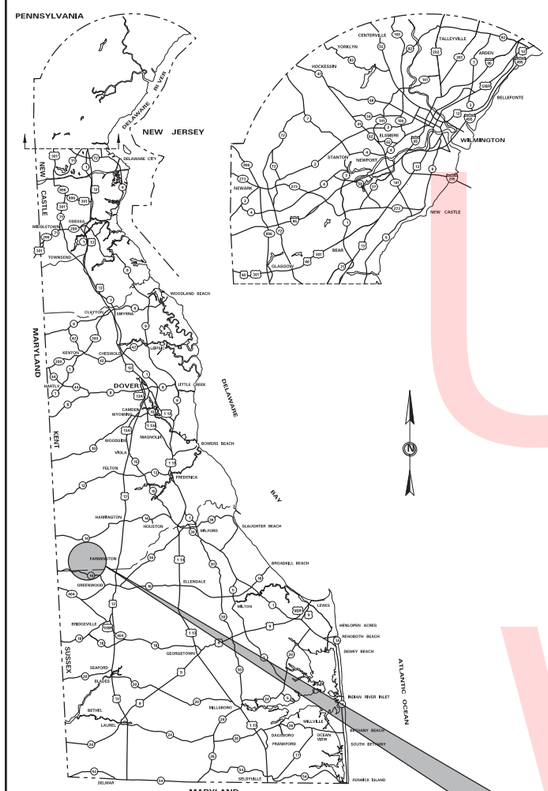


GENERAL LOCATION OF CONTRACT

THE STATE OF DELAWARE
DEPARTMENT OF TRANSPORTATION

U.S. CUSTOMARY UNITS

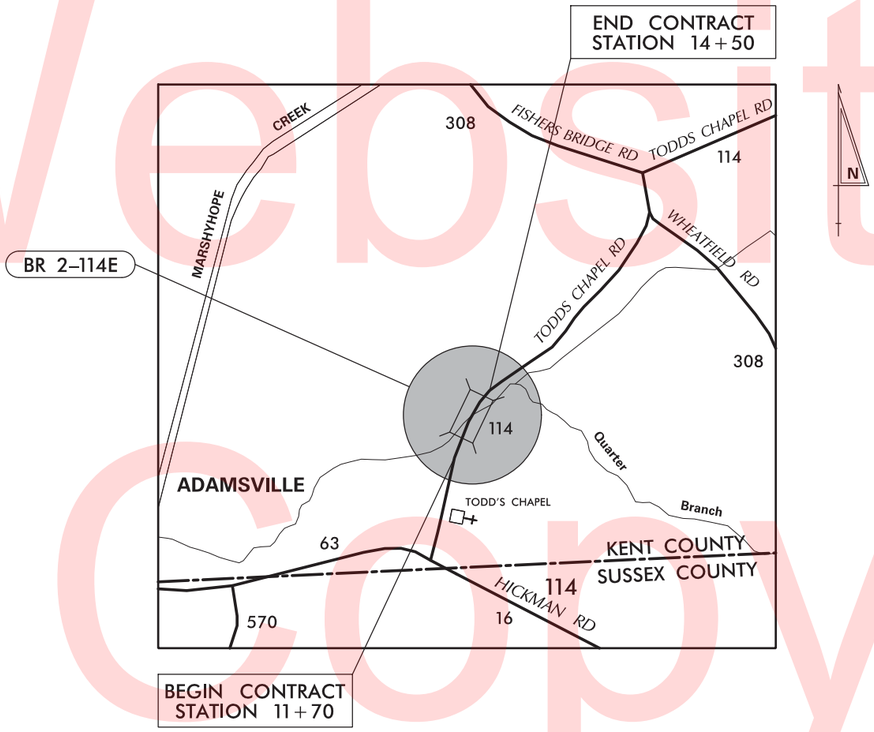
CONSTRUCTION & RIGHT-OF-WAY PLANS FOR:

BR 2-114E ON TODDS CHAPEL ROAD OVER QUARTER BRANCH

CONTRACT NUMBER: T201407207

FEDERAL AID PROJECT NUMBER: EBROS-K114(02)

COUNTY: KENT M.R. #: 114



PROJECT LOCATION

DESIGN DESIGNATION

FUNCTIONAL CLASS: RURAL LOCAL		D.H.V. PROJECTED: 42 YEAR: 2040
TYPE OF CONSTRUCTION: PIPE REPLACEMENT		DESIGN SPEED: 55 M.P.H.
A.A.D.T. CURRENT: 515	YEAR: 2014	TRUCKS: 11 %
A.A.D.T. PROJECTED: 700	YEAR: 2040	DIRECTION OF DISTRIBUTION: 60 %

INDEX OF SHEETS

TOTAL SHEETS: 14

APPROVED DESIGN EXCEPTIONS

DESIGN PARAMETER	REQUIRED	PROVIDED	DATE

ADDENDA & REVISIONS

DESCRIPTION	NAME & DATE

ASSOCIATED CONTRACTS

CONTRACT NO.	CONTRACT NAME
292	CONSTRUCTION OF CONTRACT NO 292
64-04-028	RIGHT OF WAY ACQUISITION, DIRT ROADS, KENT COUNTY

PREPARED BY
THE CONSULTING FIRM OF

TY LIN INTERNATIONAL
DOVER, DELAWARE

D. WILLIAM DETWILER LICENSE No. 13364 DELAWARE PROFESSIONAL ENGINEER
SEAL

D. William Detwiler 7/28/17
RECOMMENDED DATE

RECOMMENDED

AREA ENGINEER, CONSTRUCTION 08/21/2017 DATE

GROUP ENGINEER, CONSTRUCTION 08/21/2017 DATE

ASSISTANT DIRECTOR, CONSTRUCTION 08/22/2017 DATE

RECOMMENDED

STORMWATER ENGINEER

DATE 08/09/2017

VINCENT W. DAVIS REGISTERED No. 12898 DELAWARE PROFESSIONAL ENGINEER
SEAL

RECOMMENDED

SQUAD MANAGER, BRIDGE DESIGN

DATE 08/09/2017

STEPHEN DIRK RICHTER REGISTERED NO. 9235 DELAWARE PROFESSIONAL ENGINEER
SEAL

RECOMMENDED

BRIDGE DESIGN ENGINEER

DATE

SEAL

RECOMMENDED

ASSISTANT DIRECTOR, BRIDGE

DATE 08/22/2017

JASON N. HASTINGS REGISTERED No. 13545 DELAWARE PROFESSIONAL ENGINEER
SEAL

APPROVED

CHIEF ENGINEER

DATE 08/23/2017

ROBERT BRIAN McCLEARY REGISTERED No. 8567 DELAWARE PROFESSIONAL ENGINEER
SEAL

7/28/2017
T:\Dover\Projects\425009.12\600_CADD\05_Official\Plans\TC01_BR2-114E.dgn

EXISTING SYMBOLS

DRAINAGE

	DITCH OR STREAM CENTERLINE
	DIRECTIONAL STREAM FLOW ARROW
C.B. / D.I.	DRAINAGE INLET
J.B.	DRAINAGE JUNCTION BOX
D	DRAINAGE MANHOLE
SIZE/TYPE LABEL	DRAINAGE PIPE AND FLOW ARROW
	DRAINAGE PIPE HEADWALL
	RIPRAP - AREA FEATURE
	RIPRAP - LINEAR FEATURE

MANMADE ROADSIDE FEATURES

	BOLLARD - STEEL POLE
	BOLLARD - WOOD POST
(TYPE LABEL)	CURB
(TYPE LABEL)	CURB AND GUTTER
	FENCE - CHAINLINK OR STRANDED
	FENCE - STOCKADE OR SPLIT RAIL
FP	FLAG POLE
	GUARDRAIL - STEEL BEAM
	GUARDRAIL - WIRE ROPE
LAMP	LAMP AND POST - RESIDENTIAL
MB	MAILBOX
PM	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
WL	DELINEATED WETLAND BOUNDARY LINE
	WOODS LINE BOUNDARY

RIGHT-OF-WAY SYMBOLS

C.M.	PROPERTY MARKER - CONCRETE MON.
I.P.	PROPERTY MARKER - IRON PIPE
100+00	HISTORIC RIGHT-OF-WAY BASELINE
	EXISTING RIGHT-OF-WAY
PP	EXISTING PROPERTY LINE
EASEMENT TYPE	EXISTING EASEMENT
DA	EXISTING DENIAL OF ACCESS
R/W-DA	EXISTING R/W & DENIAL OF ACCESS

SURVEY CONTROL & MONUMENTATION

B.M.	SURVEY BENCHMARK LOCATION
T.P.	SURVEY TIE POINT LOCATION
	SURVEY TRAVERSE POINT
	POINT OF CURVATURE OR TANGENCY
	POINT OF INTERSECTING TANGENTS

UTILITY

	SOIL BORING LOCATION
	UTILITY TEST HOLE LOCATION
TV	CABLE TV DISTRIBUTION BOX
E	ELECTRIC MANHOLE
EM	ELECTRIC METER
E	ELECTRIC TRANSFORMER
	POLE MOUNTED LUMINAIRE
G	GAS MANHOLE
G.M.	GAS METER
G.V.	GAS VALVE
G.P.	GAS PUMP - SERVICE STATION
	RAILROAD TRACKS
S	SANITARY SEWER MANHOLE
S.V.	SANITARY SEWER VALVE
VENT	SANITARY SEWER VENT OR CLEANOUT
S.D.F.	SEPTIC DRAIN FIELD
B	TELEPHONE BOOTH
T	TELEPHONE MANHOLE
T	TELEPHONE TEST POINT
J.W.	TRAFFIC - CONDUIT JUNCTION WELL
	TRAFFIC - LIGHT POLE AND BASE
	TRAFFIC - PEDESTRIAN POLE & BASE
	TRAFFIC - SIGNAL CABINET & BASE
	TRAFFIC - SIGNAL POLE AND BASE
U	UTILITY BOX
	UTILITY POLE GUY WIRE ANCHOR
	UTILITY POLE
F.H.	WATER - FIRE HYDRANT
W.M.	WATER METER
W.V.	WATER VALVE
WELL	WELL HEAD
?	MANHOLE - UNDETERMINED OWNER

UTILITY COMPANY FACILITIES

DEC-E-OH	DELAWARE ELECTRIC COOPERATIVE
VER-C	VERIZON CABLE

PROPOSED SYMBOLS

CONSTRUCTION

	CONCRETE SAFETY BARRIER - PERMANENT
BFS	BIOFILTRATION SWALE
	BRICK PATTERNED SURFACE
	BUTT JOINT
100+00	CONSTRUCTION BASELINE
CSF	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
CZ	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
LO	LATERAL OFFSET
LOC	LIMIT OF CONSTRUCTION
MB	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
DA	PROPOSED DENIAL OF ACCESS
PE	PROPOSED PERMANENT EASEMENT
R/W	PROPOSED RIGHT-OF-WAY
R/W-DA	PROPOSED R/W & DENIAL OF ACCESS
TCE	TEMPORARY CONSTRUCTION EASEMENT
100+00	PROPOSED RIGHT-OF-WAY BASELINE

