

BORING LP# 17

BORING LP# 18

BORING NO. LP# 17		NORTHING: 572252.3112		BORING LOCATION STA. 135+20.00 OFFSET 5' LT.		START: 7/18/07	
VERTICAL SCALE 1"=6'		EASTING: 567483.9981		DRILLING METHOD AND EQUIPMENT SEE NOTES 1, 2		FINISH: 7/18/07	
A		B		C		D	
E		F		G		H	
60.50	1	10-25	10"	42	A-2-4(0)	2.0'	MOIST MEDIUM DENSE ORANGISH BROWN SILTY FINE TO COARSE SAND WITH TRACE OF GRAVEL
	2	15-17-12-10	19"	79	A-2-4(0)	4.0'	MOIST MEDIUM DENSE DARK BROWN SILTY FINE TO COARSE SAND WITH TRACE OF CLAY AND GRAVEL
	3	2-3-2-2	17"	71	A-2-4(0)	6.0'	SATURATED LOOSE DARK GRAYISH BROWN SILTY FINE TO COARSE SAND WITH SOME GRAVEL, TRACE OF ORGANIC MATTER
52.50	4	1-2-2-6	22"	92	A-2-4(0)	8.0'	SATURATED VERY LOOSE BROWN SILTY FINE TO COARSE SAND WITH SOME ORGANIC MATTER, TRACE OF GRAVEL
	5	1-4-4-7	18"	75	A-1-b	10.0'	SATURATED LOOSE BROWN COARSE SAND WITH SOME GRAVEL AND FINE SAND, TRACE OF SILT
	6	14-21-14-14	17"	71	A-1-b	12.0'	SATURATED DENSE BROWN COARSE TO FINE SAND AND GRAVEL WITH TRACE OF SILT
	7	14-11-14-20	22"	92	A-1-b	14.0'	SATURATED MEDIUM DENSE BROWN COARSE SAND AND GRAVEL WITH SOME FINE SAND, TRACE OF SILT
	8	8-7-6-10	16"	67	A-1-b	16.0'	SATURATED MEDIUM DENSE ORANGISH BROWN COARSE SAND WITH TRACE OF GRAVEL, FINE SAND AND SILT
	9	7-7-7-9	20"	83	A-1-b	18.0'	SATURATED MEDIUM DENSE BROWN COARSE SAND WITH SOME GRAVEL, TRACE OF SILT AND FINE SAND
	10	9-8-8-9	11"	46	A-1-b	24.0'	SATURATED MEDIUM DENSE ORANGISH BROWN COARSE SAND AND GRAVEL WITH TRACE OF GRAVEL, FINE SAND AND SILT
	11	14-9-5-11	12"	50	A-2-4(0)	29.0'	SATURATED MEDIUM DENSE BROWN COARSE SAND WITH SOME GRAVEL, TRACE OF SILT AND FINE SAND
	12	3-6-34-34	16"	67	A-2-4(0)	34.0'	SATURATED MEDIUM DENSE ORANGISH BROWN COARSE SAND AND GRAVEL WITH TRACE OF FINE SAND AND SILT
	13	15-11-11-15	20"	83	A-4(1)	39.0'	SATURATED MEDIUM DENSE BROWN SILTY FINE SAND WITH TRACE OF GRAVEL, COARSE SAND AND ORGANIC MATTER
	14	5-18-20-20	20"	83	A-6(18)	44.0'	SATURATED DENSE BROWN SILTY FINE TO COARSE SAND WITH TRACE OF GRAVEL AND ORGANIC MATTER
	15	7-13-14-28	21"	88	A-4(0)	48.0'	SATURATED VERY STIFF DARK GRAY FINE SANDY SILT WITH SOME CLAY, TRACE OF COARSE SAND, ORGANIC MATTER AND GRAVEL
	16	9-15-27-39	21"	88	A-6(12)	50.0'	SATURATED HARD REDDISH GRAY CLAY WITH TRACE OF FINE TO COARSE SAND
	BORING TERMINATED AT 50.0'						

BORING NO. LP# 18		NORTHING: 572210.1147		BORING LOCATION STA. 135+40.00 OFFSET 40' LT.		START: 7/9/07	
VERTICAL SCALE 1"=6'		EASTING: 567509.4744		DRILLING METHOD AND EQUIPMENT SEE NOTES 1, 2		FINISH: 7/9/07	
A		B		C		D	
E		F		G		H	
59.50	1		24"	100	A-1-b	2.0'	MOIST BROWN GRAVEL AND COARSE TO FINE SAND WITH SOME SILT
	2		24"	100	A-1-b	4.0'	MOIST BROWN GRAVEL AND FINE SAND WITH SOME COARSE SAND AND SILT
53.70	3	1-2-3-3	13"	54	A-4(0)	6.0'	WET FIRM BROWNISH GRAY FINE SANDY SILT WITH SOME COARSE SAND, TRACE OF GRAVEL
	4	3-2-1-2	16"	67	A-2-4(0)	8.0'	SATURATED VERY LOOSE BROWNISH GRAY SILTY FINE TO COARSE SAND WITH TRACE OF GRAVEL
	5	1-1-2-2	7"	29	A-2-4(0)	10.0'	SATURATED VERY LOOSE BROWN FINE SAND WITH SOME SILT AND GRAVEL
	6		7"	29	A-1-b	12.0'	SATURATED BROWN COARSE SAND AND GRAVEL WITH SOME FINE SAND, TRACE OF SILT
	7	8-6-9-6	15"	63	A-1-b	14.0'	SATURATED MEDIUM DENSE ORANGE COARSE TO FINE SAND WITH TRACE OF SILT AND GRAVEL
	8	3-3-4-4	15"	63	A-1-b	16.0'	SATURATED LOOSE BROWN COARSE SAND WITH SOME FINE SAND, TRACE OF GRAVEL AND SILT
	9	3-3-4-8	12"	50	A-1-b	18.0'	SATURATED LOOSE ORANGE COARSE SAND WITH SOME SILT, TRACE OF GRAVEL AND FINE SAND
	10	9-7-9-8	12"	50	A-1-a	24.0'	SATURATED MEDIUM DENSE ORANGE GRAVEL AND COARSE SAND WITH TRACE OF FINE SAND AND SILT
	11	11-8-5-10	15"	63	A-2-4(0)	29.0'	SATURATED MEDIUM DENSE ORANGISH BROWN SILTY FINE SAND WITH TRACE OF COARSE SAND AND GRAVEL
	12	12-24-20-22	19"	79	A-2-4(0)	34.0'	SATURATED MEDIUM DENSE ORANGE GRAVEL AND COARSE SAND WITH TRACE OF FINE SAND AND SILT
	13	3-5-14-12	14"	58	A-6(13)	39.0'	SATURATED MEDIUM DENSE ORANGISH BROWN SILTY FINE SAND WITH TRACE OF COARSE SAND AND GRAVEL
	14	5-8-12-13	19"	79	A-6(7)	44.0'	SATURATED DENSE BROWNISH GRAY SILTY FINE SAND WITH TRACE OF COARSE SAND
	15	6-10-12-15	21"	88	A-4(2)	49.0'	SATURATED STIFF GRAY CLAY WITH TRACE OF FINE TO COARSE SAND AND GRAVEL
	16	15-20-21-22	24"	100	A-7-6(18)	51.0'	SATURATED VERY STIFF REDDISH GRAY CLAY WITH TRACE OF FINE TO COARSE SAND AND GRAVEL
	BORING TERMINATED AT 51.0'						

