

EXISTING SYMBOLS

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

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

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

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

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

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

UTILITY COMPANY FACILITIES	
	VERIZON
	DELAWARE ELECTRIC COOPERATIVE

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

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

PROPOSED SYMBOLS

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

LANDSCAPING	
	LANDSCAPE PLANTINGS
	SHRUBBERY
	CONIFEROUS TREE
	DECIDUOUS TREE

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

PAVEMENT SECTION(S)	
	1 1/4" SUPERPAVE, TYPE C WARM-MIX 2 1/4" SUPERPAVE, TYPE B WARM-MIX 8" GRADED AGGREGATE BASE COURSE, TYPE B

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

LAST REVISED: 01/30/2012
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GENERAL NOTES

- 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.
- 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.
- 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.
- 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.
- 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.
- 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.

- 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.

- 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.

- THE DISTURBED AREA FOR THIS PROJECT IS 0.6737 ACRES.
- 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.
- 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

- 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

- 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
- 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

- 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':
 - CRUSHED STONE (PER STANDARD SPECIFICATION 821)
 - CRUSHED CONCRETE (PER STANDARD SPECIFICATION 821)
 - 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.

- 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.

- HOT-MIX MILLINGS MAY BE GENERATED FROM THE FOLLOWING SOURCES:
 - MATERIAL MILLED ON THIS CONTRACT AT THE CONTRACTOR'S CHOICE UNDER ITEM 202000.
 - 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.

- PAYMENT CLARIFICATION:
 - 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.
 - 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'.
 - 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.
 - 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

- 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

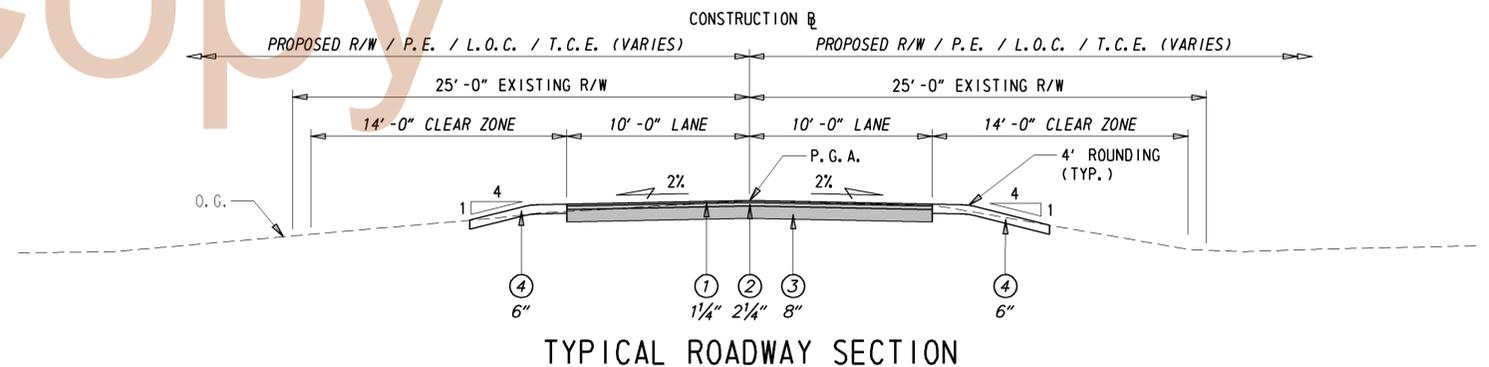
- ALL PAVED AREAS TO BE RECONSTRUCTED OR WIDENED SHALL BE SAWCUT AT THE POINT WHERE THE NEW PAVEMENT IS TO TIE INTO THE EXISTING PAVEMENT. ALL HOT-MIX SAW CUTTING SHALL BE FULL DEPTH, UNLESS OTHERWISE NOTED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.
- ALL GEOTEXTILES SHALL BE KEYED UNDER ADJACENT SOIL OR RIPRAP A MINIMUM OF 6" IN LENGTH TO PREVENT FREE EDGES.
- 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

- 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.
- 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
- 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
- GROUP OF MAILBOXES LOCATED NORTHEAST OF THE PROJECT LIMITS ARE NOT TO BE DISTURBED AT ANY POINT DURING CONSTRUCTION.
- ENVIRONMENTAL COMPLIANCE: SEE ENVIRONMENTAL COMPLIANCE PLAN FOR FURTHER RESTRICTIONS/GUIDANCE ASSOCIATED WITH THIS PROJECT.
- CROSS-SECTIONS USED IN THE PREPARATION OF THIS CONTRACT WILL BE MADE AVAILABLE TO THE WINNING BIDDER FOR INFORMATIONAL PURPOSES ONLY.
- PLEASE REFER TO THE UTILITY STATEMENT FOR ANY UTILITY INFORMATION.

TYPICAL SECTION LEGEND

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



TYPICAL ROADWAY SECTION

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.

<i>Element: Circular</i>					
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



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	ADDENDUMS / REVISIONS			BR 2-112B ON K112 BURRSVILLE ROAD OVER SAULSBURY DITCH	CONTRACT	BRIDGE NO.	HORIZONTAL AND VERTICAL CONTROL	SHEET NO.
					T201107208	2-112B		4
					COUNTY	DESIGNED BY: NED		TOTAL SHTS.
					KENT	CHECKED BY: MJG		14

