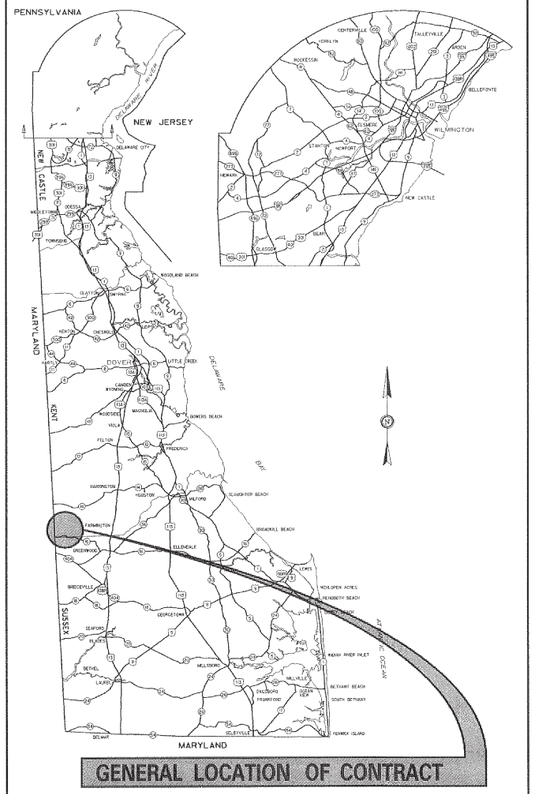


DISCLAIMER:
THIS PLAN SET IS INTENDED TO BE A GUIDELINE FOR PREPARING A SET OF PLANS INVOLVING THE CONSTRUCTION OF PRECAST REINFORCED CONCRETE PIPES. IT IS NOT INTENDED TO BE A SET OF STANDARDS. THE DESIGN ENGINEER IS STILL RESPONSIBLE FOR PERFORMING THE DESIGN AND NECESSARY DOCUMENTATION USING HIS/HER ENGINEERING JUDGEMENT AND EXPERTISE.

THE STATE OF DELAWARE
DEPARTMENT OF TRANSPORTATION

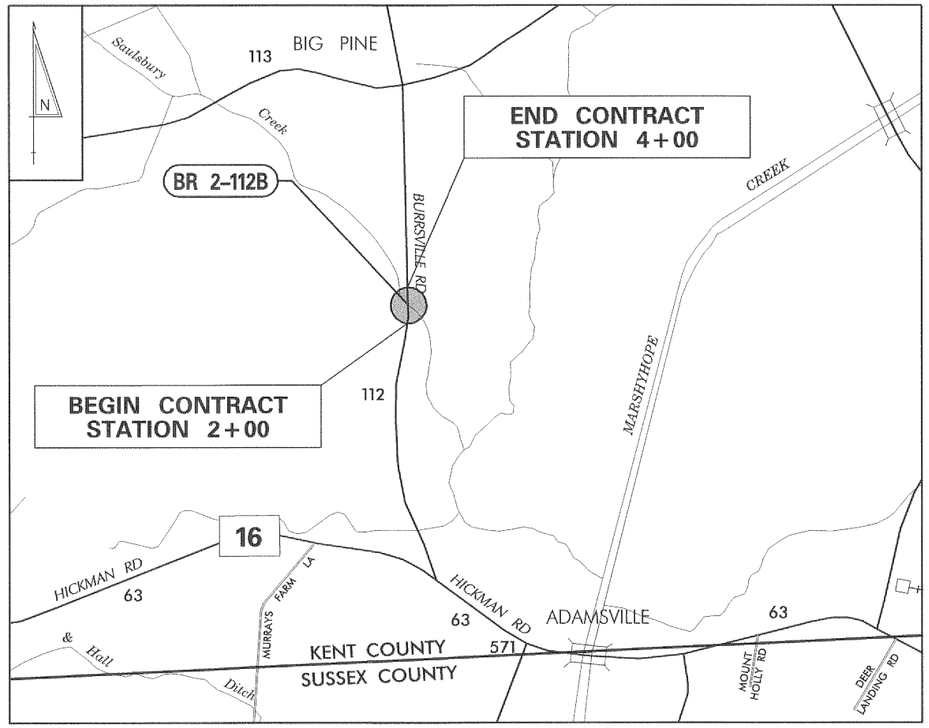
U.S. CUSTOMARY UNITS

CONSTRUCTION AND RIGHT-OF-WAY PLANS FOR:

BR 2-112B ON K112 BURRSVILLE ROAD OVER SAULSBURY DITCH

CONTRACT NUMBER: T201107208
FEDERAL AID PROJECT NUMBER: EBROS-K112(01)

COUNTY: KENT M.R. #: K112



DESIGN DESIGNATION

FUNCTIONAL CLASS: RURAL LOCAL ROAD		D.H.V. PROJECTED: 20	YEAR: 2040
TYPE OF CONSTRUCTION: BRIDGE REPLACEMENT		DESIGN SPEED: 55 M.P.H.	
A.A.D.T. CURRENT: 224	YEAR: 2010	TRUCKS: 7 %	
A.A.D.T. PROJECTED: 310	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
366	CONSTRUCTION OF CONTRACT NO. 366

RECOMMENDED

Brent C. Vanlidl 7-17-13
SQUAD MANAGER, CONSTRUCTION DATE

7/17/13
GROUP ENGINEER, CONSTRUCTION DATE

ASSISTANT DIRECTOR, TRANSPORTATION SOLUTIONS (CONSTRUCTION) DATE

RECOMMENDED

Vincent W. Davis
STORMWATER ENGINEER

DATE 18 Jun 2013

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

RECOMMENDED

Michael J. Gettings
SQUAD MANAGER, BRIDGE DESIGN

DATE 7/18/13

MICHAEL J. GETTINGS LICENSED No. 16274 DELAWARE PROFESSIONAL ENGINEER
SEAL

RECOMMENDED

BRIDGE DESIGN ENGINEER

DATE 7/22/13

JASON H. HASTINGS REGISTERED No. 13540 DELAWARE PROFESSIONAL ENGINEER
SEAL

RECOMMENDED

ASSISTANT DIRECTOR, BRIDGE

DATE JULY 22, 2013

BARRY A. BENTON REGISTERED No. 10774 DELAWARE PROFESSIONAL ENGINEER
SEAL

APPROVED

CHIEF ENGINEER

DATE July 23, 2013

NATALIE M. BARNHART REGISTERED No. 9629 DELAWARE PROFESSIONAL ENGINEER
SEAL

LAST REVISED: 03/03/2011
Y:\KENT\112\BRIDGE\T201107208\PLANS\TCO1.DGN

EXISTING SYMBOLS

DRAINAGE

—"—	DITCH OR STREAM CENTERLINE
—→—	DIRECTIONAL STREAM FLOW ARROW
C.B. / D.I.	DRAINAGE INLET
J.B.	DRAINAGE JUNCTION BOX
Ⓓ	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
-x-	FENCE - CHAINLINK OR STRANDED
-+-	FENCE - STOCKADE OR SPLIT RAIL
FP	FLAG POLE
-n-	GUARDRAIL - STEEL BEAM
-o-	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
Ⓔ	ELECTRIC MANHOLE
EM	ELECTRIC METER
E	ELECTRIC TRANSFORMER
	POLE MOUNTED LUMINAIRE
Ⓖ	GAS MANHOLE
G.M.	GAS METER
G.V.	GAS VALVE
G.P.	GAS PUMP - SERVICE STATION
	RAILROAD TRACKS
Ⓢ	SANITARY SEWER MANHOLE
S.V.	SANITARY SEWER VALVE
VENT	SANITARY SEWER VENT OR CLEANOUT
S.D.F.	SEPTIC DRAIN FIELD
B	TELEPHONE BOOTH
Ⓣ	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-C—	VERIZON
—DEC-E-OH—	DELAWARE ELECTRIC COOPERATIVE

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
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)

	1¼" SUPERPAVE, TYPE C WARM-MIX 2¼" SUPERPAVE, TYPE B WARM-MIX 8" GRADED AGGREGATE BASE COURSE, TYPE B

EROSION & SEDIMENT CONTROL

DWBAG	DEWATERING BAG
DWB	DEWATERING BASIN
ED	EARTH DIKE
	INLET SEDIMENT CONTROL
	PERIMETER DIKE/SWALE
PST	PORTABLE SEDIMENT TANK
P	PUMP
SBD	SANDBAG DIKE
SB	SANDBAG DIVERSION
SCD	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
T XXX	TURBIDITY CURTAIN / LENGTH
—T—	TURBIDITY CURTAIN

LAST REVISED: 01/30/2012
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DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS	

NOT TO SCALE

BR 2-112B ON K112 BURRSVILLE ROAD OVER SAULSBURY DITCH

CONTRACT	T201107208
COUNTY	KENT
BRIDGE NO.	2-112B
DESIGNED BY:	NED
CHECKED BY:	MJG

LEGEND

SHEET NO.	2
TOTAL SHTS.	14

GENERAL NOTES

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

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 1.3 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. PAYMENT FOR ATSSA SUPERVISOR IS INCIDENTAL TO ITEM *743031.
( )	THE CONTRACTOR SHALL HAVE AN ATSSA SUPERVISOR ASSIGNED TO THIS PROJECT. THE ATSSA SUPERVISOR'S SOLE JOB SHALL BE SUPERVISION OF THE INSTALLATION, OPERATION AND MAINTENANCE OF TRAFFIC CONTROL DEVICES FOR THIS PROJECT. THE CONTRACTOR'S GENERAL SUPERINTENDENT FOR THIS PROJECT SHALL NOT BE THE ATSSA SUPERVISOR. PAYMENT FOR ATSSA SUPERVISOR SHALL BE PAID FOR UNDER ITEM *743031.

9. THE DISTURBED AREA FOR THIS PROJECT IS 0.6737 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. ITEMS TO BE REMOVED UNDER ITEM 211000 - REMOVAL OF STRUCTURES AND OBSTRUCTIONS SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:
   - THE EXISTING BRIDGE 2-112B COMPRISED OF THREE 5'-6" CORRUGATED METAL PIPES
   - THE SACKED CONCRETE RIPRAP AT EACH END OF BRIDGE 2-112B
   - THE EXISTING WOODEN FOOTBRIDGE UPSTREAM OF BRIDGE 2-112B
   - THE THREE EXISTING 18" CORRUGATED METAL PIPES AND HEADWALLS ON ALL FOUR CORNERS OF THE BRIDGE
   - THE CONCRETE PAD LOCATED DOWNSTREAM OF THE BRIDGE
   - THE EXISTING RIPRAP UPSTREAM AND DOWNSTREAM OF THE BRIDGE. STONE MAY BE RE-USED IF IT MEETS THE REQUIREMENTS FOR R-6 RIPRAP

3. 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.

