

GENERAL LOCATION OF CONTRACT

THE STATE OF DELAWARE DEPARTMENT OF TRANSPORTATION

U.S. CUSTOMARY
UNITS



CONSTRUCTION AND RIGHT-OF-WAY PLANS FOR:

SUSSEX COUNTY PIPE REPLACEMENTS, FEDERAL, 2012

CONTRACT NUMBER: T201207604
FEDERAL AID PROJECT NUMBER: EBHOS-2012(32)

COUNTY: SUSSEX

M.R. #: SR404, S386, S225

REFER TO SHEET 2
FOR BRIDGE LOCATION MAPS

PROJECT INCLUDES BRIDGES:
3-113, 3-409,
& 3-941

DESIGN DESIGNATION			
BR. 3-113 SR404	FUNCTIONAL CLASS: RURAL PRINCIPAL ARTERIAL	D.H.V. PROJECTED: 615	YEAR: 2040
	TYPE OF CONSTRUCTION: PIPE REPLACEMENT	DESIGN SPEED: 55 M.P.H	
	A.A.D.T. CURRENT: 6565	YEAR: 2010	TRUCKS: 10%
BR. 3-409 S386	FUNCTIONAL CLASS: RURAL LOCAL ROAD	D.H.V. PROJECTED: 61	YEAR: 2040
	TYPE OF CONSTRUCTION: PIPE REPLACEMENT	DESIGN SPEED: 45 M.P.H	
	A.A.D.T. CURRENT: 402	YEAR: 2010	TRUCKS: 14%
BR. 3-941 S225	FUNCTIONAL CLASS: RURAL LOCAL ROAD	D.H.V. PROJECTED: 110	YEAR: 2040
	TYPE OF CONSTRUCTION: PIPE REPLACEMENT	DESIGN SPEED: 40 M.P.H	
	A.A.D.T. CURRENT: 867	YEAR: 2010	TRUCKS: 14%
A.A.D.T. PROJECTED: 1400			

INDEX OF SHEETS	
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TOTAL SHEETS: 39	
TYPICAL BRIDGE SHEET ORDER	
A	HORIZONTAL AND VERTICAL CONTROL
B	CONSTRUCTION PLAN
C	PROFILE
D	BRIDGE PLAN, SECTION AND ELEVATION
E	CONSTRUCTION SEQUENCE AND EROSION AND SEDIMENT CONTROL PLAN
F	ENVIRONMENTAL COMPLIANCE PLAN
G	DETOUR PLAN
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I	RIGHT-OF-WAY PLAN
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K	RIGHT-OF-WAY TABULATION

APPROVED DESIGN EXCEPTIONS			
DESIGN PARAMETER	REQUIRED	PROVIDED	DATE

ADDENDA & REVISIONS	
DESCRIPTION	NAME & DATE

ASSOCIATED CONTRACTS	
CONTRACT NO.	CONTRACT NAME
1268	RT. 404 BRIDGEVILLE TO MD STATE LINE
320	LINCOLN CITY TO MILFORD

RECOMMENDED	
<i>Wayne Massey</i> SQUAD MANAGER, CONSTRUCTION	02/09/2015 DATE
<i>Bradford L. Schmitz</i> GROUP ENGINEER, CONSTRUCTION	02/10/2015 DATE
<i>Jan A. Gajda</i> ASSISTANT DIRECTOR, CONSTRUCTION	02/10/2015 DATE

RECOMMENDED
Vincent W. Davis
STORMWATER ENGINEER
DATE 02/06/2015



RECOMMENDED
Kevin Lindell
SQUAD MANAGER, BRIDGE DESIGN
DATE 02/11/2015



RECOMMENDED
Jay
BRIDGE DESIGN ENGINEER
DATE 02/11/2015



RECOMMENDED
B. A. B.
ASSISTANT DIRECTOR, BRIDGE
DATE 02/11/2015



APPROVED
Robert Brian McClary
CHIEF ENGINEER
DATE 02/13/2015



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
	DELMARVA POWER - ELECTRIC
	TOWN OF SELBYVILLE - SEWER
	TOWN OF SELBYVILLE - WATER
	VERIZON - FIBER OPTIC, OVERHEAD
	VERIZON CABLE, OVERHEAD
	VERIZON CABLE

CONSTRUCTION	
	CONCRETE SAFETY BARRIER - PERMANENT
	BIOFILTRATION SWALE
	BOLLARD - STEEL POLE
	BOLLARD - WOOD POST
	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
	HORIZONTAL CLEARANCE
	IMPACT ATTENUATOR
	JUNCTION BOX - DRAINAGE
	LIMIT OF CONSTRUCTION
	MANHOLE
	PAVEMENT PATCH
	PAVEMENT REMOVAL - TOPSOIL, SEED AND MULCH
	PIPE & DIRECTIONAL FLOW ARROW
	RIPRAP
	P.C.C. SIDEWALK @ 4"
	P.C.C. SIDEWALK @ 6"
	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

PROPOSED SYMBOLS

IDENTIFIERS	
	ADJUST BY CONTRACTOR
	ADJUST BY OTHERS
	CONCRETE SAFETY BARRIER
	CURB OR CURB & GUTTER
	DITCH RELOCATION
	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

PAVEMENT SECTION(S)	
	2" BITUMINOUS CONC. SUPERPAVE TYPE 'C' OVER 6" GRADED AGGREGATE BASE COURSE
	FULL PAVEMENT BOX REPLACEMENT. REFER TO TYPICAL SECTION FOR MATERIALS AND LIFT THICKNESSES.
	N/A

UTILITY COMPANY FACILITIES	
	DELAWARE ELECTRIC COOPERATIVE
	DELMARVA POWER - ELECTRIC
	TOWN OF SELBYVILLE - SEWER
	TOWN OF SELBYVILLE - WATER
	VERIZON - FIBER OPTIC, OVERHEAD
	VERIZON CABLE, OVERHEAD
	VERIZON CABLE

EROSION & SEDIMENT CONTROL	
	DEWATERING BASIN
	EROSION CONTROL BLANKET
	EARTH DIKE
	INLET SEDIMENT CONTROL
	PERIMETER DIKE/SWALE
	PORTABLE SEDIMENT TANK
	REINFORCED SILT FENCE
	SANDBAG DIKE
	SANDBAG DIVERSION
	STONE CHECK DAM
	STABILIZED CONSTRUCTION ENTRANCE
	SILT FENCE
	SUMP PIT, TYPE 1
	SUMP PIT, TYPE 2
	SEDIMENT TRAP
	SEDIMENT TRAP WITH INLET AS OUTLET
	SEDIMENT TRAP PIPE OUTLET
	STILLING WELL
	TEMPORARY SWALE
	TEMPORARY SLOPE DRAIN

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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.
(X) 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 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 EACH LOCATION IS AS FOLLOWS:

-BRIDGE 3-113: 1.0359 ACRES
 -BRIDGE 3-409: 0.6288 ACRES
 -BRIDGE 3-941: 0.6235 ACRES

7. THE SEDIMENT AND STORMWATER MANAGEMENT PLANS HAVE BEEN APPROVED BY DELDOT'S STORMWATER ENGINEER UNDER DELDOT'S DELEGATED AUTHORITY. THE SEDIMENT AND STORMWATER MANAGEMENT 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 WILL INFORM THE ENGINEER THREE MONTHS PRIOR TO THE EXPIRATION OF THE APPROVED SEDIMENT AND STORMWATER MANAGEMENT PLANS. THE STORMWATER ENGINEER WILL REVIEW THE CURRENT SEDIMENT AND STORMWATER MANAGEMENT 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. THE CONTRACTOR SHALL REMOVE AND RESET ALL MAILBOXES TO MAINTAIN MAIL SERVICE AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL RELOCATE MAILBOXES AS REQUIRED BY THE PROPOSED GEOMETRICS AND AS DIRECTED BY THE ENGINEER. WHEN RELOCATING MAILBOXES IN OPEN SECTIONS, THE FACE OF THE MAILBOX SHALL SET BACK 8 INCHES FROM THE EDGE OF THE PAVED SHOULDER. THE BOTTOM OF THE MAILBOX SHALL BE SET 46 INCHES ABOVE THE ROADWAY SURFACE. MAILBOXES LOCATED AT DRIVEWAY ENTRANCES SHALL BE PLACED ON THE FAR SIDE OF THE DRIVEWAY IN THE DIRECTION OF TRAVEL. COST FOR ALL WORK AND MATERIALS SHALL BE PAID UNDER ITEM 201000 - CLEARING AND GRUBBING.

3. ITEMS TO BE REMOVED UNDER ITEM 211000 - REMOVAL OF STRUCTURES AND OBSTRUCTIONS SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:

- REMOVAL OF EXISTING CORRUGATED METAL PIPES AT ALL BRIDGE LOCATIONS.
- REMOVAL AND DELIVERY OF EXISTING GUARDRAIL AT BRIDGE 3-113. GUARDRAIL SHALL BE DELIVERED TO DELDOT GRAVEL HILL MAINTENANCE YARD. CONTACT KYLE BANKS AT (302) 542-9520 OR KEVIN BAILEY AT (302) 542-9528 TO COORDINATE DELIVERY.
- REMOVAL OF FOUR EXISTING 12" HDPE PIPES AT BRIDGE 3-113.
- TEMPORARY RELOCATION OF MAILBOX AT BRIDGE 3-113.
- REMOVAL OF ALL SACK RIP-RAP HEADWALLS AT BRIDGE 3-409.
- REMOVAL OF POSSIBLE EXISTING RIP-RAP UPSTREAM AND DOWNSTREAM OF THE BRIDGE AT ALL BRIDGE LOCATIONS. RIP-RAP MAY BE RE-USED IF IT MEETS THE REQUIREMENTS SET FORTH BY THE STANDARD SPECIFICATIONS OF THE PROPOSED RIP-RAP AT THAT PARTICULAR LOCATION.

SECTION 300

4. 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':
 - a. CRUSHED STONE (PER STANDARD SPECIFICATION B21)
 - b. CRUSHED CONCRETE (PER STANDARD SPECIFICATION B21)
 - c. 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:

- a. MATERIAL MILLED ON THIS CONTRACT AT THE CONTRACTOR'S CHOICE UNDER ITEM 202000.
- b. 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:

- a. 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.

- b. 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.

- c. 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'.

- d. 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.

- e. 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

5. THE DEPARTMENT AND THE CONTRACTOR SHALL INSPECT ALL EXISTING PIPES AND DRAINAGE STRUCTURES TO BE USED IN THE FINAL DRAINAGE SYSTEM AND AGREE ON THE CONDITION PRIOR TO THE START OF CONSTRUCTION. EXISTING PIPES AND DRAINAGE STRUCTURES DAMAGED DUE TO CONTRACTOR OPERATIONS SHALL BE REPAIRED OR REPLACED IN-KIND AT THE CONTRACTOR'S EXPENSE. THE DEPARTMENT WILL VIDEO INSPECT NEW PIPE RUNS TO CONFIRM CONDITION PRIOR TO ACCEPTANCE. PIPE CLEANING PRIOR TO VIDEO INSPECTION AND MAINTENANCE OF TRAFFIC DURING THE VIDEO INSPECTION ARE THE RESPONSIBILITY OF THE CONTRACTOR AND INCIDENTAL TO THE PIPE ITEM THAT IS BEING VIDEO INSPECTED.

SECTION 700

6. ALL PAVED AREAS TO BE RECONSTRUCTED OR WIDENED SHALL BE SAWCUT AT THE POINT WHERE THE NEW PAVEMENT IS TO TIE INTO THE EXISTING PAVEMENT. ALL SAW CUTTING SHALL BE FULL DEPTH, UNLESS OTHERWISE NOTED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.

7. STRIPING
 PROPOSED STRIPING SHALL MATCH EXISTING STRIPING PATTERN. PAYMENT FOR PERMANENT PAVEMENT STRIPING UNDER ITEM 748548-PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 5". STRIPING APPLICABLE FOR BRIDGES 3-113 AND 3-941.

8. SIGNING
 TO AVOID DAMAGE, SIGNS MAY BE REMOVED DURING CONSTRUCTION IF NEEDED, BUT MUST BE REPLACED TO MATCH EXISTING CONDITIONS BEFORE REOPENING THE ROADWAY. ALL WORK RELATED TO MOVING AND REINSTALLING THE SIGN SHALL BE INCIDENTAL TO ITEM 211000-REMOVAL OF STRUCTURES AND OBSTRUCTIONS. IF THE SIGN IS DAMAGED, THE SIGN MUST BE REPLACED AT THE CONTRACTOR'S EXPENSE.

9. MAINTENANCE OF TRAFFIC SHALL BE AS PER DETOUR. THE DETOUR SHALL REMAIN IN EFFECT UNTIL THE FINAL HOT MIX IS PLACED. ALL M.O.T. ITEMS WITH THE EXCEPTION OF CHANGEABLE MESSAGE BOARDS AND FLAGGERS WILL BE INCLUDED IN ITEM 763643 - MAINTENANCE OF TRAFFIC, ALL INCLUSIVE.

SECTION 900

10. 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 NOIIS KEPT ON FILE IN EACH OF THE CONSTRUCTION OFFICES AND THE DEPARTMENT'S TEAM SUPPORT SECTION. A COPY OF THE GENERAL PERMIT OR THE NOIIS CAN BE OBTAINED UPON REQUEST FROM EITHER THE DEPARTMENT'S STORMWATER ENGINEER OR THE APPROPRIATE CONSTRUCTION ENGINEER.

MISCELLANEOUS

11. DESIGN CRITERIA: 2012 AASHTO LRFD BRIDGE DESIGN SPECIFICATION, 6TH EDITION, U.S. CUSTOMARY UNITS.

12. HYDRAULIC DATA:

*BRIDGE 3-113:

- DRAINAGE AREA = 0.74 SQ. MILES
- DESIGN FREQUENCY = 50-YEARS
- DESIGN DISCHARGE = 283.0 CFS
- DESIGN FLOOD ELEVATION = 47.33 FT
- PROPOSED OPENING = (2) 53"x83" ELLIPTICAL PIPES

*BRIDGE 3-409:

- DRAINAGE AREA = 1.36 SQ. MILES
- DESIGN FREQUENCY = 25-YEARS
- DESIGN DISCHARGE = 214.0 CFS
- DESIGN FLOOD ELEVATION = 25.05 FT
- PROPOSED OPENING = (3) 5 FT CIRCULAR PIPES

*BRIDGE 3-941:

- DRAINAGE AREA = 7.40 SQ. MILES
- DESIGN FREQUENCY = 25-YEARS
- DESIGN DISCHARGE = 493.0 CFS
- DESIGN FLOOD ELEVATION = 21.08 FT
- PROPOSED OPENING = (3) 53"x83" ELLIPTICAL PIPES

13. SCOUR ANALYSIS:

THE PROPOSED STRUCTURE HAS BEEN ANALYZED FOR THE EFFECTS OF SCOUR IN ACCORDANCE WITH HEC-14- 'HYDRAULIC DESIGN OF ENERGY DISSIPATORS FOR CULVERTS AND CHANNELS', HEC-18 - 'EVALUATING SCOUR AT BRIDGES' AND HEC-23 - 'BRIDGE SCOUR AND STREAM INSTABILITY COUNTERMEASURE'. SCOUR COUNTERMEASURES HAVE BEEN DESIGNED FOR THE WORST CASE SCENARIO OF THE OVERTOPPING FLOOD OR THE 500-YR FLOOD EVENT.

*BRIDGE 3-113:

- DESIGN EVENT = OVERTOPPING STORM EVENT
- DESIGN DISCHARGE = 375.0 CFS
- DESIGN VELOCITY = 8.27 FT/S
- TAILWATER DEPTH = 4.52 FT

*BRIDGE 3-409:

- DESIGN EVENT = 500-YEAR STORM
- DESIGN DISCHARGE = 472.0 CFS
- DESIGN VELOCITY = 8.28 FT/S
- TAILWATER DEPTH = 5.58 FT

*BRIDGE 3-941:

- DESIGN EVENT = OVERTOPPING STORM EVENT
- DESIGN DISCHARGE = 625.0 CFS
- DESIGN VELOCITY = 8.99 FT/S
- TAILWATER DEPTH = 3.39 FT

14. ENVIRONMENTAL COMPLIANCE:

REFER TO THE ENVIRONMENTAL COMPLIANCE PLAN FOR FURTHER RESTRICTIONS/GUIDANCE ASSOCIATED WITH THIS CONTRACT.

15. PERMITTING FOR UTILITIES:

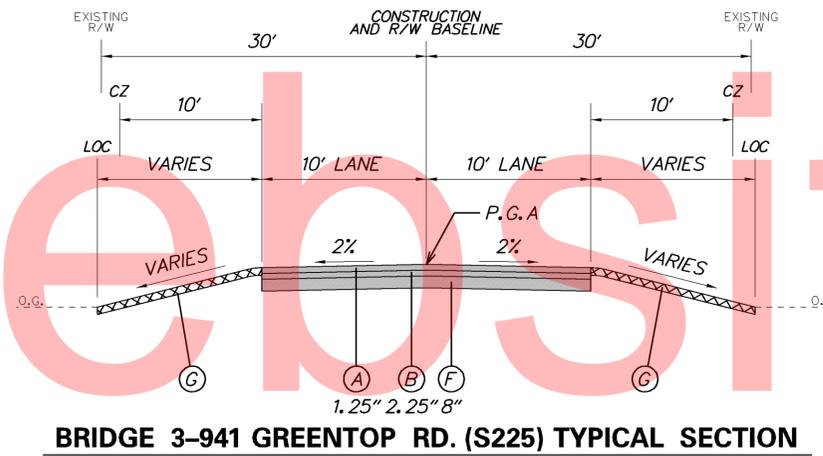
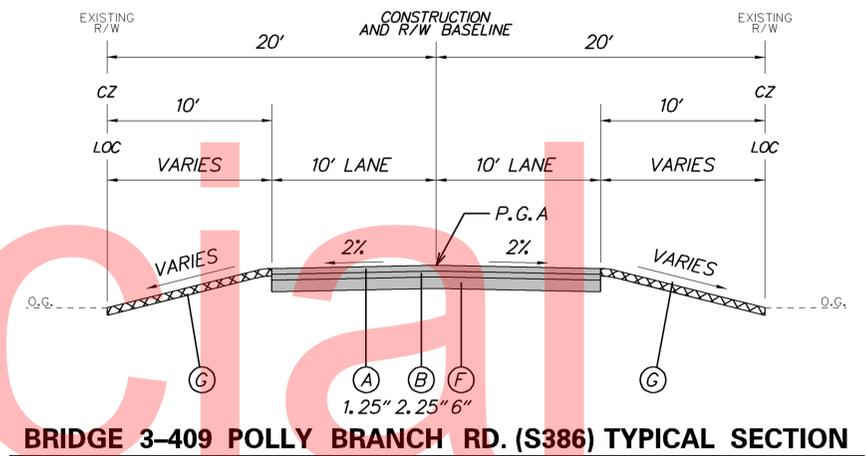
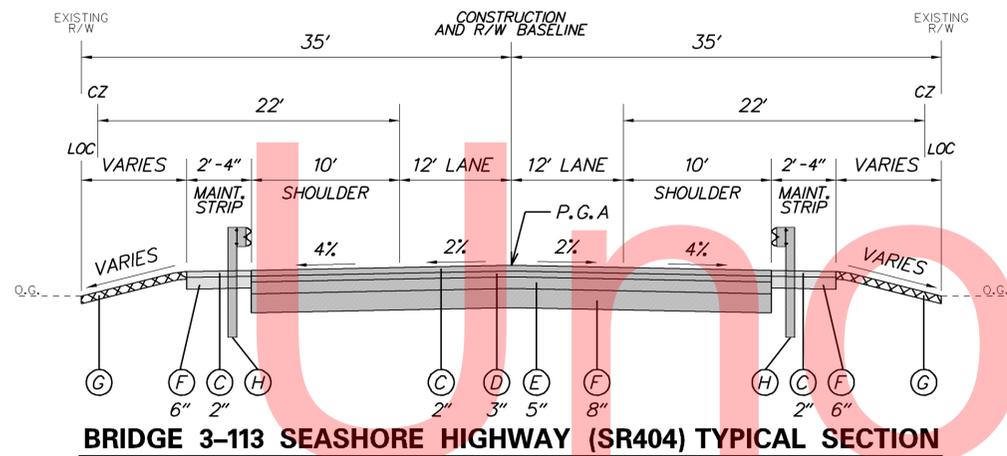
AS OUTLINED IN CHAPTER 3 OF THE DELDOT UTILITIES MANUAL, THE INDIVIDUAL UTILITY COMPANIES ARE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS FROM MUNICIPAL, STATE AND FEDERAL GOVERNMENT AGENCIES AND RAILROADS. THIS INCLUDES BUT IS NOT LIMITED TO WATER QUALITY PERMIT/DNREC WATER QUALITY CERTIFICATION, DNREC SUBAQUEOUS LANDS/WETLANDS PERMITS, DNREC COASTAL ZONE CONSISTENCY CERTIFICATION, U.S. COAST GUARD PERMITS, U.S. ARMY CORPS 404 PERMITS, SEDIMENT AND EROSION PERMITS, AND RAILROAD CROSSING PERMITS. THE ENVIRONMENTAL PERMITS CITED ON THE EC SHEET ONLY AUTHORIZES WORK FOR THE WATER AND SEWER LINE RELOCATIONS AT BR 3-409 AND DOES NOT AUTHORIZE ANY OTHER UTILITY WORK ASSOCIATED WITH THIS PROJECT.

16. UTILITIES:

OVERHEAD ELECTRICAL LINES AT BR 3-409 ARE TO REMAIN IN PLACE AND IN SERVICE DURING CONSTRUCTION. A 10 FT CLEARANCE FROM ANY AERIAL LINE MUST BE MET AT ALL TIMES. THE CONTRACTOR SHALL SUBMIT A WORKING PLAN DETAILING THEIR PLAN TO PLACE THE PROPOSED PIPES AND RIP-RAP WHILE MAINTAINING A 10 FOOT CLEARANCE. PAYMENT FOR A WORKING PLAN SHALL BE INCLUDED UNDER ITEM *763501 - CONSTRUCTION ENGINEERING. SEE UTILITY STATEMENT FOR FULL UTILITY RELOCATION DETAILS.

17. CONSTRUCTION SCHEDULING:

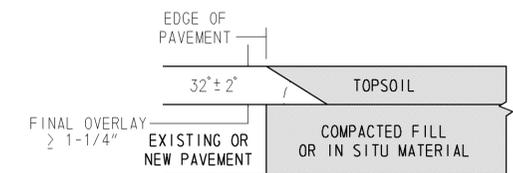
THE FULL ROAD CLOSURE ON SR404/SEASHORE HIGHWAY FOR BRIDGE 3-113 SHALL ONLY OCCUR BETWEEN OCTOBER 15TH AND MAY 15TH IN ORDER TO MINIMIZE DELAYS ALONG THE DETOURED ROUTE.



LEGEND

- (A) ITEM 401801 - BITUMINOUS CONCRETE, SUPERPAVE, TYPE C, 160 GYRATIONS, PG 64-22 (CARBONATE STONE)
- (B) ITEM 401810 - BITUMINOUS CONCRETE, SUPERPAVE, TYPE B, 160 GYRATIONS, PG 64-22
- (C) ITEM 401804 - BITUMINOUS CONCRETE, SUPERPAVE, TYPE C, 160 GYRATIONS, PG 70-22 (CARBONATE STONE)
- (D) ITEM 401813 - BITUMINOUS CONCRETE, SUPERPAVE, TYPE B, 160 GYRATIONS, PG 70-22
- (E) ITEM 401819 - BITUMINOUS CONCRETE, SUPERPAVE, BCBC, 160 GYRATIONS, PG 64-22
- (F) ITEM 302007 - GRADED AGGREGATE BASE COURSE (GABC), TYPE B
- (G) ITEM 908004 - TOPSOIL, 6" DEPTH
ITEM 908017 - TEMPORARY GRASS SEEDING OR ITEM 908019 - STREAMBANK SEED MIX, SEEDING
- (H) ITEM 720050 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31

MATERIAL	LIFT THICKNESS	
	MINIMUM	MAXIMUM
WARM-MIX, TYPE 'C'	1.25"	2"
WARM-MIX, TYPE 'B'	2.25"	4"
BITUMINOUS CONCRETE BASE COURSE	3"	6"
GRADED AGGREGATE BASE COURSE	---	8"



**HOT-MIX PAVEMENTS AND OVERLAYS
NOT TO SCALE**

**SAFETY EDGE DETAIL
NOT TO SCALE**

ADDENDUMS / REVISIONS

NOT TO SCALE

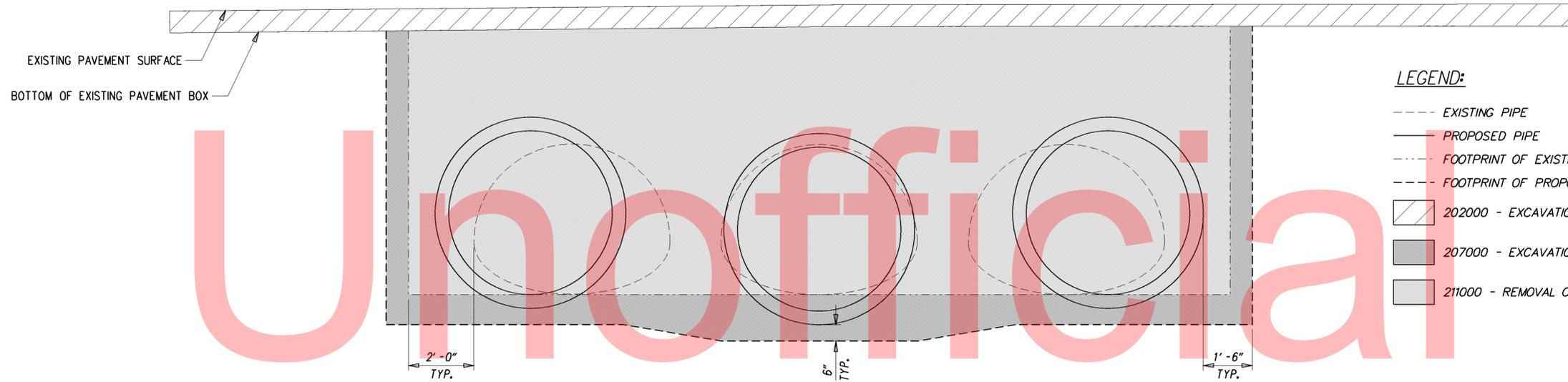
**SUSSEX COUNTY PIPE
REPLACEMENTS, FEDERAL, 2012**

CONTRACT
T201207604
COUNTY
SUSSEX

BRIDGE NO. **MULTIPLE**
DESIGNED BY: SMW
CHECKED BY: KRL

TYPICAL SECTIONS

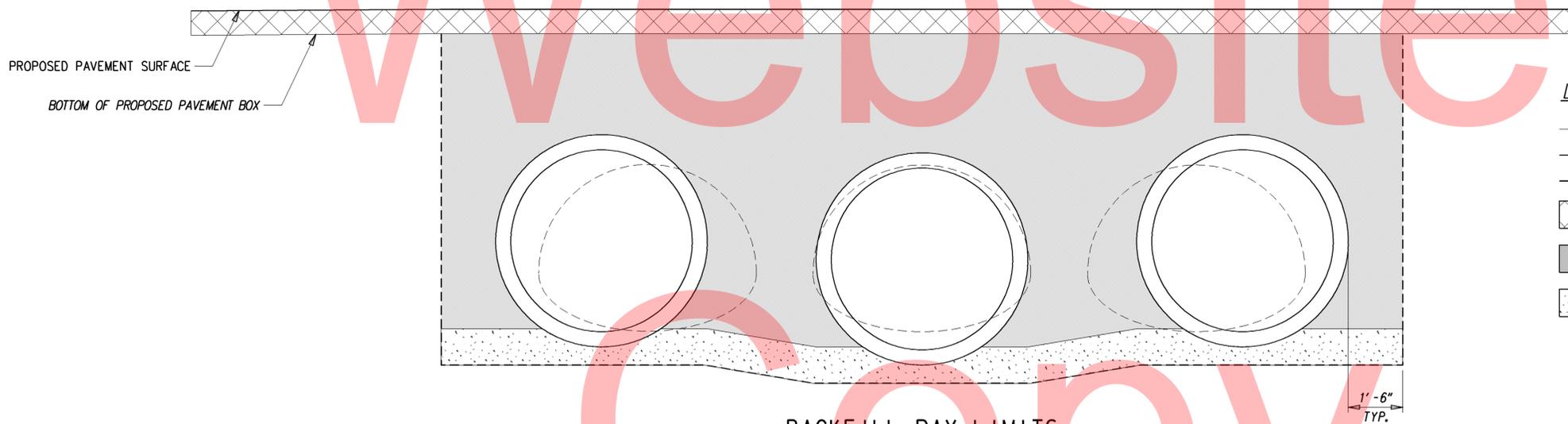
SHEET NO.
5
TOTAL SHTS.
39



EXCAVATION PAY LIMITS

LEGEND:

- EXISTING PIPE
- PROPOSED PIPE
- FOOTPRINT OF EXISTING BRIDGE
- FOOTPRINT OF PROPOSED BRIDGE
- ▨ 202000 - EXCAVATION AND EMBANKMENT
- 207000 - EXCAVATION AND BACKFILL FOR STRUCTURES
- 211000 - REMOVAL OF STRUCTURES AND OBSTRUCTIONS



BACKFILL PAY LIMITS

LEGEND:

- EXISTING PIPE
- PROPOSED PIPE
- FOOTPRINT OF PROPOSED BRIDGE
- ▨ PROPOSED PAVEMENT BOX
- 210000 - FURNISHING BORROW TYPE 'C' FOR STRUCTURAL BACKFILL OR 209003 - BORROW TYPE 'C' FOR STRUCTURAL BACKFILL
- 608000 - COARSE AGGREGATE FOR FOUNDATION STABILIZATION

NOTE: THIS SHEET IS FOR GENERAL PURPOSES ONLY.

Y:\SUSSEX\404\BRIDGE\T201207604\PLANS\PL.DGN

BRIDGE 3-113					
BORING: B-1		DATE DRILLED: 4/17/13			
STATION: 3+09.72		OFFSET: -17.67		ELEVATION: 49.14	
		NORTHING: 282909.59		EASTING: 586369.33	
COMMENTS: EQUIPMENT/RIG TYPE: MOBILE B-30 DRILLER: KEITH HASTINGS LOGGED BY: A. MANDERS					
SAMPLE INFORMATION					
NO.	DEPTH	BLOWS /6"	DESCRIPTION	CLASS /G.I.	REMARKS
1	0.0	0	MOIST MEDIUM DENSE LIGHT BROWN FINE GRAVEL W/SOME COARSE TO FINE SAND, TRACE OF SILT.	A-1-A	HOT-MIX 5". GRAVEL 8"
		4			
		14			
	2.0	9			
2	2.0	2	MOIST LOOSE DENSE LIGHT BROWN FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	
		4			
		3			
	4.0	3			
3	4.0	2	WET LOOSE BROWN SILTY FINE TO COARSE SAND, W/TRACE OF FINE GRAVEL.	A-2-4(0)	
		2			
		3			
	6.0	5			
4	6.0	2	WET VERY LOOSE GRAY COARSE TO FINE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-1-B	
		2			
		2			
	8.0	2			
5	8.0	1	WET LOOSE GRAY COARSE SAND W/SOME FINE SAND AND SILT, TRACE OF FINE GRAVEL.	A-1-B	APPROXIMATE WATER LEVEL DEPTH. APPROXIMATE FOUNDATION STABILIZATION DEPTH.
		2			
		3			
	10.0	4			
6	10.0	1	WET VERY LOOSE GRAY COARSE SAND W/SOME FINE SAND, TRACE OF FINE GRAVEL AND SILT.	A-1-B	
		0			
		1			
	12.0	2			
7	12.0	2	WET LOOSE GRAY COARSE TO FINE SAND W/SOME FINE GRAVEL AND SILT.	A-1-B	
		2			
		3			
	14.0	5			
8	14.0	2	WET LOOSE GRAY COARSE SAND W/SOME FINE SAND AND FINE GRAVEL, TRACE OF SILT.	A-1-B	
		3			
		4			
	16.0	7			
9	16.0	2	WET LOOSE GRAY COARSE SAND W/SOME FINE SAND, TRACE OF SILT AND FINE GRAVEL.	A-1-B	
		4			
		6			
	18.0	7			
10	18.0	1	WET LOOSE DENSE GRAY COARSE SAND W/SOME FINE SAND, TRACE OF SILT AND FINE GRAVEL.	A-1-B	
		4			
		6			
	20.0	7			
11	23.0	2	WET LOOSE GRAY COARSE TO FINE SAND, W/ TRACE OF SILT AND FINE GRAVEL.	A-1-B	
		3			
		5			
	25.0	5			
12	28.0	3	WET MEDIUM DENSE GRAY FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	
		5			
		7			
	30.0	9			
13	33.0	3	WET LOOSE GRAY COARSE TO FINE SAND W/SOME SILT, TRACE OF GRAVEL.	A-1-B	
		4			
		6			
	35.0	6			
14	38.0	6	WET LOOSE GRAY COARSE TO FINE SAND, W/TRACE OF SILT AND FINE GRAVEL.	A-1-B	
		5			
		4			
	40.0	6			
15	43.0	9	WET MEDIUM DENSE GRAY FINE GRAVEL W/SOME FINE TO COARSE SAND AND SILT.	A-1-B	
		11			
		10			
	45.0	11			
16	48.0	1	WET MEDIUM DENSE GRAY COARSE SAND W/SOME FINE SAND, TRACE OF FINE GRAVEL AND SILT.	A-1-B	
		6			
		10			
	50.0	12			
17	53.0	16	WET VERY DENSE GRAY COARSE TO FINE SAND AND FINE GRAVEL W/TRACE OF SILT.	A-1-B	
		36			
		31			
	55.0	19			
			END BORING.		

