

GENERAL LOCATION OF CONTRACT

THE STATE OF DELAWARE DEPARTMENT OF TRANSPORTATION

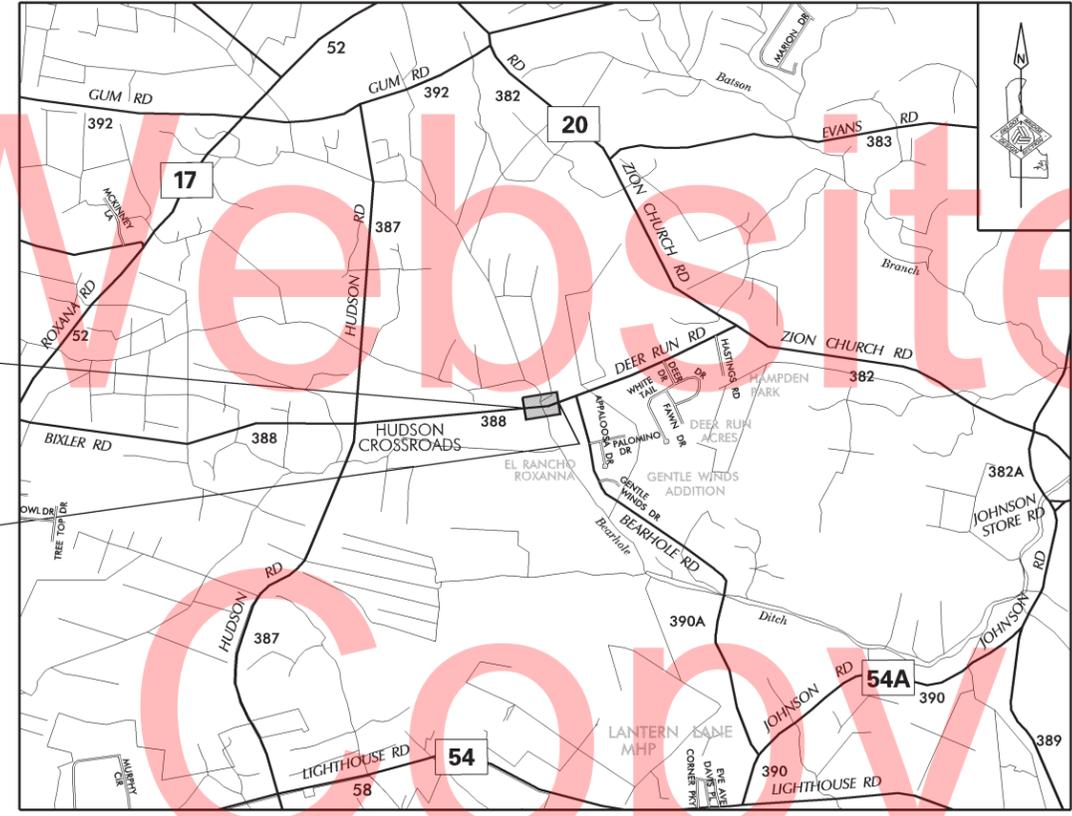
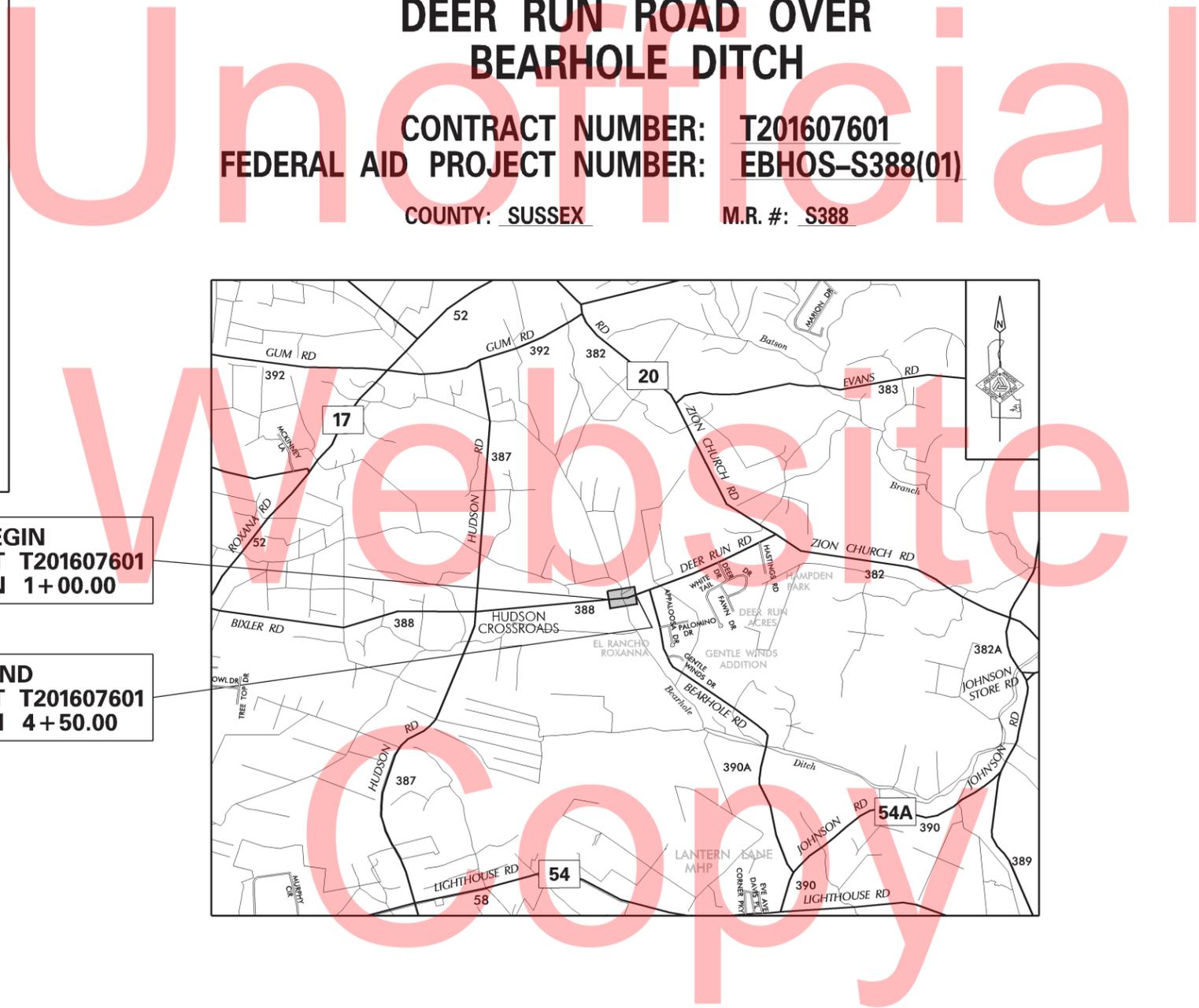
U.S. CUSTOMARY
UNITS



CONSTRUCTION AND RIGHT-OF-WAY PLANS FOR:

BR 3-461 ON S388 DEER RUN ROAD OVER BEARHOLE DITCH

CONTRACT NUMBER: **T201607601**
 FEDERAL AID PROJECT NUMBER: **EBHOS-S388(01)**
 COUNTY: **SUSSEX** M.R. #: **S388**



BEGIN
 CONTRACT T201607601
 STATION 1+00.00

END
 CONTRACT T201607601
 STATION 4+50.00

DESIGN DESIGNATION			
FUNCTIONAL CLASS: RURAL LOCAL ROAD	D.H.V. PROJECTED: 57	YEAR: 2040	
TYPE OF CONSTRUCTION: PIPE REPLACEMENT	DESIGN SPEED: 55 M.P.H		
A.A.D.T. CURRENT: 661	YEAR: 2011	TRUCKS: 8%	
A.A.D.T. PROJECTED: 950	YEAR: 2040	DIRECTION OF DISTRIBUTION: 60%	
INDEX OF SHEETS			
SHEET NO	TABLE OF CONTENTS		
1	TITLE SHEET		
2	LEGEND		
3	NOTES AND TYPICAL SECTION		
4	HORIZONTAL AND VERTICAL CONTROL		
5	CONSTRUCTION PLAN		
6	PROFILE		
7	BRIDGE PLAN, SECTION AND ELEVATION		
8	SOIL BORING LOG		
9	CONSTRUCTION SEQUENCE AND EROSION AND SEDIMENT CONTROL PLAN		
10	ENVIRONMENTAL COMPLIANCE PLAN		
11	DETOUR PLAN		
12	RIGHT-OF-WAY PLAN		
13	RIGHT-OF-WAY DATA SHEET		
14	RIGHT-OF-WAY TABULATION SHEET		
TOTAL SHEETS: 14			
APPROVED DESIGN EXCEPTIONS			
DESIGN PARAMETER	REQUIRED	PROVIDED	DATE
ADDENDA & REVISIONS			
DESCRIPTION	NAME & DATE		
ASSOCIATED CONTRACTS			
CONTRACT NO.	CONTRACT NAME		

RECOMMENDED

Robert Campbell 06/16/2015
 SQUAD MANAGER, CONSTRUCTION DATE

Bradford L. Schmitz 06/16/2015
 GROUP ENGINEER, CONSTRUCTION DATE

Jim A. Ginn 06/16/2015
 ASSISTANT DIRECTOR, TRANSPORTATION SOLUTIONS (CONSTRUCTION) DATE

RECOMMENDED

Vincent W. Davis
 STORMWATER ENGINEER

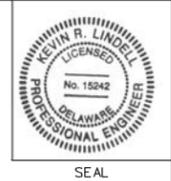
DATE 06/16/2015



RECOMMENDED

Kevin R. Lindell
 SQUAD MANAGER, BRIDGE DESIGN

DATE 06/09/2015



RECOMMENDED

Jason M. Hastings
 BRIDGE DESIGN ENGINEER

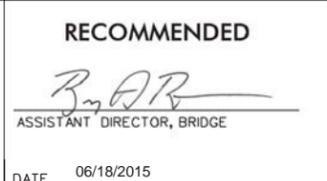
DATE 06/16/2015



RECOMMENDED

Barry A. Benton
 ASSISTANT DIRECTOR, BRIDGE

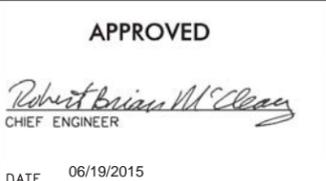
DATE 06/18/2015



APPROVED

Robert Brian McClary
 CHIEF ENGINEER

DATE 06/19/2015



EXISTING SYMBOLS

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

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

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

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

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

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

UTILITY COMPANY FACILITIES	
	DELAWARE ELECTRIC COOPERATIVE
	VERIZON CABLE

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

RIGHT-OF-WAY SYMBOLS	
	PROPOSED RIGHT-OF-WAY MONUMENT
	PROPOSED DENIAL OF ACCESS
	PROPOSED PERMANENT EASEMENT
	PROPOSED RIGHT-OF-WAY
	PROPOSED R/W & DENIAL OF ACCESS
	TEMPORARY CONSTRUCTION EASEMENT
	PROPOSED RIGHT-OF-WAY BASELINE