SECTION 300

4. A. THE CONTRACTOR MAY ELECT TO USE ANY OF THE FOLLOWING MATERIALS TO MEET THE REQUIREMENTS OF ITEM 302007 - GRADED AGGREGATE BASE COURSE, TYPE 'B':
   a. CRUSHED STONE (PER STANDARD SPECIFICATION 821)
   b. CRUSHED CONCRETE (PER STANDARD SPECIFICATION 821)
   c. HOT-MIX MILLINGS (PER SPECIAL PROVISION 302514 MILLED HOT-MIX BASE COURSE)

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

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

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

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

   D. HOT-MIX MILLINGS MAY BE GENERATED FROM THE FOLLOWING SOURCES:
   a. MATERIAL MILLED ON THIS CONTRACT AT THE CONTRACTOR'S CHOICE UNDER ITEM 202000.
   b. MILLED MATERIAL FURNISHED ON THE JOB FROM THE CONTRACTOR'S YARD OR OTHER OUTSIDE SOURCE. ALL MILLED MATERIALS SHALL MEET THE MATERIAL REQUIREMENTS OF ITEM 302514 - MILLED HOT-MIX BASE COURSE.

   E. PAYMENT CLARIFICATION:
   a. SHOULD THE CONTRACTOR ELECT TO MILL PORTIONS OF HOT-MIX SHOWN ON THE PLANS TO BE REMOVED UNDER ITEM 202000 - EXCAVATION AND EMBANKMENT THE COST OF MILLING THIS HOT-MIX WILL BE PAID AS ITEM 202000 - EXCAVATION AND EMBANKMENT. THE MILLINGS GENERATED MAY BE RECYCLED INTO HOT-MIX, UTILIZED FOR BASE COURSE, OR DISPOSED OF TO AN APPROVED SITE. HAULING COSTS FOR DISPOSAL AND/OR RECYCLING ARE INCIDENTAL TO ITEM 202000 - EXCAVATION AND EMBANKMENT.

   b. 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'.

   c. 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.

   d. SPECIAL PROVISION 302514 - MILLED HOT-MIX BASE COURSE IS PROVIDED TO SPECIFY THE MEANS OF LAY DOWN AND COMPACTION AS WELL AS THE MATERIAL REQUIREMENTS FOR MILLINGS USED AS BASE COURSE. ALL COSTS TO BRING THE MILLINGS INTO COMPLIANCE WITH THE REQUIREMENTS OF ITEM - 302514 MILLED HOT-MIX BASE COURSE ARE INCIDENTAL TO ITEM 302007 - GRADED AGGREGATE BASE COURSE, TYPE 'B'. NO PAYMENT WILL BE MADE FOR ITEM 302514 - MILLED HOT-MIX BASE COURSE. THE QUANTITY OF MILLINGS USED FOR BASE COURSE WILL BE PAID FOR UNDER ITEM 302007 - GRADED AGGREGATE BASE COURSE.

SECTION 600

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

SECTION 700

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

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

8. ALL MOT ITEMS WITH EXCEPTION OF CHANGEABLE MESSAGE BOARDS (ITEM *743004) AND FLAGGERS (ITEM *743051 AND ITEM *743063) WILL BE INCLUDED IN ITEM *763643.

MISCELLANEOUS

9. DESIGN CRITERIA: 2012 AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 6TH EDITION, U.S. CUSTOMARY UNITS USING AASHTO HL93 FOR LIVE LOAD, AND 25 PSF FOR FUTURE WEARING SURFACE.

10. HYDRAULIC DATA:
    DRAINAGE AREA = 4.11 SQ. MILES
    DESIGN FREQUENCY = 25 YEARS
    DESIGN DISCHARGE = 577 CFS
    DESIGN HEADWATER ELEVATION = 37.34 FEET
    PROPOSED OPENINGS = 3 X 28.27 SQ. FEET

11. 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 WORST CASE OF THE OVERTOPPING FLOOD OR THE 500-YEAR FLOOD EVENT.
    DESIGN EVENT = 500-YEAR STORM
    DESIGN HEADWATER ELEVATION = 41.24 FEET
    DESIGN DISCHARGE = 1,301 CFS
    DESIGN VELOCITY (500-YEAR STORM) = 12.07 FT/S

12. GROUP OF MAILBOXES LOCATED NORTHEAST OF THE PROJECT LIMITS ARE NOT TO BE DISTURBED AT ANY POINT DURING CONSTRUCTION.

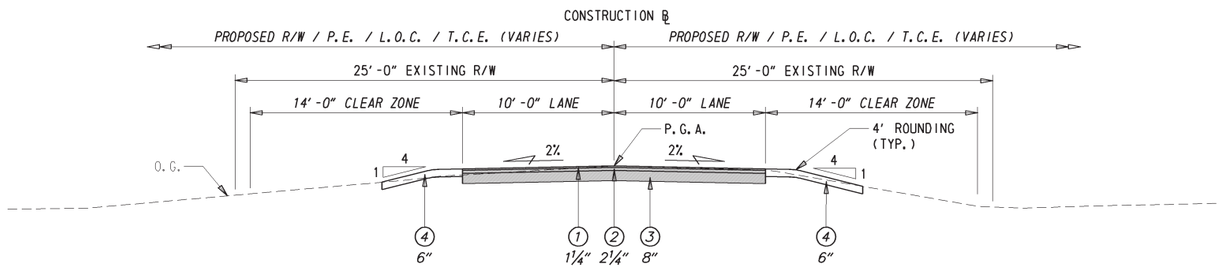
13. ENVIRONMENTAL COMPLIANCE: SEE ENVIRONMENTAL COMPLIANCE PLAN FOR FURTHER RESTRICTIONS/GUIDANCE ASSOCIATED WITH THIS PROJECT.

14. CROSS-SECTIONS USED IN THE PREPARATION OF THIS CONTRACT WILL BE MADE AVAILABLE TO THE WINNING BIDDER FOR INFORMATIONAL PURPOSES ONLY.

15. PLEASE REFER TO THE UTILITY STATEMENT FOR ANY UTILITY INFORMATION.

TYPICAL SECTION LEGEND

1. ITEM 401800 - WMA, SUPERPAVE TYPE C, 115 GYRATIONS, PG 64-22, (CARBONATE STONE)
2. ITEM 401809 - WMA, SUPERPAVE TYPE B, 115 GYRATIONS, PG 64-22
3. ITEM 302007 - GRADED AGGREGATE BASE COURSE, TYPE 'B'
4. ITEM 732004 - TOPSOIL
   ITEM 734013 - PERMANENT GRASS SEEDING, DRY GROUND



TYPICAL ROADWAY SECTION

SCALE
0 5 10 15
FEET

DISCLAIMER:
IT IS THE DESIGN ENGINEER'S RESPONSBILITY TO ENSURE THE GENERAL AND PROJECT NOTES ARE MOST CURRENT AS SHOWN IN THE DELDOT'S DESIGN RESOURCE CENTER.

LAST REVISED: 03/22/2011
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DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

NOT TO SCALE

BR 2-112B ON K112 BURRSVILLE ROAD OVER SAULSBURY DITCH

CONTRACT	T201107208	BRIDGE NO.	2-112B
COUNTY	KENT	DESIGNED BY: NED	
		CHECKED BY: MJG	

NOTES & TYPICAL SECTION

SHEET NO.	3
TOTAL SHTS.	14

HORIZONTAL / VERTICAL CONTROL DATA

POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION
TP-3	2+92.96	15.84	307173.7020	577028.2550	39.98
TP-5	1+94.16	-16.37	307075.1200	576995.4340	38.50
TP-7	5+05.98	-19.46	307385.6800	576985.9200	38.36

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.

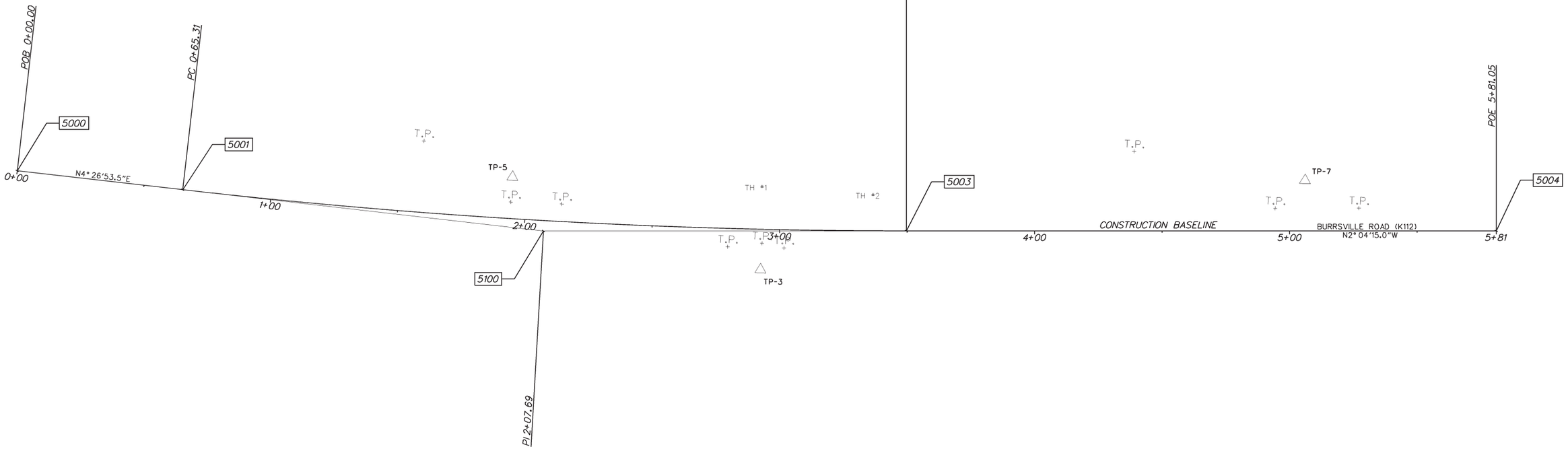
Element: Circular

PC	(5001)	0+65.31	306946.0323	577005.1163
PI	(5100)	2+07.53	307087.9799	577016.1586
CC	(5002)		307139.9265	574512.6466
PT	(5003)	3+49.75	307230.2635	577011.0139

Radius:	2500.00
Delta:	6°31'08.4618" Left
Degree of Curvature(Arc):	2°17'30.5922"
Length:	284.45
Tangent:	142.38
Chord:	284.29
Middle Ordinate:	4.04
External:	4.05
Tangent Direction:	N 4°26'53.5012" E
Radial Direction:	S 85°33'06.4988" E
Chord Direction:	N 1°11'19.2703" E
Radial Direction:	N 87°55'45.0394" E
Tangent Direction:	N 2°04'14.9606" W

CONSTRUCTION ALIGNMENT CONTROL

POINT	STATION	OFFSET	NORTHING	EASTING
5000	0+00.00	0.00	306880.9200	577000.0510
5004	5+81.05	0.00	307461.4087	577002.6561



DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 20 40 60 FEET	BR 2-112B ON K112 BURRSVILLE ROAD OVER SAULSBURY DITCH	CONTRACT T201107208	BRIDGE NO. 2-112B	HORIZONTAL AND VERTICAL CONTROL	SHEET NO. 4
				COUNTY KENT	DESIGNED BY: NED		TOTAL SHTS. 14
					CHECKED BY: MJG		

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RIGHT–OF–WAY MONUMENT SCHEDULE

NO.	TYPE	STATION	OFFSET	NORTHING	EASTING
1	CAPPED REBAR	2+50.00	-25.00	307130.6205	576987.6291
2	CAPPED REBAR	3+79.00	-25.00	307258.5862	576984.9735
3	CAPPED REBAR	3+49.75	25.00	307231.1668	577035.9976
4	CAPPED REBAR	1+97.00	25.00	307076.9149	577036.8602

DRAINAGE PIPE SCHEDULE

NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INT. EL.	DIS. EL.
1	18" HDPE	S	30.00	1.133%	32.18	31.84
2	18" HDPE	S	20.00	3.00%	35.00	34.40
3	18" HDPE	S	50.00	2.00%	36.25	35.25

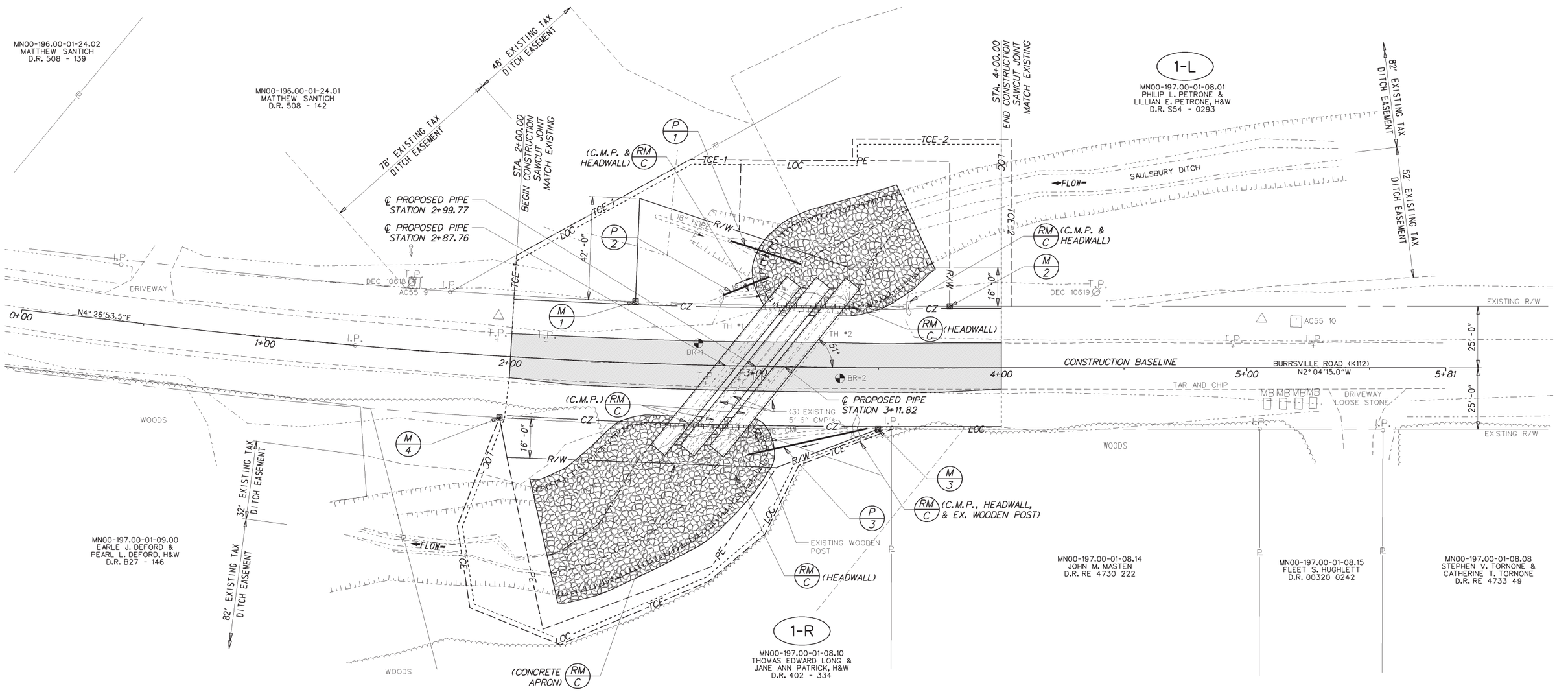
NOTE: PIPE 1 WILL TIE INTO THE EXISTING 18" HDPE DRAINAGE PIPE UPSTREAM ON THE SOUTH SIDE. PIPE 1 WILL REQUIRE A COUPLER TO JOIN TO THE EXISTING PIPE (THE COUPLER SHALL BE INCIDENTAL TO ITEM *612523).

UTILITY TEST HOLE SCHEDULE

NO.	UTILITY	STATION	OFFSET	GRND EL.	COVER	O.D. & MATERIAL
TH-1	VER-C	2+92.46	-12.02	39.95	2.41	1" DBC
TH-2	VER-C	3+23.14	-12.10	40.12	1.99	1" DBC

BORING LOCATION SCHEDULE

NO.	STATION	OFFSET	NORTHING	EASTING	DESCRIPTION
BR-1	2+76.36	-8.94	307156.83	577003.65	SEE SOIL BORING LOG
BR-2	3+34.29	4.33	307214.94	577015.85	SEE SOIL BORING LOG



DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 20 40 60 FEET

BR 2-112B ON K112 BURRSVILLE ROAD OVER SAULSBURY DITCH

CONTRACT	BRIDGE NO.	2-112B
T201107208	DESIGNED BY: NED	
COUNTY	CHECKED BY: MJG	
KENT		

CONSTRUCTION PLAN

SHEET NO.
5
TOTAL SHTS.
14

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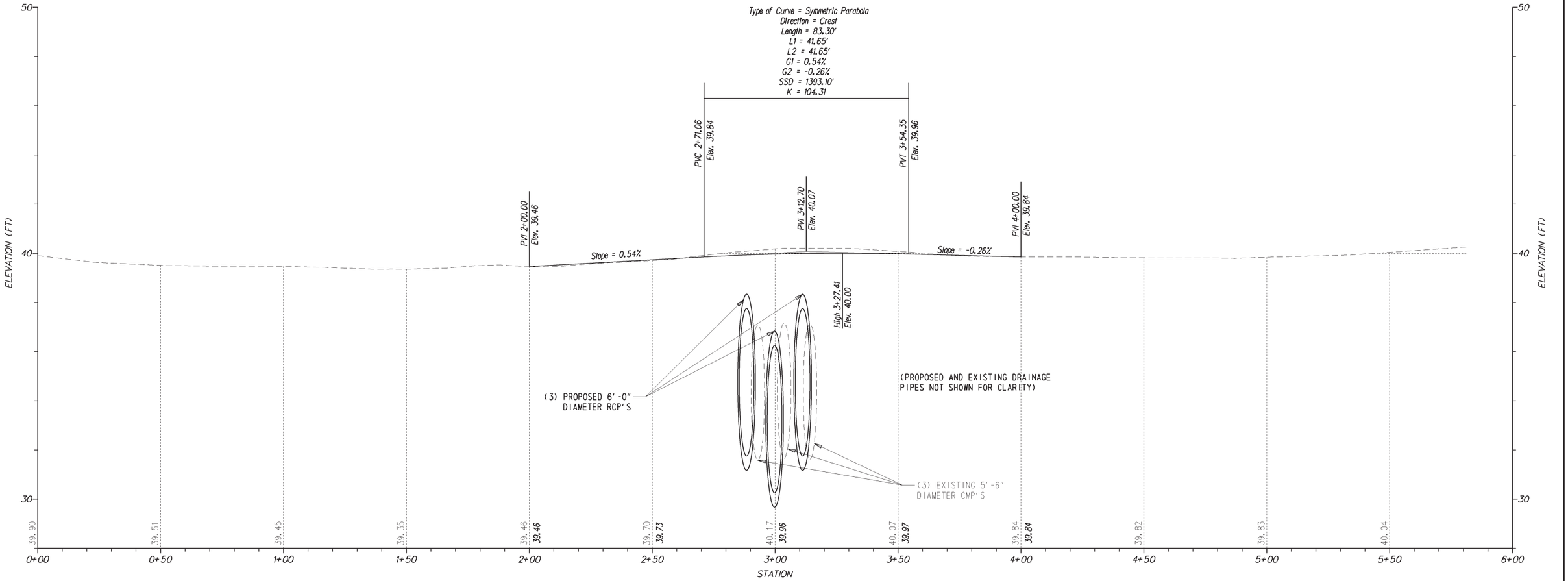

K112 – BURRSVILLE ROAD

VERTICAL SCALE FEET 0 2 4 6

DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 20 40 60 FEET	**BR 2-112B ON K112 BURRSVILLE ROAD OVER SAULSBURY DITCH**	CONTRACT T201107208	BRIDGE NO. 2-112B	**PROFILES**	SHEET NO. 6
				COUNTY KENT	DESIGNED BY: NED		TOTAL SHTS. 14
					CHECKED BY: MJG		