BRIDGE 3-409					
BORING: B-3		DATE DRILLED: 4/30/13			
STATION: 1+89.21		OFFSET: 14.14		ELEVATION: 28.52	
		NORTHING: 171039.40		EASTING: 712821.33	
COMMENTS: EQUIPMENT/RIG TYPE: MOBILE B-30 DRILLER: KEITH HASTINGS					
SAMPLE INFORMATION					
NO.	DEPTH	BLOWS /6"	DESCRIPTION	CLASS /G.I.	REMARKS
1	0.0	0	MOIST MEDIUM DENSE LIGHT BROWN FINE TO COARSE SAND W/ SOME OF SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	HOT-MIX 5". GRAVEL 4"
		10			
		11			
	2.0	10			
2	2.0	3	MOIST MEDIUM DENSE GRAY SILTY FINE SAND, W/ TRACE OF COARSE SAND.	A-2-4(0)	
		6			
		5			
	4.0	7			
3	4.0	6	MOIST MEDIUM DENSE GRAY FINE SAND W/ SOME SILT, TRACE OF COARSE SAND.	A-2-4(0)	
		9			
		11			
	6.0	13			
4	6.0	3	WET MEDIUM DENSE LIGHT BROWN FINE TO COARSE SAND W/TRACE OF SILT.	A-3	APPROXIMATE WATER LEVEL DEPTH.
		5			
		6			
	8.0	7			
5	8.0	4	WET MEDIUM DENSE GRAY FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	APPROXIMATE FOUNDATION STABILIZATION DEPTH.
		6			
		9			
	10.0	10			
6	10.0	2	WET LOOSE GRAY FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	
		3			
		3			
	12.0	3			
7	12.0	1	WET LOOSE GRAY FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	
		2			
		2			
	14.0	3			
8	14.0	1	WET VERY GRAY SILTY FINE SAND W/SOME COARSE SAND, TRACE OF FINE GRAVEL.	A-2-4(0)	
		2			
		2			
	16.0	2			
9	16.0	2	WET LOOSE ORANGE FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	
		3			
		4			
	18.0	6			
10	18.0	1	WET LOOSE ORANGE FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	
		3			
		4			
	20.0	7			
11	23.0	1	WET LOOSE ORANGE FINE TO COARSE SAND W/SOME SILT.	A-2-4(0)	
		2			
		3			
	25.0	5			
12	28.0	3	WET MEDIUM DENSE ORANGE FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	
		5			
		6			
	30.0	8			
13	33.0	1	WET STIFF ORANGE FINE TO COARSE SANDY SILT.	A-2-4(0)	
		4			
		8			
	35.0	9			
14	38.0	4	WET MEDIUM DENSE COARSE TO FINE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	
		8			
		11			
	40.0	13			
15	43.0	4	WET MEDIUM DENSE ORANGE COARSE TO FINE SAND AND FINE GRAVEL W/TRACE OF SILT.	A-1-B	
		7			
		8			
	45.0	8			
16	48.0	5	WET MEDIUM DENSE ORANGE FINE GRAVELLY COARSE SAND W/SOME FINE SAND, TRACE OF SILT.	A-1-B	
		7			
		8			
	50.0	9			
17	53.0	5	WET MEDIUM DENSE ORANGE COARSE SAND W/SOME FINE SAND, TRACE OF FINE GRAVEL AND SILT.	A-1-B	
		8			
		9			
	55.0	8			
			END BORING.		

NOTES:

- BORING LOGS CREATED BY THE DELAWARE DEPARTMENT OF TRANSPORTATION. SUBSURFACE EXPLORATION COMPLETED BY HILLIS-CARNES ENGINEERING ASSOCIATES INC (HCEA).
- REFER TO CONSTRUCTION PLAN SHEETS (SHEETS 10 AND 20) FOR APPROXIMATE BORING LOCATIONS. BORING LOGS ARE LABELED AS B-1 AND B-3 RESPECTFULLY.
- SOIL SAMPLING: 2 IN. OUTSIDE DIA. SPLIT BARREL SAMPLER, DRIVEN WITH A 140 LB. HAMMER FALLING 30 IN.
- ALL DEPTHS GIVEN ARE IN FEET.
- BORING B-2 IS NOT INCLUDED IN THIS CONTRACT.

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ADDENDUMS / REVISIONS

NOT TO SCALE

SUSSEX COUNTY PIPE REPLACEMENTS, FEDERAL, 2012

CONTRACT	BRIDGE NO.	3-113 & 3-409
T201207604	DESIGNED BY:	SMW
COUNTY	CHECKED BY:	KRL
SUSSEX		

SOIL BORING LOGS

SHEET NO.	7
TOTAL SHTS.	39

BRIDGE 3-941					
BORING: B-5		DATE DRILLED: 4/23/13			
STATION: 1+27.76		OFFSET: -1.85		ELEVATION: 24.52	
		NORTHING: 310115.18		EASTING: 655727.60	
COMMENTS: EQUIPMENT/RIG TYPE: MOBILE B-30 DRILLER: KEITH HASTINGS LOGGED BY: A. MANDERS					
SAMPLE INFORMATION					
NO.	DEPTH	BLOWS /6"	DESCRIPTION	CLASS /G.I.	REMARKS
1	0.0	0	MOIST MEDIUM DENSE BROWN FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	HOT-MIX 7" GRAVEL 2"
	2.0	4			
	2.0	7			
2	2.0	1	WET LOOSE LIGHT BROWN SILTY FINE SAND W/SOME COARSE SAND, TRACE OF FINE GRAVEL.	A-4(0)	
	4.0	4			
	4.0	2			
3	4.0	2	WET LOOSE LIGHT BROWN FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	APPROXIMATE WATER LEVEL DEPTH.
	6.0	3			
	6.0	3			
4	6.0	1	SATURATED VERY LOOSE BROWN FINE TO COARSE SAND W/SOME SILT.	A-2-4(0)	
	8.0	0			
	8.0	2			
	8.0	3			
5	8.0	3	SATURATED MEDIUM DENSE BROWN COARSE TO FINE SAND W/TRACE OF FINE GRAVEL AND SILT.	A-1-B	
	10.0	5			
	10.0	9			
	10.0	11			
	10.0	14			
6	10.0	5	SATURATED MEDIUM DENSE BROWN COARSE TO FINE SAND W/SOME FINE GRAVEL, TRACE OF SILT.	A-1-B	APPROXIMATE FOUNDATION STABILIZATION DEPTH.
	12.0	2			
	12.0	5			
	12.0	5			
	12.0	3			
7	12.0	2	SATURATED LOOSE BROWN COARSE TO FINE SAND W/TRACE OF SILT AND FINE GRAVEL.	A-1-B	
	14.0	3			
	14.0	1			
8	14.0	1	SATURATED VERY LOOSE BROWN FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	
	16.0	2			
	16.0	1			
9	16.0	3	SATURATED LOOSE BROWN COARSE SAND W/SOME FINE SAND, TRACE OF SILT AND FINE GRAVEL.	A-1-B	
	18.0	3			
	18.0	4			
	18.0	5			
10	18.0	2	SATURATED LOOSE BROWN COARSE TO FINE SAND W/TRACE OF SILT AND FINE GRAVEL.	A-1-B	
	20.0	3			
	20.0	3			
	20.0	4			
11	23.0	2	SATURATED MEDIUM DENSE BROWN COARSE SAND W/SOME FINE SAND, TRACE OF FINE GRAVEL AND SILT.	A-1-B	
	25.0	6			
	25.0	6			
	25.0	6			
12	28.0	5	SATURATED MEDIUM DENSE BROWN FINE GRAVELLY COARSE SAND W/SOME FINE SAND, TRACE OF SILT.	A-1-B	
	30.0	6			
	30.0	7			
	30.0	9			
13	33.0	8	SATURATED MEDIUM DENSE BROWN FINE GRAVELLY COARSE SAND W/TRACE OF FINE SAND AND SILT.	A-1-B	
	35.0	7			
	35.0	9			
	35.0	9			
14	38.0	9	SATURATED MEDIUM DENSE BROWN COARSE SAND	A-1-B	
	40.0	11			
	40.0	14			
	40.0	18			
	43.0		W/SOME FINE SAND AND FINE GRAVEL, TRACE OF SILT.		
15	43.0	17	SATURATED DENSE BROWN FINE GRAVELLY COARSE TO FINE SAND W/SOME SILT.	A-1-B	
	45.0	19			
	45.0	19			
	45.0	25			
16	48.0	2	SATURATED MEDIUM DENSE BROWN COARSE TO FINE SAND W/TRACE OF FINE SILT AND FINE GRAVEL.	A-1-B	
	50.0	9			
	50.0	16			
	50.0	25			
	50.0		END BORING.		

NOTES:

- BORING LOGS CREATED BY THE DELAWARE DEPARTMENT OF TRANSPORTATION. SUBSURFACE EXPLORATION COMPLETED BY HILLIS-CARNES ENGINEERING ASSOCIATES INC (HCEA).
- REFER TO CONSTRUCTION PLAN SHEETS SHEET 31 FOR APPROXIMATE BORING LOCATION. BORING LOG IS LABELED B-7.
- SOIL SAMPLING: 2 IN. OUTSIDE DIA. SPLIT BARREL SAMPLER, DRIVEN WITH A 140 LB. HAMMER FALLING 30 IN.
- ALL DEPTHS GIVEN ARE IN FEET.
- BORING B-6 IS NOT INCLUDED IN THIS CONTRACT.

ADDENDUMS / REVISIONS

NOT TO SCALE

SUSSEX COUNTY PIPE REPLACEMENTS, FEDERAL, 2012

CONTRACT	BRIDGE NO.	3-941
T201207604	DESIGNED BY:	SMW
COUNTY	CHECKED BY:	KRL
SUSSEX		

SOIL BORING LOGS

SHEET NO.	8
TOTAL SHTS.	39

HORIZONTAL / VERTICAL CONTROL DATA					
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION
TP #3	3+61.42	-37.70	282890.00	586421.19	47.60
TP #4	1+70.48	20.68	282973.98	586240.05	48.74

CONSTRUCTION ALIGNMENT CONTROL				
POINT	STATION	OFFSET	NORTHING	EASTING
10000	0+00.00	0.00	283103.18	586126.93
10001	6+50.00	0.00	282669.29	586610.90

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.



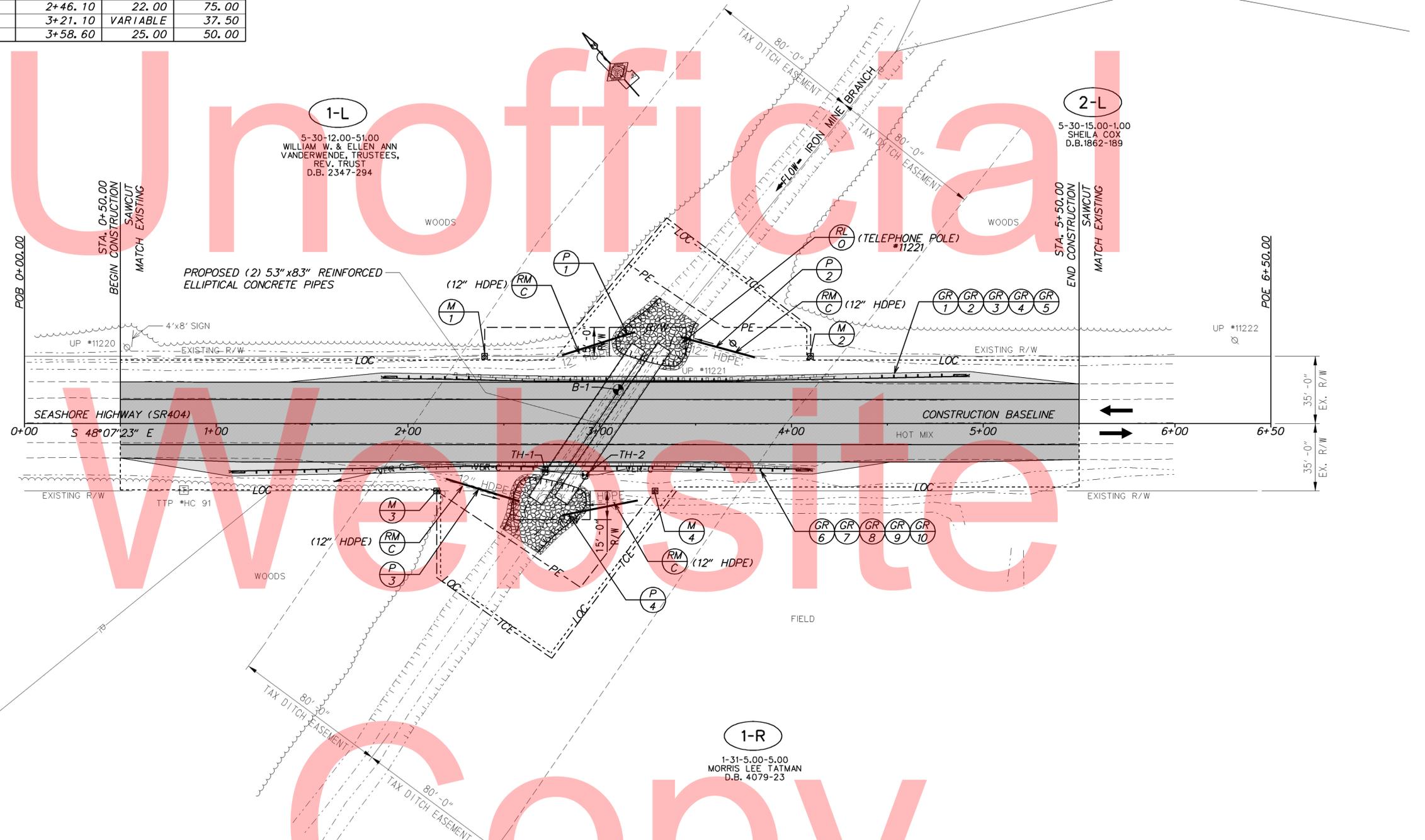
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Website
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 DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	 SCALE 0 30 60 90 FEET	SUSSEX COUNTY PIPE REPLACEMENTS, FEDERAL, 2012	CONTRACT T201207604	BRIDGE NO. 3-113	HORIZONTAL AND VERTICAL CONTROL	SHEET NO. 9
				COUNTY SUSSEX	DESIGNED BY: SMW		TOTAL SHTS. 39
					CHECKED BY: KRL		

GUARDRAIL SCHEDULE				
NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
GR-1	GUARDRAIL END TREATMENT, TYPE 1-31	1+88.01	-25.00	50.00
GR-2	STEEL BEAM GUARDRAIL, TYPE 1-31	2+38.01	VARIABLE	37.50
GR-3	GUARDRAIL OVER CULVERTS, TYPE 3-31	2+75.51	-22.00	75.00
GR-4	STEEL BEAM GUARDRAIL, TYPE 1-31	3+50.51	VARIABLE	87.50
GR-5	GUARDRAIL END TREATMENT, TYPE 1-31	4+38.01	-25.00	50.00
GR-6	GUARDRAIL END TREATMENT, TYPE 1-31	1+08.60	25.00	50.00
GR-7	STEEL BEAM GUARDRAIL, TYPE 1-31	1+58.60	VARIABLE	87.50
GR-8	GUARDRAIL OVER CULVERTS, TYPE 3-31	2+46.10	22.00	75.00
GR-9	STEEL BEAM GUARDRAIL, TYPE 1-31	3+21.10	VARIABLE	37.50
GR-10	GUARDRAIL END TREATMENT, TYPE 1-31	3+58.60	25.00	50.00

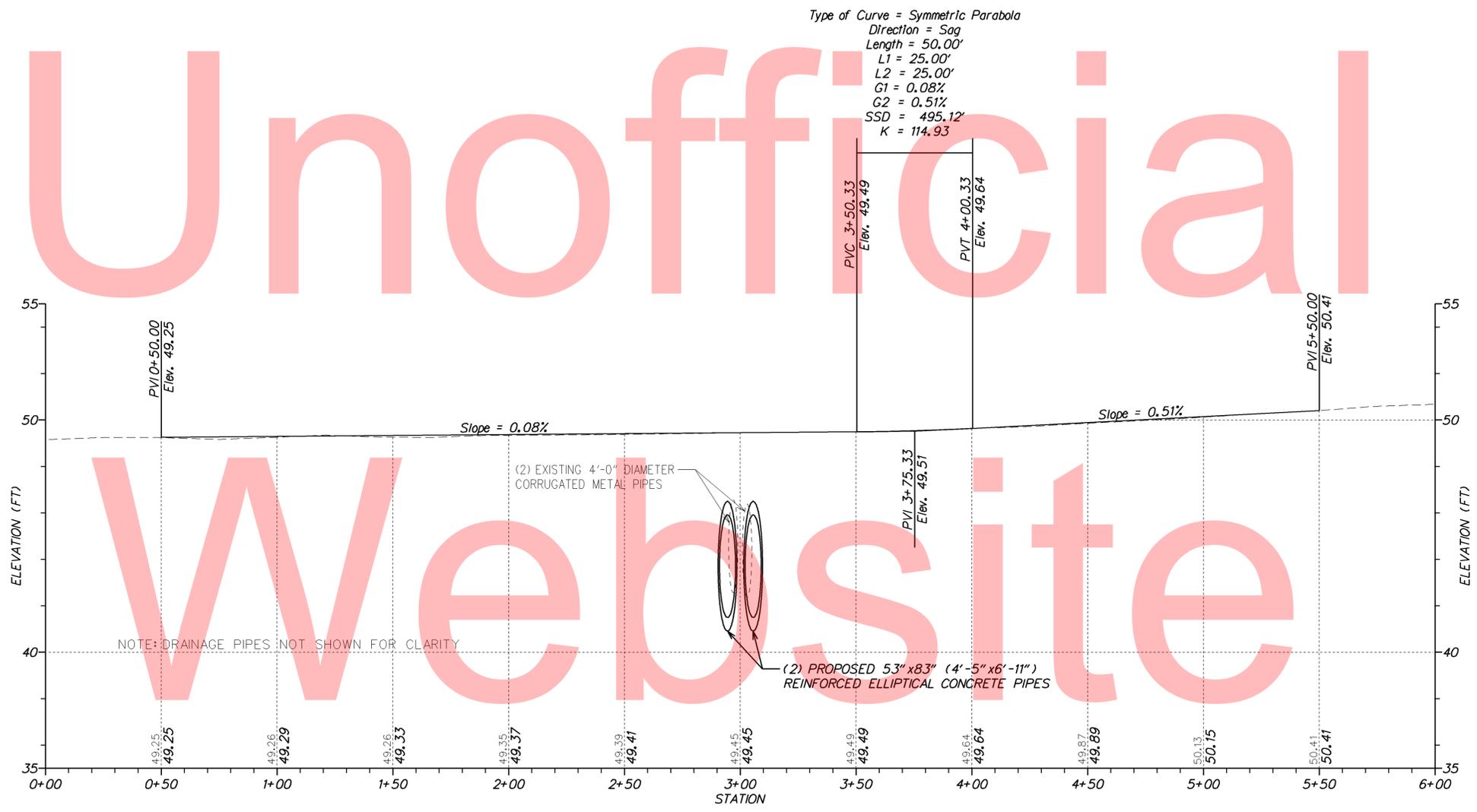
DRAINAGE PIPE SCHEDULE							
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INT. EL.	DIS. EL.	
P-1	15" H. D. P. E.	S	40.00	5.50%	45.50	43.30	
P-2	15" H. D. P. E.	S	40.00	1.25%	46.00	45.50	
P-3	15" H. D. P. E.	S	40.00	4.75%	45.30	43.40	
P-4	15" H. D. P. E.	S	40.00	2.00%	43.30	42.50	



RIGHT-OF-WAY MONUMENT SCHEDULE					
NO.	TYPE	STATION	OFFSET	NORTHING	EASTING
M-1	CAPPED REBAR	2+40.00	-35.00	282969.03	586328.99
M-2	CAPPED REBAR	4+10.00	-35.00	282855.55	586455.57
M-3	CAPPED REBAR	2+15.00	35.00	282933.60	586263.65
M-4	CAPPED REBAR	3+28.89	35.00	282857.57	586348.45

SOIL BORING SCHEDULE					
NO.	STATION	ELEVATION	OFFSET	NORTHING	EASTING
B-1	3+09.72	49.14	-17.67	282909.59	586369.33

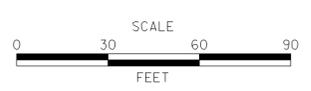
UTILITY TEST HOLE SCHEDULE							
NO.	UTILITY	STATION	OFFSET	GRND EL.	COVER	O. D. & MATERIAL	OFFSET
TH-1	TELEPHONE	2+71.65	24.64	48.88	3.88	3/4" CABLE	VERIZON
TH-2	TELEPHONE	2+92.43	26.74	48.76	3.26	3/4" CABLE	VERIZON



SR404 - SEASHORE HIGHWAY

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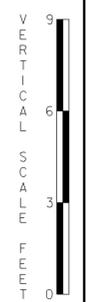
ADDENDUMS / REVISIONS	



SUSSEX COUNTY PIPE REPLACEMENTS, FEDERAL, 2012

CONTRACT	BRIDGE NO.	3-113
T201207604	DESIGNED BY:	SMW
COUNTY	CHECKED BY:	KRL
SUSSEX		

PROFILE

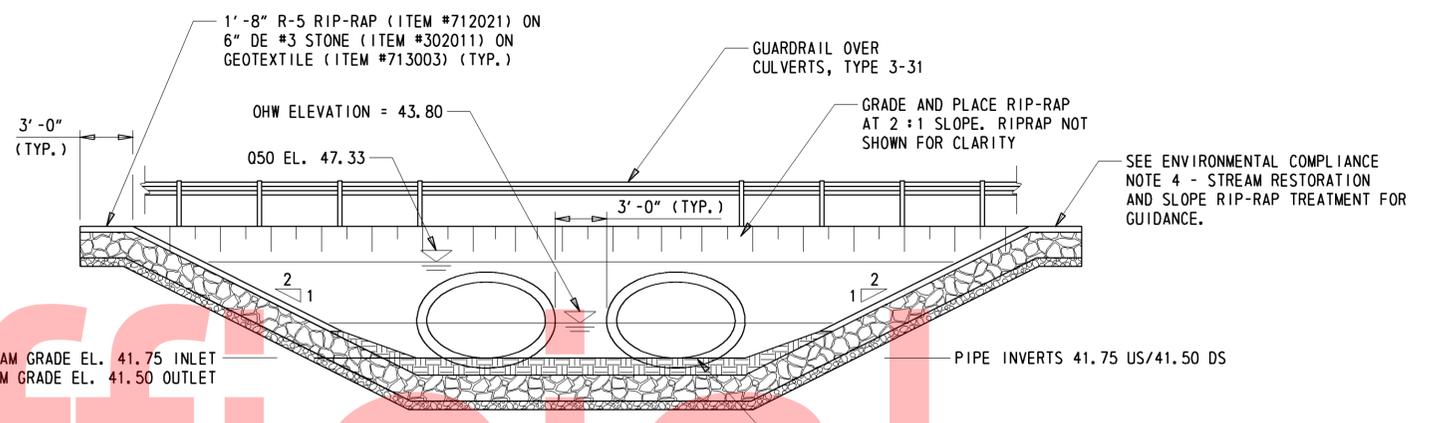


SHEET NO.	11
TOTAL SHTS.	39



REFER TO NOTE 2A FOR UPSTREAM RIP-RAP DIMENSIONS

IRON MINE BRANCH
FLOW

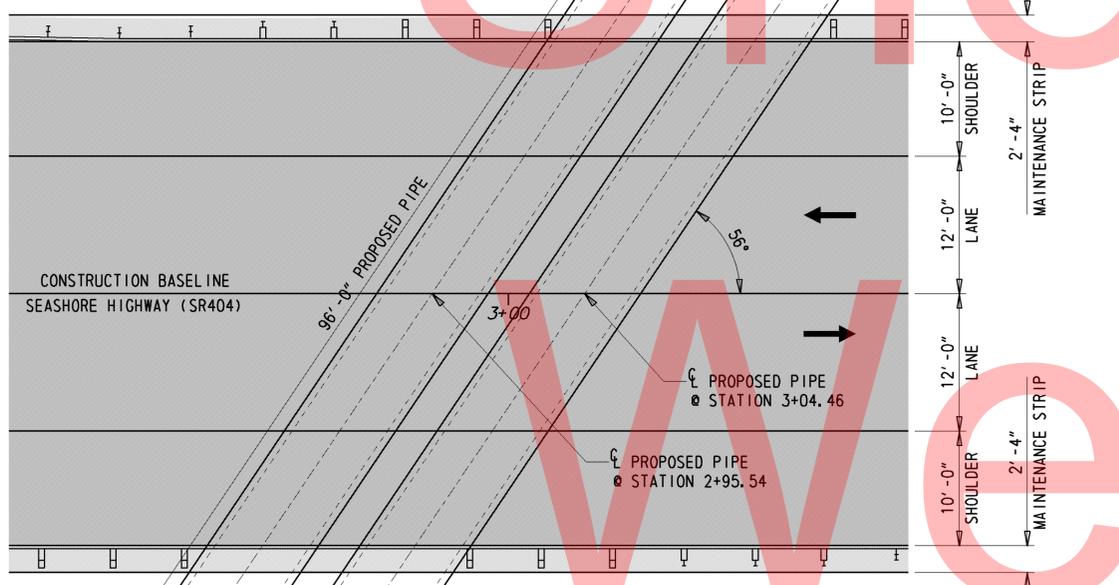


BRIDGE ELEVATION

1/8" = 1'-0"

NOTES:

1. PROPOSED BRIDGE:
THE EXISTING (2) 4'-0" CORRUGATED METAL PIPES SHALL BE REPLACED WITH (2) 53"x83" REINFORCED ELLIPTICAL CONCRETE PIPES (96'-0" LONG). THE INVERT OF BOTH PIPES SHALL BE PLACED AT THE SAME ELEVATION. PLACE PIPES WITH A 3'-0" SPACE BETWEEN THE OUTER WALLS OF EACH RUN. PLACE 6" COARSE AGGREGATE BEDDING BENEATH PIPES AND 6" SHAPED UP THE CURVE OF EACH PIPE.
2. RIP-RAP PLACEMENT:
A. UPSTREAM - RIP-RAP SHALL BE PLACED IN THE CHANNEL BOTTOM 20'-0" FROM THE SOUTH PIPE INLET ALONG THE STREAM CENTERLINE AND SHALL BE PLACED TO CREATE A SMOOTH BEND THAT MATCHES THE EXISTING STREAM BANKS.
B. DOWNSTREAM - RIP-RAP SHALL BE PLACED IN THE CHANNEL BOTTOM 22'-0" FROM THE NORTH PIPE OUTLET ALONG THE STREAM CENTERLINE AND SHALL BE PLACED TO CREATE A SMOOTH BEND THAT MATCHES THE EXISTING STREAM BANKS.



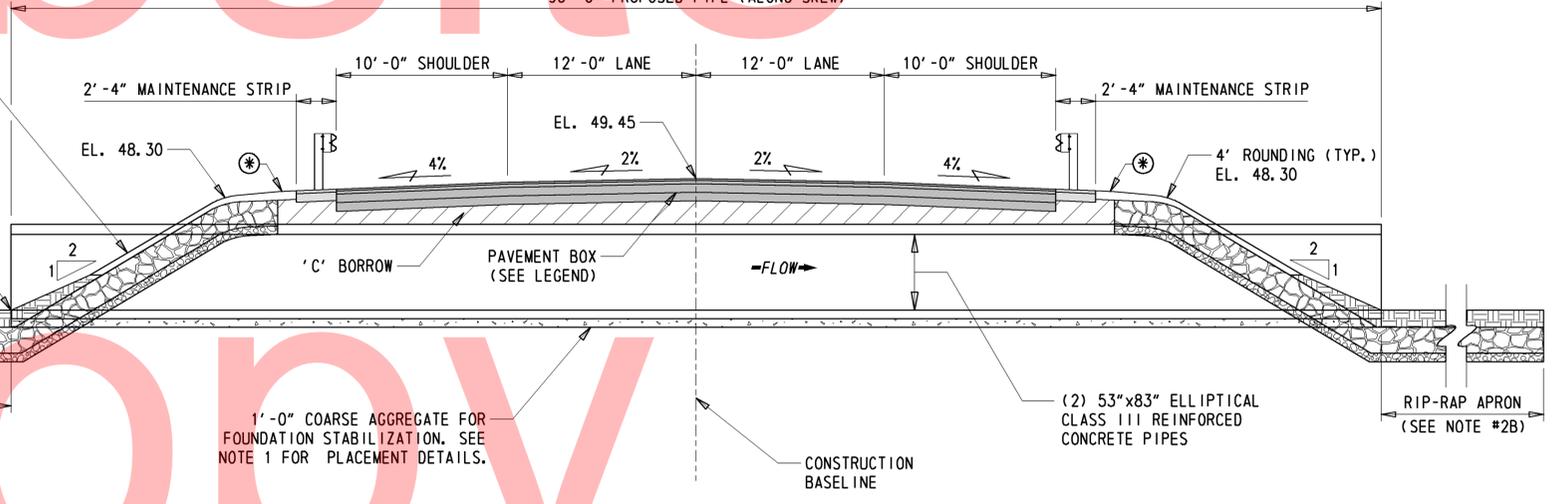
PLAN

1/8" = 1'-0"

1'-8" R-5 RIP-RAP ON 6" DE #3 STONE ON GEOTEXTILE. REFER TO ENVIRONMENTAL COMPLIANCE NOTES FOR DETAILS ABOUT RIP-RAP INSTALLATION (TYP.).

PIPE INVERT EL. 41.75 INLET, EL. 41.50 OUTLET
STREAM GRADE EL. 41.75 INLET, EL. 41.50 OUTLET.

REFER TO NOTE 2B FOR DOWNSTREAM RIP-RAP DIMENSIONS



BRIDGE SECTION

1/8" = 1'-0"

NOTE: BRIDGE SECTION SHOWS THE CENTERLINE OF THE NORTH PIPE.

