

GENERAL LOCATION OF CONTRACT

# THE STATE OF DELAWARE DEPARTMENT OF TRANSPORTATION



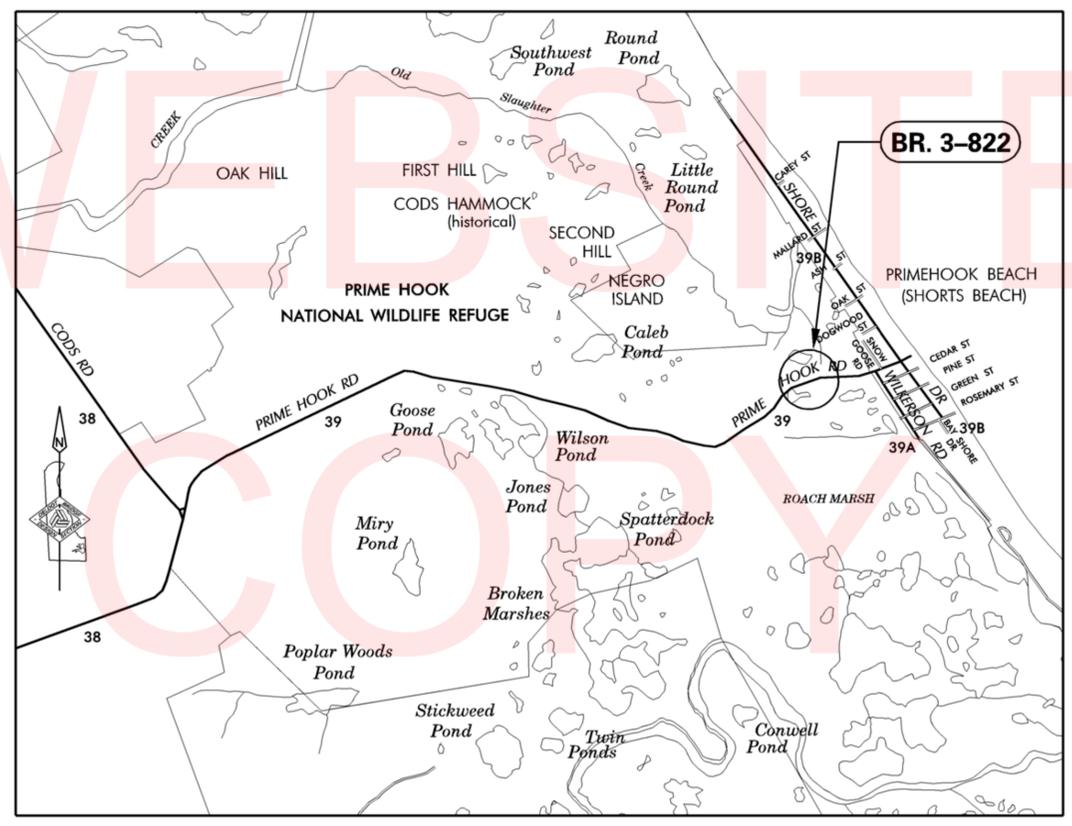
CONSTRUCTION AND RIGHT-OF-WAY PLANS FOR:

## PRIME HOOK ROAD IMPROVEMENTS

CONTRACT NUMBER: T201607303  
 FEDERAL AID PROJECT NUMBER: ESTP-S039(2)  
 COUNTY: SUSSEX M.R. #: 039

U.S. CUSTOMARY  
UNITS

DESIGN DESIGNATION		
FUNCTIONAL CLASS: RURAL LOCAL ROAD	D.H.V. PROJECTED: 45	YEAR: 2040
TYPE OF CONSTRUCTION: PROPOSED BRIDGE	DESIGN SPEED: 45 M.P.H.	
A.A.D.T. CURRENT: 380	YEAR: 2013	TRUCKS: 5 %
A.A.D.T. PROJECTED: 500	YEAR: 2040	DIRECTION OF DISTRIBUTION: 65 %
INDEX OF SHEETS		
SHEET NO	TABLE OF CONTENTS	
1	TITLE SHEET	
2	LEGEND	
3	NOTES	
4	TYPICAL SECTIONS	
5-6	HORIZONTAL AND VERTICAL CONTROL	
7-8	CONSTRUCTION PLANS	
9-11	GRADES AND GEOMETRICS	
12-13	PROFILES	
14	BRIDGE PLAN, SECTION AND ELEVATION	
15	PRECAST PRESTRESSED CONCRETE PILE DETAILS	
16	ABUTMENT DETAILS	
17	PRECAST PRESTRESSED CONCRETE BEAM DETAILS	
18	DIAPHRAGM DETAILS	
19	PARAPET DETAILS	
20	PEDESTRIAN HANDRAIL DETAILS	
21	REINFORCING BAR LIST	
22-24	SOIL BORING LOGS	
25-26	ENVIRONMENTAL COMPLIANCE PLANS	
27-28	CONSTRUCTION PHASING, MOT AND EROSION AND SEDIMENT CONTROL PLANS	
29-30	SIGNING AND STRIPING PLANS	
31-32	UTILITY PLANS	
33-34	RIGHT-OF-WAY PLANS	
TOTAL SHEETS: 34		



**FINAL PLANS**

RECOMMENDED	
	08/25/2015
SQUAD MANAGER, CONSTRUCTION	DATE
	08/25/2015
GROUP ENGINEER, CONSTRUCTION	DATE
	08/25/2015
ASSISTANT DIRECTOR, CONSTRUCTION	DATE

APPROVED DESIGN EXCEPTIONS			
DESIGN PARAMETER	REQUIRED	PROVIDED	DATE
HORIZONTAL CURVE RADIUS	643'	267'	8/20/15
SHOULDER WIDTH	5'	2'	8/20/15

ADDENDA & REVISIONS	
DESCRIPTION	NAME & DATE

ASSOCIATED CONTRACTS	
CONTRACT NO.	CONTRACT NAME

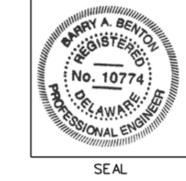
RECOMMENDED  
  
 SQUAD MANAGER, BRIDGE DESIGN  
 DATE 08/26/2015



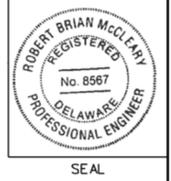
RECOMMENDED  
  
 BRIDGE DESIGN ENGINEER  
 DATE 08/26/2015



RECOMMENDED  
  
 ASSISTANT DIRECTOR, BRIDGE  
 DATE 08/26/2015



APPROVED  
  
 CHIEF ENGINEER  
 DATE 08/27/2015



## EXISTING SYMBOLS

DRAINAGE	
	DITCH OR STREAM CENTERLINE
	DIRECTIONAL STREAM FLOW ARROW
	DRAINAGE INLET
	DRAINAGE JUNCTION BOX
	DRAINAGE MANHOLE
	DRAINAGE PIPE AND FLOW ARROW
	DRAINAGE PIPE HEADWALL
	RIPRAP - AREA FEATURE
	RIPRAP - LINEAR FEATURE

MANMADE ROADSIDE FEATURES	
	BOLLARD - STEEL POLE
	BOLLARD - WOOD POST
	CURB
	CURB AND GUTTER
	FENCE - CHAINLINK OR STRANDED
	FENCE - STOCKADE OR SPLIT RAIL
	FLAG POLE
	GUARDRAIL - STEEL BEAM
	GUARDRAIL - WIRE ROPE
	LAMP AND POST - RESIDENTIAL
	MAILBOX
	PARKING METER AND POST
	PAVEMENT - FLEXIBLE
	PAVEMENT - RIGID
	PILE - BRIDGE
	PILLAR OR MISCELLANEOUS POST
	TRAFFIC SIGN AND POST
	WALL - BRICK OR BLOCK
	WALL - STONE

NATURAL ROADSIDE FEATURES	
	GRASS LAWN
	HEDGEROW OR THICKET
	MARSH BOUNDARY LINE
	TREE - CONIFEROUS
	TREE - DECIDUOUS
	TREE STUMP
	SHRUBBERY
	DELINEATED WETLAND BOUNDARY LINE
	WOODS LINE BOUNDARY

RIGHT-OF-WAY SYMBOLS	
	PROPERTY MARKER - CONCRETE MON.
	PROPERTY MARKER - IRON PIPE
	HISTORIC RIGHT-OF-WAY BASELINE
	EXISTING RIGHT-OF-WAY
	EXISTING PROPERTY LINE
	EXISTING EASEMENT
	EXISTING DENIAL OF ACCESS
	EXISTING R/W & DENIAL OF ACCESS

SURVEY CONTROL & MONUMENTATION	
	SURVEY BENCHMARK LOCATION
	SURVEY TIE POINT LOCATION
	SURVEY TRAVERSE POINT
	POINT OF CURVATURE OR TANGENCY
	POINT OF INTERSECTING TANGENTS

UTILITY	
	SOIL BORING LOCATION
	UTILITY TEST HOLE LOCATION
	CABLE TV DISTRIBUTION BOX
	ELECTRIC MANHOLE
	ELECTRIC METER
	ELECTRIC TRANSFORMER
	POLE MOUNTED LUMINAIRE
	GAS MANHOLE
	GAS METER
	GAS VALVE
	GAS PUMP - SERVICE STATION
	RAILROAD TRACKS
	SANITARY SEWER MANHOLE
	SANITARY SEWER VALVE
	SANITARY SEWER VENT OR CLEANOUT
	SEPTIC DRAIN FIELD
	TELEPHONE BOOTH
	TELEPHONE MANHOLE
	TELEPHONE TEST POINT
	TRAFFIC - CONDUIT JUNCTION WELL
	TRAFFIC - LIGHT POLE AND BASE
	TRAFFIC - PEDESTRIAN POLE & BASE
	TRAFFIC - SIGNAL CABINET & BASE
	TRAFFIC - SIGNAL POLE AND BASE
	UTILITY BOX
	UTILITY POLE GUY WIRE ANCHOR
	UTILITY POLE
	WATER - FIRE HYDRANT
	WATER METER
	WATER VALVE
	WELL HEAD
	MANHOLE - UNDETERMINED OWNER

UTILITY COMPANY FACILITIES	
	DELAWARE ELECTRIC COOPERATIVE
	VERIZON
	COMCAST CABLE

CONSTRUCTION	
	CONCRETE SAFETY BARRIER - PERMANENT
	BIOFILTRATION SWALE
	BRICK PATTERNED SURFACE
	BUTT JOINT
	CONSTRUCTION BASELINE
	CONSTRUCTION SAFETY FENCE
	CURB, TYPE 1 & TYPE 3
	CURB, TYPE 2
	CURB & GUTTER, TYPE 1
	CURB & GUTTER, TYPE 2
	CURB & GUTTER, TYPE 3
	CURB & GUTTER, TYPE 4
	CLEAR ZONE
	DRAINAGE INLET
	DITCH
	FENCE - METAL
	FENCE - WOOD
	FLARED END SECTION
	GUARDRAIL, TYPE 1
	GUARDRAIL, TYPE 2
	GUARDRAIL, TYPE 3
	GUARDRAIL END ANCHORAGE
	GUARDRAIL END TREATMENT, TYPE 1
	GUARDRAIL END TREATMENT, TYPE 2
	GUARDRAIL END TREATMENT, TYPE 3
	IMPACT ATTENUATOR
	JUNCTION BOX - DRAINAGE
	LATERAL OFFSET
	LIMIT OF CONSTRUCTION
	MAILBOX
	MANHOLE
	PAVEMENT PATCH
	PAVEMENT REMOVAL - TOPSOIL, SEED AND MULCH
	PIPE & DIRECTIONAL FLOW ARROW
	RIPRAP
	P.C.C. SIDEWALK - 4"
	P.C.C. SIDEWALK - 6" (USE 8" DEPTH FOR CHANNELIZATION ISLANDS.)
	UNDERDRAIN
	UNDERDRAIN OUTLET

RIGHT-OF-WAY SYMBOLS	
	PROPOSED RIGHT-OF-WAY MONUMENT
	PROPOSED DENIAL OF ACCESS
	PROPOSED PERMANENT EASEMENT
	PROPOSED RIGHT-OF-WAY
	PROPOSED R/W & DENIAL OF ACCESS
	TEMPORARY CONSTRUCTION EASEMENT
	PROPOSED RIGHT-OF-WAY BASELINE
	CONTRACTOR'S RIGHT TO TRESPASS

## PROPOSED SYMBOLS

IDENTIFIERS	
	ADJUST BY CONTRACTOR
	ADJUST BY OTHERS
	CONCRETE SAFETY BARRIER
	CURB OR CURB & GUTTER
	CONVERT TO JUNCTION BOX
	CONVERT TO DRAINAGE MANHOLE
	CURB OPENING
	CURB RAMP / TYPE
	CURB RAMP / TYPE - WITHOUT SIDEWALK SURFACE DETECTABLE WARNING SYSTEM
	CONSTRUCTION SAFETY FENCE
	DRAINAGE INLET
	DO NOT DISTURB
	ENERGY DISSIPATOR
	FENCE
	FLARED END SECTION
	FILL WITH FLOWABLE FILL
	FILTRATION STRUCTURE
	GUARDRAIL
	JUNCTION BOX
	MANHOLE
	MONUMENT - RIGHT-OF-WAY
	PIPE
	RELOCATE BY CONTRACTOR
	RELOCATE BY OTHERS
	REMOVE BY CONTRACTOR
	REMOVE BY OTHERS
	UNDERDRAIN / LENGTH
	UNDERDRAIN OUTLET PIPE

LANDSCAPING	
	LANDSCAPE PLANTINGS
	SHRUBBERY
	CONIFEROUS TREE
	DECIDUOUS TREE

TRAFFIC	
	ITMS CONDUIT
	SIGNAL CONDUIT
	CONDUIT JUNCTION WELL
	LUMINAIRE
	PAVEMENT MARKINGS
	PAVEMENT STRIPING
	TRAFFIC SIGN

UTILITY COMPANY FACILITIES	
	DELAWARE ELECTRIC COOPERATIVE
	VERIZON
	COMCAST CABLE

PAVEMENT SECTION(S)	
	MAINTENANCE STRIP CONSISTING OF: 2" SUPERPAVE TYPE C, PG 64-22, 160 GYRATIONS ON 8" GABC
	2" SUPERPAVE TYPE C, PG 64-22, 160 GYRATIONS ON 2 1/4" SUPERPAVE TYPE B, PG 64-22, 160 GYRATIONS ON 8" GABC
	2 1/2" (±) SUPERPAVE TYPE C, PG 64-22, 160 GYRATIONS OVERLAY ON EXISTING PAVEMENT
	TEMPORARY BYPASS ROAD CONSISTING OF: 2" SUPERPAVE TYPE B, PG 64-22, 160 GYRATIONS ON 3" SUPERPAVE, BCBC, PG 64-22, 160 GYRATIONS ON 6" GABC ON GEOTEXTILE

CONSTRUCTION PHASING & M.O.T	
	BARRICADE, TYPE 3
	CONCRETE SAFETY BARRIER - PORTABLE
	CONSTRUCTION SAFETY FENCE / LENGTH
	CONSTRUCTION SAFETY FENCE
	CONSTRUCTION WARNING SIGN LOCATION
	CONSTRUCTION WARNING SIGN
	CRASH CUSHION ARRAY
	DRUM - TRAFFIC CONTROL
	FLAGGER LOCATION
	PHASING TRAFFIC FLOW ARROW
	TEMPORARY CONSTRUCTION
	TEMPORARY PAVEMENT MARKING ARROW
	TRUCK WITH MOUNTED ATTENUATOR
	WORK AREA - ACTIVE PHASE

EROSION & SEDIMENT CONTROL	
	DEWATERING BAG
	DEWATERING BASIN
	EARTH DIKE
	INLET SEDIMENT CONTROL
	PERIMETER DIKE/SWALE
	PORTABLE SEDIMENT TANK
	SANDBAG DIKE
	SANDBAG DIVERSION
	STONE CHECK DAM
	STABILIZED CONSTRUCTION ENTRANCE
	SILT FENCE / LENGTH
	SILT FENCE
	SILT FENCE - REINFORCED
	SUMP PIT
	SEDIMENT TRAP / NUMBER
	SEDIMENT TRAP
	SEDIMENT TRAP WITH INLET AS OUTLET
	SEDIMENT TRAP PIPE OUTLET
	STILLING WELL
	TEMPORARY SWALE
	TEMPORARY SLOPE DRAIN
	TURBIDITY CURTAIN / LENGTH
	TURBIDITY CURTAIN

LAST REVISED: 01/09/2014  
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## GENERAL NOTES

1. THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE DELAWARE DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS", DATED AUGUST 2001 AND THE DELAWARE DEPARTMENT OF TRANSPORTATION "STANDARD CONSTRUCTION DETAILS", DATED 2001, INCLUDING ALL REVISIONS UP TO THE DATE OF ADVERTISEMENT.

EROSION POTENTIAL FOR THIS PROJECT	CONTRACTOR ESC SUPERVISOR REQUIREMENT
( ) INSIGNIFICANT	NONE
( ) MINOR	CONTRACTOR TRAINING PROGRAM, AS DEFINED IN SECTION 6.2 OF THE DELAWARE SEDIMENT AND STORMWATER REGULATIONS.
( ) MEDIUM	CONTRACTOR TRAINING PROGRAM, AS DEFINED IN SECTION 6.2 OF THE DELAWARE SEDIMENT AND STORMWATER REGULATIONS.
( ) MAJOR	CERTIFIED CONSTRUCTION REVIEWER (CCR), AS DEFINED IN SECTION 6.3 OF THE DELAWARE SEDIMENT AND STORMWATER REGULATIONS.

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

( )	NONE
( )	ASCII DATA FILES WITH COORDINATES AND ELEVATIONS FOR PROPOSED POINTS AS SELECTED BY THE ENGINEER.
(X)	ALL PLAN SHEETS, IN PDF FORMAT.
( )	EXISTING DIGITAL TERRAIN MODEL, IN .DTM FILE FORMAT, COMPATIBLE WITH SOFTWARE CURRENTLY USED BY DELDOT.
( )	PROPOSED DIGITAL TERRAIN MODEL, IN .DTM FILE FORMAT, COMPATIBLE WITH SOFTWARE CURRENTLY USED BY DELDOT.
( )	DESIGN FILE, IN .DGN FILE FORMAT, CONTAINING ONLY THE PROPOSED 3D TRIANGLES OF THE PROPOSED DIGITAL TERRAIN MODEL (DTM).

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.

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

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

5. AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION (ATSSA) CERTIFIED TRAFFIC CONTROL SUPERVISOR REQUIREMENT FOR THIS PROJECT.

(X)	THE CONTRACTOR SHALL NOT BE REQUIRED TO HAVE AN ATSSA SUPERVISOR ASSIGNED TO THIS PROJECT.
( )	THE CONTRACTOR SHALL HAVE AN ATSSA SUPERVISOR ASSIGNED TO THIS PROJECT. THE CONTRACTOR'S GENERAL SUPERINTENDENT FOR THIS PROJECT OR ANOTHER ATSSA CERTIFIED MEMBER OF THE CONTRACTOR'S PROJECT STAFF MAY BE THE ATSSA SUPERVISOR. PAYMENT FOR ATSSA SUPERVISOR IS INCIDENTAL TO ITEM 743000.
( )	THE CONTRACTOR SHALL HAVE AN ATSSA SUPERVISOR ASSIGNED TO THIS PROJECT. THE ATSSA SUPERVISOR'S SOLE JOB SHALL BE SUPERVISION OF THE INSTALLATION, OPERATION AND MAINTENANCE OF TRAFFIC CONTROL DEVICES FOR THIS PROJECT. THE CONTRACTOR'S GENERAL SUPERINTENDENT FOR THIS PROJECT SHALL NOT BE THE ATSSA SUPERVISOR. PAYMENT FOR ATSSA SUPERVISOR SHALL BE PAID FOR UNDER ITEM 743031.

6. THE DISTURBED AREA FOR THIS PROJECT IS 2.595 ACRES.

7. THE ADDITIONAL IMPERVIOUS AREA FOR THIS PROJECT IS 8755 SQ FEET.

8. THE EROSION AND SEDIMENT CONTROL PLANS HAVE BEEN APPROVED BY DELDOT'S STORMWATER ENGINEER UNDER DELDOT'S DELEGATED AUTHORITY. THE EROSION AND SEDIMENT CONTROL PLANS ARE VALID FOR A THREE YEAR PERIOD, BEGINNING ON THE DATE THE STORMWATER ENGINEER SIGNED THE CONSTRUCTION TITLE SHEET. IF THE FINAL ACCEPTANCE OF THE PROJECT IS ANTICIPATED TO EXTEND BEYOND THE THREE YEARS, THE CONTRACTOR SHALL INFORM THE ENGINEER THREE MONTHS PRIOR TO THE EXPIRATION OF THE EROSION AND SEDIMENT CONTROL PLAN APPROVAL. DELDOT WILL REVIEW THE CURRENT EROSION AND SEDIMENT CONTROL PLAN AND ISSUE AN EXTENSION WITH ANY APPROPRIATE MODIFICATIONS.

## 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.

### SECTION 200

2. EXISTING HOT MIX / EXCAVATION AND EMBANKMENT
- EXISTING PAVEMENT SHALL BE EXCAVATED ONLY WHERE IT CONFLICTS WITH THE PROPOSED ROADWAY OR BRIDGE CONSTRUCTION. PAYMENT FOR HOTMIX REMOVAL UNDER ITEM 202000 - EXCAVATION AND EMBANKMENT.
  - IN THESE AREAS, UNDERCUT EXCAVATION IS INCLUDED AS A CONTINGENCY ITEM IF UNSUITABLE SUB-BASE MATERIAL IS ENCOUNTERED. EXCAVATE AS NECESSARY AT THE DIRECTION OF THE ENGINEER. BACKFILL UNDERCUT AREAS WITH BORROW TYPE B OR C AS APPROPRIATE.
  - IN OVERLAY AREAS, HOTMIX PATCHING IS INCLUDED AS A CONTINGENCY ITEM TO REPAIR ANY DAMAGED AREAS PRIOR TO INSTALLING THE OVERLAY.
  - THE EXISTING 18" HDPE PIPES AT STA. 13+60 SHALL BE REMOVED AS PER SECTION 202.

### SECTION 300

3. A. THE CONTRACTOR MAY ELECT TO USE ANY OF THE FOLLOWING MATERIALS TO MEET THE REQUIREMENTS OF ITEM 302007 - GRADED AGGREGATE BASE COURSE, TYPE 'B':
- CRUSHED STONE (PER STANDARD SPECIFICATION B21)
  - CRUSHED CONCRETE (PER STANDARD SPECIFICATION B21)
  - HOT-MIX MILLINGS (PER SPECIAL PROVISION 302514 MILLED HOT-MIX BASE COURSE)

THE CONTRACTOR WILL NOT BE ALLOWED TO MIX DIFFERENT MATERIALS (OR SIMILAR MATERIALS FROM DIFFERENT SOURCES) TO MEET THE REQUIREMENTS OF ITEM 302007 - GRADED AGGREGATE BASE COURSE, TYPE 'B'.

ALL OF THE ABOVE LISTED MATERIALS ARE PERMITTED FOR USE ON THE JOB, PROVIDED THEY ARE SEPARATED INTO APPROVED AREAS. EACH AREA OF BASE COURSE MUST BE CONSTRUCTED USING MATERIALS FROM A SINGULAR SOURCE, FULL DEPTH, IN ORDER THAT PROPER TESTING MAY BE ACCOMPLISHED. THE CONTRACTOR AND ENGINEER SHALL AGREE ON THE LIMITS OF EACH SOURCE OF MATERIAL PRIOR TO PLACEMENT.

B. THE QUANTITY USED FOR BASE OF EACH OF THE ABOVE LISTED MATERIALS WILL BE THE CONTRACTOR'S CHOICE, WITH THE TOTAL BEING EQUAL TO THE ACTUAL QUANTITY USED UNDER ITEM 302007 - GRADED AGGREGATE BASE COURSE, TYPE 'B'.

C. THE CONTRACTOR MAY ALSO ELECT TO RECYCLE MILLINGS FOR USE IN HOT-MIX AS PERMITTED BY THE STANDARD SPECIFICATIONS. THE CHOICE OF THE QUANTITY OF MILLINGS USED FOR THIS PURPOSE, OR FOR BASE COURSE, LIES WITH THE CONTRACTOR. ALL EXCESS MILLING MATERIAL SHALL BECOME PROPERTY OF THE CONTRACTOR.

D. HOT-MIX MILLINGS MAY BE GENERATED FROM THE FOLLOWING SOURCES:

- MATERIAL MILLED ON THIS CONTRACT AT THE CONTRACTOR'S CHOICE UNDER ITEM 202000.
- MILLED MATERIAL FURNISHED ON THE JOB FROM THE CONTRACTOR'S YARD OR OTHER OUTSIDE SOURCE. ALL MILLED MATERIALS SHALL MEET THE MATERIAL REQUIREMENTS OF ITEM 302514 - MILLED HOT-MIX BASE COURSE.

E. PAYMENT CLARIFICATION:

- SHOULD THE CONTRACTOR ELECT TO MILL PORTIONS OF HOT-MIX SHOWN ON THE PLANS TO BE REMOVED UNDER ITEM 202000 - EXCAVATION AND EMBANKMENT THE COST OF MILLING THIS HOT-MIX WILL BE PAID AS ITEM 202000 - EXCAVATION AND EMBANKMENT. THE MILLINGS GENERATED MAY BE RECYCLED INTO HOT-MIX, UTILIZED FOR BASE COURSE, OR DISPOSED OF TO AN APPROVED SITE. HAULING COSTS FOR DISPOSAL AND/OR RECYCLING ARE INCIDENTAL TO ITEM 202000 - EXCAVATION AND EMBANKMENT.
- SHOULD THE CONTRACTOR ELECT TO TEMPORARILY STOCKPILE MILLINGS ON THE JOB SITE FOR LATER USE, ALL COSTS FOR STOCKPILING AND SUBSEQUENT REHANDLING SHALL BE INCIDENTAL TO ITEM 202000 - EXCAVATION AND EMBANKMENT.
- MILLINGS USED FOR BASE COURSE SHALL BE PLACED IN ACCORDANCE WITH THE REQUIREMENTS OF SPECIAL PROVISION 302514 - MILLED HOT-MIX BASE COURSE. NO SEPARATE PAYMENT WILL BE MADE TO FURNISH MILLINGS FROM AN OUTSIDE SOURCE OR TRANSPORT MILLINGS WITHIN THE PROJECT LIMITS. MILLINGS USED FOR BASE COURSE WILL BE PAID FOR AT THE UNIT BID PRICE FOR ITEM 302007 - GRADED AGGREGATE BASE COURSE, TYPE 'B'.
- ALL COSTS TO UTILIZE MILLINGS IN RECYCLED HOT-MIX WILL BE INCIDENTAL TO THE UNIT PRICE BID FOR THE HOT-MIX ITEM USING THE RECYCLED MATERIAL.
- SPECIAL PROVISION 302514 - MILLED HOT-MIX BASE COURSE IS PROVIDED TO SPECIFY THE MEANS OF LAY DOWN AND COMPACTION AS WELL AS THE MATERIAL REQUIREMENTS FOR MILLINGS USED AS BASE COURSE. ALL COSTS TO BRING THE MILLINGS INTO COMPLIANCE WITH THE REQUIREMENTS OF ITEM - 302514 MILLED HOT-MIX BASE COURSE ARE INCIDENTAL TO ITEM 302007 - GRADED AGGREGATE BASE COURSE, TYPE 'B'. NO PAYMENT WILL BE MADE FOR ITEM 302514 - MILLED HOT-MIX BASE COURSE. THE QUANTITY OF MILLINGS USED FOR BASE COURSE WILL BE PAID FOR UNDER ITEM 302007 - GRADED AGGREGATE BASE COURSE.

### SECTION 600

4. LIMITS OF COARSE AGGREGATE FOR FOUNDATION STABILIZATION SHALL EXTEND 18" OUTSIDE OF THE NEAT LINE PERIMETER OF THE VERTICAL FACES OF ANY FOOTER, ENCASEMENT OR STRUCTURAL UNIT.
5. PORTLAND CEMENT CONCRETE
- STRUCTURAL ELEMENTS OF PORTLAND CEMENT CONCRETE SHALL BE AS NOTED: (F'c = 28 DAY COMPRESSIVE STRENGTH)
- CLASS A CONCRETE - ABUTMENT, BACKWALL, WINGWALL CAPS, PARAPET (F'c = 4500 psi)
  - MIX REQUIREMENTS SHALL CONFORM TO SECTION B12 OF THE SPECIFICATIONS.
  - ALL EXPOSED EDGES SHALL BE CHAMFERED 3/4" UNLESS OTHERWISE NOTED.
  - ALL KEYED CONSTRUCTION JOINTS SHALL BE 2" x 4" UNLESS OTHERWISE NOTED.
  - ALL EXPOSED CONSTRUCTION JOINTS EDGES SHALL HAVE A 3/4" V-NOTCH.

6. BAR REINFORCEMENT
- REINFORCING STEEL SHALL CONFORM TO AASHTO M31 (ASTM A615), GRADE 60. ALL REINFORCING STEEL SHALL HAVE A CLEAR COVER OF 2", UNLESS OTHERWISE SPECIFIED ON THE PLANS. ALL REINFORCING STEEL SHALL BE PROTECTED WITH FUSION BONDED EPOXY. EPOXY COATED REINFORCING STEEL SHALL CONFORM TO AASHTO M284 (ASTM D3963) AND IS DENOTED WITH A SUFFIX 'E' IN THE BAR MARKS.

### SECTION 700

7. ALL PAVED AREAS TO BE REPLACED OR OVERLAYED SHALL BE SAWCUT AT THE POINT WHERE THE NEW PAVEMENT IS TO TIE INTO THE EXISTING PAVEMENT. ALL HOT-MIX SAWCUTTING SHALL BE FULL DEPTH, UNLESS OTHERWISE NOTED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.
8. ALL GEOTEXTILES SHALL BE KEYED UNDER ADJACENT SOIL OR RIPRAP A MINIMUM OF 6" IN LENGTH TO PREVENT FREE EDGES.

### SECTION 900

9. 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 TEAM SUPPORT 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.

