

GENERAL LOCATION OF CONTRACT

THE STATE OF DELAWARE DEPARTMENT OF TRANSPORTATION



CONSTRUCTION & RIGHT-OF-WAY PLANS FOR: BR 1-191 ON N318 MILLTOWN ROAD OVER MILL CREEK

CONTRACT NUMBER: T201407402
FEDERAL AID PROJECT NUMBER: EBHOS-N318(04)

COUNTY: NEW CASTLE M.R. #: N318

U.S. CUSTOMARY
UNITS

DESIGN DESIGNATION		
FUNCTIONAL CLASS: URBAN MINOR ARTERIAL	D.H.V. PROJECTED: 891	YEAR: 2040
TYPE OF CONSTRUCTION: DECK REPLACEMENT	DESIGN SPEED: 40 M.P.H.	
A.A.D.T. CURRENT: 11563	YEAR: 2011	TRUCKS: 7%
A.A.D.T. PROJECTED: 13500	YEAR: 2040	DIRECTION OF DISTRIBUTION: 60 %

INDEX OF SHEETS	
SHEET NO	TABLE OF CONTENTS
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17	RIGHT-OF-WAY PLAN

TOTAL SHEETS: 17

APPROVED DESIGN EXCEPTIONS

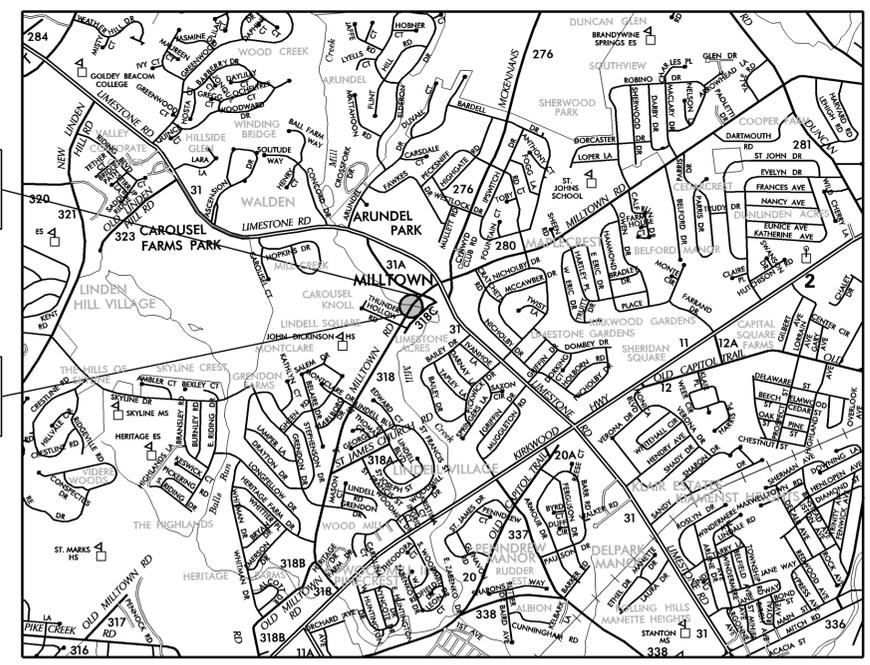
DESIGN PARAMETER	REQUIRED	PROVIDED	DATE

ADDENDA & REVISIONS

DESCRIPTION	NAME & DATE

ASSOCIATED CONTRACTS

CONTRACT NO.	CONTRACT NAME
1638	MILLTOWN ROAD (KIRKWOOD HIGHWAY TO NEWPORT GAP TURNPIKE)
8307401	BRIDGE 191, CATHODIC PROTECTION
8807406	BRIDGE NO'S 74-C, 191, 531, 634, AND 655 IN N.C. CO. SLOPE PAVING REPAIRS



END CONTRACT
STATION 19+36.41

BEGIN CONTRACT
STATION 10+27.44

RECOMMENDED

SQUAD MANAGER, CONSTRUCTION	DATE
GROUP ENGINEER, CONSTRUCTION	DATE
ASSISTANT DIRECTOR, TRANSPORTATION SOLUTIONS (CONSTRUCTION)	DATE

PRELIMINARY PLANS

<p>RECOMMENDED</p> <p>STORMWATER ENGINEER</p> <p>DATE _____ SEAL _____</p>	<p>RECOMMENDED</p> <p>SQUAD MANAGER, BRIDGE DESIGN</p> <p>DATE _____ SEAL _____</p>	<p>RECOMMENDED</p> <p>BRIDGE DESIGN ENGINEER</p> <p>DATE _____ SEAL _____</p>	<p>RECOMMENDED</p> <p>ASSISTANT DIRECTOR, BRIDGE</p> <p>DATE _____ SEAL _____</p>	<p>APPROVED</p> <p>CHIEF ENGINEER</p> <p>DATE _____ SEAL _____</p>
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LAST REVISED: 8/7/2008
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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	
	DELMARVA POWER - GAS
	DELMARVA POWER - ELECTRIC
	VERIZON
	COMCAST - CABLE
	COMCAST - FIBER OPTIC
	NEW CASTLE COUNTY - SEWER

CONSTRUCTION	
	CONCRETE SAFETY BARRIER - PERMANENT
	BIOFILTRATION SWALE
	BRICK PATTERNED SURFACE
	BUTT JOINT
	CONSTRUCTION BASELINE
	CONSTRUCTION SAFETY FENCE
	CURB, TYPE 1 & TYPE 3
	CURB, TYPE 2
	CURB & GUTTER, TYPE 1
	CURB & GUTTER, TYPE 2
	CURB & GUTTER, TYPE 3
	CURB & GUTTER, TYPE 4
	CLEAR ZONE
	DRAINAGE INLET
	DITCH
	FENCE - METAL
	FENCE - WOOD
	FLARED END SECTION
	GUARDRAIL, TYPE 1
	GUARDRAIL, TYPE 2
	GUARDRAIL, TYPE 3
	GUARDRAIL END ANCHORAGE
	GUARDRAIL END TREATMENT, TYPE 1
	GUARDRAIL END TREATMENT, TYPE 2
	GUARDRAIL END TREATMENT, TYPE 3
	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)	
	TBD
	TBD
	TBD

UTILITY COMPANY FACILITIES	
	DELAWARE ELECTRIC COOPERATIVE
	DP&L ELECTRIC
	VERIZON

EROSION & SEDIMENT CONTROL	
	DEWATERING BAG
	DEWATERING BASIN
	EARTH DIKE
	INLET SEDIMENT CONTROL
	PERIMETER DIKE/SWALE
	PORTABLE SEDIMENT TANK
	SANDBAG DIKE
	SANDBAG DIVERSION
	STONE CHECK DAM
	STABILIZED CONSTRUCTION ENTRANCE
	SILT FENCE / LENGTH
	SILT FENCE - 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: 01/08/2013
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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.
- 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 PRIOR TO THE EXECUTION OF THE CONTRACT. 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 PRIOR TO THE EXECUTION OF THE CONTRACT. 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.
() MEDIUM	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 PRIOR TO THE EXECUTION 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 AWARDED CONTRACTOR, INCLUDE:

()	NONE
()	ASCII DATA FILES WITH COORDINATES AND ELEVATIONS FOR PROPOSED POINTS AS SELECTED BY THE ENGINEER.
()	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.

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

()	CROSS SECTIONS
()	RIGHT-OF-WAY PLANS (WILL BE MADE AVAILABLE TO THE AWARDED CONTRACTOR)

- AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION (ATSSA) CERTIFIED TRAFFIC CONTROL SUPERVISOR REQUIREMENT FOR THIS PROJECT.

()	THE CONTRACTOR SHALL NOT BE REQUIRED TO HAVE AN ATSSA SUPERVISOR ASSIGNED TO THIS PROJECT.
()	THE CONTRACTOR SHALL HAVE AN ATSSA SUPERVISOR ASSIGNED TO THIS PROJECT. THE CONTRACTOR'S GENERAL SUPERINTENDENT FOR THIS PROJECT OR ANOTHER ATSSA CERTIFIED MEMBER OF THE CONTRACTOR'S PROJECT STAFF MAY BE THE ATSSA SUPERVISOR. PAYMENT FOR ATSSA SUPERVISOR IS INCIDENTAL TO ITEM 743000.
()	THE CONTRACTOR SHALL HAVE AN ATSSA SUPERVISOR ASSIGNED TO THIS PROJECT. THE ATSSA SUPERVISOR'S SOLE JOB SHALL BE SUPERVISION OF THE INSTALLATION, OPERATION AND MAINTENANCE OF TRAFFIC CONTROL DEVICES FOR THIS PROJECT. THE CONTRACTOR'S GENERAL SUPERINTENDENT FOR THIS PROJECT SHALL NOT BE THE ATSSA SUPERVISOR. PAYMENT FOR ATSSA SUPERVISOR SHALL BE PAID FOR UNDER ITEM 743031.

- THE DISTURBED AREA FOR THIS PROJECT IS ----- 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

- THE ENGINEER MAY REQUIRE THE CONTRACTOR TO EXCAVATE TEST PITS ALONG PROPOSED DRAINAGE RUNS, AT POINTS OF POSSIBLE UTILITY CONFLICTS, TO DETERMINE IF A CONFLICT EXISTS. ANY CONFLICTS SHALL BE COORDINATED BY THE CONTRACTOR, WITH THE ENGINEER AND THE UTILITY COMPANY INVOLVED. THE ENGINEER SHALL ULTIMATELY DETERMINE THE SOLUTION TO THE UTILITY CONFLICT. TEST HOLES SHALL BE MEASURED AND PAID FOR IN ACCORDANCE WITH ITEM 20B000 - EXCAVATION AND BACKFILL FOR PIPE TRENCHES, BUT ONLY TO THE ACTUAL DEPTH EXCAVATED.
- ITEMS TO BE REMOVED UNDER ITEM 211000 - REMOVAL OF STRUCTURES AND OBSTRUCTIONS SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:
 - EXISTING CONCRETE DECK AND CATHODIC SYSTEM
 - EXISTING APPROACH SLABS
 - EXISTING GUARDRAIL
 - EXISTING BRIDGE RAIL
 - EXISTING PARAPET
- 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 B21)
 - CRUSHED CONCRETE (PER STANDARD SPECIFICATION B21)
 - 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:

- MATERIAL MADE AVAILABLE WHEN MILLED ON THIS CONTRACT UNDER ITEM XXXXXX.
- 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.