IDENTIFIERS

AC	ADJUST BY CONTRACTOR
AO	ADJUST BY OTHERS
B	CONCRETE SAFETY BARRIER
C	CURB OR CURB & GUTTER
CJB	CONVERT TO JUNCTION BOX
CMH	CONVERT TO DRAINAGE MANHOLE
CO	CURB OPENING
CR	CURB RAMP / TYPE
CR-N	CURB RAMP / TYPE - WITHOUT SIDEWALK SURFACE DETECTABLE WARNING SYSTEM
CSF	CONSTRUCTION SAFETY FENCE
DI	DRAINAGE INLET
DND	DO NOT DISTURB
ED	ENERGY DISSIPATOR
F	FENCE
FES	FLARED END SECTION
FFC	FILL WITH FLOWABLE FILL
FS	FILTRATION STRUCTURE
GR	GUARDRAIL
JB	JUNCTION BOX
MH	MANHOLE
M	MONUMENT - RIGHT-OF-WAY
P	PIPE
RLC	RELOCATE BY CONTRACTOR
RLO	RELOCATE BY OTHERS
RMC	REMOVE BY CONTRACTOR
RMO	REMOVE BY OTHERS
UD	UNDERDRAIN / LENGTH
UDO	UNDERDRAIN OUTLET PIPE

LANDSCAPING

LS	LANDSCAPE PLANTINGS
	SHRUBBERY
	CONIFEROUS TREE
	DECIDUOUS TREE

TRAFFIC

ITMS-CON	ITMS CONDUIT
SIG-CON	SIGNAL CONDUIT
	CONDUIT JUNCTION WELL
	LUMINAIRE
	PAVEMENT MARKINGS
	PAVEMENT STRIPING
	TRAFFIC SIGN

PAVEMENT SECTION(S)

	RECONSTRUCTED PAVEMENT - SEE TYPICAL SECTIONS FOR MATERIALS AND DEPTHS
	OVERLAY PAVEMENT - SEE TYPICAL SECTIONS FOR MATERIALS AND DEPTHS

EROSION & SEDIMENT CONTROL

CL	COMPOST FILTER LOG / LENGTH
CFL	COMPOST FILTER LOG
DWBAG	DEWATERING BAG
DWB	DEWATERING BASIN
ED	EARTH DIKE
	INLET SEDIMENT CONTROL
	PERIMETER DIKE/SWALE
PST	PORTABLE SEDIMENT TANK
SBD	SANDBAG DIKE
SB	SANDBAG DIVERSION
	STONE CHECK DAM
SCE	STABILIZED CONSTRUCTION ENTRANCE
SF	SILT FENCE / LENGTH
SF	SILT FENCE
RSF	SILT FENCE - REINFORCED
SP	SUMP PIT
ST	SEDIMENT TRAP / NUMBER
ST	SEDIMENT TRAP
ST	SEDIMENT TRAP WITH INLET AS OUTLET
ST	SEDIMENT TRAP PIPE OUTLET
SW	STILLING WELL
	TEMPORARY SWALE
TSD	TEMPORARY SLOPE DRAIN
T XXX	TURBIDITY CURTAIN / LENGTH
T	TURBIDITY CURTAIN

MISCELLANEOUS

	TOP OF BANK

UTILITY COMPANY FACILITIES

VER-C	VERIZON CABLE

GENERAL NOTES

1. THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE DELAWARE DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS", DATED AUGUST 2016 AND THE DELAWARE DEPARTMENT OF TRANSPORTATION "STANDARD CONSTRUCTION DETAILS", DATED 2001, INCLUDING ALL REVISIONS UP TO THE DATE OF ADVERTISEMENT.

2.

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) MAJOR	CERTIFIED CONSTRUCTION REVIEWER (CCR), AS DEFINED IN SECTION 6.3 OF THE DELAWARE SEDIMENT AND STORMWATER REGULATIONS.

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

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

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

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

(X)	CROSS SECTIONS (WILL BE MADE AVAILABLE TO AWARDED CONTRACTOR)
(X)	RIGHT-OF-WAY PLANS (ARE INCLUDED IN THE 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 801000.
( )	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 IS INCIDENTAL TO ITEM 801000.

6. THE DISTURBED AREA FOR THIS PROJECT IS 0.ZZ ACRES.

7. EXISTING IMPERVIOUS PAVEMENT AREA: 4,928 S.F.
   PERMANENT IMPERVIOUS PAVEMENT AREA: 5,102 S.F.
   NET CHANGE IN IMPERVIOUS PAVEMENT AREA: 174 S.F.

8. 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 FIVE 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 FIVE 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. ITEMS TO BE REMOVED UNDER ITEM 211000 - REMOVAL OF STRUCTURES AND OBSTRUCTIONS SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:
   - CMP PIPES
   - SACKED CONCRETE RIPRAP HEADWALLS (CULVERT AND ROADSIDE PIPES)
   - CONCRETE APRON (UPSTREAM AND DOWNSTREAM)

3. ALL EXISTING PAVEMENT FROM STA. 12+70 TO STA. 13+50 AS SHOWN ON THE PLANS SHALL BE EXCAVATED IN ITS ENTIRETY. PAYMENT UNDER ITEM 202000 - EXCAVATION AND EMBANKMENT.

SECTION 300

4. A. THE CONTRACTOR MAY ELECT TO USE ANY OF THE FOLLOWING MATERIALS TO MEET THE REQUIREMENTS OF ITEM 301001 - GRADED AGGREGATE BASE COURSE, TYPE 'B':
   a. CRUSHED STONE (PER STANDARD SPECIFICATION 1005)
   b. CRUSHED CONCRETE (PER STANDARD SPECIFICATION 1005)
   c. HOT-MIX MILLINGS (PER SPECIAL PROVISION 301500 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 301001 - 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 DELDOT'S PROJECT ENGINEER SHALL AGREE ON THE LIMITS OF EACH SOURCE OF MATERIAL PRIOR TO PLACEMENT. HOT-MIX MILLINGS SHALL ONLY BE USED IN AREAS APPROVED BY THE ENGINEER LARGE ENOUGH TO ACCOMMODATE THE COMPACTION METHOD REQUIRED BY SPECIAL PROVISION 301500 UTILIZING A SHEEPSFOOT ROLLER (MINIMAL 50 TON STATIC ROLLER).

   B. THE QUANTITY USED FOR BASE OF EACH OF THE ABOVE LISTED MATERIALS WILL BE THE CONTRACTOR'S CHOICE, WITH THE TOTAL MEETING THE ADVERTISED QUANTITY OF ITEM 301001 - 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 MILLING MATERIAL SHALL BECOME PROPERTY OF THE CONTRACTOR.

   D. HOT-MIX MILLINGS MAY BE GENERATED FROM THE FOLLOWING SOURCES:
   a. MATERIAL MADE AVAILABLE WHEN MILLED ON THIS CONTRACT UNDER THE MILLING ITEM UTILIZED ON THE CONTRACT.
   b. MATERIAL MILLED ON THIS CONTRACT AT THE CONTRACTOR'S CHOICE UNDER ITEM 202000.
   c. 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 301500 - 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. MILLINGS GENERATED UNDER THE MILLING ITEM UTILIZED FOR THE CONTRACT MAY BE RECYCLED INTO HOT-MIX, UTILIZED FOR BASE COURSE OR DISPOSED OF BY THE CONTRACTOR TO AN APPROVED SITE. NO SEPARATE PAYMENT WILL BE MADE FOR TRANSPORTING MILLINGS ON SITE OR TO AN APPROVED DISPOSAL SITE.
   c. 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.
   d. MILLINGS USED FOR BASE COURSE SHALL BE PLACED IN ACCORDANCE WITH THE REQUIREMENTS OF SPECIAL PROVISION 301500 - 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 IN PLACE AT THE UNIT BID PRICE FOR ITEM 301001 - GRADED AGGREGATE BASE COURSE, TYPE 'B'.
   e. 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.
   f. SPECIAL PROVISION 301500 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 301500 MILLED HOT-MIX BASE COURSE ARE INCIDENTAL TO ITEM 301001 - GRADED AGGREGATE BASE COURSE, TYPE 'B'. NO PAYMENT WILL BE MADE FOR ITEM 301500 - MILLED HOT-MIX BASE COURSE. THE QUANTITY OF MILLINGS USED FOR BASE COURSE WILL BE PAID FOR UNDER ITEM 301001 - GRADED AGGREGATE BASE COURSE.

SECTION 600

5. THIS NOTE SUPERCEDES STANDARD SPECIFICATIONS SECTION 601.05 REGARDING PAYMENT. PIPES, BACKFILLING, AND EXCAVATION WILL BE PAID FOR SEPERATELY UNDER 207000, 207021, 601012, 601014, AND 601023.

SECTION 800

6. MAINTENANCE OF TRAFFIC:
   MAINTENANCE OF TRAFFIC SHALL BE AS PER DETOUR PLAN. THE DETOUR SHALL REMAIN IN EFFECT UNTIL THE FINAL WARM MIX IS PLACED. ALL MOT ITEMS WITH THE EXCEPTION OF PORTABLE CHANGEABLE MESSAGE SIGNS AND FLAGGERS WILL BE INCLUDED IN ITEM *801500 - MAINTENANCE OF TRAFFIC, ALL INCLUSIVE.

7. ROAD SHALL NOT BE CLOSED FOR MORE THAN 30 DAYS.

SECTION 900

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

MISCELLANEOUS

9. ALL GEOTEXTILES SHALL BE KEYED UNDER ADJACENT SOIL OR RIPRAP A MINIMUM OF 6" IN LENGTH TO PREVENT FREE EDGES.

10. ENVIRONMENTAL COMPLIANCE: SEE ENVIRONMENTAL COMPLIANCE PLAN FOR FURTHER RESTRICTIONS/GUIDANCE ASSOCIATED WITH THIS PROJECT.

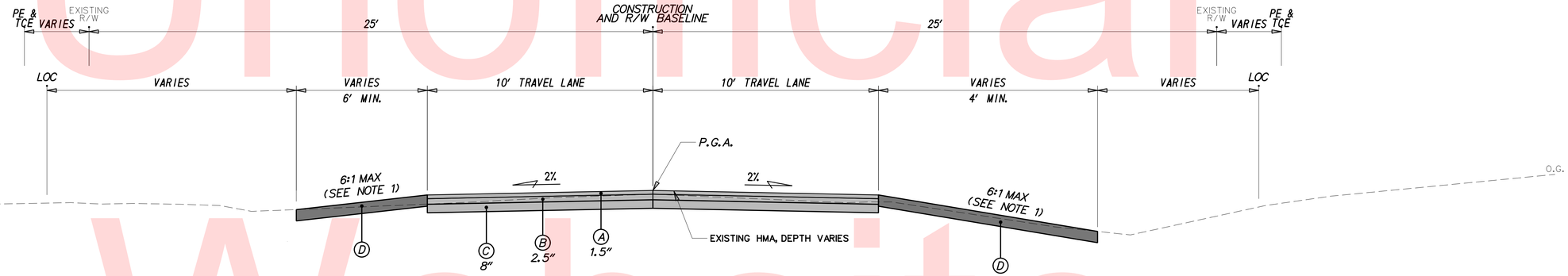
11. HYDRAULIC DATA:

DRAINAGE AREA:	3.71 sq. miles	DESIGN FREQ.: 25 YEARS	
DESIGN DISCHARGE:	454.33 cfs	100-YEAR DISCHARGE:	676.94 cfs
EXISTING 25-YEAR WSE:	39.57 ft	PROPOSED 25-YEAR WSE:	39.02 ft
EXISTING 25-YEAR VELOCITY:	7.14 fps	PROPOSED 25-YEAT VELOCITY:	7.12 fps
EXISTING 100-YEAR WSE:	41.46 ft	PROPOSED 100-YEAR WSE:	41.46 ft
EXISTING 100-YEAR VELOCITY:	10.45 fps	PROPOSED 100-YEAR VELOCITY:	9.35 fps
EXISTING WATERWAY OPENING:	69.60 sq. ft	PROPOSED WATERWAY OPENING:	71.27 sq. ft

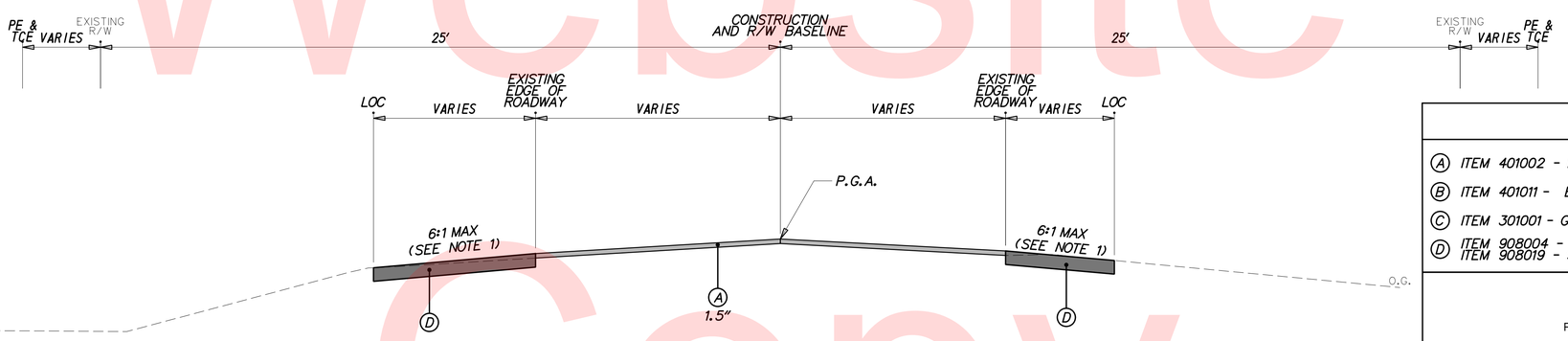
12. SCOUR ANALYSIS:

SCOUR DESIGN FREQUENCY:	100 YEARS
SCOUR DESIGN FLOOD DISCHARGE:	676.94 cfs
SCOUR DESIGN FLOOD VELOCITY:	9.35 fps (AT BRIDGE OUTLET)
WATER SURFACE ELEVATION:	41.46 ft (IMMEDIATELY UPSTREAM OF BRIDGE)

SCOUR COUNTERMEASURES HAVE BEEN DESIGNED FOR THE SCOUR DESIGN FLOOD IN ACCORDANCE WITH HEC 14 - HYDRAULIC DESIGN OF ENERGY DISSIPATORS FOR CULVERTS AND CHANNELS.



TODD'S CHAPEL ROAD
STATION 12+70 TO STATION 13+50



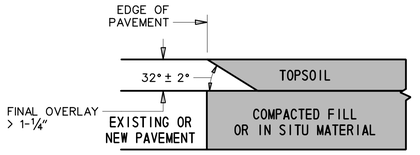
TODD'S CHAPEL ROAD
STATION 11+70 TO STATION 12+70
& STATION 13+50 TO STATION 14+50

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

NOTES:
1. THE FRONT SLOPE SHALL TRANSITION FROM EXISTING GRADE AT THE BEGINNING AND END OF THE PAVEMENT REPLACEMENT TO MATCH CHANNEL EMBANKMENTS AT THE PROPOSED PIPES.

LEGEND

- (A) ITEM 401002 - BITUMINOUS CONCRETE, SUPERPAVE, TYPE C, 160 GYRATION, PG 64-22 (CARBONATE STONE)
- (B) ITEM 401011 - BITUMINOUS CONCRETE, SUPERPAVE, TYPE B, 160 GYRATION, PG 64-22
- (C) ITEM 301001 - GRADED AGGREGATE BASE COURSE, TYPE B
- (D) ITEM 908004 - TOPSOIL 6" DEPTH (SY)
  ITEM 908019 - STREAMBANK SEED MIX, SEEDING



HOT-MIX PAVEMENTS AND OVERLAYS
NOT TO SCALE

SAFETY EDGE DETAIL
NOT TO SCALE

DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	NOT TO SCALE	BR 2-114E ON TODDS CHAPEL ROAD OVER QUARTER BRANCH	CONTRACT T201407207 / COUNTY KENT	BRIDGE NO. 2-114E / DESIGNED BY: DJC / CHECKED BY: DEF	TYPICAL SECTION	SHEET NO. 4 / TOTAL SHTS. 14

8/15/2017
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HORIZONTAL / VERTICAL CONTROL DATA

POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION
•TP #4	12+60.95	-102.88	304903.0405	583222.1428	39.17
•TP #6	13+96.95	174.41	304913.2087	583530.8190	37.77
•TP #7	12+91.22	14.70	304882.3718	583341.7886	41.21
•TP #8	9+97.22	14.21	304613.5688	583225.0703	44.48

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)	10+00.00	304621.1798	583212.7614
PI (10005)	10+70.02	304686.6647	583237.5560
CC (10007)		303809.6433	585356.1005
PT (10002)	11+40.00	304750.5138	583266.3022
Radius:	2291.83		
Delta:	3°30'00" Right		
Degree of Curvature (Arc):	2°30'00"		
Length:	140.00		
Tangent:	70.02		
Chord:	139.98		
Middle Ordinate:	1.07		
External:	1.07		
Tangent Direction:	N 20°44'17.74" E		
Radial Direction:	S 69°15'42.26" E		
Chord Direction:	N 22°29'17.74" E		
Radial Direction:	S 65°45'42.26" E		
Tangent Direction:	N 24°14'17.74" E		

Element: Circular Curve #2			
PC (10003)	14+49.47	305032.7053	583393.3507
PI (10006)	15+30.07	305106.2013	583426.4401
CC (10008)		304738.6832	584046.4126
PT (10004)	16+10.00	305170.5043	583475.0376
Radius:	716.20		
Delta:	12°50'31.85" Right		
Degree of Curvature (Arc):	8°00'00.00"		
Length:	160.53		
Tangent:	80.60		
Chord:	160.19		
Middle Ordinate:	4.49		
External:	4.52		
Tangent Direction:	N 24°14'17.74" E		
Radial Direction:	S 65°45'42.26" E		
Chord Direction:	N 30°39'33.66" E		
Radial Direction:	S 52°55'10.41" E		
Tangent Direction:	N 37°04'49.59" E		

DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE
0 20 40 60
FEET

BR 2-114E ON
TODDS CHAPEL ROAD
OVER QUARTER BRANCH

CONTRACT	BRIDGE NO.	2-114E
T201407207	DESIGNED BY: JWS	
COUNTY	CHECKED BY: DEF	
KENT		

HORIZONTAL AND
VERTICAL CONTROL

SHEET NO.
5
TOTAL SHTS.
14

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NOTES:

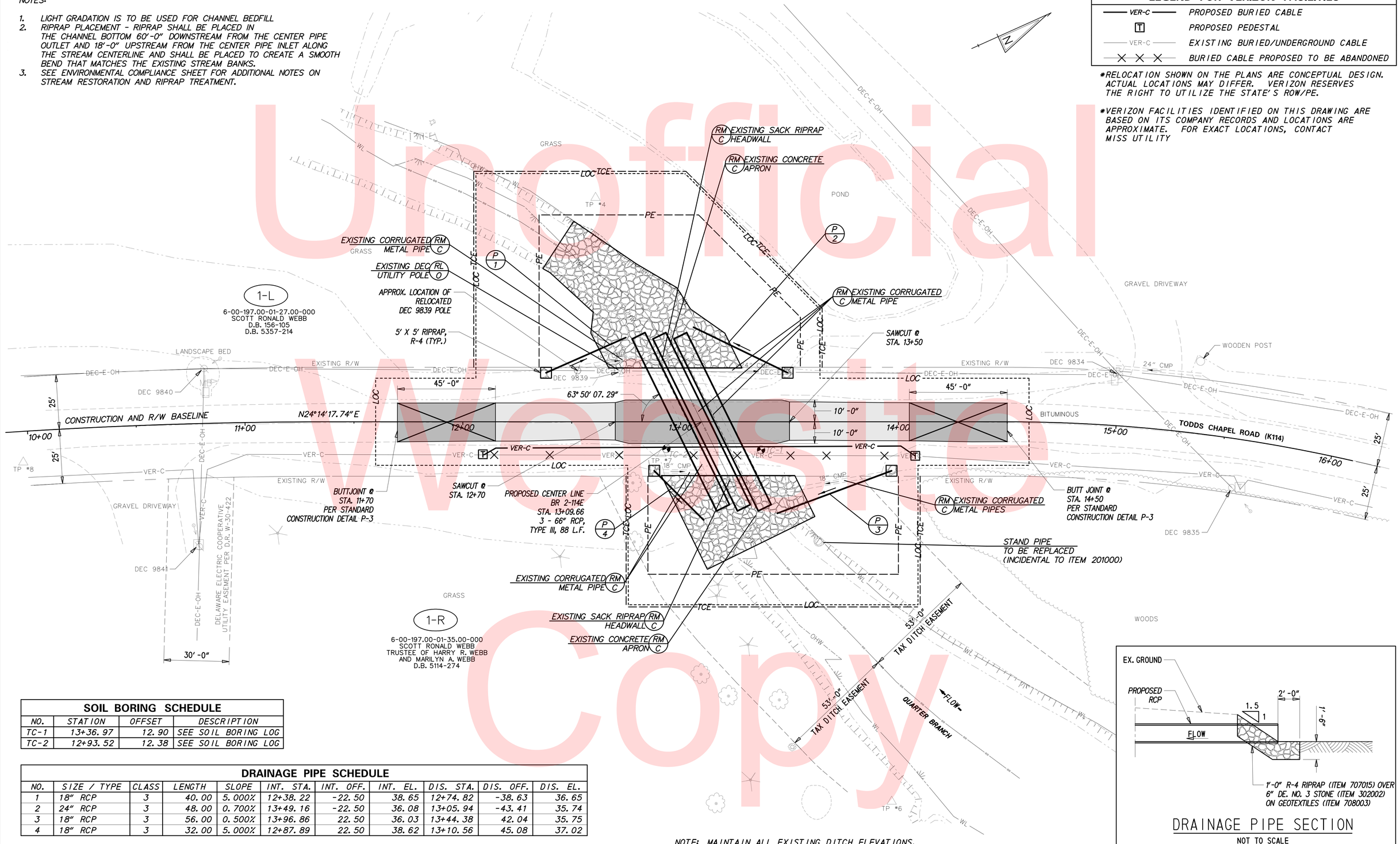
1. LIGHT GRADATION IS TO BE USED FOR CHANNEL BEDFILL
2. RIPRAP PLACEMENT - RIPRAP SHALL BE PLACED IN THE CHANNEL BOTTOM 60'-0" DOWNSTREAM FROM THE CENTER PIPE OUTLET AND 18'-0" UPSTREAM FROM THE CENTER PIPE INLET ALONG THE STREAM CENTERLINE AND SHALL BE PLACED TO CREATE A SMOOTH BEND THAT MATCHES THE EXISTING STREAM BANKS.
3. SEE ENVIRONMENTAL COMPLIANCE SHEET FOR ADDITIONAL NOTES ON STREAM RESTORATION AND RIPRAP TREATMENT.