10. EROSION CONTROL BLANKET MULCH SHALL BE PLACED ON ALL RIPRAP SLOPES - PAYMENT UNDER ITEM 908020. ALL OTHER AREAS SHALL BE SEEDED AND STABILIZED AS PER SECTION 908 - PAYMENT INCIDENTAL TO THE RESPECTIVE SEEDING ITEMS.

### MISCELLANEOUS

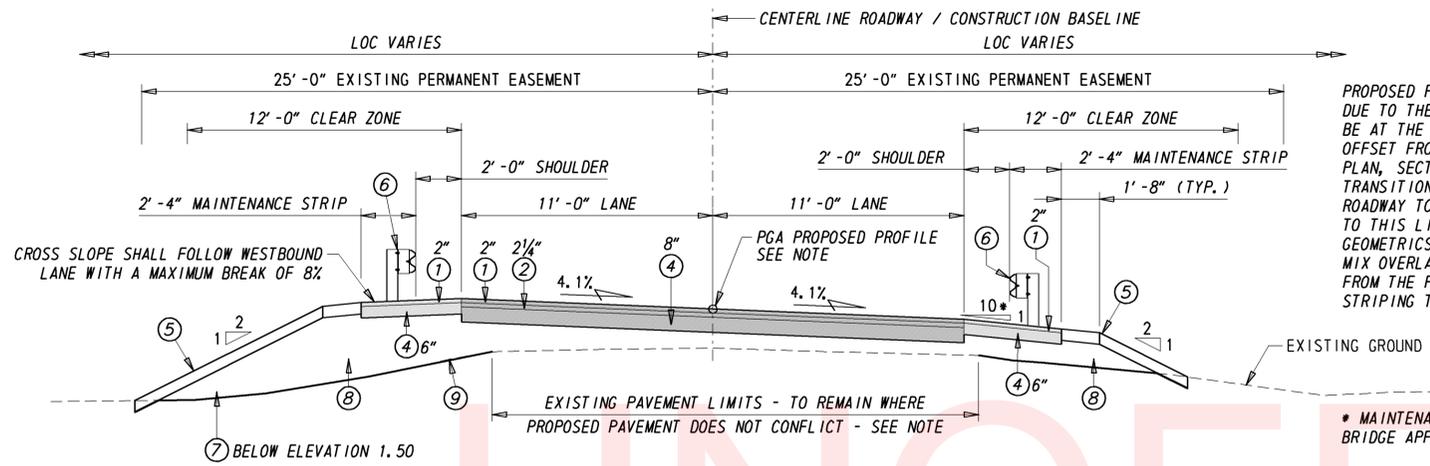
11. DESIGN CRITERIA  
2014 AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 7th EDITION,  
USING AASHTO HL93 FOR LIVE LOAD, 25 psf FOR FUTURE WEARING SURFACE.
12. HYDRAULIC DATA  
PROPOSED HIGH TIDE ELEVATION = 1.57 ft  
PROPOSED LOW CHORD ELEVATION = 3.0 ft  
PROPOSED OPENING = 405.67 SF
13. ENVIRONMENTAL COMPLIANCE  
REFER TO THE ENVIRONMENTAL COMPLIANCE PLAN FOR ANY RESTRICTIONS AND ADDITIONAL GUIDANCE THAT MAY BE ASSOCIATED TO THIS PROJECT.
14. STAGING AND STOCKPILING  
STAGING AND STOCKPILING AREAS ARE SHOWN ON THE ENVIRONMENTAL COMPLIANCE PLAN SHEETS. STAGING AND STOCKPILING AREAS CAN BE CHANGED WITH THE APPROVAL OF THE DEPARTMENT. THESE AREAS SHALL NOT BE MOVED OUTSIDE OF THE EXISTING ROADWAY EMBANKMENT.
15. VARIABLE MESSAGE SIGN  
ONE VARIABLE MESSAGE SIGN SHALL BE PLACED AT THE WEST END OF PRIME HOOK ROAD (AT INTERSECTION WITH CDS ROAD) 10 DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION. THE MESSAGE SHALL READ "ROAD WORK TO START XX/XX/16."
16. PROJECT COORDINATION  
THE UNITED STATES FISH AND WILDLIFE SERVICE IS CURRENTLY CONSTRUCTING A PROJECT TO RESTORE AREAS OF PRIME HOOK NATIONAL WILDLIFE REFUGE TO A TIDAL SALT MARSH. THE PROPOSED CHANNEL IS REQUIRED TO CONNECT UNIT 111 (BROADKILL RD TO PRIME HOOK RD) TO UNIT 11 (PRIME HOOK RD TO FOWLERS BEACH RD) AND SLAUGHTER CANAL VIA BRIDGE 3-820 ON FOWLERS BEACH RD. THE PROPOSED CHANNEL WORK OUTSIDE OF THE LIMITS OF THIS PROJECT WILL BE COMPLETED BY OTHERS AND IS SCHEDULED TO BE FINISHED BY DECEMBER 2015. THIS PROJECT WILL INCLUDE CHANNEL EXCAVATION, WITHIN ITS LIMITS, TO TIE-IN TO THE CHANNEL CONSTRUCTION PREVIOUSLY COMPLETED. COORDINATE OTHER CONSTRUCTION ACTIVITIES WITH US FISH AND WILDLIFE AS NECESSARY AND AS NOTED IN THE PLANS.
17. RIGHT-OF-WAY  
PRIME HOOK ROAD HAS AN EXISTING 25' WIDE PERMANENT EASEMENT ON EACH SIDE OF THE ROAD. CONSTRUCTION ACTIVITIES, AS DEPICTED IN THESE PLANS, CONTINUE BEYOND THE EXISTING EASEMENT. HOWEVER, THERE WILL BE NO ACQUISITIONS FROM THE UNITED STATES OF AMERICA PROPERTIES. ACCESS FOR THE CONTRACTOR HAS BEEN SECURED THROUGH A MEMORANDUM OF AGREEMENT BETWEEN THE US FISH AND WILDLIFE SERVICE AND DELDOT, DATED 08/24/2015. THE ACCESS LIMITS ARE DENOTED ON THE PLANS BY THE LINE LABELED 'CRT'. SEE THE RIGHT-OF-WAY PLANS FOR MORE DETAILS.

### LOAD RATING SUMMARY

DESIGN VEHICLE	RATING FACTOR	RATING WEIGHT (TON)	CONTROLLING MEMBER	CONTROLLING POINT	LOAD EFFECT
HL-93 TRUCK (INVENTORY)	1.48	N/A	SPAN 1: EXTERIOR BEAM	105	SERVICE III
HL-93 TANDEM (INVENTORY)	1.75	N/A	SPAN 1: INTERIOR BEAM	105	SERVICE III
HL-93 TRUCK TRAIN (INVENTORY)	N/A	N/A	N/A	N/A	N/A
HS-20 (INVENTORY)	1.48	44.17	SPAN 1: INTERIOR BEAM	105	SERVICE III
HL-93 TRUCK (OPERATING)	2.08	N/A	SPAN 1: INTERIOR BEAM	105	STRENGTH I
HL-93 TANDEM (OPERATING)	2.47	N/A	SPAN 1: INTERIOR BEAM	105	STRENGTH I
HL-93 TRUCK TRAIN (OPERATING)	N/A	N/A	N/A	N/A	N/A
HS-20 (OPERATING)	2.08	58.92	SPAN 1: INTERIOR BEAM	105	STRENGTH I
DE S220 & LEGAL-LANE (LEGAL)	2.00	33.09	SPAN 1: EXTERIOR BEAM	105	SERVICE III
DE S335 & LEGAL-LANE (LEGAL)	1.11	32.08	SPAN 1: EXTERIOR BEAM	105	SERVICE III
DE S437 & LEGAL-LANE (LEGAL)	1.05	31.94	SPAN 1: EXTERIOR BEAM	105	SERVICE III
DE S330 & LEGAL-LANE (LEGAL)	1.62	40.23	SPAN 1: EXTERIOR BEAM	105	SERVICE III
DE S435 & LEGAL-LANE (LEGAL)	1.43	41.47	SPAN 1: EXTERIOR BEAM	105	SERVICE III
DE S540 & LEGAL-LANE (LEGAL)	1.27	42.06	SPAN 1: EXTERIOR BEAM	105	SERVICE III

NOTE: LOAD RATING INCLUDES FUTURE WEARING SURFACE AS NOTED IN THE PLANS.

LEGEND	
①	ITEM 401801 - BITUMINOUS CONCRETE, SUPERPAVE, TYPE C, 160 GYRATIONS, PG 64-22 (CARBONATE STONE)
②	ITEM 401810 - BITUMINOUS CONCRETE, SUPERPAVE, TYPE B, 160 GYRATIONS., PG 64-22
③	ITEM 401819 - BITUMINOUS CONCRETE, SUPERPAVE, BITUMINOUS CONCRETE BASE COURSE, 160 GYR., PG 64-22
④	ITEM 302007 - GRADED AGGREGATE BASE COURSE, TYPE B
⑤	ITEM 908004 - TOPSOIL, 6" DEPTH ITEM 908513 - SALT TOLERANT SEEDING
⑥	ITEM 720050 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31
⑦	ITEM 209002 - BORROW, TYPE B
⑧	ITEM 209003 - BORROW, TYPE C
⑨	ITEM 713001 - GEOTEXTILES, STABILIZATION
⑩	ITEM 302011 - DE#3 STONE
⑪	ITEM 908017 - TEMPORARY GRASS SEEDING - DRY GROUND (SEE EC NOTE 5A)

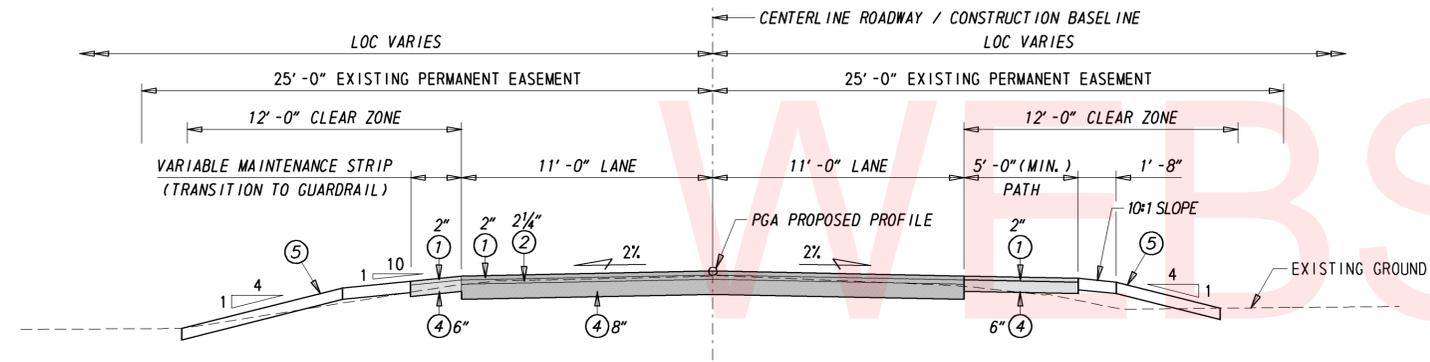


**TYPICAL FILL SECTION WITH GUARDRAIL**  
(SHOWING SUPERELEVATION)  
1/4" = 1'-0"

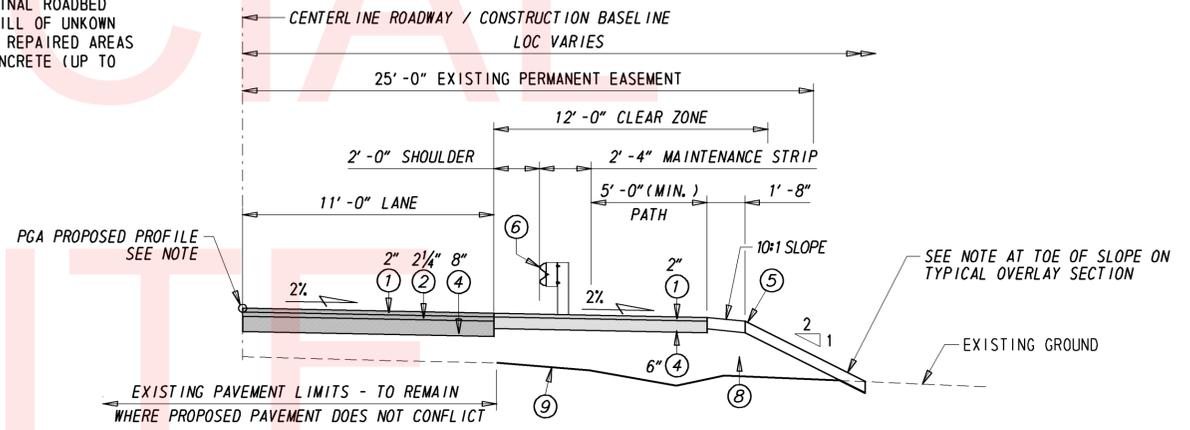
PROPOSED PROFILE AT BRIDGE:  
DUE TO THE BEAM CONFIGURATION, THE CROWN OF THE BRIDGE MUST BE AT THE CENTERLINE OF STRUCTURE. HOWEVER, THIS LINE IS OFFSET FROM THE CENTERLINE OF ROADWAY AS SHOWN ON THE BRIDGE PLAN, SECTION AND ELEVATION. AT THE BRIDGE APPROACHES, TRANSITION THE CROWN OF THE ROAD FROM THE CENTERLINE OF THE ROADWAY TO THE CENTERLINE OF STRUCTURE (SEE GRADES AND GEOMETRICS SHEETS). SINCE THERE IS NO CONCRETE DECK OR HOT MIX OVERLAY, IT WILL BE ACCEPTABLE IF BEAM CAMBER DIFFERS FROM THE PROFILE GRADES AT THE CENTERLINE OF THE SPAN. APPLY STRIPING TO THE CENTERLINE ROADWAY THROUGHOUT.

\* MAINTENANCE STRIP CROSS SLOPE - TRANSITION TO 2% AT BRIDGE APPROACHES (SEE GRADES AND GEOMETRICS SHEETS)

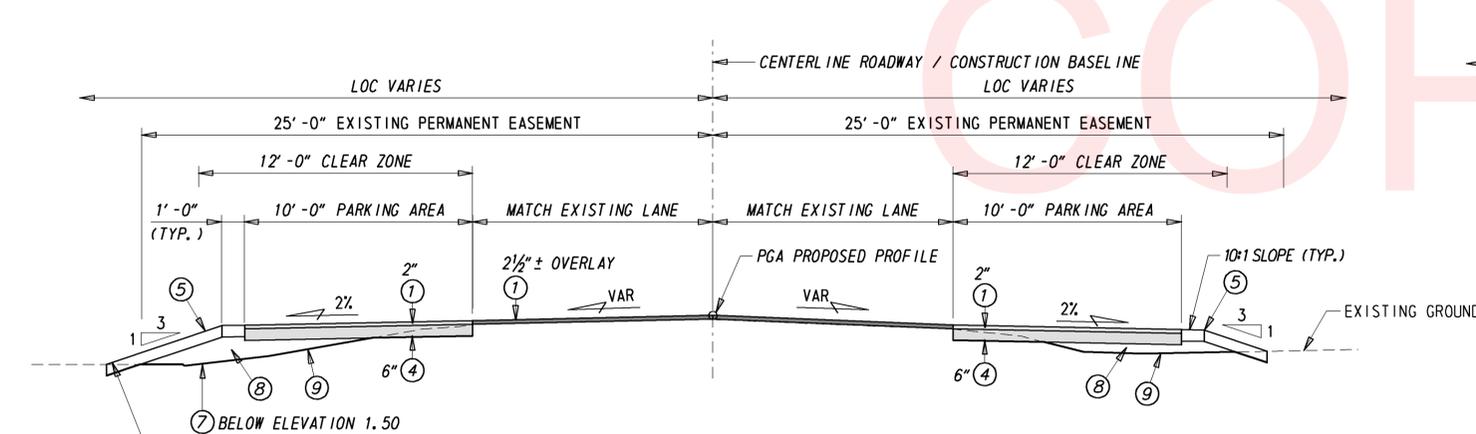
EXISTING PAVEMENT:  
EXISTING PAVEMENT IS A COMBINATION OF ORIGINAL ROADBED AND REPAIRS FROM STORM EVENTS OVER THE PAST SEVERAL YEARS. ORIGINAL ROADBED PORTIONS CONSIST OF TAR AND CHIP RIDING SURFACE ON FILL OF UNKNOWN COMPOSITION (SEE ENVIRONMENTAL COMPLIANCE NOTE 3B). REPAIRED AREAS CONSIST OF 2" HOTMIX TYPE 'C' ON STONE OR CRUSHED CONCRETE (UP TO 12"± DEPTH).



**TYPICAL APPROACH SECTION**  
(STA 16+10 SHOWN)  
1/4" = 1'-0"

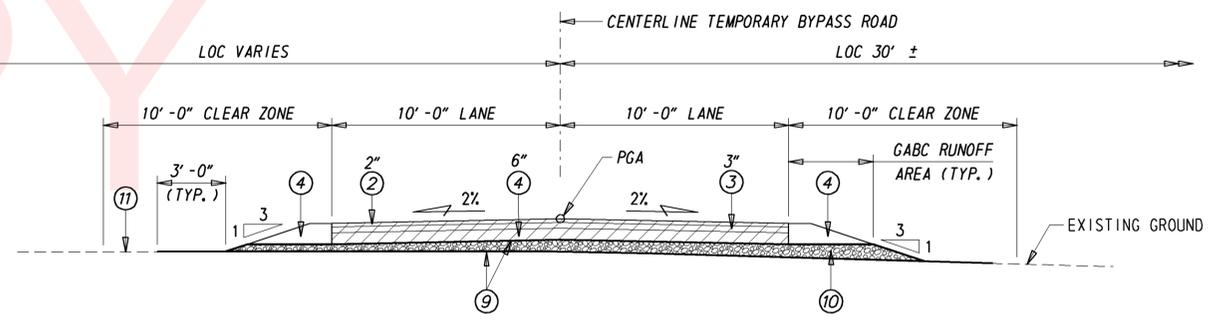


**FILL HALF SECTION WITH PATH**  
(STA. 14+70 SHOWN)  
1/4" = 1'-0"



**TYPICAL OVERLAY SECTION**  
(STA 18+00 WITH PARKING AREAS SHOWN)  
1/4" = 1'-0"

NOTE THAT AREAS OF PERMANENT CONSTRUCTION FOR PRIME HOOK ROAD OUTSIDE EXISTING PERMANENT EASEMENT WILL BE MAINTAINED BY DELDOT AS PER A MEMORANDUM OF AGREEMENT WITH U.S. FISH AND WILDLIFE. NO PROPOSED RIGHT-OF-WAY WILL BE OBTAINED FROM FEDERAL LANDS.



**TEMPORARY BYPASS ROAD SECTION**  
1/4" = 1'-0"

NOTE: TEMPORARY BYPASS ROAD SHALL BE SUPERELEVATED TO 4% AT THE CURVE AT THE WEST END OF THE ALIGNMENT. NOT DEPICTED HERE. FOR MORE INFORMATION, SEE THE GRADES AND GEOMETRICS - TEMPORARY ROAD SHEET.

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**HORIZONTAL CURVE #3 DATA**

P. I. STA. = 8+41.53  
 $\Delta = 27^\circ 34' 26.8''R$   
 R = 267.00'  
 T = 65.52'  
 L = 128.50'  
 E = 7.92'

**HORIZONTAL CURVE #4 DATA**

P. I. STA. = 9+49.43  
 $\Delta = 11^\circ 55' 45.5''R$   
 R = 430.00'  
 T = 44.93'  
 L = 89.53'  
 E = 2.34'

**HORIZONTAL CURVE #5 DATA**

P. I. STA. = 12+14.69  
 $\Delta = 9^\circ 23' 10.0''R$   
 R = 1750.00'  
 T = 143.66'  
 L = 286.68'  
 E = 5.89'

**HORIZONTAL CURVE #2 DATA**

P. I. STA. = 7+06.69  
 $\Delta = 16^\circ 38' 16.8''R$   
 R = 430.00'  
 T = 70.56'  
 L = 139.88'  
 E = 5.75'

**HORIZONTAL CURVE #10 DATA**

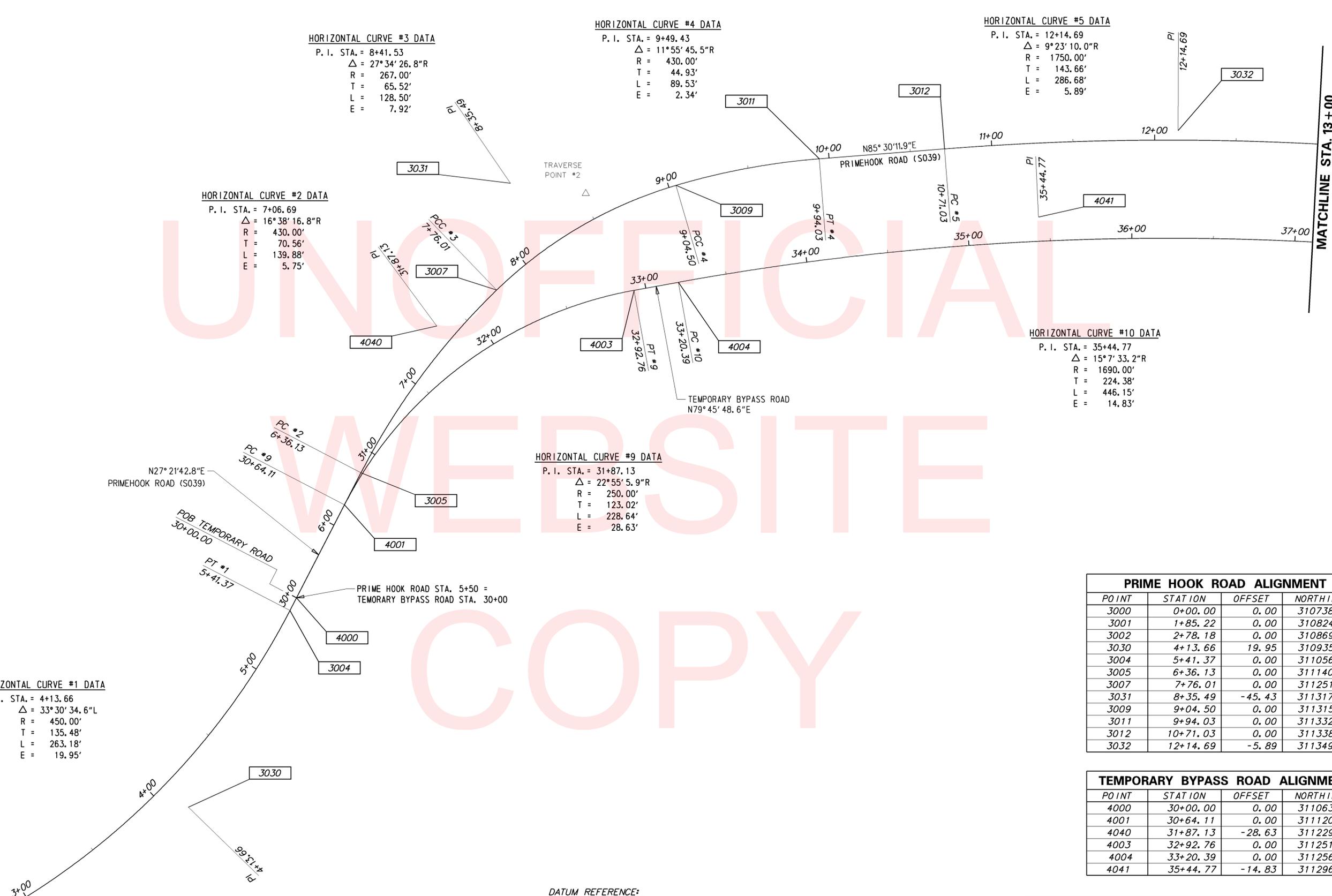
P. I. STA. = 35+44.77  
 $\Delta = 15^\circ 7' 33.2''R$   
 R = 1690.00'  
 T = 224.38'  
 L = 446.15'  
 E = 14.83'

**HORIZONTAL CURVE #9 DATA**

P. I. STA. = 31+87.13  
 $\Delta = 22^\circ 55' 5.9''R$   
 R = 250.00'  
 T = 123.02'  
 L = 228.64'  
 E = 28.63'

**HORIZONTAL CURVE #1 DATA**

P. I. STA. = 4+13.66  
 $\Delta = 33^\circ 30' 34.6''L$   
 R = 450.00'  
 T = 135.48'  
 L = 263.18'  
 E = 19.95'



PRIME HOOK ROAD ALIGNMENT CONTROL				
POINT	STATION	OFFSET	NORTHING	EASTING
3000	0+00.00	0.00	310738.02	703092.96
3001	1+85.22	0.00	310824.54	703256.74
3002	2+78.18	0.00	310869.79	703337.94
3030	4+13.66	19.95	310935.74	703456.29
3004	5+41.37	0.00	311056.06	703518.55
3005	6+36.13	0.00	311140.22	703562.11
3007	7+76.01	0.00	311251.90	703645.30
3031	8+35.49	-45.43	311317.27	703653.73
3009	9+04.50	0.00	311315.94	703755.27
3011	9+94.03	0.00	311332.17	703843.15
3012	10+71.03	0.00	311338.20	703919.91
3032	12+14.69	-5.89	311349.47	704063.13

TEMPORARY BYPASS ROAD ALIGNMENT CONTROL				
POINT	STATION	OFFSET	NORTHING	EASTING
4000	30+00.00	0.00	311063.72	703522.52
4001	30+64.11	0.00	311120.66	703551.99
4040	31+87.13	-28.63	311229.92	703608.53
4003	32+92.76	0.00	311251.78	703729.59
4004	33+20.39	0.00	311256.69	703756.78
4041	35+44.77	-14.83	311296.56	703977.59

HORIZONTAL / VERTICAL CONTROL DATA					
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION
2	8+52.81	-16.09	311310.90	703699.97	4.22

**DATUM REFERENCE:**

HORIZONTAL - THIS PROJECT IS REFERENCED TO THE DELAWARE STATE PLANE COORDINATE SYSTEM (NAD 83/91).

VERTICAL - THIS PROJECT IS REFERENCED TO NAVD 88.



ADDENDUMS / REVISIONS



**PRIME HOOK ROAD IMPROVEMENTS**

CONTRACT	BRIDGE NO.	<b>3-822</b>
T201607303	DESIGNED BY:	GCL III
COUNTY	CHECKED BY:	CAS
SUSSEX		

**HORIZONTAL AND VERTICAL CONTROL**

SHEET NO.	5
TOTAL SHTS.	34

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PRIME HOOK ROAD ALIGNMENT CONTROL				
POINT	STATION	OFFSET	NORTHING	EASTING
3014	13+57.71	0.00	311337.22	704206.27
3015	18+50.13	0.00	311295.25	704696.89
3017	19+30.13	0.00	311290.56	704776.75
3033	20+17.70	15.04	311280.76	704866.27
3019	21+05.28	0.00	311316.26	704949.05
3021	21+85.28	0.00	311344.04	705024.06
3022	23+00.00	0.00	311386.75	705130.53

TEMPORARY BYPASS ROAD ALIGNMENT CONTROL				
POINT	STATION	OFFSET	NORTHING	EASTING
4005	37+66.54	0.00	311277.44	704201.16
4006	39+92.40	0.00	311258.19	704426.19
4042	40+58.83	4.39	311252.53	704492.38
4008	41+24.48	0.00	311264.34	704557.75
4009	42+23.01	0.00	311281.87	704654.70
4043	42+65.61	-1.81	311289.45	704696.62
4011	43+08.00	0.00	311289.82	704739.21
4012	43+65.40	0.00	311290.33	704796.62

DATUM REFERENCE:  
 HORIZONTAL - THIS PROJECT IS REFERENCED TO THE DELAWARE STATE PLANE COORDINATE SYSTEM (NAD 83/91).  
 VERTICAL - THIS PROJECT IS REFERENCED TO NAVD 88.