PROPOSED SYMBOLS

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

LANDSCAPING	
	LANDSCAPE PLANTINGS
	SHRUBBERY
	CONIFEROUS TREE
	DECIDUOUS TREE

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

PAVEMENT SECTION(S)	
	N/A
	1.5" BITUMINOUS CONCRETE, SUPERPAVE, TYPE C 2.25" BITUMINOUS CONC., SUPERPAVE, TYPE B 8" GRADED AGGREGATE BASE COURSE
	N/A

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

UTILITY COMPANY FACILITIES	
	VERIZON CABLE

ADDENDUMS / REVISIONS

NOT TO SCALE

BR 3-461 ON S388
DEER RUN ROAD OVER
BEARHOLE DITCH

CONTRACT
T201607601
COUNTY
SUSSEX

BRIDGE NO.
3-461
DESIGNED BY: SMW
CHECKED BY: KRL

LEGEND

SHEET NO.
2
TOTAL SHTS.
14

GENERAL NOTES

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

EROSION POTENTIAL FOR THIS PROJECT	CONTRACTOR ESC SUPERVISOR REQUIREMENT
() INSIGNIFICANT	NONE
() MINOR	CONTRACTOR TRAINING PROGRAM, AS DEFINED IN SECTION 6.2 OF THE DELAWARE SEDIMENT AND STORMWATER REGULATIONS.
() MEDIUM	CONTRACTOR TRAINING PROGRAM, AS DEFINED IN SECTION 6.2 OF THE DELAWARE SEDIMENT AND STORMWATER REGULATIONS.
(X) 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:

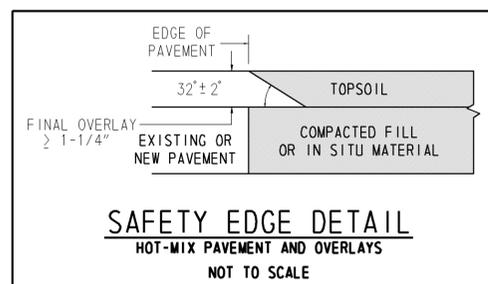
(X)	CROSS SECTIONS (WILL BE AVAILABLE TO THE AWARDED CONTRACTOR)
(X)	RIGHT-OF-WAY PLANS (INCLUDED IN PLAN SET)

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 THIS PROJECT IS 0.8209 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.



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

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 *211000 - REMOVAL OF STRUCTURES AND OBSTRUCTIONS.

3. ITEMS TO BE REMOVED UNDER ITEM *211000-REMOVAL OF STRUCTURES AND OBSTRUCTIONS SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:
 - REMOVAL OF 3 EXISTING 6'-0" DIAMETER CORRUGATED METAL PIPES.
 - REMOVAL OF CONCRETE LINING ALONG BOTTOM OF EXISTING CMPS.
 - REMOVAL OF 4 EXISTING DRAINAGE PIPES.
 - REMOVAL OF TWO EXISTING LOAD POSTING SIGNS.
 - REMOVAL AND RELOCATION OF MAILBOX ON PARCEL 1-L
 - REMOVAL OF POSSIBLE EXISTING RIP-RAP UPSTREAM AND DOWNSTREAM OF THE BRIDGE. RIP-RAP MAY BE RE-USED IF IT MEETS THE REQUIREMENTS SET FORTH BY THE STANDARD SPECIFICATIONS OF THE PROPOSED RIP-RAP.

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 821)
 b. CRUSHED CONCRETE (PER STANDARD SPECIFICATION 821)
 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 700

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

6. STRIPING
 PROPOSED STRIPING SHALL MATCH EXISTING STRIPING PATTERN CONSISTING OF TWO SOLID YELLOW CENTERLINE STRIPES THROUGHOUT THE PROJECT LIMITS. PAYMENT FOR PERMANENT PAVEMENT STRIPING UNDER ITEM *748548-PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 5".

7. SIGNING
 TO AVOID DAMAGE, SIGNS WITH THE LOC MAY BE REMOVED DURING CONSTRUCTION IF NEEDED, BUT MUST BE REPLACED TO MATCH EXISTING CONDITIONS BEFORE REOPENING THE ROADWAY, WITH THE EXCEPTION OF THE EXISTING LOAD POSTING SIGNS THAT ARE TO BE REMOVED. ALL WORK RELATED TO MOVING AND REINSTALLING THE SIGN SHALL BE INCLUDED IN ITEM *211000-REMOVAL OF STRUCTURES AND OBSTRUCTIONS. IF THE SIGN IS DAMAGED DURING CONSTRUCTION, THE SIGN MUST BE REPLACED AT THE CONTRACTOR'S EXPENSE. THE LOAD POSTING TO BE REMOVED SHALL BE RETURNED TO DELDOT. CONTRACTOR SHALL CONTACT BOB HUTSON AT 302-760-2563 TO COORDINATE DELIVERY.

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

SECTION 900

9. THIS PROJECT IS COVERED UNDER AN NPDES GENERAL PERMIT FOR CONSTRUCTION. UNDER THE GENERAL PERMIT, COMPLIANCE WITH DELDOT'S APPROVED SEDIMENT AND STORMWATER MANAGEMENT PLANS WILL CONSTITUTE COMPLIANCE WITH THE NPDES INDUSTRIAL PERMITTING REQUIREMENTS FOR THIS CONSTRUCTION PROJECT. A COPY OF THE NPDES GENERAL PERMIT AND 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

10. DESIGN CRITERIA:
 2012 AASHTO LRFD BRIDGE DESIGN SPECIFICATION, 6TH EDITION, US CUSTOMARY UNITS.

11. LOADING:
 AASHTO HL-93 FOR LIVE LOAD
 25 PSF DEAD LOAD HAS BEEN INCLUDED FOR FUTURE OVERLAY.

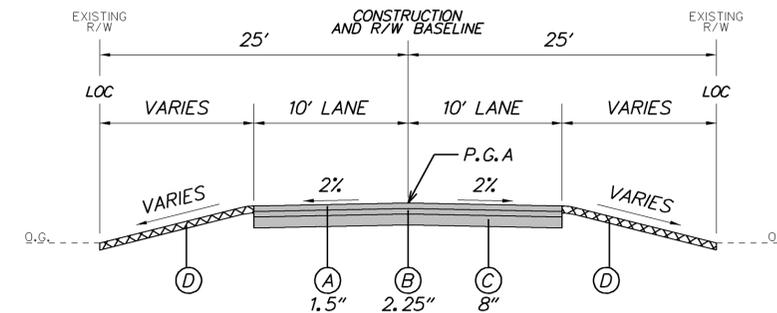
12. HYDRAULIC DATA:
 -DRAINAGE AREA = 4.94 SQ. MILES -DESIGN FREQUENCY = 25-YEARS
 -DESIGN DISCHARGE = 585.0 CFS -DESIGN FLOOD ELEVATION = 15.39 FT

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.
 -DESIGN EVENT = 500-YEAR STORM -DESIGN DISCHARGE = 1314.0 CFS
 -DESIGN VELOCITY = 7.0 FT/S -TAILWATER DEPTH = 10.17 FT

14. UTILITIES:
 OVERHEAD ELECTRICAL LINES AT BR 3-461 ARE TO REMAIN IN PLACE AND IN SERVICE DURING CONSTRUCTION. A 10 FOOT 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.

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

16. 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. ARMY CORPS 404 PERMITS, SEDIMENT AND EROSION PERMITS. THE ENVIRONMENTAL PERMITS CITED ON THE EC SHEET ONLY AUTHORIZES WORK FOR THE WATER AND SEWER LINE RELOCATIONS AT BR 3-461 AND DOES NOT AUTHORIZE ANY OTHER UTILITY WORK ASSOCIATED WITH THIS PROJECT.



TYPICAL SECTION

LEGEND	
(A)	ITEM 401801 - BIT. CONC., SP, TYPE C, 160 GYRATIONS, PG 64-22 (CARBONATE STONE)
(B)	ITEM 401810 - BIT. CONC., SP, TYPE B, 160 GYRATIONS, PG 64-22
(C)	ITEM 302007 - GRADED AGGREGATE BASE COURSE (GABC), TYPE B
(D)	ITEM 908004 - TOPSOIL, 6" DEPTH ITEM 908019 - STREAMBANK SEED MIX, SEEDING

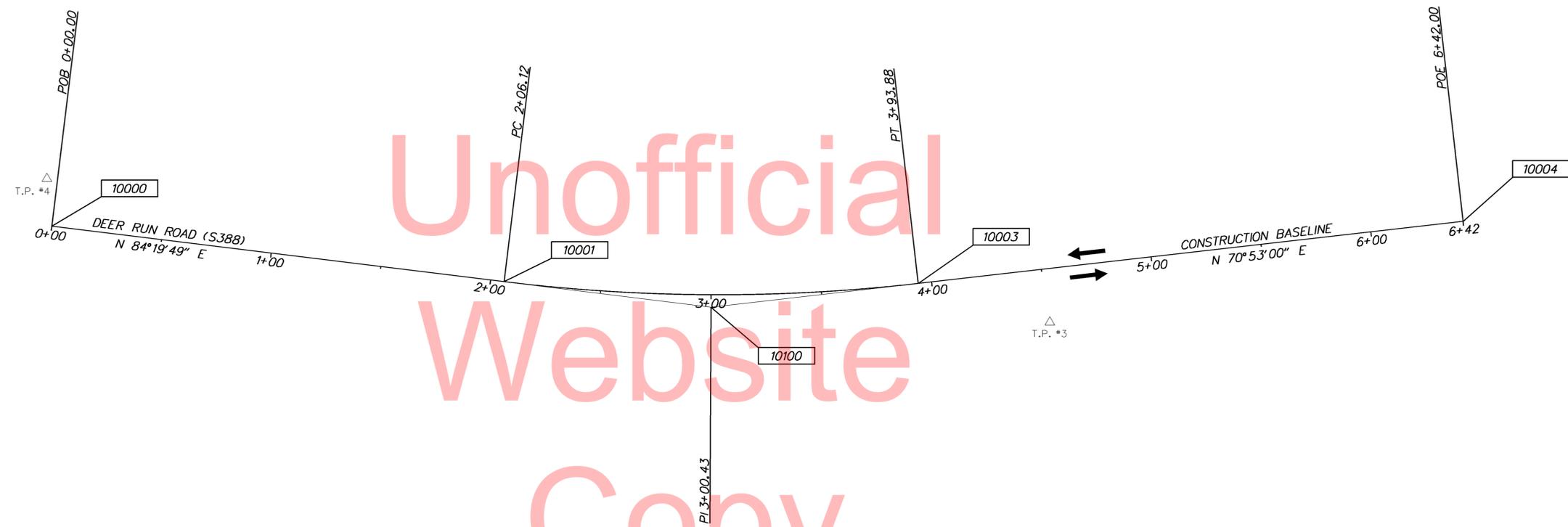
HORIZONTAL / VERTICAL CONTROL DATA					
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION
TP #3	4+51.15	24.11	174661.63	728419.09	16.16
TP #4	N/A	N/A	174625.49	727962.22	16.00
TP #5	4+33.69	253.37	174439.29	728477.67	16.20

CONSTRUCTION ALIGNMENT CONTROL					
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION
10000	0+00.00	0.00	174605.09	727969.01	
10001	2+06.12	0.00	174625.45	728174.12	
10100	3+00.43	5.54	174634.77	728267.97	
10003	3+93.88	0.00	174665.65	728357.08	
10004	6+42.00	0.00	174746.91	728591.52	

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.