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

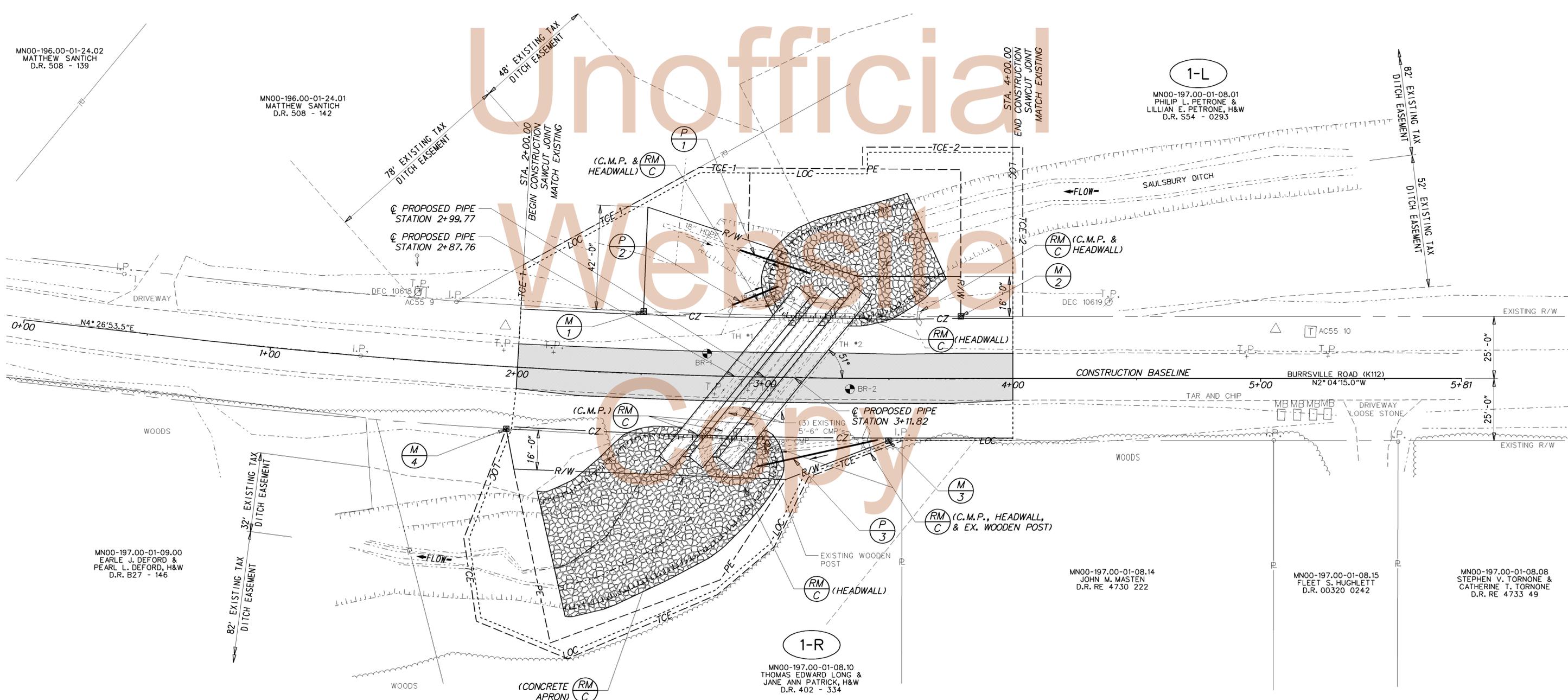
NOTE: PIPE 1 WILL TIE INTO THE EXISTING 18" HDPE DRAINAGE PIPE UPSTREAM ON THE SOUTH SIDE. PIPE 1 WILL REQUIRE A COUPLER TO JOIN TO THE EXISTING PIPE (THE COUPLER SHALL BE INCIDENTAL TO ITEM *612523).

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



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MN00-196.00-01-24.02
MATTHEW SANTICH
D.R. 508 - 139

MN00-196.00-01-24.01
MATTHEW SANTICH
D.R. 508 - 142

1-L
MN00-197.00-01-08.01
PHILIP L. PETRONE &
LILLIAN E. PETRONE, H&W
D.R. S54 - 0293

MN00-197.00-01-09.00
EARLE J. DEFORD &
PEARL L. DEFORD, H&W
D.R. B27 - 146

MN00-197.00-01-08.14
JOHN M. MASTEN
D.R. RE 4730 222

MN00-197.00-01-08.15
FLEET S. HUGHLETT
D.R. 00320 0242

MN00-197.00-01-08.08
STEPHEN V. TORNONE &
CATHERINE T. TORNONE
D.R. RE 4733 49

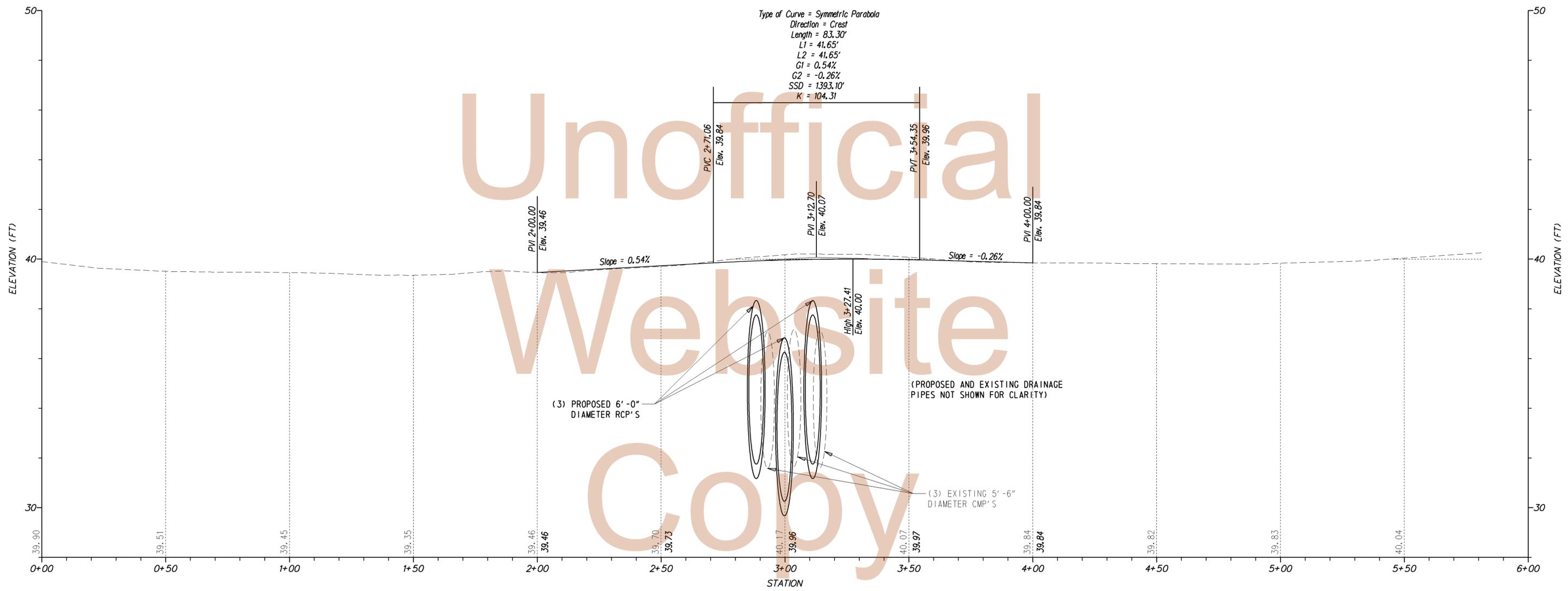
1-R
MN00-197.00-01-08.10
THOMAS EDWARD LONG &
JANE ANN PATRICK, H&W
D.R. 402 - 334