E. 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 GENERATED UNDER ITEM 760502 - PAVEMENT MILLINGS, TAPER CUT MAY BE RECYCLED INTO HOT-MIX, UTILIZED FOR BASE COURSE OR DISPOSED OF BY THE CONTRACTOR TO AN APPROVED SITE. NO SEPARATE PAYMENT WILL BE MADE FOR TRANSPORTING MILLINGS ON SITE OR TO AN APPROVED DISPOSAL SITE.
- SHOULD THE CONTRACTOR ELECT TO TEMPORARILY STOCKPILE MILLINGS ON THE JOB SITE FOR LATER USE, ALL COSTS FOR STOCKPILING AND SUBSEQUENT REHANDLING SHALL BE INCIDENTAL TO ITEM 202000 - EXCAVATION AND EMBANKMENT.
- 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

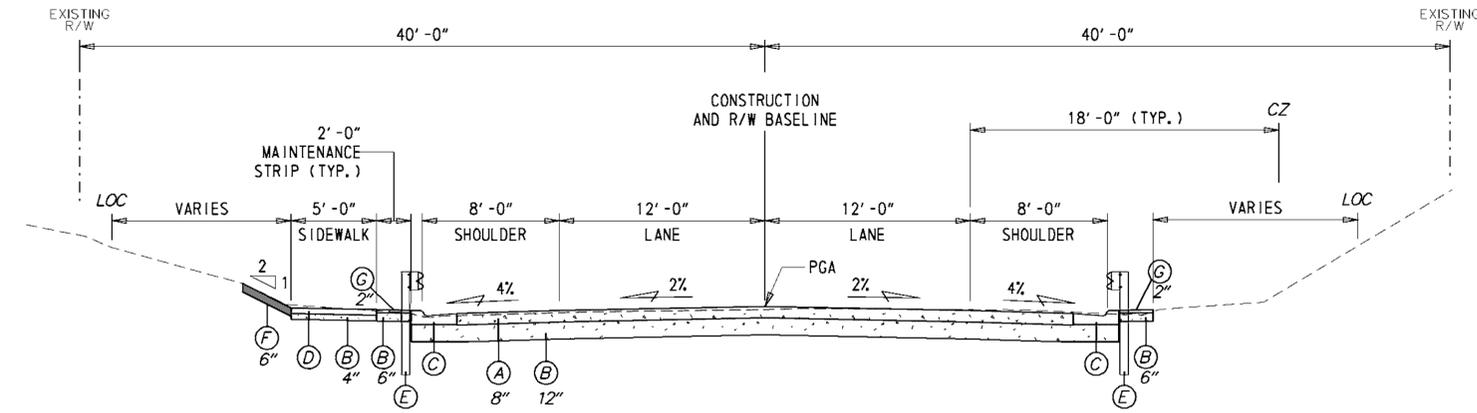
- THE DEPARTMENT AND THE CONTRACTOR SHALL INSPECT ALL EXISTING PIPES AND DRAINAGE STRUCTURES TO BE USED IN THE FINAL DRAINAGE SYSTEM AND AGREE ON THE CONDITION PRIOR TO THE START OF CONSTRUCTION. EXISTING PIPES AND DRAINAGE STRUCTURES DAMAGED DUE TO CONTRACTOR OPERATIONS SHALL BE REPAIRED OR REPLACED 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.
- BAR REINFORCEMENT
REINFORCING STEEL SHALL CONFORM TO AASHTO M31 (ASTM A615), GRADE 60. ALL REINFORCING STEEL SHALL HAVE A CLEAR COVER OF 2" MINIMUM UNLESS OTHERWISE SPECIFIED ON THE PLANS. ALL REINFORCING STEEL SHALL BE PROTECTED WITH EPOXY COATED REINFORCING CONFORMING TO M284 (ASTM D3963).
- PORTLAND CEMENT CONCRETE
SPECIFIED COMPRESSIVE STRENGTH @ 28 DAYS:
 - BARRIER 4.5 ksi (CLASS A)
 - BRIDGE DECK 4.5 ksi (CLASS D)
 - APPROACH SLAB 4.5 ksi (CLASS D)
 MIX REQUIREMENTS SHALL CONFORM TO SECTION B12 OF THE STANDARD SPECIFICATIONS. ALL EXPOSED EDGES SHALL BE CHAMFERED 3/4" UNLESS OTHERWISE NOTED. SLIP FORMING OF THE BARRIERS WILL NOT BE ALLOWED.

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.

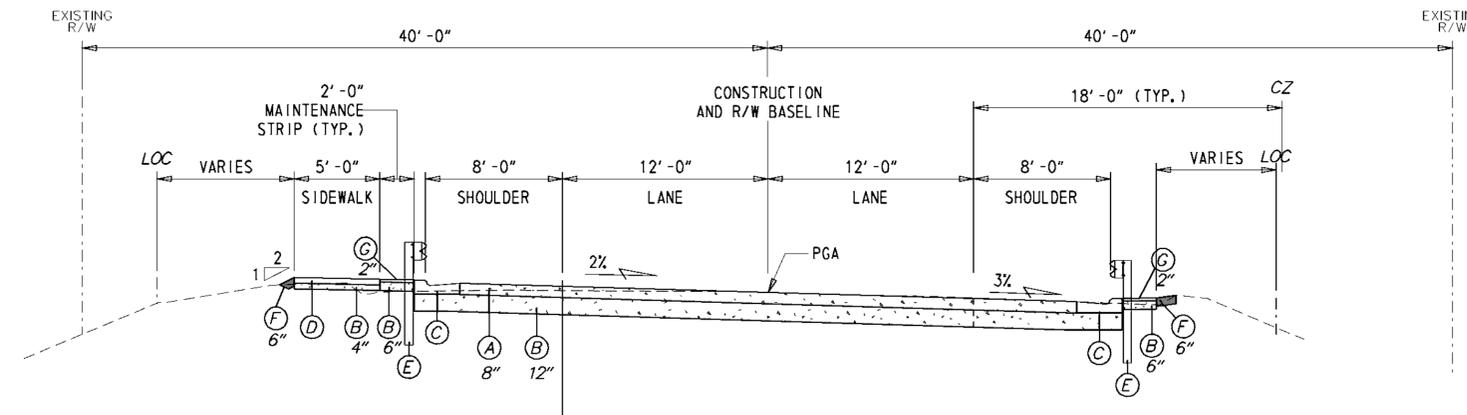
MISCELLANEOUS

- ENVIRONMENTAL COMPLIANCE
SEE ENVIRONMENTAL COMPLIANCE PLAN FOR FURTHER RESTRICTIONS/GUIDANCE ASSOCIATED WITH THIS PROJECT.
- UTILITIES
SEE THE UTILITIES STATEMENT AND UTILITY RELOCATION PLAN FOR UTILITIES INFORMATION.
- DESIGN CRITERIA
2012 AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 6th EDITION.
- LOADING
AASHTO HL-93 OR DELAWARE LEGAL LOAD FOR LIVE LOAD, 25 psf FOR FUTURE WEARING SURFACE.
- THE CONTRACTOR SHALL CONTACT MICHAEL ELLER, THE CHIEF OF SCHEDULING FOR DART FIRST STATE, 14 DAYS PRIOR TO THE START OF CONSTRUCTION AT 302-576-6061.



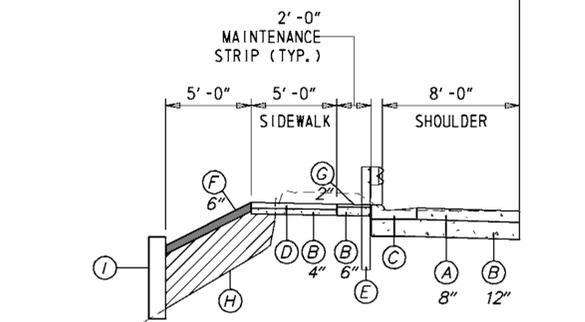
TYPICAL NORMAL SECTION

3/8" = 1'-0"



TYPICAL SUPERELEVATED SECTION

3/8" = 1'-0"



STATION 13+10.00 - 13+35.23
STATION 14+23.35 - 14+50.00

LEGEND

- (A) ITEM 501001 - PORTLAND CEMENT CONCRETE PAVEMENT, 8"
- (B) ITEM 302007- GRADED AGGREGATE BASE COURSE, TYPE B
- (C) ITEM 701016 - INTEGRAL P.C.C. CURB & GUTTER, TYPE 1-4
- (D) ITEM 705001 - P.C.C. SIDEWALK, 4"
- (E) ITEM 720050 - STEEL BEAM GUARDRAIL, TYPE 1-31
ITEM 720585 - GUARDRAIL END TREATMENT ATTENUATOR, TYPE 1-31
ITEM 725001 - GUARDRAIL TO BARRIER CONNECTION (EXIT TYPE 1-31)
- (F) ITEM 732004 - TOPSOIL
ITEM 734013 - PERM. GRASS SEEDING, DRY GROUND
- (G) ITEM 401801 - WMA, SUPERPAVE TYPE C, 160 GYRATIONS, PG 64-22 (CARBONATE STONE)
- (H) ITEM 209006 - BORROW, TYPE F
- (I) ITEM 602615 - MODULAR BLOCK RETAINING WALL