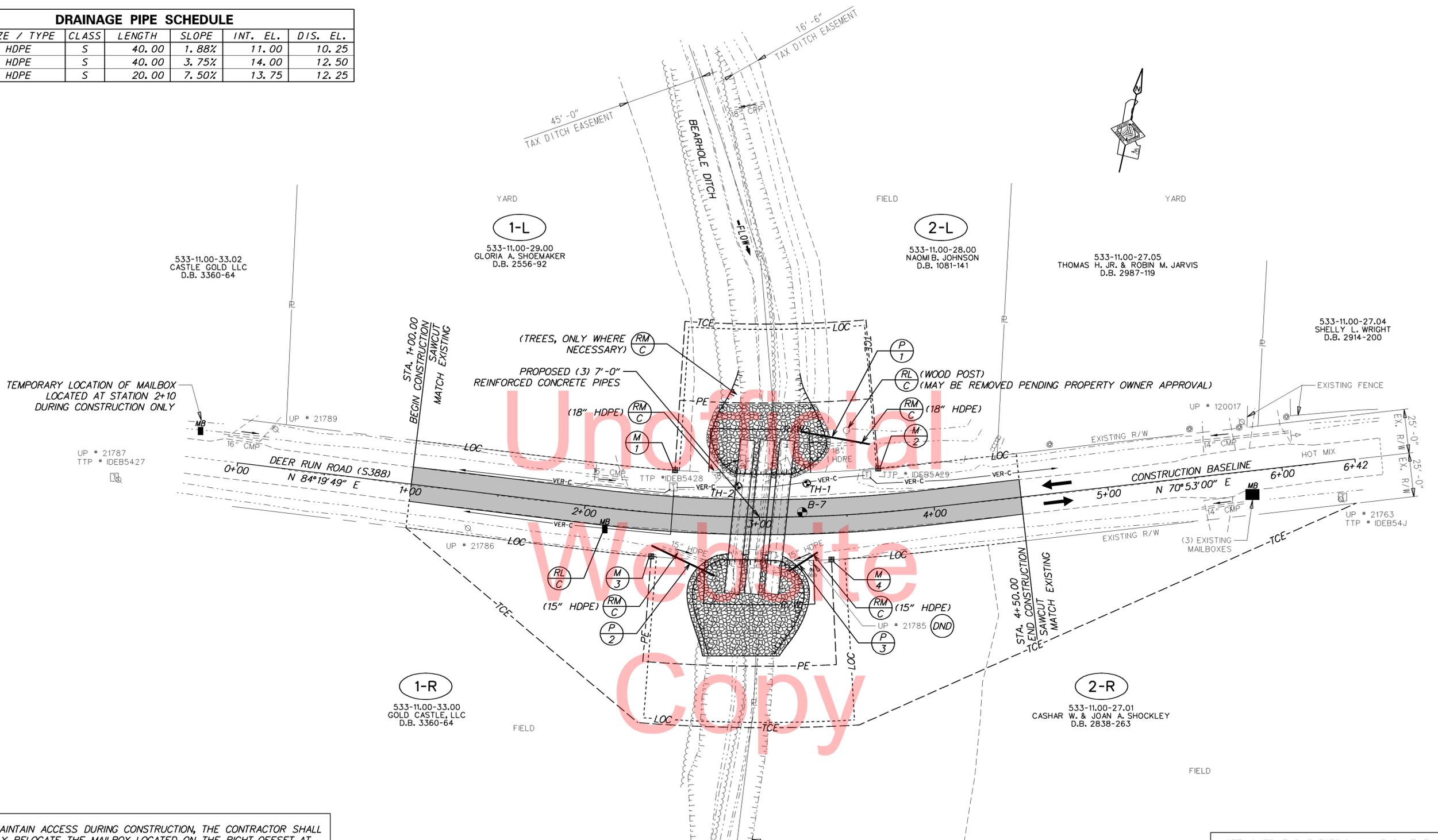


Element: Circular Curve #1			
PC (10001)	2+06.12	174625.45	728174.12
PI (10100)	3+00.43	174634.77	728267.97
CC (10002)		175421.54	728095.09
PT (10003)	3+93.88	174665.65	728357.08
Radius:		800.00	
Delta:		13° 26' 49" Left	
Degree of Curvature (Arc):		7° 09' 43"	
Length:		187.75	
Tangent:		94.31	
Chord:		187.32	
Middle Ordinate:		5.50	
External:		5.54	
Tangent Direction:		N 84°19'49" E	
Radial Direction:		S 05°40'11" E	
Chord Direction:		N 77°36'25" E	
Radial Direction:		S 19°06'60" E	
Tangent Direction:		N 70°53'00" E	

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DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS		BR 3-461 ON S388 DEER RUN ROAD OVER BEARHOLE DITCH	CONTRACT T201607601	BRIDGE NO. 3-461	HORIZONTAL AND VERTICAL CONTROL	SHEET NO. 4
				COUNTY SUSSEX	DESIGNED BY: SMW CHECKED BY: KRL		TOTAL SHTS. 14

DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INT. EL.	DIS. EL.
P-1	18" HDPE	S	40.00	1.88%	11.00	10.25
P-2	15" HDPE	S	40.00	3.75%	14.00	12.50
P-3	15" HDPE	S	20.00	7.50%	13.75	12.25



NOTE: TO MAINTAIN ACCESS DURING CONSTRUCTION, THE CONTRACTOR SHALL TEMPORARILY RELOCATE THE MAILBOX LOCATED ON THE RIGHT OFFSET AT STATION 2+10. APPROXIMATE TEMPORARY LOCATION IS SHOWN ON PLAN TO THE WEST SIDE OF THE DRIVEWAY. THE MAILBOX SHALL BE RELOCATED BACK TO ITS EXISTING LOCATION AND CONDITION UPON PROJECT COMPLETION. PAYMENT INCIDENTAL TO ITEM *211000-REMOVAL OF STRUCTURES AND OBSTRUCTIONS. ACCESS TO DRIVEWAY AT STATION 0+00 SHALL BE MAINTAINED AT ALL TIMES THROUGHOUT CONSTRUCTION.

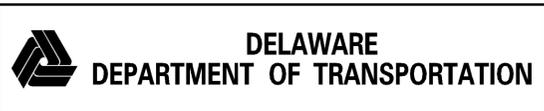
NOTE: OVERHEAD ELECTRICAL LINE ON THE SOUTH SIDE OF THE ROAD IS TO REMAIN IN PLACE AND IN SERVICE DURING CONSTRUCTION. REFER TO PROJECT NOTE 14 ON SHEET 3 FOR FURTHER INFORMATION.

RIGHT-OF-WAY MONUMENT SCHEDULE					
NO.	TYPE	STATION	OFFSET	NORTHING	EASTING
M-1	CAPPED REBAR	2+50.00	-25.00	174655.68	728213.82
M-2	CAPPED REBAR	3+70.00	-25.00	174682.03	728326.93
M-3	CAPPED REBAR	2+40.00	25.00	174604.76	728211.28
M-4	CAPPED REBAR	3+40.00	25.00	174625.62	728312.20

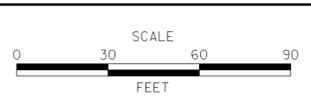
SOIL BORING SCHEDULE					
NO.	STATION	ELEVATION	OFFSET	NORTHING	EASTING
B-7	3+24.48	17.06	-2.50	174648.22	728290.00

UTILITY TEST HOLE SCHEDULE							
NO.	UTILITY	STATION	OFFSET	GRND EL.	COVER	O. D. & MATERIAL	OWNER
TH-1	TELEPHONE	3+27.59	-18.81	16.23	3.34	2" CABLE	VERIZON
TH-2	TELEPHONE	2+87.31	-17.51	16.66	2.92	2" CABLE	VERIZON

