THE STATE OF DELAWARE
DEPARTMENT OF TRANSPORTATION

U.S. CUSTOMARY UNITS

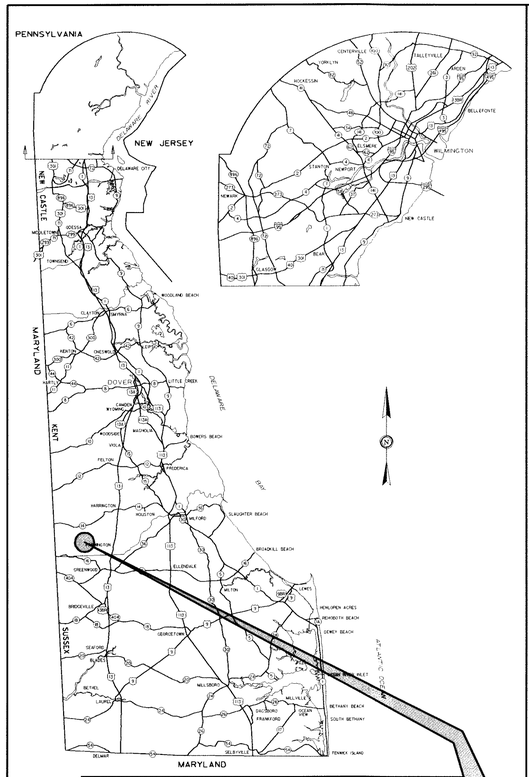
CONSTRUCTION AND RIGHT-OF-WAY PLANS FOR:

BR 2-114C ON K114
TODDS CHAPEL ROAD
OVER TOMAHAWK BRANCH

CONTRACT NUMBER: T201207201
FEDERAL AID PROJECT NUMBER: EBROS-K114(01)

COUNTY: KENT **M.R. #: 114**

UNOFFICIAL WEBSITE COPY



GENERAL LOCATION OF CONTRACT

CONTRACT END STATION 4+00

CONTRACT BEGIN STATION 1+75

DESIGN DESIGNATION

FUNCTIONAL CLASS: RURAL LOCAL ROAD	D.H.V. PROJECTED: 23	YEAR: 2040
TYPE OF CONSTRUCTION: PIPE REPLACEMENT	DESIGN SPEED: 50 M.P.H.	
A.A.D.T. CURRENT: 302 YEAR: 2011	TRUCKS: 7%	
A.A.D.T. PROJECTED: 420 YEAR: 2040	DIRECTION OF DISTRIBUTION: 60%	

INDEX OF SHEETS

SHEET Nº	TABLE OF CONTENTS
1	TITLE SHEET
2	LEGEND
3	NOTES
4	PROFILE
5	CONSTRUCTION PLAN
6	CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN
7	ENVIRONMENTAL COMPLIANCE PLAN
8	DETOUR PLAN
9	RIGHT-OF-WAY PLAN
10	RIGHT-OF-WAY DATA AND TABULATION SHEET

TOTAL SHEETS: 10

APPROVED DESIGN EXCEPTIONS

DESIGN PARAMETER	REQUIRED	PROVIDED	DATE

ADDENDA & REVISIONS

DESCRIPTION	NAME & DATE

ASSOCIATED CONTRACTS

CONTRACT NO.	CONTRACT NAME
72-090-09	CONTRACT NO. 72-090-09
292	CONTRACT NO. 292

RECOMMENDED

SQUAD MANAGER, CONSTRUCTION — DATE 1/23/13

GROUP ENGINEER, CONSTRUCTION — DATE 1/23/13

N/A
ASSISTANT DIRECTOR, TRANSPORTATION SOLUTIONS (CONSTRUCTION) — DATE

RECOMMENDED

STORMWATER ENGINEER
DATE 24 JAN 2013
SEAL — VINCENT W. DAVIS, REGISTERED No. 12898, DELAWARE PROFESSIONAL ENGINEER

RECOMMENDED

SQUAD MANAGER, TRANSPORTATION SOLUTIONS (PROJECT DEVELOPMENT OR BRIDGE DESIGN)
DATE 1/24/2013
SEAL — EMILY MAURER, LICENSED No. 16939, DELAWARE PROFESSIONAL ENGINEER

RECOMMENDED

BRIDGE DESIGN ENGINEER
DATE 1/24/2013
SEAL — DOUGLAS A. SOLOR, REGISTERED No. 11438, DELAWARE PROFESSIONAL ENGINEER

RECOMMENDED

ASSISTANT DIRECTOR, TRANSPORTATION SOLUTIONS
DATE JANUARY 24, 2013
SEAL — BARRY A. BENTON, REGISTERED No. 10774, DELAWARE PROFESSIONAL ENGINEER

APPROVED

CHIEF ENGINEER
DATE 1/24/13
SEAL — NATALIE M. DARNHAM, REGISTERED No. 9629, DELAWARE PROFESSIONAL ENGINEER

LAST REVISED: 8/7/2008
Y:\KENT\114\BRIDGE\T201207201\PLANS\TC.DGN

EXISTING SYMBOLS

DRAINAGE

	DITCH OR STREAM CENTERLINE
	DIRECTIONAL STREAM FLOW ARROW
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
PL	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

VER	TELEPHONE - VERIZON

PROPOSED SYMBOLS

CONSTRUCTION

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

RIGHT-OF-WAY SYMBOLS

	PROPOSED RIGHT-OF-WAY MONUMENT
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

A/C	ADJUST BY CONTRACTOR
A/O	ADJUST BY OTHERS
B	CONCRETE SAFETY BARRIER
C	CURB OR CURB & GUTTER
C.I.B.	CONVERT TO JUNCTION BOX
C.M.H.	CONVERT TO DRAINAGE MANHOLE
C/O	CURB OPENING
CR	CURB RAMP / TYPE
CR-W	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
F.E.S.	FLARED END SECTION
F/F/C	FILL WITH FLOWABLE FILL
F.S.	FILTRATION STRUCTURE
GR	GUARDRAIL
J.B.	JUNCTION BOX
M.H.	MANHOLE
M	MONUMENT - RIGHT-OF-WAY
P	PIPE
R/L/C	RELOCATE BY CONTRACTOR
R/L/O	RELOCATE BY OTHERS
R/M/C	REMOVE BY CONTRACTOR
R/M/O	REMOVE BY OTHERS
UD	UNDERDRAIN / LENGTH
UDO	UNDERDRAIN OUTLET PIPE

LANDSCAPING

L.S.	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)

	10" GRADED AGGREGATE BASE COURSE, TYPE B (ITEM # 302007)
	2" WMA SUPERPAVE, TYPE C (ITEM #401800) 2-1/4" WMA SUPERPAVE, TYPE B (ITEM #401809) 8" GRADED AGGREGATE BASE COURSE, TYPE B (ITEM # 302007)

EROSION & SEDIMENT CONTROL

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-1	SUMP PIT, TYPE 1
SP-2	SUMP PIT, TYPE 2
ST	SEDIMENT TRAP
ST	SEDIMENT TRAP
ST	SEDIMENT TRAP WITH INLET AS OUTLET
ST	SEDIMENT TRAP PIPE OUTLET
SW	STILLING WELL
	TEMPORARY SWALE
TSD	TEMPORARY SLOPE DRAIN
	TURBIDITY CURTAIN / LENGTH
T	TURBIDITY CURTAIN

UNOFFICIAL WEBSITE COPY

LAST REVISED: 11/09/2010
Y:\KENT\BRIDGE\T201207201\PLANS\LG.DGN

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

NOT TO SCALE

BR 2-114C ON K114
TODDS CHAPEL ROAD
OVER TOMAHAWK BRANCH

CONTRACT	BRIDGE NO.	2-114C
T201207201	DESIGNED BY: JPN	
COUNTY		
KENT	CHECKED BY: JNH	

LEGEND

SHEET NO. 2
TOTAL SHTS. 10

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.