ADDENDUMS / REVISIONS

SCALE AS NOTED

**BR 1-191 ON N318
MILLTOWN ROAD OVER
MILL CREEK**

CONTRACT
T201407204
COUNTY
NEW CASTLE

BRIDGE NO.
1-191
DESIGNED BY: PFE
CHECKED BY: EM

TYPICAL SECTIONS

SHEET NO.
4
TOTAL SHTS.
17

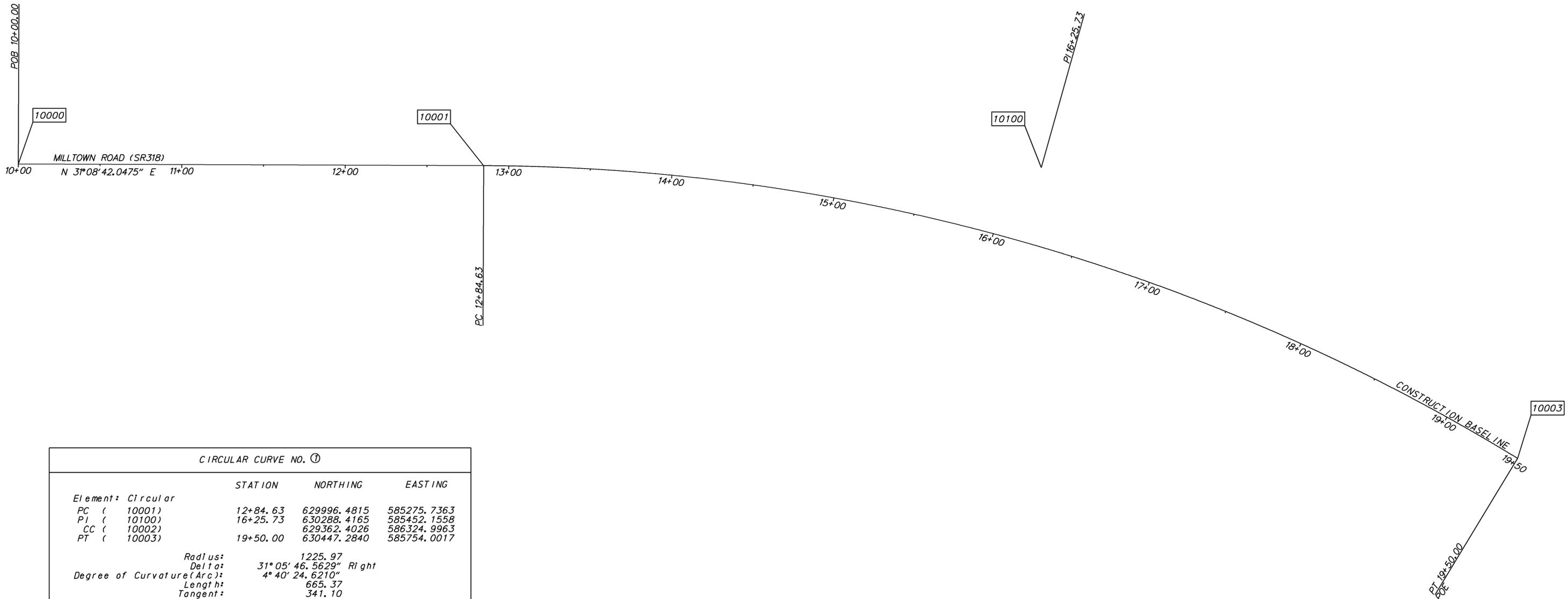
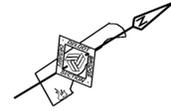
HORIZONTAL / VERTICAL CONTROL DATA					
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION
TP# 3	16+53.25	-35.61	630307.2201	585490.7696	99.37
TP# 4	15+14.80	-95.34	630247.1432	585345.1842	87.93
TP# 5	13+82.97	-53.96	630112.5052	585289.2972	83.32
TP# 6	13+04.19	-24.89	630028.8888	585267.7955	101.37
TP# 7	10+84.02	-24.36	629839.4521	585154.5034	111.88
TP# 9	10+71.67	30.94	629800.4221	585195.5794	112.55
TP# 10	13+13.68	27.05	630009.0085	585316.7126	100.34
TP# 11	13+98.12	60.95	630056.6825	585390.8705	82.62
TP# 12	15+81.60	198.13	630090.9517	585601.6247	86.26
TP# 13	19+32.23	116.73	630337.2055	585798.1085	108.02

CONSTRUCTION ALIGNMENT CONTROL				
POINT	STATION	OFFSET	NORTHING	EASTING
10000	10+00.00	0.00	629754.8642	585132.1953
10003	19+50.00	0.00	630451.4434	585755.2469

DATUM REFERENCE:

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

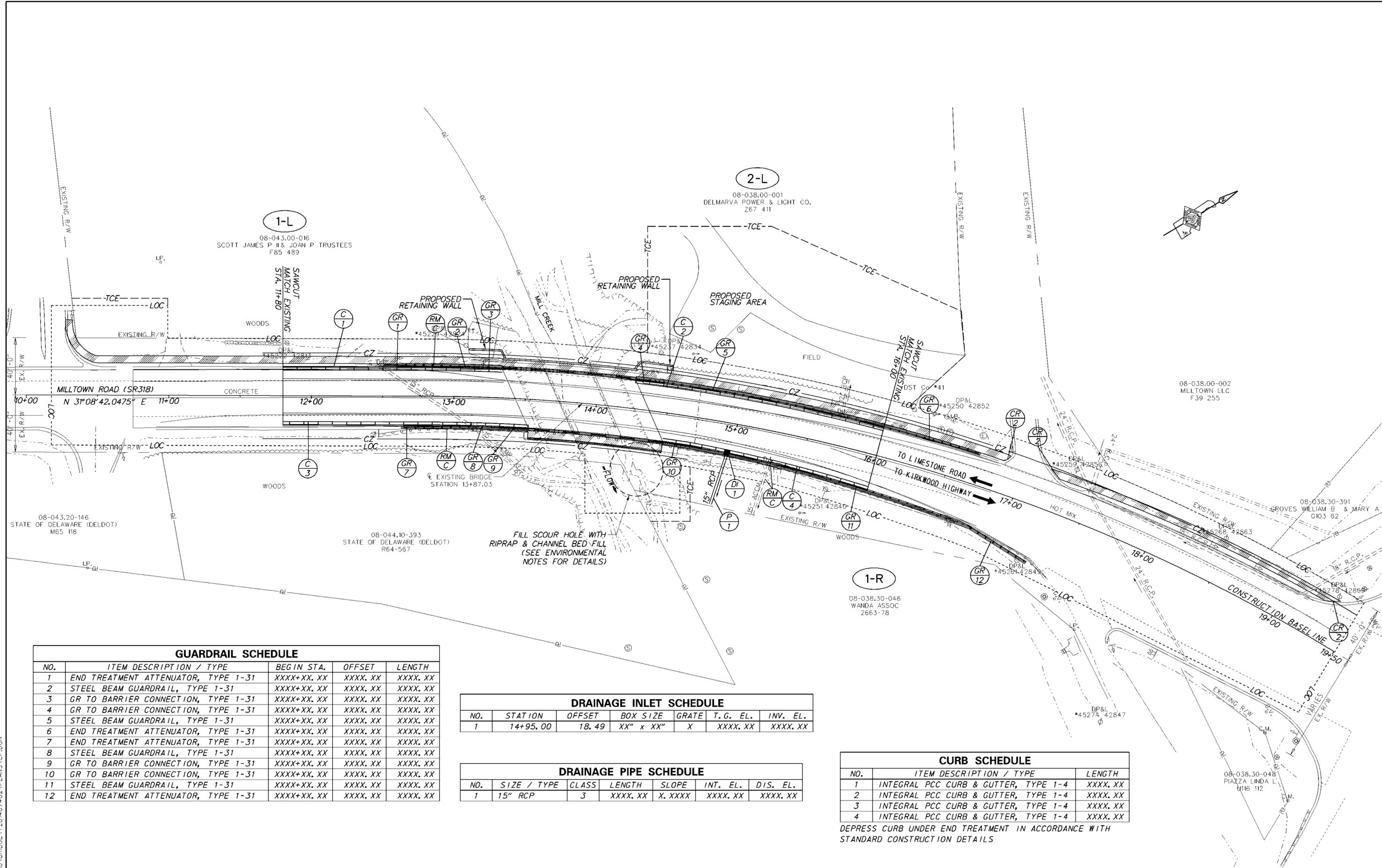
VERTICAL - THIS PROJECT IS REFERENCED TO NAVD 88 AND BASED ON THE FOLLOWING STATE OF DELAWARE BENCHMARKS ESTABLISHED BY THE DELAWARE DEPARTMENT OF TRANSPORTATION:
 GPS #630569.36N 585859.23E, ELEVATION 121.33
 GPS #630130.86N 586076.21E, ELEVATION 106.87



CIRCULAR CURVE NO. ①			
	STATION	NORTHING	EASTING
Element: Circular			
PC (10001)	12+84.63	629996.4815	585275.7363
PI (10100)	16+25.73	630288.4165	585452.1558
CC (10002)		629362.4026	586324.9963
PT (10003)	19+50.00	630447.2840	585754.0017
Radius:	1225.97		
Delta:	31° 05' 46.5629" Right		
Degree of Curvature (Arc):	4° 40' 24.6210"		
Length:	665.37		
Tangent:	341.10		
Chord:	657.24		
Middle Ordinate:	44.86		
External:	46.57		
Tangent Direction:	N 31° 08' 42.0475" E		
Radial Direction:	S 58° 51' 17.9525" E		
Chord Direction:	N 46° 41' 35.3289" E		
Radial Direction:	S 27° 45' 31.3896" E		
Tangent Direction:	N 62° 14' 28.6104" E		

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 DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	 SCALE FEET	BR 1-191 ON N318 MILLTOWN ROAD OVER MILL CREEK	CONTRACT	BRIDGE NO.	1-191	HORIZONTAL AND VERTICAL CONTROL	SHEET NO.	5
	T201407402			DESIGNED BY: PFE		TOTAL SHTS.		17	
	NEW CASTLE			CHECKED BY: EM					



GUARDRAIL SCHEDULE				
NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
1	END TREATMENT ATTENUATOR, TYPE 1-31	XXXX+XX.XX	XXXX.XX	XXXX.XX
2	STEEL BEAM GUARDRAIL, TYPE 1-31	XXXX+XX.XX	XXXX.XX	XXXX.XX
3	GR TO BARRIER CONNECTION, TYPE 1-31	XXXX+XX.XX	XXXX.XX	XXXX.XX
4	GR TO BARRIER CONNECTION, TYPE 1-31	XXXX+XX.XX	XXXX.XX	XXXX.XX
5	STEEL BEAM GUARDRAIL, TYPE 1-31	XXXX+XX.XX	XXXX.XX	XXXX.XX
6	END TREATMENT ATTENUATOR, TYPE 1-31	XXXX+XX.XX	XXXX.XX	XXXX.XX
7	END TREATMENT ATTENUATOR, TYPE 1-31	XXXX+XX.XX	XXXX.XX	XXXX.XX
8	STEEL BEAM GUARDRAIL, TYPE 1-31	XXXX+XX.XX	XXXX.XX	XXXX.XX
9	GR TO BARRIER CONNECTION, TYPE 1-31	XXXX+XX.XX	XXXX.XX	XXXX.XX
10	GR TO BARRIER CONNECTION, TYPE 1-31	XXXX+XX.XX	XXXX.XX	XXXX.XX
11	STEEL BEAM GUARDRAIL, TYPE 1-31	XXXX+XX.XX	XXXX.XX	XXXX.XX
12	END TREATMENT ATTENUATOR, TYPE 1-31	XXXX+XX.XX	XXXX.XX	XXXX.XX

DRAINAGE INLET SCHEDULE						
NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
1	14+95.00	18.49	XX" x XX"	X	XXXX.XX	XXXX.XX