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ADDENDUMS / REVISIONS	

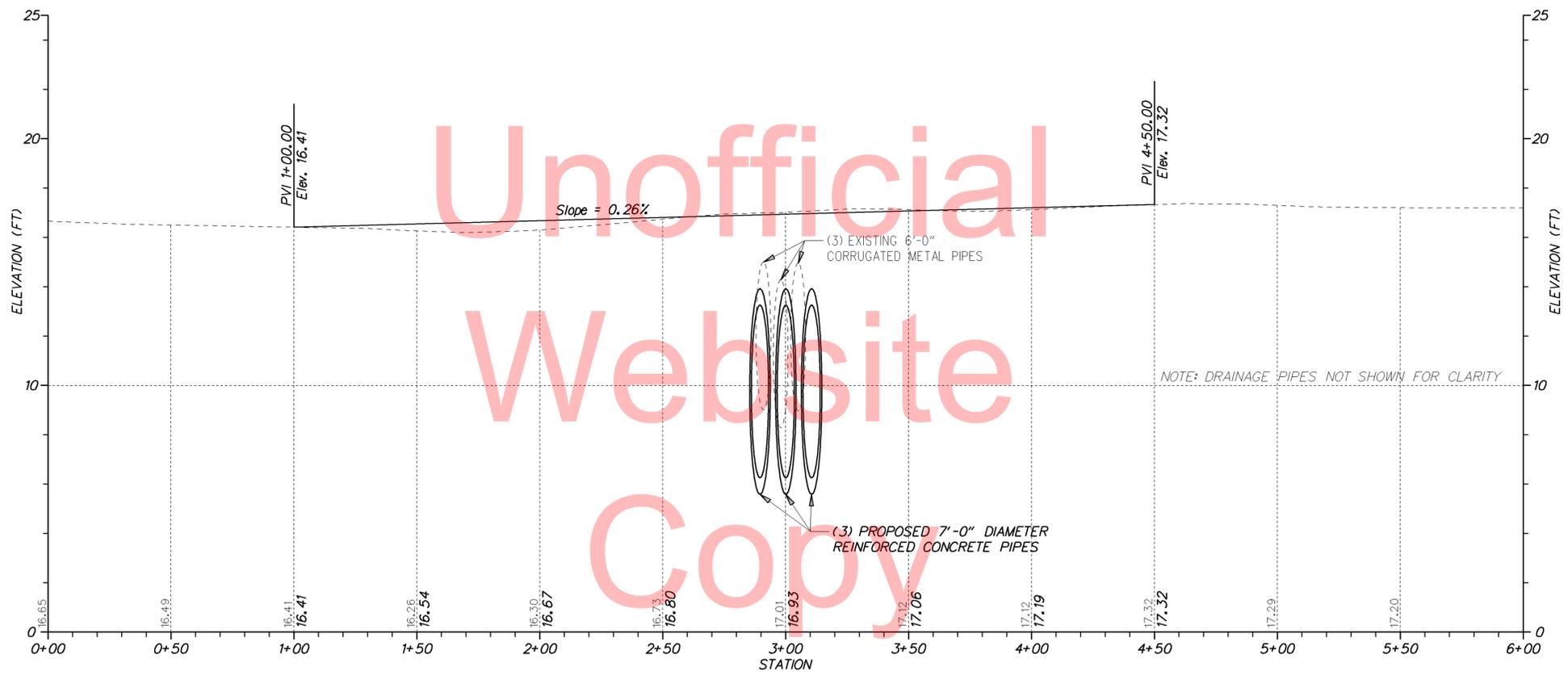


**BR 3-461 ON S388
DEER RUN ROAD OVER
BEARHOLE DITCH**

CONTRACT	BRIDGE NO.	3-461
T201607601	DESIGNED BY:	SMW
COUNTY	CHECKED BY:	KRL
SUSSEX		

CONSTRUCTION PLAN	SHEET NO.	5
	TOTAL SHTS.	14

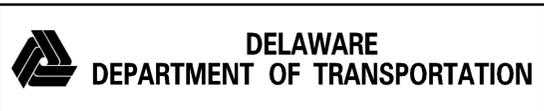
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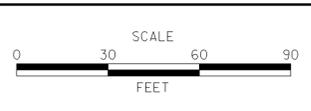
S388 - DEER RUN ROAD



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ADDENDUMS / REVISIONS	

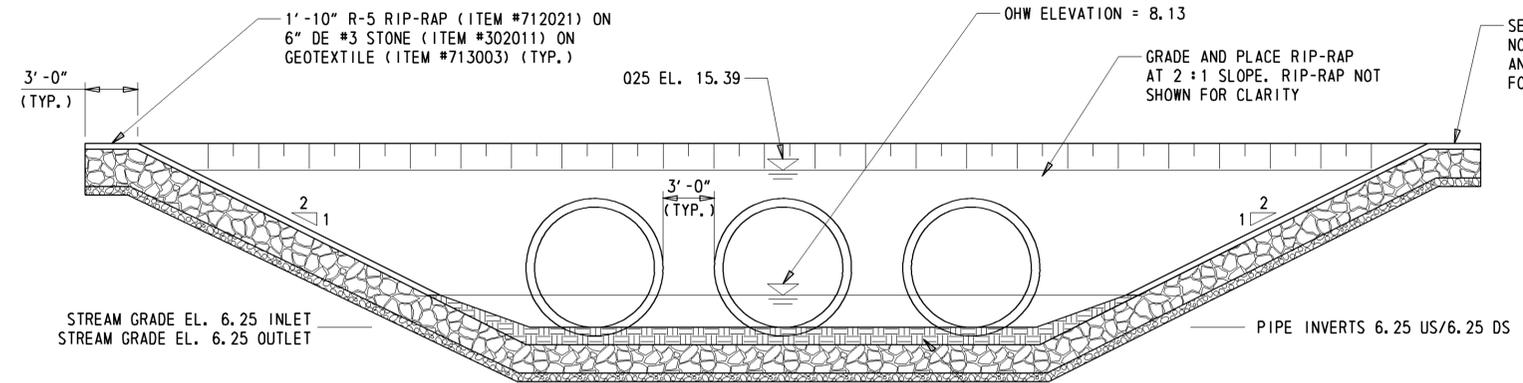
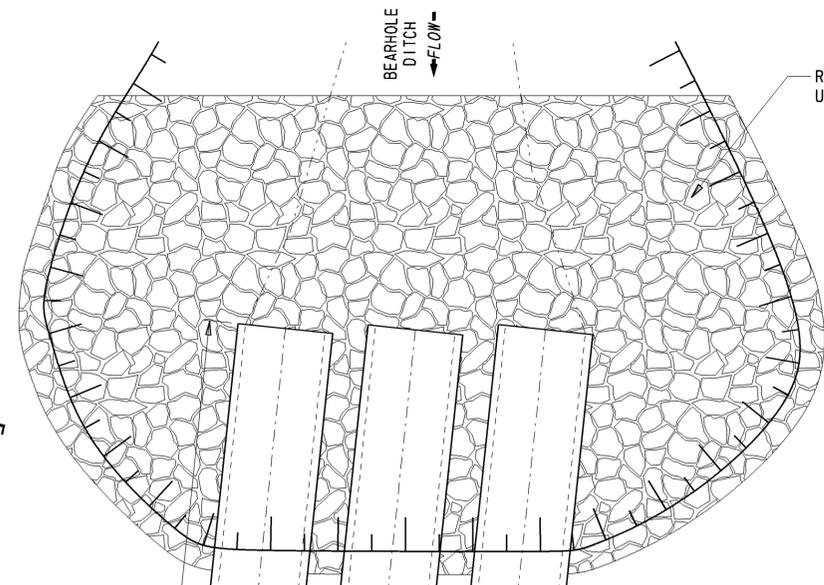


**BR 3-461 ON S388
DEER RUN ROAD OVER
BEARHOLE DITCH**

CONTRACT	BRIDGE NO.	3-461
T201607601	DESIGNED BY:	SMW
COUNTY	CHECKED BY:	KRL
SUSSEX		

PROFILE

SHEET NO.	9
TOTAL SHTS.	14

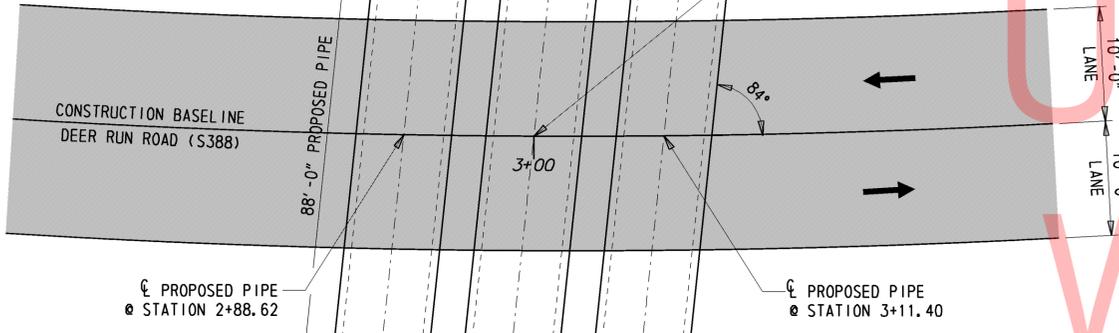


BRIDGE ELEVATION

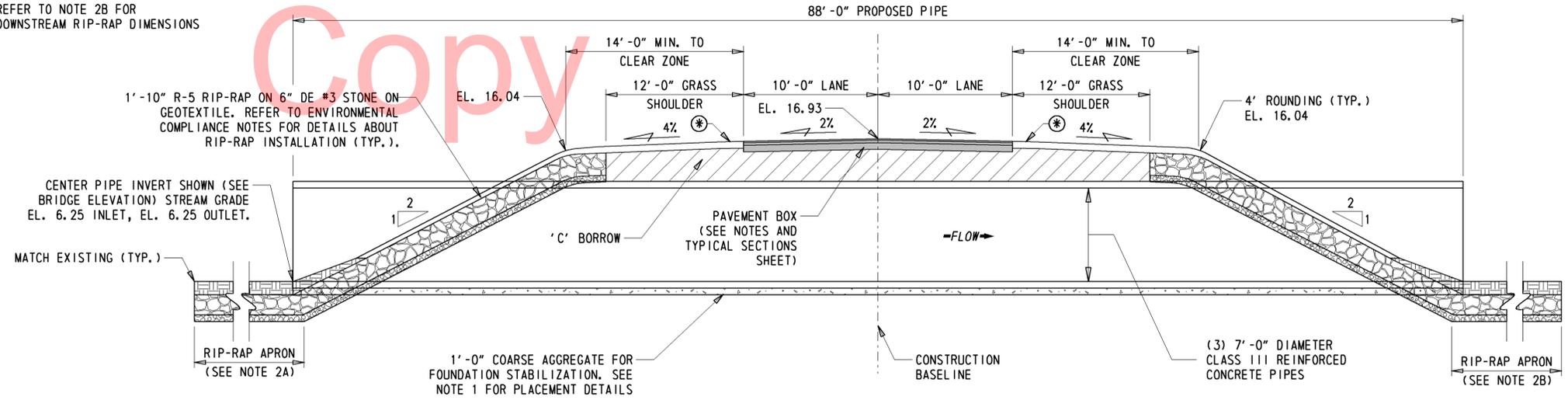
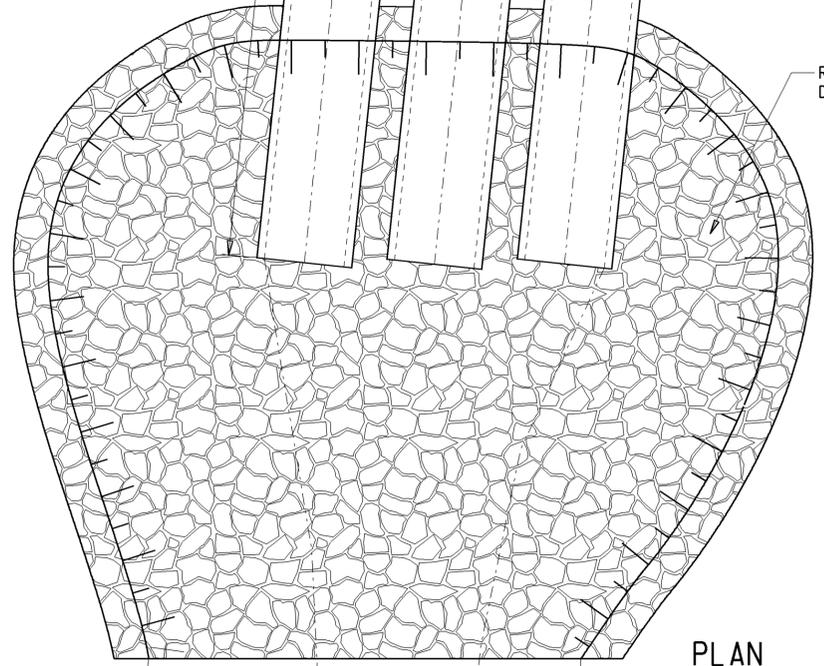
1/8" = 1'-0"

NOTES:

1. PROPOSED BRIDGE: THE EXISTING (3) 6'-0" CORRUGATED METAL PIPES SHALL BE REPLACED WITH (3) 7'-0" DIAMETER REINFORCED CONCRETE PIPES (88'-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 35'-0" FROM THE PIPE OUTLET ALONG THE STREAM CENTERLINE AND SHALL BE PLACED TO CREATE A SMOOTH BEND THAT MATCHES THE EXISTING STREAM BANKS.



