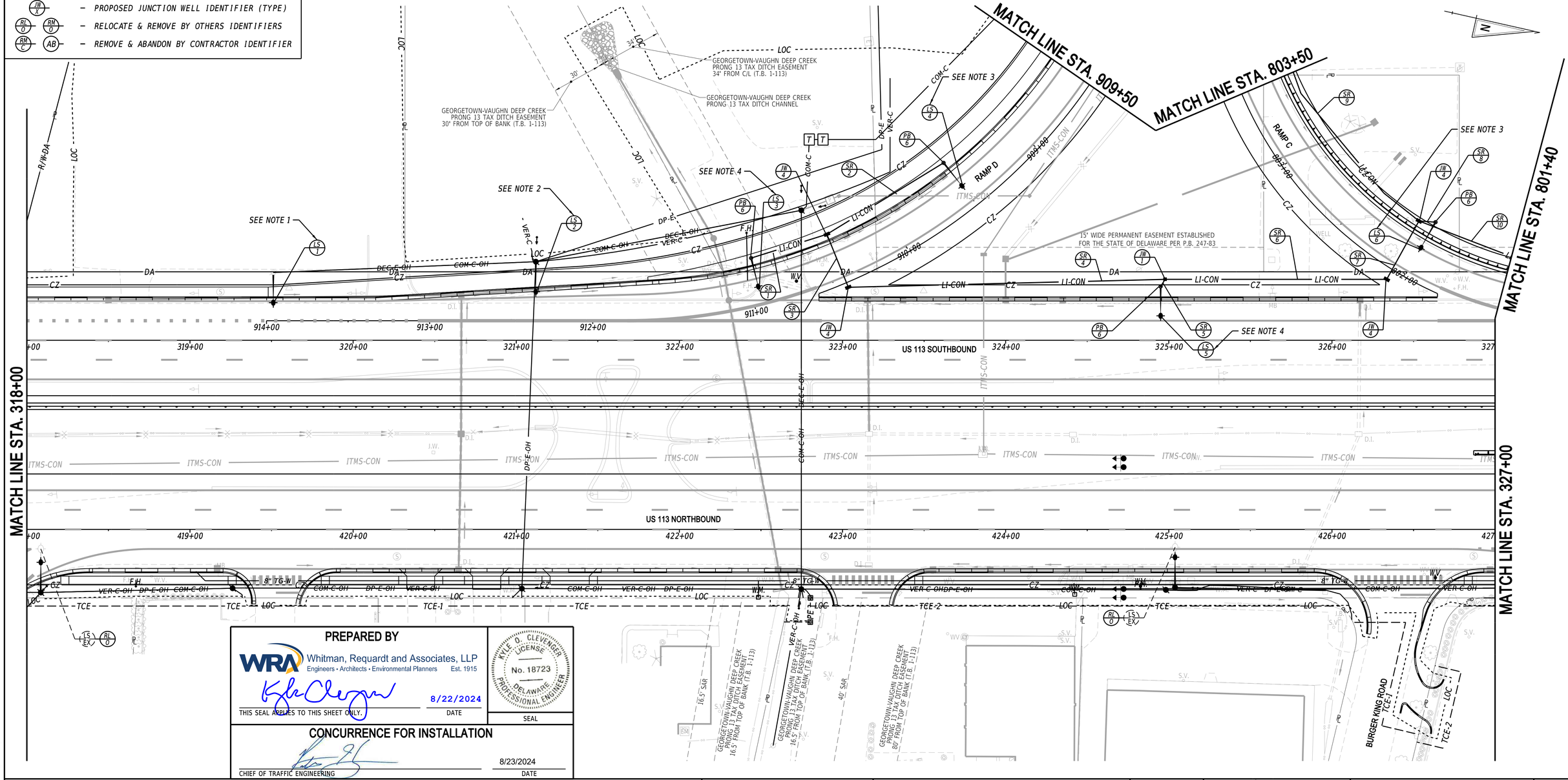
* SERVICE RUN CONTINUES ON ADJACENT SHEET

LIGHTING STANDARD SCHEDULE

NO.	CKT NO.	STATION	OFFSET	HEIGHT	ARM	LIGHT STANDARD
LS-1	N/A	913+95.8	30' RT.	30'	14'	250 WATT LED EQUIVALENT
LS-2	N/A	912+34.9	36' RT.	30'	14'	250 WATT LED EQUIVALENT
LS-3	W-2	910+95.0	29' RT.	40'	15'	207 WATT LED, TYPE 3
LS-4	W-4	909+50.0	29' RT.	40'	15'	207 WATT LED, TYPE 2
LS-5	W-2	324+95.0	33' LT.	40'	15'	207 WATT LED, TYPE 3
LS-6	W-4	802+00.0	35' RT.	40'	15'	207 WATT LED, TYPE 2

NOTES:

1. DEC SHALL INSTALL A 14 FT BRACKET ARM WITH 250 WATT EQUIVALENT LED LUMINAIRE ON THE EXISTING UTILITY POLE MOUNTED AT APPROXIMATELY 30 FT.
2. DEC SHALL INSTALL A 14 FT BRACKET ARM WITH 250 WATT EQUIVALENT LED LUMINAIRE ON THE PROPOSED UTILITY POLE MOUNTED AT APPROXIMATELY 30 FT.
3. THE PROPOSED DELDOT LIGHTING STANDARD LUMINAIRE SHALL BE 207 WATT LED, WITH MEDIUM TYPE II HORIZONTAL DISTRIBUTION AND COBRA-HEAD STYLE FIXTURES WITH CUT-OFF OPTICS MOUNTED WITH 0 DEGREE TILT ANGLE. LUMINAIRE SHALL BE LUMEC (FORMERLY PHILIPS) ROADFOCUS 215W48LED4K PER SUSSEX COUNTY SOLE SOURCE ITEM.
4. THE PROPOSED DELDOT LIGHTING STANDARD LUMINAIRE SHALL BE 207 WATT LED, WITH MEDIUM TYPE III HORIZONTAL DISTRIBUTION AND COBRA-HEAD STYLE FIXTURES WITH CUT-OFF OPTICS MOUNTED WITH 0 DEGREE TILT ANGLE. LUMINAIRE SHALL BE LUMEC (FORMERLY PHILIPS) ROADFOCUS 215W48LED4K PER SUSSEX COUNTY SOLE SOURCE ITEM.



PREPARED BY

WRA Whitman, Requardt and Associates, LLP
Engineers • Architects • Environmental Planners Est. 1915

8/22/2024
DATE

THIS SEAL APPLIES TO THIS SHEET ONLY.

KYLE O. CLEVENGER LICENSE No. 18723 DELAWARE PROFESSIONAL ENGINEER
SEAL

CONCURRENCE FOR INSTALLATION

8/23/2024
DATE

CHIEF OF TRAFFIC ENGINEERING

ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO.	N/A	LIGHTING PLAN	SECTION
T201412701	DESIGNED BY: D. CARSON			WRA
COUNTY	CHECKED BY: M. BUCKLEY			SHEET NO.
SUSSEX				282

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LIGHTING STANDARD SCHEDULE

NO.	CKT NO.	STATION	OFFSET	HEIGHT	ARM	LIGHT STANDARD
LS-7	W-2	801+26.0	27' RT.	40'	15'	207 WATT LED, TYPE 2
LS-8	W-4	329+59.7	52' LT.	16'	N/A	76 WATT LED, WALL PACK
LS-9	W-2	331+00.0	34' LT.	40'	15'	207 WATT LED, TYPE 2
LS-10	W-3	564+71.5	47' RT.	30'	12'	161 WATT LED, TYPE 2
LS-11	W-1	564.71.5	47' LT.	30'	12'	161 WATT LED, TYPE 2
LS-12	W-1	563+00.0	47' RT.	30'	12'	161 WATT LED, TYPE 2
LS-13	W-3	563+00.0	47' LT.	30'	12'	161 WATT LED, TYPE 2
LS-101	N/A	428+59.8	36' RT.	30'	12'	250 WATT LED EQUIVALENT
LS-102	E-1	429+10.7	41' RT.	16'	N/A	76 WATT LED, WALL PACK
LS-103	E-3	430+80.0	35' RT.	40'	15'	207 WATT LED, TYPE 2
LS-104	E-1	601+80.4	31' RT.	40'	15'	207 WATT LED, TYPE 2
LS-105	E-3	603+44.2	31' RT.	40'	15'	207 WATT LED, TYPE 2
LS-106	E-3	435+00.0	32' RT.	40'	15'	207 WATT LED, TYPE 3

NOTES:

1. THE PROPOSED LED WALL PACK SHALL BE A 150 WATT HPS EQUIVALENT.
2. DELMARVA POWER SHALL INSTALL A 12 FT BRACKET ARM WITH 250 WATT EQUIVALENT LED LUMINAIRE ON THE PROPOSED UTILITY POLE MOUNTED AT APPROXIMATELY 30 FT.
3. THE PROPOSED DELDOT LIGHTING STANDARD LUMINAIRE SHALL BE 207 WATT LED, WITH MEDIUM TYPE II HORIZONTAL DISTRIBUTION AND COBRA-HEAD STYLE FIXTURES WITH CUT-OFF OPTICS MOUNTED WITH 0 DEGREE TILT ANGLE. LUMINAIRE SHALL BE LUMEC (FORMERLY PHILIPS) ROADFOCUS 215W48LED4K PER SUSSEX COUNTY SOLE SOURCE ITEM.
4. THE PROPOSED DELDOT LIGHTING STANDARD LUMINAIRE SHALL BE 207 WATT LED, WITH MEDIUM TYPE III HORIZONTAL DISTRIBUTION AND COBRA-HEAD STYLE FIXTURES WITH CUT-OFF OPTICS MOUNTED WITH 0 DEGREE TILT ANGLE. LUMINAIRE SHALL BE LUMEC (FORMERLY PHILIPS) ROADFOCUS 215W48LED4K PER SUSSEX COUNTY SOLE SOURCE ITEM.
5. THE PROPOSED DELDOT LIGHTING STANDARD LUMINAIRE SHALL BE 161 WATT LED, WITH MEDIUM TYPE II HORIZONTAL DISTRIBUTION AND COBRA-HEAD STYLE FIXTURES WITH CUT-OFF OPTICS MOUNTED WITH 0 DEGREE TILT ANGLE. LUMINAIRE SHALL BE LUMEC (FORMERLY PHILIPS) ROADFOCUS 160W48LED4K PER SUSSEX COUNTY SOLE SOURCE ITEM.

LIGHTING SERVICE SCHEDULE

SERVICE RUN	DISTANCE (L.F.)	DESCRIPTION	INSTALLATION
10**	246	(4)#4,(1)#6 GROUND	(1) 4" TRENCH
11	82	(2)#4,(1)#6 GROUND	(1) 3" TRENCH
12*	35/65	(2)#8,(1)#8 GROUND	(1) 1" TRENCH/BAND
13	193	(2)#4,(1)#6 GROUND	(1) 4" TRENCH
14	9	(2)#4,(1)#6 GROUND	(1) 3" TRENCH
15	53	(4)#4,(1)#6 GROUND	(1) 2.5" EMBEDDED
16	6	(2)#4,(1)#6 GROUND	(1) 1" STRUCTURE
17	182	(2)#4,(1)#6 GROUND	(1) 2.5" EMBEDDED
18	6	(4)#4,(1)#6 GROUND	(1) 1" STRUCTURE
19	39	(4)#4,(1)#6 GROUND	(1) 2.5" EMBEDDED
20	6	(2)#4,(1)#6 GROUND	(1) 1" STRUCTURE
21	165	(2)#4,(1)#6 GROUND	(1) 2.5" EMBEDDED
22	6	(2)#4,(1)#6 GROUND	(1) 1" STRUCTURE
45**	152	(4)#4,(1)#6 GROUND	(1) 4" TRENCH
58	87	(4)#4,(1)#6 GROUND	(1) 2.5" TRENCH

* PROPOSED RIGID GALVANIZED CONDUIT

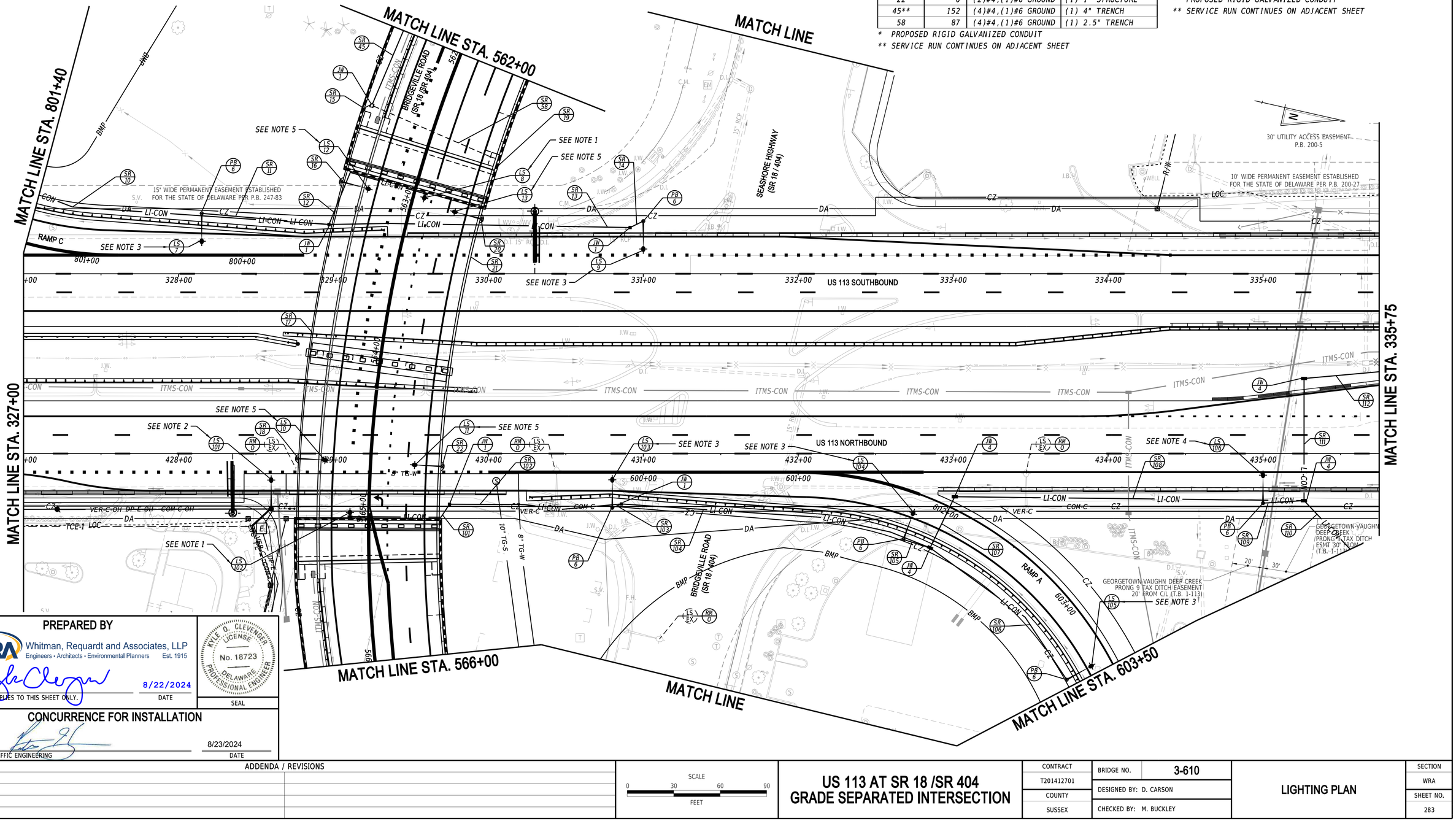
** SERVICE RUN CONTINUES ON ADJACENT SHEET

LIGHTING SERVICE SCHEDULE

SERVICE RUN	DISTANCE (L.F.)	DESCRIPTION	INSTALLATION
101*	10/75	(2)#8,(1)#8 GROUND	(1) 1" TRENCH/BAND
102	108	(4)#4,(1)#6 GROUND	(1) 3" TRENCH
103	6	(4)#4,(1)#6 GROUND	(1) 3" TRENCH
104	200	(4)#4,(1)#6 GROUND	(1) 3" TRENCH
105	17	(2)#4,(1)#6 GROUND	(1) 3" TRENCH
106	123	(4)#4,(1)#6 GROUND	(1) 4" TRENCH
107	35	(4)#4,(1)#6 GROUND	(1) 4" TRENCH
108	222	(4)#4,(1)#6 GROUND	(1) 4" TRENCH
109	25	(2)#4,(1)#6 GROUND	(1) 3" TRENCH
110**	64	(4)#4,(1)#6 GROUND	(1) 4" TRENCH
111	77	(4)#4,(1)#6 GROUND	(1) 4" TRENCH
112**	156	(4)#4,(1)#6 GROUND	(1) 4" TRENCH

* PROPOSED RIGID GALVANIZED CONDUIT

** SERVICE RUN CONTINUES ON ADJACENT SHEET



PREPARED BY

WRA Whitman, Requardt and Associates, LLP
Engineers • Architects • Environmental Planners Est. 1915

THIS SEAL APPLIES TO THIS SHEET ONLY. — 8/22/2024 DATE

KYLE O. CLEVENGER LICENSE No. 18723 DELAWARE PROFESSIONAL ENGINEER — SEAL

CONCURRENCE FOR INSTALLATION

CHIEF OF TRAFFIC ENGINEERING — 8/23/2024 DATE

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO.	3-610	SECTION
T201412701	DESIGNED BY: D. CARSON		WRA
COUNTY	CHECKED BY: M. BUCKLEY		SHEET NO.
SUSSEX			283

LIGHTING PLAN

8/22/2024
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LIGHTING STANDARD SCHEDULE

NO.	CKT NO.	STATION	OFFSET	HEIGHT	ARM	LIGHT STANDARD
LS-107	E-1	436+95.0	64' LT.	40'	15'	207 WATT LED, TYPE 4
LS-108	E-3	438+35.0	64' LT.	40'	15'	207 WATT LED, TYPE 4
LS-109	E-1	439+75.0	64' LT.	40'	15'	207 WATT LED, TYPE 4
LS-110	E-3	441+10.0	64' LT.	40'	15'	207 WATT LED, TYPE 4
LS-111	E-1	442+40.0	64' LT.	40'	15'	207 WATT LED, TYPE 3
LS-112	E-3	443+65.0	65' LT.	40'	(2)15'	207 WATT LED, TYPE 3
LS-113	E-1	344+77.2	67' LT.	40'	15'	207 WATT LED, TYPE 3

LIGHTING SERVICE SCHEDULE

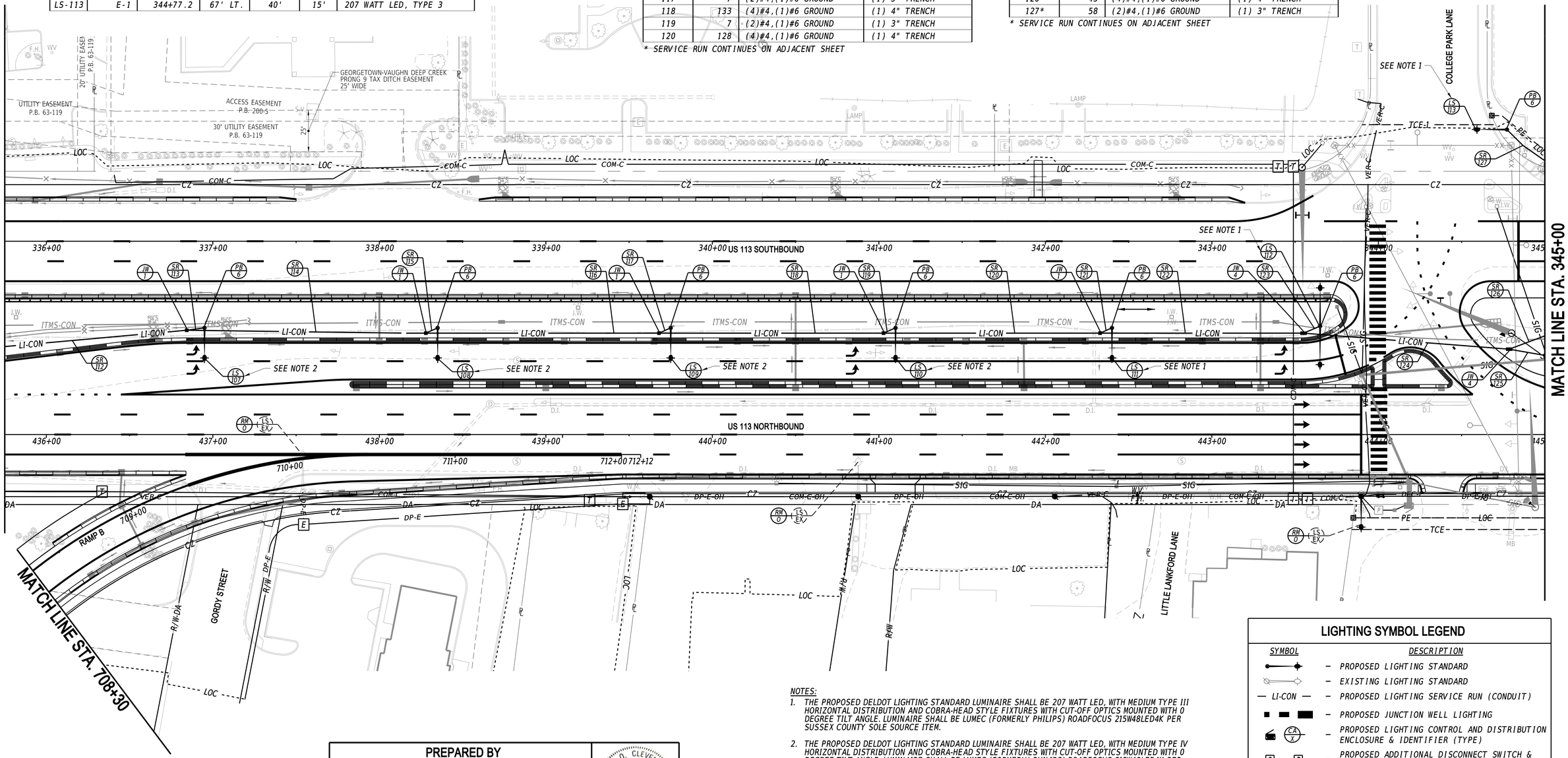
SERVICE RUN	DISTANCE (L.F.)	DESCRIPTION	INSTALLATION
112*	156	(4)#4,(1)#6 GROUND	(1) 4" TRENCH
113	10	(2)#4,(1)#6 GROUND	(1) 3" TRENCH
114	142	(4)#4,(1)#6 GROUND	(1) 4" TRENCH
115	7	(2)#4,(1)#6 GROUND	(1) 3" TRENCH
116	138	(4)#4,(1)#6 GROUND	(1) 4" TRENCH
117	7	(2)#4,(1)#6 GROUND	(1) 3" TRENCH
118	133	(4)#4,(1)#6 GROUND	(1) 4" TRENCH
119	7	(2)#4,(1)#6 GROUND	(1) 3" TRENCH
120	128	(4)#4,(1)#6 GROUND	(1) 4" TRENCH

* SERVICE RUN CONTINUES ON ADJACENT SHEET

LIGHTING SERVICE SCHEDULE

SERVICE RUN	DISTANCE (L.F.)	DESCRIPTION	INSTALLATION
121	7	(2)#4,(1)#6 GROUND	(1) 3" TRENCH
122	120	(4)#4,(1)#6 GROUND	(1) 4" TRENCH
123	9	(2)#4,(1)#6 GROUND	(1) 3" TRENCH
124	120	(4)#4,(1)#6 GROUND	(1) 4" BORE
125*	41	(2)#4,(1)#6 GROUND	(1) 3" TRENCH
126*	45	(4)#4,(1)#6 GROUND	(1) 4" TRENCH
127*	58	(2)#4,(1)#6 GROUND	(1) 3" TRENCH

* SERVICE RUN CONTINUES ON ADJACENT SHEET



LIGHTING SYMBOL LEGEND

SYMBOL	DESCRIPTION
	– PROPOSED LIGHTING STANDARD
	– EXISTING LIGHTING STANDARD
— LI-CON —	– PROPOSED LIGHTING SERVICE RUN (CONDUIT)
	– PROPOSED JUNCTION WELL LIGHTING
CA/Y	– PROPOSED LIGHTING CONTROL AND DISTRIBUTION ENCLOSURE & IDENTIFIER (TYPE)
D P	– PROPOSED ADDITIONAL DISCONNECT SWITCH & ELECTRIC UTILITY SERVICE EQUIPMENT
LS/EX, LS/#	– EXISTING & PROPOSED LIGHTING STANDARD IDENTIFIERS
SR/#	– PROPOSED SERVICE RUN IDENTIFIER
PB/X	– PROPOSED POLE BASE IDENTIFIER (TYPE)
JW/X	– PROPOSED JUNCTION WELL IDENTIFIER (TYPE)
RL/0, RM/0	– RELOCATE & REMOVE BY OTHERS IDENTIFIERS
RM/C, AB	– REMOVE & ABANDON BY CONTRACTOR IDENTIFIER

NOTES:

1. THE PROPOSED DELDOT LIGHTING STANDARD LUMINAIRE SHALL BE 207 WATT LED, WITH MEDIUM TYPE III HORIZONTAL DISTRIBUTION AND COBRA-HEAD STYLE FIXTURES WITH CUT-OFF OPTICS MOUNTED WITH 0 DEGREE TILT ANGLE. LUMINAIRE SHALL BE LUMEC (FORMERLY PHILIPS) ROADFOCUS 215W48LED4K PER SUSSEX COUNTY SOLE SOURCE ITEM.
2. THE PROPOSED DELDOT LIGHTING STANDARD LUMINAIRE SHALL BE 207 WATT LED, WITH MEDIUM TYPE IV HORIZONTAL DISTRIBUTION AND COBRA-HEAD STYLE FIXTURES WITH CUT-OFF OPTICS MOUNTED WITH 0 DEGREE TILT ANGLE. LUMINAIRE SHALL BE LUMEC (FORMERLY PHILIPS) ROADFOCUS 215W48LED4K PER SUSSEX COUNTY SOLE SOURCE ITEM.

PREPARED BY

WRA Whitman, Requardt and Associates, LLP
Engineers • Architects • Environmental Planners Est. 1915

8/22/2024
DATE

THIS SEAL APPLIES TO THIS SHEET ONLY.

KYLE O. CLEVENGER LICENSE No. 18723 DELAWARE PROFESSIONAL ENGINEER
SEAL

CONCURRENCE FOR INSTALLATION

CHIEF OF TRAFFIC ENGINEERING — 8/23/2024 DATE

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION

CONTRACT	T201412701
COUNTY	SUSSEX
BRIDGE NO.	N/A
DESIGNED BY:	D. CARSON
CHECKED BY:	M. BUCKLEY

LIGHTING PLAN

SECTION	WRA
SHEET NO.	284

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LIGHTING SYMBOL LEGEND

SYMBOL		DESCRIPTION
●—●	–	PROPOSED LIGHTING STANDARD
○—○	–	EXISTING LIGHTING STANDARD
— LI-CON —	–	PROPOSED LIGHTING SERVICE RUN (CONDUIT)
■ ▬ ▬	–	PROPOSED JUNCTION WELL LIGHTING
CA X	–	PROPOSED LIGHTING CONTROL AND DISTRIBUTION ENCLOSURE & IDENTIFIER (TYPE)
D P	–	PROPOSED ADDITIONAL DISCONNECT SWITCH & ELECTRIC UTILITY SERVICE EQUIPMENT
LS EX / LS #	–	EXISTING & PROPOSED LIGHTING STANDARD IDENTIFIERS
SR #	–	PROPOSED SERVICE RUN IDENTIFIER
PB X	–	PROPOSED POLE BASE IDENTIFIER (TYPE)
JW X	–	PROPOSED JUNCTION WELL IDENTIFIER (TYPE)
RL 0 / RM 0	–	RELOCATE & REMOVE BY OTHERS IDENTIFIERS
RM C / AB	–	REMOVE & ABANDON BY CONTRACTOR IDENTIFIER

LIGHTING STANDARD SCHEDULE

NO.	CKT NO.	STATION	OFFSET	HEIGHT	ARM	LIGHT STANDARD
LS-114	E-3	345+20.0	43' RT.	40'	15'	207 WATT LED, TYPE 3
LS-115	E-3	445+20.0	44' LT.	40'	15'	207 WATT LED, TYPE 3
LS-116	E-1	346+95.0	33' LT.	40'	15'	207 WATT LED, TYPE 3
LS-117	E-3	348+65.0	33' LT.	40'	15'	207 WATT LED, TYPE 3
LS-118	E-1	350+30.0	33' LT.	40'	15'	207 WATT LED, TYPE 3

LIGHTING SERVICE SCHEDULE

SERVICE RUN	DISTANCE (L.F.)	DESCRIPTION	INSTALLATION
125*	41	(2)#4,(1)#6 GROUND	(1) 3" TRENCH
126*	45	(4)#4,(1)#6 GROUND	(1) 4" TRENCH
127*	58	(2)#4,(1)#6 GROUND	(1) 3" TRENCH
128	5	(2)#4,(1)#6 GROUND	(1) 3" TRENCH
129	77	(4)#4,(1)#6 GROUND	(1) 4" BORE
130	163	(4)#4,(1)#6 GROUND	(1) 4" TRENCH
131	4	(2)#4,(1)#6 GROUND	(1) 3" TRENCH
132	166	(4)#4,(1)#6 GROUND	(1) 4" TRENCH
133	6	(2)#4,(1)#6 GROUND	(1) 3" TRENCH
134	172	(2)#4,(1)#6 GROUND	(1) 3" TRENCH

* SERVICE RUN CONTINUES ON ADJACENT SHEET

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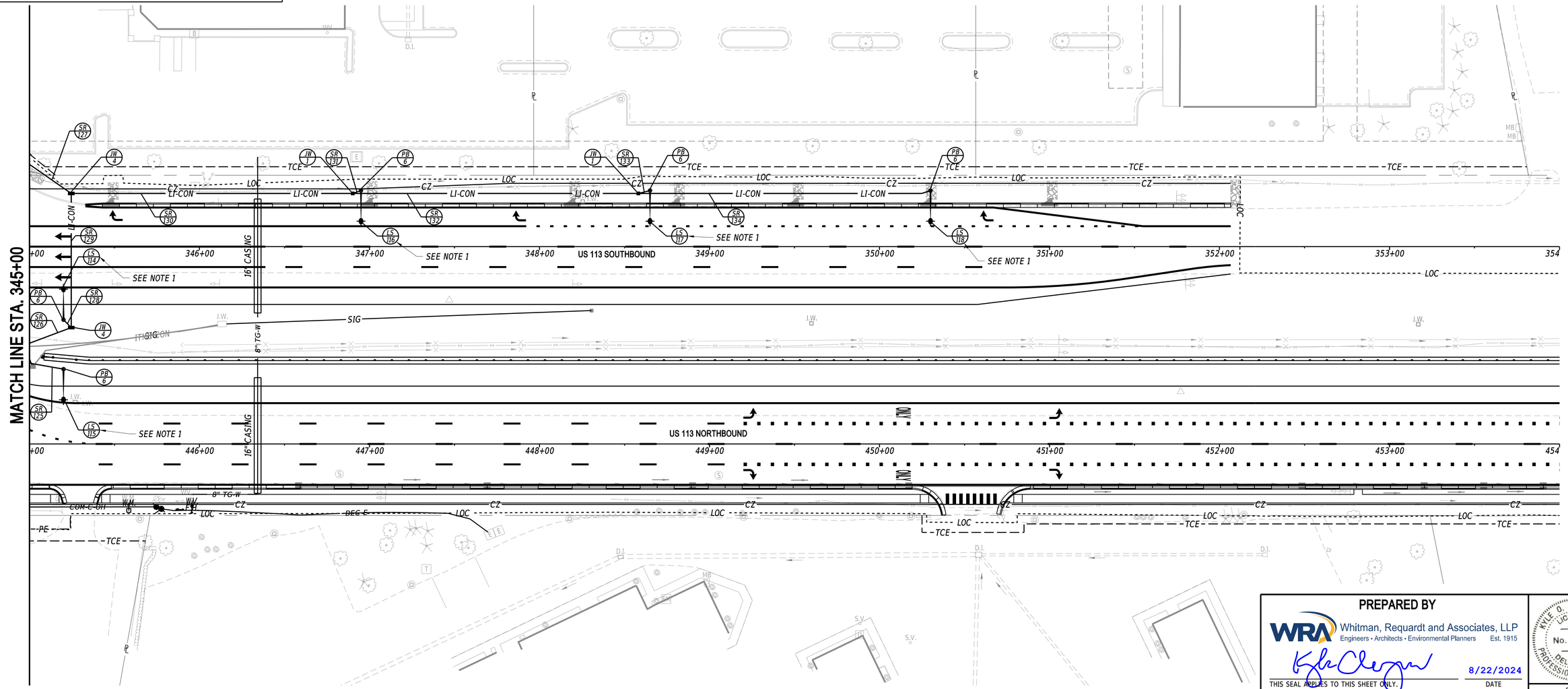

NOTE:
1. THE PROPOSED DELDOT LIGHTING STANDARD LUMINAIRE SHALL BE 207 WATT LED, WITH MEDIUM TYPE III HORIZONTAL DISTRIBUTION AND COBRA-HEAD STYLE FIXTURES WITH CUT-OFF OPTICS MOUNTED WITH 0 DEGREE TILT ANGLE. LUMINAIRE SHALL BE LUMEC (FORMERLY PHILIPS) RODFOCUS 215W48LED4K PER SUSSEX COUNTY SOLE SOURCE ITEM.

PREPARED BY

WRA Whitman, Requardt and Associates, LLP
Engineers • Architects • Environmental Planners Est. 1915

Kyle Clevenger 8/22/2024
THIS SEAL APPLIES TO THIS SHEET ONLY. DATE

KYLE O. CLEVENGER LICENSE No. 18723 DELAWARE PROFESSIONAL ENGINEER
SEAL

CONCURRENCE FOR INSTALLATION

CHIEF OF TRAFFIC ENGINEERING 8/23/2024 DATE

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION

CONTRACT	T201412701	BRIDGE NO.	N/A
COUNTY	SUSSEX	DESIGNED BY: D. CARSON	
		CHECKED BY: M. BUCKLEY	

LIGHTING PLAN

SECTION	
WRA	
SHEET NO.	
285	

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LIGHTING SYMBOL LEGEND

SYMBOL		DESCRIPTION
	–	PROPOSED LIGHTING STANDARD
	–	EXISTING LIGHTING STANDARD
— LI-CON —	–	PROPOSED LIGHTING SERVICE RUN (CONDUIT)
	–	PROPOSED JUNCTION WELL LIGHTING
CA / Y	–	PROPOSED LIGHTING CONTROL AND DISTRIBUTION ENCLOSURE & IDENTIFIER (TYPE)
D P	–	PROPOSED ADDITIONAL DISCONNECT SWITCH & ELECTRIC UTILITY SERVICE EQUIPMENT
LS EXIST / LS #	–	EXISTING & PROPOSED LIGHTING STANDARD IDENTIFIERS
SR #	–	PROPOSED SERVICE RUN IDENTIFIER
PB X	–	PROPOSED POLE BASE IDENTIFIER (TYPE)
JW X	–	PROPOSED JUNCTION WELL IDENTIFIER (TYPE)
RL 0 / RM 0	–	RELOCATE & REMOVE BY OTHERS IDENTIFIERS
RM C / AB	–	REMOVE & ABANDON BY CONTRACTOR IDENTIFIER

LIGHTING STANDARD SCHEDULE

NO.	CKT NO.	STATION	OFFSET	HEIGHT	ARM	LIGHT STANDARD
LS-14	W-1	556+70.0	58' LT.	30'	15'	161 WATT LED, TYPE 2
LS-15	W-3	555+60.0	56' LT.	30'	15'	161 WATT LED, TYPE 2
LS-16	W-1	556+90.0	39' RT.	30'	15'	161 WATT LED, TYPE 2
LS-17	W-3	555+20.0	40' RT.	30'	15'	161 WATT LED, TYPE 2
LS-18	W-1	553+60.0	40' RT.	30'	15'	161 WATT LED, TYPE 2
LS-19	W-3	552+93.3	57' RT.	30'	15'	161 WATT LED, TYPE 3
LS-20	W-1	552+01.5	52' RT.	30'	15'	161 WATT LED, TYPE 3
LS-21	N/A	550+85.6	53' RT.	30'	12'	250 WATT LED EQUIVALENT
LS-22	W-1	552+23.5	78' LT.	30'	15'	161 WATT LED, TYPE 3
LS-23	N/A	553+26.8	62.5' LT.	30'	12'	250 WATT LED EQUIVALENT

LIGHTING SERVICE SCHEDULE

SERVICE RUN	DISTANCE (L.F.)	DESCRIPTION	INSTALLATION
23**	173	(4)#4,(1)#6 GROUND	(1) 4" TRENCH
24	21	(2)#4,(1)#6 GROUND	(1) 3" TRENCH
25	141	(2)#4,(1)#6 GROUND	(1) 3" TRENCH
26**	182	(4)#4,(1)#6 GROUND	(1) 4" TRENCH
27	10	(2)#4,(1)#6 GROUND	(1) 3" TRENCH
28	151	(4)#4,(1)#6 GROUND	(1) 4" TRENCH
29	4	(2)#4,(1)#6 GROUND	(1) 3" TRENCH
30	150	(4)#4,(1)#6 GROUND	(1) 4" TRENCH
31	7	(2)#4,(1)#6 GROUND	(1) 3" TRENCH
32	34/18	(4)#4,(1)#6 GROUND	(1) 4" TRENCH/OPEN CUT
33	8	(2)#4,(1)#6 GROUND	(1) 3" TRENCH
34	75	(2)#4,(1)#6 GROUND	(1) 4" BORE
35	25	(2)#4,(1)#6 GROUND	(1) 3" TRENCH
36	102	(2)#4,(1)#6 GROUND	(1) 4" BORE
37	17	(2)#4,(1)#6 GROUND	(1) 3" TRENCH
60	13*	(3)#2/0,(1)#2/0 GRD - LINE SIDE	(1) 2" TRENCH
61	7*	(3)#2/0,(1)#2/0 GRD - LOAD SIDE	(1) 2" TRENCH

* PROPOSED RIGID GALVANIZED CONDUIT

** SERVICE RUN CONTINUES ON ADJACENT SHEET

PREPARED BY

WRA Whitman, Requardt and Associates, LLP
Engineers • Architects • Environmental Planners Est. 1915

THIS SEAL APPLIES TO THIS SHEET ONLY. 8/22/2024 DATE

KYLE O. CLEVENGER LICENSE No. 18723 DELAWARE PROFESSIONAL ENGINEER

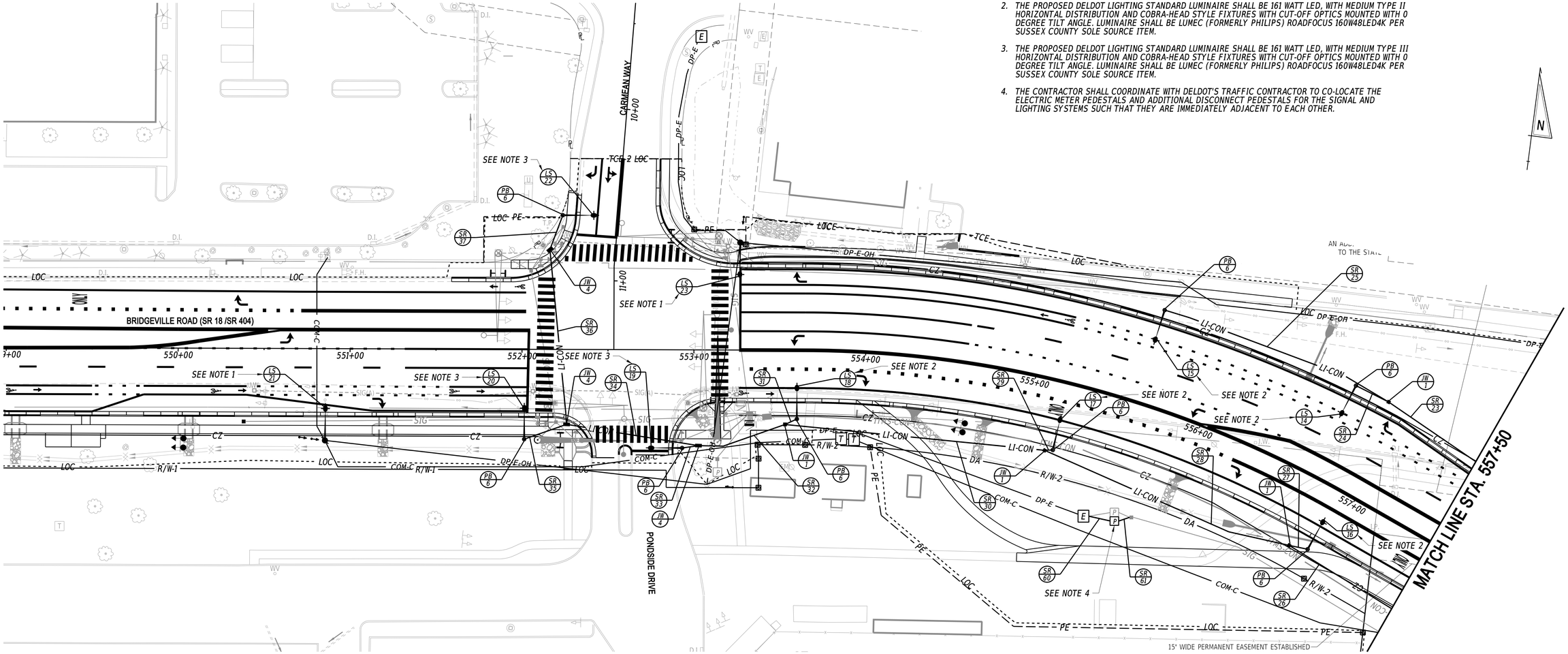
SEAL

CONCURRENCE FOR INSTALLATION

CHIEF OF TRAFFIC ENGINEERING 8/23/2024 DATE

NOTES:

1. DELMARVA POWER SHALL INSTALL A 12 FT BRACKET ARM WITH 250 WATT EQUIVALENT LED LUMINAIRE ON THE PROPOSED UTILITY POLE MOUNTED AT APPROXIMATELY 30 FT.
2. THE PROPOSED DELDOT LIGHTING STANDARD LUMINAIRE SHALL BE 161 WATT LED, WITH MEDIUM TYPE II HORIZONTAL DISTRIBUTION AND COBRA-HEAD STYLE FIXTURES WITH CUT-OFF OPTICS MOUNTED WITH 0 DEGREE TILT ANGLE. LUMINAIRE SHALL BE LUMEC (FORMERLY PHILIPS) ROADFOCUS 160W48LED4K PER SUSSEX COUNTY SOLE SOURCE ITEM.
3. THE PROPOSED DELDOT LIGHTING STANDARD LUMINAIRE SHALL BE 161 WATT LED, WITH MEDIUM TYPE III HORIZONTAL DISTRIBUTION AND COBRA-HEAD STYLE FIXTURES WITH CUT-OFF OPTICS MOUNTED WITH 0 DEGREE TILT ANGLE. LUMINAIRE SHALL BE LUMEC (FORMERLY PHILIPS) ROADFOCUS 160W48LED4K PER SUSSEX COUNTY SOLE SOURCE ITEM.
4. THE CONTRACTOR SHALL COORDINATE WITH DELDOT'S TRAFFIC CONTRACTOR TO CO-LOCATE THE ELECTRIC METER PEDESTALS AND ADDITIONAL DISCONNECT PEDESTALS FOR THE SIGNAL AND LIGHTING SYSTEMS SUCH THAT THEY ARE IMMEDIATELY ADJACENT TO EACH OTHER.



ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. N/A	LIGHTING PLAN	SECTION WRA
				COUNTY SUSSEX	DESIGNED BY: D. CARSON		SHEET NO. 286
					CHECKED BY: M. BUCKLEY		

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LIGHTING SYMBOL LEGEND

SYMBOL		DESCRIPTION
	–	PROPOSED LIGHTING STANDARD
	–	EXISTING LIGHTING STANDARD
— LI-CON —	–	PROPOSED LIGHTING SERVICE RUN (CONDUIT)
	–	PROPOSED JUNCTION WELL LIGHTING
CA X	–	PROPOSED LIGHTING CONTROL AND DISTRIBUTION ENCLOSURE & IDENTIFIER (TYPE)
D P	–	PROPOSED ADDITIONAL DISCONNECT SWITCH & ELECTRIC UTILITY SERVICE EQUIPMENT
LS EX LS #	–	EXISTING & PROPOSED LIGHTING STANDARD IDENTIFIERS
SR #	–	PROPOSED SERVICE RUN IDENTIFIER
PB X	–	PROPOSED POLE BASE IDENTIFIER (TYPE)
JW X	–	PROPOSED JUNCTION WELL IDENTIFIER (TYPE)
RL 0 RM 0	–	RELOCATE & REMOVE BY OTHERS IDENTIFIERS
RM C AB	–	REMOVE & ABANDON BY CONTRACTOR IDENTIFIER

NOTES:

1. THE PROPOSED DELDOT LIGHTING STANDARD LUMINAIRE SHALL BE 161 WATT LED, WITH MEDIUM TYPE II HORIZONTAL DISTRIBUTION AND COBRA-HEAD STYLE FIXTURES WITH CUT-OFF OPTICS MOUNTED WITH 0 DEGREE TILT ANGLE. LUMINAIRE SHALL BE LUMEC (FORMERLY PHILIPS) ROADFOCUS 160W48LED4K PER SUSSEX COUNTY SOLE SOURCE ITEM.
2. THE PROPOSED DELDOT LIGHTING STANDARD LUMINAIRE SHALL BE 161 WATT LED, WITH MEDIUM TYPE III HORIZONTAL DISTRIBUTION AND COBRA-HEAD STYLE FIXTURES WITH CUT-OFF OPTICS MOUNTED WITH 0 DEGREE TILT ANGLE. LUMINAIRE SHALL BE LUMEC (FORMERLY PHILIPS) ROADFOCUS 160W48LED4K PER SUSSEX COUNTY SOLE SOURCE ITEM.
3. THE CONTRACTOR SHALL COORDINATE WITH DELDOT'S TRAFFIC CONTRACTOR TO CO-LOCATE THE ELECTRIC METER PEDESTALS AND ADDITIONAL DISCONNECT PEDESTALS FOR THE SIGNAL AND LIGHTING SYSTEMS SUCH THAT THEY ARE IMMEDIATELY ADJACENT TO EACH OTHER.

LIGHTING SERVICE SCHEDULE

SERVICE RUN	DISTANCE (L.F.)	DESCRIPTION	INSTALLATION
9**	154	(4)#4,(1)#6 GROUND	(1) 4" TRENCH
23**	173	(4)#4,(1)#6 GROUND	(1) 4" TRENCH
26**	182	(4)#4,(1)#6 GROUND	(1) 4" TRENCH
38	233	(4)#4,(1)#6 GROUND	(1) 4" TRENCH
39	253	(4)#4,(1)#6 GROUND	(1) 4" TRENCH
40	12	(2)#4,(1)#6 GROUND	(1) 3" TRENCH
41	115	(6)#4,(1)#6 GROUND	(1) 4" TRENCH
42	21	(2)#4,(1)#6 GROUND	(1) 3" TRENCH
43	75	(4)#4,(1)#6 GROUND	(1) 4" TRENCH
44	18	(2)#4,(1)#6 GROUND	(1) 4" TRENCH
45**	152	(4)#4,(1)#6 GROUND	(1) 4" TRENCH
46	103	(8)#4,(1)#4 GROUND	(1) 4" TRENCH
47	25	(2)#4,(1)#6 GROUND	(1) 3" TRENCH

LIGHTING SERVICE SCHEDULE

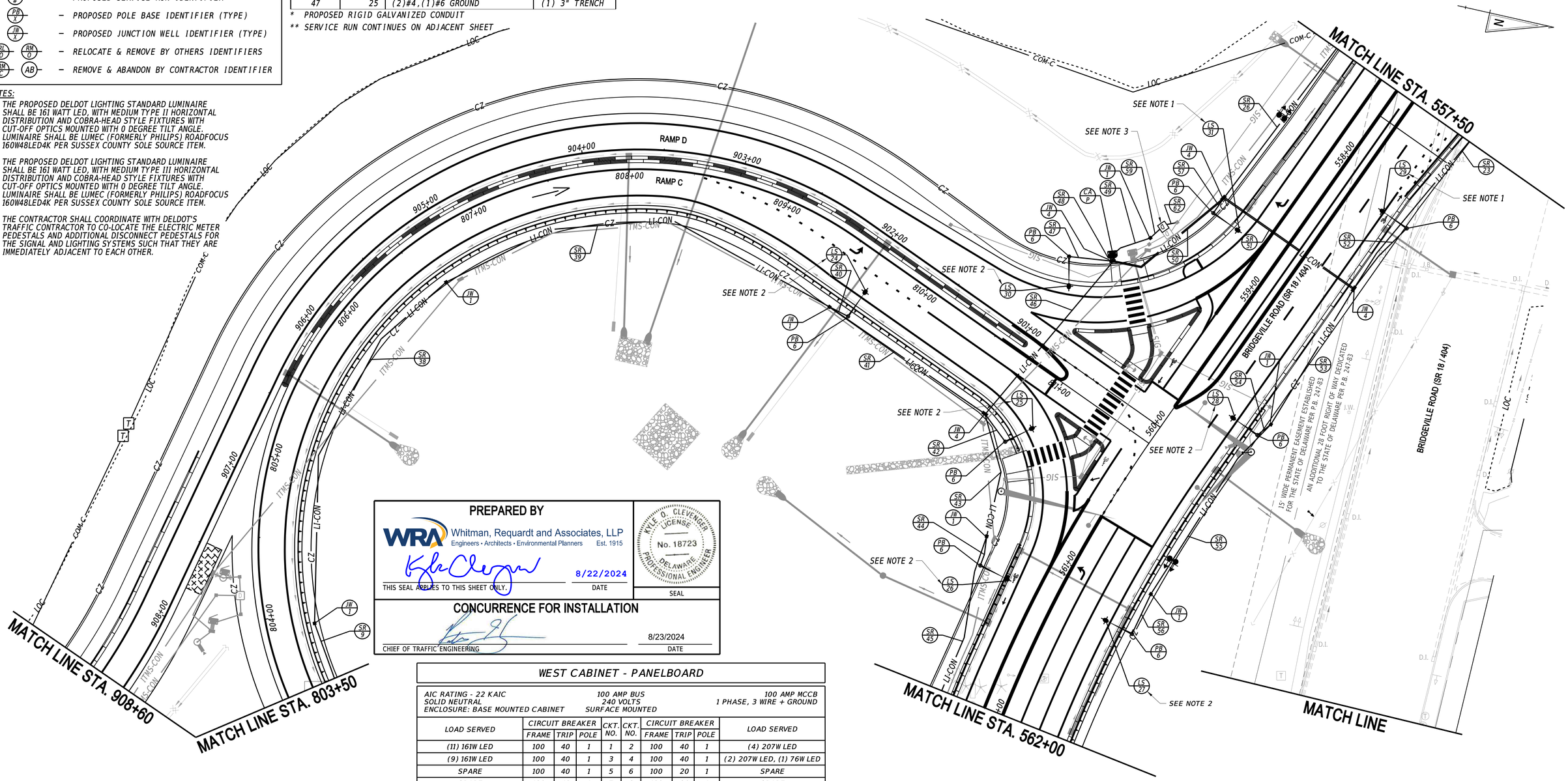
SERVICE RUN	DISTANCE (L.F.)	DESCRIPTION	INSTALLATION
48	4	(8)#4,(4)#6 GROUND	(4) 4" TRENCH
49	24	(3)#2/0,(1)#2/0 GRD-LOAD SIDE	(1) 2" TRENCH
50	80	(4)#4,(2)#6 GROUND	(2) 4" TRENCH
51	95	(4)#4,(2)#6 GROUND	(2) 4" TRENCH
52	48	(2)#4,(1)#6 GROUND	(1) 3" TRENCH
53	94	(4)#4,(1)#6 GROUND	(1) 4" TRENCH
54	10	(2)#4,(1)#6 GROUND	(1) 3" TRENCH
55	125	(2)#4,(1)#6 GROUND	(1) 4" TRENCH
56	26	(2)#4,(1)#6 GROUND	(1) 3" TRENCH
57	9	(2)#4,(1)#6 GROUND	(1) 3" TRENCH
59*	8	(3)#2/0,(1)#2/0 GRD-LOAD SIDE	(1) 2" TRENCH
62*	6	(3)#2/0,(1)#2/0 GRD-LOAD SIDE	(1) 2" TRENCH

* PROPOSED RIGID GALVANIZED CONDUIT

** SERVICE RUN CONTINUES ON ADJACENT SHEET

LIGHTING STANDARD SCHEDULE

NO.	CKT NO.	STATION	OFFSET	HEIGHT	ARM	LIGHT STANDARD
LS-24	W-1	809+70.0	42' RT.	30'	15'	161 WATT LED, TYPE 3
LS-25	W-3	810+92.0	49' RT.	30'	15'	161 WATT LED, TYPE 3
LS-26	W-1	561+25.0	50' LT.	30'	15'	161 WATT LED, TYPE 3
LS-27	W-3	561+20.0	51' RT.	30'	15'	161 WATT LED, TYPE 3
LS-28	W-1	559+70.0	51' LT.	30'	15'	161 WATT LED, TYPE 3
LS-29	W-3	558+15.0	53' LT.	30'	15'	161 WATT LED, TYPE 2
LS-30	W-1	901+05.0	53' LT.	30'	15'	161 WATT LED, TYPE 3
LS-31	W-3	558+75.0	48.5' RT.	30'	15'	161 WATT LED, TYPE 2



PREPARED BY

Whitman, Requardt and Associates, LLP
Engineers • Architects • Environmental Planners Est. 1915

8/22/2024
DATE

THIS SEAL APPLIES TO THIS SHEET ONLY.

KYLE D. CLEVENGER — LICENSE — No. 18723 — DELAWARE — PROFESSIONAL ENGINEER

SEAL

CONCURRENCE FOR INSTALLATION

CHIEF OF TRAFFIC ENGINEERING

8/23/2024
DATE

WEST CABINET - PANELBOARD

AIC RATING - 22 KAIC — 100 AMP BUS — 100 AMP MCCB
SOLID NEUTRAL — 240 VOLTS — 1 PHASE, 3 WIRE + GROUND
ENCLOSURE: BASE MOUNTED CABINET — SURFACE MOUNTED

LOAD SERVED	CIRCUIT BREAKER FRAME	TRIP	POLE	CKT. NO.	CKT. NO.	CIRCUIT BREAKER FRAME	TRIP	POLE	LOAD SERVED
(11) 161W LED	100	40	1	1	2	100	40	1	(4) 207W LED
(9) 161W LED	100	40	1	3	4	100	40	1	(2) 207W LED, (1) 76W LED
SPARE	100	40	1	5	6	100	20	1	SPARE
SPARE	100	40	1	7	8	100	20	1	SPARE
SPARE	100	20	1	9	10	100	20	1	SPARE

ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO. 3-610
T201412701	DESIGNED BY: D. CARSON
COUNTY	CHECKED BY: M. BUCKLEY
SUSSEX	

LIGHTING PLAN

SECTION
WRA
SHEET NO.
287

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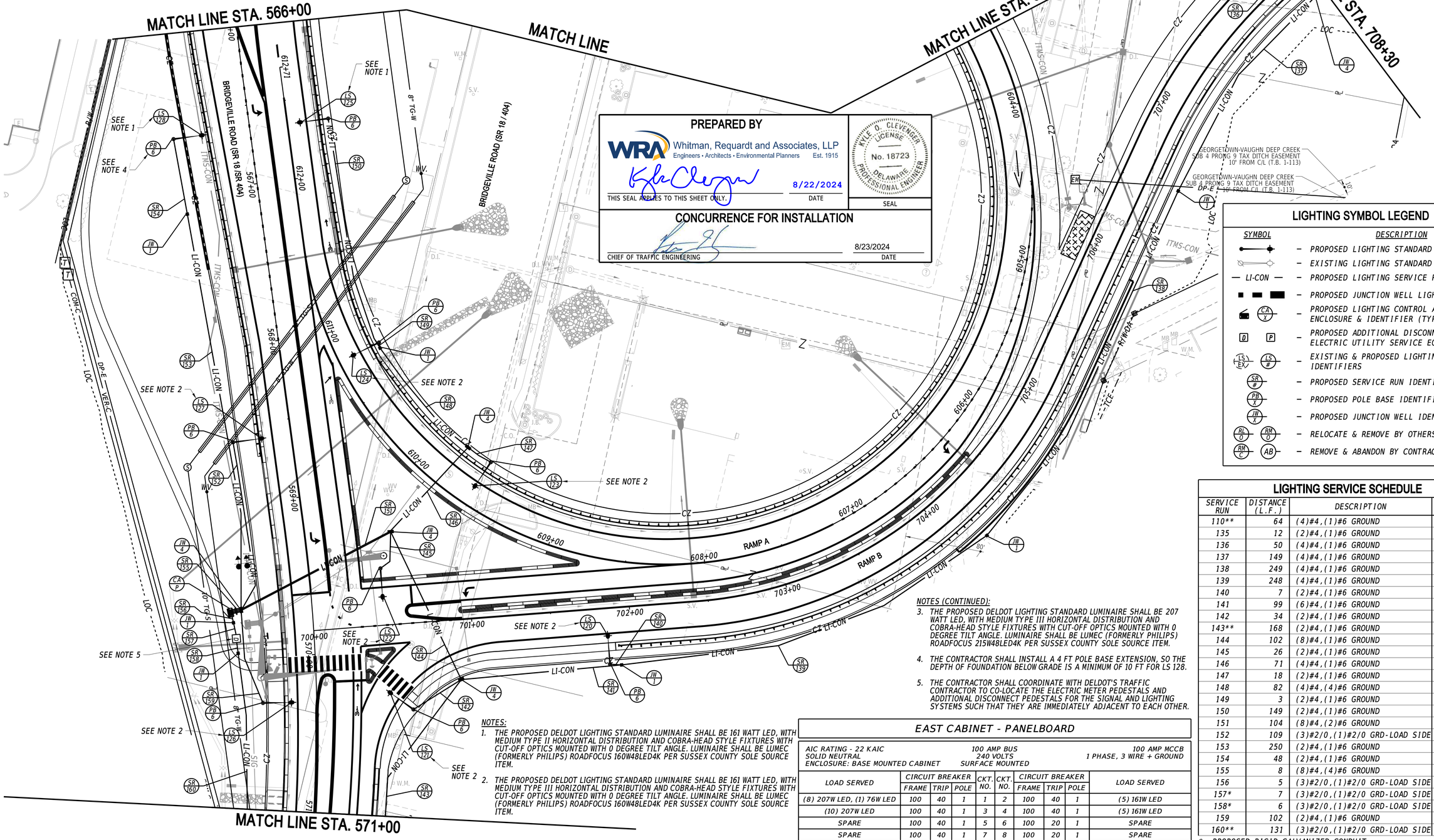
LIGHTING STANDARD SCHEDULE

NO.	CKT NO.	STATION	OFFSET	HEIGHT	ARM	LIGHT STANDARD
LS-119	E-1	708+05.0	20' LT.	40'	15'	207 WATT LED, TYPE 3
LS-120	E-2	701+85.0	35.5' RT.	30'	15'	161 WATT LED, TYPE 3
LS-121	E-4	570+35.6	61' LT.	30'	15'	161 WATT LED, TYPE 3
LS-122	E-2	700+45.0	36' LT.	30'	15'	161 WATT LED, TYPE 3
LS-123	E-4	609+60.0	31' RT.	30'	15'	161 WATT LED, TYPE 3

LIGHTING STANDARD SCHEDULE

NO.	CKT NO.	STATION	OFFSET	HEIGHT	ARM	LIGHT STANDARD
LS-124	E-2	610+80.0	28' RT.	30'	15'	161 WATT LED, TYPE 3
LS-125	E-4	566+50.2	50' LT.	30'	15'	161 WATT LED, TYPE 2
LS-126	E-4	570+30.0	34' RT.	30'	15'	161 WATT LED, TYPE 3
LS-127	E-2	568+60.0	36' RT.	30'	15'	161 WATT LED, TYPE 3
LS-128	E-4	566+50.0	48.5' RT.	45'	15'	161 WATT LED, TYPE 2



PREPARED BY

WRA Whitman, Requardt and Associates, LLP
Engineers • Architects • Environmental Planners Est. 1915

8/22/2024
THIS SEAL APPLIES TO THIS SHEET ONLY. DATE

KYLE O. CLEVENGER LICENSE No. 18723 DELAWARE PROFESSIONAL ENGINEER
SEAL

CONCURRENCE FOR INSTALLATION

CHIEF OF TRAFFIC ENGINEERING

8/23/2024
DATE

LIGHTING SYMBOL LEGEND

SYMBOL	DESCRIPTION
	– PROPOSED LIGHTING STANDARD
	– EXISTING LIGHTING STANDARD
— LI-CON —	– PROPOSED LIGHTING SERVICE RUN (CONDUIT)
	– PROPOSED JUNCTION WELL LIGHTING
CA X	– PROPOSED LIGHTING CONTROL AND DISTRIBUTION ENCLOSURE & IDENTIFIER (TYPE)
D P	– PROPOSED ADDITIONAL DISCONNECT SWITCH & ELECTRIC UTILITY SERVICE EQUIPMENT
LS E/X LS #	– EXISTING & PROPOSED LIGHTING STANDARD IDENTIFIERS
SR #	– PROPOSED SERVICE RUN IDENTIFIER
PB X	– PROPOSED POLE BASE IDENTIFIER (TYPE)
JW X	– PROPOSED JUNCTION WELL IDENTIFIER (TYPE)
RL O RM O	– RELOCATE & REMOVE BY OTHERS IDENTIFIERS
RM C AB	– REMOVE & ABANDON BY CONTRACTOR IDENTIFIER

LIGHTING SERVICE SCHEDULE

SERVICE RUN	DISTANCE (L.F.)	DESCRIPTION	INSTALLATION
110**	64	(4)#4,(1)#6 GROUND	(1) 4" TRENCH
135	12	(2)#4,(1)#6 GROUND	(1) 3" TRENCH
136	50	(4)#4,(1)#6 GROUND	(1) 4" TRENCH
137	149	(4)#4,(1)#6 GROUND	(1) 4" TRENCH
138	249	(4)#4,(1)#6 GROUND	(1) 4" TRENCH
139	248	(4)#4,(1)#6 GROUND	(1) 4" TRENCH
140	7	(2)#4,(1)#6 GROUND	(1) 3" TRENCH
141	99	(6)#4,(1)#6 GROUND	(1) 4" TRENCH
142	34	(2)#4,(1)#6 GROUND	(1) 3" TRENCH
143**	168	(2)#4,(1)#6 GROUND	(1) 3" TRENCH
144	102	(8)#4,(1)#6 GROUND	(1) 4" TRENCH
145	26	(2)#4,(1)#6 GROUND	(1) 3" TRENCH
146	71	(4)#4,(1)#6 GROUND	(1) 4" TRENCH
147	18	(2)#4,(1)#6 GROUND	(1) 3" TRENCH
148	82	(4)#4,(4)#6 GROUND	(1) 4" TRENCH
149	3	(2)#4,(1)#6 GROUND	(1) 3" TRENCH
150	149	(2)#4,(1)#6 GROUND	(1) 3" TRENCH
151	104	(8)#4,(2)#6 GROUND	(2) 4" TRENCH
152	109	(3)#2/0,(1)#2/0 GRD-LOAD SIDE	(1) 3" TRENCH
153	250	(2)#4,(1)#6 GROUND	(1) 4" TRENCH
154	48	(2)#4,(1)#6 GROUND	(1) 3" TRENCH
155	8	(8)#4,(4)#6 GROUND	(4) 4" TRENCH
156	5	(3)#2/0,(1)#2/0 GRD-LOAD SIDE	(1) 2" TRENCH
157*	7	(3)#2/0,(1)#2/0 GRD-LOAD SIDE	(1) 2" TRENCH
158*	6	(3)#2/0,(1)#2/0 GRD-LOAD SIDE	(1) 2" TRENCH
159	102	(2)#4,(1)#6 GROUND	(1) 3" TRENCH
160**	131	(3)#2/0,(1)#2/0 GRD-LOAD SIDE	(1) 4" TRENCH

* PROPOSED RIGID GALVANIZED CONDUIT
** SERVICE RUN CONTINUES ON ADJACENT SHEET

NOTES:

1. THE PROPOSED DELDOT LIGHTING STANDARD LUMINAIRE SHALL BE 161 WATT LED, WITH MEDIUM TYPE II HORIZONTAL DISTRIBUTION AND COBRA-HEAD STYLE FIXTURES WITH CUT-OFF OPTICS MOUNTED WITH 0 DEGREE TILT ANGLE. LUMINAIRE SHALL BE LUMEC (FORMERLY PHILIPS) ROADFOCUS 160W48LED4K PER SUSSEX COUNTY SOLE SOURCE ITEM.
2. THE PROPOSED DELDOT LIGHTING STANDARD LUMINAIRE SHALL BE 161 WATT LED, WITH MEDIUM TYPE III HORIZONTAL DISTRIBUTION AND COBRA-HEAD STYLE FIXTURES WITH CUT-OFF OPTICS MOUNTED WITH 0 DEGREE TILT ANGLE. LUMINAIRE SHALL BE LUMEC (FORMERLY PHILIPS) ROADFOCUS 160W48LED4K PER SUSSEX COUNTY SOLE SOURCE ITEM.

NOTES (CONTINUED):

3. THE PROPOSED DELDOT LIGHTING STANDARD LUMINAIRE SHALL BE 207 WATT LED, WITH MEDIUM TYPE III HORIZONTAL DISTRIBUTION AND COBRA-HEAD STYLE FIXTURES WITH CUT-OFF OPTICS MOUNTED WITH 0 DEGREE TILT ANGLE. LUMINAIRE SHALL BE LUMEC (FORMERLY PHILIPS) ROADFOCUS 215W48LED4K PER SUSSEX COUNTY SOLE SOURCE ITEM.
4. THE CONTRACTOR SHALL INSTALL A 4 FT POLE BASE EXTENSION, SO THE DEPTH OF FOUNDATION BELOW GRADE IS A MINIMUM OF 10 FT FOR LS 128.
5. THE CONTRACTOR SHALL COORDINATE WITH DELDOT'S TRAFFIC CONTRACTOR TO CO-LOCATE THE ELECTRIC METER PEDESTALS AND ADDITIONAL DISCONNECT PEDESTALS FOR THE SIGNAL AND LIGHTING SYSTEMS SUCH THAT THEY ARE IMMEDIATELY ADJACENT TO EACH OTHER.