GENERAL NOTES:

- A - SAMPLE NUMBER
- B - BLOWS/0.5 FT. ON SAMPLE
- C - RECOVERY (IN.)
- D - RECOVERY %
- E - AASHTO/G.I.
- F - STRATA DEPTH
- G - DESCRIPTION
- H - REMARKS

GSE - GROUND SURFACE ELEVATION IN FEET
 BFE - PROPOSED BOTTOM OF FOOTING ELEVATION IN FEET

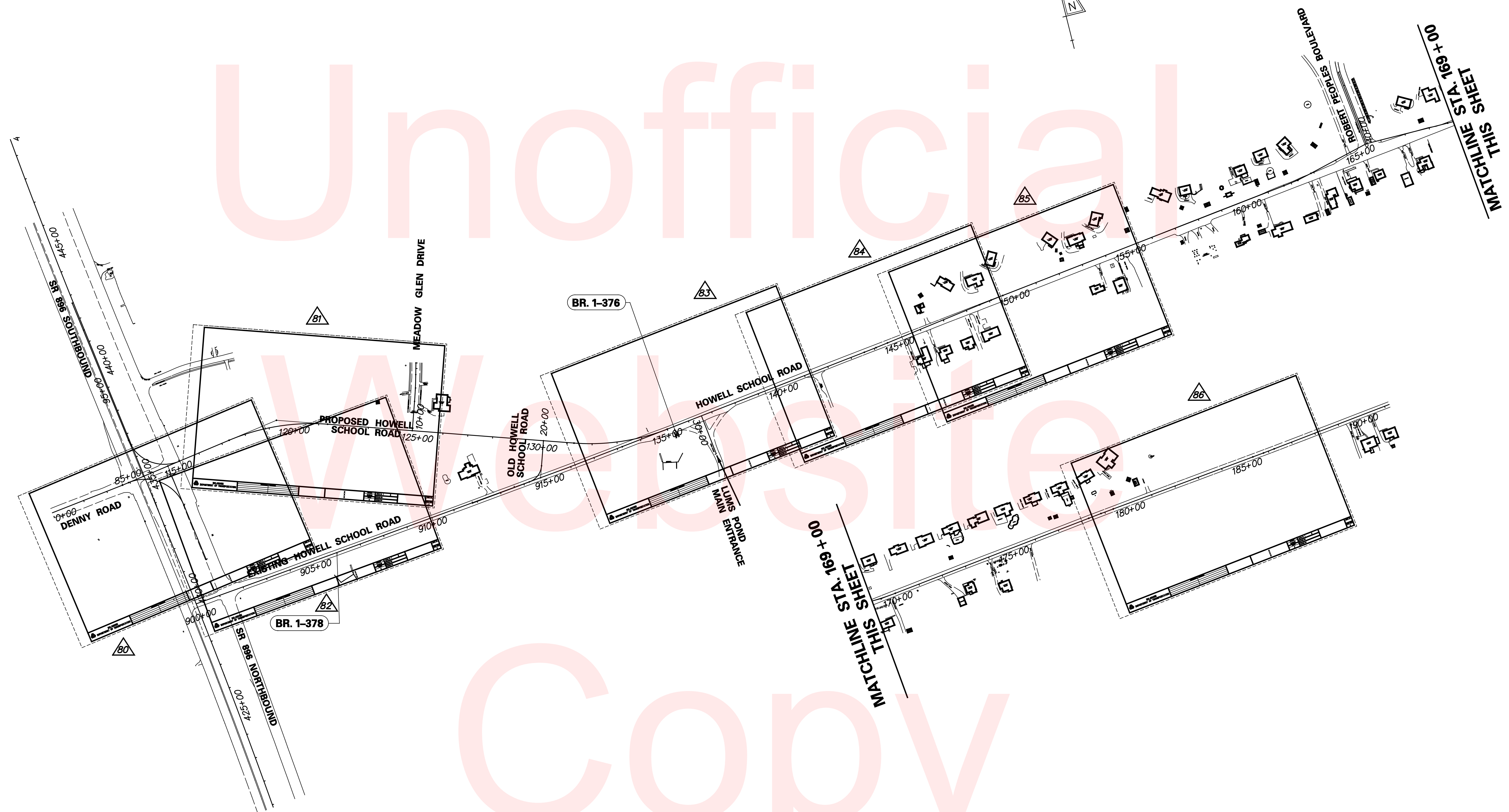
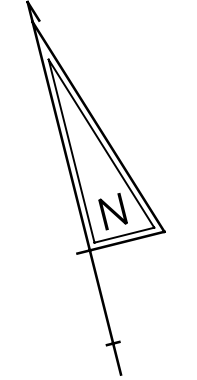
1. EQUIPMENT USED: 3 1/4" DIA. HOLLOW STEM AUGER.

ELEV. WATER LEVEL READING (ELEVATION)

THIS SHEET IS INCLUDED FOR THE CONVENIENCE OF THE DEPARTMENT AND IS NOT PART OF THE CONTRACT DRAWINGS.