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DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE FEET	BR 2-112B ON K112 BURRSVILLE ROAD OVER SAULSBURY DITCH	CONTRACT T201107208 COUNTY KENT	BRIDGE NO. 2-112B	DESIGNED BY: NED CHECKED BY: MJG	CONSTRUCTION PLAN	SHEET NO. 5 TOTAL SHTS. 14

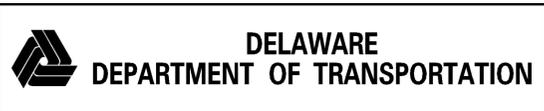
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Type of Curve = Symmetric Parabola
 Direction = Crest
 Length = 83.30'
 L1 = 41.65'
 L2 = 41.65'
 G1 = 0.54%
 G2 = -0.26%
 SSD = 1393.10'
 K = 104.31

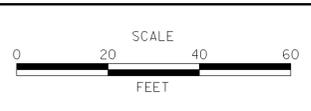


K112 - BURRSVILLE ROAD

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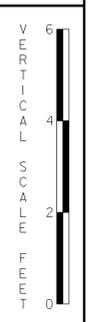
ADDENDUMS / REVISIONS	



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

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

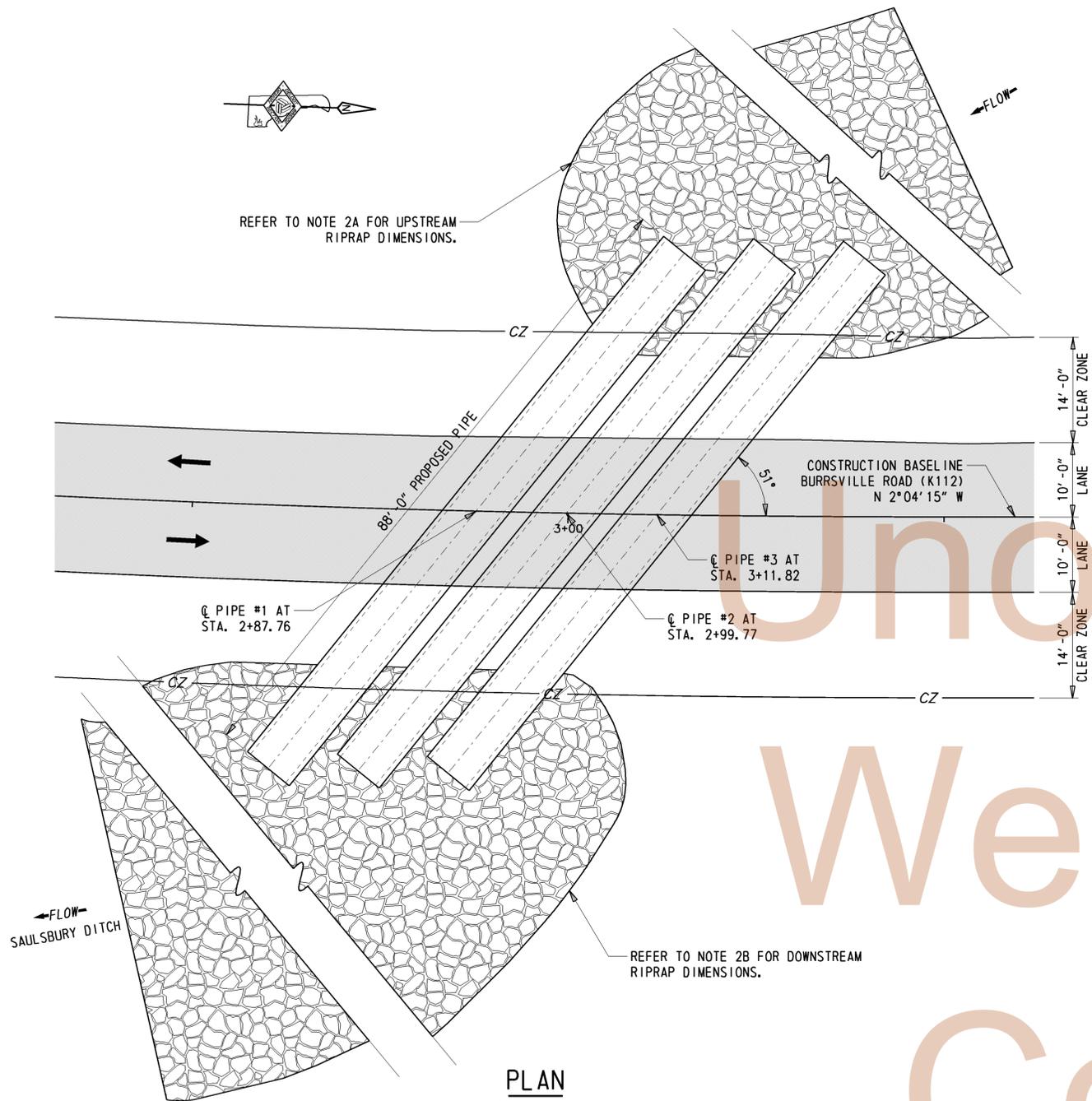
PROFILES



SHEET NO.	6
TOTAL SHTS.	14



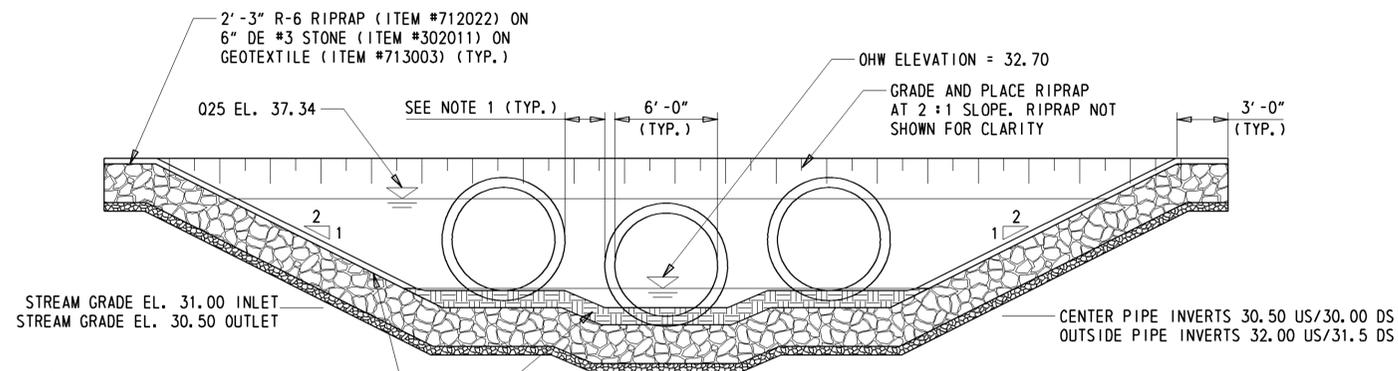
REFER TO NOTE 2A FOR UPSTREAM RIPRAP DIMENSIONS.



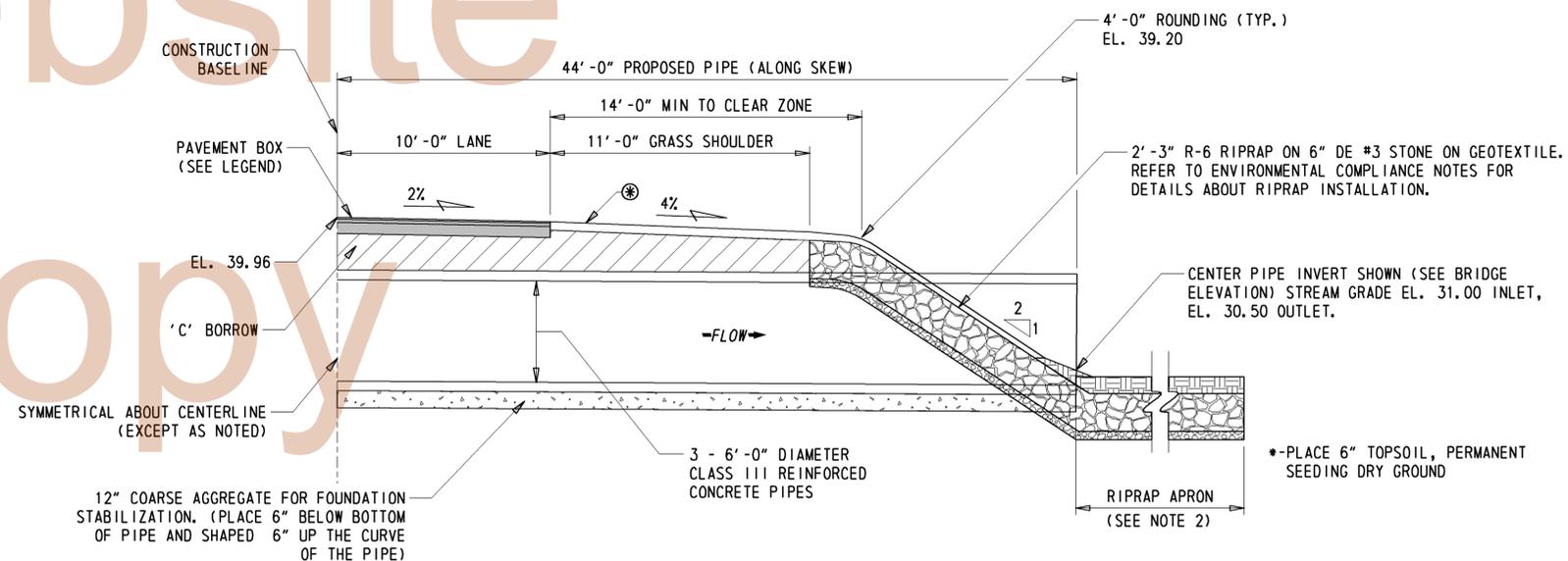
PLAN
1/8" = 1'-0"

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.



BRIDGE ELEVATION
3/16" = 1'-0"



BRIDGE SECTION
3/16" = 1'-0"

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

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

BORING: BR # 1		DATE DRILLED: 1/28/2011	
STATION: 2+76.36		ELEVATION: 39.61	
OFFSET: -8.94		NORTHING: 307156.83	
EASTING: 577003.65		COMMENTS: N/A	