EAST CABINET - PANELBOARD

AIC RATING - 22 KAIC — 100 AMP BUS — 100 AMP MCCB
SOLID NEUTRAL — 240 VOLTS — 1 PHASE, 3 WIRE + GROUND
ENCLOSURE: BASE MOUNTED CABINET — SURFACE MOUNTED

LOAD SERVED	CIRCUIT BREAKER FRAME	CIRCUIT BREAKER TRIP	CIRCUIT BREAKER POLE	CKT. NO.	CKT. NO.	CIRCUIT BREAKER FRAME	CIRCUIT BREAKER TRIP	CIRCUIT BREAKER POLE	LOAD SERVED
(8) 207W LED, (1) 76W LED	100	40	1	1	2	100	40	1	(5) 161W LED
(10) 207W LED	100	40	1	3	4	100	40	1	(5) 161W LED
SPARE	100	40	1	5	6	100	20	1	SPARE
SPARE	100	40	1	7	8	100	20	1	SPARE
SPARE	100	20	1	9	10	100	20	1	SPARE

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO.	SECTION
T201412701	3-610	WRA
COUNTY	DESIGNED BY: D. CARSON	SHEET NO.
SUSSEX	CHECKED BY: M. BUCKLEY	288

LIGHTING PLAN

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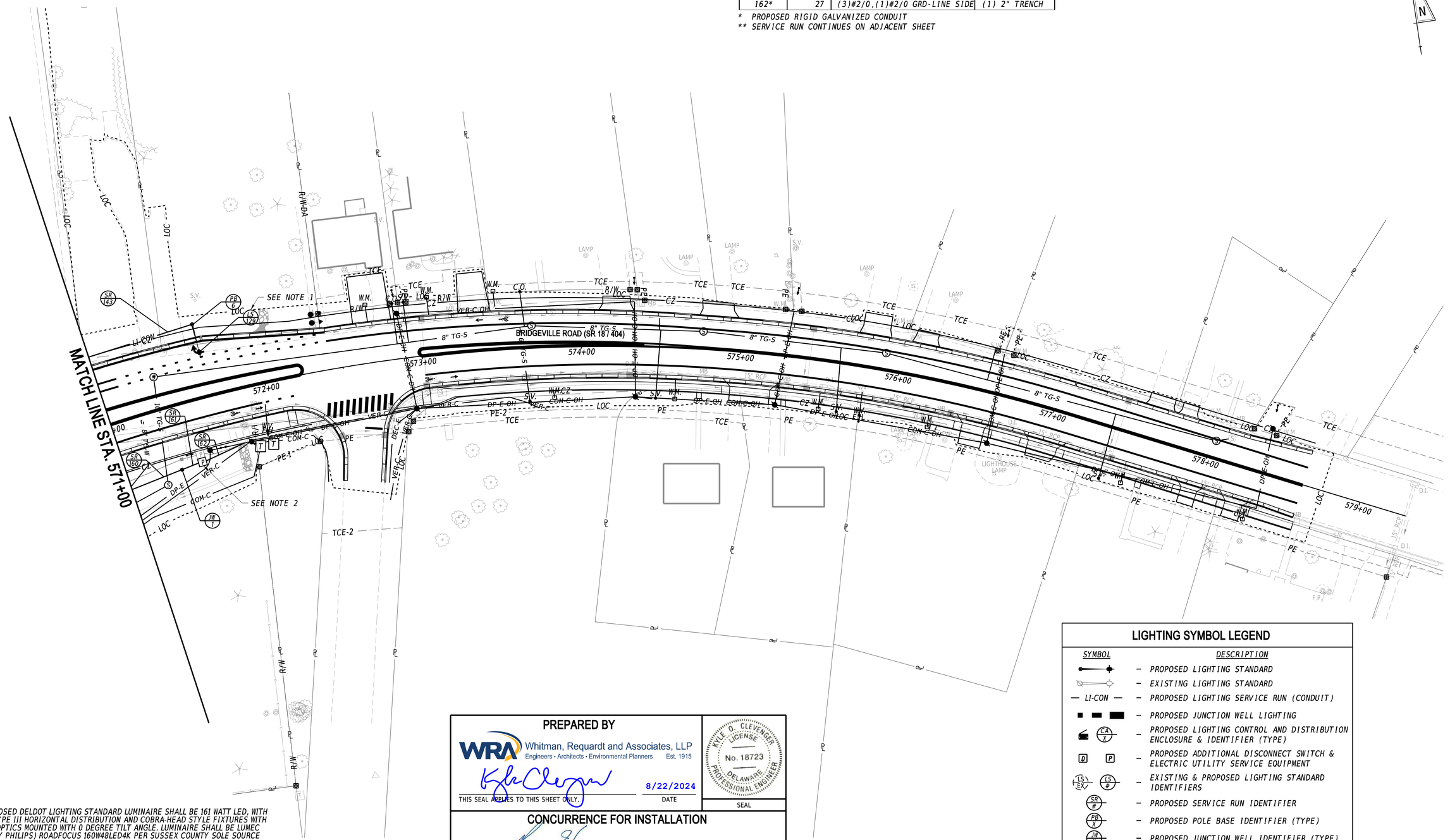
LIGHTING STANDARD SCHEDULE

NO.	CKT NO.	STATION	OFFSET	HEIGHT	ARM	LIGHT STANDARD
LS-129	E-2	571+65.0	46' LT.	30'	15'	161 WATT LED, TYPE 3

LIGHTING SERVICE SCHEDULE

SERVICE RUN	DISTANCE (L.F.)	DESCRIPTION	INSTALLATION
143**	168	(2)#4,(1)#6 GROUND	(1) 3" TRENCH
160**	131	(3)#2/0,(1)#2/0 GRD-LOAD SIDE	(1) 4" TRENCH
161*	11	(3)#2/0,(1)#2/0 GRD-LOAD SIDE	(1) 2" TRENCH
162*	27	(3)#2/0,(1)#2/0 GRD-LINE SIDE	(1) 2" TRENCH

* PROPOSED RIGID GALVANIZED CONDUIT
** SERVICE RUN CONTINUES ON ADJACENT SHEET



LIGHTING SYMBOL LEGEND

SYMBOL	DESCRIPTION
	– PROPOSED LIGHTING STANDARD
	– EXISTING LIGHTING STANDARD
— LI-CON —	– PROPOSED LIGHTING SERVICE RUN (CONDUIT)
	– PROPOSED JUNCTION WELL LIGHTING
CA X	– PROPOSED LIGHTING CONTROL AND DISTRIBUTION ENCLOSURE & IDENTIFIER (TYPE)
D P	– PROPOSED ADDITIONAL DISCONNECT SWITCH & ELECTRIC UTILITY SERVICE EQUIPMENT
LS EX / LS #	– EXISTING & PROPOSED LIGHTING STANDARD IDENTIFIERS
SR #	– PROPOSED SERVICE RUN IDENTIFIER
PB X	– PROPOSED POLE BASE IDENTIFIER (TYPE)
JW X	– PROPOSED JUNCTION WELL IDENTIFIER (TYPE)
RL 0 / RM 0	– RELOCATE & REMOVE BY OTHERS IDENTIFIERS
RM C / AB	– REMOVE & ABANDON BY CONTRACTOR IDENTIFIER

NOTES:

1. THE PROPOSED DELDOT LIGHTING STANDARD LUMINAIRE SHALL BE 161 WATT LED, WITH MEDIUM TYPE III HORIZONTAL DISTRIBUTION AND COBRA-HEAD STYLE FIXTURES WITH CUT-OFF OPTICS MOUNTED WITH 0 DEGREE TILT ANGLE. LUMINAIRE SHALL BE LUMEC (FORMERLY PHILIPS) ROADFOCUS 160W48LED4K PER SUSSEX COUNTY SOLE SOURCE ITEM.
2. THE CONTRACTOR SHALL COORDINATE WITH DELDOT'S TRAFFIC CONTRACTOR TO CO-LOCATE THE ELECTRIC METER PEDESTALS AND ADDITIONAL DISCONNECT PEDESTALS FOR THE SIGNAL AND LIGHTING SYSTEMS SUCH THAT THEY ARE IMMEDIATELY ADJACENT TO EACH OTHER.

PREPARED BY

WRA Whitman, Requardt and Associates, LLP
Engineers • Architects • Environmental Planners Est. 1915

THIS SEAL APPLIES TO THIS SHEET ONLY. — DATE: 8/22/2024

KYLE O. CLEVENGER — LICENSE — No. 18723 — DELAWARE — PROFESSIONAL ENGINEER — SEAL

CONCURRENCE FOR INSTALLATION

CHIEF OF TRAFFIC ENGINEERING — DATE: 8/23/2024

ADDENDA / REVISIONS

SCALE: 0 30 60 90 FEET

US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO.	N/A	SECTION
T201412701	DESIGNED BY: D. CARSON		WRA
COUNTY	CHECKED BY: M. BUCKLEY		SHEET NO.
SUSSEX			289

LIGHTING PLAN

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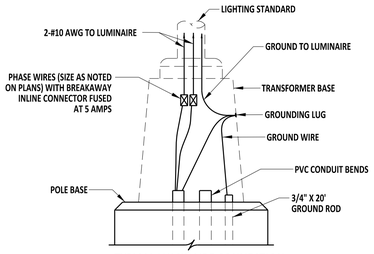
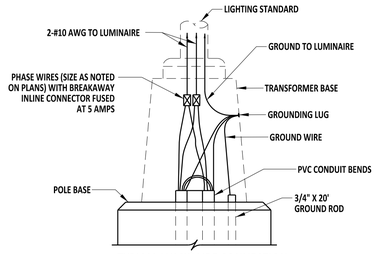
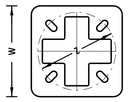


TYPICAL LUMINAIRE CONNECTION
END OF CABLE RUN
240 VOLT

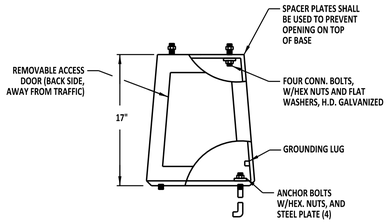


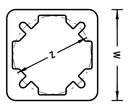
TYPICAL LUMINAIRE CONNECTION
CONTINUOUS CABLE RUN
240 VOLT

WIRING SCHEMATICS IN TRANSFORMER BASE



TOP VIEW





BOTTOM VIEW

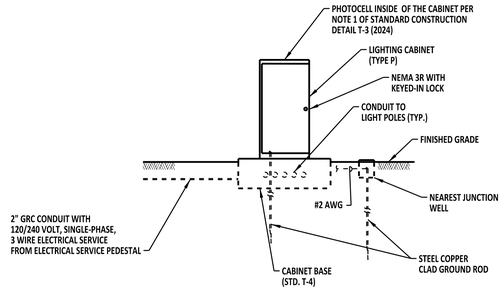
MOUNTING HEIGHT	ARM LENGTH	MIN WIDTH 'W'	BOLT DIA.	BOLT CIRCLE 'Z'
LESS THAN 40'	LESS THAN 30'	13"	1"	13 ½"
	30'	15"	1 ¼"	15"
40'	LESS THAN OR EQUAL TO 20'	13"	1"	13 ½"

CONSTRUCTION NOTES

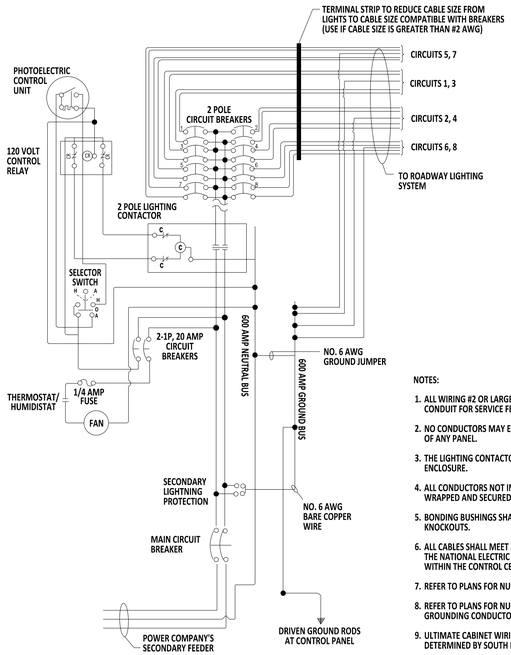
1. ALUMINUM TRANSFORMER BASE SHALL MEET 1985 AASHTO BREAKAWAY REQUIREMENTS.
2. BREAKAWAY TRANSFORMER BASES SHALL BE INSTALLED WITH ALL POLES, UNLESS OTHERWISE NOTED.
3. LIGHT STANDARDS MOUNTED TO BRIDGE/RETAINING/BARRIER WALLS DO NOT REQUIRE BREAKAWAY BASES.
4. OPENING OF TRANSFORMER BASE ACCESS DOOR SHALL BE INSTALLED ON THE SIDE OF THE POLE FACING AWAY FROM TRAFFIC.
5. PROVIDE ACCESSIBLE GROUNDING NUT OR LUG INSIDE TRANSFORMER BASE.
6. PROVIDE WASHERS, SHIMS AND BOLTS AS REQUIRED BY TRANSFORMER BASE MANUFACTURER.
7. THE CONTACT AREA BETWEEN THE TRANSFORMER BASE AND CONCRETE FOUNDATION SHALL BE SHOP COATED WITH COAL TAR EPOXY MEETING SSPC-PAINT 16 SPECIFICATIONS. THE THICKNESS OF THE COATING SHALL BE BETWEEN 6 AND 8 MILS. THE COATING SHALL BE COMPLETELY DRY BEFORE INSTALLATION. THE TOP OF THE FOUNDATION SHALL NOT BE PAINTED.
8. TOP AND BOTTOM OF BASE MAY BE SLOTTED FOR BOLT CIRCLE. SLOT MUST ACCOMMODATE DIMENSION SHOWN.
9. TRANSFORMER BASE AND ASSOCIATED COMPONENTS SHALL MEET THE FOLLOWING MATERIAL REQUIREMENTS:

ANCHOR BASE - AA356-T6
BOLT COVERS - AA356
ANCHOR BOLT NUTS ASTM - A563 GR.A
ANCHOR BOLTS - ASTM - F1554 GR55
STN. STL HARDWARE - AISI - 300 SERIES SST
TRANSFORMER BASE - AA356 - T6
T-BASE HARDWARE - ASTM - A325 GALV.

LIGHTING STRUCTURE ON BREAKAWAY TRANSFORMER BASE



LIGHTING CONTROL AND DISTRIBUTION ENCLOSURE DETAIL

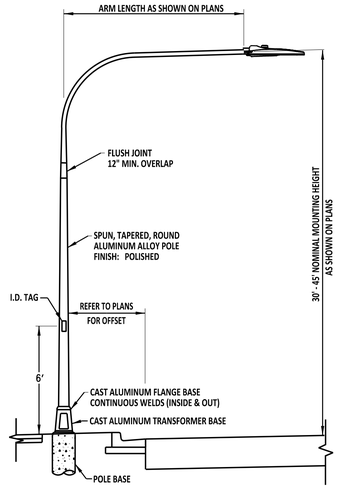


120/240 VOLT
LIGHTING CONTROL CENTER
WIRING DIAGRAM

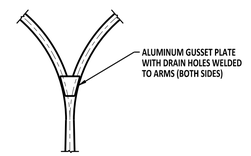
NOTES:

1. ALL WIRING #2 OR LARGER SHALL BE INSTALLED IN FLEXIBLE CONDUIT FOR SERVICE FEEDS.
2. NO CONDUCTORS MAY ENTER OR EXIT THROUGH THE REAR OF ANY PANEL.
3. THE LIGHTING CONTACTOR SHALL BE IN A PROPERLY SIZED ENCLOSURE.
4. ALL CONDUCTORS NOT IN CONDUIT SHALL BE BUNDLED OR WRAPPED AND SECURED IN CABINET AWAY FROM SHARP EDGES.
5. BONDING BUSHINGS SHALL BE USED FOR ALL CONCENTRIC KNOCKOUTS.
6. ALL CABLES SHALL MEET AMPACITY REQUIREMENTS OF THE NATIONAL ELECTRIC CODE. THE MINIMUM CABLE SIZE WITHIN THE CONTROL CENTER SHALL BE NO. 12 AWG.
7. REFER TO PLANS FOR NUMBER AND SIZE OF CIRCUIT BREAKERS.
8. REFER TO PLANS FOR NUMBER AND SIZE OF ELECTRODE GROUNDING CONDUCTOR WIRES REQUIRED.
9. ULTIMATE CABINET WIRING AND CONFIGURATION TO BE DETERMINED BY SOUTH DISTRICT (302-853-1300).

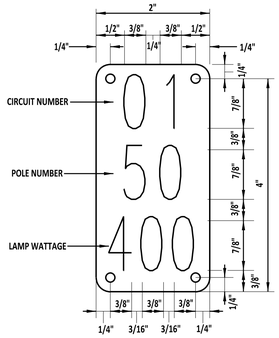
LIGHTING CONTROL AND DISTRIBUTION ENCLOSURE WIRING DIAGRAM



ALUMINUM LIGHTING STANDARD WITH SINGLE DAVIT ARM



DOUBLE DAVIT ARM DETAIL

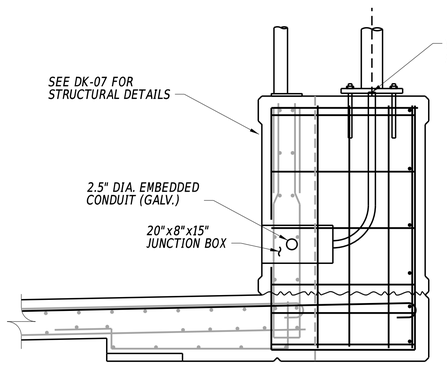


TYPICAL POLE IDENTIFICATION TAG

NOTES:

1. IDENTIFICATION TAG SHALL BE INSTALLED ON THE SIDE OF THE POLE FACING AWAY FROM TRAFFIC.
2. POLE ARMS SHALL BE ALIGNED PERPENDICULAR TO THE EDGE OF TRAVELED WAY, UNLESS OTHERWISE DIRECTED.
3. THE OUTER SLEEVE MEMBER AT THE LIGHT STANDARD FLUSH JOINT SHALL BE FURNISHED WITH PREDRILLED THROUGH HOLES AT 90 DEGREES APART (MIN. 6" DISTANCE BETWEEN HOLES). THE INNER MEMBER SHALL BE DRILLED IN THE FIELD AFTER THE POLE SHAFT IS INSTALLED AND THE DAVIT ARM IS ALIGNED.
4. LAMP TYPE, WATTAGE AND HORIZONTAL DISTRIBUTION TYPE SHALL BE AS SPECIFIED ON THE PLANS. ALL LUMINAIRES SHALL BE MOUNTED AT A ZERO DEGREE TILT ANGLE. PHOTOCELL AS REQUIRED PER PLANS.
5. LUMINAIRES SHALL HAVE CUTOFF OPTICS, AND BE LABELLED WITH AN IDENTIFICATION STICKER IN ACCORDANCE WITH NEMA CONVENTIONS.

LIGHT STANDARDS AND LUMINAIRES



PARAPET LIGHTING DETAIL

¾" = 1'-0"

PREPARED BY

WRA Whitman, Requardt and Associates, LLP
Engineers • Architects • Environmental Planners Est. 1915

THIS SEAL APPLIES TO THIS SHEET ONLY. — DATE 8/22/2024

KYLE O. CLEVENGER — LICENSE — No. 18723 — DELAWARE — PROFESSIONAL ENGINEER

SEAL

CONCURRENCE FOR INSTALLATION

CHIEF OF TRAFFIC ENGINEERING — DATE 8/23/2024

ADDENDA / REVISIONS

NOT TO SCALE

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	T201412701
COUNTY	SUSSEX

BRIDGE NO. N/A
DESIGNED BY: D. CARSON
CHECKED BY: M. BUCKLEY

LIGHTING DETAILS

SECTION: WRA
SHEET NO.: 290

8/22/2024
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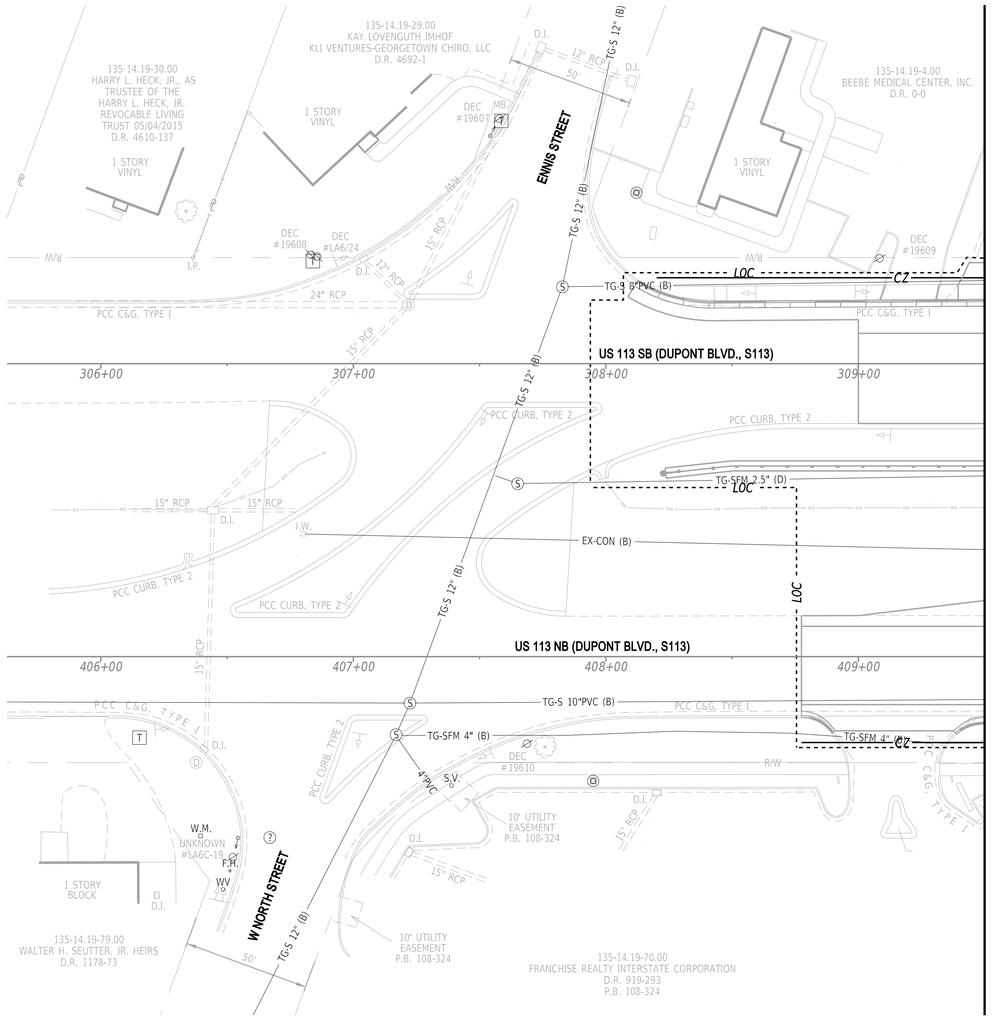

ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. N/A	UTILITY RELOCATION PLAN	SECTION WRA
				COUNTY SUSSEX	DESIGNED BY: M. WELLBORN		SHEET NO. 291
					CHECKED BY: T. OLIVER		

9/5/2025
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MATCH LINE STA. 309+50

MATCH LINE STA. 318+00

US 113 SOUTHBOUND (S113)

US 113 NORTHBOUND (S113)

135-14.19-4.00 BEEBE MEDICAL CENTER, INC. D.R. 0-0

135-14.19-3.00 MIDATLANTIC FARM CREDIT, FLCA D.R. 2928-22

GEORGETOWN-VAUGHN DEEP CREEK MAIN TAX DITCH EASEMENT 120' FROM TOP OF BANK (T.B. 1-113)

GEORGETOWN-VAUGHN DEEP CREEK MAIN TAX DITCH EASEMENT 43' FROM C/L (T.B. 1-113)

GEORGETOWN-VAUGHN DEEP CREEK MAIN TAX DITCH CHANNEL

135-14.19-2.00 JOHN T. GOOSS & DONALD A. GOOSS, JR. D.R. 1985-11 P.B. 1-23

135-14.19-1.00 CHUDASAMA ENTERPRISES, L.L.C. D.R. 2389-290

135-14.00-39.00 R.W. SMITH INVESTMENT COMPANY D.R. 1915-150

135-14.19-70.00 FRANCHISE REALTY INTERSTATE CORPORATION D.R. 919-293 P.B. 108-224

135-14.19-69.00 A & M LIMITED PARTNERSHIP D.R. 1814-112

135-14.19-68.00 GOD'S WAY MINISTRIES, INC. D.R. 4565-79

135-14.19-67.00 DOLPHIN REALTY, LLC D.R. 2473-151

135-14.19-64.00 SS GEORGETOWN LLC D.R. 2799-25

135-14.19-65.00 VASU, LLC D.R. 4062-137 P.B. 178-3

135-14.19-66.00 VASU, LLC D.R. 4062-137 P.B. 178-3

135-14.19-30.60 KHS HOLDINGS, LLC D.R. 4398-141 P.B. 173-123

BRAMHALL STREET (S22009B)

ADDENDA / REVISIONS	SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	UTILITY RELOCATION PLAN	SECTION
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			COUNTY	CHECKED BY: T. OLIVER		SHEET NO.
			SUSSEX			292

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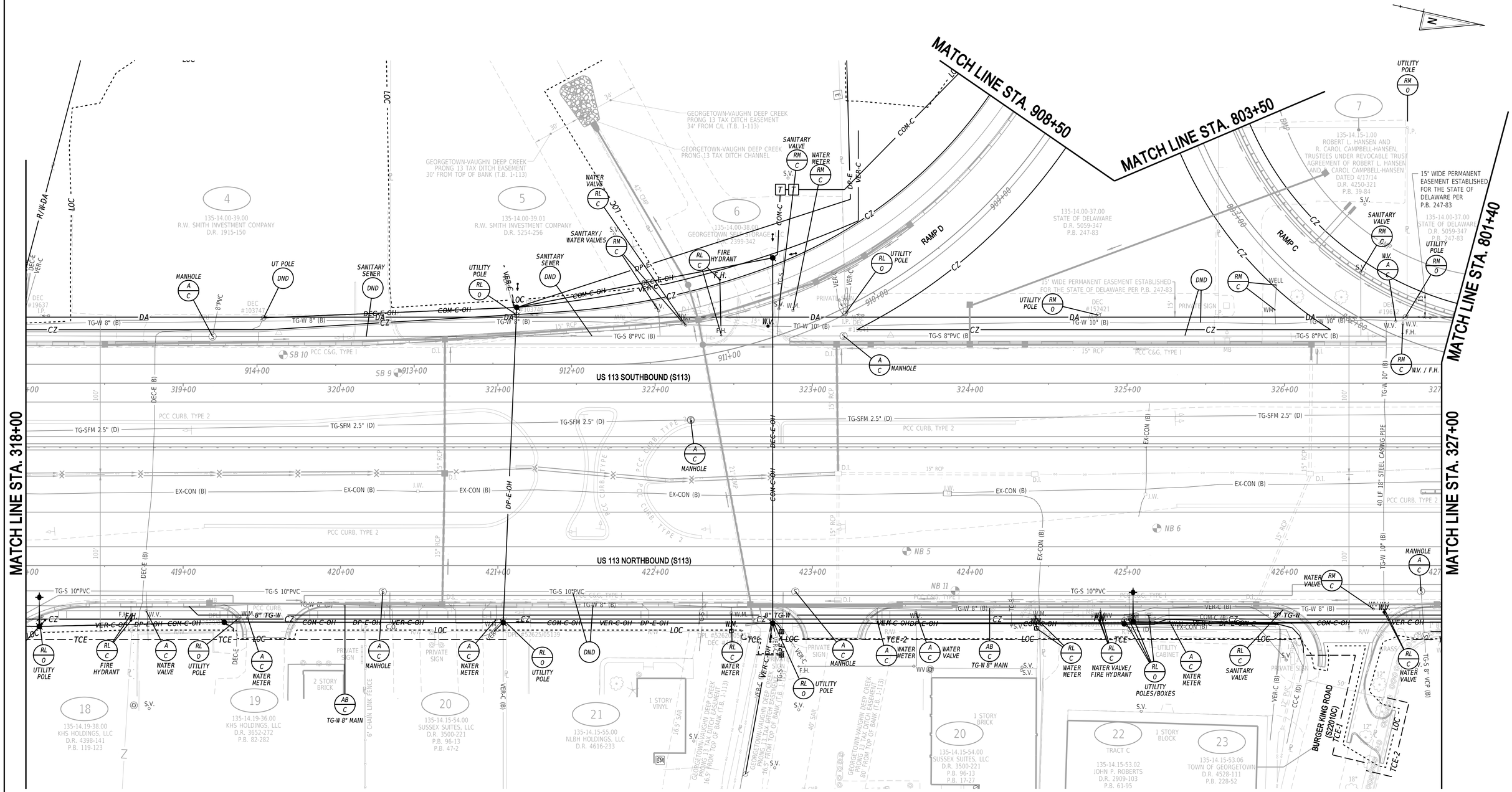

ADDENDA / REVISIONS	SCALE	CONTRACT	BRIDGE NO. N/A	SECTION
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		COUNTY SUSSEX	CHECKED BY: T. OLIVER	SHEET NO. 293

US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION

UTILITY RELOCATION PLAN

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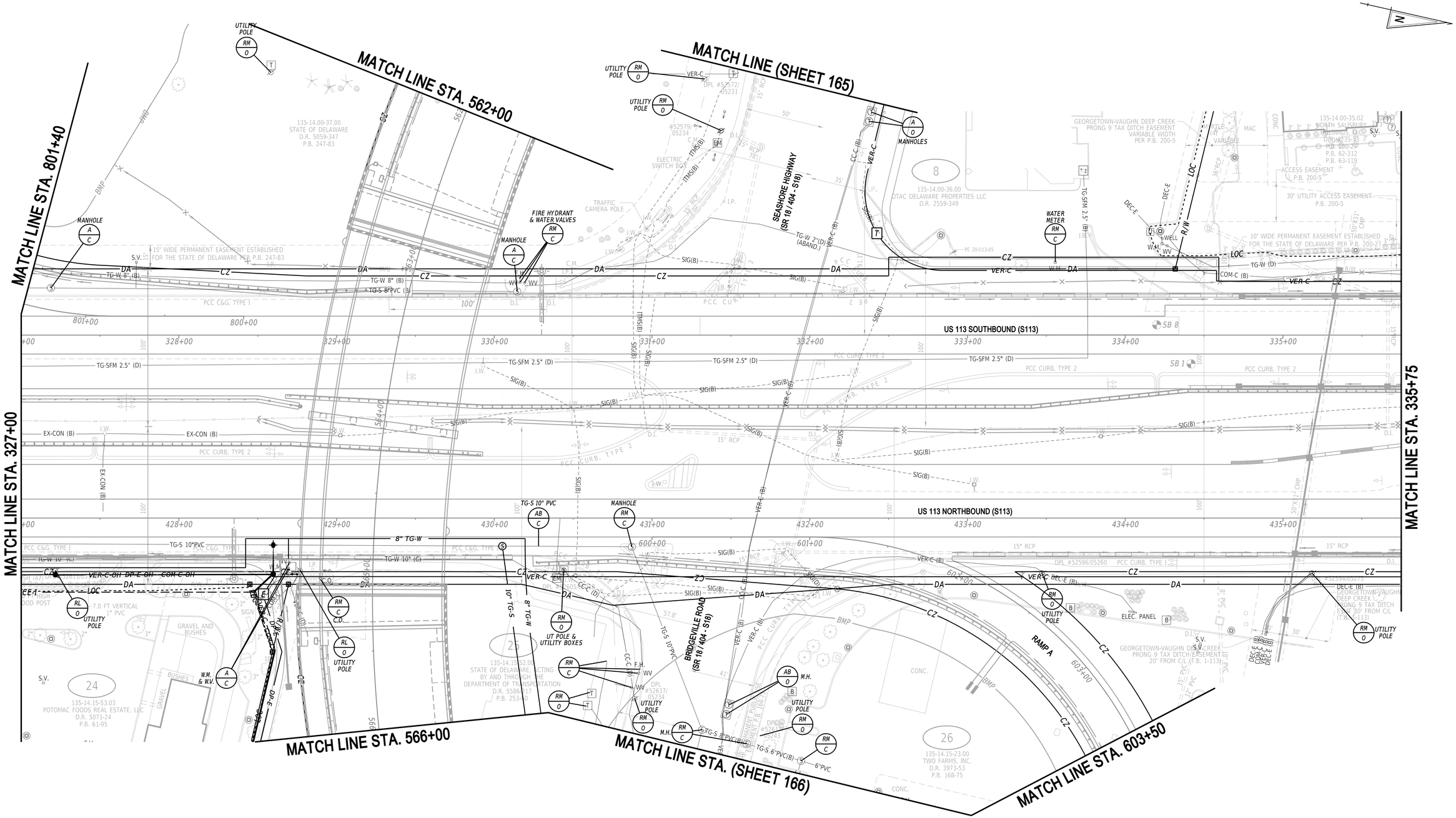

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				COUNTY SUSSEX	DESIGNED BY: M. WELLBORN		SHEET NO. 294
					CHECKED BY: T. OLIVER		

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MATCH LINE STA. 335+75

MATCH LINE STA. 345+00

MATCH LINE STA. 708+20

COLLEGE PARK LANE (S22016J)

US 113 SOUTHBOUND (S113)

US 113 NORTHBOUND (S113)

GORDY STREET (S22024B)

WOLFE ROAD

LITTLE LANKFORD LANE

RAMP B

135-14.00-35.02 NORTH SALISBURY BRICK HOLDINGS, LLC D.R. 4905-53 P.B. 260-27

135-14.00-35.01 J & P MANAGEMENT, INC. D.R. 2450-61 P.B. 62-312 P.B. 63-119

135-14.00-35.14 GEORGETOWN HOTEL LLC D.R. 4905-172 P.B. 260-66

135-14.00-35.10 COLLEGE PARK RETAIL, LLC D.R. 4905-169 P.B. 260-66

135-14.00-35.11 TOWN OF GEORGETOWN D.B. 5157-73

135-14.00-35.04 GEORGETOWN, SC, LLC D.R. 3134-193 P.B. 69-124 P.B. 65-140

135-14.15-8.00 TWO FARMS, INC. D.R. 3973-59 P.B. 168-75

135-14.15-9.00 CATO DEVELOPMENT, INC D.R. 2609-14 P.B. 71-132

135-14.15-7.00 STATE OF DELAWARE, ACTING BY AND THROUGH THE DEPARTMENT OF TRANSPORTATION D.R. 5526-52

135-14.15-6.00 STATE OF DELAWARE THROUGH DEPARTMENT OF TRANSPORTATION D.R. 5421-169

135-14.00-58.00 KHWAJA GHARIB NAWAZ, LLC D.R. 4839-346

135-14.00-58.01 STATE OF DELAWARE, THROUGH THE DEPARTMENT OF TRANSPORTATION D.R. 5759-4

135-14.00-61.00 KHWAJA GHARIB NAWAZ, LLC D.R. 4839-346

135-14.00-62.01 DHW REALTY, LLC D.R. 4087-61

ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. N/A	UTILITY RELOCATION PLAN	SECTION WRA
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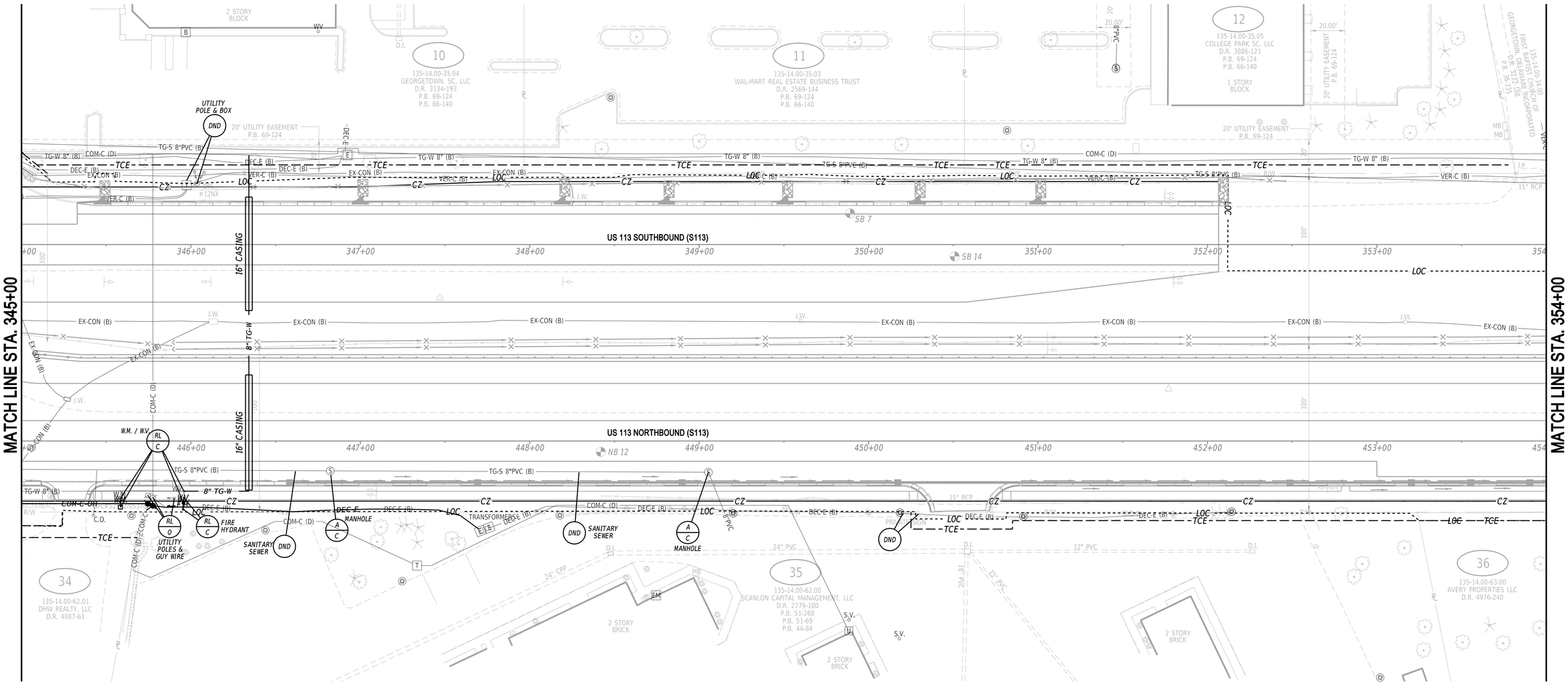

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			COUNTY SUSSEX	CHECKED BY: T. OLIVER		SHEET NO. 296

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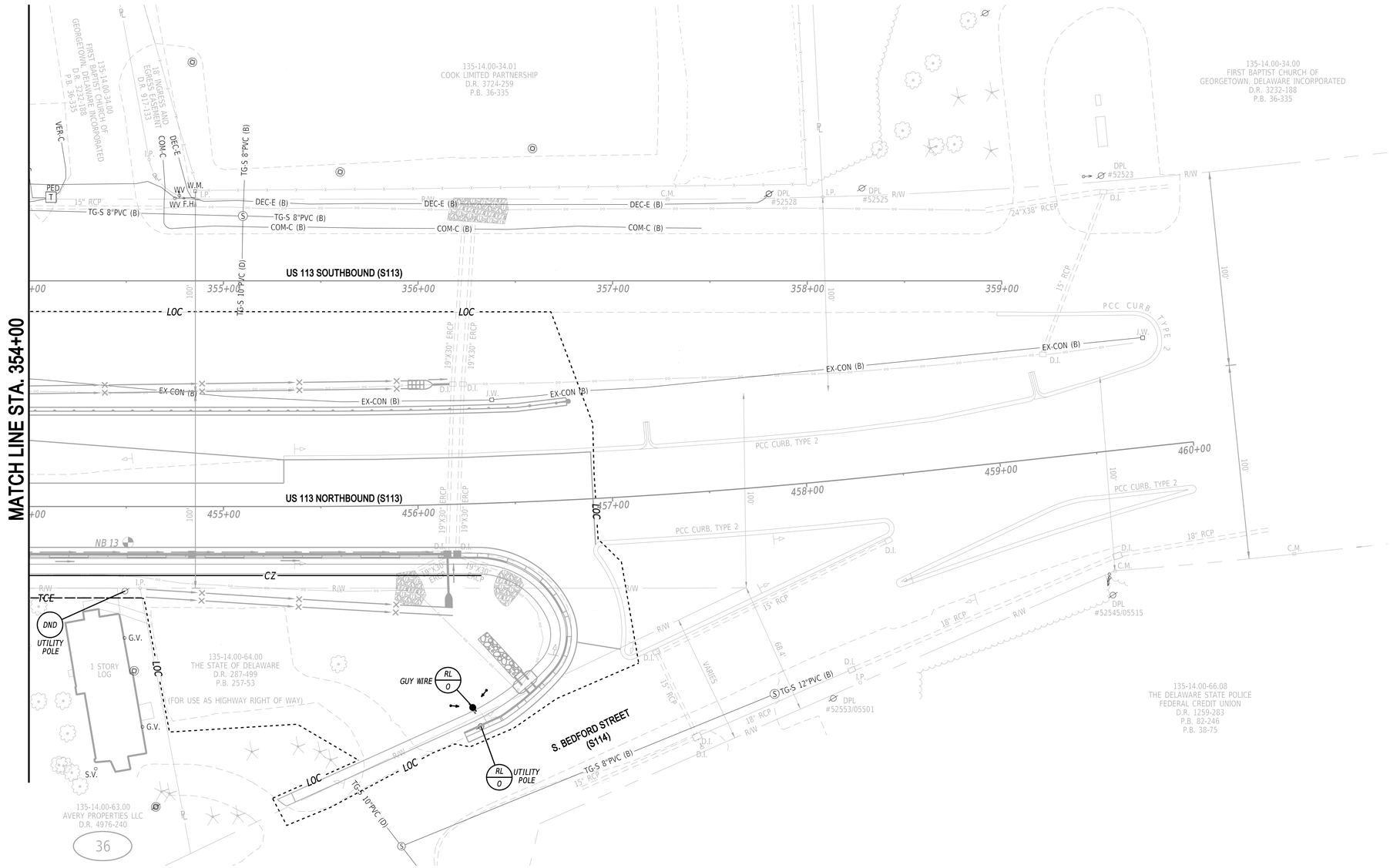

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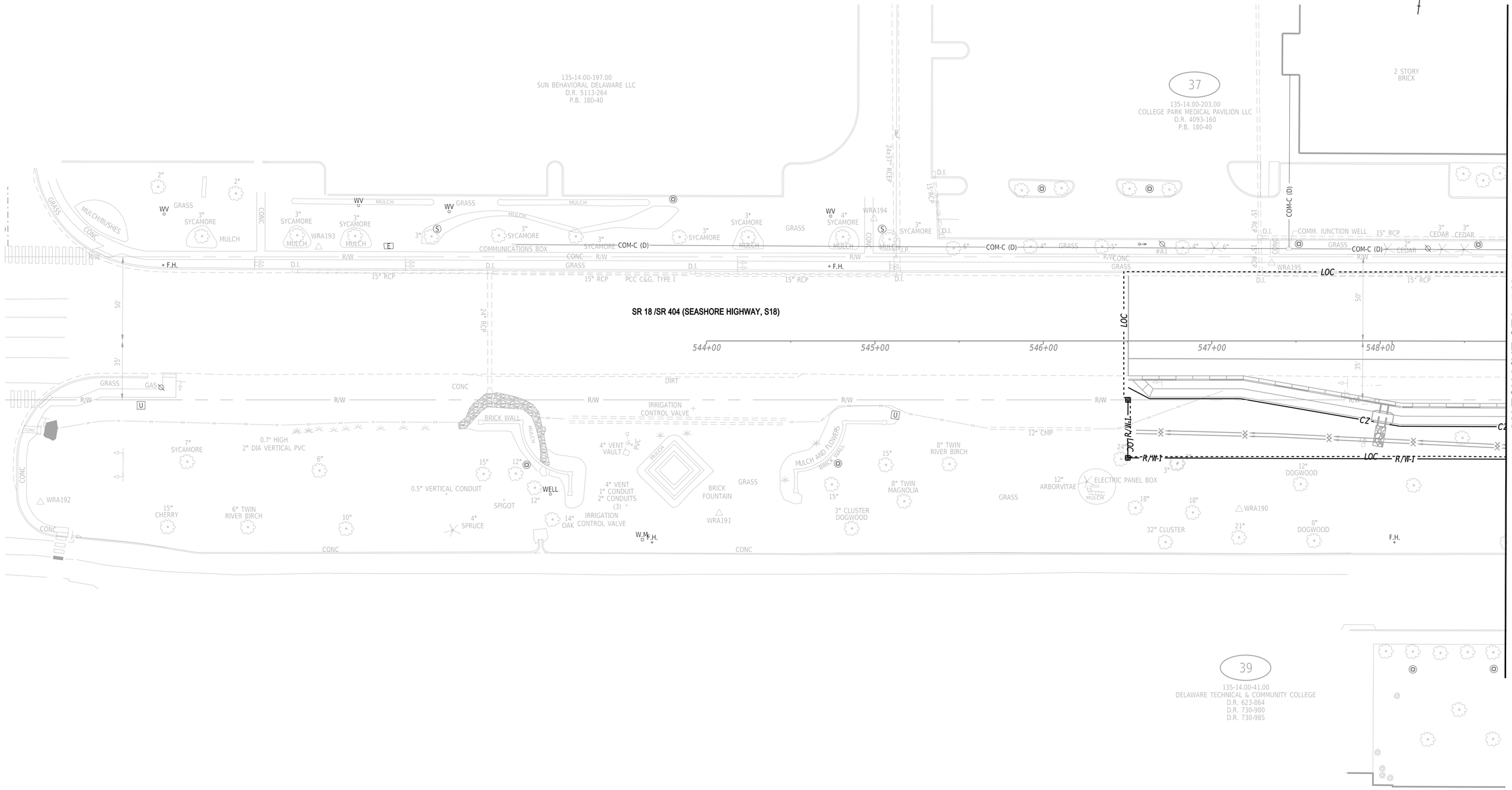

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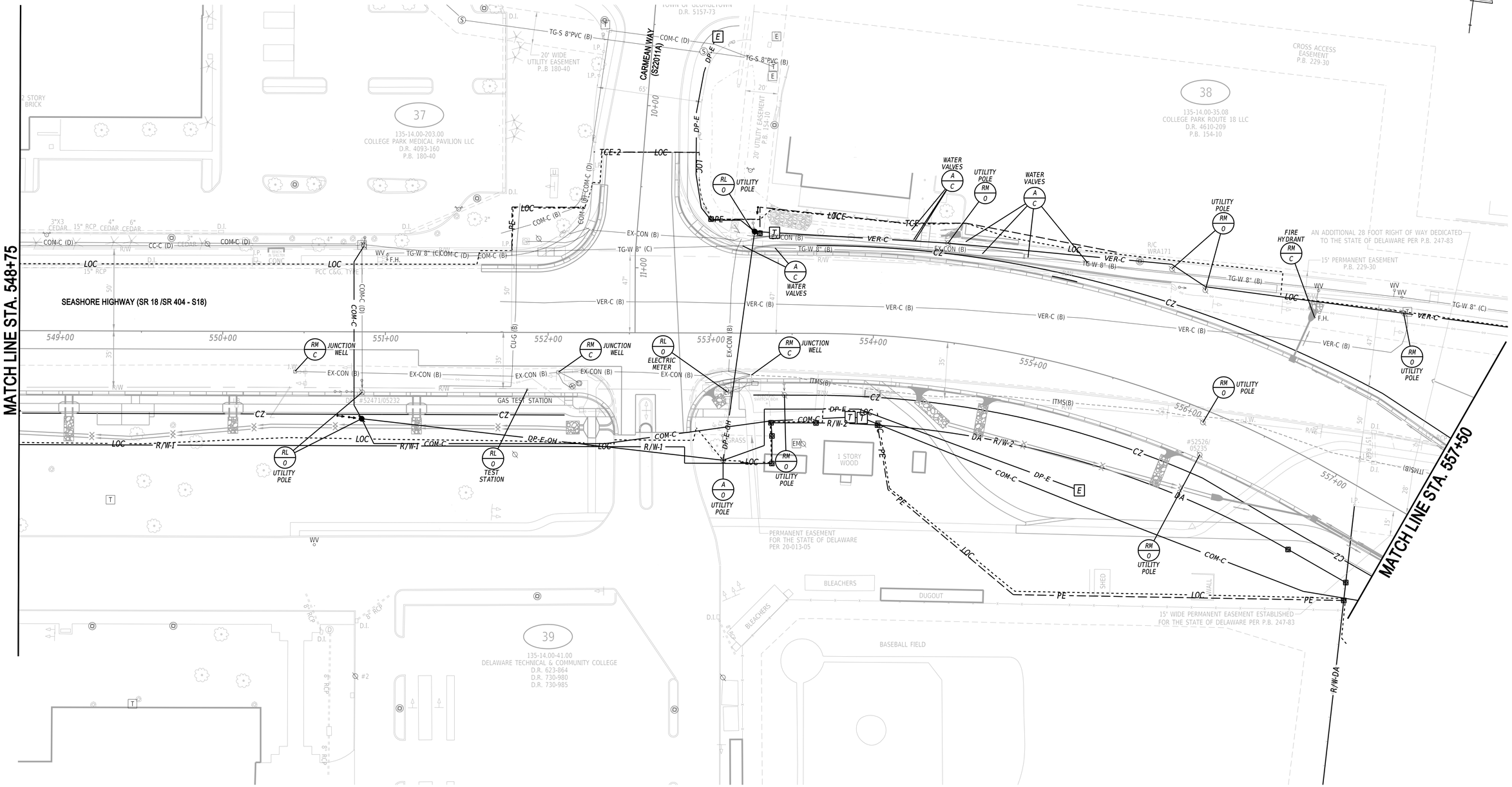

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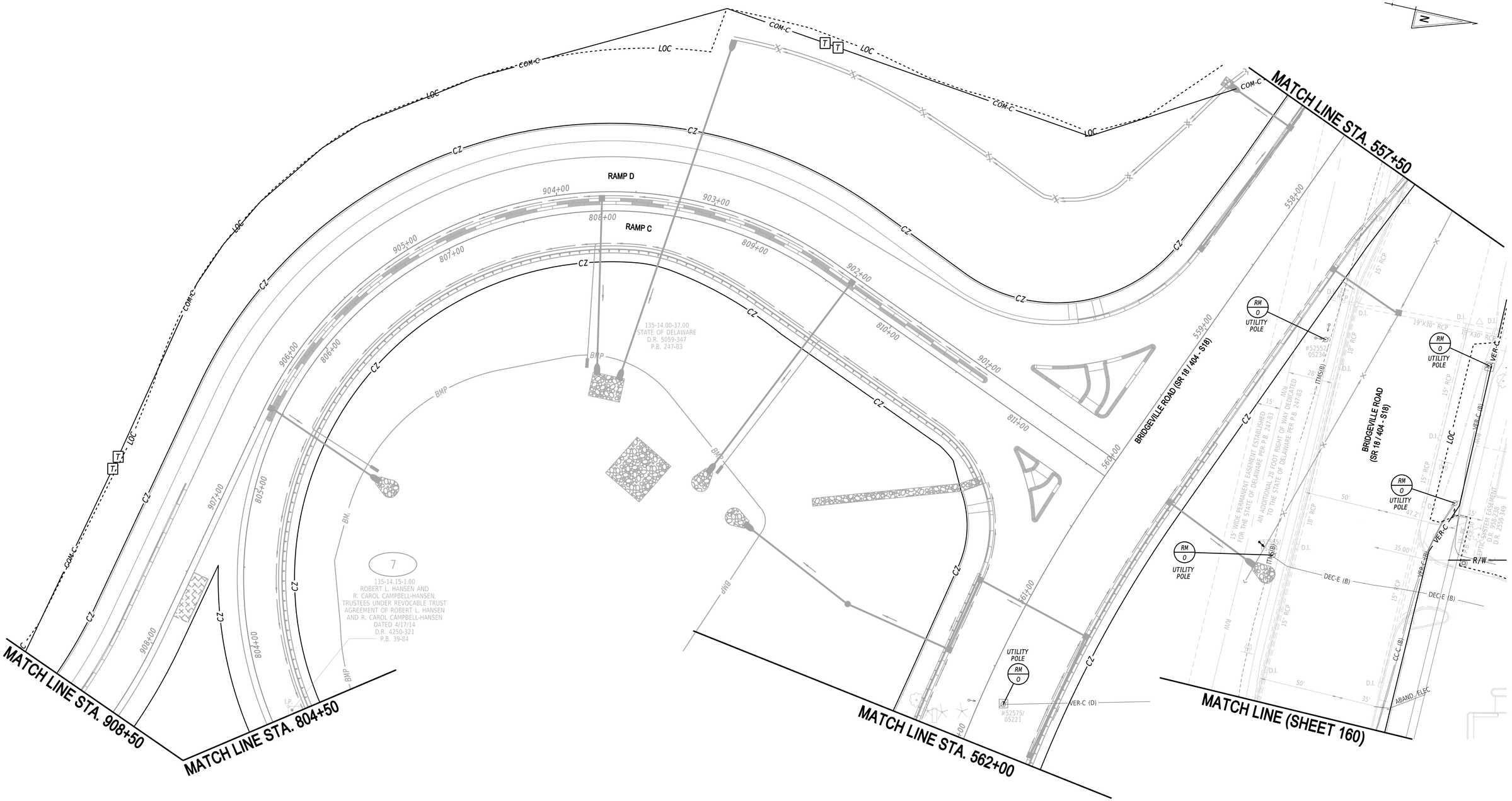

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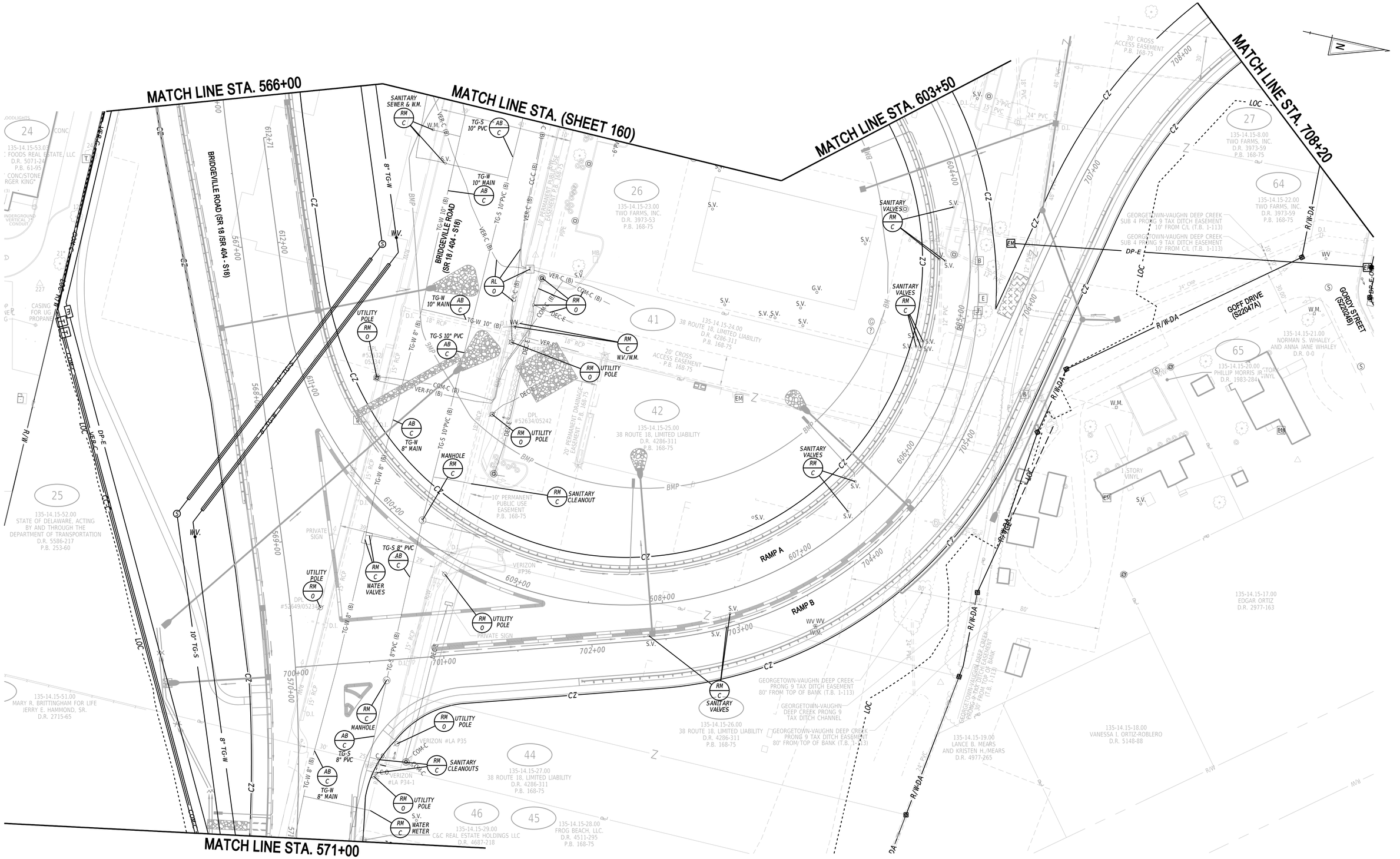

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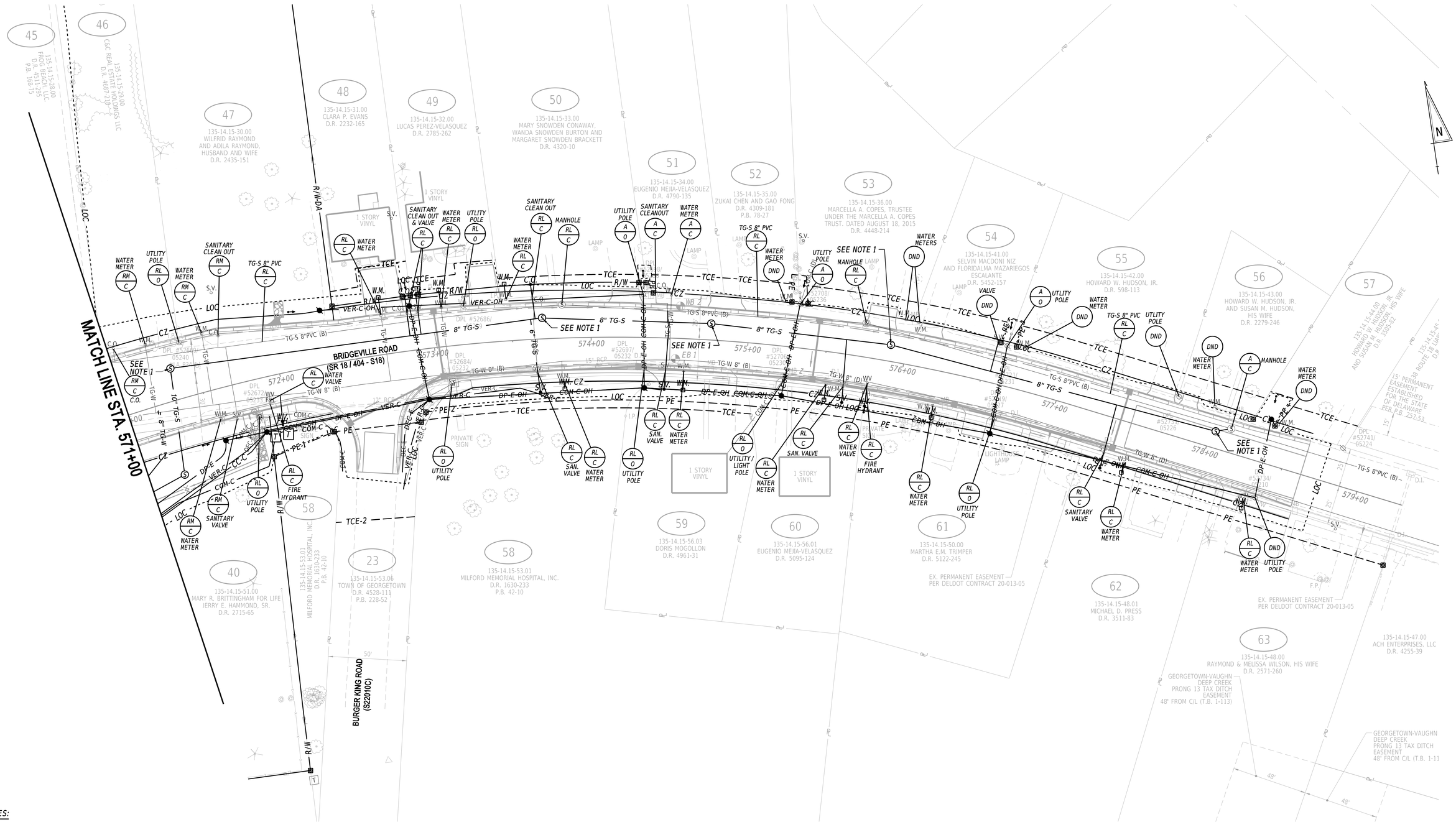

NOTES:

1. *IF THE PROPOSED SANITARY SEWER MANHOLES ARE CONSTRUCTED BEFORE THE ROADWAY GRADING AND PAVING ARE COMPLETE, THE CONTRACTOR SHALL SET THE PROPOSED SANITARY MANHOLE ELEVATION TO MATCH EXISTING GRADE. THE CONTRACTOR SHALL USE GRADE RINGS UP TO A MAXIMUM HEIGHT OF 12 INCHES TO MATCH THE PROPOSED PAVEMENT. IF THE GRADE DIFFERENTIAL IS GREATER THAN 12 INCHES, THE CONTRACTOR SHALL REMOVE THE MANHOLE CONE AND ADD RISER SECTIONS AS NEEDED TO MATCH THE PROPOSED GRADE. THIS WORK WILL BE PAID FOR UNDER ITEM 711500: ADJUST AND REPAIR SANITARY MANHOLE.*

ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. N/A	UTILITY RELOCATION PLAN	SECTION WRA
				COUNTY SUSSEX	DESIGNED BY: M. WELLBORN		SHEET NO. 302
					CHECKED BY: T. OLIVER		

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UTILITY TEST HOLE SCHEDULE

NO.	UTILITY	STATION	OFFSET	GRND EL.	COVER	O.D. & MATERIAL
V01	VER-C	409+98.36	27.23'RT	46.51	2.79'	(2) 2" ORANGE PLASTIC COMMUNICATION CONDUITS
DD01	DELDOT	410+61.60	41.47'LT	45.22	2.28'	2" METAL DOT CONDUIT
TG01	TOG	414+18.10	25.30'RT	47.11	3.46'	6" BLUE PLASTIC WATER PIPE
TG119	TOG	412+04.63	33.12'RT	46.88	3.07'	4" WHITE PLASTIC SANITARY FORCE MAIN PIPE
D01	DEC-E	318+83.04	27.92'LT	48.35	4.15'	(3) 1 1/2" BLACK ELECTRIC CABLES (DIRECT BURY)
TG02	TOG	420+64.19	26.40'RT	47.29	3.14'	8" BLUE PLASTIC WATER PIPE
TG101	TOG	912+80.03	17.87'RT	47.27	7.98'	8" GREEN PLASTIC SANITARY SEWER PIPE
TG03	TOG	911+08.34	18.37'RT	45.96	2.51'	10" BLUE PLASTIC WATER PIPE
TG102	TOG	322+41.86	23.65'RT	46.60	3.12'	2 1/2" WHITE PLASTIC SANITARY FORCE MAIN
DD02	DELDOT	422+54.34	45.69'LT	46.18	2.36'	2" BLACK METAL DOT CONDUIT
TG103	TOG	422+62.97	16.75'RT	46.12	8.05'	10" GREEN PLASTIC SANITARY SEWER PIPE
TG04	TOG	422+62.37	26.92'RT	46.60	2.58'	8" BLUE PLASTIC WATER PIPE
TG104	TOG	910+62.15	13.32'RT	46.47	3.53'	4" GREEN PLASTIC SANITARY SEWER PIPE
TG05	TOG	423+54.13	28.10'RT	45.94	2.94'	8" BLUE PLASTIC WATER PIPE
V02	VER-C	425+84.86	29.58'RT	48.54	0.75'	1" BLACK COMMUNICATION CABLE
TG06	TOG	426+61.19	19.29'RT	47.24	2.81'	16" BLACK METAL CASING WATER PIPE
TG105	TOG	426+88.06	27.94'RT	48.01	7.47'	8" BROWN CLAY SANITARY SEWER PIPE
TG07	TOG	426+88.06	27.94'RT	48.01	2.28'	8" BLUE PLASTIC WATER PIPE
TG18	VER-C/TOG	425+25.59	26.59'RT	47.14	1.89'	UNKNOWN SIZE CABLE (DIRECT BURY); 8" BLUE PLASTIC WATER PIPE TEE
TG19	TOG	426+63.50	48.75'LT	47.05	3.86'	10" BLUE PLASTIC WATER PIPE
TG20	TOG	801+79.91	3.71'RT	47.95	3.44'	10" BLUE PLASTIC WATER PIPE
TG08	TOG	428+82.38	27.39'RT	49.62	3.85'	10" BLUE PLASTIC WATER PIPE
TG106	TOG	600+26.15	108.59'RT	49.05	8.98'	10" GREEN PLASTIC SANITARY SEWER PIPE
CC01	CON-C	600+51.04	84.02'RT	48.81	3.74'	10" BROWN CLAY COMMUNICATIONS DUCT BANK; 2" BLACK COMMUNICATIONS CABLE (DIRECT BURY)
V03	VER-C	600+53.57	84.51'RT	48.76	2.48'	(2) 2" BLACK COMMUNICATION CABLES; (2) 4" GRAY PLASTIC COMMUNICATION CONDUITS
D02	DEC-E	435+08.98	47.39'RT	47.36	0.92'	2" GRAY PLASTIC ELECTRIC CONDUIT
D03	DEC-E	435+01.57	46.03'RT	47.34	3.25'	(2) 4" GRAY PLASTIC ELECTRIC CONDUITS
D03A	COM-C/VER-C	435+07.52	45.89'RT	47.28	2.52'	(3) 3" GRAY PLASTIC COMMUNICATION CONDUITS
DD03	DELDOT	335+20.10	48.65'RT	46.36	1.81'	2" METAL DOT CONDUIT
C01	COM-C	335+36.89	37.06'LT	46.37	2.07'	2" ORANGE PLASTIC CATV CONDUIT
DD04	DELDOT	336+07.03	45.58'RT	45.93	1.16'	2" METAL DOT CONDUIT
C02	NOT FOUND	337+35.48	34.02'RT	N/A	N/A	N/A
D04	DEC-E	337+51.05	32.21'RT	47.53	7.41'	4" BLACK PLASTIC ELECTRIC CONDUIT
C03	COM-C	710+05.01	15.64'RT	47.88	1.86'	1" BLACK CABLE TV CABLE (DIRECT BURY)
D05	DEC-E	710+09.52	17.21'RT	47.87	2.31'	4" GRAY PLASTIC ELECTRIC CONDUIT
DD05	DELDOT	338+03.26	40.97'RT	46.82	1.36'	3" METAL DOT CONDUIT
TG09	TOG	338+63.94	48.35'RT	45.85	3.53'	16" BLACK METAL WATER PIPE CASING
TG10	TOG	711+27.70	19.14'RT	47.84	3.30'	8" BLUE PLASTIC WATER PIPE
TG107	TOG	338+83.49	48.92'RT	45.92	6.18'	6" GREEN PLASTIC SANITARY SEWER PIPE
TG108	TOG	711+53.97	4.10'RT	47.85	8.42'	8" GREEN PLASTIC SANITARY SEWER PIPE
TG11	TOG	711+54.54	19.67'RT	48.13	3.31'	8" BLUE PLASTIC WATER PIPE
D06	DEC-E	439+61.49	34.11'RT	48.10	1.60'	(3) 4" BLACK CORRUGATED PLASTIC ELECTRIC CONDUITS
D07	DEC-E	340+61.08	43.33'RT	46.75	6.05'	FELT THREE LINES WITH AIR LANCE, UNABLE TO VISUALLY VERFITY ELECTRIC UTILITY
TG109	TOG	439+84.50	31.19'RT	47.87	2.41'	8" BLUE PLASTIC WATER PIPE; FELT WITH AIR LANCE, UNABLE TO VISUALLY VERFITY SANITARY SEWER UTILITY
DD06	DELDOT	440+38.52	26.74'RT	47.86	0.30'	4" WHITE PLASTIC DOT CONDUIT
DD07	DELDOT	339+62.28	52.11'RT	47.99	2.60'	2" METAL DOT CONDUIT
TG110	TOG	440+95.76	32.62'RT	47.95	7.11'	FELT WITH AIR LANCE, UNKNOWN SIZE GREEN PLASTIC SANITARY SEWER PIPE
DD08	DELDOT	342+14.03	43.31'RT	47.38	2.14'	2" METAL DOT CONDUIT
DD09	DELDOT	343+24.23	45.13'RT	47.83	2.29'	2" METAL DOT CONDUIT
TG111	TOG	443+74.63	31.72'RT	48.29	3.22'	8" BLUE PLASTIC WATER PIPE; 6" GREEN PLASTIC SANITARY SEWER PIPE
TG111A	DELDOT	443+74.63	31.72'RT	48.29	1.92'	4" DOT CONDUIT
DD10	DELDOT	443+92.79	21.59'LT	48.71	4.18'	4" BLACK PLASTIC DOT CONDUIT
V04	VER-C	443+92.68	21.58'LT	48.81	5.07'	2" ORANGE PLASTIC COMMUNICATIONS CONDUIT
V05	VER-C	443+94.66	24.77'RT	48.51	3.39'	2" ORANGE PLASTIC COMMUNICATIONS CONDUIT
DD11	DELDOT	444+12.38	28.80'RT	48.70	3.03'	4" BLACK PLASTIC DOT CONDUIT
TG112	TOG	449+11.43	26.51'RT	47.65	4.65'	8" GREEN PLASTIC SANITARY SEWER PIPE
V06	VER-C	553+90.32	17.30'LT	50.17	3.88'	2" BLACK COMMUNICATIONS CABLE (DIRECT BURY)
TG12	TOG	553+82.61	53.13'LT	49.63	5.86'	8" BLUE PLASTIC WATER PIPE
DD12	DELDOT	554+16.08	56.38'LT	49.56	2.80'	4" GRAY PLASTIC DOT CONDUIT
DD13	DELDOT	554+34.16	33.98'RT	48.38	1.89'	4" GRAY PLASTIC DOT CONDUIT
TG13	TOG	334+04.81	756.15'LT	49.39	5.30'	8" BLUE PLASTIC WATER PIPE
DD14	DELDOT	555+79.91	13.68'RT	48.16	1.87'	4" GRAY PLASTIC DOT CONDUIT
V07	VER-C	555+93.13	45.48'LT	49.48	3.60'	2" BLACK COMMUNICATIONS CABLE (DIRECT BURY)
TG14	TOG	555+93.26	80.29'LT	48.44	5.05'	8" BLUE PLASTIC WATER PIPE
TG113	TOG	330+88.18	425.74'RT	48.47	7.72'	8" GREEN PLASTIC SANITARY SEWER PIPE
TG15	TOG	330+59.54	399.23'RT	48.44	3.63'	10" BLUE PLASTIC & BLACK METAL WATER PIPE (AT JOINT)
TG16	TOG	571+54.99	8.25'RT	48.15	3.46'	8" BLUE PLASTIC WATER PIPE
TG114	TOG	571+56.79	24.89'LT	48.05	6.14'	8" GREEN PLASTIC SANITARY SEWER PIPE
TG114A	TOG	571+56.79	24.89'LT	48.11	2.32'	1" BLACK PLASTIC WATER SERVICE PIPE
TG115	TOG	571+67.96	11.26'RT	48.12	4.01'	6" GREEN PLASTIC SANITARY SEWER PIPE
TG116	TOG	573+00.26	16.82'LT	47.83	5.72'	8" GREEN PLASTIC SANITARY SEWER PIPE
TG17	TOG	573+01.12	17.03'RT	47.86	3.43'	8" BLUE PLASTIC WATER PIPE
TG117	TOG	573+64.49	13.61'RT	47.78	3.54'	6" GREEN PLASTIC SANITARY SEWER PIPE
TG118	TOG	575+30.92	18.26'LT	47.78	5.04'	8" GREEN PLASTIC SANITARY SEWER PIPE