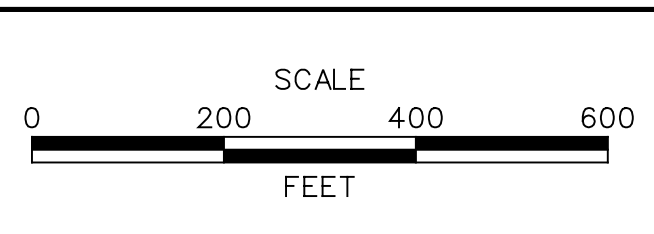
DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	HSIP NCC, N54, HOWELL SCHOOL ROAD, SR 896 TO SR 71	CONTRACT T200504110	BRIDGE NO. BR 1-376 & 1-378	SOIL BORINGS	SHEET NO. 77
			COUNTY NEW CASTLE	DESIGNED BY: LAR		TOTAL SHTS. 138
			CHECKED BY: AWF			

LEGEND
 △ ENVIRONMENTAL COMPLIANCE PLAN SHEET



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ADDENDUMS / REVISIONS	



**HSIP NCC, N54, HOWELL SCHOOL ROAD,
 SR 896 TO SR 71**

CONTRACT T200504110	BRIDGE NO. N/A
COUNTY NEW CASTLE	DESIGNED BY: RMG/MAG
	CHECKED BY: PAH

**ENVIRONMENTAL
 COMPLIANCE
 PLAN SHEET INDEX**

EC-01
SHEET NO. 78
TOTAL SHTS. 138

ENVIRONMENTAL COMPLIANCE NOTES

1. GENERAL NOTES:

- A. THE PURPOSE OF THESE SHEETS 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 THESE SHEETS 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): NATIONWIDE PERMIT #23 (WITH PCN)**
- DNREC - WETLANDS & SUBAQUEOUS LANDS (WLSL): SUBAQUEOUS LANDS PERMIT**
- DNREC - WATER QUALITY (WQC) & COASTAL ZONE CONSISTENCY (CZM) - ISSUED (PROJECT IS NOT LOCATED IN CRW)
- NCC DEPARTMENT OF LAND USE: FLOODPLAIN APPROVAL **

* THE PERMITS/APPROVALS (COE, WLSL, NCC) 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 (COE, WLSL, NCC) ARE IN THEIR POSSESSION PRIOR TO BEGINNING CONSTRUCTION IN THE PERMITTED AREA(S) AND ENSURE IT IS DISPLAYED ON-SITE DURING THE ENTIRE CONSTRUCTION PERIOD.

B. CONSTRUCTION RESTRICTIONS:

- FISHERIES - NONE
- ENDANGERED SPECIES - NONE
- MIGRATORY BIRDS - NONE

3. CULTURAL RESOURCE ISSUES:

- A. SHPO DE MINIMIS FINDING APPROVAL RECEIVED JULY 2013.

4. STREAM RESTORATION AND 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 ITEM #712531- CHANNEL BED FILL. ALL RIPRAP IN THE CHANNEL BOTTOM (I.E. BELOW THE WATER LINE) SHALL BE RECESSED ONE FOOT BELOW STREAM BED ELEVATION AND CHOKED WITH BORROW TYPE 'B' SO THAT ALL OF THE VOIDS IN THE RIPRAP ARE FILLED WITH MATERIAL. PAYMENT UNDER ITEM #209002 - BORROW TYPE 'B'. THE RIPRAP SHALL THEN BE COVERED WITH A MINIMUM OF 12" CHANNEL BED FILL. FINAL CHANNEL ELEVATIONS SHALL MATCH EXISTING ELEVATIONS AT THE UPSTREAM AND DOWNSTREAM PROJECT LIMITS. THROUGH THE STRUCTURE, ELEVATIONS SHALL BE AS NOTED ON THE PLANS. PAYMENT UNDER ITEM #712531 - CHANNEL BED FILL.

- B. OTHER AREAS OF THE CHANNEL BOTTOM AFFECTED BY CONSTRUCTION (INCLUDING, BUT NOT LIMITED TO, THE LOCATION OF SUMP PITS, STABILIZED OUTFALLS, TEMPORARY PIPES AND/OR SANDBAG DIKES AND DIVERSIONS) SHALL BE RESTORED TO EXISTING CONDITIONS. ANY CAVITIES OR SCOUR HOLES RESULTING FROM CONSTRUCTION ACTIVITIES SHALL BE FILLED WITH CHANNEL BED FILL. PAYMENT UNDER ITEM #712531 - CHANNEL BED FILL.

- C. WHEN ALL EROSION AND SEDIMENT CONTROL MEASURES ARE REMOVED AND THE STREAM RETURNS TO ITS NATURAL FLOW CONDITIONS, THE FLOW MUST REMAIN ABOVE GROUND AND ABOVE THE RIPRAP (I.E. THE FLOW CANNOT BE "LOST" IN THE RIPRAP OR BENEATH THE STRUCTURE). IF THIS IS NOT ACHIEVED, THE CONTRACTOR WILL BE REQUIRED TO TAKE CORRECTIVE ACTION AT THE CONTRACTOR'S EXPENSE.

- D. FOR PIPES: ALL RIPRAP ON THE STREAM BANK, OUTSIDE THE CHANNEL BED, SHALL BE CHOKED WITH DELAWARE #57 STONE, FILLED WITH TOPSOIL, AND SEEDED. PLACE JUST ENOUGH CHOKE MATERIAL TO PREVENT THE LOSS OF TOPSOIL THROUGH THE RIPRAP, AND THEN FINISH FILLING THE VOIDS WITH TOPSOIL SO THAT THE RIPRAP PEAKS ARE BARELY VISIBLE. AN ADDITIONAL 4-INCH TOPSOIL LAYER SHALL BE PLACED ON TOP OF THE RIPRAP. SLOPE SEEDING SHALL BE WITH ITEM #908019 - STREAMBANK SEED MIX. FOLLOWING THE SEEDING OPERATION, ITEM #908020 - EROSION CONTROL BLANKET MULCH, OR OTHER BLANKET AS SHOWN ON THE PLANS SHALL BE INSTALLED. ALL WORK, STARTING WITH THE INITIAL CHOKING WITH TOPSOIL SOIL THROUGH THE SEEDING SHALL BE COMPLETED PRIOR TO ANY RAIN EVENT. DELAWARE #57 STONE SHALL BE INCIDENTAL TO THE RIPRAP ITEM.