SAMPLE INFORMATION			
NO.	DEPTH	BLOWS /6"	REMARKS
1	0.0		NO SAMPLING
2	2.0	4	MOIST MEDIUM DENSE BROWNISH ORANGE SILTY FINE SAND W/SOME COARSE SAND.
3	4.0	4	SATURATED FIRM BLACK FINE SANDY CLAY W/SOME SILT, TRACE OF ORGANIC MATTER.
4	6.0	5	SATURATED STIFF GRAYISH BLACK FINE SANDY SILT W/TRACE OF COARSE SAND.
5	8.0	2	SATURATED MEDIUM DENSE GRAY FINE SAND W/SOME SILT, TRACE OF COARSE SAND AND FINE GRAVEL.
6	10.0	7	SATURATED MEDIUM DENSE GRAY COARSE TO FINE SAND W/TRACE OF FINE GRAVEL AND SILT.
7	12.0	3	SATURATED MEDIUM DENSE GRAY FINE TO COARSE SAND W/TRACE OF SILT AND FINE GRAVEL.
8	14.0	7	SATURATED MEDIUM DENSE GRAY FINE GRAVELLY COARSE TO FINE SAND W/TRACE OF SILT.
9	16.0	4	SATURATED MEDIUM DENSE GRAYISH ORANGE FINE TO COARSE SANDY FINE GRAVEL W/SOME SILT.
10	18.0	7	SATURATED MEDIUM DENSE GRAYISH ORANGE FINE GRAVELLY FINE SAND W/SOME SILT, TRACE OF COARSE SAND.
11	23.0	3	SATURATED LOOSE GRAY FINE TO COARSE SAND W/TRACE OF SILT AND FINE GRAVEL.
12	28.0	7	SATURATED MEDIUM DENSE GRAY FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL.
13	33.0	5	SATURATED MEDIUM DENSE GRAY FINE SAND W/SOME COARSE SAND, TRACE OF SILT AND FINE GRAVEL.
14	38.0	9	SATURATED MEDIUM DENSE GRAY FINE GRAVELLY FINE TO COARSE SAND W/SOME SILT.
15	43.0	3	SATURATED FIRM GRAY FINE SANDY CLAY W/SOME SILT, TRACE OF COARSE SAND.
16	48.0	7	SATURATED VERY STIFF GRAY CLAY W/SOME FINE SAND AND SILT, TRACE OF COARSE SAND.
	50.0		END OF BORING