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**HORIZONTAL CURVE #5 DATA**  
 P. I. STA. = 12+14.69  
 $\Delta = 9^{\circ}23'10.0''R$   
 R = 1750.00'  
 T = 143.66'  
 L = 286.68'  
 E = 5.89'

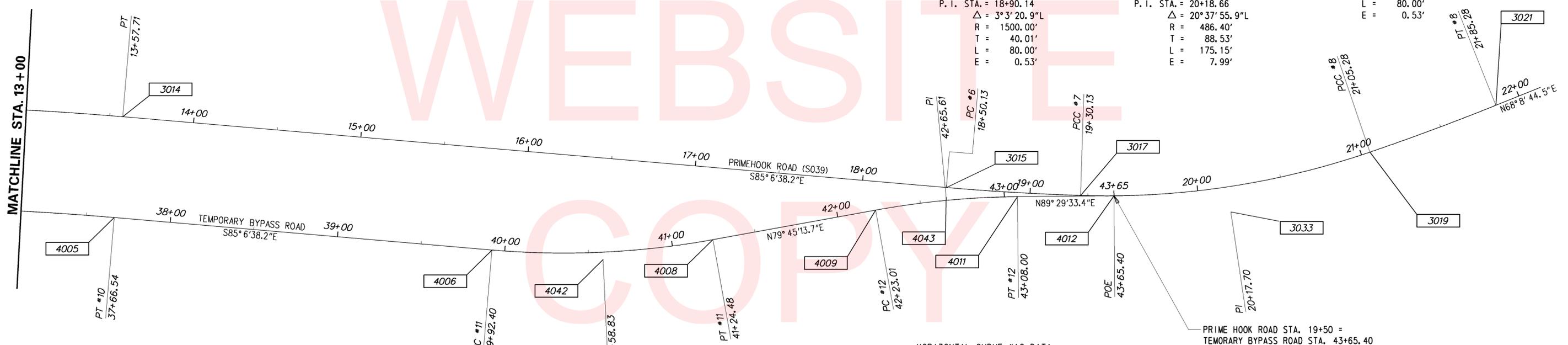
**HORIZONTAL CURVE #6 DATA**  
 P. I. STA. = 18+90.14  
 $\Delta = 3^{\circ}3'20.9''L$   
 R = 1500.00'  
 T = 40.01'  
 L = 80.00'  
 E = 0.53'

**HORIZONTAL CURVE #7 DATA**  
 P. I. STA. = 20+18.66  
 $\Delta = 20^{\circ}37'55.9''L$   
 R = 486.40'  
 T = 88.53'  
 L = 175.15'  
 E = 7.99'

**HORIZONTAL CURVE #8 DATA**  
 P. I. STA. = 21+45.29  
 $\Delta = 3^{\circ}3'20.9''L$   
 R = 1500.00'  
 T = 40.01'  
 L = 80.00'  
 E = 0.53'

**HORIZONTAL CURVE #12 DATA**  
 P. I. STA. = 42+65.61  
 $\Delta = 9^{\circ}44'19.7''R$   
 R = 500.00'  
 T = 42.60'  
 L = 84.99'  
 E = 1.81'

**HORIZONTAL CURVE #11 DATA**  
 P. I. STA. = 40+58.83  
 $\Delta = 15^{\circ}8'8.2''L$   
 R = 500.00'  
 T = 66.43'  
 L = 132.08'  
 E = 4.39'



**HORIZONTAL CURVE #10 DATA**  
 P. I. STA. = 35+44.77  
 $\Delta = 15^{\circ}7'33.2''R$   
 R = 1690.00'  
 T = 224.38'  
 L = 446.15'  
 E = 14.83'

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<b>DELAWARE DEPARTMENT OF TRANSPORTATION</b>	ADDENDUMS / REVISIONS	SCALE  FEET	<b>PRIME HOOK ROAD IMPROVEMENTS</b>	CONTRACT T201607303	BRIDGE NO. <b>3-822</b>	<b>HORIZONTAL AND VERTICAL CONTROL</b>	SHEET NO. 6
			COUNTY SUSSEX	DESIGNED BY: GCL III	TOTAL SHTS. 34		
			CHECKED BY: CAS				



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UNITED STATES OF AMERICA  
DEPARTMENT OF THE INTERIOR  
2-30-17,00-220.00  
D.R. 504-302

UNITED STATES OF AMERICA  
DEPARTMENT OF THE INTERIOR  
2-30-17,00-222.00  
D.R. 593-567

WITHIN THE LOC (BUT NOT WITHIN ANY WETLAND AREAS), REMOVE EXISTING STONE WASHED AWAY FROM THE ROADWAY EMBANKMENT BY PREVIOUS STORM EVENTS. REMOVE ALL STONE BARS AND DEPOSITS, STONE VISIBLE ON THE GROUND SURFACE, BUT NOT MORE THAN 6" BELOW THE EXISTING GROUND SURFACE. IF APPLICABLE, STONE MAY BE SALVAGED FOR USE ON THE PROJECT.

TIDAL WETLAND AREAS TO BE REPLANTED BY OTHERS. SEE ENVIRONMENTAL COMPLIANCE NOTE 6B FOR MORE INFORMATION.

GUARDRAIL SCHEDULE				
NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
1	GR END TREATMENT ATTENUATOR, TYPE 1-31	12+49.06	-15.00	50.00
4	GR END TREATMENT ATTENUATOR, TYPE 1-31	12+49.06	15.00	50.00



**PROPOSED CHANNEL AND RIPRAP NOTES:**

1. PROPOSED CHANNEL EXCAVATION (BY OTHERS) ON EITHER SIDE OF THE PROPOSED BRIDGE IS EXPECTED TO BE COMPLETE BY DECEMBER 2015.
2. EXCAVATE PROPOSED CHANNEL THROUGH THE PROPOSED BRIDGE AND BEYOND THE LIMITS OF THE RIPRAP (END EXCAVATION 10' -0" OR MORE FROM THE TEMPORARY ROADWAY EMBANKMENT) PRIOR TO PLACEMENT OF THE PRESTRESSED PRECAST BEAMS.
3. AT WINGWALLS, PLACE RIPRAP OUT TO THE TOE OF THE PROPOSED EMBANKMENT (7' -6" ON THE NORTH SIDE OF THE ROAD, 6' -0" ON THE SOUTH).
4. FOR PROPOSED CHANNEL SECTION AND RIPRAP PLACEMENT AT ABUTMENTS, SEE BRIDGE ELEVATION.
5. NORTH OF THE BRIDGE, EXCAVATE PROPOSED CHANNEL TO ALIGN WITH THE PROPOSED CHANNEL WORK PERFORMED BY OTHERS. THIS WORK MAY BE COMPLETED AT THE TIME OF BRIDGE CONSTRUCTION OR WITH THE CHANNEL EXCAVATION ON THE SOUTH SIDE OF THE ROAD.
6. SOUTH OF THE BRIDGE, EXCAVATE PROPOSED CHANNEL AFTER THE TEMPORARY ROADWAY EMBANKMENT HAS BEEN REMOVED. ALIGN CHANNEL WITH THE PROPOSED CHANNEL WORK PERFORMED BY OTHERS.

**GUARDRAIL SCHEDULE**

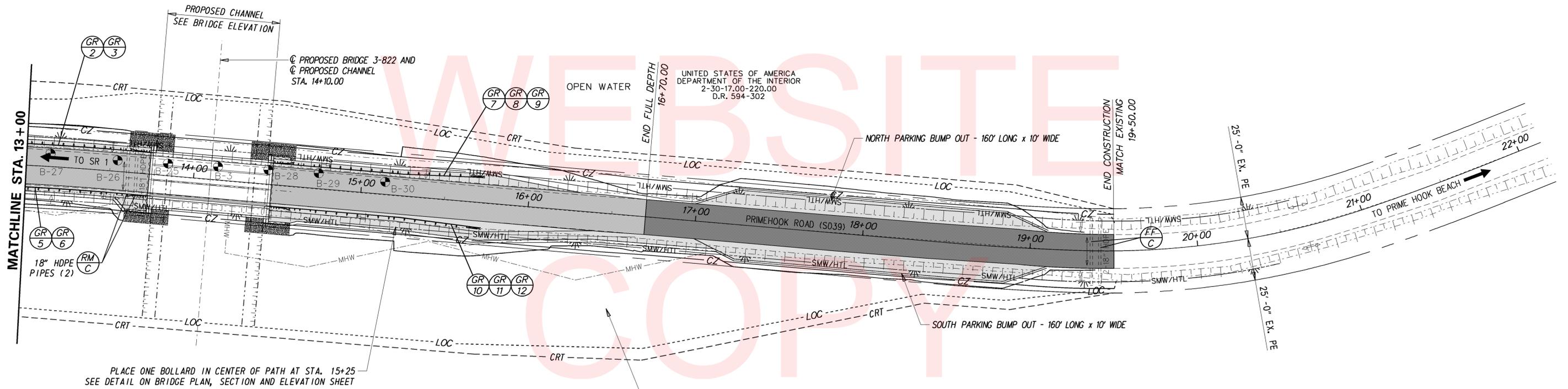
NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
2	GALVANIZED STEEL BEAM GR, TYPE 1-31	12+99.06	-13.00	50.00
3	GR TO BARRIER CONNECTION, TYPE 2	13+49.06	-13.00	24.44
5	GALVANIZED STEEL BEAM GR, TYPE 1-31	12+99.06	13.00	50.00
6	GR TO BARRIER CONNECTION, TYPE 2	13+49.06	13.00	24.44
7	GR TO BARRIER CONNECTION, TYPE 2	14+46.50	-13.00	24.44
8	GALVANIZED STEEL BEAM GR, TYPE 1-31	14+70.94	-13.00	50.00
9	GR END TREATMENT ATTENUATOR, TYPE 1-31	15+20.94	-13.00	50.00
10	GR TO BARRIER CONNECTION, TYPE 2	14+46.50	13.00	24.44
11	GALVANIZED STEEL BEAM GR, TYPE 1-31	14+70.94	13.00	50.00
12	GR END TREATMENT ATTENUATOR, TYPE 1-31	15+20.94	13.00	50.00

FOR #7 AND #10, STA. LISTED IS THE END OF THE PARAPET AND LENGTH = LENGTH OF UNIT BEYOND PARAPET.

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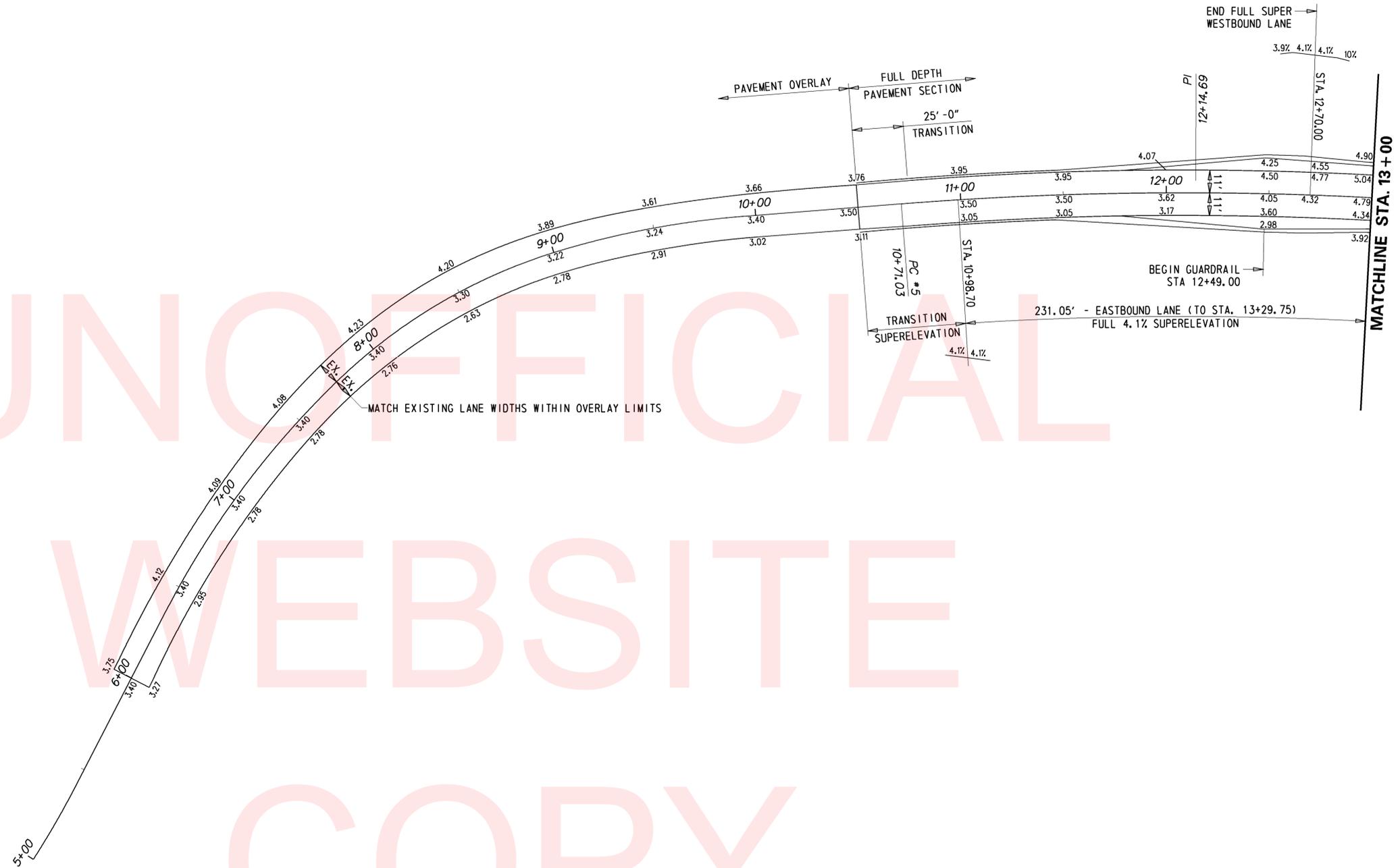


PLACE ONE BOLLARD IN CENTER OF PATH AT STA. 15+25  
SEE DETAIL ON BRIDGE PLAN, SECTION AND ELEVATION SHEET

WITHIN THE LOC, REMOVE EXISTING STONE WASHED AWAY FROM THE ROADWAY EMBANKMENT BY PREVIOUS STORM EVENTS. REMOVE ALL STONE BARS AND DEPOSITS, STONE VISIBLE ON THE GROUND SURFACE, BUT NOT MORE THAN 6" BELOW THE EXISTING GROUND SURFACE. IF APPLICABLE, STONE MAY BE SALVAGED FOR USE ON THE PROJECT.

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<p><b>DELAWARE</b> DEPARTMENT OF TRANSPORTATION</p>	ADDENDUMS / REVISIONS	<p>SCALE</p> <p>FEET</p>	<p><b>PRIME HOOK ROAD</b> IMPROVEMENTS</p>	CONTRACT	BRIDGE NO.	<b>3-822</b>	<p><b>CONSTRUCTION PLAN</b></p>	SHEET NO.	
					T201607303	DESIGNED BY: GCL III		8	
					SUSSEX	CHECKED BY: CAS		TOTAL SHTS.	
							34		



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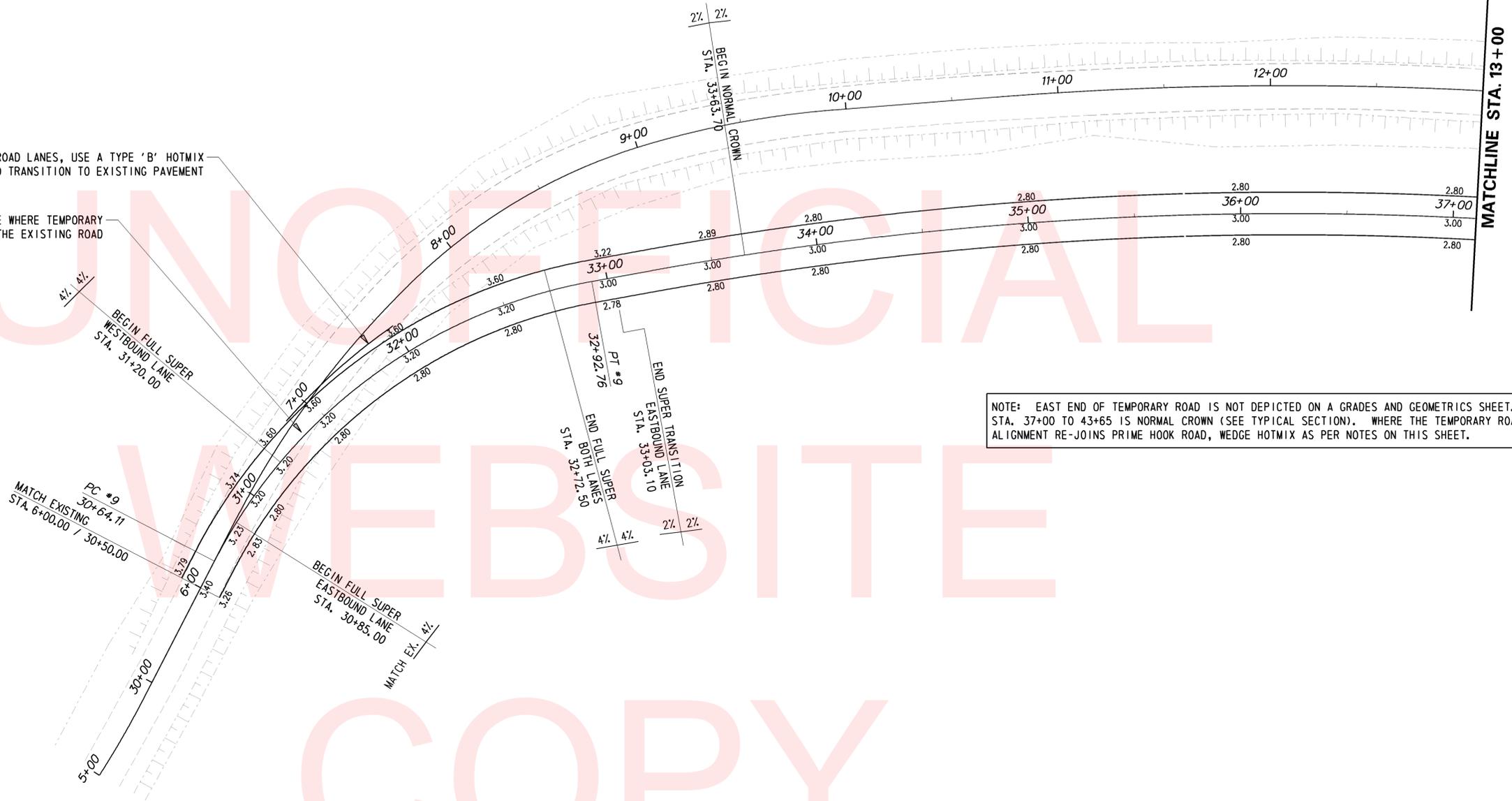
<b>DELAWARE DEPARTMENT OF TRANSPORTATION</b>	ADDENDUMS / REVISIONS	SCALE FEET	<b>PRIME HOOK ROAD IMPROVEMENTS</b>	CONTRACT	BRIDGE NO.	<b>3-822</b>	<b>GRADES AND GEOMETRICS</b>	SHEET NO.
				T201607303	DESIGNED BY: GCL III			9
				COUNTY	CHECKED BY: CAS			TOTAL SHTS.
				SUSSEX				34





ON LEFT EDGE OF TEMPORARY ROAD LANES, USE A TYPE 'B' HOTMIX WEDGE WITH A 4:1 SLOPE TO TRANSITION TO EXISTING PAVEMENT

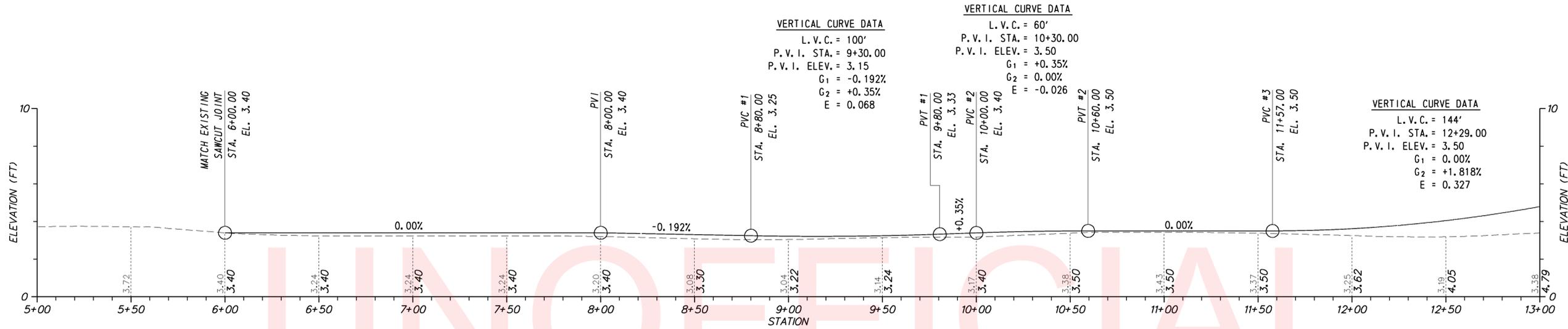
PLACE TYPE 'B' HOTMIX WEDGE WHERE TEMPORARY ROAD PROFILE DIVERGES FROM THE EXISTING ROAD



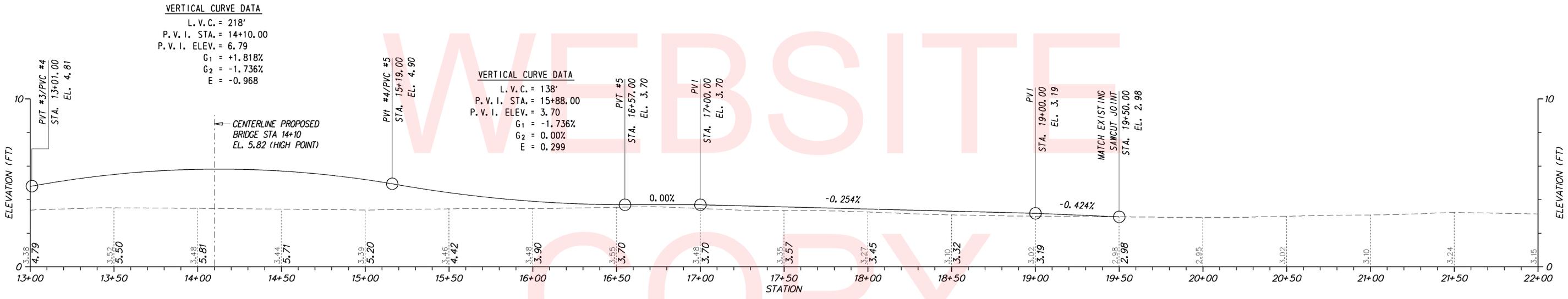
NOTE: EAST END OF TEMPORARY ROAD IS NOT DEPICTED ON A GRADES AND GEOMETRICS SHEET. STA. 37+00 TO 43+65 IS NORMAL CROWN (SEE TYPICAL SECTION). WHERE THE TEMPORARY ROAD ALIGNMENT RE-JOINS PRIME HOOK ROAD, WEDGE HOTMIX AS PER NOTES ON THIS SHEET.

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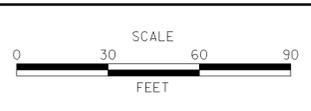


**PRIME HOOK ROAD STA. 5+00 - 13+00**



**PRIME HOOK ROAD STA. 13+00 - 22+00**

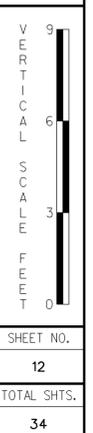
ADDENDUMS / REVISIONS	

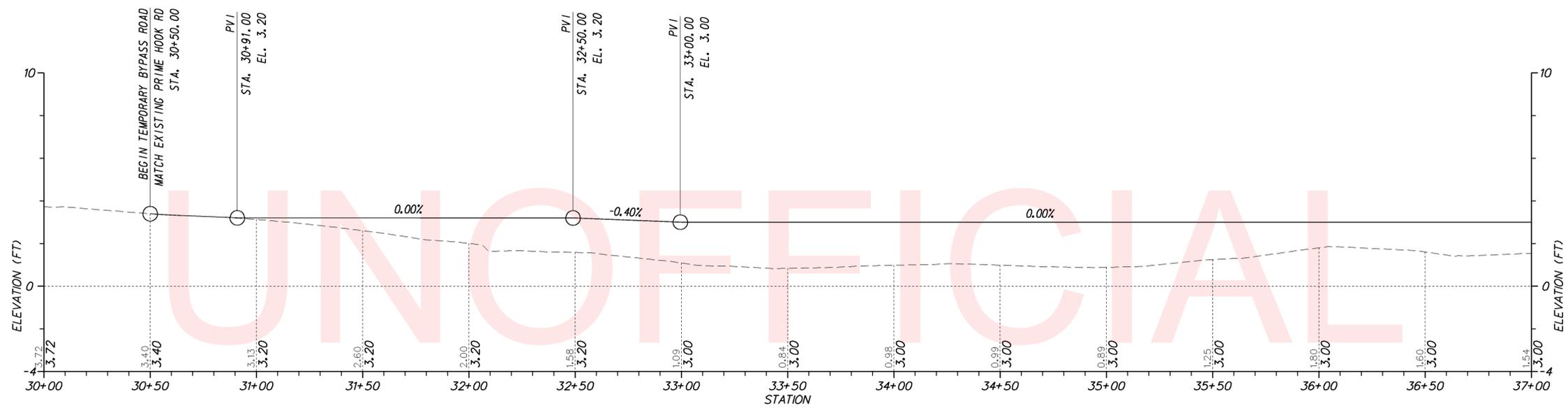


**PRIME HOOK ROAD IMPROVEMENTS**

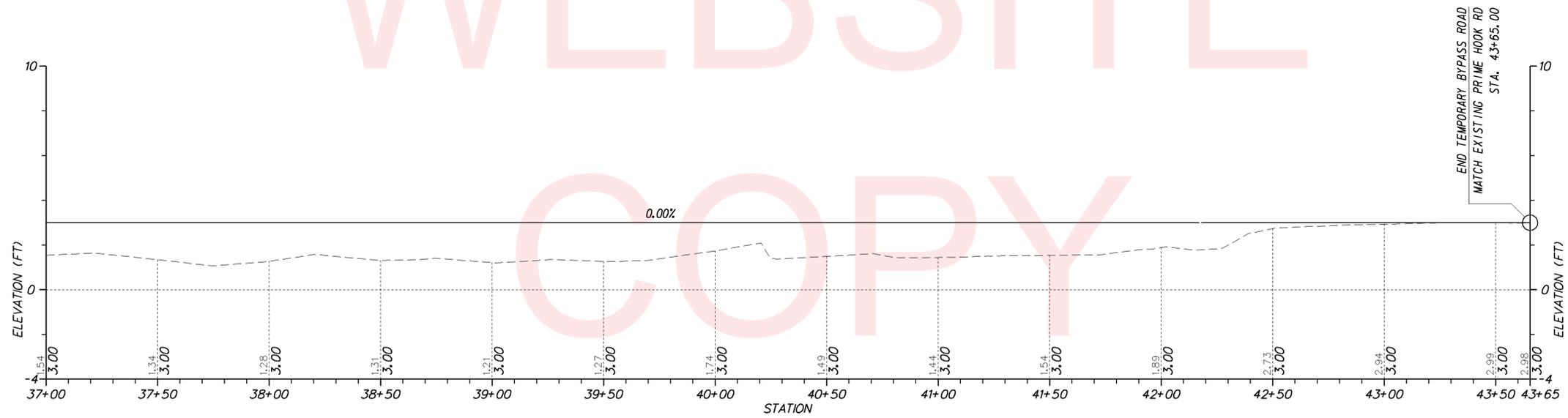
CONTRACT T201607303	BRIDGE NO. <b>3-822</b>
COUNTY SUSSEX	DESIGNED BY: GCL III
	CHECKED BY: CAS

<b>PROFILES</b>	SHEET NO. 12
	TOTAL SHTS. 34





TEMPORARY BYPASS ROAD STA. 30+00 - 37+00



TEMPORARY BYPASS ROAD STA. 37+00 - 43+65

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ADDENDUMS / REVISIONS



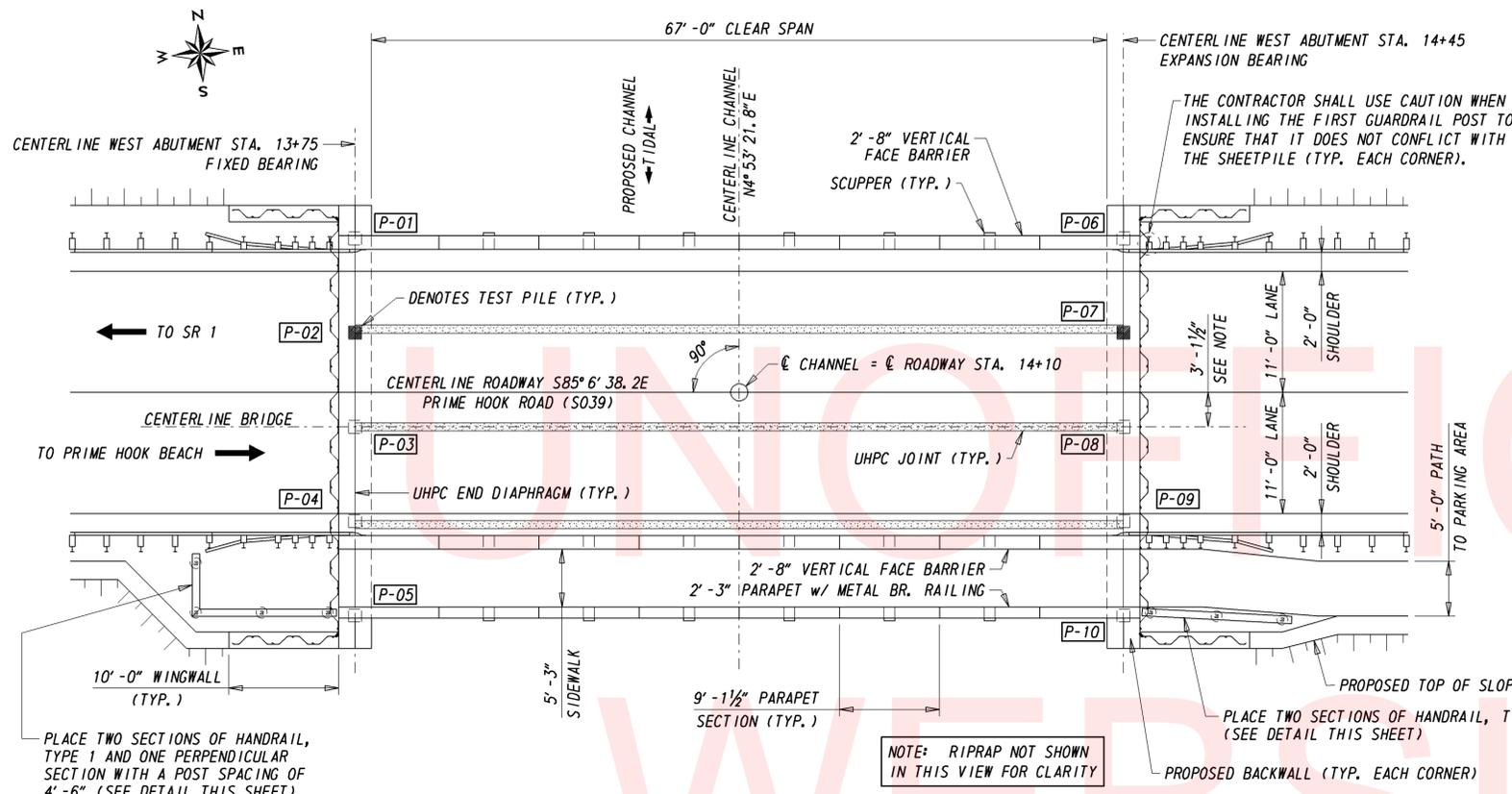
**PRIME HOOK ROAD IMPROVEMENTS**

CONTRACT	BRIDGE NO.	<b>3-822</b>
T201607303	DESIGNED BY:	GCL III
COUNTY	CHECKED BY:	CAS
SUSSEX		

**PROFILES**

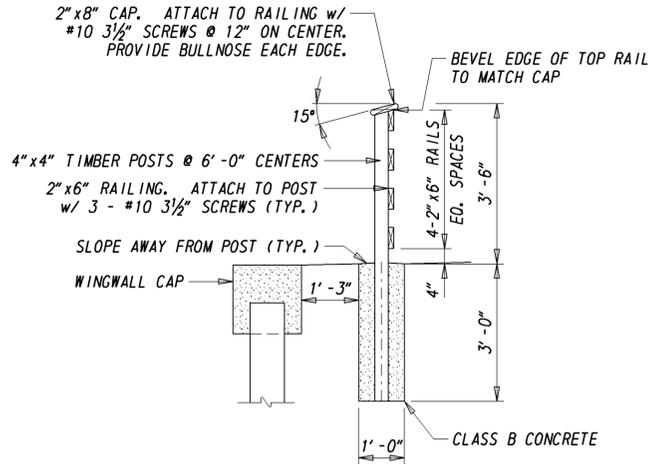


SHEET NO.	9
TOTAL SHTS.	13
	34

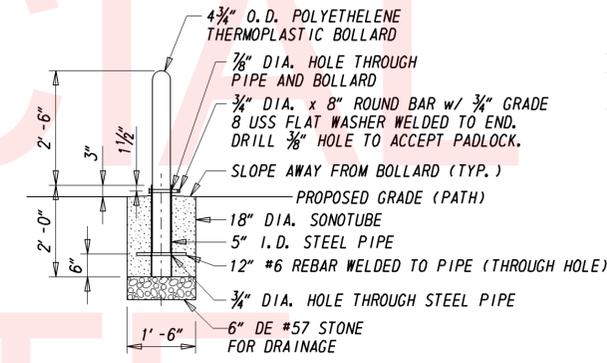


**BRIDGE PLAN**  
1/8" = 1'-0"

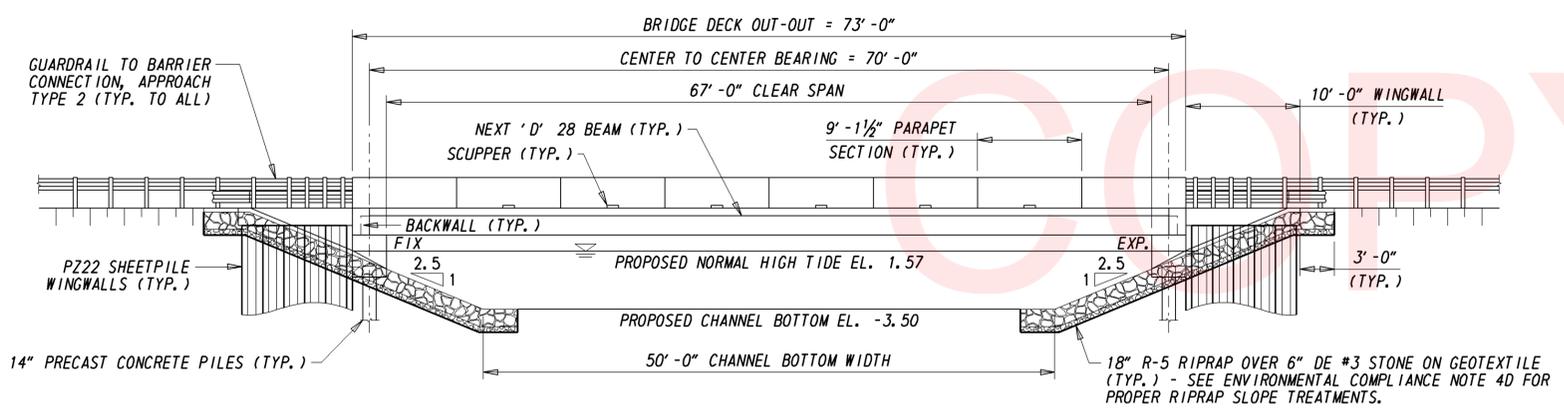
PILE WORKING POINTS				
PT.	STATION	OFFSET	NORTHING	EASTING
1	13+75.00	-14.00	311349.70	704224.69
2	13+75.00	-5.44	311341.16	704223.96
3	13+75.00	3.13	311332.63	704223.23
4	13+75.00	11.69	311324.10	704222.50
5	13+75.00	20.25	311315.57	704221.77
6	14+45.00	-14.00	311343.73	704294.43
7	14+45.00	-5.44	311335.20	704293.70
8	14+45.00	3.13	311326.67	704292.97
9	14+45.00	11.69	311318.14	704292.24
10	14+45.00	20.25	311309.60	704291.51