- E. FOR BRIDGES: ALL RIPRAP ON THE STREAM BANK, OUTSIDE THE CHANNEL BED, SHALL BE CHOKED WITH DELAWARE #57 STONE. PLACE JUST ENOUGH CHOKE MATERIAL TO PREVENT THE LOSS OF CHANNELBED FILL OR TOPSOIL (DEPENDING ON LOCATION AS INDICATED BELOW) THROUGH THE RIPRAP.
 - BENEATH THE BRIDGE: AFTER PLACING THE DE #57 STONE, DO A FINAL CHOKE OF CHANNELBED FILL SO THAT THE RIPRAP PEAKS ARE BARELY VISIBLE. PAYMENT UNDER ITEM #712531 - CHANNEL BED FILL. DELAWARE #57 STONE SHALL BE INCIDENTAL TO THE RIPRAP ITEM.
 - ALL OTHER LOCATIONS: FINISH FILLING THE VOIDS WITH TOPSOIL SO THAT THE RIPRAP PEAKS ARE BARELY VISIBLE. AN ADDITIONAL 4-INCH TOPSOIL LAYER SHALL BE PLACED ON TOP OF THE RIPRAP. SLOPE SEEDING SHALL BE WITH ITEM #908019 - STREAMBANK SEED MIX. FOLLOWING THE SEEDING OPERATION, ITEM #908020 - EROSION CONTROL BLANKET MULCH, 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.

- F. THE TOPSOIL/SEED/MULCH CAN BE PLACED BEFORE OR AFTER THE REMOVAL OF THE STREAM DIVERSION. IF IT OCCURS AFTER STREAM DIVERSION REMOVAL, A TURBIDITY CURTAIN SHALL BE USED TO MINIMIZE INSTREAM SEDIMENTATIONAL. PAYMENT SHALL BE INCIDENTAL TO ITEM 909005- STREAM DIVERSION.

5. PROTECTION OF RESOURCES:

- A. CLEANING IN WETLAND AREAS SHALL BE KEPT TO MINIMUM ABSOLUTELY NECESSARY FOR CONSTRUCTION ACCESS. ALL EQUIPMENT TRAVERSING WETLANDS AND SUBAQUEOUS LAND SHALL BE SUPPORTED ON MATS. PAYMENT FOR MATS SHALL BE MADE UNDER 601520 - TIMBER MAT. 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 908017)).

- B. SILT FENCE OR CONSTRUCTION SAFETY FENCE SHALL BE USED ALONG THE LIMITS OF CONSTRUCTION IN ALL AREAS WHERE WATER/WETLAND ARE BEING IMPACTED (AS SHOWN ON EC SHEETS), AND ALSO IN ANY AREA WHERE WATER/WATLANDS EXIST WITHIN 20 FEET OF THE LOC (AS SHOWN ON CONSTRUCTION PLANS). CONTRACTOR ACCESS BEYOND THE LOC IS STRICTLY PROHIBITED.

- C. SILT FENCE INSTALLATION ADJACENT TO WOODED UPLAND/WETLAND: SANDBAGS SHALL BE USED TO SECURE SILT FENCE IN LIEU OF TRENCHING UNLESS PROPER EROSION & SEDIMENT CONTROL CANNOT BE MAINTAINED. SANDBAGS USED TO SECURE SILT FENCE SHALL BE INCIDENTAL TO ITEM NUMBER 905001- SILT FENCE. THE ENVIRONMENTAL STUDIES SECTION (CAROL SULLIVAN, 302-760-2129) CAN PROVIDE FURTHER GUIDANCE REGARDING THIS METHOD OF INSTALLATION.

- D. ALL TREES TO BE REMOVED SHALL BE CLEARLY MARKED WITH PAINT PRIOR TO THE E&S SEDIMENT CONTROL MEETING.
- E. IN ACCORDANCE WITH US FISH AND WILDLIFE AND IN PROTECTION OF THE NORTHERN LONG EARED BAT, THE CONTRACTOR SHALL NOT CLEAR WOODED SHADED AREA BETWEEN APRIL 15 - AUGUST 30, OF ANY YEAR, AS SHOWN ON SHEET EC-10, 86A.

6. PLANTING GUIDANCE, WORK DONE BY DELDOT:

PLANTING GUIDANCE (INFORMATION ONLY, WORK TO BE DONE BY OTHERS. THERE SHALL BE NO PAYMENT FOR PLANTING ON THIS CONTRACT). UPON FINAL ACCEPTANCE OF THE CONTRACT, APPROPRIATE TREES AND/OR SHRUBS SHALL BE PLANTED IN A NATURALIZED PATTERN (MINIMUM 8', MAXIMUM 12' CENTERS) IN TEMPORARILY DISTURBED WOODED WETLAND AREAS WITHIN THE LOC. FINAL PLAN COUNTS WILL BE BASED ON FIELD CONDITIONS AND DETERMINED BY THE ROADSIDE ENVIRONMENTAL ADMINISTRATOR OR HIS DESIGNEE. SPECIFIC PLANT SELECTION IS ALSO AT HIS DISCRETION BUT SHALL BE A NATIVE SPECIES APPROVED BY THE DELAWARE DEPARTMENT OF NATURAL RESOURCES. PLANTING LOCATIONS SHOULD INCLUDE: STA 906+00 TO 908+00 LEFT OF CENTERLINE BETWEEN CLEAR ZONE AND LOC; STA 135+00 TO 137+00 LEFT OF CENTERLINE BETWEEN CLEAR ZONE AND LOC; AND STA 139+00 TO 145+00 LEFT OF CENTERLINE BETWEEN CLEAR ZONE AND LOC.

7. MITIGATION - ALL WETLAND REPLACEMENT OBLIGATIONS WILL BE MET THROUGH THE GLENVILLE BANK.

WETLANDS DELINEATED BY A.D. MARBLE & COMPANY IN MARCH 2007 IN ACCORDANCE WITH THE 1987 USACE WETLAND DELINEATION MANUAL.

SHEET PREPARED BY: PENNONI ASSOCIATES
 DATE: SEPTEMBER, 2008

SHEETS LAST UPDATED: 08/04/2015

ALL IDENTIFIED WATERS / WETLANDS ON THESE ENVIRONMENTAL COMPLIANCE SHEETS ARE USACE JURISDICTIONAL AND / OR DNREC JURISDICTIONAL.