2. THE CONTRACTOR SHALL GIVE TWO (2) WEEKS NOTICE TO THE PROPERTY OWNER WHEN ANY FIXTURE, SHRUB OR OTHER OBJECT MUST BE REMOVED FROM THE RIGHT OF WAY OR EASEMENT AREA. IF THE OWNER HAS NOT ATTEMPTED TO SALVAGE THIS PROPERTY, THE CONTRACTOR SHALL REMOVE IT WITHOUT OBLIGATION. COMPENSATION SHALL BE INCIDENTAL TO THE CONTRACT.

3. THE ENDS OF ALL CURBS SHALL BE DEPRESSED FLUSH WITH THE PAVEMENT AT A RATIO OF TWELVE TO ONE (12:1) UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

4. THE CONTRACTOR SHALL PROVIDE AND INSTALL PVC SLEEVES (4" INSIDE MINIMUM DIAMETER, 6" INSIDE MAXIMUM DIAMETER) IN PROPOSED CONCRETE SIDEWALKS, ISLANDS, AND MEDIANS FOR FUTURE TRAFFIC SIGN POSTS AS DIRECTED BY THE ENGINEER. THE LOWER END OF THE SLEEVE SHALL SIT ON THE TOP OF THE SUBBASE MATERIAL. THE COST SHALL BE INCIDENTAL TO THE CONTRACT.

5. STAGING AREAS - PROPER EROSION AND SEDIMENT CONTROL MEASURES AS DETERMINED BY THE ENGINEER SHALL BE INSTALLED IN ALL STAGING AREAS. ALL AREAS USED BY THE CONTRACTOR FOR STAGING OPERATIONS SHALL BE FULLY RESTORED BY THE CONTRACTOR UPON COMPLETION OF THE CONTRACT. IF THE STAGING AREA IS PAVED, IT SHALL BE RESTORED TO ITS ORIGINAL CONDITION. IF THE AREA IS UNPAVED, IT SHALL BE RE-GRADED, TOPSOILED, SEEDED AND MULCHED IN ACCORDANCE WITH DELAWARE STANDARD SPECIFICATIONS 732, 734 AND 735, FOR TOPSOIL, SEED AND MULCH RESPECTIVELY, TO THE SATISFACTION OF THE ENGINEER. THE SEED SHALL ADHERE TO THE SPECIFICATIONS OF SECTION 734 FOR PERMANENT GRASS SEEDING - DRY GROUND. ALL COSTS ASSOCIATED WITH RESTORATION OF THE STAGING AREA SHALL BE AT THE CONTRACTOR'S EXPENSE. IF THE ENGINEER DETERMINES THAT A SATISFACTORY STAND OF GRASS DOES NOT EXIST AT THE TIME OF FINAL INSPECTION, ALL COSTS ASSOCIATED WITH REESTABLISHING A SATISFACTORY STAND OF GRASS SHALL BE AT THE CONTRACTOR'S EXPENSE.

6. SITE REVIEWER - AN EROSION CONTROL SITE REVIEWER SHALL BE A PERSON FROM THE CONTRACTOR'S STAFF ASSIGNED TO EROSION AND SEDIMENT CONTROL IMPLEMENTATION AND MAINTENANCE AND SHALL BE REQUIRED ON SPECIFIC PROJECTS. THE NAME AND DNREC CERTIFICATION NUMBER OF EACH SITE REVIEWER SO REQUIRED SHALL BE SUBMITTED TO THE DEPARTMENT. THE NAME OF THE DELAWARE REGISTERED PROFESSIONAL ENGINEER PROVIDING DIRECTION AND SUPERVISION OF THE SITE REVIEWER, AS REQUIRED IN SECTION 12.3 OF THE DELAWARE SEDIMENT AND STORMWATER REGULATIONS, SHALL ALSO BE SUBMITTED TO THE DEPARTMENT. THE SITE REVIEWER REQUIREMENTS IN EFFECT ON THIS PROJECT SHALL BE MARKED WITH AN "X" BELOW:

EROSION POTENTIAL FOR THIS PROJECT	SITE REVIEWER REQUIREMENT
( ) INSIGNIFICANT	NONE
( ) MINOR	CONTRACTOR CERTIFICATION COURSE TRAINING ONLY, AS DEFINED IN SECTION 13 OF THE DELAWARE SEDIMENT AND STORMWATER REGULATIONS.
(X) MEDIUM	AT THE TIME OF BID OF THE CONTRACT, EITHER THE SUPERINTENDENT OR A SEPARATE INDIVIDUAL FROM THE CONTRACTOR'S STAFF SHALL BE A CERTIFIED CONSTRUCTION REVIEWER (CCR), AS DEFINED IN SECTION 12 OF THE DELAWARE SEDIMENT AND STORMWATER REGULATIONS.
( ) MAJOR	SUPERINTENDENT AND AN INDIVIDUAL FROM CONTRACTOR'S STAFF SHALL BE CCR. ONE INDIVIDUAL FROM THE CONTRACTOR'S STAFF MUST BE A CCR AT THE TIME OF BID OF THE CONTRACT. THE SUPERINTENDENT MUST BECOME A CCR WITHIN ONE YEAR AFTER THE AWARD OF CONTRACT.

7. ELECTRONIC PROJECT FILES THAT WILL BE MADE AVAILABLE TO THE CONTRACTOR INCLUDE:

( )	NONE
( )	ASCII DATA FILES WITH COORDINATES AND ELEVATIONS FOR PROPOSED POINTS AS SELECTED BY THE ENGINEER.
(X)	RASTER FILES, IN .CAL FILE FORMAT, FOR ALL PLAN SHEETS.
( )	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.

8. 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.
( )	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.

9. THE DISTURBED AREA FOR THIS PROJECT IS 0.67 ACRES.

10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADHERING TO THE CONSTRUCTION SITE POLLUTION PREVENTION SPECIFICATIONS AS DETAILED IN SECTION 3.6 OF THE "DELAWARE EROSION AND SEDIMENT CONTROL HANDBOOK". ALL COSTS ASSOCIATED WITH ADHERING TO THE STANDARDS SHALL BE INCIDENTAL TO THE OVERALL CONTRACT COSTS.

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

PROJECT NOTES

SECTION 100

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

SECTION 200

2. 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 CURBED SECTIONS, THE FACE OF THE MAILBOX SHALL BE FLUSH WITH THE BACK EDGE OF CURB. 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. POSTS BEING RESET IN CONCRETE SIDEWALK SHALL BE PLACED IN AN APPROPRIATE SIZE PVC SLEEVE. COST FOR ALL WORK AND MATERIALS SHALL BE PAID UNDER ITEM 201000 - CLEARING AND GRUBBING.

3. ITEMS TO BE REMOVED UNDER ITEM 211000 - REMOVAL OF STRUCTURES AND OBSTRUCTIONS SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:
   - EXISTING METAL AND CONCRETE PIPES
   - EXISTING SACK CONCRETE HEADWALL
   - DRAINAGE PIPES
   - LOAD POSTING SIGNS

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 MADE AVAILABLE WHEN MILLED ON THIS 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 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. MILLINGS GENERATED UNDER ITEM 760502 - PAVEMENT MILLINGS, TAPERCUT 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 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'.

   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 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 SAWCUTTING SHALL BE FULL DEPTH.