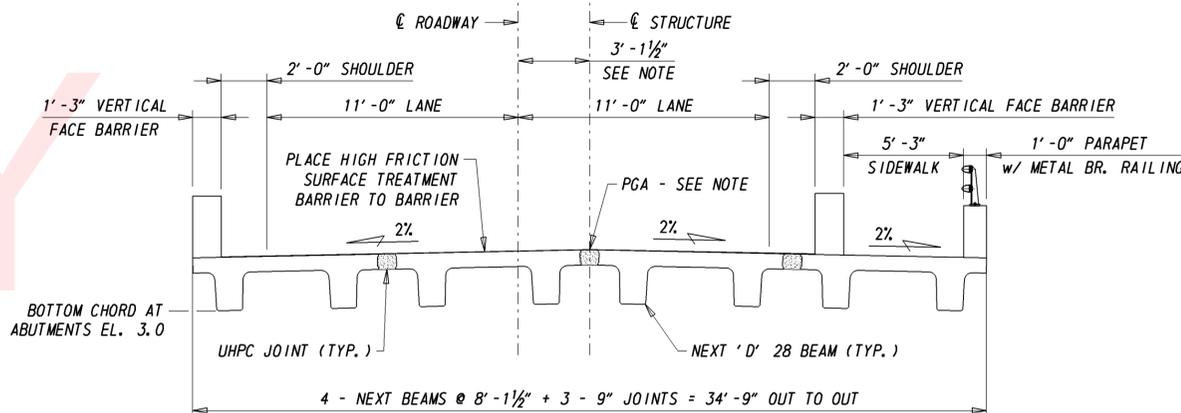
**TYPICAL HANDRAIL SECTION**  
1/2" = 1'-0"



**REMOVABLE BOLLARD DETAIL**  
1/2" = 1'-0"



**BRIDGE ELEVATION**  
1/8" = 1'-0"

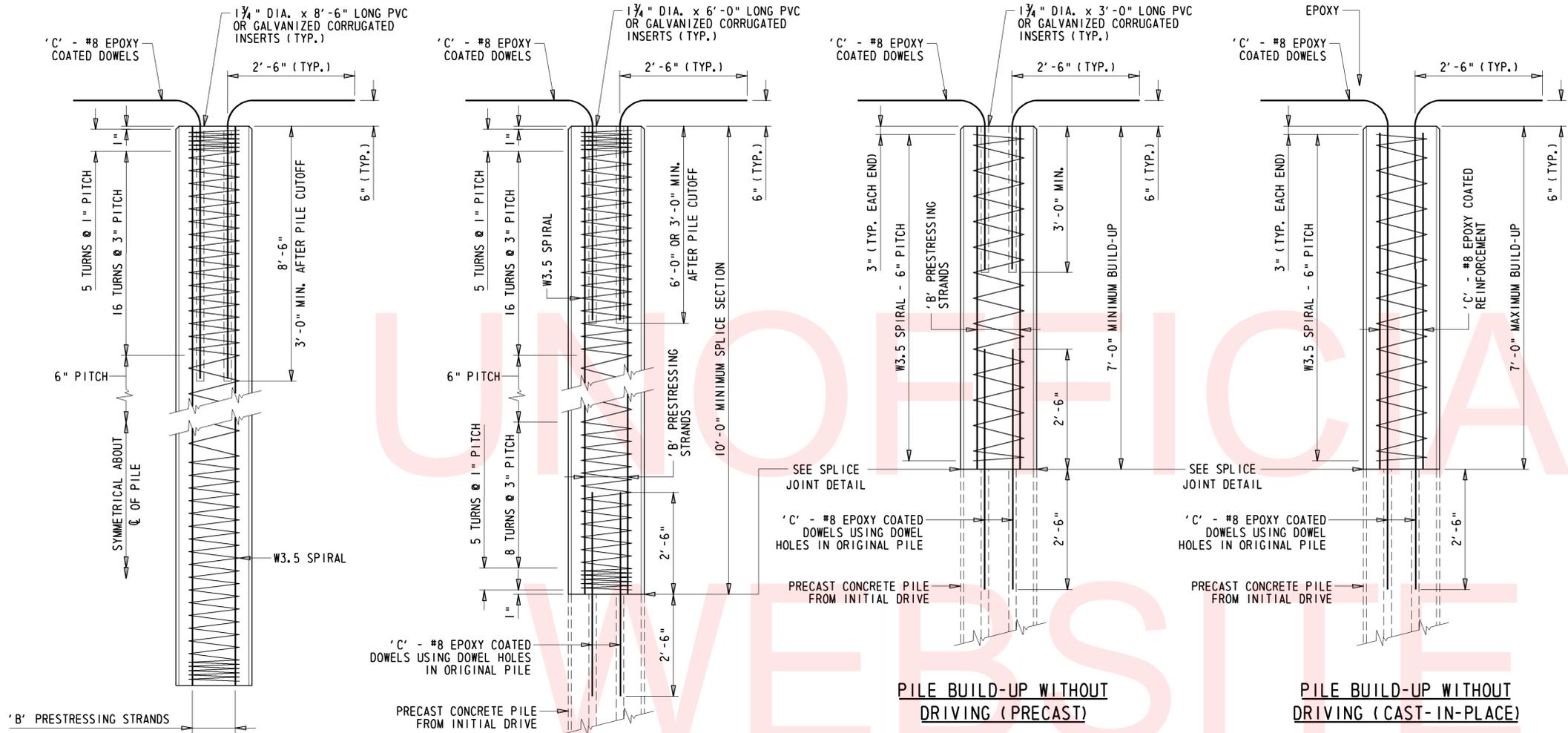


**TYPICAL BRIDGE SECTION**  
1/4" = 1'-0"

NOTE: DUE TO THE BEAM CONFIGURATION, THE CROWN OF THE BRIDGE MUST BE AT THE CENTERLINE OF STRUCTURE. HOWEVER, THIS LINE IS OFFSET FROM THE CENTERLINE OF ROADWAY AS SHOWN. AT THE BRIDGE APPROACHES, TRANSITION THE CROWN OF THE ROAD FROM THE CENTERLINE OF THE ROADWAY TO THE CENTERLINE OF STRUCTURE. APPLY PROFILE GRADES TO THIS LINE AND THE CENTERLINE OF STRUCTURE. SINCE THERE IS NO CONCRETE DECK OR HOT MIX OVERLAY, IT WILL BE ACCEPTABLE IF BEAM CAMBER DIFFERS FROM THE PROFILE GRADES AT THE CENTERLINE OF THE SPAN.

PZ22 SHEETPILE DEPICTED ON THESE DETAILS, HOWEVER, PZC OR SCZ SHAPES MAY BE USED AS AN ALTERNATE. SEE SHEETPILE NOTES ON THE ABUTMENT DETAILS FOR MORE INFORMATION.

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PRECAST PRESTRESSED CONCRETE PILE SIZES		
PILE SIZE	STRANDS	DOWELS
'A'		
12"	6	4
14"	8	4
16"	10	6
18"	12	8
20"	16	8
24"	24	12

**PROJECT SPECIFIC PILE NOTES**

1. PILE TYPE  
THIS PROJECT SHALL UTILIZE 14" x 14" PRESTRESSED-PRECAST CONCRETE PILE.
2. ESTIMATED PRODUCTION PILE LENGTH IS 60'.
3. REQUIRED TEST PILE LENGTH IS 5' LONGER THAN THE ESTIMATED PRODUCTION PILE LENGTH.
4. PILES SHALL BE DRIVEN TO A BEARING RESISTANCE OF 340 KIPS USING A RESISTANCE FACTOR OF 0.65.
5. REFER TO THE PILE INSTALLATION DATA TABLE FOR MINIMUM TIP ELEVATION.

**GENERAL PILE NOTES**

1. FOR MORE INFORMATION REGARDING PILE MATERIALS AND FABRICATION, REFER TO SECTIONS 618 - PILE MATERIALS. FOR MORE INFORMATION REGARDING PILE DRIVING AND INSTALLATION, REFER TO SECTION 619 - INSTALLATION OF PILES OF THE STANDARD SPECIFICATIONS.
2. EACH TEST PILE SHALL BE DYNAMICALLY TESTED BY THE CONTRACTOR IN ACCORDANCE WITH ITEM #619519 - 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. ALL PILES SHALL BE ORDERED PER PLAN LENGTH. TEST PILES, AS NOTED, SHALL BE DRIVEN FIRST TO ESTABLISH DRIVING CRITERIA FOR THE OTHER PILES IN EACH SUBSTRUCTURE ELEMENT. AN ADDITIONAL 5' HAS BEEN ADDED TO THE DESIGN LENGTH OF EACH PILE AS A CONTINGENCY.

**PRESTRESSED-PRECAST CONCRETE PILE NOTES**

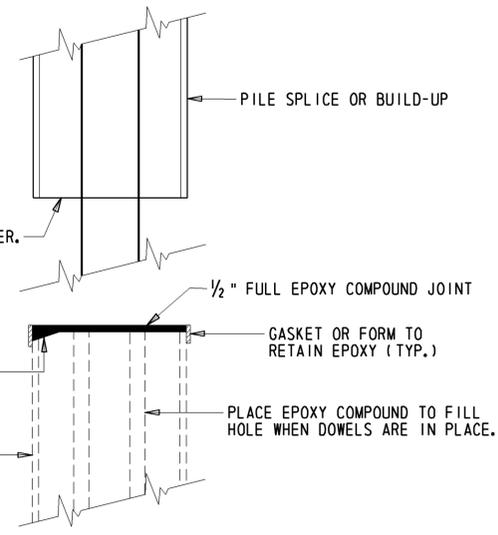
1. DOWEL HOLES CAST IN THE TOP OF THE PILES SHALL BE CLEANED BY INSERTING A HIGH PRESSURE AIR HOSE TO THE BOTTOM AND BLOWING THE HOLE CLEAN FROM THE BOTTOM UPWARD PRIOR TO SETTING AND GROUTING THE DOWEL BARS. DOWELS SHALL BE SET WITH AN APPROVED NON-SHRINK EPOXY GROUT.
2. IF, AFTER A PILE CUTOFF, THE PREFORMED HOLES IN THE TOP OF PRESTRESSED-PRECAST CONCRETE PILES ARE NOT LONG ENOUGH TO PROVIDE SUFFICIENT DOWEL EMBEDMENT, THEY SHALL BE DRILLED TO THE PROPER DEPTH AT NO ADDITIONAL COST TO THE DEPARTMENT. THE MINIMUM LENGTH OF THE DOWEL BAR EMBEDMENT IN THE HOLE SHALL BE 3'-0" FEET.
3. EPOXY GROUT FOR GROUTING THE DOWEL BARS IN THE TOP OF THE PRESTRESSED-PRECAST CONCRETE PILE SHALL BE AN APPROVED NON-SHRINK EPOXY GROUT SPECIFICALLY DESIGNED AS A FAST SETTING COMPOUND THAT POURS EASILY TO FILL THE VOIDS. THE COST OF GROUTING THE DOWEL BARS SHALL BE INCIDENTAL TO THE UNIT BID ITEM FOR THAT RESPECTIVE PILE.
4. THE WORKING DRAWINGS SHALL ALSO INCLUDE DESIGN AND DETAILS OF THE PROPOSED PICK-UP AND SUPPORT POINTS, AND LIFTING LOOPS FOR THE DEPARTMENT'S APPROVAL.
5. THE CONTRACTOR MAY CONSIDER USING ALTERNATIVE PILE BUILD-UP DETAILS FOR BOTH DRIVING AND WITHOUT DRIVING. ALL ALTERNATIVE DETAILS FOR PILE BUILD-UPS SHALL BE SUBMITTED TO THE DEPARTMENT FOR APPROVAL.
6. THE CONTRACTOR MAY CONSIDER USING ALTERNATIVE SPLICE JOINT DETAIL. ALL ALTERNATIVE DETAILS FOR SPLICE JOINT SHALL BE SUBMITTED TO THE DEPARTMENT FOR APPROVAL.

**PILE ELEVATION**

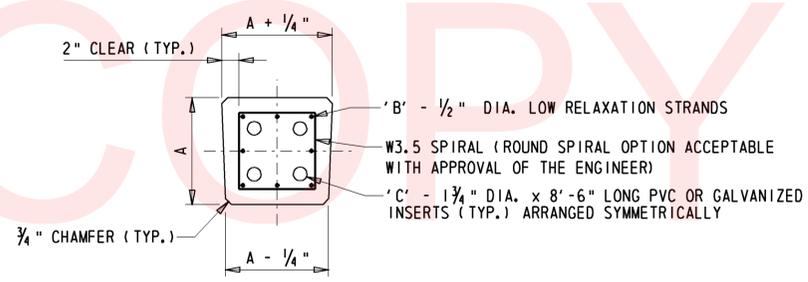
**PILE BUILD-UP FOR DRIVING (PRECAST)**

**PILE BUILD-UP WITHOUT DRIVING (PRECAST)**

**PILE BUILD-UP WITHOUT DRIVING (CAST-IN-PLACE)**



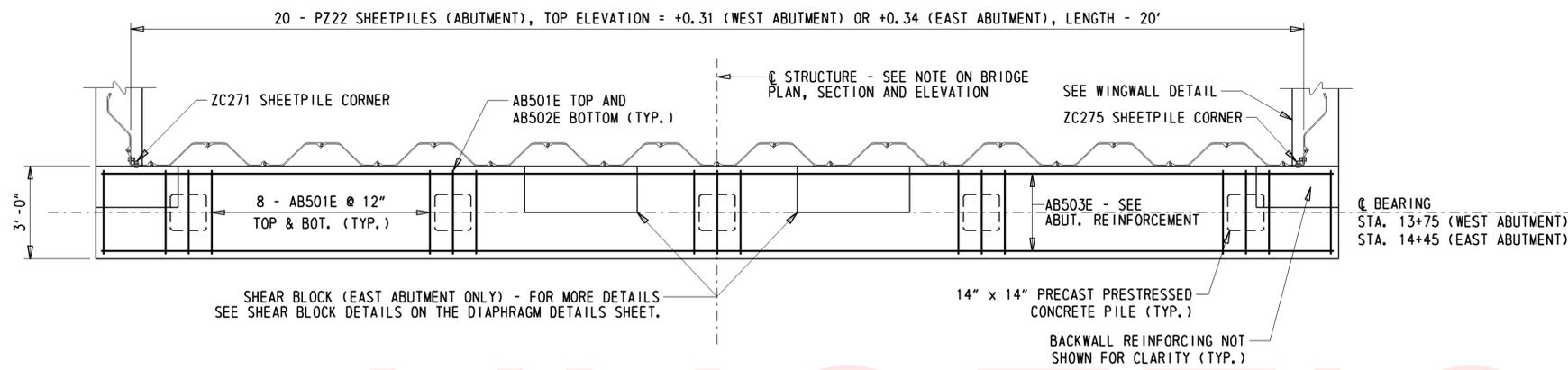
**SPLICE JOINT DETAIL**



**TYPICAL PRECAST PILE SECTION**

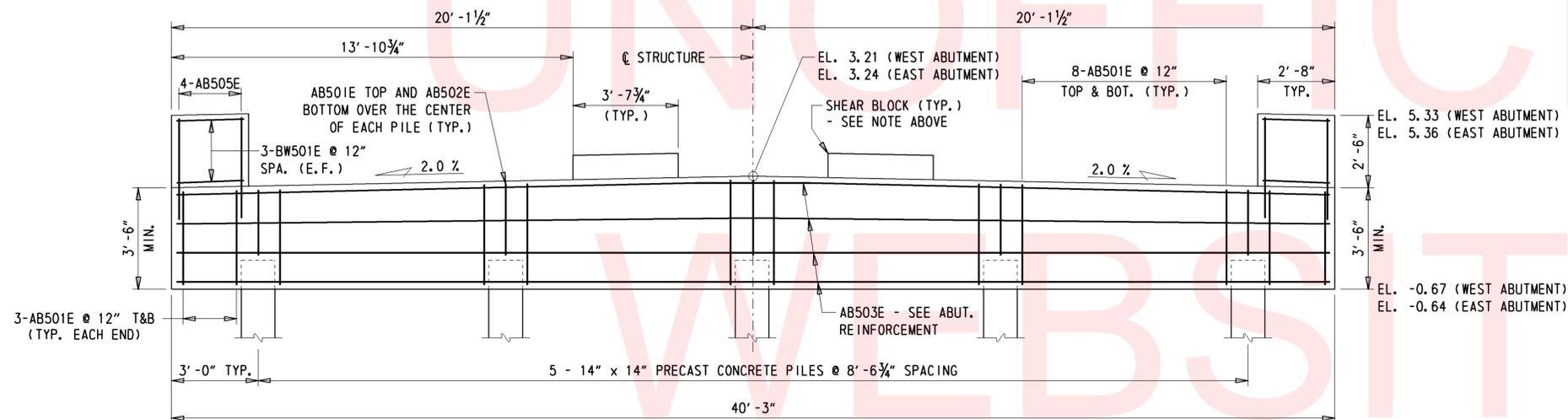
SUBSTRUCTURE UNIT	DESIGN DATA		ACTUAL FIELD DATA		
	MINIMUM TIP ELEVATION	ESTIMATED PILE TIP ELEVATION	ACTUAL MINIMUM TIP ELEVATION	ACTUAL AVERAGE TIP ELEVATION	ACTUAL MAXIMUM TIP ELEVATION
	WEST ABUTMENT	-49.69	-59.69		
EAST ABUTMENT	-49.66	-59.66			

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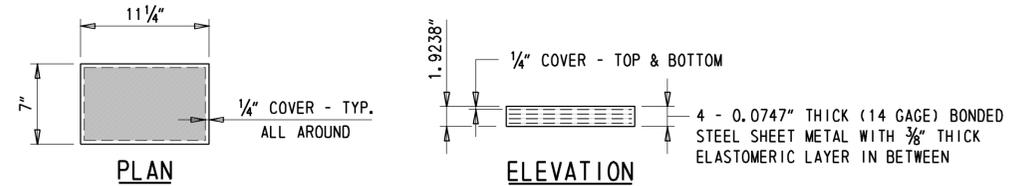
**ABUTMENT PLAN**

3/8" : 1'-0"



**ABUTMENT ELEVATION**

3/8" : 1'-0"

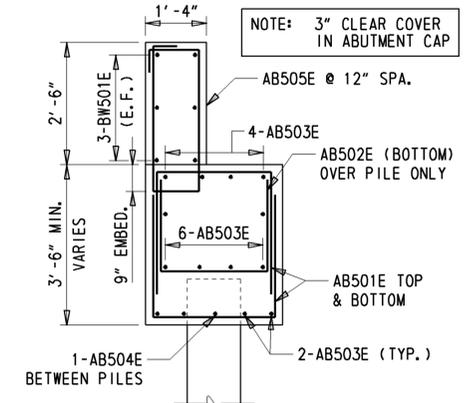


**TYPICAL LAMINATED BEARING PAD**

1" : 1'-0"

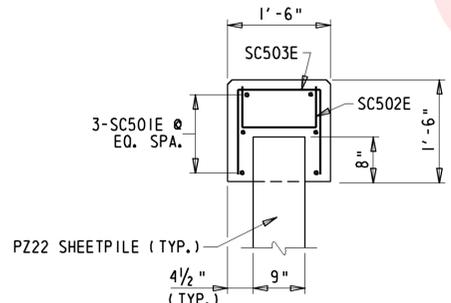
- ELASTOMERIC BEARING PAD NOTES:
- 16 TOTAL ELASTOMERIC BEARINGS REQUIRED.
  - ELASTOMERIC BEARINGS SHALL BE ATTACHED TO THE TOP OF THE ABUTMENT SEAT WITH AN APPROVED EPOXY ADHESIVE IN ACCORDANCE THE SECTION 623.06 OF THE STANDARD SPECIFICATIONS IN SUCH A WAY THAT VISIBLE CONCRETE SURFACES WILL NOT BE STAINED. ENSURE THAT ADHESIVE HAS SET PRIOR TO PLACEMENT OF BEAMS.
  - PAYMENT FOR FABRICATION AND INSTALLATION OF ELASTOMERIC BEARINGS SHALL BE INCIDENTAL TO ITEM 623000 - PRESTRESSED REINFORCED CONCRETE MEMBERS.

- SHEET PILE NOTES:
- PZ SHAPES ARE DEPICTED IN THESE DETAILS. PZC AND SCZ SHAPES ARE ALSO ACCEPTIBLE FOR USE. IF PZC OR SCZ SHAPES ARE USED, THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS SHOWING THE ALTERNATE LAYOUT, CORNER PIECES, ANY ADJUSTMENTS TO ABUTMENT AND WINGWALL DIMENSIONS OR REINFORCING BARS, ETC. ALTERNATE SHAPES SHALL HAVE A SECTION MODULUS HIGHER THAN PZ22.
  - SHEET PILES SHALL BE DRIVEN TO ELEVATIONS SHOWN ON PLANS.
  - ALL MATERIALS UNDER ITEM #622007 (PZ 22, CORNERS, STRUCTURAL L'S, HARDWARES, ETC.) SHALL BE GALVANIZED.
  - ALL STEEL SHEET PILES AND FABRICATED PIECES SHALL CONFORM TO ASTM A572 GRADE 345 (50 KSI).
  - ALL CONNECTION UNITS SHALL BE COMPATIBLE WITH THE UNITS THEY CONNECT, PERTAINING TO THE ASTM DESIGNATIONS. FOR PAYMENT PURPOSES, THE CONNECTIONS UNITS SHALL BE TREATED AS THE ADJACENT UNITS OF SHEET PILING. ALL HARDWARE IS INCIDENTAL TO THE APPROPRIATE SHEETING ITEM.
  - THE STRUCTURAL L SECTIONS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M183 (ASTM A36).



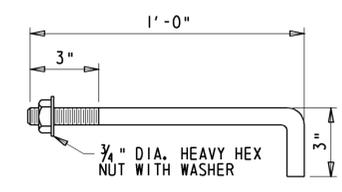
**ABUTMENT REINFORCEMENT**

1/2" : 1'-0"



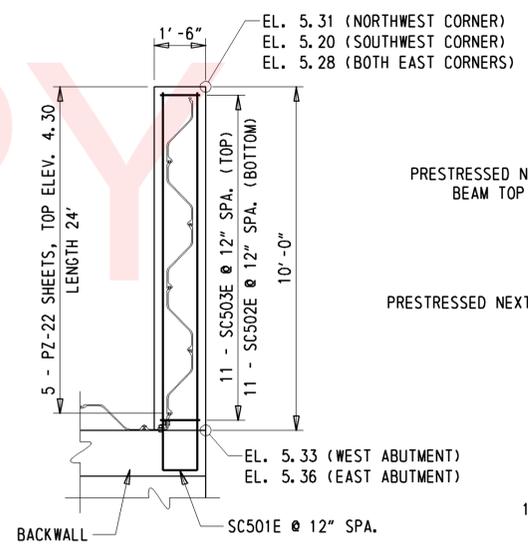
**WINGWALL DETAIL**

3/4" : 1'-0"



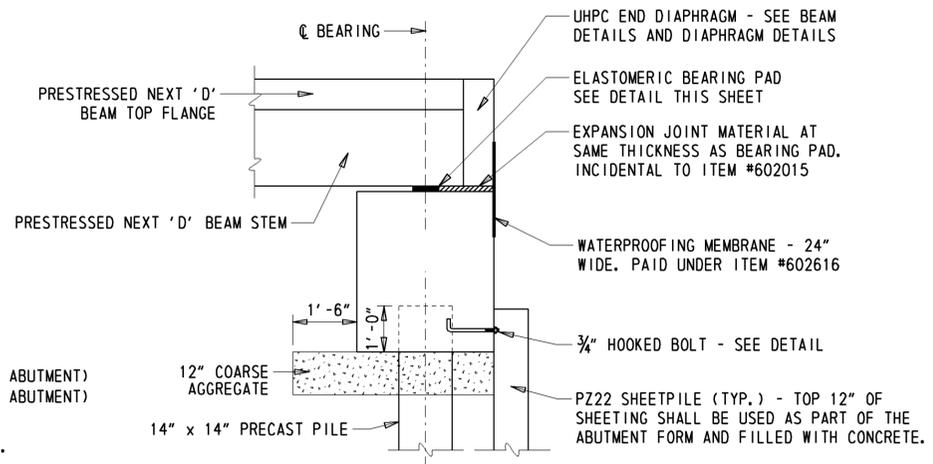
**3/4" Ø HOOKED BOLT**

SCALE : N. T. S.