LEGEND FOR VERIZON FACILITIES

VER-C	PROPOSED BURIED CABLE
T	PROPOSED PEDESTAL
VER-C	EXISTING BURIED/UNDERGROUND CABLE
X X X	BURIED CABLE PROPOSED TO BE ABANDONED

*RELOCATION SHOWN ON THE PLANS ARE CONCEPTUAL DESIGN. ACTUAL LOCATIONS MAY DIFFER. VERIZON RESERVES THE RIGHT TO UTILIZE THE STATE'S ROW/PE.

*VERIZON FACILITIES IDENTIFIED ON THIS DRAWING ARE BASED ON ITS COMPANY RECORDS AND LOCATIONS ARE APPROXIMATE. FOR EXACT LOCATIONS, CONTACT MISS UTILITY



SOIL BORING SCHEDULE

NO.	STATION	OFFSET	DESCRIPTION
TC-1	13+36.97	12.90	SEE SOIL BORING LOG
TC-2	12+93.52	12.38	SEE SOIL BORING LOG

DRAINAGE PIPE SCHEDULE

NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INT. STA.	INT. OFF.	INT. EL.	DIS. STA.	DIS. OFF.	DIS. EL.
1	18" RCP	3	40.00	5.000%	12+38.22	-22.50	38.65	12+74.82	-38.63	36.65
2	24" RCP	3	48.00	0.700%	13+49.16	-22.50	36.08	13+05.94	-43.41	35.74
3	18" RCP	3	56.00	0.500%	13+96.86	22.50	36.03	13+44.38	42.04	35.75
4	18" RCP	3	32.00	5.000%	12+87.89	22.50	38.62	13+10.56	45.08	37.02

DRAINAGE PIPE SECTION
NOT TO SCALE

NOTE: MAINTAIN ALL EXISTING DITCH ELEVATIONS.

DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 20 40 60 FEET

BR 2-114E ON
TODDS CHAPEL ROAD
OVER QUARTER BRANCH

CONTRACT	T201407207	BRIDGE NO.	2-114E
COUNTY	KENT	DESIGNED BY: DJC	
		CHECKED BY: DEF	

CONSTRUCTION PLAN

SHEET NO. 6
TOTAL SHTS. 14

8/16/2017
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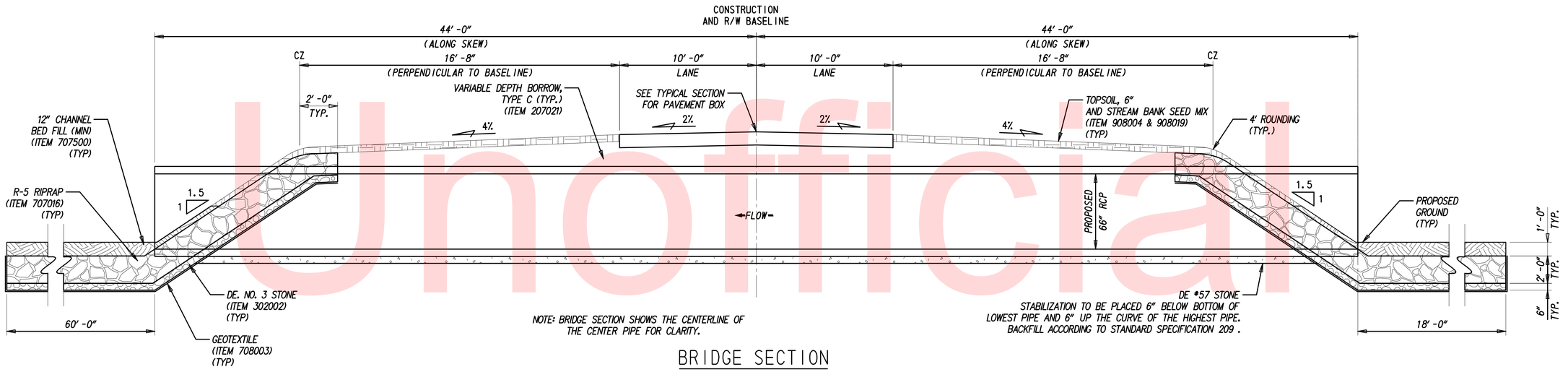
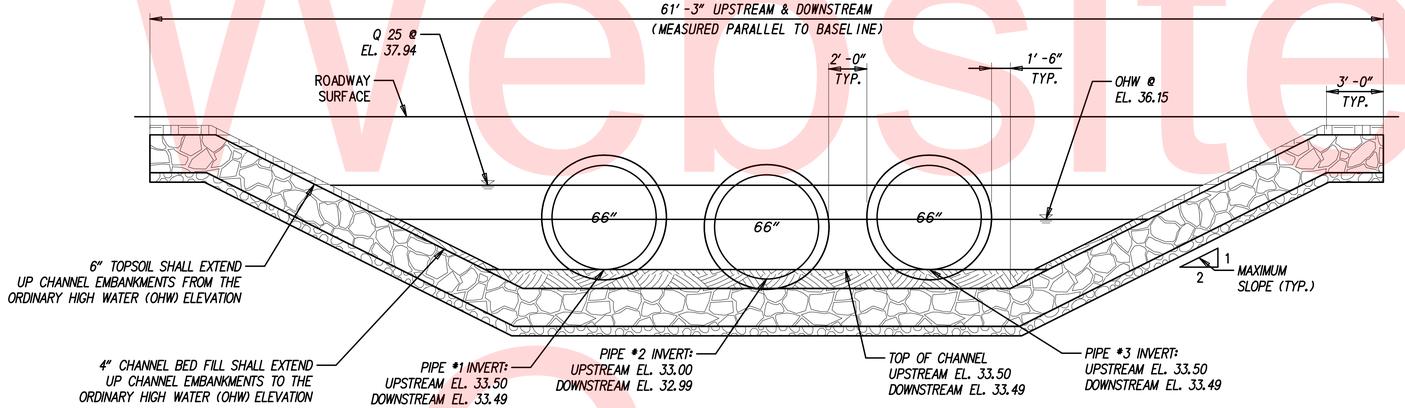


BRIDGE SECTION

(LOOKING UPSTATION)
N. T. S.



BRIDGE ELEVATION

(DOWNSTREAM - LOOKING UPSTREAM)
N. T. S.

NOTES:

1. SEE ENVIRONMENTAL COMPLIANCE SHEET FOR ADDITIONAL NOTES.
2. RIPRAP EMBANKMENT NOT SHOWN FOR CLARITY.

DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	NOT TO SCALE	BR 2-114E ON TODDS CHAPEL ROAD OVER QUARTER BRANCH	CONTRACT T201407207 / COUNTY KENT	BRIDGE NO. 2-114E / DESIGNED BY: DJC / CHECKED BY: DEF	BRIDGE SECTION AND ELEVATION	SHEET NO. 7 / TOTAL SHTS. 14

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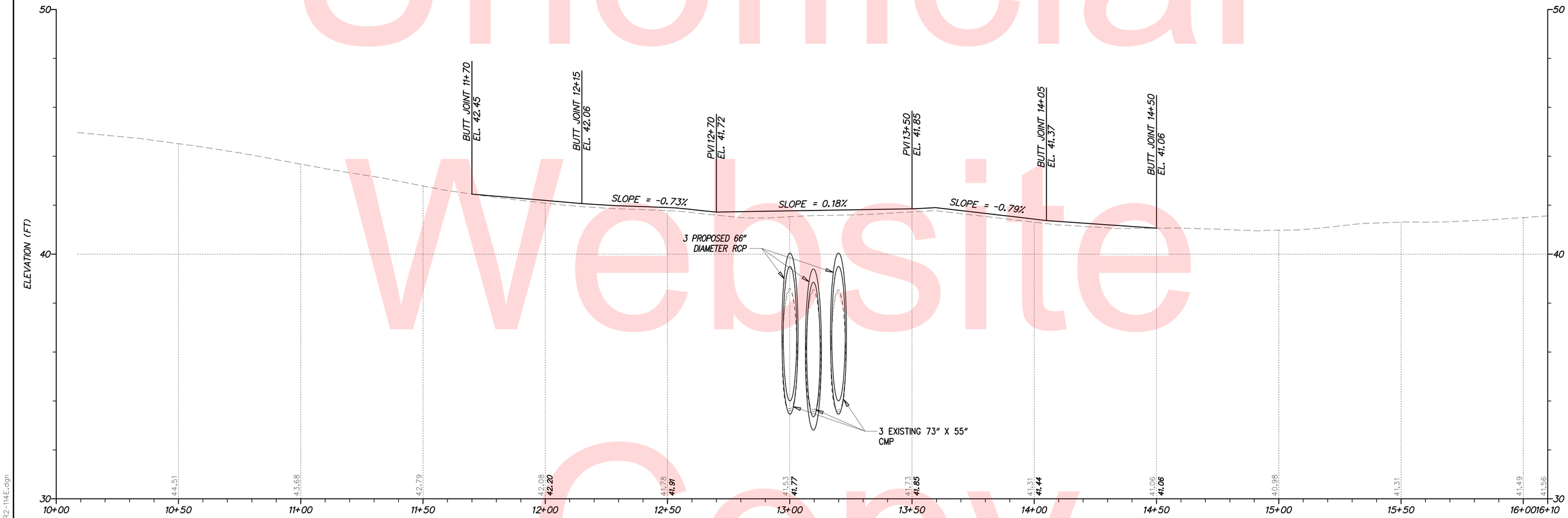

TODDS CHAPEL ROAD (K114)

VERTICAL SCALE FEET
6
4
2
0

DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 20 40 60 FEET	BR 2-114E ON TODDS CHAPEL ROAD OVER QUARTER BRANCH	CONTRACT T201407207	BRIDGE NO. 2-114E	PROFILE
				COUNTY KENT	DESIGNED BY: DJC	SHEET NO. 8
					CHECKED BY: DEF	TOTAL SHTS. 14

8/16/2017
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BORING: TC-1 | **DATE DRILLED:** 2/12/15
STATION: 13+36.97 | **OFFSET:** 12.90 | **ELEVATION:** 41.41 | **NORTHING:** 304924.824 | **EASTING:** 583358.927
COMMENTS: N/A