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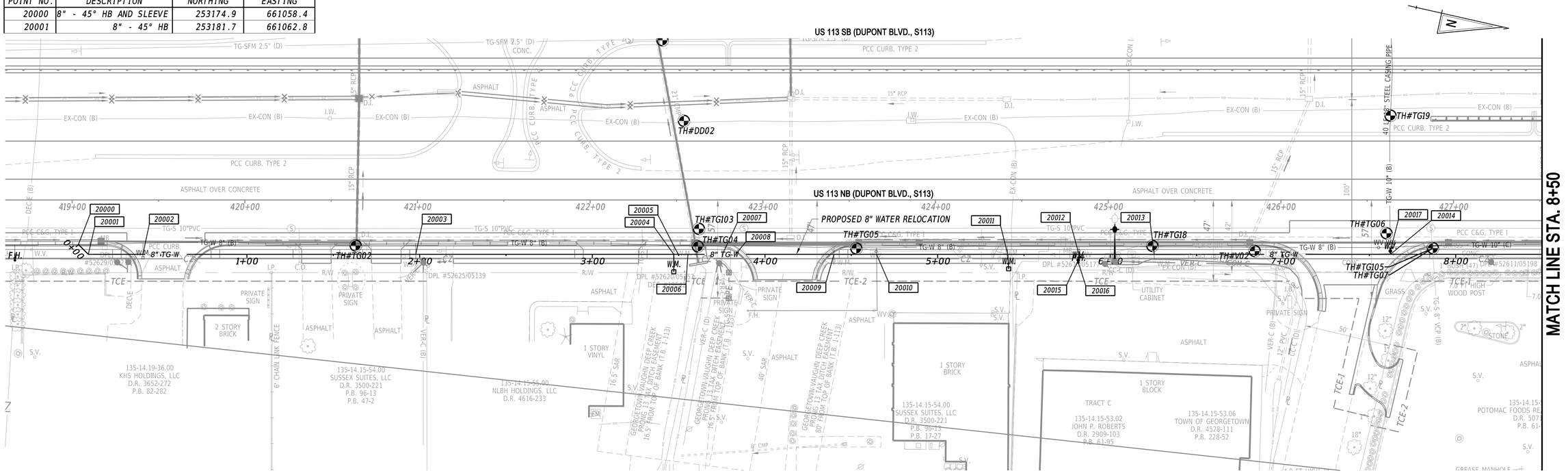
ADDENDA / REVISIONS	NOT TO SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	UTILITY RELOCATION PLAN	SECTION
			T201412701	DESIGNED BY: M. WELLBORN		WRA
			COUNTY	CHECKED BY: T. OLIVER		SHEET NO.
			SUSSEX			303

COORDINATE LIST			
POINT NO.	DESCRIPTION	NORTHING	EASTING
20000	8" - 45° HB AND SLEEVE	253174.9	661058.4
20001	8" - 45° HB	253181.7	661062.8



COORDINATE LIST			
POINT NO.	DESCRIPTION	NORTHING	EASTING
20002	SERVICE CONNECTION	253212.6	661055.8
20003	SERVICE CONNECTION	253366.8	661021.2
20004	SERVICE CONNECTION	253512.6	660988.4
20005	8" - 45° VB	253515.0	660987.8

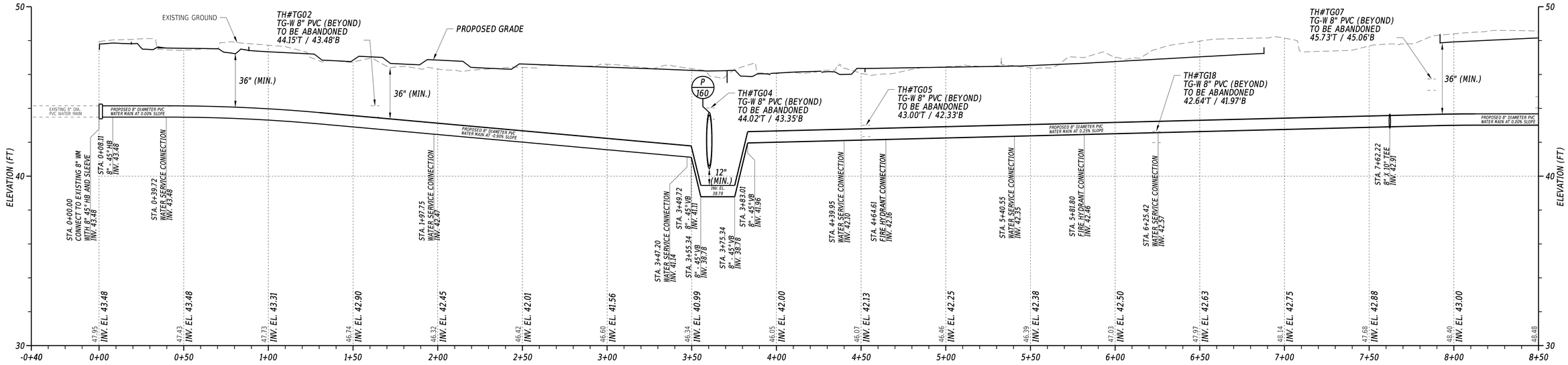
COORDINATE LIST			
POINT NO.	DESCRIPTION	NORTHING	EASTING
20006	8" - 45° VB	253520.5	660986.6
20007	8" - 45° VB	253540.0	660982.2
20008	8" - 45° VB	253547.5	660980.5
20009	SERVICE CONNECTION	253603.1	660968.0

8" WATER PLAN

SCALE: 1" = 30'

COORDINATE LIST			
POINT NO.	DESCRIPTION	NORTHING	EASTING
20010	8" X 6" FHT	253627.1	660962.6
20011	SERVICE CONNECTION	253701.2	660946.0
20012	8" X 6" FHT	253741.5	660936.9
20013	SERVICE CONNECTION	253784.0	660927.4

COORDINATE LIST			
POINT NO.	DESCRIPTION	NORTHING	EASTING
20014	8" X 10" TEE	253917.5	660897.3
20015	FIRE HYDRANT VALVE	253741.8	660940.3
20016	FIRE HYDRANT	253742.2	660941.7
20017	10" VALVE	253917.0	660895.5



8" WATER PROFILE

SCALE: HORIZONTAL: 1" = 30'
VERTICAL: 1" = 1'

ADDENDA / REVISIONS			

SCALE: AS NOTED

US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION

CONTRACT	T201412701	BRIDGE NO.	N/A
COUNTY	SUSSEX	DESIGNED BY:	M. WELLBORN
		CHECKED BY:	T. OLIVER

UTILITY RELOCATION PLAN

SECTION	
WRA	
SHEET NO.	
304	

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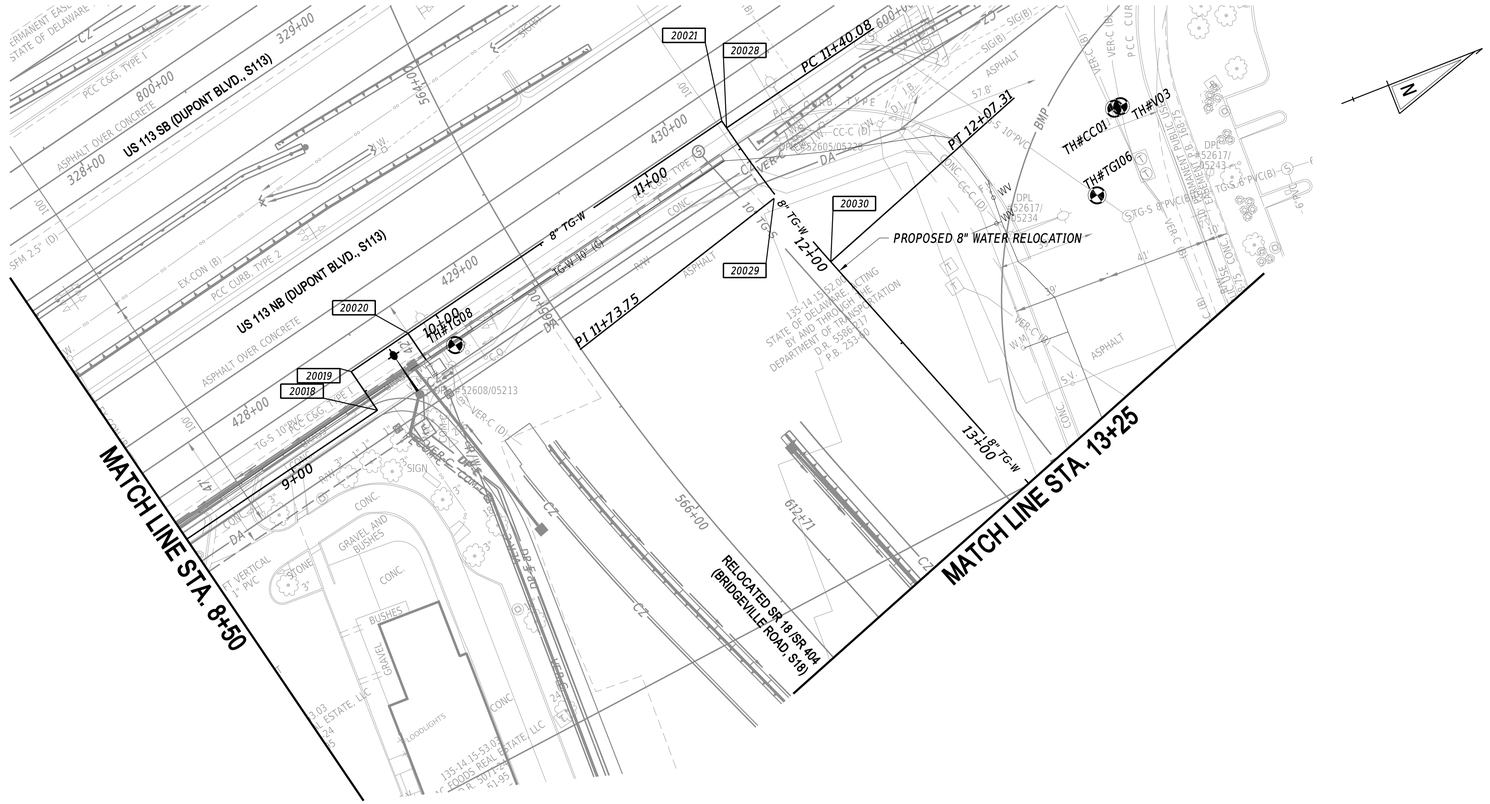
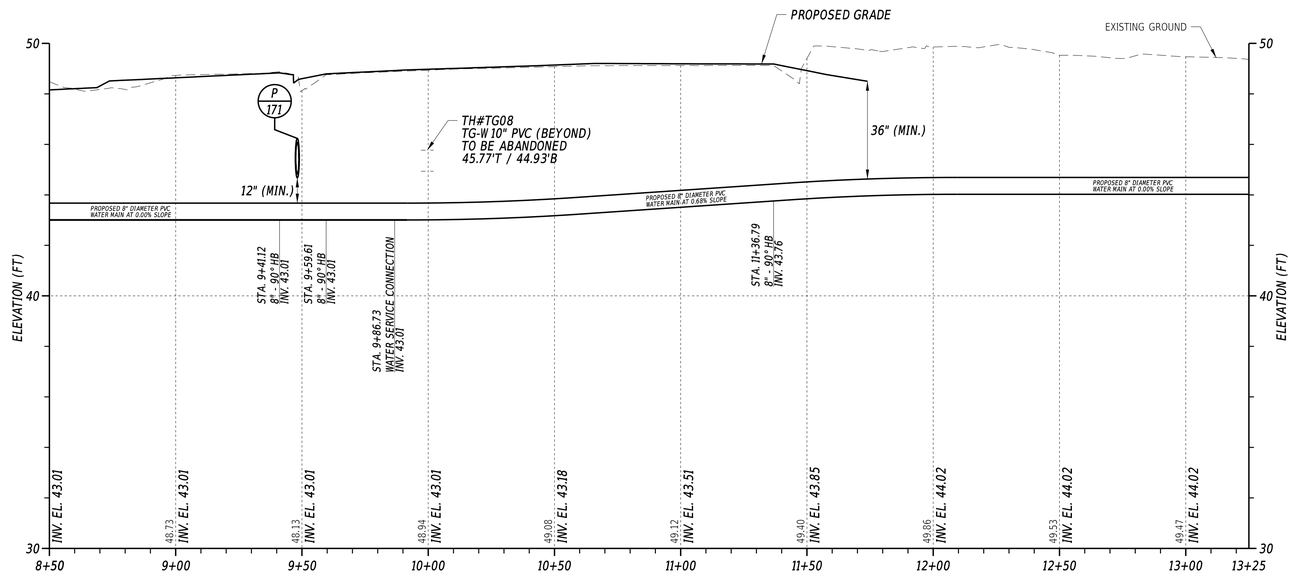
COORDINATE LIST			
POINT NO.	DESCRIPTION	NORTHING	EASTING
20018	8" - 90° HB	254092.0	660858.1
20019	8" - 90° HB	254088.0	660858.1
20020	SERVICE CONNECTION	254114.4	660834.1
20021	8" - 90° HB	254260.8	660801.2
20028	8" - PC - R=500 FT.	254261.6	660804.4
20029	8" - PI - R=500 FT.	254268.9	660837.3
20030	8" - PT - R=500 FT.	254280.7	660868.8



8" WATER PLAN

SCALE: 1" = 30'



8" WATER PROFILE

SCALE: HORIZONTAL: 1" = 30'
VERTICAL: 1" = 1'

ADDENDA / REVISIONS		SCALE: AS NOTED	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. N/A	UTILITY RELOCATION PLAN	SECTION WRA
				COUNTY SUSSEX	DESIGNED BY: M. WELLBORN		SHEET NO. 305
					CHECKED BY: T. OLIVER		

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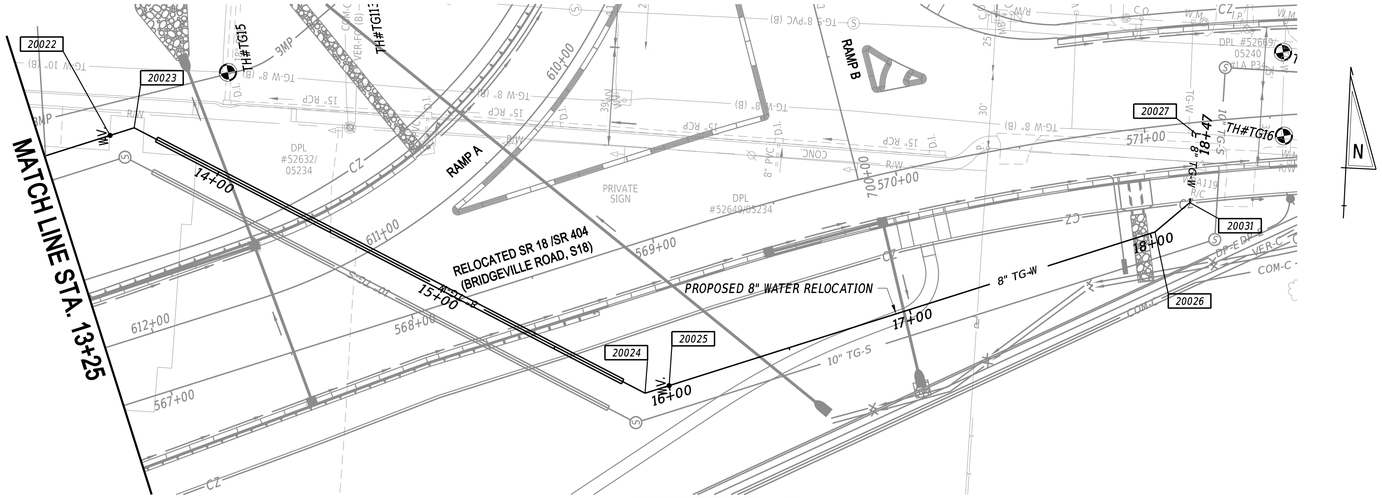
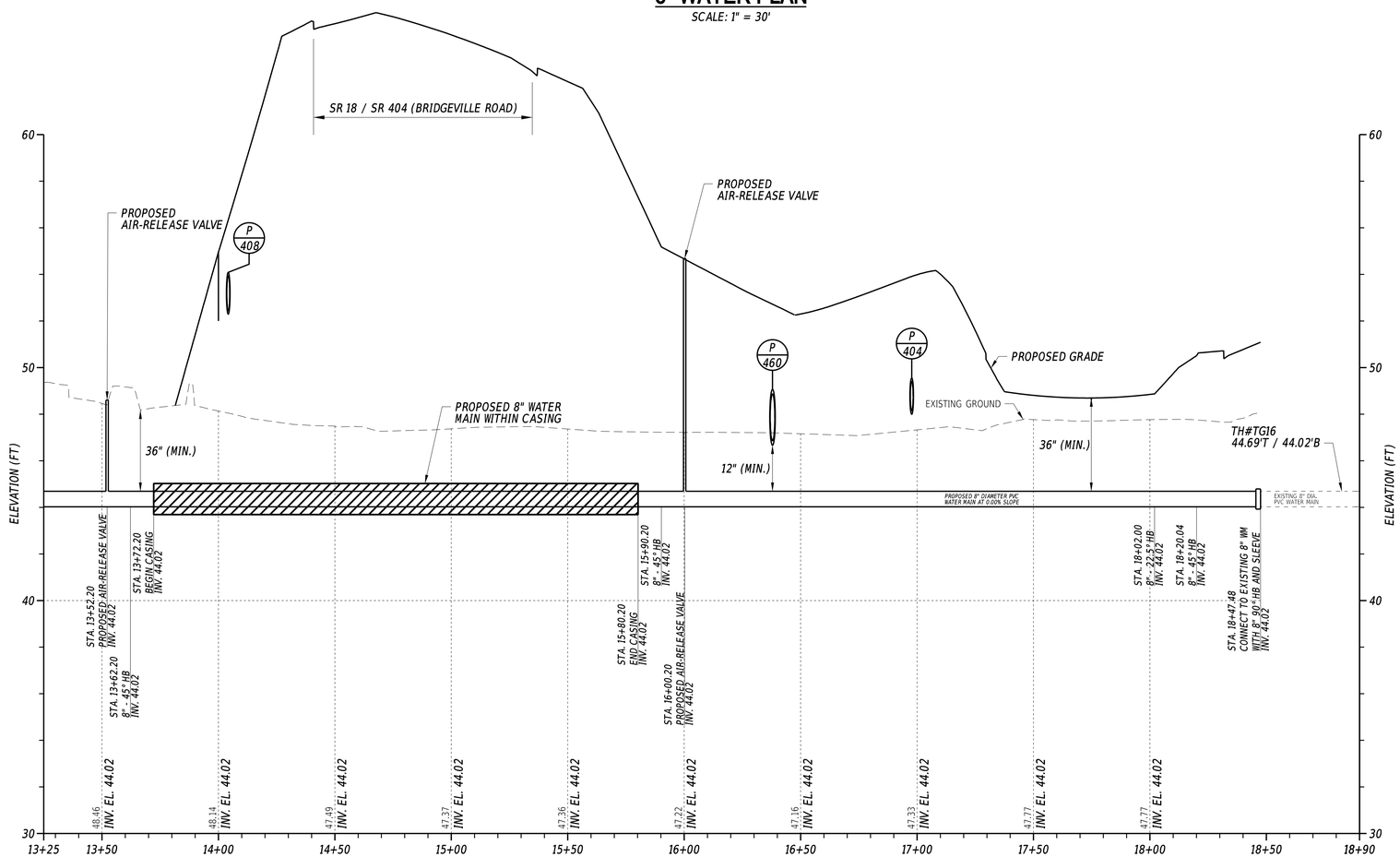
COORDINATE LIST

POINT NO.	DESCRIPTION	NORTHING	EASTING
20022	AIR-RELEASE VALVE	218474.7	682609.9
20023	8" - 45° HB	254334.6	661014.0
20024	8" - 45° HB	254239.6	661221.3
20025	AIR-RELEASE VALVE	254243.1	661230.6
20026	8" - 22.5° HB	254313.3	661419.8
20031	8" - 45° HB	254325.6	661433.0
20027	8" - 90° HB AND SLEEVE	254353.0	661434.1



8" WATER PLAN

SCALE: 1" = 30'



8" WATER PROFILE

SCALE: HORIZONTAL: 1" = 30'
VERTICAL: 1" = 1'

ADDENDA / REVISIONS		SCALE: AS NOTED	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. N/A	UTILITY RELOCATION PLAN	SECTION WRA
				COUNTY SUSSEX	DESIGNED BY: M. WELLBORN		SHEET NO. 306
					CHECKED BY: T. OLIVER		

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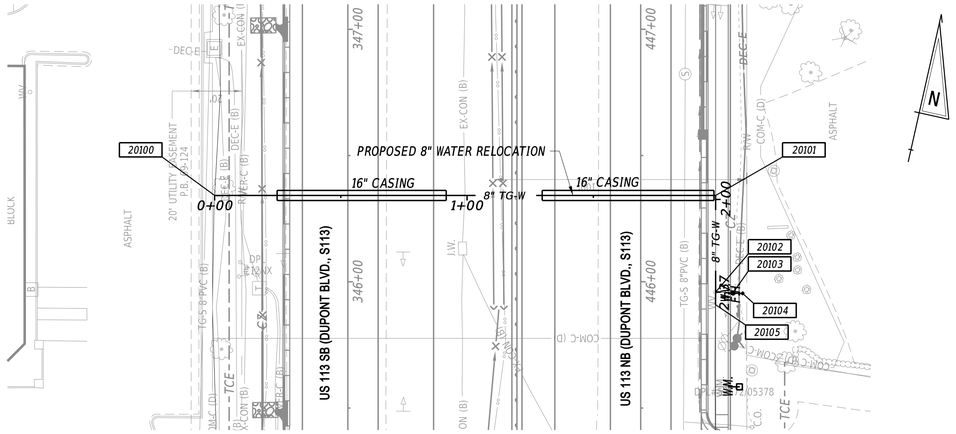
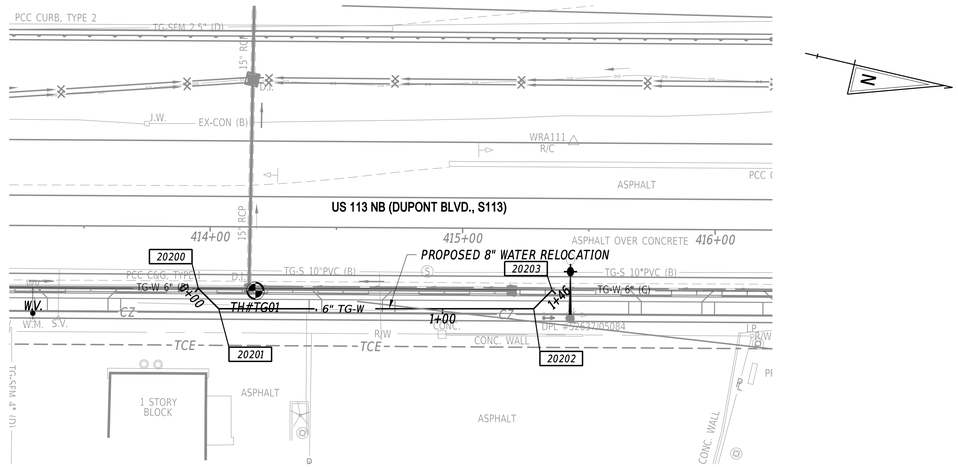


8" WATER PLAN

SCALE: 1" = 30'

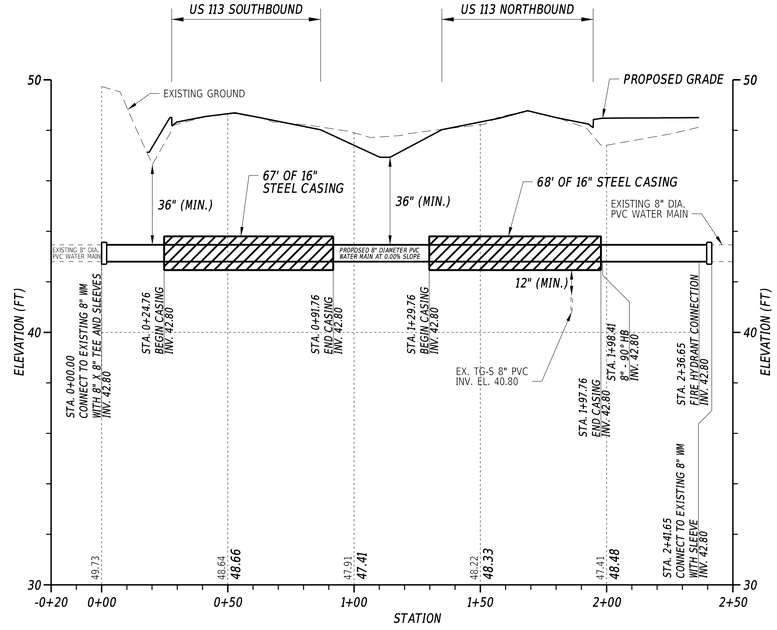
COORDINATE LIST			
POINT NO.	DESCRIPTION	NORTHING	EASTING
20100	8" X 8" TEE W/ SLEEVES	255796.3	660269.7
20101	8" - 90° HB	255839.8	660463.2
20102	FH CONNECTION	255802.5	660471.6
20103	FIRE HYDRANT VALVE	255803.6	660478.4
20104	FIRE HYDRANT	255804.4	660482.2
20105	CONNECT TO EX. 8" WM	255797.6	660472.7



6" WATER PLAN

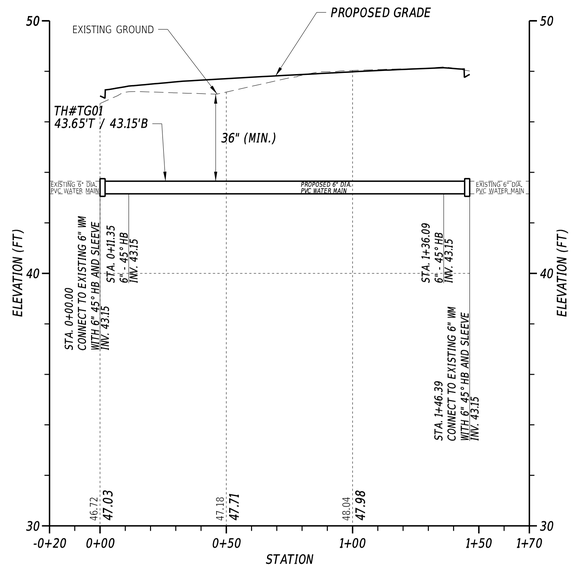
SCALE: 1" = 30'

COORDINATE LIST			
POINT NO.	DESCRIPTION	NORTHING	EASTING
20200	6" - 45° HB AND SLEEVE	252678.9	661168.7
20201	6" - 45° HB	252688.5	661174.7
20202	6" - 45° HB	252810.1	661146.6
20203	6" - 45° HB AND SLEEVE	252815.5	661137.9



8" WATER PROFILE

SCALE: HORIZONTAL: 1" = 30'
VERTICAL: 1" = 1'



6" WATER PROFILE

SCALE: HORIZONTAL: 1" = 30'
VERTICAL: 1" = 1'

ADDENDA / REVISIONS		SCALE: AS NOTED	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	UTILITY RELOCATION PLAN	SECTION
				T201412701	DESIGNED BY: M. WELLBORN		WRA
				COUNTY	CHECKED BY: T. OLIVER		SHEET NO.
				SUSSEX			307

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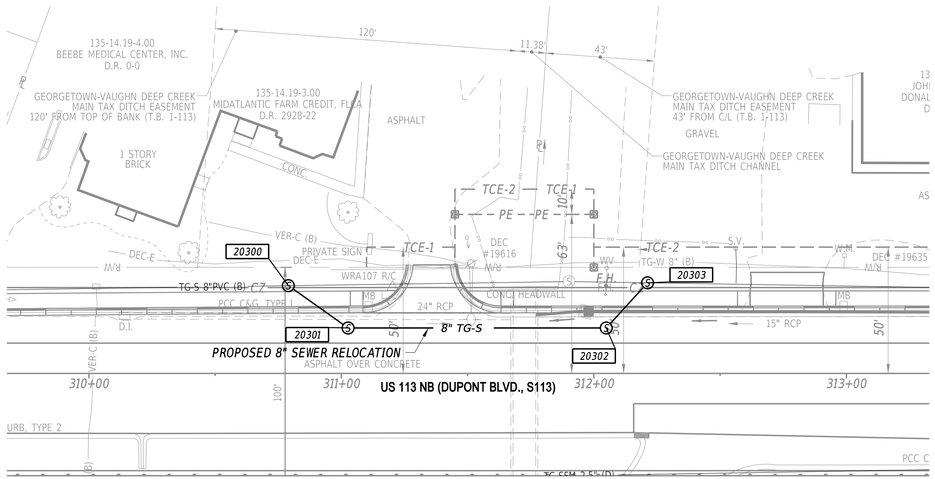
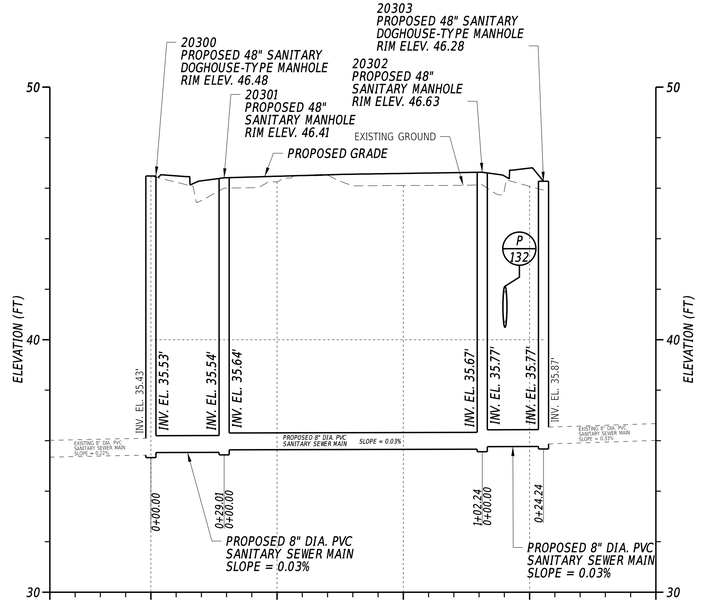
COORDINATE LIST			
POINT NO.	DESCRIPTION	NORTHING	EASTING
20300	48" DOGHOUSE-TYPE MH	252331.7	661067.1
20301	48" MANHOLE	252358.4	661078.3
20302	48" MANHOLE	252458.2	661055.8
20303	48" DOGHOUSE-TYPE MH	252470.2	661034.8



8" SEWER PLAN

SCALE: 1" = 30'



8" SEWER PROFILE

SCALE: HORIZONTAL: 1" = 30'
VERTICAL: 1" = 1'

ADDENDA / REVISIONS		SCALE: AS NOTED	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. N/A	UTILITY RELOCATION PLAN	SECTION WRA
				COUNTY SUSSEX	DESIGNED BY: M. WELLBORN		SHEET NO. 308
					CHECKED BY: T. OLIVER		

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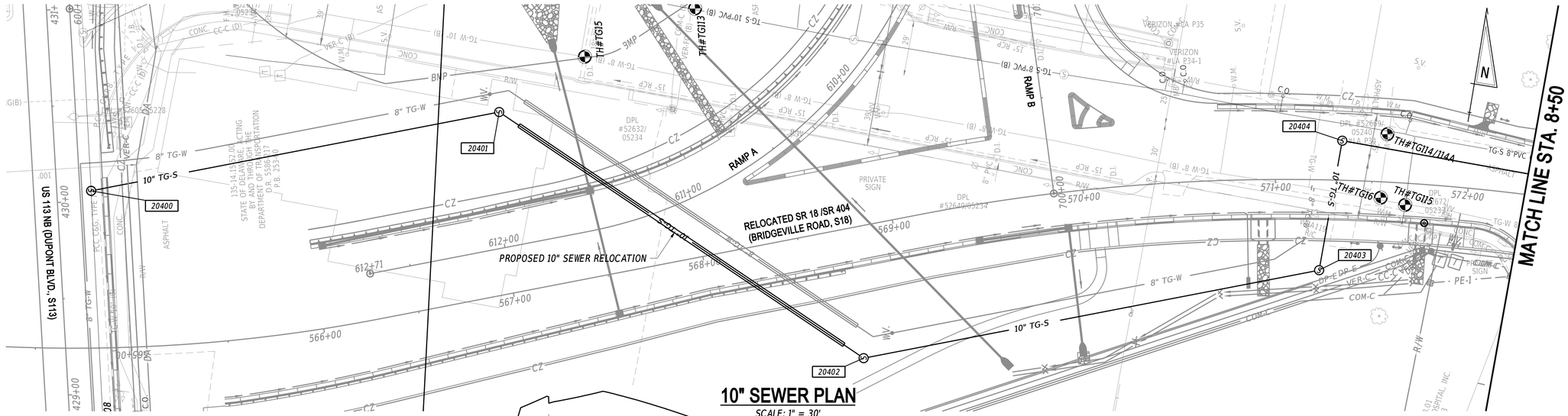
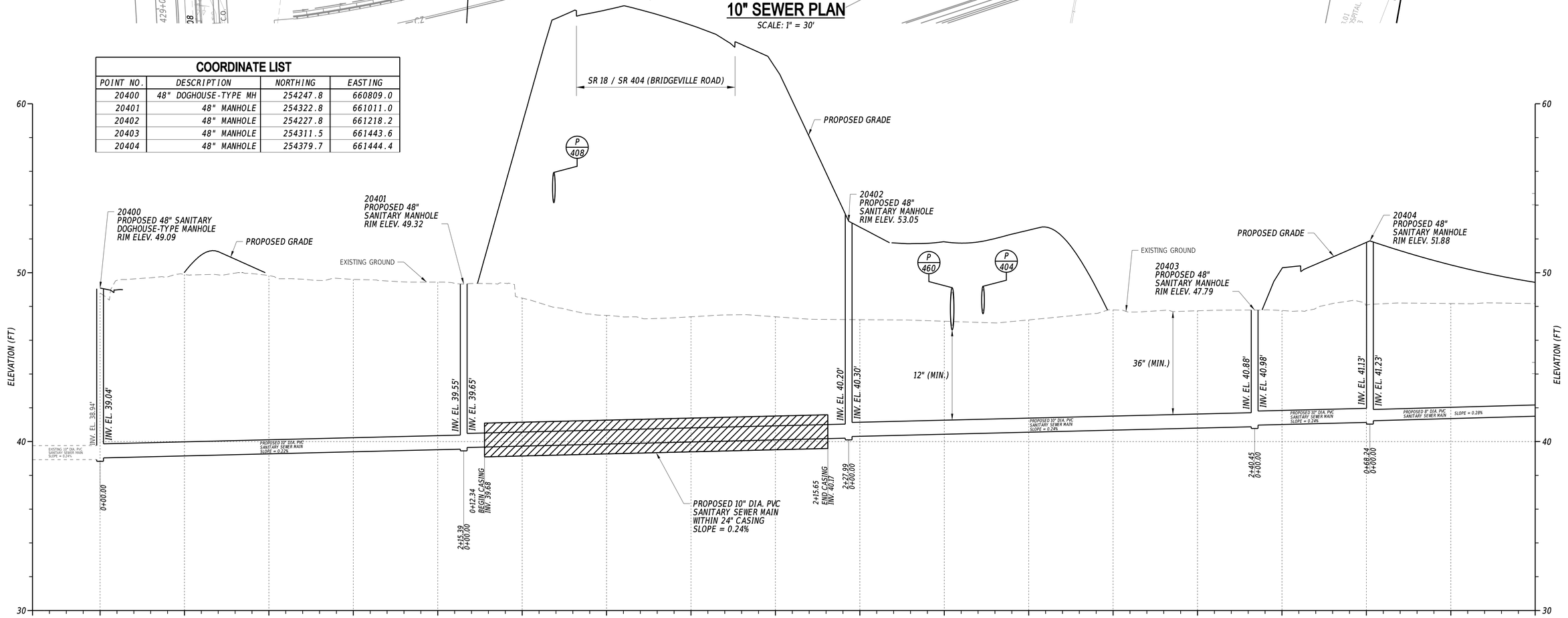


10" SEWER PLAN

SCALE: 1" = 30'

COORDINATE LIST			
POINT NO.	DESCRIPTION	NORTHING	EASTING
20400	48" DOGHOUSE-TYPE MH	254247.8	660809.0
20401	48" MANHOLE	254322.8	661011.0
20402	48" MANHOLE	254227.8	661218.2
20403	48" MANHOLE	254311.5	661443.6
20404	48" MANHOLE	254379.7	661444.4



10" SEWER PROFILE

SCALE: HORIZONTAL: 1" = 30'
VERTICAL: 1" = 1'

ADDENDA / REVISIONS		NOT TO SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. N/A	UTILITY RELOCATION PLAN	SECTION WRA
				COUNTY SUSSEX	DESIGNED BY: M. WELLBORN		SHEET NO. 309
					CHECKED BY: T. OLIVER		

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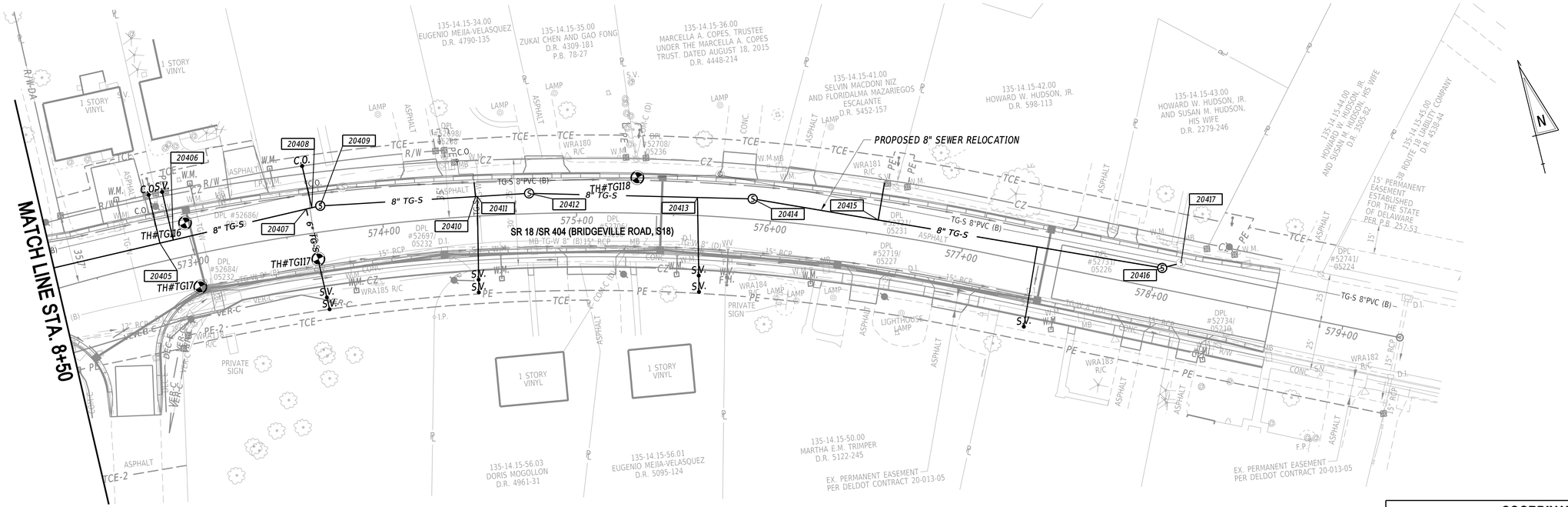
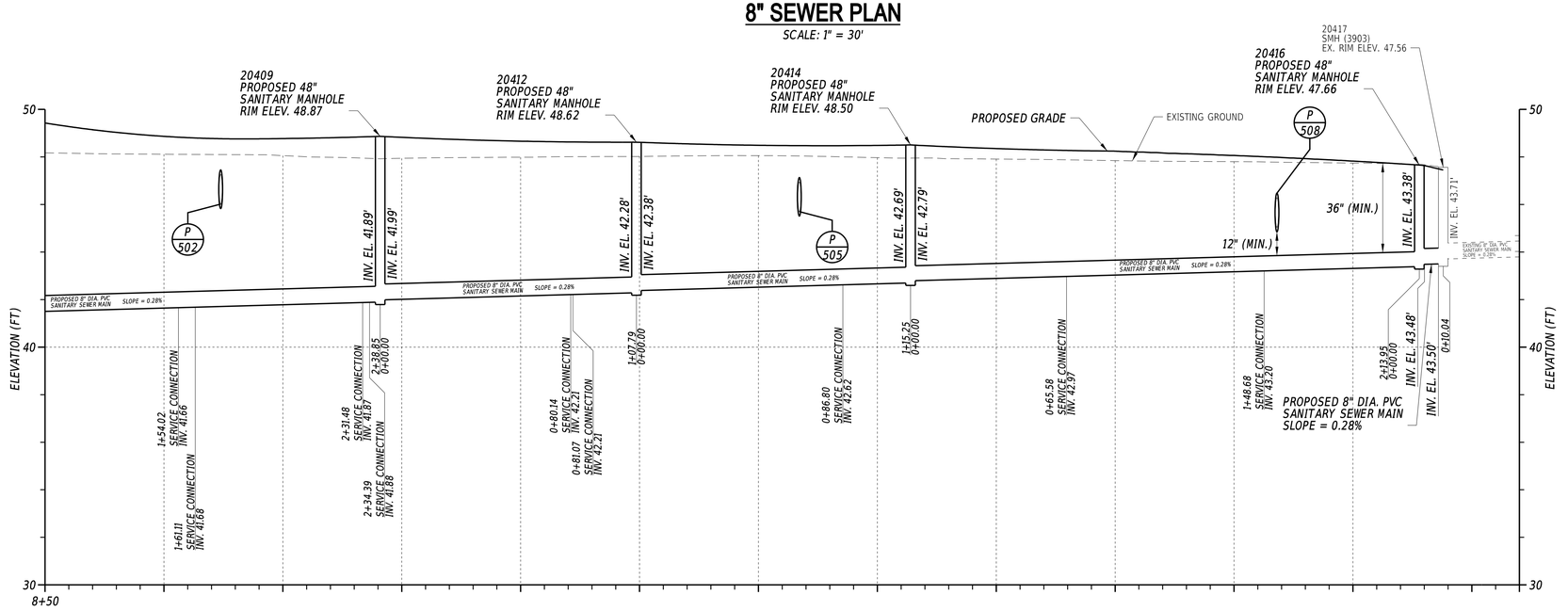


8" SEWER PLAN

SCALE: 1" = 30'



8" SEWER PROFILE

SCALE: HORIZONTAL: 1" = 30'
VERTICAL: 1" = 1'

COORDINATE LIST			
POINT NO.	DESCRIPTION	NORTHING	EASTING
20405	SERVICE CONNECTION	254377.9	661598.4
20406	SERVICE CONNECTION	254377.8	661605.5
20407	SERVICE CONNECTION	254376.9	661675.9
20408	SERVICE CONNECTION	254376.9	661678.8
20409	48" MANHOLE	254376.9	661683.3
20410	SERVICE CONNECTION	254362.4	661762.1
20411	SERVICE CONNECTION	254362.2	661763.0
20412	48" MANHOLE	254357.4	661789.3
20413	SERVICE CONNECTION	254334.7	661873.1
20414	48" MANHOLE	254327.2	661900.5
20415	SERVICE CONNECTION	254301.2	661960.7
20416	48" MANHOLE	254242.4	662096.9
20417	EXISTING SMH (3903)	254242.5	662107.0

ADDENDA / REVISIONS		NOT TO SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	UTILITY RELOCATION PLAN	SECTION
				T201412701	DESIGNED BY: M. WELLBORN		WRA
				COUNTY	CHECKED BY: T. OLIVER		SHEET NO.
				SUSSEX			310

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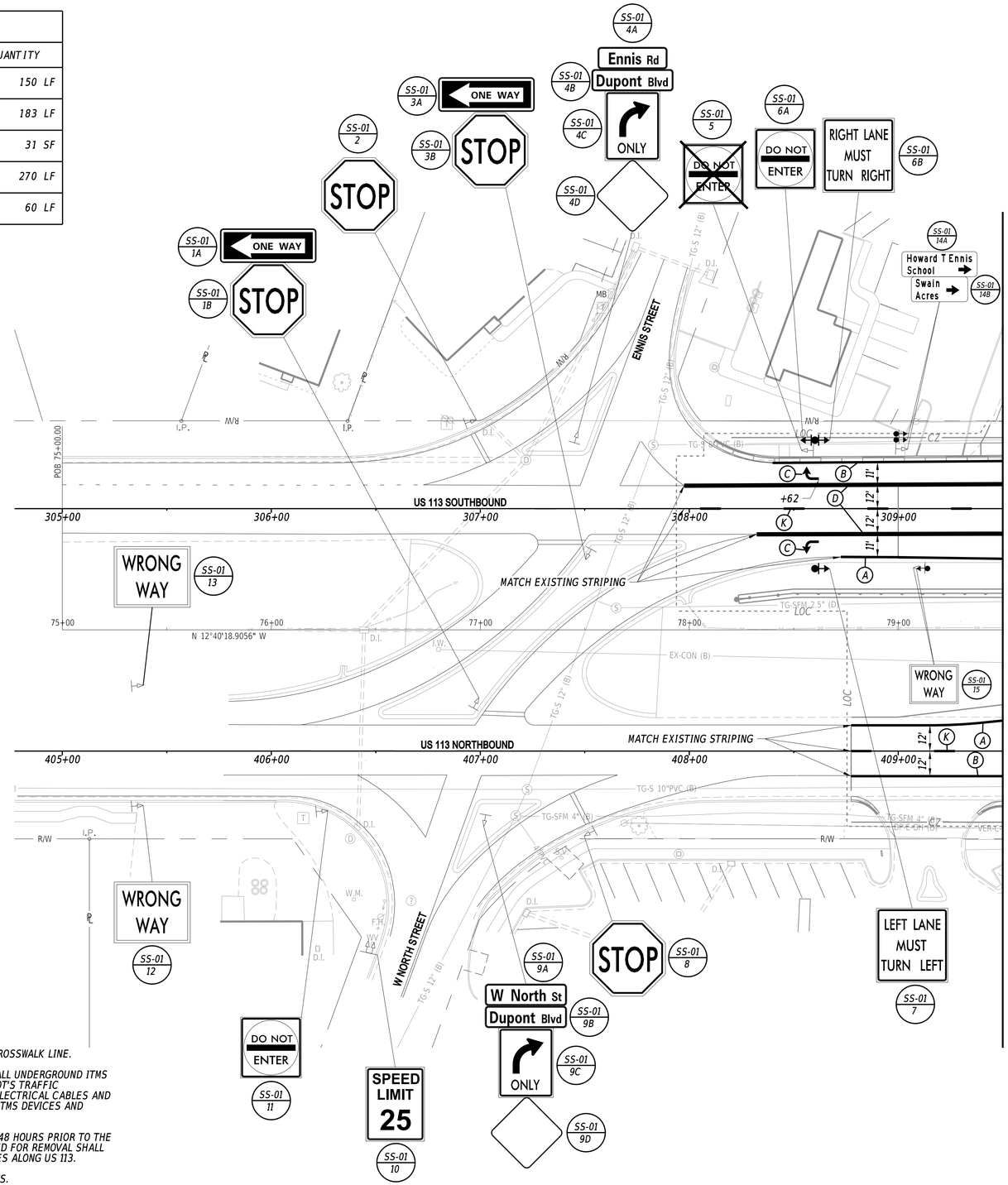
PAVEMENT MARKINGS LEGEND

SYMBOL	ITEM	QUANTITY
A	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID (ITEM 817042)	150 LF
B	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	183 LF
C	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND (ITEM 817002)	31 SF
D	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 12" SOLID (ITEM 817043)	270 LF
K	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" BROKEN - 10' LINE & 30' GAP (ITEM 817042)	60 LF



NOTES:

1. *STOP LINES SHALL BE PLACED A MINIMUM OF 4 FEET IN ADVANCE OF THE NEAREST CROSSWALK LINE.*
2. *THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND REMOVAL OF ALL UNDERGROUND ITMS EQUIPMENT - E.G., JUNCTION WELLS, CABINET AND POLE BASES, AND CONDUIT. DELDOT'S TRAFFIC CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND REMOVAL OF ALL ELECTRICAL CABLES AND ABOVE GROUND EQUIPMENT - E.G., SERVICE PEDESTAL, DISCONNECT SWITCH, POLES, ITMS DEVICES AND CABINETS.*
3. *THE CONTRACTOR SHALL CONTACT DENISE KSIAZEK (DELDOT OIT) AT 302-981-6464, 48 HOURS PRIOR TO THE COMPLETION OF THE PROPOSED ITMS PATHWAY ALONG US 113. JUNCTION WELLS MARKED FOR REMOVAL SHALL NOT BE REMOVED PRIOR TO THE INSTALLATION OF THE PROPOSED FIBER OPTIC CABLES ALONG US 113.*
4. *ALL GROUND MOUNTED GUIDE SIGNS SHALL BE MOUNTED ON BREAKAWAY I-BEAM POSTS.*
5. *DELDOT TRAFFIC/OIT SHALL INSTALL A TEMPORARY CDMA AS NEEDED FOR ALL EXISTING OR PROPOSED CABINETS UNTIL THEY CAN BE CONNECTED TO FIBER.*
6. *THE CONTRACTOR SHALL INSTALL RAISED/RECESSED PAVEMENT MARKERS (RPMS) PER PART 3 OF THE DE MUTCD.*

ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	BRIDGE NO. N/A	SIGNING, STRIPING AND CONDUIT PLAN	SS-01 SECTION
				COUNTY SUSSEX	DESIGNED BY: J. SINCLAIR		WRA SHEET NO.
					CHECKED BY: D. POLLET		311

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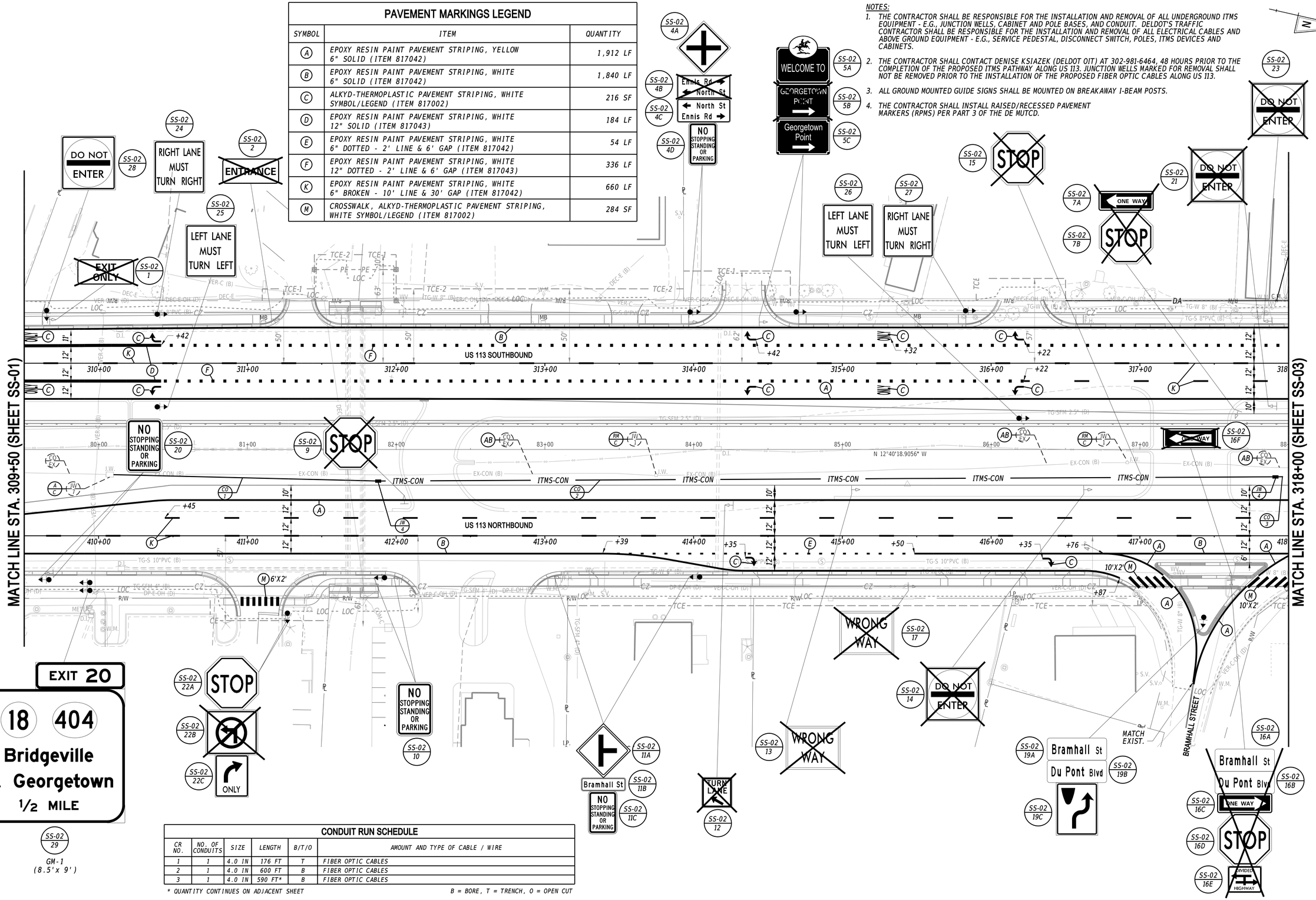
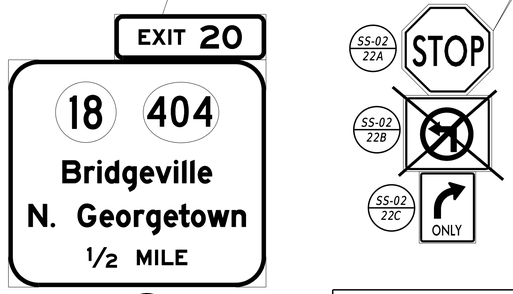
PAVEMENT MARKINGS LEGEND

SYMBOL	ITEM	QUANTITY
A	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID (ITEM 817042)	1,912 LF
B	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	1,840 LF
C	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND (ITEM 817002)	216 SF
D	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 12" SOLID (ITEM 817043)	184 LF
E	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" DOTTED - 2' LINE & 6' GAP (ITEM 817042)	54 LF
F	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 12" DOTTED - 2' LINE & 6' GAP (ITEM 817043)	336 LF
K	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" BROKEN - 10' LINE & 30' GAP (ITEM 817042)	660 LF
M	CROSSWALK, ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND (ITEM 817002)	284 SF

NOTES:

1. *THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND REMOVAL OF ALL UNDERGROUND ITMS EQUIPMENT - E.G., JUNCTION WELLS, CABINET AND POLE BASES, AND CONDUIT. DELDOT'S TRAFFIC CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND REMOVAL OF ALL ELECTRICAL CABLES AND ABOVE GROUND EQUIPMENT - E.G., SERVICE PEDESTAL, DISCONNECT SWITCH, POLES, ITMS DEVICES AND CABINETS.*
2. *THE CONTRACTOR SHALL CONTACT DENISE KSIAZEK (DELDOT OIT) AT 302-981-6464, 48 HOURS PRIOR TO THE COMPLETION OF THE PROPOSED ITMS PATHWAY ALONG US 113. JUNCTION WELLS MARKED FOR REMOVAL SHALL NOT BE REMOVED PRIOR TO THE INSTALLATION OF THE PROPOSED FIBER OPTIC CABLES ALONG US 113.*
3. *ALL GROUND MOUNTED GUIDE SIGNS SHALL BE MOUNTED ON BREAKAWAY I-BEAM POSTS.*
4. *THE CONTRACTOR SHALL INSTALL RAISED/RECESSED PAVEMENT MARKERS (RPMS) PER PART 3 OF THE DE MUTCD.*





GM-1
(8.5'x 9')

CONDUIT RUN SCHEDULE

CR NO.	NO. OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE / WIRE
1	1	4.0 IN	176 FT	T	FIBER OPTIC CABLES
2	1	4.0 IN	600 FT	B	FIBER OPTIC CABLES
3	1	4.0 IN	590 FT*	B	FIBER OPTIC CABLES

** QUANTITY CONTINUES ON ADJACENT SHEET*

B = BORE, T = TRENCH, O = OPEN CUT

ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO. 3-609
T201412701	DESIGNED BY: J. SINCLAIR
COUNTY	CHECKED BY: D. POLLET
SUSSEX	

SIGNING, STRIPING AND CONDUIT PLAN

SS-02
SECTION
WRA
SHEET NO.
312

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PAVEMENT MARKINGS LEGEND

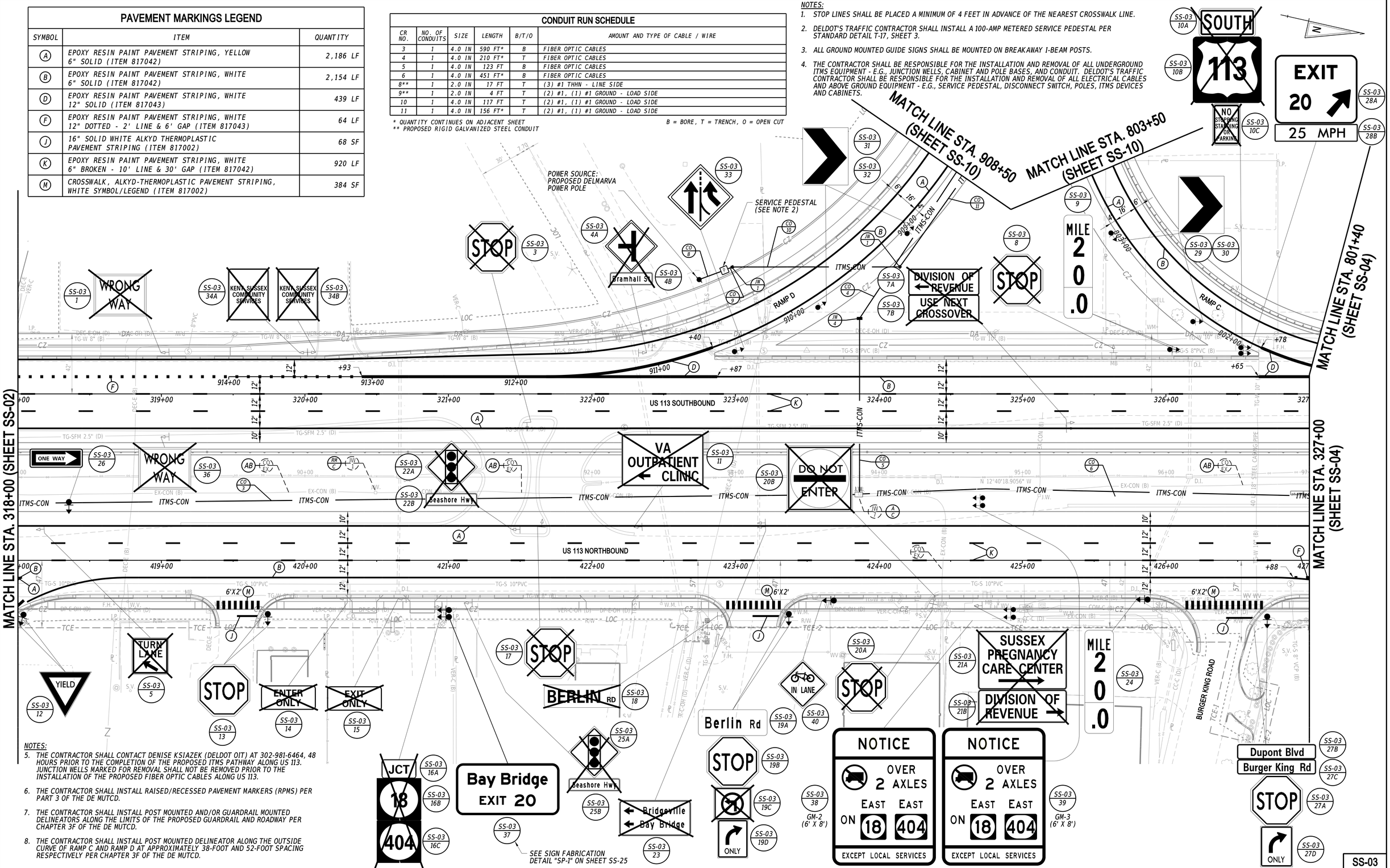
SYMBOL	ITEM	QUANTITY
A	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID (ITEM 817042)	2,186 LF
B	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	2,154 LF
D	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 12" SOLID (ITEM 817043)	439 LF
F	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 12" DOTTED - 2' LINE & 6' GAP (ITEM 817043)	64 LF
J	16" SOLID WHITE ALKYD THERMOPLASTIC PAVEMENT STRIPING (ITEM 817002)	68 SF
K	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" BROKEN - 10' LINE & 30' GAP (ITEM 817042)	920 LF
M	CROSSWALK, ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND (ITEM 817002)	384 SF

CONDUIT RUN SCHEDULE

CR NO.	NO. OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE / WIRE
3	1	4.0 IN	590 FT*	B	FIBER OPTIC CABLES
4	1	4.0 IN	210 FT*	T	FIBER OPTIC CABLES
5	1	4.0 IN	123 FT	B	FIBER OPTIC CABLES
6	1	4.0 IN	451 FT*	B	FIBER OPTIC CABLES
8**	1	2.0 IN	17 FT	T	(3) #1 THHN - LINE SIDE
9**	1	2.0 IN	4 FT	T	(2) #1, (1) #1 GROUND - LOAD SIDE
10	1	4.0 IN	117 FT	T	(2) #1, (1) #1 GROUND - LOAD SIDE
11	1	4.0 IN	156 FT*	T	(2) #1, (1) #1 GROUND - LOAD SIDE

* QUANTITY CONTINUES ON ADJACENT SHEET
** PROPOSED RIGID GALVANIZED STEEL CONDUIT
B = BORE, T = TRENCH, O = OPEN CUT

NOTES:
1. STOP LINES SHALL BE PLACED A MINIMUM OF 4 FEET IN ADVANCE OF THE NEAREST CROSSWALK LINE.
2. DELDOT'S TRAFFIC CONTRACTOR SHALL INSTALL A 100-AMP METERED SERVICE PEDESTAL PER STANDARD DETAIL T-17, SHEET 3.
3. ALL GROUND MOUNTED GUIDE SIGNS SHALL BE MOUNTED ON BREAKAWAY I-BEAM POSTS.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND REMOVAL OF ALL UNDERGROUND ITMS EQUIPMENT - E.G., JUNCTION WELLS, CABINET AND POLE BASES, AND CONDUIT. DELDOT'S TRAFFIC CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND REMOVAL OF ALL ELECTRICAL CABLES AND ABOVE GROUND EQUIPMENT - E.G., SERVICE PEDESTAL, DISCONNECT SWITCH, POLES, ITMS DEVICES AND CABINETS.



NOTES:
5. THE CONTRACTOR SHALL CONTACT DENISE KSIAZEK (DELDOT OIT) AT 302-981-6464, 48 HOURS PRIOR TO THE COMPLETION OF THE PROPOSED ITMS PATHWAY ALONG US 113. JUNCTION WELLS MARKED FOR REMOVAL SHALL NOT BE REMOVED PRIOR TO THE INSTALLATION OF THE PROPOSED FIBER OPTIC CABLES ALONG US 113.
6. THE CONTRACTOR SHALL INSTALL RAISED/RECESSED PAVEMENT MARKERS (RPMS) PER PART 3 OF THE DE MUTCD.
7. THE CONTRACTOR SHALL INSTALL POST MOUNTED AND/OR GUARDRAIL MOUNTED DELINEATORS ALONG THE LIMITS OF THE PROPOSED GUARDRAIL AND ROADWAY PER CHAPTER 3F OF THE DE MUTCD.
8. THE CONTRACTOR SHALL INSTALL POST MOUNTED DELINEATOR ALONG THE OUTSIDE CURVE OF RAMP C AND RAMP D AT APPROXIMATELY 38-FOOT AND 52-FOOT SPACING RESPECTIVELY PER CHAPTER 3F OF THE DE MUTCD.

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION

CONTRACT	T201412701
COUNTY	SUSSEX
BRIDGE NO.	N/A
DESIGNED BY:	J. SINCLAIR
CHECKED BY:	D. POLLET

SIGNING, STRIPING AND CONDUIT PLAN

SS-03	
SECTION	WRA
SHEET NO.	313

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MATCH LINE STA. 801+40 (SHEET SS-03)

MATCH LINE STA. 562+00 (SHEET SS-10)

MATCH LINE STA. 261+00 (SHEET SS-10)

MATCH LINE STA. 327+00 (SHEET SS-03)

MATCH LINE STA. 335+75 (SHEET SS-05)

MATCH LINE STA. 566+00 (SHEET SS-11)

MATCH LINE STA. 265+25 (SHEET SS-11)

MATCH LINE STA. 603+50 (SHEET SS-11)

SS-04 24A — SPEED LIMIT 45

SS-04 24B — STRICTLY ENFORCED

SS-04 4A — SPEED LIMIT 45

SS-04 4B — STRICTLY ENFORCED

SS-04 4C — NO STOPPING STANDING OR PARKING

SS-04 6A / 6B / 6C / 6D — WEST 18 404

SS-04 7A / 7B / 7C — WEST 18 404

SS-04 2A — DEL TECH & COMMUNITY COLL

SS-04 2B — WRONG WAY

SS-04 28 — TRAVELER INFO TUNE RADIO TO 1380 AM

SS-04 3A / 3B — NO STOPPING STANDING OR PARKING

SS-04 32 — NO TURN ON RED ARROW

U-TURN YIELD TO RIGHT TURN

SS-04 30

BRIDGEVILLE ROAD (SR 18/ 404)

SS-04 31A — ONE WAY

SS-04 31B — ONE WAY

SS-04 31C — NO TURN ON RED ARROW

SS-04 31D — DIVIDED HIGHWAY

SS-04 8 — YIELD

SS-04 9 — DO NOT ENTER

SS-04 25 — DO NOT ENTER

SS-04 22 — GEORGETOWN PROFESSIONAL PARK

SS-04 12A — Bridgeville Bay Bridge

SS-04 12F / 12G / 12H / 12I — EAST 18 404

SS-04 12B / 12C / 12D / 12E — WEST 18 404

SS-04 12J — WRONG WAY

RAMP C

RAMP A

US 113 SOUTHBOUND

US 113 NORTHBOUND

BRIDGEVILLE ROAD (SR 18/ 404)

SS-04 13A — NO STOPPING STANDING OR PARKING

SS-04 13B

STOP

SS-04 14A

DO NOT ENTER

SS-04 14B

SS-04 15A — Georgetown — NO TRUCKS OVER 7 AXELS EXCEPT FOR LOCAL DELIVERY

SS-04 15B / 15C — NO STOPPING STANDING OR PARKING

SS-04 15D / 15E — EVACUATION ROUTE

SS-04 15F — WRONG WAY

SS-04 16A / 16B / 16C — NORTH EAST 113 18 404

SS-04 17A / 17B / 17C / 17D

SS-04 16D — DO NOT ENTER

SS-04 6E — DO NOT ENTER

SS-04 26A — ONE WAY

SS-04 18 — YIELD

SS-04 29 — DO NOT ENTER

SS-04 20 — DO NOT ENTER

SS-04 21 — DO NOT ENTER

SS-04 19 — YIELD

SS-04 33 — SPEED LIMIT 45

SS-04 34A — SPEED LIMIT 45 — SEE SS-04B

SS-04 34B — NO STOPPING STANDING OR PARKING

SS-04 35A / 35B / 35C — END TRUCK ROUTE NO LEFT TURNS — NO STOPPING STANDING OR PARKING

SS-04 11 — WRONG WAY

SS-04 27 — TURN LANE

SS-04 23 — Georgetown / Lewes / Rehoboth Beach

SS-04 26B / 26C — ONE WAY — DIVIDED HIGHWAY

ITMS-CON

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ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION

CONTRACT	T201412701
COUNTY	SUSSEX
BRIDGE NO.	3-610
DESIGNED BY:	J. SINCLAIR
CHECKED BY:	D. POLLET

EXISTING SIGN REMOVAL

SS-04	
SECTION	WRA
SHEET NO.	314

NOTES:

1. DELDOT'S TRAFFIC CONTRACTOR SHALL RELOCATE THE EXISTING BLUETOOTH DEVICE SBT0010 TO THE PROPOSED 75 FT CCTV POLE (SEE SS-10).
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND REMOVAL OF ALL UNDERGROUND ITMS EQUIPMENT - E.G., JUNCTION WELLS, CABINET AND POLE BASES, AND CONDUIT. DELDOT'S TRAFFIC CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND REMOVAL OF ALL ELECTRICAL CABLES AND ABOVE GROUND EQUIPMENT - E.G., SERVICE PEDESTAL, DISCONNECT SWITCH, POLES, ITMS DEVICES AND CABINETS.
3. THE CONTRACTOR SHALL CONTACT DENISE KSIAZEK (DELDOT OIT) AT 302-981-6464, 48 HOURS PRIOR TO THE COMPLETION OF THE PROPOSED ITMS PATHWAY ALONG US 113. JUNCTION WELLS MARKED FOR REMOVAL SHALL NOT BE REMOVED PRIOR TO THE INSTALLATION OF THE PROPOSED FIBER OPTIC CABLES ALONG US 113.
4. ALL GROUND MOUNTED GUIDE SIGNS SHALL BE MOUNTED ON BREAKAWAY I-BEAM POSTS.
5. DELDOT TRAFFIC/OIT SHALL INSTALL A TEMPORARY CDMA AS NEEDED FOR ALL EXISTING OR PROPOSED CABINETS UNTIL THEY CAN BE CONNECTED TO FIBER.