MISCELLANEOUS

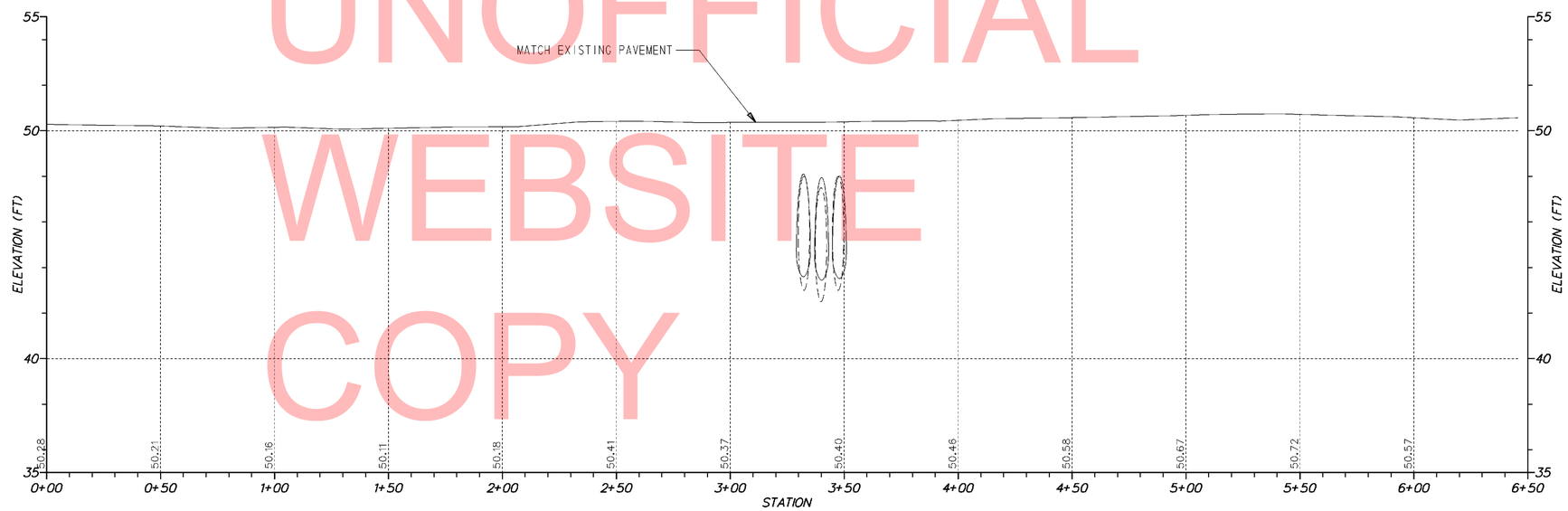
6. HYDRAULIC DATA
   DRAINAGE AREA: 2.14 sq. miles DESIGN FREQUENCY: 25 years
   DESIGN DISCHARGE: 327cfs 25-YEAR FLOOD ELEVATION: 47.37 ft

7. SCOUR ANALYSIS
   THE PROPOSED STRUCTURE HAS BEEN ANALYZED FOR THE EFFECTS OF SCOUR IN ACCORDANCE WITH HEC-18 - 'EVALUATING SCOUR AT BRIDGES' AND HEC-23 - 'BRIDGE SCOUR AND STREAM INSTABILITY COUNTERMEASURES.' SCOUR COUNTERMEASURES HAVE BEEN DESIGNED FOR THE LESSER OF THE OVERTOPPING FLOOD OR THE 500-yr FLOOD EVENT.
   DESIGN EVENT: OT FLOW DESIGN VELOCITY: 8.53 ft/s
   DESIGN DISCHARGE: 486 cfs DESIGN DEPTH OF FLOW: 48.40 ft

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

UNOFFICIAL WEBSITE COPY

UNOFFICIAL WEBSITE COPY



TODDS CHAPEL ROAD (K114)

VERTICAL SCALE FEET 0 3 6 9

Y:\KENT\BRIDGE\T201207201\PLANS\PF01.DGN

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 30 60 90 FEET

BR 2-114C ON K114 TODDS CHAPEL ROAD OVER TOMAHAWK BRANCH

CONTRACT	T201207201
COUNTY	KENT
BRIDGE NO.	2-114C
DESIGNED BY: JPN	
CHECKED BY: JNH	

PROFILES

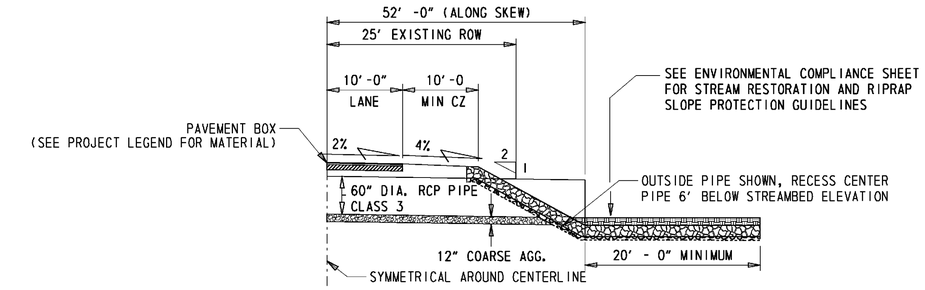
SHEET NO.	4
TOTAL SHTS.	10

HORIZONTAL / VERTICAL CONTROL DATA					
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION
TP#3	N/A	N/A	311839.041	592605.040	49.78
TP#4	3+66.41	-22.17	312076.900	593046.380	50.22
TP#6	1+71.04	+31.20	311939.814	592897.250	47.29

CONSTRUCTION ALIGNMENT CONTROL				
POINT	STATION	OFFSET	NORTHING	EASTING
POB	0+00.00	0.00	311889.221	592730.981
POE	6+45.63	0.00	312185.338	593304.694

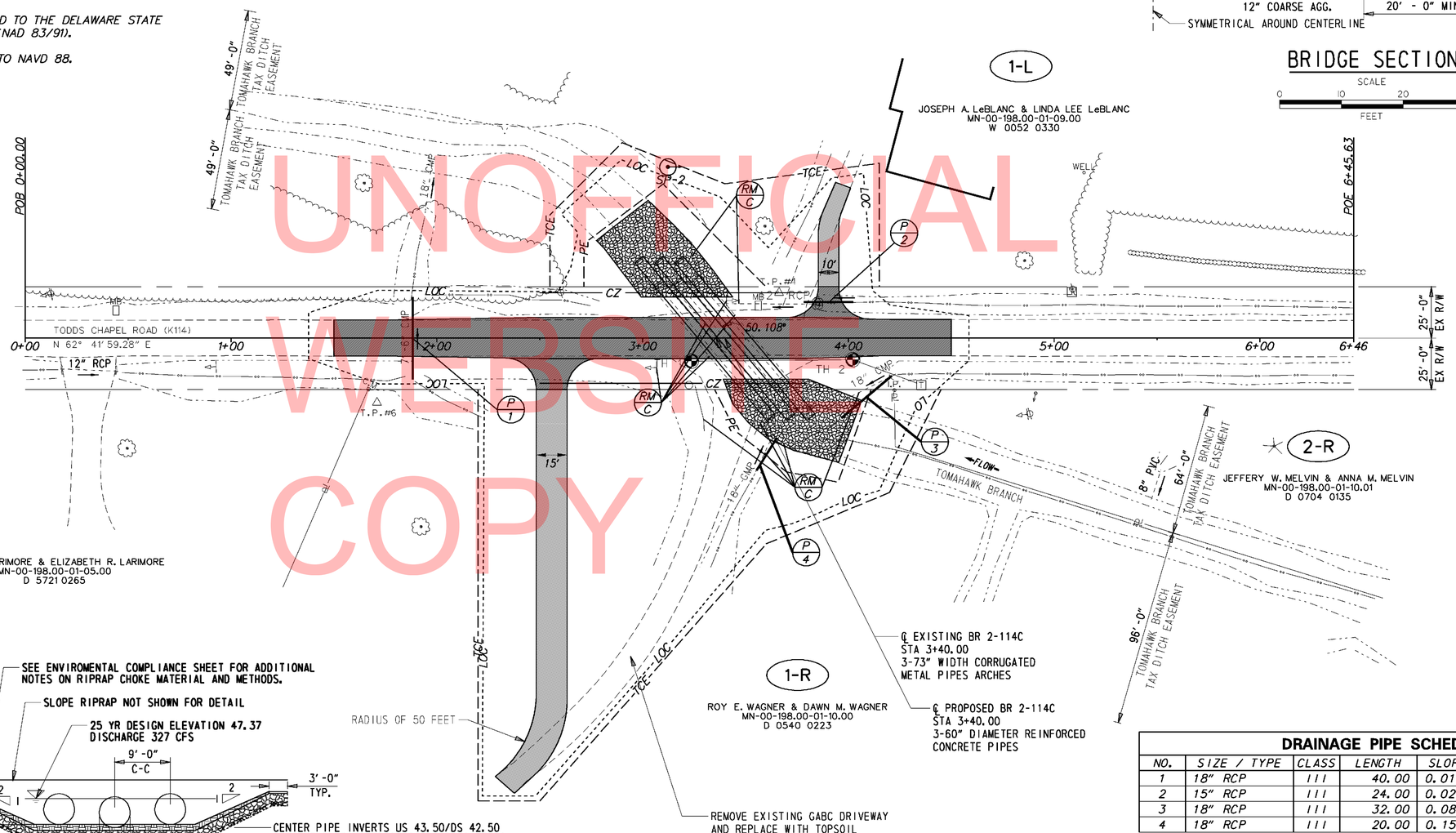
DATUM REFERENCE:
HORIZONTAL - THIS PROJECT IS REFERENCED TO THE DELAWARE STATE PLANE COORDINATE SYSTEM (NAD 83/91).