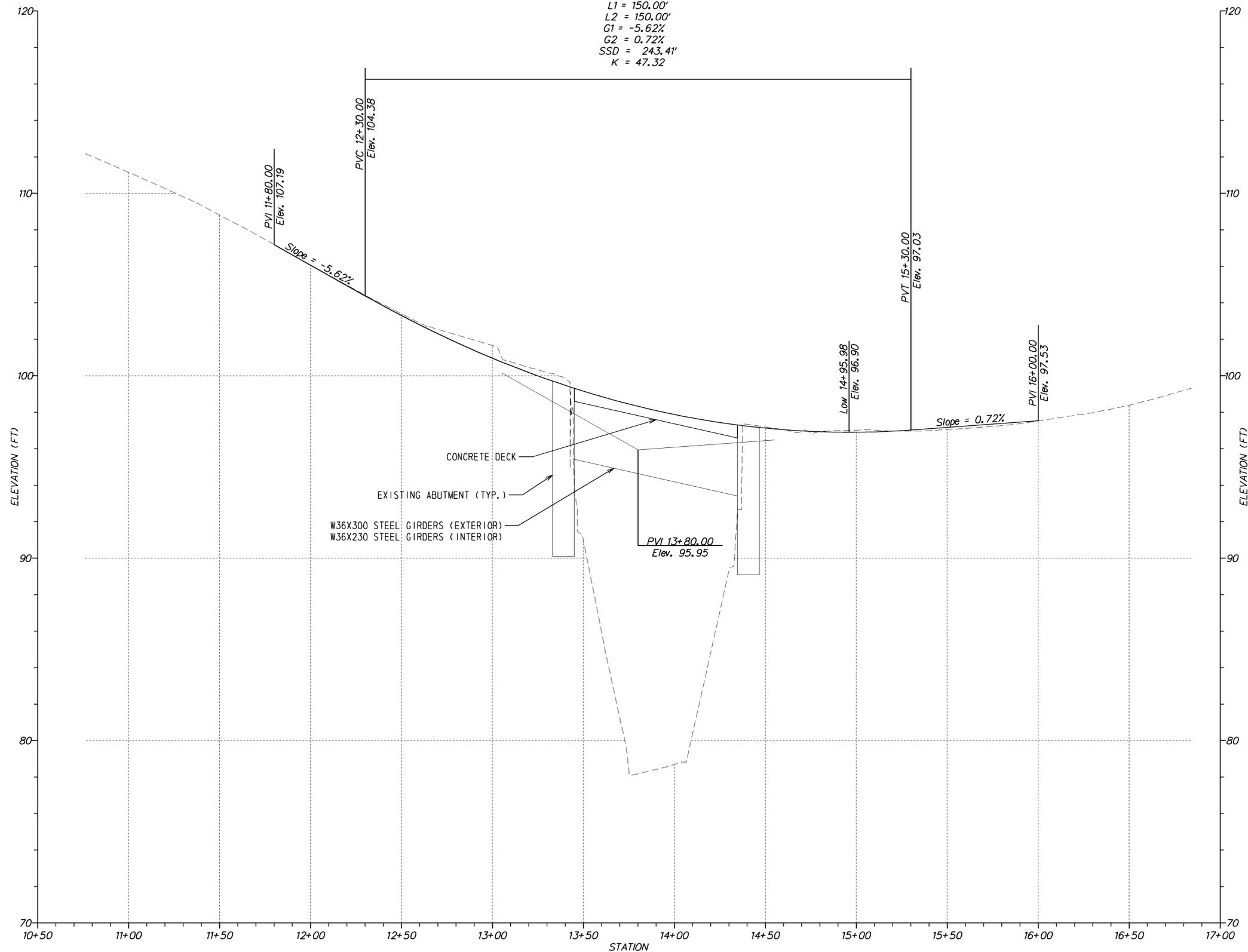
DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INT. EL.	DIS. EL.
1	15" RCP	3	XXXX.XX	X.XXXX	XXXX.XX	XXXX.XX

CURB SCHEDULE		
NO.	ITEM DESCRIPTION / TYPE	LENGTH
1	INTEGRAL PCC CURB & GUTTER, TYPE 1-4	XXXX.XX
2	INTEGRAL PCC CURB & GUTTER, TYPE 1-4	XXXX.XX
3	INTEGRAL PCC CURB & GUTTER, TYPE 1-4	XXXX.XX
4	INTEGRAL PCC CURB & GUTTER, TYPE 1-4	XXXX.XX

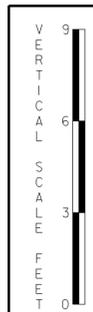
DEPRESS CURB UNDER END TREATMENT IN ACCORDANCE WITH STANDARD CONSTRUCTION DETAILS

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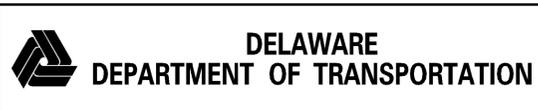
Type of Curve = Symmetric Parabola
 Direction = Sag
 Length = 300.00'
 L1 = 150.00'
 L2 = 150.00'
 G1 = -5.62%
 G2 = 0.72%
 SSD = 243.41'
 K = 47.32



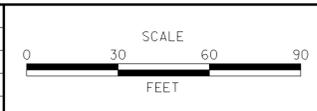
N318 - MILLTOWN ROAD



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ADDENDUMS / REVISIONS	

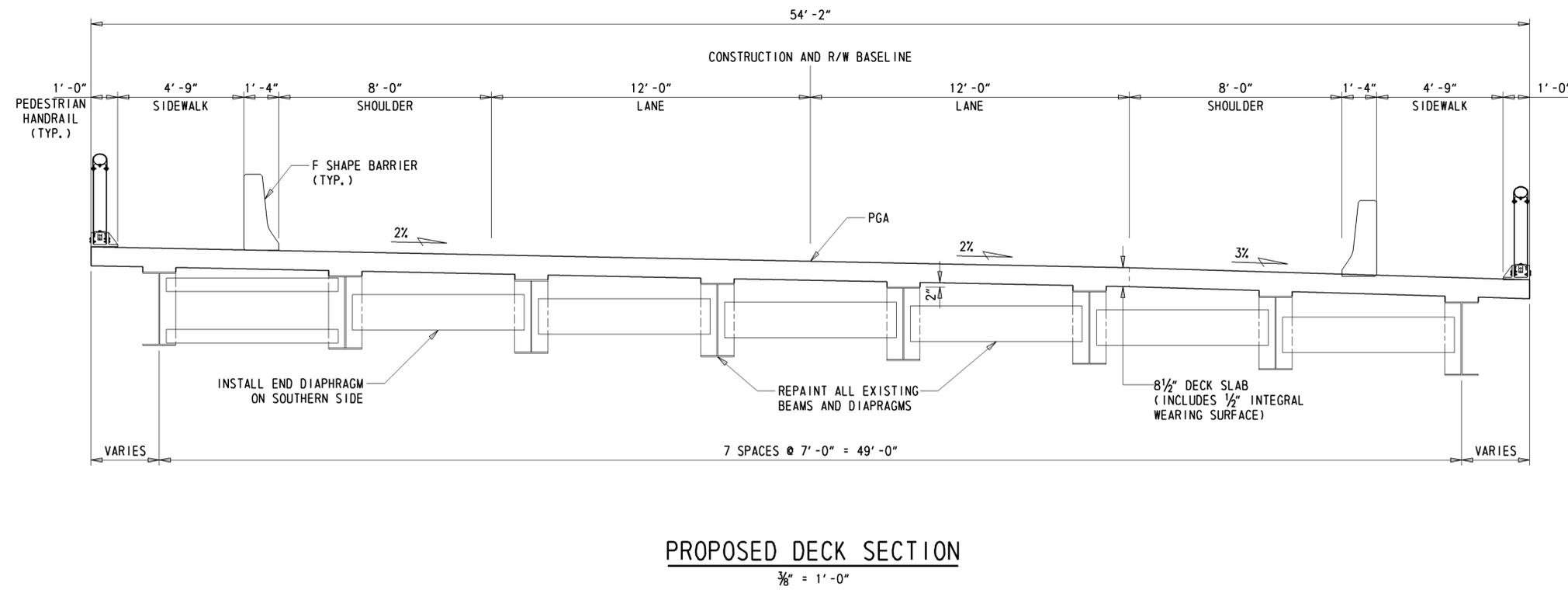
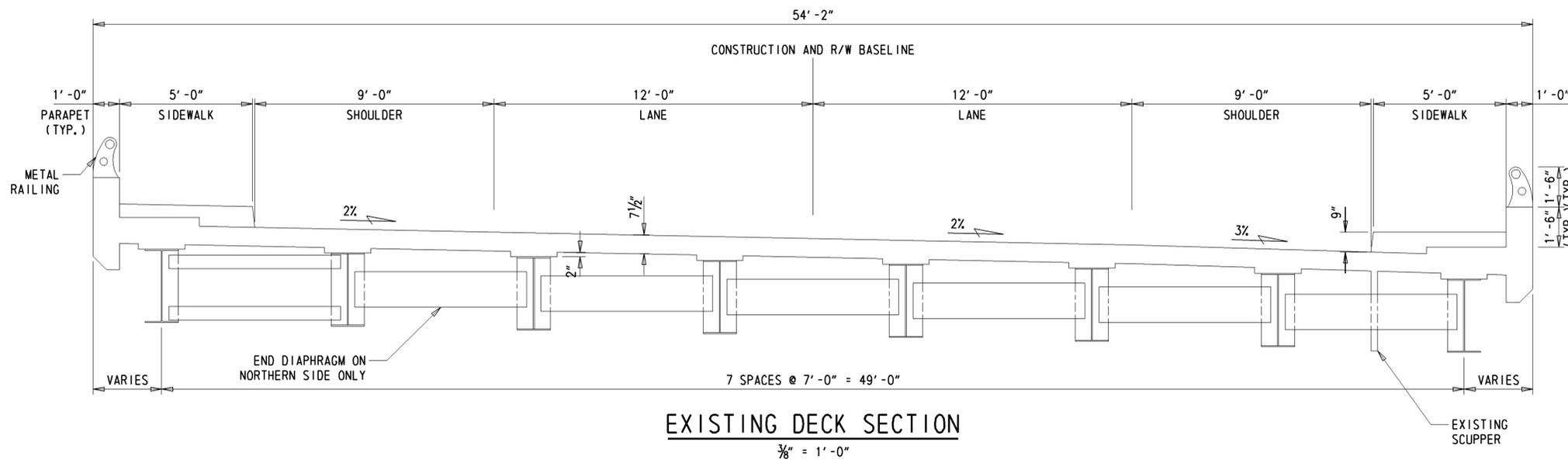