PAVEMENT MARKINGS LEGEND		
SYMBOL	ITEM	QUANTITY
A	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID (ITEM 817042)	1,921 LF
B	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	2,792 LF
C	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND (ITEM 817002)	16 SF
D	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 12" SOLID (ITEM 817043)	616 LF
E	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" DOTTED - 2' LINE & 6' GAP (ITEM 817042)	114 LF
F	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 12" DOTTED - 2' LINE & 6' GAP (ITEM 817043)	280 LF
G	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID DOUBLE LINE (ITEM 817042)	993 LF
K	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" BROKEN - 10' LINE & 30' GAP (ITEM 817042)	970 LF

EXIT 20
18 404
N. Georgetown
Bridgeville

MATCH LINE STA. 562+00 (SHEET SS-10)
MATCH LINE STA. 261+00 (SHEET SS-10)
MATCH LINE STA. 801+40 (SHEET SS-03)
MATCH LINE STA. 327+00 (SHEET SS-03)
MATCH LINE STA. 335+75 (SHEET SS-05)
MATCH LINE STA. 566+00 (SHEET SS-11)
MATCH LINE STA. 265+25 (SHEET SS-11)
MATCH LINE STA. 603+50 (SHEET SS-11)

RAMP 25 MPH (SS-04B 11)
TRAVELERS INFO TUNE RADIO TO WTMC 1380 AM (SS-04B 1)
EXIT 25 MPH (SS-04B 12)
RAMP C
RAMP A
BRIDGEVILLE ROAD (SR 18 / 404)
US 113 SOUTHBOUND
US 113 NORTHBOUND
STA. 101+62.33 US 113
STA. 263+18.46 SR 18/SR 404
12°40'16.9056" W
College Park Dr NEXT SIGNAL (SS-04B 14)
OH-2 (21' x 12.5') (SS-04B 7)
SEE NOTE 9 (TYP.)
SEE NOTE 1
ITMS-CON
EXIT 25 MPH (SS-04B 15)
EXIT 20 18 404 Bridgeville N. Georgetown (SS-04B 5)
OH-1 (21' x 12.5')
GM-4 (6' x 8" - INSIDE SHOULDER) (SS-4B 16)
GM-5 (6' x 8" - OUTSIDE SHOULDER) (SS-4B 17)

NOTICE
OVER 2 AXLES
EAST EAST ON 18 404
EXCEPT LOCAL SERVICES

SPEED LIMIT 45 (SS-04B 4)
ADOPT-A-HIGHWAY CARPENTERS UNION LOCAL 173 (SS-04B 2B)
NO STOPPING STANDING OR PARKING (SS-04B 2C)
SPEED LIMIT 45 (SS-04B 2A)
NO STOPPING STANDING OR PARKING (SS-04B 3C)
END (SS-04B 3A)
TRUCKS KEEP RIGHT EXCEPT LEFT TURNS (SS-04B 3B)
25 MPH (SS-04B 8B)

CONDUIT RUN SCHEDULE					
CR NO.	NO. OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE / WIRE
6	1	4.0 IN	451 FT*	B	FIBER OPTIC CABLES
12	1	4.0 IN	573 FT	B	FIBER OPTIC CABLES
13	1	4.0 IN	463 FT*	T	FIBER OPTIC CABLES
14	1	4.0 IN	79 FT	B	FIBER OPTIC CABLES
15	1	4.0 IN	208 FT*	T	FIBER OPTIC CABLES
26	1	4.0 IN	243 FT*	T	FIBER OPTIC CABLES
27	1	4.0 IN	301 FT	N/A	EMBEDDED FIBER OPTIC CABLES
28	1	4.0 IN	157 FT*	T	FIBER OPTIC CABLES

* QUANTITY CONTINUES ON ADJACENT SHEET

B = BORE, T = TRENCH, O = OPEN CUT

NOTES:

9. REFER TO US 113/SR 18-404 TEMPORARY SIGNAL PLAN FOR PHASED REMOVAL OF JUNCTION WELLS.

NOTES:

6. THE CONTRACTOR SHALL INSTALL RAISED/RECESSED PAVEMENT MARKERS (RPMS) PER PART 3 OF THE DE MUTCD.
7. THE CONTRACTOR SHALL INSTALL POST MOUNTED AND/OR GUARDRAIL MOUNTED DELINEATORS ALONG THE LIMITS OF THE PROPOSED GUARDRAIL AND ROADWAY PER CHAPTER 3F OF THE DE MUTCD.
8. THE CONTRACTOR SHALL INSTALL POST MOUNTED DELINEATORS ALONG THE OUTSIDE CURVE OF RAMP A AT APPROXIMATELY 38-FOOT SPACING PER CHAPTER 3F OF THE DE MUTCD.

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO. 3-610
T201412701	DESIGNED BY: J. SINCLAIR
COUNTY	CHECKED BY: D. POLLET
SUSSEX	

SIGNING, STRIPING AND CONDUIT PLAN

SS-4B | SECTION WRA | SHEET NO. 315

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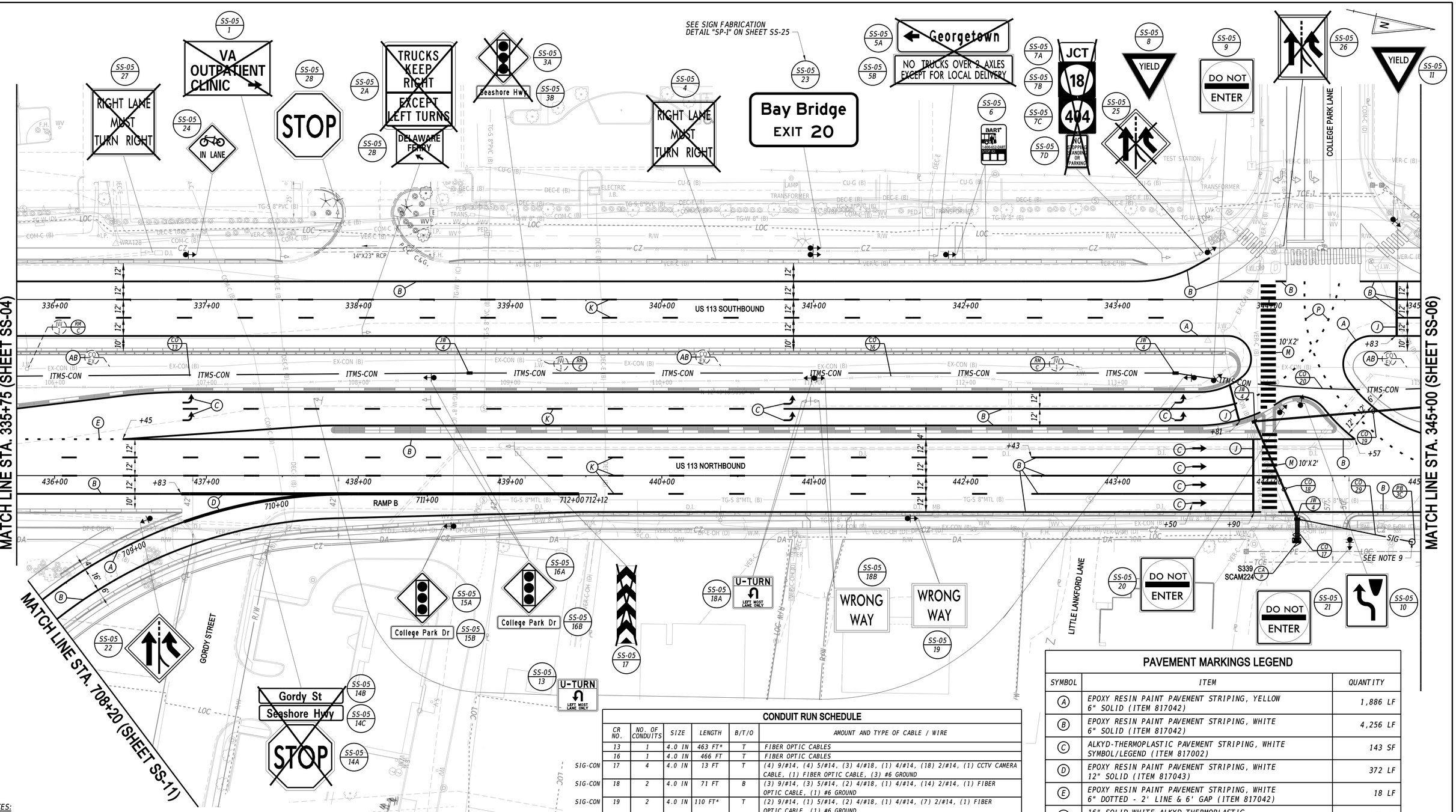

NOTES:

1. STOP LINES SHALL BE PLACED A MINIMUM OF 4 FEET IN ADVANCE OF THE NEAREST CROSSWALK LINE.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND REMOVAL OF ALL UNDERGROUND ITMS EQUIPMENT - E.G., JUNCTION WELLS, CABINET AND POLE BASES, AND CONDUIT. DELDOT'S TRAFFIC CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND REMOVAL OF ALL ELECTRICAL CABLES AND ABOVE GROUND EQUIPMENT - E.G., SERVICE PEDESTAL, DISCONNECT SWITCH, POLES, ITMS DEVICES AND CABINETS.
3. THE CONTRACTOR SHALL CONTACT DENISE KSIAZEK (DELDOT OIT) AT 302-981-6464, 48 HOURS PRIOR TO THE COMPLETION OF THE PROPOSED ITMS PATHWAY ALONG US 113. JUNCTION WELLS MARKED FOR REMOVAL SHALL NOT BE REMOVED PRIOR TO THE INSTALLATION OF THE PROPOSED FIBER OPTIC CABLES ALONG US 113.
4. ALL GROUND MOUNTED GUIDE SIGNS SHALL BE MOUNTED ON BREAKAWAY I-BEAM POSTS.
5. DELDOT TRAFFIC/OIT SHALL INSTALL A TEMPORARY CDMA AS NEEDED FOR ALL EXISTING OR PROPOSED CABINETS UNTIL THEY CAN BE CONNECTED TO FIBER.

CONDUIT RUN SCHEDULE

CR NO.	NO. OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE / WIRE
13	1	4.0 IN	463 FT*	T	FIBER OPTIC CABLES
16	1	4.0 IN	466 FT	T	FIBER OPTIC CABLES
SIG-CON 17	4	4.0 IN	13 FT	T	(4) 9/#14, (4) 5/#14, (3) 4/#18, (1) 4/#14, (18) 2/#14, (1) CCTV CAMERA CABLE, (1) FIBER OPTIC CABLE, (3) #6 GROUND
SIG-CON 18	2	4.0 IN	71 FT	B	(3) 9/#14, (3) 5/#14, (2) 4/#18, (1) 4/#14, (14) 2/#14, (1) FIBER OPTIC CABLE, (1) #6 GROUND
SIG-CON 19	2	4.0 IN	110 FT*	T	(2) 9/#14, (1) 5/#14, (2) 4/#18, (1) 4/#14, (7) 2/#14, (1) FIBER OPTIC CABLE, (1) #6 GROUND
20	1	4.0 IN	273 FT*	B	FIBER OPTIC CABLES
SIG-CON 29	1	3.0 IN	76 FT	T	(1) 9/#14, (1) 4/#18, (1) CCTV CAMERA CABLE, (1) #6 GROUND

* QUANTITY CONTINUES ON ADJACENT SHEET

B = BORE, T = TRENCH, O = OPEN CUT

NOTES:

6. THE CONTRACTOR SHALL INSTALL RAISED/RECESSED PAVEMENT MARKERS (RPMS) PER PART 3 OF THE DE MUTCD.
7. THE CONTRACTOR SHALL INSTALL POST MOUNTED AND/OR GUARDRAIL MOUNTED DELINEATORS ALONG THE LIMITS OF THE PROPOSED GUARDRAIL AND ROADWAY PER CHAPTER 3F OF THE DE MUTCD.
8. THE CONTRACTOR SHALL INSTALL POST MOUNTED DELINEATORS ALONG THE OUTSIDE CURVE OF RAMP B AT APPROXIMATELY 52-FOOT SPACING PER CHAPTER 3F OF THE DE MUTCD.
9. REFER TO THE SIGNAL PLANS FOR INSTALLATION OF SIGNAL-MOUNTED CCTV CAMERA.

PAVEMENT MARKINGS LEGEND

SYMBOL	ITEM	QUANTITY
(A)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID (ITEM 817042)	1,886 LF
(B)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	4,256 LF
(C)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND (ITEM 817002)	143 SF
(D)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 12" SOLID (ITEM 817043)	372 LF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" DOTTED - 2' LINE & 6' GAP (ITEM 817042)	18 LF
(J)	16" SOLID WHITE ALKYD THERMOPLASTIC PAVEMENT STRIPING (ITEM 817002)	146 SF
(K)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" BROKEN - 10' LINE & 30' GAP (ITEM 817042)	900 LF
(M)	CROSSWALK, ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND (ITEM 817002)	670 SF
(P)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 6" DOTTED - 2' LINE & 6' GAP (ITEM 817038)	64 LF

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO.	N/A
T201412701	DESIGNED BY: J. SINCLAIR	
COUNTY	CHECKED BY: D. POLLET	
SUSSEX		

SIGNING, STRIPING AND CONDUIT PLAN

SS-05

SECTION WRA

SHEET NO. 316

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NOTES:

1. STOP LINES SHALL BE PLACED A MINIMUM OF 4 FEET IN ADVANCE OF THE NEAREST CROSSWALK LINE.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND REMOVAL OF ALL UNDERGROUND ITMS EQUIPMENT - E.G., JUNCTION WELLS, CABINET AND POLE BASES, AND CONDUIT. DELDOT'S TRAFFIC CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND REMOVAL OF ALL ELECTRICAL CABLES AND ABOVE GROUND EQUIPMENT - E.G., SERVICE PEDESTAL, DISCONNECT SWITCH, POLES, ITMS DEVICES AND CABINETS.
3. THE CONTRACTOR SHALL CONTACT DENISE KSIAZEK (DELDOT OIT) AT 302-981-6464, 48 HOURS PRIOR TO THE COMPLETION OF THE PROPOSED ITMS PATHWAY ALONG US 113. JUNCTION WELLS MARKED FOR REMOVAL SHALL NOT BE REMOVED PRIOR TO THE INSTALLATION OF THE PROPOSED FIBER OPTIC CABLES ALONG US 113.
4. THE CONTRACTOR SHALL INSTALL RAISED/RECESSED PAVEMENT MARKERS (RPMS) PER PART 3 OF THE DE MUTCD.

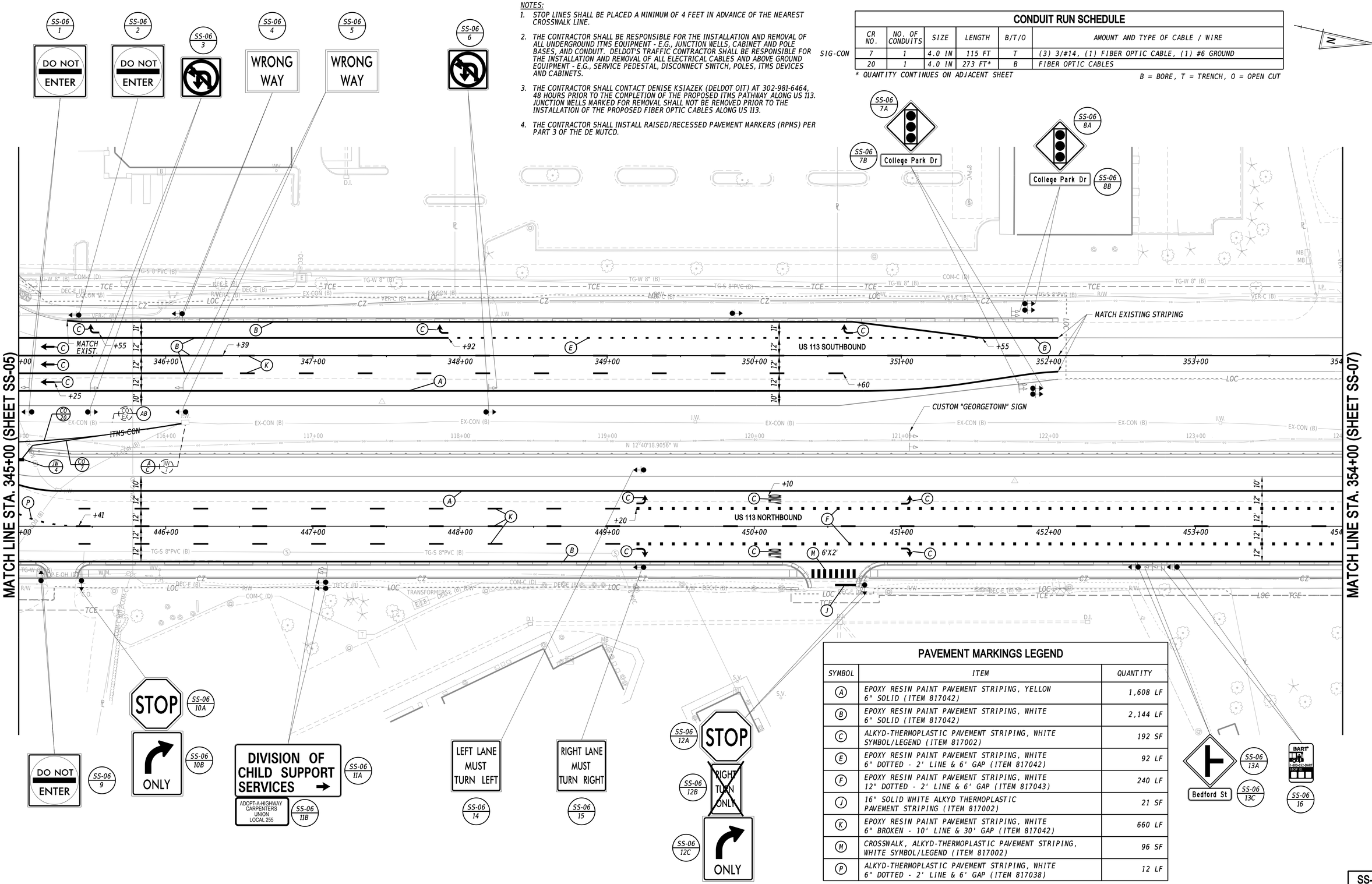
CONDUIT RUN SCHEDULE

	CR NO.	NO. OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE / WIRE
SIG-CON	7	1	4.0 IN	115 FT	T	(3) 3/#14, (1) FIBER OPTIC CABLE, (1) #6 GROUND
	20	1	4.0 IN	273 FT*	B	FIBER OPTIC CABLES

* QUANTITY CONTINUES ON ADJACENT SHEET

B = BORE, T = TRENCH, O = OPEN CUT

N



PAVEMENT MARKINGS LEGEND

SYMBOL	ITEM	QUANTITY
A	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID (ITEM 817042)	1,608 LF
B	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	2,144 LF
C	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND (ITEM 817002)	192 SF
E	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" DOTTED - 2' LINE & 6' GAP (ITEM 817042)	92 LF
F	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 12" DOTTED - 2' LINE & 6' GAP (ITEM 817043)	240 LF
J	16" SOLID WHITE ALKYD THERMOPLASTIC PAVEMENT STRIPING (ITEM 817002)	21 SF
K	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" BROKEN - 10' LINE & 30' GAP (ITEM 817042)	660 LF
M	CROSSWALK, ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND (ITEM 817002)	96 SF
P	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 6" DOTTED - 2' LINE & 6' GAP (ITEM 817038)	12 LF

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	T201412701
COUNTY	SUSSEX
BRIDGE NO.	N/A
DESIGNED BY:	J. SINCLAIR
CHECKED BY:	D. POLLET

SIGNING, STRIPING AND CONDUIT PLAN

SECTION	SS-06
SHEET NO.	WRA
	317

8/20/2025
11:10:30 AM
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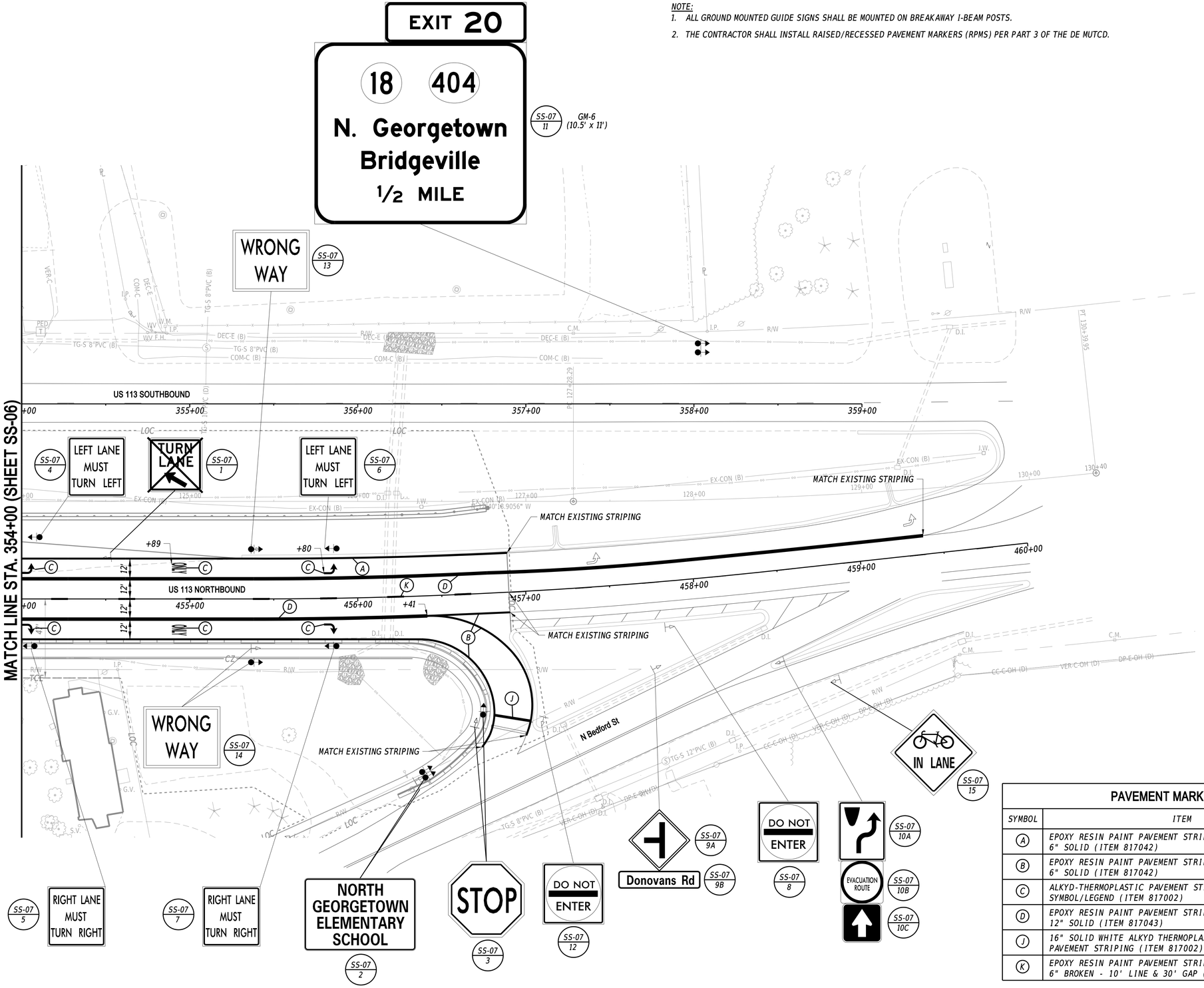
NOTE:

1. *ALL GROUND MOUNTED GUIDE SIGNS SHALL BE MOUNTED ON BREAKAWAY I-BEAM POSTS.*
2. *THE CONTRACTOR SHALL INSTALL RAISED/RECESSED PAVEMENT MARKERS (RPMS) PER PART 3 OF THE DE MUTCD.*



PAVEMENT MARKINGS LEGEND

SYMBOL	ITEM	QUANTITY
A	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID (ITEM 817042)	289 LF
B	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	487 LF
C	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND (ITEM 817002)	108 SF
D	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 12" SOLID (ITEM 817043)	779 LF
J	16" SOLID WHITE ALKYD THERMOPLASTIC PAVEMENT STRIPING (ITEM 817002)	30 SF
K	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" BROKEN - 10' LINE & 30' GAP (ITEM 817042)	70 LF

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO. N/A
T201412701	DESIGNED BY: J. SINCLAIR
COUNTY	CHECKED BY: D. POLLET
SUSSEX	

SIGNING, STRIPING AND CONDUIT PLAN

SS-07
SECTION
WRA
SHEET NO.
318

8/20/2025
11:10:31 AM
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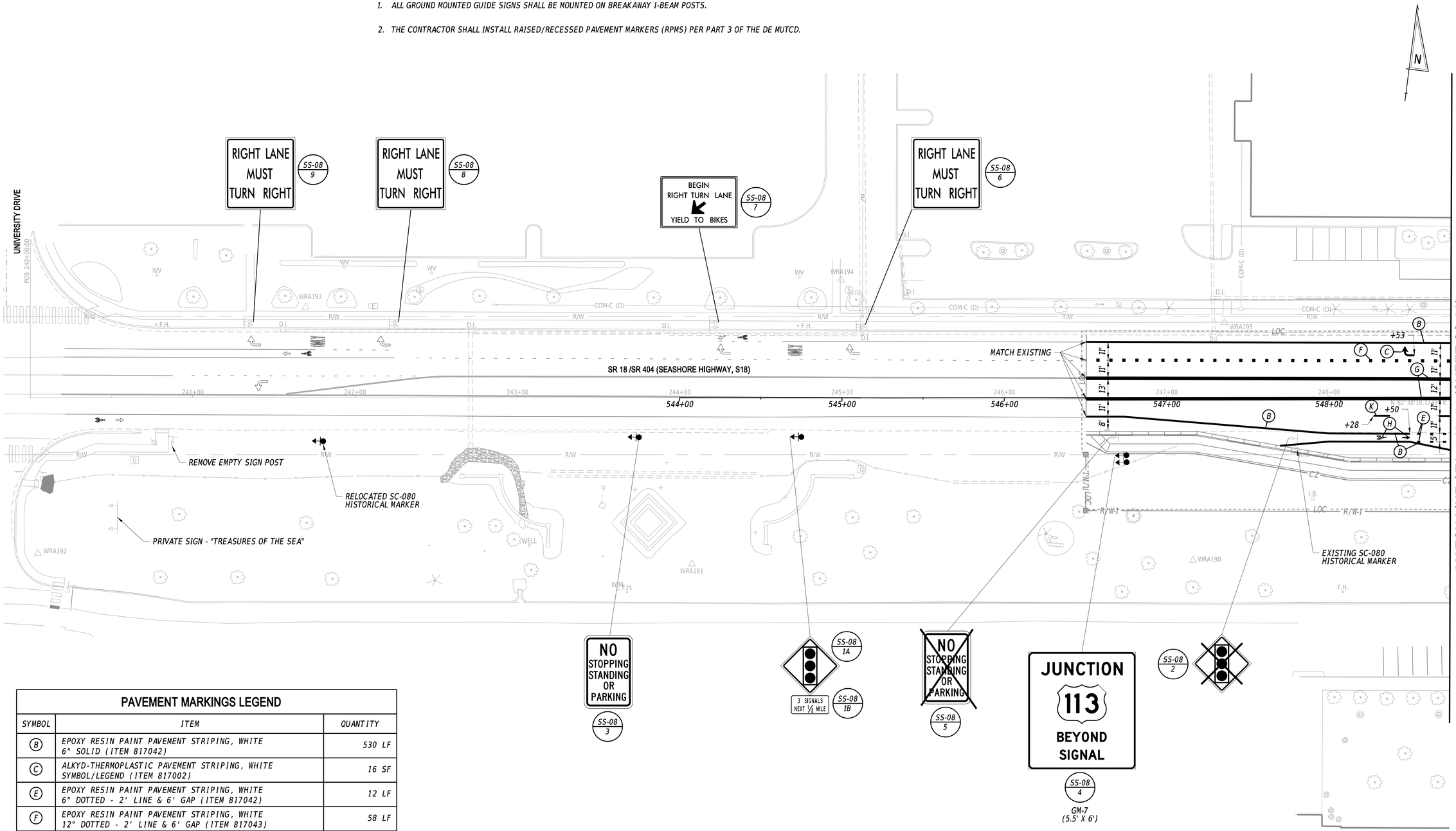
NOTE:

1. *ALL GROUND MOUNTED GUIDE SIGNS SHALL BE MOUNTED ON BREAKAWAY I-BEAM POSTS.*

2. *THE CONTRACTOR SHALL INSTALL RAISED/RECESSED PAVEMENT MARKERS (RPMS) PER PART 3 OF THE DE MUTCD.*



PAVEMENT MARKINGS LEGEND

SYMBOL	ITEM	QUANTITY
(B)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	530 LF
(C)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND (ITEM 817002)	16 SF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" DOTTED - 2' LINE & 6' GAP (ITEM 817042)	12 LF
(F)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 12" DOTTED - 2' LINE & 6' GAP (ITEM 817043)	58 LF
(G)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID DOUBLE LINE (ITEM 817042)	898 LF
(H)	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, BIKE SYMBOL (ITEM 817015)	1 EACH
(K)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" BROKEN - 10' LINE & 30' GAP (ITEM 817042)	20 LF

ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	T201412701
COUNTY	SUSSEX
BRIDGE NO.	N/A
DESIGNED BY:	J. SINCLAIR
CHECKED BY:	D. POLLET

SIGNING, STRIPING AND CONDUIT PLAN

SS-08
SECTION
WRA
SHEET NO.
319

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CONDUIT RUN SCHEDULE

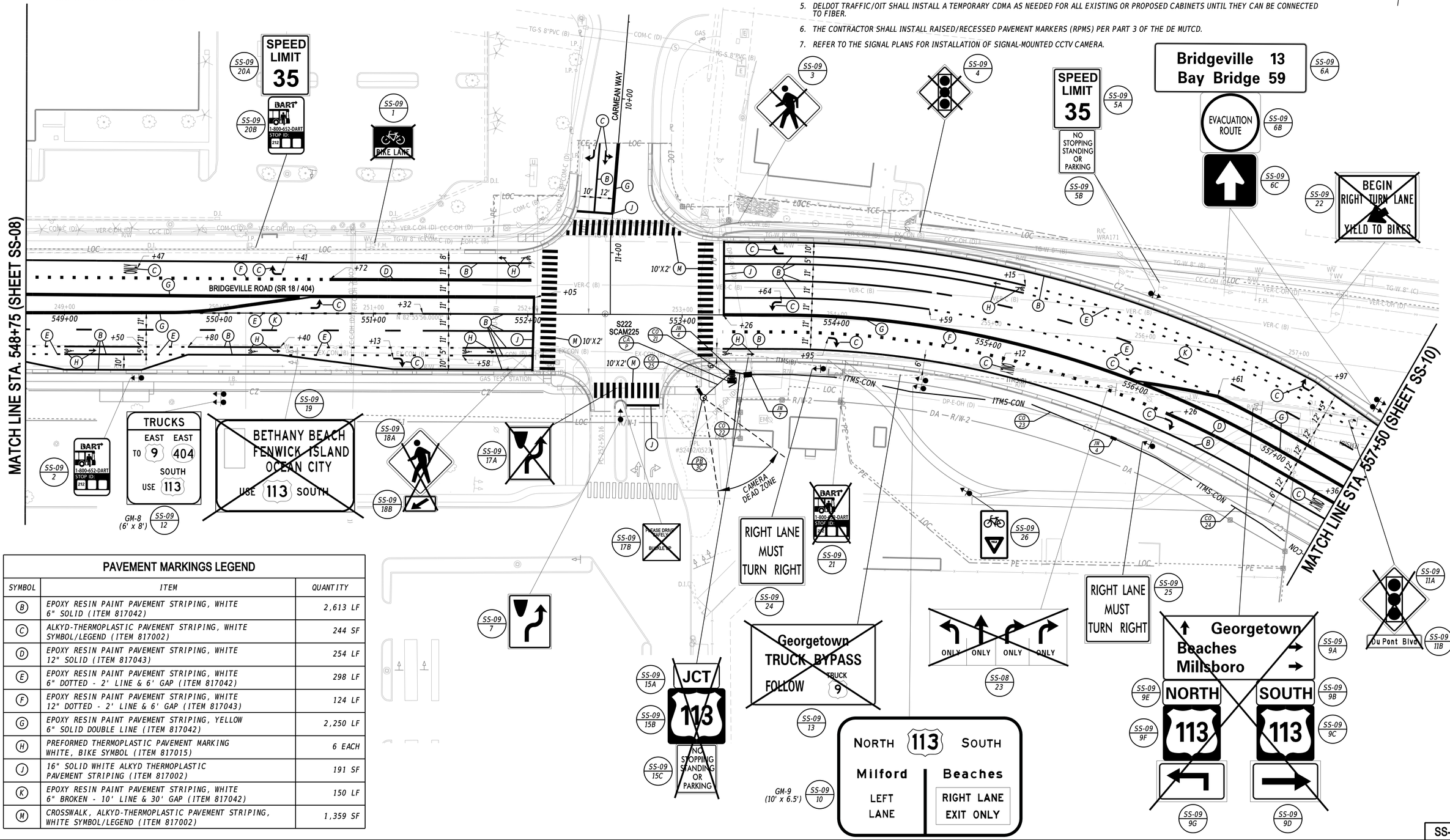
	CR NO.	NO. OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE / WIRE
SIG-CON	21	4	4.0 IN	4 FT	T	(4) 9/#14, (4) 4/#18, (8)5/#14, (12)2/#14, (3)#6 GROUND, (1) CCTV CAMERA CABLE
	22	1	4.0 IN	11 FT	T	FIBER OPTIC CABLES
	23	1	4.0 IN	243 FT	T	FIBER OPTIC CABLES
	24	1	4.0 IN	318 FT*	T	FIBER OPTIC CABLES
SIG-CON	25	1	3.0 IN	26 FT	T/OC	(1) 9/#14, (1) 4/#18, (1)#6 GROUND, (1) CCTV CAMERA CABLE

* QUANTITY CONTINUES ON ADJACENT SHEET

B = BORE, T = TRENCH, O = OPEN CUT

NOTES:

1. STOP LINES SHALL BE PLACED A MINIMUM OF 4 FEET IN ADVANCE OF THE NEAREST CROSSWALK LINE.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND REMOVAL OF ALL UNDERGROUND ITMS EQUIPMENT - E.G., JUNCTION WELLS, CABINET AND POLE BASES, AND CONDUIT. DELDOT'S TRAFFIC CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND REMOVAL OF ALL ELECTRICAL CABLES AND ABOVE GROUND EQUIPMENT - E.G., SERVICE PEDESTAL, DISCONNECT SWITCH, POLES, ITMS DEVICES AND CABINETS.
3. THE CONTRACTOR SHALL CONTACT DENISE KSIAZEK (DELDOT OIT) AT 302-981-6464, UPON COMPLETION OF THE PROPOSED ITMS PATHWAY INTO THE PROPOSED CABINET.
4. ALL GROUND MOUNTED GUIDE SIGNS SHALL BE MOUNTED ON BREAKAWAY I-BEAM POSTS.
5. DELDOT TRAFFIC/OIT SHALL INSTALL A TEMPORARY CDMA AS NEEDED FOR ALL EXISTING OR PROPOSED CABINETS UNTIL THEY CAN BE CONNECTED TO FIBER.
6. THE CONTRACTOR SHALL INSTALL RAISED/RECESSED PAVEMENT MARKERS (RPMS) PER PART 3 OF THE DE MUTCD.
7. REFER TO THE SIGNAL PLANS FOR INSTALLATION OF SIGNAL-MOUNTED CCTV CAMERA.



PAVEMENT MARKINGS LEGEND

SYMBOL	ITEM	QUANTITY
(B)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	2,613 LF
(C)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND (ITEM 817002)	244 SF
(D)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 12" SOLID (ITEM 817043)	254 LF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" DOTTED - 2' LINE & 6' GAP (ITEM 817042)	298 LF
(F)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 12" DOTTED - 2' LINE & 6' GAP (ITEM 817043)	124 LF
(G)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID DOUBLE LINE (ITEM 817042)	2,250 LF
(H)	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, BIKE SYMBOL (ITEM 817015)	6 EACH
(J)	16" SOLID WHITE ALKYD THERMOPLASTIC PAVEMENT STRIPING (ITEM 817002)	191 SF
(K)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" BROKEN - 10' LINE & 30' GAP (ITEM 817042)	150 LF
(M)	CROSSWALK, ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND (ITEM 817002)	1,359 SF

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

CONTRACT	T201412701
COUNTY	SUSSEX
BRIDGE NO.	N/A
DESIGNED BY:	J. SINCLAIR
CHECKED BY:	D. POLLET

US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION

SIGNING, STRIPING AND CONDUIT PLAN

SS-09	
SECTION	WRA
SHEET NO.	320

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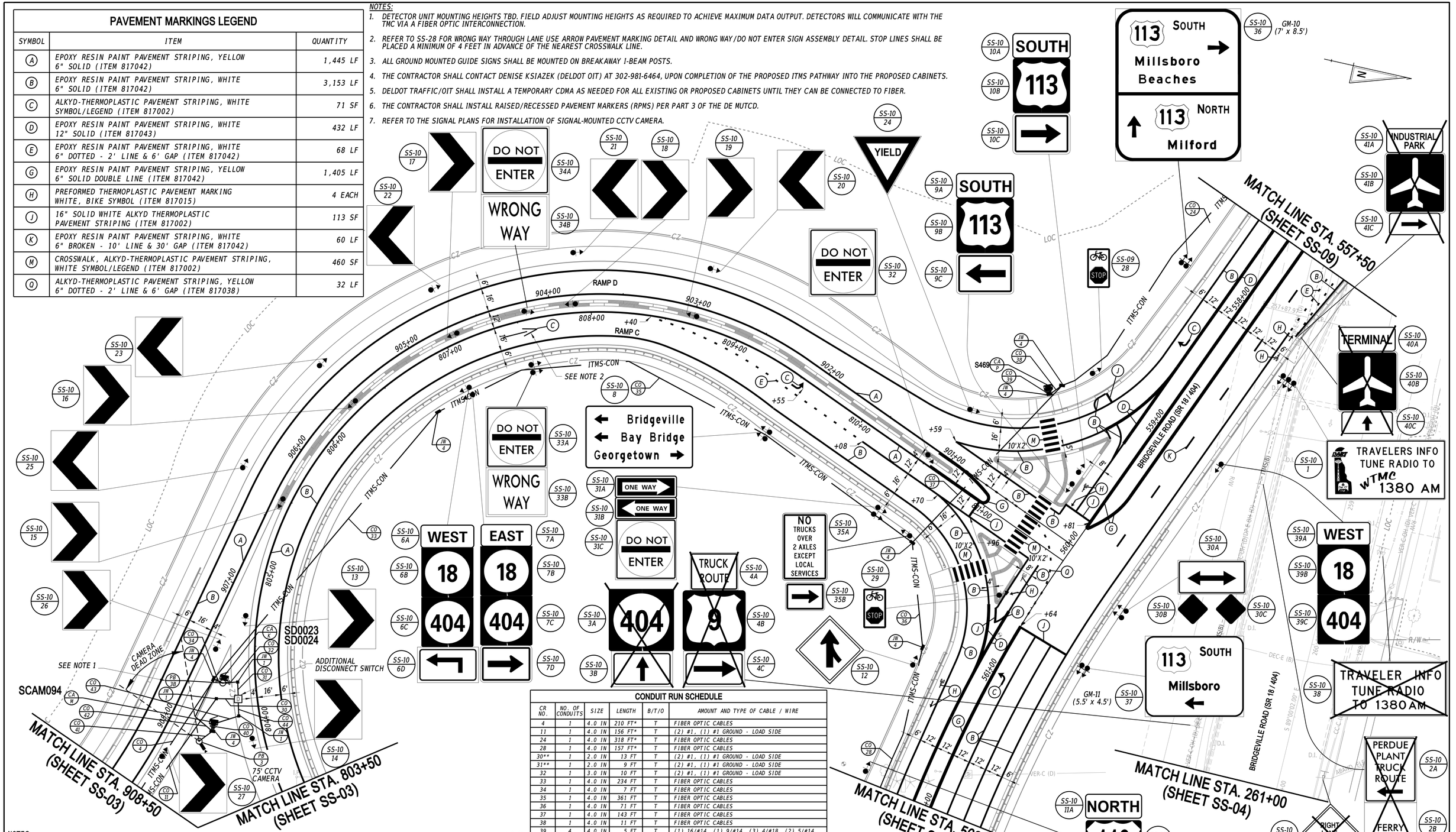
PAVEMENT MARKINGS LEGEND

SYMBOL	ITEM	QUANTITY
A	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID (ITEM 817042)	1,445 LF
B	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	3,153 LF
C	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND (ITEM 817002)	71 SF
D	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 12" SOLID (ITEM 817043)	432 LF
E	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" DOTTED - 2' LINE & 6' GAP (ITEM 817042)	68 LF
G	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID DOUBLE LINE (ITEM 817042)	1,405 LF
H	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, BIKE SYMBOL (ITEM 817015)	4 EACH
J	16" SOLID WHITE ALKYD THERMOPLASTIC PAVEMENT STRIPING (ITEM 817002)	113 SF
K	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" BROKEN - 10' LINE & 30' GAP (ITEM 817042)	60 LF
M	CROSSWALK, ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND (ITEM 817002)	460 SF
Q	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, YELLOW 6" DOTTED - 2' LINE & 6' GAP (ITEM 817038)	32 LF

NOTES:

1. DETECTOR UNIT MOUNTING HEIGHTS TBD. FIELD ADJUST MOUNTING HEIGHTS AS REQUIRED TO ACHIEVE MAXIMUM DATA OUTPUT. DETECTORS WILL COMMUNICATE WITH THE TMC VIA A FIBER OPTIC INTERCONNECTION.
2. REFER TO SS-28 FOR WRONG WAY THROUGH LANE USE ARROW PAVEMENT MARKING DETAIL AND WRONG WAY/DO NOT ENTER SIGN ASSEMBLY DETAIL. STOP LINES SHALL BE PLACED A MINIMUM OF 4 FEET IN ADVANCE OF THE NEAREST CROSSWALK LINE.
3. ALL GROUND MOUNTED GUIDE SIGNS SHALL BE MOUNTED ON BREAKAWAY I-BEAM POSTS.
4. THE CONTRACTOR SHALL CONTACT DENISE KSIAZEK (DELDOT OIT) AT 302-981-6464, UPON COMPLETION OF THE PROPOSED ITMS PATHWAY INTO THE PROPOSED CABINETS.
5. DELDOT TRAFFIC/OIT SHALL INSTALL A TEMPORARY CDMA AS NEEDED FOR ALL EXISTING OR PROPOSED CABINETS UNTIL THEY CAN BE CONNECTED TO FIBER.
6. THE CONTRACTOR SHALL INSTALL RAISED/RECESSED PAVEMENT MARKERS (RPMS) PER PART 3 OF THE DE MUTCD.
7. REFER TO THE SIGNAL PLANS FOR INSTALLATION OF SIGNAL-MOUNTED CCTV CAMERA.



CONDUIT RUN SCHEDULE

CR NO.	NO. OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE / WIRE
4	1	4.0 IN	210 FT*	T	FIBER OPTIC CABLES
11	1	4.0 IN	156 FT*	T	(2) #1, (1) #1 GROUND - LOAD SIDE
24	1	4.0 IN	318 FT*	T	FIBER OPTIC CABLES
28	1	4.0 IN	157 FT*	T	FIBER OPTIC CABLES
30**	1	2.0 IN	13 FT	T	(2) #1, (1) #1 GROUND - LOAD SIDE
31**	1	2.0 IN	9 FT	T	(2) #1, (1) #1 GROUND - LOAD SIDE
32	1	3.0 IN	10 FT	T	(2) #1, (1) #1 GROUND - LOAD SIDE
33	1	4.0 IN	234 FT	T	FIBER OPTIC CABLES
34	1	4.0 IN	7 FT	T	FIBER OPTIC CABLES
35	1	4.0 IN	361 FT	T	FIBER OPTIC CABLES
36	1	4.0 IN	71 FT	T	FIBER OPTIC CABLES
37	1	4.0 IN	143 FT	T	FIBER OPTIC CABLES
38	1	4.0 IN	11 FT	T	FIBER OPTIC CABLES
39	4	4.0 IN	5 FT	T	(1) 16/#14, (1) 9/#14, (3) 4/#18, (2) 5/#14, (7) 2/#14, (3) #6 GROUND, FIBER OPTIC CABLES
40	3	4.0 IN	5 FT	T	FIBER OPTIC CABLES, CCTV CAMERA CABLES
41	1	3.0 IN	11 FT	T	FIBER OPTIC CABLES, CCTV CAMERA CABLES
42	1	4.0 IN	40 FT	T	FIBER OPTIC CABLES
43	1	4.0 IN	15 FT	T	(2) #1, (1) #1 GROUND - LOAD SIDE
44	1	2.0 IN	9 FT	T	(2) #1, (1) #1 GROUND - LOAD SIDE

* QUANTITY CONTINUES ON ADJACENT SHEET
** RIGID GALVANIZED STEEL CONDUIT
B = BORE, T = TRENCH, O = OPEN CUT

NOTES:

8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND REMOVAL OF ALL UNDERGROUND ITMS EQUIPMENT - E.G., JUNCTION WELLS, CABINET AND POLE BASES, AND CONDUIT. DELDOT'S TRAFFIC CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND REMOVAL OF ALL ELECTRICAL CABLES AND ABOVE GROUND EQUIPMENT - E.G., SERVICE PEDESTAL, DISCONNECT SWITCH, POLES, ITMS DEVICES AND CABINETS.
9. THE CONTRACTOR SHALL INSTALL POST MOUNTED AND/OR GUARDRAIL MOUNTED DELINEATORS ALONG THE LIMITS OF THE PROPOSED GUARDRAIL AND ROADWAY PER CHAPTER 3F OF THE DE MUTCD.
10. THE CONTRACTOR SHALL INSTALL POST MOUNTED DELINEATORS ALONG THE OUTSIDE CURVE OF RAMP C AND RAMP D AT APPROXIMATELY 38-FOOT AND 52-FOOT SPACING, RESPECTIVELY PER CHAPTER 3F OF THE DE MUTCD.

SIG-CON

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO. 3-610
T201412701	DESIGNED BY: J. SINCLAIR
COUNTY	CHECKED BY: D. POLLET
SUSSEX	

SIGNING, STRIPING AND CONDUIT PLAN

SS-10 | SECTION WRA | SHEET NO. 321

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NOTES:

1. CUSTOM "GRACE UNITED METHODIST CHURCH" SIGN TO BE RELOCATED. LOCATION TBD.
2. DELDOT'S TRAFFIC CONTRACTOR SHALL INSTALL A 100-AMP METERED SERVICE PEDESTAL PER STANDARD CONSTRUCTION DETAIL T-17, SHEET 3.
3. DETECTOR UNIT MOUNTING HEIGHTS TBD. FIELD ADJUST MOUNTING HEIGHTS AS REQUIRED TO ACHIEVE MAXIMUM DATA OUTPUT. DETECTORS WILL COMMUNICATE WITH THE TMC VIA A FIBER OPTIC INTERCONNECTION.
4. REFER TO SS-28 FOR WRONG WAY THROUGH LANE USE ARROW PAVEMENT MARKING DETAIL AND WRONG WAY/DO NOT ENTER SIGN ASSEMBLY DETAIL.
5. STOP LINES SHALL BE PLACED A MINIMUM OF 4 FEET IN ADVANCE OF THE NEAREST CROSSWALK LINE.

NOTES:

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND REMOVAL OF ALL UNDERGROUND ITMS EQUIPMENT - E.G., JUNCTION WELLS, CABINET AND POLE BASES, AND CONDUIT. DELDOT'S TRAFFIC CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND REMOVAL OF ALL ELECTRICAL CABLES AND ABOVE GROUND EQUIPMENT - E.G., SERVICE PEDESTAL, DISCONNECT SWITCH, POLES, ITMS DEVICES AND CABINETS.
7. DELDOT TRAFFIC/OIT SHALL INSTALL A TEMPORARY CDMA AS NEEDED FOR ALL EXISTING OR PROPOSED CABINETS UNTIL THEY CAN BE CONNECTED TO FIBER.
8. THE CONTRACTOR SHALL CONTACT DENISE KSIAZEK (DELDOT OIT) AT 302-981-6464, UPON COMPLETION OF THE PROPOSED ITMS PATHWAY INTO THE PROPOSED CABINETS.
9. ALL GROUND MOUNTED GUIDE SIGNS SHALL BE MOUNTED ON BREAKAWAY I-BEAM POSTS.

MATCH LINE STA. 566+00 (SHEET SS-04)

MATCH LINE STA. 265+25 (SHEET SS-04/4B)

MATCH LINE STA. 603+50 (SHEET SS-04/4B)

MATCH LINE STA. 708+20 (SHEET SS-05)

MATCH LINE STA. 571+00 (SHEET SS-12)

SEE NOTES 3 AND 4

SEE NOTE 4

SEE NOTE 1

SEE NOTE 13

ADDITIONAL DISCONNECT SWITCH

POWER SOURCE: DELMARVA POLE #52621-05289

SERVICE PEDESTAL (SEE NOTE 2)

BRIDGEVILLE ROAD (SR 18 / 404)

RAMP A

RAMP B

PAVEMENT MARKINGS LEGEND

SYMBOL	ITEM	QUANTITY
(A)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID (ITEM 817042)	1,356 LF
(B)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	3,785 LF
(C)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND (ITEM 817002)	87 SF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" DOTTED - 2' LINE & 6' GAP (ITEM 817042)	120 LF
(G)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID DOUBLE LINE (ITEM 817042)	1,324 LF
(H)	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, BIKE SYMBOL (ITEM 817015)	3 EACH
(J)	16" SOLID WHITE ALKYD THERMOPLASTIC PAVEMENT STRIPING (ITEM 817002)	93 SF
(K)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" BROKEN - 10' LINE & 30' GAP (ITEM 817042)	10 LF
(M)	CROSSWALK, ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND (ITEM 817002)	360 SF
(Q)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, YELLOW 6" DOTTED - 2' LINE & 6' GAP (ITEM 817038)	24 LF

CONDUIT RUN SCHEDULE

	CR NO.	NO. OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE / WIRE
	15	1	4.0 IN	213 FT*	T	FIBER OPTIC CABLES
	26	1	4.0 IN	243 FT*	T	FIBER OPTIC CABLES
	45	1	4.0 IN	192 FT	T	FIBER OPTIC CABLES
SIG-CON	46	4	4.0 IN	7 FT	T	(3) 9/#14, (3) 4/#18, (2) 5/#14, (6) 2/#14, (3) #6 GROUND, (1) CCTV CAMERA CABLE, FIBER OPTIC CABLES
SIG-CON	47	1	4.0 IN	69 FT	T	(2) 9/#14, (2) 4/#18, (1) 5/#14, (1) 2/#14, (1) #6 GROUND, (1) CCTV CAMERA CABLE
SIG-CON	48	1	3.0 IN	13 FT	T	(2) 9/#14, (2) 4/#18, (1) #6 GROUND, (1) CCTV CAMERA CABLE
	49	1	3.0 IN	5 FT	T	FIBER OPTIC CABLES
	50	1	3.0 IN	10 FT	T	(1) 2/#8 U.F. W/ GROUND - LOAD SIDE
	51**	2	2.0 IN	10 FT	T	(2) 2/#8 U.F. W/ GROUND - LOAD SIDE
	52	1	4.0 IN	48 FT	T	(1) 2/#8 U.F. W/ GROUND - LOAD SIDE
	53	2	4.0 IN	64 FT	T	(1) 2/#8 U.F. W/ GROUND - LOAD SIDE
	54	2	4.0 IN	25 FT	B	(1) 2/#8 U.F. W/ GROUND - LOAD SIDE
	55**	2	2.0 IN	3 FT	T	(1) 2/#8 U.F. W/ GROUND - LOAD SIDE
	56**	2	2.0 IN	5 FT	T	(3) #8 THHN - LINE SIDE

* QUANTITY CONTINUES ON ADJACENT SHEET
** RIGID GALVANIZED STEEL CONDUIT
B = BORE, T = TRENCH, O = OPEN CUT

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION

CONTRACT	T201412701
COUNTY	SUSSEX
BRIDGE NO.	3-610
DESIGNED BY:	J. SINCLAIR
CHECKED BY:	D. POLLET

SIGNING, STRIPING AND CONDUIT PLAN

SS-11
SECTION: WRA
SHEET NO.: 322

8/20/2025
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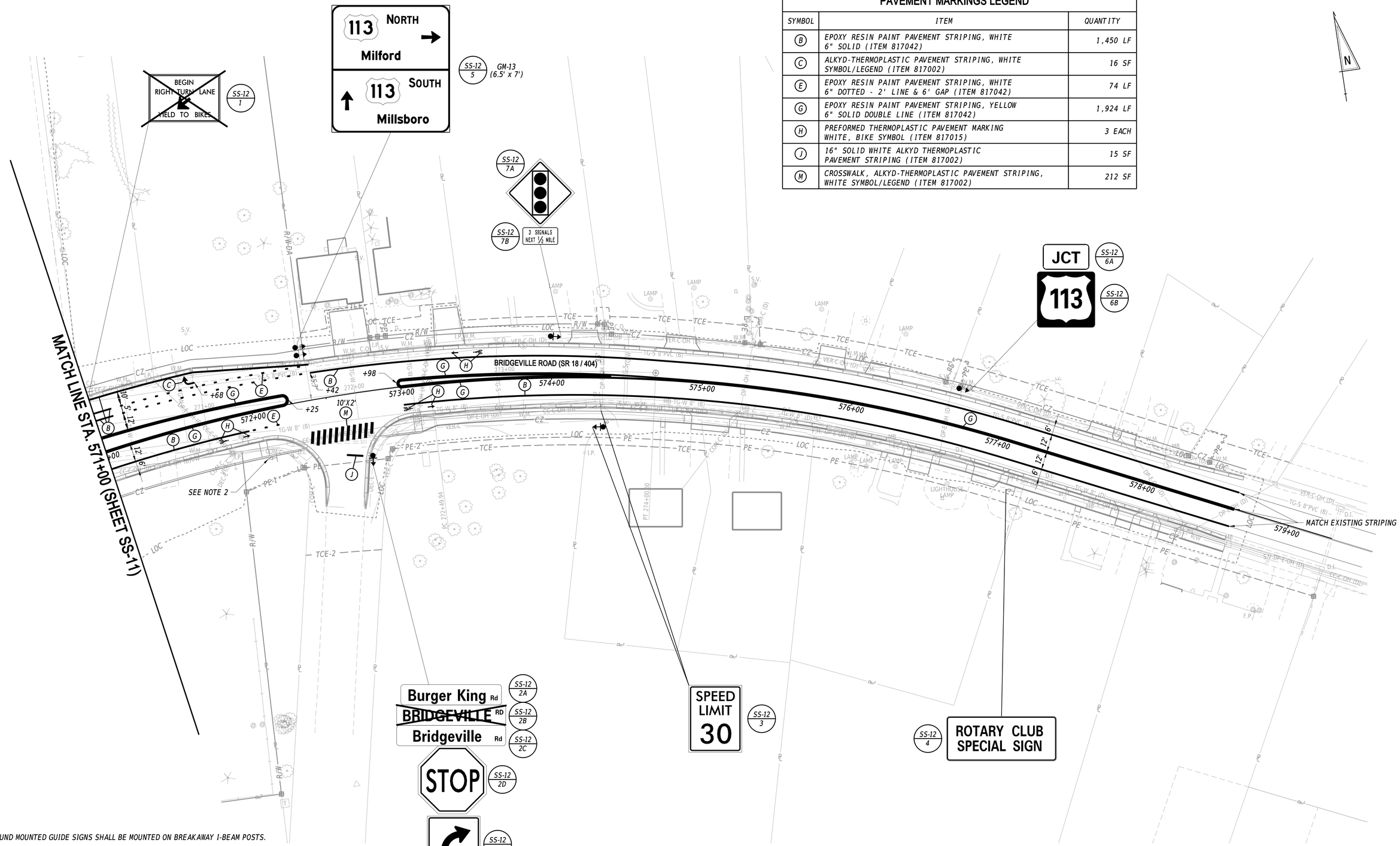
PAVEMENT MARKINGS LEGEND

SYMBOL	ITEM	QUANTITY
(B)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" SOLID (ITEM 817042)	1,450 LF
(C)	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND (ITEM 817002)	16 SF
(E)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 6" DOTTED - 2' LINE & 6' GAP (ITEM 817042)	74 LF
(G)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 6" SOLID DOUBLE LINE (ITEM 817042)	1,924 LF
(H)	PREFORMED THERMOPLASTIC PAVEMENT MARKING WHITE, BIKE SYMBOL (ITEM 817015)	3 EACH
(J)	16" SOLID WHITE ALKYD THERMOPLASTIC PAVEMENT STRIPING (ITEM 817002)	15 SF
(M)	CROSSWALK, ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND (ITEM 817002)	212 SF



NOTES:

1. ALL GROUND MOUNTED GUIDE SIGNS SHALL BE MOUNTED ON BREAKAWAY I-BEAM POSTS.
2. PRIVATE COMMERCIAL SIGNS TO BE RELOCATED BY OTHERS.
3. STOP LINES SHALL BE PLACED A MINIMUM OF 4 FEET IN ADVANCE OF THE NEAREST CROSSWALK LINE.
4. THE CONTRACTOR SHALL INSTALL RAISED/RECESSED PAVEMENT MARKERS (RPMS) PER PART 3 OF THE DE MUTCD.

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO.	N/A
T201412701	DESIGNED BY: J. SINCLAIR	
COUNTY	CHECKED BY: D. POLLET	
SUSSEX		

SIGNING, STRIPING AND CONDUIT PLAN

SS-12
SECTION
WRA
SHEET NO.
323

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PERMANENT SIGN SCHEDULE - ROADWAY

SHEET NO.	PLAN IDENTIFIER	SIGN DESIGNATION	QTY.	DESCRIPTION	SIGN WIDTH (IN)	SIGN HEIGHT (IN)	X13 / ITEM 818001 SUPPLY OF FLAT SHEET ALUMINUM, TYPE IV, RETROREFLECTIVE SHEETING (SF)	X14 / ITEM 818003 SUPPLY OF FLAT SHEET ALUMINUM, TYPE XI, RETROREFLECTIVE SHEETING (SF)	X15 / ITEM 819512 SIGN POST REFLECTIVE PANEL (EA)	ITEM 819018 INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON SINGLE POST (EACH)			ITEM 819019 INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON MULTIPLE SIGN POSTS (SF)			POST INSTALLATION TYPE	X16 / ITEM 819011 12' SIGNPOSTS W/ BASEPOSTS & HARDWARE (EACH)	X17 / ITEM 819023 15' SIGNPOSTS W/ BASEPOSTS & HARDWARE (EACH)	ITEM 819016 4" HOLE, 0-6" (EACH)	ITEM 819017 4" HOLE, >6" (EACH)	SIGN DISPOSITION	X14A FLAT SHEET ALUMINUM SIGN PANELS (TYPE XI SHEETING) - SIGNS ON POLES, SPAN WIRES, MAST ARMS (TRAFFIC SUPPLY)	ITEM 822500 INSTALL OVERHEAD SIGN (SF) ON SIGNAL POLES TRAFFIC CONTRACTOR ITEM, EXCEPT FOR PILOT PROJECTS	ITEM 823003 REMOVAL OF SIGN ON SPAN WIRE OR MAST ARM (EA) TRAFFIC CONTRACTOR ITEM, EXCEPT FOR PILOT PROJECTS	ITEM 823001 INSTALLATION OF SIGN ON SPAN WIRE OR MAST ARM (SF) TRAFFIC CONTRACTOR ITEM, EXCEPT FOR PILOT PROJECTS	REMARKS
										SIGN DISPOSITION	REMOVE	INSTALL	SIGN DISPOSITION	REMOVE	INSTALL											
SS-01	1A	R6-1_L(36)	2	ONE WAY (ENCLOSED IN LEFT ARROW) - 36x12	36	12				REMAIN																
SS-01	1B	R1-1(36)	1	STOP	36	36				REMAIN																
SS-01	2	R1-1(36)	1	STOP	36	36				REMAIN																
SS-01	3A	R6-1_L(36)	1	ONE WAY (ENCLOSED IN LEFT ARROW) - 36x12	36	12				REMAIN																
SS-01	3B	R1-1(36)	2	STOP	36	36				REMAIN																
SS-01	4A	D3-1(18)	2	STREET NAME (1 Line) Posted speed > 40 MPH	24	18				REMAIN																"Ennis Rd"
SS-01	4B	D3-1(18)	2	STREET NAME (1 Line) Posted speed > 40 MPH	36	18				REMAIN																"Dupont Blvd"
SS-01	4C	R3-5_R	1	MANDATORY MOVEMENT LANE CONTROL - Right	30	36				REMAIN																
SS-01	4D	OM1-3	1	TYPE 1 OBJECT MARKER	18	18				REMAIN																
SS-01	5	R5-1(36)	1	DO NOT ENTER - 36x36	36	36				REMOVE	1															
SS-01	6A	R5-1(36)	1	DO NOT ENTER - 36x36	36	36		9.0		NEW		1					SOIL	1								
SS-01	6B	R3-7_R(36)	1	RIGHT LANE MUST TURN RIGHT - 36"x36"	36	36	9.0			NEW		1														
SS-01	7	R3-7_L(36)	1	LEFT LANE MUST TURN LEFT - 36"x36"	36	36	9.0			NEW		1					SOIL	1								
SS-01	8	R1-1(36)	1	STOP	36	36				REMAIN																
SS-01	9A	D3-1(18)	2	STREET NAME (1 Line) Posted speed > 40 MPH	30	18				REMAIN																"W North St"
SS-01	9B	D3-1(18)	2	STREET NAME (1 Line) Posted speed > 40 MPH	36	18				REMAIN																"Dupont Blvd"
SS-01	9C	R3-5_R	1	MANDATORY MOVEMENT LANE CONTROL - Right	30	36				REMAIN																
SS-01	9D	OM1-3	1	TYPE 1 OBJECT MARKER	18	18				REMAIN																
SS-01	10	R2-1-25(36)	1	SPEED LIMIT (25 MPH - 36x48)	36	48							REMAIN													
SS-01	11	R5-1(36)	1	DO NOT ENTER - 36x36	36	36				REMAIN																
SS-01	12	R5-1a(36)	1	WRONG WAY - 36x24	36	24				REMAIN																
SS-01	13	R5-1a(36)	1	WRONG WAY - 36x24	36	24				REMAIN																
SS-01	14A	D1-2	1	DESTINATION (2 Line)	48	30	10.0						RENEW	10.0	10.0		SOIL	1								"Howard T Ennis School [right arrow]"
SS-01	14B	D1-2	1	DESTINATION (2 Line)	36	30	7.5			RENEW	1	1														"Swain Acres [right arrow]"
SS-01	15	R5-1a(36)	1	WRONG WAY - 36x24	36	24		6.0		RENEW	1	1					SOIL	1								
SS-02	1	N/A	1	EXIT ONLY	18	12				REMOVE	1															
SS-02	2	N/A	1	ENTRANCE	18	12				REMOVE	1															
SS-02	4A	W2-1(36)	1	CROSS ROAD - 36x36	36	36	9.0			RENEW	1	1					SOIL		1							
SS-02	4B	W16-8aP	1	ADVANCE STREET NAME (2 - line plaque)	42	18				REMOVE	1															"Ennis Rd [right arrow]" "[left arrow] North St"
SS-02	4C	W16-8aP	1	ADVANCE STREET NAME (2 - line plaque)	42	18	5.3			NEW		1														"[left arrow] North St" - 4" C Series "Ennis Rd [right arrow]" - 4" C Series
SS-02	4D	R7-4-DE(18)	1	NO STOPPING, STANDING, OR PARKING - 18x24	18	24	3.0			RENEW	1	1														
SS-02	5A	D3-2-DE1	1	WELCOME TO	36	32	8.0			RENEW	1	1					SOIL	1								
SS-02	5B	D3-2-DE2	1	DEVELOPMENT NAME	36	24				REMOVE	1															"GEORGETOWN POINT"
SS-02	5C	D3-2-DE2	1	DEVELOPMENT NAME	36	24	6.0			NEW		1														Georgetown Point - 5" C Series
SS-02	7A	R6-1_L(36)	1	ONE WAY (ENCLOSED IN LEFT ARROW) - 36x12	36	12				REMOVE	1															
SS-02	7B	R1-1(36)	1	STOP	36	36				REMOVE	1															
SS-02	9	R1-1(36)	1	STOP	36	36				REMOVE	1															
SS-02	10	R7-4-DE(18)	1	NO STOPPING, STANDING, OR PARKING - 18x24	18	24	3.0			RENEW	1	1					SOIL	1								
SS-02	11A	W2-2_R(36)	1	SIDE ROAD (Perpendicular - Right) - 36x36	36	36	9.0			RENEW	1	1					SOIL		1							
SS-02	11B	W16-8P	1	ADVANCE STREET NAME (1 - line plaque)	42	9	2.6			RENEW	1	1														Bramhall St - 4" C Series
SS-02	11C	R7-4-DE(18)	1	NO STOPPING, STANDING, OR PARKING - 18x24	18	24	3.0			RENEW	1	1														
SS-02	12	R3-20-DE	1	TURN LANE	18	18				REMOVE	1															
SS-02	13	R5-1a(36)	1	WRONG WAY - 36x24	36	24				REMOVE	1															
SS-02	14	R5-1(36)	1	DO NOT ENTER - 36x36	36	36				REMOVE	1															
SS-02	15	R1-1(36)	1	STOP	36	36				REMOVE	1															
SS-02	16A	D3-1(18)	2	STREET NAME (1 Line) Posted speed > 40 MPH	48	18				REMOVE	2															"Bramhall St"
SS-02	16B	D3-1(18)	2	STREET NAME (1 Line) Posted speed > 40 MPH	48	18				REMOVE	2															"DuPont Blvd"
SS-02	16C	R6-1_R(36)	1	ONE WAY (ENCLOSED IN RIGHT ARROW) - 36x12	36	12				REMOVE	1															
SS-02	16D	R1-1(36)	1	STOP	36	36				REMOVE	1															
SS-02	16E	R6-3a(36)	1	DIVIDED HIGHWAY CROSSING (T - Intersection) - 36x30	36	30				REMOVE	1															
SS-02	16F	R6-1_L(36)	1	ONE WAY (ENCLOSED IN LEFT ARROW) - 36x12	36	12				REMOVE	1															
SS-02	17	R5-1a(36)	1	WRONG WAY - 36x24	36	24				REMOVE	1															
SS-02	19A	D3-1(18)	2	STREET NAME (1 Line) Posted speed > 40 MPH	48	18	12.0			NEW		2					NEW CONCRETE		1							Bramhall St - 8" and 6" B Series
SS-02	19B	D3-1(18)	2	STREET NAME (1 Line) Posted speed > 40 MPH	48	18	12.0			NEW		2					NEW CONCRETE		1							DuPont Blvd - 8" and 6" B Series
SS-02	19C	R4-7(24)	1	KEEP RIGHT (Symbol) - 24x30	24	30	5.0			NEW		1														
SS-02	20	R7-4-DE(18)	1	NO STOPPING, STANDING, OR PARKING - 18x24	18	24	3.0			RENEW	1	1					SOIL	1								
SS-02	21	R5-1(36)	1	DO NOT ENTER - 36x36	36	36				REMOVE	1															
SS-02	22A	R1-1(36)	1	STOP	36	36		7.5		RENEW	1	1														
SS-02	22B	R3-2(36)	1	LEFT TURN PROHIBITION (Symbol) - 36x36	36	36				REMOVE	1															
SS-02	22C	R3-5_R	1	MANDATORY MOVEMENT LANE CONTROL - Right	30	36	7.5			NEW		1					SOIL	1								
SS-02	23	R5-1(36)	1	DO NOT ENTER - 36x36	36	36				REMOVE	1															
SS-02	24	R3-7_R(36)	1	RIGHT LANE MUST TURN RIGHT - 36"x36"	36	36	9.0			NEW		1					SOIL	1								
SS-02	25	R3-7_L(36)	1	LEFT LANE MUST TURN LEFT - 36"x36"	36	36	9.0			NEW		1					SOIL	1								
SS-02	26	R3-7_L(36)	1	LEFT LANE MUST TURN LEFT - 36"x36"	36	36	9.0			NEW		1					SOIL	1								
SS-02	27	R3-7_R(36)	1	RIGHT LANE MUST TURN RIGHT - 36"x36"	36	36	9.0			NEW		1					SOIL	1								
SS-02	28	R5-1(36)	1	DO NOT ENTER - 36x36	36	36		9.0		NEW		1					SOIL	1								
SS-02	29	GM-1	1	18 404 Georgetown Bridgeville EXT 1/2 MILE																						See sign detail on sheet SS-22
				PAGE TOTALS			160	31	0		35	27		10	10		13	3	0	0		0	0	0	0	

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ADDENDA / REVISIONS		NOT TO SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	T201412701	BRIDGE NO.	N/A	SIGN SCHEDULE	SS-13
				COUNTY	SUSSEX	DESIGNED BY: J. SINCLAIR			SECTION WRA
						CHECKED BY: D. POLLET			SHEET NO. 324