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BRIDGE SECTION

1/8" = 1'-0"

NOTE: BRIDGE SECTION SHOWS THE CENTERLINE OF THE CENTER PIPE. *PLACE 6" TOPSOIL AND APPROPRIATE SEEDING

PLAN

1/8" = 1'-0"

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ADDENDUMS / REVISIONS	

CONTRACT T201607601	BRIDGE NO. 3-461
COUNTY SUSSEX	DESIGNED BY: SMW
	CHECKED BY: KRL

SHEET NO. 7
TOTAL SHTS. 14

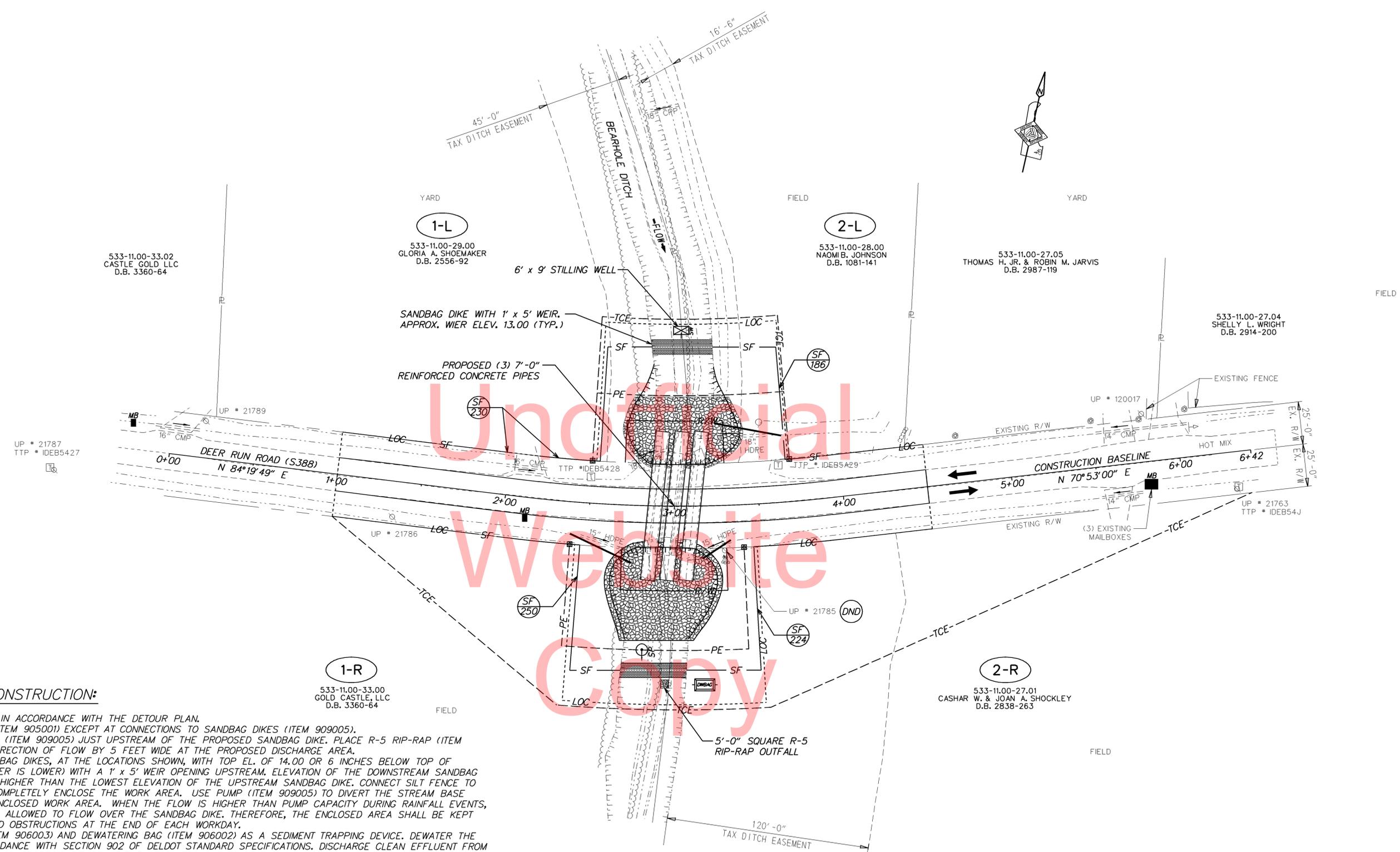
BORING: B-7		DATE DRILLED: 5/9/13			
STATION: 3+24.48		ELEVATION: 17.06			
OFFSET: -2.50		NORTHING: 174648.22			
COMMENTS: EQUIPMENT/RIG TYPE: MOBILE B-30		DRILLER: KEITH HASTINGS			
EASTING: 728290.00					
SAMPLE INFORMATION					
NO.	DEPTH	BLOWS /6"	DESCRIPTION	CLASS /G.L.	REMARKS
1	0.0	1	MOIST MEDIUM DENSE BROWN FINE TO COARSE SAND W/SOME SILT,	A-2-4(0)	HOT-MIX 5.5'
		7	TRACE OF FINE GRAVEL.		
	2.0	6			
2	2.0	2	MOIST VERY LOOSE DARK BROWN SILTY FINE SAND W/SOME COARSE	A-2-4(0)	
	3.0	2	SAND, TRACE OF FINE GRAVEL.		
2A	3.0	2	SATURATED LOOSE BROWN SILTY FINE SAND, W/SOME COARSE SAND.	A-2-4(0)	
	4.0	3			
U-1	4.0		SATURATED BROWN FINE SAND W/ SOME COARSE SAND, TRACE OF SILT	A-3	SHELBY TUBE - PRESS SAMPLE
	6.0		AND FINE GRAVEL.		
4	6.0	9	SATURATED DENSE BROWN FINE SAND W/TRACE OF SILT AND COARSE	A-3	APPROXIMATE FOUNDATION
		18	SAND.		STABILIZATION DEPTH.
		16			APPROX. WATER LEVEL.
	8.0	18			
5	8.0	4	SATURATED LOOSE BROWN FINE SAND, W/SOME COARSE SAND, TRACE OF	A-3	
		5	SILT.		
		5			
	10.0	6			
6	10.0	1	SATURATED VERY LOOSE BROWN SILTY FINE SAND, W/TRACE OF COARSE	A-4(0)	
		2	SAND.		
		2			
	12.0	2			
7	12.0	1	SATURATED SOFT BROWN CLAYEY FINE SANDY SILT, W/TRACE OF	A-4(3)	
		1	COARSE SAND.		
		2			
	14.0	2			
U-2	14.0		SATURATED BROWN CLAYEY FINE SANDY SILT W/ TRACE OF COARSE	A-4(3)	SHELBY TUBE - PRESS SAMPLE
	16.0		SAND.		
9	16.0	1	SATURATED SOFT BROWN SILT, W/SOME FINE SAND, TRACE OF COARSE	A-4(1)	
		1	SAND AND CLAY.		
		2			
	18.0	2			
10	18.0	1	SATURATED VERY LOOSE BROWN SILT W/SOME COARSE AND FINE SAND.	A-4(4)	
		1			
		2			
	23.0	2			
11	23.0	2	SATURATED LOOSE BROWN SILTY FINE TO COARSE SAND, W/TRACE OF	A-2-4(0)	
		2	FINE GRAVEL.		
		4			
	28.0	3			
12	28.0	2	SATURATED MEDIUM DENSE BROWN FINE TO COARSE SAND W/SOME SILT	A-2-4(0)	
		10	AND FINE GRAVEL.		
		18			
	33.0	31			
13	33.0	4	SATURATED MEDIUM DENSE BROWN COARSE SAND W/SOME FINE GRAVEL	A-1-B	
		12	AND FINE SAND, TRACE OF SILT.		
		12			
	38.0	18			
14	38.0	14	SATURATED VERY DENSE BROWN GRAVELLY COARSE SAND W/SOME FINE	A-1-B	
		25	SAND, TRACE OF SILT.		
		40			
	43.0	37			
15	43.0	10	SATURATED DENSE BROWN FINE TO COARSE SAND W/TRACE OF FINE	A-1-B	
		16	GRAVEL AND SILT.		
		25			
	48.0	27			
16	48.0	7	SATURATED DENSE BROWN COARSE TO FINE SAND W/SOME FINE GRAVEL,	A-1-B	
		16	TRACE OF SILT.		
		21			
	50.0	28			
	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 SHEET FOR APPROXIMATE BORING LOCATIONS. BORING LOG IS LABELED AS 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.

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 DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS		NOT TO SCALE	BR 3-461 ON S388 DEER RUN ROAD OVER BEARHOLE DITCH	CONTRACT	BRIDGE NO.	3-461	SOIL BORING LOG	SHEET NO.
					T201607601	DESIGNED BY: SMW	8		
					COUNTY	CHECKED BY: KRL	TOTAL SHTS.		
					SUSSEX		14		



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 14.00 OR 6 INCHES BELOW TOP OF STEAMBANK (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.
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 OTHER ITEMS LISTED UNDER PROJECT NOTE 3 ON THE NOTES AND TYPICAL SECTION SHEET. INSTALL THREE PROPOSED REINFORCED CIRCULAR CONCRETE PIPES AND HDPE DRAINAGE 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.