**TYPICAL WINGWALL DETAIL**

3/8" : 1'-0"



**TYPICAL ABUTMENT SECTION**

1/2" : 1'-0"

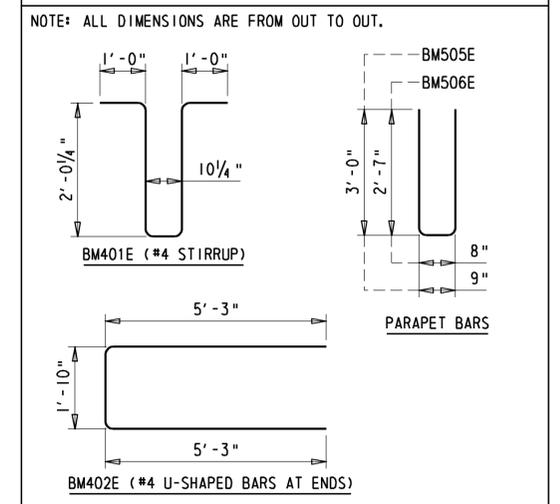
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<p><b>DELAWARE DEPARTMENT OF TRANSPORTATION</b></p>	ADDENDUMS / REVISIONS		<p><b>PRIME HOOK ROAD IMPROVEMENTS</b></p>	CONTRACT	BRIDGE NO.	<b>3-822</b>	<p><b>ABUTMENT DETAILS</b></p>	SHEET NO.
				T201607303	DESIGNED BY: GCL III			16
				SUSSEX	CHECKED BY: CAS			TOTAL SHTS.
								34

### REINFORCING BAR LIST

NEXT 28" D BEAM							
MARK	SIZE	NUMBER	LENGTH	MARK	SIZE	NUMBER	LENGTH
BM401E	4	164	6'-10 3/4"	BM503E	5	22	37'-4"
BM402E	4	16	12'-4"	BM504E	5	286	4'-0 3/4"
BM501E	5	288	7'-9 1/2"	BM505E	5	78	6'-9"
BM502E	5	22	37'-11"	BM506E	5	78	5'-10"

### BENDING DIAGRAMS



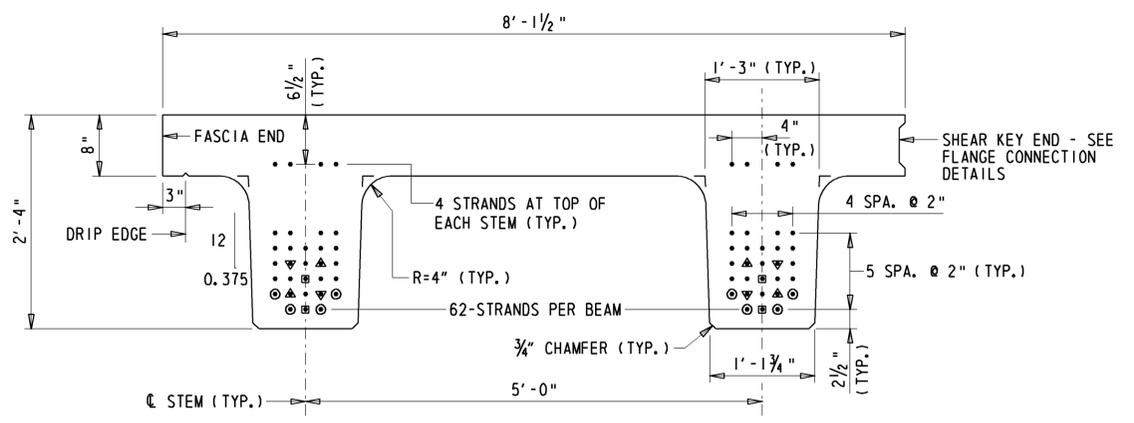
NOTES:  
 -REINFORCING BAR LIST COUNT IS PER BEAM.  
 -USE 143 - BM504E IN FASCIA BEAMS.  
 -BM505E AND BM506E IN FASCIA BEAMS ONLY. SEE PARAPET DETAILS FOR PLACEMENT OF THESE BARS.

### STRAND / DEBONDING LEGEND

- = 0.6" DIA., 270 ksi PRESTRESSING STRANDS
- ⊙ = 0.6" DIA., 270 ksi PRESTRESSING STRANDS TO BE EXTENDED INTO THE END DIAPHRAGM
- ⊠ = 0.6" DIA., 270 ksi PRESTRESSING STRANDS TO BE DEBONDED AT 15'-0" @ EACH END
- ▲ = 0.6" DIA., 270 ksi PRESTRESSING STRANDS TO BE DEBONDED AT 11'-0" @ EACH END
- ▼ = 0.6" DIA., 270 ksi PRESTRESSING STRANDS TO BE DEBONDED AT 7'-0" @ EACH END

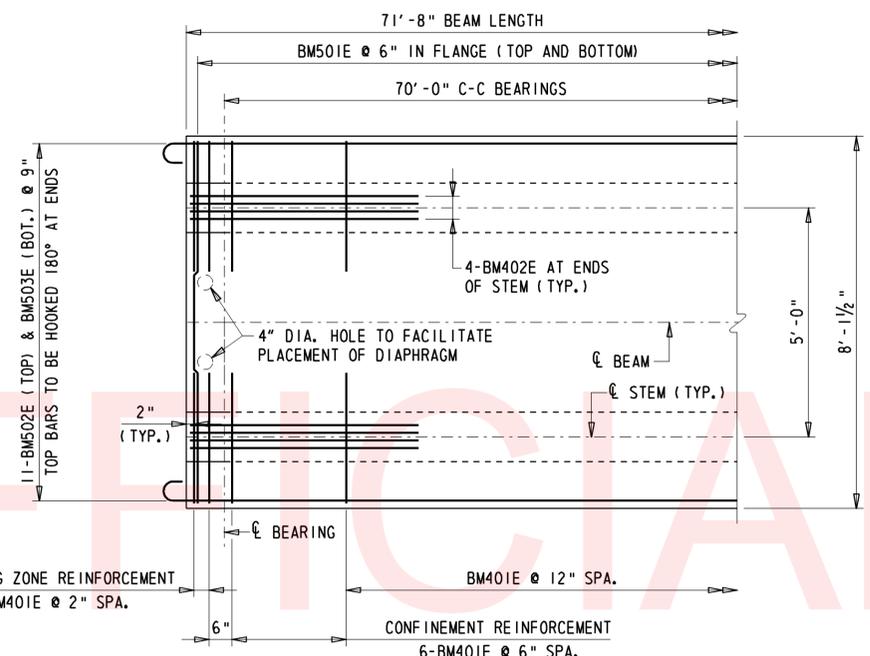
### PRESTRESSED BEAM NOTES (28" NEXT BEAM)

- SHOP DRAWINGS  
 INFORMATION PERTAINING TO THE PRESTRESSED PRECAST REINFORCED CONCRETE IS INTENDED TO SERVE AS AN INDICATION OF THE TYPE OF CONSTRUCTION ACCEPTABLE FOR USE. THE CONTRACTOR WILL BE REQUIRED TO PREPARE AND SUBMIT, FOR APPROVAL, A COMPLETE SET OF DETAILED SHOP DRAWINGS FOR THE PRESTRESSED PRECAST CONCRETE UNITS THEY PROPOSE TO FURNISH.
- HANDLING  
 PRESTRESSED BEAMS SHALL BE HANDLED ONLY BY LIFTING STRANDS PROVIDED ESPECIALLY FOR THIS PURPOSE. THE APPROXIMATE DEAD WEIGHT OF EACH UNIT IS 50.9 TONS.
- CONCRETE STRENGTH  
 THE MINIMUM COMPRESSIVE STRENGTH AT TIME OF INITIAL PRESTRESS EQUALS 8000 PSI. THE MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS EQUALS 10000 PSI.
- REINFORCING BAR  
 MATERIALS REQUIREMENT: AASHTO M31 - GRADE 60  
 ALL BAR REINFORCEMENT TO HAVE 2" MINIMUM COVER EXCEPT AS NOTED OR DETAILED. ALL BAR REINFORCEMENT AND CHAIR SUPPORTS SHALL BE PROTECTED WITH FUSION BONDED EPOXY CONFORMING TO AASHTO M284. PAYMENT FOR REINFORCING BARS IS INCIDENTAL TO ITEM #623000 - PRESTRESSED REINFORCED CONCRETE MEMBERS.
- PRESTRESSING STRANDS  
 INITIAL PRESTRESS ON EACH 0.6" DIA. 270 KSI LOW RELAXATION STRAND EQUALS 43940 LBS. MINIMUM ULTIMATE STRENGTH EQUALS 58590 LBS PER STRAND.
- BEAM FINISH  
 TOP OF BEAMS ARE TO HAVE A FLOAT FINISH. BOTTOM AND SIDES OF BEAMS SHALL BE PROTECTED WITH A WATER MISCIBLE, PENETRATING SILANE SEALER. PAYMENT INCIDENTAL TO ITEM #623000 - PRESTRESSED REINFORCED CONCRETE MEMBERS.
- NUMBER OF BEAMS = 4 TOTAL BEAMS REQUIRED  
 2 INTERIOR BEAMS AND 2 FASCIA BEAMS



### 28" NEXT D BEAM STRAND CONFIGURATION

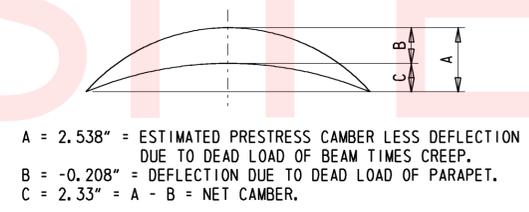
1" : 1'-0"



### NEXT D BEAM PLAN

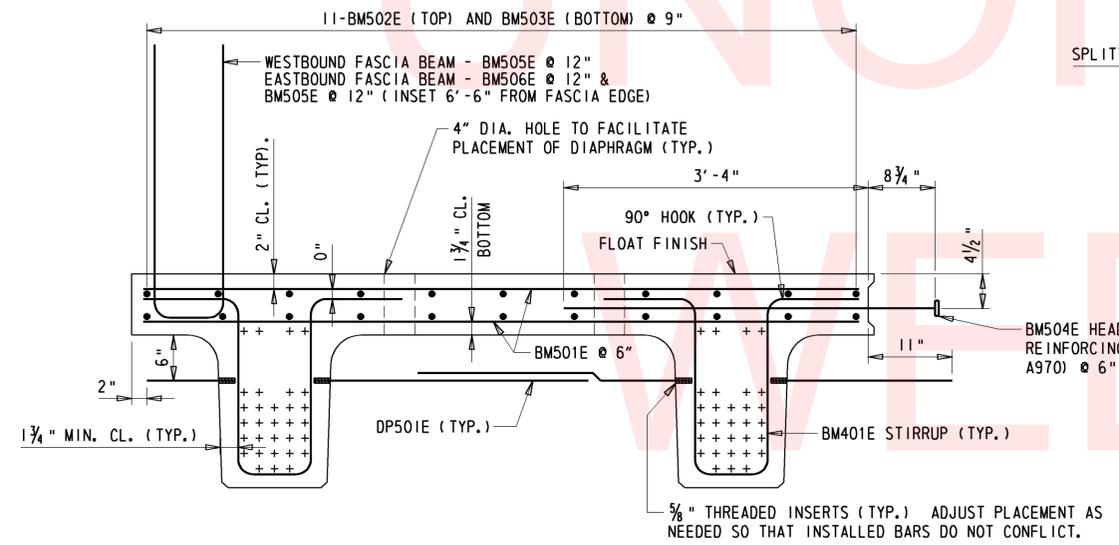
1/2" : 1'-0"

NOTE: STIRRUPS SHOWN ARE TYPICAL FOR EACH STEM. REINFORCEMENT IS SYMMETRICAL ABOUT CENTERLINE SPAN. PARAPET BARS IN FASCIA BEAMS NOT SHOWN IN THIS VIEW.



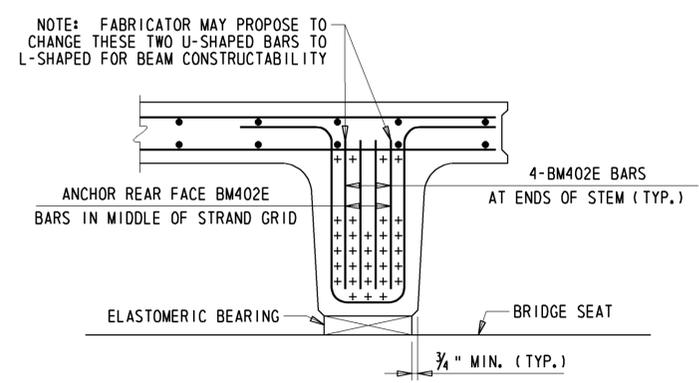
### CAMBER DIAGRAM

NTS



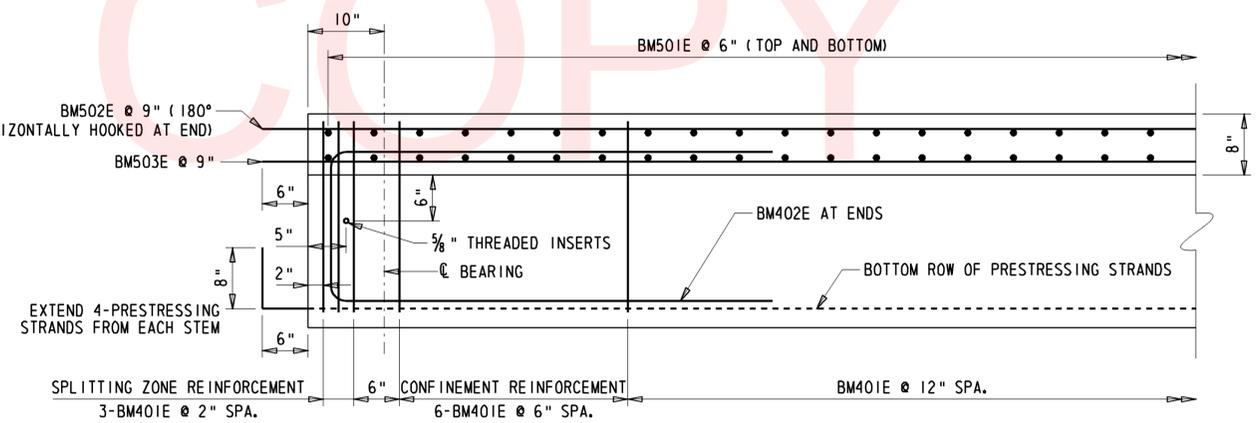
### 28" NEXT D BEAM TYPICAL REINFORCEMENT SECTION

1" : 1'-0"



### NEXT D BEAM END SECTION

1" : 1'-0"



NOTE: REINFORCEMENT IS SYMMETRICAL ABOUT CENTERLINE SPAN

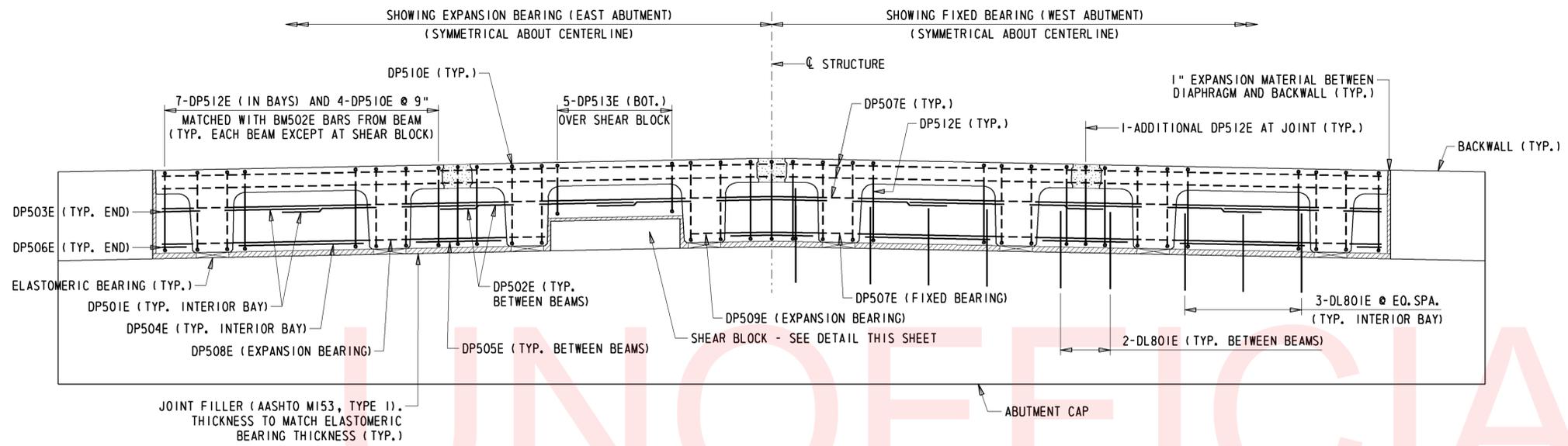
### NEXT D BEAM END ELEVATION

1" : 1'-0"

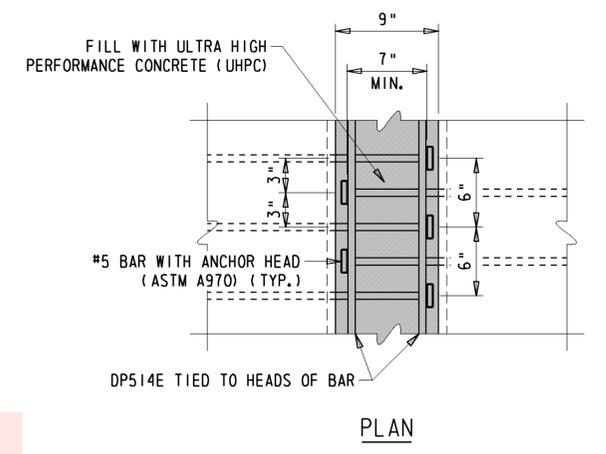
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ADDENDUMS / REVISIONS

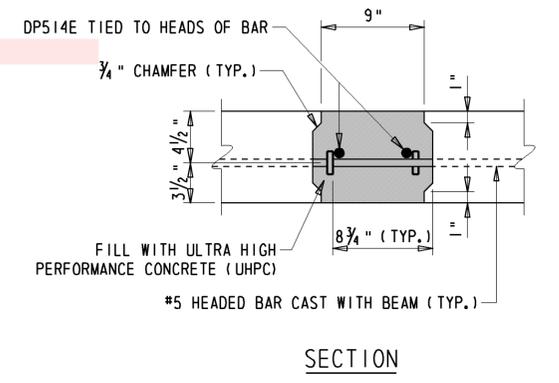
CONTRACT T201607303	BRIDGE NO. 3-822
COUNTY SUSSEX	DESIGNED BY: GCL III
	CHECKED BY: CAS



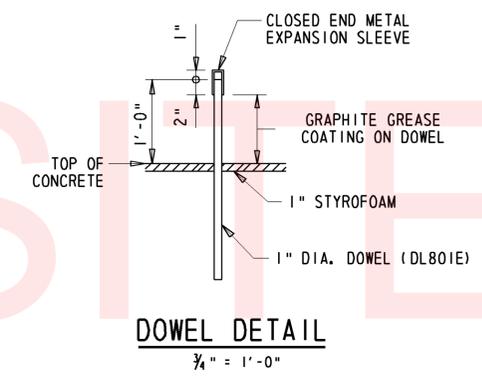
**END DIAPHRAGM DETAIL**  
1/2" = 1'-0"



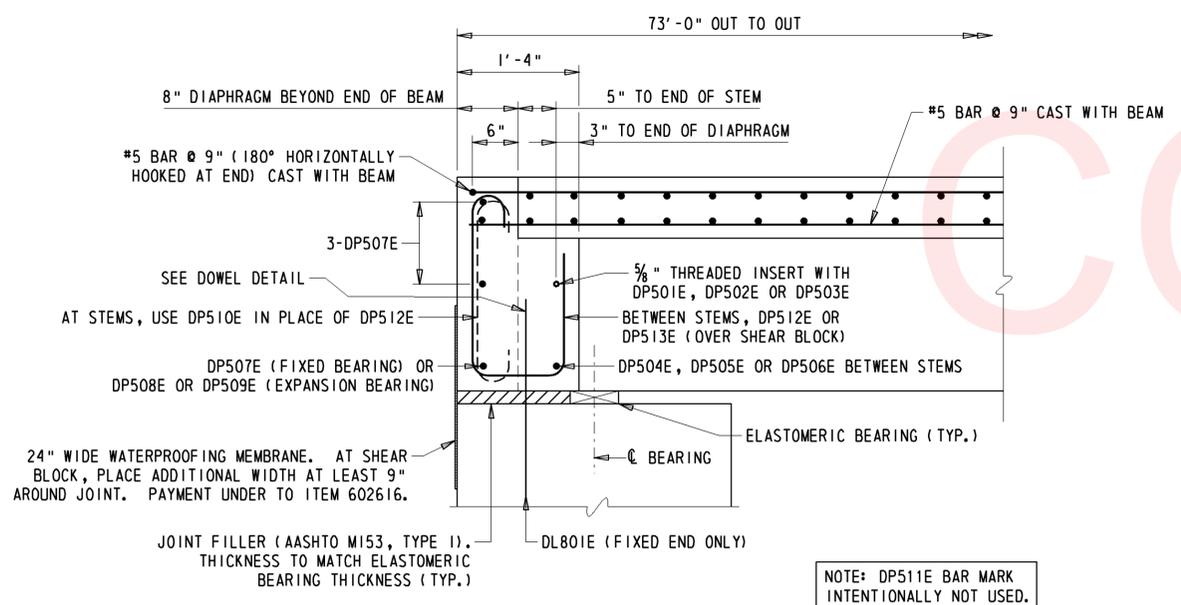
NOTE: JOIN LENGTHS OF DP514E WITH A MECHANICAL COUPLER.



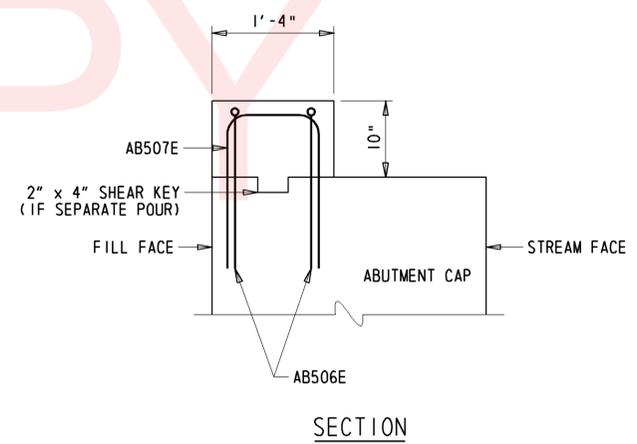
**FLANGE CONNECTION DETAILS**  
1 1/2" = 1'-0"



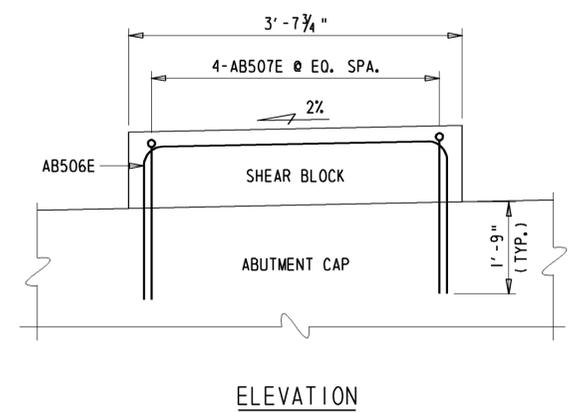
**DOWEL DETAIL**  
3/4" = 1'-0"



**END DIAPHRAGM DETAILS**  
(SHOWN BETWEEN STEMS)  
1" = 1'-0"



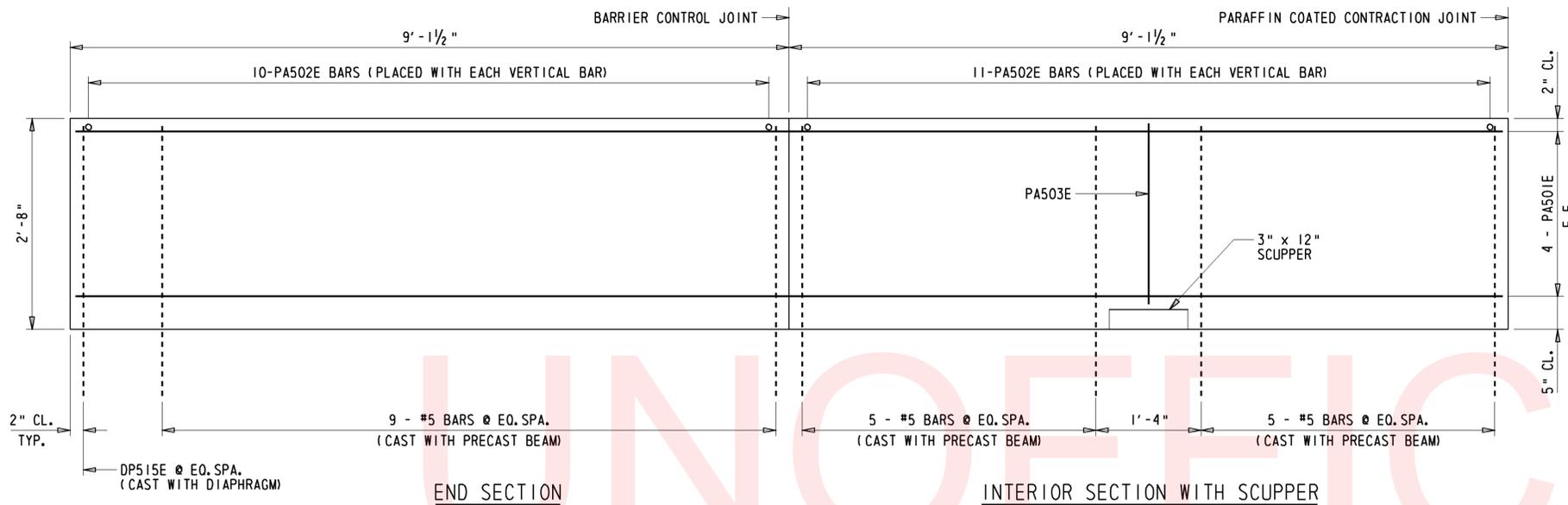
**SHEAR BLOCK DETAILS**  
(WEST ABUTMENT ONLY)  
1" = 1'-0"



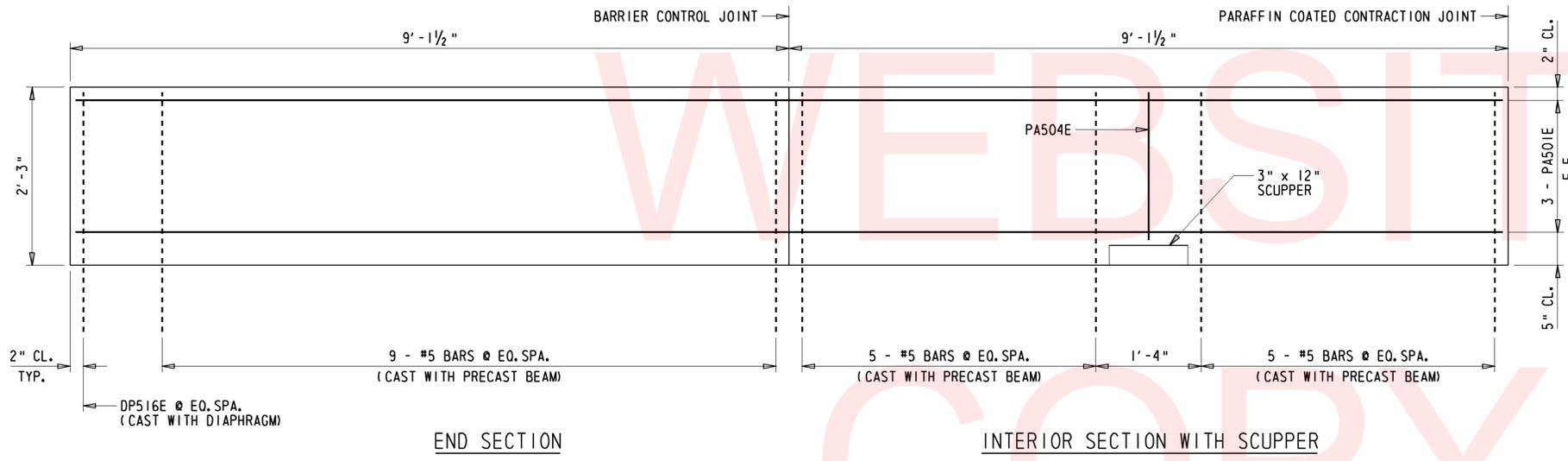
**ELEVATION**

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	ADDENDUMS / REVISIONS		<b>PRIME HOOK ROAD IMPROVEMENTS</b>	CONTRACT	BRIDGE NO.	<b>3-822</b>	<b>DIAPHRAGM DETAILS</b>	SHEET NO.
				T201607303	DESIGNED BY:	GCL III		18
				COUNTY	CHECKED BY:	CAS		TOTAL SHTS.
				SUSSEX				34

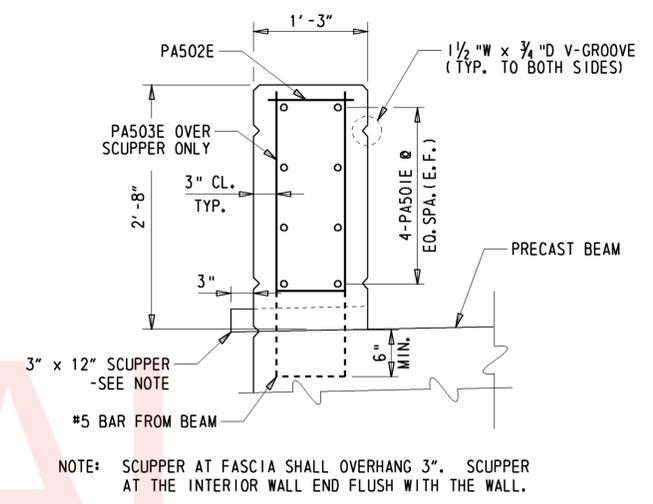


**2'-8" VERTICAL FACE BARRIER ELEVATION**  
1" = 1'-0"

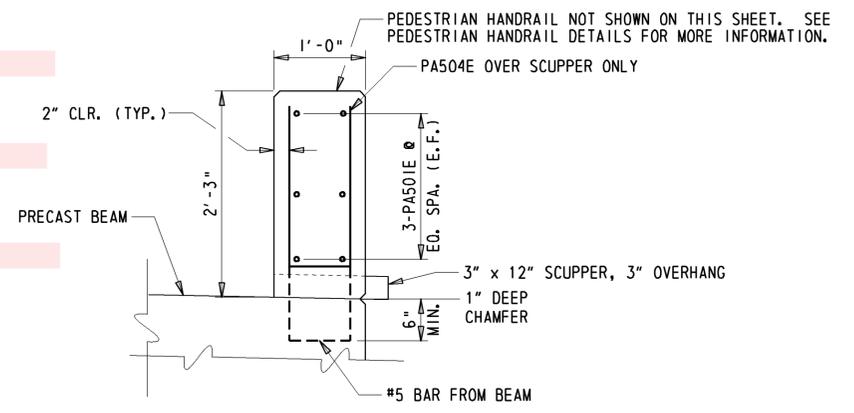


**2'-3" PARAPET WITH HANDRAIL ELEVATION**  
1" = 1'-0"

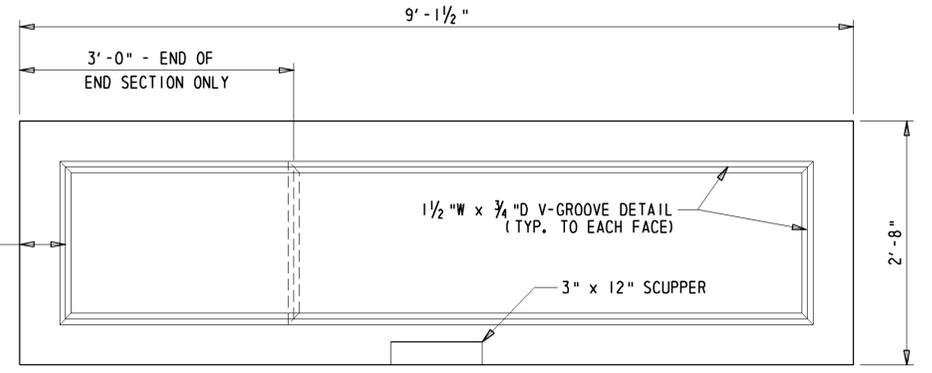
NOTE: BARRIER CONTROL JOINT SHALL CONSIST OF A 1/2" DEEP x 1/8" WIDE SAWCUT JOINT AROUND THE THREE EXPOSED SIDES OF THE BARRIER WALL.