PERMANENT SIGN SCHEDULE - ROADWAY

SHEET NO.	PLAN IDENTIFIER	SIGN DESIGNATION	QTY.	DESCRIPTION	SIGN WIDTH (IN)	SIGN HEIGHT (IN)	X13 / ITEM 818001 FLAT SHEET ALUMINUM, TYPE IV, RETROREFLECTIVE SHEETING (SF)	X14 / ITEM 818003 FLAT SHEET ALUMINUM, TYPE XI, RETROREFLECTIVE SHEETING (SF)	X15 / ITEM 819512 SIGN POST REFLECTIVE PANEL (EA)	ITEM 819018 INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON SINGLE POST (EACH)			ITEM 819019 INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON MULTIPLE SIGN POSTS (SF)			POST INSTALLATION TYPE	X16 / ITEM 819011 12' SIGNPOSTS W/ BASEPOSTS & HARDWARE (EACH)	X17 / ITEM 819023 15' SIGNPOSTS W/ BASEPOSTS & HARDWARE (EACH)	ITEM 819016 4" HOLE, 0-6" (EACH)	ITEM 819017 4" HOLE, >6" (EACH)	SIGN DISPOSITION	X14A FLAT SHEET ALUMINUM SIGN PANELS (TYPE XI SHEETING) - SIGNS ON POLES, SPAN WIRES, MAST ARMS (TRAFFIC SUPPLY)	ITEM 822500 INSTALL OVERHEAD SIGN (SF) ON SIGNAL POLES TRAFFIC CONTRACTOR ITEM, EXCEPT FOR PILOT PROJECTS	ITEM 823003 REMOVAL OF SIGN ON SPAN WIRE OR MAST ARM (EA) TRAFFIC CONTRACTOR ITEM, EXCEPT FOR PILOT PROJECTS	ITEM 823001 INSTALLATION OF SIGN ON SPAN WIRE OR MAST ARM (SF) TRAFFIC CONTRACTOR ITEM, EXCEPT FOR PILOT PROJECTS	REMARKS
										SIGN DISPOSITION	REMOVE	INSTALL	SIGN DISPOSITION	REMOVE	INSTALL											
SS-03	1	R5-1a(36)	1	WRONG WAY - 36x24	36	24				REMOVE	1															
SS-03	3	R1-1(36)	1	STOP	36	36				REMOVE	1															
SS-03	4A	W2-2_L(36)	1	SIDE ROAD (Perpendicular - Left) - 36x36	36	36				REMOVE	1															
SS-03	4B	W16-8P	1	ADVANCE STREET NAME (1 - line plaque)	42	9				REMOVE	1															"Bramhall St"
SS-03	5	R3-20-DE	1	TURN LANE	18	18				REMOVE	1															
SS-03	7A	N/A	1	CUSTOM SIGN	48	30							REMOVE	10.0												"DIVISION OF REVENUE"
SS-03	7B	N/A	1	CUSTOM SIGN	48	30							REMOVE	10.0												"USE NEXT CROSSOVER"
SS-03	8	R1-1(36)	1	STOP	36	36				REMOVE	1															
SS-03	9	D10-2a(10)	1	INTERMEDIATE REFERENCE LOCATION (2- Digit) - 10x36	10	36	2.5			RENEW	1	1				SOIL	1									"MILE 20.0"
SS-03	10A	M3-3(24)	1	CARDINAL DIRECTION - SOUTH - 24x12	24	12				REMOVE	1															
SS-03	10B	M1-4(45)	1	US ROUTE (3 - Digit Sign) - 45x36	45	36				REMOVE	1															"113"
SS-03	10C	R7.4-DE(18)	1	NO STOPPING, STANDING, OR PARKING - 18x24	18	24				REMOVE	1															
SS-03	11	N/A	1	CUSTOM SIGN	30	30				REMOVE	1															"VA OUTPATIENT CLINIC [left arrow]"
SS-03	12	R1-2(36)	1	YIELD	36	36		3.9		RENEW	1	1				SOIL	1									
SS-03	13	R1-1(36)	1	STOP	36	36		7.5		RENEW	1	1				SOIL	1									
SS-03	14	N/A	1	ENTER ONLY	24	12				REMOVE	1															
SS-03	15	N/A	1	EXIT ONLY	24	12				REMOVE	1															
SS-03	16A	M2-1(30)	1	JUNCTION - 30x21	30	21				REMOVE	1															
SS-03	16B	M1-5(36)	1	STATE ROUTE (2 - Digit Sign) - 36x36	36	36				REMOVE	1															"18"
SS-03	16C	M1-5(45)	1	STATE ROUTE (3 - Digit Sign) - 45x36	45	36				REMOVE	1															"404"
SS-03	17	R1-1(36)	1	STOP	36	36				REMOVE	1															
SS-03	18	D3-1(18)	2	STREET NAME (1 Line) Posted speed > 40 MPH	48	18				REMOVE	2															"BERLIN RD"
SS-03	19A	D3-1(18)	2	STREET NAME (1 Line) Posted speed > 40 MPH	48	18	12.0			NEW		2				SOIL	1									Berlin Rd - 8" and 6" C Series
SS-03	19B	R1-1(36)	1	STOP	36	36		7.5		RENEW	1	1														
SS-04	19C	R3-2(36)	1	LEFT TURN PROHIBITION (Symbol) - 36x36	36	36				REMOVE	1															
SS-03	19D	R3-5_R	1	MANDATORY MOVEMENT LANE CONTROL - Right	30	36	7.5			NEW		1														
SS-03	20A	R1-1(36)	1	STOP	36	36				REMOVE	1															
SS-03	20B	R5-1(36)	1	DO NOT ENTER - 36x36	36	36				REMOVE	1															
SS-03	21A	D1-3	1	DESTINATION (3 Line)	0	42				REMOVE	1															"Sussex County Pregnancy Care Center"
SS-03	21B	D1-2	1	DESTINATION (2 Line)	0	30				REMOVE	1															"Division of Revenue"
SS-03	22A	W3-3(30)	1	SIGNAL AHEAD (Symbol) - 30x30	30	30				REMOVE	1															
SS-03	22B	W16-8P	1	ADVANCE STREET NAME (1 - line plaque)	42	9				REMOVE	1															"Seashore Hwy"
SS-03	23	D1-2	1	DESTINATION (2 Line)	60	30							REMOVE	12.5												"[Left Arrow] Bridgeville" "[Left Arrow] Bay Bridge"
SS-03	24	D10-2a(10)	1	INTERMEDIATE REFERENCE LOCATION (2- Digit) - 10x36	10	36	2.5			RENEW	1	1				SOIL	1									"Mile 20.0"
SS-03	25A	W3-3(30)	1	SIGNAL AHEAD (Symbol) - 30x30	30	30				REMOVE	1															
SS-03	25B	W16-8P	1	ADVANCE STREET NAME (1 - line plaque)	42	9				REMOVE	1															"Seashore Hwy"
SS-03	26	R6-1_R(36)	1	ONE WAY (ENCLOSED IN RIGHT ARROW) - 36x12	36	12	3.0			NEW		1				SOIL	1									
SS-03	27A	R1-1(36)	1	STOP	36	36		7.5		RENEW	1	1				SOIL	1									
SS-03	27B	D3-1(18)	2	STREET NAME (1 Line) Posted speed > 40 MPH	48	18	12.0			ADD TO ASSEMBLY		2														"Dupont Blvd" - 8" and 6" B Series
SS-03	27C	D3-1(18)	2	STREET NAME (1 Line) Posted speed > 40 MPH	48	18	12.0			RENEW	2	2														"Burger King Rd" - 8" and 6" B Series
SS-03	27D	R3-5_R	1	MANDATORY MOVEMENT LANE CONTROL - Right	30	36	7.5			ADD TO ASSEMBLY		1														
SS-03	28A	E5-1a(78)	1	EXIT GORE (1-, 2- Digit Exit Number)	78	60	32.5						NEW		32.5	SOIL	2									"20"
SS-03	28B	E13-1P	1	EXIT GORE ADVISORY SPEED (PLAQUE)	72	24	12.0						NEW		12.0											"25 MPH"
SS-03	29	W1-8_FY(36)	1	CHEVRON ALIGNMENT - 36x48 (Fluorescent Yellow)	36	48		12.0		NEW		1				SOIL	1									
SS-03	30	W1-8_FY(36)	1	CHEVRON ALIGNMENT - 36x48 (Fluorescent Yellow)	36	48		12.0		NEW		1				SOIL	1									
SS-03	31	W1-8_FY(36)	1	CHEVRON ALIGNMENT - 36x48 (Fluorescent Yellow)	36	48		12.0		NEW		1				SOIL	1									
SS-03	32	W1-8_FY(36)	1	CHEVRON ALIGNMENT - 36x48 (Fluorescent Yellow)	36	48		12.0		NEW		1				SOIL	1									
SS-03	33	W4-3_R(36)	1	ADDED LANE (Right) - 36x36	36	36	9.0			NEW		1				SOIL	1									
SS-03	34A	N/A	1	CUSTOM SIGN	36	32				REMOVE	1															"Kent Sussex Community Services"
SS-03	34B	N/A	1	CUSTOM SIGN	36	32				REMOVE	1															"Kent Sussex Community Services"
SS-03	36	R5-1a(36)	1	WRONG WAY - 36x24	36	24				REMOVE	1															
SS-03	37	SP-1	1	Bay Bridge Exit 20	72	36							NEW		18.0	SOIL	2									See sign detail on sheet SS-25
SS-03	38	GM-2	1	NOTICE Over 2 Axles on East 18/404 Except Local Services																						See sign detail on sheet SS-22
SS-03	39	GM-3	1	NOTICE Over 2 Axles on East 18/404 Except Local Services																						See sign detail on sheet SS-22
SS-03	40	W11-1-DE(36)	1	BICYCLE (Symbol) IN LANE - 36x36	36	36	9.0			NEW		1				SOIL	1									
SS-04	2A	D1-3	1	DESTINATION (3 Line)	60	42							REMOVE	17.5												"Del Tech & Community Coll"
SS-04	2B	R5-1a(36)	1	WRONG WAY - 36x24	36	24				REMOVE	1															
				PAGE TOTALS			122	74	0		39	21		50	63		17	0	0	0		0	0	0	0	

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ADDENDA / REVISIONS		NOT TO SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	SIGN SCHEDULE	SS-14
				T201412701	DESIGNED BY: J. SINCLAIR		SECTION
				COUNTY			WRA
				SUSSEX	CHECKED BY: D. POLLET		SHEET NO.
							325

PERMANENT SIGN SCHEDULE - ROADWAY

SHEET NO.	PLAN IDENTIFIER	SIGN DESIGNATION	QTY.	DESCRIPTION	SIGN WIDTH (IN)	SIGN HEIGHT (IN)	X13 / ITEM 818001 FLAT SHEET ALUMINUM, TYPE IV, RETROREFLECTIVE SHEETING (SF)	X14 / ITEM 818003 FLAT SHEET ALUMINUM, TYPE XI, RETROREFLECTIVE SHEETING (SF)	X15 / ITEM 819512 SIGN POST REFLECTIVE PANEL (EA)	ITEM 819018 INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON SINGLE POST (EACH)			ITEM 819019 INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON MULTIPLE SIGN POSTS (SF)			POST INSTALLATION TYPE	X16 / ITEM 819011 12' SIGNPOSTS W/ BASEPOSTS & HARDWARE (EACH)	X17 / ITEM 819023 15' SIGNPOSTS W/ BASEPOSTS & HARDWARE (EACH)	ITEM 819016 4" HOLE, 0-6" (EACH)	ITEM 819017 4" HOLE, >6" (EACH)	SIGN DISPOSITION	X14A FLAT SHEET ALUMINUM SIGN PANELS (TYPE XI SHEETING) - SIGNS ON POLES, SPAN WIRES, MAST ARMS (TRAFFIC SUPPLY)	ITEM 822500 INSTALL OVERHEAD SIGN (SF) ON SIGNAL POLES TRAFFIC CONTRACTOR ITEM, EXCEPT FOR PILOT PROJECTS	ITEM 823003 REMOVAL OF SIGN ON SPAN WIRE OR MAST ARM (EA) TRAFFIC CONTRACTOR ITEM, EXCEPT FOR PILOT PROJECTS	ITEM 823001 INSTALLATION OF SIGN ON SPAN WIRE OR MAST ARM (SF) TRAFFIC CONTRACTOR ITEM, EXCEPT FOR PILOT PROJECTS	REMARKS
										SIGN DISPOSITION	REMOVE	INSTALL	SIGN DISPOSITION	REMOVE	INSTALL											
SS-04	3A	R7-4-DE(18)	1	NO STOPPING, STANDING, OR PARKING - 18x24	18	24				REMOVE	1															
SS-04	3B	R7-201P_B	1	TOW AWAY ZONE (plaque - black)	12	6				REMOVE	1															
SS-04	4A	R2-1-45(30)	1	SPEED LIMIT (45 MPH - 30x36)	30	36							REMOVE	7.5												
SS-04	4B	W21-12P-DE	1	STRICTLY ENFORCED (plaque)	36	24							REMOVE	6.0												
SS-04	4C	R7-4-DE(18)	1	NO STOPPING, STANDING, OR PARKING - 18x24	18	24				REMOVE	1															
SS-04	6A	M3-4(36)	1	CARDINAL DIRECTION - WEST - 36x18	36	18				REMOVE	1															
SS-04	6B	M1-5(36)	1	STATE ROUTE (2 - Digit Sign) - 36x36	36	36				REMOVE	1															"18"
SS-04	6C	M1-5(45)	1	STATE ROUTE (3 - Digit Sign) - 45x36	45	36				REMOVE	1															"404"
SS-04	6D	M6-1_L(30)	1	DIRECTIONAL ARROW (Left) - 30x21	30	21				REMOVE	1															
SS-04	6E	R5-1(36)	1	DO NOT ENTER - 36x36	36	36				REMOVE	1															
SS-04	7A	M3-4(36)	1	CARDINAL DIRECTION - WEST - 36x18	36	18				REMOVE	1															
SS-04	7B	M1-5(36)	1	STATE ROUTE (2 - Digit Sign) - 36x36	36	36				REMOVE	1															"18"
SS-04	7C	M1-5(45)	1	STATE ROUTE (3 - Digit Sign) - 45x36	45	36				REMOVE	1															"404"
SS-04	8	R1-2(36)	1	YIELD	36	36				REMOVE	1															
SS-04	9	R5-1(36)	1	DO NOT ENTER - 36x36	36	36				REMOVE	1															
SS-04	11	R5-1a(36)	1	WRONG WAY - 36x24	36	24				REMOVE	1															
SS-04	12A	D1-2	1	DESTINATION (2 Line)	52	30							REMOVE	10.8												"Bridgeville [right arrow]" "Bay Bridge [right arrow]"
SS-04	12B	M3-4(36)	1	CARDINAL DIRECTION - WEST - 36x18	36	18				REMOVE	1															
SS-04	12C	M1-5(36)	1	STATE ROUTE (2 - Digit Sign) - 36x36	36	36				REMOVE	1															"18"
SS-04	12D	M1-5(45)	1	STATE ROUTE (3 - Digit Sign) - 45x36	45	36				REMOVE	1															"404"
SS-04	12E	M6-1_R(30)	1	DIRECTIONAL ARROW (Right) - 30x21	30	21				REMOVE	1															
SS-04	12F	M3-2(36)	1	CARDINAL DIRECTION - EAST - 36x18	36	18				REMOVE	1															
SS-04	12G	M1-5(36)	1	STATE ROUTE (2 - Digit Sign) - 36x36	36	36				REMOVE	1															"18"
SS-04	12H	M1-5(45)	1	STATE ROUTE (3 - Digit Sign) - 45x36	45	36				REMOVE	1															"404"
SS-04	12I	M6-1_L(30)	1	DIRECTIONAL ARROW (Left) - 30x21	30	21				REMOVE	1															
SS-04	12J	R5-1a(36)	1	WRONG WAY - 36x24	36	24				REMOVE	1															
SS-04	13A	R7-4-DE(18)	1	NO STOPPING, STANDING, OR PARKING - 18x24	18	24				REMOVE	1															
SS-04	13B	R7-201P_B	1	TOW AWAY ZONE (plaque - black)	12	6				REMOVE	1															
SS-04	14A	R1-1(36)	1	STOP	36	36				REMOVE	1															
SS-04	14B	R5-1(30)	1	DO NOT ENTER - 30x30	30	30				REMOVE	1															
SS-04	15A	D1-2	1	DESTINATION (2 Line)	70	30							REMOVE	14.6												"Georgetown [right arrow]"
SS-04	15B	R7-4-DE(18)	1	NO STOPPING, STANDING, OR PARKING - 18x24	18	24				REMOVE	1															
SS-04	15C	R7-201P_B	1	TOW AWAY ZONE (plaque - black)	12	6				REMOVE	1															
SS-04	15D	EM-1-DE	1	EVACUATION ROUTE	24	24				REMOVE	1															
SS-04	15E	M6-3(30)	1	DIRECTIONAL ARROW (Up) - 30x21	30	21				REMOVE	1															
SS-04	15F	R5-1a(36)	1	WRONG WAY - 36x24	36	24				REMOVE	1															
SS-04	16A	M3-1(36)	1	CARDINAL DIRECTION - NORTH - 36x18	36	18				REMOVE	1															
SS-04	16B	M1-4(45)	1	US ROUTE (3 - Digit Sign) - 45x36	45	36				REMOVE	1															"113"
SS-04	16C	M6-3(30)	1	DIRECTIONAL ARROW (Up) - 30x21	30	21				REMOVE	1															
SS-04	16D	R5-1(36)	1	DO NOT ENTER - 36x36	36	36				REMOVE	1															
SS-04	17A	M3-2(36)	1	CARDINAL DIRECTION - EAST - 36x18	36	18				REMOVE	1															
SS-04	17B	M1-5(36)	1	STATE ROUTE (2 - Digit Sign) - 36x36	36	36				REMOVE	1															"18"
SS-04	17C	M1-5(45)	1	STATE ROUTE (3 - Digit Sign) - 45x36	45	36				REMOVE	1															"404"
SS-04	17D	M6-1_R(30)	1	DIRECTIONAL ARROW (Right) - 30x21	30	21				REMOVE	1															
SS-04	18	R1-2(36)	1	YIELD	36	36				REMOVE	1															
SS-04	19	R1-2(36)	1	YIELD	36	36				REMOVE	1															
SS-04	20	R5-1(36)	1	DO NOT ENTER - 36x36	36	36				REMOVE	1															
SS-04	21	R5-1(36)	1	DO NOT ENTER - 36x36	36	36				REMOVE	1															
SS-04	22	D1-3	1	DESTINATION (3 Line)	52	36							REMOVE	13.0												"GEORGETOWN PROFESSIONAL PARK"
SS-04	23	D1-3	1	DESTINATION (3 Line)	52	42							REMOVE	15.2												"Georgetown", " Lewes", "Rehoboth Beach"
SS-04	24A	R2-1-45(30)	1	SPEED LIMIT (45 MPH - 30x36)	30	36							REMOVE	7.5												
SS-04	24B	W21-12P-DE	1	STRICTLY ENFORCED (plaque)	36	24							REMOVE	6.0												
SS-04	25	R5-1(36)	1	DO NOT ENTER - 36x36	36	36				REMOVE	1															
SS-04	26A	R6-1_L(36)	1	ONE WAY (ENCLOSED IN LEFT ARROW) - 36x12	36	12				REMOVE	1															
SS-04	26B	R6-1_R(36)	1	ONE WAY (ENCLOSED IN RIGHT ARROW) - 36x12	36	12				REMOVE	1															
SS-04	26C	R6-3(36)	1	DIVIDED HIGHWAY CROSSING (4 - Legged Intersection) - 36x30	36	30				REMOVE	1															
SS-04	27	R3-20-DE	1	TURN LANE	18	18				REMOVE	1															
SS-04	28	D12-1-DE	2	RADIO - TRAFFIC INFORMATION	84	48							REMOVE	56.0												
SS-04	29	R5-1(36)	1	DO NOT ENTER - 36x36	36	36				REMOVE	1															
SS-04	30	R10-16	1	U-TURN YIELD TO RIGHT TURN	30	36				REMOVE	1															
SS-04	31A	R6-1_R(36)	1	ONE WAY (ENCLOSED IN RIGHT ARROW) - 36x12	36	12				REMOVE	1															
SS-05	31B	R6-1_L(36)	1	ONE WAY (ENCLOSED IN LEFT ARROW) - 36x12	36	12				REMOVE	1															
SS-04	31C	R10-11-DE(36)	1	NO TURN ON RED (Arrow) - 36x48	36	48				REMOVE	1															
SS-04	31D	R6-3(36)	1	DIVIDED HIGHWAY CROSSING (4 - Legged Intersection) - 36x30	36	30				REMOVE	1															
SS-04	32	R10-11-DE(36)	1	NO TURN ON RED (Arrow) - 36x48	36	48				REMOVE	1															
SS-04	33	R2-1-45(30)	1	SPEED LIMIT (45 MPH - 30x36)	30	36							REMOVE	7.5												
SS-04	34A	R2-1-45(30)	1	SPEED LIMIT (45 MPH - 30x36)	30	36							REMOVE	7.5												
SS-04	34B	R7-4-DE(18)	1	NO STOPPING, STANDING, OR PARKING - 18x24	18	24				REMOVE	1															
SS-04	35A	M4-8(36)	1	END - 36x18	36	18				REMOVE	1															
SS-04	35B	R4-3-DE	1	TRUCK KEEP RIGHT EXCEPT LEFT TURNS	30	36				REMOVE	1															
SS-04	35C	R7-4-DE(18)	1	NO STOPPING, STANDING, OR PARKING - 18x24	18	24				REMOVE	1															
				PAGE TOTALS			0	0	0		60	0		152	0		0	0	0	0	0		0	0	0	0	

ADDENDA / REVISIONS

NOT TO SCALE

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO.	N/A
T201412701	DESIGNED BY: J. SINCLAIR	
COUNTY	CHECKED BY: D. POLLET	
SUSSEX		

SIGN SCHEDULE

SS-15
SECTION
WRA
SHEET NO.
326

8/20/2025
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PERMANENT SIGN SCHEDULE - ROADWAY

SHEET NO.	PLAN IDENTIFIER	SIGN DESIGNATION	QTY.	DESCRIPTION	SIGN WIDTH (IN)	SIGN HEIGHT (IN)	X13 / ITEM 818001 FLAT SHEET ALUMINUM, TYPE IV, RETROREFLECTIVE SHEETING (SF)	X14 / ITEM 818003 FLAT SHEET ALUMINUM, TYPE XI, RETROREFLECTIVE SHEETING (SF)	X15 / ITEM 819512 SIGN POST REFLECTIVE PANEL (EA)	ITEM 819018 INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON SINGLE POST (EACH)			ITEM 819019 INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON MULTIPLE SIGN POST'S (SF)			POST INSTALLATION TYPE	X16 / ITEM 819011 12' SIGNPOSTS W/ BASEPOSTS & HARDWARE (EACH)	X17 / ITEM 819023 15' SIGNPOSTS W/ BASEPOSTS & HARDWARE (EACH)	ITEM 819016 4" HOLE, 0-6" (EACH)	ITEM 819017 4" HOLE, >6" (EACH)	SIGN DISPOSITION	X14A FLAT SHEET ALUMINUM SIGN PANELS (TYPE XI SHEETING) - SIGNS ON POLES, SPAN WIRES, MAST ARMS (TRAFFIC SUPPLY)	ITEM 822500 INSTALL OVERHEAD SIGN (SF) ON SIGNAL POLES TRAFFIC CONTRACTOR ITEM, EXCEPT FOR PILOT PROJECTS	ITEM 823003 REMOVAL OF SIGN ON SPAN WIRE OR MAST ARM (EA) TRAFFIC CONTRACTOR ITEM, EXCEPT FOR PILOT PROJECTS	ITEM 823001 INSTALLATION OF SIGN ON SPAN WIRE OR MAST ARM (SF) TRAFFIC CONTRACTOR ITEM, EXCEPT FOR PILOT PROJECTS	REMARKS
										SIGN DISPOSITION	REMOVE	INSTALL	SIGN DISPOSITION	REMOVE	INSTALL											
SS-04B	1	D12-1-DE	2	RADIO - TRAFFIC INFORMATION	84	48	56.0						NEW		56.0	SOIL	3									
SS-04B	2A	R2-1-45(36)	1	SPEED LIMIT (45 MPH - 36x48)	36	48	12.0						NEW		12.0	SOIL	2									
SS-04B	2B	D14-3-DE	1	ADOPT A HIGHWAY	24	32				REPOSITION	1	1														"CARPENTERS UNION LOCAL 173"
SS-04B	2C	R7-4-DE(18)	1	NO STOPPING, STANDING, OR PARKING - 18x24	18	24	3.0			NEW		1					1									
SS-04B	3A	R7-202aP-DE1	1	END (plaque - red)	12	6	0.5			NEW		1				SOIL	1									
SS-04B	3B	R4-3-DE	1	TRUCK KEEP RIGHT EXCEPT LEFT TURNS	30	36	7.5			NEW		1					1									
SS-04B	3C	R7-4-DE(18)	1	NO STOPPING, STANDING, OR PARKING - 18x24	18	24	3.0			NEW		1					1									
SS-04B	4	R2-1-45(30)	1	SPEED LIMIT (45 MPH - 30x36)	30	36	7.5						NEW		7.5	SOIL	2									
SS-04B	5	OH-1	1	18 404 Bridgeville N. Georgetown																						See sign detail on sheet SS-21
SS-04B	6A	E5-1a(78)	1	EXIT GORE (1- 2- Digit Exit Number)	78	60	32.5						NEW		32.5	SOIL	2									"20"
SS-04B	6B	E13-1P	1	EXIT GORE ADVISORY SPEED (PLAQUE)	72	24	12.0						NEW		12.0											"25 MPH"
SS-04B	7	OH-2	1	18 404 N. Georgetown Bridgeville																						See sign detail on sheet SS-21
SS-04B	8A	W1-1S_FY(36)	1	TRUCK ROLLOVER - 36x36 (Fluorescent Yellow)	36	36		9.0		NEW		1				SOIL	1									
SS-04B	8B	W13-1P-25(30)	1	ADVISORY SPEED (25 MPH) 30x30	30	30	6.3			NEW		1														
SS-04B	9	W1-8_FY(36)	1	CHEVRON ALIGNMENT - 36x48 (Fluorescent Yellow)	36	48		12.0		NEW		1				SOIL	1									
SS-04B	10	W1-8_FY(36)	1	CHEVRON ALIGNMENT - 36x48 (Fluorescent Yellow)	36	48		12.0		NEW		1				SOIL	1									
SS-04B	11	W13-7_FY(36)	1	COMBINATION HORIZONTAL ALIGNMENT/ADVISORY RAMP SPEED - 36x60 (Fluorescent Yellow)	36	60		15.0		NEW		1				SOIL	1									"25 MPH"
SS-04B	12	W13-6_FY(36)	1	COMBINATION HORIZONTAL ALIGNMENT/ADVISORY EXIT SPEED - 36x60 (Fluorescent Yellow)	36	60		15.0		NEW		1				SOIL	1									"25 MPH"
SS-04B	13	W13-7_FY(36)	1	COMBINATION HORIZONTAL ALIGNMENT/ADVISORY RAMP SPEED - 36x60 (Fluorescent Yellow)	36	60		15.0		NEW		1				SOIL	1									"25 MPH"
SS-04B	14	D3-2(30)	1	ADVANCE STREET NAME (2 Line)	48	30	10.0						NEW		10.0	SOIL	2									[LEFT ARROW] College Park Dr Next Signal - 4" C Series
SS-04B	15	W13-6_FY(36)	1	COMBINATION HORIZONTAL ALIGNMENT/ADVISORY EXIT SPEED - 36x60 (Fluorescent Yellow)	36	60		15.0		NEW		1				SOIL	1									"25 MPH"
SS-04B	16	GM-4	1	NOTICE Over 2 Axles on East 18/404 Except Local Services																						See sign detail on sheet SS-22
SS-04B	17	GM-5	1	NOTICE Over 2 Axles on East 18/404 Except Local Services																						See sign detail on sheet SS-22
SS-05	1	D1-3	1	DESTINATION (3 Line)	0	42				REMOVE	1															"VA OUTPATIENT CLINIC"
SS-05	2A	R4-3-DE	1	TRUCK KEEP RIGHT EXCEPT LEFT TURNS	30	36				REMOVE	1															
SS-05	2B	D1-3	1	DESTINATION (3 Line)	36	42				REMOVE	1															"DELAWARE FERRY"
SS-05	3A	W3-3(30)	1	SIGNAL AHEAD (Symbol) - 30x30	30	30				REMOVE	1															
SS-05	3B	W16-9P	1	ADVANCE STREET NAME (1 - line plaque)	42	9				REMOVE	1															"Seashore Hwy"
SS-05	4	R3-7_R(36)	1	RIGHT LANE MUST TURN RIGHT - 36"x36"	36	36				REMOVE	1															
SS-05	5A	D1-1	1	DESTINATION (1 Line)	60	18							REMOVE	7.5												"Gerorgetown"
SS-05	5B	R12-3-DE	1	NO TRUCKS OVER 2 AXLES EXCEPT LOCAL SERVICES	60	36							REMOVE	6.0												
SS-05	6	D4-3-DE	1	BUS STOP (REQUESTS FOR FABRICATION THRU DART TRANSIT AT 302-576-6132)	12	18				REPOSITION	1	1				SOIL	1									
SS-05	7A	M2-1(30)	1	JUNCTION - 30x21	30	21				REMOVE	1															
SS-05	7B	M1-5(36)	1	STATE ROUTE (2 - Digit Sign) - 36x36	36	36				REMOVE	1															"18"
SS-05	7C	M1-5(45)	1	STATE ROUTE (3 - Digit Sign) - 45x36	45	36				REMOVE	1															"404"
SS-05	7D	R7-4-DE(18)	1	NO STOPPING, STANDING, OR PARKING - 18x24	18	24				REMOVE	1															
SS-05	8	R1-2(48)	1	YIELD	48	48		6.9		RENEW	1	1				SOIL	1									
SS-05	9	R5-1(36)	1	DO NOT ENTER - 36x36	36	36		9.0		RENEW	1	1				SOIL	1									
SS-05	10	R4-8(24)	1	KEEP LEFT (Symbol) - 24x30	24	30	5.0			RENEW	1	1				NEW CONCRETE	1									
SS-05	11	R1-2(48)	1	YIELD	48	48		6.9		NEW		1				SOIL	1									
SS-05	13	N/A	1	U-TURN LEFT MOST LANE ONLY	36	24				REPOSITION	1	1				SOIL	1									
SS-05	14A	R1-1(36)	1	STOP	36	36				REMOVE	1															
SS-05	14B	D3-1(18)	1	STREET NAME (1 Line) Posted speed > 40 MPH	42	18				REMOVE	1															"Gordy St"
SS-05	14C	D3-1(18)	1	STREET NAME (1 Line) Posted speed > 40 MPH	48	18				REMOVE	1															"Seashore Hwy"
SS-05	15A	W3-3(30)	1	SIGNAL AHEAD (Symbol) - 30x30	30	30	6.3			RENEW	1	1				SOIL	1									
SS-05	15B	W16-9P	1	ADVANCE STREET NAME (1 - line plaque)	42	9	2.6			RENEW	1	1														"College Park Dr" - 4" C Series
SS-05	16A	W3-3(30)	1	SIGNAL AHEAD (Symbol) - 30x30	30	30	6.3			RENEW	1	1				SOIL	1									
SS-05	16B	W16-9P	1	ADVANCE STREET NAME (1 - line plaque)	42	9	2.6			RENEW	1	1														"College Park Dr" - 4" C Series
SS-05	17	OM3-C	1	TYPE 3 OBJECT MARKER	12	36				REMOVE	1															
SS-05	18A	N/A	1	U-TURN LEFT MOST LANE ONLY	36	24				REPOSITION	1	1				SOIL	1									
SS-05	18B	R5-1a(36)	1	WRONG WAY - 36x24	36	24		6.0		RENEW	1	1														
SS-05	19	R5-1a(36)	1	WRONG WAY - 36x24	36	24		6.0		RENEW	1	1				SOIL	1									
SS-05	20	R5-1(36)	1	DO NOT ENTER - 36x36	36	36		9.0		RENEW	1	1				NEW CONCRETE	1									
SS-05	21	R5-1(36)	1	DO NOT ENTER - 36x36	36	36		9.0		RENEW	1	1				SOIL	1									
SS-05	22	W4-3_R(36)	1	ADDED LANE (Right) - 36x36	36	36	9.0			NEW		1				SOIL	1									
SS-05	23	SP-1	1	BAY BRIDGE EXIT 20	72	36							NEW		18.0	SOIL	2									See sign detail on sheet SS-25
SS-05	24	W11-1-DE(36)	1	BICYCLE (Symbol) IN LANE - 36x36	36	36	9.0			NEW		1				SOIL	1									
SS-05	25	W4-3_R(36)	1	ADDED LANE (Right) - 36x36	36	36				REMOVE	1															
SS-05	26	W4-3_R(36)	1	ADDED LANE (Right) - 36x36	36	36				REMOVE	1															
SS-05	27	R3-7_R(36)	1	RIGHT LANE MUST TURN RIGHT - 36"x36"	36	36				REMOVE	1															
SS-05	28	R1-1(36)		STOP	36	36				REMAIN																
SS-06	1	R5-1(36)	1	DO NOT ENTER - 36x36	36	36		9.0		RENEW	1	1				SOIL	1									
SS-06	2	R5-1(36)	1	DO NOT ENTER - 36x36	36	36		9.0		NEW		1				SOIL	1									
SS-06	3	R3-2(36)	1	LEFT TURN PROHIBITION (Symbol) - 36x36	36	36	9.0			RENEW	1	1				SOIL	1									
SS-06	4	R5-1a(36)	1	WRONG WAY - 36x24	36	24		6.0		RENEW	1	1				SOIL	1									
SS-06	5	R5-1a(36)	1	WRONG WAY - 36x24	36	24		6.0		RENEW	1	1				SOIL	1									
SS-06	6	R3-18(36)	1	COMBINATION U-TURN AND LEFT TURN PROHIBITION (Symbol) - 36x36	36	36	9.0			RENEW	1	1				SOIL	1									
PAGE TOTALS							209	176	0		37	36		14	148		44	0	0	0		0	0	0	0	

ADDENDA / REVISIONS		NOT TO SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	T201412701	BRIDGE NO.	N/A	SIGN SCHEDULE	SS-16
				COUNTY	SUSSEX	DESIGNED BY:	J. SINCLAIR		SECTION WRA
						CHECKED BY:	D. POLLET		SHEET NO. 327

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PERMANENT SIGN SCHEDULE - ROADWAY

SHEET NO.	PLAN IDENTIFIER	SIGN DESIGNATION	QTY.	DESCRIPTION	SIGN WIDTH (IN)	SIGN HEIGHT (IN)	X13 / ITEM 818001 FLAT SHEET ALUMINUM, TYPE IV, RETROREFLECTIVE SHEETING (SF)	X14 / ITEM 818003 FLAT SHEET ALUMINUM, TYPE XI, RETROREFLECTIVE SHEETING (SF)	X15 / ITEM 819512 SIGN POST REFLECTIVE PANEL (EA)	ITEM 819018 INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON SINGLE POST (EACH)			ITEM 819019 INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON MULTIPLE SIGN POSTS (SF)			POST INSTALLATION TYPE	X16 / ITEM 819011 12' SIGNPOSTS W/ BASEPOSTS & HARDWARE (EACH)	X17 / ITEM 819023 15' SIGNPOSTS W/ BASEPOSTS & HARDWARE (EACH)	ITEM 819016 4" HOLE, 0-6" (EACH)	ITEM 819017 4" HOLE, >6" (EACH)	SIGN DISPOSITION	X14A FLAT SHEET ALUMINUM SIGN PANELS (TYPE XI SHEETING) - SIGNS ON POLES, SPAN WIRES, MAST ARMS (TRAFFIC SUPPLY)	ITEM 822500 INSTALL OVERHEAD SIGN (SF) ON SIGNAL POLES TRAFFIC CONTRACTOR ITEM. EXCEPT FOR PILOT PROJECTS	ITEM 823003 REMOVAL OF SIGN ON SPAN WIRE OR MAST ARM (EA) TRAFFIC CONTRACTOR ITEM. EXCEPT FOR PILOT PROJECTS	ITEM 823001 INSTALLATION OF SIGN ON SPAN WIRE OR MAST ARM (SF) TRAFFIC CONTRACTOR ITEM. EXCEPT FOR PILOT PROJECTS	REMARKS
										SIGN DISPOSITION	REMOVE	INSTALL	SIGN DISPOSITION	REMOVE	INSTALL											
SS-06	7A	W3-3(30)	1	SIGNAL AHEAD (Symbol) - 30x30	30	30	6.3						RENEW	6.3	6.3	SOIL	2									
SS-06	7B	W16-8P	1	ADVANCE STREET NAME (1 - line plaque)	42	9	2.6						NEW		2.6											"College Park Dr" - 4" C Series
SS-06	8A	W3-3(30)	1	SIGNAL AHEAD (Symbol) - 30x30	30	30	6.3						RENEW	6.3	6.3	SOIL	2									
SS-06	8B	W16-8P	1	ADVANCE STREET NAME (1 - line plaque)	42	9	2.6						RENEW	2.6	2.6											"College Park Dr" - 4" C Series
SS-06	9	R5-1(36)	1	DO NOT ENTER - 36x36	36	36		9.0		RENEW	1	1				SOIL	1									
SS-06	10A	R1-1(36)	1	STOP	36	36		7.5		NEW		1				SOIL	1									
SS-06	10B	R3-5_R	1	MANDATORY MOVEMENT LANE CONTROL - Right	30	36	7.5			NEW		1														
SS-06	11A	D1-3	1	DESTINATION (3 Line)	48	30							REPOSITION	10.0	10.0											"DIVISION OF CHILD SUPPORT
SS-06	11B	D14-3-DE	1	ADOPT A HIGHWAY	24	24				REPOSITION	1	1														"Carpenters Union Local 255"
SS-06	12A	R1-1(36)	1	STOP	36	36		7.5		RENEW	1	1				SOIL	1									
SS-06	12B	N/A	1	RIGHT TURN ONLY	24	30				REMOVE	1															
SS-06	12C	R3-5_R	1	MANDATORY MOVEMENT LANE CONTROL - Right	30	36	7.5			NEW		1														
SS-06	13A	W2-2_R(36)	1	SIDE ROAD (Perpendicular - Right) - 36x36	36	36	9.0			RENEW	1	1				SOIL	1									
SS-06	13B	W16-8P	1	ADVANCE STREET NAME (1 - line plaque)	30	9	1.9			RENEW	1	1														Bedford St - 4" C Series
SS-06	14	R3-7_L(36)	1	LEFT LANE MUST TURN LEFT - 36"x36"	36	36	9.0			NEW		1				SOIL	1									
SS-06	15	R3-7_R(36)	1	RIGHT LANE MUST TURN RIGHT - 36"x36"	36	36	9.0			NEW		1				SOIL	1									
SS-06	16	D4-3-DE	1	BUS STOP	12	18				RENEW	1	1				SOIL	1									
SS-07	1	R3-20-DE	1	TURN LANE	18	18				REMOVE	1															
SS-07	2	D1-4	1	DESTINATION (4 LINE)	48	54							REPOSITION	18.0	18.0	SOIL	2									"NORTH GEORGETOWN ELEMENTARY SCHOOL"
SS-07	3	R1-1(36)	1	STOP	36	36		7.5		RENEW	1	1				SOIL	1									
SS-07	4	R3-7_L(36)	1	LEFT LANE MUST TURN LEFT - 36"x36"	36	36	9.0			NEW		1				SOIL	1									
SS-07	5	R3-7_R(36)	1	RIGHT LANE MUST TURN RIGHT - 36"x36"	36	36	9.0			NEW		1				SOIL	1									
SS-07	6	R3-7_L(36)	1	LEFT LANE MUST TURN LEFT - 36"x36"	36	36	9.0			NEW		1				SOIL	1									
SS-07	7	R3-7_R(36)	1	RIGHT LANE MUST TURN RIGHT - 36"x36"	36	36	9.0			NEW		1				SOIL	1									
SS-07	8	R5-1(36)	1	DO NOT ENTER - 36x36	36	36				REMAIN																
SS-07	9A	W2-2_L(36)	1	SIDE ROAD (Perpendicular - Left) - 36x36	36	36				REMAIN																
SS-07	9B	W16-8P	1	ADVANCE STREET NAME (1 - line plaque)	42	9				REMAIN																"Donovans Rd"
SS-07	10A	R4-7(24)	1	KEEP RIGHT (Symbol) - 24x30	24	30				REMAIN																
SS-07	10B	EM-1-DE	1	EVACUATION ROUTE	24	24				REMAIN																
SS-07	10C	M6-3(30)	1	DIRECTIONAL ARROW (Up) - 30x21	30	21				REMAIN																
SS-07	11	GM-6	1	EXIT 20, 18 404 N. Georgetown Bridgeville 1/2 MILE																						See sign detail on sheet SS-22
SS-07	12	R5-1(36)	1	DO NOT ENTER - 36x36	36	36				REMAIN																
SS-07	13	R5-1a(36)	1	WRONG WAY - 36x24	36	24		6.0		RENEW	1	1				SOIL	1									
SS-07	14	R5-1a(36)	1	WRONG WAY - 36x24	36	24		6.0		RENEW	1	1				SOIL	1									
SS-07	15	W11-1-DE(24)	1	BICYCLE (Symbol) IN LANE - 24x24	24	24				REMAIN																
SS-08	1A	W3-3(30)	1	SIGNAL AHEAD (Symbol) - 30x30	30	30	6.3			NEW		1				SOIL	1									
SS-08	1B	W3-3P-DE(36)	1	XXSIGNALS NEXT XXMILES (plaque) - 36x18	36	18	4.5			NEW		1														"3 SIGNALS NEXT 1/2 MILE"
SS-08	2	W3-3(30)	1	SIGNAL AHEAD (Symbol) - 30x30	30	30				REMOVE	1															
SS-08	3	R7-4-DE(18)	1	NO STOPPING, STANDING, OR PARKING - 18x24	18	24	3.0			NEW		1				SOIL	1									
SS-08	4	GM-7	1	JUNCTION 113 BEYOND SIGNAL																						See sign detail on sheet SS-23
SS-08	5	R7-4-DE(18)	1	NO STOPPING, STANDING, OR PARKING - 18x24	18	24				REMOVE	1															
SS-08	6	R3-7_R(36)	1	RIGHT LANE MUST TURN RIGHT - 36"x36"	36	36				REMAIN																
SS-08	7	R4-4	1	BEGIN RIGHT TURN LANE YIELD TO BIKES	36	30				REMAIN																
SS-08	8	R3-7_R(36)	1	RIGHT LANE MUST TURN RIGHT - 36"x36"	36	36				REMAIN																
SS-08	9	R3-7_R(36)	1	RIGHT LANE MUST TURN RIGHT - 36"x36"	36	36				REMAIN																
SS-09	1	R3-17	1	BIKE LANE (Symbol)	24	18							REMOVE	3.0												
SS-09	2	D4-3-DE	1	BUS STOP (REQUESTS FOR FABRICATION THRU DART TRANSIT AT 302-576-6132)	12	18				NEW		1				SOIL	1									
SS-09	3	W11-2(36)	1	PEDESTRIAN (Symbol) - 36x36	36	36				REMOVE	1															
SS-09	4	W3-3(30)	1	SIGNAL AHEAD (Symbol) - 30x30	30	30				REMOVE	1															
SS-09	5A	R2-1-35(30)	1	SPEED LIMIT (35 MPH - 30x36)	30	36	7.5			RENEW	1	1				SOIL	1									
SS-09	5B	R7-4-DE(18)	1	NO STOPPING, STANDING, OR PARKING - 18x24	18	24	3.0			RENEW	1	1														
SS-09	6A	D2-2	1	DISTANCE (2 Line)	52	30							REPOSITION	10.8	10.8	SOIL	2									"Bridgeville 13" "Bay Bridge 59"
SS-09	6B	EM-1-DE	1	EVACUATION ROUTE	24	24	4.0			RENEW	1	1														
SS-09	6C	M6-3(30)	1	DIRECTIONAL ARROW (Up) - 30x21	30	21	4.4			RENEW	1	1														
SS-09	7	R4-7(24)	1	KEEP RIGHT (Symbol) - 24x30	24	30	5.0			NEW		1				SOIL	1									
SS-09	9A	D1-3	1	DESTINATION (3 Line)	52	42							REMOVE	15.2												"Georgetown," "Beaches," "Millsboro"
SS-09	9B	M3-3(36)	1	CARDINAL DIRECTION - SOUTH - 36x18	36	18				REMOVE	1															
SS-09	9C	M1-4(45)	1	US ROUTE (3 - Digit Sign) - 45x36	45	36				REMOVE	1															"113"
SS-09	9D	M6-1_R(30)	1	DIRECTIONAL ARROW (Right) - 30x21	30	21				REMOVE	1															
SS-09	9E	M3-1(36)	1	CARDINAL DIRECTION - NORTH - 36x18	36	18				REMOVE	1															
SS-09	9F	M1-4(45)	1	US ROUTE (3 - Digit Sign) - 45x36	45	36				REMOVE	1															"113"
SS-09	9G	M5-1_L	1	ADVANCE TURN ARROW (Left - 90)	21	15				REMOVE	1															
SS-09	10	GM-9	1	113 - NORTH Milford LEFT LANE SOUTH Beaches RIGHT LANE EXIT ONLY																						See sign detail on sheet SS-23
SS-09	11A	W3-3(30)	1	SIGNAL AHEAD (Symbol) - 30x30	30	30				REMOVE	1															
SS-09	11B	W16-8P	1	ADVANCE STREET NAME (1 - line plaque)	42	9				REMOVE	1															"DuPont Blvd"
PAGE TOTALS							135	43	0		27	27		72	57		27	0	0	0		0	0	0	0	

ADDENDA / REVISIONS

NOT TO SCALE

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO.	N/A
T201412701	DESIGNED BY: J. SINCLAIR	
COUNTY	CHECKED BY: D. POLLET	
SUSSEX		

SIGN SCHEDULE

SS-17
SECTION
WRA
SHEET NO.
328

8/20/2025
11:10:58 AM
N:\32149-001\CADD\SS17_SR18.dgn

PERMANENT SIGN SCHEDULE - ROADWAY

SHEET NO.	PLAN IDENTIFIER	SIGN DESIGNATION	QTY.	DESCRIPTION	SIGN WIDTH (IN)	SIGN HEIGHT (IN)	X13 / ITEM 818001 FLAT SHEET ALUMINUM, TYPE IV, RETROREFLECTIVE SHEETING (SF)	X14 / ITEM 818003 FLAT SHEET ALUMINUM, TYPE XI, RETROREFLECTIVE SHEETING (SF)	X15 / ITEM 819512 SIGN POST REFLECTIVE PANEL (EA)	ITEM 819018 INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON SINGLE POST (EACH)			ITEM 819019 INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON MULTIPLE SIGN POSTS (SF)			POST INSTALLATION TYPE	X16 / ITEM 819011 12' SIGNPOSTS W/ BASEPOSTS & HARDWARE (EACH)	X17 / ITEM 819023 15' SIGNPOSTS W/ BASEPOSTS & HARDWARE (EACH)	ITEM 819016 4" HOLE, 0-6" (EACH)	ITEM 819017 4" HOLE, >6" (EACH)	SIGN DISPOSITION	X14A FLAT SHEET ALUMINUM SIGN PANELS (TYPE XI SHEETING) - SIGNS ON POLES, SPAN WIRES, MAST ARMS (TRAFFIC SUPPLY)	ITEM 822500 INSTALL OVERHEAD SIGN (SF) ON SIGNAL POLES TRAFFIC CONTRACTOR ITEM, EXCEPT FOR PILOT PROJECTS	ITEM 823003 REMOVAL OF SIGN ON SPAN WIRE OR MAST ARM (EA) TRAFFIC CONTRACTOR ITEM, EXCEPT FOR PILOT PROJECTS	ITEM 823001 INSTALLATION OF SIGN ON SPAN WIRE OR MAST ARM (SF) TRAFFIC CONTRACTOR ITEM, EXCEPT FOR PILOT PROJECTS	REMARKS
										SIGN DISPOSITION	REMOVE	INSTALL	SIGN DISPOSITION	REMOVE	INSTALL											
SS-09	12	GM-8	1	TRUCKS TO EAST 9, EAST 404 USE 113 SOUTH																						See sign detail on sheet SS-23
SS-09	13	N/A	1	Georgetown Truck Bypass FOLLOW TRUCK 9	52	48							REMOVE	17.3												
SS-09	15A	M2-1(30)	1	JUNCTION - 30x21	30	21				REMOVE	1															
SS-09	15B	M1-4(45)	1	US ROUTE (3 - Digit Sign) - 45x36	45	36				REMOVE	1															"113"
SS-09	15C	R7-4-DE(18)	1	NO STOPPING, STANDING, OR PARKING - 18x24	18	24				REMOVE	1															
SS-09	17A	R4-7(24)	1	KEEP RIGHT (Symbol) - 24x30	24	30				REMOVE	1															
SS-09	17B	N/A	1	CUSTOM SIGN						REMOVE	1															"PLEASE DRIVE SAFELY BUCKLE UP"
SS-09	18A	W11-2(36)	1	PEDESTRIAN (Symbol) - 36x36	36	36				REMOVE	1															
SS-09	18B	W16-7P_L(24)	1	LEFT DOWNWARD DIAGONAL ARROW (plaque) - 24x12	24	12				REMOVE	1															
SS-09	19	N/A	1	BETHANY BEACH, FENWICK ISLAND, OCEAN CITY, USE 113 SOUTH	108	72							REMOVE	54.0												
SS-09	20A	R2-1-35(30)	1	SPEED LIMIT (35 MPH - 30x36)	30	36				REMAIN																
SS-09	20B	D4-3-DE	1	BUS STOP (REQUESTS FOR FABRICATION THRU DART TRANSIT AT 302-576-6132)	12	18				REMAIN																
SS-09	21	D4-3-DE	1	BUS STOP (REQUESTS FOR FABRICATION THRU DART TRANSIT AT 302-576-6132)	12	18				REMOVE	1															
SS-09	22	R4-4	1	BEGIN RIGHT TURN LANE YIELD TO BIKES	36	30				REMOVE	1															
SS-09	23	R3-8b(60)	1	ADVANCE INTERSECTION LANE CONTROL (Left, Ahead, Right) - 60"x36"	60	36							REMOVE	15.0												
SS-09	24	R3-7_R(36)	1	RIGHT LANE MUST TURN RIGHT - 36"x36"	36	36	9.0			NEW		1					SOIL	1								
SS-09	25	R3-7_R(36)	1	RIGHT LANE MUST TURN RIGHT - 36"x36"	36	36	9.0			NEW		1					SOIL	1								
SS-09	26	SR1-17-DE	1	YIELD (shared-use path only)	24	42	7.0			NEW		1					SOIL	1								
SS-10	1	D12-1-DE	1	RADIO - TRAFFIC INFORMATION	84	48	28.0						NEW		28.0		SOIL	3								
SS-10	2A	N/A	1	CUSTOM SIGN	24	36				REMOVE	1															"PERDUE PLANT TRUCK ROUTE"
SS-10	2B	N/A	1	CUSTOM SIGN	27	27				REMOVE	1															FERRY
SS-10	2C	N/A	1	CUSTOM SIGN	12	12				REMOVE	1															ARROW UP
SS-10	3A	M1-5(45)	1	STATE ROUTE (3 - Digit Sign) - 45x36	45	36				REMOVE	1															"404"
SS-10	3B	M6-3(21)	1	DIRECTIONAL ARROW (Up) - 21x15	21	15				REMOVE	1															
SS-10	4A	R14-1	1	TRUCK ROUTE	24	18				REMOVE	1															
SS-10	4B	M1-4(36)	1	US ROUTE (2 - Digit Sign) - 36x36	36	36				REMOVE	1															"9"
SS-10	4C	M6-1_R(30)	1	DIRECTIONAL ARROW (Right) - 30x21	30	21				REMOVE	1															
SS-10	5A	W9-1_R(36)	1	RIGHT LANE ENDS - 36x36	36	36				REMOVE	1															
SS-10	5B	R7-4-DE(18)	1	NO STOPPING, STANDING, OR PARKING - 18x24	18	24				REMOVE	1															
SS-10	6A	M3-4(36)	1	CARDINAL DIRECTION - WEST - 36x18	36	18	4.5			NEW		1					SOIL	1								
SS-10	6B	M1-5(36)	1	STATE ROUTE (2 - Digit Sign) - 36x36	36	36	9.0			NEW		1														"18"
SS-10	6C	M1-5(45)	1	STATE ROUTE (3 - Digit Sign) - 45x36	45	36	11.3			NEW		1														"404"
SS-10	6D	M5-2_L	1	ADVANCE TURN ARROW (Left - 45)	21	15	2.2			NEW		1														
SS-10	7A	M3-2(36)	1	CARDINAL DIRECTION - EAST - 36x18	36	18	4.5			NEW		1					SOIL	1								
SS-10	7B	M1-5(36)	1	STATE ROUTE (2 - Digit Sign) - 36x36	36	36	9.0			NEW		1														"18"
SS-10	7C	M1-5(45)	1	STATE ROUTE (3 - Digit Sign) - 45x36	45	36	11.3			NEW		1														"404"
SS-10	7D	M6-1_R(30)	1	DIRECTIONAL ARROW (Right) - 30x21	30	21	4.4			NEW		1														
SS-10	8	D1-3	1	DESTINATION (3 Line)	72	42	21.0						NEW		21.0		SOIL	2								"[arrowleft] Bridgeville" "[arrowleft] Bay Bridge" "Georgetown [arrowright]"
SS-10	9A	M3-3(36)	1	CARDINAL DIRECTION - SOUTH - 36x18	36	18	4.5			NEW		1					NEW CONCRETE		1							
SS-10	9B	M1-4(45)	1	US ROUTE (3 - Digit Sign) - 45x36	45	36	11.3			NEW		1														"113"
SS-10	9C	M6-1_L(30)	1	DIRECTIONAL ARROW (Left) - 30x21	30	21	4.4			NEW		1														
SS-10	10A	M3-3(36)	1	CARDINAL DIRECTION - SOUTH - 36x18	36	18	4.5			NEW		1					NEW CONCRETE		1							
SS-10	10B	M1-4(45)	1	US ROUTE (3 - Digit Sign) - 45x36	45	36	11.3			NEW		1														"113"
SS-10	10C	M6-1_R(30)	1	DIRECTIONAL ARROW (Right) - 30x21	30	21	4.4			NEW		1														
SS-10	11A	M3-1(36)	1	CARDINAL DIRECTION - NORTH - 36x18	36	18	4.5			NEW		1					SOIL		1							
SS-10	11B	M1-4(45)	1	US ROUTE (3 - Digit Sign) - 45x36	45	36	11.3			NEW		1														"113"
SS-10	11C	M5-1_L(B)	1	ADVANCE TURN ARROW (Left - 90)	12	9	0.8			NEW		1														
SS-10	12	W4-1_R(36)	1	MERGE (Right) - 36x36	36	36	9.0			NEW		1					SOIL	1								
SS-10	13	W1-8_FY(30)	1	CHEVRON ALIGNMENT - 30x36 (Fluorescent Yellow)	30	36		7.5		NEW		1					SOIL	1								
SS-10	14	W1-8_FY(30)	1	CHEVRON ALIGNMENT - 30x36 (Fluorescent Yellow)	30	36		7.5		NEW		1					SOIL	1								
SS-10	15	W1-8_FY(30)	1	CHEVRON ALIGNMENT - 30x36 (Fluorescent Yellow)	30	36		7.5		NEW		1					NEW CONCRETE	1								
SS-10	16	W1-8_FY(30)	1	CHEVRON ALIGNMENT - 30x36 (Fluorescent Yellow)	30	36		7.5		NEW		1					NEW CONCRETE	1								
SS-10	17	W1-8_FY(30)	1	CHEVRON ALIGNMENT - 30x36 (Fluorescent Yellow)	30	36		7.5		NEW		1					NEW CONCRETE	1								
SS-10	18	W1-8_FY(30)	1	CHEVRON ALIGNMENT - 30x36 (Fluorescent Yellow)	30	36		7.5		NEW		1					NEW CONCRETE	1								
SS-10	19	W1-8_FY(30)	1	CHEVRON ALIGNMENT - 30x36 (Fluorescent Yellow)	30	36		7.5		NEW		1					NEW CONCRETE	1								
SS-10	20	W1-8_FY(30)	1	CHEVRON ALIGNMENT - 30x36 (Fluorescent Yellow)	30	36		7.5		NEW		1					SOIL	1								
SS-10	21	W1-8_FY(30)	1	CHEVRON ALIGNMENT - 30x36 (Fluorescent Yellow)	30	36		7.5		NEW		1					SOIL	1								
SS-10	22	W1-8_FY(30)	1	CHEVRON ALIGNMENT - 30x36 (Fluorescent Yellow)	30	36		7.5		NEW		1					SOIL	1								
SS-10	23	W1-8_FY(30)	1	CHEVRON ALIGNMENT - 30x36 (Fluorescent Yellow)	30	36		7.5		NEW		1					SOIL	1								
SS-10	24	R1-2(36)	1	YIELD	36	36		3.9		NEW		1					SOIL	1								
SS-10	25	W1-8_FY(30)	1	CHEVRON ALIGNMENT - 30x36 (Fluorescent Yellow)	30	36		7.5		NEW		1					SOIL	1								
SS-10	26	W1-8_FY(30)	1	CHEVRON ALIGNMENT - 30x36 (Fluorescent Yellow)	30	36		7.5		NEW		1					SOIL	1								
PAGE TOTALS							196	101	0		19	35		86	49			25	3	0	0		0	0	0	0	

ADDENDA / REVISIONS		NOT TO SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	SIGN SCHEDULE	SS-18
				T201412701	DESIGNED BY: J. SINCLAIR		SECTION
				COUNTY			WRA
				SUSSEX	CHECKED BY: D. POLLET		SHEET NO.
							329

8/20/2025
11:11:00 AM
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PERMANENT SIGN SCHEDULE - ROADWAY

SHEET NO.	PLAN IDENTIFIER	SIGN DESIGNATION	QTY.	DESCRIPTION	SIGN WIDTH (IN)	SIGN HEIGHT (IN)	X13 / ITEM 818001 FLAT SHEET ALUMINUM, TYPE IV, RETROREFLECTIVE SHEETING (SF)	X14 / ITEM 818003 FLAT SHEET ALUMINUM, TYPE XI, RETROREFLECTIVE SHEETING (SF)	X15 / ITEM 819512 SIGN POST REFLECTIVE PANEL (EA)	ITEM 819018 INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON SINGLE POST (EACH)			ITEM 819019 INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON MULTIPLE SIGN POSTS (SF)			POST INSTALLATION TYPE	X16 / ITEM 819011 12' SIGNPOSTS W/ BASEPOSTS & HARDWARE (EACH)	X17 / ITEM 819023 15' SIGNPOSTS W/ BASEPOSTS & HARDWARE (EACH)	ITEM 819016 4" HOLE, 0-6" (EACH)	ITEM 819017 4" HOLE, >6" (EACH)	SIGN DISPOSITION	X14A FLAT SHEET ALUMINUM SIGN PANELS (TYPE X SHEETING) - SIGNS ON POLES, SPAN WIRES, MAST ARMS (TRAFFIC SJPPLY)	ITEM 822500 INSTALL OVERHEAD SIGN (SF) ON SIGNAL POLES TRAFFIC CONTRACTOR ITEM, EXCEPT FOR PILOT PROJECTS	ITEM 823003 REMOVAL OF SIGN ON SPAN WIRE OR MAST ARM (EA) TRAFFIC CONTRACTOR ITEM, EXCEPT FOR PILOT PROJECTS	ITEM 823001 INSTALLATION OF SIGN ON SPAN WIRE OR MAST ARM (SF) TRAFFIC CONTRACTOR ITEM, EXCEPT FOR PILOT PROJECTS	REMARKS
										SIGN DISPOSITION	REMOVE	INSTALL	SIGN DISPOSITION	REMOVE	INSTALL											
SS-10	27	W1-8_FY(30)	1	CHEVRON ALIGNMENT - 30x36 (Fluorescent Yellow)	30	36		7.5		NEW		1				SOIL	1								
SS-10	28	SR1-16-DE	1	STOP (shared-use path only)	24	42	7.0			NEW		1				SOIL	1								
SS-10	29	SR1-16-DE	1	STOP (shared-use path only)	24	42	7.0			NEW		1				NEW CONCRETE	1								
SS-10	30A	W1-7(48)	1	TWO DIRECTIONAL LARGE ARROW - 48x24	48	24	8.0						NEW		8.0	SOIL	2								
SS-10	30B	OM4-3	1	END OF ROAD OBJECT MARKER	18	18	2.3			NEW		1													
SS-10	30C	OM4-3	1	END OF ROAD OBJECT MARKER	18	18	2.3			NEW		1													
SS-10	31A	R6-1_R(36)	1	ONE WAY (ENCLOSED IN RIGHT ARROW) - 36x12	36	12	3.0						NEW		3.0	SOIL	2								
SS-10	31B	R6-1_L(36)	1	ONE WAY (ENCLOSED IN LEFT ARROW) - 36x12	36	12	3.0						NEW		3.0										
SS-10	31C	R5-1(48)	1	DO NOT ENTER - 48x48	48	48		16.0					NEW		16.0										
SS-10	32	R5-1(36)	1	DO NOT ENTER - 36x36	36	36		9.0		NEW		1				NEW CONCRETE	1								
SS-10	33A	R5-1(48)	1	DO NOT ENTER - 48x48	48	48		16.0	2				NEW		16.0	SOIL	2								
SS-10	33B	R5-1a(42)	1	WRONG WAY - 42x30	42	30		8.8					NEW		8.8										
SS-10	34A	R5-1(36)	1	DO NOT ENTER - 36x36	36	36		9.0	1	NEW		1				NEW CONCRETE	1								
SS-10	34B	R5-1a(36)	1	WRONG WAY - 36x24	36	24		6.0		NEW		1													
SS-10	35A	R12-3-DE	1	NO TRUCKS OVER 2 AXLES EXCEPT LOCAL SERVICES	24	36	6.0			NEW		1				SOIL	1								
SS-10	35B	M6-1_R(B)	1	DIRECTIONAL ARROW (Right) - 12x9	12	9	0.8			NEW		1													
SS-10	36	GM-10	1	113 SOUTH Millsboro Beaches [right arrow] 113 NORTH Milford [up arrow]																				See sign detail on sheet SS-24	
SS-10	37	GM-11	1	113 SOUTH MILLSBORO [left arrow]																				See sign detail on sheet SS-24	
SS-10	38	D12-1-DE	1	RADIO - TRAFFIC INFORMATION	84	48							REMOVE	28.0											
SS-10	39A	M3-4(36)	1	CARDINAL DIRECTION - WEST - 36x18	36	18	4.5			NEW		1				SOIL	1								
SS-10	39B	M1-5(36)	1	STATE ROUTE (2 - Digit Sign) - 36x36	36	36	9.0			NEW		1												"18"	
SS-10	39C	M1-5(45)	1	STATE ROUTE (3 - Digit Sign) - 45x36	45	36	11.3			NEW		1												"404"	
SS-10	40A	I-3(18)	1	GEOGRAPHICAL FEATURES	30	18				REMOVE	1													"TERMINAL"	
SS-10	40B	I-5(30)	1	AIRPORT (Symbol) - 30x30	30	30				REMOVE	1														
SS-10	40C	M6-3(21)	1	DIRECTIONAL ARROW (Up) - 21x15	21	15				REMOVE	1														
SS-10	41A	I-3(18)	1	GEOGRAPHICAL FEATURES	30	18				REMOVE	1													"INDUSTRIAL PARK"	
SS-10	41B	I-5(30)	1	AIRPORT (Symbol) - 30x30	30	30				REMOVE	1														
SS-10	41C	M6-1_R(30)	1	DIRECTIONAL ARROW (Right) - 30x21	30	21				REMOVE	1														
SS-11	1	R5-1(36)	1	DO NOT ENTER - 36x36	36	36				REMOVE	1														
SS-11	2	N/A	1	TRUCKS LEFT TURN ONLY	24	30				REMOVE	1														
SS-11	3A	M3-2(36)	1	CARDINAL DIRECTION - EAST - 36x18	36	18				REMOVE	1														
SS-11	3B	M1-5(36)	1	STATE ROUTE (2 - Digit Sign) - 36x36	36	36				REMOVE	1													"18"	
SS-11	3C	M1-5(45)	1	STATE ROUTE (3 - Digit Sign) - 45x36	45	36				REMOVE	1													"404"	
SS-11	4	R2-1-30(36)	1	SPEED LIMIT (30 MPH - 36x48)	36	48				REMOVE	1														
SS-11	5A	M2-1(30)	1	JUNCTION - 30x21	30	21				REMOVE	1														
SS-11	5B	M1-4(45)	1	US ROUTE (3 - Digit Sign) - 45x36	45	36				REMOVE	1													"113"	
SS-11	6	R1-1(36)	1	STOP	36	36				REMOVE	1														
SS-11	7	W3-3(30)	1	SIGNAL AHEAD (Symbol) - 30x30	30	30				REMOVE	1														
SS-11	8A	R3-8b(60)	1	ADVANCE INTERSECTION LANE CONTROL (Left, Ahead, Right) - 60"x36"	60	36							REMOVE	15.0											
SS-11	8B	R4-4	1	BEGIN RIGHT TURN LANE YIELD TO BIKES	36	30				REMOVE	1														
SS-11	9A	W21-11-DE	1	WATCH CHILDREN (Symbol)	30	30				REMOVE	1														
SS-11	9B	R7-4-DE(18)	1	NO STOPPING, STANDING, OR PARKING - 18x24	18	24				REMOVE	1														
SS-11	10A	M3-3(36)	1	CARDINAL DIRECTION - SOUTH - 36x18	36	18	4.5			NEW		1				SOIL		1							
SS-11	10B	M1-4(45)	1	US ROUTE (3 - Digit Sign) - 45x36	45	36	11.3			NEW		1												"113"	
SS-11	10C	M6-3(30)	1	DIRECTIONAL ARROW (Up) - 30x21	30	21	4.4			NEW		1													
SS-11	11A	M3-1(36)	1	CARDINAL DIRECTION - NORTH - 36x18	36	18	4.5			NEW		1				NEW CONCRETE		1							
SS-11	11B	M1-4(45)	1	US ROUTE (3 - Digit Sign) - 45x36	45	36	11.3			NEW		1												"113"	
SS-11	11C	M6-1_L(30)	1	DIRECTIONAL ARROW (Left) - 30x21	30	21	4.4			NEW		1													
SS-11	12A	R12-3-DE	1	NO TRUCKS OVER 2 AXLES EXCEPT LOCAL SERVICES	24	36	6.0			NEW		1				SOIL	1								
SS-11	12B	M6-3(21)	1	DIRECTIONAL ARROW (Up) - 21x15	21	15	2.2			NEW		1													
SS-11	13A	R12-3-DE	1	NO TRUCKS OVER 2 AXLES EXCEPT LOCAL SERVICES	24	36	6.0			NEW		1				NEW CONCRETE	1								
SS-11	13B	M6-1_L(21)	1	DIRECTIONAL ARROW (Left) - 21x15	21	15	2.2			NEW		1													
SS-11	14A	M3-1(36)	1	CARDINAL DIRECTION - NORTH - 36x18	36	18	4.5			NEW		1				SOIL		1							
SS-11	14B	M1-4(45)	1	US ROUTE (3 - Digit Sign) - 45x36	45	36	11.3			NEW		1												"113"	
SS-11	14C	M6-1_R(30)	1	DIRECTIONAL ARROW (Right) - 30x21	30	21	4.4			NEW		1													
SS-11	15	R4-7(24)	1	KEEP RIGHT (Symbol) - 24x30	24	30	5.0			NEW		1				NEW CONCRETE	1								
SS-11	16	D1-3	1	DESTINATION (3 Line)	72	42	21.0						NEW		21.0	SOIL	2							"[arrow left] Georgetown" "Bridgeville [arrow right]" "Bay Bridge [arrow right]"	
SS-11	17A	M3-4(36)	1	CARDINAL DIRECTION - WEST - 36x18	36	18	4.5			NEW		1				SOIL		1							
SS-11	17B	M1-5(36)	1	STATE ROUTE (2 - Digit Sign) - 36x36	36	36	9.0			NEW		1												"18"	
SS-11	17C	M1-5(45)	1	STATE ROUTE (3 - Digit Sign) - 45x36	45	36	11.3			NEW		1												"404"	
SS-11	17D	M6-1_R(30)	1	DIRECTIONAL ARROW (Right) - 30x21	30	21	4.4			NEW		1													
SS-11	18A	M3-2(36)	1	CARDINAL DIRECTION - EAST - 36x18	36	18	4.5			NEW		1				SOIL		1							
SS-11	18B	M1-5(36)	1	STATE ROUTE (2 - Digit Sign) - 36x36	36	36	9.0			NEW		1												"18"	
SS-11	18C	M1-5(45)	1	STATE ROUTE (3 - Digit Sign) - 45x36	45	36	11.3			NEW		1												"404"	
SS-11	18D	M5-2_L	1	ADVANCE TURN ARROW (Left - 45)	21	15	2.2			NEW		1													
SS-11	19	W1-8_FY(30)	1	CHEVRON ALIGNMENT - 30x36 (Fluorescent Yellow)	30	36		7.5		NEW		1				SOIL	1								
SS-11	20	W1-8_FY(30)	1	CHEVRON ALIGNMENT - 30x36 (Fluorescent Yellow)	30	36		7.5		NEW		1				SOIL	1								
PAGE TOTALS							223	87	3		19	37		43	76		20	5	0	0		0	0	0	0	

ADDENDA / REVISIONS		NOT TO SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	SIGN SCHEDULE	SS-19
				T201412701	DESIGNED BY: J. SINCLAIR		SECTION
				COUNTY			WRA
				SUSSEX	CHECKED BY: D. POLLET		SHEET NO.
							330

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PERMANENT SIGN SCHEDULE - ROADWAY