BORING: BR # 2		DATE DRILLED: 1/28/2011	
STATION: 3+34.29		ELEVATION: 40.05	
OFFSET: 4.33		NORTHING: 307214.94	
EASTING: 577015.85		COMMENTS: N/A	
SAMPLE INFORMATION			
NO.	DEPTH	BLOWS /6"	REMARKS
1	1.0	10	MOIST MEDIUM DENSE BROWN FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL.
2	2.0	13	MOIST MEDIUM DENSE BROWN FINE GRAVELLY FINE SAND W/SOME COARSE SAND, TRACE OF SILT.
3	4.0	2	SATURATED SOFT BLACK ORGANIC CLAY W/SOME FINE TO COARSE SAND, TRACE OF SILT.
4	6.0	2	SATURATED VERY LOOSE BLACK ORGANIC SILTY FINE SAND W/SOME COARSE SAND.
5	8.0	2	SATURATED VERY LOOSE GRAY FINE SAND W/SOME COARSE SAND, TRACE OF FINE GRAVEL, SILT AND ORGANIC MATTER.
6	10.0	8	SATURATED MEDIUM DENSE GRAY FINE TO COARSE SAND W/TRACE OF FINE GRAVEL AND SILT.
7	12.0	4	SATURATED MEDIUM DENSE GRAY FINE TO COARSE SAND W/TRACE OF SILT AND FINE GRAVEL.
8	14.0	6	SATURATED MEDIUM DENSE GRAY COARSE SANDY FINE GRAVEL W/SOME FINE SAND, TRACE OF SILT.
9	16.0	4	SATURATED VERY LOOSE GRAY FINE GRAVELLY FINE SAND WITH SOME COARSE SAND AND SILT.
10	18.0	4	SATURATED LOOSE BROWN FINE SAND W/SOME FINE GRAVEL, TRACE OF COARSE SAND AND SILT.
11	23.0	9	SATURATED MEDIUM DENSE GRAY FINE GRAVELLY FINE TO COARSE SAND W/TRACE OF SILT.
12	28.0	5	SATURATED LOOSE GRAY FINE SAND W/SOME COARSE SAND, TRACE OF SILT.
13	33.0	5	SATURATED MEDIUM DENSE GRAY FINE SAND W/SOME COARSE SAND, TRACE OF SILT AND FINE GRAVEL.
14	38.0	10	SATURATED MEDIUM DENSE BROWN FINE GRAVELLY COARSE TO FINE SAND W/TRACE OF SILT.
15	43.0	5	SATURATED VERY STIFF GRAY FINE SANDY CLAY W/SOME SILT, TRACE OF COARSE SAND AND ORGANIC MATTER.
16	48.0	6	SATURATED STIFF GRAY FINE SANDY SILT W/SOME COARSE SAND, TRACE OF ORGANIC MATTER.
	50.0		END OF BORING

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DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	NOT TO SCALE	BR 2-112B ON K112 BURRSVILLE ROAD OVER SAULSBURY DITCH	CONTRACT	BRIDGE NO.	2-112B	BORING LOGS	SHEET NO.	
					T201107208			DESIGNED BY: NED	8
					KENT			CHECKED BY: MJG	TOTAL SHTS.
								14	

ENVIRONMENTAL COMPLIANCE NOTES

1. GENERAL NOTES:

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

2. NATURAL RESOURCE ISSUES:

- A. PERMIT REQUIREMENTS/APPROVALS:
 - U.S. ARMY CORPS OF ENGINEERS (COE): *3 (a) AND (e) (NO PCN)
 - DNREC - WETLANDS & SUBAQUEOUS LANDS (WLSL): PROJECT CONSISTENT WITH DEL. CODE CH. 72, SECTION 7217 (b), AS AMENDED BY SB 186
 - DNREC - WATER QUALITY (WQC) & COASTAL ZONE CONSISTENCY (CZM): ISSUED (PROJECT IS NOT LOCATED IN CRW)
- * THE PERMITS/APPROVALS LISTED ARE THOSE REQUIRED FOR THIS PROJECT. THE ENVIRONMENTAL STUDIES SECTION IS RESPONSIBLE FOR COORDINATING AND/OR OBTAINING THIS APPROVAL.

- 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.