SAMPLE INFORMATION

NO.	DEPTH	BLOWS /6"	DESCRIPTION	CLASS /G.I.	REMARKS
1	1.0 2.0	9 6	MOIST MEDIUM DENSE BROWN FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	
2	2.0 4.0	4 3 3 3	MOIST LOOSE BROWN SILTY FINE TO COARSE SAND W/TRACE FINE GRAVEL.	A-2-4(0)	
3	4.0 6.0	1 2 1 2	WET VERY LOOSE BROWN FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	
4	6.0 8.0	1 1 9 10	WET LOOSE BLACK FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL AND ORGANIC MATTER.	A-2-4(0)	DEPTH TO WATER TABLE, 7.0' ±
5	8.0 14.0	3 1 1 1	WET VERY LOOSE GRAY FINE SAND W/SOME SILT, TRACE OF COARSE SAND AND FINE GRAVEL.	A-2-4(0)	9.0' APPROXIMATE DEPTH OF #57 STONE
6	14.0 19.0	1 1 2 2	WET VERY LOOSE GRAY COARSE TO FINE SAND W/TRACE FINE GRAVEL AND SILT.	A-1-B	
7	19.0 24.0	8 8 6 6	WET MEDIUM DENSE YELLOW COARSE TO FINE SAND W/TRACE SILT AND FINE GRAVEL.	A-1-B	
8	24.0 29.0	9 13 10 12	WET MEDIUM DENSE BROWN COARSE TO FINE SAND AND FINE GRAVEL W/SOME SILT.	A-1-B	
9	29.0 31.0	6 5 5 6	WET LOOSE GRAY SILTY FINE SAND W/TRACE COARSE SAND AND ORGANIC MATTER.	A-2-4(0)	
U-1	31.0 34.0				
10	34.0 39.0	2 3 5 5	SATURATED FIRM GRAY FINE SANDY CLAY W/SOME COARSE SAND AND SILT, TRACE OF ORGANIC MATTER.	A-6(6)	
11	39.0 44.0	WH 3 4 9	SATURATED FIRM GRAY SILTY FINE SANDY CLAY W/SOME COARSE SAND, TRACE OF ORGANIC MATTER.	A-6(8)	
12	44.0 49.0	13 17 16 27	SATURATED DENSE BROWN COARSE SAND W/SOME FINE SAND AND SILT, TRACE OF FINE GRAVEL.	A-1-B	
13	49.0 54.0	12 13 24 19	SATURATED DENSE BROWN COARSE SAND AND FINE GRAVEL W/SOME FINE SAND, TRACE OF SILT.	A-1-B	
14	54.0 59.0	6 7 10 10	SATURATED VERY STIFF GRAY CLAYEY FINE SANDY SILT W/TRACE COARSE SAND AND ORGANIC MATTER.	A-4(1)	
15	59.0 64.0	12 12 17 22	SATURATED MEDIUM DENSE GRAY FINE SAND W/SOME SILT, TRACE OF COARSE SAND, FINE GRAVEL AND ORGANIC MATTER.	A-2-4(0)	
16	64.0 69.0	8 10 12 15	SATURATED VERY STIFF GRAY SILTY CLAY W/SOME COARSE TO FINE SAND, TRACE OF ORGANIC MATTER.	A-7-6(11)	
17	69.0 73.0	9 10 13 50	SATURATED VERY STIFF GRAY SILTY CLAY W/SOME FINE TO COARSE SAND AND ORGANIC MATTER.	A-7-6(11)	
18	73.0 75.0	6 6 12 17	SATURATED VERY STIFF GRAY FINE SAND W/SOME COARSE SAND, TRACE OF ORGANIC MATTER.	A-4(0)	
	75.0		END BORING		

BORING: TC-2 | **DATE DRILLED:** 2/11/2015
STATION: 12+93.52 | **OFFSET:** 12.38 | **ELEVATION:** 41.21 | **NORTHING:** 304885.418 | **EASTING:** 583340.617
COMMENTS: N/A

SAMPLE INFORMATION

NO.	DEPTH	BLOWS /6"	DESCRIPTION	CLASS /G.I.	REMARKS
1	0.5 2.0	5 8 8	MOIST MEDIUM DENSE BROWN FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	
2	2.0 4.0	3 2 4 5	MOIST LOOSE BROWN FINE TO COARSE SAND W/SOME FINE GRAVEL AND SILT.	A-2-4(0)	
3	4.0 6.0	2 4 5 6	WET STIFF GRAY FINE SANDY SILT W/TRACE COARSE SAND AND FINE GRAVEL.	A-4(0)	
4	6.0 8.0	6 5 6 5	WET MEDIUM DENSE GRAY FINE GRAVEL AND COARSE SAND W/SOME FINE SAND AND SILT.	A-1-B	
5	8.0 14.0	2 3 3 3	WET LOOSE GRAY COARSE TO FINE SAND W/SOME FINE GRAVEL AND SILT.	A-1-B	9.0' APPROXIMATE DEPTH OF #57 STONE DEPTH TO WATER TABLE, 9.3' ±
6	14.0 19.0	1 2 2 1	WET VERY LOOSE GRAY FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	
7	19.0 24.0	3 4 5 7	WET LOOSE GRAY COARSE TO FINE SAND W/TRACE FINE GRAVEL AND SILT.	A-1-B	
8	24.0 29.0	7 7 10 7	WET MEDIUM DENSE BROWN COARSE SAND W/SOME FINE SAND AND FINE GRAVEL, TRACE OF SILT.	A-1-B	
9	29.0 34.0	6 8 10 11	WET MEDIUM DENSE BROWN FINE GRAVELLY COARSE SAND W/TRACE FINE SAND AND SILT.	A-1-B	
10	34.0 36.0	2 3 5 9	SATURATED FIRM GRAY SILTY CLAY W/SOME COARSE TO FINE SAND, TRACE OF ORGANIC MATTER.	A-7-6(15)	
U-1	36.0 38.0				
11	38.0 44.0	3 6 25 31	SATURATED HARD GRAY SILTY CLAY W/SOME FINE SAND, TRACE OF COARSE SAND AND ORGANIC MATTER.	A-6(10)	
12	44.0 49.0	36 35 50	SATURATED VERY DENSE BROWN COARSE TO FINE SAND W/TRACE SILT.	A-1-B	
13	49.0 54.0	1 3 6 4	SATURATED LOOSE BROWN FINE TO COARSE SAND AND FINE GRAVEL W/SOME SILT.	A-1-B	
14	54.0 59.0	5 6 8 9	SATURATED STIFF GRAY FINE TO COARSE SANDY CLAY W/SOME SILT.	A-7-6(7)	
15	59.0 64.0	8 15 24 21	SATURATED DENSE GRAY SILTY FINE SAND W/TRACE COARSE SAND.	A-2-4(0)	
16	64.0 69.0	7 11 21 39	SATURATED HARD GRAY SILTY COARSE SANDY CLAY W/SOME FINE SAND.	A-6(6)	
17	69.0 73.0	8 12 17 23	SATURATED VERY STIFF GRAY SILTY CLAY W/SOME COARSE TO FINE SAND.	A-7-6(11)	
18	73.0 75.0	5 9 13 13	SATURATED MEDIUM DENSE GRAY SILTY FINE SAND W/SOME COARSE SAND, TRACE OF ORGANIC MATTER.	A-2-4(0)	
	75.0		END BORING		

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DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

NOT TO SCALE

BR 2-114E ON
TODDS CHAPEL ROAD
OVER QUARTER BRANCH

CONTRACT T201407207
COUNTY KENT
BRIDGE NO. 2-114E
DESIGNED BY: DJC
CHECKED BY: DEF

SOIL BORING LOGS

SHEET NO. 9
TOTAL SHTS. 14

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): *3(a) AND (c) (NO PCN)
DNREC - WETLANDS & SUBAQUEOUS LANDS (WLSL): PROJECT CONSISTENT WITH DEL. CODE CH. 72, SECTION 7217, SPECIAL EXEMPTION (b).
DNREC - WATER QUALITY (WQC) & COASTAL ZONE CONSISTENCY (CZM): ISSUED (PROJECT IS NOT LOCATED IN CRW)

* THE PERMITS/APPROVALS LISTED ARE THOSE REQUIRED FOR THIS PROJECT. THE ENVIRONMENTAL STUDIES SECTION IS RESPONSIBLE FOR COORDINATING AND/OR OBTAINING THIS APPROVAL.
** THE CONTRACTOR MUST ENSURE THAT THESE PERMITS/APPROVALS ARE IN THEIR POSSESSION PRIOR TO BEGINNING CONSTRUCTION IN THE PERMITTED AREA(S) AND ENSURE IT IS DISPLAYED ON-SITE DURING THE ENTIRE CONSTRUCTION PERIOD.

B. CONSTRUCTION RESTRICTIONS:
FISHERIES - NONE
ENDANGERED SPECIES - NONE
MIGRATORY BIRDS - NONE

3. CULTURAL RESOURCE ISSUES:

A. NONE

4. STREAM RESTORATION AND SLOPE RIPRAP TREATMENT

A. THE CONTRACTOR SHALL FOLLOW THE SPECIAL PROVISIONS OF ITEM 707500 - CHANNEL BED FILL IN REGARDS TO THE SALVAGING OF ON-SITE NATURAL STREAM BOTTOM MATERIAL OR THE FURNISHING OF OFF-SITE MATERIAL. IF SUFFICIENT SOURCES FOR CHANNEL BED FILL DO NOT EXIST ON-SITE, ANY NEW MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF ITEM 707500 - CHANNEL BED FILL. ALL RIPRAP 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 RIPRAP ARE FILLED WITH MATERIAL. PAYMENT UNDER ITEM *209002 - BORROW TYPE 'B'. THE RIPRAP 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 707500- 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 707500 - 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 RIPRAP (I.E. THE FLOW CANNOT BE "LOST" IN THE RIPRAP OR BENEATH THE STRUCTURE). IF THIS IS NOT ACHIEVED, THE CONTRACTOR WILL BE REQUIRED TO TAKE CORRECTIVE ACTION AT THE CONTRACTOR'S EXPENSE.

D. ALL RIPRAP ON THE STREAM BANK, OUTSIDE THE CHANNEL BED, SHALL BE CHOKED WITH DELAWARE *57 STONE, FILLED WITH TOPSOIL, SEEDED AND EROSION CONTROL BLANKET MULCH (ITEM *908020). PLACE JUST ENOUGH CHOKE MATERIAL TO PREVENT THE LOSS OF TOPSOIL THROUGH THE RIPRAP, AND THEN FINISH FILLING THE VOIDS WITH TOPSOIL SO THAT THE RIPRAP PEAKS ARE BARELY VISIBLE. AN ADDITIONAL 6" TOPSOIL LAYER SHALL BE PLACED ON TOP OF THE RIPRAP. SLOPE SEEDING SHALL BE WITH ITEM *908019 - STREAMBANK SEED MIX, SEEDING. FOLLOWING THE SEEDING OPERATION, ITEM *908020 - EROSION CONTROL BLANKET MULCH, OR OTHER BLANKET AS SHOWN IN 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. DELAWARE *57 STONE SHALL BE INCIDENTAL TO THE RIPRAP 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. ALL EQUIPMENT TRAVERSING WETLANDS AND SUBAQUEOUS LAND SHALL BE SUPPORTED ON MATS. PAYMENT FOR MATS SHALL BE MADE UNDER ITEM *201000 - CLEARING & GRUBBING. 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 STREAMBANK SEED MIX (PAYMENT UNDER ITEM *908019).

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 THE 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, PROVIDED PROPER EROSION AND SEDIMENT CONTROL CAN BE MAINTAINED. SANDBAGS USED TO SECURE SILT FENCE SHALL BE INCIDENTAL TO ITEM *905001 - SILT FENCE. THE ENVIRONMENTAL STUDIES SECTION (CAROL SULLIVAN, 302-760-2129) CAN PROVIDE FURTHER GUIDANCE REGARDING THIS METHOD OF INSTALLATION.

D. ALL TREES TO BE REMOVED SHALL BE CLEARLY MARKED WITH PAINT PRIOR TO THE E & S SEDIMENT CONTROL/ENVIRONMENTAL MEETING.

WETLANDS DELINEATED BY CHRISTINE BONIWELL ON 05-20-2015 IN ACCORDANCE WITH THE US ARMY CORPS OF ENGINEERS "CORPS OF ENGINEERS WETLAND DELINEATION MANUAL (1987)" AND THE "ATLANTIC AND GULF COAST REGIONAL SUPPLEMENT (2010)".