1-R
533-11.00-33.00
GOLD CASTLE, LLC
D.B. 3360-64

2-R
533-11.00-27.01
CASHAR W. & JOAN A. SHOCKLEY
D.B. 2838-263

1-L
533-11.00-29.00
GLORIA A. SHOEMAKER
D.B. 2556-92

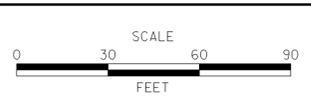
2-L
533-11.00-28.00
NAOMI B. JOHNSON
D.B. 1081-141

533-11.00-27.05
THOMAS H. JR. & ROBIN M. JARVIS
D.B. 2987-119

533-11.00-27.04
SHELLY L. WRIGHT
D.B. 2914-200

UP # 21763
TTP # IDEB54J

ADDENDUMS / REVISIONS



BR 3-461 ON S388
DEER RUN ROAD OVER
BEARHOLE DITCH

CONTRACT	BRIDGE NO.	3-461
T201607601	DESIGNED BY:	SMW
COUNTY	CHECKED BY:	KRL
SUSSEX		

CONSTRUCTION SEQUENCE
AND EROSION AND
SEDIMENT CONTROL PLAN

SHEET NO.	9
TOTAL SHTS.	14

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PERMANENT OPEN WATER IMPACT AREA SCHEDULE					
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
0-1	UPSTREAM RIP-RAP	613.87	0.0141	52.97	COE/DNREC
0-2	EX. PIPE TO PROP. FILL	411.32	0.0094	28.64	COE/DNREC
0-3	PROPOSED PIPE	652.02	0.0150	45.40	COE/DNREC
0-4	DOWNSTREAM RIP-RAP	940.71	0.0216	81.18	COE/DNREC
TOTAL PERMANENT OPEN WATER IMPACTS		2617.92	0.0601	208.19	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	182.21	0.0042	12.69	COE/DNREC
OT-3	EX. PIPE TO PROP. PIPE	550.91	0.0126	38.36	COE/DNREC
OT-4	DOWNSTREAM SANDBAGS	188.25	0.0043	13.11	COE/DNREC
OT-5	STABILIZED OUTFALL	25.00	0.0006	1.39	COE/DNREC
TOTAL TEMPORARY OPEN WATER IMPACTS		1000.37	0.0229	68.55	COE/DNREC

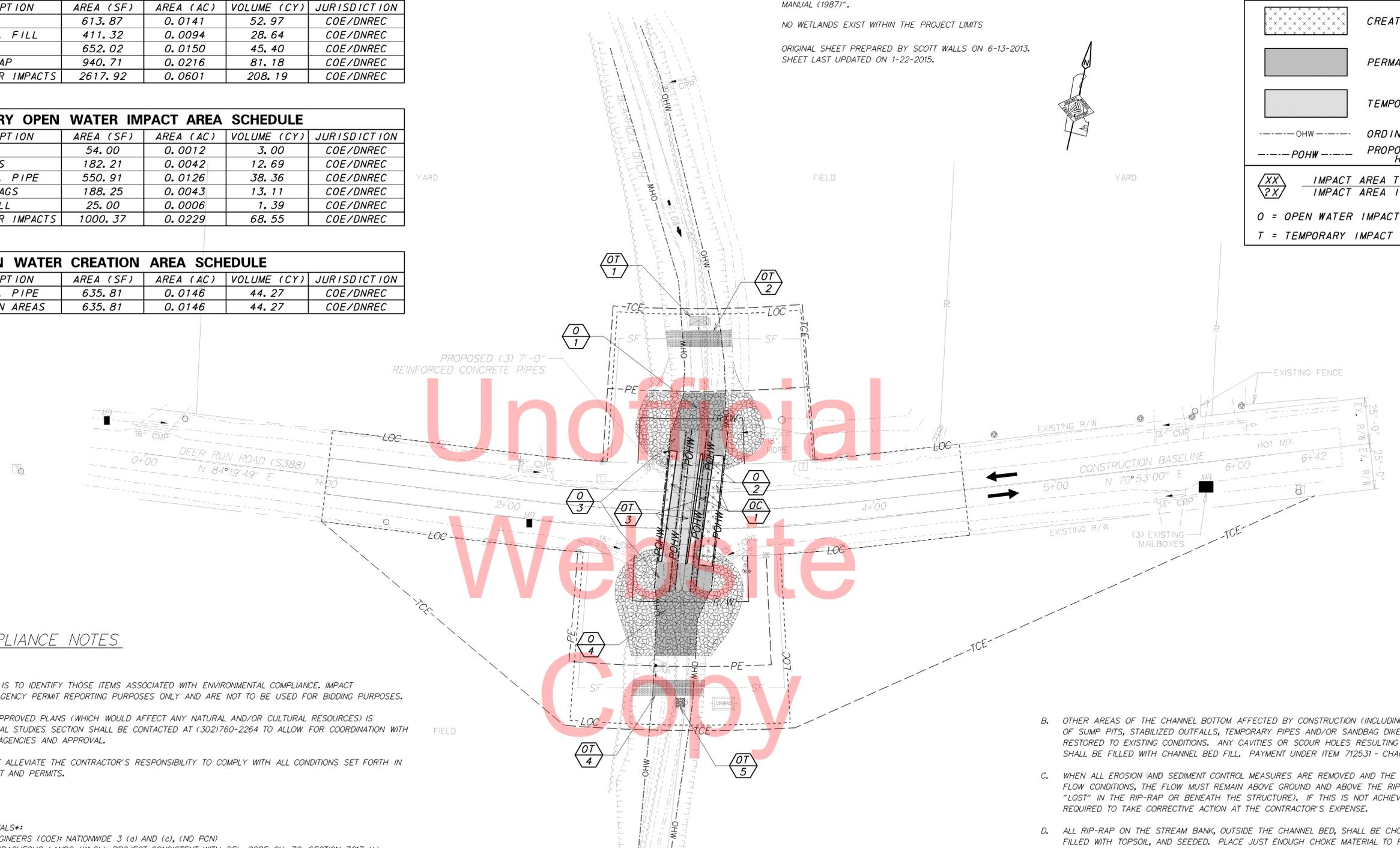
OPEN WATER CREATION AREA SCHEDULE					
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
OC-1	EX. FILL TO PROP. PIPE	635.81	0.0146	44.27	COE/DNREC
TOTAL OPEN WATER CREATION AREAS		635.81	0.0146	44.27	COE/DNREC

WETLAND DELINEATED BY KENNETH DUNNE, DELAWARE DEPARTMENT OF TRANSPORTATION ON 6-11-2013, IN ACCORDANCE WITH THE US ARMY CORPS OF ENGINEERS "CORPS OF ENGINEERS WETLAND DELINEATION MANUAL (1987)".

NO WETLANDS EXIST WITHIN THE PROJECT LIMITS

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

LEGEND	
	CREATION AREA
	PERMANENT IMPACT AREA
	TEMPORARY IMPACT AREA
----- OHW -----	ORDINARY HIGH WATER
----- POHW -----	PROPOSED ORDINARY HIGH WATER
	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



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 (d) 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. A STANDING STRUCTURE OVER 50 YEARS EXISTS ON THE SOUTHWEST CORNER OF THE BRIDGE WITHIN THE PROJECT AREA. A "FINDING OF NO HISTORIC PROPERTIES AFFECTED" HAS BEEN APPROVED BY THE DE SHPO. ANY MODIFICATIONS TO THE PLANS WITHIN THIS AREA ARE TO BE COORDINATED WITH THE DISTRICT ENGINEER AND THE ENVIRONMENTAL STUDIES OFFICE (CONTACT LAURA KEELEY (302) 760-2282 OR LAURA.KEELEY@STATE.DE.US).

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. SILT FENCE OR CONSTRUCTION SAFETY FENCE SHALL BE USED ALONG THE LIMITS OF CONSTRUCTION IN ALL AREAS WHERE WATER IS BEING IMPACTED (AS SHOWN ON EC SHEETS), AND ALSO IN ANY AREA WHERE WATER EXISTS WITHIN 20 FEET OF THE LOC (AS SHOWN ON CONSTRUCTION PLANS). CONTRACTOR ACCESS BEYOND THE LOC IS STRICTLY PROHIBITED.

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ADDENDUMS / REVISIONS



**BR 3-461 ON S388
DEER RUN ROAD OVER
BEARHOLE DITCH**

CONTRACT	BRIDGE NO.	3-461
T201607601	DESIGNED BY: SMW	
COUNTY	CHECKED BY: KRL	
SUSSEX		

**ENVIRONMENTAL
COMPLIANCE PLAN**

SHEET NO.	10
TOTAL SHTS.	14

PORTABLE CHANGEABLE MESSAGE SIGNS

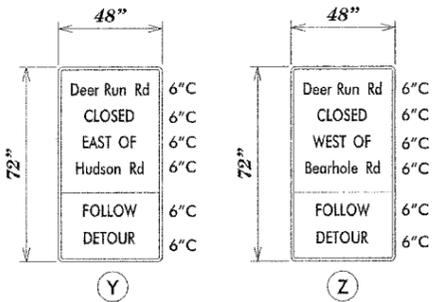
PRIOR TO DETOUR
(10 DAYS PRIOR TO BEGINNING OF DETOUR)