**2'-8" PARAPET SECTION**  
1" = 1'-0"



**2'-3" PARAPET SECTION**  
1" = 1'-0"



**V-GROOVE DETAIL**  
1" = 1'-0"

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ADDENDUMS / REVISIONS	

CONTRACT T201607303	BRIDGE NO. <b>3-822</b>
COUNTY SUSSEX	DESIGNED BY: GCL III CHECKED BY: GCL III





SAMPLE INFORMATION						SAMPLE INFORMATION						SAMPLE INFORMATION					
NO.	DEPTH	BLOWS /6"	DESCRIPTION	CLASS /G.I.	REMARKS	NO.	DEPTH	BLOWS /6"	DESCRIPTION	CLASS /G.I.	REMARKS	NO.	DEPTH	BLOWS /6"	DESCRIPTION	CLASS /G.I.	REMARKS
1	0.0	27	MOIST VERY DENSE BROWN FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)		1	0.0	17	MOIST DENSE GRAY FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)		1	0.0	9	MOIST MEDIUM DENSE GRAY SILTY FINE TO COARSE SAND W/TRACE FINE GRAVEL.	A-2-4(0)	
2	1.0	11	WET LOOSE BROWN SILTY FINE TO COARSE SAND W/TRACE FINE GRAVEL.	A-2-4(0)		2	1.0	6	WET VERY STIFF GRAY CLAYEY FINE TO COARSE SANDY SILT W/TRACE FINE GRAVEL.	A-4(0)		2	1.0	8	MOIST VERY STIFF GRAY SILTY FINE TO COARSE SAND W/TRACE FINE GRAVEL AND CLAY.	A-4(0)	
3	2.0	1	WET SOFT BLACK ORGANIC CLAYEY FINE SANDY SILT W/SOME COARSE SAND AND FINE GRAVEL.	A-4(2)		3	2.0	3	WET LOOSE GRAY SILTY COARSE SAND AND FINE GRAVEL W/SOME FINE SAND AND CLAY.	A-1-B	TOP OF PILE EL. +0.33 BOTTOM OF ABUTMENT EL. -0.67	3	2.0	2	SATURATED SANDY GRAY CLAYEY FINE TO COARSE SANDY SILT W/TRACE FINE GRAVEL.	A-4(0)	
4	4.0	5	WET LOOSE BROWN SILTY FINE TO COARSE SAND W/SOME FINE GRAVEL, TRACE OF CLAY.	A-2-4(0)		4	4.0	8	WET MEDIUM DENSE BLACK SILTY COARSE TO FINE SAND W/SOME FINE GRAVEL, TRACE OF CLAY.	A-2-4(0)			4	4.0	9	SATURATED MEDIUM DENSE GRAY SILTY FINE TO COARSE SAND AND FINE GRAVEL.	A-1-B
5	6.0	5	WET MEDIUM DENSE BROWN COARSE SAND W/SOME FINE SAND, FINE GRAVEL AND SILT.	A-1-B		5	6.0	9	WET MEDIUM DENSE BLACK COARSE SAND W/SOME FINE SAND AND FINE GRAVEL, TRACE OF SILT.	A-1-B		5	6.0	3	SATURATED LOOSE GRAY COARSE TO FINE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-1-B	
6	8.0	10	WET MEDIUM DENSE BROWN FINE GRAVELLY COARSE SAND W/SOME FINE SAND, TRACE OF SILT.	A-1-B		6	8.0	7	WET MEDIUM DENSE BROWN COARSE TO FINE SAND W/SOME FINE GRAVEL, TRACE OF SILT.	A-1-B		6	8.0	4	SATURATED VERY LOOSE BROWN FINE TO COARSE SAND W/TRACE SILT AND FINE GRAVEL.	A-3	
7	10.0	8	NO SIEVE ANALYSIS - INDICATION OF WET MEDIUM DENSE BROWN COARSE SAND W/SOME FINE SAND, FINE GRAVEL AND SILT.			7	10.0	7	WET LOOSE BROWN FINE TO COARSE SAND W/SOME SILT AND FINE GRAVEL.	A-2-4(0)		7	10.0	12	SATURATED LOOSE BROWN FINE SAND W/SOME COARSE SAND AND SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	
8	12.0	4	WET LOOSE BROWN FINE TO COARSE SAND AND FINE GRAVEL W/TRACE SILT.	A-1-B		8	12.0	3	WET LOOSE BROWN FINE SAND W/SOME COARSE SAND AND SILT, TRACE OF FINE GRAVEL.	A-2-4(0)		8	12.0	6	SATURATED FIRM BROWN SILT W/SOME FINE TO COARSE SAND.	A-4(0)	
9	14.0	4	WET LOOSE BROWN FINE SAND W/SOME COARSE SAND AND SILT, TRACE OF FINE GRAVEL.	A-2-4(0)		9	14.0	9	WET MEDIUM DENSE BROWN SILTY FINE SAND W/TRACE COARSE SAND.	A-2-4(0)		9	14.0	5	SATURATED LOOSE BROWN SILTY FINE SAND W/TRACE COARSE SAND.	A-2-4(0)	
10	16.0	4	WET LOOSE BROWN SILTY FINE SAND W/TRACE COARSE SAND AND FINE GRAVEL.	A-2-4(0)		10	16.0	4	WET LOOSE BROWN SILTY FINE SAND W/TRACE COARSE SAND.	A-2-4(0)		10	16.0	2	SATURATED VERY LOOSE BROWN SILTY FINE SAND W/TRACE COARSE SAND.	A-2-4(0)	
11	18.0	5	WET STIFF BROWN FINE SANDY CLAY W/SOME SILT, TRACE OF COARSE SAND AND FINE.	A-6(3)		11	18.0	3	WET LOOSE BROWN SILTY CLAY W/SOME FINE SAND, TRACE OF COARSE SAND.	A-6(8)		11	18.0	2	SATURATED FIRM BROWN SILTY CLAY W/SOME FINE SAND, TRACE OF COARSE SAND.	A-6(7)	
12	24.0	6	WET LOOSE BROWN FINE TO COARSE SAND AND FINE GRAVEL W/SOME SILT.	A-1-B		12	24.0	5	WET MEDIUM DENSE BROWN COARSE SAND AND FINE GRAVEL W/SOME FINE SAND, TRACE OF SILT.	A-1-B		12	24.0	2	SATURATED LOOSE GRAY FINE TO COARSE SAND W/SOME FINE GRAVEL, TRACE OF SILT.	A-3	
13	29.0	7	WET MEDIUM DENSE BROWN FINE SAND W/SOME SILT, TRACE OF COARSE SAND.	A-2-4(0)		13	29.0	14	WET DENSE BROWN FINE SAND W/SOME SILT, TRACE OF COARSE SAND.	A-2-4(0)		13	29.0	15	SATURATED MEDIUM DENSE GRAY FINE SAND W/SOME SILT, TRACE OF COARSE SAND AND FINE GRAVEL.	A-2-4(0)	
14	34.0	3	WET SOFT BROWN FINE SANDY SILT.	A-4(0)		14	34.0	19	WET HARD BROWN FINE SANDY SILT W/TRACE COARSE SAND.	A-4(0)		14	34.0	13	NO RECOVERY		
15	39.0	7	WET VERY STIFF BROWN FINE SANDY SILT W/TRACE CLAY.	A-4(0)		15	39.0	5	WET STIFF BROWN FINE SANDY SILT.	A-4(0)		15	39.0	2	SATURATED MEDIUM DENSE GRAY FINE SANDY SILT W/TRACE COARSE SAND.	A-4(0)	
16	44.0	6	WET MEDIUM DENSE BROWN SILTY FINE SAND.	A-2-4(0)		16	44.0	9	WET MEDIUM DENSE BROWN SILTY FINE SAND.	A-2-4(0)		16	44.0	10	SATURATED DENSE GRAY FINE SAND W/SOME SILT, TRACE OF COARSE SAND.	A-2-4(0)	
17	49.0	6	WET MEDIUM DENSE BROWN FINE SAND W/SOME SILT.	A-2-4(0)		17	49.0	10	WET DENSE BROWN SILTY FINE SAND.	A-2-4(0)		17	49.0	4	SATURATED VERY STIFF GRAY FINE SANDY SILT W/TRACE COARSE SAND.	A-4(0)	
18	54.0	9	WET MEDIUM DENSE BROWN FINE SAND W/SOME SILT.	A-2-4(0)		18	54.0	13	WET DENSE BROWN FINE SAND W/SOME SILT.	A-2-4(0)	MINIMUM TIP EL. -49.67 (50' INSTALLATION)	18	54.0	17	SATURATED VERY DENSE GRAY FINE SAND W/SOME COARSE SAND AND SILT.	A-2-4(0)	
19	59.0	8	WET MEDIUM DENSE BROWN FINE SAND W/TRACE COARSE SAND AND SILT.	A-3		19	59.0	13	WET DENSE BROWN FINE SAND W/TRACE SILT.	A-3			19	59.0	7	SATURATED DENSE GRAY FINE SAND W/SOME COARSE SAND AND SILT.	A-2-4(0)
20	64.0	9	WET MEDIUM DENSE BROWN FINE SAND W/SOME SILT.	A-2-4(0)		20	64.0	24	WET VERY DENSE BROWN FINE SAND W/SOME SILT.	A-2-4(0)	PILE TIP EL. -59.67 (60' INSTALLATION)	20	64.0	17	SATURATED VERY DENSE GRAY FINE SAND W/SOME COARSE SAND AND SILT.	A-2-4(0)	
21	69.0	17	WET DENSE BROWN FINE SAND W/TRACE SILT.	A-3		21	69.0	16	WET MEDIUM DENSE BROWN FINE SAND W/SOME SILT.	A-2-4(0)			21	69.0	15	SATURATED VERY DENSE BROWN SILTY FINE SAND W/SOME COARSE SAND.	A-2-4(0)
22	74.0	19	WET VERY DENSE BROWN FINE TO COARSE SAND W/TRACE SILT AND FINE GRAVEL.	A-3		22	74.0	18	WET VERY DENSE BROWN FINE TO COARSE SAND W/TRACE SILT AND FINE GRAVEL.	A-3		22	74.0	18	SATURATED VERY DENSE GRAY FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	
	78.0		END BORING.				78.0		END BORING				78.0		END BORING		
	80.0						80.0						80.0				

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SAMPLE INFORMATION					SAMPLE INFORMATION					SAMPLE INFORMATION							
NO.	DEPTH	BLOWS /6"	DESCRIPTION	CLASS /G.I.	REMARKS	NO.	DEPTH	BLOWS /6"	DESCRIPTION	CLASS /G.I.	REMARKS	NO.	DEPTH	BLOWS /6"	DESCRIPTION	CLASS /G.I.	REMARKS
1	0.0	11	MOIST MEDIUM DENSE GRAY FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)		1	0.0	15	MOIST DENSE GRAY SILTY FINE TO COARSE SAND W/TRACE FINE GRAVEL.	A-2-4(0)		1	0.0	15	MOIST DENSE GRAY FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL AND CLAY.	A-2-4(0)	
2	1.0	2	WET LOOSE GRAY SILTY FINE TO COARSE SAND W/TRACE FINE GRAVEL.	A-2-4(0)		2	1.0	19	SATURATED STIFF BLACK SILTY FINE SANDY CLAY W/SOME COARSE SAND AND ORGANIC MATTER, TRACE OF FINE GRAVEL.	A-6(6)		2	0.0	13	SATURATED FIRM BLACK FINE TO COARSE SANDY SILT W/SOME CLAY.	A-4(2)	
3	2.0	4	WET VERY LOOSE GRAY SILTY FINE TO COARSE SAND W/TRACE FINE GRAVEL.	A-2-4(0)		3	2.0	4	SATURATED SOFT BLACK ORGANIC COARSE TO FINE SANDY SILT W/TRACE FINE GRAVEL.	A-5(0)		3	2.0	4	SATURATED SOFT BLACK COARSE SANDY CLAY W/SOME FINE SAND AND SILT.	A-7-5(10)	
4	4.0	2	WET LOOSE BLACK SILTY FINE TO COARSE SAND W/SOME FINE GRAVEL.	A-2-4(0)		4	4.0	3	SATURATED MEDIUM DENSE GRAY CLAYEY FINE TO COARSE SAND W/SOME SILT AND FINE GRAVEL.	A-2-4(0)		4	4.0	3	SATURATED MEDIUM DENSE BLACK SILTY FINE TO COARSE SAND AND FINE GRAVEL W/TRACE ORGANIC MATTER AND CLAY.	A-2-4(0)	
5	6.0	5	WET MEDIUM DENSE BLACK COARSE TO FINE SAND W/SOME FINE GRAVEL AND SILT.	A-1-B		5	6.0	5	SATURATED MEDIUM DENSE GRAY COARSE SAND W/SOME FINE GRAVEL AND FINE SAND, TRACE OF SILT.	A-1-B		5	6.0	4	SATURATED MEDIUM DENSE GRAY FINE GRAVELLY COARSE SAND W/SOME FINE SAND, TRACE OF SILT.	A-1-B	
6	8.0	5	WET MEDIUM DENSE BROWN FINE SAND W/SOME COARSE SAND, FINE GRAVEL AND SILT.	A-2-4(0)		6	8.0	9	SATURATED DENSE GRAY FINE GRAVELLY COARSE SAND W/TRACE FINE SAND AND SILT.	A-1-B		6	8.0	7	SATURATED MEDIUM DENSE GRAY COARSE SAND W/SOME FINE GRAVEL, TRACE OF FINE SAND AND SILT.	A-1-B	
7	10.0	NR	NO SAMPLE			7	10.0	7	SATURATED LOOSE GRAY FINE SAND W/SOME COARSE SAND, FINE GRAVEL AND SILT.	A-2-4(0)		7	10.0	2	SATURATED LOOSE GRAY FINE TO COARSE SAND W/SOME FINE GRAVEL AND SILT.	A-2-4(0)	
8	12.0	2	WET LOOSE BROWN SILTY FINE SAND W/TRACE COARSE SAND AND FINE GRAVEL.	A-2-4(0)		8	12.0	2	SATURATED VERY LOOSE GRAY FINE SAND W/SOME SILT, TRACE OF COARSE SAND AND FINE GRAVEL.	A-2-4(0)		8	12.0	WR	SATURATED FIRM BROWN FINE TO COARSE SANDY SILT W/TRACE FINE GRAVEL.	A-4(0)	
9	14.0	2	WET SOFT BROWN FINE SANDY SILT W/TRACE COARSE SAND AND FINE GRAVEL.	A-4(0)		9	14.0	2	SATURATED VERY LOOSE BROWN FINE SAND W/SOME SILT, TRACE OF COARSE SAND AND FINE GRAVEL.	A-2-4(0)		9	14.0	4	SATURATED MEDIUM DENSE GRAY FINE SAND W/SOME COARSE SAND AND SILT.	A-2-4(0)	
10	16.0	3	WET FIRM BROWN CLAYEY FINE SANDY SILT W/TRACE COARSE SAND AND FINE GRAVEL.	A-4(3)		10	16.0	1	SATURATED VERY LOOSE BROWN SILTY FINE SAND W/TRACE COARSE SAND.	A-2-4(0)		10	16.0	2	SATURATED LOOSE BROWN SILTY FINE SAND W/TRACE COARSE SAND.	A-2-4(0)	
11	18.0	2	SATURATED SOFT BROWN CLAYEY FINE SANDY SILT W/TRACE COARSE SAND.	A-4(5)		11	18.0	2	SATURATED FIRM BROWN CLAYEY SILT W/SOME FINE SAND, TRACE OF COARSE SAND.	A-4(4)		11	18.0	3	SATURATED FIRM BROWN COARSE TO FINE SANDY SILT W/TRACE FINE GRAVEL.	A-4(0)	
12	24.0	15	NO SIEVE ANALYSIS - INDICATION OF SATURATED SOFT BROWN FINE SANDY SILT W/TRACE COARSE SAND AND FINE GRAVEL.			12	24.0	3	SATURATED LOOSE BROWN FINE TO COARSE SAND AND FINE GRAVEL W/SOME SILT.	A-1-B		12	24.0	3	SATURATED MEDIUM DENSE BROWN FINE TO COARSE SAND AND FINE GRAVEL W/SOME SILT.	A-1-B	
13	29.0	8	NO SAMPLE			13	29.0	12	SATURATED DENSE BROWN FINE SAND W/SOME SILT, TRACE OF COARSE SAND AND FINE GRAVEL.	A-2-4(0)		13	29.0	9	SATURATED DENSE BROWN FINE SAND W/SOME SILT, TRACE OF COARSE SAND.	A-2-4(0)	
14	34.0	3	SATURATED LOOSE GRAY SILTY FINE SAND W/TRACE COARSE SAND AND FINE GRAVEL.	A-2-4(0)		14	34.0	5	NO RECOVERY			14	34.0	3	SATURATED MEDIUM DENSE BROWN SILTY FINE SAND W/TRACE COARSE SAND.	A-2-4(0)	
15	39.0	5	SATURATED VERY STIFF GRAY FINE SANDY SILT W/TRACE COARSE SAND.	A-4(0)		15	39.0	2	SATURATED STIFF BROWN FINE SANDY SILT W/TRACE COARSE SAND AND CLAY.	A-4(0)		15	39.0	5	SATURATED STIFF BROWN FINE SANDY SILT W/SOME CLAY, TRACE OF COARSE SAND.	A-4(0)	
16	44.0	5	SATURATED VERY STIFF GRAY CLAYEY FINE SANDY SILT W/TRACE COARSE SAND.	A-4(2)		16	44.0	16	SATURATED VERY DENSE GRAY FINE SAND W/SOME SILT.	A-2-4(0)		16	44.0	7	SATURATED VERY STIFF BROWN FINE SANDY SILT W/TRACE CLAY.	A-4(0)	
17	49.0	14	SATURATED DENSE GRAY FINE SAND W/SOME SILT, TRACE OF COARSE SAND AND FINE GRAVEL.	A-2-4(0)		17	49.0	20	SATURATED DENSE GRAY FINE SAND W/SOME SILT, TRACE OF COARSE SAND.	A-2-4(0)		17	49.0	9	SATURATED DENSE BROWN FINE SAND W/SOME SILT.	A-2-4(0)	
18	54.0	17	SATURATED DENSE REDDISH BROWN FINE SAND W/SOME SILT, TRACE OF COARSE SAND.	A-2-4(0)		18	54.0	9	SATURATED VERY STIFF GRAY FINE SANDY SILT W/TRACE COARSE SAND.	A-4(0)		18	54.0	13	SATURATED HARD BROWN FINE SANDY SILT W/TRACE COARSE SAND, FINE GRAVEL AND CLAY.	A-4(0)	
19	59.0	19	SATURATED VERY DENSE BROWN FINE SAND W/SOME SILT, TRACE OF COARSE SAND AND FINE GRAVEL.	A-2-4(0)		19	59.0	14	SATURATED DENSE BROWN FINE SAND W/SOME SILT.	A-3		19	59.0	19	SATURATED VERY DENSE BROWN FINE SAND W/SOME SILT, TRACE OF COARSE SAND AND FINE GRAVEL.	A-2-4(0)	
20	64.0	27	SATURATED VERY DENSE BROWN SILTY FINE SAND AND FINE GRAVEL W/TRACE COARSE SAND.	A-2-4(0)		20	64.0	14	SATURATED DENSE BROWN FINE SAND W/SOME SILT, TRACE OF COARSE SAND.	A-2-4(0)		20	64.0	25	SATURATED VERY DENSE BROWN FINE SAND W/SOME SILT, TRACE OF COARSE SAND AND FINE GRAVEL.	A-2-4(0)	
21	69.0	19	SATURATED VERY DENSE BROWN FINE SAND W/SOME SILT, TRACE OF COARSE SAND AND FINE GRAVEL.	A-2-4(0)		21	69.0	18	SATURATED DENSE BROWN FINE SAND W/SOME SILT, TRACE OF COARSE SAND.	A-2-4(0)		21	69.0	12	SATURATED DENSE BROWN FINE SAND W/SOME SILT.	A-2-4(0)	
22	74.0	25	SATURATED VERY DENSE BROWN FINE TO COARSE SAND W/TRACE FINE GRAVEL AND SILT.	A-3		22	74.0	18	SATURATED DENSE BROWN COARSE TO FINE SAND W/TRACE SILT AND FINE GRAVEL.	A-1-B		22	74.0	25	SATURATED HARD BROWN FINE TO COARSE SANDY SILT W/TRACE FINE GRAVEL.	A-4(0)	
	78.0	50	END BORING				78.0	19	END BORING				78.0	50	END BORING		

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	ADDENDUMS / REVISIONS		PRIME HOOK RD IMPROVEMENTS	
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SAMPLE INFORMATION					
NO.	DEPTH	BLOWS /6"	DESCRIPTION	CLASS /G.I.	REMARKS
1	0.0	10	MOIST MEDIUM DENSE BROWN SILTY FINE TO COARSE SAND W/TRACE FINE GRAVEL.	A-2-4(0)	
	1.0	12			
2	1.0	9	SATURATED LOOSE BLACK SILTY FINE TO COARSE SAND W/SOME ORGANIC MATTER.	A-2-4(0)	
		5			
		4			
		3			
3	2.0	4	SATURATED LOOSE GRAY FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	
		3			
		2			
		1			
4	4.0	2	SATURATED SOFT GRAY FINE TO COARSE SANDY SILT W/TRACE FINE GRAVEL AND CLAY.	A-4(0)	
		3			
		1			
5	6.0	3	SATURATED MEDIUM DENSE GRAY COARSE SAND AND FINE GRAVEL W/SOME FINE SAND, TRACE OF SILT.	A-1-B	
		9			
		7			
6	8.0	6	SATURATED MEDIUM DENSE GRAY COARSE SAND W/SOME FINE GRAVEL AND FINE GRAVEL, TRACE OF SILT.	A-1-B	
		7			
		8			
7	10.0	2	SATURATED LOOSE GRAY FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	
		4			
		6			
		7			
8	12.0	4	SATURATED LOOSE GRAY COARSE TO FINE SAND W/TRACE FINE GRAVEL AND SILT.	A-1-B	
		4			
		6			
		8			
9	14.0	5	SATURATED MEDIUM DENSE GRAY COARSE SAND W/SOME FINE SAND, TRACE OF FINE GRAVEL AND SILT.	A-1-B	
		8			
		7			
10	16.0	3	SATURATED LOOSE BROWN FINE SAND W/SOME COARSE SAND AND SILT.	A-2-4(0)	
		3			
		3			
11	18.0	1	SATURATED LOOSE GRAY FINE SAND W/SOME SILT, TRACE OF COARSE SAND.	A-2-4(0)	
		2			
		4			
		3			
12	24.0	1	SATURATED SOFT GRAY SILTY CLAY W/TRACE FINE TO COARSE SAND.	A-7-5(12)	
	29.0	2			
12A	29.0	2	SATURATED LOOSE BROWN FINE GRAVELLY COARSE SAND W/SOME FINE SAND, TRACE OF SILT.	A-1-B	
	30.0				
13	30.0	7	SATURATED MEDIUM DENSE BROWN FINE SAND W/SOME FINE GRAVEL, TRACE OF COARSE SAND AND SILT.	A-3	
		10			
		15			
		16			
14	34.0	NR	SATURATED SOFT BROWN FINE SANDY SILT W/TRACE COARSE SAND.	A-4(0)	
		1			
		2			
15	39.0	3	SATURATED STIFF GRAY CLAYEY FINE SANDY SILT.	A-4(1)	
		4			
		8			
16	44.0	16	SATURATED DENSE BROWN FINE SAND W/TRACE SILT.	A-3	
		15			
		19			
		23			
17	49.0	15	SATURATED MEDIUM DENSE BROWN FINE SAND W/SOME SILT, TRACE OF COARSE SAND.	A-2-4(0)	
		6			
		10			
		25			
18	54.0	7	SATURATED VERY STIFF RED FINE SANDY SILT.	A-4(0)	
		8			
		9			
		8			
19	59.0	15	SATURATED VERY DENSE BROWN FINE SAND W/TRACE SILT.	A-3	
		27			
		36			
		45			
20	64.0	12	SATURATED DENSE BROWN FINE SAND W/TRACE SILT.	A-3	
		22			
		27			
		28			
21	69.0	13	SATURATED DENSE GRAY FINE SAND W/TRACE SILT AND COARSE SAND.	A-3	
		19			
		26			
		37			
22	74.0	16	SATURATED VERY DENSE GRAY FINE SAND W/TRACE SILT AND COARSE SAND.	A-3	
		34			
		41			
		50			
	78.0		END BORING		
	80.0				

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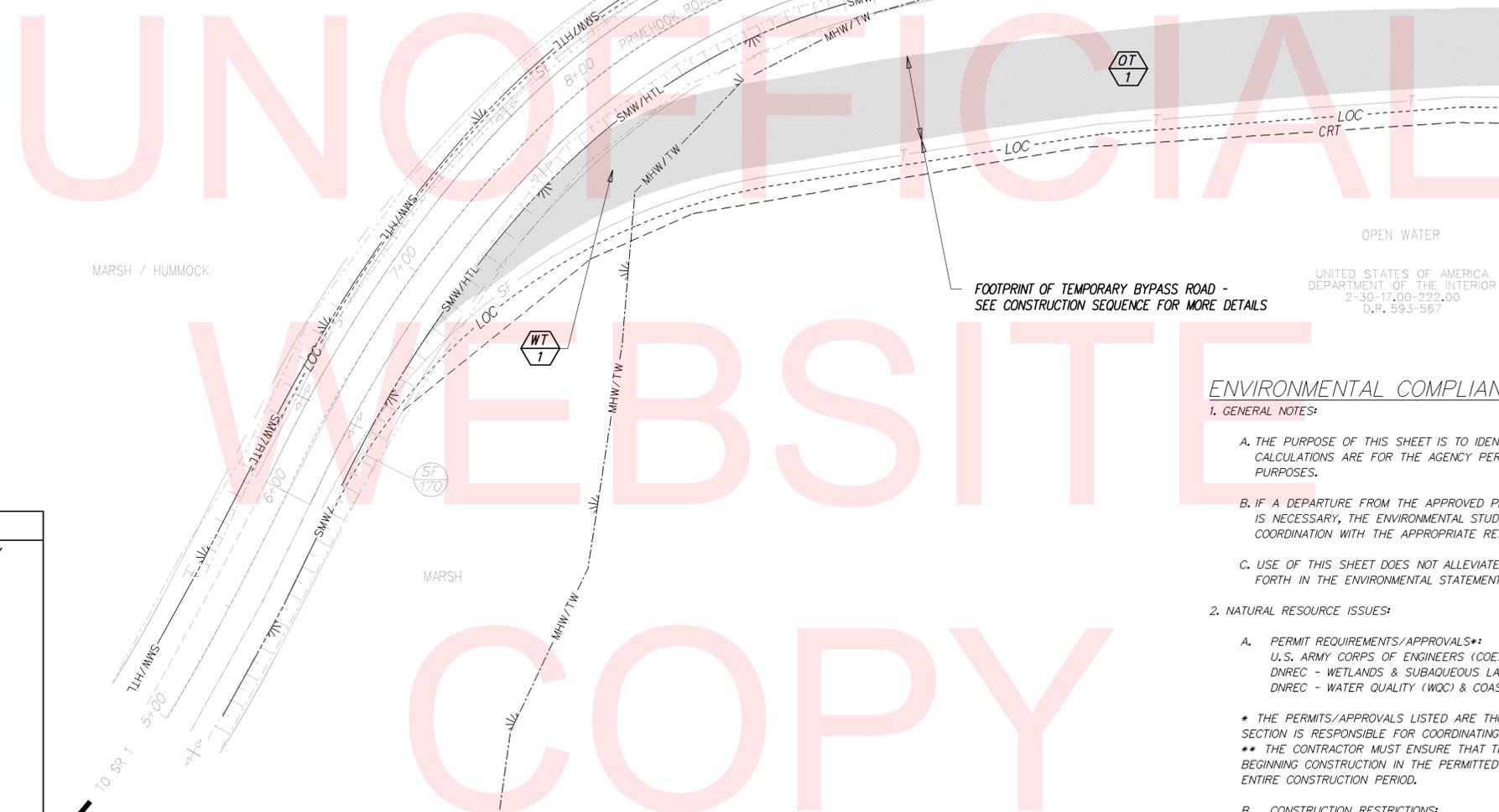
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PERMANENT OPEN WATER IMPACT AREA SCHEDULE					
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
O-1	ROADWAY FILL	1662.26	0.0382	61.74	COE/DNREC
O-2	ROADWAY FILL	335.87	0.0077	4.68	COE/DNREC
TOTAL FOR THIS SHEET		1998.13	0.0459	66.42	COE/DNREC

TEMPORARY OPEN WATER IMPACT AREA SCHEDULE					
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
OT-1	TEMPORARY BYPASS ROAD	14190.78	0.3258	740.58	COE/DNREC
TOTAL FOR THIS SHEET		14190.78	0.3258	740.58	COE/DNREC

TEMPORARY TIDAL WETLAND IMPACT AREA SCHEDULE					
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
WT-1	TEMPORARY BYPASS ROAD	2251.71	0.0517	117.47	COE/DNREC
TOTAL TEMPORARY TIDAL WETLAND IMPACTS		2251.71	0.0517	117.47	COE/DNREC



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2-30-17,00-220,00  
D.P. 504-302

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2-30-17,00-222,00  
D.P. 593-567

FOOTPRINT OF TEMPORARY BYPASS ROAD -  
SEE CONSTRUCTION SEQUENCE FOR MORE DETAILS

**ENVIRONMENTAL COMPLIANCE NOTES**

- GENERAL NOTES:
  - THE PURPOSE OF THIS SHEET 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.
  - 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.
  - USE OF THIS SHEET DOES NOT ALLEVIATE THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH ALL CONDITIONS SET FORTH IN THE ENVIRONMENTAL STATEMENT AND PERMITS.
- NATURAL RESOURCE ISSUES:
  - PERMIT REQUIREMENTS/APPROVALS\*:  
U.S. ARMY CORPS OF ENGINEERS (COE): NWP #23 WITH PCN\*\*  
DNREC - WETLANDS & SUBAQUEOUS LANDS (WLSL): SUBAQUEOUS LANDS AND WETLANDS PERMIT\*\*  
DNREC - WATER QUALITY (WQC) & COASTAL ZONE CONSISTENCY (CZM): ISSUED (PROJECT IS NOT LOCATED IN 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.
  - CONSTRUCTION RESTRICTIONS:  
FISHERIES - NONE  
ENDANGERED SPECIES - OSPREY HAS BEEN DOCUMENTED TO NEST WITHIN THE PROJECT AREA. IN ORDER TO MINIMIZE THE CHANCE THAT OSPREY INITIATE A NEST WITHIN THE WORK AREA, IT IS REQUESTED THAT DELDOT BEGIN WORK PRIOR TO MARCH 1ST (ANY CALENDAR YEAR). THE WORK AREA SHOULD BE CLOSELY MONITORED AND IF ANY SIGNS OF OSPREY BREEDING ACTIVITIES ARE OBSERVED, DNREC RAPTOR BIOLOGIST KATE FLEMING SHOULD BE CONTACTED AT 302-735-8658.  
MIGRATORY BIRDS - NONE
- CULTURAL RESOURCE ISSUES:
  - GIVEN THE POTENTIAL FOR ARCHAEOLOGICAL RESOURCES IN THE AREA, ALL STAGING AND STOCKPILING MUST OCCUR ON THE ROADWAY. SHOULD THE CONTRACTOR CHOOSE TO STAGE OR STOCKPILE OFF OF THE ROADWAY OR OUTSIDE OF THE LOC, THESE AREAS MUST BE REVIEWED AND APPROVED BY DELDOT'S ARCHAEOLOGIST DAVID CLARKE AT (302)760-2271 OR DAVID.CLARKE@STATE.DE.US.
  - THERE IS A MODERATE POTENTIAL FOR REMNANTS OF A HISTORIC ROADWAY TO BE PRESENT BENEATH THE CURRENT ROADBED. A DELDOT ARCHAEOLOGIST MUST BE ON SITE DURING THE EXCAVATION PHASE OF THE PROJECT TO MONITOR IN CASE ANY ARCHAEOLOGICAL REMAINS ARE ENCOUNTERED. IF REMAINS ARE ENCOUNTERED, ALL WORK WILL STOP IMMEDIATELY SO THE DEPOSITS CAN BE DOCUMENTED. DELDOT ARCHAEOLOGIST, DAVID CLARKE MUST BE CONTACTED 2 WEEKS PRIOR TO CONSTRUCTION AT (302)760-2271 OR DAVID.CLARKE@STATE.DE.US.