SHEET NO.	PLAN IDENTIFIER	SIGN DESIGNATION	QTY.	DESCRIPTION	SIGN WIDTH (IN)	SIGN HEIGHT (IN)	X13 / ITEM 818001 FLAT SHEET ALUMINUM, TYPE IV, RETROREFLECTIVE SHEETING (SF)	X14 / ITEM 818003 FLAT SHEET ALUMINUM, TYPE XI, RETROREFLECTIVE SHEETING (SF)	X15 / ITEM 819512 SIGN POST REFLECTIVE PANEL (EA)	ITEM 819018 INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON SINGLE POST (EACH)			ITEM 819019 INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON MULTIPLE SIGN POSTS (SF)			POST INSTALLATION TYPE	X16 / ITEM 819011 12' SIGNPOSTS W/ BASEPOSTS & HARDWARE (EACH)	X17 / ITEM 819023 15' SIGNPOSTS W/ BASEPOSTS & HARDWARE (EACH)	ITEM 819016 4" HOLE, 0-6" (EACH)	ITEM 819017 4" HOLE, >6" (EACH)	SIGN DISPOSITION	X14A FLAT SHEET ALUMINUM SIGN PANELS (TYPE XI SHEETING) - SIGNS ON POLES, SPAN WIRES, MAST ARMS (TRAFFIC SUPPLY)	ITEM 822500 INSTALL OVERHEAD SIGN (SF) ON SIGNAL POLES TRAFFIC CONTRACTOR ITEM, EXCEPT FOR PILOT PROJECTS	ITEM 823003 REMOVAL OF SIGN ON SPAN WIRE OR MAST ARM (EA) TRAFFIC CONTRACTOR ITEM, EXCEPT FOR PILOT PROJECTS	ITEM 823001 INSTALLATION OF SIGN ON SPAN WIRE OR MAST ARM (SF) TRAFFIC CONTRACTOR ITEM, EXCEPT FOR PILOT PROJECTS	REMARKS
										SIGN DISPOSITION	REMOVE	INSTALL	SIGN DISPOSITION	REMOVE	INSTALL											
SS-11	21	W1-8_FY(30)	1	CHEVRON ALIGNMENT - 30x36 (Fluorescent Yellow)	30	36		7.5		NEW		1				SOIL	1									
SS-11	22	W1-8_FY(30)	1	CHEVRON ALIGNMENT - 30x36 (Fluorescent Yellow)	30	36		7.5		NEW		1				SOIL	1									
SS-11	23	W1-8_FY(30)	1	CHEVRON ALIGNMENT - 30x36 (Fluorescent Yellow)	30	36		7.5		NEW		1				NEW CONCRETE	1									
SS-11	24	W1-8_FY(30)	1	CHEVRON ALIGNMENT - 30x36 (Fluorescent Yellow)	30	36		7.5		NEW		1				NEW CONCRETE	1									
SS-11	25	W1-8_FY(30)	1	CHEVRON ALIGNMENT - 30x36 (Fluorescent Yellow)	30	36		7.5		NEW		1				SOIL	1									
SS-11	26	W1-8_FY(30)	1	CHEVRON ALIGNMENT - 30x36 (Fluorescent Yellow)	30	36		7.5		NEW		1				SOIL	1									
SS-11	27	W1-8_FY(30)	1	CHEVRON ALIGNMENT - 30x36 (Fluorescent Yellow)	30	36		7.5		NEW		1				SOIL	1									
SS-11	28	W1-8_FY(30)	1	CHEVRON ALIGNMENT - 30x36 (Fluorescent Yellow)	30	36		7.5		NEW		1				SOIL	1									
SS-11	29	W1-8_FY(30)	1	CHEVRON ALIGNMENT - 30x36 (Fluorescent Yellow)	30	36		7.5		NEW		1				BITUMINOUS	1			1						
SS-11	30	W1-8_FY(30)	1	CHEVRON ALIGNMENT - 30x36 (Fluorescent Yellow)	30	36		7.5		NEW		1				SOIL	1									
SS-11	31	W1-8_FY(30)	1	CHEVRON ALIGNMENT - 30x36 (Fluorescent Yellow)	30	36		7.5		NEW		1				SOIL	1									
SS-11	32	W1-8_FY(30)	1	CHEVRON ALIGNMENT - 30x36 (Fluorescent Yellow)	30	36		7.5		NEW		1				SOIL	1									
SS-11	33	R1-2(36)	1	YIELD	36	36		3.9		NEW		1				SOIL	1									
SS-11	34A	W4-3_R(36)	1	ADDED LANE (Right) - 36x36	36	36	9.0			NEW		1				NEW CONCRETE	1									
SS-11	34B	R5-1(36)	1	DO NOT ENTER - 36x36	36	36		9.0		NEW		1														
SS-11	35	SR1-16-DE	1	STOP (shared-use path only)	24	42	7.0			NEW		1				NEW CONCRETE	1									
SS-11	36A	W1-7(48)	1	TWO DIRECTIONAL LARGE ARROW - 48x24	48	24	8.0						NEW		8.0	SOIL	2									
SS-11	36B	OM4-3	1	END OF ROAD OBJECT MARKER	18	18	2.3			NEW		1														
SS-11	36C	OM4-3	1	END OF ROAD OBJECT MARKER	18	18	2.3			NEW		1														
SS-11	37A	M3-3(36)	1	CARDINAL DIRECTION - SOUTH - 36x18	36	18	4.5			NEW		1				SOIL	1									
SS-11	37B	M1-4(45)	1	US ROUTE (3 - Digit Sign) - 45x36	45	36	11.3			NEW		1														"113"
SS-11	37C	M5-1_L	1	ADVANCE TURN ARROW (Left - 90)	21	15	2.2			NEW		1														
SS-11	38	R5-1(36)	1	DO NOT ENTER - 36x36	36	36		9.0		NEW		1				NEW CONCRETE	1									
SS-11	39	R5-1(48)	1	DO NOT ENTER - 48x48	48	48		16.0					NEW		16.0	SOIL	2									
SS-11	40A	R5-1(48)	1	DO NOT ENTER - 48x48	48	48		16.0	2				NEW		16.0	SOIL	2									
SS-11	40B	R5-1a(42)	1	WRONG WAY - 42x30	42	30		8.8					NEW		8.8											
SS-11	41A	R5-1(48)	1	DO NOT ENTER - 48x48	48	48		16.0	2				NEW		16.0	SOIL	2									
SS-11	41B	R5-1a(42)	1	WRONG WAY - 42x30	42	30		8.8					NEW		8.8											
SS-11	42	GM-12	1	113 NORTH MILFORD [arrow left]																						See sign detail on sheet SS-24
SS-11	43	R5-1(36)	1	DO NOT ENTER - 36x36	36	36		9.0		NEW		1				SOIL	1									
SS-11	44A	R6-1_R(36)	1	ONE WAY (ENCLOSED IN RIGHT ARROW) - 36x12	36	12	3.0						NEW		3.0	SOIL	2									
SS-11	44B	R6-1_L(36)	1	ONE WAY (ENCLOSED IN LEFT ARROW) - 36x12	36	12	3.0						NEW		3.0											
SS-11	44C	R5-1(48)	1	DO NOT ENTER - 48x48	48	48		16.0					NEW		16.0											
SS-11	45A	M3-2(36)	1	CARDINAL DIRECTION - EAST - 36x18	36	18	4.5			NEW		1				SOIL		1								
SS-11	45B	M1-5(36)	1	STATE ROUTE (2 - Digit Sign) - 36x36	36	36	9.0			NEW		1														"18"
SS-11	45C	M1-5(45)	1	STATE ROUTE (3 - Digit Sign) - 45x36	45	36	11.3			NEW		1														"404"
SS-11	46	D4-3-DE	1	BUS STOP (REQUESTS FOR FABRICATION THRU DART TRANSIT AT 302-576-6132)	12	18				REMOVE	1															
SS-12	1	R4-4	1	BEGIN RIGHT TURN LANE YIELD TO BIKES	36	30				REMOVE	1															
SS-12	2A	D3-1(18)	2	STREET NAME (1 Line) Posted speed > 40 MPH	48	18	12.0			RENEW	2	2				SOIL		1								"Burger King Rd" 8" and 6" C Series
SS-12	2B	D3-1(18)	2	STREET NAME (1 Line) Posted speed > 40 MPH	48	18				REMOVE	2															"BRIDGEVILLE RD"
SS-12	2C	D3-1(18)	2	STREET NAME (1 Line) Posted speed > 40 MPH	48	18	12.0			ADD TO ASSEMBLY		2														"Bridgeville Rd" 8" and 6" C Series
SS-12	2D	R1-1(36)	1	STOP	36	36		7.5		RENEW	1	1														
SS-12	2E	R3-5_R	1	MANDATORY MOVEMENT LANE CONTROL - Right	30	36	7.5			ADD TO ASSEMBLY		1														
SS-12	3	R2-1-30(24)	1	SPEED LIMIT (30 MPH - 24x30)	24	30	5.0			RENEW	1	1				SOIL	1									
SS-12	4	N/A	1	CUSTOM SIGN						REMAIN																Rotary Club Custom Sign
SS-12	5	GM-13	1	113 NORTH MILFORD [arrowright] 113 SOUTH MILLSBORO [arrow up]																						See sign detail on sheet SS-25
SS-12	6A	M3-1(30)	1	JUNCTION - 30x21	30	21	4.4			NEW		1				SOIL	1									
SS-12	6B	M1-4(45)	1	US ROUTE (3 - Digit Sign) - 45x36	45	36	11.3			NEW		1														"113"
SS-12	7A	W3-3(30)	1	SIGNAL AHEAD (Symbol) - 30x30	30	30	6.3			NEW		1				SOIL	1									
SS-12	7B	W3-3P-DE(36)	1	XXSIGNALS NEXT XXMILES (plaque) - 36x18	36	18	4.5			NEW		1														"3 SIGNALS NEXT 1/2 MILE"
S468	S-1	D3-1(18)	2	STREET NAME (OVERHEAD) - 1 LINE	84	18		21.0													NEW (OVERHEAD)	21.0			21.0	See signal plans
S468	S-2	D3-1(18)	1	STREET NAME (OVERHEAD) - 1 LINE	108	18		13.5													NEW (OVERHEAD)	13.5			13.5	See signal plans
S469	S-1	D3-1(18)	2	STREET NAME (OVERHEAD) - 1 LINE	84	18		21.0													NEW (OVERHEAD)	21.0			21.0	See signal plans
S469	S-2	D3-1(18)	1	STREET NAME (OVERHEAD) - 1 LINE	108	18		13.5													NEW (OVERHEAD)	13.5			13.5	See signal plans
S339	S-1	D3-1(18)	2	STREET NAME (OVERHEAD) - 1 LINE	102	18		25.5													NEW (OVERHEAD)	25.5			25.5	See signal plans
S339	S-2	D3-1(18)	1	STREET NAME (OVERHEAD) - 1 LINE	78	18		9.8													NEW (OVERHEAD)	9.8			9.8	See signal plans
S222	S-1	D3-1(18)	2	STREET NAME (OVERHEAD) - 1 LINE	84	18		21.0													NEW (OVERHEAD)	21.0			21.0	See signal plans
S222	S-2	D3-1(18)	2	STREET NAME (OVERHEAD) - 1 LINE	84	18		21.0													NEW (OVERHEAD)	21.0			21.0	See signal plans
S222	S-3	D3-1(18)	2	STREET NAME (OVERHEAD) - 1 LINE	108	18		27.0													NEW (OVERHEAD)	27.0			27.0	See signal plans
S222	S-4	D3-1(18)	2	STREET NAME (OVERHEAD) - 1 LINE	108	18		27.0													NEW (OVERHEAD)	27.0			27.0	See signal plans
				PAGE TOTALS			140	410	4		8	37		0	96		31	2	0	1		200	0	0	200	
				JOB TOTALS			1184	924	7		250	226		427	497		178	13	1	1		200	0	0	200	

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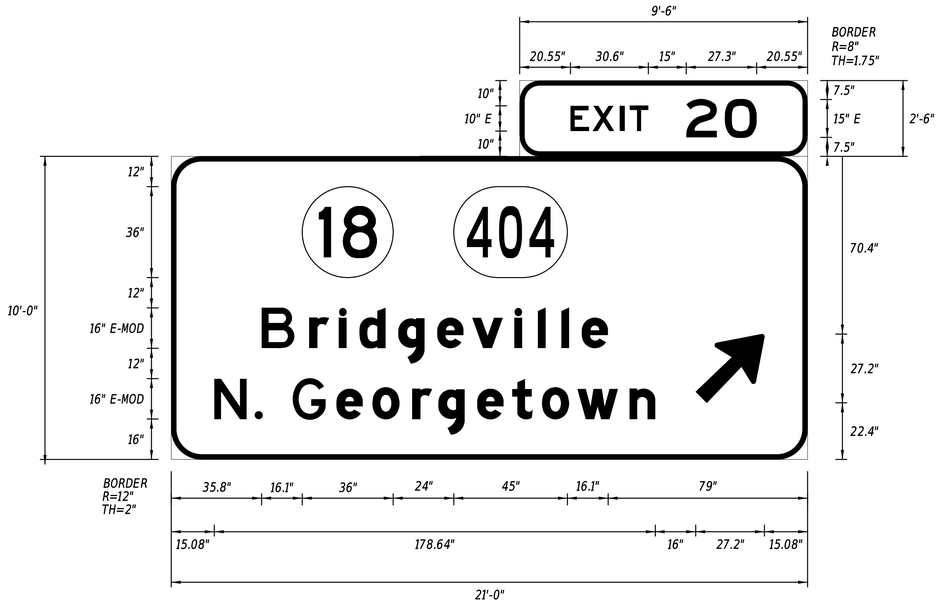
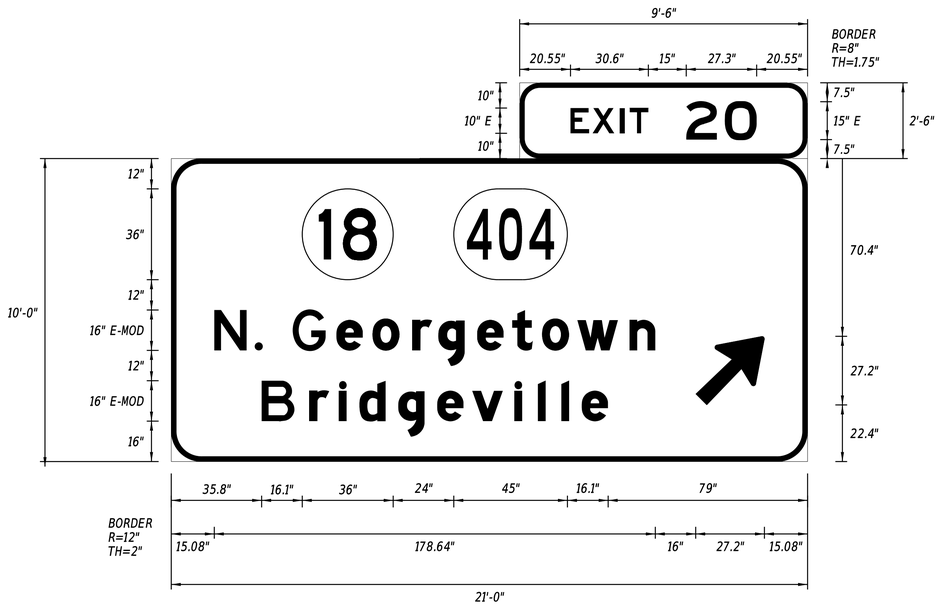
ADDENDA / REVISIONS		NOT TO SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	SIGN SCHEDULE	SS-20
				T201412701	DESIGNED BY: J. SINCLAIR		SECTION
				COUNTY			WRA
				SUSSEX	CHECKED BY: D. POLLET		SHEET NO.
							331

PANEL DESIGNATION	DWG. NO.	QUANTITY	LEGEND	SIZE			COLOR		BORDER		ARROW	SHEILD	REMARKS
				AREA	WIDTH	HEIGHT	LEGEND	BCKGRND	THICKNESS	RADIUS			
OH-1	SS-04B	1		23.75	9'-6"	2'-6"	W	G	1.75"	8"	-		EXTRUDED ALUMINUM
				225.75	21'-0"	10'-0"	W	G	2"	12"	STD. UP ARROW @ 45°	M1-5 (36"x36") M1-5 (45"x36")	EXTRUDED ALUMINUM
OH-2	SS-04B	1		23.75	9'-6"	2'-6"	W	G	1.75"	8"			EXTRUDED ALUMINUM
				225.75	21'-0"	10'-0"	W	G	2"	12"	STD. UP ARROW @ 45°	M1-5 (36"x36") M1-5 (45"x36")	EXTRUDED ALUMINUM

COLORS: BLK=BLACK, BLU=BLUE, BRO=BROWN, G=GREEN, R=RED, W=WHITE, Y=YELLOW, FY=FLUORESCENT YELLOW, FYG=FLUORESCENT YELLOW GREEN, PUR=PURPLE.

ADDENDA / REVISIONS

NOT TO SCALE

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO.	N/A
T201412701	DESIGNED BY:	D. GUNYUZLU
COUNTY	CHECKED BY:	K. CLEVENGER
SUSSEX		

GUIDE SIGN DIMENSIONS AND DETAILS

SS-21
SECTION
WRA
SHEET NO.
332

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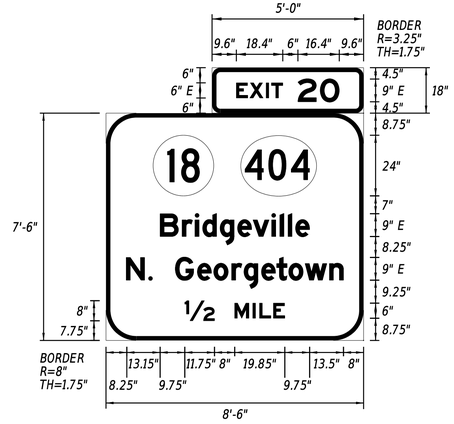
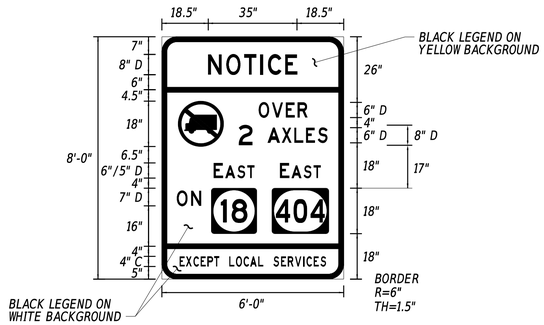
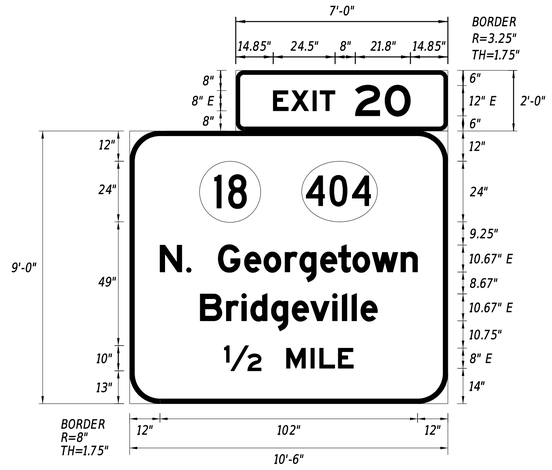
PANEL DESIGNATION	DWG. NO.	QUANTITY	LEGEND	SIZE AREA	SIZE WIDTH	SIZE HEIGHT	COLOR LEGEND	COLOR BCKGRND	BORDER THICKNESS	BORDER RADIUS	ARROW	SHEILD	REMARKS
GM-1	SS-02	1		7.5 63.75	5'-0" 8'-6"	1'-6" 7'-6"	W W	G G	1.75" 1.75"	3.25" 8"		MI-5 (24"x24") MI-5 (30"x24")	EXTRUDED ALUMINUM EXTRUDED ALUMINUM
GM-2 GM-3 GM-4 GM-5	SS-03 SS-03 SS-04B SS-04B	4		48	6'-0"	8'-0"	B	W/Y	1.5"	6"		MI-5 (18"x18") MI-5 (22.5"x18")	EXTRUDED ALUMINUM PROHBITION SYMBOL COLOR: RED
GM-6	SS-07	2		14 94.5	7'-0" 10'-6"	2'-0" 9'-0"	W W	G G	1.75" 1.75"	3.25" 8"	- -	MI-5 (24"x24") MI-5 (30"x24")	EXTRUDED ALUMINUM EXTRUDED ALUMINUM

COLORS: BLK=BLACK, BLU=BLUE, BRO=BROWN, G=GREEN, R=RED, W=WHITE, Y=YELLOW, FY=FLUORESCENT YELLOW, FYG=FLUORESCENT YELLOW GREEN, PUR=PURPLE.

ADDENDA / REVISIONS		NOT TO SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	T201412701	BRIDGE NO.	N/A	GUIDE SIGN DIMENSIONS AND DETAILS	SS-22
				COUNTY	SUSSEX	DESIGNED BY:	D. GUNYUZLU		SECTION WRA
						CHECKED BY:	K. CLEVENGER		SHEET NO. 333

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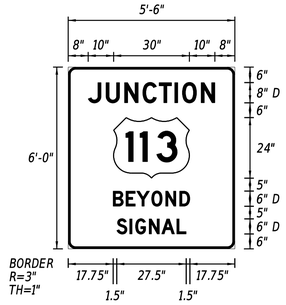
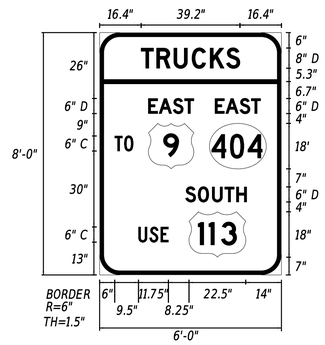
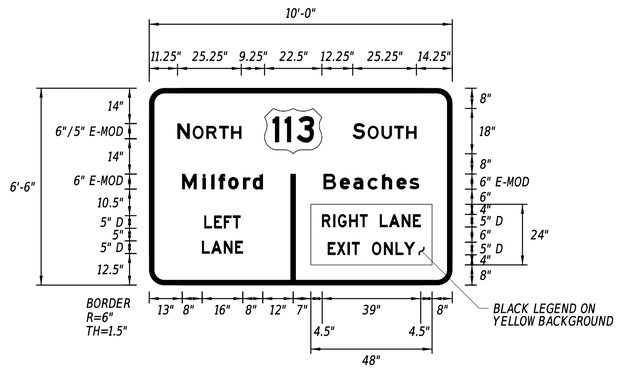
PANEL DESIGNATION	DWG. NO.	QUANTITY	LEGEND	SIZE			COLOR		BORDER		ARROW	SHEILD	REMARKS
				AREA	WIDTH	HEIGHT	LEGEND	BCKGRND	THICKNESS	RADIUS			
GM-7	SS-08	1		33'	5'-6"	6'-0"	W	G	1"	3"		M1-4 (30"x24")	EXTRUDED ALUMINUM
GM-8	SS-09	1		48	6'-0"	8'-0"	W	G	1.5"	6"	-	M1-4 (18"x18") M1-5 (22.5"x18") M1-4 (22.5"x18")	EXTRUDED ALUMINUM
GM-9	SS-09	1		85	10'-0"	8'-6"	W	G	1.5"	6"		M1-4 (22.5"x18")	EXTRUDED ALUMINUM

COLORS: BLK=BLACK, BLU=BLUE, BRO=BROWN, G=GREEN, R=RED, W=WHITE, Y=YELLOW, FY=FLUORESCENT YELLOW, FYG=FLUORESCENT YELLOW GREEN, PUR=PURPLE.

ADDENDA / REVISIONS		NOT TO SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	GUIDE SIGN DIMENSIONS AND DETAILS	SS-23
				T201412701	DESIGNED BY: D. GUNYUZLU		SECTION
				COUNTY			WRA
				SUSSEX	CHECKED BY: K. CLEVENGER		SHEET NO.
							334

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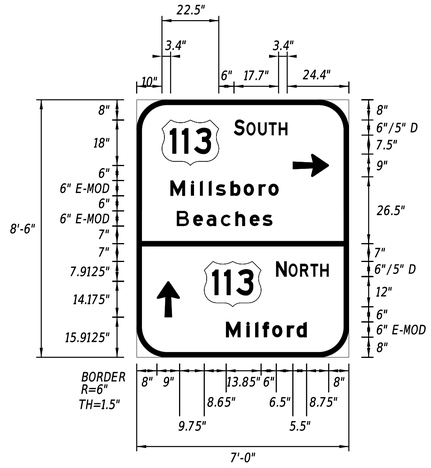
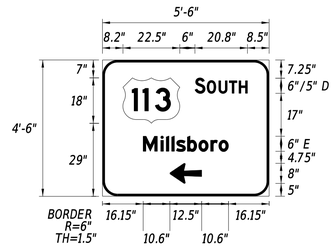
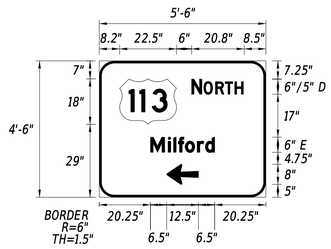
PANEL DESIGNATION	DWG. NO.	QUANTITY	LEGEND	SIZE			COLOR		BORDER		ARROW	SHEILD	REMARKS
				AREA	WIDTH	HEIGHT	LEGEND	BCKGRND	THICKNESS	RADIUS			
GM-10	SS-10	1		59.5	7'-0"	8'-6"	W	G	1.5"	6"	STD. RIGHT ARROW STD. UP ARROW	M1-4 (22.5"x18")	EXTRUDED ALUMINUM
GM-11	SS-10	1		24.75	5'-6"	4'-6"	W	G	1.5"	6"	STD. LEFT ARROW	M1-4 (22.5"x18")	EXTRUDED ALUMINUM
GM-12	SS-11	1		24.75	5'-6"	4'-6"	W	G	1.5"	6"	STD. LEFT ARROW	M1-4 (22.5"x18")	EXTRUDED ALUMINUM

COLORS: BLK=BLACK, BLU=BLUE, BRO=BROWN, G=GREEN, R=RED, W=WHITE, Y=YELLOW, FY=FLUORESCENT YELLOW, FYG=FLUORESCENT YELLOW GREEN, PUR=PURPLE.

ADDENDA / REVISIONS

NOT TO SCALE

US 113 AT SR 18 /SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	BRIDGE NO. N/A
T201412701	DESIGNED BY: D. GUNYUZLU
COUNTY	CHECKED BY: K. CLEVENGER
SUSSEX	

GUIDE SIGN DIMENSIONS AND DETAILS

SS-24
SECTION WRA
SHEET NO. 335

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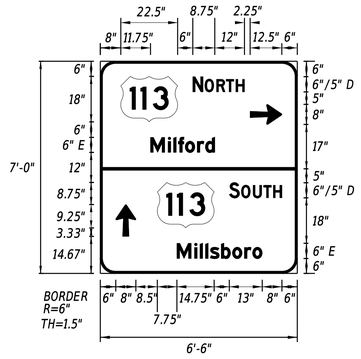
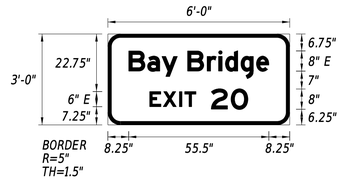
PANEL DESIGNATION	DWG. NO.	QUANTITY	LEGEND	SIZE			COLOR		BORDER		ARROW	SHEILD	REMARKS
				AREA	WIDTH	HEIGHT	LEGEND	BCKGRND	THICKNESS	RADIUS			
GM-13	SS-12	1		188.5	14'-6"	13'-0"	W	G	1.5"	6"	STD. RIGHT ARROW STD. UP ARROW	M1-5 (36"x36") M1-5 (45"x36")	EXTRUDED ALUMINUM
SP-1	SS-03 SS-05	2		18	6'-0"	3'-0"	W	G	1.5"	5"			FLAT SHEET ALUMINUM

COLORS: BLK=BLACK, BLU=BLUE, BRO=BROWN, G=GREEN, R=RED, W=WHITE, Y=YELLOW, FY=FLUORESCENT YELLOW, FYG=FLUORESCENT YELLOW GREEN, PUR=PURPLE.

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ADDENDA / REVISIONS		NOT TO SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	GUIDE SIGN DIMENSIONS AND DETAILS	SS-25
				T201412701	DESIGNED BY: D. GUNYUZLU		SECTION
				COUNTY			WRA
				SUSSEX	CHECKED BY: K. CLEVENGER		SHEET NO.
							336

GUIDE SIGN STEEL SUPPORT CHART

SIGN NO.	SIGN SIZE (WXH)	SHEET NO.	POST SIZE	SUPPORT L-1	SUPPORT L-2	SUPPORT L-3	LATERAL CLEARANCE		SUPPPORT SPACING FROM LEFT EDGE OF SIGN
							OFFSET	OBJECT***	
GM-1	8.5' x 9'	SS-02	W6x12	15.7'	16.6'	-	3.9'	FOC	1.7' - 6.8'
GM-2	6' x 8'	SS-03	W6x9	15.7'	15.5'	-	1.0'	BOS	1.2' - 4.8'
GM-3	6' x 8'	SS-03	W6x9	16.3'	16.6'	-	6.0'	ES (MEDIAN)	1.2' - 4.8'
GM-4	6' x 8'	SS-04B	W6x9	15.9'	16.1'	-	4.0'	FOC	1.2' - 4.8'
GM-5	6' x 8'	SS-04B	W6x9	16.4'	16.7'	-	6.0'	FOC	1.2' - 4.8'
GM-6	10.5' x 11'	SS-07	W6x15	17.6'	20.9'	-	2.0'	ES	2.1' - 8.3'
GM-7	5.5' x 6'	SS-08	W8x21	14.2'	-	-	2.0'	BOS	2.75'
GM-8	6' x 8'	SS-09	W6x9	15.8'	16.3'	-	1.0'	BOS	1.2' - 4.8'
GM-9	10' x 6.5'	SS-09	W6x12	14.1'	14.0'	-	6.0'	FOC	2.0' - 8.0'
GM-10	7' x 8.5'	SS-10	W6x12	16.8'	17.7'	-	2.0'	BOS	1.4' - 5.6'
GM-11	5.5' x 4.5'	SS-10	W6x16	13.0'	-	-	4.5'	W	2.75'
GM-12	5.5' x 4.5'	SS-11	W6x16	13.0'	-	-	2.0'	BOS	2.75'
GM-13	6.5' x 7'	SS-12	W6x9	15.1'	16.0'	-	4.0'	FOC	1.3' - 5.2'

NOTES:

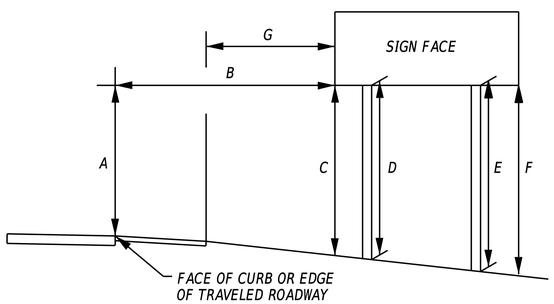
1. WHEN SPACING BETWEEN STEEL BEAM SUPPORTS IS GREATER THAN 8'-0" INSTALL DOUBLE ALUMINUM ANGLES (2"x3"x,") FROM TOP TO BOTTOM OF SIGN WITH POST CLIPS INSTALLED AT EACH EXTRUDED ALUMINUM PANEL. COST TO FURNISH AND INSTALL ALUMINUM ANGLES SHALL BE INCIDENTAL TO THE INSTALLATION OF SIGNS ON GROUND MOUNT POSTS ITEM.
2. A MINIMUM 7'-0" FROM INSIDE OF FLANGE TO INSIDE OF FLANGE SHALL BE MAINTAINED BETWEEN ALL STEEL BEAM SIGN SUPPORTS LARGER THAN W6X9.
3. ALL STEEL BEAM SIGN SUPPORTS SHALL BE MOUNTED ON BREAKAWAY BASES REGARDLESS OF WHETHER PROTECTED BY TRAFFIC BARRIER OR UNPROTECTED. BREAKAWAY BASE SUPPORT SYSTEMS SHALL BE TRANSPO INDUSTRIES OR APPROVED EQUAL.
4. STEEL SUPPORTS DESIGNED FOR 90 MPH WIND SPEED AND 25 YEAR DESIGN LIFE USING ASTM A709, GRADE 36 STEEL BEAM SUPPORTS IN ACCORDANCE WITH AASHTO LTS-6 (2013) PER TRANSPO INDUSTRIES BREAK-SAFE SIGN POST SELECTION PROGRAM.

FOUNDATION SELECTION MATRIX

POST SIZE	FOUNDATION DIAMETER	ROADWAY CUT / FILL SLOPE										
		>2:1	3:1	4:1	5:1	6:1	7:1	8:1	9:1	10:1	12:1	≤13:1
W6x9	30"	*	C	C	C	C	B	B	B	A	A	A
W6x12 or TS 5"X5"X 1/4,"	30"	*	C	C	C	C	B	B	B	A	A	A
W6x15, W6x16 or TS 6"X6"X 1/4 "	30"	*	C	C	C	C	B	B	B	A	A	A
W8x18	30"	*	C	C	C	C	B	B	B	A	A	A
W8x21 or TS 7"X7"X 1/4"	30"	*	C	C	C	C	B	B	B	A	A	A
W10x22 or TS 8"X8"X 5/16"	36"	*	*	C	C	C	C	B	B	B	A	A
W10x26	36"	*	*	C	C	C	C	B	B	B	A	A
W12x26	36"	*	*	C	C	C	C	B	B	B	A	A
W14x30	36"	*	*	C	C	C	C	B	B	B	A	A
W16x31	36"	*	*	C	C	C	C	B	B	B	A	A
W18x35 or W18x40	36"	*	*	C	C	C	C	B	B	B	A	A
W21x44	42"	*	*	C	C	C	C	C	B	B	B	A

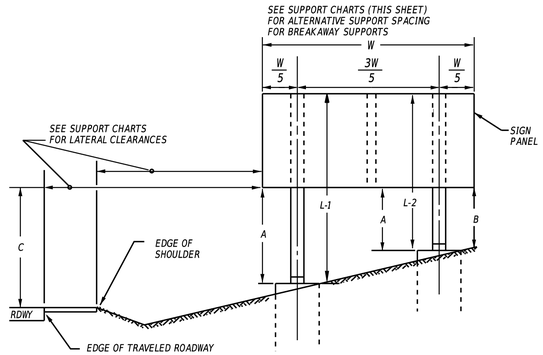
*IF A FOUNDATION EXCEEDS THE 4" AASHTO CRITERIA, THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR APPROPRIATE GUIDANCE.

SIGN STAKEOUT DIMENSIONS



NOTE: CONTRACTOR SHALL COMPLETE SIGN STAKEOUT AND DETERMINE EXACT STEEL SIGN SUPPORT LENGTHS. STAKEOUT DIMENSIONS AND STEEL SIGN SUPPORT LENGTHS SHALL BE SUBMITTED TO ENGINEER FOR APPROVAL PRIOR TO FABRICATION OF STEEL SIGN SUPPORTS.

SIGN CLEARANCE



VERTICAL CLEARANCE OF SIGNS

A. 7'-6" MINIMUM FOR BREAKAWAY SUPPORTS OR 7'-0" FOR NON-BREAKAWAY SUPPORTS.
B. 2'-6" MINIMUM
C. 7'-6" MINIMUM & PREFERABLE. THIS DIMENSION IS TO BE INCREASED ONLY WHEN REQUIRED TO MEET A = 7'-6" FOR BREAKAWAY OR A (MIN.) = 7'-0" FOR NON-BREAKAWAY AND B (MIN) 2'-0"

ALL DIMENSIONS ARE TO BOTTOM OF SIGN

**TOTAL WEIGHT BELOW THE HINGES SHOULD BE LESS THAN 600 POUNDS

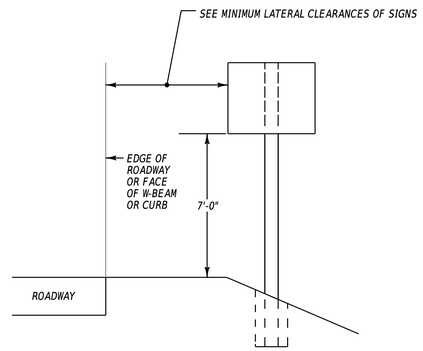
LATERAL CLEARANCE

SEE SUPPORT CHARTS

*** OBJECT CODES

W = FACE OF W-BEAM TRAFFIC BARRIER
FOC = FACE OF CURB
ES = EDGE OF SHOULDER
ETR = EDGE OF TRAVELED ROADWAY
CM = CENTERED IN MEDIAN (LEFT OBJECT/ RIGHT OBJECT)
CG = CENTERED IN GORE (LEFT OBJECT/ RIGHT OBJECT)
B = FACE OF CONCRETE TRAFFIC BARRIER
BOS = BACK OF SIDEWALK/SHARED-USE PATH

STANDARD SIGN VERTICAL AND LATERAL CLEARANCE DETAIL

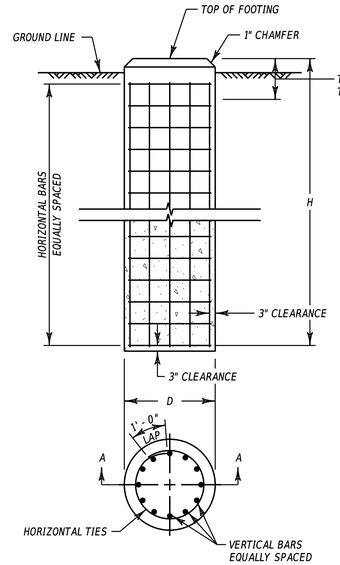


MINIMUM LATERAL CLEARANCE OF SIGNS:

1 = EDGE OF SIGN 6' FROM FACE OF W-BEAM TRAFFIC BARRIER
2 = EDGE OF SIGN 6' FROM EDGE OF SHOULDER
3 = EDGE OF SIGN 6' PREFERABLE MIN. (2' ABSOLUTE MIN.) FROM EACH EDGE OF SHOULDER IN MEDIAN OR CURB

NOTE: ALL SUPPORTS WITHIN THE CLEAR ZONE SHALL BE BREAKAWAY UNLESS PROTECTED BY TRAFFIC BARRIER, EXCEPT AS NOTED ABOVE FOR STEEL SUPPORTS.

GALVANIZED STEEL BEAM TYPE A SIGN POST FOUNDATION DETAIL



SECTION A-A

PLAN VIEW

FOUNDATION DATA TABLE

POST SIZE	D	H	VERTICAL REINFORCEMENT	HORIZONTAL REINFORCEMENT	CONCRETE REQUIRED (CY)
W6x9	30"	6'-0"	EIGHT (8)-NO. 7	SEVEN (7)-NO. 4	1.1
W6x12 OR TS-5x5x1/4	30"	6'-0"	EIGHT (8)-NO. 7	SEVEN (7)-NO. 4	1.1
W6x15, W6x16 OR TS-6x6x1/4	30"	6'-6"	EIGHT (8)-NO. 7	SEVEN (7)-NO. 4	1.2
W8x18	30"	7'-6"	EIGHT (8)-NO. 9	EIGHT (8)-NO. 4	1.4
W8x21 OR TS-7x7x1/4	30"	8'-0"	EIGHT (8)-NO. 9	NINE (9)-NO. 4	1.5
W10x22 OR TS-8x8x5/16	36"	8'-6"	EIGHT (8)-NO. 10	NINE (9)-NO. 4	2.3
W10x26	36"	9'-0"	EIGHT (8)-NO. 10	TEN (10)-NO. 4	2.4
W12x26	36"	10'-0"	EIGHT (8)-NO. 10	ELEVEN (11)-NO. 4	2.7
W14x30	36"	11'-0"	EIGHT (8)-NO. 10	TWELVE (12)-NO. 4	2.9
W16x31	36"	12'-0"	EIGHT (8)-NO. 10	THIRTEEN (13)-NO. 4	3.2
W18x35 OR W18x40	36"	13'-0"	EIGHT (8)-NO. 10	FOURTEEN (14)-NO. 4	3.5
W21x44	42"	12'-0"	TWELVE (12)-NO. 10	THIRTEEN (13)-NO. 4	4.3

STEEL POST BREAKAWAY SYSTEM SELECTION CHART

SYSTEM TYPE	ASSOCIATED POST SIZE
AI6	W6X9
B525	W6X12, W6X15, W6x16,W8X18, W8X21, 5"x5" & 6"x6" SQUARE
B650	7"x7" AND 8"X8" SQUARE AND ALL I-BEAMS LARGER THAN W8X21

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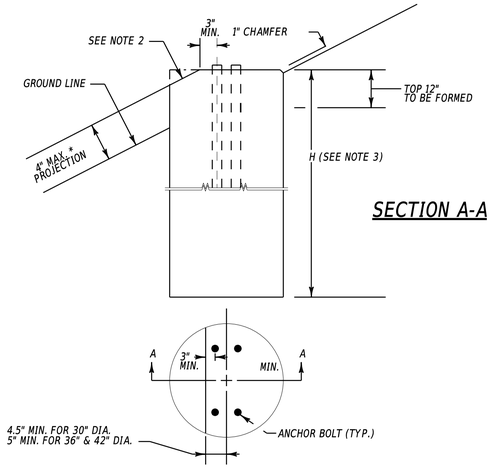
ADDENDA / REVISIONS		NOT TO SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	T201412701	BRIDGE NO.	N/A	SIGNING CONSTRUCTION DETAILS	SS-26
				COUNTY	SUSSEX	DESIGNED BY:	D. GUNYUZLU		SECTION
						CHECKED BY:	K. CLEVENGER		WRA
									SHEET NO.
									337

GALVANIZED STEEL BEAM TYPE B SIGN POST FOUNDATION DETAIL



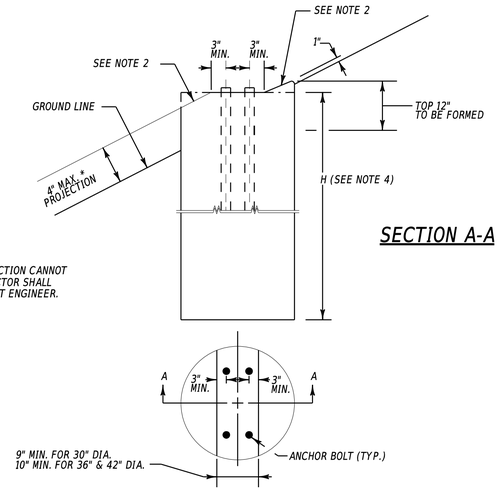
SECTION A-A

PLAN VIEW

NOTES:

1. THIS FOUNDATION SHALL BE USED ONLY IN LOCATIONS MEETING SLOPE CRITERIA IN ACCORDANCE WITH THE STEEL BREAKAWAY SUPPORT FOUNDATION SELECTION MATRIX ON SIGNING CONSTRUCTION DETAILS SHEET.
2. SLOPED PORTIONS OF THE FOUNDATION SHALL MATCH THE FINISHED GROUND SLOPE.
3. REFER TO GALVANIZED STEEL BEAM TYPE A SIGN POST FOUNDATION DETAIL FOR FOUNDATION DIMENSIONS AND REINFORCING STEEL DETAILS.

GALVANIZED STEEL BEAM TYPE C SIGN POST FOUNDATION DETAIL



SECTION A-A

*IF 4" MAX. PROJECTION CANNOT BE MET, CONTRACTOR SHALL CONTACT PROJECT ENGINEER.

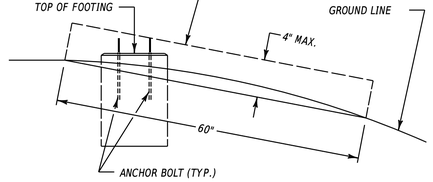
PLAN VIEW

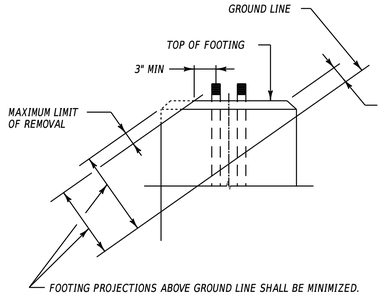
NOTES:

1. THIS FOUNDATION SHALL BE USED ONLY IN LOCATIONS MEETING SLOPE CRITERIA IN ACCORDANCE WITH THE STEEL BREAKAWAY SUPPORT FOUNDATION SELECTION MATRIX ON THE SIGNING CONSTRUCTION DETAILS SHEET.
2. SLOPED PORTIONS OF THE FOUNDATION SHALL MATCH THE FINISHED GROUND SLOPE.
3. ON FILL SLOPES GREATER THAN 6:1 BUT NO STEEPER THAN 3:1, FOUNDATIONS DESIRABLY SHOULD BE INSTALLED A MINIMUM OF 14 FT BEYOND THE HINGE POINT. THE HINGE POINT IS THE POINT OF SLOPE TRANSITION FROM THE SHOULDER SLOPE, OR A RELATIVELY FLAT RECOVERY AREA ADJACENT TO THE ROADWAY, TO A STEEPER FORESLOPE, (ALSO KNOWN AS THE FORESLOPE BREAK).
4. REFER TO GALVANIZED STEEL BEAM TYPE A SIGN POST FOUNDATION DETAIL FOR FOUNDATION DIMENSIONS AND REINFORCING STEEL DETAILS.

BREAKAWAY POLES ADJUSTMENT FOR GROUND SLOPES DETAIL

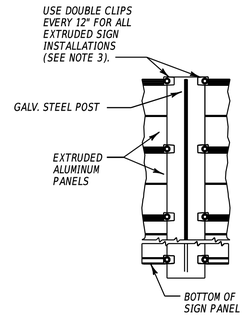
TO AVOID UNDERCARRIAGE SNAGGING ON CONVEX GROUND PROFILES, THE TOP OF THE FOOTING SHALL NOT PROJECT MORE THAN 4" ABOVE ANY 60" CHORD ALIGNED PERPENDICULARLY TO THE EDGE OF THE ROADWAY BETWEEN A POINT ON THE GROUND SURFACE ON ONE SIDE OF THE SUPPORT TO A POINT ON THE GROUND SURFACE ON THE OTHER SIDE OF THE SUPPORT.





FOOTING PROJECTIONS ABOVE GROUND LINE SHALL BE MINIMIZED. THE MAXIMUM PERMISSIBLE FOOTING PROJECTION SHALL BE 4" ON THE LOWER SLOPE SIDE. WHERE NECESSARY, THE DASHED AREA OF THE FOOTING SHALL BE REMOVED AND REINFORCEMENT SHALL BE BENT TO FIT.

VERTICAL SUPPORT ATTACHMENT FOR GROUND MOUNTED SIGNS

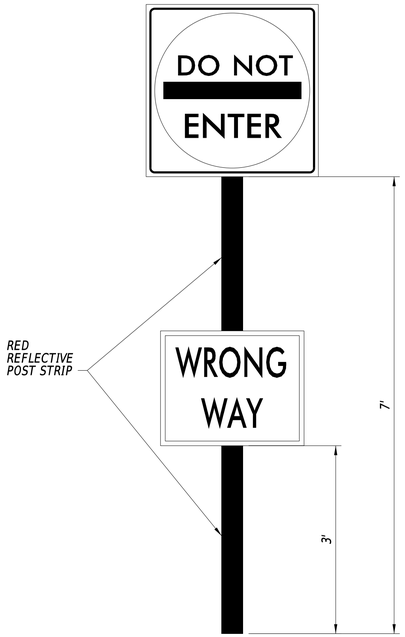


NOTES:

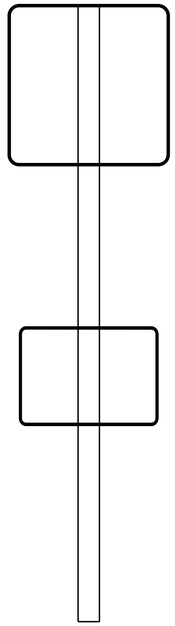
1. ALL STEEL SHALL BE HOT DIPPED GALVANIZED.
2. ALL STEEL SUPPORTS SHALL CONFORM TO A 709, GRADE 36.
3. POST CLIPS SHALL BE INSTALLED ON EACH SIDE OF SIGN SUPPORT SPACED EVERY 12" FOR ENTIRE HEIGHT OF SIGN, AS SHOWN. POST CLIPS SHALL MEET AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS.

GROUND-MOUNT BREAKAWAY I-BEAM SIGN STRUCTURE QUANTITIES

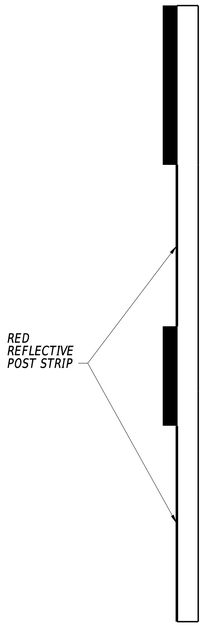
ITEM NUMBER	ITEM TITLE	UNIT	TOTAL QUANTITY	GM-1 QUANTITY	GM-2 QUANTITY	GM-3 QUANTITY	GM-4 QUANTITY	GM-5 QUANTITY	GM-6 QUANTITY	GM-7 QUANTITY	GM-8 QUANTITY	GM-9 QUANTITY	GM-10 QUANTITY	GM-11 QUANTITY	GM-12 QUANTITY	GM-13 QUANTITY
818006	SUPPLY OF EXTRUDED ALUMINUM SIGN PANEL, TYPE XI, RETROREFLECTIVE SHEETING	SF	672.25	71.25	48.0	48.0	48.0	48.0	108.50	33.0	48.0	65.0	59.50	24.75	24.75	45.50
820001	REINFORCED CONCRETE MASONRY SIGN FOUNDATION, W-6	EA	22	2	2	2	2	2	2	-	2	2	2	1	1	2
820002	REINFORCED CONCRETE MASONRY SIGN FOUNDATION, W-8	EA	1	-	-	-	-	-	-	1	-	-	-	-	-	-
820008	SUPPLY OF BREAKAWAY I-BEAM SIGN POST, W-6	LF	352	32.3	31.2	32.9	32.0	33.1	38.5	-	32.1	28.1	34.5	13.0	13.0	31.1
820009	SUPPLY OF BREAKAWAY I-BEAM SIGN POST, W-8	LF	15	-	-	-	-	-	-	14.2	-	-	-	-	-	-
820014	SUPPLY & INSTALLATION OF BOLT KIT FOR BREAKAWAY COUPLING	EA	23	2	2	2	2	2	2	1	2	2	2	1	1	2
820015	SUPPLY & INSTALLATION OF HINGE PLATE FOR BREAKAWAY COUPLING	EA	23	2	2	2	2	2	2	1	2	2	2	1	1	2
820016	SUPPLY & INSTALLATION OF BREAKAWAY COUPLING SYSTEM	EA	23	2	2	2	2	2	2	1	2	2	2	1	1	2
820017	INSTALLATION OF BREAKAWAY I-BEAM SIGN POSTS	EA	23	2	2	2	2	2	2	1	2	2	2	1	1	2
820019	INSTALL SIGN PANEL ON BREAKAWAY I-BEAM SIGN SUPPORT	SF	672.25	71.25	48.0	48.0	48.0	48.0	108.50	33.0	48.0	65.0	59.50	24.75	24.75	45.50



FRONT VIEW
(WRONG WAY TRAFFIC)



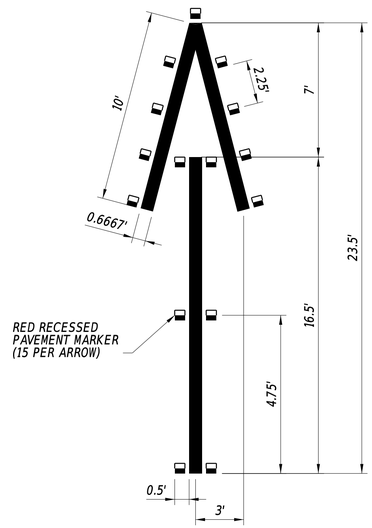
BACK VIEW
(WRONG WAY TRAFFIC)



SIDE VIEW

WRONG WAY SIGN AND REFLECTIVE POST STRIP DETAIL

NOT TO SCALE



WRONG WAY THROUGH LANE-USE ARROW PAVEMENT MARKING DETAIL

NOT TO SCALE

NOTES:
1. FOR INSTALLATION ON BITUMINOUS PAVEMENT, USE ITEM 817002, RETROREFLECTIVE PREFORMED PATTERNED MARKINGS, SYMBOL/LEGEND.
2. THE RED RETROREFLECTIVE LENS SHALL BE POSITIONED SUCH THAT THE RED IS DISPLAYED TO WRONG WAY TRAFFIC.

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ADDENDA / REVISIONS		NOT TO SCALE	US 113 AT SR 18 /SR 404 GRADE SEPARATED INTERSECTION	CONTRACT	BRIDGE NO. N/A	WRONG WAY PROJECT NOTES AND DETAILS	SS-28
				T201412701			SECTION
				COUNTY	DESIGNED BY: D. GUNYUZLU		WRA
				SUSSEX	CHECKED BY: K. CLEVENGER		SHEET NO.
							339

CONDUIT RUN SCHEDULE

CO NO.	NO. OF CONDUITS	SIZE/TYPE	LENGTH	INSTALL METHOD	AMOUNT AND TYPE OF CABLE / WIRE
1	1	2.0"-RGS	26'	TRENCH	(3) #8 THHN - LINE SIDE
2	1	2.0"-RGS	10'	TRENCH	(1) 2/#8 U.F. W/GROUND - LOAD SIDE
3	1	4.0"-PVC	129'	TRENCH	(1) 2/#8 U.F. W/GROUND - LOAD SIDE
4	1	2.0"-RGS	5'	TRENCH	(1) 2/#8 U.F. W/GROUND - LOAD SIDE
5	1	2.0"-RGS	5'	TRENCH	(1) 2/#8 U.F. W/GROUND - LOAD SIDE
6	1	2.0"-RGS	5'	TRENCH	(1) 2/#8 U.F. W/GROUND - LOAD SIDE
7	4	4.0"-PVC	7'	TRENCH	(1) 16/#14, (1) 9/#14, (3) 4/#18, (2) 5/#14, (6) 2/#14, (3) #6 GROUND, (1) FIBER OPTIC CABLE, (1) CCTV CAMERA CABLE, (1) BLUETOOTH CABLE
8	1	4.0"-PVC	45'	TRENCH	(1) 16/#14, (2) 4/#18, (1) 5/#14, (1) 2/#14, (1) #6 GROUND, (1) CCTV CAMERA CABLE, (1) BLUETOOTH CABLE
9	1	2.5"-PVC	25'	TRENCH	(1) 5/#14, (1) #6 GROUND
10	1	3.0"-PVC	13'	TRENCH	(1) 16/#14, (2) 4/#18, (1) #6 GROUND, (1) CCTV CAMERA CABLE, (1) BLUETOOTH CABLE
11	1	4.0"-PVC	80'	TRENCH	(1) 9/#14, (1) 4/#18, (1) 5/#14, (4) 2/#14, (1) #6 GROUND
12	1	4.0"-PVC	50'	TRENCH	(1) 2/#14, (1) #6 GROUND
13	1	3.0"-PVC	8'	TRENCH	(1) 9/#14, (1) 4/#18, (1) #6 GROUND
14	1	4.0"-PVC	54'	TRENCH	(2) 2/#14, (1) #6 GROUND
15	1	4.0"-PVC	58'	TRENCH	(1) 2/#14, (1) #6 GROUND
16	1	4.0"-PVC	62'	TRENCH	(1) 5/#14, (1) #6 GROUND
17	1	2.5"-PVC	7'	TRENCH	(1) 5/#14, (1) #6 GROUND

ALL CABLES AND CONDUITS ARE NEW
TYPES: HDPE, PVC, RGS
INSTALL METHODS: B=BORE, IB=IN BARRIER, OC=OPEN CUT, OS=ON STRUCTURE, T=TRENCH

POLE SCHEDULE

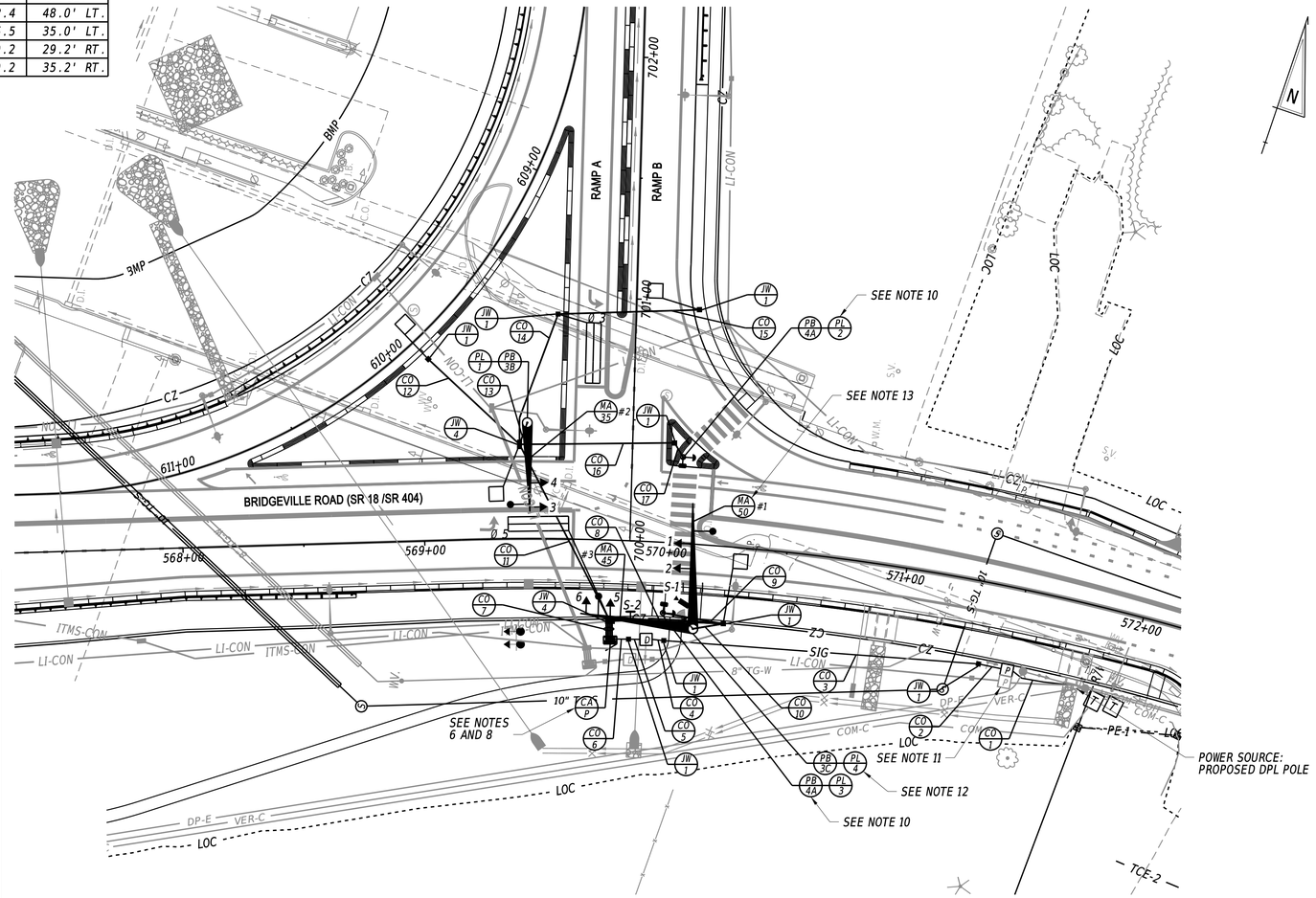
NO.	TYPE	STATION	OFFSET
1	35' MAST ARM W/ TYPE 3B BASE	569+42.4	48.0' LT.
2	10' PEDESTAL POLE W/ TYPE 4A BASE	570+05.5	35.0' LT.
3	10' PEDESTAL POLE W/ TYPE 4A BASE	570+00.2	29.2' RT.
4	45'/50' TWIN MAST ARMS W/ TYPE 3C BASE	570+09.2	35.2' RT.

MAST ARM SCHEDULE

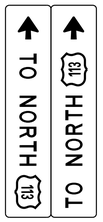
MA#	HEIGHT OF POLE	LENGTH OF ARM	# OF HEADS	# OPTICOM RECEIVERS	SF OF SIGNING	ARM MOUNT HEIGHT
1	21'-6"	50 FT	2	1	10.5 SF	20'-0"
2	21'-6"	35 FT	2	1	-	20'-0"
3	21'-6"	45 FT	2	1	13.5 SF	18'-0"

NOTES:

1. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.
2. PROPOSED LOOP DETECTORS:
   TYPE #2 - 6' x 25' - TO BE INSTALLED ON EB SR 404 AND US 113 OFF-RAMP LEFT TURN MOVEMENTS.
   SYSTEM - 6' x 6' - TO BE INSTALLED IN SR 404 AND NB US 113 ON-RAMP, AS SHOWN.
3. ALL PROPOSED SIGNAL POLES ARE DELDOT MAST ARMS.
4. ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED, AND COMPRESSION FITTING ARE NOT ACCEPTABLE.
5. DELDOT'S TRAFFIC CONTRACTOR SHALL INSTALL BACKPLATES ON ALL PROPOSED SIGNAL HEADS.
6. DELDOT TRAFFIC / OIT SHALL COORDINATE THE FIBER OPTIC CABLE INSTALLATION WITHIN THE PROPOSED JOINT USE SIGNAL / CCTV CABINET.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND REMOVAL OF ALL UNDERGROUND SIGNAL EQUIPMENT - E.G., LOOP DETECTORS, JUNCTION WELLS, POLE AND CABINET BASES, AND CONDUIT. DELDOT'S TRAFFIC CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND REMOVAL OF ALL ELECTRICAL CABLES AND ABOVE GROUND SIGNAL EQUIPMENT - E.G., HEADS, OPTICOM RECEIVERS, CCTV CAMERAS, BLUETOOTH DEVICES, POLES, OVERHEAD SIGNS, AND MAST ARMS.
8. SEE SIGNING AND STRIPING PLANS FOR FIBER OPTIC CABLE INSTALLATION.
9. ALL PEDESTRIAN SIGNALS SHALL CONTAIN PEDESTRIAN COUNTDOWN DISPLAYS.
   PL2 = R10-3eL (LEFT ARROW), PL3 = R10-3eR (RIGHT ARROW),
10. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHOULD BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (50:1 OR FLATTER) LANDING AREA OF THE PEDESTRIAN CONNECTION WHEN POSSIBLE. WHERE THERE ARE PHYSICAL CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON ADJACENT TO A LEVEL ALL-WEATHER SURFACE, THE SURFACE SHOULD BE AS LEVEL AS FEASIBLE. THE PEDESTRIAN PUSHBUTTON SHOULD BE INSTALLED AT A HEIGHT OF 38 TO 46 INCHES ABOVE THE ADJOINING SIDEWALK, AND SHALL BE LOCATED SUCH THAT THAT THE MAXIMUM REACH DISTANCE DOES NOT EXCEED 10 INCHES FROM THE ADJOINING SIDEWALK TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 7 FEET OR MORE THAN 10 FEET ABOVE.
11. DELDOT'S TRAFFIC CONTRACTOR SHALL COORDINATE WITH THE PROJECT CONTRACTOR TO CO-LOCATE THE ELECTRIC METER PEDESTALS AND ADDITIONAL DISCONNECT PEDESTALS FOR THE SIGNAL AND LIGHTING SYSTEMS SUCH THAT THEY ARE IMMEDIATELY ADJACENT TO EACH OTHER.
12. DELDOT'S TRAFFIC CONTRACTOR SHALL INSTALL A BLUETOOTH DEVICE (SBT0078) ON THE MAST ARM UPRIGHT (PL4).
13. DELDOT'S TRAFFIC CONTRACTOR SHALL INSTALL A DAVIT ARM CCTV CAMERA ON MAST ARM NO. 1.



PROPOSED OVERHEAD SIGNS

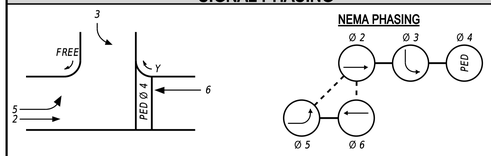


S-1*
D3-1a (84"x18")
8" & 6" D-SERIES
10" SHIELD
BACK-TO-BACK

S-2*
D3-1a (108"x18")
8" & 6" D-SERIES
10" SHIELD

* FREE-SWINGING MOUNTS

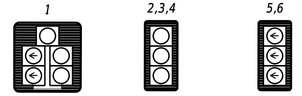
SIGNAL PHASING



PHASING NOTES

1. PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY.
2. PHASES ASSOCIATED BY A DASHED LINE WILL OPERATE CONCURRENTLY.

SIGNAL HEAD DIAGRAM



*BACKPLATES SEE NOTE 5

LEGEND

AB	ABANDON	OH #	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH #	PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (# OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (# OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA XX	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
BLUETOOTH DEVICE		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL	P	P
DISCONNECT SWITCH	D	D
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
CCTV CAMERA		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION		

PREPARED BY

Whitman, Requardt and Associates, LLP
Engineers • Architects • Environmental Planners Est. 1915

8/22/2024
THIS SEAL APPLIES TO THIS SHEET ONLY. DATE

KYLE O. CLEVENGER LICENSE No. 18723 DELAWARE PROFESSIONAL ENGINEER
SEAL

CONCURRENCE FOR INSTALLATION

8/23/2024
CHIEF OF TRAFFIC ENGINEERING DATE

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

US 113 AT SR 18 / SR 404 GRADE SEPARATED INTERSECTION

CONTRACT	PERMIT NO.	S468, SCAM223 & SBT0078	SECTION
T201412701	DESIGNED BY: D. CARSON		WRA
COUNTY	CHECKED BY: M. BUCKLEY		SHEET NO.
SUSSEX			340

SIGNAL PLAN BRIDGEVILLE ROAD (SR 404) @ NB US 113 RAMPS

LAST REVISED: 9/11/2018
8/22/2024
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CONDUIT RUN SCHEDULE

CO NO.	NO. OF CONDUITS	SIZE/TYPE	LENGTH	INSTALL METHOD	AMOUNT AND TYPE OF CABLE / WIRE
1	1	2.0"-RGS	12'	TRENCH	LINE SIDE - (3) #4 THHN
2	2	2.0"-RGS	7'	TRENCH	LOAD SIDE - (2) #4, (1) #4 GROUND
3	1	4.0-PVC	311'	TRENCH	LOAD SIDE - SIG:(2) #4, (1) #4 GROUND; LTS:(3) #3/0, (1) #3/0 GROUND
4	2	2.0"-RGS	10'	TRENCH	LOAD SIDE - (2) #4, (1) #4 GROUND
5	2	2.0"-RGS	11'	TRENCH	LOAD SIDE - (2) #4, (1) #4 GROUND
6	1	2.0"-RGS	12'	TRENCH	LOAD SIDE - (2) #4, (1) #4 GROUND
7	4	4.0"-PVC	5'	TRENCH	(1) 16/#14, (1) 9/#14, (3) 4/#18, (2) 5/#14, (7) 2/#14, (3) #6 GROUND, FIBER OPTIC CABLES, (1) CCTV CAMERA CABLE, (1) BLUETOOTH CABLE
8	1	4.0"-PVC	117'	TRENCH	(1) 2/#14, (1) #6 GROUND
9	2	4.0"-PVC	58'	TRENCH	(1) 16/#14, (1) 9/#14, (3) 4/#18, (2) 5/#14, (6) 2/#14, (2) #6 GROUND, (2) #6 GROUND, (1) CCTV CAMERA CABLE, (1) BLUETOOTH CABLE
10	1	2.5"-PVC	21'	TRENCH	(1) 5/#14, (1) #6 GROUND
11	1	4.0"-PVC	72'	TRENCH	(1) 16/#14, (2) 4/#18, (2) 2/#14, (1) #6 GROUND, (1) CCTV CAMERA CABLE, (1) BLUETOOTH CABLE
12	1	3.0"-PVC	31'	TRENCH	(1) 16/#14, (2) 4/#18, (1) #6 GROUND, (1) CCTV CAMERA CABLE, (1) BLUETOOTH CABLE
13	1	4.0"-PVC	85'	TRENCH	(1) 9/#14, (1) 4/#18, (1) 5/#14, (4) 2/#14, (1) #6 GROUND
14	1	2.5"-PVC	22'	TRENCH	(1) 5/#14, (1) #6 GROUND
15	1	4.0"-PVC	47'	TRENCH	(1) 9/#14, (1) 4/#18, (1) 2/#14, (1) #6 GROUND
16	1	3.0"-PVC	8'	TRENCH	(1) 9/#14, (1) 4/#18, (1) #6 GROUND

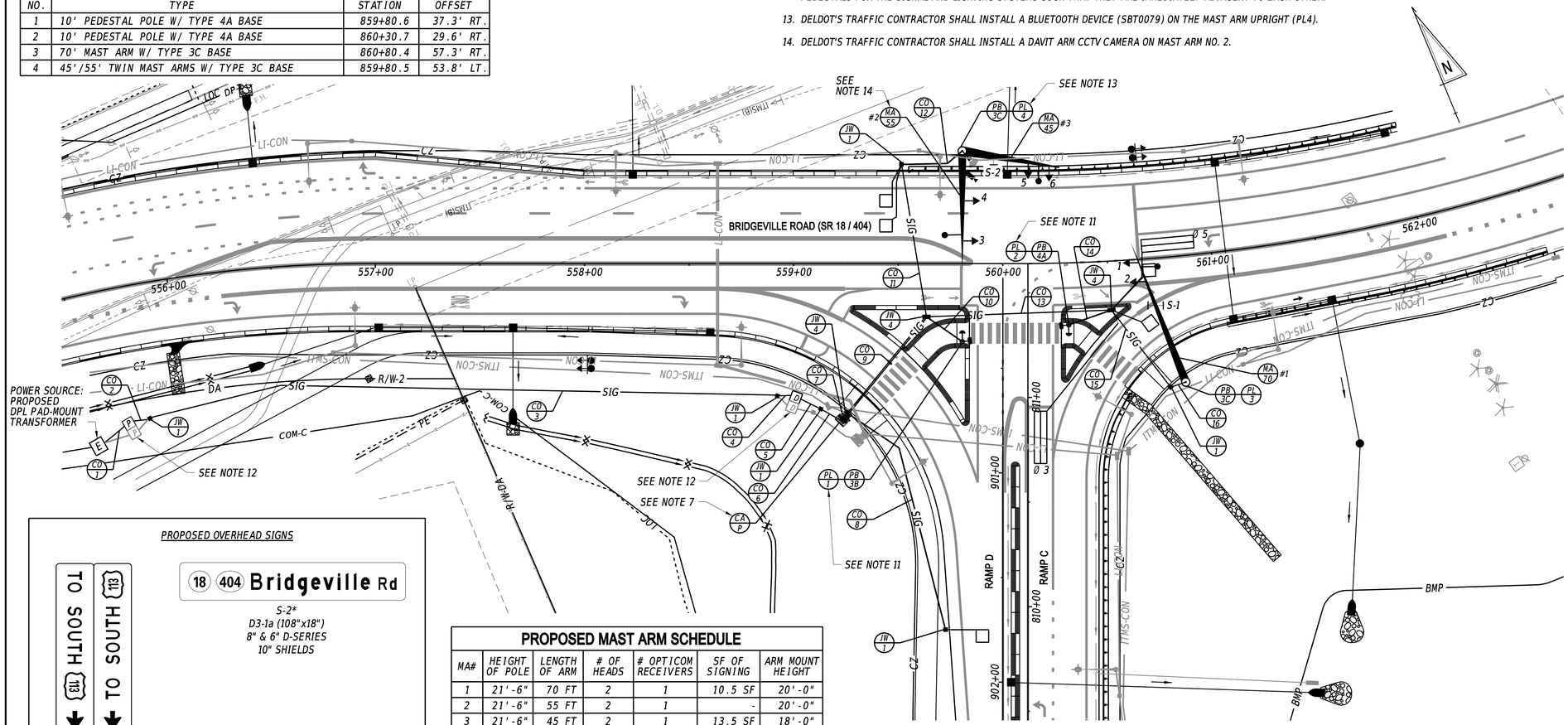
ALL CABLES AND CONDUITS ARE NEW
TYPES: HDPE, PVC, RGS
INSTALL METHODS: B=BORE, IB=IN BARRIER, OC=OPEN CUT, OS=ON STRUCTURE, T=TRENCH

POLE SCHEDULE

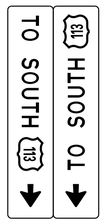
NO.	TYPE	STATION	OFFSET
1	10' PEDESTAL POLE W/ TYPE 4A BASE	859+80.6	37.3' RT.
2	10' PEDESTAL POLE W/ TYPE 4A BASE	860+30.7	29.6' RT.
3	70' MAST ARM W/ TYPE 3C BASE	860+80.4	57.3' RT.
4	45'/55' TWIN MAST ARMS W/ TYPE 3C BASE	859+80.5	53.8' LT.