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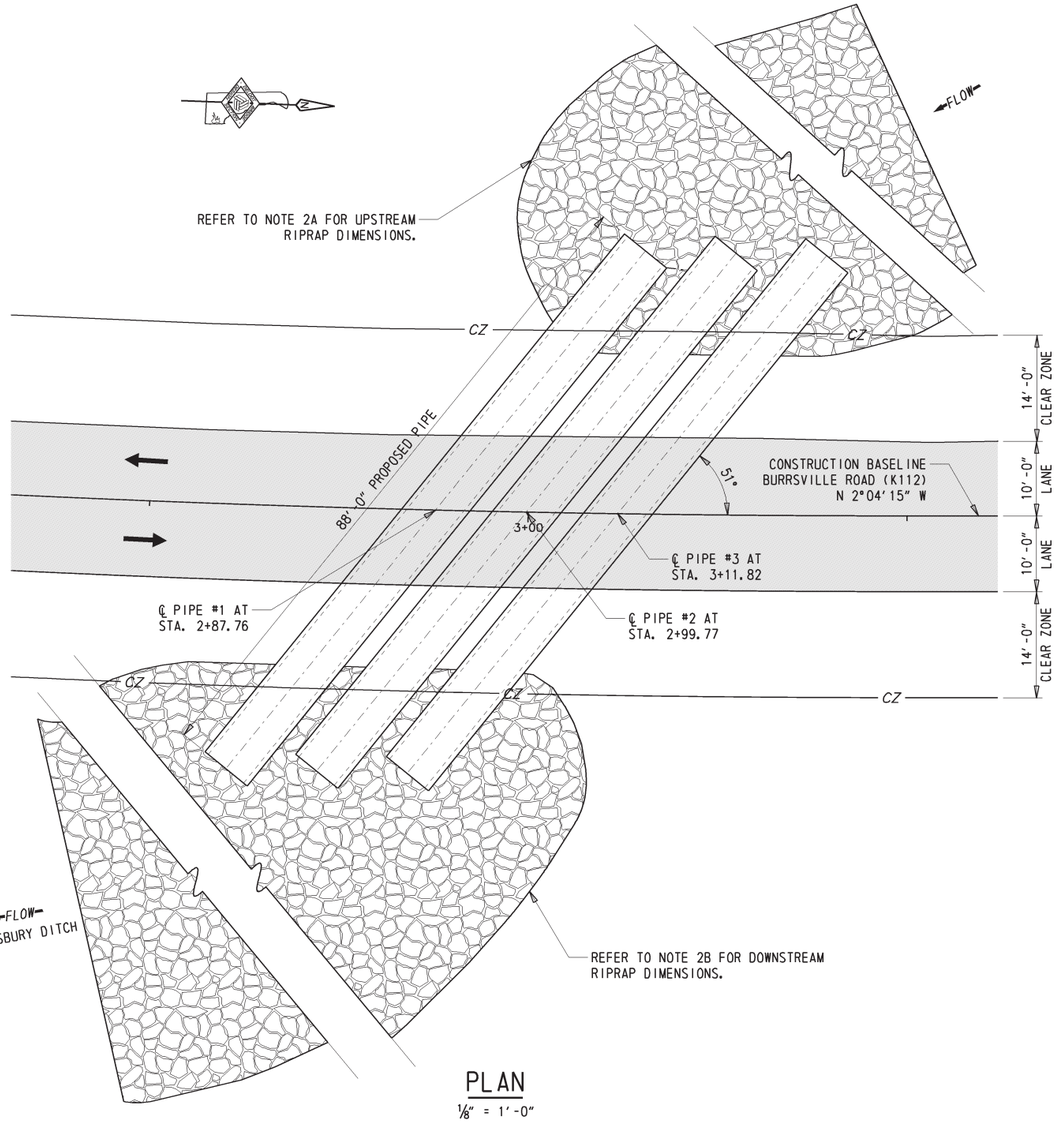
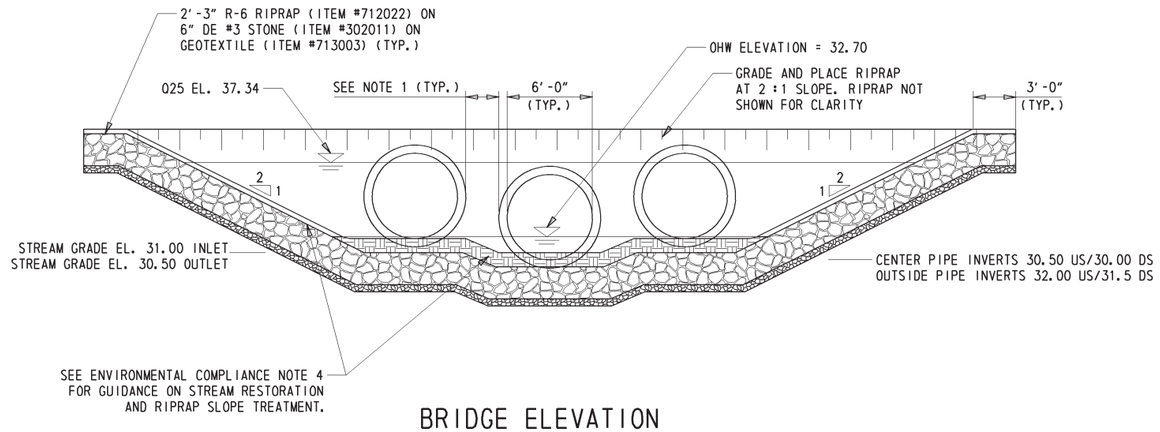


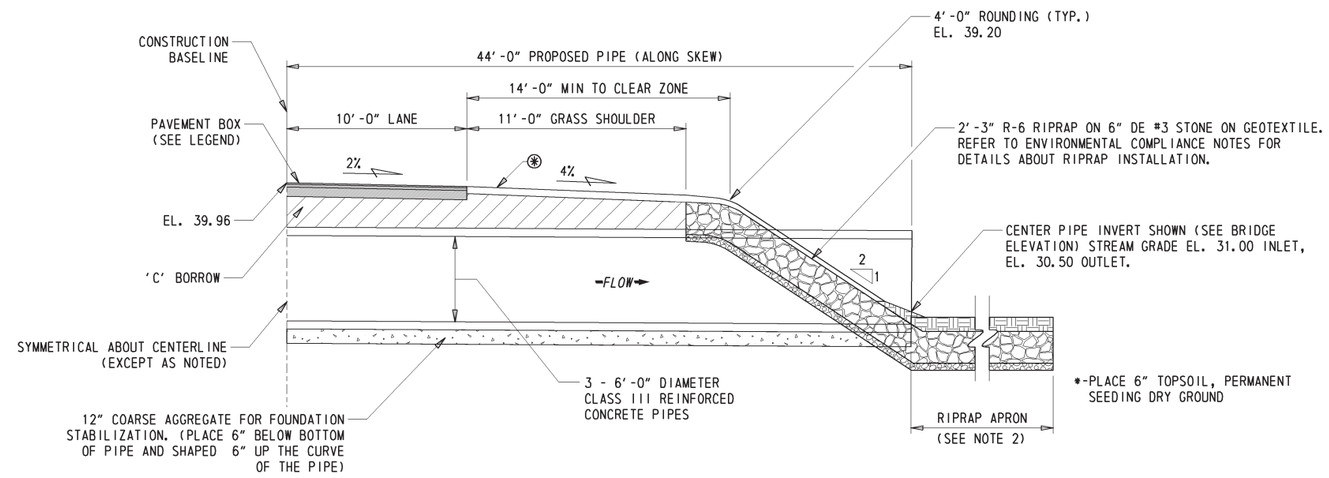
PLAN

1/8" = 1'-0"



BRIDGE ELEVATION

1/8" = 1'-0"



BRIDGE SECTION

3/16" = 1'-0"

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

NOTES:

1. PROPOSED BRIDGE
   THE EXISTING (3) 5'-6" DIA. CORRUGATED METAL PIPES SHALL BE REPLACED WITH (3) 6'-0" DIA. REINFORCED CONCRETE PIPES (88'-0" LONG). THE CENTER PIPE SHALL BE PLACED 6" BELOW THE ESTABLISHED STREAM GRADE. THE INVERT OF THE OUTER PIPES SHALL BE PLACED 1'-6" ABOVE THE INVERT OF THE CENTER PIPE. PLACE PIPES WITH A MINIMUM 2'-6" GAP AND A MAXIMUM 3'-6" GAP BETWEEN THE OUTER WALLS OF EACH RUN. PLACE 6" COURSE AGGREGATE BEDDING BENEATH PIPES AND 6" SHAPED UP THE CURVE OF EACH PIPE.
2. RIPRAP PLACEMENT
   A. UPSTREAM - RIPRAP SHALL BE PLACED IN THE CHANNEL BOTTOM 46'-0" FROM THE PIPE INLET ALONG THE STREAM CENTERLINE AND SHALL BE PLACED TO CREATE A SMOOTH BEND THAT MATCHES THE EXISTING STREAM BANKS.
   B. DOWNSTREAM - RIPRAP SHALL BE PLACED IN THE CHANNEL BOTTOM 74'-0" FROM THE PIPE OUTLET ALONG THE STREAM CENTERLINE AND SHALL BE PLACED TO CREATE A SMOOTH BEND THAT MATCHES THE EXISTING STREAM BANKS.

DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS		BR 2-112B ON K112 BURRSVILLE ROAD OVER SAULSBURY DITCH	CONTRACT T201107208	BRIDGE NO. 2-112B	SHEET NO. 7
				COUNTY KENT	DESIGNED BY: NED	TOTAL SHTS. 14
					CHECKED BY: MJG	BRIDGE PLAN, SECTION & ELEVATION

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BORING: BR # 1 | **DATE DRILLED:** 1/28/2011
STATION: 2+76.36 | **OFFSET:** -8.94 | **ELEVATION:** 39.61 | **NORTHING:** 307156.83 | **EASTING:** 577003.65
COMMENTS: N/A

NO.	DEPTH	BLOWS /6"	DESCRIPTION	CLASS /G.I.	REMARKS
1	0.0 2.0		NO SAMPLING		
2	2.0 4.0	4 4 7 4	MOIST MEDIUM DENSE BROWNISH ORANGE SILTY FINE SAND W/SOME COARSE SAND.	A-2-4(0)	
3	4.0 6.0	2 2 3 3	SATURATED FIRM BLACK FINE SANDY CLAY W/SOME SILT, TRACE OF ORGANIC MATTER.	A-6(4)	▽ WATER LEVEL (EL. 33.71)
4	6.0 8.0	5 6 7 6	SATURATED STIFF GRAYISH BLACK FINE SANDY SILT W/TRACE OF COARSE SAND.	A-4(0)	
5	8.0 10.0	2 5 7 10	SATURATED MEDIUM DENSE GRAY FINE SAND W/SOME SILT, TRACE OF COARSE SAND AND FINE GRAVEL.	A-2-4(0)	
6	10.0 12.0	7 7 9 10	SATURATED MEDIUM DENSE GRAY COARSE TO FINE SAND W/TRACE OF FINE GRAVEL AND SILT.	A-1-B	-BOTTOM OF COARSE AGGREGATE (EL. 29.00)
7	12.0 14.0	3 5 7 8	SATURATED MEDIUM DENSE GRAY FINE TO COARSE SAND W/TRACE OF SILT AND FINE GRAVEL.	A-3	
8	14.0 16.0	7 8 9 10	SATURATED MEDIUM DENSE GRAY FINE GRAVELLY COARSE TO FINE SAND W/TRACE OF SILT.	A-1-B	
9	16.0 18.0	4 6 7 7	SATURATED MEDIUM DENSE GRAYISH ORANGE FINE TO COARSE SANDY FINE GRAVEL W/SOME SILT.	A-1-B	
10	18.0 23.0	7 10 14 16	SATURATED MEDIUM DENSE GRAYISH ORANGE FINE GRAVELLY FINE SAND W/SOME SILT, TRACE OF COARSE SAND.	A-2-4(0)	
11	23.0 28.0	3 4 6 7	SATURATED LOOSE GRAY FINE TO COARSE SAND W/TRACE OF SILT AND FINE GRAVEL.	A-3	
12	28.0 33.0	7 7 9 8	SATURATED MEDIUM DENSE GRAY FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	
13	33.0 38.0	5 6 7 7	SATURATED MEDIUM DENSE GRAY FINE SAND W/SOME COARSE SAND, TRACE OF SILT AND FINE GRAVEL.	A-3	
14	38.0 43.0	9 8 7 7	SATURATED MEDIUM DENSE GRAY FINE GRAVELLY FINE TO COARSE SAND W/SOME SILT.	A-1-B	
15	43.0 48.0	3 4 4 5	SATURATED FIRM GRAY FINE SANDY CLAY W/SOME SILT, TRACE OF COARSE SAND.	A-6(5)	
16	48.0 50.0	7 8 10 10	SATURATED VERY STIFF GRAY CLAY W/SOME FINE SAND AND SILT, TRACE OF COARSE SAND.	A-7-6(18)	
			END OF BORING		