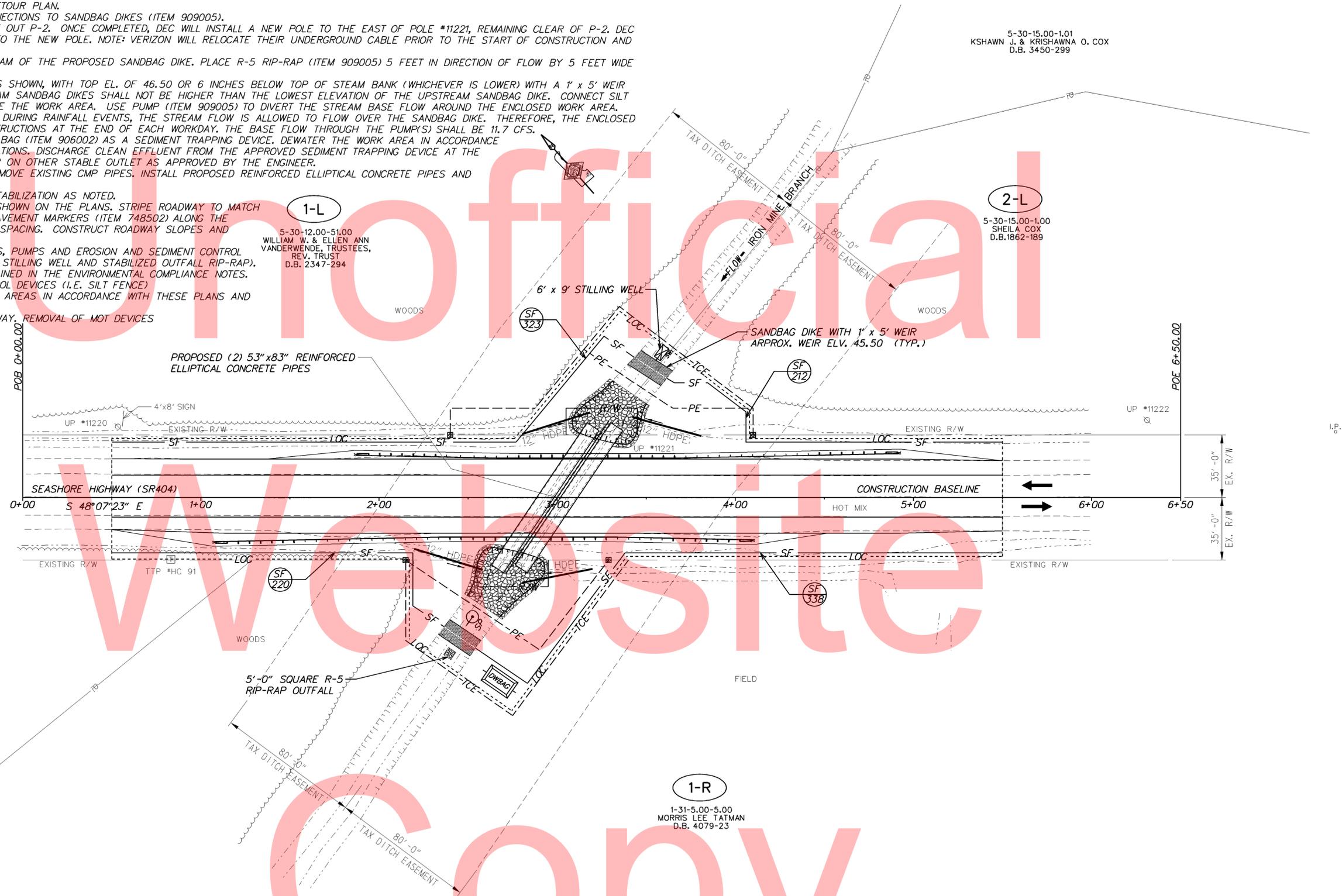
*-PLACE 6" TOPSOIL AND APPROPRIATE SEEDING

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<p>DELAWARE DEPARTMENT OF TRANSPORTATION</p>	ADDENDUMS / REVISIONS		SCALE AS NOTED	<p>SUSSEX COUNTY PIPE REPLACEMENTS, FEDERAL, 2012</p>	CONTRACT	BRIDGE NO.	<p>3-113</p>	<p>BRIDGE PLAN, SECTION AND ELEVATION</p>	SHEET NO.
	T201207604	DESIGNED BY: SMW			12				
	SUSSEX	CHECKED BY: KRL			TOTAL SHTS.				
					39				

SEQUENCE OF CONSTRUCTION:

1. INSTALL MOT DEVICES IN ACCORDANCE WITH THE DETOUR PLAN.
2. INSTALL SILT FENCE (ITEM 905001) EXCEPT AT CONNECTIONS TO SANDBAG DIKES (ITEM 909005).
3. TO AVOID CONFLICT, THE CONTRACTOR SHALL STAKE OUT P-2. ONCE COMPLETED, DEC WILL INSTALL A NEW POLE TO THE EAST OF POLE #11221, REMAINING CLEAR OF P-2. DEC AND VERIZON WILL RELOCATE THEIR AERIAL LINES TO THE NEW POLE. NOTE: VERIZON WILL RELOCATE THEIR UNDERGROUND CABLE PRIOR TO THE START OF CONSTRUCTION AND ABANDON THE EXISTING CABLE IN PLACE.
4. INSTALL STILLING WELL (ITEM 909005) JUST UPSTREAM OF THE PROPOSED SANDBAG DIKE. PLACE R-5 RIP-RAP (ITEM 909005) 5 FEET IN DIRECTION OF FLOW BY 5 FEET WIDE AT THE PROPOSED DISCHARGE AREA.
5. CONSTRUCT THE SANDBAG DIKES, AT THE LOCATIONS SHOWN, WITH TOP EL. OF 46.50 OR 6 INCHES BELOW TOP OF STEAM BANK (WHICHEVER IS LOWER) WITH A 1' x 5' WEIR OPENING UPSTREAM. ELEVATION OF THE DOWNSTREAM SANDBAG DIKES SHALL NOT BE HIGHER THAN THE LOWEST ELEVATION OF THE UPSTREAM SANDBAG DIKE. CONNECT SILT FENCE TO SANDBAG DIKE TO COMPLETELY ENCLOSE THE WORK AREA. USE PUMP (ITEM 909005) TO DIVERT THE STREAM BASE FLOW AROUND THE ENCLOSED WORK AREA. WHEN THE FLOW IS HIGHER THAN PUMP CAPACITY DURING RAINFALL EVENTS, THE STREAM FLOW IS ALLOWED TO FLOW OVER THE SANDBAG DIKE. THEREFORE, THE ENCLOSED AREA SHALL BE KEPT CLEAR OF DEBRIS AND OBSTRUCTIONS AT THE END OF EACH WORKDAY. THE BASE FLOW THROUGH THE PUMP(S) SHALL BE 11.7 CFS.
6. INSTALL SUMP PIT (ITEM 906003) AND DEWATERING BAG (ITEM 906002) AS A SEDIMENT TRAPPING DEVICE. DEWATER THE WORK AREA IN ACCORDANCE WITH SECTION 902 OF DELDOT STANDARD SPECIFICATIONS. DISCHARGE CLEAN EFFLUENT FROM THE APPROVED SEDIMENT TRAPPING DEVICE AT THE STABILIZED OUTLET OF THE PUMPING OPERATION OR ON OTHER STABLE OUTLET AS APPROVED BY THE ENGINEER.
7. REMOVE EXISTING GUARDRAIL AND EXCAVATE TO REMOVE EXISTING CMP PIPES. INSTALL PROPOSED REINFORCED ELLIPTICAL CONCRETE PIPES AND INSTALL PROPOSED HDPE DRAINAGE PIPES.
8. INSTALL RIP-RAP, CHANNEL BED FILL AND SLOPE STABILIZATION AS NOTED.
9. INSTALL PROPOSED PAVEMENT AND GUARDRAIL AS SHOWN ON THE PLANS. STRIPE ROADWAY TO MATCH EXISTING STRIPING PATTERN. INSTALL RECESSED PAVEMENT MARKERS (ITEM 748502) ALONG THE CENTERLINE OF THE ROADWAY TO MATCH EXISTING SPACING. CONSTRUCT ROADWAY SLOPES AND COMPLETE ANY OTHER REMAINING WORK.
10. WHEN NO LONGER NEEDED, REMOVE SANDBAG DIKES, PUMPS AND EROSION AND SEDIMENT CONTROL DEVICES RELATING TO THE STREAM DIVERSION (I.E. STILLING WELL AND STABILIZED OUTFALL RIP-RAP). RESTORE STREAM TO EXISTING CONDITIONS AS OUTLINED IN THE ENVIRONMENTAL COMPLIANCE NOTES.
11. REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES (I.E. SILT FENCE) AFTER VEGETATION HAS STABILIZED ALL DISTURBED AREAS IN ACCORDANCE WITH THESE PLANS AND AS DIRECTED BY THE ENGINEER.
12. REMOVE ALL MOT DEVICES AND REOPEN THE ROADWAY. REMOVAL OF MOT DEVICES MAY OCCUR PRIOR TO REMOVAL OF TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES.



5-30-15.00-1.01
KSHAWN J. & KRISHAWNA O. COX
D.B. 3450-299

5-30-15.00-1.00
SHEILA COX
D.B. 1862-189

1-L
5-30-12.00-51.00
WILLIAM W. & ELLEN ANN
VANDERWENDE, TRUSTEES,
REV. TRUST
D.B. 2347-294

131-5.00-4.00
DOUGLAS L REED
D.B. 3034-114

1-R
1-31-5.00-5.00
MORRIS LEE TATMAN
D.B. 4079-23

NOTE: THE FULL ROAD CLOSURE ON SEASHORE HIGHWAY (SR404) SHALL ONLY OCCUR BETWEEN OCTOBER 15TH AND MAY 15TH IN ORDER TO MINIMIZE DELAYS ALONG THE DETOURED ROUTE.

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<p>DELAWARE DEPARTMENT OF TRANSPORTATION</p>	ADDENDUMS / REVISIONS		<p>SCALE</p>	<p>SUSSEX COUNTY PIPE REPLACEMENTS, FEDERAL, 2012</p>		<p>CONTRACT T201207604</p>	<p>BRIDGE NO. 3-113</p>	<p>CONSTRUCTION SEQUENCE AND EROSION AND SEDIMENT CONTROL PLAN</p>	SHEET NO. 13
					<p>COUNTY SUSSEX</p>	<p>DESIGNED BY: SMW</p>	TOTAL SHTS. 39		
						<p>CHECKED BY: KRL</p>			

LEGEND	
	CREATION AREA
	PERMANENT IMPACT AREA
	TEMPORARY IMPACT AREA
	ORDINARY HIGH WATER
	PROPOSED ORDINARY HIGH WATER
	WETLAND BOUNDARY
	IMPACT AREA TYPE ID. (SEE BELOW)
	IMPACT AREA ID. AND/OR NUMBER
O = OPEN WATER IMPACT C = CREATION AREA	
T = TEMPORARY IMPACT W = WETLAND IMPACT	

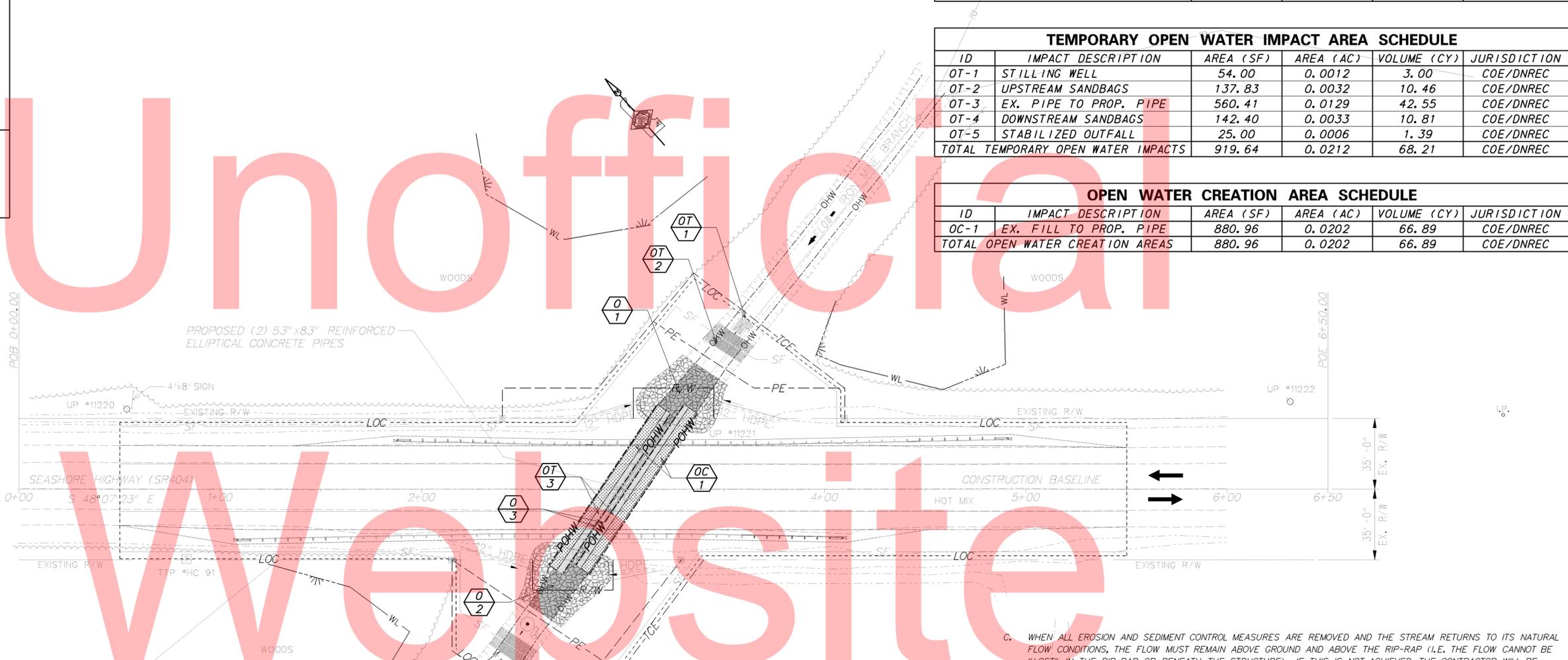
WETLANDS DELINEATED BY ENVIRONMENTAL RESOURCES, INC. ON 1-4-2013 IN ACCORDANCE WITH THE US ARMY CORPS OF ENGINEERS "CORPS OF ENGINEERS WETLAND DELINEATION MANUAL (1987)".

ORIGINAL SHEET PREPARED BY SCOTT WALLS ON 6-13-2013. SHEET LAST UPDATED ON 1-21-2015.

PERMANENT OPEN WATER IMPACT AREA SCHEDULE					
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
O-1	UPSTREAM RIP-RAP	384.79	0.0088	30.88	COE/DNREC
O-2	DOWNSTREAM RIP-RAP	391.17	0.0090	31.40	COE/DNREC
O-3	EX. PIPE TO FILL	195.66	0.0045	15.70	COE/DNREC
TOTAL PERMANENT OPEN WATER IMPACTS		971.62	0.0223	77.98	COE/DNREC

TEMPORARY OPEN WATER IMPACT AREA SCHEDULE					
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
OT-1	STILLING WELL	54.00	0.0012	3.00	COE/DNREC
OT-2	UPSTREAM SANDBAGS	137.83	0.0032	10.46	COE/DNREC
OT-3	EX. PIPE TO PROP. PIPE	560.41	0.0129	42.55	COE/DNREC
OT-4	DOWNSTREAM SANDBAGS	142.40	0.0033	10.81	COE/DNREC
OT-5	STABILIZED OUTFALL	25.00	0.0006	1.39	COE/DNREC
TOTAL TEMPORARY OPEN WATER IMPACTS		919.64	0.0212	68.21	COE/DNREC

OPEN WATER CREATION AREA SCHEDULE					
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
OC-1	EX. FILL TO PROP. PIPE	880.96	0.0202	66.89	COE/DNREC
TOTAL OPEN WATER CREATION AREAS		880.96	0.0202	66.89	COE/DNREC



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): NATIONWIDE 3 (a) AND (c), (NO PCN)
 - DNREC - WETLANDS & SUBAQUEOUS LANDS (WLSL): PROJECT CONSISTENT WITH DEL. CODE CH. 72, SECTION 7217 (b), AS AMENDED BY SB 186.
 - 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.
 - CONSTRUCTION RESTRICTIONS:
 - FISHERIES - NONE
 - ENDANGERED SPECIES - NONE
 - MIGRATORY BIRDS - NONE
- CULTURAL RESOURCE ISSUES:
 - PROJECT CONSISTENT WITH SECTION IIB. 4 A OF DELDOT'S PROGRAMMATIC AGREEMENT WITH DE SHPO, FHWA, AND ACHP.

- STREAM RESTORATION AND SLOPE RIPRAP TREATMENTS:
 - THE CONTRACTOR SHALL FOLLOW THE SPECIAL PROVISIONS OF ITEM 712531 - CHANNEL BED FILL IN REGARDS TO THE SALVAGING OF ON-SITE NATURAL STREAM BOTTOM MATERIAL OR THE FURNISHING OF OFF-SITE MATERIAL. IF THE SUFFICIENT SOURCES FOR CHANNEL BED FILL DO NOT EXIST ON-SITE, ANY NEW MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF ITEM 712531 - CHANNEL BED FILL. ALL RIP-RAP IN THE CHANNEL BOTTOM (I.E. BELOW THE WATER LINE) SHALL BE RECESSED ONE FOOT BELOW STREAM BED ELEVATION AND CHOKED WITH BORROW TYPE 'B' SO THAT ALL OF THE VOIDS IN THE RIP-RAP ARE FILLED WITH MATERIAL. PAYMENT UNDER ITEM 209002 - BORROW TYPE 'B'. THE RIP-RAP SHALL THEN BE COVERED WITH A MINIMUM OF 12" CHANNEL BED FILL. FINAL CHANNEL ELEVATIONS SHALL MATCH EXISTING ELEVATIONS 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.
 - OTHER AREAS OF THE CHANNEL BOTTOM AFFECTED BY CONSTRUCTION (INCLUDING, BUT NOT LIMITED TO, THE LOCATION OF SUMP PITS, STABILIZED OUTFALLS, TEMPORARY PIPES AND/OR SANDBAG DIKES AND DIVERSIONS) 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.

- WHEN ALL EROSION AND SEDIMENT CONTROL MEASURES ARE REMOVED AND THE STREAM RETURNS TO ITS NATURAL FLOW CONDITIONS, THE FLOW MUST REMAIN ABOVE GROUND AND ABOVE THE RIP-RAP (I.E. THE FLOW CANNOT BE "LOST" IN THE RIP-RAP OR BENEATH THE STRUCTURE). IF THIS IS NOT ACHIEVED, THE CONTRACTOR WILL BE REQUIRED TO TAKE CORRECTIVE ACTION AT THE CONTRACTOR'S EXPENSE.
 - ALL RIP-RAP ON THE STREAM BANK, OUTSIDE THE CHANNEL BED, SHALL BE CHOKED WITH DELAWARE #57 STONE, FILLED WITH TOPSOIL, AND SEEDED. PLACE JUST ENOUGH CHOKO MATERIAL TO PREVENT THE LOSS OF TOPSOIL THROUGH THE RIP-RAP, AND THEN FINISH FILLING THE VOIDS WITH TOPSOIL SO THAT THE RIP-RAP PEAKS ARE BARELY VISIBLE. AN ADDITIONAL 4-INCH TOPSOIL LAYER SHALL BE PLACED ON TOP OF THE RIP-RAP. SLOPE SEEDING SHALL BE AS PER ITEM #908019 - STREAMBANK SEED MIX. FOLLOWING THE SEEDING OPERATION, ITEM 908020 - EROSION CONTROL BLANKET MULCH, OR OTHER BLANKET AS SHOWN ON THE PLANS SHALL BE INSTALLED. ALL WORK, STARTING WITH THE INITIAL CHOKING WITH TOPSOIL THROUGH THE SEEDING SHALL BE COMPLETED PRIOR TO ANY RAIN EVENT. PAYMENT FOR DELAWARE #57 STONE SHALL BE INCIDENTAL TO THE RIP-RAP ITEM. ALL OTHER ITEMS SHALL BE PAID FOR UNDER THEIR RESPECTIVE ITEMS.
 - THE TOPSOIL/SEED/MULCH CAN BE PLACED BEFORE OR AFTER THE REMOVAL OF THE STREAM DIVERSION. IF IT OCCURS AFTER STREAM DIVERSION REMOVAL, A TURBIDITY CURTAIN SHALL BE USED TO MINIMIZE IN-STREAM SEDIMENTATION. PAYMENT SHALL BE INCIDENTAL TO ITEM 909005 - STREAM DIVERSION.
- PROTECTION OF RESOURCES:
 - CLEARING IN WETLAND AREAS SHALL BE KEPT TO A MINIMUM ABSOLUTELY NECESSARY FOR CONSTRUCTION ACCESS. 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 (PAYMENT UNDER ITEM 908017).
 - 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.
 - SILT FENCE INSTALLATION ADJACENT TO WOODED UPLANDS/WETLANDS: SANDBAGS SHALL BE USED TO SECURE SILT FENCE IN LIEU OF TRENCHING UNLESS PROPER EROSION & SEDIMENT CONTROL CANNOT 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.

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	ADDENDUMS / REVISIONS			SUSSEX COUNTY PIPE REPLACEMENTS, FEDERAL, 2012		CONTRACT T20107604	BRIDGE NO. 3-113	ENVIRONMENTAL COMPLIANCE PLAN	SHEET NO. 14
					COUNTY SUSSEX	DESIGNED BY: SMW	TOTAL SHTS. 39		
					CHECKED BY: KRL				

PORTABLE CHANGEABLE MESSAGE SIGNS

PRIOR TO DETOUR
(10 DAYS PRIOR TO BEGINNING OF DETOUR)

PCMS-1

DE 404
TO CLOSE

STARTING
XXXXXX

DURING DETOUR
(DISPLAY FOR 5 DAYS AFTER IMPLEMENTATION OF DETOUR)

PCMS-2

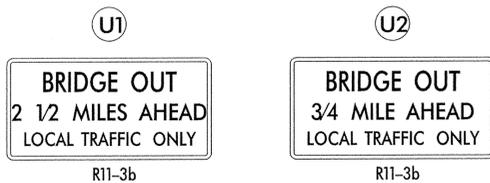
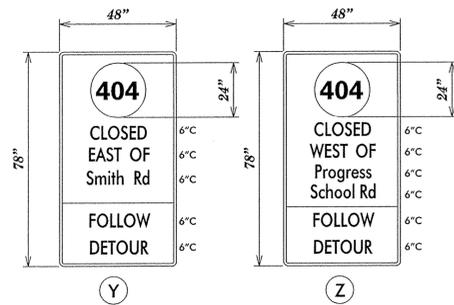
DE 404
CLOSED

FOLLOW
DETOUR

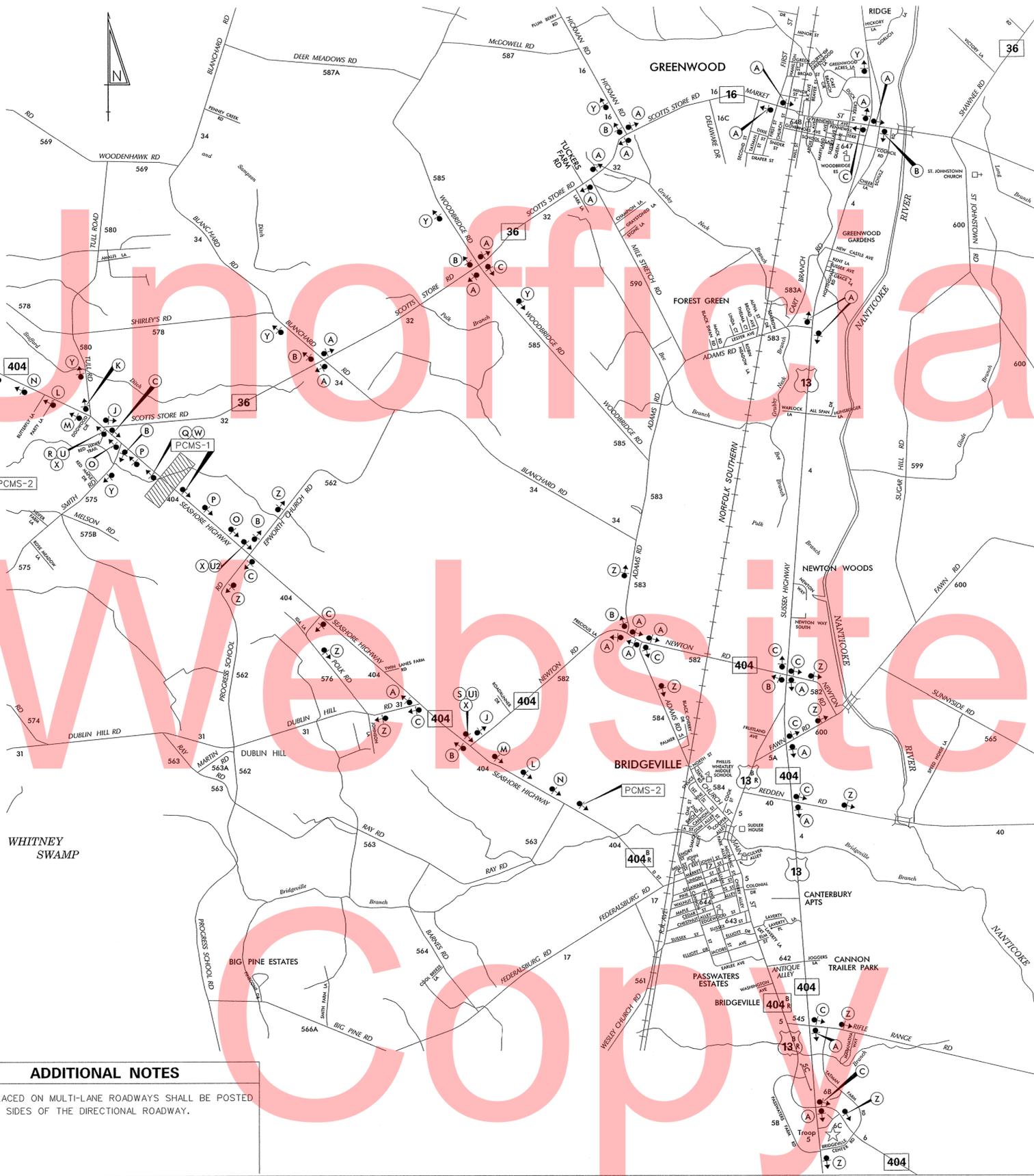
*UPON IMPLEMENTATION OF DETOUR, THE TWO(2) PCMS-1 LOCATED AT THE CLOSURE POINT SHALL BE RELOCATED TO PCMS-2 LOCATIONS AND THE CORRESPONDING MESSAGE SHALL BE DISPLAYED.

SPECIAL SIGNS

*ROUTE SHIELD-WHITE BACKGROUND; BLACK LEGEND



*D/G RETROREFLECTIVE FLUORESCENT ORANGE BACKGROUND; BLACK LEGEND



ADDITIONAL NOTES

1. SIGNS PLACED ON MULTI-LANE ROADWAYS SHALL BE POSTED ON BOTH SIDES OF THE DIRECTIONAL ROADWAY.

LEGEND

*ROUTE SHIELD-WHITE BACKGROUND; BLACK LEGEND

GENERAL NOTES

- ALL DETOUR SIGNING, INCLUDING TRAILBLAZERS, ARE TO BE SUPPLIED AND MAINTAINED BY THE GENERAL CONTRACTOR IN COMPLIANCE WITH "THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (DE MUTCD.)
- THE CONTRACTOR SHALL COMPLY WITH GUIDELINES IN "THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (DE MUTCD PART 6) FOR BARRICADES AND SIGNS (AS PER LATEST REVISION).
- DESIGN OF ALL SIGNS SHALL BE IN ACCORDANCE WITH THE FHWA STANDARD HIGHWAY SIGNS BOOK.
- SIZES OF ALL SIGNS SHALL BE IN ACCORDANCE WITH THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (DE MUTCD.) SIZE OF SIGN SHALL BE BASED ON TYPE OF ROADWAY ON WHICH THE SIGN IS INSTALLED.
- THE COLORS, DIMENSIONS, AND CHARACTERISTICS OF ALL INTERSTATE, U.S. ROUTE, AND STATE ROUTE SHIELD SIGNS SHALL BE IN ACCORDANCE WITH SECTION 2D.11 OF "THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (DE MUTCD.)
- SIGNS NO LONGER IN USE SHALL BE COMPLETELY COVERED WITH NO RETROREFLECTIVE MATERIAL SHOWING, OR SHALL BE REMOVED, AS DIRECTED BY THE ENGINEER.
- FIELD CONDITIONS MAY DICTATE CHANGES AT SOME TIME DURING THE LIFE OF THE CONTRACT. IN THE EVENT OF OMISSIONS OR CORRECTIONS, THE SIGNING PROVISIONS OF "THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (DE MUTCD) WILL PREVAIL.
- SIGNS "N" THROUGH "Q" AND "T" AND "V", THE WORD "ROAD" SHOULD BE CHANGED TO "RAMP", "RR XING", OR "BRIDGE" WHERE APPLICABLE.
- WARNING SIGNS AND DETOUR TRAILBLAZERS SHALL BE MOUNTED ON BREAKAWAY POSTS AND HAVE RETROREFLECTIVE FLUORESCENT ORANGE SHEETING.
- "W" BARRICADES SHALL COMPLETELY RUN THE FULL WIDTH OF THE ROADWAY.
- BARRICADES SHALL BE A MINIMUM OF 6 FEET WIDE UNLESS DIRECTED BY THE ENGINEER.