PERMANENT WETLAND IMPACT AREA SCHEDULE					
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
4-W1	SWALE IMPROVEMENTS	6030.47	0.1384	N/A	USACE
4-W2	FILL	2282.54	0.0524	N/A	USACE
5-W1	SWALE IMPROVEMENTS	11523.85	0.2646	N/A	USACE
6-W1	FILL	388.18	0.0089	N/A	USACE
6-W2	FILL	2309.83	0.0530	N/A	USACE
6-W3	FILL	543.35	0.0125	N/A	USACE
6-W4	FILL	2217.15	0.0509	N/A	USACE
7-W1	FILL	381.49	0.0088	N/A	USACE
7-W2	FILL	6610.54	0.1518	N/A	USACE
7-W3	RIPRAP	95.59	0.0022	N/A	USACE
7-W4	RIPRAP	131.06	0.0030	N/A	USACE
8-W1	FILL	1216.72	0.0279	N/A	USACE
TOTAL PERMANENT WETLAND IMPACT AREAS		33730.77	0.7744	N/A	USACE

TEMPORARY WETLAND IMPACT AREA SCHEDULE					
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
6-WT1	EROSION CONTROL	1983.62	0.0455	N/A	USACE
6-WT2	EROSION CONTROL	1561.31	0.0358	N/A	USACE
6-WT3	GRADING	216.12	0.0050	N/A	USACE
7-WT1	EROSION CONTROL	2086.47	0.0479	N/A	USACE
7-WT2	EROSION CONTROL	6323.18	0.1452	N/A	USACE
8-WT1	EROSION CONTROL	932.09	0.0214	N/A	USACE
TOTAL TEMPORARY WETLAND IMPACT AREAS		13102.79	0.3008	N/A	USACE

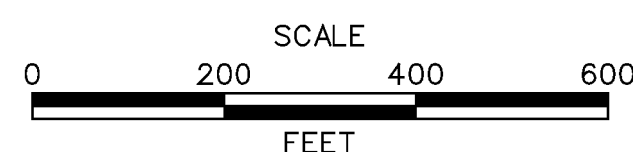
PERMANENT OPEN WATER IMPACT AREA SCHEDULE					
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
3-01	FILL	669.93	0.0154	24.81	USACE/DNREC
3-02	RIPRAP	12.96	0.0003	0.48	USACE/DNREC
3-03	CULVERT EXT. AND ENDWALL	387.81	0.0089	14.36	USACE/DNREC
3-04	RIPRAP	371.15	0.0085	13.75	USACE/DNREC
6-01	FILL	1251.03	0.0287	46.33	USACE/DNREC
6-02	CULVERT REPLACEMENT	1149.94	0.0264	42.59	USACE/DNREC
6-03	RIPRAP	83.73	0.0019	3.10	USACE/DNREC
7-01	FILL	1520.58	0.0349	56.32	USACE/DNREC
9-01	RIPRAP	96.84	0.0022	3.59	USACE/DNREC
TOTAL PERMANENT OPEN WATER IMPACTS		5543.97	0.1272	205.33	USACE/DNREC

TEMPORARY OPEN WATER IMPACT AREA SCHEDULE					
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
3-OT1	SEDIMENT TRAP	735.14	0.0169	27.23	USACE/DNREC
3-OT2	SEDIMENT TRAP	427.80	0.0098	15.84	USACE/DNREC
5-OT1	EROSION CONTROL	269.47	0.0062	9.98	USACE/DNREC
6-OT1	EROSION CONTROL	162.39	0.0037	6.01	USACE/DNREC
7-OT1	EROSION CONTROL	395.97	0.0091	14.67	USACE/DNREC
9-OT1	GRADING	35.69	0.0008	1.32	USACE/DNREC
TOTAL TEMPORARY OPEN WATER IMPACTS		2026.46	0.0465	75.05	USACE/DNREC

OPEN WATER CREATION AREA SCHEDULE					
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
6-OC1	PROPOSED CHANNEL	2166.06	0.0497	80.22	USACE/DNREC
6-OC2	PROPOSED CULVERT	1174.20	0.0270	43.49	USACE/DNREC
7-OC1	PROPOSED CHANNEL	647.48	0.0149	23.98	USACE/DNREC
7-OC2	PROPOSED CHANNEL	235.41	0.0054	8.72	USACE/DNREC
7-OC3	PROPOSED CHANNEL	1664.82	0.0382	61.66	USACE/DNREC
TOTAL OPEN WATER CREATION AREAS		5887.97	0.1352	218.07	USACE/DNREC



ADDENDUMS / REVISIONS



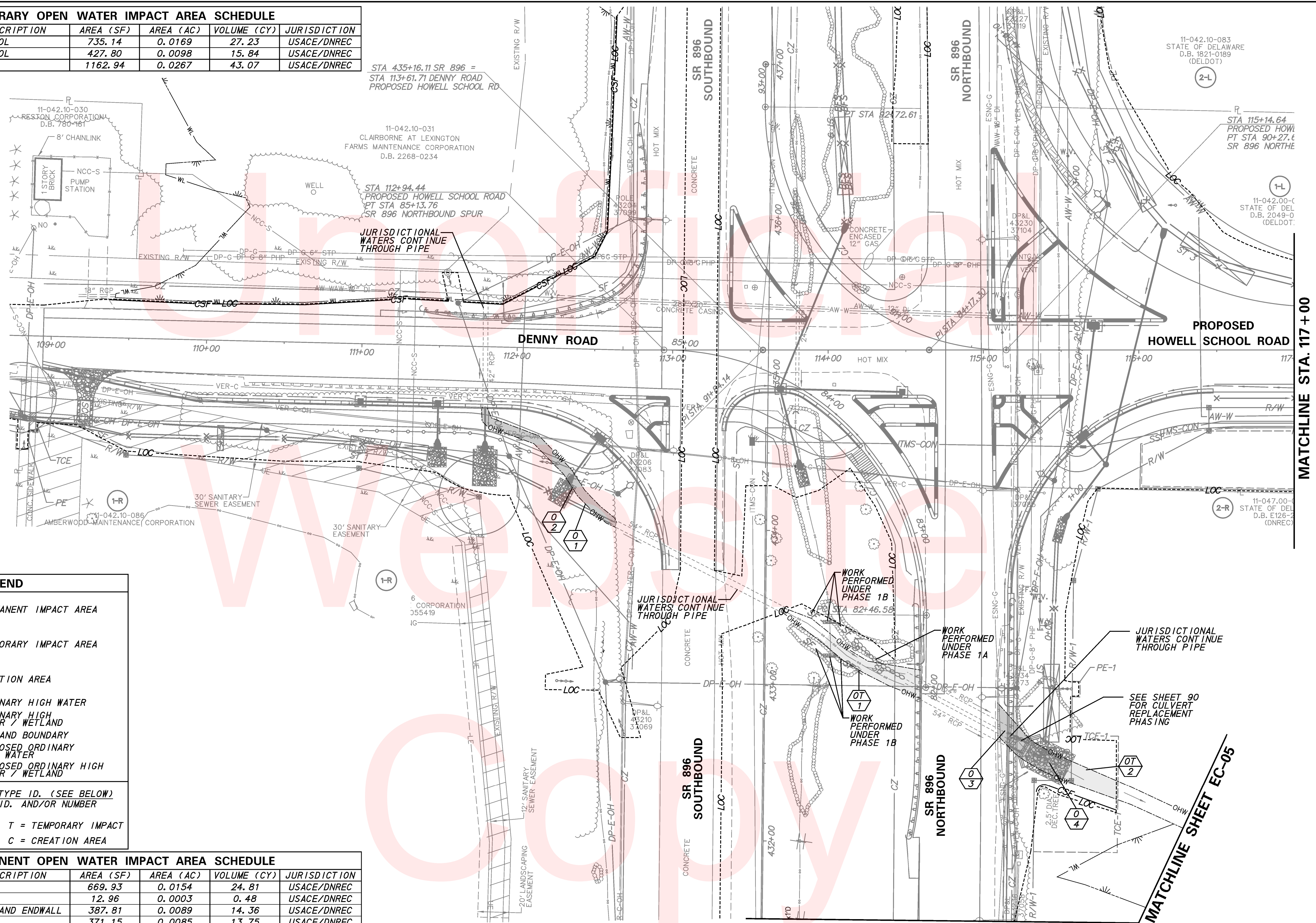
HSIP NCC, N54, HOWELL SCHOOL ROAD,
 SR 896 TO SR 71