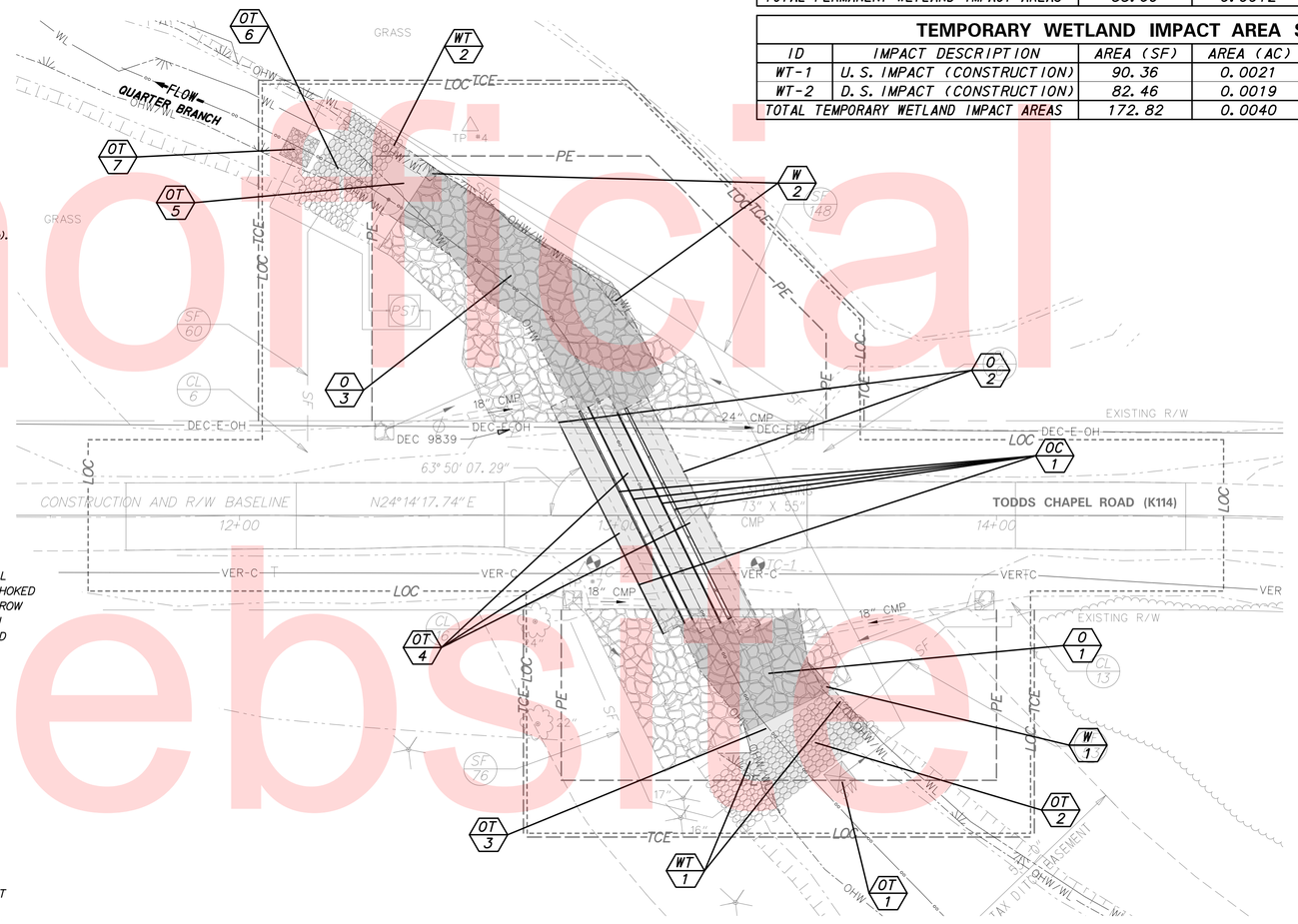
SHEET PREPARED BY T.Y. LIN INTERNATIONAL AND LAST UPDATED ON NOVEMBER 21, 2016.

PERMANENT WETLAND IMPACT AREA SCHEDULE

ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
W-1	U.S. RIPRAP	11.22	0.0003	N/A	COE/DNREC
W-2	D.S. RIPRAP	42.47	0.0010	N/A	COE/DNREC
TOTAL PERMANENT WETLAND IMPACT AREAS		53.69	0.0012	N/A	COE/DNREC

TEMPORARY WETLAND IMPACT AREA SCHEDULE

ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
WT-1	U.S. IMPACT (CONSTRUCTION)	90.36	0.0021	N/A	COE/DNREC
WT-2	U.S. IMPACT (CONSTRUCTION)	82.46	0.0019	N/A	COE/DNREC
TOTAL TEMPORARY WETLAND IMPACT AREAS		172.82	0.0040	N/A	COE/DNREC



LEGEND

- CREATION AREA
- PERMANENT IMPACT AREA
- TEMPORARY IMPACT AREA
- PROPOSED ORDINARY HIGH WATER (POHW)
- ORDINARY HIGH WATER (OHW)
- WETLAND BOUNDARY (WL)
- ORD. HIGH WATER / WETLAND (OHW/WL)
- XX / XX — IMPACT AREA TYPE ID. (SEE BELOW) / IMPACT AREA ID. AND/OR NUMBER

W = WETLAND IMPACT T = TEMPORARY IMPACT
O = OPEN WATER IMPACT C = CREATION AREA

PERMANENT OPEN WATER IMPACT AREA SCHEDULE

ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
O-1	U.S. RIPRAP	699.79	0.0161	64.80	COE/DNREC
O-2	FILL OF EXISTING PIPES	20.37	0.0005	2.88	COE/DNREC
O-3	D.S. RIPRAP	1627.54	0.0374	150.70	COE/DNREC
TOTAL PERMANENT OPEN WATER IMPACTS		2347.70	0.0539	218.37	COE/DNREC

TEMPORARY OPEN WATER IMPACT AREA SCHEDULE

ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
OT-1	STILLING WELL	36.00	0.0008	2.67	COE/DNREC
OT-2	U.S. SANDBAG DIKE	440.06	0.0101	67.64	COE/DNREC
OT-3	U.S. IMPACT (CONSTRUCTION)	54.32	0.0012	8.35	COE/DNREC
OT-4	EX. PIPES TO PROP. PIPES	1200.67	0.0276	169.69	COE/DNREC
OT-5	D.S. IMPACT (CONSTRUCTION)	141.20	0.0032	21.70	COE/DNREC
OT-6	D.S. SANDBAG DIKE	243.79	0.0056	37.47	COE/DNREC
OT-7	STABILIZED OUTFALL	64.00	0.0015	4.74	COE/DNREC
TOTAL TEMPORARY OPEN WATER IMPACTS		2180.04	0.0500	312.26	COE/DNREC

OPEN WATER CREATION AREA SCHEDULE

ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
OC-1	PROPOSED PIPES	111.26	0.0026	13.23	COE/DNREC
TOTAL OPEN WATER CREATION AREAS		111.26	0.0026	13.23	COE/DNREC

DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE
0 20 40 60
FEET

BR 2-114E ON
TODDS CHAPEL ROAD
OVER QUARTER BRANCH

CONTRACT	BRIDGE NO.	2-114E
T201407207	DESIGNED BY: DJC	
COUNTY	CHECKED BY: DEF	
KENT		

ENVIRONMENTAL COMPLIANCE PLAN AND NOTES

SHEET NO. 10
TOTAL SHTS. 14

8/16/2017
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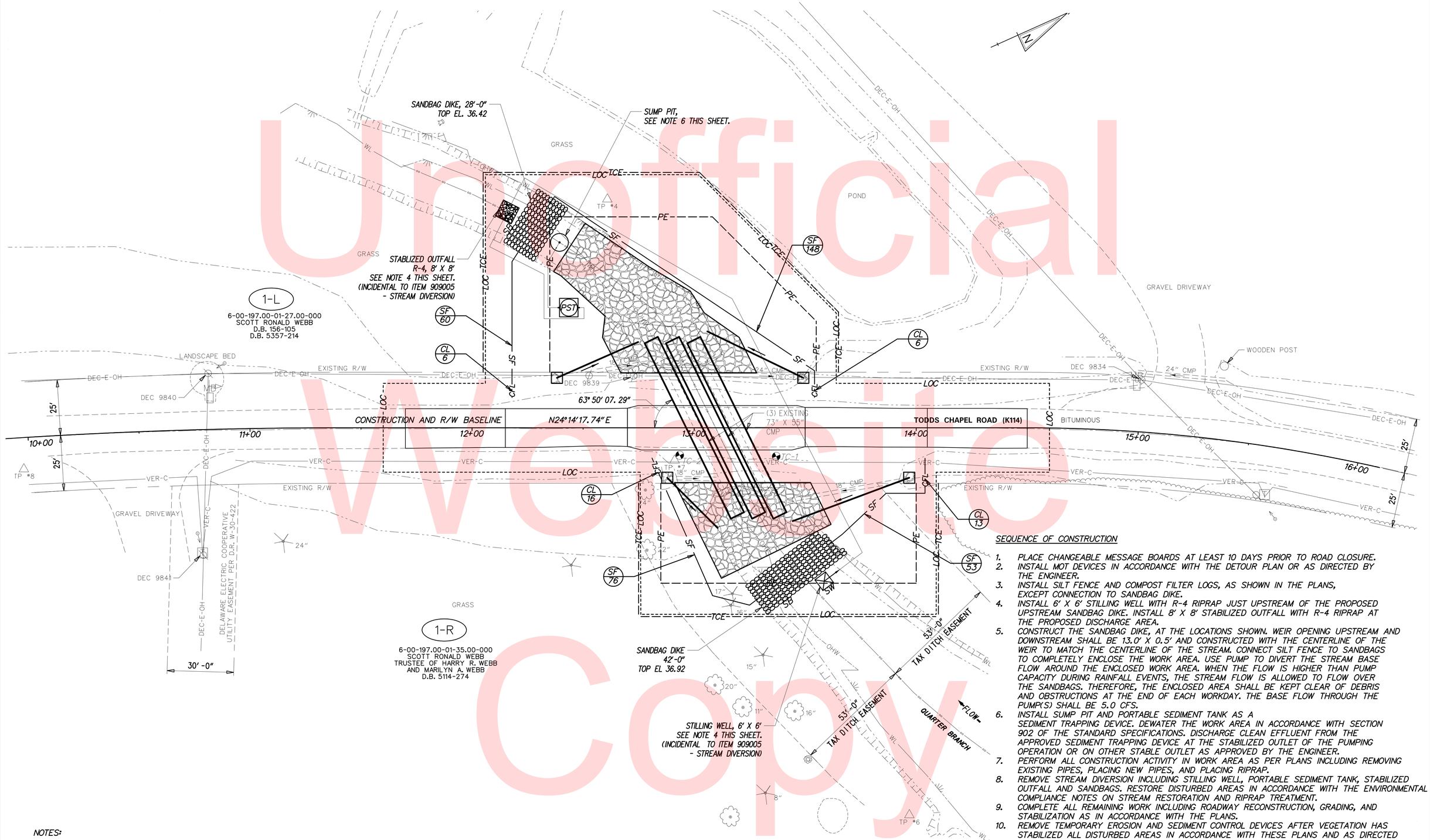