BORING: BR # 2 | **DATE DRILLED:** 1/28/2011
STATION: 3+34.29 | **OFFSET:** 4.33 | **ELEVATION:** 40.05 | **NORTHING:** 307214.94 | **EASTING:** 577015.85
COMMENTS: N/A

NO.	DEPTH	BLOWS /6"	DESCRIPTION	CLASS /G.I.	REMARKS
1	1.0 2.0	10 13	MOIST MEDIUM DENSE BROWN FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	
2	2.0 4.0	13 10 12 13	MOIST MEDIUM DENSE BROWN FINE GRAVELLY FINE SAND W/SOME COARSE SAND, TRACE OF SILT.	A-3	
3	4.0 6.0	2 2 1 2	SATURATED SOFT BLACK ORGANIC CLAY W/SOME FINE TO COARSE SAND, TRACE OF SILT.	A-7-5(11)	
4	6.0 8.0	2 1 3 3	SATURATED VERY LOOSE BLACK ORGANIC SILTY FINE SAND W/SOME COARSE SAND.	A-2-4(0)	
5	8.0 10.0	2 1 2 2	SATURATED VERY LOOSE GRAY FINE SAND W/SOME COARSE SAND, TRACE OF FINE GRAVEL, SILT AND ORGANIC MATTER.	A-3	▽ WATER LEVEL (EL. 31.95)
6	10.0 12.0	8 9 10 12	SATURATED MEDIUM DENSE GRAY FINE TO COARSE SAND W/TRACE OF FINE GRAVEL AND SILT.	A-3	-BOTTOM OF COARSE AGGREGATE (EL. 29.00)
7	12.0 14.0	4 7 9 7	SATURATED MEDIUM DENSE GRAY FINE TO COARSE SAND W/TRACE OF SILT AND FINE GRAVEL.	A-3	
8	14.0 16.0	6 7 10 10	SATURATED MEDIUM DENSE GRAY COARSE SANDY FINE GRAVEL W/SOME FINE SAND, TRACE OF SILT.	A-1-A	
9	16.0 18.0	4 3 1 3	SATURATED VERY LOOSE GRAY FINE GRAVELLY FINE SAND WITH SOME COURSE SAND AND SILT		
10	18.0 23.0	4 3 5 4	SATURATED LOOSE BROWN FINE SAND W/SOME FINE GRAVEL, TRACE OF COARSE SAND AND SILT.	A-3	
11	23.0 28.0	9 8 5 6	SATURATED MEDIUM DENSE GRAY FINE GRAVELLY FINE TO COARSE SAND W/TRACE OF SILT.	A-1-B	
12	28.0 33.0	5 5 5 6	SATURATED LOOSE GRAY FINE SAND W/SOME COARSE SAND, TRACE OF SILT.	A-3	
13	33.0 38.0	5 6 7 9	SATURATED MEDIUM DENSE GRAY FINE SAND W/SOME COARSE SAND, TRACE OF SILT AND FINE GRAVEL.	A-3	
14	38.0 43.0	10 7 11 8	SATURATED MEDIUM DENSE BROWN FINE GRAVELLY COARSE TO FINE SAND W/TRACE OF SILT.	A-1-B	
15	43.0 48.0	5 8 10 10	SATURATED VERY STIFF GRAY FINE SANDY CLAY W/SOME SILT, TRACE OF COARSE SAND AND ORGANIC MATTER.	A-6(6)	
16	48.0 50.0	6 7 8 8	SATURATED STIFF GRAY FINE SANDY SILT W/SOME COARSE SAND, TRACE OF ORGANIC MATTER.	A-4(0)	
			END OF BORING		

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 (b), AS AMENDED BY SB 186
      DNREC - WATER QUALITY (WQC) & COASTAL ZONE CONSISTENCY (CZM): ISSUED (PROJECT IS NOT LOCATED IN CRW)

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

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

3. CULTURAL RESOURCE ISSUES: NONE

4. STREAM RESTORATION AND SLOPE RIPRAP TREATMENT

   A. THE CONTRACTOR SHALL FOLLOW THE SPECIAL PROVISIONS OF ITEM #712531 - CHANNEL BED FILL IN REGARDS TO THE 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 ITEMS #712531 - CHANNEL BEDFILL. 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, 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" 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. DELAWARE #57 STONE SHALL BE INCIDENTAL TO THE RIPRAP ITEM.

5. CLEARING IN WETLAND AREAS SHALL BE KEPT TO A MINIMUM ABSOLUTELY NECESSARY FOR CONSTRUCTION ACCESS. IN WETLAND AREAS THAT ARE CLEARED, THERE SHALL BE NO GRUBBING EXCEPT WHERE NECESSARY TO CONSTRUCT PROJECT COMPONENTS SUCH AS FOUNDATIONS AND RIPRAP PROTECTION. VEGETATION SHALL BE CUT FLUSH WITH THE GROUND (I.E. NO DISTURBANCE OF THE ROOT MAT). TEMPORARILY DISTURBED WETLAND AREAS SHALL BE RESTORED TO GRADE AND SEEDED WITH TEMPORARY GRASS SEEDING - DRY GROUND (PAYMENT UNDER ITEM 734017). ALTHOUGH ONLY 25 S.Y. IS REQUIRED FOR ITEM 734017, A CONTINGENCY OF 100 S.Y. HAS BEEN USED FOR THE TEMPORARY GRASS SEEDING - DRY GROUND.

E.C. SHEET 1 OF 2

DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	NOT TO SCALE	BR 2-112B ON K112 BURRSVILLE ROAD OVER SAULSBURY DITCH	CONTRACT T201107208	BRIDGE NO. 2-112B	ENVIRONMENTAL COMPLIANCE NOTES	SHEET NO. 9
				COUNTY KENT	DESIGNED BY: NED		TOTAL SHTS. 14
					CHECKED BY: MJG		

LAST REVISED: 03/22/2011
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TEMPORARY OPEN WATER IMPACT AREA SCHEDULE

ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
OT-1	SW UPSTREAM SANDBAGS	20.74	0.0005	0.77	COE / DNREC
OT-2	STILLING WELL	54.00	0.0012	2.00	COE / DNREC
OT-3	NW UPSTREAM SANDBAGS	125.33	0.0029	10.44	COE / DNREC
OT-4	EX. PIPES TO PROP. PIPES	611.81	0.0141	22.66	COE / DNREC
OT-5	CONCRETE APRON TO RIPRAP	375.03	0.0086	38.20	COE / DNREC
OT-6	DOWNSTREAM SANDBAGS	67.66	0.0016	5.64	COE / DNREC
OT-7	STABILIZED OUTFALL	25.00	0.0006	1.39	COE / DNREC
TOTAL TEMPORARY OPEN WATER IMPACTS		1279.57	0.0295	81.10	COE / DNREC

PERMANENT WETLAND IMPACT AREA SCHEDULE

ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
W-1	PIPE PLACEMENT	89.18	0.0020	N/A	COE
W-2	NE SIDE UPSTREAM RIPRAP	227.81	0.0052	N/A	COE
W-3	NE SIDE DOWNSTREAM RIPRAP	501.49	0.0115	N/A	COE
W-4	SE SIDE DOWNSTREAM RIPRAP	233.47	0.0054	N/A	COE
TOTAL PERMANENT WETLAND IMPACT AREAS		1051.95	0.0241	N/A	COE

TEMPORARY WETLAND IMPACT AREA SCHEDULE

ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
WT-1	SW UPSTREAM SANDBAGS	20.15	0.0005	N/A	COE
WT-2	NW UPSTREAM SANDBAGS	53.25	0.0012	N/A	COE
WT-3	DOWNSTREAM SANDBAGS	112.06	0.0025	N/A	COE
TOTAL TEMPORARY WETLAND IMPACT AREAS		185.46	0.0043	N/A	COE

OPEN WATER CREATION AREA SCHEDULE

ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
OC-1	U.S. CHANNEL REGRADING	76.35	0.0018	7.78	COE / DNREC
OC-2	PROPOSED PIPES	873.68	0.0200	23.92	COE / DNREC
OC-3	D.S. CHANNEL REGRADING	8.01	0.0002	0.82	COE / DNREC
TOTAL OPEN WATER CREATION AREAS		958.04	0.0220	32.52	COE / DNREC

PERMANENT OPEN WATER IMPACT AREA SCHEDULE

ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
O-1	PIPE PLACEMENT	203.89	0.0047	41.81	COE / DNREC
O-2	UPSTREAM RIPRAP	884.62	0.0203	90.10	COE / DNREC
O-3	FILL OF EXISTING PIPES	553.35	0.0127	77.71	COE / DNREC
O-4	DOWNSTREAM RIPRAP	1051.67	0.0241	107.11	COE / DNREC
TOTAL PERMANENT OPEN WATER IMPACTS		2693.53	0.0618	316.73	COE / DNREC