RECOMMENDED *[Signature]* DATE: 12-19-12

RECOMMENDED _____ DATE: _____

RECOMMENDED _____ DATE: _____

APPROVED CHIEF SAFETY OFFICER *[Signature]* DATE: 1-7-13

APPROVED TRAFFIC ENGINEER *[Signature]* DATE: 1/3/13



ADDENDUM / REVISIONS

NOT TO SCALE

SUSSEX COUNTY PIPE REPLACEMENTS, FEDERAL, 2012

CONTRACT	ROAD NO.	SR404
T201207604	DESIGNED BY: MFR	
COUNTY	CHECKED BY: ASW	
SUSSEX		

DETOUR PLAN		SHEET NO.
		15
		TOTAL SHTS.
		39

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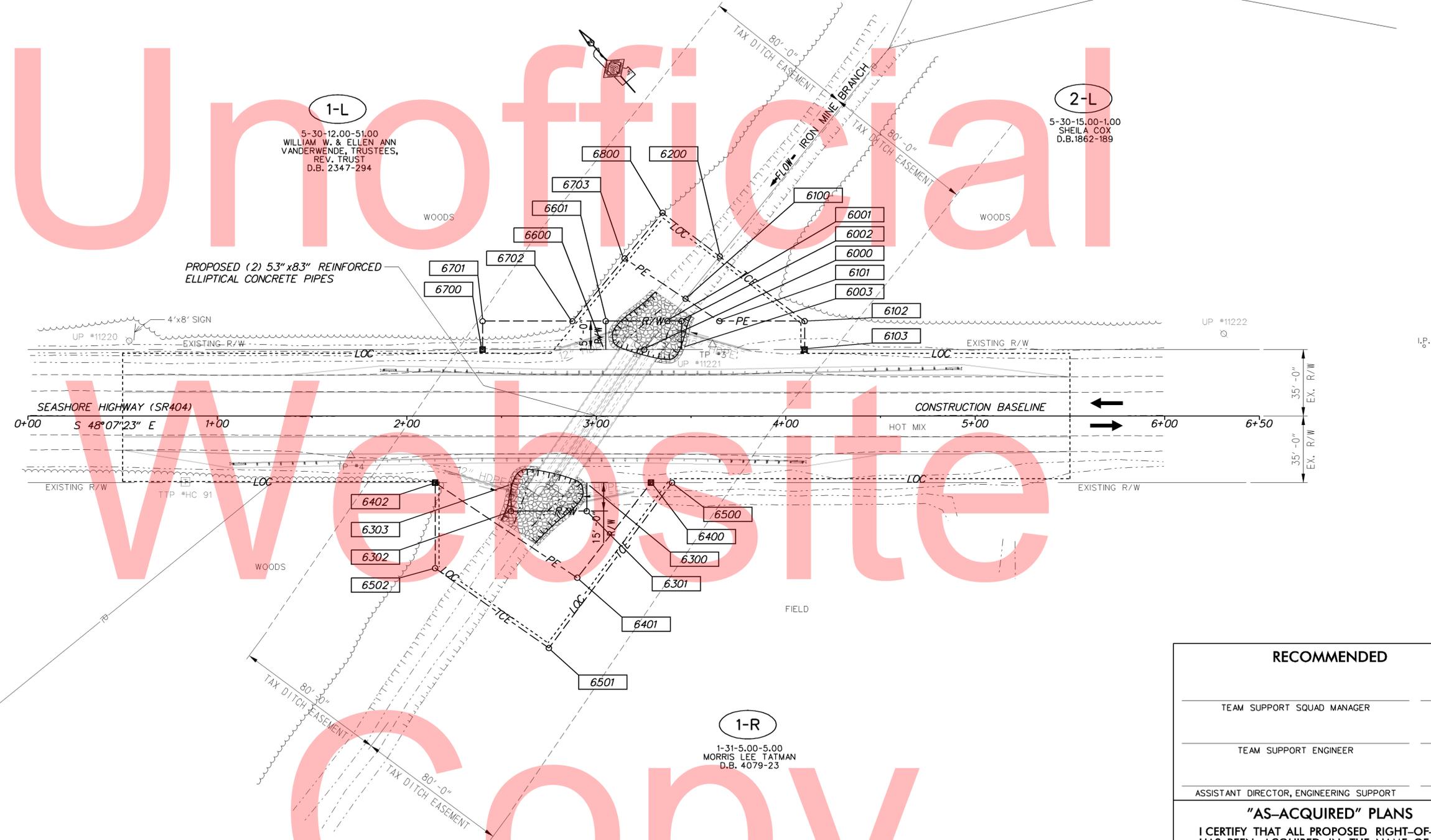
5-30-15.00-1.01
KSHAWN J. & KRISHAWNA O. COX
D.B. 3450-299

1-L
5-30-12.00-51.00
WILLIAM W. & ELLEN ANN
VANDERWENDE, TRUSTEES,
REV. TRUST
D.B. 2347-294

2-L
5-30-15.00-1.00
SHEILA COX
D.B. 1862-189

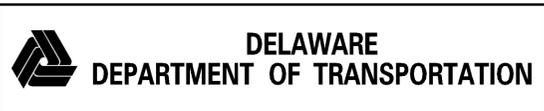
131-5.00-4.00
DOUGLAS L REED
D.B. 3034-114

1-R
1-31-5.00-5.00
MORRIS LEE TATMAN
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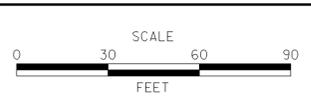


RECOMMENDED	
TEAM SUPPORT SQUAD MANAGER	DATE
TEAM SUPPORT ENGINEER	DATE
ASSISTANT DIRECTOR, ENGINEERING SUPPORT	DATE
"AS-ACQUIRED" PLANS	
I CERTIFY THAT ALL PROPOSED RIGHT-OF-WAY HAS BEEN ACQUIRED IN THE NAME OF THE STATE OF DELAWARE AND THAT THESE PLANS ACCURATELY DEPICT THE NATURE AND EXTENT OF THE REAL ESTATE SECTION ACQUISITION UNDER THIS PROJECT.	
CHIEF, REAL ESTATE	DATE

RIGHT-OF-WAY SHEET 1 OF 3



ADDENDUMS / REVISIONS



SUSSEX COUNTY PIPE REPLACEMENTS, FEDERAL, 2012

CONTRACT	BRIDGE NO.	3-113
T201207604	DESIGNED BY:	SMW
COUNTY	CHECKED BY:	KRL
SUSSEX		

RIGHT-OF-WAY PLAN	SHEET NO.	16
	TOTAL SHTS.	39

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ASSESSMENT NUMBER	OWNERSHIP OF RECORD					TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)			
5-30-12.00-51.00	(1-L) WILLIAM W. & ELLEN ANN VANDERWENDE TRUSTEES, REV. TRUST					FEE	2347-294	307.990			
ALIGNMENT NUMBER & DESCRIPTION: 10000 - PROPOSED BASELINE											
PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
6000	10000	3+25.33	-35.00	282912.0739	586392.5234	N 48°07' 23.12" W	20.33				
6600	10000	3+05.00	-35.00	282925.6449	586377.3861	N 41°52' 36.88" E	15.00				
6601	10000	3+05.00	-50.00	282936.8136	586387.3991	S 48°07' 23.12" E	32.53				
6001	10000	3+37.53	-50.00	282915.0987	586411.6203	S 80°59' 58.27" W	19.33				
6000	10000	3+25.33	-35.00	282912.0739	586392.5234						
FIGURE 6600 AREA = 396.4500 SQ. FT. (0.0091 ACRES)											

ASSESSMENT NUMBER	OWNERSHIP OF RECORD					TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)			
5-30-12.00-51.00	(1-L) WILLIAM W. & ELLEN ANN VANDERWENDE TRUSTEES, REV. TRUST					P/E	2347-294	307.990			
ALIGNMENT NUMBER & DESCRIPTION: 10000 - PROPOSED BASELINE											
PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
6001	10000	3+37.53	-50.00	282915.0987	586411.6203	N 48°07' 23.12" W	32.53				
6601	10000	3+05.00	-50.00	282936.8136	586387.3991	S 41°52' 36.88" W	15.00				
6600	10000	3+05.00	-35.00	282925.6449	586377.3861	N 48°07' 23.12" W	65.00				
6700	10000	2+40.00	-35.00	282969.0345	586328.9884	N 41°52' 36.88" E	15.00				
6701	10000	2+40.00	-50.00	282980.2032	586339.0014	S 48°07' 23.12" E	47.50				
6702	10000	2+87.50	-50.00	282948.4954	586374.3689	N 81°40' 56.94" E	42.96				
6703	10000	3+15.00	-83.00	282954.7094	586416.8735	S 14°41' 35.02" E	38.50				
6100	10000	3+47.13	-61.79	282917.4690	586426.6385	S 81°01' 51.94" W	15.20				
6001	10000	3+37.53	-50.00	282915.0987	586411.6203						
FIGURE 6700 AREA = 2091.7094 SQ. FT. (0.0480 ACRES)											

ASSESSMENT NUMBER	OWNERSHIP OF RECORD					TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)			
5-30-12.00-51.00	(1-L) WILLIAM W. & ELLEN ANN VANDERWENDE TRUSTEES, REV. TRUST					TCE	2347-294	307.990			
ALIGNMENT NUMBER & DESCRIPTION: 10000 - PROPOSED BASELINE											
PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
6100	10000	3+47.13	-61.79	282917.4690	586426.6385	N 14°41' 35.02" W	38.50				
6703	10000	3+15.00	-83.00	282954.7094	586416.8735	N 81°40' 56.94" E	31.24				
6800	10000	3+35.00	-107.00	282959.2287	586447.7859	S 10°53' 05.60" E	37.96				
6200	10000	3+65.22	-84.03	282921.9528	586454.9539	S 81°00' 06.46" W	28.67				
6100	10000	3+47.13	-61.79	282917.4690	586426.6385						
FIGURE 6800 AREA = 1141.4700 SQ. FT. (0.0262 ACRES)											

ASSESSMENT NUMBER	OWNERSHIP OF RECORD					TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)			
5-30-15-1.00	(2-L) SHEILA COX					FEE	1862-189	1.600			
ALIGNMENT NUMBER & DESCRIPTION: 10000 - PROPOSED BASELINE											
PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
6000	10000	3+25.33	-35.00	282912.0739	586392.5234	N 80°59' 58.27" E	19.33				
6001	10000	3+37.53	-50.00	282915.0987	586411.6203	S 48°07' 23.12" E	7.47				
6002	10000	3+45.00	-50.00	282910.1123	586417.1823	S 41°52' 36.88" W	15.00				
6003	10000	3+45.00	-35.00	282898.9436	586407.1693	N 48°07' 23.12" W	19.67				
6000	10000	3+25.33	-35.00	282912.0739	586392.5234						
FIGURE 6000 AREA = 203.5500 SQ. FT. (0.0047 ACRES)											

ASSESSMENT NUMBER	OWNERSHIP OF RECORD					TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)			
5-30-15-1.00	(2-L) SHEILA COX					P/E	1862-189	1.600			
ALIGNMENT NUMBER & DESCRIPTION: 10000 - PROPOSED BASELINE											
PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
6001	10000	3+37.53	-50.00	282915.0987	586411.6203	N 81°01' 51.94" E	15.20				
6100	10000	3+47.13	-61.79	282917.4690	586426.6385	S 14°42' 27.57" E	21.41				
6101	10000	3+65.00	-50.00	282896.7616	586432.0739	S 48°07' 23.12" E	45.00				
6102	10000	4+10.00	-50.00	282866.7227	586465.5801	S 41°52' 36.88" W	15.00				
6103	10000	4+10.00	-35.00	282855.5539	586455.5671	N 48°07' 23.12" W	65.00				
6003	10000	3+45.00	-35.00	282898.9436	586407.1693	N 41°52' 36.88" E	15.00				
6002	10000	3+45.00	-50.00	282910.1123	586417.1823	N 48°07' 23.12" W	7.47				
6001	10000	3+37.53	-50.00	282915.0987	586411.6203						
FIGURE 6100 AREA = 1136.9356 SQ. FT. (0.0261 ACRES)											

ASSESSMENT NUMBER	OWNERSHIP OF RECORD					TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)			
5-30-15-1.00	(2-L) SHEILA COX					TCE	1862-189	1.600			
ALIGNMENT NUMBER & DESCRIPTION: 10000 - PROPOSED BASELINE											
PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
6100	10000	3+47.13	-61.79	282917.4690	586426.6385	N 81°00' 06.46" E	28.67				
6200	10000	3+65.22	-84.03	282921.9528	586454.9539	S 10°53' 25.89" E	56.24				
6102	10000	4+10.00	-50.00	282866.7227	586465.5801	N 48°07' 23.12" W	45.00				
6101	10000	3+65.00	-50.00	282896.7616	586432.0739	N 14°42' 27.57" W	21.41				
6100	10000	3+47.13	-61.79	282917.4690	586426.6385						
FIGURE 6200 AREA = 1071.0300 SQ. FT. (0.0246 ACRES)											

ASSESSMENT NUMBER	OWNERSHIP OF RECORD					TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)			
131-5.00-5.00	(1-R) MORRIS LEE TATMAN					FEE	4079-23	148.380			
ALIGNMENT NUMBER & DESCRIPTION: 10000 - PROPOSED BASELINE											
PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
6300	10000	2+95.00	35.00	282880.1995	586323.2130	S 41°52' 36.88" W	15.00				
6301	10000	2+95.00	50.00	282869.0308	586313.2000	N 48°07' 23.12" W	40.00				
6302	10000	2+55.00	50.00	282895.7321	586283.4168	N 41°52' 36.88" E	15.00				
6303	10000	2+55.00	35.00	282906.9009	586293.4298	S 48°07' 23.12" E	40.00				
6300	10000	2+95.00	35.00	282880.1995	586323.2130						
FIGURE 6300 AREA = 600.0000 SQ. FT. (0.0138 ACRES)											

ASSESSMENT NUMBER	OWNERSHIP OF RECORD					TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)			
131-5.00-5.00	(1-R) MORRIS LEE TATMAN					P/E	4079-23	148.380			
ALIGNMENT NUMBER & DESCRIPTION: 10000 - PROPOSED BASELINE											
PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
6300	10000	2+95.00	35.00	282880.1995	586323.2130	S 48°07' 23.12" E	33.89				
6400	10000	3+28.89	35.00	282857.5769	586348.4469	S 79°45' 09.68" W	63.34				
6401	10000	2+90.00	85.00	282846.3082	586286.1135	N 14°25' 58.87" W	90.14				
6402	10000	2+15.00	35.00	282933.6022	586263.6466	S 48°07' 23.12" E	40.00				
6303	10000	2+55.00	35.00	282906.9009	586293.4298	S 41°52' 36.88" W	15.00				
6302	10000	2+55.00	50.00	282895.7321	586283.4168	S 48°07' 23.12" E	40.00				
6301	10000	2+95.00	50.00	282869.0308	586313.2000	N 41°52' 36.88" E	15.00				
6300	10000	2+95.00	35.00	282880.1995	586323.2130						
FIGURE 6400 AREA = 2247.2500 SQ. FT. (0.0516 ACRES)											

ASSESSMENT NUMBER	OWNERSHIP OF RECORD					TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)			
131-5.00-5.00	(1-R) MORRIS LEE TATMAN					TCE	4079-23	148.380			
ALIGNMENT NUMBER & DESCRIPTION: 10000 - PROPOSED BASELINE											
PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
6400	10000	3+28.89	35.00	282857.5769	586348.4469	S 48°07' 23.12" E	11.11				
6500	10000	3+40.00	35.00	282850.1606	586356.7191	S 78°38' 28.65" W	108.60				
6501	10000	2+75.00	122.00	282828.7717	586250.2461	N 13°07' 51.84" W	73.24				
6502	10000	2+15.00	80.00	282900.0960	586233.6076	N 41°52' 36.88" E	45.00				
6402	10000	2+15.00	35.00	282933.6022	586263.6466	S 14°25' 58.87" E	90.14				
6401	10000	2+90.00	85.00	282846.3082	586286.1135	N 79°45' 09.68" E	63.34				
6400	10000	3+28.89	35.00	282857.5769	586348.4469						
FIGURE 6500 AREA = 3940.2500 SQ. FT. (0.0905 ACRES)											

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ADDENDUMS / REVISIONS	

NOT TO SCALE

SUSSEX COUNTY PIPE REPLACEMENTS, FEDERAL, 2012

CONTRACT	BRIDGE NO.	3-113
T201207604	DESIGNED BY:	SMW
COUNTY	CHECKED BY:	EM
SUSSEX		

RIGHT-OF-WAY SHEET 2 OF 3

RIGHT-OF-WAY DATA SHEET

LEGEND	
FEE	AREA OF ACQUISITION
R/W	AREA OCCUPIED BY EXISTING R/W
PE	PERMANENT EASEMENT
TCE	TEMPORARY CONSTRUCTION EASEMENT
**	OFFSET IS LEFT OF BASELINE
**	CURVE TURNS TO THE LEFT

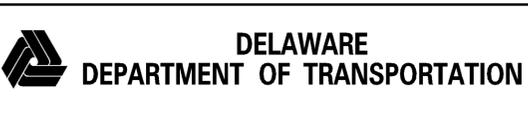
SHEET NO.	17
TOTAL SHTS.	39

COUNTY ASSESSMENT PARCEL NUMBER	PLAN SHEET NUMBER	OWNERSHIP OF RECORD	TITLE SOURCE	PROPERTY AREA BEFORE ACQUISITION (ACRE) D=DEED C=CALCULATED A=ASSESSMENT	ACQUISITION CODE FEE, R/W, P/E, TCE	AREA TO BE ACQUIRED			PROPERTY AREA REMAINING (SQ. FEET /ACRES)	DEED RECORD OF ACQUISITION	REMARKS	
						ACQUISITION (SQ. FEET /ACRES)	AREA OCCUPIED BY EXISTING RIGHT OF WAY (SQ. FEET /ACRES)	EASEMENT				
								PERMANENT (SQ. FEET /ACRES)				TEMPORARY (SQ. FEET /ACRES)
5-30-12.00-51.00	16	(1-L) WILLIAM W. & ELLEN ANN VANDERWENDE TRUSTEES, REV. TRUST	2347-294	D - 307.99	FEE P/E TCE	396.45 / 0.01		2091.7094 / 0.05 1141.47 / 0.03	13415647.55 / 307.98			
5-30-15-1.00	16	(2-L) SHEILA COX	1862-189	D - 1.60	FEE P/E TCE	203.55 / 0.00		1136.9356 / 0.03 1071.03 / 0.02	69492.45 / 1.60			
131-5.00-5.00	16	(1-R) MORRIS LEE TATMAN	4079-23	D - 148.38	FEE P/E TCE	600.00 / 0.01		2247.25 / 0.05 3940.25 / 0.09	6462833.00 / 148.37			

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ACQUISITION CODES
 FEE - ACQUISITION P/E - PERMANENT EASEMENT
 R/W - AREA OCCUPIED BY EXISTING R/W TCE - TEMPORARY EASEMENT

RIGHT-OF-WAY SHEET 3 OF 3



ADDENDUMS / REVISIONS

--

NOT TO SCALE

**SUSSEX COUNTY PIPE
REPLACEMENTS, FEDERAL, 2012**

CONTRACT T201207604	BRIDGE NO. 3-113
COUNTY SUSSEX	DESIGNED BY: SMW CHECKED BY: EM

**RIGHT-OF-WAY
TABULATION SHEET**

SHEET NO. 18
TOTAL SHTS. 39

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HORIZONTAL / VERTICAL CONTROL DATA					
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION
TP #3	1+70.16	-12.43	171017.10	712797.43	28.75
TP #4	4+54.18	-30.29	171312.24	712763.67	32.60

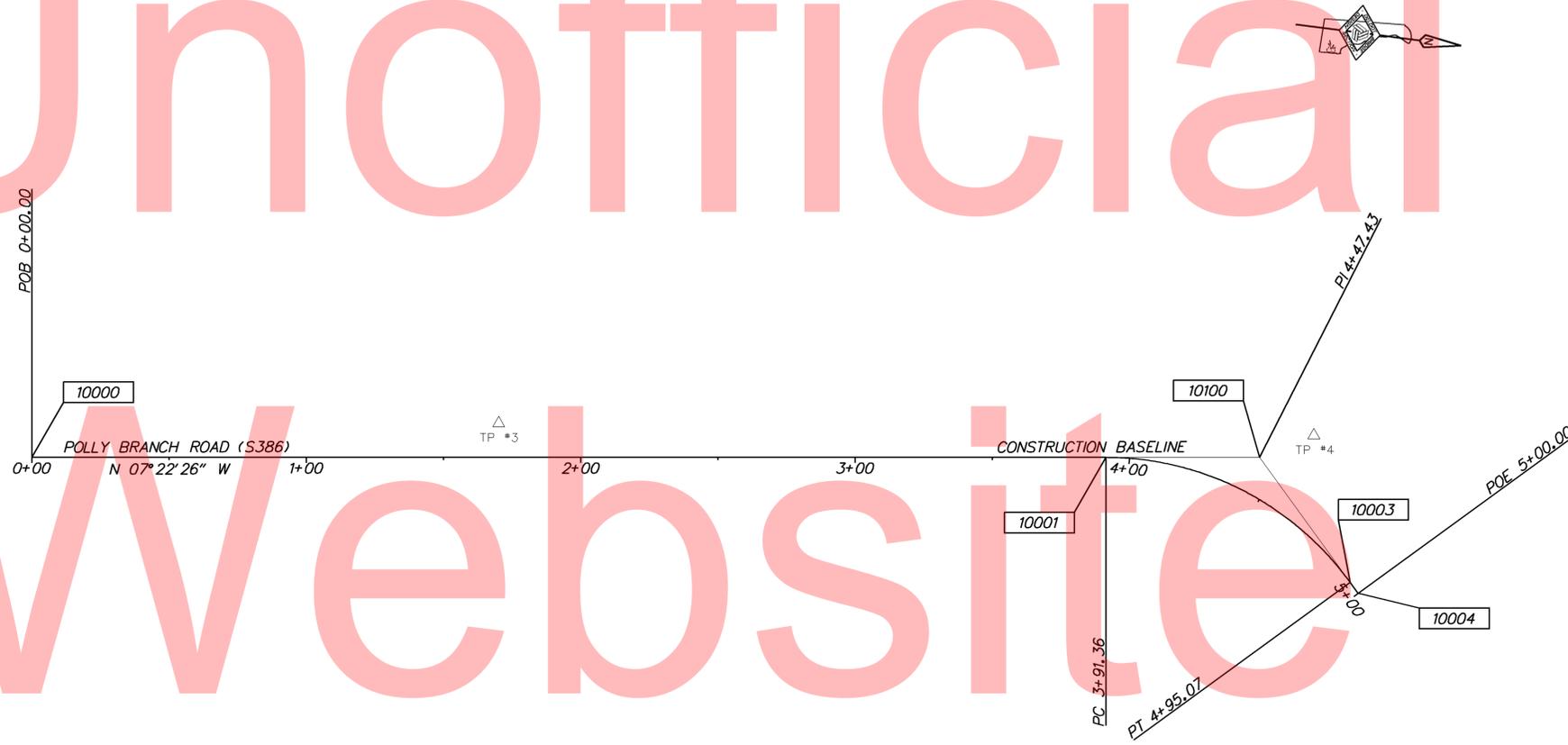
CONSTRUCTION ALIGNMENT CONTROL					
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION
10000	0+00.00	0.00	170849.94	712831.59	
10001	3+91.36	0.00	171238.06	712781.36	
10100	4+47.43	-13.47	171293.67	712774.17	
10003	4+95.07	0.00	171332.16	712814.94	
10004	5+00.00	0.00	171335.55	712818.52	

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.

Unofficial

Website

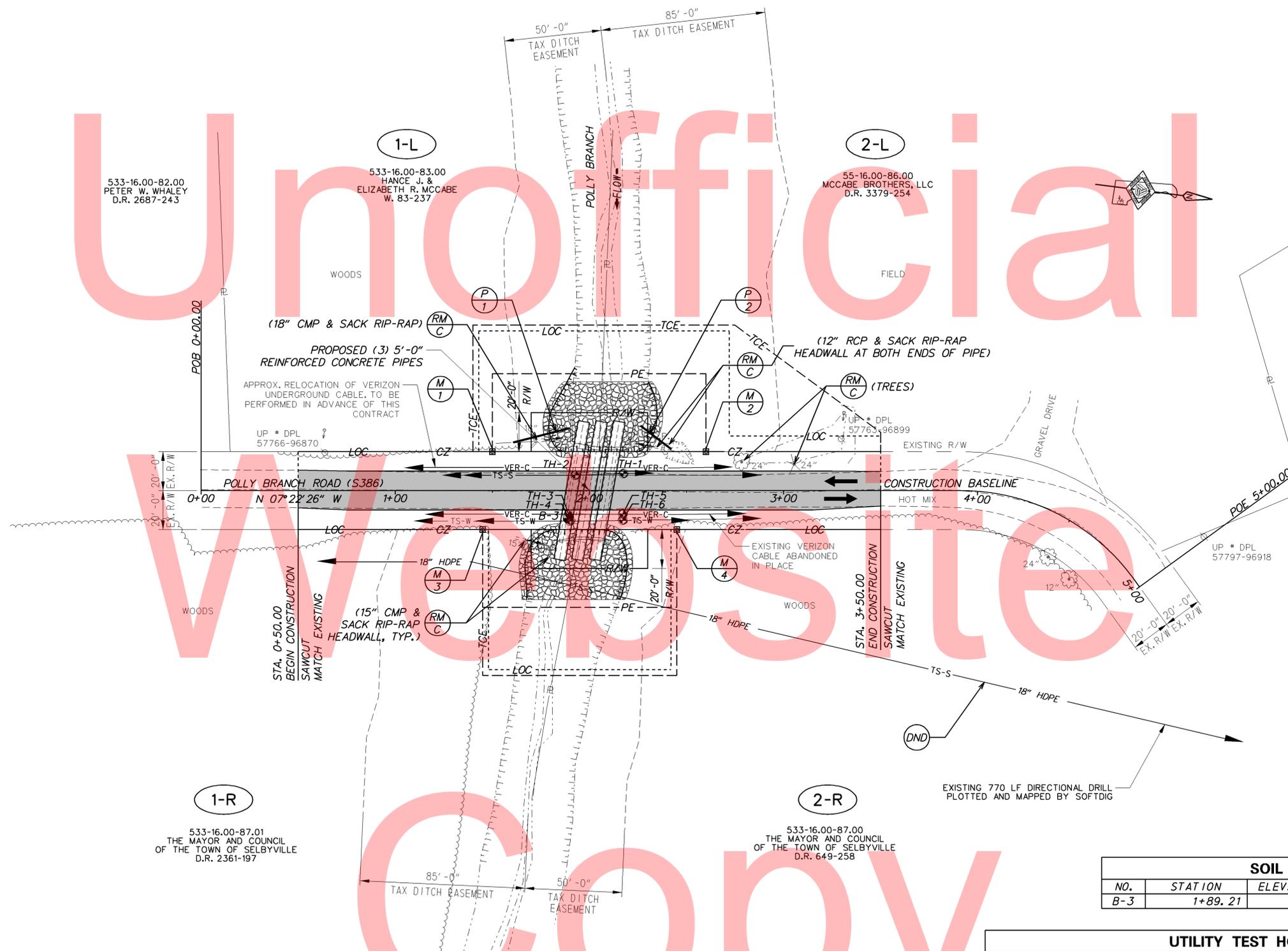
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Element: Circular Curve #1
PC (10001) 3+91.36 171238.06 712781.36
PI (10100) 4+47.43 171293.67 712774.17
CC (10002) 171252.18 712890.45
PT (10003) 4+95.07 171332.16 712814.94
Radius: 110.00
Delta: 54° 01' 08" RIGHT
Degree of Curvature (Arc): 52° 05' 13"
Length: 103.71
Tangent: 56.07
Chord: 99.91
Middle Ordinate: 12.00
External: 13.47
Tangent Direction: N 7° 22' 26" W
Radial Direction: N 82° 37' 34" E
Chord Direction: N 19° 38' 08" E
Radial Direction: S 43° 21' 17" E
Tangent Direction: N 46° 38' 43" E

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DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INT. EL.	DIS. EL.
1	18" HDPE	S	30.00	4.17%	24.75	23.50
2	15" HDPE	S	20.00	8.75%	25.50	23.75



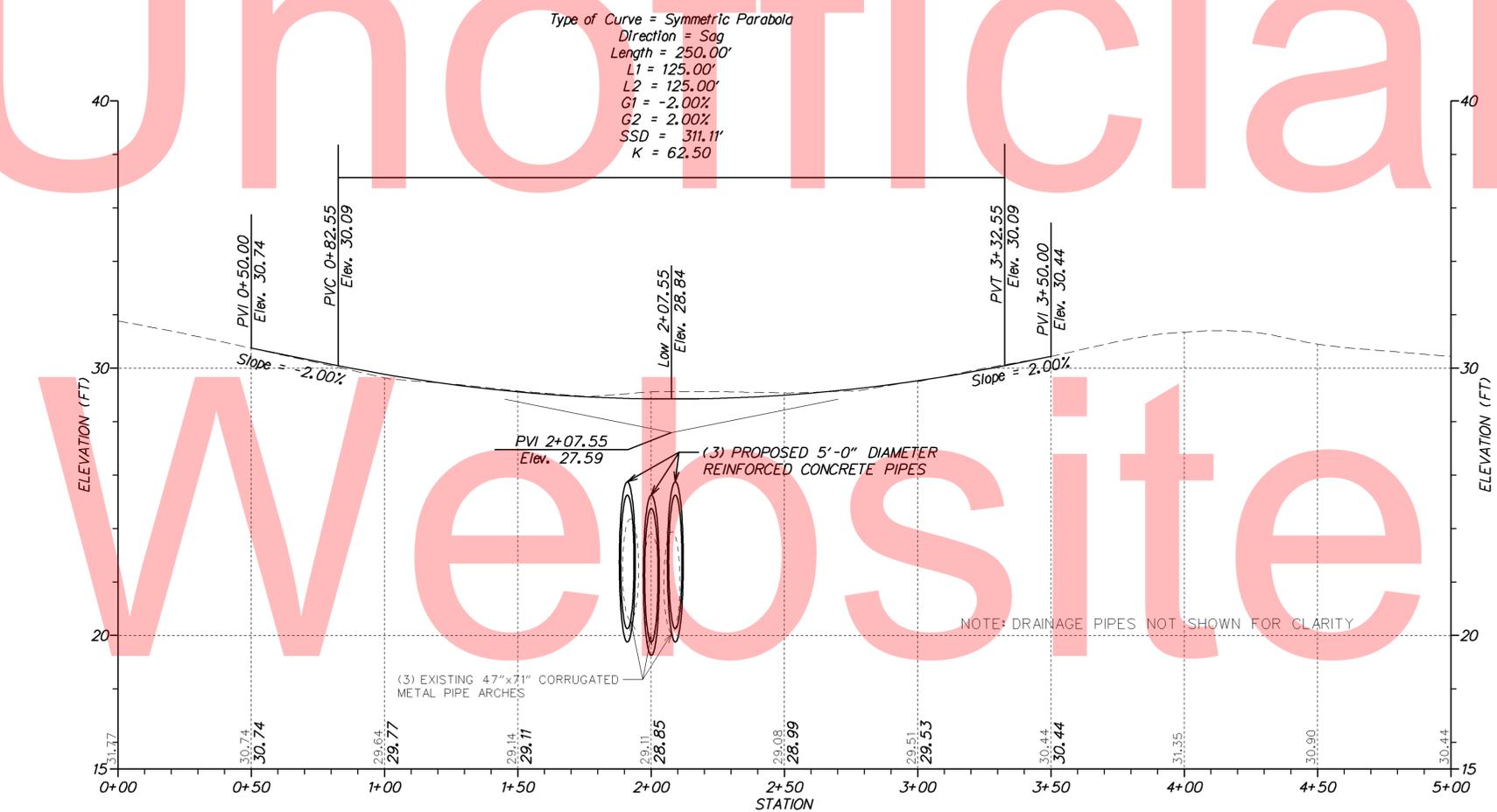
RIGHT-OF-WAY MONUMENT SCHEDULE						
NO.	TYPE	STATION	OFFSET	NORTHING	EASTING	
M-1	CAPPED REBAR	1+50.00	-20.00	170996.13	712792.50	
M-2	CAPPED REBAR	2+60.00	-20.00	171105.22	712778.39	
M-3	CAPPED REBAR	1+45.00	20.00	170996.31	712832.81	
M-4	CAPPED REBAR	2+45.00	20.00	171095.48	712819.98	

NOTE: TOWN OF SELBYVILLE 10" SEWER FORCEMAIN AND 12" WATER MAIN UTILITIES ARE TO BE RELOCATED BY THE CONTRACTOR. REFER TO SHEET 26 FOR RELOCATION DETAILS. UTILITIES ARE TO REMAIN WITHIN THEIR EXISTING ALIGNMENT. OVERHEAD ELECTRICAL LINES ARE TO REMAIN IN PLACE AND IN SERVICE DURING CONSTRUCTION. REFER TO PROJECT NOTE 14 ON SHEET 4 FOR FURTHER INFORMATION.