CONTRACT	BRIDGE NO. N/A
T200504110	DESIGNED BY: RMG/MAG
COUNTY	CHECKED BY: PAH
NEW CASTLE	

ENVIRONMENTAL COMPLIANCE NOTES

EC-02
SHEET NO.
79
TOTAL SHTS.
138

TEMPORARY OPEN WATER IMPACT AREA SCHEDULE					
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
3-0T1	EROSION CONTROL	735.14	0.0169	27.23	USACE/DNREC
3-0T2	EROSION CONTROL	427.80	0.0098	15.84	USACE/DNREC
TOTAL FOR THIS SHEET		1162.94	0.0267	43.07	USACE/DNREC



LEGEND

- PERMANENT IMPACT AREA
- TEMPORARY IMPACT AREA
- CREATION AREA
- OHW --- ORDINARY HIGH WATER
- OHW/WL --- ORDINARY HIGH WATER / WETLAND
- WL --- WETLAND BOUNDARY
- POHW --- PROPOSED ORDINARY HIGH WATER
- POHW/WL --- PROPOSED ORDINARY HIGH WATER / WETLAND

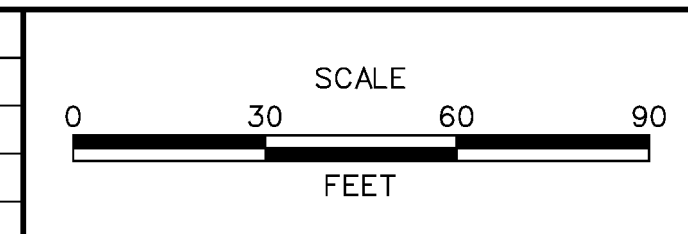
XX IMPACT AREA TYPE ID. (SEE BELOW)
2X IMPACT AREA ID. AND/OR NUMBER

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

PERMANENT OPEN WATER IMPACT AREA SCHEDULE					
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
3-01	FILL	669.93	0.0154	24.81	USACE/DNREC
3-02	RIPRAP	12.96	0.0003	0.48	USACE/DNREC
3-03	CULVERT EXT. AND ENDWALL	387.81	0.0089	14.36	USACE/DNREC
3-04	RIPRAP	371.15	0.0085	13.75	USACE/DNREC
TOTAL FOR THIS SHEET		1441.85	0.0331	53.40	USACE/DNREC



ADDENDUMS / REVISIONS	



HSP NCC, N54, HOWELL SCHOOL ROAD, SR 896 TO SR 71

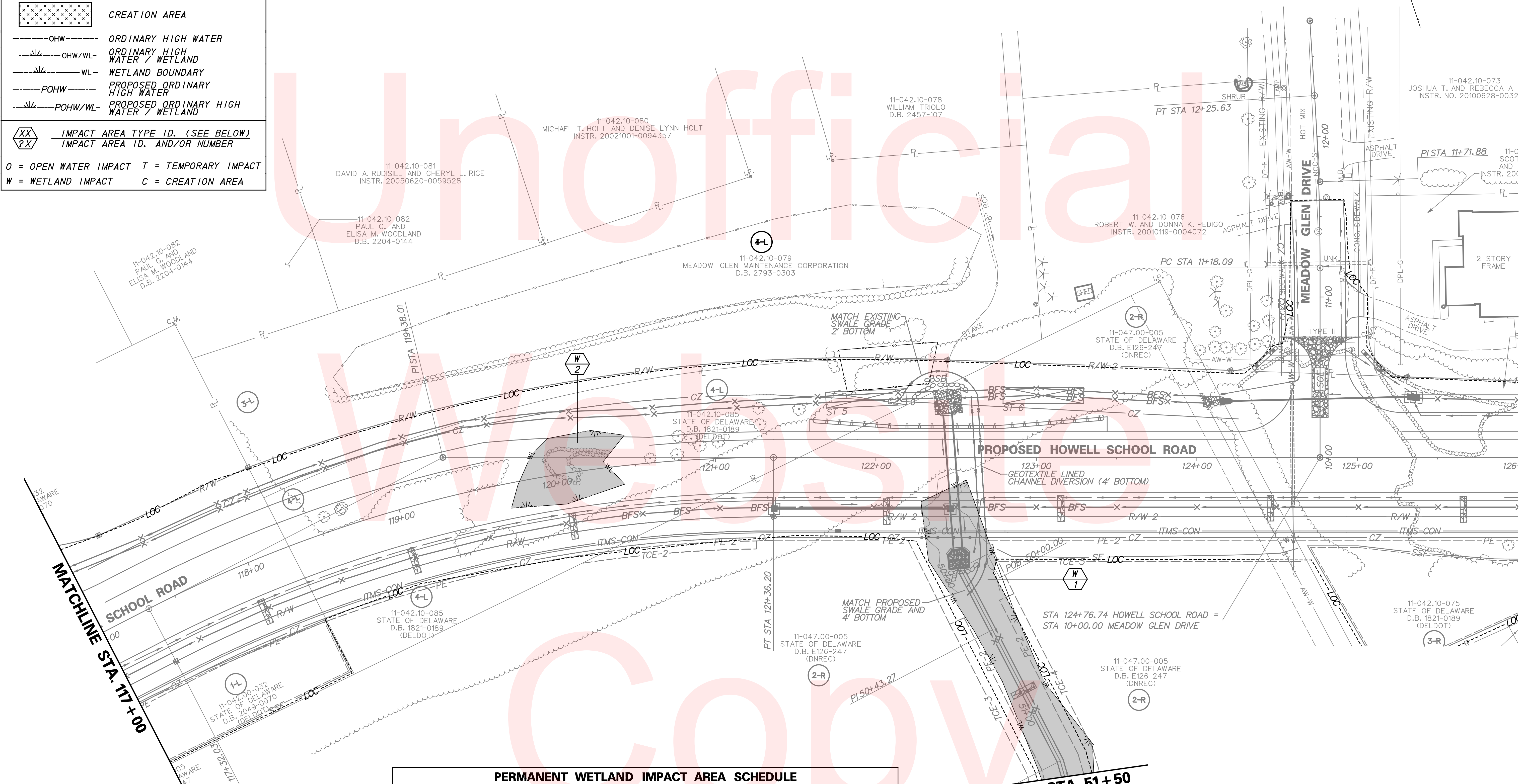
CONTRACT	BRIDGE NO. BR 1-376 & 1-378
T200504110	DESIGNED BY: RMG
COUNTY	CHECKED BY: PAH
NEW CASTLE	