BR 1-191 ON N318
MILLTOWN ROAD OVER
MILL CREEK

CONTRACT T201407402	BRIDGE NO. 1-191
COUNTY NEW CASTLE	DESIGNED BY: PFE CHECKED BY: EM

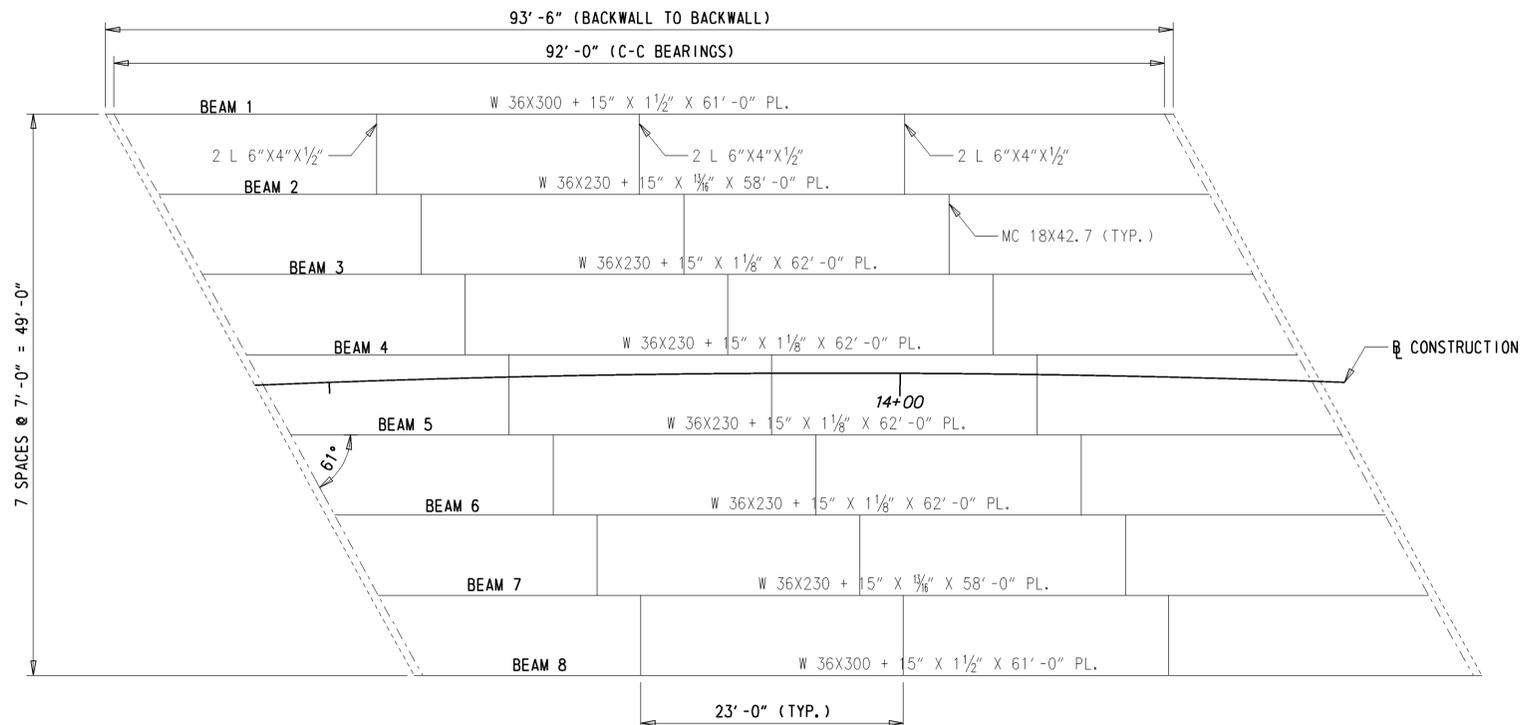
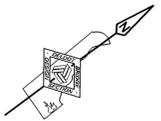
PROFILES

SHEET NO. 7
TOTAL SHTS. 17

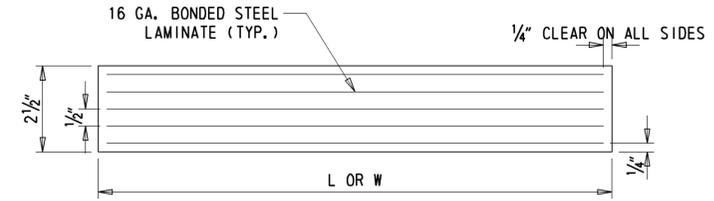


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DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE AS NOTED	BR 1-191 ON N318 MILLTOWN ROAD OVER MILL CREEK	CONTRACT	BRIDGE NO.	1-191	EXISTING AND PROPOSED DECK SECTION	SHEET NO.	9	
				DESIGNED BY: PFE	COUNTY	NEW CASTLE		CHECKED BY: EM	TOTAL SHTS.	17



FRAMING PLAN
1/8" = 1'-0"



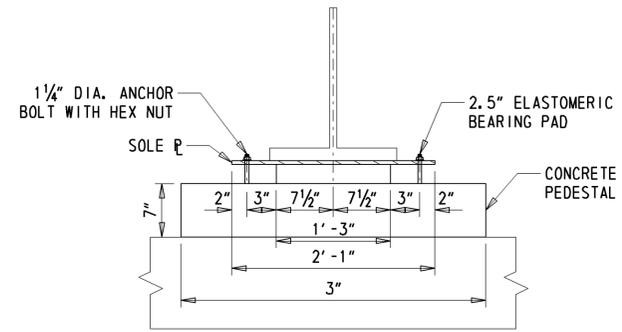
LAMINATED ELASTOMERIC PAD
N. T. S.

FRAMING PLAN NOTES:

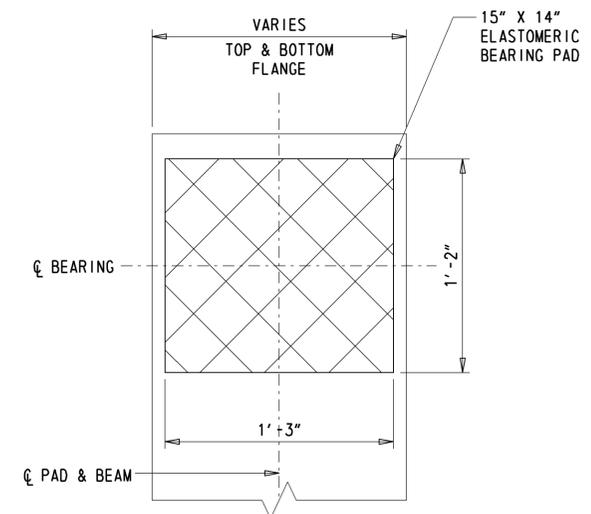
1. ALL STRUCTURAL STEEL IS TO CONFORM TO M270 GRADE 50 AND SHALL BE GALVANIZED. ANCHOR STUDS ARE TO BE AUTOMATIC END-WELDED (TYP.)

BEARING PAD:

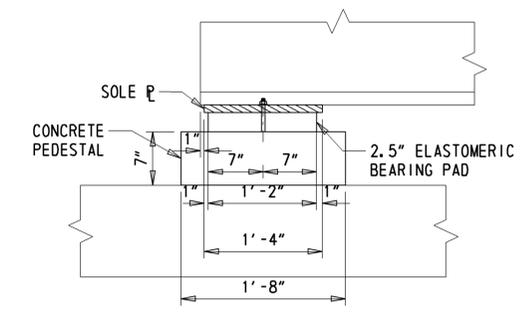
1. 8 TOTAL ELASTOMERIC BEARING PADS ARE REQUIRED.



BEARING ELEVATION
N. T. S.



BEARING PAD PLAN
N. T. S.



SIDE ELEVATION
N. T. S.

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<p>DELAWARE DEPARTMENT OF TRANSPORTATION</p>	ADDENDUMS / REVISIONS		SCALE AS NOTED	BR 1-191 ON N318 MILLTOWN ROAD OVER MILL CREEK	CONTRACT	BRIDGE NO.	1-191	FRAMING PLAN	SHEET NO.
					T201407402	DESIGNED BY: PFE			10
					COUNTY	CHECKED BY: EM			TOTAL SHTS.
					NEW CASTLE				17

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): -----
 DNREC - WETLANDS & SUBAQUEOUS LANDS (WLSL): -----
 DNREC - WATER QUALITY (WQC) & COASTAL ZONE CONSISTENCY (CZM): -----

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

B. CONSTRUCTION RESTRICTIONS:

FISHERIES - -----
 ENDANGERED SPECIES - -----
 MIGRATORY BIRDS - -----

3. CULTURAL RESOURCE ISSUES:

A. -----

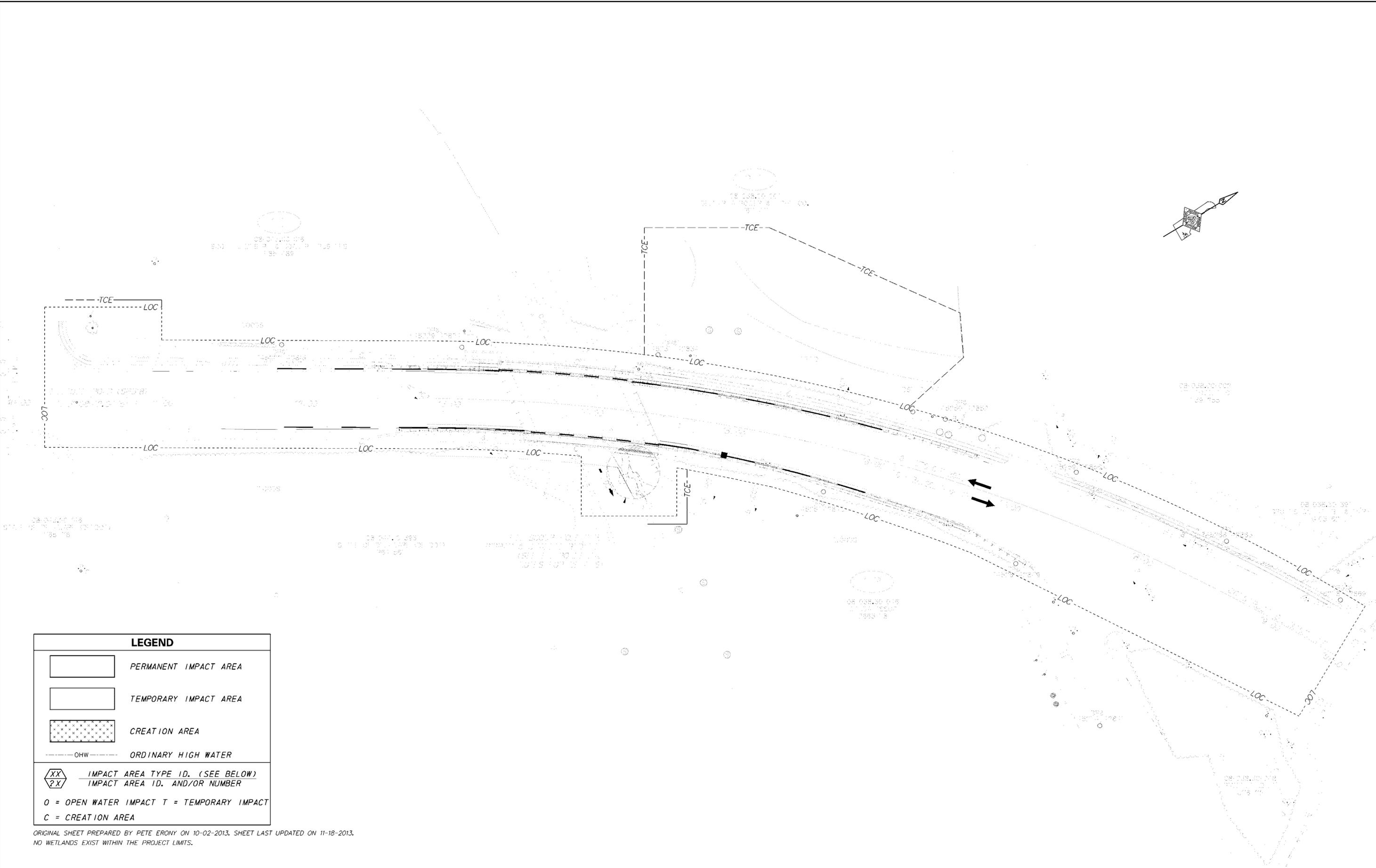
4. STREAM RESTORATION AND SLOPE RIPRAP TREATMENT