SOIL BORING SCHEDULE					
NO.	STATION	ELEVATION	OFFSET	NORTHING	EASTING
B-3	1+89.21	28.52	14.14	171039.40	712821.33

UTILITY TEST HOLE SCHEDULE							
NO.	UTILITY	STATION	OFFSET	GRND EL.	COVER	O. D. & MATERIAL	STATION
TH-1	SEWER	2+17.53	-8.80	29.12	2.34	CONCRETE COVER	SELBYVILLE
TH-2	SEWER	1+92.74	-8.01	29.06	2.90	CONCRETE COVER	SELBYVILLE
TH-3	TELEPHONE	1+89.30	12.18	29.08	3.76	3/4" CABLE	VERIZON
TH-4	WATER	1+89.90	15.54	28.87	4.03	12" PLASTIC	SELBYVILLE
TH-5	TELEPHONE	2+17.22	11.91	29.00	3.29	3/4" CABLE	VERIZON
TH-6	WATER	2+17.13	15.15	28.60	3.53	12" PLASTIC	SELBYVILLE

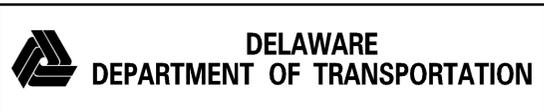
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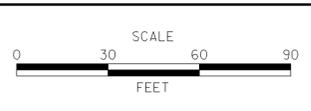
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ADDENDUMS / REVISIONS	

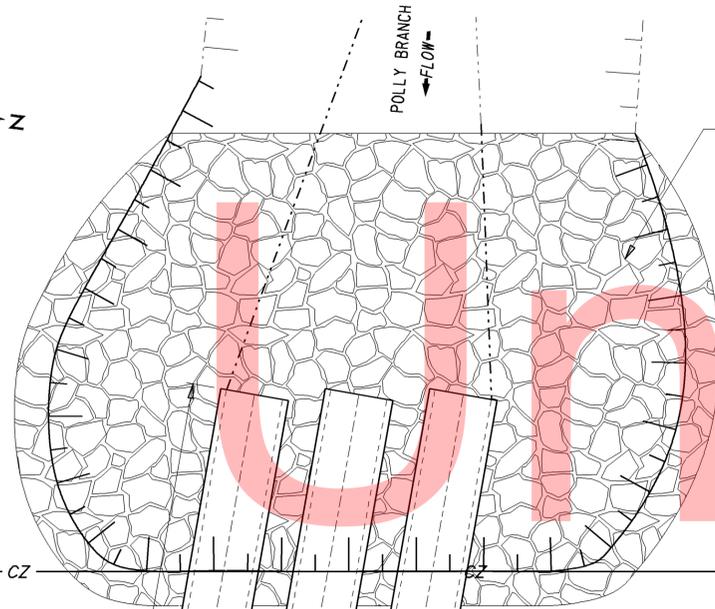


SUSSEX COUNTY PIPE REPLACEMENTS, FEDERAL, 2012

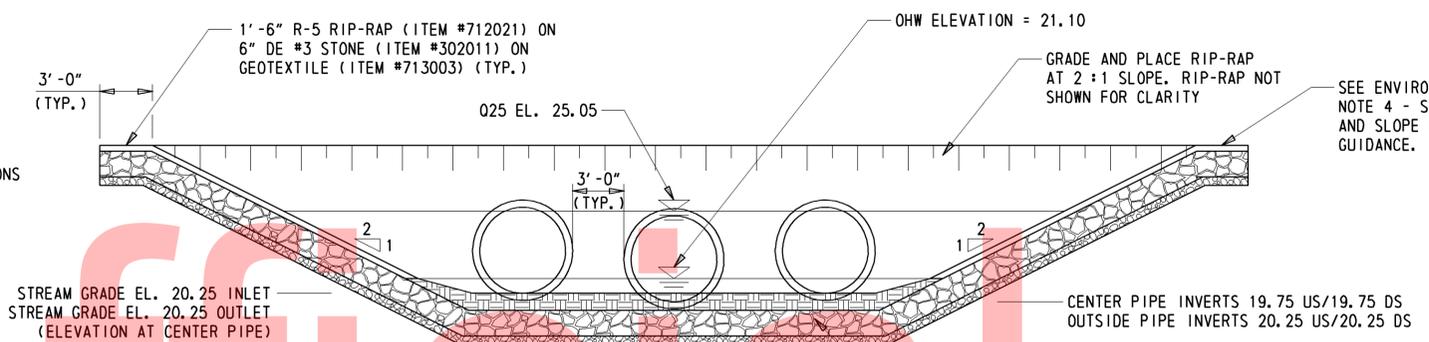
CONTRACT	BRIDGE NO.	3-409
T201207604	DESIGNED BY:	SMW
COUNTY	CHECKED BY:	KRL
SUSSEX		

PROFILE

VERTICAL SCALE	9
	6
	3
	0
FEET	
SHEET NO.	21
TOTAL SHTS.	39

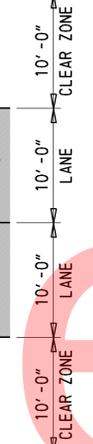
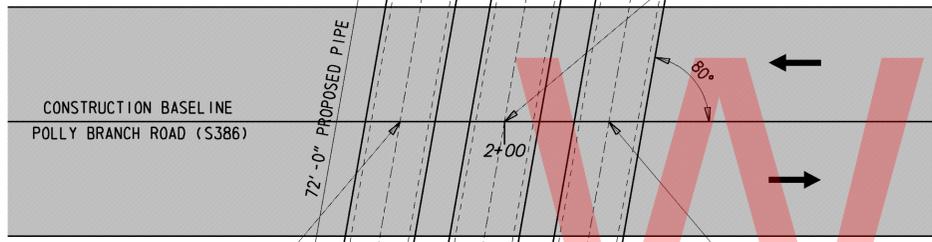


PLAN
1/8" = 1'-0"



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

- NOTES:**
- PROPOSED BRIDGE:
THE EXISTING (3) 47"x71" (3'-11"x5'-11") CORRUGATED METAL PIPE ARCHES SHALL BE REPLACED WITH (3) 5'-0" DIAMETER REINFORCED CONCRETE PIPES (72'-0" LONG). THE CENTER PIPE SHALL BE PLACED 6" BELOW THE ESTABLISHED STREAM GRADE. PLACE PIPES WITH A 3'-0" SPACE BETWEEN THE OUTER WALLS OF EACH RUN. PLACE 6" COARSE AGGREGATE BEDDING BENEATH PIPES AND 6" SHAPED UP THE CURVE OF EACH PIPE.
 - RIP-RAP PLACEMENT:
 - UPSTREAM - RIP-RAP SHALL BE PLACED IN THE CHANNEL BOTTOM 20'-0" FROM THE PIPE INLET ALONG THE STREAM CENTERLINE AND SHALL BE PLACED TO CREATE A SMOOTH BEND THAT MATCHES THE EXISTING STREAM BANKS.
 - DOWNSTREAM - RIP-RAP SHALL BE PLACED IN THE CHANNEL BOTTOM 20'-0" FROM THE PIPE OUTLET ALONG THE STREAM CENTERLINE AND SHALL BE PLACED TO CREATE A SMOOTH BEND THAT MATCHES THE EXISTING STREAM BANKS.



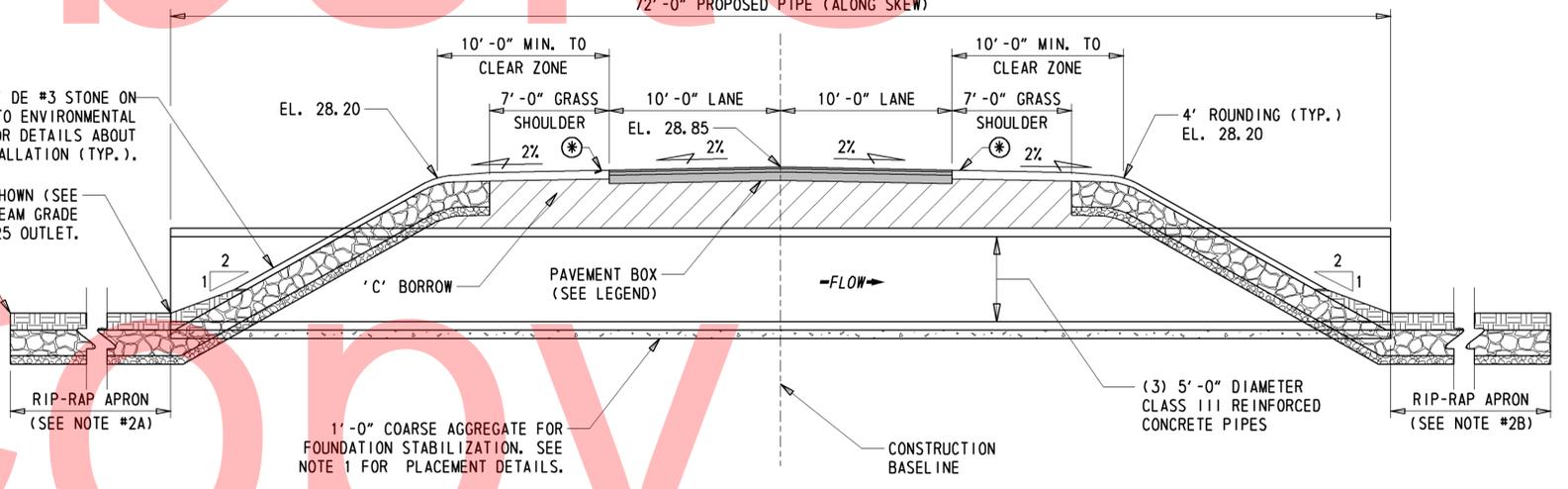
1'-6" R-5 RIP-RAP ON 6" DE #3 STONE ON GEOTEXTILE. REFER TO ENVIRONMENTAL COMPLIANCE NOTES FOR DETAILS ABOUT RIP-RAP INSTALLATION (TYP.).

CENTER PIPE INVERT SHOWN (SEE BRIDGE ELEVATION) STREAM GRADE EL. 20.25 INLET, EL. 20.25 OUTLET.

MATCH EXISTING (TYP.)

RIP-RAP APRON (SEE NOTE #2A)

REFER TO NOTE 2B FOR DOWNSTREAM RIP-RAP DIMENSIONS



BRIDGE SECTION
1/8" = 1'-0"

NOTE: BRIDGE SECTION SHOWS THE CENTERLINE OF THE CENTER PIPE.

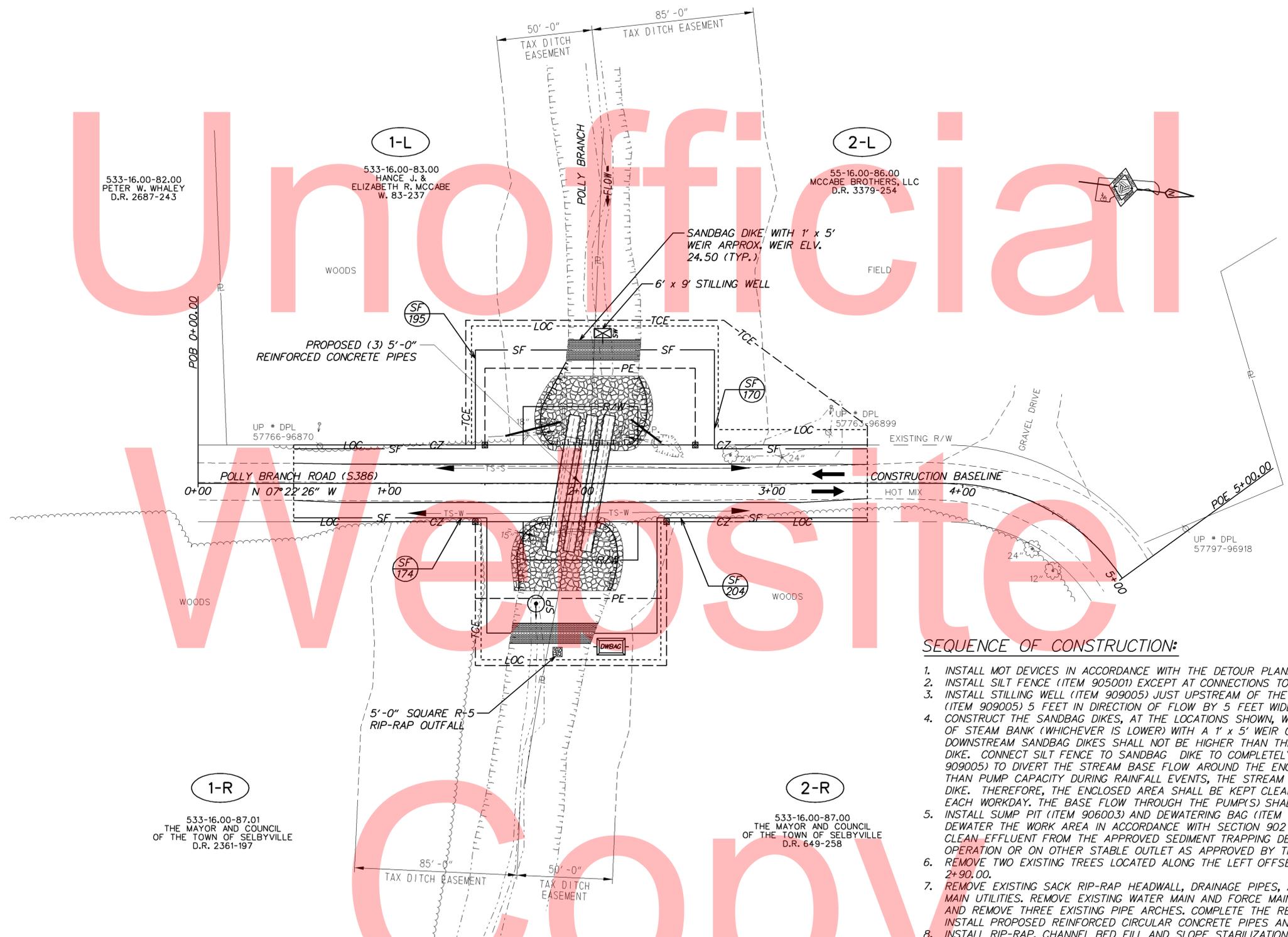
*-PLACE 6" TOPSOIL AND APPROPRIATE SEEDING

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ADDENDUMS / REVISIONS	

CONTRACT T201207604	BRIDGE NO. 3-409
COUNTY SUSSEX	DESIGNED BY: SMW CHECKED BY: KRL

Unofficial

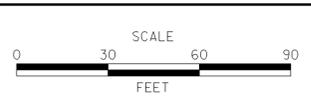


SEQUENCE OF CONSTRUCTION:

1. INSTALL MOT DEVICES IN ACCORDANCE WITH THE DETOUR PLAN.
2. INSTALL SILT FENCE (ITEM 905001) EXCEPT AT CONNECTIONS TO SANDBAG DIKES (ITEM 909005).
3. INSTALL STILLING WELL (ITEM 909005) JUST UPSTREAM OF THE PROPOSED SANDBAG DIKE. PLACE R-5 RIP-RAP (ITEM 909005) 5 FEET IN DIRECTION OF FLOW BY 5 FEET WIDE AT THE PROPOSED DISCHARGE AREA.
4. CONSTRUCT THE SANDBAG DIKES, AT THE LOCATIONS SHOWN, WITH TOP EL. OF 25.50 OR 6 INCHES BELOW TOP OF STEAM BANK (WHICHEVER IS LOWER) WITH A 1' x 5' WEIR OPENING UPSTREAM. ELEVATION OF THE DOWNSTREAM SANDBAG DIKES SHALL NOT BE HIGHER THAN THE LOWEST ELEVATION OF THE UPSTREAM SANDBAG DIKE. CONNECT SILT FENCE TO SANDBAG DIKE TO COMPLETELY ENCLOSE THE WORK AREA. USE PUMP (ITEM 909005) TO DIVERT THE STREAM BASE FLOW AROUND THE ENCLOSED WORK AREA. WHEN THE FLOW IS HIGHER THAN PUMP CAPACITY DURING RAINFALL EVENTS, THE STREAM FLOW IS ALLOWED TO FLOW OVER THE SANDBAG DIKE. THEREFORE, THE ENCLOSED AREA SHALL BE KEPT CLEAR OF DEBRIS AND OBSTRUCTIONS AT THE END OF EACH WORKDAY. THE BASE FLOW THROUGH THE PUMP(S) SHALL BE 10.7 CFS.
5. INSTALL SUMP PIT (ITEM 906003) AND DEWATERING BAG (ITEM 906002) AS A SEDIMENT TRAPPING DEVICE. DEWATER THE WORK AREA IN ACCORDANCE WITH SECTION 902 OF DELDOT STANDARD SPECIFICATIONS. DISCHARGE CLEAN EFFLUENT FROM THE APPROVED SEDIMENT TRAPPING DEVICE AT THE STABILIZED OUTLET OF THE PUMPING OPERATION OR ON OTHER STABLE OUTLET AS APPROVED BY THE ENGINEER.
6. REMOVE TWO EXISTING TREES LOCATED ALONG THE LEFT OFFSET OF THE ROADWAY AT APPROXIMATE STATION 2+90.00.
7. REMOVE EXISTING SACK RIP-RAP HEADWALL, DRAINAGE PIPES, AND EXCAVATE TO EXISTING WATER AND FORCE MAIN UTILITIES. REMOVE EXISTING WATER MAIN AND FORCE MAIN PER THE UTILITY RELOCATION PLAN. EXCAVATE AND REMOVE THREE EXISTING PIPE ARCHES. COMPLETE THE RELOCATION OF WATER AND FORCE MAIN PER PLAN. INSTALL PROPOSED REINFORCED CIRCULAR CONCRETE PIPES AND DRAINAGE PIPES.
8. INSTALL RIP-RAP, CHANNEL BED FILL AND SLOPE STABILIZATION AS NOTED.
9. INSTALL PROPOSED PAVEMENT AS SHOWN ON THE PLANS. CONSTRUCT ROADWAY SLOPES AND COMPLETE ANY OTHER REMAINING WORK.
10. WHEN NO LONGER NEEDED, REMOVE SANDBAG DIKES, PUMPS AND EROSION AND SEDIMENT CONTROL DEVICES RELATING TO THE STREAM DIVERSION (I.E. STILLING WELL AND STABILIZED OUTFALL RIP-RAP). RESTORE STREAM TO EXISTING CONDITIONS AS OUTLINED IN THE ENVIRONMENTAL COMPLIANCE NOTES.
11. REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES (I.E. SILT FENCE) AFTER VEGETATION HAS STABILIZED ALL DISTURBED AREAS IN ACCORDANCE WITH THESE PLANS AND AS DIRECTED BY THE ENGINEER.
12. REMOVE ALL MOT DEVICES AND REOPEN THE ROADWAY. REMOVAL OF MOT DEVICES MAY OCCUR PRIOR TO REMOVAL OF TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES.

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ADDENDUMS / REVISIONS	



CONTRACT	BRIDGE NO.	3-409
T20107604	DESIGNED BY:	SMW
COUNTY	CHECKED BY:	KRL
SUSSEX		

PERMANENT OPEN WATER IMPACT AREA SCHEDULE					
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
O-1	UPSTREAM RIP-RAP	488.32	0.0112	36.17	COE/DNREC
O-2	DOWNSTREAM RIP-RAP	584.90	0.0134	43.33	COE/DNREC
O-3	PROP. FILL AND UTILITIES	184.42	0.0042	6.83	COE/DNREC
O-4	PROP. PIPE AND UTILITIES	377.38	0.0087	13.98	COE/DNREC
TOTAL PERMANENT OPEN WATER IMPACTS		1635.02	0.0375	100.31	COE/DNREC

TEMPORARY OPEN WATER IMPACT AREA SCHEDULE					
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
OT-1	STILLING WELL	54.00	0.0012	3.00	COE/DNREC
OT-2	UPSTREAM SANDBAGS	162.62	0.0037	6.02	COE/DNREC
OT-3	EX. PIPE TO PROP. PIPE	663.78	0.0152	24.58	COE/DNREC
OT-4	DOWNSTREAM SANDBAGS	243.19	0.0056	9.01	COE/DNREC
OT-5	STABILIZED OUTFALL	25.00	0.0006	1.39	COE/DNREC
TOTAL TEMPORARY OPEN WATER IMPACTS		1148.59	0.0263	44.00	COE/DNREC

OPEN WATER CREATION AREA SCHEDULE					
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
OC-1	FILL TO PROP. PIPE	84.18	0.0019	3.12	COE/DNREC
TOTAL OPEN WATER CREATION AREAS		84.18	0.0019	3.12	COE/DNREC

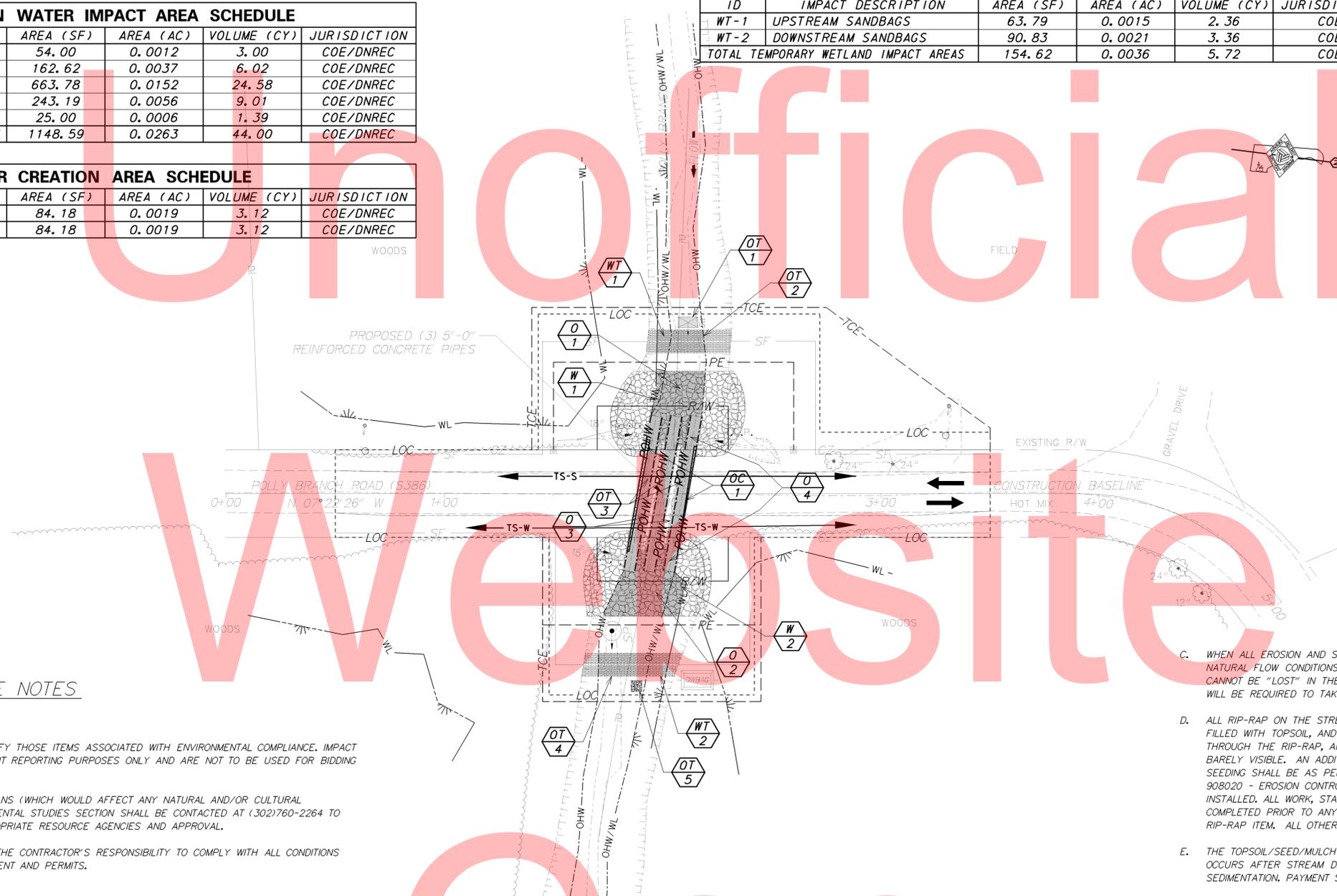
PERMANENT WETLAND IMPACT AREA SCHEDULE					
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
W-1	UPSTREAM RIP-RAP	50.47	0.0012	3.74	COE
W-2	DOWNSTREAM RIP-RAP	123.54	0.0028	9.15	COE
TOTAL PERMANENT WETLAND IMPACTS		174.01	0.0040	12.89	COE

TEMPORARY WETLAND IMPACT AREA SCHEDULE					
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
WT-1	UPSTREAM SANDBAGS	63.79	0.0015	2.36	COE
WT-2	DOWNSTREAM SANDBAGS	90.83	0.0021	3.36	COE
TOTAL TEMPORARY WETLAND IMPACT AREAS		154.62	0.0036	5.72	COE

LEGEND	
	CREATION AREA
	PERMANENT IMPACT AREA
	TEMPORARY IMPACT AREA
----- OHW -----	ORDINARY HIGH WATER
----- POHW -----	PROPOSED ORDINARY HIGH WATER
----- OHW/WL -----	ORD. HIGH WATER / WETLAND
----- WL -----	WETLAND BOUNDARY
	IMPACT AREA TYPE ID. (SEE BELOW) IMPACT AREA ID. AND/OR NUMBER
O =	OPEN WATER IMPACT
C =	CREATION AREA
T =	TEMPORARY IMPACT
W =	WETLAND IMPACT

WETLANDS DELINEATED BY ENVIRONMENTAL RESOURCES, INC. ON 2-19-2013 IN ACCORDANCE WITH THE US ARMY CORPS OF ENGINEERS "CORPS OF ENGINEERS WETLAND DELINEATION MANUAL (1987)".

ORIGINAL SHEET PREPARED BY SCOTT WALLS ON 6-13-2013. SHEET LAST UPDATED ON 1-22-2015.



ENVIRONMENTAL COMPLIANCE NOTES

1. GENERAL NOTES:

- A. 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.
- B. IF A DEPARTURE FROM THE APPROVED PLANS (WHICH WOULD AFFECT ANY NATURAL AND/OR CULTURAL RESOURCES) IS NECESSARY, THE ENVIRONMENTAL STUDIES SECTION SHALL BE CONTACTED AT (302)760-2264 TO ALLOW FOR COORDINATION WITH THE APPROPRIATE RESOURCE AGENCIES AND APPROVAL.
- C. USE OF THIS SHEET DOES NOT ALLEVIATE THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH ALL CONDITIONS SET FORTH IN THE ENVIRONMENTAL STATEMENT AND PERMITS.

2. NATURAL RESOURCE ISSUES:

- A. PERMIT REQUIREMENTS/APPROVALS*:
 - U.S. ARMY CORPS OF ENGINEERS (COE): NATIONWIDE 3 (a) AND (c), (NO PCN)
 - DNREC - WETLANDS & SUBAQUEOUS LANDS (WLSL): PROJECT CONSISTENT WITH DEL. CODE CH. 72, SECTION 7217 (b), AS AMENDED BY SB 186
 - 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.
- B. CONSTRUCTION RESTRICTIONS:
 - FISHERIES - NONE
 - ENDANGERED SPECIES - NONE
 - MIGRATORY BIRDS - NONE

3. CULTURAL RESOURCE ISSUES:

- A. PROJECT CONSISTENT WITH SECTION 11B, 4 A OF DELDOT'S PROGRAMMATIC AGREEMENT WITH DE SHPO, FHWA, AND ACPH

4. STREAM RESTORATION AND SLOPE RIPRAP TREATMENTS:

- A. THE CONTRACTOR SHALL FOLLOW THE SPECIAL PROVISIONS OF ITEM 712531 - CHANNEL BED FILL IN REGARDS TO THE SALVAGING OF ON-SITE NATURAL STREAM BOTTOM MATERIAL OR THE FURNISHING OF OFF-SITE MATERIAL. IF THE SUFFICIENT SOURCES FOR CHANNEL BED FILL DO NOT EXIST ON-SITE, ANY NEW MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF ITEM 712531 - CHANNEL BED FILL. ALL RIP-RAP IN THE CHANNEL BOTTOM (I.E. BELOW THE WATER LINE) SHALL BE RECESSED ONE FOOT BELOW STREAM BED ELEVATION AND CHOKED WITH BORROW TYPE 'B' SO THAT ALL OF THE VOIDS IN THE RIP-RAP ARE FILLED WITH MATERIAL. PAYMENT UNDER ITEM 209002 - BORROW TYPE 'B'. THE RIP-RAP SHALL THEN BE COVERED WITH A MINIMUM OF 12" CHANNEL BED FILL. FINAL CHANNEL ELEVATIONS SHALL MATCH EXISTING ELEVATIONS 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.
- B. OTHER AREAS OF THE CHANNEL BOTTOM AFFECTED BY CONSTRUCTION (INCLUDING, BUT NOT LIMITED TO, THE LOCATION OF SUMP PITS, STABILIZED OUTFALLS, TEMPORARY PIPES AND/OR SANDBAG DIKES AND DIVERSIONS) 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. WHEN ALL EROSION AND SEDIMENT CONTROL MEASURES ARE REMOVED AND THE STREAM RETURNS TO ITS NATURAL FLOW CONDITIONS, THE FLOW MUST REMAIN ABOVE GROUND AND ABOVE THE RIP-RAP (I.E. THE FLOW CANNOT BE "LOST" IN THE RIP-RAP OR BENEATH THE STRUCTURE). IF THIS IS NOT ACHIEVED, THE CONTRACTOR WILL BE REQUIRED TO TAKE CORRECTIVE ACTION AT THE CONTRACTOR'S EXPENSE.
- D. ALL RIP-RAP ON THE STREAM BANK, OUTSIDE THE CHANNEL BED, SHALL BE CHOKED WITH DELAWARE #57 STONE, FILLED WITH TOPSOIL, AND SEEDED. PLACE JUST ENOUGH CHOKE MATERIAL TO PREVENT THE LOSS OF TOPSOIL THROUGH THE RIP-RAP, AND THEN FINISH FILLING THE VOIDS WITH TOPSOIL SO THAT THE RIP-RAP PEAKS ARE BARELY VISIBLE. AN ADDITIONAL 4-INCH TOPSOIL LAYER SHALL BE PLACED ON TOP OF THE RIP-RAP. SLOPE SEEDING SHALL BE AS PER ITEM 908019 - STREAMBANK SEED MIX. FOLLOWING THE SEEDING OPERATION, ITEM 908020 - EROSION CONTROL BLANKET MULCH OR OTHER BLANKET AS SHOWN ON THE PLANS SHALL BE INSTALLED. ALL WORK, STARTING WITH THE INITIAL CHOKING WITH TOPSOIL THROUGH THE SEEDING SHALL BE COMPLETED PRIOR TO ANY RAIN EVENT. PAYMENT FOR DELAWARE #57 STONE SHALL BE INCIDENTAL TO THE RIP-RAP ITEM. ALL OTHER ITEMS SHALL BE PAID FOR UNDER THEIR RESPECTIVE ITEMS.
- E. THE TOPSOIL/SEED/MULCH CAN BE PLACED BEFORE OR AFTER THE REMOVAL OF THE STREAM DIVERSION. IF IT OCCURS AFTER STREAM DIVERSION REMOVAL, A TURBIDITY CURTAIN SHALL BE USED TO MINIMIZE IN-STREAM SEDIMENTATION. PAYMENT SHALL BE INCIDENTAL TO ITEM 909005 - STREAM DIVERSION.

5. PROTECTION OF RESOURCES:

- A. CLEARING IN WETLAND AREAS SHALL BE KEPT TO A MINIMUM ABSOLUTELY NECESSARY FOR CONSTRUCTION ACCESS. 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 (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 WOODED UPLANDS/WETLANDS: SANDBAGS SHALL BE USED TO SECURE SILT FENCE IN LIEU OF TRENCHING UNLESS PROPER EROSION & SEDIMENT CONTROL CANNOT 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.

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<p>DELAWARE DEPARTMENT OF TRANSPORTATION</p>	ADDENDUMS / REVISIONS		<p>SCALE</p> <p>FEET</p>	<p>SUSSEX COUNTY PIPE REPLACEMENTS, FEDERAL, 2012</p>		<p>CONTRACT</p> <p>T20107604</p>	<p>BRIDGE NO.</p> <p>3-409</p>	<p>ENVIRONMENTAL COMPLIANCE PLAN</p>	<p>SHEET NO.</p> <p>24</p>	
							<p>COUNTY</p> <p>SUSSEX</p>		<p>DESIGNED BY: SMW</p>	<p>TOTAL SHTS.</p> <p>39</p>
							<p>CHECKED BY: KRL</p>			

CHANGEABLE MESSAGE BOARDS

CMS-1
 PRIOR TO DETOUR
 (10 DAYS PRIOR TO BEGINNING OF DETOUR)

POLLY BRANCH ROAD

TO CLOSE STARTING XXXXXX

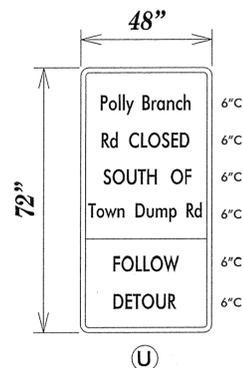
CMS-2
 DURING DETOUR
 (DISPLAY FOR 5 DAYS AFTER IMPLEMENTATION OF DETOUR)

POLLY BRANCH ROAD

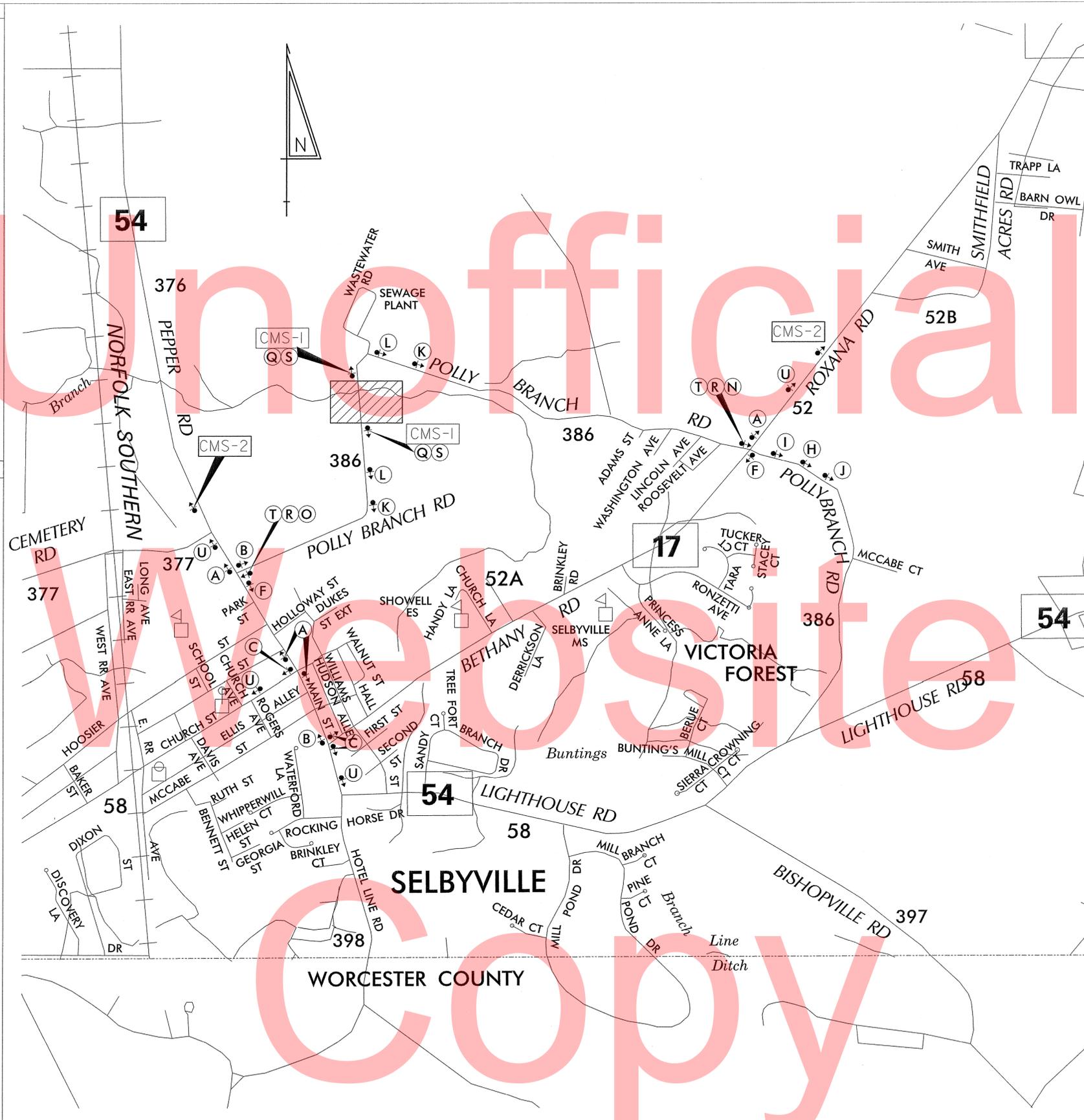
CLOSED FOLLOW DETOUR

NOTE: UPON IMPLEMENTATION OF DETOUR, CMS-1 SHALL BE RELOCATED TO CMS-2 LOCATIONS.