VERTICAL - THIS PROJECT IS REFERENCED TO NAVD 88.

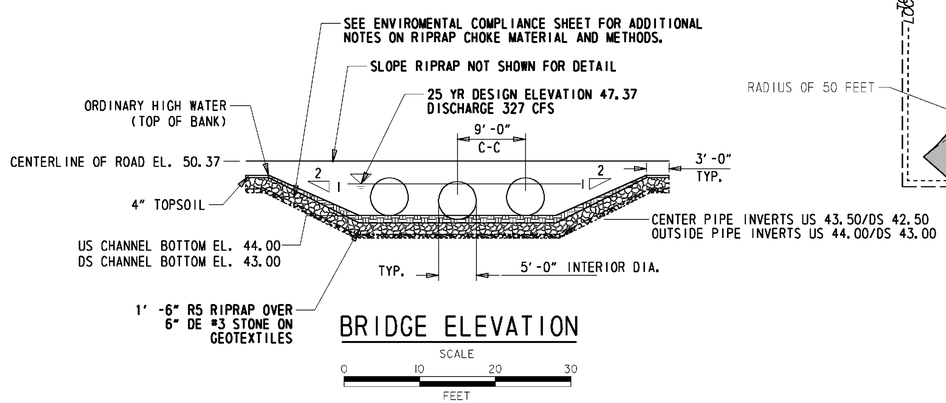


BRIDGE SECTION

SCALE 0 10 20 30 FEET



UNOFFICIAL WEBSITE COPY



BRIDGE ELEVATION

SCALE 0 10 20 30 FEET

DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INT. EL.	DIS. EL.
1	18" RCP	III	40.00	0.0108	45.17	44.74
2	15" RCP	III	24.00	0.0208	48.73	48.23
3	18" RCP	III	32.00	0.0809	45.82	43.23
4	18" RCP	III	20.00	0.1500	48.50	45.15

TEST HOLE SCHEDULE							
TEST HOLE NO.	UTILITY	SIZE	NORTHING	EASTING	STATION	OFFSET	DEPTH
1	TELEPHONE - VER	1½"	312027.78	593023.78	3+23.70	11.2' RT	1.88'
2	TELEPHONE - VER	1½"	312064.36	593093.12	4+02.10	10.5' RT	2.05'

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 30 60 90 FEET

BR 2-114C ON K114
TODDS CHAPEL ROAD
OVER TOMAHAWK BRANCH

CONTRACT	BRIDGE NO.	2-114C
T201207201	DESIGNED BY: JPN	
COUNTY		
KENT	CHECKED BY: JNH	

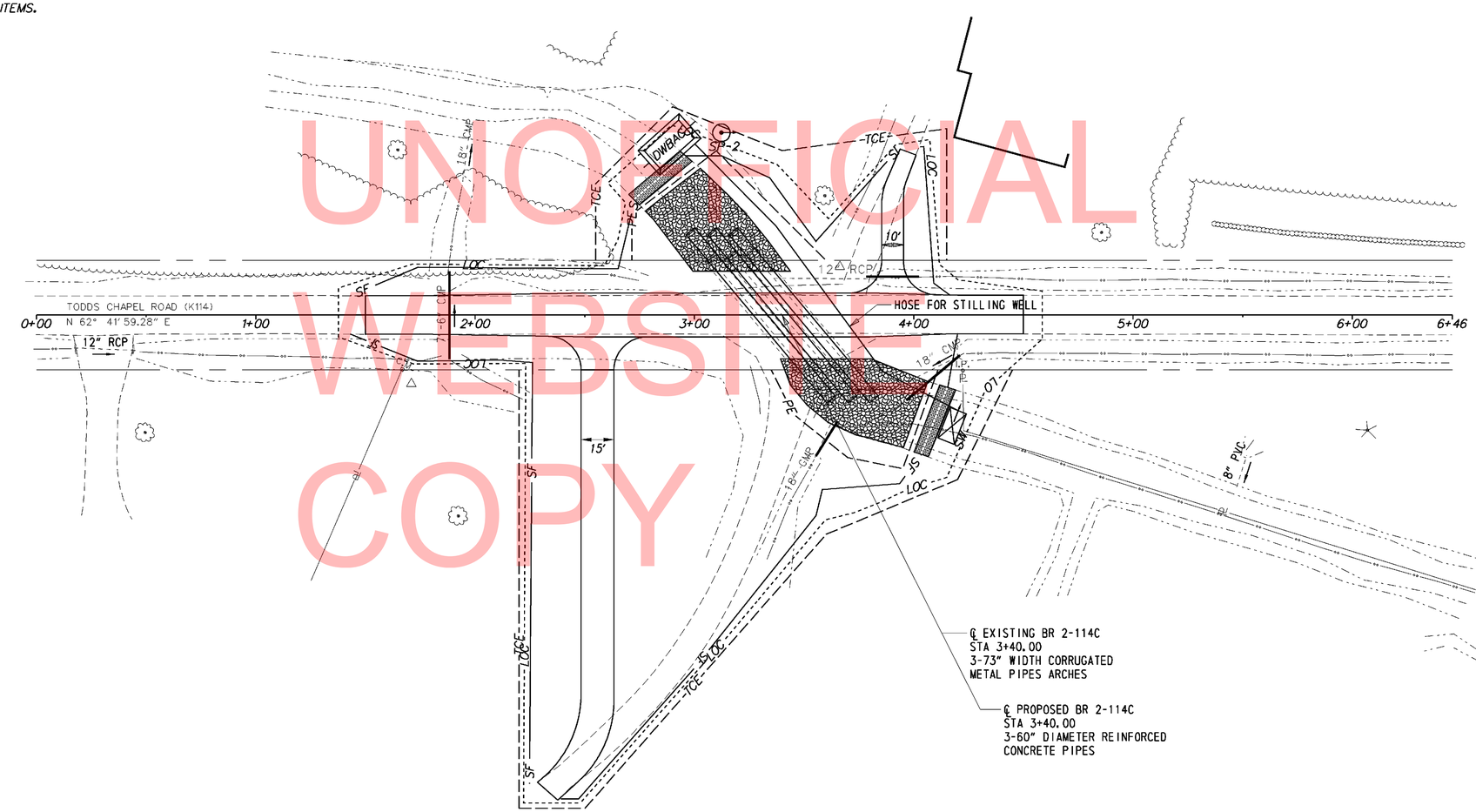
CONSTRUCTION PLAN

SHEET NO. 5
TOTAL SHTS. 10

Y:\KENT\Bridge\T20120720\Plans\cp01.dgn

SEQUENCE OF CONSTRUCTION:

1. INSTALL MOT AS PER DETOUR PLAN BEFORE CLOSING ROAD.
2. PLACE SILT FENCE, EXCEPT CONNECTION TO SANDBAG DIKES, AS SHOWN ON THE PLAN.
3. RELOCATE BOTH DRIVEWAYS SO BRIDGE WORK MAY BE COMPLETED, AS PER CONSTRUCTION PLAN. ACCESS MUST BE MAINTAINED TO BOTH PROPERTIES THROUGHOUT CONSTRUCTION.
4. REMOVE EXISTING 7'-6" CORRUGATED METAL PIPE WEST OF BRIDGE AND REPLACE WITH 18" REINFORCED CONCRETE PIPE.
5. CONSTRUCT SANDBAG DIKES IN THE EXISTING CHANNEL TO EVEN WITH TOP OF CHANNEL BANKS, WITH A 1' X 4' WIER. CONNECT THE SILT FENCE TO THE SANDBAG DIKE TO ENCLOSE THE WORK AREA. INSTALL STABILIZED OUTFALL USING R-4 RIPRAP. THE STREAM DIVERSION SHALL BE INSTALLED AS PER ITEM 265500 - STREAM DIVERSIONS. INSTALL SUMP PIT AND DEWATERING BAG FOR USE IN DEWATERING THE WORK AREA. SEE SECTION 111 OF THE STANDARD SPECIFICATIONS FOR MORE INFORMATION ON DEWATERING OPERATIONS.
5. REMOVE EXISTING SACK CONCRETE HEADWALL, CORRUGATED METAL PIPE ARCHES, DRAINAGE PIPES, AND LOAD POSTING SIGNS.
6. INSTALL THE PROPOSED REINFORCED CONCRETE PIPES.
7. INSTALL RIPRAP, CHANNEL BED FILL AND SLOPE STABILIZATION.
8. INSTALL PROPOSED PAVEMENT AND COMPLETE ANY OTHER REMAINING WORK.
9. CONSTRUCT SLOPES, PLACE ANY REMAINING RIPRAP, AND COMPLETE ALL ROAD WORK.
10. REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL AND STREAM DIVERSION DEVICES (INCLUDING RIPRAP USED AS STABILIZED OUTFALL) WHEN THEY ARE NO LONGER NEEDED. STABILIZE ALL DISTURBED AREAS IN ACCORDANCE WITH THESE PLANS AND AS DIRECTED BY THE ENGINEER. RESTORE STREAM TO EXISTING CONDITIONS AS OUTLINED IN THE ENVIRONMENTAL COMPLIANCE NOTES AND AS DIRECTED BY THE ENGINEER.
11. REMOVE ALL MAINTENANCE OF TRAFFIC ITEMS.



UNOFFICIAL WEBSITE COPY

Y:\KENT\Bridge\T201207201\Plans\cp01.dgn

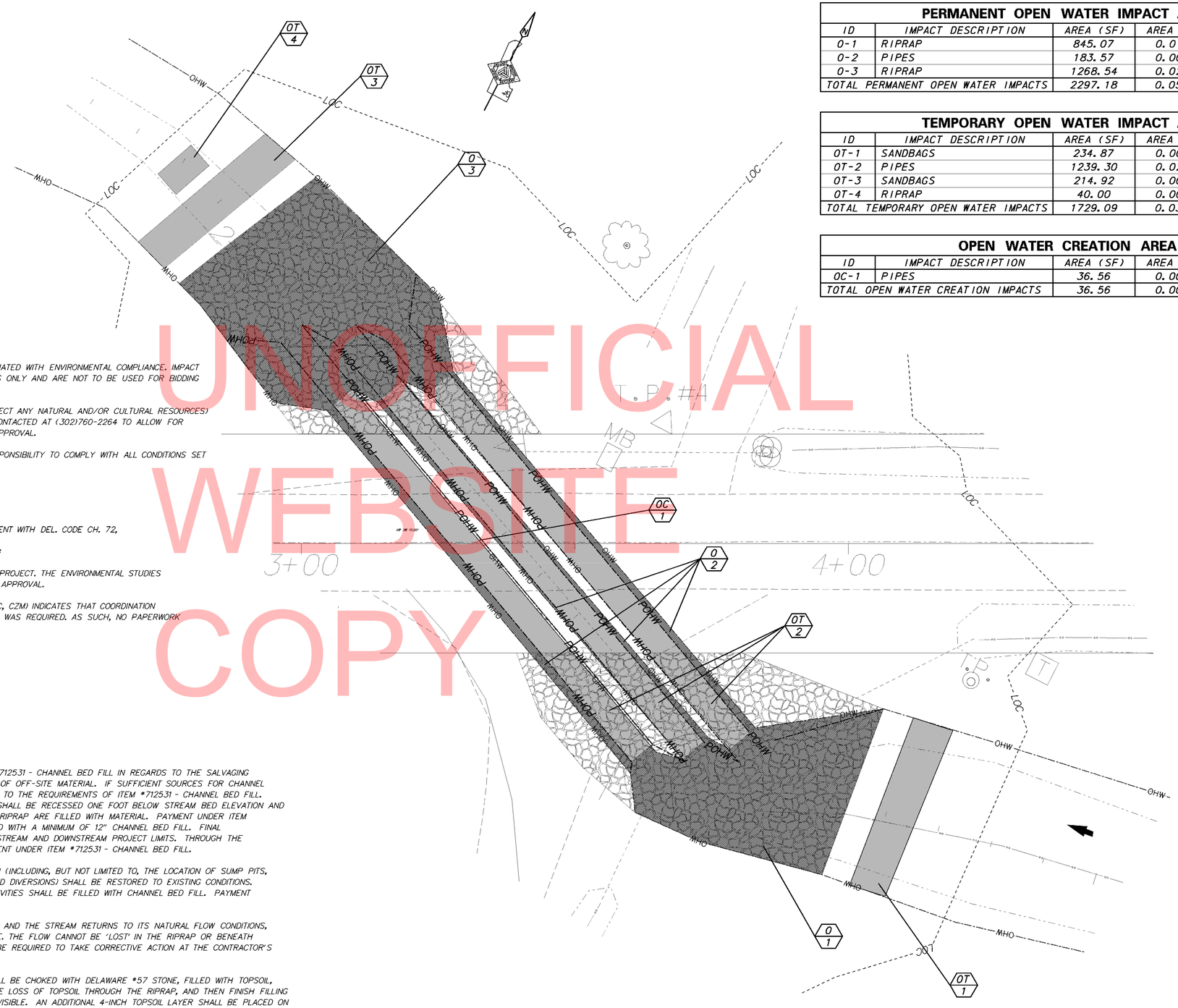
DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	BR 2-114C ON K114 TODDS CHAPEL ROAD OVER TOMAHAWK BRANCH	CONTRACT T201207201	BRIDGE NO. 2-114C	CONSTRUCTION PHASING, M.O.T., AND EROSION	SHEET NO. 6
				COUNTY KENT	DESIGNED BY: JPN		TOTAL SHTS. 10
					CHECKED BY: JNH		

LEGEND

	PERMANENT IMPACT AREA
	TEMPORARY IMPACT AREA
	CREATION AREA
—·—·—OHW—·—·—	ORDINARY HIGH WATER
—·—·—POHW—·—·—	PROPOSED ORDINARY HIGH WATER
XX / ?X	IMPACT AREA TYPE ID. (SEE BELOW) / IMPACT AREA ID. AND/OR NUMBER