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ADDENDUMS / REVISIONS

NOT TO SCALE

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 NOTES

SHEET NO.	9
TOTAL SHTS.	14

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

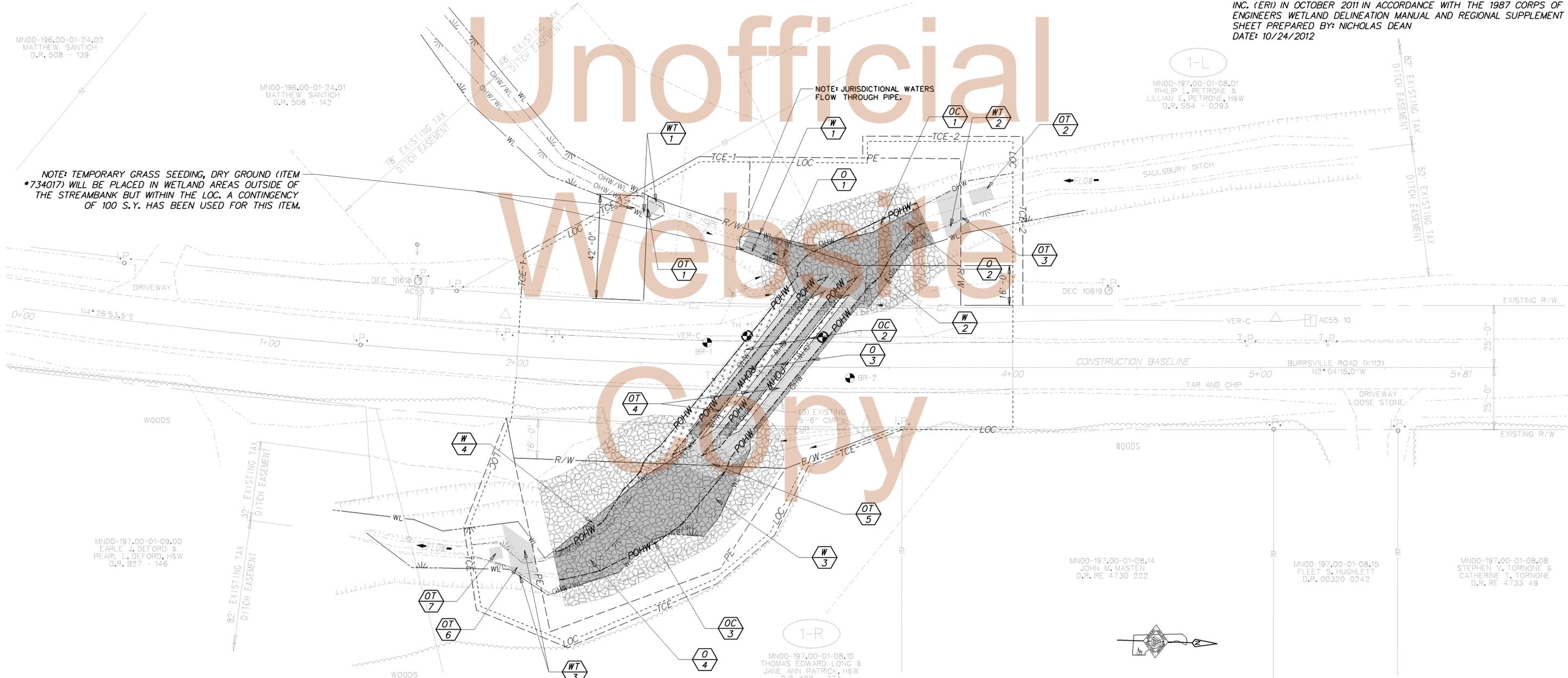
XX - IMPACT AREA TYPE ID. (SEE BELOW)

?X - 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

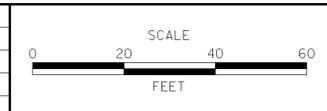


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E.C. SHEET 2 OF 2

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS



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

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

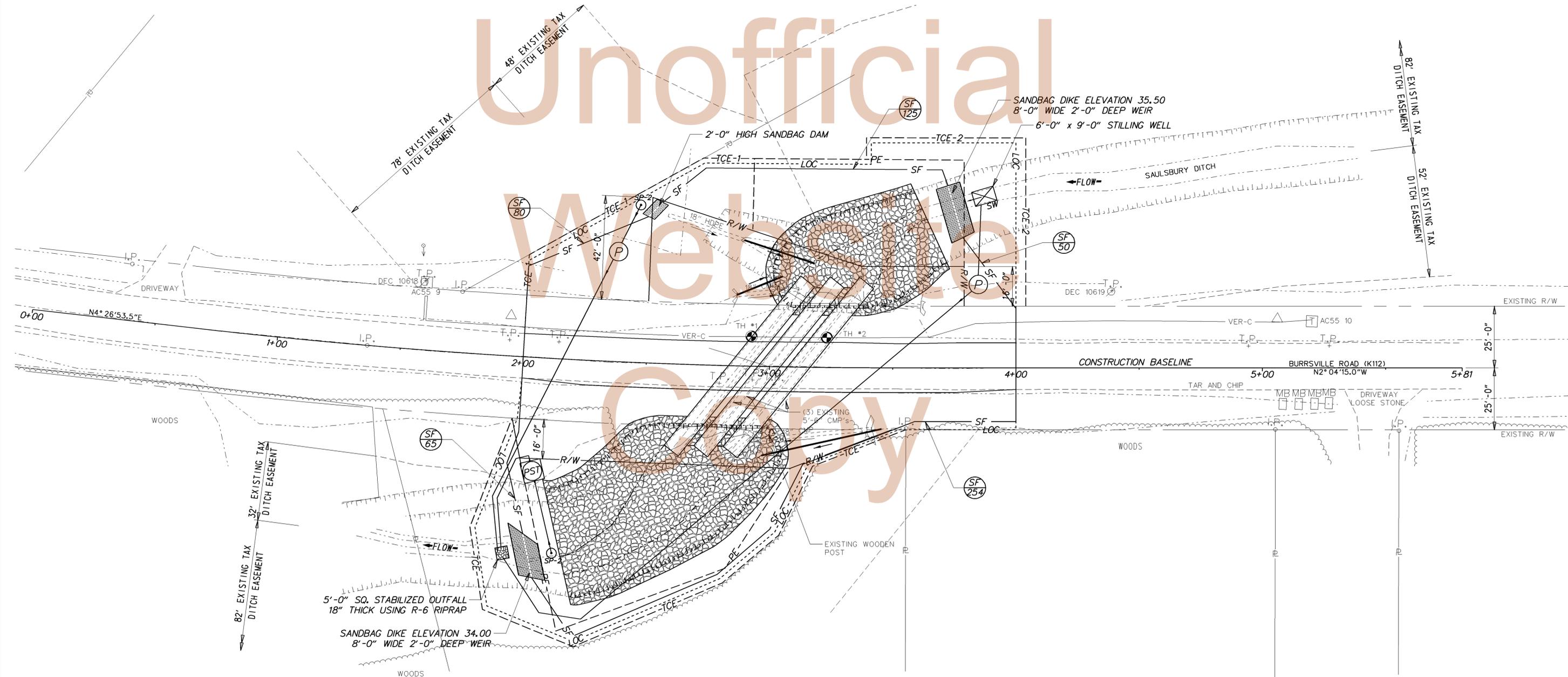
ENVIRONMENTAL COMPLIANCE PLAN	SHEET NO.	10
	TOTAL SHTS.	14

SEQUENCE OF CONSTRUCTION

- CLOSE BURRSVILLE ROAD IN ACCORDANCE WITH THE DETOUR PLAN.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- INSTALL (3) 6'-0" REINFORCED CONCRETE PIPES, RIPRAP, CHANNEL BED FILL, AND (3) 18" HDPE DRAINAGE PIPES AS NOTED.
- CONSTRUCT SLOPES, PLACE ANY REMAINING RIPRAP, AND COMPLETE ALL ROAD WORK.
- 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.
- REMOVE ALL MAINTENANCE OF TRAFFIC DEVICES.