SPECIAL SIGNS



D/G RETROREFLECTIVE FLUORESCENT ORANGE BACKGROUND; BLACK LEGEND



LEGEND

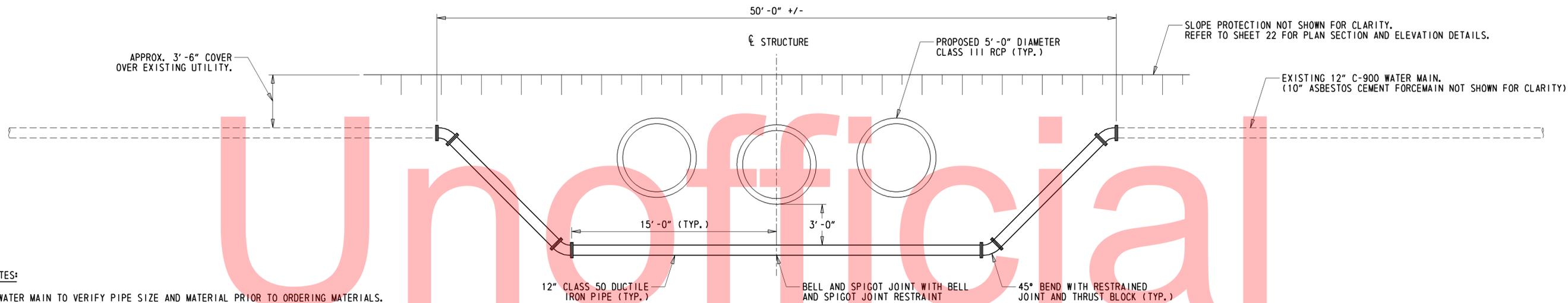
A DETOUR ↑	B DETOUR ←	C DETOUR →
D DETOUR ↙	E DETOUR ↘	F END DETOUR
G DETOUR AHEAD	H DETOUR 1000 FT	I DETOUR 500 FT
J ROAD CLOSED AHEAD	K ROAD CLOSED 1000 FT	L ROAD CLOSED 500 FT
M ROAD NAME	N DETOUR ←	O DETOUR →
P ROAD CLOSED XX MILES AHEAD LOCAL TRAFFIC ONLY	Q ROAD CLOSED	R ROAD CLOSED THRU TRAFFIC
S BARRICADE		T BARRICADE

GENERAL NOTES

- ALL DETOUR SIGNING INCLUDING, TRAILBLAZERS, ARE TO BE SUPPLIED AND MAINTAINED BY THE GENERAL CONTRACTOR IN COMPLIANCE TO THE DE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- THE CONTRACTOR SHALL COMPLY WITH GUIDELINES IN "THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (DE- MUTCD PART 6) FOR LIGHTS, BARRICADES AND SIGNS.(AS PER LATEST REVISION)
- FIELD CONDITIONS MAY DICTATE CHANGES AT SOME TIME DURING THE LIFE OF THE CONTRACT. IN THE EVENT OF OMISSIONS OR CORRECTIONS, THE SIGNING PROVISIONS OF THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES WILL PREVAIL.
- SIGNS J THROUGH L AND P THROUGH R, THE WORD (ROAD) SHOULD BE CHANGED TO RAMP, R/R OR BRIDGE WHERE APPLICABLE.
- WARNING SIGNS SHOULD BE MOUNTED ON BREAKAWAY POSTS AND HAVE RETROREFLECTIVE FLUORESCENT SHEETING.
- "S" BARRICADES SHALL COMPLETELY RUN THE FULL WIDTH OF ROADWAY.
- BARRICADES SHALL BE A MINIMUM OF 6 FEET WIDE UNLESS DIRECTED BY THE ENGINEER.

C:\DOCUMENTS AND SETTINGS\MICHAEL_RIVERAMY\DOCUMENTS\MICRO STATION DGN\POLLY BRANCH RD BR 3-409.DGN

RECOMMENDED <u>Michael F. Rivera</u> DATE: <u>6-25-12</u>	RECOMMENDED <u>Todd Poyer</u> DATE: <u>6-26-12</u>	RECOMMENDED _____ DATE: _____	APPROVED CHIEF SAFETY OFFICER <u>[Signature]</u> DATE: <u>7-6-12</u>	APPROVED TRAFFIC ENGINEER <u>[Signature]</u> DATE: <u>7/9/12</u>
ADDENDUM / REVISIONS			CONTRACT ROAD NO. S386	
NOT TO SCALE			DESIGNED BY: MFR	
DELAWARE DEPARTMENT OF TRANSPORTATION			CHECKED BY: ASW	
SUSSEX COUNTY PIPE REPLACEMENTS, FEDERAL, 2012			SHEET NO. 25	
			TOTAL SHTS. 39	
			DETOUR PLAN	



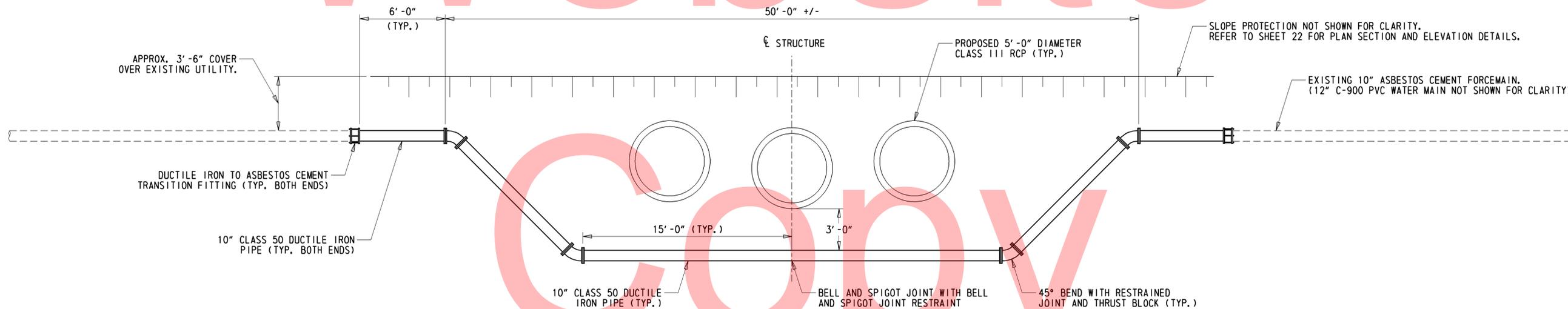
WATER MAIN NOTES:

1. TEST PIT WATER MAIN TO VERIFY PIPE SIZE AND MATERIAL PRIOR TO ORDERING MATERIALS.
2. SUBMIT SHOP DRAWINGS/SUBMITTALS IN ACCORDANCE TO THE SPECIAL PROVISIONS OF ITEM #614508 TO THE TOWN OF SELBYVILLE FOR APPROVAL OF PIPE, VARIOUS RESTRAINTS, TRANSITION FITTINGS, ETC. ALL MATERIALS PURCHASED FOR USE IN UTILITY RELOCATION MUST CONFORM TO BUY AMERICA STANDARDS.
3. CONTACT THE TOWN OF SELBYVILLE A MINIMUM OF 48 HOURS PRIOR TO BEGINNING CONSTRUCTION.
4. REFER TO SHEETS 5F AND 6F ATTACHED TO THE UTILITY STATEMENT FOR LOCATION OF EXISTING VALVES TO ISOLATE EXISTING WATER MAIN AT LOCATION OF PROPOSED CULVERT. HYDRANTS LOCATED AT THESE VALVES CAN BE USED TO BLOW OFF AND LOAD THE DEFLECTED WATER MAIN. THE TOWN SHALL CONDUCT ALL VALVE OPERATIONS.
5. BENDS BEING ATTACHED TO DUCTILE IRON PIPE SHALL BE RESTRAINED USING JOINT RESTRAINTS BY EBBA IRON, INC. SERIES 1100 MEGALUG, ROMAC INDUSTRIES, INC. ROMAGRIP OR APPROVED EQUAL.
6. BENDS BEING ATTACHED TO C-900 PVC SHALL BE RESTRAINED USING JOINT RESTRAINTS BY EBBA IRON, INC. SERIES 2000PV MEGALUG, ROMAC INDUSTRIES, INC. ROMAGRIP OR APPROVED EQUAL.
7. THE DUCTILE IRON BELL AND SPIGOT JOINT BENEATH THE PROPOSED RCP CULVERTS SHALL BE RESTRAINED USING BELL AND SPIGOT JOINT RESTRAINTS BY EBBA IRON, INC. SERIES 1700 MEGALUG, ROMAC INDUSTRIES INC. 600 SERIES PIPE RESTRAINING SYSTEM OR APPROVED EQUAL.
8. CONTRACTOR SHALL INSERT SUFFICIENT HTH TABLETS IN ALL PIPES DURING INSTALLATION TO EFFECT PROPER DISINFECTION.
9. WHEN WATER MAIN INSTALLATION HAS BEEN COMPLETED, THE CONTRACTOR SHALL CONTACT THE TOWN TO SCHEDULE THE START OF A 24 HOUR PRESSURE TEST UNDER SYSTEM PRESSURE. THE LINE WILL BE CHARGED FROM THE NORTH AND BLOWN OFF USING THE FIRE HYDRANT TO THE SOUTH. WHEN SYSTEM PRESSURE IS STABLE, THE VALVE AT THE NORTH WILL BE CLOSED AND THE TEST WILL BEGIN. A SUCCESSFUL TEST IS ZERO DROP IN PRESSURE AFTER 24 HOURS.
10. WHEN THE LINE HAS PASSED THE PRESSURE TEST, A BACTERIOLOGICAL SAMPLE SHALL BE TAKEN FROM THE HYDRANT TO THE SOUTH AND SENT TO A LAB FOR TESTING. WHEN THE BACTERIOLOGICAL TEST HAS BEEN SUCCESSFULLY PASSED, THE RESULTS WILL BE SENT TO THE TOWN ENGINEER FOR SUBMISSION TO THE OFFICE OF DRINKING WATER FOR FINAL APPROVAL.
11. PAYMENT FOR ALL WORK ASSOCIATED WITH THE RELOCATION OF THE WATER MAIN AND FOR REMOVAL AND DISPOSAL OF THE ABANDONED WATER LINE PIPE SHALL BE PAID FOR UNDER ITEM #614508 - WATER MAIN AND ACCESSORIES.

12" WATER MAIN RELOCATION

FORCEMAIN NOTES:

1. TEST PIT FORCEMAIN TO VERIFY PIPE SIZE AND MATERIAL PRIOR TO ORDERING MATERIALS.
2. SUBMIT SHOP DRAWINGS/SUBMITTALS IN ACCORDANCE WITH THE SPECIAL PROVISIONS OF ITEM #753516 TO THE TOWN OF SELBYVILLE FOR APPROVAL OF PIPE, VARIOUS RESTRAINTS, TRANSITION FITTINGS, ETC. ALL MATERIALS PURCHASED FOR USE IN UTILITY RELOCATION MUST CONFORM TO BUY AMERICA STANDARDS.
3. CONTACT THE TOWN OF SELBYVILLE A MINIMUM OF 48 HOURS PRIOR TO BEGINNING CONSTRUCTION.
4. BENDS BEING ATTACHED TO DUCTILE IRON PIPE SHALL BE RESTRAINED USING JOINT RESTRAINTS BY EBBA IRON, INC. SERIES 1100 MEGALUG, ROMAC INDUSTRIES, INC. ROMAGRIP OR APPROVED EQUAL.
5. THE DUCTILE IRON BELL AND SPIGOT JOINT BENEATH THE PROPOSED RCP CULVERTS SHALL BE RESTRAINED JOINT RESTRAINTS BY EBBA IRON, INC. SERIES 1700 MEGALUG, ROMAC INDUSTRIES INC. 600 SERIES PIPE RESTRAINING SYSTEM OR APPROVED EQUAL.
6. TRANSITION FITTINGS INSTALLED BETWEEN DUCTILE IRON PIPE AND ASBESTOS CEMENT PIPE SHALL BE PIPE COUPLINGS BY E. J. PRESCOTT, INC. J-14 COUPLINGS, ROMAC INDUSTRIES, INC. STYLE XR501 EXTENDED RANGE COUPLING OR APPROVED EQUAL.
7. PAYMENT FOR ALL WORK ASSOCIATED WITH THE RELOCATION OF THE SEWER FORCEMAIN AND FOR REMOVAL AND DISPOSAL OF THE ABANDONED PIPE SHALL BE PAID FOR UNDER ITEM #753516 - SANITARY SEWER SYSTEM.



10" FORCEMAIN RELOCATION

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<p>DELAWARE DEPARTMENT OF TRANSPORTATION</p>	ADDENDUMS / REVISIONS		<p>NOT TO SCALE</p>	<p>SUSSEX COUNTY PIPE REPLACEMENTS, FEDERAL, 2012</p>	CONTRACT	BRIDGE NO.	<p>3-409</p>	<p>UTILITY RELOCATION PLAN</p>	SHEET NO.
	T201207604	DESIGNED BY: SMW			26				
	COUNTY	CHECKED BY: KRL			TOTAL SHTS.				
	SUSSEX				39				

Unofficial

Worksite

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533-16.00-82.00
PETER W. WHALEY
D.R. 2687-243

533-16.00-83.00
HANCE J. &
ELIZABETH R. MCCABE
W. 83-237

55-16.00-86.00
MCCABE BROTHERS, LLC
D.R. 3379-254

533-16.00-87.00
THE MAYOR AND COUNCIL
OF THE TOWN OF SELBYVILLE
D.R. 649-258

533-16.00-87.01
THE MAYOR AND COUNCIL
OF THE TOWN OF SELBYVILLE
D.R. 2361-197

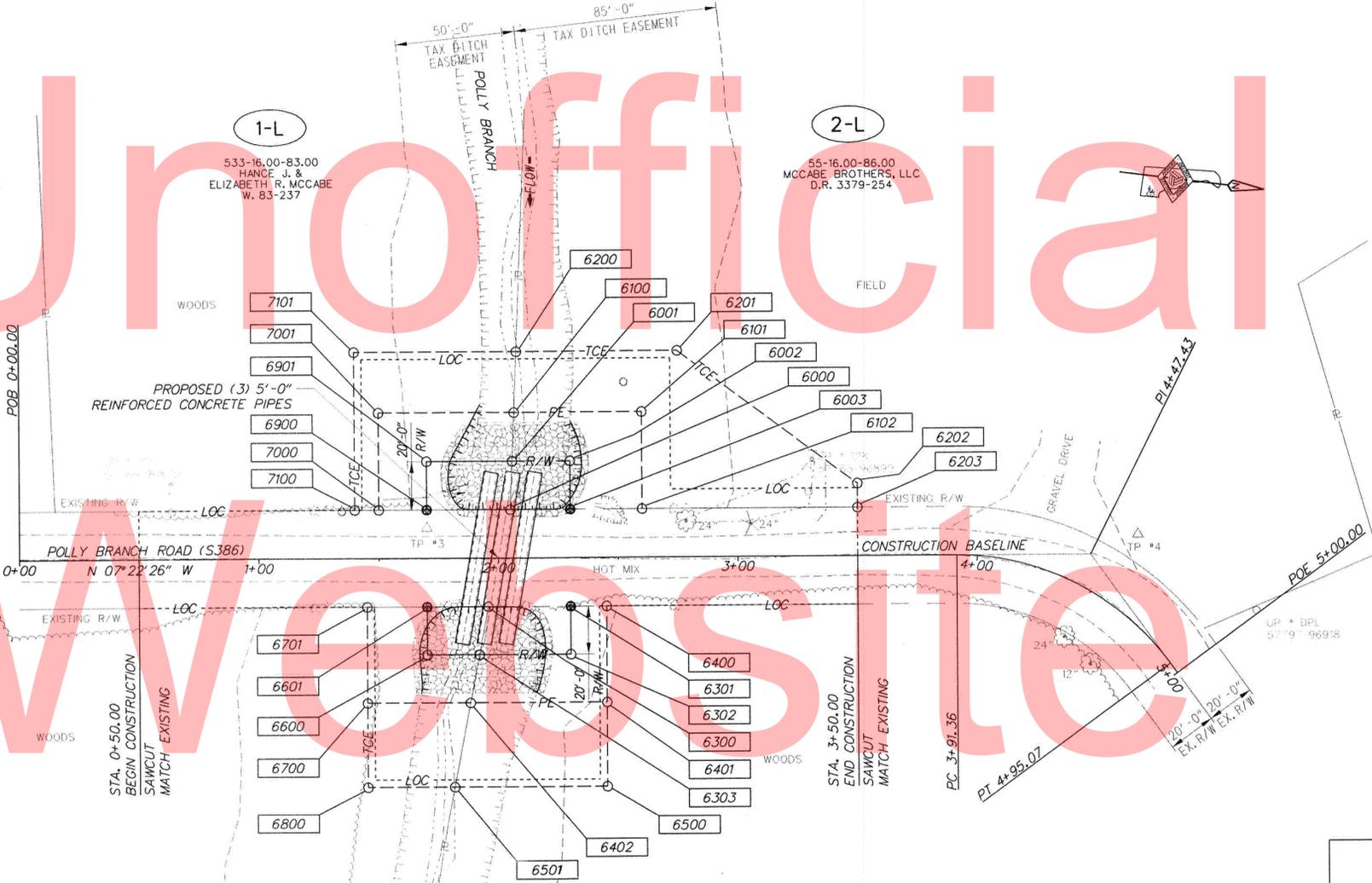
533-16.00-87.00
THE MAYOR AND COUNCIL
OF THE TOWN OF SELBYVILLE
D.R. 649-258

1-L

2-L

1-R

2-R



RECOMMENDED	
<i>Robert A. Reid</i> TEAM SUPPORT SQUAD MANAGER	12-18-13 DATE
<i>John A. Dull</i> TEAM SUPPORT ENGINEER	12-19-13 DATE
<i>Robert B. McCleary</i> ASSISTANT DIRECTOR, ENGINEERING SUPPORT	12/17/13 DATE
"AS-ACQUIRED" PLANS	
I CERTIFY THAT ALL PROPOSED RIGHT-OF-WAY HAS BEEN ACQUIRED IN THE NAME OF THE STATE OF DELAWARE AND THAT THESE PLANS ACCURATELY DEPICT THE NATURE AND EXTENT OF THE REAL ESTATE SECTION ACQUISITION UNDER THIS PROJECT.	
CHIEF, REAL ESTATE	DATE

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DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS



SUSSEX COUNTY PIPE REPLACEMENTS, FEDERAL, 2012

CONTRACT	BRIDGE NO.	3-409
T20107604	DESIGNED BY:	SMW
COUNTY	CHECKED BY:	EM
SUSSEX		

RIGHT-OF-WAY SHEET 1 OF 3

RIGHT-OF-WAY PLAN

SHEET NO.	27
TOTAL SHTS.	39

ASSESSMENT NUMBER	OWNERSHIP OF RECORD	TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)							
533-16.00-83.00	(1-L) HANCE J. & ELIZABETH R. MCCABE	FEE	83-237	4.000							
ALIGNMENT NUMBER & DESCRIPTION: 10000 - PROPOSED BASELINE											
PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
6000	10000	2+04.96	-20.00	171050.6381	712785.4502	S 7°22'25.89" E	34.96				
6900	10000	1+70.00	-20.00	171015.9672	712789.9371	S 82°37'34.11" W	20.00				
6901	10000	1+70.00	-40.00	171013.4003	712770.1025	N 7°22'25.89" W	35.82				
6001	10000	2+05.82	-40.00	171048.9241	712765.5052	N 85°05'18.04" E	20.02				
6000	10000	2+04.96	-20.00	171050.6381	712785.4502						
FIGURE 6900 AREA = 707.8000 SQ. FT. (0.0162 ACRES)											

ASSESSMENT NUMBER	OWNERSHIP OF RECORD	TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)							
533-16.00-83.00	(1-L) HANCE J. & ELIZABETH R. MCCABE	P/E	83-237	4.000							
ALIGNMENT NUMBER & DESCRIPTION: 10000 - PROPOSED BASELINE											
PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
6001	10000	2+05.82	-40.00	171048.9241	712765.5052	S 7°22'25.89" E	35.82				
6901	10000	1+70.00	-40.00	171013.4003	712770.1025	N 82°37'34.11" E	20.00				
6900	10000	1+70.00	-20.00	171015.9672	712789.9371	S 7°22'25.89" E	20.00				
7000	10000	1+50.00	-20.00	170996.1326	712792.5039	S 82°37'34.11" W	40.00				
7001	10000	1+50.00	-60.00	170990.9989	712752.8347	N 7°22'25.89" W	56.69				
6100	10000	2+06.69	-60.00	171047.2201	712745.5590	N 85°07'00.98" E	20.02				
6001	10000	2+05.82	-40.00	171048.9241	712765.5052						
FIGURE 7000 AREA = 1525.1000 SQ. FT. (0.0350 ACRES)											

ASSESSMENT NUMBER	OWNERSHIP OF RECORD	TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)							
533-16.00-83.00	(1-L) HANCE J. & ELIZABETH R. MCCABE	TCE	83-237	4.000							
ALIGNMENT NUMBER & DESCRIPTION: 10000 - PROPOSED BASELINE											
PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
6100	10000	2+06.69	-60.00	171047.2201	712745.5590	S 7°22'25.89" E	56.69				
7001	10000	1+50.00	-60.00	170990.9989	712752.8347	N 82°37'34.11" E	40.00				
7000	10000	1+50.00	-20.00	170996.1326	712792.5039	S 7°22'25.89" E	10.00				
7100	10000	1+40.00	-20.00	170986.2153	712793.7874	S 82°37'34.11" W	65.00				
7101	10000	1+40.00	-85.00	170977.8730	712729.3249	N 7°22'25.89" W	67.76				
6200	10000	2+07.76	-85.00	171045.0726	712720.6284	N 85°04'36.86" E	25.02				
6100	10000	2+06.69	-60.00	171047.2201	712745.5590						
FIGURE 7100 AREA = 2080.6250 SQ. FT. (0.0478 ACRES)											

ASSESSMENT NUMBER	OWNERSHIP OF RECORD	TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)							
55-16.00-86.00	(2-L) MCCABE BROTHERS LLC	FEE	3379-254	19.400							
ALIGNMENT NUMBER & DESCRIPTION: 10000 - PROPOSED BASELINE											
PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
6000	10000	2+04.96	-20.00	171050.6381	712785.4502	S 85°05'18.04" W	20.02				
6001	10000	2+05.82	-40.00	171048.9241	712765.5052	N 7°22'25.89" W	24.18				
6002	10000	2+30.00	-40.00	171072.9041	712762.4019	N 82°37'34.11" E	20.00				
6003	10000	2+30.00	-20.00	171075.4710	712782.2365	S 7°22'25.89" E	25.04				
6000	10000	2+04.96	-20.00	171050.6381	712785.4502						
FIGURE 6000 AREA = 492.2000 SQ. FT. (0.0113 ACRES)											

ASSESSMENT NUMBER	OWNERSHIP OF RECORD	TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)							
55-16.00-86.00	(2-L) MCCABE BROTHERS LLC	P/E	3379-254	19.400							
ALIGNMENT NUMBER & DESCRIPTION: 10000 - PROPOSED BASELINE											
PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
6001	10000	2+05.82	-40.00	171048.9241	712765.5052	S 85°07'00.98" W	20.02				
6100	10000	2+06.69	-60.00	171047.2201	712745.5590	N 7°22'25.89" W	53.31				
6101	10000	2+60.00	-60.00	171100.0892	712738.7170	N 82°37'34.11" E	40.00				
6102	10000	2+60.00	-20.00	171105.2229	712778.3862	S 7°22'25.89" E	30.00				
6003	10000	2+30.00	-20.00	171075.4710	712782.2365	S 82°37'34.11" W	20.00				
6002	10000	2+30.00	-40.00	171072.9041	712762.4019	S 7°22'25.89" E	24.18				
6001	10000	2+05.82	-40.00	171048.9241	712765.5052						
FIGURE 6100 AREA = 1674.9000 SQ. FT. (0.0385 ACRES)											

ASSESSMENT NUMBER	OWNERSHIP OF RECORD	TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)							
55-16.00-86.00	(2-L) MCCABE BROTHERS LLC	TCE	3379-254	19.400							
ALIGNMENT NUMBER & DESCRIPTION: 10000 - PROPOSED BASELINE											
PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
6100	10000	2+06.69	-60.00	171047.2201	712745.5590	S 85°04'36.86" W	25.02				
6200	10000	2+07.76	-85.00	171045.0726	712720.6284	N 7°22'25.89" W	67.24				
6201	10000	2+75.00	-85.00	171111.7565	712711.9986	N 28°52'47.93" E	93.01				
6202	10000	3+50.00	-30.00	171193.1951	712756.9180	N 82°37'34.11" E	10.00				
6203	10000	3+50.00	-20.00	171194.4786	712766.8353	S 7°22'25.89" E	90.00				
6102	10000	2+60.00	-20.00	171105.2229	712778.3862	S 82°37'34.11" W	40.00				
6101	10000	2+60.00	-60.00	171100.0892	712738.7170	S 7°22'25.89" E	53.31				
6100	10000	2+06.69	-60.00	171047.2201	712745.5590						
FIGURE 6200 AREA = 5106.8750 SQ. FT. (0.1172 ACRES)											

ASSESSMENT NUMBER	OWNERSHIP OF RECORD	TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)							
533-16.00-87.01	(1-R) THE MAYOR AND COUNCIL OF THE TOWN OF SELBYVILLE	FEE	2361-197	7.900							
ALIGNMENT NUMBER & DESCRIPTION: 10000 - PROPOSED BASELINE											
PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
6300	10000	1+95.68	20.00	171046.5686	712826.3104	S 86°28'39.74" E	20.37				
6303	10000	1+91.83	40.00	171045.3173	712846.6391	S 7°22'25.89" E	21.83				
6600	10000	1+70.00	40.00	171023.6678	712849.4409	S 82°37'34.11" W	20.00				
6601	10000	1+70.00	20.00	171021.1009	712829.6063	N 7°22'25.89" W	25.68				
6300	10000	1+95.68	20.00	171046.5686	712826.3104						
FIGURE 6600 AREA = 475.1000 SQ. FT. (0.0109 ACRES)											

ASSESSMENT NUMBER	OWNERSHIP OF RECORD	TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)							
533-16.00-87.01	(1-R) THE MAYOR AND COUNCIL OF THE TOWN OF SELBYVILLE	P/E	2361-197	7.900							
ALIGNMENT NUMBER & DESCRIPTION: 10000 - PROPOSED BASELINE											
PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
6303	10000	1+91.83	40.00	171045.3173	712846.6391	S 86°30'19.20" E	20.37				
6402	10000	1+87.99	60.00	171044.0759	712866.9666	S 7°22'25.89" E	42.99				
6700	10000	1+45.00	60.00	171001.4414	712872.4840	S 82°37'34.11" W	40.00				
6701	10000	1+45.00	20.00	170996.3077	712832.8148	N 7°22'25.89" W	25.00				
6601	10000	1+70.00	20.00	171021.1009	712829.6063	N 82°37'34.11" E	20.00				
6600	10000	1+70.00	40.00	171023.6678	712849.4409	N 7°22'25.89" W	21.83				
6303	10000	1+91.83	40.00	171045.3173	712846.6391						
FIGURE 6700 AREA = 1398.2000 SQ. FT. (0.0321 ACRES)											

ASSESSMENT NUMBER	OWNERSHIP OF RECORD	TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)							
533-16.00-87.01	(1-R) THE MAYOR AND COUNCIL OF THE TOWN OF SELBYVILLE	TCE	2361-197	7.900							
ALIGNMENT NUMBER & DESCRIPTION: 10000 - PROPOSED BASELINE											
PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
6402	10000	1+87.99	60.00	171044.0759	712866.9666	S 86°29'22.36" E	35.64				
6501	10000	1+81.26	95.00	171041.8935	712902.5409	S 7°22'25.89" E	36.26				
6800	10000	1+45.00	95.00	171005.9334	712907.1946	S 82°37'34.11" W	35.00				
6700	10000	1+45.00	60.00	171001.4414	712872.4840	N 7°22'25.89" W	42.99				
6402	10000	1+87.99	60.00	171044.0759	712866.9666						
FIGURE 6800 AREA = 1386.8750 SQ. FT. (0.0318 ACRES)											

ASSESSMENT NUMBER	OWNERSHIP OF RECORD	TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)							
533-16.00-87.00	(2-R) THE MAYOR AND COUNCIL OF THE TOWN OF SELBYVILLE	FEE	649-258	92.420							
ALIGNMENT NUMBER & DESCRIPTION: 10000 - PROPOSED BASELINE											
PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
6300	10000	1+95.68	20.00	171046.5686	712826.3104	N 7°22'25.89" W	34.32				
6301	10000	2+30.00	20.00	171080.6047	712821.9057	N 82°37'34.11" E	20.00				
6302	10000	2+30.00	40.00	171083.1716	712841.7403	S 7°22'25.89" E	38.17				
6303	10000	1+91.83	40.00	171045.3173	712846.6391	N 86°28'39.74" W	20.37				
6300	10000	1+95.68	20.00	171046.5686	712826.3104						
FIGURE 6300 AREA = 724.9000 SQ. FT. (0.0166 ACRES)											

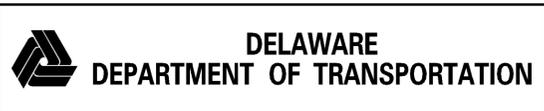
ASSESSMENT NUMBER	OWNERSHIP OF RECORD	TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)							
533-16.00-87.00	(2-R) THE MAYOR AND COUNCIL OF THE TOWN OF SELBYVILLE	P/E	649-258	92.420							
ALIGNMENT NUMBER & DESCRIPTION: 10000 - PROPOSED BASELINE											
PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
6303	10000	1+91.83	40.00	171045.3173	712846.6391	N 7°					

COUNTY ASSESSMENT PARCEL NUMBER	PLAN SHEET NUMBER	OWNERSHIP OF RECORD	TITLE SOURCE	PROPERTY AREA BEFORE ACQUISITION (ACRE) D=DEED C=CALCULATED A=ASSESSMENT	ACQUISITION CODE FEE, R/W, P/E, TCE	AREA TO BE ACQUIRED				PROPERTY AREA REMAINING (SQ. FEET /ACRES)	DEED RECORD OF ACQUISITION	REMARKS
						ACQUISITION (SQ. FEET /ACRES)	AREA OCCUPIED BY EXISTING RIGHT OF WAY (SQ. FEET /ACRES)	EASEMENT				
								PERMANENT (SQ. FEET /ACRES)	TEMPORARY (SQ. FEET /ACRES)			
533-16.00-83.00	26	(1-L) HANCE J. & ELIZABETH R. MCCABE	83-237	D - 4.00	FEE P/E TCE	707.80 / 0.02		1525.10 / 0.04	2080.625 / 0.05	173532.20 / 3.98		
55-16.00-86.00	26	(2-L) MCCABE BROTHERS LLC	3379-254	D - 19.40	FEE P/E TCE	492.20 / 0.01		1674.90 / 0.04	5106.875 / 0.12	844567.80 / 19.39		
533-16.00-87.01	26	(1-R) THE MAYOR AND COUNCIL OF THE TOWN OF SELBYVILLE	2361-197	D - 7.90	FEE P/E TCE	475.10 / 0.01		1398.20 / 0.03	1386.875 / 0.03	343648.90 / 7.89		
533-16.00-87.00	26	(2-R) THE MAYOR AND COUNCIL OF THE TOWN OF SELBYVILLE	649-258	D - 92.42	FEE P/E TCE	724.90 / 0.02		1401.80 / 0.03	2113.125 / 0.05	4025090.30 / 92.40		

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ACQUISITION CODES
 FEE - ACQUISITION P/E - PERMANENT EASEMENT
 R/W - AREA OCCUPIED BY EXISTING R/W TCE - TEMPORARY EASEMENT

RIGHT-OF-WAY SHEET 3 OF 3



ADDENDUMS / REVISIONS

NOT TO SCALE

SUSSEX COUNTY PIPE REPLACEMENTS, FEDERAL, 2012

CONTRACT T201207604	BRIDGE NO. 3-409
COUNTY SUSSEX	DESIGNED BY: SMW
	CHECKED BY: EM

RIGHT-OF-WAY TABULATION

SHEET NO. 29
TOTAL SHTS. 39

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HORIZONTAL / VERTICAL CONTROL DATA					
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION
TP #3	3+38.50	-15.29	309936.73	655840.50	20.93
TP #6	2+71.72	13.81	309981.36	655782.92	22.08

CONSTRUCTION ALIGNMENT CONTROL				
POINT	STATION	OFFSET	NORTHING	EASTING
10000	0+00.00	0.00	310226.39	655664.68
10001	6+00.00	0.00	309699.95	655952.54

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.