ENVIRONMENTAL COMPLIANCE PLANS

EC-03
SHEET NO.
80
TOTAL SHTS.
138

LEGEND

- PERMANENT IMPACT AREA
- TEMPORARY IMPACT AREA
- CREATION AREA
- OHW - ORDINARY HIGH WATER
- OHW/WL - ORDINARY HIGH WATER / WETLAND
- WL - WETLAND BOUNDARY
- POHW - PROPOSED ORDINARY HIGH WATER
- POHW/WL - PROPOSED ORDINARY HIGH WATER / WETLAND
- XX** / **XX** IMPACT AREA TYPE ID. (SEE BELOW)
IMPACT AREA ID. AND/OR NUMBER
- O** = OPEN WATER IMPACT **T** = TEMPORARY IMPACT
- W** = WETLAND IMPACT **C** = CREATION AREA



PERMANENT WETLAND IMPACT AREA SCHEDULE					
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
4-W1	SWALE IMPROVEMENTS	6030.47	0.1384	N/A	USACE
4-W2	FILL	2282.54	0.0524	N/A	USACE
TOTAL FOR THIS SHEET		8313.01	0.1908	N/A	USACE

PERMANENT WETLAND IMPACT AREA SCHEDULE					
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
5-W1	SWALE IMPROVEMENTS	11523.85	0.2646	N/A	USACE
TOTAL FOR THIS SHEET		11523.85	0.2646	N/A	USACE

TEMPORARY OPEN WATER IMPACT AREA SCHEDULE					
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
5-OT1	EROSION CONTROL	269.47	0.0062	9.98	USACE/DNREC
TOTAL FOR THIS SHEET		269.47	0.0062	9.98	USACE/DNREC