O = OPEN WATER IMPACT T = TEMPORARY IMPACT

C = CREATION AREA



PERMANENT OPEN WATER IMPACT AREA SCHEDULE

ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
O-1	RIPRAP	845.07	0.0194	46.95	COE/DNREC
O-2	PIPES	183.57	0.0042	6.80	COE/DNREC
O-3	RIPRAP	1268.54	0.0291	70.47	COE/DNREC
TOTAL PERMANENT OPEN WATER IMPACTS		2297.18	0.0527	124.22	COE/DNREC

TEMPORARY OPEN WATER IMPACT AREA SCHEDULE

ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
OT-1	SANDBAGS	234.87	0.0054	17.40	COE/DNREC
OT-2	PIPES	1239.30	0.0285	45.90	COE/DNREC
OT-3	SANDBAGS	214.92	0.0049	15.92	COE/DNREC
OT-4	RIPRAP	40.00	0.0009	2.22	COE/DNREC
TOTAL TEMPORARY OPEN WATER IMPACTS		1729.09	0.0397	81.44	COE/DNREC

OPEN WATER CREATION AREA SCHEDULE

ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
OC-1	PIPES	36.56	0.0008	1.35	COE/DNREC
TOTAL OPEN WATER CREATION IMPACTS		36.56	0.0008	1.35	COE/DNREC

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): NWP #3 (a) & (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):

* THE PERMITS/APPROVALS LISTED ARE THOSE REQUIRED FOR THIS PROJECT. THE ENVIRONMENTAL STUDIES SECTION IS RESPONSIBLE FOR COORDINATING AND/OR OBTAINING THIS APPROVAL.

NOTE: THE ABSENCE OF ASTERISKS AFTER A PERMIT (COE, WLSL, WQC, CZM) INDICATES THAT COORDINATION HAS BEEN DONE WITH THAT AGENCY BUT NO WRITTEN AUTHORIZATION WAS REQUIRED. AS SUCH, NO PAPERWORK FROM THAT AGENCY SHOULD BE ANTICIPATED.

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

3. CULTURAL RESOURCE ISSUES:

A. NONE

4. STREAM RESTORATION AND 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 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 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 #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 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, AND SEEDED. 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 4-INCH TOPSOIL LAYER SHALL BE PLACED ON TOP OF THE RIPRAP. SLOPE SEEDING SHALL BE WITH ITEM #734531 - STREAMBANK SEED MIX. FOLLOWING THE SEEDING OPERATION, ITEM #735535 - SOIL RETENTION BLANKET MULCH, TYPE 5, 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 RIPRAP ITEM. ALL OTHER ITEMS SHALL BE PAID FOR UNDER THEIR RESPECTIVE ITEMS.

UNOFFICIAL WEBSITE COPY

Y:\KENT\BRIDGE\T201207201\PLANS\EC01.DGN

DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 10 20 30 FEET	BR 2-114C ON K114 TODDS CHAPEL ROAD OVER TOMAHAWK BRANCH	CONTRACT T201207201 / COUNTY KENT	BRIDGE NO. 2-114C / DESIGNED BY: JPN / CHECKED BY: JNH	ENVIRONMENTAL COMPLIANCE PLAN	SHEET NO. 7 / TOTAL SHTS. 10

CHANGEABLE MESSAGE BOARDS

CMS-I

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

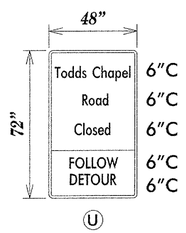
TODDS CHAPEL ROAD	TO CLOSE STARTING XX/XX/XX

CMS-I

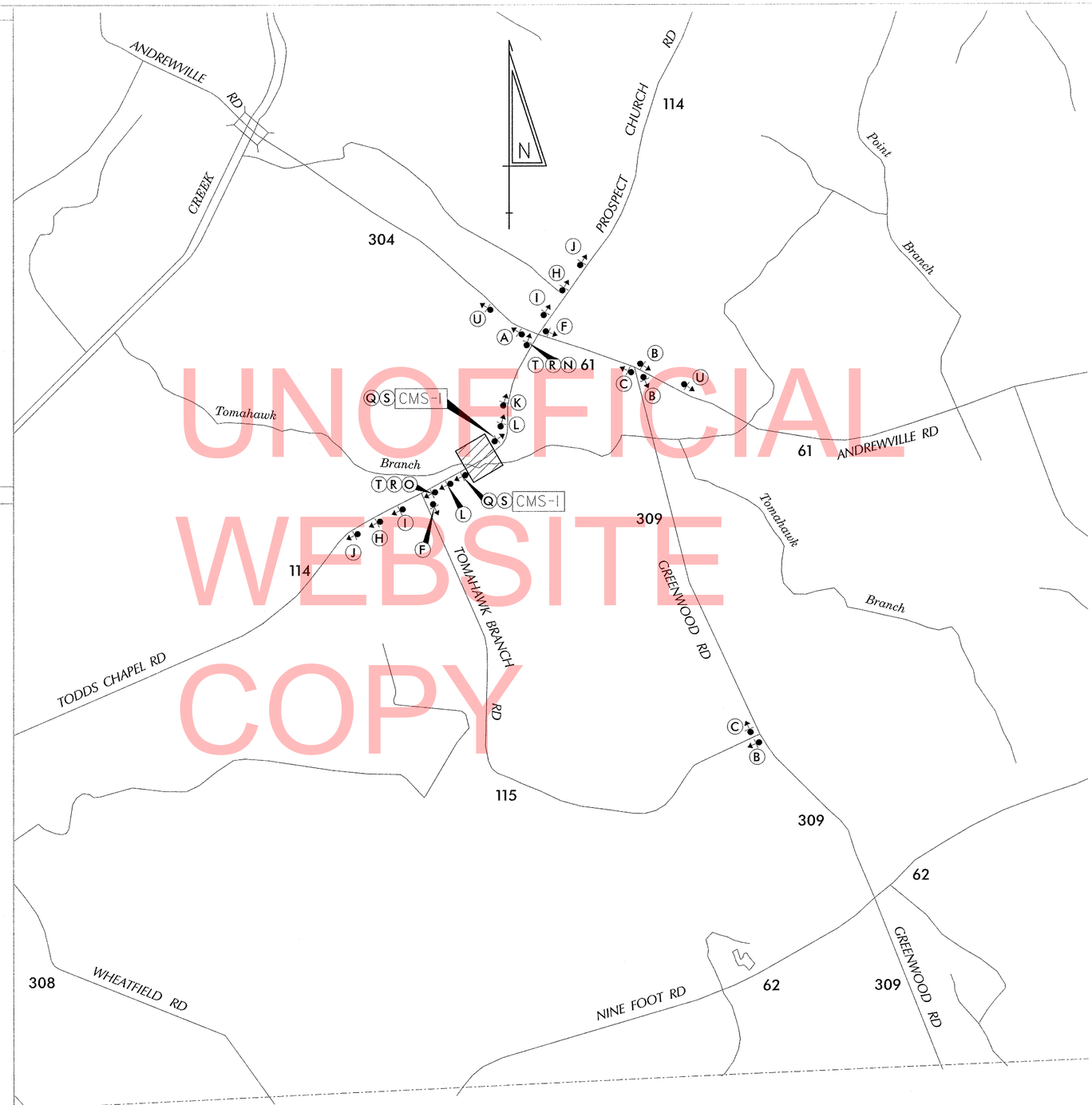
DURING DETOUR
(5 DAYS AFTER DETOUR IS IMPLEMENTED)