LEGEND

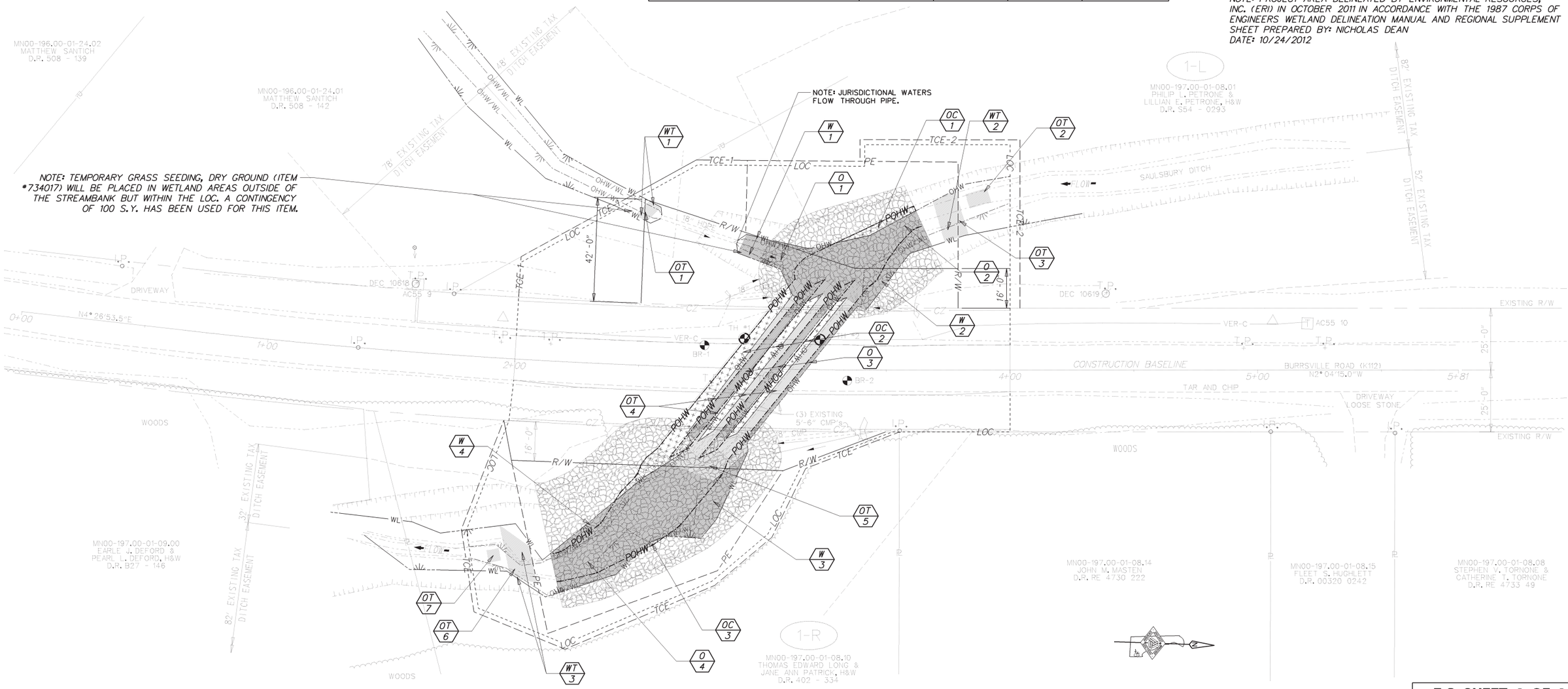
- PERMANENT IMPACT AREA
- TEMPORARY IMPACT AREA
- CREATION AREA
- OHW — ORDINARY HIGH WATER
- WL — WETLAND BOUNDARY
- OHW/WL — ORD. HIGH WATER / WETLAND
- POHW — PROPOSED ORDINARY HIGH WATER
- XX / 2X — IMPACT AREA TYPE ID. (SEE BELOW) / IMPACT AREA ID. AND/OR NUMBER

O = OPEN WATER IMPACT W = WETLAND IMPACT

T = TEMPORARY IMPACT C = CREATION AREA

NOTE: PROJECT AREA DELINEATED BY ENVIRONMENTAL RESOURCES, INC. (ERI) IN OCTOBER 2011 IN ACCORDANCE WITH THE 1987 CORPS OF ENGINEERS WETLAND DELINEATION MANUAL AND REGIONAL SUPPLEMENT
SHEET PREPARED BY: NICHOLAS DEAN
DATE: 10/24/2012

NOTE: TEMPORARY GRASS SEEDING, DRY GROUND (ITEM *734017) WILL BE PLACED IN WETLAND AREAS OUTSIDE OF THE STREAMBANK BUT WITHIN THE LOC. A CONTINGENCY OF 100 S.Y. HAS BEEN USED FOR THIS ITEM.



E.C. SHEET 2 OF 2

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 20 40 60 FEET

BR 2-112B ON K112 BURRSVILLE ROAD OVER SAULSBURY DITCH

CONTRACT	BRIDGE NO.	2-112B
T201107208	DESIGNED BY: NED	
COUNTY	CHECKED BY: MJG	
KENT		

ENVIRONMENTAL COMPLIANCE PLAN

SHEET NO.
10
TOTAL SHTS.
14

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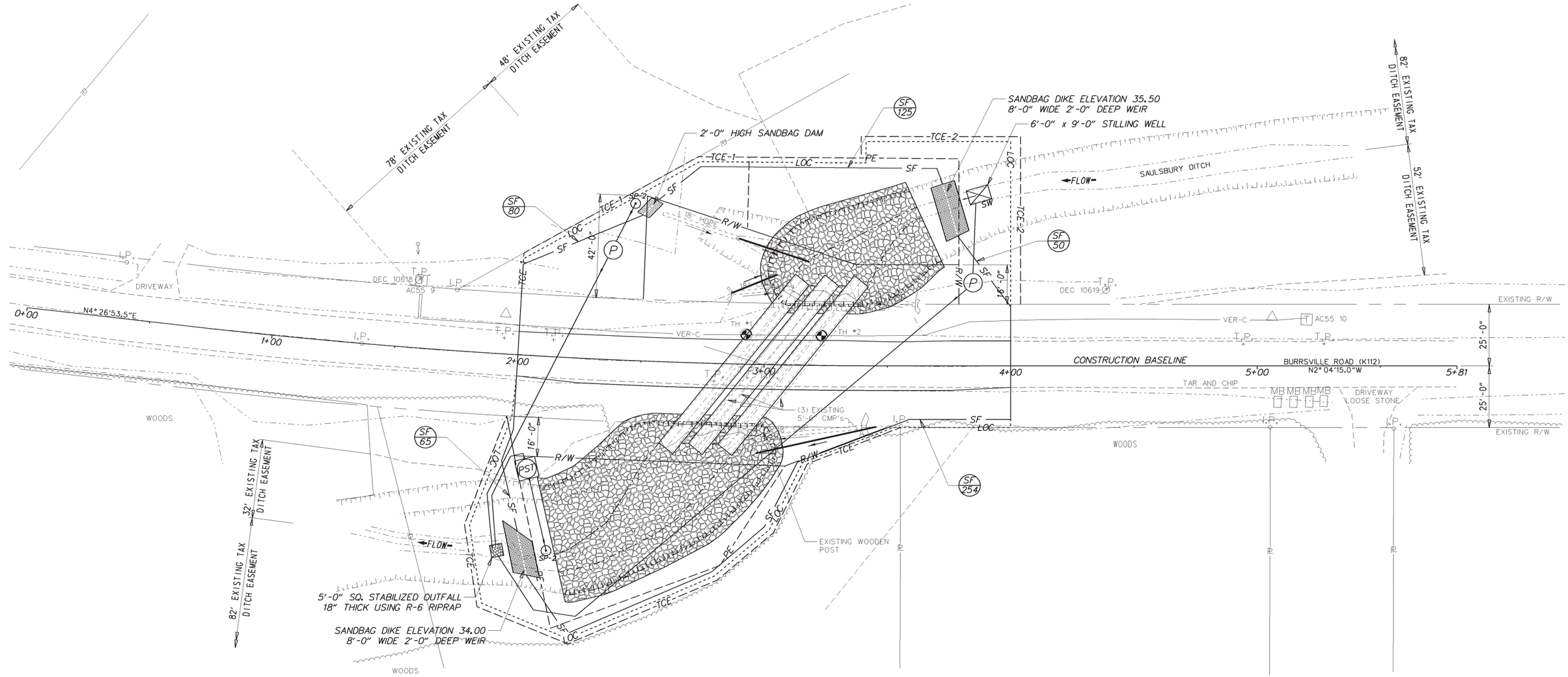
SEQUENCE OF CONSTRUCTION

1. CLOSE BURRSVILLE ROAD IN ACCORDANCE WITH THE DETOUR PLAN.
2. INSTALL SILT FENCE (ITEM 251000) EXCEPT CONNECTION TO SANDBAG DIKES. AFTER THE SANDBAG DIKES ARE CONSTRUCTED IN STEP 4, CONNECT ENDS OF SILT FENCE TO SANDBAG DIKES TO COMPLETELY ENCLOSE THE WORK AREA.
3. INSTALL A 6'x9' STILLING WELL (ITEM 265500) JUST UPSTREAM OF THE PROPOSED UPSTREAM SANDBAG DIKE IN THE MAIN CHANNEL. ALSO, PLACE A SUMP PIT, TYPE 2 (ITEM 263001) JUST UPSTREAM OF THE PROPOSED UPSTREAM SANDBAG DIKE IN THE ADJACENT DITCH. PLACE R6 RIPRAP AT THE PROPOSED DISCHARGE AREA OF THE TWO PUMPS.
4. CONSTRUCT THE SANDBAG DIKES, AT THE LOCATIONS SHOWN ON PLAN. SANDBAG DIKE DIMENSIONS ARE SHOWN ON THE PLAN SECTION. CONNECT SILT FENCE TO SANDBAG DIKES TO COMPLETELY ENCLOSE THE WORK AREA. USE TWO PUMPS (ITEM *265500) TO DIVERT THE STREAM BASE FLOW FROM THE MAIN CHANNEL AND ADJACENT DITCH AROUND THE ENCLOSED WORK AREA. WHEN THE FLOW IS HIGHER THAN PUMP CAPACITY DURING RAINFALL EVENTS, THE STREAM FLOW IS ALLOWED TO FLOW OVER THE SANDBAG DIKE. THEREFORE, THE ENCLOSED AREA SHALL BE KEPT CLEAR OF DEBRIS AND OBSTRUCTIONS AT THE END OF EACH WORKDAY.
5. INSTALL SUMP PIT, TYPE 2 (ITEM 263001) AND A PORTABLE SEDIMENT TANK (ITEM 270000) AS A SEDIMENT TRAPPING DEVICE. DEWATER THE WORK AREA IN ACCORDANCE WITH SECTION 111 OF DELDOT STANDARD SPECIFICATIONS. DISCHARGE CLEAN EFFLUENT FROM THE APPROVED SEDIMENT TRAPPING DEVICE AT THE RIPRAPPED DISCHARGE AREA FOR THE DIVERSION PUMP OR ON OTHER STABLE OUTLET AS APPROVED BY THE ENGINEER.
6. REMOVE THE EXISTING BRIDGE 2-112B COMPRISED OF THREE 5'-6" CORRUGATED METAL PIPES, THE SACKED CONCRETE RIPRAP AT EACH END OF THE BRIDGE, THE THREE EXISTING 18" CORRUGATED METAL PIPES AND HEADWALLS AS NOTED WITHIN THE CONSTRUCTION LIMITS SHOWN ON THE CONSTRUCTION PLAN SHEET, THE CONCRETE PAD LOCATED DOWNSTREAM OF THE BRIDGE, THE EXISTING RIPRAP UPSTREAM AND DOWNSTREAM OF THE BRIDGE (STONE MAY BE RE-USED IF IT MEETS THE REQUIREMENTS FOR R-6 RIPRAP), AND EXISTING HOTMIX WITHIN THE PROJECT LIMITS.
7. IF THE CONTRACTOR CHOOSES TO USE ON-SITE CHANNEL BED FILL, EXCAVATE AND STOCKPILE THE EXISTING STREAMBED MATERIAL IN ACCORDANCE WITH THE SPECIAL PROVISIONS OF ITEM *712531-CHANNEL BED FILL.
8. INSTALL (3) 6'-0" REINFORCED CONCRETE PIPES, RIPRAP, CHANNEL BED FILL, AND (3) 18" HDPE DRAINAGE PIPES AS NOTED.
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 DEVICES.



DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 20 40 60 FEET	BR 2-112B ON K112 BURRSVILLE ROAD OVER SAULSBURY DITCH	CONTRACT T201107208	BRIDGE NO. 2-112B	CONSTRUCTION SEQUENCE & EROSION CONTROL PLAN	SHEET NO. 11
				COUNTY KENT	DESIGNED BY: NED		TOTAL SHTS. 14
					CHECKED BY: MJG		

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CHANGEABLE MESSAGE BOARDS

CMS-1

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

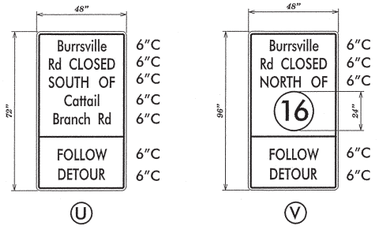
BURRS-VILLE ROAD	TO CLOSE STARTING XX/XX/XX

CMS-1

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

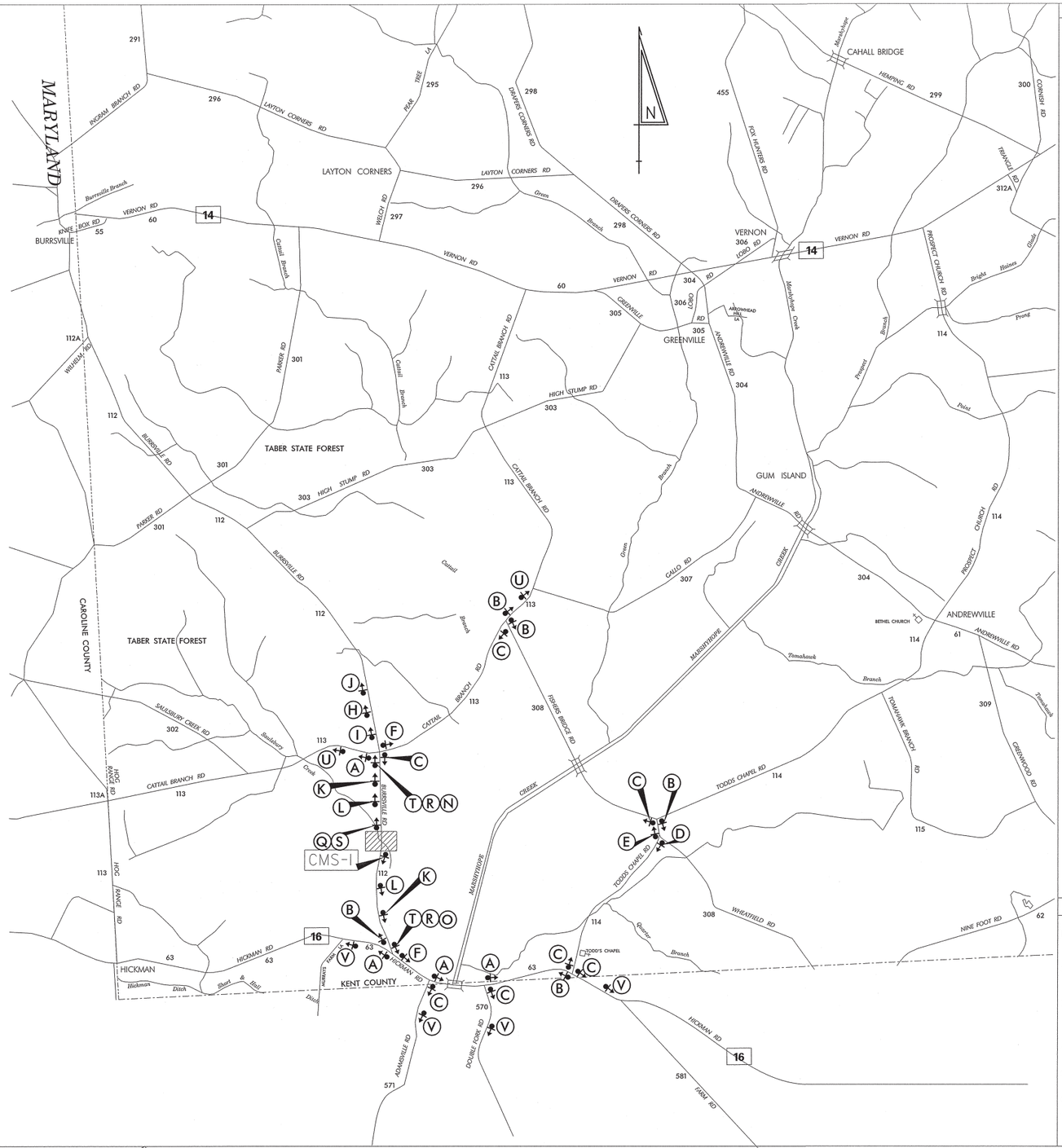
BURRS-VILLE ROAD	CLOSED FOLLOW DETOUR

SPECIAL SIGNS

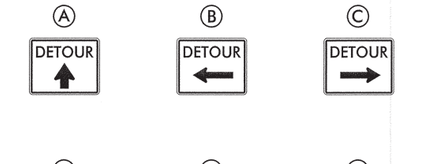


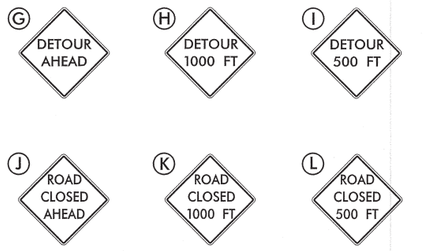
D/G RETROREFLECTIVE FLUORESCENT ORANGE BACKGROUND; BLACK LEGEND

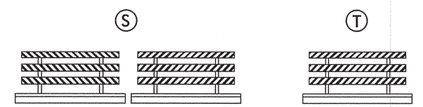
ROUTE SHIELD – WHITE BACKGROUND; BLACK LEGEND



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: 3-27-12	RECOMMENDED _____ DATE: 3/28/12	RECOMMENDED _____ DATE:	APPROVED CHIEF SAFETY OFFICER _____ DATE: 3-30-12
			APPROVED TRAFFIC ENGINEER _____ DATE: 4/2/12

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

NOT TO SCALE

BR2-112B ON K112 BURRSVILLE ROAD OVER SAULSBURY DITCH

CONTRACT	ROAD NO.	K112
T201107208	DESIGNED BY: MFR	
COUNTY	CHECKED BY: ASW	
KENT		

DETOUR PLAN

SHEET NO.
12
TOTAL SHTS.
14

C:\DOCUMENTS AND SETTINGS\MICHAEL.RIVERA\MY DOCUMENTS\MICRO STATION DGN\BURRSVILLE RD OVER SAULSBURY CREEK.DGN

RECOMMENDED

Jude Crawford / Shelmay Chandler — 4/25/13
TEAM SUPPORT SQUAD MANAGER — DATE

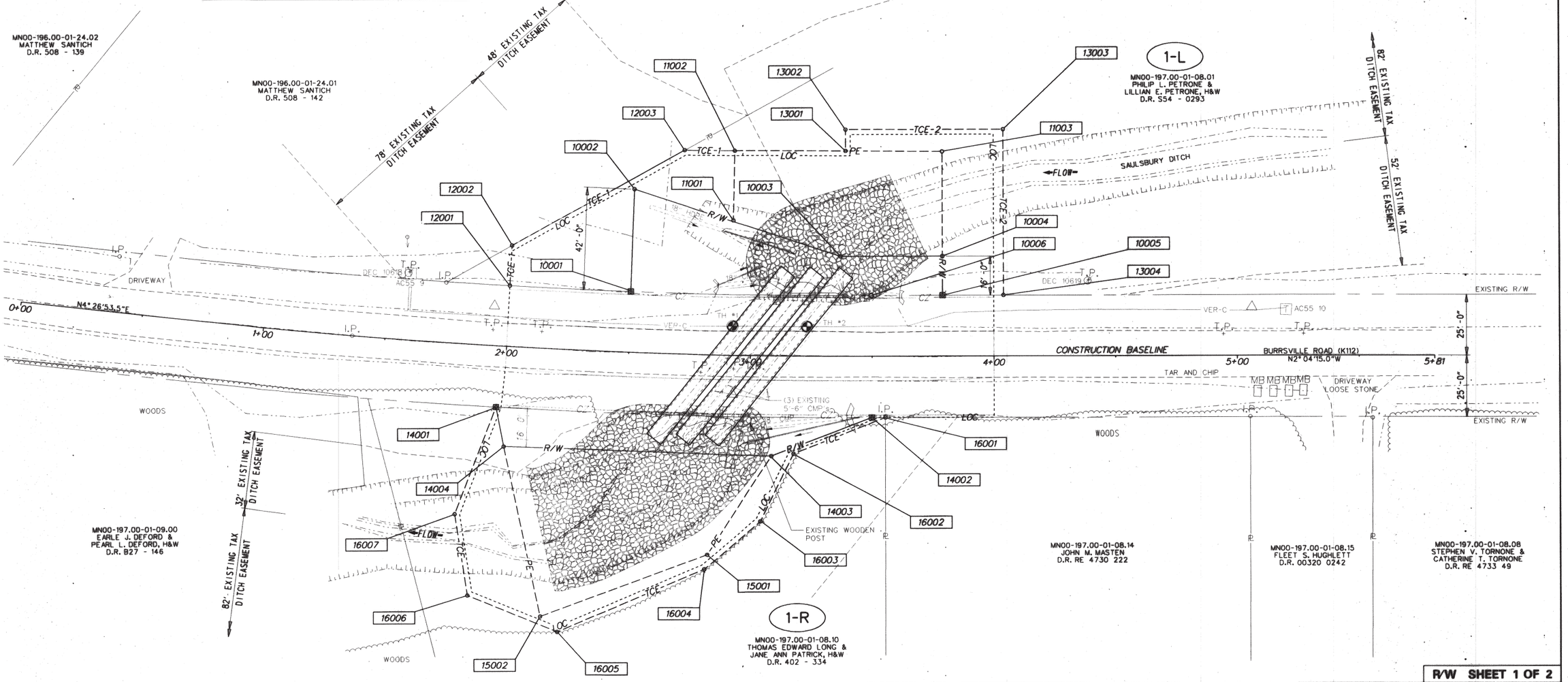
4.25.13
TEAM SUPPORT ENGINEER — DATE

Robert B. McCleary — 4/26/13
ASSISTANT DIRECTOR, ENGINEERING SUPPORT — DATE

"AS-ACQUIRED" PLANS

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

CHIEF, REAL ESTATE — DATE



R/W SHEET 1 OF 2

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 20 40 60 FEET

BR 2-112B ON K112 BURRSVILLE ROAD OVER SAULSBURY DITCH

CONTRACT	BRIDGE NO.	2-112B
T201107208	DESIGNED BY: NED	
COUNTY	CHECKED BY: MJG	
KENT		

RIGHT-OF-WAY PLAN

SHEET NO.
13
TOTAL SHTS.
14

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ASSESSMENT NUMBER	OWNERSHIP OF RECORD	TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)
MN00-197.00-01-08.01	(1-L) PHILIP L. PETRONE & LILLIAN E. PETRONE	FEE	D.R. 554-0293	27.480