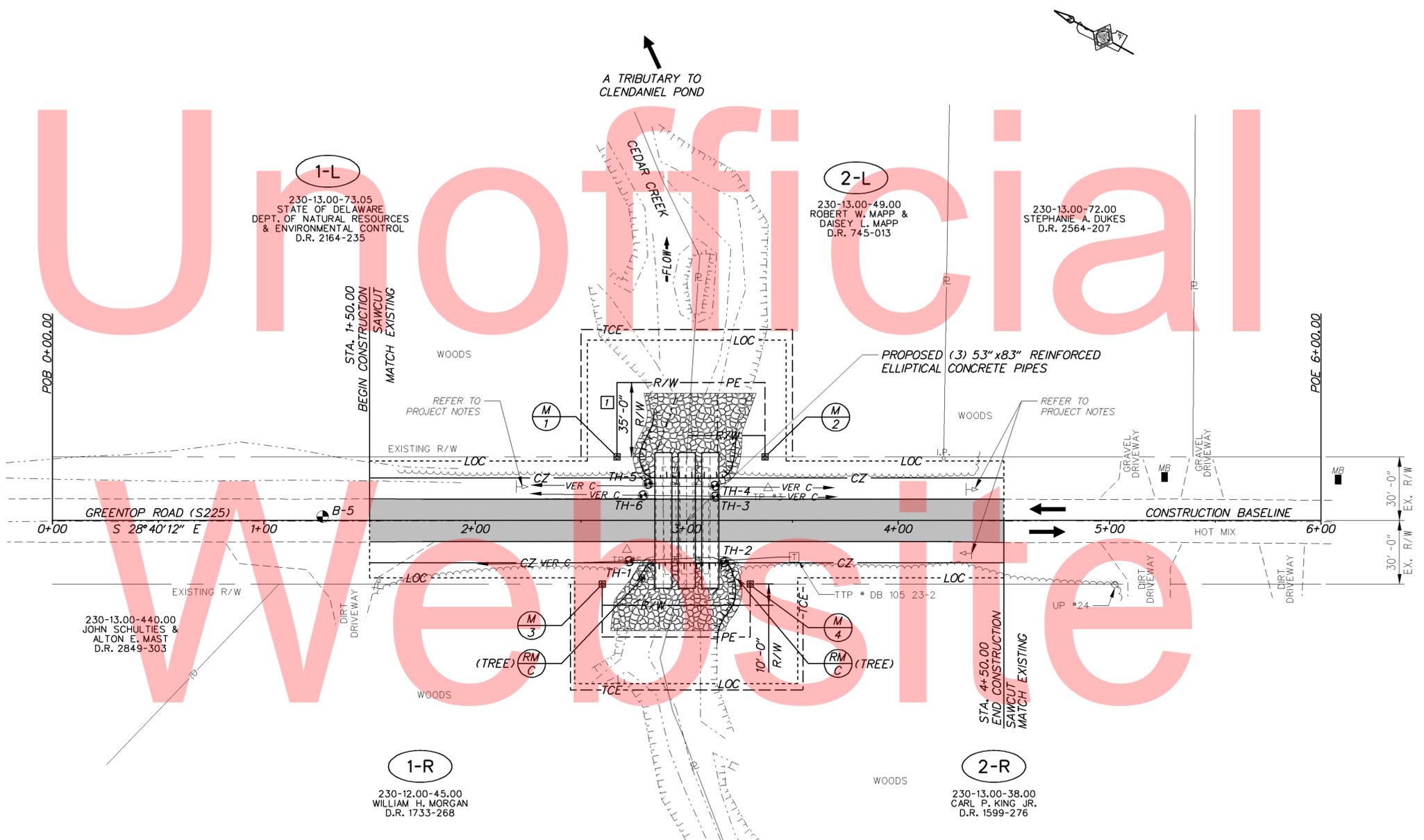


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 DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE FEET	SUSSEX COUNTY PIPE REPLACEMENTS, FEDERAL, 2012	CONTRACT	BRIDGE NO.	3-941	HORIZONTAL AND VERTICAL CONTROL	SHEET NO.		
					T201207604	DESIGNED BY: SMW		30		
						COUNTY		CHECKED BY: KRL		TOTAL SHTS.
						SUSSEX				39

Unofficial



1-L
230-13.00-73.05
STATE OF DELAWARE
DEPT. OF NATURAL RESOURCES
& ENVIRONMENTAL CONTROL
D.R. 2164-235

2-L
230-13.00-49.00
ROBERT W. MAPP &
DAISEY L. MAPP
D.R. 745-013

230-13.00-72.00
STEPHANIE A. DUKES
D.R. 2564-207

230-13.00-440.00
JOHN SCHULTIES &
ALTON E. MAST
D.R. 2849-303

1-R
230-12.00-45.00
WILLIAM H. MORGAN
D.R. 1733-268

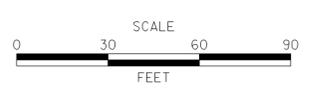
2-R
230-13.00-38.00
CARL P. KING JR.
D.R. 1599-276

SOIL BORING SCHEDULE					
NO.	STATION	ELEVATION	OFFSET	NORTHING	EASTING
B-5	1+27.76	24.52	-1.85	310115.18	655727.60

UTILITY TEST HOLE SCHEDULE							
NO.	UTILITY	STATION	OFFSET	GRND EL.	COVER	O. D. & MATERIAL	OWNER
TH-1	TELEPHONE	2+72.70	19.21	21.80	2.82	1" CABLE	VERIZON
TH-2	TELEPHONE	3+17.54	19.70	20.52	1.76	1" CABLE	VERIZON
TH-3	TELEPHONE	3+13.51	-11.25	21.82	1.69	1/2" CABLE	VERIZON
TH-4	TELEPHONE	3+13.31	-16.35	21.03	3.79	1/2" CABLE	VERIZON
TH-5	TELEPHONE	2+81.59	-17.30	21.62	4.37	NO VIS., CABLE	VERIZON
TH-6	TELEPHONE	2+79.38	-11.84	22.03	1.68	1/2" CABLE	VERIZON

RIGHT-OF-WAY MONUMENT SCHEDULE					
NO.	TYPE	STATION	OFFSET	NORTHING	EASTING
M-1	CAPPED REBAR	2+67.00	-30.00	310006.52	655819.10
M-2	CAPPED REBAR	3+37.00	-30.00	309945.10	655852.68
M-3	CAPPED REBAR	2+60.00	30.00	309983.87	655763.10
M-4	CAPPED REBAR	3+30.00	30.00	309922.46	655796.68

ADDENDUMS / REVISIONS	
1	MODIFICATION TO RIGHT-OF-WAY FOR PARCEL 1-L REMOVED PE AND ADJUSTED R/W AREA
	SMW 2/11/14



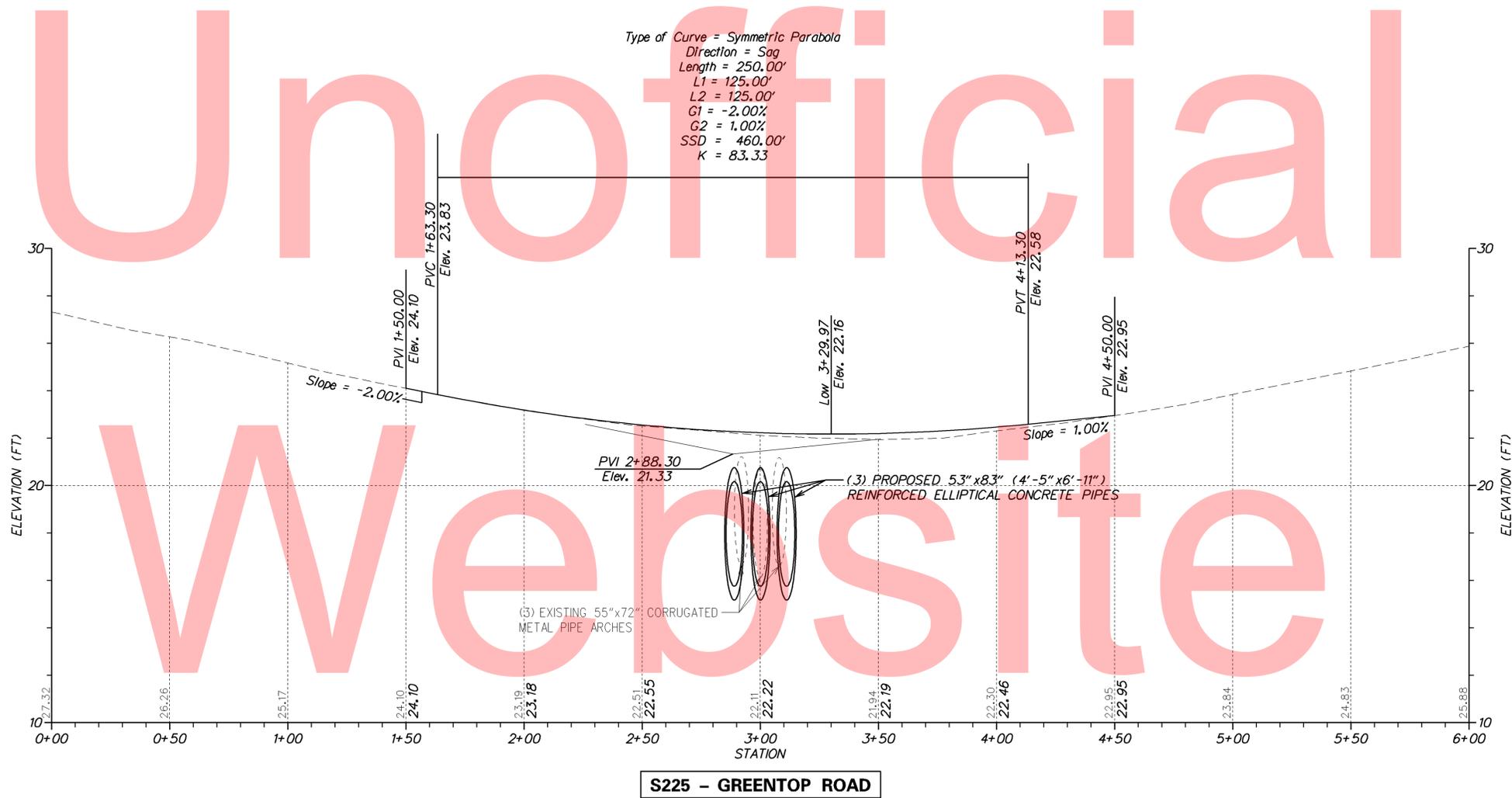
SUSSEX COUNTY PIPE REPLACEMENTS, FEDERAL, 2012

CONTRACT T201207604	BRIDGE NO. 3-941
COUNTY SUSSEX	DESIGNED BY: SMW CHECKED BY: KRL

CONSTRUCTION PLAN	SHEET NO. 31
	TOTAL SHTS. 39

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ADDENDUMS / REVISIONS



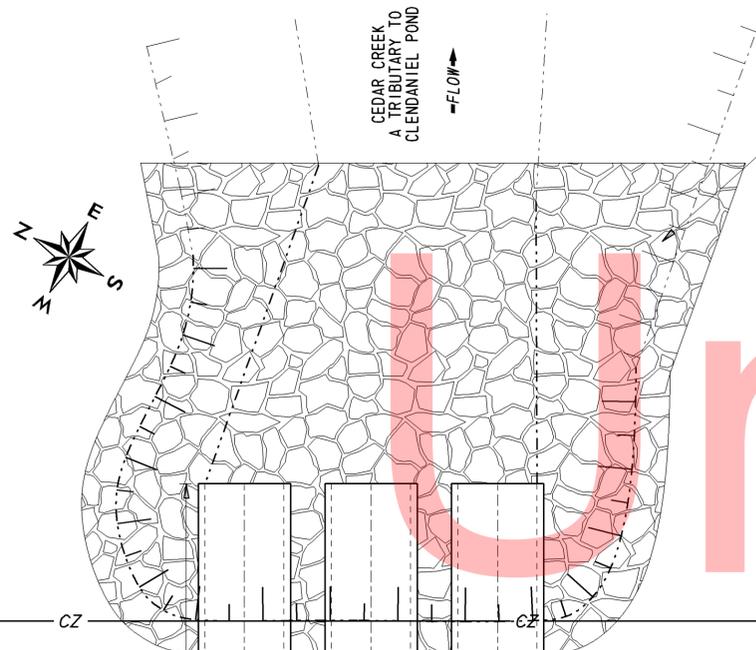
SUSSEX COUNTY PIPE REPLACEMENTS, FEDERAL, 2012

CONTRACT	BRIDGE NO.	3-941
T201207604	DESIGNED BY:	SMW
COUNTY	CHECKED BY:	KRL
SUSSEX		

PROFILE

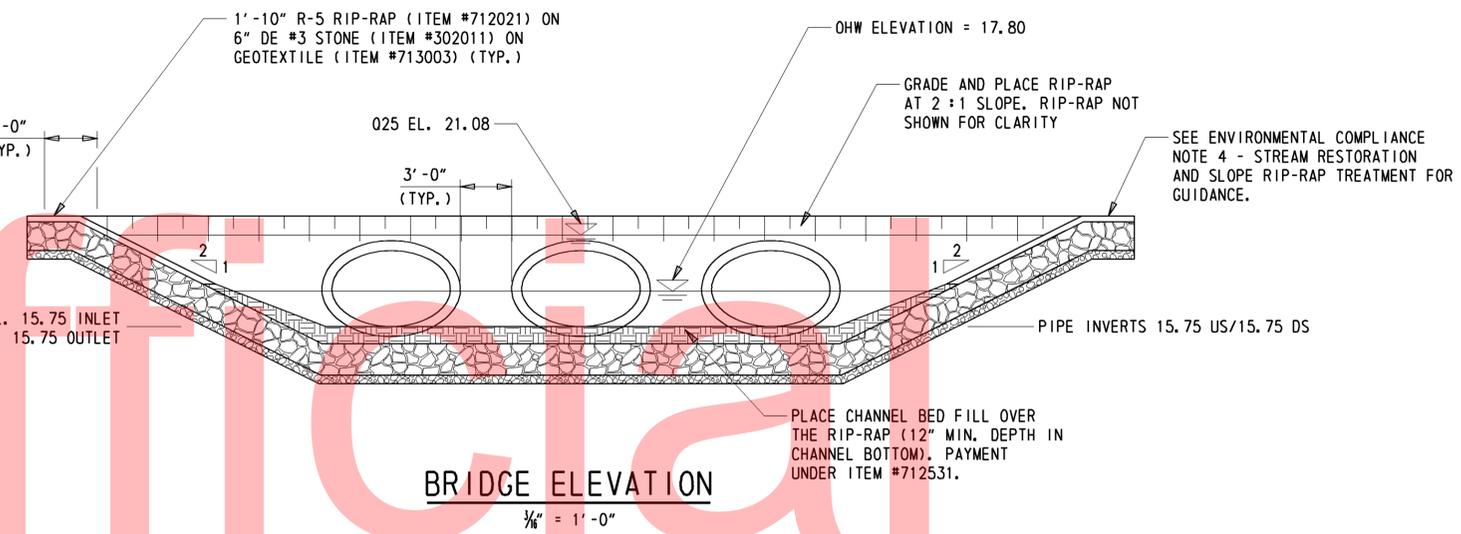


SHEET NO.	32
TOTAL SHTS.	39



REFER TO NOTE 2B FOR DOWNSTREAM RIP-RAP DIMENSIONS

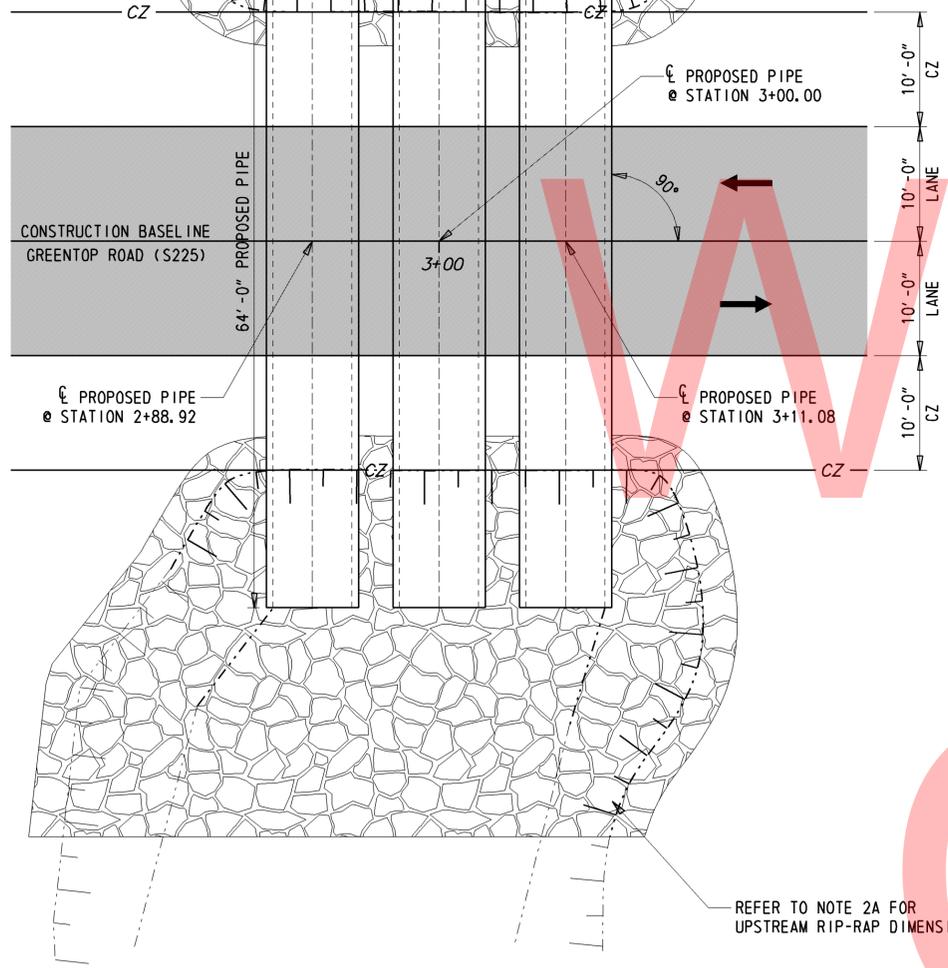
STREAM GRADE EL. 15.75 INLET
STREAM GRADE EL. 15.75 OUTLET



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

NOTES:

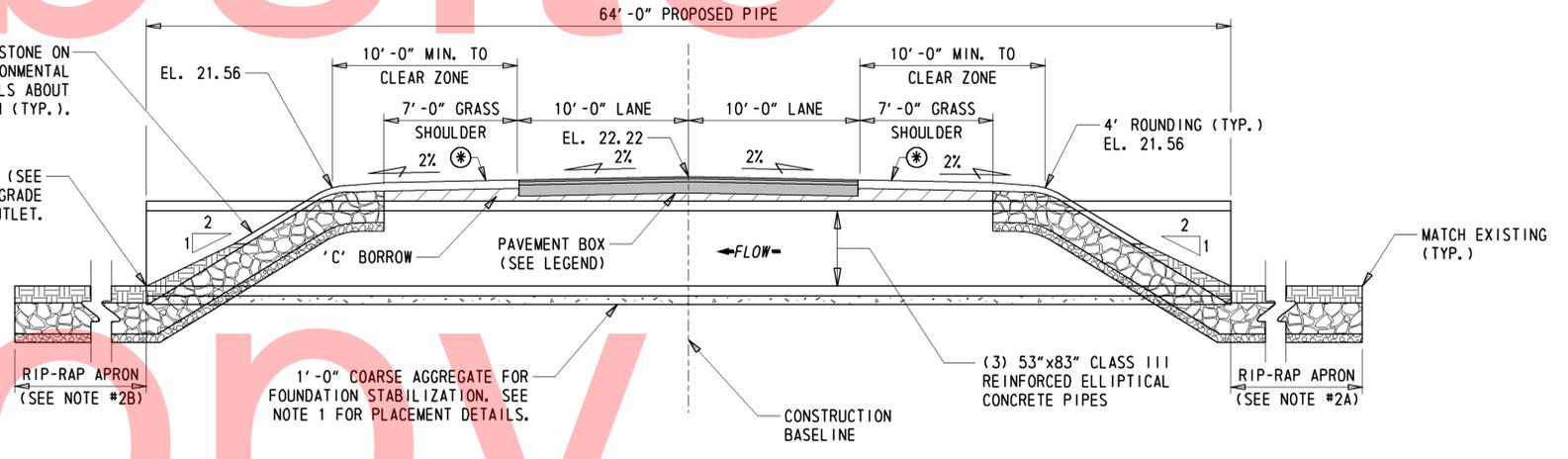
1. PROPOSED BRIDGE:
THE EXISTING (3) 55"x72" (6'-1"x4'-7") CORRUGATED METAL PIPE ARCHES SHALL BE REPLACED WITH (3) 53"x83" (4'-5"x6'-11") REINFORCED ELLIPTICAL CONCRETE PIPES (64'-0" LONG). THE INVERT OF THE OUTER PIPES SHALL BE PLACED AT THE SAME ELEVATION AS THE INVERT OF THE CENTER PIPE. PLACE PIPES WITH A 3'-0" SPACE BETWEEN THE OUTER WALLS OF EACH RUN. PLACE 6" COARSE AGGREGATE BEDDING BENEATH PIPES AND 6" SHAPED UP THE CURVE OF EACH PIPE.
2. RIP-RAP PLACEMENT:
 - A. UPSTREAM - RIP-RAP SHALL BE PLACED IN THE CHANNEL BOTTOM 20'-0" FROM THE PIPE INLET ALONG THE STREAM CENTERLINE AND SHALL BE PLACED TO CREATE A SMOOTH BEND THAT MATCHES THE EXISTING STREAM BANKS.
 - B. DOWNSTREAM - RIP-RAP SHALL BE PLACED IN THE CHANNEL BOTTOM 28'-0" FROM THE PIPE OUTLET ALONG THE STREAM CENTERLINE AND SHALL BE PLACED TO CREATE A SMOOTH BEND THAT MATCHES THE EXISTING STREAM BANKS.



PLAN
1/8" = 1'-0"

1'-10" R-5 RIP-RAP ON 6" DE #3 STONE ON GEOTEXTILE. REFER TO ENVIRONMENTAL COMPLIANCE NOTES FOR DETAILS ABOUT RIP-RAP INSTALLATION (TYP.).

CENTER PIPE INVERT SHOWN (SEE BRIDGE ELEVATION) STREAM GRADE EL. 15.75 INLET, EL. 15.75 OUTLET.

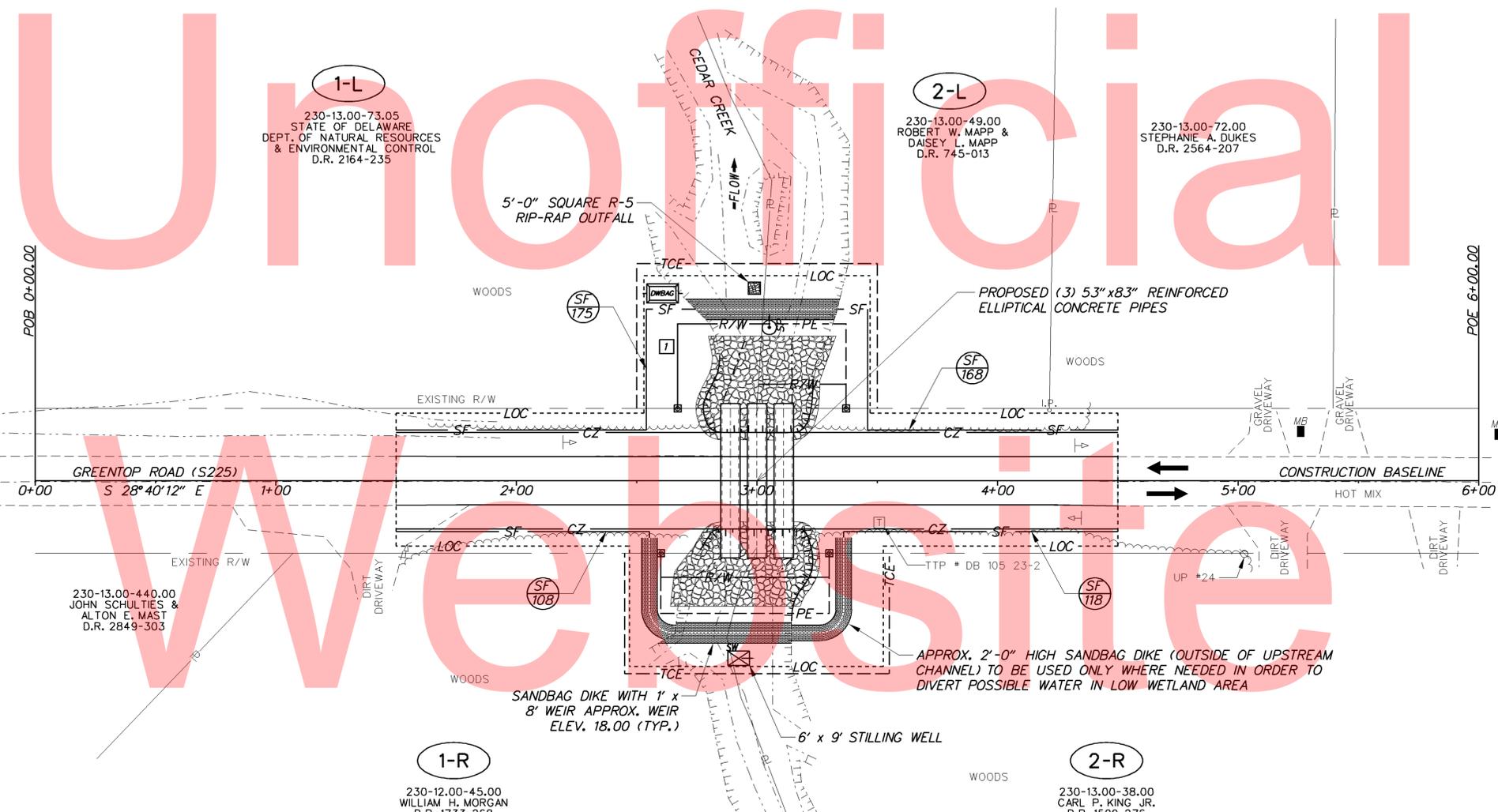


BRIDGE SECTION
1/8" = 1'-0"

NOTE: BRIDGE SECTION SHOWS THE CENTERLINE OF THE CENTER PIPE.

*-PLACE 6" TOPSOIL, AND APPROPRIATE SEEDING

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SEQUENCE OF CONSTRUCTION:

1. INSTALL MOT DEVICES IN ACCORDANCE WITH THE DETOUR PLAN.
2. INSTALL SILT FENCE (ITEM 905001) EXCEPT AT CONNECTIONS TO SANDBAG DIKES (ITEM 909005).
3. INSTALL STILLING WELL (ITEM 909005) JUST UPSTREAM OF THE PROPOSED SANDBAG DIKE. PLACE R-5 RIP-RAP (ITEM 909005) 5 FEET IN DIRECTION OF FLOW BY 5 FEET WIDE AT THE PROPOSED DISCHARGE AREA.
4. CONSTRUCT THE SANDBAG DIKES, AT THE LOCATIONS SHOWN, WITH TOP EL. OF 18.50 OR 6 INCHES BELOW TOP OF STEAM BANK (WHICHEVER IS LOWER) WITH A 1' x 8' WEIR OPENING UPSTREAM. ELEVATION OF THE DOWNSTREAM SANDBAG DIKES SHALL NOT BE HIGHER THAN THE LOWEST ELEVATION OF THE UPSTREAM SANDBAG DIKE. CONNECT SILT FENCE TO SANDBAG DIKE TO COMPLETELY ENCLOSE THE WORK AREA. USE PUMP (ITEM 909005) TO DIVERT THE STREAM BASE FLOW AROUND THE ENCLOSED WORK AREA. WHEN THE FLOW IS HIGHER THAN PUMP CAPACITY DURING RAINFALL EVENTS, THE STREAM FLOW IS ALLOWED TO FLOW OVER THE SANDBAG DIKE. THEREFORE, THE ENCLOSED AREA SHALL BE KEPT CLEAR OF DEBRIS AND OBSTRUCTIONS AT THE END OF EACH WORKDAY. THE BASE FLOW THROUGH THE PUMP(S) SHALL BE 24.2 CFS.
5. INSTALL SUMP PIT (ITEM 906003) AND DEWATERING BAG (ITEM 906002) AS A SEDIMENT TRAPPING DEVICE. DEWATER THE WORK AREA IN ACCORDANCE WITH SECTION 902 OF DELDOT STANDARD SPECIFICATIONS. DISCHARGE CLEAN EFFLUENT FROM THE APPROVED SEDIMENT TRAPPING DEVICE AT THE STABILIZED OUTLET OF THE PUMPING OPERATION OR ON OTHER STABLE OUTLET AS APPROVED BY THE ENGINEER.
6. REMOVE THREE EXISTING CORRUGATED METAL PIPES AND INSTALL PROPOSED REINFORCED ELLIPTICAL CONCRETE PIPES.
7. INSTALL RIP-RAP, CHANNEL BED FILL AND SLOPE STABILIZATION AS NOTED.
8. INSTALL PROPOSED PAVEMENT AS SHOWN ON THE PLANS. STRIPE ROADWAY TO MATCH EXISTING STRIPING PATTERN. CONSTRUCT ROADWAY SLOPES AND COMPLETE ANY OTHER REMAINING WORK.
9. WHEN NO LONGER NEEDED, REMOVE SANDBAG DIKES, PUMPS AND EROSION AND SEDIMENT CONTROL DEVICES RELATING TO THE STREAM DIVERSION (I.E. STILLING WELL AND STABILIZED OUTFALL RIP-RAP). RESTORE STREAM TO EXISTING CONDITIONS AS OUTLINED IN THE ENVIRONMENTAL COMPLIANCE NOTES.
10. REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES (I.E. SILT FENCE) AFTER VEGETATION HAS STABILIZED ALL DISTURBED AREAS IN ACCORDANCE WITH THESE PLANS AND AS DIRECTED BY THE ENGINEER.
11. REMOVE ALL MOT DEVICES AND REOPEN THE ROADWAY. REMOVAL OF MOT DEVICES MAY OCCUR PRIOR TO REMOVAL OF TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES.