TODDS CHAPEL ROAD	CLOSED FOLLOW DETOUR

SPECIAL SIGNS

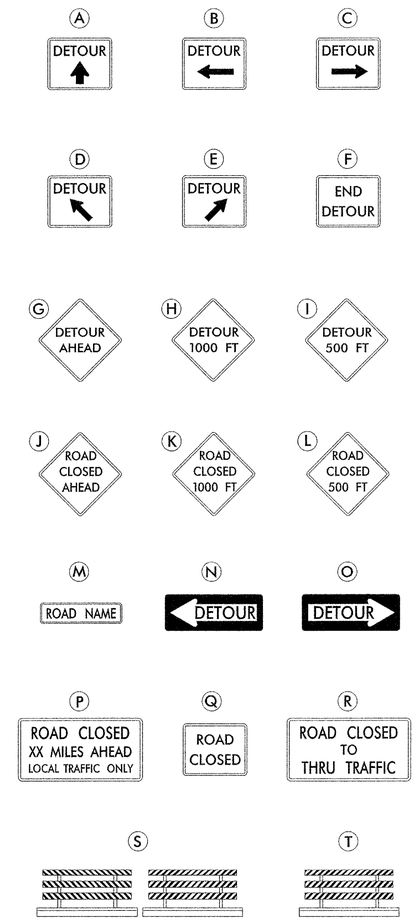


D/G RETROREFLECTIVE FLUORESCENT
ORANGE BACKGROUND; BLACK LEGEND



UNOFFICIAL WEBSITE COPY

LEGEND



GENERAL NOTES

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

RECOMMENDED	DATE: 1.9.13	RECOMMENDED	DATE:	RECOMMENDED	DATE:	APPROVED CHIEF SAFETY OFFICER	DATE: 1/9/13	APPROVED TRAFFIC ENGINEER	DATE: 1/9/13

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

NOT TO SCALE

BR 2-114C TODDS CHAPEL RD OVER TOMAHAWK BRANCH

CONTRACT	ROAD NO.	K114
T201207201	DESIGNED BY: MFR	
COUNTY		
KENT	CHECKED BY: ASW	

DETOUR PLAN
TODDS CHAPEL RD
OVER TOMAHAWK BRANCH

SHEET NO.	TOTAL SHTS.
8	10

C:\DOCUMENTS AND SETTINGS\MICHAEL.RIVERA\MY DOCUMENTS\MICRO STATION DGN\TODDS CHAPEL RD.DGN

RECOMMENDED

TEAM SUPPORT, SQUAD MANAGER — DATE 8/7 2012

TEAM SUPPORT ENGINEER — DATE 8.7. 2012

ASSISTANT DIRECTOR, DESIGN — DATE 8/7 2012

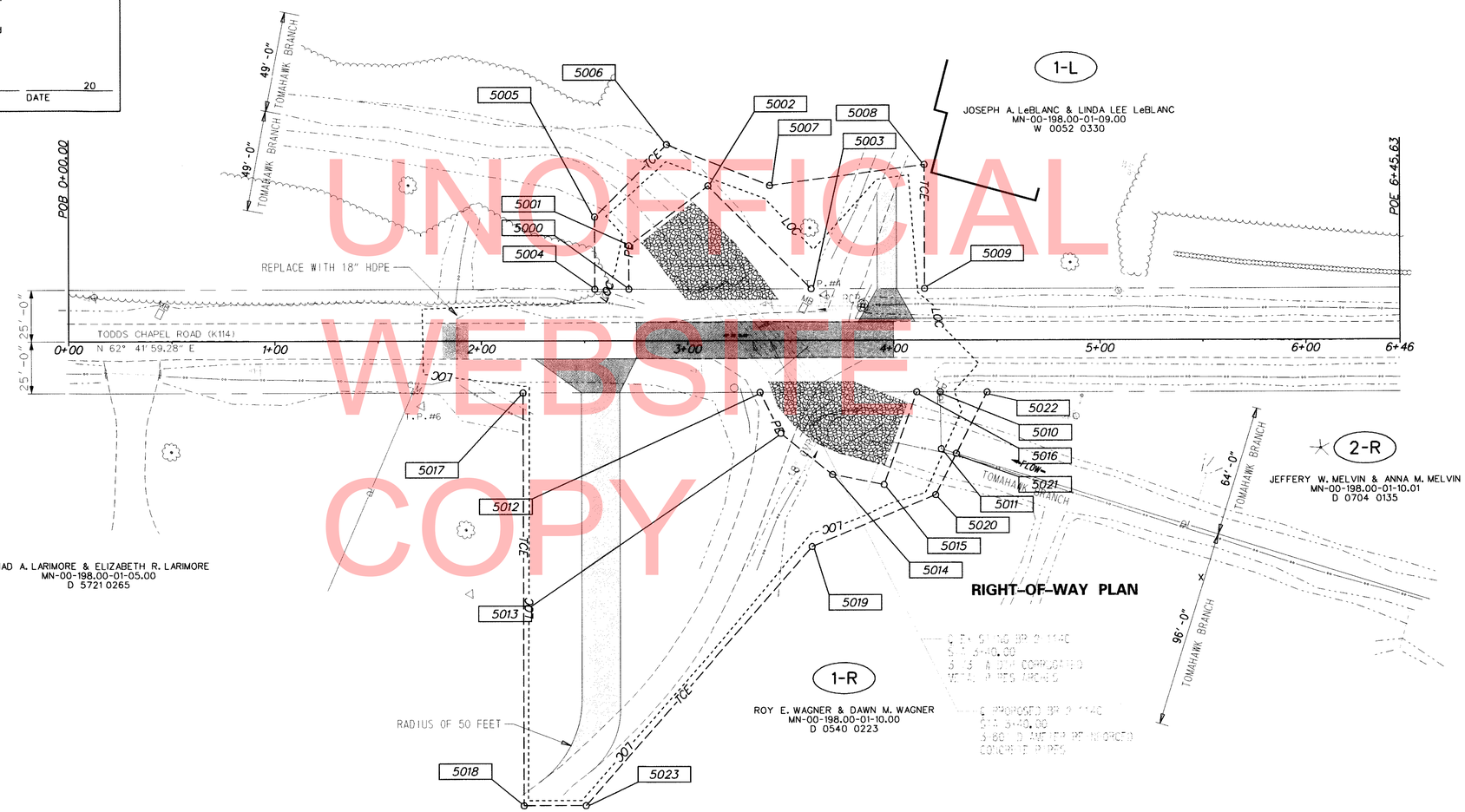
"AS-ACQUIRED" PLANS

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 20

NOTE: THIS SHEET SHALL BE USED FOR RIGHT-OF-WAY ACQUISITION PURPOSES ONLY.

NOTE: CONTRACTOR REQUIRED TO MAINTAIN ACCESS TO PROPERTY AT ALL TIMES THROUGHOUT PROJECT.



UNOFFICIAL WEBSITE COPY

ROW SHEET 1 OF 2

DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	BR 2-114C ON K114 TODDS CHAPEL ROAD OVER TOMAHAWK BRANCH	CONTRACT T201207201	BRIDGE NO. 2-114C	RIGHT-OF-WAY PLAN	SHEET NO. 8
				COUNTY KENT	DESIGNED BY: JPN		TOTAL SHTS. 9
					CHECKED BY: JNH		

Y:\KENTr\Bridge\T201207201\Plans\cp01.dgn

ASSESSMENT NUMBER	OWNERSHIP OF RECORD	TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)
MN-00-198.00-01-10.01	(2-R) MELVIN, JEFFERY W. AND ANNA M.	TCE	D 0704 0135	3.3

ALIGNMENT NUMBER & DESCRIPTION: 3000 - NO DESCRIPTION

PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
5010	3000	4+22.41	25.00	312060.7443	593117.8075	N 62°41'59.43" E	22.5900				
5022	3000	4+45.00	25.00	312071.1053	593137.8813	S 0°44'33.97" E	33.4382				
5021	3000	4+30.05	54.91	312037.6699	593138.3148	S 79°56'28.69" W	7.5911				
5011	3000	4+22.80	52.66	312036.3441	593130.8404	N 28°06'28.66" W	27.6627				
5010	3000	4+22.41	25.00	312060.7443	593117.8075						

FIGURE 5500 AREA = 437.6622 SQ. FT. (0.0100 ACRES)