NOTES:

1. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.
2. PROPOSED LOOP DETECTORS:
   TYPE #2 - 6' x 25' - TO BE INSTALLED ON WB SR 404 AND US 113 OFF-RAMP LEFT TURN MOVEMENTS.
   SYSTEM - 6' x 6' - TO BE INSTALLED IN SR 404 AND SB US 113 ON-RAMP, AS SHOWN.
3. ALL PROPOSED SIGNAL POLES ARE DELDOT MAST ARMS.
4. CO #1 IS NOT DRAWN TO SCALE, NOR IS THE DIRECTION NECESSARILY CORRECT. POWER FEED PENDING FUTURE UTILITY COORDINATION.
5. ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED, AND COMPRESSION FITTING ARE NOT ACCEPTABLE.
6. DELDOT'S TRAFFIC CONTRACTOR SHALL INSTALL BACKPLATES ON ALL PROPOSED SIGNAL HEADS
7. DELDOT TRAFFIC / OIT SHALL COORDINATE THE FIBER OPTIC CABLE INSTALLATION WITHIN THE PROPOSED SIGNAL CABINET.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND REMOVAL OF ALL UNDERGROUND SIGNAL EQUIPMENT - E.G., LOOP DETECTORS, JUNCTION WELLS, POLE AND CABINET BASES, AND CONDUIT. DELDOT'S TRAFFIC CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND REMOVAL OF ALL ELECTRICAL CABLES AND ABOVE GROUND SIGNAL EQUIPMENT - E.G., HEADS, OPTICOM RECEIVERS, CCTV CAMERAS, BLUETOOTH DEVICES, POLES, OVERHEAD SIGNS, AND MAST ARMS.
9. SEE SIGNING AND STRIPING PLANS FOR FIBER OPTIC CABLE INSTALLATION.
10. ALL PEDESTRIAN SIGNALS SHALL CONTAIN PEDESTRIAN COUNTDOWN DISPLAYS.
    PL1,PL2 = R10-3eL (LEFT ARROW)
11. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHOULD BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (50:1 OR FLATTER) LANDING AREA OF THE PEDESTRIAN CONNECTION WHEN POSSIBLE. WHERE THERE ARE PHYSICAL CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON ADJACENT TO A LEVEL ALL-WEATHER SURFACE, THE SURFACE SHOULD BE AS LEVEL AS FEASIBLE. THE PEDESTRIAN PUSHBUTTON SHOULD BE INSTALLED AT A HEIGHT OF 38 TO 46 INCHES ABOVE THE ADJOINING SIDEWALK, AND SHOULD BE LOCATED SUCH THAT THAT THE MAXIMUM REACH DISTANCE DOES NOT EXCEED 10 INCHES FROM THE ADJOINING SIDEWALK TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHOULD BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 7 FEET OR MORE THAN 10 FEET ABOVE.
12. DELDOT'S TRAFFIC CONTRACTOR SHALL COORDINATE WITH THE PROJECT CONTRACTOR TO CO-LOCATE THE ELECTRIC METER PEDESTALS AND ADDITIONAL DISCONNECT PEDESTALS FOR THE SIGNAL AND LIGHTING SYSTEMS SUCH THAT THEY ARE IMMEDIATELY ADJACENT TO EACH OTHER.
13. DELDOT'S TRAFFIC CONTRACTOR SHALL INSTALL A BLUETOOTH DEVICE (SBT0079) ON THE MAST ARM UPRIGHT (PL4).
14. DELDOT'S TRAFFIC CONTRACTOR SHALL INSTALL A DAVIT ARM CCTV CAMERA ON MAST ARM NO. 2.



PROPOSED OVERHEAD SIGNS



S-1*
D3-1a (84"x18")
8" & 6" D-SERIES
10" SHIELD
BACK-TO-BACK

S-2*
D3-1a (108"x18")
8" & 6" D-SERIES
10" SHIELDS

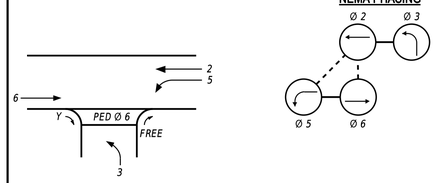
*FREE-SWINGING MOUNTS

PROPOSED MAST ARM SCHEDULE

MA#	HEIGHT OF POLE	LENGTH OF ARM	# OF HEADS	# OPTICOM RECEIVERS	SF OF SIGNING	ARM MOUNT HEIGHT
1	21'-6"	70 FT	2	1	10.5 SF	20'-0"
2	21'-6"	55 FT	2	1	-	20'-0"
3	21'-6"	45 FT	2	1	13.5 SF	18'-0"

SIGNAL PHASING

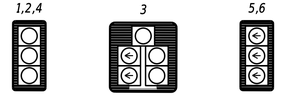
NEMA PHASING



PHASING NOTES

1. PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY.
2. PHASES ASSOCIATED BY A DASHED LINE WILL OPERATE CONCURRENTLY.

SIGNAL HEAD DIAGRAM



*BACKPLATES SEE NOTE 6

LEGEND

AB	ABANDON	OH #	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH #	PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (# OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL #	PROPOSED POLE IDENTIFIER (# OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA XX	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		▭
LOOP DETECTOR, TYPE 2		▬
LUMINAIRE		—●—
MAST ARM		▶
BLUETOOTH DEVICE		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL	P	P
DISCONNECT SWITCH	D	D
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
CCTV CAMERA		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION		

PREPARED BY

Whitman, Requardt and Associates, LLP
Engineers • Architects • Environmental Planners Est. 1915

8/22/2024
DATE

THIS SEAL APPLIES TO THIS SHEET ONLY.

KYLE O. CLEVENGER LICENSE No. 18723 DELAWARE PROFESSIONAL ENGINEER
SEAL

CONCURRENCE FOR INSTALLATION

CHIEF OF TRAFFIC ENGINEERING

8/23/2024
DATE

ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

US 113 AT SR 18 / SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	T201412701
COUNTY	SUSSEX
PERMIT NO.	S469, SCAM232 & SBT0079
DESIGNED BY:	D. CARSON
CHECKED BY:	M. BUCKLEY

SIGNAL PLAN
BRIDGEVILLE ROAD (SR 404) @
SB US 113 RAMPS

SECTION	WRA
SHEET NO.	341

LAST REVISED: 9/11/2018
8/22/2024
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NOTES:

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.
3. ALL EXISTING LOOP DETECTORS SHALL BE ABANDONED.
4. PROPOSED WAVETRONIX DETECTION ZONES (TO BE INSTALLED AT THE START OF PHASE 1B):
   TYPE #2 - 18' x 40' - TO BE INSTALLED ON NORTHBOUND US 113 AND COLLEGE PARK LANE LEFT TURN MOVEMENTS.
5. ALL PROPOSED SIGNAL POLES ARE DELDOT MAST ARMS.
6. POLE BASES, CABINET BASE AND CONDUIT JUNCTION WELLS TO BE REMOVED IN ACCORDANCE WITH SECTION 211 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED.
7. ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED, AND COMPRESSION FITTING ARE NOT ACCEPTABLE.
8. THE TRAFFIC CONTRACTOR SHALL INSTALL BACKPLATES ON ALL PROPOSED SIGNAL HEADS.
9. ALL PEDESTRIAN SIGNALS SHALL CONTAIN PEDESTRIAN COUNTDOWN DISPLAYS.
   PL3 = R10-3eL (LEFT ARROW); PL4, PL5, & PL7 = R10-3eR (RIGHT ARROW)
10. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHOULD BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (50:1 OR FLATTER) LANDING AREA OF THE PEDESTRIAN CONNECTION WHEN POSSIBLE. WHERE THERE ARE PHYSICAL CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON ADJACENT TO A LEVEL ALL-WEATHER SURFACE, THE SURFACE SHOULD BE AS LEVEL AS FEASIBLE. THE PEDESTRIAN PUSHBUTTON SHOULD BE INSTALLED AT A HEIGHT OF 38 TO 46 INCHES ABOVE THE ADJOINING SIDEWALK, AND SHALL BE LOCATED SUCH THAT THAT THE MAXIMUM REACH DISTANCE DOES NOT EXCEED 10 INCHES FROM THE ADJOINING SIDEWALK TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 7 FEET OR MORE THAN 10 FEET ABOVE.
11. THE PROJECT CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND REMOVAL OF ALL UNDERGROUND SIGNAL EQUIPMENT - E.G., JUNCTION WELLS, POLE AND CABINET BASES, LOOP DETECTORS AND CONDUIT. DELDOT'S TRAFFIC CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND REMOVAL OF ALL ELECTRICAL CABLES AND ABOVE GROUND SIGNAL EQUIPMENT - E.G., HEADS, POLES, OPTICOM RECEIVERS, SPAN WIRE, SERVICE PEDESTAL, MAST ARMS, AND OVERHEAD SIGNS. THE PROJECT CONTRACTOR SHALL PROVIDE MAINTENANCE OF TRAFFIC SUPPORT FOR TRAFFIC CONTRACTOR WORK ACTIVITIES.
12. SEE SIGNING, STRIPING AND CONDUIT PLANS FOR FIBER OPTIC CABLE INSTALLATION.
13. DELDOT'S TRAFFIC CONTRACTOR SHALL SPLICE THE PROPOSED 5/#14 CABLE TO THE EXISTING PEDESTRIAN PUSHBUTTON AND COUNTDOWN HEAD.
14. DELDOT TRAFFIC/OIT SHALL COORDINATE THE FIBER OPTIC CONNECTION INTO THE PROPOSED JOINT USE SIGNAL / CCTV CABINET.
15. DELDOT'S TRAFFIC CONTRACTOR SHALL INSTALL TWO WAVETRONIX MATRIXES ON PROPOSED MAST ARM NO. 3.

PROPOSED OVERHEAD SIGNS

S-1
D3-1 (102"x18")
8" & 6" D-SERIES
BACK-TO-BACK

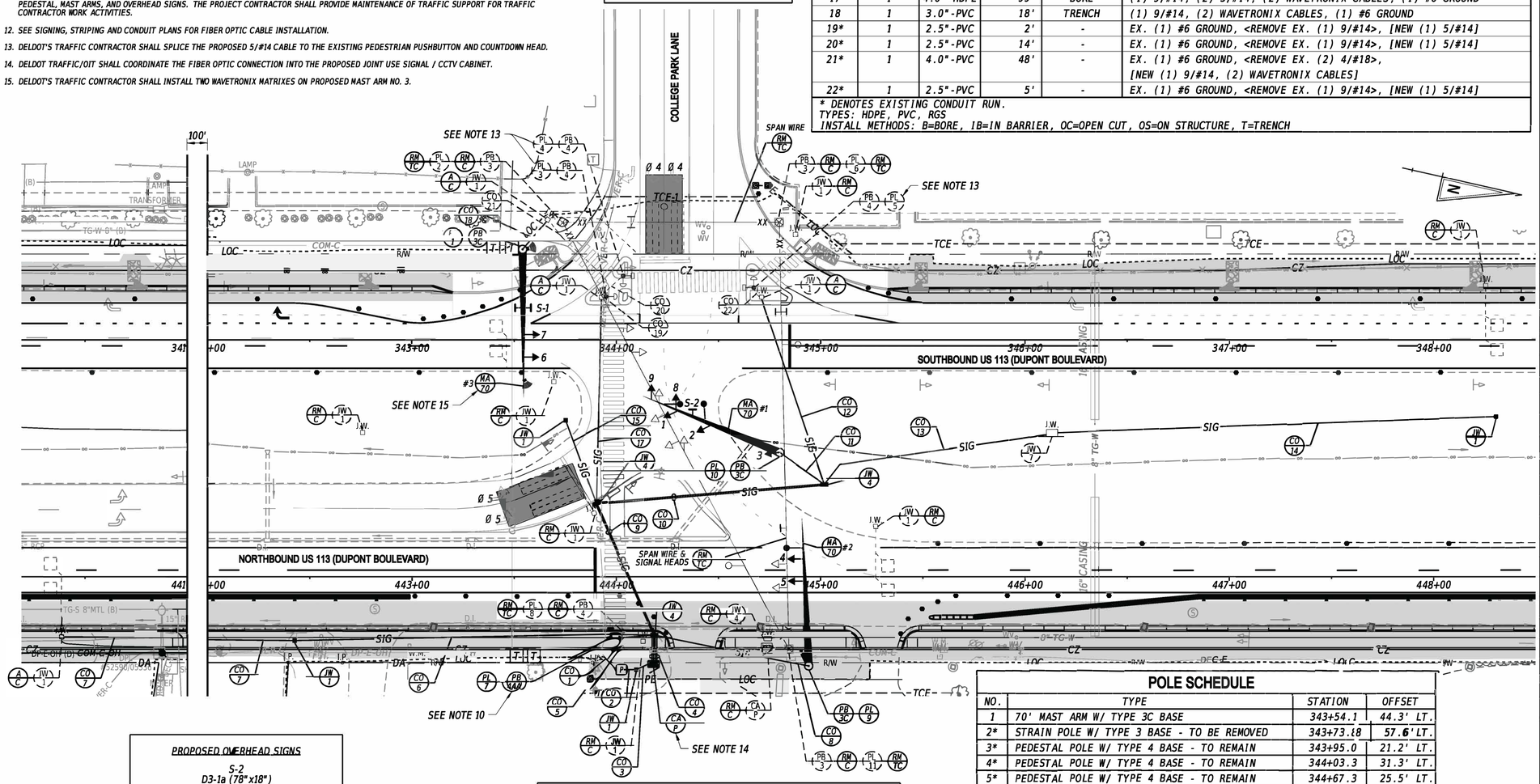
College Park Ln ↑ | ↑ College Park Ln

* FREE-SWINGING MOUNTS

CONDUIT RUN SCHEDULE

CO NO.	NO. OF CONDUITS	SIZE/TYPE	LENGTH	INSTALL METHOD	AMOUNT AND TYPE OF CABLE / WIRE
1	1	2.0"-RGS	10'	TRENCH	(3) #8 THHN - LINE SIDE
2	1	2.0"-RGS	6'	TRENCH	(1) 2/#8 U.F. W/GROUND - LOAD SIDE
3	1	2.0"-RGS	7'	TRENCH	(1) 2/#8 U.F. W/GROUND - LOAD SIDE
4	4	4.0"-PVC	13'	TRENCH	(4) 9/#14, (4) 5/#14, (3) 4/#18, (1) 4/#14, (2) WAVETRONIX CABLES, (1) CCTV CAMERA CABLE, (1) FIBER OPTIC CABLE, (3) #6 GROUND
5	1	2.5"-PVC	20'	TRENCH	(1) 5/#14, (1) #6 GROUND
6	1	4.0"-PVC	174'	TRENCH	(1) #6 GROUND
7	1	4.0"-PVC	201'	TRENCH	(1) #6 GROUND
8	1	3.0"-PVC	76'	TRENCH	(1) 9/#14, (1) 4/#18, (1) CCTV CAMERA CABLE, (1) #6 GROUND
9	2	4.0"-HDPE	68'	BORE	(3) 9/#14, (3) 5/#14, (2) 4/#18, (1) 4/#14, (1) FIBER OPTIC CABLE, (2) WAVETRONIX CABLES, (1) #6 GROUND
10	2	4.0"-PVC	110'	TRENCH	(2) 9/#14, (1) 5/#14, (2) 4/#18, (1) 4/#14, (1) FIBER OPTIC CABLE, (1) #6 GROUND
11	1	3.0"-PVC	26'	TRENCH	(2) 9/#14, (2) 4/#18, (1) 4/#14, (1) CAT5e CABLE, (1) #6 GROUND
12	1	4.0"-HDPE	94'	BORE	(1) 5/#14, (1) #6 GROUND
13	1	4.0"-PVC	114'	TRENCH	(1) #6 GROUND
14	1	4.0"-PVC	214'	TRENCH	(1) #6 GROUND
15	1	4.0"-PVC	43'	TRENCH	(1) #6 GROUND
17	1	4.0"-HDPE	99'	BORE	(1) 9/#14, (2) 5/#14, (2) WAVETRONIX CABLES, (1) #6 GROUND
18	1	3.0"-PVC	18'	TRENCH	(1) 9/#14, (2) WAVETRONIX CABLES, (1) #6 GROUND
19*	1	2.5"-PVC	2'	-	EX. (1) #6 GROUND, <REMOVE EX. (1) 9/#14>, [NEW (1) 5/#14]
20*	1	2.5"-PVC	14'	-	EX. (1) #6 GROUND, <REMOVE EX. (1) 9/#14>, [NEW (1) 5/#14]
21*	1	4.0"-PVC	48'	-	EX. (1) #6 GROUND, <REMOVE EX. (2) 4/#18>, [NEW (1) 9/#14, (2) WAVETRONIX CABLES]
22*	1	2.5"-PVC	5'	-	EX. (1) #6 GROUND, <REMOVE EX. (1) 9/#14>, [NEW (1) 5/#14]

* DENOTES EXISTING CONDUIT RUN.
TYPES: HDPE, PVC, RGS
INSTALL METHODS: B=BORE, IB=IN BARRIER, OC=OPEN CUT, OS=ON STRUCTURE, T=TRENCH



PROPOSED OVERHEAD SIGNS

S-2
D3-1a (78"x18")
8" & 6" D-SERIES
10" SHIELD

Dupont Blvd ↑ 113

* FREE-SWINGING MOUNTS

PROPOSED MAST ARM SCHEDULE

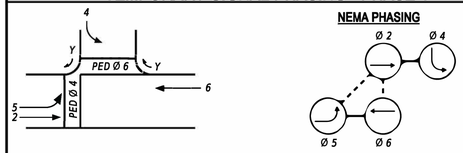
MA#	HEIGHT OF POLE	LENGTH OF ARM	# OF HEADS	# OPTICOM RECEIVERS	SF OF SIGNING	ARM MOUNT HEIGHT
1	21'-6"	70 FT	4	2	-	20'-0"
2	21'-6"	70 FT	2	1	13.5 SF	20'-0"
3	21'-6"	70 FT	2	0	9.8 SF	20'-0"

POLE SCHEDULE

NO.	TYPE	STATION	OFFSET
1	70' MAST ARM W/ TYPE 3C BASE	343+54.1	44.3' LT.
2*	STRAIN POLE W/ TYPE 3 BASE - TO BE REMOVED	343+73.18	57.6'LT.
3*	PEDESTAL POLE W/ TYPE 4 BASE - TO REMAIN	343+95.0	21.2' LT.
4*	PEDESTAL POLE W/ TYPE 4 BASE - TO REMAIN	344+03.3	31.3' LT.
5*	PEDESTAL POLE W/ TYPE 4 BASE - TO REMAIN	344+67.3	25.5' LT.
6*	STRAIN POLE W/ TYPE 3 BASE - TO BE REMOVED	344+79.8	57.5' LT.
7	10' PEDESTAL POLE W/ TYPE 4A BASE	443+97.0	33.3' RT.
8*	PEDESTAL POLE W/ TYPE 4 BASE - TO BE REMOVED	444+02.8	26.4' RT.
9	70' MAST ARM W/ TYPE 3C BASE	444+94.2	43.6' RT.
10	70' MAST ARM W/ TYPE 3C BASE	444+80.0	60.9' LT.
11*	STRAIN POLE W/ TYPE 3 BASE - TO BE REMOVED	444+84.5	35.5' RT.

* DENOTES EXISTING

TEMPORARY SIGNAL PHASING - PHASE 1

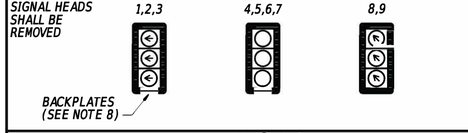


PHASING NOTES

1. PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY.
2. PHASES ASSOCIATED BY A DASHED LINE WILL OPERATE CONCURRENTLY.

TEMPORARY SIGNAL HEAD DIAGRAM - PHASE 1

*ALL EXISTING SIGNAL HEADS SHALL BE REMOVED



LEGEND

AB	ABANDON	OH #	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH #	PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (# OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (# OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA XX	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W. □	■
LOOP DETECTOR, TYPE 1	□	□
LOOP DETECTOR, TYPE 2	▭	▭
LUMINAIRE	—○—	—●—
MAST ARM	▷	▶
MICROWAVE DETECTION	—◀	—◀
OPTICOM RECEIVER	—○	—●
OVERHEAD SIGNING	—|	—|
PEDESTRIAN POLE/BASE	⊙	⊗
PEDESTRIAN PUSHBUTTON	—○	—→
PEDESTRIAN SIGNAL HEAD	⌐	⌐
RIGHT-OF-WAY	———	——— R/W ———
SERVICE PEDESTAL	P	P
DISCONNECT SWITCH	D	D
SIGNAL CABINET	□	■
SIGNAL HEAD	—▷	—▶
SIGNAL POLE/BASE	⊗	⊙
CCTV CAMERA	▭◁	■◀
SPAN WIRE	—XX—	—◇—
UTILITY POLE	⊘	●
VIDEO DETECTION (FISHEYE)	◁	◀

PREPARED BY

WRA Whitman, Requardt and Associates, LLP
Engineers • Architects • Environmental Planners Est. 1915

THIS SEAL APPLIES TO THIS SHEET ONLY. 8/22/2024 DATE

KYLE O. CLEVENGER LICENSE No. 18723 DELAWARE PROFESSIONAL ENGINEER — SEAL

CONCURRENCE FOR INSTALLATION

CHIEF OF TRAFFIC ENGINEERING 8/23/2024 DATE

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

US 113 AT SR 18 / SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	PERMIT NO.	S339 & SCAM224
T201412701	DESIGNED BY: D. CARSON	
COUNTY	CHECKED BY: M. BUCKLEY	
SUSSEX		

PHASE 1
TEMPORARY SIGNAL PLAN
US 113 (DUPONT BOULEVARD)
@ COLLEGE PARK LANE

SECTION	WRA
SHEET NO.	342

LAST REVISED: 9/11/2018
8/7/2025
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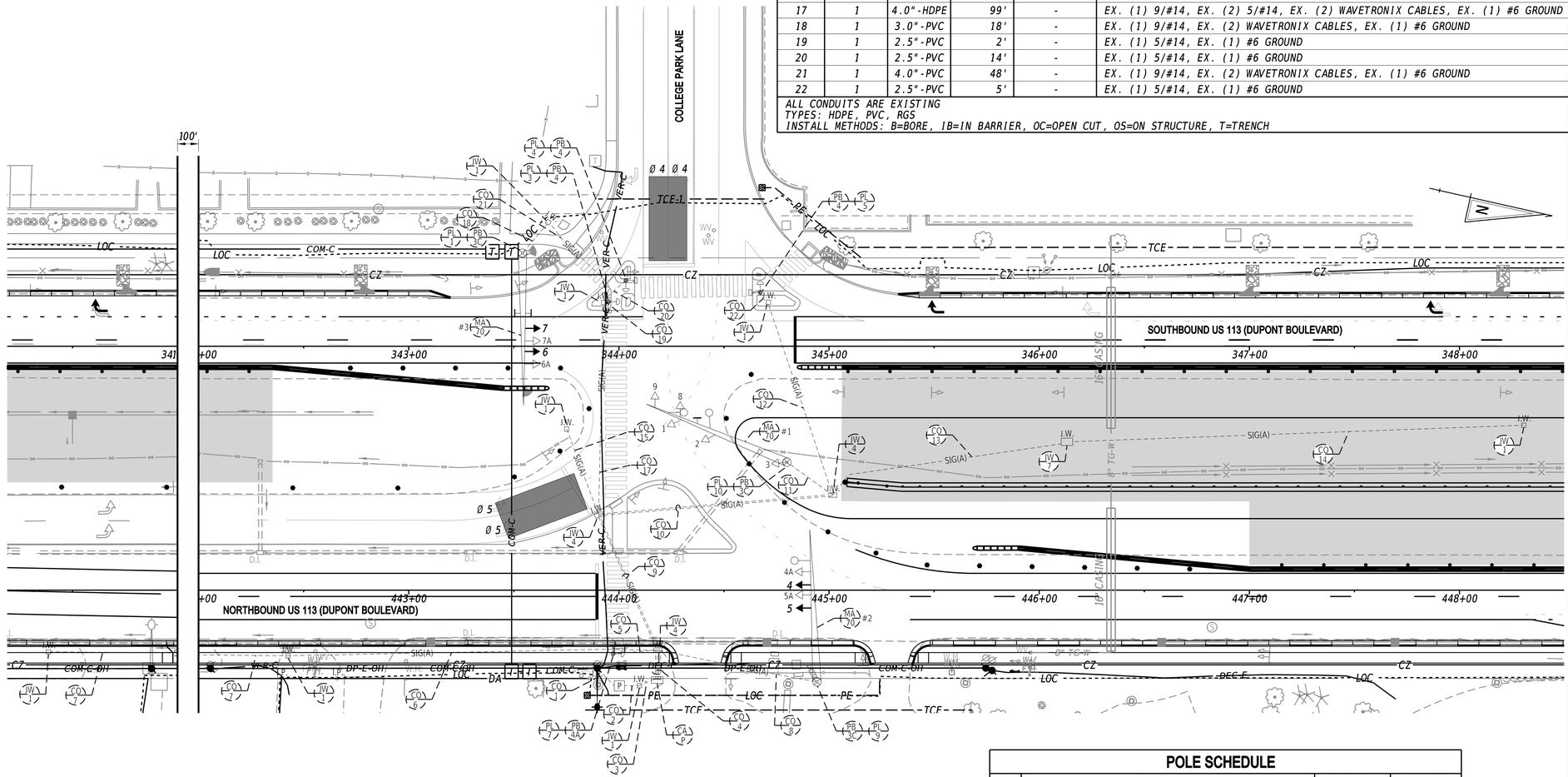
NOTES:

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.
3. EXISTING WAVETRONIX DETECTION ZONES (TO REMAIN):
   TYPE #2 - 18' x 40' - NORTHBOUND US 113 AND COLLEGE PARK LANE LEFT TURN MOVEMENTS.
4. DELDOT'S TRAFFIC CONTRACTOR SHALL SLIDE EXISTING SIGNAL HEADS 4A, 5A, 6A, 7A FROM THE PHASE 1B LOCATIONS TO THE PROPOSED PHASE 2 SIGNAL HEAD LOCATIONS 4, 5, 6, AND 7 AS SHOWN.

CONDUIT RUN SCHEDULE

CO NO.	NO. OF CONDUITS	SIZE/TYPE	LENGTH	INSTALL METHOD	AMOUNT AND TYPE OF CABLE / WIRE
1	1	2.0"-RGS	10'	-	EX. (3) #8 THHN - LINE SIDE
2	1	2.0"-RGS	6'	-	EX. (1) 2/#8 U.F. W/GROUND - LOAD SIDE
3	1	2.0"-PVC	7'	-	EX. (1) 2/#8 U.F. W/GROUND - LOAD SIDE
4	4	4.0"-PVC	13'	-	EX. (4) 9/#14, EX. (4) 5/#14, EX. (3) 4/#18, EX. (1) 4/#14, EX. (1) CCTV CAMERA CABLE, EX. (1) FIBER OPTIC CABLE, EX. (2) WAVETRONIX CABLES, EX. (3) #6 GROUND
5	1	2.5"-PVC	20'	-	EX. (1) 5/#14, EX. (1) #6 GROUND
6	1	4.0"-PVC	174'	-	EX. (1) #6 GROUND
7	1	4.0"-PVC	201'	-	EX. (1) #6 GROUND
8	1	3.0"-PVC	76'	-	EX. (1) 9/#14, EX. (1) 4/#18, EX. (1) CCTV CAMERA CABLE, EX. (1) #6 GROUND
9	2	4.0"-HDPE	68'	-	EX. (3) 9/#14, EX. (3) 5/#14, EX. (2) 4/#18, EX. (1) 4/#14, EX. (1) FIBER OPTIC CABLE, EX. (2) WAVETRONIX CABLES, EX. (1) #6 GROUND
10	2	4.0"-PVC	110'	-	EX. (2) 9/#14, EX. (1) 5/#14, EX. (2) 4/#18, EX. (1) 4/#14, EX. (1) FIBER OPTIC CABLE, EX. (1) #6 GROUND
11	1	3.0"-PVC	26'	-	EX. (2) 9/#14, EX. (2) 4/#18, EX. (1) 4/#14, EX. (1) #6 GROUND
12	1	4.0"-HDPE	94'	-	EX. (1) 5/#14, EX. (1) #6 GROUND
13	1	4.0"-PVC	114'	-	EX. (1) #6 GROUND
14	1	4.0"-PVC	214'	-	EX. (1) #6 GROUND
15	1	4.0"-PVC	43'	-	EX. (1) #6 GROUND
17	1	4.0"-HDPE	99'	-	EX. (1) 9/#14, EX. (2) 5/#14, EX. (2) WAVETRONIX CABLES, EX. (1) #6 GROUND
18	1	3.0"-PVC	18'	-	EX. (1) 9/#14, EX. (2) WAVETRONIX CABLES, EX. (1) #6 GROUND
19	1	2.5"-PVC	2'	-	EX. (1) 5/#14, EX. (1) #6 GROUND
20	1	2.5"-PVC	14'	-	EX. (1) 5/#14, EX. (1) #6 GROUND
21	1	4.0"-PVC	48'	-	EX. (1) 9/#14, EX. (2) WAVETRONIX CABLES, EX. (1) #6 GROUND
22	1	2.5"-PVC	5'	-	EX. (1) 5/#14, EX. (1) #6 GROUND

ALL CONDUITS ARE EXISTING
TYPES: HDPE, PVC, RGS
INSTALL METHODS: B=BORE, IB=IN BARRIER, OC=OPEN CUT, OS=ON STRUCTURE, T=TRENCH



MAST ARM SCHEDULE

MA#	HEIGHT OF POLE	LENGTH OF ARM	# OF HEADS	# OPTICOM RECEIVERS	SF OF SIGNING	ARM MOUNT HEIGHT
1	21'-6"	70 FT	4	2	-	20'-0"
2	21'-6"	70 FT	2	1	13.5 SF	20'-0"
3	21'-6"	70 FT	2	0	9.8 SF	20'-0"

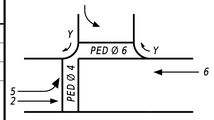
* ALL MAST ARMS ARE EXISTING

POLE SCHEDULE

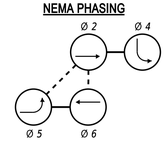
NO.	TYPE	STATION	OFFSET
1	70' MAST ARM W/ TYPE 3C BASE	343+54.1	44.3' LT.
3	PEDESTAL POLE W/ TYPE 4 BASE - TO REMAIN	343+95.0	21.2' LT.
4	PEDESTAL POLE W/ TYPE 4 BASE - TO REMAIN	344+03.3	31.3' LT.
5	PEDESTAL POLE W/ TYPE 4 BASE - TO REMAIN	344+67.3	25.5' LT.
7	10' PEDESTAL POLE W/ TYPE 4A BASE	443+97.0	33.3' RT.
9	70' MAST ARM W/ TYPE 3C BASE	444+94.2	43.6' RT.
10	70' MAST ARM W/ TYPE 3C BASE	444+80.0	60.9' LT.

* ALL POLES ARE EXISTING

TEMPORARY SIGNAL PHASING - PHASES 2A-5A



NEMA PHASING



PHASING NOTES

1. PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY.
2. PHASES ASSOCIATED BY A DASHED LINE WILL OPERATE CONCURRENTLY.

TEMPORARY SIGNAL HEAD DIAGRAM - PHASES 2A-5A

LEGEND

AB	ABANDON	OH #	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH #	PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (# OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (# OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA XX	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL	P	P
DISCONNECT SWITCH	D	D
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
CCTV CAMERA		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION (FISHEYE)		

PREPARED BY

Whitman, Requardt and Associates, LLP
Engineers • Architects • Environmental Planners Est. 1915

THIS SEAL APPLIES TO THIS SHEET ONLY.

8/22/2024
DATE

KYLE O. CLEVENGER LICENSE No. 18723 DELAWARE PROFESSIONAL ENGINEER
SEAL

CONCURRENCE FOR INSTALLATION

CHIEF OF TRAFFIC ENGINEERING

8/23/2024
DATE

ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

US 113 AT SR 18 / SR 404
GRADE SEPARATED INTERSECTION

CONTRACT	T201412701
COUNTY	SUSSEX
PERMIT NO.	S339 & SCAM224
DESIGNED BY:	D. CARSON
CHECKED BY:	M. BUCKLEY

PHASE 2A-5A TEMPORARY SIGNAL PLAN US 113 (DUPONT BOULEVARD) @ COLLEGE PARK LANE

SECTION	WRA
SHEET NO.	343

LAST REVISED: 9/11/2018
8/27/2024
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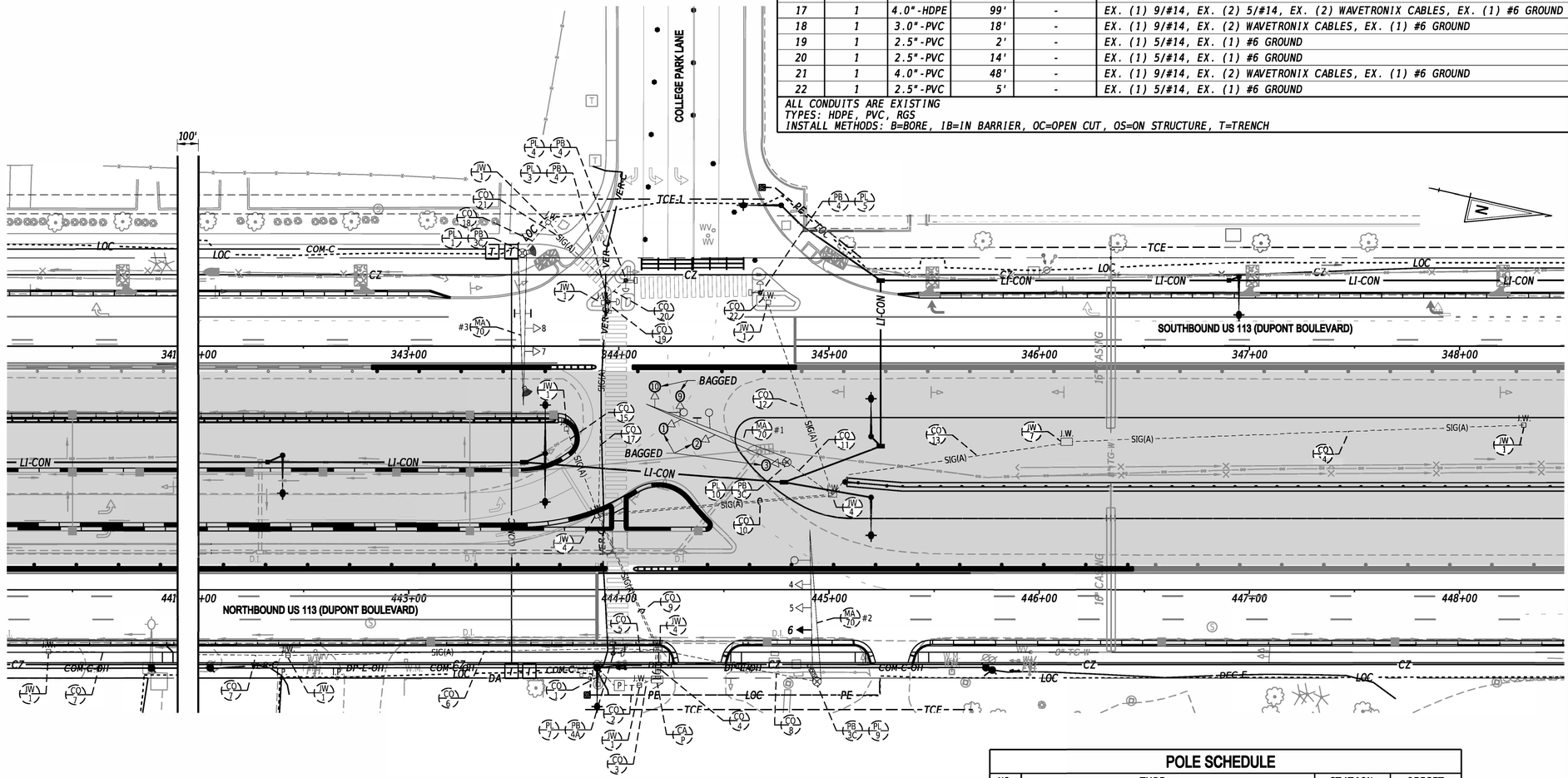
NOTES:

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.
3. DELDOT'S TRAFFIC CONTRACTOR SHALL DEACTIVATE THE WAVETRONIX MATRIXES FOR THE DURATION OF PHASE 5. DELDOT'S CONTRACTOR SHALL REACTIVATE THE DEVICES WHEN THE MEDIAN IS OPENED TO TRAFFIC FOR FINAL PAVING.
4. DELDOT'S TRAFFIC CONTRACTOR SHALL BAG EXISTING SIGNAL HEADS 1, 2, 3, 9, AND 10 FOR THE DURATION OF THE PHASE 5 CLOSURE/DETOUR OF COLLEGE PARK LANE.
5. DELDOT'S TRAFFIC/TMC SHALL MODIFY THE SIGNAL PHASING, AS SHOWN.
6. DELDOT'S TRAFFIC CONTRACTOR SHALL INSTALL ALL SIGNAL HEADS IN THE ULTIMATE LOCATIONS (SHOWN ON SG-06) AT THE CONCLUSION OF PHASE 5. DELDOT'S TRAFFIC CONTRACTOR SHALL REMOVE THE WAVETRONIX MATRIXES FROM MAST ARM NO. 3 ONCE THE FINAL PAVING AND DETECTOR LOOPS HAVE BEEN INSTALLED.
7. THE CONTRACTOR SHALL MAINTAIN THE US 113 CROSSWALK THROUGH THE WORKZONE AT ALL TIMES UTILIZING TEMPORARY MATERIAL PER STANDARD CONSTRUCTION DETAIL M-13 (2021).

CONDUIT RUN SCHEDULE

CO NO.	NO. OF CONDUITS	SIZE/TYPE	LENGTH	INSTALL METHOD	AMOUNT AND TYPE OF CABLE / WIRE
1	1	2.0"-RGS	10'	-	EX. (3) #8 THHN - LINE SIDE
2	1	2.0"-RGS	6'	-	EX. (1) 2/#8 U.F. W/GROUND - LOAD SIDE
3	1	2.0"-PVC	7'	-	EX. (1) 2/#8 U.F. W/GROUND - LOAD SIDE
4	4	4.0"-PVC	13'	-	EX. (4) 9/#14, EX. (4) 5/#14, EX. (3) 4/#18, EX. (1) 4/#14, EX. (1) CCTV CAMERA CABLE, EX. (1) FIBER OPTIC CABLE, EX. (2) WAVETRONIX CABLES, EX. (3) #6 GROUND
5	1	2.5"-PVC	20'	-	EX. (1) 5/#14, EX. (1) #6 GROUND
6	1	4.0"-PVC	174'	-	EX. (1) #6 GROUND
7	1	4.0"-PVC	201'	-	EX. (1) #6 GROUND
8	1	3.0"-PVC	76'	-	EX. (1) 9/#14, EX. (1) 4/#18, EX. (1) CCTV CAMERA CABLE, EX. (1) #6 GROUND
9	2	4.0"-HDPE	68'	-	EX. (3) 9/#14, EX. (3) 5/#14, EX. (2) 4/#18, EX. (1) 4/#14, EX. (1) FIBER OPTIC CABLE, EX. (2) WAVETRONIX CABLES, EX. (1) #6 GROUND
10	2	4.0"-PVC	110'	-	EX. (2) 9/#14, EX. (1) 5/#14, EX. (2) 4/#18, EX. (1) 4/#14, EX. (1) FIBER OPTIC CABLE, EX. (1) #6 GROUND
11	1	3.0"-PVC	26'	-	EX. (2) 9/#14, EX. (2) 4/#18, EX. (1) 4/#14, EX. (1) #6 GROUND
12	1	4.0"-HDPE	94'	-	EX. (1) 5/#14, EX. (1) #6 GROUND
13	1	4.0"-PVC	114'	-	EX. (1) #6 GROUND
14	1	4.0"-PVC	214'	-	EX. (1) #6 GROUND
15	1	4.0"-PVC	43'	-	EX. (1) #6 GROUND
17	1	4.0"-HDPE	99'	-	EX. (1) 9/#14, EX. (2) 5/#14, EX. (2) WAVETRONIX CABLES, EX. (1) #6 GROUND
18	1	3.0"-PVC	18'	-	EX. (1) 9/#14, EX. (2) WAVETRONIX CABLES, EX. (1) #6 GROUND
19	1	2.5"-PVC	2'	-	EX. (1) 5/#14, EX. (1) #6 GROUND
20	1	2.5"-PVC	14'	-	EX. (1) 5/#14, EX. (1) #6 GROUND
21	1	4.0"-PVC	48'	-	EX. (1) 9/#14, EX. (2) WAVETRONIX CABLES, EX. (1) #6 GROUND
22	1	2.5"-PVC	5'	-	EX. (1) 5/#14, EX. (1) #6 GROUND

ALL CONDUITS ARE EXISTING
TYPES: HDPE, PVC, RGS
INSTALL METHODS: B=BORE, IB=IN BARRIER, OC=OPEN CUT, OS=ON STRUCTURE, T=TRENCH



MAST ARM SCHEDULE

MA#	HEIGHT OF POLE	LENGTH OF ARM	# OF HEADS	# OPTICOM RECEIVERS	SF OF SIGNING	ARM MOUNT HEIGHT
1	21'-6"	70 FT	4	2	-	20'-0"
2	21'-6"	70 FT	3	1	13.5 SF	20'-0"
3	21'-6"	70 FT	2	0	9.8 SF	20'-0"

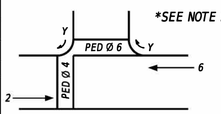
* ALL MAST ARMS ARE EXISTING

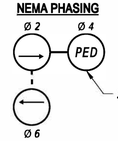
POLE SCHEDULE

NO.	TYPE	STATION	OFFSET
1	70' MAST ARM W/ TYPE 3C BASE	343+54.1	44.3' LT.
3	PEDESTAL POLE W/ TYPE 4 BASE - TO REMAIN	343+95.0	21.2' LT.
4	PEDESTAL POLE W/ TYPE 4 BASE - TO REMAIN	344+03.3	31.3' LT.
5	PEDESTAL POLE W/ TYPE 4 BASE - TO REMAIN	344+67.3	25.5' LT.
7	10' PEDESTAL POLE W/ TYPE 4A BASE	443+97.0	33.3' RT.
9	70' MAST ARM W/ TYPE 3C BASE	444+94.2	43.6' RT.
10	70' MAST ARM W/ TYPE 3C BASE	444+80.0	60.9' LT.

* ALL POLES ARE EXISTING

TEMPORARY SIGNAL PHASING - PHASE 5B

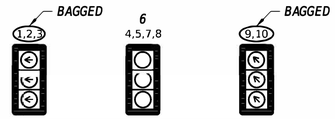




PHASING NOTES

1. PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY.
2. PHASES ASSOCIATED BY A DASHED LINE WILL OPERATE CONCURRENTLY.

TEMPORARY SIGNAL HEAD DIAGRAM - PHASE 5B



LEGEND

AB	ABANDON	OH #	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH #	PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (# OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (# OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA XX	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL	P	P
DISCONNECT SWITCH	D	D
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
CCTV CAMERA		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION (FISHEYE)		

PREPARED BY

WRA Whitman, Requardt and Associates, LLP
Engineers • Architects • Environmental Planners Est. 1915

THIS SEAL APPLIES TO THIS SHEET ONLY. 8/22/2024 DATE

KYLE O. CLEVENGER LICENSE No. 18723 DELAWARE PROFESSIONAL ENGINEER
SEAL

CONCURRENCE FOR INSTALLATION

CHIEF OF TRAFFIC ENGINEERING 8/23/2024 DATE

ADDENDA / REVISIONS			

SCALE 0 30 60 90 FEET

US 113 AT SR 18 / SR 404 GRADE SEPARATED INTERSECTION

CONT RACT	T201412701	PERMIT NO.	S339 & SCAM224
COUNTY	SUSSEX	DESIGNED BY: D. CARSON	
		CHECKED BY: M. BUCKLEY	

PHASE 5B TEMPORARY SIGNAL PLAN US 113 (DUPONT BOULEVARD) @ COLLEGE PARK LANE

SECTION	
WRA	
SHEET NO.	
344	

LAST REVISED: 9/11/2018
8/27/2024
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NOTES:

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.
3. ALL EXISTING LOOP DETECTORS SHALL BE ABANDONED.

   PROPOSED LOOP DETECTORS:
   TYPE #1 - 6' x 6' - TO BE INSTALLED ON US 113 THROUGH MOVEMENTS.
   TYPE #2 - 6' x 25' - TO BE INSTALLED ON NORTHBOUND US 113 AND COLLEGE PARK LANE LEFT TURN MOVEMENTS.
   SYSTEM - 6' x 6' - TO BE INSTALLED IN US 113 RECEIVING LANES, AS SHOWN.
4. ALL PROPOSED SIGNAL POLES ARE DELDOT MAST ARMS.
5. POLE BASES, CABINET BASE AND CONDUIT JUNCTION WELLS TO BE REMOVED IN ACCORDANCE WITH SECTION 211 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED.
6. ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED, AND COMPRESSION FITTING ARE NOT ACCEPTABLE.
7. THE TRAFFIC CONTRACTOR SHALL INSTALL BACKPLATES ON ALL PROPOSED SIGNAL HEADS, EXCEPT SIGNAL HEAD #3 (SEE NOTE 15).
8. ALL CONDUIT SHALL BE SCHEDULE 80 PVC WHEN INSTALLED BY TRENCHING OR OPEN CUT AND HDPE SDR-13.5 WHEN INSTALLED BY BORING, UNLESS OTHERWISE NOTED.
9. ALL PEDESTRIAN SIGNALS SHALL CONTAIN PEDESTRIAN COUNTDOWN DISPLAYS.
   PL3 = R10-3eL (LEFT ARROW); PL4, PL5, & PL7 = R10-3eR (RIGHT ARROW)
10. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHOULD BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (50:1 OR FLATTER) LANDING AREA OF THE PEDESTRIAN CONNECTION WHEN POSSIBLE. WHERE THERE ARE PHYSICAL CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON ADJACENT TO A LEVEL ALL-WEATHER SURFACE, THE SURFACE SHOULD BE AS LEVEL AS FEASIBLE. THE PEDESTRIAN PUSHBUTTON SHOULD BE INSTALLED AT A HEIGHT OF 38 TO 46 INCHES ABOVE THE ADJOINING SIDEWALK, AND SHALL BE LOCATED SUCH THAT THAT THE MAXIMUM REACH DISTANCE DOES NOT EXCEED 10 INCHES FROM THE ADJOINING SIDEWALK TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 7 FEET OR MORE THAN 10 FEET ABOVE.
11. THE PROJECT CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND REMOVAL OF ALL UNDERGROUND SIGNAL EQUIPMENT - E.G., JUNCTION WELLS, POLE AND CABINET BASES, LOOP DETECTORS AND CONDUIT. DELDOT'S TRAFFIC CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND REMOVAL OF ALL ELECTRICAL CABLES AND ABOVE GROUND SIGNAL EQUIPMENT - E.G., HEADS, POLES, OPTICOM RECEIVERS, CCTV CAMERAS, BLUETOOTH DEVICES, SPAN WIRE, SERVICE PEDESTAL, MAST ARMS, AND OVERHEAD SIGNS. THE PROJECT CONTRACTOR SHALL PROVIDE MAINTENANCE OF TRAFFIC SUPPORT FOR TRAFFIC CONTRACTOR WORK ACTIVITES.
12. SEE SIGNING, STRIPING AND CONDUIT PLANS FOR FIBER OPTIC CABLE INSTALLATION.
13. DELDOT'S TRAFFIC CONTRACTOR SHALL SPLICE THE PROPOSED 5/#14 CABLE TO THE EXISTING PEDESTRIAN PUSHBUTTON AND COUNTDOWN HEAD.
14. DELDOT TRAFFIC/OIT SHALL COORDINATE THE FIBER OPTIC CONNECTION INTO THE PROPOSED JOINT USE SIGNAL / CCTV CABINET.
15. DELDOT'S TRAFFIC CONTRACTOR SHALL INSTALL PROPOSED SIGNAL HEAD 3 ON THE MAST ARM UPRIGHT USING A SIDE-OF-POLE MOUNT.
16. DELDOT'S TRAFFIC CONTRACTOR SHALL RELOCATE THE EXISTING BLUETOOTH DEVICE (SBT0010) FROM THE EXISTING CCTV CAMERA POLE AT STA 330+97 TO THE PROPOSED MAST ARM UPRIGHT (PL9).
17. DELDOT'S TRAFFIC CONTRACTOR SHALL INSTALL A DAVIT ARM CCTV CAMERA ON MAST ARM NO. 2.

PROPOSED OVERHEAD SIGNS

5-1
D3-1 (102"x18")
8" & 6" D-SERIES
BACK-TO-BACK

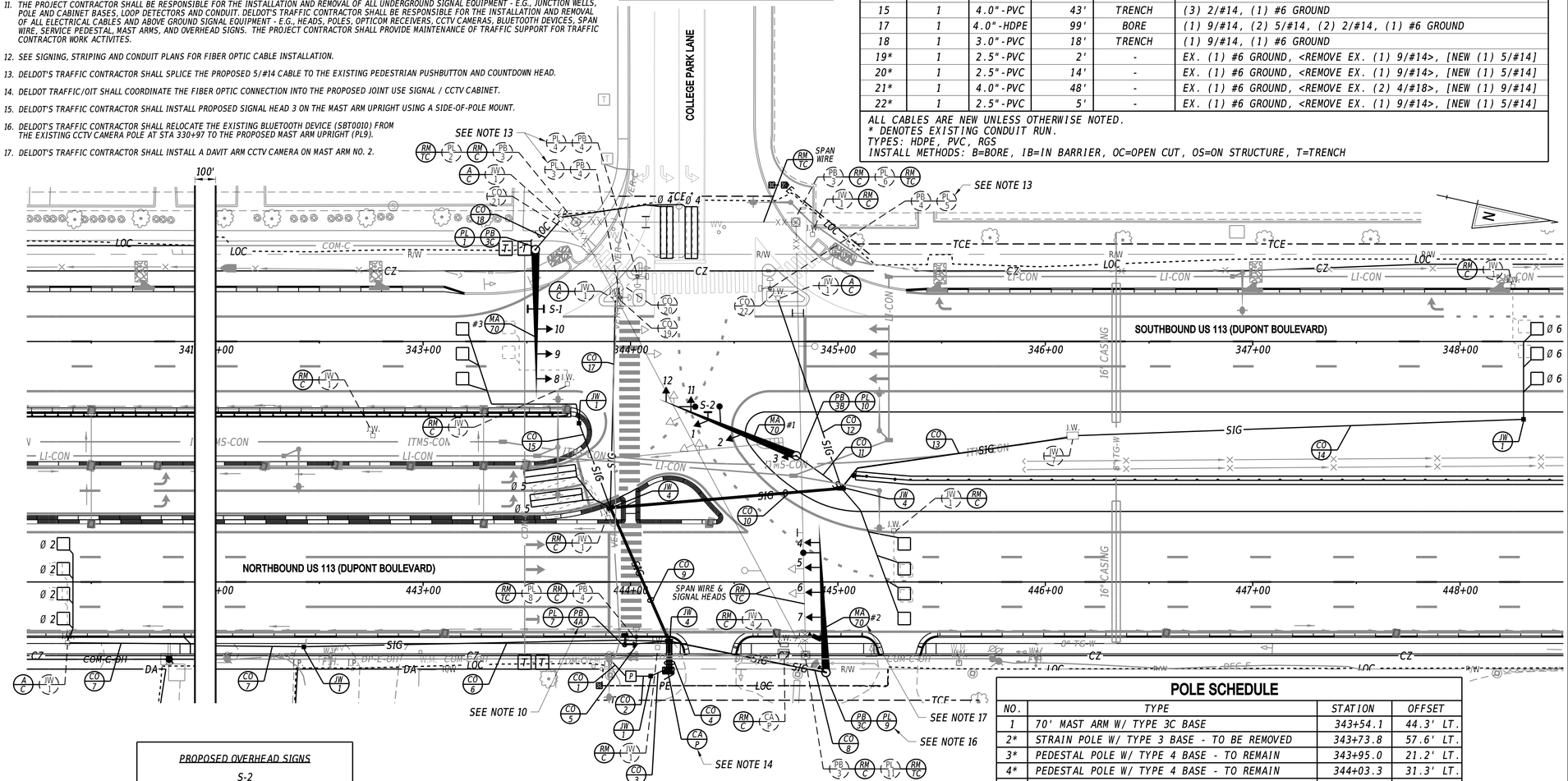
College Park Ln | College Park Ln

* FREE-SWINGING MOUNTS

CONDUIT RUN SCHEDULE

CO NO.	NO. OF CONDUITS	SIZE/TYPE	LENGTH	INSTALL METHOD	AMOUNT AND TYPE OF CABLE / WIRE
1	1	2.0"-RGS	10'	TRENCH	(3) #8 THHN - LINE SIDE
2	1	2.0"-RGS	6'	TRENCH	(1) 2/#8 U.F. W/GROUND - LOAD SIDE
3	1	2.0"-RGS	7'	TRENCH	(1) 2/#8 U.F. W/GROUND - LOAD SIDE
4	4	4.0"-PVC	13'	TRENCH	(4) 9/#14, (4) 5/#14, (3) 4/#18, (1) 4/#14, (18) 2/#14, (1) CCTV CAMERA CABLE, (1) FIBER OPTIC CABLE, (1) BLUETOOTH CABLE, (3) #6 GROUND
5	1	2.5"-PVC	20'	TRENCH	(1) 5/#14, (1) #6 GROUND
6	1	4.0"-PVC	174'	TRENCH	(4) 2/#14, (1) #6 GROUND
7	1	4.0"-PVC	201'	TRENCH	(4) 2/#14, (1) #6 GROUND
8	1	3.0"-PVC	76'	TRENCH	(1) 9/#14, (1) 4/#18, (1) CCTV CAMERA CABLE, (1) BLUETOOTH CABLE, (1) #6 GROUND
9	2	4.0"-HDPE	68'	BORE	(3) 9/#14, (3) 5/#14, (2) 4/#18, (1) 4/#14, (14) 2/#14, (1) FIBER OPTIC CABLE, (1) #6 GROUND
10	2	4.0"-PVC	110'	TRENCH	(2) 9/#14, (1) 5/#14, (2) 4/#18, (1) 4/#14, (7) 2/#14, (1) FIBER OPTIC CABLE, (1) #6 GROUND
11	1	3.0"-PVC	26'	TRENCH	(2) 9/#14, (2) 4/#18, (1) 4/#14, (1) #6 GROUND
12	1	4.0"-HDPE	94'	BORE	(1) 5/#14, (1) #6 GROUND
13	1	4.0"-PVC	114'	TRENCH	(3) 2/#14, (1) FIBER OPTIC CABLE, (1) #6 GROUND
14	1	4.0"-PVC	214'	TRENCH	(3) 2/#14, (1) #6 GROUND
15	1	4.0"-PVC	43'	TRENCH	(3) 2/#14, (1) #6 GROUND
17	1	4.0"-HDPE	99'	BORE	(1) 9/#14, (2) 5/#14, (2) 2/#14, (1) #6 GROUND
18	1	3.0"-PVC	18'	TRENCH	(1) 9/#14, (1) #6 GROUND
19*	1	2.5"-PVC	2'	-	EX. (1) #6 GROUND, <REMOVE EX. (1) 9/#14>, [NEW (1) 5/#14]
20*	1	2.5"-PVC	14'	-	EX. (1) #6 GROUND, <REMOVE EX. (1) 9/#14>, [NEW (1) 5/#14]
21*	1	4.0"-PVC	48'	-	EX. (1) #6 GROUND, <REMOVE EX. (2) 4/#18>, [NEW (1) 9/#14]
22*	1	2.5"-PVC	5'	-	EX. (1) #6 GROUND, <REMOVE EX. (1) 9/#14>, [NEW (1) 5/#14]

ALL CABLES ARE NEW UNLESS OTHERWISE NOTED.
* DENOTES EXISTING CONDUIT RUN.
TYPES: HDPE, PVC, RGS
INSTALL METHODS: B=BORE, IB=IN BARRIER, OC=OPEN CUT, OS=ON STRUCTURE, T=TRENCH



PROPOSED OVERHEAD SIGNS

S-2
D3-1a (78"x18")
8" & 6" D-SERIES
10" SHIELD

113 Dupont Blvd

* FREE-SWINGING MOUNTS

PROPOSED MAST ARM SCHEDULE

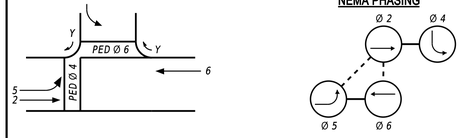
MA#	HEIGHT OF POLE	LENGTH OF ARM	# OF HEADS	# OPTICOM RECEIVERS	SF OF SIGNING	ARM MOUNT HEIGHT
1	21'-6"	70 FT	4	2	-	20'-0"
2	21'-6"	70 FT	4	1	-	20'-0"
3	21'-6"	70 FT	3	0	9.8 SF	20'-0"

POLE SCHEDULE

NO.	TYPE	STATION	OFFSET
1	70' MAST ARM W/ TYPE 3C BASE	343+54.1	44.3' LT.
2*	STRAIN POLE W/ TYPE 3 BASE - TO BE REMOVED	343+73.8	57.6' LT.
3*	PEDESTAL POLE W/ TYPE 4 BASE - TO REMAIN	343+95.0	21.2' LT.
4*	PEDESTAL POLE W/ TYPE 4 BASE - TO REMAIN	344+03.3	31.3' LT.
5*	PEDESTAL POLE W/ TYPE 4 BASE - TO REMAIN	344+67.3	25.5' LT.
6*	STRAIN POLE W/ TYPE 3 BASE - TO BE REMOVED	344+79.8	57.5' LT.
7	10' PEDESTAL POLE W/ TYPE 4A BASE	443+97.0	33.3' RT.
8*	PEDESTAL POLE W/ TYPE 4 BASE - TO BE REMOVED	444+02.8	26.4' RT.
9	70' MAST ARM W/ TYPE 3C BASE	444+94.2	43.6' RT.
10	70' MAST ARM W/ TYPE 3C BASE	444+80.0	60.9' LT.
11*	STRAIN POLE W/ TYPE 3 BASE - TO BE REMOVED	444+84.5	35.5' RT.

* DENOTES EXISTING

ULTIMATE SIGNAL PHASING



PHASING NOTES

1. PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY.
2. PHASES ASSOCIATED BY A DASHED LINE WILL OPERATE CONCURRENTLY.

ULTIMATE SIGNAL HEAD DIAGRAM

*ALL EXISTING SIGNAL HEADS SHALL BE REMOVED

** BACKPLATES (SEE NOTE 7)

LEGEND

AB	ABANDON	OH #/#	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X/X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH #	PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X/X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #/#	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PL X/X	EXISTING POLE IDENTIFIER (# OF POLE)
JW X/X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (# OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA X/XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA XX	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
BLUETOOTH DEVICE		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL	P	P
DISCONNECT SWITCH	D	D
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
CCTV CAMERA		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION		

PREPARED BY

WRA Whitman, Requardt and Associates, LLP
Engineers • Architects • Environmental Planners Est. 1915

THIS SEAL APPLIES TO THIS SHEET ONLY. 8/22/2024 DATE

KYLE O. CLEVENGER, LICENSE No. 18723, DELAWARE PROFESSIONAL ENGINEER — SEAL

CONCURRENCE FOR INSTALLATION

CHIEF OF TRAFFIC ENGINEERING 8/23/2024 DATE

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

US 113 AT SR 18 / SR 404 GRADE SEPARATED INTERSECTION

CONTRACT	T201412701
COUNTY	SUSSEX
PERMIT NO.	S339, SCAM224 & SBT0010
DESIGNED BY:	D. CARSON
CHECKED BY:	M. BUCKLEY

ULTIMATE SIGNAL PLAN
US 113 (DUPONT BOULEVARD)
@ COLLEGE PARK LANE

SECTION	WRA
SHEET NO.	345

LAST REVISED: 9/11/2018
8/7/2025
9:53:42 AM
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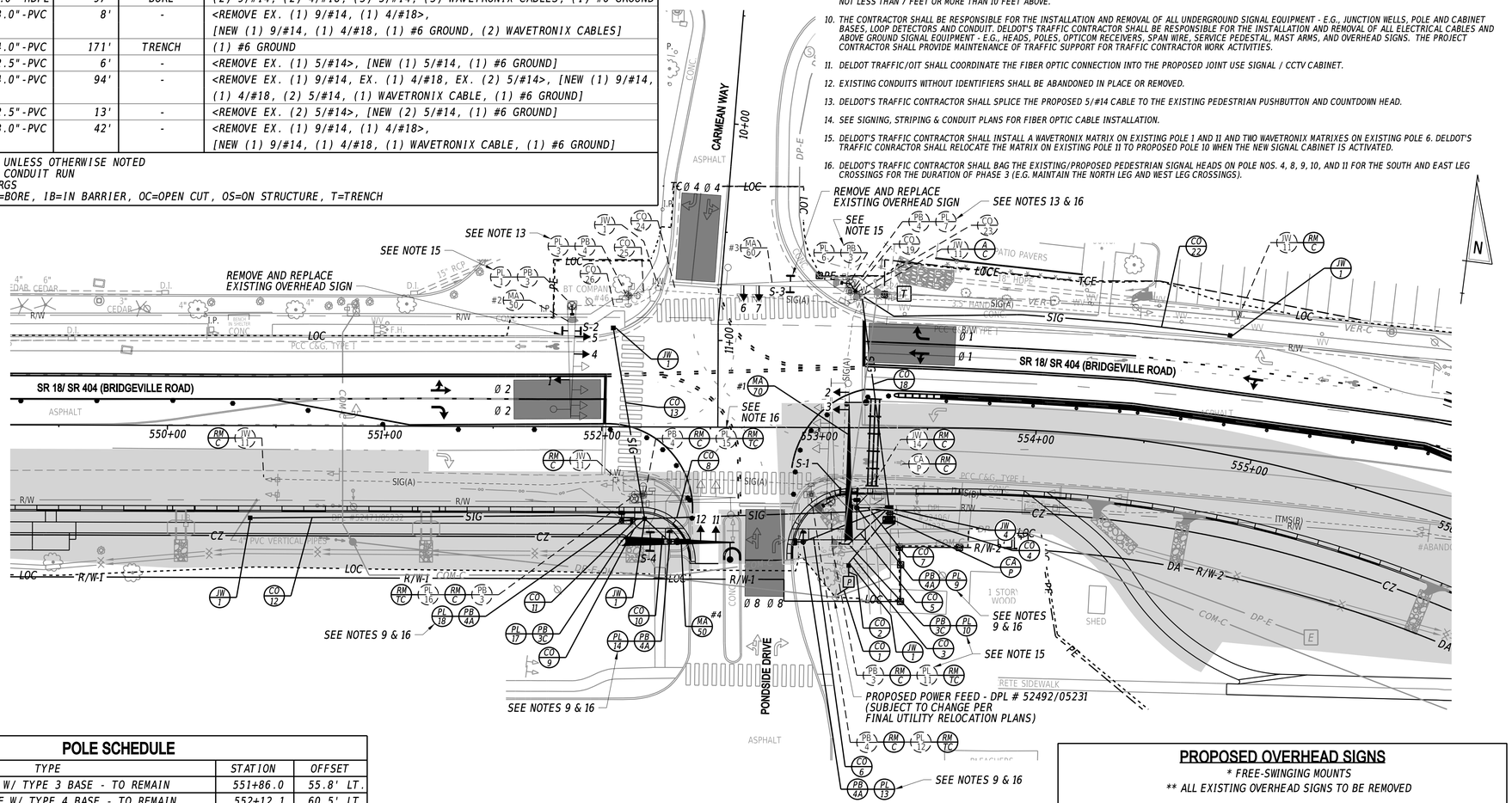
CONDUIT RUN SCHEDULE

CO NO.	NO. OF CONDUITS	SIZE/TYPE	LENGTH	INSTALL METHOD	AMOUNT AND TYPE OF CABLE / WIRE
1	1	2.0"-RGS	6'	TRENCH	(3) #8 THHN - LINE SIDE
2	1	2.0"-RGS	4'	TRENCH	(1) 2/#8 U.F. W/GROUND - LOAD SIDE
3	1	2.0"-RGS	27'	TRENCH/OC	(1) 2/#8 U.F. W/GROUND - LOAD SIDE
4	4	4.0"-PVC	4'	TRENCH	(4) 9/#14, (4) 4/#18, (7) 5/#14, (3) #6 GROUND, (4) WAVETRONIX CABLES, (3) #6 GROUND
5	1	3.0"-PVC	18'	TRENCH/OC	(1) 9/#14, (1) 4/#18, (1) #6 GROUND, (1) WAVETRONIX CABLE
6	1	2.5"-PVC	41'	TRENCH	(1) 5/#14, (1) #6 GROUND
7	1	2.5"-PVC	12'	TRENCH/OC	(1) 5/#14, (1) #6 GROUND
8	1	4.0"-HDPE	111'	BORE	(1) 9/#14, (1) 4/#18, (2) 5/#14, (1) #6 GROUND
9	1	3.0"-PVC	15'	TRENCH	(1) 9/#14, (1) 4/#18, (1) #6 GROUND
10	1	2.5"-PVC	16'	TRENCH	(1) 5/#14, (1) #6 GROUND
11	1	2.5"-PVC	11'	TRENCH	(1) 5/#14, (1) #6 GROUND
12	1	4.0"-PVC	182'	TRENCH	(1) #6 GROUND
13	1	4.0"-HDPE	90'	BORE	(1) #6 GROUND
18	1	4.0"-HDPE	97'	BORE	(2) 9/#14, (2) 4/#18, (3) 5/#14, (3) WAVETRONIX CABLES, (1) #6 GROUND
19*	1	3.0"-PVC	8'	-	<REMOVE EX. (1) 9/#14, (1) 4/#18>, [NEW (1) 9/#14, (1) 4/#18, (1) #6 GROUND, (2) WAVETRONIX CABLES]
22	1	4.0"-PVC	171'	TRENCH	(1) #6 GROUND
23*	1	2.5"-PVC	6'	-	<REMOVE EX. (1) 5/#14>, [NEW (1) 5/#14, (1) #6 GROUND]
24*	1	4.0"-PVC	94'	-	<REMOVE EX. (1) 9/#14, EX. (1) 4/#18, EX. (2) 5/#14>, [NEW (1) 9/#14, (1) 4/#18, (2) 5/#14, (1) WAVETRONIX CABLE, (1) #6 GROUND]
25*	1	2.5"-PVC	13'	-	<REMOVE EX. (2) 5/#14>, [NEW (2) 5/#14, (1) #6 GROUND]
26*	1	3.0"-PVC	42'	-	<REMOVE EX. (1) 9/#14, (1) 4/#18>, [NEW (1) 9/#14, (1) 4/#18, (1) WAVETRONIX CABLE, (1) #6 GROUND]

ALL CABLES ARE NEW UNLESS OTHERWISE NOTED
* DENOTES EXISTING CONDUIT RUN
TYPES: HDPE, PVC, RGS
INSTALL METHODS: B=BORE, IB=IN BARRIER, OC=OPEN CUT, OS=ON STRUCTURE, T=TRENCH



POLE SCHEDULE

NO.	TYPE	STATION	OFFSET
1*	50' MAST ARM W/ TYPE 3 BASE - TO REMAIN	551+86.0	55.8' LT.
3*	PEDESTAL POLE W/ TYPE 4 BASE - TO REMAIN	552+12.1	60.5' LT.
6*	60' MAST ARM W/ TYPE 3 BASE - TO REMAIN	553+14.3	66.3' LT.
7*	PEDESTAL POLE W/ TYPE 4 BASE - TO REMAIN	553+14.2	62.7' LT.
9	10' PEDESTAL POLE W/ TYPE 4A BASE	553+18.6	37.1' RT.
10	70' MAST ARM W/ TYPE 3C BASE	553+13.9	53.7' RT.
11*	55' MAST ARM W/ TYPE 3 BASE - TO BE REMOVED	553+05.6	33.9' RT.
12*	PEDESTAL POLE W/ TYPE 4 BASE - TO BE REMOVED	552+96.6	30.9' RT.
13	10' PEDESTAL POLE W/ TYPE 4A BASE	552+92.9	52.7' RT.
14	10' PEDESTAL POLE W/ TYPE 4A BASE	552+31.4	52.7' RT.
15*	PEDESTAL POLE W/ TYPE 4 BASE - TO BE REMOVED	552+19.2	31.1' RT.
16*	45' MAST ARM W/ TYPE 3 BASE - TO BE REMOVED	552+15.1	33.0' RT.
17	50' MAST ARM W/ TYPE 3C BASE	552+09.3	52.6' RT.
18	10' PEDESTAL POLE W/ TYPE 4A BASE	552+09.3	43.2' RT.