NOTES ARE CONTINUED ON NEXT SHEET

LEGEND	
---SMW/HTL---	STATE MAPPED WETLAND / HIGH TIDE LINE
-----MHW-----	MEAN HIGH WATER
---MHW/TW---	MEAN HIGH WATER / TIDAL WETLAND
[Dark Grey Box]	PERMANENT IMPACT AREA
[Light Grey Box]	TEMPORARY IMPACT AREA
[Cross-hatched Box]	CREATION AREA
---LOC---	LIMIT OF CONSTRUCTION
---CRT---	CONTRACTOR'S RIGHT TO TRESPASS
[XX]	IMPACT AREA TYPE ID. (SEE BELOW)
[?X]	IMPACT AREA ID. AND/OR NUMBER
O	OPEN WATER IMPACT
W	WETLAND IMPACT
T	TEMPORARY IMPACT
C	CREATION AREA

WETLANDS DELINEATED BY ENVIRONMENTAL RESOURCES, INC. (ERI), ON 02/11/2015 IN ACCORDANCE WITH THE US ARMY CORPS OF ENGINEERS "CORPS OF ENGINEERS WETLAND DELINEATION MANUAL (1987)".

STATE MAPPED WETLAND REFERENCE: DNR MAP 127

A JURISDICTIONAL DETERMINATION WAS APPROVED ON 04/17/2015.

ORIGINAL SHEET PREPARED BY GLEN LOVELACE III ON 03/20/2015. SHEET LAST UPDATED ON 05/20/2015.

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ADDENDUMS / REVISIONS



CONTRACT	BRIDGE NO.	<b>3-822</b>
T201607303	DESIGNED BY:	GCL III
COUNTY	CHECKED BY:	CAS
SUSSEX		

**ENVIRONMENTAL COMPLIANCE NOTES**

FOR NOTES 1-3, SEE PREVIOUS SHEET.

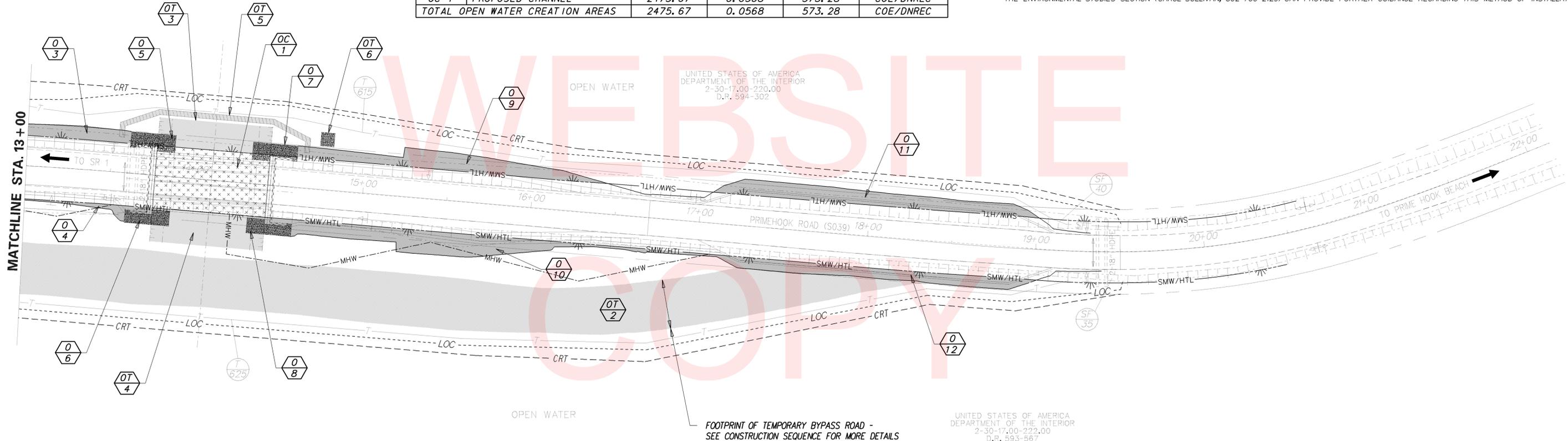
4. STREAM RESTORATION AND SLOPE RIPRAP TREATMENT
  - A. THE CONTRACTOR SHALL FOLLOW THE SPECIAL PROVISIONS OF ITEM #712531 - CHANNEL BED FILL IN REGARDS TO THE FURNISHING OF OFF-SITE MATERIAL. ON-SITE MATERIAL WILL NOT BE UTILIZED FOR THIS PROJECT. ANY NEW MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF ITEM #712531 - CHANNEL BED FILL.
  - B. AREAS OUTSIDE OF THE PERMANENT CONSTRUCTION AFFECTED BY CONSTRUCTION (INCLUDING, BUT NOT LIMITED TO, THE LOCATION OF SUMP PITS, STABILIZED OUTFALLS, TEMPORARY PIPES AND/OR SANDBAG DIKES AND DIVERSIONS) SHALL BE RESTORED TO EXISTING CONDITIONS. ANY CAVITIES OR SCOUR HOLES RESULTING FROM CONSTRUCTION ACTIVITIES SHALL BE FILLED WITH CHANNEL BED FILL. PAYMENT UNDER ITEM #712531 - CHANNEL BED FILL.
  - C. RIPRAP SLOPES
    - BENEATH THE BRIDGE: ALL RIPRAP BELOW EL. 1.50 SHALL BE CHOKED WITH CHANNEL BED FILL SO THAT SO THAT THE RIPRAP PEAKS ARE BARELY VISIBLE. FINAL CHANNEL ELEVATIONS SHALL MATCH U.S. FISH AND WILDLIFE CHANNEL ELEVATIONS (WORK COMPLETED PRIOR TO THIS PROJECT) AT THE UPSTREAM AND DOWNSTREAM PROJECT LIMITS. THROUGH THE STRUCTURE, ELEVATIONS SHALL BE AS NOTED ON THE PLANS. PAYMENT UNDER ITEM #712531 - CHANNEL BED FILL.
    - EMBANKMENT SIDESLOPES (ADJACENT TO WINGWALLS): ALL RIPRAP SHALL BE CHOKED WITH DELAWARE #57 STONE. PLACE JUST ENOUGH CHOKO MATERIAL TO PREVENT LOSS OF TOPSOIL THROUGH THE RIPRAP. FINISH FILLING THE VOIDS WITH TOPSOIL SO THAT THE RIPRAP PEAKS ARE BARELY VISIBLE. AN ADDITIONAL 4-INCH TOPSOIL LAYER SHALL BE PLACED ON TOP OF THE RIPRAP. SLOPE SEEDING SHALL BE WITH ITEM #908513 - SALT TOLERANT SEEDING. FOLLOWING THE SEEDING OPERATION, ITEM #908020 - EROSION CONTROL BLANKET MULCH SHALL BE INSTALLED. ALL WORK, STARTING WITH THE INITIAL CHOKING WITH TOPSOIL THROUGH THE SEEDING SHALL BE COMPLETED PRIOR TO ANY RAIN EVENT. DELAWARE #57 STONE SHALL BE INCIDENTAL TO THE RIPRAP ITEM. ALL OTHER ITEMS SHALL BE PAID FOR UNDER THEIR RESPECTIVE ITEMS.
  - D. THE TOPSOIL/SEED/MULCH SHALL BE PLACED BEFORE THE REMOVAL OF THE TURBIDITY CURTAIN TO MINIMIZE IN-STREAM SEDIMENTATION.
5. PROTECTION OF RESOURCES:
  - A. CLEARING IN WETLAND AREAS SHALL BE KEPT TO A MINIMUM ABSOLUTELY NECESSARY FOR CONSTRUCTION ACCESS. ALL EQUIPMENT TRAVERSING WETLANDS AND SUBAQUEOUS LAND (ANY ACCESS OUTSIDE OF THE FOOTPRINT OF THE PROPOSED EMBANKMENT AND BRIDGE OR OF THE TEMPORARY BYPASS ROAD) SHALL BE SUPPORTED ON MATS. PAYMENT FOR MATS SHALL BE MADE UNDER 601520 - TIMBER MAT. IN WETLAND AREAS THAT ARE CLEARED, THERE SHALL BE NO GRUBBING EXCEPT WHERE NECESSARY TO CONSTRUCT PROJECT COMPONENTS SUCH AS FOUNDATIONS AND RIPRAP PROTECTION. VEGETATION SHALL BE CUT FLUSH WITH THE GROUND (I.E. NO DISTURBANCE OF THE ROOT MAT. TEMPORARILY DISTURBED WETLAND AREAS SHALL BE RESTORED TO GRADE AND SEEDED WITH TEMPORARY GRASS SEEDING - DRY GROUND (PAYMENT UNDER ITEM 908017).
  - B. SILT FENCE OR CONSTRUCTION SAFETY FENCE SHALL BE USED ALONG THE LIMITS OF CONSTRUCTION IN ALL AREAS WHERE WATER/WETLANDS ARE BEING IMPACTED (AS SHOWN ON EC SHEETS), AND ALSO IN ANY AREA WHERE WATER/WETLANDS EXIST WITHIN 20 FEET OF THE LOC (AS SHOWN ON CONSTRUCTION PLANS). CONTRACTOR ACCESS BEYOND THE LOC IS STRICTLY PROHIBITED.
  - C. SILT FENCE INSTALLATION ADJACENT TO WETLANDS: SANDBAGS SHALL BE USED TO SECURE SILT FENCE IN LIEU OF TRENCHING PROVIDED PROPER EROSION & SEDIMENT CONTROL CAN BE MAINTAINED. SANDBAGS USED TO SECURE SILT FENCE SHALL BE INCIDENTAL TO ITEM # 905001 - SILT FENCE. THE ENVIRONMENTAL STUDIES SECTION (CAROL SULLIVAN, 302-760-2129) CAN PROVIDE FURTHER GUIDANCE REGARDING THIS METHOD OF INSTALLATION.

LEGEND	
	STATE MAPPED WETLAND / HIGH TIDE LINE
	MEAN HIGH WATER
	MEAN HIGH WATER / TIDAL WETLAND
	PERMANENT IMPACT AREA
	TEMPORARY IMPACT AREA
	CREATION AREA
	LIMIT OF CONSTRUCTION
	CONTRACTOR'S RIGHT TO TRESPASS
	IMPACT AREA TYPE ID. (SEE BELOW)
	IMPACT AREA ID. AND/OR NUMBER
O	= OPEN WATER IMPACT
W	= WETLAND IMPACT
T	= TEMPORARY IMPACT
C	= CREATION AREA

PERMANENT OPEN WATER IMPACT AREA SCHEDULE					
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
0-3	ROADWAY FILL	456.09	0.0105	27.31	COE/DNREC
0-4	ROADWAY FILL	168.03	0.0039	3.78	COE/DNREC
0-5	RIPRAP	184.04	0.0042	13.63	COE/DNREC
0-6	RIPRAP	233.28	0.0054	17.28	COE/DNREC
0-7	RIPRAP	177.56	0.0041	13.15	COE/DNREC
0-8	RIPRAP	233.14	0.0054	17.27	COE/DNREC
0-9	ROADWAY FILL	1313.92	0.0302	47.81	COE/DNREC
0-10	ROADWAY FILL	1770.01	0.0406	82.55	COE/DNREC
0-11	FILL-N. PARKING PULL-OFF	1438.95	0.0330	53.05	COE/DNREC
0-12	FILL-S. PARKING PULL-OFF	1135.12	0.0261	31.71	COE/DNREC
TOTAL FOR THIS SHEET		7110.14	0.1634	307.54	COE/DNREC
TOTAL PERMANENT OPEN WATER IMPACTS		9108.27	0.2093	373.96	COE/DNREC

TEMPORARY OPEN WATER IMPACT AREA SCHEDULE					
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
OT-2	TEMPORARY BYPASS ROAD	14308.94	0.3285	746.68	COE/DNREC
OT-3	PROPOSED CHANNEL	971.46	0.0223	248.52	COE/DNREC
OT-4	PROPOSED CHANNEL	1117.09	0.0256	179.67	COE/DNREC
OT-5	DEWATERING DEVICES	386.28	0.0089	42.92	COE/DNREC
OT-6	STABILIZED OUTFALL	64.00	0.0015	3.56	COE/DNREC
TOTAL FOR THIS SHEET		16847.77	0.3868	1221.35	COE/DNREC
TOTAL TEMP. OPEN WATER IMPACT AREAS		31038.55	0.7126	1961.93	COE/DNREC

OPEN WATER CREATION AREA SCHEDULE					
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
OC-1	PROPOSED CHANNEL	2475.67	0.0568	573.28	COE/DNREC
TOTAL OPEN WATER CREATION AREAS		2475.67	0.0568	573.28	COE/DNREC



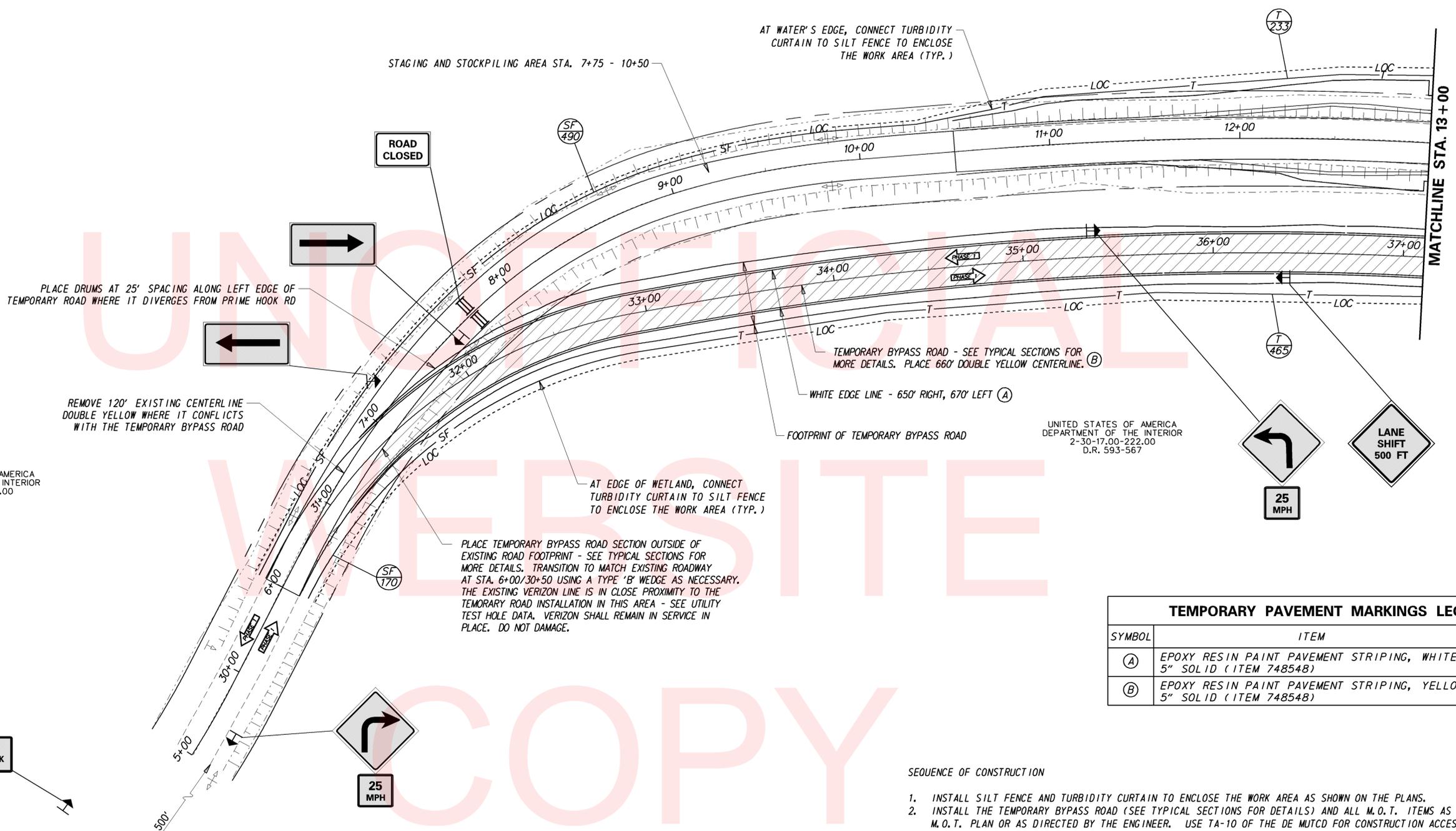
WETLANDS DELINEATED BY ENVIRONMENTAL RESOURCES, INC. (ERI), ON 02/11/2015 IN ACCORDANCE WITH THE US ARMY CORPS OF ENGINEERS "CORPS OF ENGINEERS WETLAND DELINEATION MANUAL (1987)".

STATE MAPPED WETLAND REFERENCE: DNR MAP 127

A JURISDICTIONAL DETERMINATION WAS APPROVED ON 04/17/2015.

ORIGINAL SHEET PREPARED BY GLEN LOVELACE III ON 03/20/2015. SHEET LAST UPDATED ON 08/26/2015.

- ENVIRONMENTAL COMPLIANCE NOTES**
6. PLANTING GUIDANCE (INFORMATIONAL ONLY, WORK TO BE DONE BY OTHERS. THERE SHALL BE NO PAYMENT FOR PLANTING ON THIS CONTRACT). ON THIS PROJECT, DNREC WLSL REQUIRES THAT A PLANTING PLAN BE SUBMITTED TO THEM FOR APPROVAL PRIOR TO ACTUAL WORK.
    - A. FOLLOWING THE PLACEMENT OF ANY ITEM 908513-SALT TOLERANT SEEDING, ITEM 908020 - EROSION CONTROL BLANKET MULCH OR OTHER BLANKET AS SHOWN ON THE PLANS SHALL BE INSTALLED WITHIN 24 HOURS OF THAT SEEDING.
    - B. SPARTINA PATENS AND/OR SPARTINA ALTERNIFLORA WILL BE PLANTED ON A SEPARATE CONTRACT. PLANTINGS WILL BE ON 18" CENTERS AND WILL OCCUR WITH THE OPENING OF THE FIRST PLANTING WINDOW OF MARCH 1ST TO MAY 1ST.
    - C. ITEM 908004-TOPSOIL, 6" DEPTH SHALL CONTAIN A MINIMUM OF 2% ORGANIC MATTER (ORGANIC MATTER FOITEST) AND SOLUBLE SALT LEVELS SHALL BE A MAXIMUM OF 4.0 (MMHOS CM -1) (SOLUBLE SALT TEST) AS DETERMINED IN ACCORDANCE WITH THE UNIVERSITY OF DELAWARE'S SOIL TESTING PROGRAM (UD SOIL TESTING PROGRAM, DEPARTMENT OF PLANT AND SOIL SCIENCES, 152 TOWNSEND HALL, 531 SOUTH COLLEGE AVENUE, NEWARK, DE, 19716).



UNITED STATES OF AMERICA  
DEPARTMENT OF THE INTERIOR  
2-30-17,00-220.00  
D.R. 504-302

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DEPARTMENT OF THE INTERIOR  
2-30-17,00-222.00  
D.R. 593-567

PLACE TEMPORARY BYPASS ROAD SECTION OUTSIDE OF EXISTING ROAD FOOTPRINT - SEE TYPICAL SECTIONS FOR MORE DETAILS. TRANSITION TO MATCH EXISTING ROADWAY AT STA. 6+00/30+50 USING A TYPE 'B' WEDGE AS NECESSARY. THE EXISTING VERIZON LINE IS IN CLOSE PROXIMITY TO THE TEMPORARY ROAD INSTALLATION IN THIS AREA - SEE UTILITY TEST HOLE DATA. VERIZON SHALL REMAIN IN SERVICE IN PLACE. DO NOT DAMAGE.

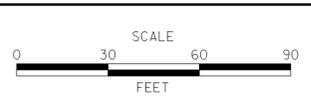
TEMPORARY PAVEMENT MARKINGS LEGEND		
SYMBOL	ITEM	QUANTITY
(A)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" SOLID (ITEM 748548)	1320 LF
(B)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID (ITEM 748548)	1320 LF

SEQUENCE OF CONSTRUCTION

1. INSTALL SILT FENCE AND TURBIDITY CURTAIN TO ENCLOSE THE WORK AREA AS SHOWN ON THE PLANS.
2. INSTALL THE TEMPORARY BYPASS ROAD (SEE TYPICAL SECTIONS FOR DETAILS) AND ALL M.O.T. ITEMS AS SHOWN ON THE M.O.T. PLAN OR AS DIRECTED BY THE ENGINEER. USE TA-10 OF THE DE MUTCD FOR CONSTRUCTION ACCESS WHILE INSTALLING THE TEMPORARY ROAD.
3. SWITCH TRAFFIC ON TO THE TEMPORARY BYPASS ROAD AND CLOSE THE PORTION OF PRIME HOOK ROAD AS SHOWN.
4. PLACE EMBANKMENT MATERIAL AT BRIDGE APPROACHES (TO ALLOW FOR SETTLEMENT DURING BRIDGE CONSTRUCTION).
5. PLACE RIPRAP FOR STABILIZED OUTFALL, INSTALL SUMP PIT AND DEWATER WORK AREA IN ACCORDANCE WITH SECTION 902 OF THE STANDARD SPECIFICATIONS.
6. INSTALL BRIDGE SUBSTRUCTURE. CONSTRUCT PORTION OF PROPOSED CHANNEL THROUGH BRIDGE, DEWATER AS NECESSARY.
7. RESTORE DISTURBED AREAS IN ACCORDANCE WITH ENVIRONMENTAL COMPLIANCE NOTE 4. REMOVE DEWATERING DEVICES WHEN ALL IN-WATER WORK IS COMPLETE. THE CONTRACTOR MAY CHOOSE TO COMPLETE CHANNEL EXCAVATION NORTH OF THE ROAD IN THIS STEP.
8. INSTALL BRIDGE SUPERSTRUCTURE.
9. BRING BRIDGE APPROACHES TO FINAL GRADES, INSTALL FULL DEPTH PAVING (STA 10+50 - 16+70) AND GUARDRAIL.
10. INSTALL OVERLAY PAVING (STA 6+00 - 10+50 AND 16+70 - 19+50). DURING OVERLAY OPERATIONS, THE CONTRACTOR MAY UTILIZE EITHER ROADWAY FOR THROUGH TRAFFIC (WITH APPROPRIATE TRAFFIC CONTROL DEVICES).
11. RETURN THROUGH TRAFFIC TO PRIME HOOK ROAD. USE TA-10 OF THE DE MUTCD DURING FOR REMAINING STEPS. REMOVE THE TEMPORARY BYPASS ROAD IN ITS ENTIRETY AND COMPLETE SOUTH SIDE AND ANY OTHER REMAINING CHANNEL EXCAVATION. COMPLETE PARKING BUMP OUTS, FILL EXISTING PIPES AT STA. 19+40 WITH FLOWABLE FILL. COMPLETE ANY OTHER REMAINING WORK ON PRIME HOOK ROAD.
12. TOPSOIL AND SEED OR PLACE PLANTINGS IN DISTURBED AREAS AS SHOWN.
13. REMOVE ALL REMAINING TEMPORARY EROSION, SEDIMENT DEVICES AND STABILIZE AS NECESSARY.
14. REMOVE ALL M.O.T. DEVICES.