ASSESSMENT NUMBER	OWNERSHIP OF RECORD	TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)
MN-00-198.00-01-10.00	(1-R) WAGNER, ROY E. AND DAWN M.	TCE	D 0540 0223	85

ALIGNMENT NUMBER & DESCRIPTION: 3000 - NO DESCRIPTION

PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
5010	3000	4+22.41	25.00	312060.7443	593117.8075	S 28°06'28.66" E	27.6627				
5011	3000	4+22.80	52.66	312036.3441	593130.8404	N 79°56'28.69" E	7.5911				
5021	3000	4+30.05	54.91	312037.6699	593138.3148	S 0°43'25.32" E	22.4635				
5020	3000	4+20.00	75.00	312015.2082	593138.5985	S 40°04'47.92" W	65.0000				
5019	3000	3+60.00	100.00	311965.4736	593096.7479	S 14°02'51.43" W	166.5083				
5023	3000	2+50.00	225.00	311803.9449	593056.3316	S 62°41'59.43" W	30.0000				
5018	3000	2+20.00	225.00	311790.1854	593029.6731	N 27°18'00.57" W	200.0000				
5017	3000	2+20.00	25.00	311967.9086	592937.9427	N 62°41'59.43" E	115.0000				
5012	3000	3+35.00	25.00	312020.6535	593040.1336	S 53°51'54.75" E	22.3607				
5013	3000	3+45.00	45.00	312007.4677	593058.1928	S 78°38'25.26" E	32.0156				
5014	3000	3+70.00	65.00	312001.1617	593089.5812	N 74°00'35.19" E	25.4951				
5015	3000	3+95.00	70.00	312008.1849	593114.0899	N 7°43'37.32" W	47.7598				
5016	3000	4+11.00	25.00	312055.5111	593107.6684	N 62°41'59.43" E	11.4100				
5010	3000	4+22.41	25.00	312060.7443	593117.8075						

FIGURE 5400 AREA = 22789.9628 SQ. FT. (0.5232 ACRES)

ASSESSMENT NUMBER	OWNERSHIP OF RECORD	TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)
MN-00-198.00-01-10.00	(1-R) WAGNER, ROY E. AND DAWN M.	P/E	D 0540 0223	85

ALIGNMENT NUMBER & DESCRIPTION: 3000 - NO DESCRIPTION

PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
5012	3000	3+35.00	25.00	312020.6535	593040.1336	N 62°41'59.43" E	76.0000				
5016	3000	4+11.00	25.00	312055.5111	593107.6684	S 7°43'37.32" E	47.7598				
5015	3000	3+95.00	70.00	312008.1849	593114.0899	S 74°00'35.19" W	25.4951				
5014	3000	3+70.00	65.00	312001.1617	593089.5812	N 78°38'25.26" W	32.0156				
5013	3000	3+45.00	45.00	312007.4677	593058.1928	N 53°51'54.75" W	22.3607				
5012	3000	3+35.00	25.00	312020.6535	593040.1336						

FIGURE 5300 AREA = 2272.5000 SQ. FT. (0.0522 ACRES)

ASSESSMENT NUMBER	OWNERSHIP OF RECORD	TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)
MN-00-198.00-01-09.00	(1-L) LEBLANC, JOSEPH A. AND LINDA LEE	TCE	W 0052 0330	3.6

ALIGNMENT NUMBER & DESCRIPTION: 3000 - NO DESCRIPTION

PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
5000	3000	2+71.50	-25.00	312035.9599	592960.7739	S 62°41'59.43" W	16.5000				
5004	3000	2+55.00	-25.00	312028.3922	592946.1117	N 27°18'00.57" W	35.0000				
5005	3000	2+55.00	-60.00	312059.4937	592930.0589	N 17°41'59.43" E	49.4975				
5006	3000	2+90.00	-95.00	312106.6481	592945.1076	N 84°30'04.51" E	53.8516				
5007	3000	3+40.00	-75.00	312111.8084	592998.7115	N 55°06'18.72" E	75.6637				
5008	3000	4+15.00	-85.00	312155.0935	593060.7711	S 27°18'00.57" E	60.0000				
5009	3000	4+15.00	-25.00	312101.7765	593088.2903	S 62°41'59.43" W	55.0000				
5003	3000	3+60.00	-25.00	312076.5506	593039.4164	N 72°18'00.57" W	70.7107				
5002	3000	3+10.00	-75.00	312098.0488	592972.0530	S 25°42'39.87" W	48.2001				
5001	3000	2+71.50	-46.00	312054.6209	592951.1422	S 27°18'00.57" E	21.0000				
5000	3000	2+71.50	-25.00	312035.9599	592960.7739						

FIGURE 5200 AREA = 6345.7500 SQ. FT. (0.1457 ACRES)

ASSESSMENT NUMBER	OWNERSHIP OF RECORD	TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)
MN-00-198.00-01-09.00	(1-L) LEBLANC, JOSEPH A. AND LINDA LEE	P/E	W 0052 0330	3.6

ALIGNMENT NUMBER & DESCRIPTION: 3000 - NO DESCRIPTION

PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
5000	3000	2+71.50	-25.00	312035.9599	592960.7739	N 27°18'00.57" W	21.0000				
5001	3000	2+71.50	-46.00	312054.6209	592951.1422	N 25°42'39.87" E	48.2001				
5002	3000	3+10.00	-75.00	312098.0488	592972.0530	S 72°18'00.57" E	70.7107				
5003	3000	3+60.00	-25.00	312076.5506	593039.4164	S 62°41'59.43" W	88.5000				
5000	3000	2+71.50	-25.00	312035.9599	592960.7739						

FIGURE 5100 AREA = 2616.7500 SQ. FT. (0.0601 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: ACQUISITION (SQ. FEET /ACRES)	AREA TO BE ACQUIRED: AREA OCCUPIED BY EXISTING RIGHT OF WAY (SQ. FEET /ACRES)	AREA TO BE ACQUIRED: EASEMENT: PERMANENT (SQ. FEET /ACRES)	AREA TO BE ACQUIRED: EASEMENT: TEMPORARY (SQ. FEET /ACRES)	PROPERTY AREA REMAINING (SQ. FEET /ACRES)	DEED RECORD OF ACQUISTITION	REMARKS
MN-00-198.00-01-10.01	-	(2-R) MELVIN, JEFFERY W. AND ANNA M.	D 0704 0135	C - 3.30	TCE				437.6622 / 0.01	143748.00 / 3.30		
MN-00-198.00-01-10.00	-	(1-R) WAGNER, ROY E. AND DAWN M.	D 0540 0223	C - 85.00	TCE				22789.9628 / 0.52			TILLED GARDEN AREA - APPROXIMATELY 1000 SQ FT OF GARDEN
					P/E			2272.50 / 0.05		3702600.00 / 85.00		AREA COULD BE DAMAGED
MN-00-198.00-01-09.00	-	(1-L) LEBLANC, JOSEPH A. AND LINDA LEE	W 0052 0330	C - 3.60	TCE				6345.75 / 0.15			
					P/E			2616.75 / 0.06		156816.00 / 3.60		

UNOFFICIAL WEBSITE
COPY

LEGEND

FEE AREA OF ACQUISITION
R/W AREA OCCUPIED BY EXISTING R/W
P/E PERMANENT EASEMENT
TCE TEMPORARY CONSTRUCTION EASEMENT

* OFFSET IS LEFT OF BASELINE
** CURVE TURNS TO THE LEFT

ROW SHEET 2 OF 2

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

BR 2-114C ON K114 TODDS CHAPEL ROAD OVER TOMAHAWK BRANCH

CONTRACT	BRIDGE NO.	2-114C
T201207201	DESIGNED BY: JPN	
COUNTY		
KENT	CHECKED BY: JNH	

RIGHT-OF-WAY DATA AND TABULATION SHEET

SHEET NO. 10
TOTAL SHTS. 10

Y:\KENT\BRIDGE\T201207201\PLANS\RB01.DGN