NOTES:

1. *USE COMPOST FILTER LOG (ITEM 907017) IN LIEU OF SILT FENCE AT LOCATIONS CROSSING THE ROADSIDE DITCHES.*

SEQUENCE OF CONSTRUCTION

1. *PLACE CHANGEABLE MESSAGE BOARDS AT LEAST 10 DAYS PRIOR TO ROAD CLOSURE.*
2. *INSTALL MOT DEVICES IN ACCORDANCE WITH THE DETOUR PLAN OR AS DIRECTED BY THE ENGINEER.*
3. *INSTALL SILT FENCE AND COMPOST FILTER LOGS, AS SHOWN IN THE PLANS, EXCEPT CONNECTION TO SANDBAG DIKE.*
4. *INSTALL 6' X 6' STILLING WELL WITH R-4 RIPRAP JUST UPSTREAM OF THE PROPOSED UPSTREAM SANDBAG DIKE. INSTALL 8' X 8' STABILIZED OUTFALL WITH R-4 RIPRAP AT THE PROPOSED DISCHARGE AREA.*
5. *CONSTRUCT THE SANDBAG DIKE, AT THE LOCATIONS SHOWN. WEIR OPENING UPSTREAM AND DOWNSTREAM SHALL BE 13.0' X 0.5' AND CONSTRUCTED WITH THE CENTERLINE OF THE WEIR TO MATCH THE CENTERLINE OF THE STREAM. CONNECT SILT FENCE TO SANDBAGS TO COMPLETELY ENCLOSE THE WORK AREA. USE PUMP 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 SANDBAGS. 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 5.0 CFS.*
6. *INSTALL SUMP PIT AND PORTABLE SEDIMENT TANK AS A SEDIMENT TRAPPING DEVICE. DEWATER THE WORK AREA IN ACCORDANCE WITH SECTION 902 OF THE 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. *PERFORM ALL CONSTRUCTION ACTIVITY IN WORK AREA AS PER PLANS INCLUDING REMOVING EXISTING PIPES, PLACING NEW PIPES, AND PLACING RIPRAP.*
8. *REMOVE STREAM DIVERSION INCLUDING STILLING WELL, PORTABLE SEDIMENT TANK, STABILIZED OUTFALL AND SANDBAGS. RESTORE DISTURBED AREAS IN ACCORDANCE WITH THE ENVIRONMENTAL COMPLIANCE NOTES ON STREAM RESTORATION AND RIPRAP TREATMENT.*
9. *COMPLETE ALL REMAINING WORK INCLUDING ROADWAY RECONSTRUCTION, GRADING, AND STABILIZATION AS IN ACCORDANCE WITH THE PLANS.*
10. *REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AFTER VEGETATION HAS STABILIZED ALL DISTURBED AREAS IN ACCORDANCE WITH THESE PLANS AND AS DIRECTED BY THE ENGINEER WITH CONCURRENCE FROM THE STORMWATER 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.*

DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE
0 20 40 60
FEET

BR 2-114E ON
TODDS CHAPEL ROAD
OVER QUARTER BRANCH

CONTRACT	BRIDGE NO.	2-114E
T201407207	DESIGNED BY: DJC	
COUNTY	CHECKED BY: DEF	
KENT		

CONSTRUCTION SEQUENCE AND EROSION CONTROL PLAN

SHEET NO.	11
TOTAL SHTS.	14

8/15/2017
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PORTABLE CHANGEABLE MESSAGE SIGNS

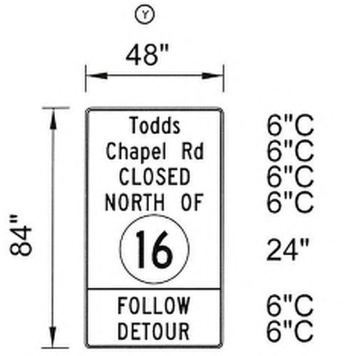
PRIOR TO DETOUR
(10 DAYS PRIOR TO BEGINNING OF DETOUR)

PCMS-1

TODDS CHAPEL CLOSING

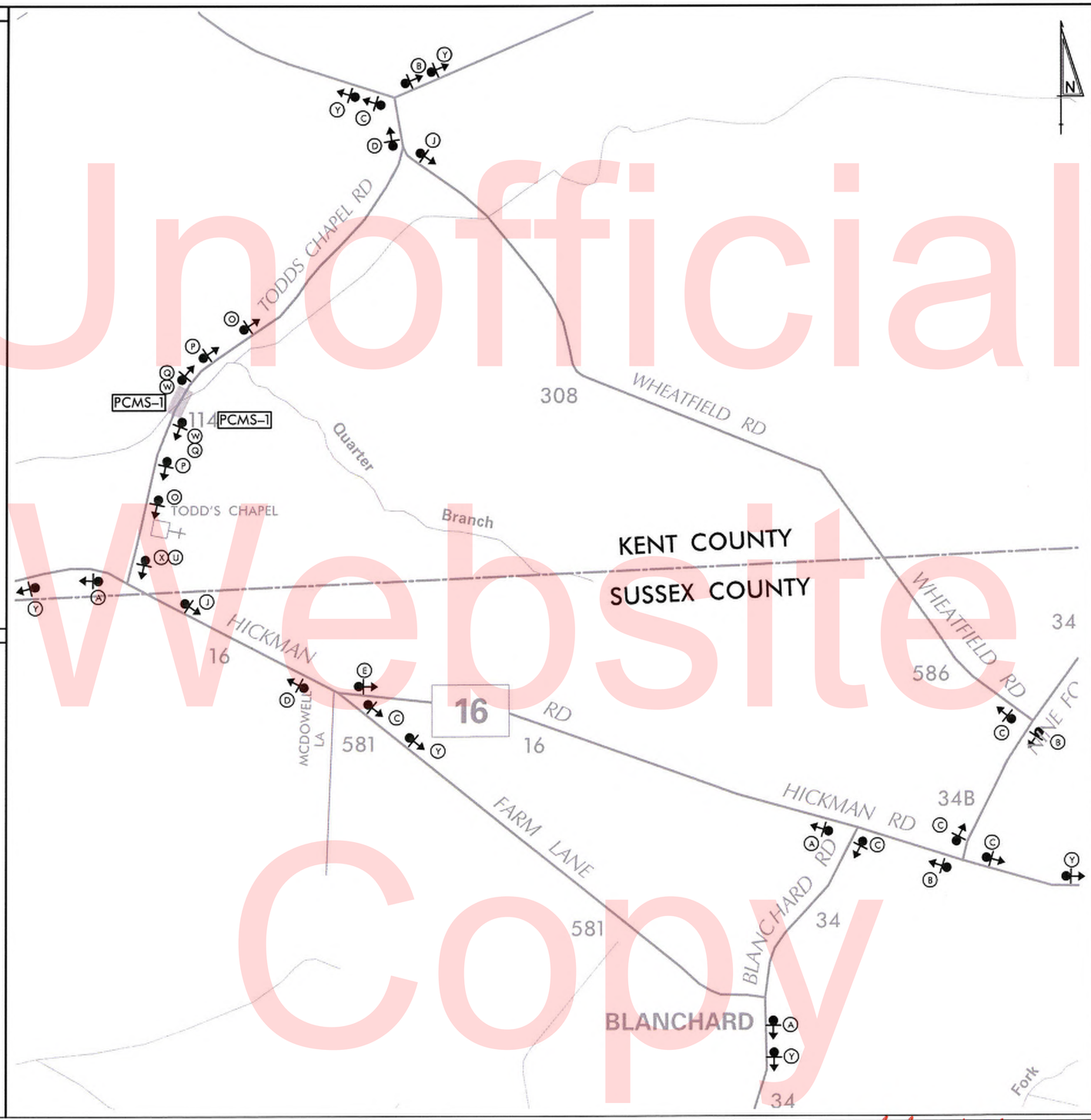
STARTING XX/XX/XX

SPECIAL SIGNS

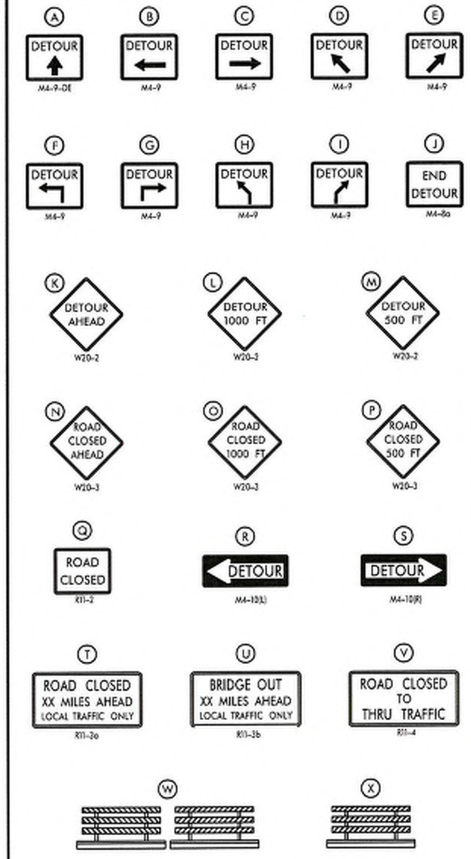


Black Legend;
Retroreflective Fluorescent Orange Background
Route Shield – Black Legend on White Background

Y Signs Shall be Installed on NCHRP 350 4" x 6" Wooden Post.



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 8 FEET WIDE UNLESS DIRECTED BY THE ENGINEER.