*DENOTES EXISTING

MAST ARM SCHEDULE

MA#	HEIGHT OF POLE	LENGTH OF ARM	# OF HEADS	# OPTICOM RECEIVERS	SF OF PR. SIGNING	ARM MOUNT HEIGHT
1	21'-6"	70 FT	2	1	10.5 SF	20'-0"
2*	21'-6"	50 FT	3	1	10.5 SF	20'-0"
3*	21'-6"	60 FT	2	1	13.5 SF	20'-0"
4	21'-6"	50 FT	2	1	13.5 SF	20'-0"

*DENOTES EXISTING

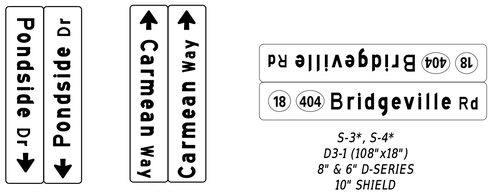
NOTES:

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.
3. ALL EXISTING LOOP DETECTORS TO BE ABANDONED.

   PROPOSED WAVETRONIX DETECTION ZONES (TO BE INSTALLED AT THE START OF PHASE 3):
   TYPE #2 - 18' x 40' - TO BE INSTALLED ON ALL MOVEMENTS FOR SR 18/404, PONDSIDE DRIVE, AND CARMEAN WAY.
4. ALL PROPOSED SIGNAL POLES ARE DELDOT MAST ARMS.
5. POLE BASES, CABINET BASE AND CONDUIT JUNCTION WELLS TO BE REMOVED IN ACCORDANCE WITH SECTION 211 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED.
6. ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED, AND COMPRESSION FITTING ARE NOT ACCEPTABLE.
7. DELDOT'S TRAFFIC CONTRACTOR SHALL INSTALL BACKPLATES ON ALL PROPOSED SIGNAL HEADS.
8. ALL PEDESTRIAN SIGNALS SHALL CONTAIN PEDESTRIAN COUNTDOWN DISPLAYS.
   PL9 & PL14 = R10-3eL (LEFT ARROW); PL13 & PL18 = R10-3eR (RIGHT ARROW)
9. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHOULD BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (50:1 OR FLATTER) LANDING AREA OF THE PEDESTRIAN CONNECTION WHEN POSSIBLE. WHERE THERE ARE PHYSICAL CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON ADJACENT TO A LEVEL ALL-WEATHER SURFACE, THE SURFACE SHOULD BE AS LEVEL AS FEASIBLE. THE PEDESTRIAN PUSHBUTTON SHOULD BE INSTALLED AT A HEIGHT OF 38 TO 46 INCHES ABOVE THE ADJOINING SIDEWALK, AND SHALL BE LOCATED SUCH THAT THE MAXIMUM REACH DISTANCE DOES NOT EXCEED 10 INCHES FROM THE ADJOINING SIDEWALK TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 7 FEET OR MORE THAN 10 FEET ABOVE.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND REMOVAL OF ALL UNDERGROUND SIGNAL EQUIPMENT - E.G., JUNCTION WELLS, POLE AND CABINET BASES, LOOP DETECTORS AND CONDUIT. DELDOT'S TRAFFIC CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND REMOVAL OF ALL ELECTRICAL CABLES AND ABOVE GROUND SIGNAL EQUIPMENT - E.G., HEADS, POLES, OPTICOM RECEIVERS, SPAN WIRE, SERVICE PEDESTAL, MAST ARMS, AND OVERHEAD SIGNS. THE PROJECT CONTRACTOR SHALL PROVIDE MAINTENANCE OF TRAFFIC SUPPORT FOR TRAFFIC CONTRACTOR WORK ACTIVITIES.
11. DELDOT TRAFFIC/OIT SHALL COORDINATE THE FIBER OPTIC CONNECTION INTO THE PROPOSED JOINT USE SIGNAL / CCTV CABINET.
12. EXISTING CONDUITS WITHOUT IDENTIFIERS SHALL BE ABANDONED IN PLACE OR REMOVED.
13. DELDOT'S TRAFFIC CONTRACTOR SHALL SPLICE THE PROPOSED 5/#14 CABLE TO THE EXISTING PEDESTRIAN PUSHBUTTON AND COUNTDOWN HEAD.
14. SEE SIGNING, STRIPING & CONDUIT PLANS FOR FIBER OPTIC CABLE INSTALLATION.
15. DELDOT'S TRAFFIC CONTRACTOR SHALL INSTALL A WAVETRONIX MATRIX ON EXISTING POLE 1 AND 11 AND TWO WAVETRONIX MATRIXES ON EXISTING POLE 6. DELDOT'S TRAFFIC CONRACTOR SHALL RELOCATE THE MATRIX ON EXISTING POLE 11 TO PROPOSED POLE 10 WHEN THE NEW SIGNAL CABINET IS ACTIVATED.
16. DELDOT'S TRAFFIC CONTRACTOR SHALL BAG THE EXISTING/PROPOSED PEDESTRIAN SIGNAL HEADS ON POLE NOS. 4, 8, 9, 10, AND 11 FOR THE SOUTH AND EAST LEG CROSSINGS FOR THE DURATION OF PHASE 3 (E.G. MAINTAIN THE NORTH LEG AND WEST LEG CROSSINGS).

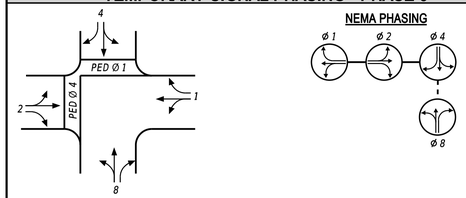
PROPOSED OVERHEAD SIGNS

* FREE-SWINGING MOUNTS
** ALL EXISTING OVERHEAD SIGNS TO BE REMOVED



S-1* D3-1 (84"x18") 8" & 6" D-SERIES BACK-TO-BACK
S-2* D3-1 (84"x18") 8" & 6" D-SERIES BACK-TO-BACK
S-3*, S-4* D3-1 (108"x18") 8" & 6" D-SERIES 10" SHIELD

TEMPORARY SIGNAL PHASING - PHASE 3

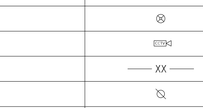


PHASING NOTES

1. PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY.
2. PHASES ASSOCIATED BY A DASHED LINE WILL OPERATE CONCURRENTLY.

TEMPORARY SIGNAL HEAD DIAGRAM - PHASE 3

*ALL EXISTING SIGNAL HEADS SHALL BE REMOVED



LEGEND

AB	ABANDON	OH #	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH #	*PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)*
CA X	*PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)*	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PB X	*PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)*
CO #	*PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)*	PL X	EXISTING POLE IDENTIFIER (# OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	*PROPOSED POLE IDENTIFIER (# OF POLE)*
JW X	*PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)*	RM C	REMOVE BY CONTRACTOR
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA XX	*PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)*	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL	P	P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
CCTV CAMERA		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION (FISHEYE)		

PREPARED BY

Whitman, Requardt and Associates, LLP
Engineers • Architects • Environmental Planners Est. 1915

THIS SEAL APPLIES TO THIS SHEET ONLY. 8/22/2024 DATE

KYLE D. CLEVENGER LICENSE No. 18723 DELAWARE PROFESSIONAL ENGINEER — SEAL

CONCURRENCE FOR INSTALLATION

CHIEF OF TRAFFIC ENGINEERING 8/23/2024 DATE

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

US 113 AT SR 18 / SR 404 GRADE SEPARATED INTERSECTION

CONTRACT	T201412701
COUNTY	SUSSEX
PERMIT NO.	S222 & SCAM225
DESIGNED BY:	K. CLEVENGER
CHECKED BY:	M. BUCKLEY

PHASE 3
TEMPORARY SIGNAL PLAN
SR 18/SR 404 (BRIDGEVILLE ROAD)
@ CARMEAN WAY/PONDSIDE DRIVE

SECTION	WRA
SHEET NO.	346

LAST REVISED: 9/11/2018
8/7/2025
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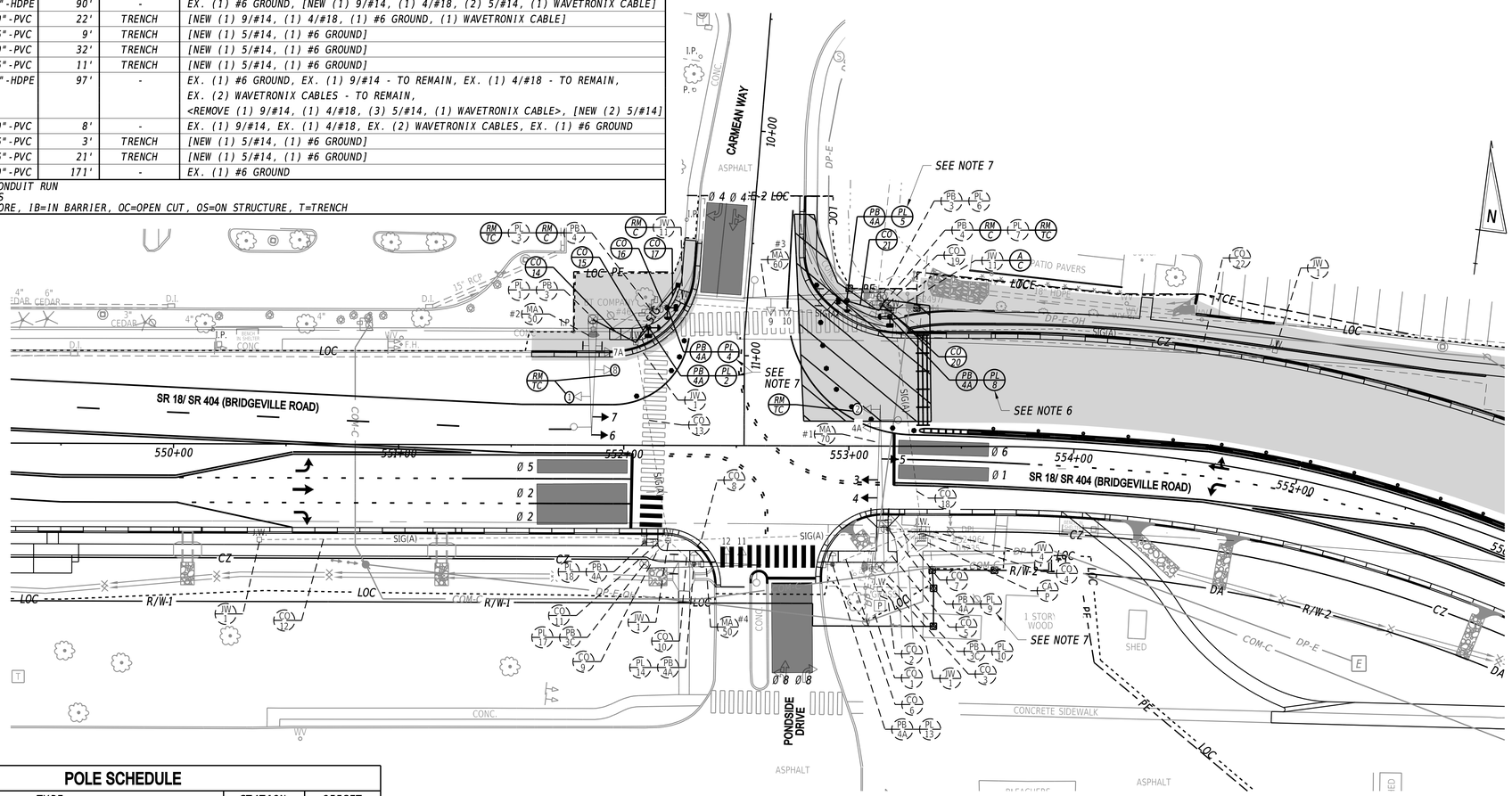
CONDUIT RUN SCHEDULE

CO NO.	NO. OF CONDUITS	SIZE/TYPE	LENGTH	INSTALL METHOD	AMOUNT AND TYPE OF CABLE / WIRE
1*	1	2.0"-RGS	6'	-	EX. (3) #8 THHN - LINE SIDE
2*	1	2.0"-RGS	4'	-	EX. (1) 2/#8 U.F. W/GROUND - LOAD SIDE
3*	1	2.0"-RGS	27'	-	EX. (1) 2/#8 U.F. W/GROUND - LOAD SIDE
4*	4	4.0"-PVC	4'	-	EX. (3) #6 GROUND, EX. (3) 9/#14 - TO REMAIN, EX. (3) 4/#18 - TO REMAIN, EX. (4) 5/#14 - TO REMAIN, EX. (3) WAVETRONIX CABLES - TO REMAIN, <REMOVE EX. (1) 9/#14, EX. (1) 4/#18, EX. (3) 5/#14, EX. (1) WAVETRONIX CABLE>, [NEW (1) 9/#14, (1) 4/#18, (4) 5/#14, (1) WAVETRONIX CABLE]
5*	1	3.0"-PVC	18'	-	EX. (1) 9/#14, EX. (1) 4/#18, EX. (1) #6 GROUND, EX. (1) WAVETRONIX CABLE
6*	1	2.5"-PVC	41'	-	EX. (1) 5/#14, EX. (1) #6 GROUND
7*	1	2.5"-PVC	12'	-	EX. (1) 5/#14, EX. (1) #6 GROUND
8*	1	4.0"-HDPE	111'	-	EX. (1) #6 GROUND, EX. (1) 9/#14, EX. (1) 4/#18, EX. (2) 5/#14, [NEW (1) 9/#14, (1) 4/#18, (2) 5/#14, (1) WAVETRONIX CABLE]
9*	1	3.0"-PVC	15'	-	EX. (1) 9/#14, EX. (1) 4/#18, EX. (1) #6 GROUND
10*	1	2.5"-PVC	16'	-	EX. (1) 5/#14, EX. (1) #6 GROUND
11*	1	2.5"-PVC	11'	-	EX. (1) 5/#14, EX. (1) #6 GROUND
12*	1	4.0"-PVC	182'	-	EX. (1) #6 GROUND
13*	1	4.0"-HDPE	90'	-	EX. (1) #6 GROUND, [NEW (1) 9/#14, (1) 4/#18, (2) 5/#14, (1) WAVETRONIX CABLE]
14	1	3.0"-PVC	22'	TRENCH	[NEW (1) 9/#14, (1) 4/#18, (1) #6 GROUND, (1) WAVETRONIX CABLE]
15	1	2.5"-PVC	9'	TRENCH	[NEW (1) 5/#14, (1) #6 GROUND]
16	1	4.0"-PVC	32'	TRENCH	[NEW (1) 5/#14, (1) #6 GROUND]
17	1	2.5"-PVC	11'	TRENCH	[NEW (1) 5/#14, (1) #6 GROUND]
18*	1	4.0"-HDPE	97'	-	EX. (1) #6 GROUND, EX. (1) 9/#14 - TO REMAIN, EX. (1) 4/#18 - TO REMAIN, EX. (2) WAVETRONIX CABLES - TO REMAIN, <REMOVE (1) 9/#14, (1) 4/#18, (3) 5/#14, (1) WAVETRONIX CABLE>, [NEW (2) 5/#14]
19*	1	3.0"-PVC	8'	-	EX. (1) 9/#14, EX. (1) 4/#18, EX. (2) WAVETRONIX CABLES, EX. (1) #6 GROUND
20	1	2.5"-PVC	3'	TRENCH	[NEW (1) 5/#14, (1) #6 GROUND]
21	1	2.5"-PVC	21'	TRENCH	[NEW (1) 5/#14, (1) #6 GROUND]
22*	1	4.0"-PVC	171'	-	EX. (1) #6 GROUND

** DENOTES EXISTING CONDUIT RUN*
TYPES: HDPE, PVC, RGS
INSTALL METHODS: B=BORE, IB=IN BARRIER, OC=OPEN CUT, OS=ON STRUCTURE, T=TRENCH

NOTES:

1. *ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.*
2. *ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.*
3. *PROPOSED WAVETRONIX DETECTION ZONES (TO BE INSTALLED AT THE START OF PHASE 4):*
   TYPE #1 - 6' x 40' - TO BE INSTALLED ON EASTBOUND SR 18/404 LEFT TURN MOVEMENTS AND WESTBOUND SR 18/404 MOVEMENTS.
   TYPE #2 - 18' x 40' - TO BE INSTALLED ON EASTBOUND SR 18/404 THROUGH AND RIGHT TURN MOVEMENTS, PONDSIDE DRIVE MOVEMENTS, AND CARMEAN WAY MOVEMENTS.
4. *DELDOT TRAFFIC/TMC SHALL MODIFY THE SIGNAL PHASING, AS SHOWN.*
5. *DELDOT'S TRAFFIC CONTRACTOR SHALL INSTALL BACKPLATES ON ALL PROPOSED SIGNAL HEADS.*
6. *DELDOT'S TRAFFIC CONTRACTOR SHALL SLIDE EXISTING SIGNAL HEADS 4A AND 7A FROM THE PHASE 3 LOCATIONS TO THE PROPOSED PHASE 4 SIGNAL HEAD LOCATIONS 4 AND 7 AS SHOWN.*
7. *DELDOT'S TRAFFIC CONTRACTOR SHALL BAG PEDESTRIAN SIGNAL HEADS ON POLE NOS. 4, 5, 6 AND 9 FOR THE DURATION OF PHASE 4.*
8. *DELDOT'S TRAFFIC CONTRACTOR SHALL INSTALL ALL SIGNAL HEADS IN THE ULTIMATE LOCATIONS (SHOWN ON SG-09) AT THE CONCLUSION OF PHASE 4. DELDOT'S TRAFFIC CONTRACTOR SHALL REMOVE THE WAVETRONIX MATRIXES FROM POLES 1, 6 AND 10 ONCE THE FINAL PAVING AND DETECTOR LOOPS HAVE BEEN INSTALLED.*



POLE SCHEDULE

NO.	TYPE	STATION	OFFSET
1*	50' MAST ARM W/ TYPE 3 BASE	551+86.0	55.8' LT.
2	10' PEDESTAL POLE W/ TYPE 4A BASE	552+10.8	52.2' LT.
3*	PEDESTAL POLE W/ TYPE 4 BASE - TO BE REMOVED	552+12.1	60.5' LT.
4	10' PEDESTAL POLE W/ TYPE 4A BASE	552+19.1	61.1' LT.
5	10' PEDESTAL POLE W/ TYPE 4A BASE	552+98.9	64.5' LT.
6*	60' MAST ARM W/ TYPE 3 BASE - TO REMAIN	553+14.3	66.3' LT.
7*	PEDESTAL POLE W/ TYPE 4 BASE - TO BE REMOVED	553+14.2	62.7' LT.
8	10' PEDESTAL POLE W/ TYPE 4A BASE	553+18.0	57.5' LT.
9*	10' PEDESTAL POLE W/ TYPE 4A BASE	553+18.6	37.1' RT.
10*	70' MAST ARM W/ TYPE 3C BASE	553+13.9	53.7' RT.
13*	10' PEDESTAL POLE W/ TYPE 4A BASE	552+92.9	52.7' RT.
14*	10' PEDESTAL POLE W/ TYPE 4A BASE	552+31.4	52.7' RT.
17*	50' MAST ARM W/ TYPE 3C BASE	552+09.3	52.6' RT.
18*	10' PEDESTAL POLE W/ TYPE 4A BASE	552+09.3	43.2' RT.

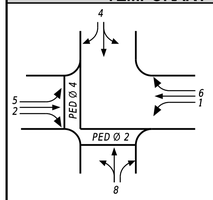
**DENOTES EXISTING*

MAST ARM SCHEDULE

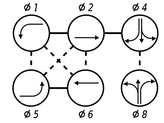
MA#	HEIGHT OF POLE	LENGTH OF ARM	# OF HEADS	# OPTICOM RECEIVERS	SF OF PR. SIGNING	ARM MOUNT HEIGHT
1	21'-6"	70 FT	2	1	10.5 SF	20'-0"
2	21'-6"	50 FT	3	1	10.5 SF	20'-0"
3	21'-6"	60 FT	2	1	13.5 SF	20'-0"
4	21'-6"	50 FT	2	1	13.5 SF	20'-0"

**ALL MAST ARMS ARE EXISTING*

TEMPORARY SIGNAL PHASING - PHASE 4



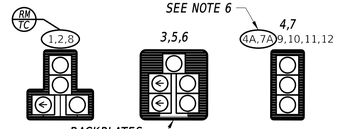
NEMA PHASING



PHASING NOTES

1. *PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY.*
2. *PHASES ASSOCIATED BY A DASHED LINE WILL OPERATE CONCURRENTLY.*

TEMPORARY SIGNAL HEAD DIAGRAM - PHASE 4



LEGEND

AB	*ABANDON*	OH #	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	*OH #*	*PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)*
CA X	*PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)*	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	*PB X*	*PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)*
CO #	*PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)*	PL X	EXISTING POLE IDENTIFIER (# OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	*PL X*	*PROPOSED POLE IDENTIFIER (# OF POLE)*
JW X	*PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)*	RM C	*REMOVE BY CONTRACTOR*
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	*REMOVE BY OTHERS*
MA XX	*PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)*	RM TC	*REMOVE BY TRAFFIC CONTRACTOR*

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		▭
LOOP DETECTOR, TYPE 2		▬
LUMINAIRE	—○	—●
MAST ARM	▷	▶
MICROWAVE DETECTION	—◀	—◀
OPTICOM RECEIVER	—○	—●
OVERHEAD SIGNING	—|	—|
PEDESTRIAN POLE/BASE	◎	◉
PEDESTRIAN PUSHBUTTON	—□	—■
PEDESTRIAN SIGNAL HEAD	⌐□	⌐■
RIGHT-OF-WAY	- - - -	— R/W —
SERVICE PEDESTAL	P	P
SIGNAL CABINET		■
SIGNAL HEAD	—▷	—▶
SIGNAL POLE/BASE	⊗	⊙
CCTV CAMERA		■
SPAN WIRE	— XX —	—◇—
UTILITY POLE	⊘	●
VIDEO DETECTION (FISHEYE)		◀

PREPARED BY

WRA Whitman, Requardt and Associates, LLP
Engineers • Architects • Environmental Planners Est. 1915

THIS SEAL APPLIES TO THIS SHEET ONLY.

8/22/2024
DATE

KYLE O. CLEVENGER — LICENSE — No. 18723 — DELAWARE — PROFESSIONAL ENGINEER
SEAL

CONCURRENCE FOR INSTALLATION

CHIEF OF TRAFFIC ENGINEERING

8/23/2024
DATE

ADDENDA / REVISIONS		SCALE	US 113 AT SR 18 / SR 404 GRADE SEPARATED INTERSECTION	CONTRACT T201412701	PERMIT NO. S222 & SCAM225	PHASE 4A-4B TEMPORARY SIGNAL PLAN SR 18/SR 404 (BRIDGEVILLE ROAD) @ CARMEAN WAY/PONDSIDE DRIVE	SECTION WRA
		0 30 60 90 FEET		COUNTY SUSSEX	DESIGNED BY: K. CLEVENGER		SHEET NO. 347
					CHECKED BY: M. BUCKLEY		

LAST REVISED: 9/11/2018
8/22/2024
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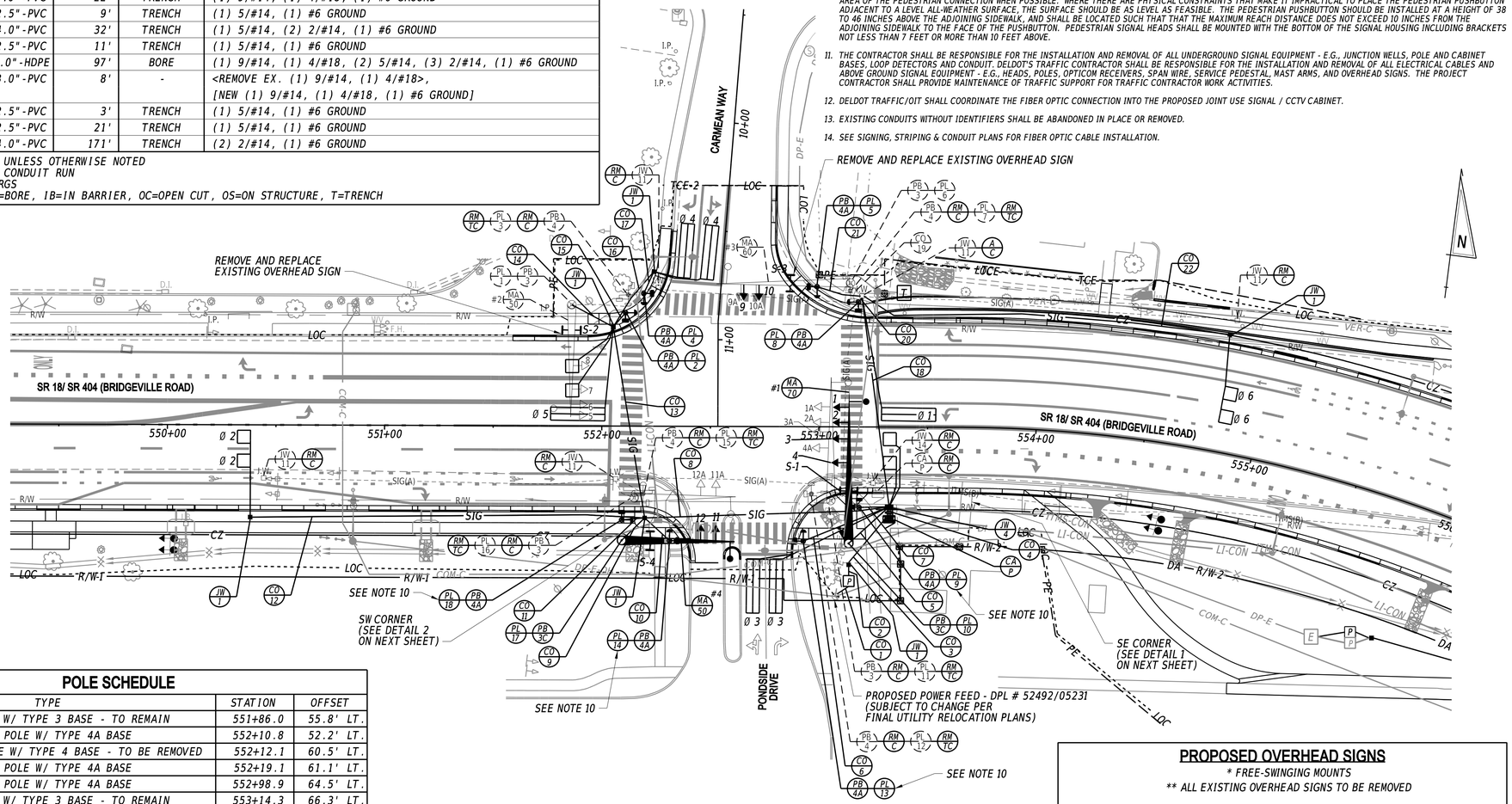
CONDUIT RUN SCHEDULE

CO NO.	NO. OF CONDUITS	SIZE/TYPE	LENGTH	INSTALL METHOD	AMOUNT AND TYPE OF CABLE / WIRE
1	1	2.0"-RGS	6'	TRENCH	(3) #8 THHN - LINE SIDE
2	1	2.0"-RGS	4'	TRENCH	(1) 2/#8 U.F. W/GROUND - LOAD SIDE
3	1	2.0"-RGS	27'	TRENCH/OC	(1) 2/#8 U.F. W/GROUND - LOAD SIDE
4	4	4.0"-PVC	4'	TRENCH	(4) 9/#14, (4) 4/#18, (8) 5/#14, (14) 2/#14, (3) #6 GROUND, (1) CCTV CAMERA CABLE
5	1	3.0"-PVC	18'	TRENCH/OC	(1) 9/#14, (1) 4/#18, (1) #6 GROUND, (1) CCTV CAMERA CABLE
6	1	2.5"-PVC	41'	TRENCH	(1) 5/#14, (1) #6 GROUND
7	1	2.5"-PVC	12'	TRENCH/OC	(1) 5/#14, (1) #6 GROUND
8	1	4.0"-HDPE	111'	BORE	(2) 9/#14, (2) 4/#18, (4) 5/#14, (7) 2/#14, (1) #6 GROUND
9	1	3.0"-PVC	15'	TRENCH	(1) 9/#14, (1) 4/#18, (1) #6 GROUND
10	1	2.5"-PVC	16'	TRENCH	(1) 5/#14, (1) #6 GROUND
11	1	2.5"-PVC	11'	TRENCH	(1) 5/#14, (1) #6 GROUND
12	1	4.0"-PVC	182'	TRENCH	(2) 2/#14, (1) #6 GROUND
13	1	4.0"-HDPE	90'	BORE	(1) 9/#14, (1) 4/#18, (2) 5/#14, (5) 2/#14, (1) #6 GROUND
14	1	3.0"-PVC	22'	TRENCH	(1) 9/#14, (1) 4/#18, (1) #6 GROUND
15	1	2.5"-PVC	9'	TRENCH	(1) 5/#14, (1) #6 GROUND
16	1	4.0"-PVC	32'	TRENCH	(1) 5/#14, (2) 2/#14, (1) #6 GROUND
17	1	2.5"-PVC	11'	TRENCH	(1) 5/#14, (1) #6 GROUND
18	1	4.0"-HDPE	97'	BORE	(1) 9/#14, (1) 4/#18, (2) 5/#14, (3) 2/#14, (1) #6 GROUND
19*	1	3.0"-PVC	8'	-	<REMOVE EX. (1) 9/#14, (1) 4/#18>, [NEW (1) 9/#14, (1) 4/#18, (1) #6 GROUND]
20	1	2.5"-PVC	3'	TRENCH	(1) 5/#14, (1) #6 GROUND
21	1	2.5"-PVC	21'	TRENCH	(1) 5/#14, (1) #6 GROUND
22	1	4.0"-PVC	171'	TRENCH	(2) 2/#14, (1) #6 GROUND

ALL CABLES ARE NEW UNLESS OTHERWISE NOTED
* DENOTES EXISTING CONDUIT RUN
TYPES: HDPE, PVC, RGS
INSTALL METHODS: B=BORE, IB=IN BARRIER, OC=OPEN CUT, OS=ON STRUCTURE, T=TRENCH

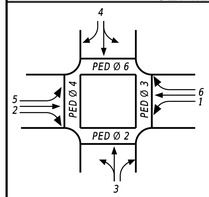


NOTES:

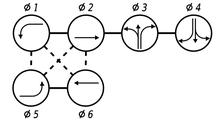
1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.
3. ALL EXISTING LOOP DETECTORS TO BE ABANDONED.

   PROPOSED LOOP DETECTORS:
   TYPE #1 - 6' x 6' - TO BE INSTALLED ON SR 18/404 THROUGH MOVEMENTS.
   TYPE #2 - 6' x 25' - TO BE INSTALLED ON SR 18/404 LEFT TURN MOVEMENTS AND ALL MOVEMENTS FOR PONDSIDE DRIVE AND CARMEAN WAY.
   SYSTEM - 6' x 6' - TO BE INSTALLED IN SR 18/404 RECEIVING LANES, AS SHOWN.
4. ALL PROPOSED SIGNAL POLES ARE DELDOT MAST ARMS.
5. POLE BASES, CABINET BASE AND CONDUIT JUNCTION WELLS TO BE REMOVED IN ACCORDANCE WITH SECTION 211 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED.
6. ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED, AND COMPRESSION FITTING ARE NOT ACCEPTABLE.
7. DELDOT'S TRAFFIC CONTRACTOR SHALL INSTALL BACKPLATES ON ALL PROPOSED SIGNAL HEADS.
8. ALL CONDUIT SHALL BE SCHEDULE 80 PVC WHEN INSTALLED BY TRENCHING OR OPEN CUT AND HDPE SDR-13.5 WHEN INSTALLED BY BORING, UNLESS OTHERWISE NOTED.
9. ALL PEDESTRIAN SIGNALS SHALL CONTAIN PEDESTRIAN COUNTDOWN DISPLAYS.
   PL2, PL5, PL9, PL14 = R10-3eL (LEFT ARROW); PL4, PL8, PL13, PL18 = R10-3eR (RIGHT ARROW)
10. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHOULD BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (50:1 OR FLATTER) LANDING AREA OF THE PEDESTRIAN CONNECTION WHEN POSSIBLE. WHERE THERE ARE PHYSICAL CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON ADJACENT TO A LEVEL ALL-WEATHER SURFACE, THE SURFACE SHOULD BE AS LEVEL AS FEASIBLE. THE PEDESTRIAN PUSHBUTTON SHOULD BE INSTALLED AT A HEIGHT OF 38 TO 46 INCHES ABOVE THE ADJOINING SIDEWALK, AND SHALL BE LOCATED SUCH THAT THAT THE MAXIMUM REACH DISTANCE DOES NOT EXCEED 10 INCHES FROM THE ADJOINING SIDEWALK TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 7 FEET OR MORE THAN 10 FEET ABOVE.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND REMOVAL OF ALL UNDERGROUND SIGNAL EQUIPMENT - E.G., JUNCTION WELLS, POLE AND CABINET BASES, LOOP DETECTORS AND CONDUIT. DELDOT'S TRAFFIC CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND REMOVAL OF ALL ELECTRICAL CABLES AND ABOVE GROUND SIGNAL EQUIPMENT - E.G., HEADS, POLES, OPTICOM RECEIVERS, SPAN WIRE, SERVICE PEDESTAL, MAST ARMS, AND OVERHEAD SIGNS. THE PROJECT CONTRACTOR SHALL PROVIDE MAINTENANCE OF TRAFFIC SUPPORT FOR TRAFFIC CONTRACTOR WORK ACTIVITIES.
12. DELDOT TRAFFIC/OIT SHALL COORDINATE THE FIBER OPTIC CONNECTION INTO THE PROPOSED JOINT USE SIGNAL / CCTV CABINET.
13. EXISTING CONDUITS WITHOUT IDENTIFIERS SHALL BE ABANDONED IN PLACE OR REMOVED.
14. SEE SIGNING, STRIPING & CONDUIT PLANS FOR FIBER OPTIC CABLE INSTALLATION.

ULTIMATE SIGNAL PHASING



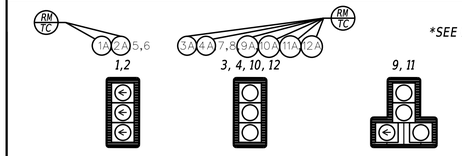
NEMA PHASING



PHASING NOTES

1. PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY.
2. PHASES ASSOCIATED BY A DASHED LINE WILL OPERATE CONCURRENTLY.

ULTIMATE SIGNAL HEAD DIAGRAM



*SEE NOTE 7

LEGEND

AB	ABANDON	OH #	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH #	PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (# OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (# OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA XX	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL	P	P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
CCTV CAMERA		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION		

POLE SCHEDULE

NO.	TYPE	STATION	OFFSET
1*	50' MAST ARM W/ TYPE 3 BASE - TO REMAIN	551+86.0	55.8' LT.
2	10' PEDESTAL POLE W/ TYPE 4A BASE	552+10.8	52.2' LT.
3*	PEDESTAL POLE W/ TYPE 4 BASE - TO BE REMOVED	552+12.1	60.5' LT.
4	10' PEDESTAL POLE W/ TYPE 4A BASE	552+19.1	61.1' LT.
5	10' PEDESTAL POLE W/ TYPE 4A BASE	552+98.9	64.5' LT.
6*	60' MAST ARM W/ TYPE 3 BASE - TO REMAIN	553+14.3	66.3' LT.
7*	PEDESTAL POLE W/ TYPE 4 BASE - TO BE REMOVED	553+14.2	62.7' LT.
8	10' PEDESTAL POLE W/ TYPE 4A BASE	553+18.0	57.5' LT.
9	10' PEDESTAL POLE W/ TYPE 4A BASE	553+18.6	37.1' RT.
10	70' MAST ARM W/ TYPE 3C BASE	553+13.9	53.7' RT.
11*	55' MAST ARM W/ TYPE 3 BASE - TO BE REMOVED	553+05.6	33.9' RT.
12*	PEDESTAL POLE W/ TYPE 4 BASE - TO BE REMOVED	552+96.6	30.9' RT.
13	10' PEDESTAL POLE W/ TYPE 4A BASE	552+92.9	52.7' RT.
14	10' PEDESTAL POLE W/ TYPE 4A BASE	552+31.4	52.7' RT.
15*	PEDESTAL POLE W/ TYPE 4 BASE - TO BE REMOVED	552+19.2	31.1' RT.
16*	45' MAST ARM W/ TYPE 3 BASE - TO BE REMOVED	552+15.1	33.0' RT.
17	50' MAST ARM W/ TYPE 3C BASE	552+09.3	52.6' RT.
18	10' PEDESTAL POLE W/ TYPE 4A BASE	552+09.3	43.2' RT.

*DENOTES EXISTING

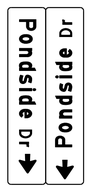
MAST ARM SCHEDULE

MA#	HEIGHT OF POLE	LENGTH OF ARM	# OF HEADS	# OPTICOM RECEIVERS	SF OF PR. SIGNING	ARM MOUNT HEIGHT
1	21'-6"	70 FT	4	1	10.5 SF	20'-0"
2*	21'-6"	50 FT	4	1	10.5 SF	20'-0"
3*	21'-6"	60 FT	2	1	13.5 SF	20'-0"
4	21'-6"	50 FT	2	1	13.5 SF	20'-0"

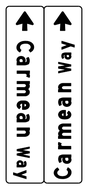
*DENOTES EXISTING

PROPOSED OVERHEAD SIGNS

* FREE-SWINGING MOUNTS
** ALL EXISTING OVERHEAD SIGNS TO BE REMOVED



S-1*
D3-1 (84"x18")
8" & 6" D-SERIES
BACK-TO-BACK



S-2*
D3-1 (84"x18")
8" & 6" D-SERIES
BACK-TO-BACK

S-3*, S-4*
D3-1a (108"x18")
8" & 6" D-SERIES
10" SHIELD

PREPARED BY

Whitman, Requardt and Associates, LLP
Engineers • Architects • Environmental Planners Est. 1915

THIS SEAL APPLIES TO THIS SHEET ONLY. 8/22/2024 DATE

KYLE O. CLEVENGER LICENSE No. 18723 DELAWARE PROFESSIONAL ENGINEER

SEAL

CONCURRENCE FOR INSTALLATION

CHIEF OF TRAFFIC ENGINEERING 8/23/2024 DATE

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

US 113 AT SR 18 / SR 404 GRADE SEPARATED INTERSECTION

CONTRACT	PERMIT NO.	S222 & SCAM225
T201412701	DESIGNED BY:	K. CLEVENGER
COUNTY	CHECKED BY:	M. BUCKLEY
SUSSEX		

ULTIMATE SIGNAL PLAN
SR 18/SR 404 (BRIDGEVILLE ROAD)
@ CARMEAN WAY/PONDSIDE DRIVE

SECTION: WRA
SHEET NO.: 348

LAST REVISED: 9/11/2018
8/7/2025
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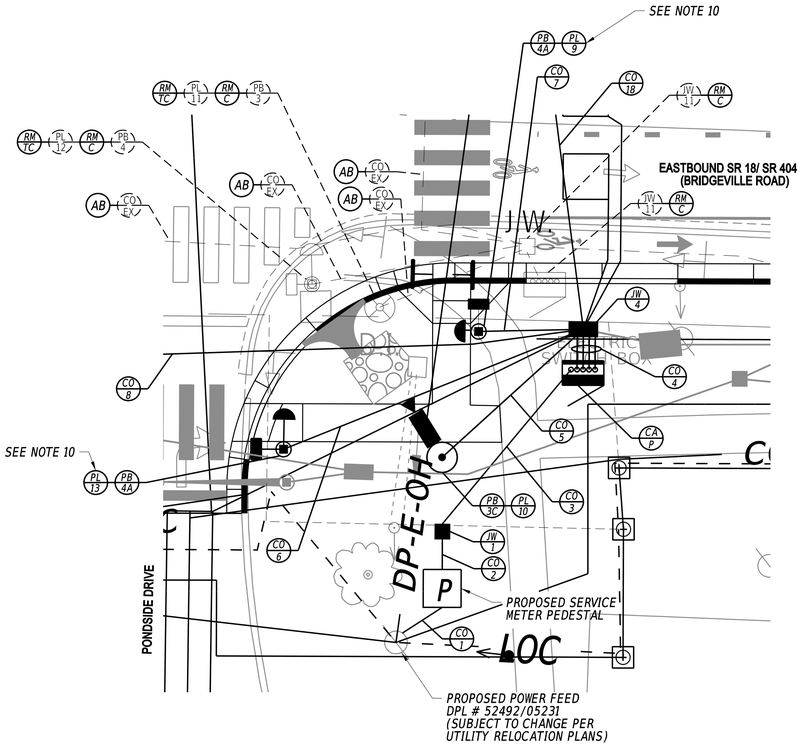
CONDUIT RUN SCHEDULE

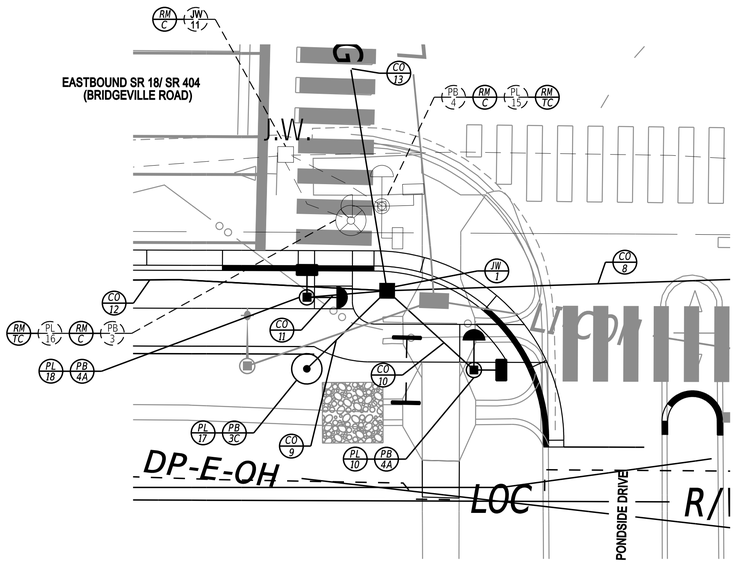
CO NO.	NO. OF CONDUITS	SIZE/TYPE	LENGTH	INSTALL METHOD	AMOUNT AND TYPE OF CABLE / WIRE
1	1	2.0"-RGS	6'	TRENCH	(3) #8 THHN - LINE SIDE
2	1	2.0"-RGS	4'	TRENCH	(1) 2/#8 U.F. W/GROUND - LOAD SIDE
3	1	2.0"-RGS	27'	TRENCH/OC	(1) 2/#8 U.F. W/GROUND - LOAD SIDE
4	4	4.0"-PVC	4'	TRENCH	(4) 9/#14, (4) 4/#18, (8) 5/#14, (14) 2/#14, (3) #6 GROUND, (1) CCTV CAMERA CABLE
5	1	3.0"-PVC	18'	TRENCH/OC	(1) 9/#14, (1) 4/#18, (1) #6 GROUND, (1) CCTV CAMERA CABLE
6	1	2.5"-PVC	41'	TRENCH	(1) 5/#14, (1) #6 GROUND
7	1	2.5"-PVC	12'	TRENCH/OC	(1) 5/#14, (1) #6 GROUND
8	1	4.0"-HDPE	111'	BORE	(2) 9/#14, (2) 4/#18, (4) 5/#14, (7) 2/#14, (1) #6 GROUND
9	1	3.0"-PVC	15'	TRENCH	(1) 9/#14, (1) 4/#18, (1) #6 GROUND
10	1	2.5"-PVC	16'	TRENCH	(1) 5/#14, (1) #6 GROUND
11	1	2.5"-PVC	11'	TRENCH	(1) 5/#14, (1) #6 GROUND
12	1	4.0"-PVC	182'	TRENCH	(2) 2/#14, (1) #6 GROUND
13	1	4.0"-HDPE	90'	BORE	(1) 9/#14, (1) 4/#18, (2) 5/#14, (5) 2/#14, (1) #6 GROUND
14	1	3.0"-PVC	22'	TRENCH	(1) 9/#14, (1) 4/#18, (1) #6 GROUND
15	1	2.5"-PVC	9'	TRENCH	(1) 5/#14, (1) #6 GROUND
16	1	4.0"-PVC	32'	TRENCH	(1) 5/#14, (2) 2/#14, (1) #6 GROUND
17	1	2.5"-PVC	11'	TRENCH	(1) 5/#14, (1) #6 GROUND
18	1	4.0"-HDPE	97'	BORE	(1) 9/#14, (1) 4/#18, (2) 5/#14, (3) 2/#14, (1) #6 GROUND
19*	1	3.0"-PVC	8'	-	<REMOVE EX. (1) 9/#14, (1) 4/#18>, [NEW (1) 9/#14, (1) 4/#18, (1) #6 GROUND]
20	1	2.5"-PVC	3'	TRENCH	(1) 5/#14, (1) #6 GROUND
21	1	2.5"-PVC	21'	TRENCH	(1) 5/#14, (1) #6 GROUND
22	1	4.0"-PVC	171'	TRENCH	(2) 2/#14, (1) #6 GROUND

ALL CABLES ARE NEW UNLESS OTHERWISE NOTED
* DENOTES EXISTING CONDUIT RUN
TYPES: HDPE, PVC, RGS
INSTALL METHODS: B=BORE, IB=IN BARRIER, OC=OPEN CUT, OS=ON STRUCTURE, T=TRENCH

DETAIL 1 - SE CORNER



DETAIL 2 - SW CORNER

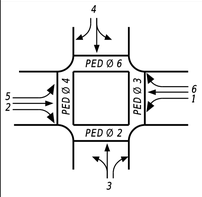


NOTES:

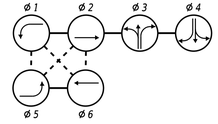
1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.
3. ALL EXISTING LOOP DETECTORS TO BE ABANDONED.

   PROPOSED LOOP DETECTORS:
   TYPE #1 - 6' x 6' - TO BE INSTALLED ON SR 18/404 THROUGH MOVEMENTS.
   TYPE #2 - 6' x 25' - TO BE INSTALLED ON SR 18/404 LEFT TURN MOVEMENTS AND ALL MOVEMENTS FOR PONDSIDE DRIVE AND CARMEAN WAY.
   SYSTEM - 6' x 6' - TO BE INSTALLED IN SR 18/404 RECEIVING LANES, AS SHOWN.
4. ALL PROPOSED SIGNAL POLES ARE DELDOT MAST ARMS.
5. POLE BASES, CABINET BASE AND CONDUIT JUNCTION WELLS TO BE REMOVED IN ACCORDANCE WITH SECTION 211 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED.
6. ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED, AND COMPRESSION FITTING ARE NOT ACCEPTABLE.
7. DELDOT'S TRAFFIC CONTRACTOR SHALL INSTALL BACKPLATES ON ALL PROPOSED SIGNAL HEADS.
8. ALL CONDUIT SHALL BE SCHEDULE 80 PVC WHEN INSTALLED BY TRENCHING OR OPEN CUT AND HDPE SDR-13.5 WHEN INSTALLED BY BORING, UNLESS OTHERWISE NOTED.
9. ALL PEDESTRIAN SIGNALS SHALL CONTAIN PEDESTRIAN COUNTDOWN DISPLAYS.
   PL2, PL5, PL9, PL14 = R10-3eL (LEFT ARROW); PL4, PL8, PL13, PL18 = R10-3eR (RIGHT ARROW)
10. PROPOSED POLE BASES SUPPORTING POLES WITH PEDESTRIAN PUSHBUTTONS SHOULD BE CONSTRUCTED IMMEDIATELY ADJACENT TO THE FLAT (50:1 OR FLATTER) LANDING AREA OF THE PEDESTRIAN CONNECTION WHEN POSSIBLE. WHERE THERE ARE PHYSICAL CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON ADJACENT TO A LEVEL ALL-WEATHER SURFACE, THE SURFACE SHOULD BE AS LEVEL AS FEASIBLE. THE PEDESTRIAN PUSHBUTTON SHOULD BE INSTALLED AT A HEIGHT OF 38 TO 46 INCHES ABOVE THE ADJOINING SIDEWALK, AND SHALL BE LOCATED SUCH THAT THAT THE MAXIMUM REACH DISTANCE DOES NOT EXCEED 10 INCHES FROM THE ADJOINING SIDEWALK TO THE FACE OF THE PUSHBUTTON. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 7 FEET OR MORE THAN 10 FEET ABOVE.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND REMOVAL OF ALL UNDERGROUND SIGNAL EQUIPMENT - E.G., JUNCTION WELLS, POLE AND CABINET BASES, LOOP DETECTORS AND CONDUIT. DELDOT'S TRAFFIC CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND REMOVAL OF ALL ELECTRICAL CABLES AND ABOVE GROUND SIGNAL EQUIPMENT - E.G., HEADS, POLES, OPTICOM RECEIVERS, SPAN WIRE, SERVICE PEDESTAL, MAST ARMS, AND OVERHEAD SIGNS. THE PROJECT CONTRACTOR SHALL PROVIDE MAINTENANCE OF TRAFFIC SUPPORT FOR TRAFFIC CONTRACTOR WORK ACTIVITIES.
12. DELDOT TRAFFIC/OIT SHALL COORDINATE THE FIBER OPTIC CONNECTION INTO THE PROPOSED JOINT USE SIGNAL / CCTV CABINET.
13. EXISTING CONDUITS WITHOUT IDENTIFIERS SHALL BE ABANDONED IN PLACE OR REMOVED.
14. SEE SIGNING, STRIPING & CONDUIT PLANS FOR FIBER OPTIC CABLE INSTALLATION.

ULTIMATE SIGNAL PHASING



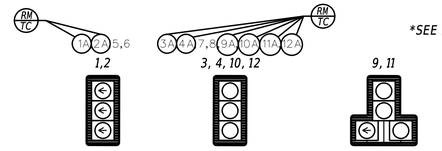
NEMA PHASING



PHASING NOTES

1. PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY.
2. PHASES ASSOCIATED BY A DASHED LINE WILL OPERATE CONCURRENTLY.

ULTIMATE SIGNAL HEAD DIAGRAM



*SEE NOTE 7

LEGEND

AB	ABANDON	OH #	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH #	PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (# OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL #	PROPOSED POLE IDENTIFIER (# OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA XX	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		□
LOOP DETECTOR, TYPE 2		▭
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL	P	P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
CCTV CAMERA		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION		

PREPARED BY
Whitman, Requardt and Associates, LLP
Engineers • Architects • Environmental Planners Est. 1915

8/22/2024
DATE

THIS SEAL APPLIES TO THIS SHEET ONLY.

KYLE O. CLEVENGER LICENSE No. 18723 DELAWARE PROFESSIONAL ENGINEER
SEAL

CONCURRENCE FOR INSTALLATION

8/23/2024
DATE

CHIEF OF TRAFFIC ENGINEERING

ADDENDA / REVISIONS

SCALE
0 10 20 30
FEET

US 113 AT SR 18 / SR 404 GRADE SEPARATED INTERSECTION

CONTRACT	T201412701
COUNTY	SUSSEX
PERMIT NO.	S222 & SCAM225
DESIGNED BY:	K. CLEVENGER
CHECKED BY:	M. BUCKLEY

ULTIMATE SIGNAL PLAN DETAILS SR 18/SR 404 (BRIDGEVILLE ROAD) @ CARMEAN WAY/PONDSIDE DRIVE

SECTION	WRA
SHEET NO.	349

LAST REVISED: 9/11/2018
8/7/2025
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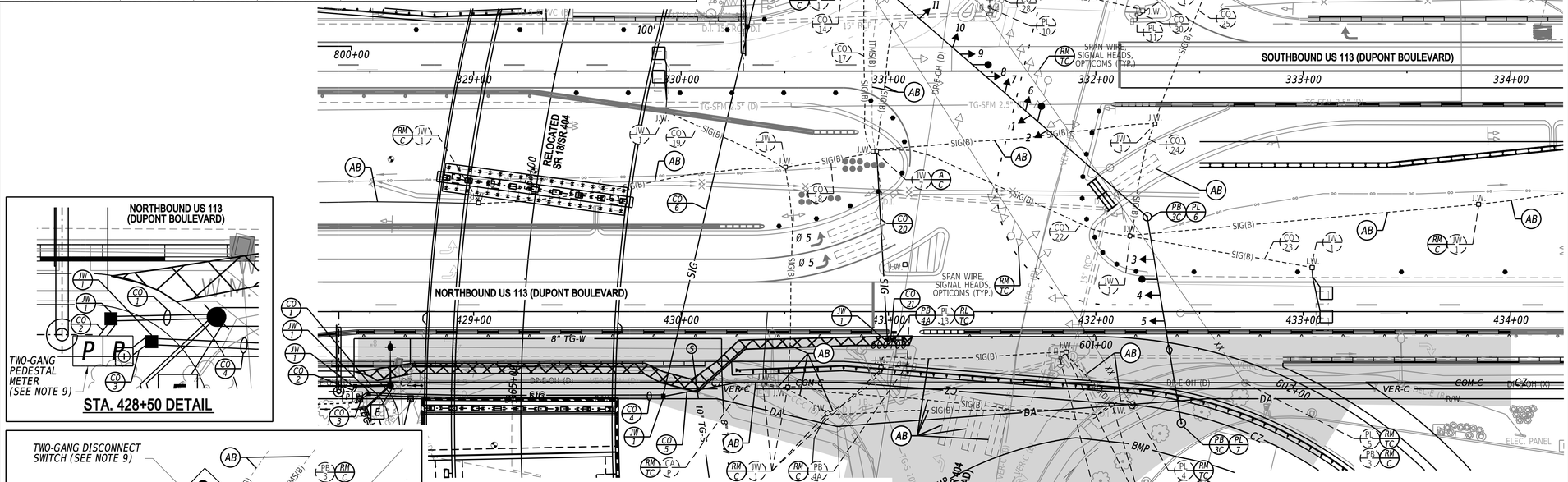
CONDUIT RUN SCHEDULE

CO NO.	NO. OF CONDUITS	SIZE/TYPE	LENGTH	INSTALL METHOD	AMOUNT AND TYPE OF CABLE / WIRE
1	2	2.0"-RGS	16'	TRENCH	[NEW (6) #2 THHN - LINE SIDE (SEPARATE SIGNAL + CCTV FEEDS)]
2	2	2.0"-RGS	2'	TRENCH	[NEW (6) #2 THHN - LINE SIDE (SEPARATE SIGNAL + CCTV FEEDS)]
3	2	2.0"-RGS	3'	TRENCH	[NEW (6) #2 - LOAD SIDE (SEPARATE SIGNAL + CCTV FEEDS), (1) 2/#8 U.F. W/ GROUND - LOAD SIDE (EX. SIGNAL)]
4	1	2.5"-PVC	141'	TRENCH	[NEW (6) #2 - LOAD SIDE (SEPARATE SIGNAL + CCTV FEEDS), (1) 2/#8 U.F. W/ GROUND - LOAD SIDE (EX. SIGNAL)]
5	1	2.0"-RGS	36'	TRENCH	[NEW (1) 2/#8 U.F. W/ GROUND - LOAD SIDE (EX. SIGNAL)]
6	1	4.0"-HDPE	198'	BORE	[NEW (6) #2 - LOAD SIDE (SEPARATE SIGNAL + CCTV FEEDS)]
7	1	4.0"-PVC	63'	TRENCH	[NEW (6) #2 - LOAD SIDE (SEPARATE SIGNAL + CCTV FEEDS)]
8	2	2.0"-RGS	3'	TRENCH	[NEW (6) #2 - LOAD SIDE (SEPARATE SIGNAL + CCTV FEEDS)]
9	2	2.0"-RGS	3'	TRENCH	[NEW (6) #2 - LOAD SIDE (SEPARATE SIGNAL + CCTV FEEDS)]
10*	3	4.0"-PVC	5'	-	EX. CCTV CABLES, <REMOVE EX. FIBER CABLES>, [NEW (2) 16/#14, (3) 4/#18, (6) 5/#14, (12) 2/#14, (2) #6 GROUND, (6) #2 - LOAD SIDE (SEPARATE SIGNAL + CCTV FEEDS)]
11*	1	3.0"-EX.	6'	-	EX. CCTV CABLES
12	1	4.0"-PVC	11'	TRENCH	[NEW (2) 16/#14, (3) 4/#18, (6) 5/#14, (12) 2/#14, (1) #6 GROUND]
13*	1	4.0"-EX.	20'	-	[NEW (2) 16/#14, (3) 4/#18, (1) #6 GROUND]
14*	1	3.0"-EX.	2'	-	[NEW (2) 16/#14, (3) 4/#18, (1) #6 GROUND]
15*	1	2.5"-EX.	27'	-	EX. (1) 5/#14, EX. (1) #6 GROUND
16*	1	4.0"-EX.	65'	-	EX. (3) 5/#14, (4)2/#14, (1) #6 GROUND
17*	1	4.0"-EX.	104'	-	EX. (1) #6 GROUND; <REMOVE (4) 1/#14, (4) 5/#14>; [NEW (1) 5/#14, (6) 2/#14]
18*	1	2.5"-EX.	41'	-	<REMOVE (4) 4/#18, (4) 1/#14, (3) 5/#14, (1)2/#8 U.F. W/ GROUND, FIBER OPTIC CABLES>; [NEW (2) 2/#14, (1) #6 GROUND]
19*	1	2.5"-EX.	62'	-	<REMOVE (1) 4/#18>; [NEW (2) 2/#14, (1) #6 GROUND]
20	1	4.0"-HDPE	90'	BORE	[NEW (1) 5/#14, (1) #6 GROUND]
21	1	2.5"-PVC	3'	TRENCH	[NEW (1) 5/#14, (1) #6 GROUND]
22*	1	2.5"-EX.	129'	-	<REMOVE (4) 4/#18, FIBER>; [NEW (2) 2/#14, (1) #6 GROUND]
23*	1	2.5"-EX.	87'	-	<REMOVE (1) 4/#18>; [NEW (2) 2/#14, (1) #6 GROUND]
24*	1	2.5"-EX.	54'	-	[NEW (2) 2/#14, (1) #6 GROUND]
25*	1	2.5"-EX.	79'	-	[NEW (2) 2/#14, (1) #6 GROUND]
26*	1	2.5"-EX.	73'	-	[NEW (2) 2/#14, (1) #6 GROUND]
27*	1	2.5"-EX.	6'	-	EX. (1) 5/#14, (1) #6 GROUND
28*	1	2.5"-EX.	14'	-	EX. (2) 5/#14, (1) #6 GROUND
29*	1	2.5"-EX.	69'	-	EX. (1) 5/#14, (1) #6 GROUND
30*	1	2.5"-EX.	3'	-	EX. (1) 5/#14, (1) #6 GROUND

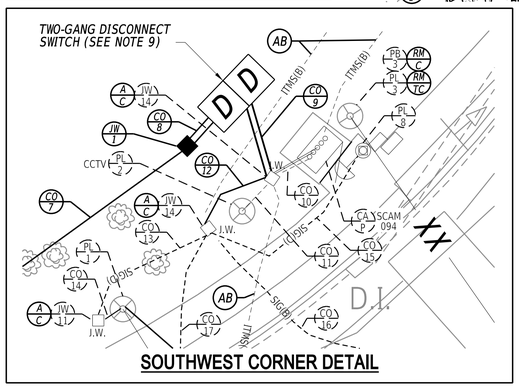
** DENOTES EXISTING CONDUIT*
TYPES: HDPE, PVC, RGS
INSTALL METHODS: B=BORE, IB=IN BARRIER, OC=OPEN CUT, OS=ON STRUCTURE, T=TRENCH

NOTES:

3. *MAINTAIN EXISTING TYPE 2 DETECTOR LOOPS FOR ALL SR 18/SR 404 EB MOVEMENTS AND THE US 113 NB LEFT TURN MOVEMENT, AND SYSTEM LOOPS IN THE SR 18/SR 404 WB RECEIVING LANES. THE PROJECT CONTRACTOR SHALL CUT NEW SYSTEM LOOPS FOR US 113 NB, US 113 SB, AS SHOWN. THE TRAFFIC CONTRACTOR SHALL INSTALL NEW HOME RUN CABLES FROM THE TEMPORARY CABINET TO ALL NEW AND EXISTING LOOPS TO REMAIN. ALL REMAINING LOOP DETECTORS SHALL BE ABANDONED (US 113 NB AND SB TYPE #6 PASSAGE LOOPS, US 113 SB LEFT TURN MOVEMENT, SR 18/SR 404 WB MOVEMENTS).*
4. *POLE BASES, CABINET BASE AND CONDUIT JUNCTION WELLS TO BE REMOVED IN ACCORDANCE WITH SECTION 211 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER.*
5. *ADJUST SPAN WIRES TO PROVIDE 5% SAG AND SUCH THAT THE BOTTOM OF THE LOWEST TRAFFIC SIGNAL HOUSING IS A MINIMUM OF 16' ABOVE THE ROADWAY SURFACE.*
6. *DELDOT TRAFFIC/TMC SHALL IMPLEMENT THE TEMPORARY SIGNAL PHASING AT THE START OF CONSTRUCTION PHASE 2B AND MAINTAIN THROUGH THE END OF PHASE 3, AS SHOWN.*
7. *ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED, AND COMPRESSION FITTING ARE NOT ACCEPTABLE.*
8. *THE TRAFFIC CONTRACTOR SHALL RELOCATE PEDESTRIAN SIGNAL POLE #13 ON A NEW POLE BASE AND REMOVE ONE PUSHBUTTON AND SIGNAL HEAD AS SHOWN TO MAINTAIN THE US 113 CROSSWALK DURING CONSTRUCTION PHASES 2B AND 3. REORIENT PUSHBUTTON PERPENDICULAR TO THE CROSSWALK WITH A R10-3eR (RIGHT ARROW) SIGN.*
9. *INSTALL SEPARATE TEMPORARY POWER FEEDS FOR THE EXISTING CCTV CABINET AND PROPOSED TEMPORARY SIGNAL CABINET UTILIZING A TWO-GANG METER PEDESTAL NEAR THE SUPPLY POLE AND A TWO-GANG DISCONNECT SWITCH NEAR THE CABINETS.*
10. *DELDOT TRAFFIC/OIT TO INSTALL A CDMA IN THE EXISTING SIGNAL CABINET AND CCTV CAMERA CABINET DURING CONSTRUCTION PHASE 1 WHEN THE FIBER PATHWAY IS IMPACTED/ABANDONED DUE TO BRIDGE CONSTRUCTION. DELDOT TRAFFIC/OIT TO RELOCATE THE CDMA FROM THE EXISTING SIGNAL CABINET TO THE TEMPORARY SIGNAL CABINET AT THE START OF PHASE 2B.*
11. *THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND REMOVAL OF ALL UNDERGROUND SIGNAL EQUIPMENT - E.G., LOOP DETECTORS, JUNCTION WELLS, POLE AND CABINET BASES, AND CONDUIT. DELDOT'S TRAFFIC CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND REMOVAL OF ALL ELECTRICAL CABLES AND ABOVE GROUND SIGNAL EQUIPMENT - E.G., HEADS, OPTICOM RECEIVERS, POLES, OVERHEAD SIGNS, ETC. THE PROJECT CONTRACTOR SHALL PROVIDE MAINTENANCE OF TRAFFIC SUPPORT FOR TRAFFIC CONTRACTOR WORK ACTIVITIES.*



STA. 428+50 DETAIL



SOUTHWEST CORNER DETAIL

POLE SCHEDULE

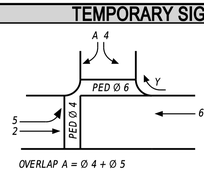
NO.	TYPE	STATION	OFFSET
1*	28' STRAIN POLE W/ TYPE 3 BASE - TO REMAIN	343+54.1	44.3' LT.
2*	50' CCTV POLE W/ TYPE 3 BASE - TO REMAIN	343+95.0	21.2' LT.
3*	28' STRAIN POLE W/ TYPE 3 BASE - REMOVE	344+03.3	31.3' LT.
4*	28' STRAIN POLE W/ TYPE 3 BASE - REMOVE	344+67.3	25.5' LT.
5*	28' STRAIN POLE W/ TYPE 3 BASE - REMOVE	443+97.0	33.3' RT.
6	28' STRAIN POLE W/ TYPE 3B BASE	444+94.2	43.6' RT.
7	28' STRAIN POLE W/ TYPE 3B BASE	444+80.0	60.9' LT.
8*	PEDESTAL POLE W/ TYPE 4 BASE - TO REMAIN	343+95.0	21.2' LT.
9*	PEDESTAL POLE W/ TYPE 4 BASE - TO REMAIN	344+03.3	31.3' LT.
10*	PEDESTAL POLE W/ TYPE 4 BASE - TO REMAIN	344+67.3	25.5' LT.
11*	PEDESTAL POLE W/ TYPE 4 BASE - TO REMAIN	443+97.0	33.3' RT.
12*	PEDESTAL POLE W/ TYPE 4 BASE - REMOVE	444+94.2	43.6' RT.
13*	PEDESTAL POLE W/ TYPE 4 BASE - RELOCATE	444+80.0	60.9' LT.

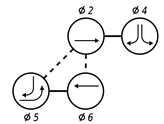
** DENOTES EXISTING POLE*

NOTES (CONT.):

12. *THE TRAFFIC CONTRACTOR SHALL INSTALL A 12 CHANNEL EPAC CONTROLLER (INCLUDING A MOUNTING RACK WITH POWER SUPPLY, 5-4 CHANNEL LOOP AMPLIFIERS, LOAD SWITCHES, AND CONFLICT MONITOR) IN THE EXISTING CCTV CABINET.*
13. *THE TRAFFIC CONTRACTOR SHALL REMOVE ALL EXISTING SPAN WIRES, SIGNAL HEADS, OPTICOMS, STRAIN POLES #3, #4 AND #5 AND PEDESTRIAN POLE #12 UPON ACTIVATION OF THE TEMPORARY SIGNAL. THE TRAFFIC CONTRACTOR SHALL REMOVE ALL REMAINING EXISTING AND TEMPORARY SIGNAL EQUIPMENT AT THE START OF PHASE 4 FOLLOWING DEACTIVATION OF THE SIGNAL AND OPENING OF THE GRADE SEPARATED INTERSECTION. ALL EXISTING CONDUITS SHALL BE ABANDONED AND CABLES REMOVED.*
14. *THE PROJECT CONTRACTOR SHALL REMOVE ALL REMAINING EXISTING JUNCTION WELLS FOR THE US 113/SR18-404 SIGNAL SYSTEM AND CCTV CAMERA SYSTEM FOLLOWING REMOVAL OF ABOVE-GROUND EQUIPMENT AND WIRING BY THE TRAFFIC CONTRACTOR.*

TEMPORARY SIGNAL PHASING - PHASE 2B & 3



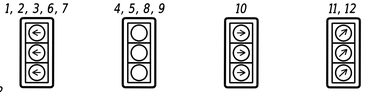


PHASING NOTES

1. *PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY.*
2. *PHASES ASSOCIATED BY A DASHED LINE WILL OPERATE CONCURRENTLY.*

**SEE NOTE 6*

TEMPORARY SIGNAL HEAD DIAGRAM - PHASE 2B & 3



**SEE NOTE 12*

LEGEND

AB	ABANDON	OH #	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA ///	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH #	*PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)*
CA ///	*PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)*	PB ///	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #///	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PB ///	*PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)*
CO #	*PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)*	PL ///	EXISTING POLE IDENTIFIER (# OF POLE)
JW ///	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL ///	*PROPOSED POLE IDENTIFIER (# OF POLE)*
JW ///	*PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)*	RM C	*REMOVE BY CONTRACTOR*
MA ///	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	*REMOVE BY OTHERS*
MA ///	*PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)*	RM TC	*REMOVE BY TRAFFIC CONTRACTOR*

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	■
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL	P	P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
CCTV CAMERA		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION		

GENERAL SIGNAL NOTES

1. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
2. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

PREPARED BY

Whitman, Requardt and Associates, LLP
Engineers • Architects • Environmental Planners Est. 1915

THIS SEAL APPLIES TO THIS SHEET ONLY. — 8/22/2024 DATE

KYLE O. CLEVENGER LICENSE No. 18723 DELAWARE PROFESSIONAL ENGINEER — SEAL

CONCURRENCE FOR INSTALLATION

CHIEF OF TRAFFIC ENGINEERING — 8/23/2024 DATE

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

US 113 AT SR 18 / SR 404
GRADE SEPARATED INTERSECTION

CONTRACT
COUNTY
PERMIT NO. S110
DESIGNED BY: K. CLEVENGER
CHECKED BY: M. BUCKLEY

PHASE 2B-3
TEMPORARY SIGNAL PLAN
US 113 (DUPONT BOULEVARD)
@ SR 18/SR 404

SECTION WRA
SHEET NO. 350

LAST REVISED: 9/11/2018
8/7/2025
11:58:23 AM
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