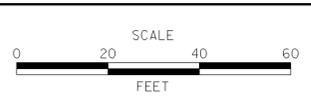


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ADDENDUMS / REVISIONS



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

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

CONSTRUCTION SEQUENCE & EROSION CONTROL PLAN

SHEET NO. 11
TOTAL SHTS. 14

CHANGEABLE MESSAGE BOARDS:

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

BURRSVILLE ROAD

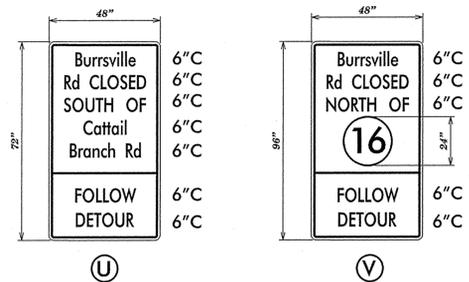
TO CLOSE STARTING XXXXXX

CMS-1 DURING DETOUR
(DISPLAY FOR 5 DAYS AFTER IMPLEMENTATION OF DETOUR)

BURRSVILLE ROAD

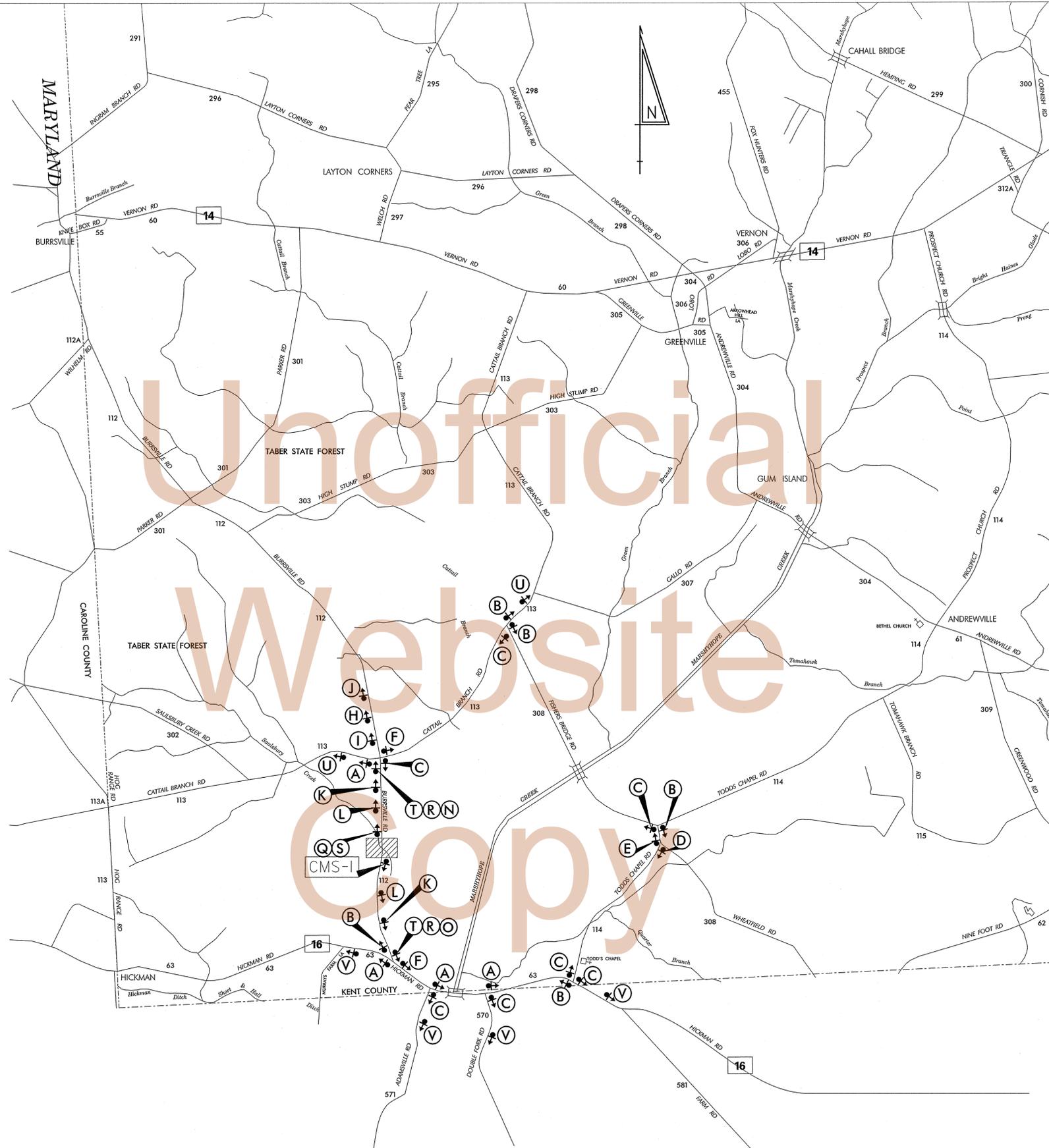
CLOSED FOLLOW DETOUR

SPECIAL SIGNS:

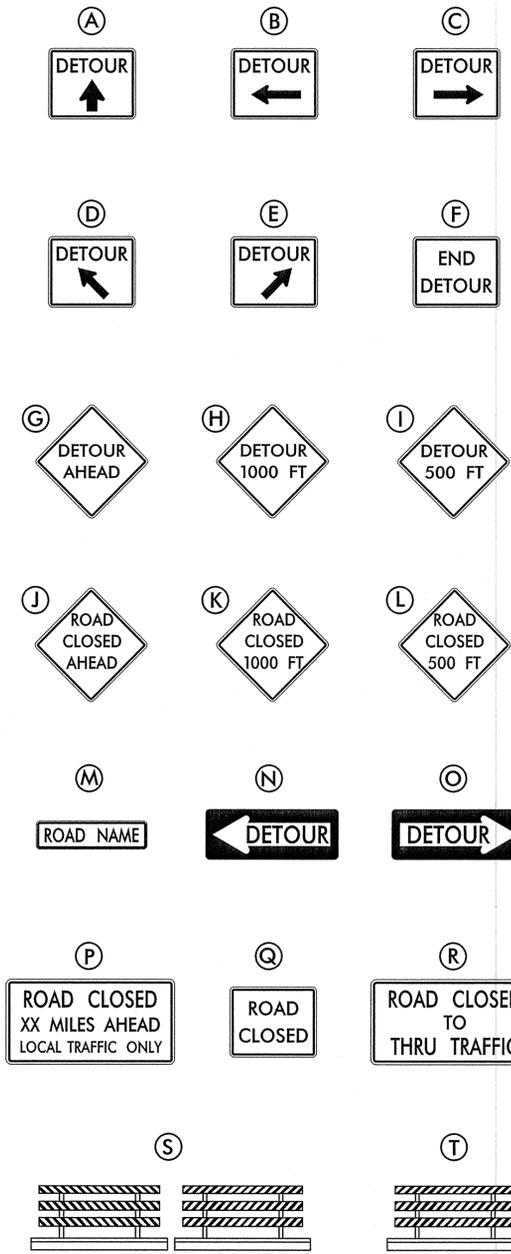


DG RETROREFLECTIVE FLUORESCENT ORANGE BACKGROUND; BLACK LEGEND

ROUTE SHIELD - WHITE BACKGROUND; BLACK LEGEND



LEGEND:



GENERAL NOTES:

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

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

RECOMMENDED *M...* DATE: 3-27-12 RECOMMENDED *J...* DATE: 3-28-12 RECOMMENDED _____ DATE: _____ APPROVED CHIEF SAFETY OFFICER *A...* DATE: 3-30-12 APPROVED TRAFFIC ENGINEER *A...* DATE: 4/2/12

<p>DELAWARE DEPARTMENT OF TRANSPORTATION</p>	ADDENDUM / REVISIONS	<p>NOT TO SCALE</p> <p>BR-112B ON K112 BURRSVILLE ROAD OVER SAULSBURY DITCH</p>	CONTRACT	ROAD NO.	<p>K112</p>	SHEET NO.
				T201107208		DESIGNED BY: MFR
			COUNTY	CHECKED BY: ASW		TOTAL SHTS.
			KENT			14

RECOMMENDED

Jessie Crawford / *Shelley Chubb* 4/25/13
 TEAM SUPPORT SQUAD MANAGER DATE

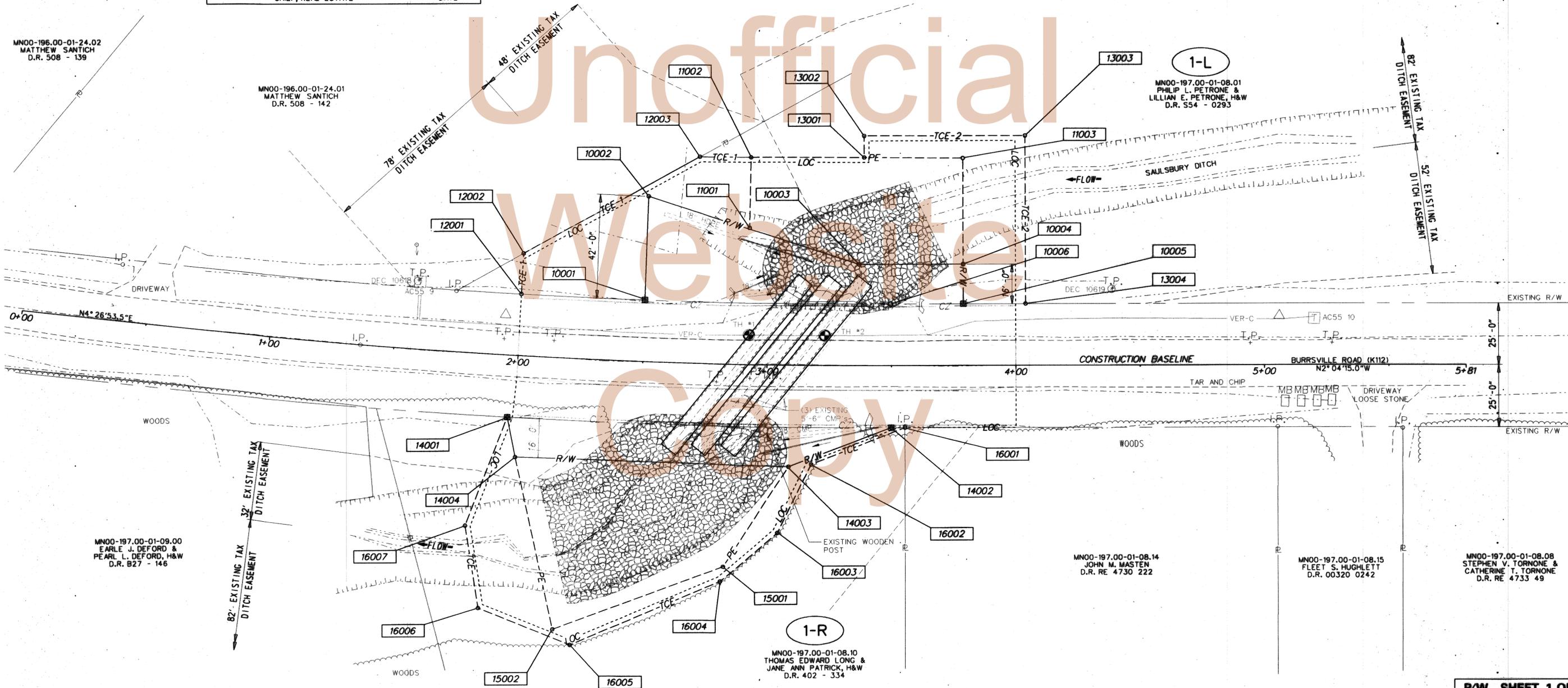
Hyun Sull 4-25-13
 TEAM SUPPORT ENGINEER DATE

Robert B. McLeary 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

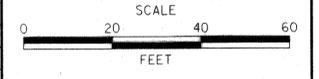


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R/W SHEET 1 OF 2



ADDENDUMS / REVISIONS	



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

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" W	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=ASSESSMENT	ACQUISITION CODE FEE, R/W, P/E, TCE	AREA TO BE ACQUIRED		PROPERTY AREA REMAINING (SQ. FEET /ACRES)	DEED RECORD OF ACQUISITION	REMARKS
						ACQUISITION (SQ. FEET /ACRES)	AREA OCCUPIED BY EXISTING RIGHT OF WAY (SQ. FEET /ACRES)			
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					
					TCE-1		3372.1949 / 0.08			
					TCE-2			2352.2855 / 0.05		
								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					
					TCE		4855.2482 / 0.11			
								2665.5081 / 0.06		654382.503 / 15.02

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

RIGHT-OF-WAY SHEET 2 OF 2

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