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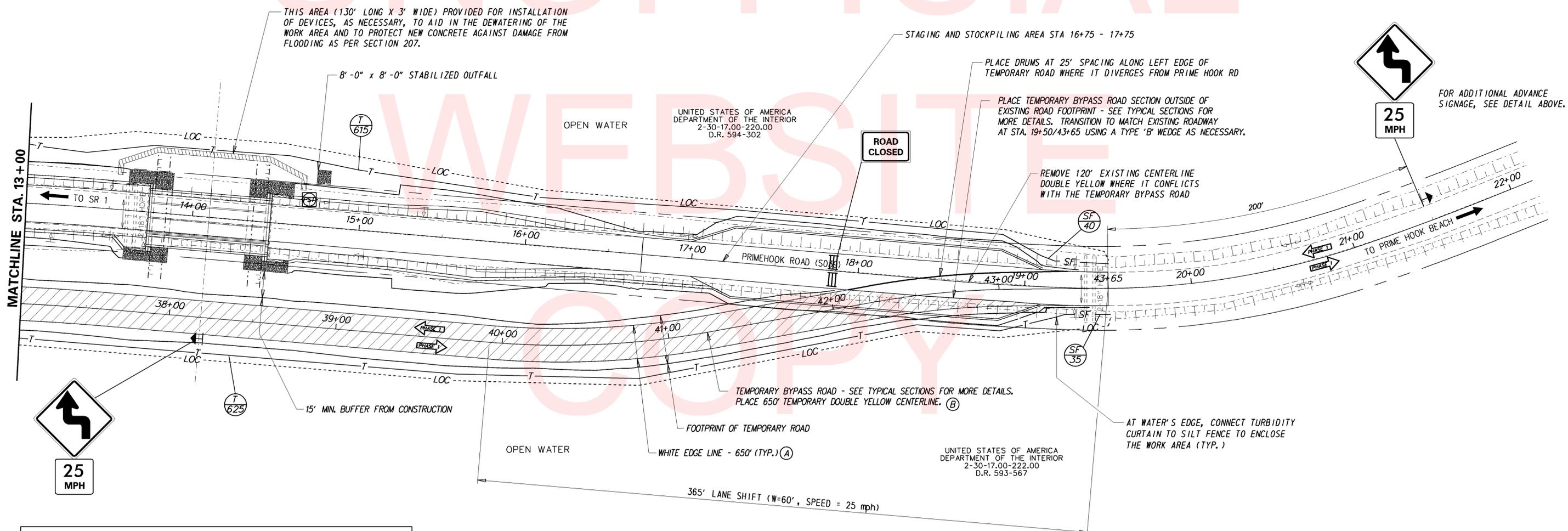
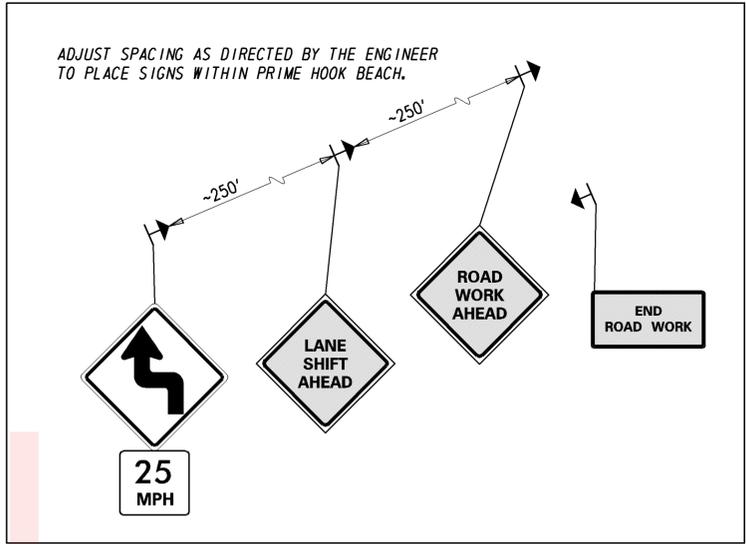
ADDENDUMS / REVISIONS



CONTRACT	BRIDGE NO.	<b>3-822</b>
T201607303	DESIGNED BY:	GCL III
COUNTY	CHECKED BY:	CAS
SUSSEX		



UNOFFICIAL



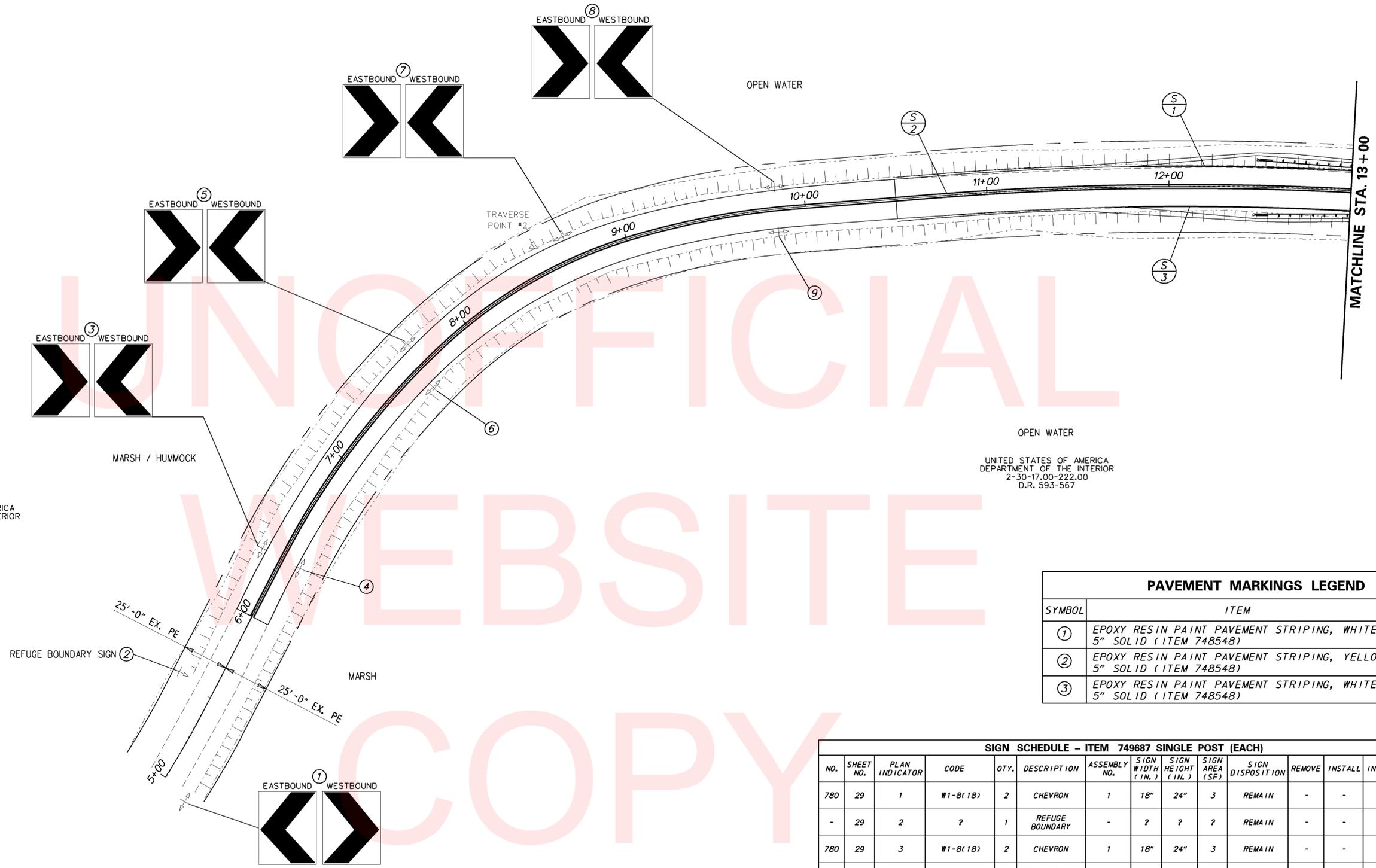
TEMPORARY PAVEMENT MARKINGS LEGEND		
SYMBOL	ITEM	QUANTITY
(A)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" SOLID (ITEM 748548)	1300 LF
(B)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID (ITEM 748548)	1300 LF

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UNITED STATES OF AMERICA  
DEPARTMENT OF THE INTERIOR  
2-30-17,00-220.00  
D.R. 504-302

UNITED STATES OF AMERICA  
DEPARTMENT OF THE INTERIOR  
2-30-17,00-222.00  
D.R. 593-567



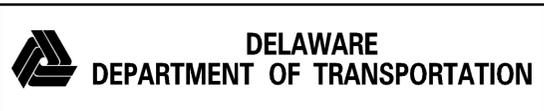
PAVEMENT MARKINGS LEGEND		
SYMBOL	ITEM	QUANTITY
①	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" SOLID (ITEM 748548)	120 LF
②	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID (ITEM 748548)	1400 LF
③	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" SOLID (ITEM 748548)	120 LF

SIGN SCHEDULE - ITEM 749687 SINGLE POST (EACH)														
NO.	SHEET NO.	PLAN INDICATOR	CODE	QTY.	DESCRIPTION	ASSEMBLY NO.	SIGN WIDTH (IN.)	SIGN HEIGHT (IN.)	SIGN AREA (SF)	SIGN DISPOSITION	REMOVE	INSTALL	POST INSTALLATION TYPE	REMARKS
780	29	1	W1-8(18)	2	CHEVRON	1	18"	24"	3	REMAIN	-	-	SOIL	-
-	29	2	?	1	REFUGE BOUNDARY	-	?	?	?	REMAIN	-	-	SOIL	-
780	29	3	W1-8(18)	2	CHEVRON	1	18"	24"	3	REMAIN	-	-	SOIL	-
1956	29	4	OM2-2V	2	TYPE 2 OBJECT MARKER	2	6"	12"	0.5	REMAIN	-	-	SOIL	-
780	29	5	W1-8(18)	2	CHEVRON	1	18"	24"	3	REMAIN	-	-	SOIL	-
1956	29	6	OM2-2V	2	TYPE 2 OBJECT MARKER	2	6"	12"	0.5	REMAIN	-	-	SOIL	-
780	29	7	W1-8(18)	2	CHEVRON	1	18"	24"	3	REMAIN	-	-	SOIL	-
780	29	8	W1-8(18)	2	CHEVRON	1	18"	24"	3	REMAIN	-	-	SOIL	-
1956	29	9	OM2-2V	2	TYPE 2 OBJECT MARKER	2	6"	12"	0.5	REMAIN	-	-	SOIL	-
736	29	22	W1-3L(24)	1	REVERSE CURVE - LEFT	1	24"	24"	4	REMAIN	-	-	SOIL	-
1285	29	23	W13-1P(18)	1	ADVISORY SPEED	2	18"	18"	2.25	NEW	-	1	SOIL	-

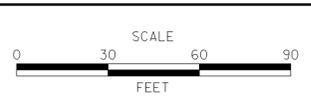


② SIGN 22 IS LOCATED AT APPROX. STA. 0+65, RIGHT OFFSET.

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ADDENDUMS / REVISIONS	



**PRIME HOOK ROAD IMPROVEMENTS**

CONTRACT	BRIDGE NO.	<b>3-822</b>
T201607303	DESIGNED BY:	GCL III
COUNTY	CHECKED BY:	CAS
SUSSEX		

**SIGNING, STRIPING AND CONDUIT PLAN**

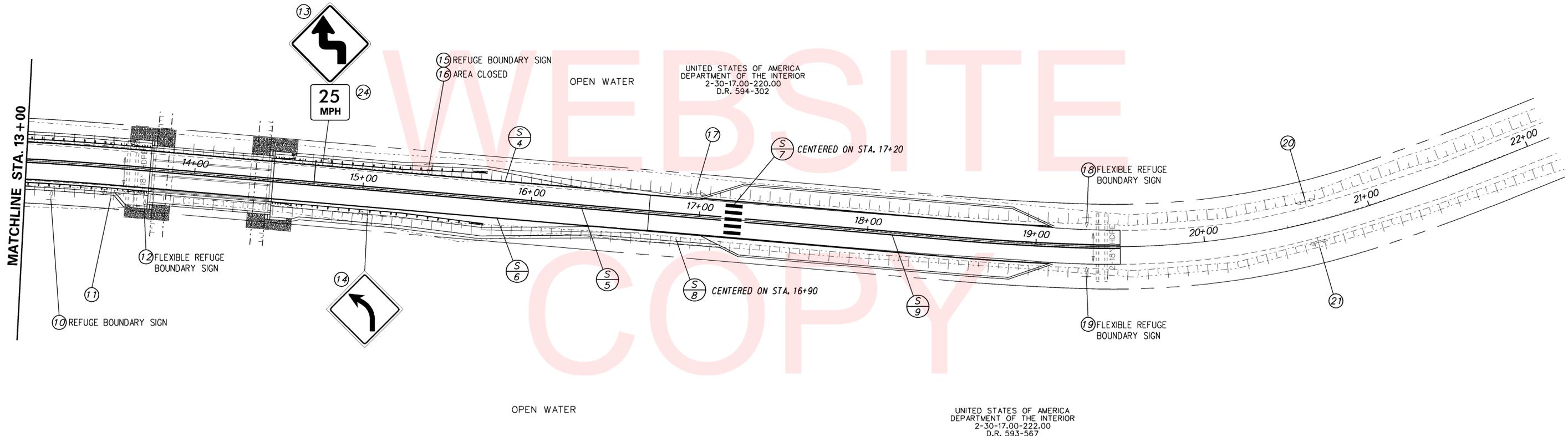
SHEET NO.	29
TOTAL SHTS.	34



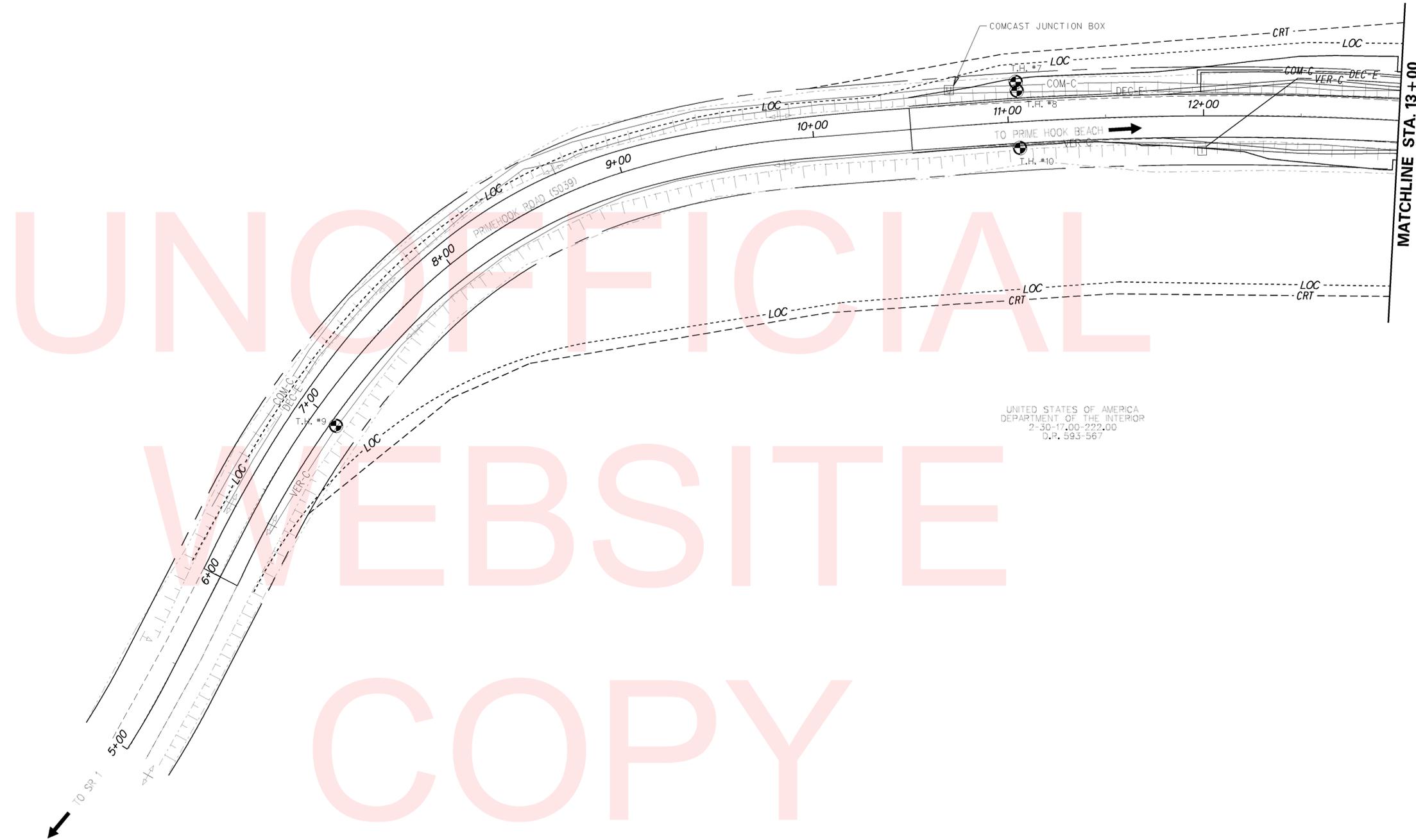
SIGN SCHEDULE - ITEM 749687 SINGLE POST (EACH)														
NO.	SHEET NO.	PLAN INDICATOR	CODE	QTY.	DESCRIPTION	ASSEMBLY NO.	SIGN WIDTH (IN.)	SIGN HEIGHT (IN.)	SIGN AREA (SF)	SIGN DISPOSITION	REMOVE	INSTALL	POST INSTALLATION TYPE	REMARKS
-	30	10	?	1	REFUGE BOUNDARY	-	?	?	?	REMOVE	1	-	SOIL	-
1956	30	11	OM2-2V	2	TYPE 2 OBJECT MARKER	2	6"	12"	0.5	REMOVE	1	-	SOIL	-
-	30	12	?	1	REFUGE BOUNDARY (FLEXIBLE)	-	?	?	?	REMOVE	1	-	SOIL	-
736	30	13	W1-3.L(24)	1	REVERSE TURN (LEFT)	1	24"	24"	4	REPOSITION	1	1	SOIL	-
722	30	14	W1-2.L(24)	1	CURVE (LEFT)	1	24"	24"	4	REPOSITION	1	1	SOIL	-
-	30	15	?	1	REFUGE BOUNDARY	-	?	?	?	REMOVE	1	-	SOIL	-
-	30	16	?	1	AREA CLOSED	-	?	?	?	REMOVE	1	-	SOIL	-
1956	30	17	OM2-2V	2	TYPE 2 OBJECT MARKER	2	6"	12"	0.5	REMAIN	-	-	SOIL	-
-	30	18	?	1	REFUGE BOUNDARY (FLEXIBLE)	-	?	?	?	REMAIN	-	-	SOIL	-
-	30	19	?	1	REFUGE BOUNDARY (FLEXIBLE)	-	?	?	?	REMAIN	-	-	SOIL	-
1956	30	20	OM2-2V	2	TYPE 2 OBJECT MARKER	2	6"	12"	0.5	REMAIN	-	-	SOIL	-
1956	30	21	OM2-2V	2	TYPE 2 OBJECT MARKER	2	6"	12"	0.5	REMAIN	-	-	SOIL	-
1285	30	24	W13-1P(18)	1	ADVISORY SPEED	2	18"	18"	2.25	NEW	-	1	SOIL	-

NOTES:  
 1. REPOSITION SIGNS 13 AND 14 IN A SIMILAR POSITION ON THE PROPOSED EMBANKMENT.  
 2. AFTER REMOVAL, SIGNS 10, 12, 15, 16, 18 AND 19 SHALL BE RETURNED TO US FISH AND WILDLIFE.

PAVEMENT MARKINGS LEGEND		
SYMBOL	ITEM	QUANTITY
④	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" SOLID (ITEM 748548)	610 LF
⑤	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID (ITEM 748548)	826 LF
⑥	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" SOLID (ITEM 748548)	610 LF
⑦	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 24" SOLID (ITEM 748015)	100 SF
⑧	PREFORMED THERMOPLASTIC PAVEMENT MARKING, WHITE, PEDESTRIAN SYMBOL (748554)	1 EACH
⑨	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID (ITEM 748548)	446 LF



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**NOTES:**

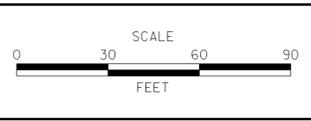
1. NO. 7 & 8 'O.D. & MATERIAL' COULD NOT BE DETERMINED DUE TO GROUNDWATER IN HOLE.
2. ALL EXISTING UTILITY LOCATIONS SHOWN ARE FROM INFORMATION PROVIDED BY OTHERS. EXACT LOCATIONS AND DEPTHS SHALL BE CONFIRMED FOR ANY UTILITIES DETERMINED TO BE IN POTENTIAL CONFLICT WITH PROPOSED STRUCTURE AND ROAD WORK.

UTILITY TEST HOLE SCHEDULE						
NO.	UTILITY	STATION	OFFSET	GRND EL.	COVER	O. D. & MATERIAL
7	COM-C	11+05.00	-20.30	1.87	2.60	4" UNK.
8	DEC-E	11+05.00	-16.10	2.50	4.21	UNKNOWN
9	VER-C	6+96.00	13.90	2.76	0.93	1" BURIED CABLE
10	VER-C	11+05.00	12.70	2.86	1.12	1" BURIED CABLE

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**DELAWARE**  
**DEPARTMENT OF TRANSPORTATION**

ADDENDUMS / REVISIONS	



**PRIME HOOK ROAD IMPROVEMENTS**

CONTRACT T201607303	BRIDGE NO. <b>3-822</b>
COUNTY SUSSEX	DESIGNED BY: GCL III
	CHECKED BY: CAS

**UTILITY RELOCATION PLAN**

SHEET NO. 31
TOTAL SHTS. 34



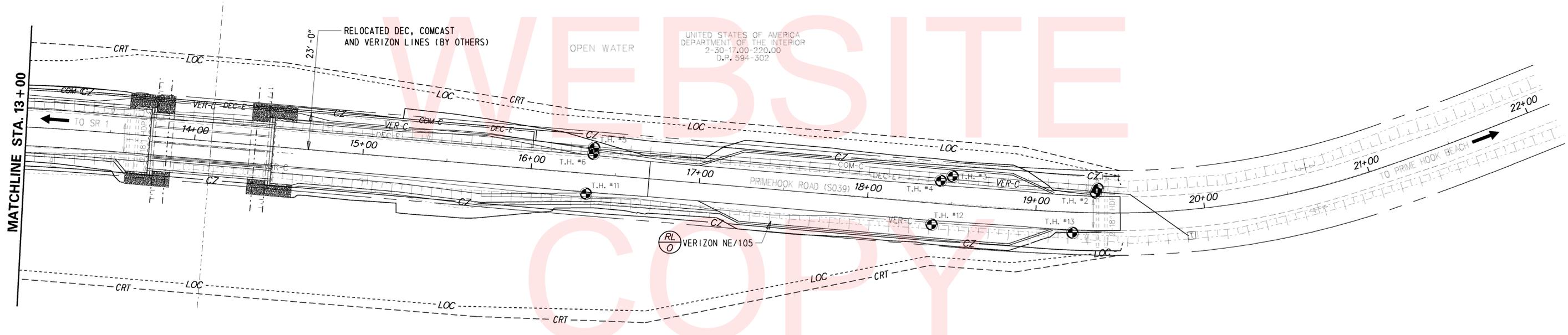
UTILITY TEST HOLE SCHEDULE						
NO.	UTILITY	STATION	OFFSET	GRND EL.	COVER	O. D. & MATERIAL
1	COM-C	19+37.00	-13.80	2.05	1.30	4" UNK.
2	DEC-E	19+35.00	-11.30	2.47	4.94	4" UNK.
3	COM-C	18+49.00	-16.20	2.11	2.46	4" PLASTIC
4	DEC-E	18+43.00	-15.00	2.49	5.30	4" UNK.
5	COM-C	16+36.00	-15.40	2.38	2.12	4" UNK.
6	DEC-C	16+36.00	-11.50	2.80	3.95	4" UNK.
11	VER-C	16.34.00	12.30	2.95	1.68	1" BURIED CABLE
12	VER-C	18+39.00	13.10	2.49	2.17	UNKNOWN
13	VER-C	19+22.00	12.70	2.67	1.94	UNKNOWN

- NOTES:
- NO. 1, 2, 4-6 & 12-13 'O.D. & MATERIAL' COULD NOT BE DETERMINED DUE TO GROUNDWATER IN HOLE.
  - ALL EXISTING UTILITY LOCATIONS SHOWN ARE FROM INFORMATION PROVIDED BY OTHERS. EXACT LOCATIONS AND DEPTHS SHALL BE CONFIRMED FOR ANY UTILITIES DETERMINED TO BE IN POTENTIAL CONFLICT WITH PROPOSED STRUCTURE AND ROAD WORK.

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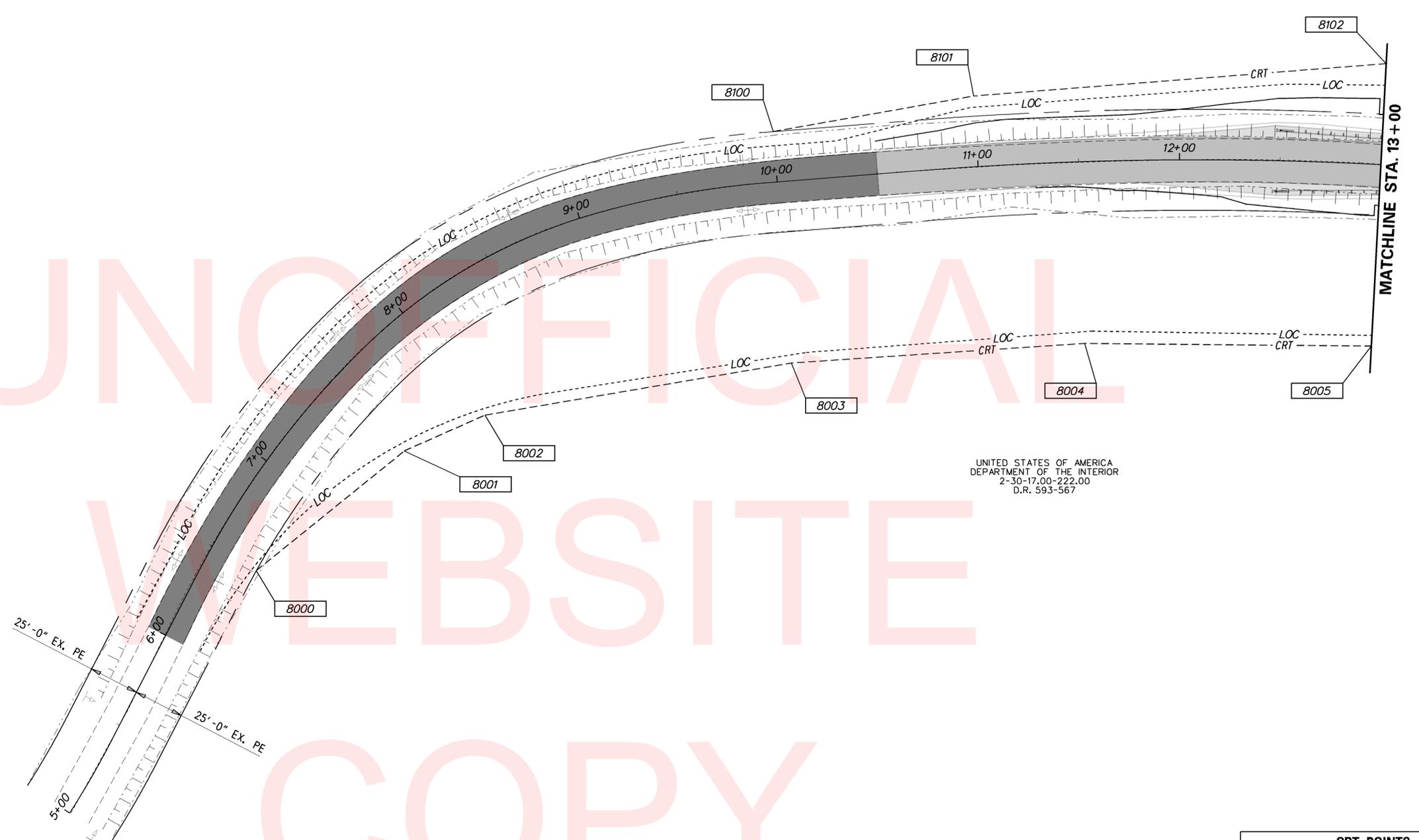
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<p><b>DELAWARE</b> DEPARTMENT OF TRANSPORTATION</p>	ADDENDUMS / REVISIONS	<p>SCALE</p> <p>0 30 60 90</p> <p>FEET</p>	<p><b>PRIME HOOK ROAD</b> IMPROVEMENTS</p>	CONTRACT	BRIDGE NO.	<p><b>3-822</b></p>	<p><b>UTILITY RELOCATION PLAN</b></p>	SHEET NO.
				T201607303	DESIGNED BY: GCL III			32
				COUNTY	CHECKED BY: CAS			TOTAL SHTS.
				SUSSEX				34



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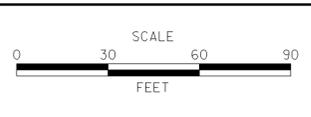
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CRT POINTS				
POINT	STATION	OFFSET	NORTHING	EASTING
8000	6+50.00	25.00	311140.23	703590.50
8001	7+50.00	50.00	311199.48	703663.99
8002	8+00.00	65.00	311217.15	703704.05
8003	10+00.00	90.00	311242.91	703856.15
8004	11+50.00	90.00	311252.67	704001.75
8005	13+00.00	90.00	311251.31	704143.99
8100	10+00.00	-25.00	311357.56	703847.14
8101	11+00.00	-35.00	311375.17	703946.64
8102	13+00.00	-50.00	311391.12	704151.31

NOTE: THERE WILL BE NO ACQUISITIONS FROM THE UNITED STATES OF AMERICA PROPERTIES. TEMPORARY ACCESS FOR THE CONTRACTOR AND PERMANENT ACCESS FOR DELDOT GRANTED VIA A MEMORANDUM OF AGREEMENT BETWEEN THE US FISH AND WILDLIFE SERVICE AND DELDOT, DATED 08/24/2015.

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ADDENDUMS / REVISIONS	



CONTRACT	BRIDGE NO.	<b>3-822</b>
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COUNTY	CHECKED BY:	CAS
SUSSEX		



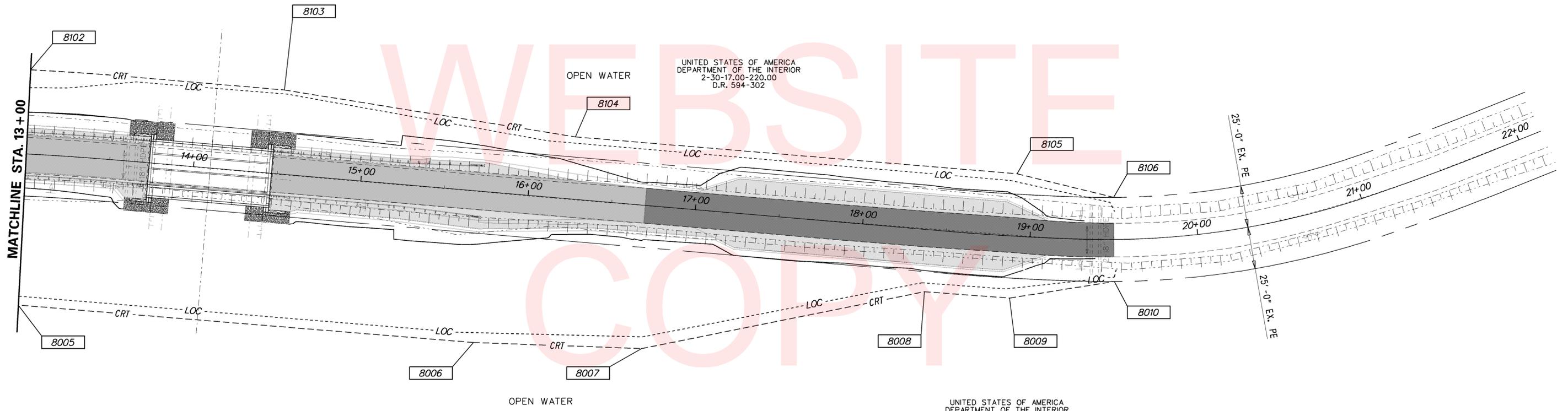
CRT POINTS				
POINT	STATION	OFFSET	NORTHING	EASTING
8005	13+00.00	90.00	311251.31	704143.99
8006	15+75.00	90.00	311229.03	704415.10
8007	16+75.00	85.00	311225.49	704515.16
8008	18+40.00	37.00	311259.25	704683.65
8009	18+90.00	37.00	311255.44	704734.50
8010	19+50.00	25.00	311265.33	704796.84
8102	13+00.00	-50.00	311391.12	704151.31
8103	14+50.00	-50.00	311379.17	704302.48
8104	16+25.00	-37.00	311351.30	704475.74
8105	18+90.00	-37.00	311329.32	704738.84
8106	19+50.00	-25.00	311315.33	704796.39

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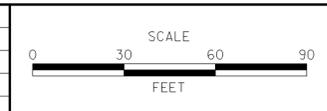


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ADDENDUMS / REVISIONS



CONTRACT	BRIDGE NO.	<b>3-822</b>
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