PCMS-1

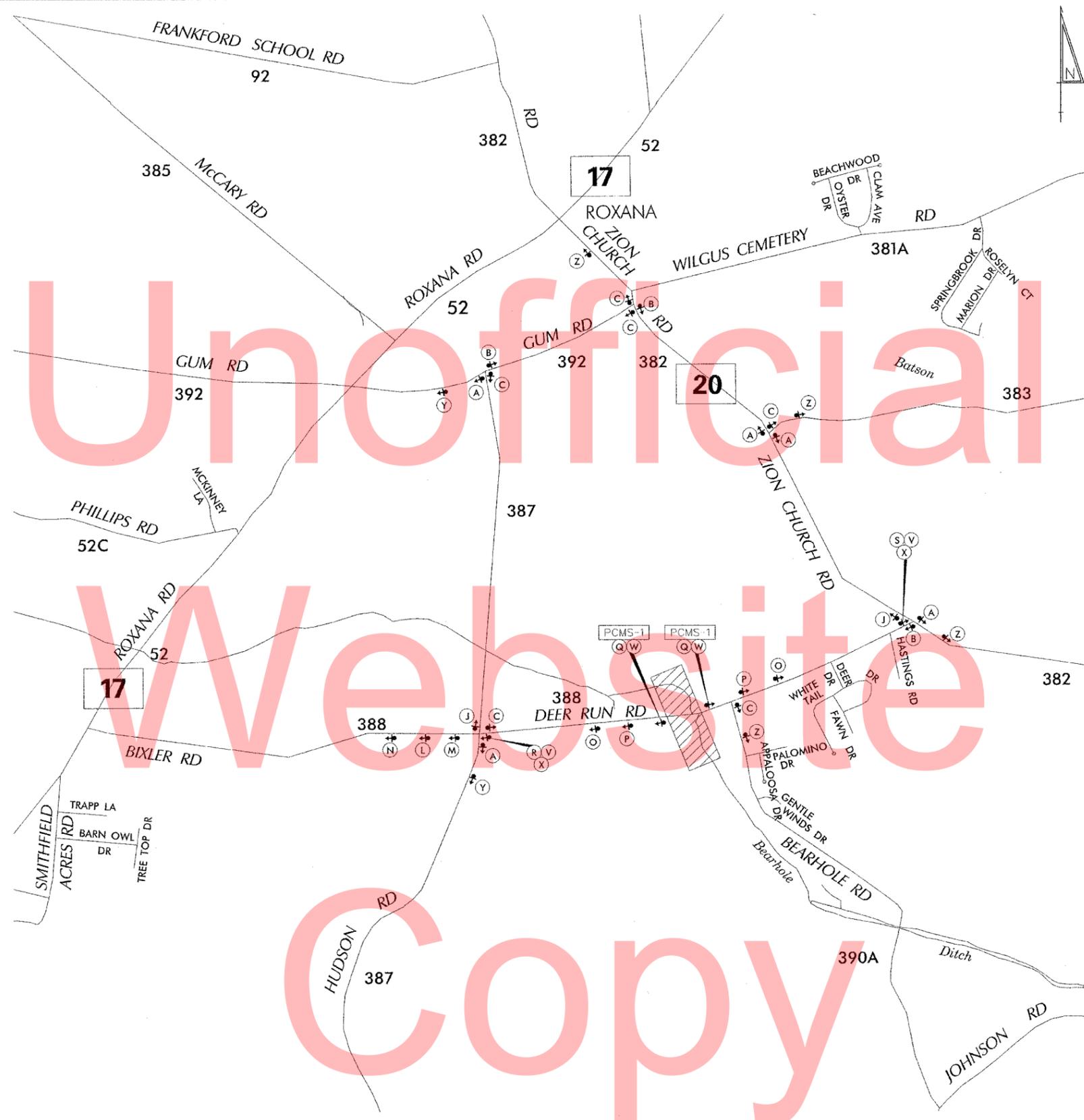
DEER
RUN
ROAD

TO CLOSE
STARTING
XX/XX/XX

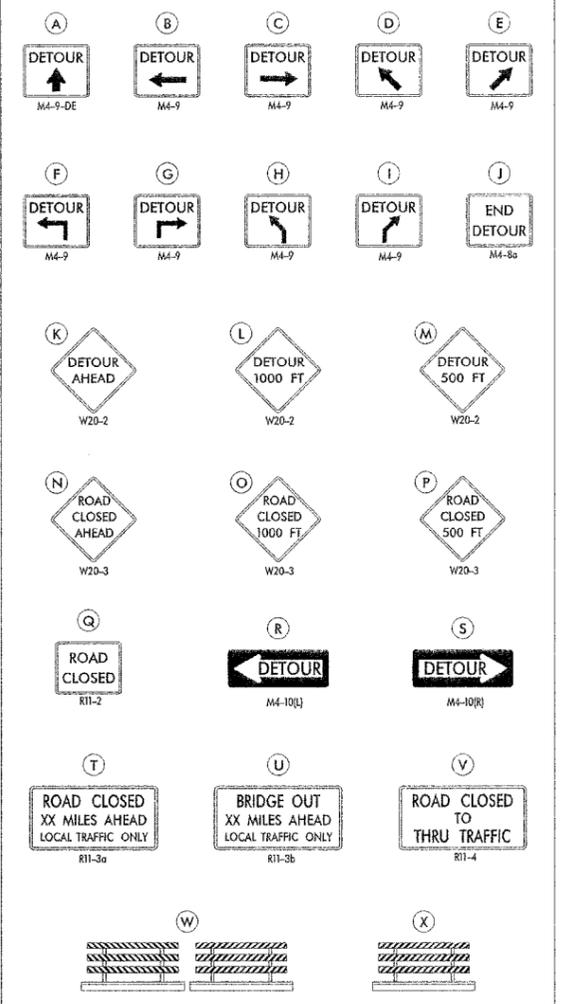
SPECIAL SIGNS



*DG RETROREFLECTIVE FLUORESCENT ORANGE BACKGROUND; BLACK LEGEND



LEGEND

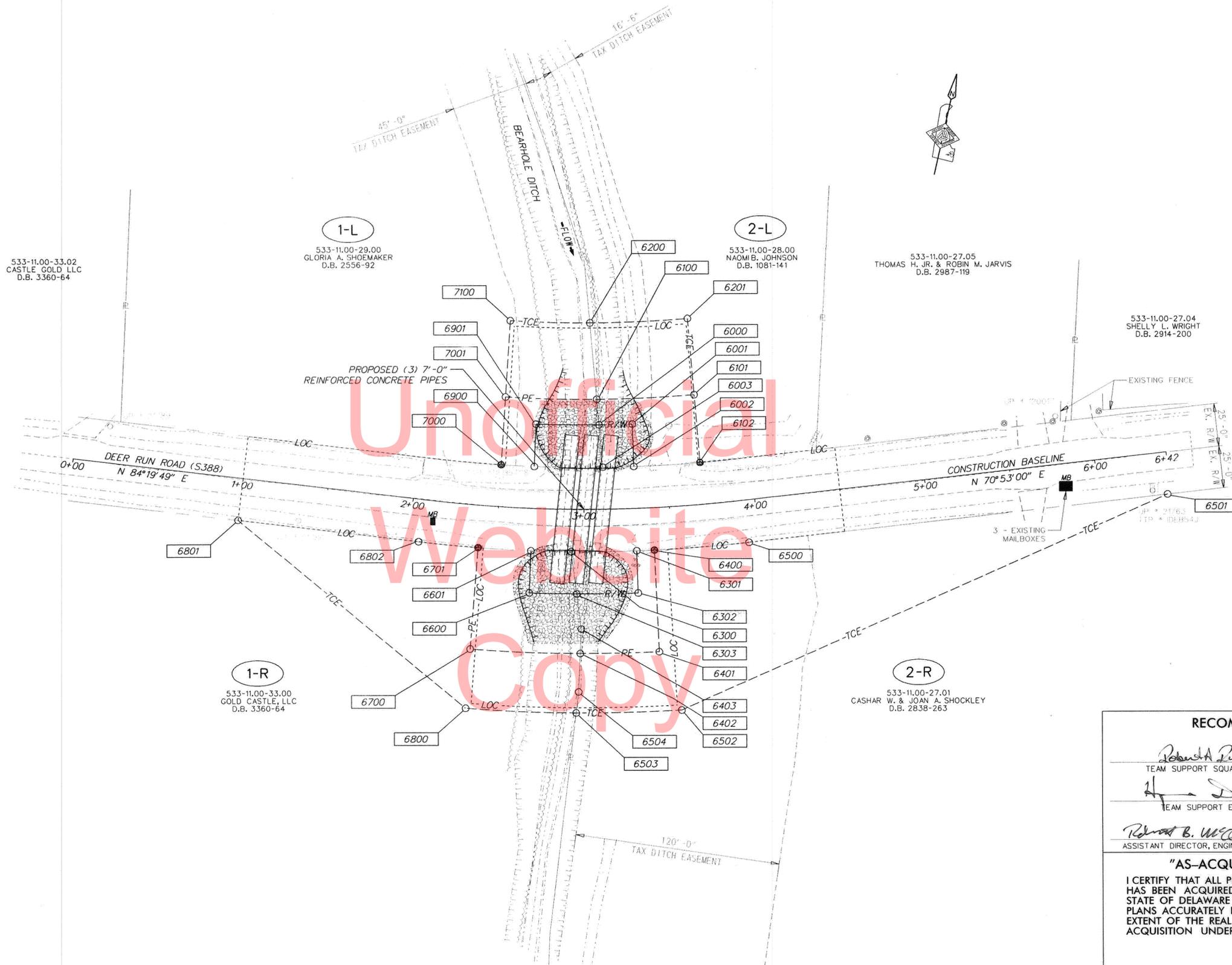


GENERAL NOTES

- 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.
- 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 8 FEET WIDE UNLESS DIRECTED BY THE ENGINEER.

RECOMMENDED <i>Muh</i> DATE: 4.10.15	RECOMMENDED <i>[Signature]</i> DATE: 4/21/15	RECOMMENDED _____ DATE: _____	APPROVED CHIEF SAFETY OFFICER <i>[Signature]</i> DATE: 4.24.15	APPROVED TRAFFIC ENGINEER <i>[Signature]</i> DATE: 4/24/15
<p>DELAWARE DEPARTMENT OF TRANSPORTATION</p>		ADDENDUM / REVISIONS	NOT TO SCALE	<p>BR 3-461 ON S388 DEER RUN ROAD OVER BEARHOLE DITCH</p>
CONTRACT T201607601		ROAD NO. S388	DESIGNED BY: MFR	SHEET NO. 11
COUNTY SUSSEX		CHECKED BY: ASW	DETOUR PLAN	TOTAL SHITS. 14

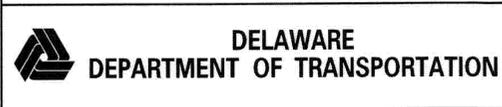
C:\DOCUMENTS AND SETTINGS\MICHAEL.RIVERA\MY DOCUMENTS\MICRO STATION DGN\DEER RUN RD (S388) BR 3-461.DGN



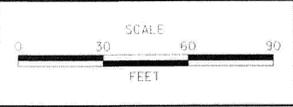
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RECOMMENDED	
<i>Robert A. Rud</i> TEAM SUPPORT SQUAD MANAGER	12-18-13 DATE
<i>John D. Sullivan</i> TEAM SUPPORT ENGINEER	12-19-13 DATE
<i>Robert B. McCarty</i> ASSISTANT DIRECTOR, ENGINEERING SUPPORT	12/19/13 DATE
"AS-ACQUIRED" PLANS	
I CERTIFY THAT 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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ADDENDUMS / REVISIONS



BR 3-461 ON S388
DEER RUN ROAD OVER
BEARHOLE DITCH

CONTRACT	BRIDGE NO.	3-461
T201607601	DESIGNED BY:	SMW
COUNTY	CHECKED BY:	EM
SUSSEX		

RIGHT-OF-WAY SHEET 1 OF 3	
RIGHT-OF-WAY PLAN	SHEET NO. 12
	TOTAL SHTS. 14

ASSESSMENT NUMBER	OWNERSHIP OF RECORD				TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)				
533-11.00-29.00	(1-L) GLORIA A. SHOEMAKER				FEE	2556-92	2.110				
ALIGNMENT NUMBER & DESCRIPTION: 3000 - PROPOSED BASELINE											
PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
6000	3000	3+09.28	-50.00	174690.9297	728264.5395	S 17°29' 23.26" E	25.07				
6003	3000	3+11.28	-25.00	174667.0163	728272.0747			S 78°16' 37.86" W	39.99	39.99	775.00
6900	3000	2+70.00	-25.00	174658.8921	728232.9232	N 10°14' 40.50" W	25.00				
6901	3000	2+70.00	-50.00	174683.4935	728228.4769			N 78°20' 55.70" E	36.82	36.83	-750.00
6000	3000	3+09.28	-50.00	174690.9297	728264.5395						
FIGURE 6900 AREA = 960.1883 SQ. FT. (0.0220 ACRES)											

ASSESSMENT NUMBER	OWNERSHIP OF RECORD				TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)				
533-11.00-29.00	(1-L) GLORIA A. SHOEMAKER				P/E	2556-92	2.110				
ALIGNMENT NUMBER & DESCRIPTION: 3000 - PROPOSED BASELINE											
PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
6100	3000	3+08.01	-65.00	174705.2791	728260.0137	S 17°30' 19.69" E	15.05				
6000	3000	3+09.28	-50.00	174690.9297	728264.5395			S 78°20' 55.70" W	36.82	36.83	750.00
6901	3000	2+70.00	-50.00	174683.4935	728228.4769	S 10°14' 40.50" E	25.00				
6900	3000	2+70.00	-25.00	174658.8921	728232.9232			S 80°28' 17.81" W	19.37	19.38	775.00
7000	3000	2+50.00	-25.00	174655.6849	728213.8160	N 8°48' 43.88" W	40.00				
7001	3000	2+50.00	-65.00	174695.2128	728207.6881			N 79°06' 37.73" E	53.29	53.30	-735.00
6100	3000	3+08.01	-65.00	174705.2791	728260.0137						
FIGURE 7000 AREA = 1293.1003 SQ. FT. (0.0297 ACRES)											