ALIGNMENT NUMBER & DESCRIPTION: 1002 - CONSTRUCTION BASELINE

PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
10001	1002	2+50.00	-25.00	307130.6224	576987.6291	N 89°47'04.60" W	42.0000				
10002	1002	2+50.00	-67.00	307130.7803	576945.6294	N 16°12'07.30" E	88.9978				
10003	1002	3+37.00	-41.00	307216.2434	576970.4620	N 2°01'37.00" W	41.7908				
10004	1002	3+79.00	-41.00	307258.0081	576968.9839	N 87°55'45.04" E	16.0000				
10005	1002	3+79.00	-25.00	307258.5862	576984.9735	S 2°04'14.96" E	29.2500				
10006	1002	3+49.75	-25.00	307229.3554	576986.0304			S 0°55'39.59" E	98.7459	98.7525	2475.0000
10001	1002	2+50.00	-25.00	307130.6224	576987.6291						

FIGURE 10001 AREA = 3176.9285 SQ. FT. (0.0729 ACRES)

ASSESSMENT NUMBER	OWNERSHIP OF RECORD	TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)
MN00-197.00-01-08.01	(1-L) PHILIP L. PETRONE & LILLIAN E. PETRONE	P/E	D.R. 554-0293	27.480

ALIGNMENT NUMBER & DESCRIPTION: 1002 - CONSTRUCTION BASELINE

PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
11001	1002	2+92.00	-55.40	307171.8050	576957.0387	S 89°15'10.15" W	28.6000				
11002	1002	2+92.00	-84.00	307171.4321	576928.4412	N 1°38'11.59" W	85.0569				
11003	1002	3+79.00	-84.00	307256.4543	576926.0120	N 87°55'45.04" E	43.0000				
10004	1002	3+79.00	-41.00	307258.0081	576968.9839	S 2°01'37.00" E	41.7908				
10003	1002	3+37.00	-41.00	307216.2434	576970.4620	S 16°48'27.84" W	46.4215				
11001	1002	2+92.00	-55.40	307171.8050	576957.0387						

FIGURE 11001 AREA = 3372.1949 SQ. FT. (0.0774 ACRES)

ASSESSMENT NUMBER	OWNERSHIP OF RECORD	TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)
MN00-197.00-01-08.01	(1-L) PHILIP L. PETRONE & LILLIAN E. PETRONE	TCE-1	D.R. 554-0293	27.480

ALIGNMENT NUMBER & DESCRIPTION: 1002 - CONSTRUCTION BASELINE

PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
12001	1002	2+00.00	-25.00	307081.1279	576986.9480	N 88°38'19.31" W	16.3800				
12002	1002	2+00.00	-41.38	307081.5170	576970.5727	N 30°57'45.37" W	80.8210				
12003	1002	2+70.67	-83.63	307150.8213	576928.9920	N 1°31'51.59" W	20.6181				
11002	1002	2+92.00	-84.00	307171.4321	576928.4412	N 89°15'10.15" E	28.6000				
11001	1002	2+92.00	-55.40	307171.8050	576957.0387	S 15°32'30.11" W	42.5817				
10002	1002	2+50.00	-67.00	307130.7803	576945.6294	S 89°47'04.60" E	42.0000				
10001	1002	2+50.00	-25.00	307130.6224	576987.6291			S 0°47'18.05" W	49.4992	49.5000	2475.0000
12001	1002	2+00.00	-25.00	307081.1279	576986.9480						

FIGURE 12001 AREA = 2352.2855 SQ. FT. (0.0540 ACRES)

ASSESSMENT NUMBER	OWNERSHIP OF RECORD	TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)
MN00-197.00-01-08.01	(1-L) PHILIP L. PETRONE & LILLIAN E. PETRONE	TCE-2	D.R. 554-0293	27.480

ALIGNMENT NUMBER & DESCRIPTION: 1002 - CONSTRUCTION BASELINE

PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
13001	1002	3+39.00	-84.28	307216.8318	576927.1421	S 88°10'32.37" W	8.7200				
13002	1002	3+39.00	-93.00	307216.5542	576918.4265	N 2°03'03.85" W	64.5999				
13003	1002	4+04.00	-93.00	307281.1127	576916.1145	N 87°55'45.04" E	68.0000				
13004	1002	4+04.00	-25.00	307283.5699	576984.0701	S 2°04'14.96" E	25.0000				
10005	1002	3+79.00	-25.00	307258.5862	576984.9735	S 87°55'45.04" W	16.0000				
10004	1002	3+79.00	-41.00	307258.0081	576968.9839	S 87°55'45.04" W	43.0000				
11003	1002	3+79.00	-84.00	307256.4543	576926.0120	S 1°38'01.61" E	39.6386				
13001	1002	3+39.00	-84.28	307216.8318	576927.1421						

FIGURE 13001 AREA = 2051.3011 SQ. FT. (0.0471 ACRES)

ASSESSMENT NUMBER	OWNERSHIP OF RECORD	TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)
MN00-197.00-01-08.10	(1-R) THOMAS EDWARD LONG & JANE ANN PATRICK	FEE	D.R. 402-334	15.070

ALIGNMENT NUMBER & DESCRIPTION: 1002 - CONSTRUCTION BASELINE

PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
14001	1002	1+97.00	25.00	307076.9109	577036.8601			N 0°19'13.18" W	154.2535	154.2775	-2525.0000
14002	1002	3+49.75	25.00	307231.1620	577035.9977	S 22°47'08.91" E	44.2791				
14003	1002	3+09.00	41.00	307190.3385	577053.1465	S 0°06'02.87" W	109.7627				
14004	1002	2+01.00	41.00	307080.5760	577052.9534	S 77°10'12.58" W	16.5053				
14001	1002	1+97.00	25.00	307076.9109	577036.8601						

FIGURE 14001 AREA = 2066.6970 SQ. FT. (0.0474 ACRES)

ASSESSMENT NUMBER	OWNERSHIP OF RECORD	TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)
MN00-197.00-01-08.10	(1-R) THOMAS EDWARD LONG & JANE ANN PATRICK	P/E	D.R. 402-334	15.070

ALIGNMENT NUMBER & DESCRIPTION: 1002 - CONSTRUCTION BASELINE

PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
14004	1002	2+01.00	41.00	307080.5760	577052.9534	N 0°06'02.87" E	109.7627				
14003	1002	3+09.00	41.00	307190.3385	577053.1465	S 58°51'17.16" E	48.3434				
15001	1002	2+84.00	82.00	307165.3349	577094.5216	S 22°20'54.41" E	73.0707				
15002	1002	2+19.00	110.00	307097.7527	577122.3058	S 76°05'21.75" W	71.4479				
14004	1002	2+01.00	41.00	307080.5760	577052.9534						

FIGURE 15001 AREA = 4855.2482 SQ. FT. (0.1115 ACRES)

ASSESSMENT NUMBER	OWNERSHIP OF RECORD	TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)
MN00-197.00-01-08.10	(1-R) THOMAS EDWARD LONG & JANE ANN PATRICK	TCE	D.R. 402-334	15.070

ALIGNMENT NUMBER & DESCRIPTION: 1002 - CONSTRUCTION BASELINE

PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
14001	1002	1+97.00	25.00	307076.9109	577036.8601	N 77°10'12.58" E	16.5053				
14004	1002	2+01.00	41.00	307080.5760	577052.9534	N 76°05'21.75" E	71.4479				
15002	1002	2+19.00	110.00	307097.7527	577122.3058	N 22°20'54.41" W	73.0707				
15001	1002	2+84.00	82.00	307165.3349	577094.5216	N 58°51'17.16" W	48.3434				
14003	1002	3+09.00	41.00	307190.3385	577053.1465	N 22°47'08.91" W	44.2791				
14002	1002	3+49.75	25.00	307231.1620	577035.9977	N 2°04'14.96" W	5.6000				
16001	1002	3+55.35	25.00	307236.7584	577035.7954	S 23°25'01.36" E	40.6456				
16002	1002	3+18.00	40.00	307199.4606	577051.9488	S 65°49'06.18" E	30.9899				
16003	1002	3+05.00	68.00	307186.7661	577080.2194	S 42°11'30.36" E	30.2434				
16004	1002	2+83.00	88.00	307164.3588	577100.5313	S 25°09'09.96" E	65.5993				
16005	1002	2+26.00	116.00	307104.9797	577128.4132	S 20°15'40.07" W	39.7616				
16006	1002	1+90.00	103.00	307067.6785	577114.6437	S 79°17'33.92" W	33.7853				
16007	1002	1+83.00	70.00	307061.4015	577081.4467	N 70°49'10.91" W	47.2070				
14001	1002	1+97.00	25.00	307076.9109	577036.8601						

FIGURE 16001 AREA = 2665.5081 SQ. FT. (0.0612 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)			
MN00-197.00-01-08.01	5	(1-L) PHILIP L. PETRONE & LILLIAN E. PETRONE	D.R. 554-0293	D - 27.48	FEE	3176.9285 / 0.07						
					P/E			3372.1949 / 0.08				
					TCE-1				2352.2855 / 0.05			
					TCE-2				2051.3011 / 0.05	1193851.8715 / 27.41		
MN00-197.00-01-08.10	5	(1-R) THOMAS EDWARD LONG & JANE ANN PATRICK	D.R. 402-334	D - 15.07	FEE	2066.697 / 0.05						
					P/E			4855.2482 / 0.11				
					TCE				2665.5081 / 0.06	654382.503 / 15.02		

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

RIGHT-OF-WAY SHEET 2 OF 2

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

BR2-112B ON K112 BURRSVILLE ROAD OVER SAULSBURY DITCH

CONTRACT	BRIDGE NO.	2-112B
T201107208	DESIGNED BY: NED	
COUNTY	CHECKED BY: MJG	
KENT		

RIGHT-OF-WAY DATA & TABULATION SHEET

SHEET NO.
14
TOTAL SHTS.
14

Y:\KENT\112\BRIDGE\T201107208\PLANS\RB01.DGN