ADDENDUMS / REVISIONS	
1	MODIFICATION TO RIGHT-OF-WAY FOR PARCEL 1-L REMOVED PE AND ADJUSTED R/W AREA
	SMW 2/11/14



CONTRACT	BRIDGE NO.	3-941
T201207604	DESIGNED BY:	SMW
COUNTY	CHECKED BY:	KRL
SUSSEX		

SHEET NO.	34
TOTAL SHTS.	39

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PERMANENT OPEN WATER IMPACT AREA SCHEDULE					
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
O-1	DOWNSTREAM RIP-RAP	701.85	0.0161	60.57	COE/DNREC
O-2	EX. PIPE TO PROP. FILL	102.50	0.0024	9.38	COE/DNREC
O-3	PROPOSED PIPE	236.29	0.0054	21.62	COE/DNREC
O-4	UPSTREAM RIP-RAP	812.50	0.0187	70.12	COE/DNREC
TOTAL PERMANENT OPEN WATER IMPACTS		1853.14	0.0426	161.69	COE/DNREC

TEMPORARY OPEN WATER IMPACT AREA SCHEDULE					
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
OT-1	STABILIZED OUTFALL	25.00	0.0006	1.39	COE/DNREC
OT-2	DOWNSTREAM SANDBAGS	312.22	0.0072	28.91	COE/DNREC
OT-3	EX. PIPE TO PROP. PIPE	612.03	0.0141	125.98	COE/DNREC
OT-4	UPSTREAM SANDBAGS	357.69	0.0082	33.12	COE/DNREC
OT-5	STILLING WELL	54.00	0.0012	3.00	COE/DNREC
TOTAL TEMPORARY OPEN WATER IMPACTS		1360.94	0.0313	192.40	COE/DNREC

OPEN WATER CREATION AREA SCHEDULE					
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
OC-1	FILL TO PROPOSED PIPE	434.21	0.0099	39.72	COE/DNREC
TOTAL OPEN WATER CREATION AREAS		434.21	0.0099	39.72	COE/DNREC

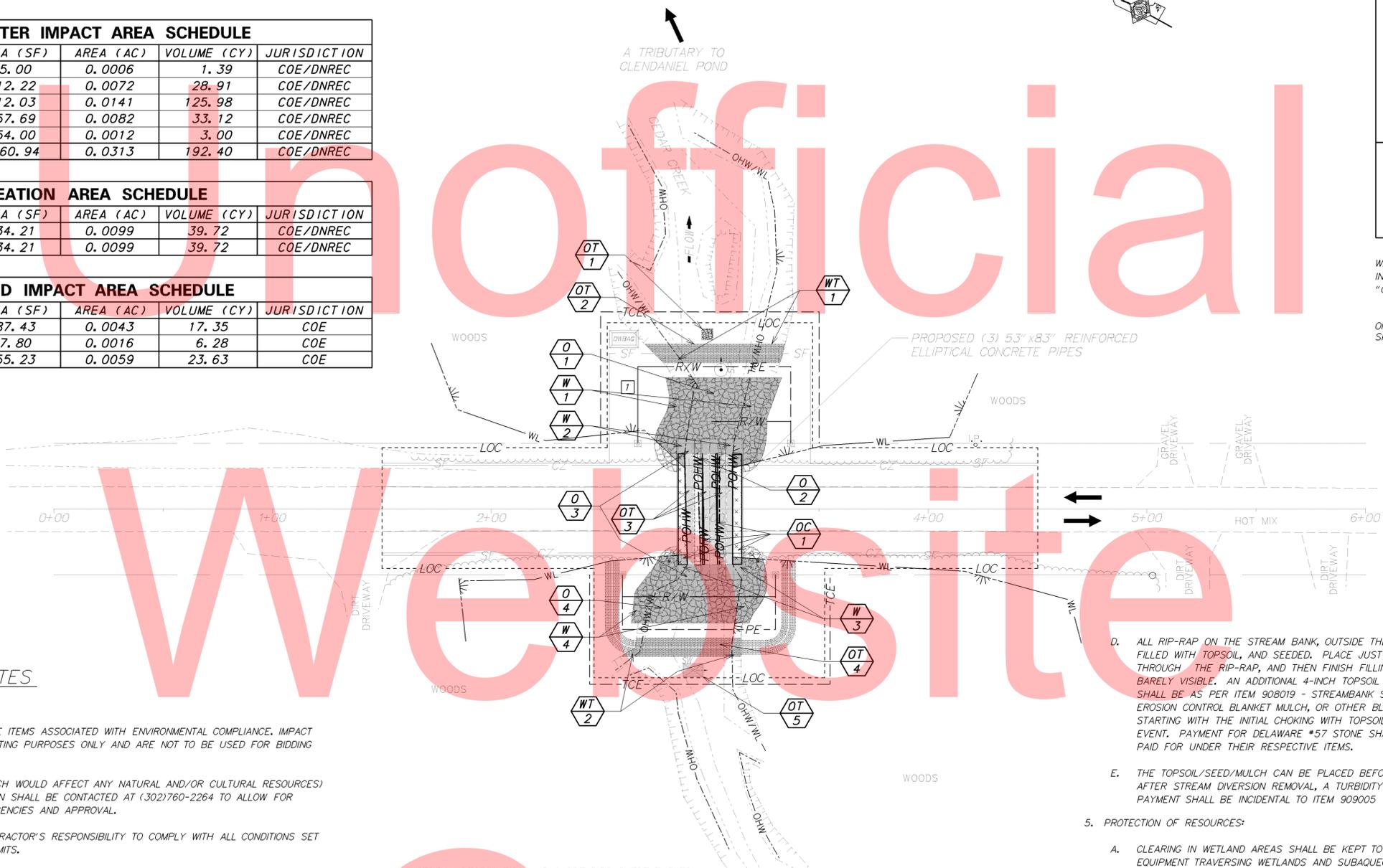
TEMPORARY WETLAND IMPACT AREA SCHEDULE					
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
WT-1	DOWNSTREAM SANDBAGS	187.43	0.0043	17.35	COE
WT-2	UPSTREAM SANDBAGS	67.80	0.0016	6.28	COE
TOTAL TEMPORARY WETLAND IMPACT AREAS		255.23	0.0059	23.63	COE

PERMANENT WETLAND IMPACT AREA SCHEDULE					
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
W-1	DOWNSTREAM RIP-RAP	870.73	0.0199	75.14	COE
W-2	DOWNSTREAM PROP. PIPE	100.19	0.0023	8.65	COE
W-3	UPSTREAM PROP. PIPE	72.06	0.0017	6.22	COE
W-4	UPSTREAM RIP-RAP	587.55	0.0135	50.70	COE
TOTAL PERMANENT WETLAND IMPACT AREAS		1630.53	0.0374	140.71	COE

LEGEND	
	CREATION AREA
	PERMANENT IMPACT AREA
	TEMPORARY IMPACT AREA
-----OHW-----	ORDINARY HIGH WATER
-----POHW-----	PROPOSED ORDINARY HIGH WATER
---OHW/WL---	ORD. HIGH WATER / WETLAND
---WL---	WETLAND BOUNDARY
	IMPACT AREA TYPE ID. (SEE BELOW) IMPACT AREA ID. AND/OR NUMBER
O =	OPEN WATER IMPACT
C =	CREATION AREA
T =	TEMPORARY IMPACT
W =	WETLAND IMPACT

WETLANDS DELINEATED BY ENVIRONMENTAL RESOURCES, INC. ON 2-1-2013 IN ACCORDANCE WITH THE US ARMY CORPS OF ENGINEERS "CORPS OF ENGINEERS WETLAND DELINEATION MANUAL (1987)".

ORIGINAL SHEET PREPARED BY SCOTT WALLS ON 6-13-2013. SHEET LAST UPDATED ON 1-22-2015.



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): NATIONWIDE 3 (d) AND (e), (NO PCN)
 - DNREC - WETLANDS & SUBAQUEOUS LANDS (WLSL): PROJECT CONSISTENT WITH DEL. CODE CH. 72, SECTION 7217 (b), AS AMENDED BY SB 186.
 - 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.
 - CONSTRUCTION RESTRICTIONS:
 - FISHERIES - BLACKBAND SUNFISH, NO IN-WATER WORK FROM APRIL 15TH TO JUNE 30TH (INCLUSIVE)
 - ENDANGERED SPECIES - SWAMP PINK AND ATLANTIC WHITE CEDAR/RED MAPLE SWAMP - APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES SHALL BE TAKEN DURING CONSTRUCTION ACTIVITIES TO MINIMIZE IMPACTS TO HABITAT THAT MIGHT HOST THESE SPECIES.
 - MIGRATORY BIRDS - NONE
- CULTURAL RESOURCE ISSUES:
 - PROJECT CONSISTENT WITH SECTION IIB, 4 A OF DELDOT'S PROGRAMMATIC AGREEMENT WITH DE SHPO, FHWA, AND ACPH

- STREAM RESTORATION AND SLOPE RIPRAP TREATMENTS:
 - THE CONTRACTOR SHALL FOLLOW THE SPECIAL PROVISIONS OF ITEM 712531 - CHANNEL BED FILL IN REGARDS TO THE SALVAGING OF ON-SITE NATURAL STREAM BOTTOM MATERIAL OR THE FURNISHING OF OFF-SITE MATERIAL. IF THE SUFFICIENT SOURCES FOR CHANNEL BED FILL DO NOT EXIST ON-SITE, ANY NEW MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF ITEM 712531 - CHANNEL BED FILL. ALL RIP-RAP IN THE CHANNEL BOTTOM (I.E. BELOW THE WATER LINE) SHALL BE RECESSED ONE FOOT BELOW STREAM BED ELEVATION AND CHOKED WITH BORROW TYPE 'B' SO THAT ALL OF THE VOIDS IN THE RIP-RAP ARE FILLED WITH MATERIAL. PAYMENT UNDER ITEM 209002 - BORROW TYPE 'B'. THE RIP-RAP SHALL THEN BE COVERED WITH A MINIMUM OF 12" CHANNEL BED FILL. FINAL CHANNEL ELEVATIONS SHALL MATCH EXISTING ELEVATIONS 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.
 - OTHER AREAS OF THE CHANNEL BOTTOM AFFECTED BY CONSTRUCTION (INCLUDING, BUT NOT LIMITED TO, THE LOCATION OF SUMP PITS, STABILIZED OUTFALLS, TEMPORARY PIPES AND/OR SANDBAG DIKES AND DIVERSIONS) 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.
 - WHEN ALL EROSION AND SEDIMENT CONTROL MEASURES ARE REMOVED AND THE STREAM RETURNS TO ITS NATURAL FLOW CONDITIONS, THE FLOW MUST REMAIN ABOVE GROUND AND ABOVE THE RIP-RAP (I.E. THE FLOW CANNOT BE "LOST" IN THE RIP-RAP OR BENEATH THE STRUCTURE). IF THIS IS NOT ACHIEVED, THE CONTRACTOR WILL BE REQUIRED TO TAKE CORRECTIVE ACTION AT THE CONTRACTOR'S EXPENSE.

- ALL RIP-RAP ON THE STREAM BANK, OUTSIDE THE CHANNEL BED, SHALL BE CHOKED WITH DELAWARE #57 STONE, FILLED WITH TOPSOIL, AND SEEDED. PLACE JUST ENOUGH CHOKE MATERIAL TO PREVENT THE LOSS OF TOPSOIL THROUGH THE RIP-RAP, AND THEN FINISH FILLING THE VOIDS WITH TOPSOIL SO THAT THE RIP-RAP PEAKS ARE BARELY VISIBLE. AN ADDITIONAL 4-INCH TOPSOIL LAYER SHALL BE PLACED ON TOP OF THE RIP-RAP. SLOPE SEEDING SHALL BE AS PER ITEM 908019 - STREAMBANK SEED MIX. FOLLOWING THE SEEDING OPERATION, ITEM 908020 - EROSION CONTROL BLANKET MULCH, OR OTHER BLANKET AS SHOWN ON THE PLANS SHALL BE INSTALLED. ALL WORK, STARTING WITH THE INITIAL CHOKING WITH TOPSOIL THROUGH THE SEEDING SHALL BE COMPLETED PRIOR TO ANY RAIN EVENT. PAYMENT FOR DELAWARE #57 STONE SHALL BE INCIDENTAL TO THE RIP-RAP ITEM. ALL OTHER ITEMS SHALL BE PAID FOR UNDER THEIR RESPECTIVE ITEMS.
 - THE TOPSOIL/SEED/MULCH CAN BE PLACED BEFORE OR AFTER THE REMOVAL OF THE STREAM DIVERSION. IF IT OCCURS AFTER STREAM DIVERSION REMOVAL, A TURBIDITY CURTAIN SHALL BE USED TO MINIMIZE IN-STREAM SEDIMENTATION. PAYMENT SHALL BE INCIDENTAL TO ITEM 909005 - STREAM DIVERSION.
- PROTECTION OF RESOURCES:
 - CLEARING IN WETLAND AREAS SHALL BE KEPT TO A MINIMUM ABSOLUTELY NECESSARY FOR CONSTRUCTION ACCESS. ALL EQUIPMENT TRAVERSING WETLANDS AND SUBAQUEOUS LAND SHALL BE SUPPORTED ON MATS. PAYMENT FOR MATS SHALL BE MADE UNDER 601520 - TEMPORARY 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 SEEDING WITH TEMPORARY GRASS SEEDING, (PAYMENT UNDER ITEM 908017).
 - 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.
 - SILT FENCE INSTALLATION ADJACENT TO WOODED UPLANDS/WETLANDS: SANDBAGS SHALL BE USED TO SECURE SILT FENCE IN LIEU OF TRENCHING UNLESS PROPER EROSION & SEDIMENT CONTROL CANNOT 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.
 - PLANTING GUIDANCE (INFORMATIONAL ONLY, WORK TO BE DONE BY OTHERS. THERE SHALL BE NO PAYMENT FOR PLANTING ON THIS CONTRACT.): UPON FINAL ACCEPTANCE OF THE CONTRACT, APPROPRIATE TREES AND/OR SHRUBS SHALL BE PLANTED, IN A NATURALIZED PATTERN (MINIMUM 8', MAXIMUM 12' CENTERS) IN TEMPORARILY DISTURBED WOODED WETLAND AREAS WITHIN THE LOC. FINAL PLANT COUNTS WILL BE BASED ON FIELD CONDITIONS AND DETERMINED BY THE ROADSIDE ENVIRONMENTAL ADMINISTRATOR ON HIS DESIGNEE. SPECIFIC PLANT SELECTION IS ALSO AT HIS DISCRETION BUT SHALL BE A NATIVE SPECIES APPROVED BY THE DELAWARE DEPARTMENT OF NATURAL RESOURCES.

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<p>DELAWARE DEPARTMENT OF TRANSPORTATION</p>	<p>ADDENDUMS / REVISIONS</p> <table border="1"> <tr> <td>1</td> <td>MODIFICATION TO RIGHT-OF-WAY FOR PARCEL 1-L</td> <td>SMW 2/11/14</td> </tr> <tr> <td></td> <td>REMOVED PE AND ADJUSTED R/W AREA</td> <td></td> </tr> </table>		1	MODIFICATION TO RIGHT-OF-WAY FOR PARCEL 1-L	SMW 2/11/14		REMOVED PE AND ADJUSTED R/W AREA		<p>SCALE</p> <p>FEET</p>	<p>SUSSEX COUNTY PIPE REPLACEMENTS, FEDERAL, 2012</p>	<p>CONTRACT</p> <p>T20107604</p>	<p>BRIDGE NO.</p> <p>3-941</p>	<p>ENVIRONMENTAL COMPLIANCE PLAN</p>	<p>SHEET NO.</p> <p>35</p>
	1	MODIFICATION TO RIGHT-OF-WAY FOR PARCEL 1-L	SMW 2/11/14											
		REMOVED PE AND ADJUSTED R/W AREA												
		<p>COUNTY</p> <p>SUSSEX</p>	<p>DESIGNED BY: SMW</p>	<p>TOTAL SHTS.</p> <p>39</p>										
			<p>CHECKED BY: KRL</p>											

PORTABLE CHANGEABLE MESSAGE SIGNS

PRIOR TO DETOUR
(10 DAYS PRIOR TO BEGINNING OF DETOUR)

PCMS-1

**GREEN-
TOP RD
TO CLOSE**

**STARTING
XX/XX/XX**

DURING DETOUR

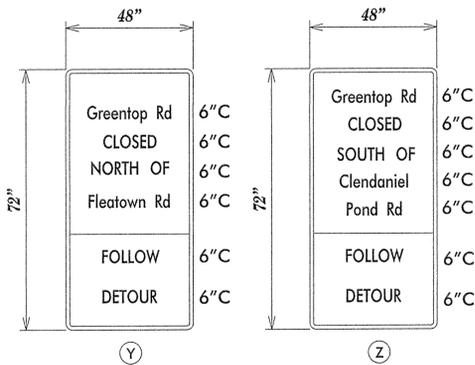
(DISPLAY FOR 5 DAYS AFTER IMPLEMENTATION OF DETOUR)

PCMS-1

**GREEN-
TOP RD
CLOSED**

**FOLLOW
DETOUR**

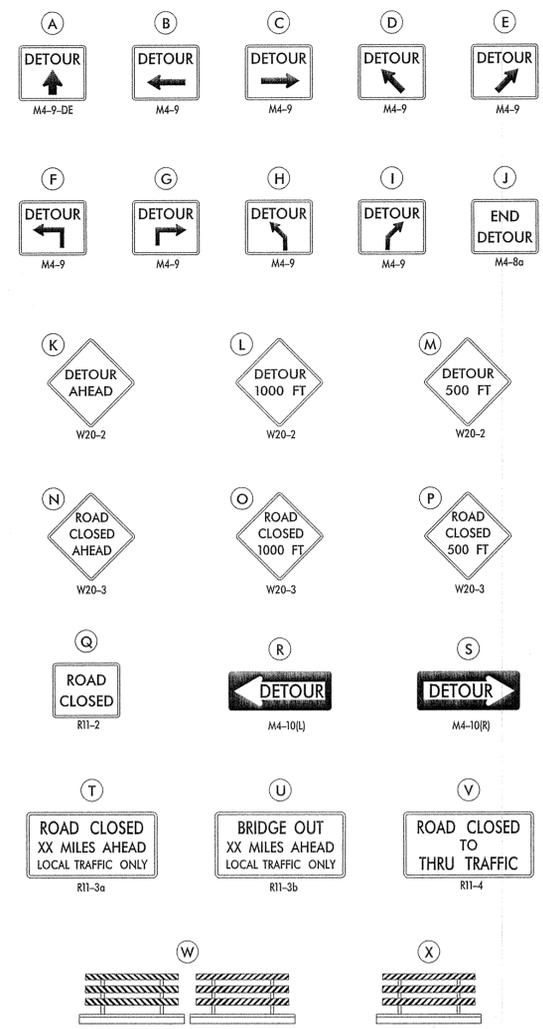
SPECIAL SIGNS



***D/G RETROREFLECTIVE FLUORESCENT
ORANGE BACKGROUND; BLACK LEGEND**



LEGEND



GENERAL NOTES

1. ALL DETOUR SIGNING, INCLUDING TRAILBLAZERS, ARE TO BE SUPPLIED AND MAINTAINED BY THE GENERAL CONTRACTOR IN COMPLIANCE WITH "THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (DE MUTCD.)
2. THE CONTRACTOR SHALL COMPLY WITH GUIDELINES IN "THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (DE MUTCD PART 6) FOR BARRICADES AND SIGNS (AS PER LATEST REVISION.)
3. DESIGN OF ALL SIGNS SHALL BE IN ACCORDANCE WITH THE FHWA STANDARD HIGHWAY SIGNS BOOK.
4. SIZES OF ALL SIGNS SHALL BE IN ACCORDANCE WITH "THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (DE MUTCD.) SIZE OF SIGN SHALL BE BASED ON TYPE OF ROADWAY ON WHICH THE SIGN IS INSTALLED.
5. SIGNS NO LONGER IN USE SHALL BE COMPLETELY COVERED WITH NO RETROREFLECTIVE MATERIAL SHOWING, OR SHALL BE REMOVED, AS DIRECTED BY THE ENGINEER.
6. FIELD CONDITIONS MAY DICTATE CHANGES AT SOME TIME DURING THE LIFE OF THE CONTRACT. IN THE EVENT OF OMISSIONS OR CORRECTIONS, THE SIGNING PROVISIONS OF "THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (DE MUTCD) WILL PREVAIL.
7. SIGNS "N" THROUGH "Q" AND "T" AND "V", THE WORD "ROAD" SHOULD BE CHANGED TO "RAMP", "RR XING", OR "BRIDGE" WHERE APPLICABLE.
8. WARNING SIGNS AND DETOUR TRAILBLAZERS SHALL BE MOUNTED ON BREAKAWAY POSTS AND HAVE RETROREFLECTIVE FLUORESCENT ORANGE SHEETING.
9. "W" BARRICADES SHALL COMPLETELY RUN THE FULL WIDTH OF THE ROADWAY.
10. BARRICADES SHALL BE A MINIMUM OF 6 FEET WIDE UNLESS DIRECTED BY THE ENGINEER.

RECOMMENDED DATE: _____ RECOMMENDED DATE: _____ RECOMMENDED *Michael F. Rivera* DATE: 8/21/12 APPROVED CHIEF SAFETY OFFICER _____ DATE: 8-29-12 APPROVED TRAFFIC ENGINEER _____ DATE: 8/29/12

**DELAWARE
DEPARTMENT OF TRANSPORTATION**

NOT TO SCALE

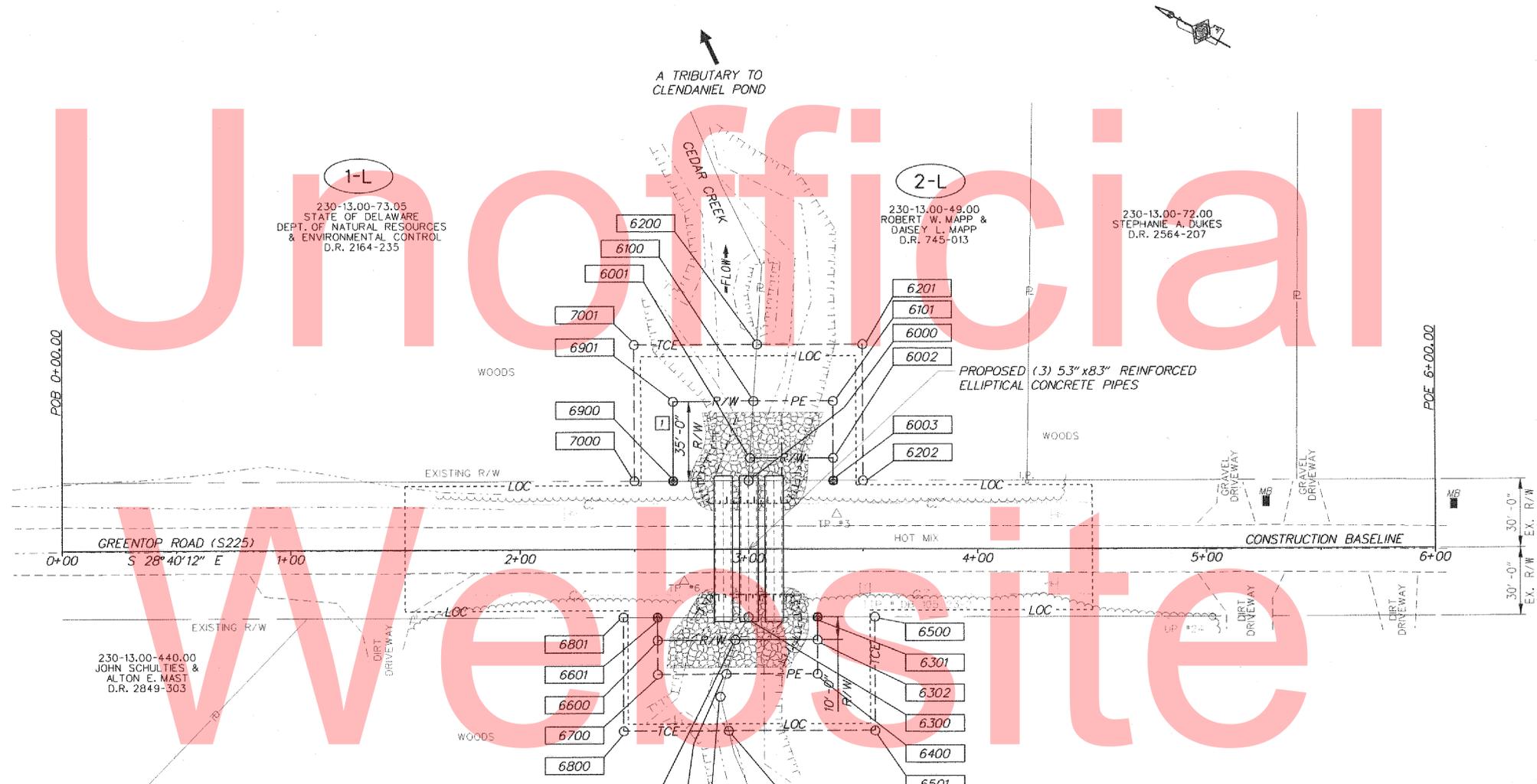
**SUSSEX COUNTY PIPE
REPLACEMENTS, FEDERAL, 2012**

CONTRACT	ROAD NO.	S225
T201207604	DESIGNED BY: MFR	
COUNTY	CHECKED BY: ASW	
SUSSEX		

DETOUR PLAN

SHEET NO.	36
TOTAL SHTS.	39

C:\DOCUMENTS AND SETTINGS\MICHAELRIVERA\MY DOCUMENTS\MICRO STATION DGN\GREENTOP RD (S225) BR3-941.DGN



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ORIGINAL SIGNATURE DATE 11-20-13

RECOMMENDED AS PER REVISION 1
FOR ENGINEERING NEED

Robert A. Reed 2/26/14
TEAM SUPPORT SQUAD MANAGER DATE

Sheema Chaudhri 2-26-14
FOR TEAM SUPPORT ENGINEER DATE

Heidi Dell 2-26-14
ASSISTANT DIRECTOR, ENGINEERING SUPPORT DATE

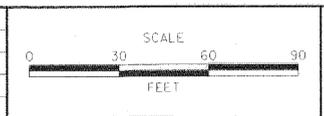
"AS-ACQUIRED" PLANS
I CERTIFY THAT ALL PROPOSED RIGHT-OF-WAY HAS BEEN ACQUIRED IN THE NAME OF THE STATE OF DELAWARE AND THAT THESE PLANS ACCURATELY DEPICT THE NATURE AND EXTENT OF THE REAL ESTATE SECTION ACQUISITION UNDER THIS PROJECT.

CHIEF, REAL ESTATE DATE

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DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS	
1	MODIFICATION TO RIGHT-OF-WAY FOR PARCEL 1-L SMW 2/11/14
	REMOVED PE AND ADJUSTED R/W AREA



SUSSEX COUNTY PIPE REPLACEMENTS, FEDERAL, 2012

CONTRACT	BRIDGE NO.	3-941
T20107604	DESIGNED BY:	SMW
COUNTY	CHECKED BY:	EM
SUSSEX		

RIGHT-OF-WAY SHEET 1 OF 3	
RIGHT-OF-WAY PLAN	SHEET NO. 37
	TOTAL SHTS. 39

7

Table with columns: ASSESSMENT NUMBER, OWNERSHIP OF RECORD, TYPE OF ACQUISITION, TITLE SOURCE, PARCEL AREA (ACRES). Includes alignment data for 230-13.00-73.05.

Table with columns: ASSESSMENT NUMBER, OWNERSHIP OF RECORD, TYPE OF ACQUISITION, TITLE SOURCE, PARCEL AREA (ACRES). Includes alignment data for 230-13.00-73.05.

Table with columns: ASSESSMENT NUMBER, OWNERSHIP OF RECORD, TYPE OF ACQUISITION, TITLE SOURCE, PARCEL AREA (ACRES). Includes alignment data for 230-13.00-49.00.

Table with columns: ASSESSMENT NUMBER, OWNERSHIP OF RECORD, TYPE OF ACQUISITION, TITLE SOURCE, PARCEL AREA (ACRES). Includes alignment data for 230-13.00-49.00.

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Table with columns: ASSESSMENT NUMBER, OWNERSHIP OF RECORD, TYPE OF ACQUISITION, TITLE SOURCE, PARCEL AREA (ACRES). Includes alignment data for 230-12.00-45.00.

Table with columns: ASSESSMENT NUMBER, OWNERSHIP OF RECORD, TYPE OF ACQUISITION, TITLE SOURCE, PARCEL AREA (ACRES). Includes alignment data for 230-12.00-45.00.

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Table with columns: ASSESSMENT NUMBER, OWNERSHIP OF RECORD, TYPE OF ACQUISITION, TITLE SOURCE, PARCEL AREA (ACRES). Includes alignment data for 230-13.00-38.00.

Table with columns: ASSESSMENT NUMBER, OWNERSHIP OF RECORD, TYPE OF ACQUISITION, TITLE SOURCE, PARCEL AREA (ACRES). Includes alignment data for 230-13.00-38.00.

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LEGEND
FEE AREA OF ACQUISITION
RW AREA OCCUPIED BY EXISTING RW
PE PERMANENT EASEMENT
TCE TEMPORARY CONSTRUCTION EASEMENT
* * * * * OFFSET IS LEFT OF BASELINE
** - - - CURVE TURNS TO THE LEFT

RIGHT-OF-WAY SHEET 2 OF 3



ADDENDUMS / REVISIONS
7 MODIFICATION TO RIGHT-OF-WAY FOR PARCEL 1-L SMW 2/11/14
REMOVED PE AND ADJUSTED R/W AREA

NOT TO SCALE

SUSSEX COUNTY PIPE REPLACEMENTS, FEDERAL, 2012

CONTRACT T201207604
BRIDGE NO. 3-941
DESIGNED BY: SMW
CHECKED BY: EM
COUNTY SUSSEX

RIGHT-OF-WAY DATA SHEET
SHEET NO. 38
TOTAL SHTS. 39

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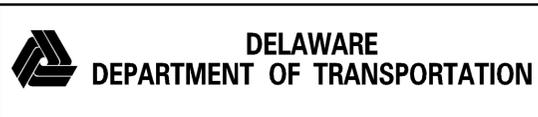
7

COUNTY ASSESSMENT PARCEL NUMBER	PLAN SHEET NUMBER	OWNERSHIP OF RECORD	TITLE SOURCE	PROPERTY AREA BEFORE ACQUISITION (ACRE) D=DEED C=CALCULATED A=ASSESSMENT	ACQUISITION CODE FEE, R/W, P/E, TCE	AREA TO BE ACQUIRED				PROPERTY AREA REMAINING (SQ. FEET /ACRES)	DEED RECORD OF ACQUISITION	REMARKS
						ACQUISITION (SQ. FEET /ACRES)	AREA OCCUPIED BY EXISTING RIGHT OF WAY (SQ. FEET /ACRES)	EASEMENT				
								PERMANENT (SQ. FEET /ACRES)	TEMPORARY (SQ. FEET /ACRES)			
230-13.00-73.05	46	(1-L) STATE OF DELAWARE, DNREC	2164-235	D - 9.49	FEE TCE		1194.75 / 0.03		1921.875 / 0.04	412228.854 / 9.46		
230-13.00-49.00	46	(2-L) ROBERT W. MAPP & DAISEY L. MAPP	745-013	D - 18.75	FEE P/E TCE		366.75 / 0.01		888.50 / 0.02 1628.125 / 0.04	816383.25 / 18.74		
230-12.00-45.00	46	(1-R) WILLIAM B. MORGAN	1733-268	A - 103.00	FEE P/E TCE		368.80 / 0.01		480.60 / 0.01 1475.425 / 0.03	4486311.20 / 102.99		
230-13.00-38.00	46	(2-R) CARL P. KING JR.	1599-276	A - 128.30	FEE P/E TCE		331.20 / 0.01		569.40 / 0.01 2274.575 / 0.05	5588600.80 / 128.30		

Unofficial
 Website
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ACQUISITION CODES
 FEE - ACQUISITION
 R/W - AREA OCCUPIED BY EXISTING R/W
 P/E - PERMANENT EASEMENT
 TCE - TEMPORARY EASEMENT

RIGHT-OF-WAY SHEET 3 OF 3



ADDENDUMS / REVISIONS
 7 MODIFICATION TO RIGHT-OF-WAY FOR PARCEL 1-L SMW 2/11/14
 REMOVED PE AND ADJUSTED R/W AREA

NOT TO SCALE

SUSSEX COUNTY PIPE
 REPLACEMENTS, FEDERAL, 2012

CONTRACT
 T201207604
 COUNTY
 SUSSEX
 BRIDGE NO.
 3-941
 DESIGNED BY: SMW
 CHECKED BY: EM

RIGHT-OF-WAY
 TABULATION

SHEET NO.
 39
 TOTAL SHTS.
 39

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