RECOMMENDED Douglas E Finney DATE: 3/21/2017

RECOMMENDED _____ DATE: _____

RECOMMENDED _____ DATE: _____

APPROVED CHIEF SAFETY OFFICER _____ DATE: 4-3-17

APPROVED TRAFFIC ENGINEER _____ DATE: 4/3/17

DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

NOT TO SCALE

BR 2-114E ON TODDS CHAPEL ROAD QUARTER BRANCH

CONTRACT	ROAD NO.	K114
T201407207	DESIGNED BY: DJC	
COUNTY		
KENT	CHECKED BY: JWS	

VEHICULAR DETOUR PLAN TODDS CHAPEL RD NORTH OF HICKMAN RD

SHEET NO. 12
TOTAL SHTS. 14

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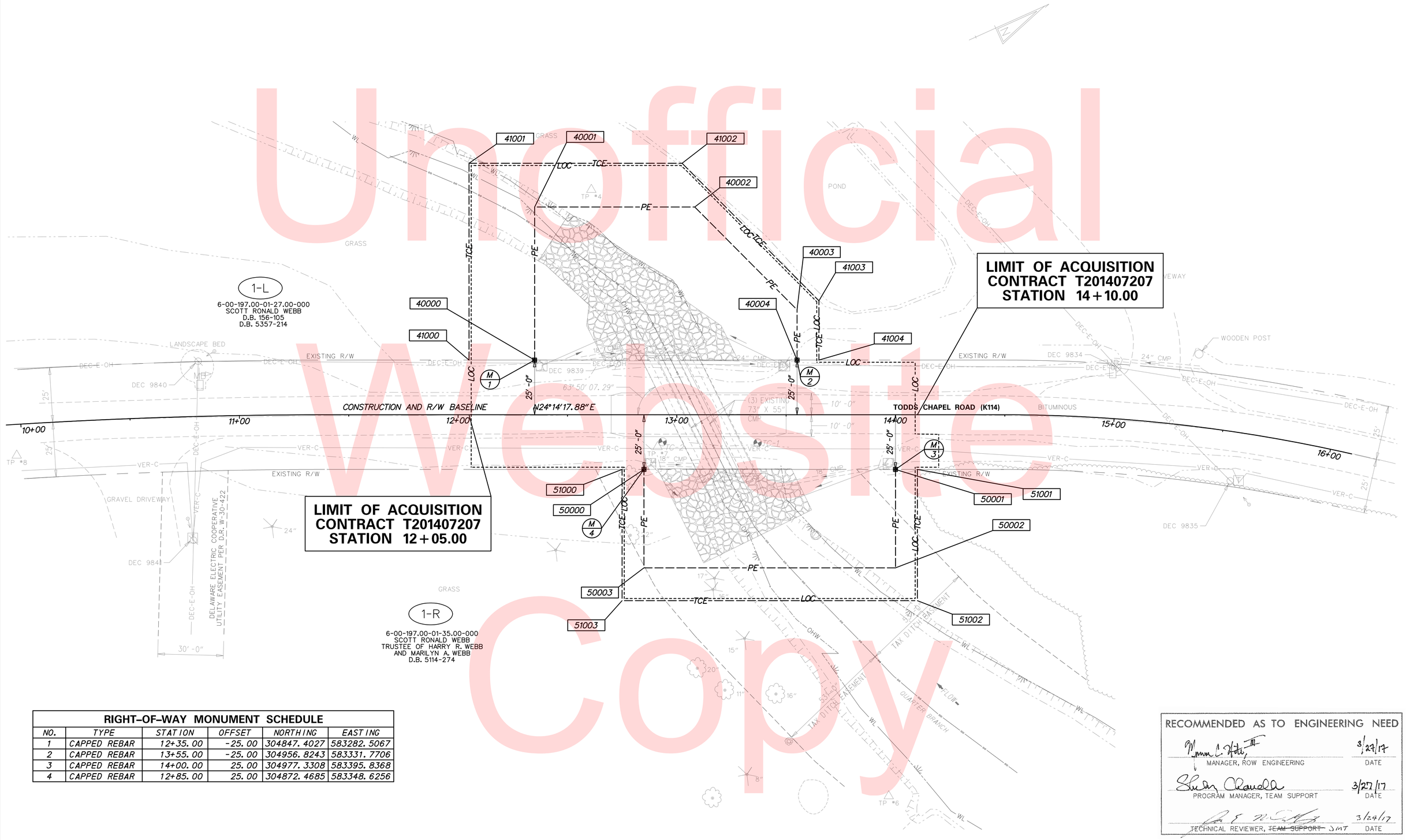

RIGHT-OF-WAY MONUMENT SCHEDULE					
NO.	TYPE	STATION	OFFSET	NORTHING	EASTING
1	CAPPED REBAR	12+35.00	-25.00	304847.4027	583282.5067
2	CAPPED REBAR	13+55.00	-25.00	304956.8243	583331.7706
3	CAPPED REBAR	14+00.00	25.00	304977.3308	583395.8368
4	CAPPED REBAR	12+85.00	25.00	304872.4685	583348.6256

RECOMMENDED AS TO ENGINEERING NEED

MANAGER, ROW ENGINEERING — DATE 3/27/17

PROGRAM MANAGER, TEAM SUPPORT — DATE 3/27/17

TECHNICAL REVIEWER, ~~TEAM SUPPORT~~ SMT — DATE 3/24/17

DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 20 40 60 FEET

BR 2-114E ON TODDS CHAPEL ROAD OVER QUARTER BRANCH

CONTRACT	BRIDGE NO.	SHEET NO.
T201407207	2-114E	13
COUNTY	DESIGNED BY: DJC	TOTAL SHTS.
KENT	CHECKED BY: DEF	14

RIGHT-OF-WAY PLAN

3/7/2017
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ASSESSMENT NUMBER	OWNERSHIP OF RECORD	TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)
6-00-197.00-01-35.00-000	(1-R) SCOTT RONALD WEBB TRUSTEE OF HARRY R. WEBB AND MARILYN A. WEBB	TCE	D.B. 5114-274	27.98

ALIGNMENT NUMBER & DESCRIPTION: 30000 - ALG. FOR TODDS CHAPEL ROAD

PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
51000	30000	12+75.00	25.00	304863.3497	583344.5202	N 24°14′17.74″ E	10.00				
50000	30000	12+85.00	25.00	304872.4681	583348.6255	S 65°45′42.26″ E	45.00				
50003	30000	12+85.00	70.00	304853.9942	583389.6586	N 24°14′17.74″ E	115.00				
50002	30000	14+00.00	70.00	304958.8565	583436.8698	N 65°45′42.21″ W	45.00				
50001	30000	14+00.00	25.00	304977.3305	583395.8367	N 24°14′17.57″ E	10.00				
51001	30000	14+10.00	25.00	304986.4489	583399.9420	S 65°45′42.26″ E	60.00				
51002	30000	14+10.00	85.00	304961.8170	583454.6528	S 24°14′17.74″ W	135.00				
51003	30000	12+75.00	85.00	304838.7178	583399.2310	N 65°45′42.26″ W	60.00				
51000	30000	12+75.00	25.00	304863.3497	583344.5202						

FIGURE 51000 AREA = 2924.9997 SQ. FT. (0.0671 ACRES)

ASSESSMENT NUMBER	OWNERSHIP OF RECORD	TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)
6-00-197.00-01-35.00-000	(1-R) SCOTT RONALD WEBB TRUSTEE OF HARRY R. WEBB AND MARILYN A. WEBB	P/E	D.B. 5114-274	27.98

ALIGNMENT NUMBER & DESCRIPTION: 30000 - ALG. FOR TODDS CHAPEL ROAD

PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
50000	30000	12+85.00	25.00	304872.4681	583348.6255	N 24°14′17.75″ E	115.00				
50001	30000	14+00.00	25.00	304977.3305	583395.8367	S 65°45′42.21″ E	45.00				
50002	30000	14+00.00	70.00	304958.8565	583436.8698	S 24°14′17.74″ W	115.00				
50003	30000	12+85.00	70.00	304853.9942	583389.6586	N 65°45′42.26″ W	45.00				
50000	30000	12+85.00	25.00	304872.4681	583348.6255						

FIGURE 50000 AREA = 5174.9998 SQ. FT. (0.1188 ACRES)

ASSESSMENT NUMBER	OWNERSHIP OF RECORD	TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)
6-00-197.00-01-27.00-000	(1-L) SCOTT RONALD WEBB	TCE	D.B. 156-105, D.B. 5357-214	58.500

ALIGNMENT NUMBER & DESCRIPTION: 30000 - ALG. FOR TODDS CHAPEL ROAD

PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
41000	30000	12+05.00	-25.00	304820.0471	583270.1906	N 65°45′42.26″ W	90.00				
41001	30000	12+05.00	-115.00	304856.9949	583188.1245	N 24°14′17.74″ E	97.43				
41002	30000	13+02.43	-115.00	304945.8403	583228.1245	N 69°22′42.18″ E	88.70				
41003	30000	13+65.00	-52.13	304977.0793	583311.1394	S 65°45′42.26″ E	27.13				
41004	30000	13+65.00	-25.00	304965.9424	583335.8758	S 24°14′17.74″ W	10.00				
40004	30000	13+55.00	-25.00	304956.8240	583331.7704	N 65°45′42.26″ W	23.00				
40003	30000	13+55.00	-48.00	304966.2662	583310.7980	S 69°22′42.18″ W	66.31				
40002	30000	13+08.23	-95.00	304942.9136	583248.7403	S 24°14′17.74″ W	73.23				
40001	30000	12+35.00	-95.00	304876.1397	583218.6774	S 65°45′43.25″ E	70.00				
40000	30000	12+35.00	-25.00	304847.4027	583282.5067	S 24°14′17.68″ W	30.00				
41000	30000	12+05.00	-25.00	304820.0471	583270.1906						

FIGURE 41000 AREA = 5132.3104 SQ. FT. (0.1178 ACRES)

ASSESSMENT NUMBER	OWNERSHIP OF RECORD	TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)
6-00-197.00-01-27.00-000	(1-L) SCOTT RONALD WEBB	P/E	D.B. 156-105, D.B. 5357-214	58.500

ALIGNMENT NUMBER & DESCRIPTION: 30000 - ALG. FOR TODDS CHAPEL ROAD

PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
40000	30000	12+35.00	-25.00	304847.4027	583282.5067	N 65°45′43.25″ W	70.00				
40001	30000	12+35.00	-95.00	304876.1397	583218.6774	N 24°14′17.74″ E	73.23				
40002	30000	13+08.23	-95.00	304942.9136	583248.7403	N 69°22′42.18″ E	66.31				
40003	30000	13+55.00	-48.00	304966.2662	583310.7980	S 65°45′42.26″ E	23.00				
40004	30000	13+55.00	-25.00	304956.8240	583331.7704	S 24°14′17.75″ W	120.00				
40000	30000	12+35.00	-25.00	304847.4027	583282.5067						

FIGURE 40000 AREA = 7300.8769 SQ. FT. (0.1676 ACRES)

COUNTY ASSESSMENT PARCEL NUMBER	PLAN SHEET NUMBER	OWNERSHIP OF RECORD	TITLE SOURCE	PROPERTY AREA BEFORE ACQUISITION (ACRE) D=DEED C=CALCULATED A=ASSESMENT	ACQUISITION CODE FEE, R/W, P/E, TCE	AREA TO BE ACQUIRED				PROPERTY AREA REMAINING (SQ. FEET /ACRES)	DEED RECORD OF ACQUISTITION	REMARKS
						ACQUISITION (SQ. FEET /ACRES)	AREA OCCUPIED BY EXISTING RIGHT OF WAY (SQ. FEET /ACRES)	EASEMENT				
								PERMANENT (SQ. FEET /ACRES)	TEMPORARY (SQ. FEET /ACRES)			
6-00-197.00-01-35.00-000	-	(1-R) SCOTT RONALD WEBB TRUSTEE OF HARRY R. WEBB AND MARILYN A. WEBB	D.B. 5114-274	A - 27.98	TCE				2924.9997 / 0.07			
					P/E			5174.9998 / 0.12		1218808.80 / 27.98		
6-00197.00-01-27.00-000	-	(1-L) SCOTT RONALD WEBB	D.B. 156-105	A - 58.50	TCE				5132.3104 / 0.12			
			D.B. 5357-214		P/E			7300.8769 / 0.17		2548260.00 / 58.50		

LEGEND

FEE	AREA OF ACQUISITION
R/W	AREA OCCUPIED BY EXISTING RW
P/E	PERMANENT EASEMENT
TCE	TEMPORARY CONSTRUCTION EASEMENT
*	"-" OFFSET IS LEFT OF BASELINE
**	"-" CURVE TURNS TO THE LEFT

DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

NOT TO SCALE

BR 2-114E ON
TODDS CHAPEL ROAD
OVER QUARTER BRANCH

CONTRACT	BRIDGE NO.	2-114E
T201407207	DESIGNED BY: DJC	
COUNTY		
KENT	CHECKED BY: DEF	

RIGHT-OF-WAY
DATA, & TABULATION
SHEET

SHEET NO.
14
TOTAL SHTS.
14

8/15/2017
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