- 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. 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 12" CHANNEL BED FILL TO MATCH EXISTING ELEVATIONS. 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 AND MULCHED WITH SOIL RETENTION BLANKET MULCH, TYPE 3 (ITEM 735533). 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. SEEDING SHALL BE PERMANENT GRASS SEEDING WET GROUND (ITEM NO. 734015) FROM STREAM BASE FLOW ELEVATION TO 2' UP THE SLOPE AND PERMANENT GRASS SEEDING DRY GROUND (ITEM NO. 734013) ON THE REMAINING SLOPE. ALL WORK, STARTING WITH THE INITIAL CHOKING WITH TOPSOIL THROUGH THE SEEDING AND MULCHING, SHALL BE COMPLETED PRIOR TO ANY RAIN EVENT. PAYMENT FOR RIPRAP AND DELAWARE #57 STONE SHALL BE INCIDENTAL TO THE RIPRAP ITEM. ALL OTHER ITEMS SHALL BE PAID FOR UNDER THEIR RESPECTIVE ITEMS.

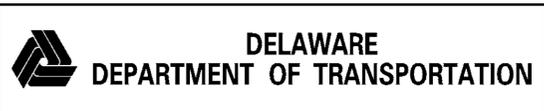
LAST REVISED: 03/22/2011
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 DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS		BR 1-191 ON N318 MILLTOWN ROAD OVER MILL CREEK	CONTRACT	BRIDGE NO.	1-191	ENVIRONMENTAL NOTES	SHEET NO.
				T201407402	DESIGNED BY: PFE			11
				COUNTY	CHECKED BY: EM			TOTAL SHTS.
				NEW CASTLE				17

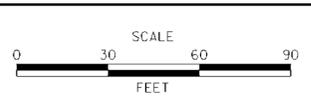
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ORIGINAL SHEET PREPARED BY PETE ERONY ON 10-02-2013. SHEET LAST UPDATED ON 11-18-2013.
NO WETLANDS EXIST WITHIN THE PROJECT LIMITS.



ADDENDUMS / REVISIONS

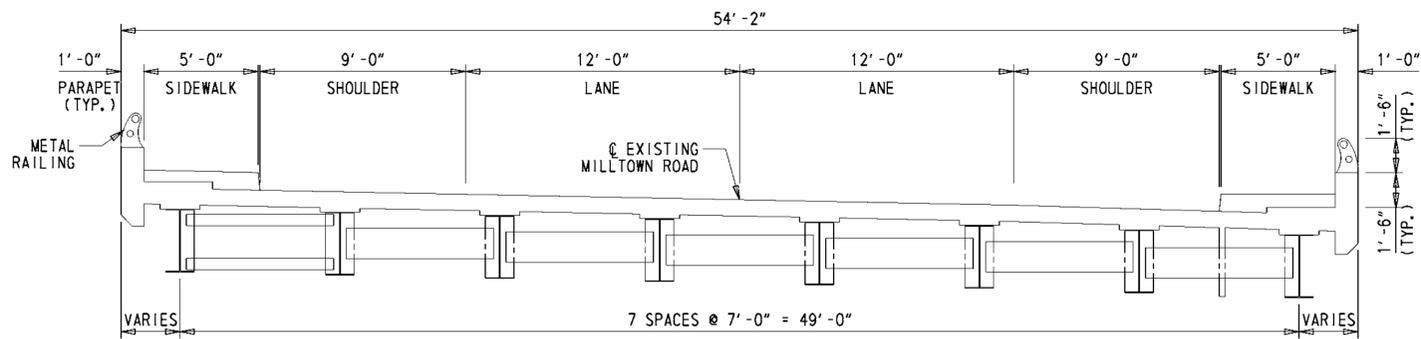


**BR 1-191 ON N318
MILLTOWN ROAD OVER
MILL CREEK**

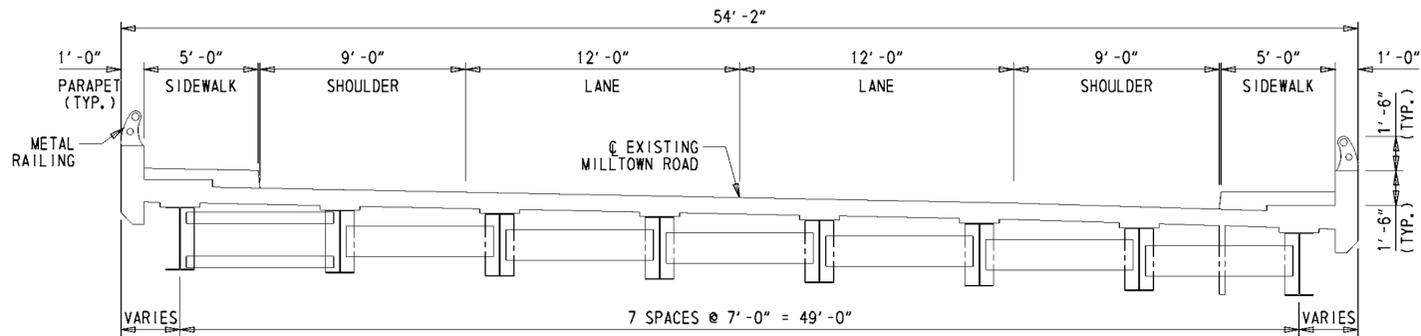
CONTRACT T201407402	BRIDGE NO. 1-191
COUNTY NEW CASTLE	DESIGNED BY: PFE CHECKED BY: EM

**ENVIRONMENTAL
COMPLIANCE PLAN**

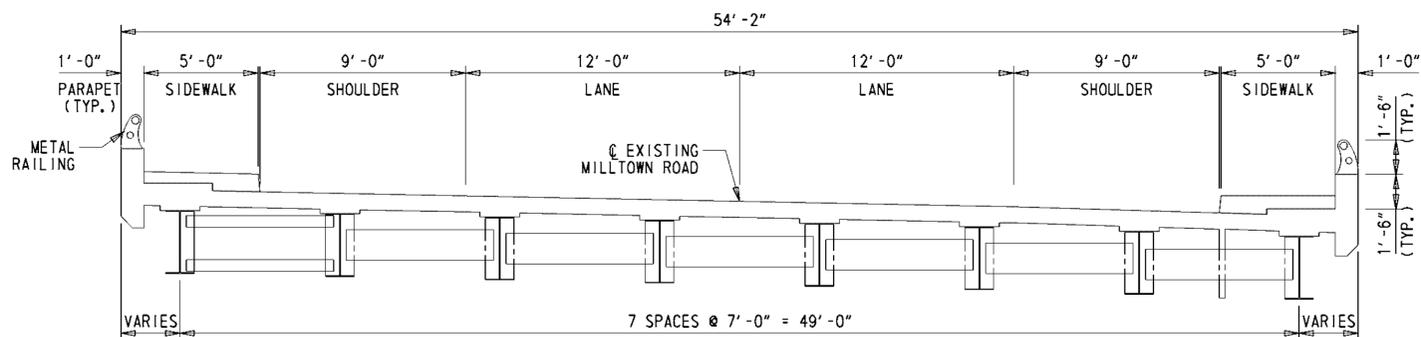
SHEET NO. 12
TOTAL SHTS. 17



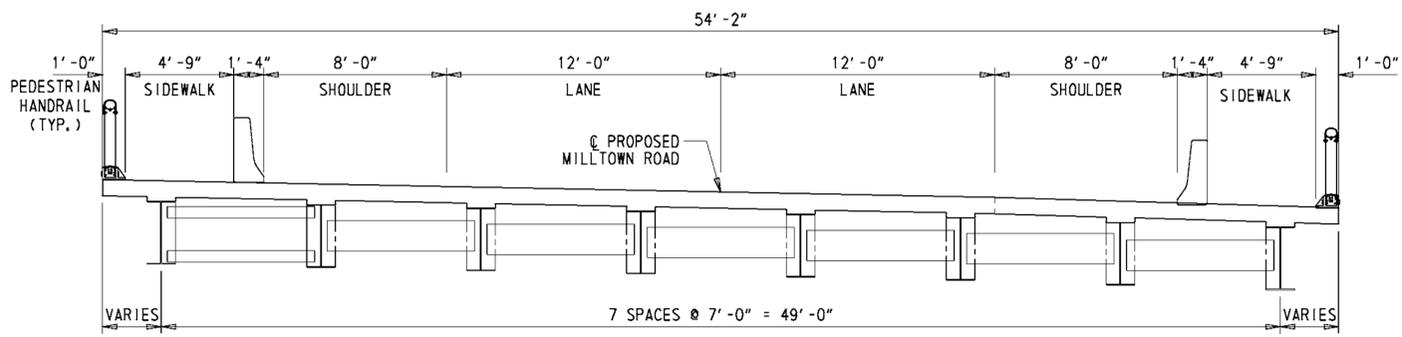
EXISTING



PHASE 1



PHASE 2



FINAL

SEQUENCE OF REHABILITATION WORK

- PHASE 1:**
1. REPAIR SLOPE PROTECTION ON NORTHERN ABUTMENT.
 2. INSTALL DIAPHRAGMS ON SOUTHERN SIDE OF BRIDGE.
 3. JACK BRIDGE AND REPLACE BEARINGS UNDER THE SOUTHERN BEAM SUPPORTS. CLEAN AND GREASE BEARINGS UNDER THE NORTHERN BEAM SUPPORTS.
 4. FILL SCOUR HOLE ON EASTERN SIDE OF THE BRIDGE.