ASSESSMENT NUMBER	OWNERSHIP OF RECORD				TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)				
533-11.00-29.00	(1-L) GLORIA A. SHOEMAKER				TCE	2556-92	2.110				
ALIGNMENT NUMBER & DESCRIPTION: 3000 - PROPOSED BASELINE											
PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
6200	3000	3+03.88	-110.00	174748.3413	728246.4429	S 17°29' 30.88" E	45.15				
6100	3000	3+08.01	-65.00	174705.2791	728260.0137			S 79°06' 37.73" W	53.29	53.30	735.00
7001	3000	2+50.00	-65.00	174695.2128	728207.6881	N 8°48' 43.88" W	45.00				
7100	3000	2+50.00	-110.00	174739.6816	728200.7943			N 79°15' 30.15" E	46.46	46.47	-690.00
6200	3000	3+03.88	-110.00	174748.3413	728246.4429						
FIGURE 7100 AREA = 2244.7900 SQ. FT. (0.0515 ACRES)											

ASSESSMENT NUMBER	OWNERSHIP OF RECORD				TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)				
533-11.00-28.00	(2-L) NAOMI B. JOHNSON				FEE	1081-141	20.787				
ALIGNMENT NUMBER & DESCRIPTION: 3000 - PROPOSED BASELINE											
PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
6000	3000	3+09.28	-50.00	174690.9297	728264.5395	N 76°12' 00.76" E	19.42		19.43		-750.00
6001	3000	3+30.00	-50.00	174695.5630	728283.4033	S 14°32' 30.36" E	25.00				
6002	3000	3+30.00	-25.00	174671.3639	728289.6804			S 76°07' 42.93" W	18.13	18.14	775.00
6003	3000	3+11.28	-25.00	174667.0163	728272.0747	N 17°29' 23.26" W	25.07				
6000	3000	3+09.28	-50.00	174690.9297	728264.5395						
FIGURE 6000 AREA = 469.4992 SQ. FT. (0.0108 ACRES)											

ASSESSMENT NUMBER	OWNERSHIP OF RECORD				TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)				
533-11.00-28.00	(2-L) NAOMI B. JOHNSON				P/E	1081-141	20.787				
ALIGNMENT NUMBER & DESCRIPTION: 3000 - PROPOSED BASELINE											
PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
6100	3000	3+08.01	-65.00	174705.2791	728260.0137	N 74°48' 47.87" E	56.94		56.95		-735.00
6101	3000	3+70.00	-65.00	174720.1952	728314.9643	S 17°24' 23.60" E	40.00				
6102	3000	3+70.00	-25.00	174682.0270	728326.9302			S 74°01' 33.02" W	38.75	38.75	775.00
6002	3000	3+30.00	-25.00	174671.3639	728289.6804	N 14°32' 30.36" W	25.00				
6001	3000	3+30.00	-50.00	174695.5630	728283.4033			S 76°12' 00.76" W	19.42	19.43	750.00
6000	3000	3+09.28	-50.00	174690.9297	728264.5395	N 17°30' 19.69" W	15.05				
6100	3000	3+08.01	-65.00	174705.2791	728260.0137						
FIGURE 6100 AREA = 1807.2122 SQ. FT. (0.0415 ACRES)											

ASSESSMENT NUMBER	OWNERSHIP OF RECORD				TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)				
533-11.00-28.00	(2-L) NAOMI B. JOHNSON				TCE	1081-141	20.787				
ALIGNMENT NUMBER & DESCRIPTION: 3000 - PROPOSED BASELINE											
PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
6100	3000	3+08.01	-65.00	174705.2791	728260.0137	N 17°29' 30.88" W	45.15				
6200	3000	3+03.88	-110.00	174748.3413	728246.4429			N 74°57' 40.29" E	57.01	57.03	-690.00
6201	3000	3+70.00	-110.00	174763.1345	728301.5025	S 17°24' 23.60" E	45.00				
6101	3000	3+70.00	-65.00	174720.1952	728314.9643			S 74°48' 47.87" W	56.94	56.95	735.00
6100	3000	3+08.01	-65.00	174705.2791	728260.0137						
FIGURE 6200 AREA = 2564.5850 SQ. FT. (0.0589 ACRES)											

ASSESSMENT NUMBER	OWNERSHIP OF RECORD				TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)				
533-11.00-33.00	(1-R) GOLD CASTLE, LLC				FEE	3360-64	17.680				
ALIGNMENT NUMBER & DESCRIPTION: 3000 - PROPOSED BASELINE											
PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
6300	3000	2+92.80	25.00	174614.2001	728264.8906	S 19°56' 06.44" E	25.24				
6303	3000	2+96.13	50.00	174590.4707	728273.4970			S 78°49' 10.93" W	27.76	27.76	850.00
6600	3000	2+70.00	50.00	174585.0878	728246.2620	N 10°14' 40.50" W	25.00				
6601	3000	2+70.00	25.00	174609.6892	728241.8157			N 78°56' 20.22" E	23.51	23.51	-825.00
6300	3000	2+92.80	25.00	174614.2001	728264.8906						
FIGURE 6600 AREA = 640.9495 SQ. FT. (0.0147 ACRES)											

ASSESSMENT NUMBER	OWNERSHIP OF RECORD				TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)				
533-11.00-33.00	(1-R) GOLD CASTLE, LLC				P/E	3360-64	17.680				
ALIGNMENT NUMBER & DESCRIPTION: 3000 - PROPOSED BASELINE											
PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
6303	3000	2+96.13	50.00	174590.4707	728273.4970	S 19°55' 40.69" E	20.90				
6403	3000	2+98.74	70.71	174570.8228	728280.6203	S 10°10' 29.44" E	14.30				
6402	3000	2+98.26	85.00	174556.7480	728283.1464			S 79°49' 03.81" W	64.44	64.45	885.00
6700	3000	2+40.00	85.00	174545.3570	728219.7253	N 8°05' 45.57" W	60.00				
6701	3000	2+40.00	25.00	174604.7590	728211.2754			N 80°49' 46.96" E	30.94	30.94	-825.00
6601	3000	2+70.00	25.00	174609.6892	728241.8157	S 10°14' 40.50" E	25.00				
6600	3000	2+70.00	50.00	174585.0878	728246.2620			N 78°49' 10.93" E	27.76	27.76	-850.00
6303	3000	2+96.13	50.00	174590.4707	728273.4970						
FIGURE 6700 AREA = 2982.0152 SQ. FT. (0.0685 ACRES)											

ASSESSMENT NUMBER	OWNERSHIP OF RECORD				TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)				
533-11.00-33.00	(1-R) GOLD CASTLE, LLC				TCE	3360-64	17.680				
ALIGNMENT NUMBER & DESCRIPTION: 3000 - PROPOSED BASELINE											
PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
6402	3000	2+98.26	85.00	174556.7480	728283.1464	S 10°07' 34.46" E	22.77				
6504	3000	2+97.51	107.75	174534.3371	728287.1489	S 5°40' 50.26" E	12.33				
6503	3000	2+96.29	120.00	174522.0687	728288.3693			S 79°53' 17.77" W	64.72	64.73	920.00
6800	3000	2+40.00	120.00	174510.7059	728224.6544	N 62°40' 45.27" W	172.96				
6801	3000	1+00.00	25.00	174590.0884	728070.9903	N 84°19' 49.02" E	106.12				
6802	3000	2+06.12	25.00	174600.5724	728176.5911			N 83°07' 02.07" E	34.94	34.94	-825.00
6701	3000	2+40.00	25.00	174604.7590	728211.2754	S 8°05' 45.57" E	60.00				
6700	3000	2+40.00	85.00	174545.3570	728219.7253			N 79°49' 03.81" E	64.44	64.45	-885.00
6402	3000	2+98.26	85.00	174556.7480	728283.1464						
FIGURE 6800 AREA = 8923.3114 SQ. FT. (0.2049 ACRES)											

ASSESSMENT NUMBER	OWNERSHIP OF RECORD				TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)				
533-11.00-27.01	(2-R) CASHAR W. & JOAN A. SHOCKLEY				FEE	2838-263	5.201				
ALIGNMENT NUMBER & DESCRIPTION: 3000 - PROPOSED BASELINE											
PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
6300	3000	2+92.80	25.00	174614.2001	728264.8906			N 76°47' 25.29" E	38.36	38.36	-825.00
6301	3000	3+30.00	25.00	174622.9657	728302.2347	S 14°32' 30.36" E	25.00				
6302	3000	3+30.00	50.00	174598.7666	728308.5119			S 76°40' 16.00" W	35.98	35.99	850.00
6303	3000	2+96.13	50.00	174590.4707	728273.4970	N 19°56' 06.44" W	25.24				
6300	3000	2+92.80	25.00	174614.2001	728264.8906						
FIGURE 6300 AREA = 929.3630 SQ. FT. (0.0213 ACRES)											

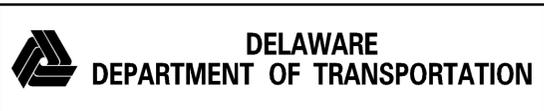
ASSESSMENT NUMBER	OWNERSHIP OF RECORD				TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)</
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COUNTY ASSESSMENT PARCEL NUMBER	PLAN SHEET NUMBER	OWNERSHIP OF RECORD	TITLE SOURCE	PROPERTY AREA BEFORE ACQUISITION (ACRE) D=DEED C=CALCULATED A=ASSESSMENT	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)
533-11.00-29.00	12	(1-L) GLORIA A. SHOEMAKER	2556-92	D - 2.110	FEE P/E TCE		960.1883 / 0.02	1293.1003 / 0.03	2244.79 / 0.05	90951.8117 / 2.09		
533-11.00-28.00	12	(2-L) NAOMI B. JOHNSON	1081-141	A - 20.787	FEE P/E TCE		469.4992 / 0.01	1807.2122 / 0.04	2564.585 / 0.06	905030.5008 / 20.78		
533-11.00-33.00	12	(1-R) GOLD CASTLE, LLC	3360-64	D - 17.680	FEE P/E TCE		640.9495 / 0.01	2982.0152 / 0.07	8923.3114 / 0.20	769500.0505 / 17.67		
533-11.00-27.01	12	(2-R) CASHAR W. & JOAN A. SHOCKLEY	2838-263	D - 5.201	FEE P/E TCE		929.363 / 0.02	1860.1723 / 0.04	16372.395 / 0.38	225626.637 / 5.18		

Unofficial
Website
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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

**BR 3-461 ON S388
DEER RUN ROAD OVER
BEARHOLE DITCH**

CONTRACT T201607601	BRIDGE NO. 3-461
COUNTY SUSSEX	DESIGNED BY: SMW
	CHECKED BY: EM

RIGHT-OF-WAY TABULATION SHEET	SHEET NO. 14
	TOTAL SHTS. 14

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