- PHASE 2:**
1. SET UP MAINTENANCE OF TRAFFIC PATTERN FOR PHASE 2 CONSTRUCTION IN ACCORDANCE WITH DETOUR PLAN.
 2. REMOVE EXISTING DECK SLAB, APPROACH SLABS, GUARDRAIL, SIDEWALKS, CURB, AND PARAPETS.
 3. CONSTRUCT PROPOSED DECK SLAB, APPROACH SLABS, SIDEWALKS, AND PEDESTRIAN RAILINGS.
 4. REPLACE ROAD SIGNS IN ACCORDANCE WITH SIGNING AND STRIPING PLAN.

- PHASE 3:**
1. REPAINT ALL EXISTING BEAMS AND DIAPHRAGMS.
 2. CONSTRUCT PROPOSED SIDEWALK

- NOTE:**
1. CONTRACTOR SHALL TAKE CARE TO NOT DAMAGE BEAMS DURING CONSTRUCTION. ANY DAMAGE DONE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
 2. DIAPHRAGM SHOWN IN EXISTING DECK IS ON NORTHERN SIDE OF THE BRIDGE ONLY. PHASE ONE IS SHOWING INSTALLATION OF END DIAPHRAGM ON SOUTHERN END, LOOKING UPSTATION

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PORTABLE CHANGEABLE MESSAGE SIGNS

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

PCMS-1

MILLTOWN ROAD TO CLOSE

STARTING
XXXXXX

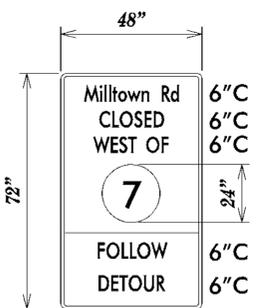
DURING DETOUR
(DISPLAY FOR 5 DAYS AFTER IMPLEMENTATION OF DETOUR)

PCMS-2

MILLTOWN RD WEST OF DE 7

CLOSED FOLLOW DETOUR

SPECIAL SIGNS

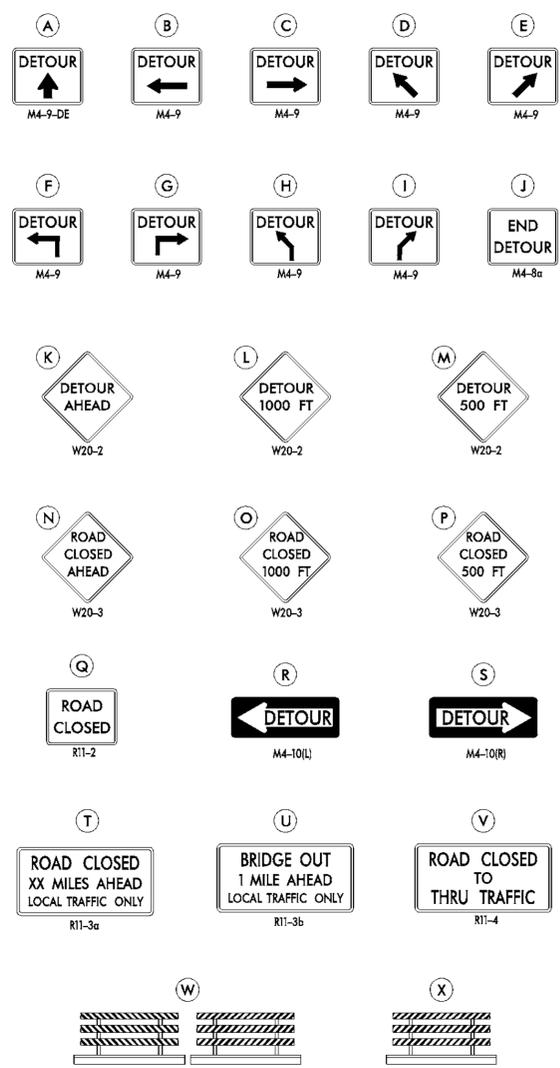


*DG RETROREFLECTIVE FLUORESCENT ORANGE BACKGROUND; BLACK LEGEND

*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 WITH "THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (DE MUTCD.)
- THE CONTRACTOR SHALL COMPLY WITH GUIDELINES IN "THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (DE MUTCD PART 6) FOR BARRICADES AND SIGNS (AS PER LATEST REVISION.)
- DESIGN OF ALL SIGNS SHALL BE IN ACCORDANCE WITH THE FHWA STANDARD HIGHWAY SIGNS BOOK.
- SIZES OF ALL SIGNS SHALL BE IN ACCORDANCE WITH "THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (DE MUTCD.) SIZE OF SIGN SHALL BE BASED ON TYPE OF ROADWAY ON WHICH THE SIGN IS INSTALLED.
- SIGNS NO LONGER IN USE SHALL BE COMPLETELY COVERED WITH NO RETROREFLECTIVE MATERIAL SHOWING, OR SHALL BE REMOVED, AS DIRECTED BY THE ENGINEER.
- FIELD CONDITIONS MAY DICTATE CHANGES AT SOME TIME DURING THE LIFE OF THE CONTRACT. IN THE EVENT OF OMISSIONS OR CORRECTIONS, THE SIGNING PROVISIONS OF "THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (DE MUTCD) WILL PREVAIL.
- SIGNS "N" THROUGH "O" AND "T" AND "V", THE WORD "ROAD" SHOULD BE CHANGED TO "RAMP", "RR XING", OR "BRIDGE" WHERE APPLICABLE.
- WARNING SIGNS AND DETOUR TRAILBLAZERS SHALL BE MOUNTED ON BREAKAWAY POSTS AND HAVE RETROREFLECTIVE FLUORESCENT ORANGE SHEETING.
- "W" BARRICADES SHALL COMPLETELY RUN THE FULL WIDTH OF THE ROADWAY.
- BARRICADES SHALL BE A MINIMUM OF 6 FEET WIDE UNLESS DIRECTED BY THE ENGINEER.

RECOMMENDED _____ DATE: _____



RECOMMENDED	DATE:

NOT TO SCALE

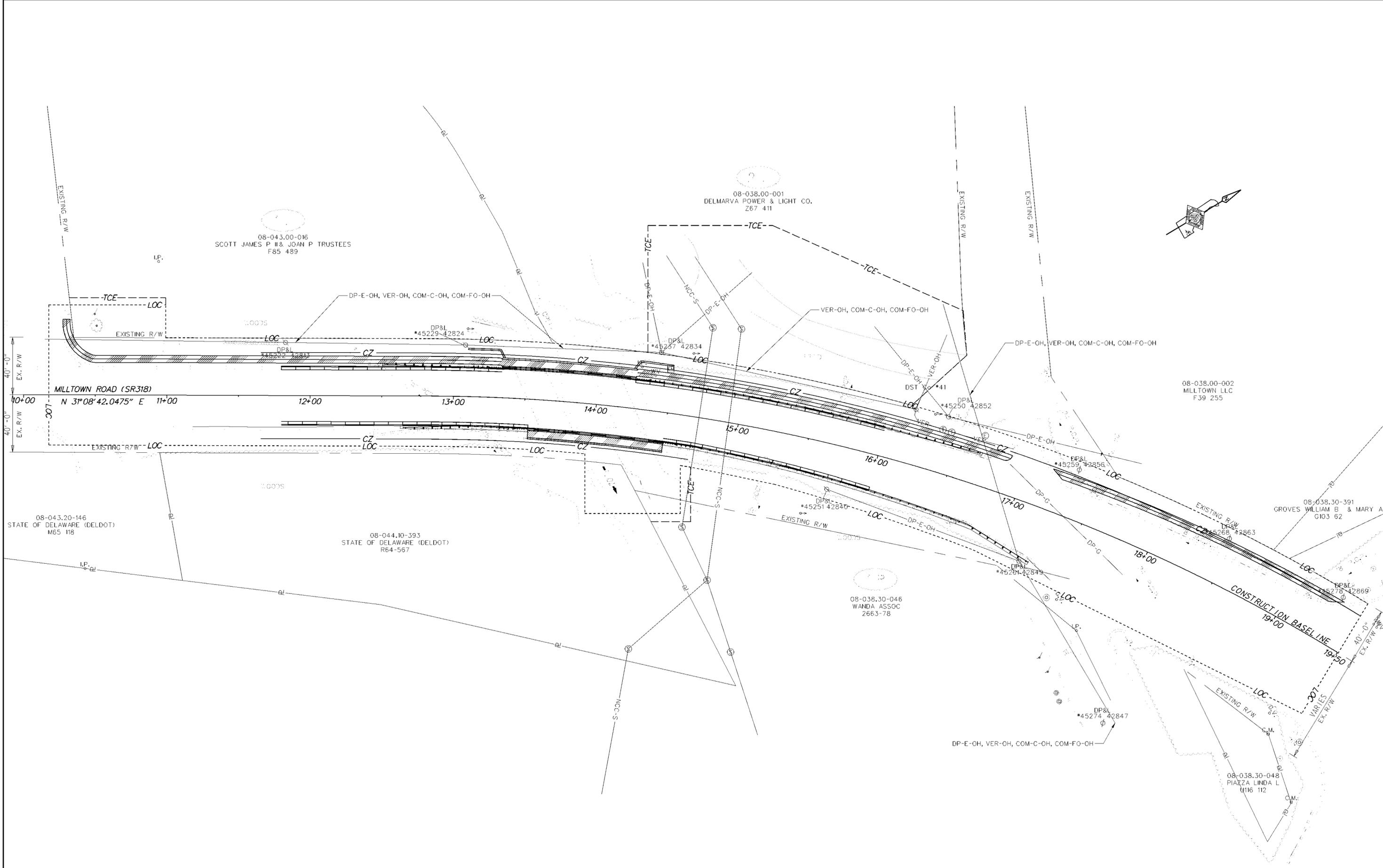
**BR 1-191 ON N318
MILLTOWN ROAD OVER
MILL CREEK**

CONTRACT	ROAD NO.	N318
T201407402	DESIGNED BY:	MFR
COUNTY	CHECKED BY:	ASW
NEW CASTLE		

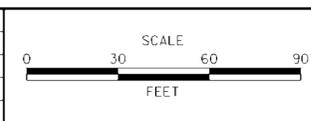
APPROVED TRAFFIC ENGINEER _____	DATE: _____
DETOUR PLAN	SHEET NO. 14
	TOTAL SHTS. 17

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ADDENDUMS / REVISIONS	

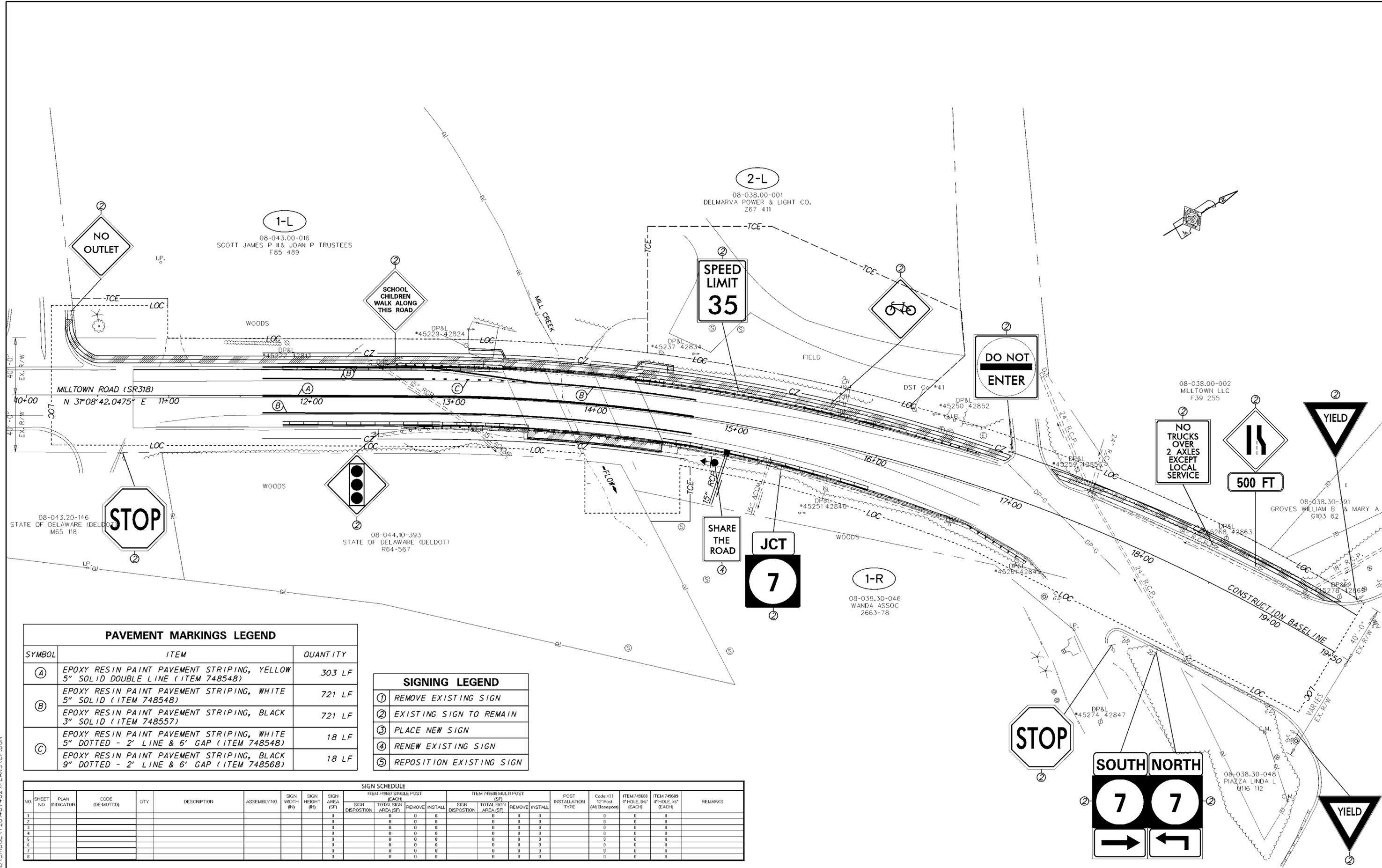


BR 1-191 ON N318
MILLTOWN ROAD OVER
MILL CREEK

CONTRACT T201407402	BRIDGE NO. 1-191
COUNTY NEW CASTLE	DESIGNED BY: PFE
	CHECKED BY: EM

UTILITY RELOCATION PLAN

SHEET NO. 15
TOTAL SHTS. 17



PAVEMENT MARKINGS LEGEND

SYMBOL	ITEM	QUANTITY
(A)	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID DOUBLE LINE (ITEM 748548)	303 LF
(B)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" SOLID (ITEM 748548)	721 LF
	EPOXY RESIN PAINT PAVEMENT STRIPING, BLACK 3" SOLID (ITEM 748557)	721 LF
(C)	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" DOTTED - 2' LINE & 6' GAP (ITEM 748548)	18 LF
	EPOXY RESIN PAINT PAVEMENT STRIPING, BLACK 9" DOTTED - 2' LINE & 6' GAP (ITEM 748568)	18 LF

SIGNING LEGEND

- ① REMOVE EXISTING SIGN
- ② EXISTING SIGN TO REMAIN
- ③ PLACE NEW SIGN
- ④ RENEW EXISTING SIGN
- ⑤ REPOSITION EXISTING SIGN

SIGN SCHEDULE

NO.	SHEET NO.	PLAN INDICATOR	CODE (DE MUTCD)	QTY	DESCRIPTION	ASSEMBLY NO.	SIGN WIDTH (ft)	SIGN HEIGHT (ft)	SIGN AREA (sq ft)	ITEM 74987 SINGLE POST (EACH)				ITEM 74989 MULTIPOST (SP)				POST INSTALLATION TYPE	Code X11 (W) (Basepost)	ITEM 74988 4" HOLE, 6"x4" (EACH)	ITEM 74989 4" HOLE, 36"x4" (EACH)	REMARKS
										SIGN DISPOSITION	TOTAL SIGN AREA (sq ft)	REMOVE	INSTALL	SIGN DISPOSITION	TOTAL SIGN AREA (sq ft)	REMOVE	INSTALL					
1																						
2																						
3																						
4																						
5																						
6																						
7																						
8																						

ADDENDUMS / REVISIONS



**BR 1-191 ON N318
MILLTOWN ROAD OVER
MILL CREEK**

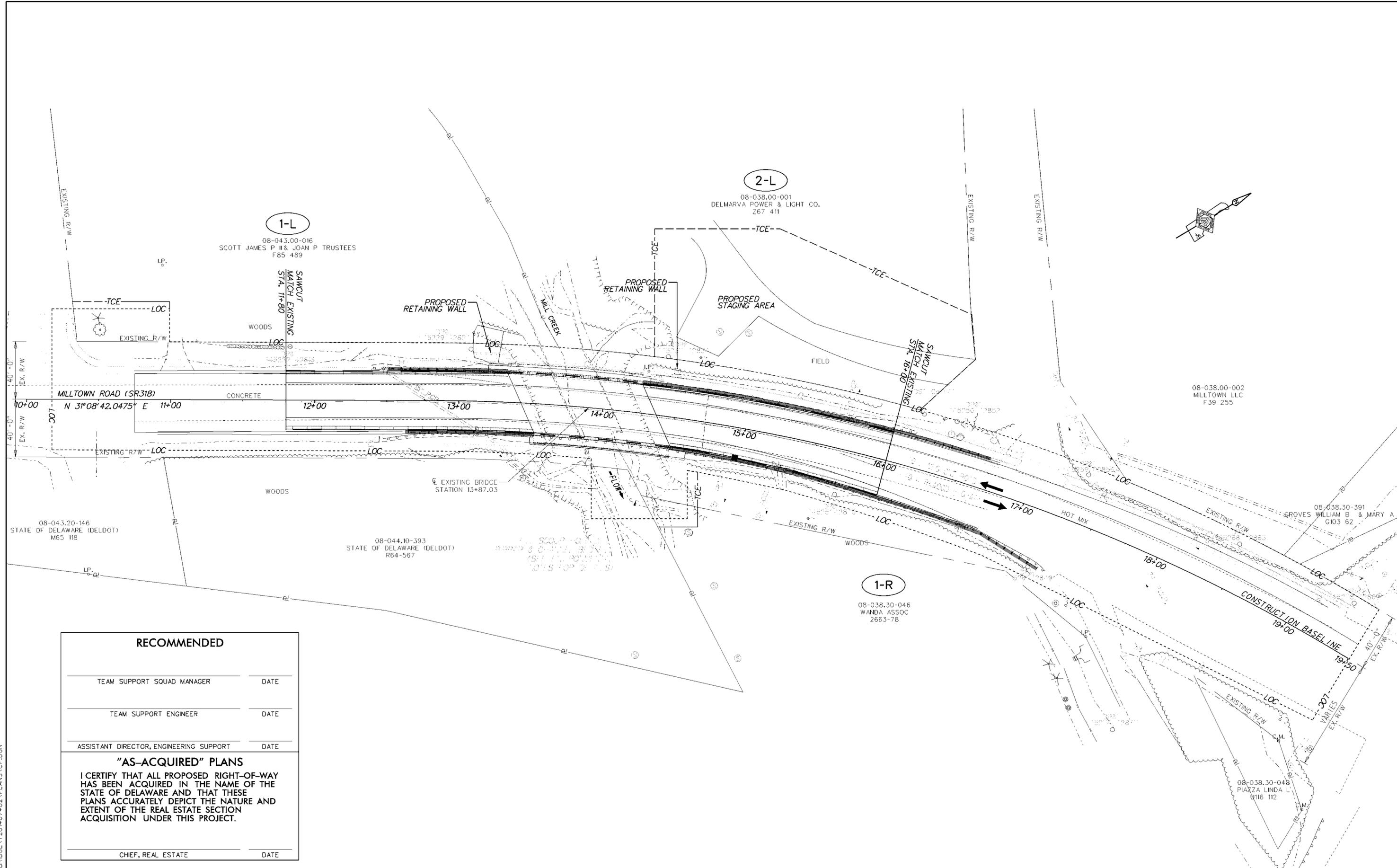
CONTRACT	BRIDGE NO.	1-191
T201407402	DESIGNED BY:	PFE
COUNTY	CHECKED BY:	EM
NEW CASTLE		

**SIGNING, STRIPING
AND CONDUIT PLAN**

SHEET NO.	16
TOTAL SHTS.	17

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RECOMMENDED

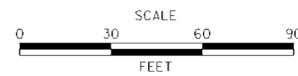
TEAM SUPPORT SQUAD MANAGER	DATE
TEAM SUPPORT ENGINEER	DATE
ASSISTANT DIRECTOR, ENGINEERING SUPPORT	DATE

"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

ADDENDUMS / REVISIONS



**BR 1-191 ON N318
MILLTOWN ROAD OVER
MILL CREEK**

CONTRACT T201407402	BRIDGE NO. 1-191
COUNTY NEW CASTLE	DESIGNED BY: PFE CHECKED BY: EM

RIGHT-OF-WAY PLAN

SHEET NO. 17
TOTAL SHTS. 17

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