LEGEND

PERMANENT IMPACT AREA

TEMPORARY IMPACT AREA

CREATION AREA

OHW - ORDINARY HIGH WATER

OHW/WL - ORDINARY HIGH WATER / WETLAND

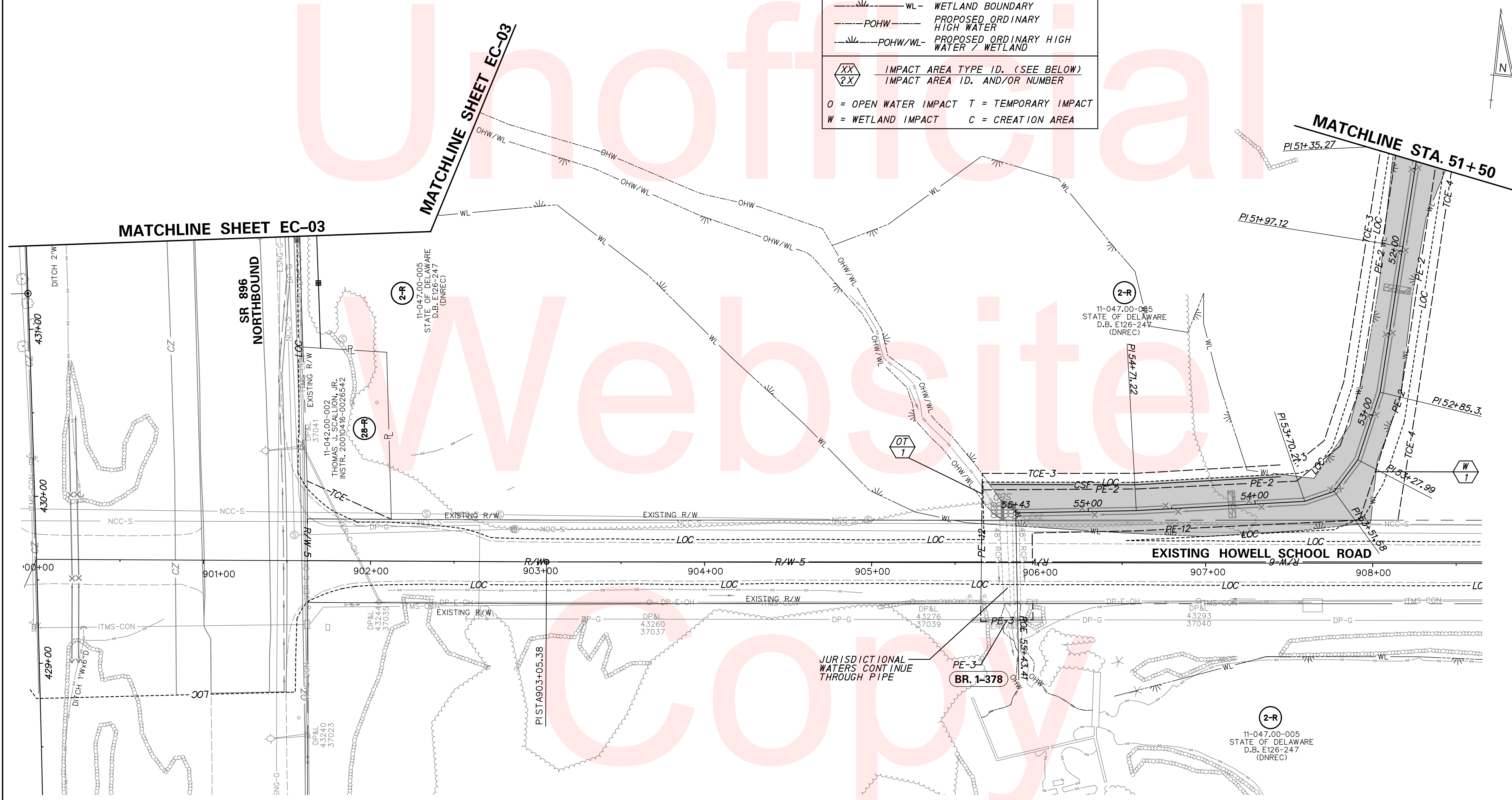
WL - WETLAND BOUNDARY

POHW - PROPOSED ORDINARY HIGH WATER

POHW/WL - PROPOSED ORDINARY HIGH WATER / WETLAND

XX / ?X - IMPACT AREA TYPE ID. (SEE BELOW)
IMPACT AREA ID. AND/OR NUMBER

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



LEGEND

- PERMANENT IMPACT AREA
- TEMPORARY IMPACT AREA
- CREATION AREA
- OHW----- ORDINARY HIGH WATER
- OHW/WL----- ORDINARY HIGH WATER / WETLAND
- WL----- WETLAND BOUNDARY
- POHW----- PROPOSED ORDINARY HIGH WATER
- POHW/WL----- PROPOSED ORDINARY HIGH WATER / WETLAND
- XX IMPACT AREA TYPE ID. (SEE BELOW)
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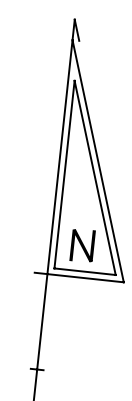
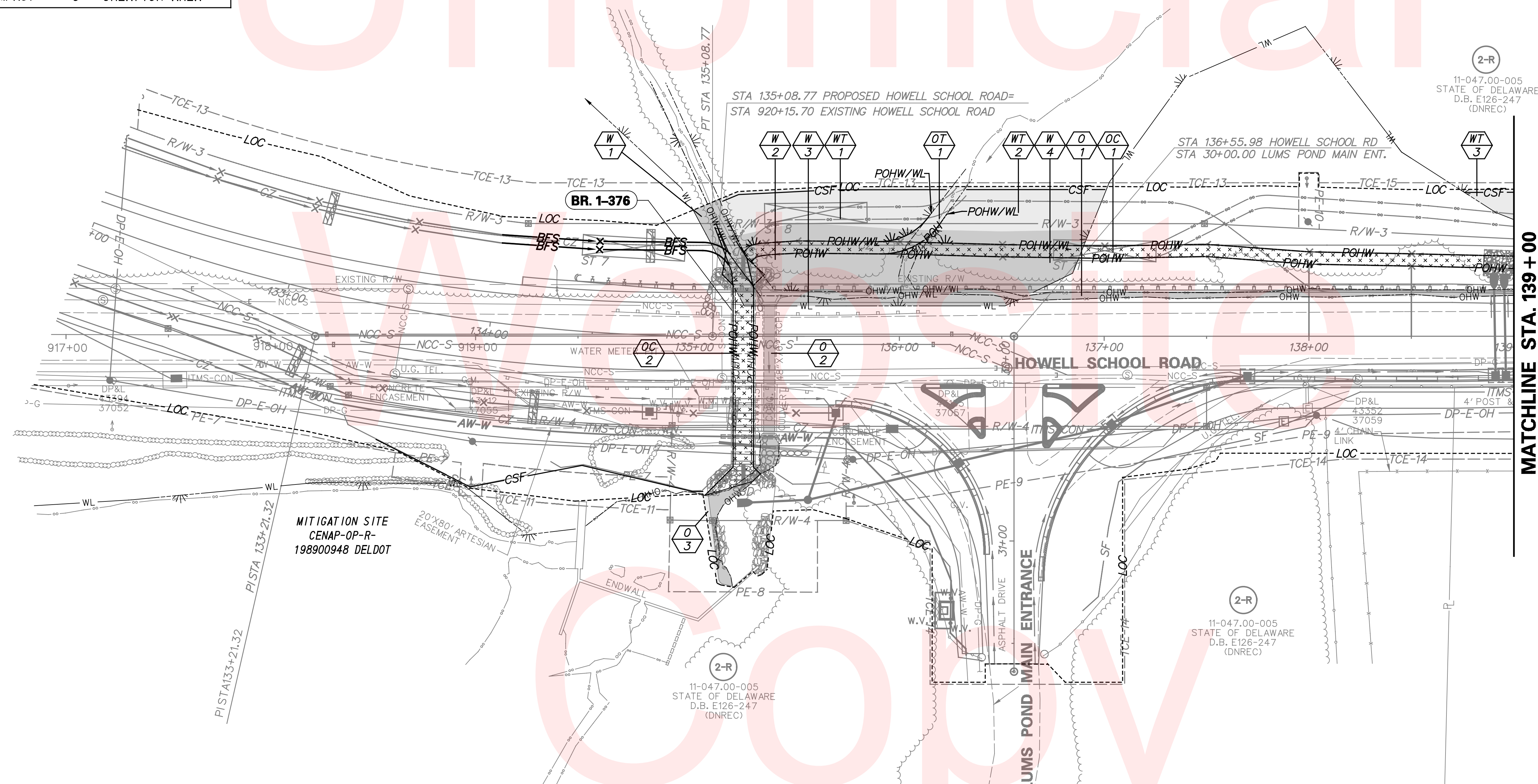
PERMANENT WETLAND IMPACT AREA SCHEDULE					
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
6-W1	FILL	388.18	0.0089	N/A	USACE
6-W2	FILL	2309.83	0.0530	N/A	USACE
6-W3	FILL	543.35	0.0125	N/A	USACE
6-W4	FILL	2217.15	0.0509	N/A	USACE
TOTAL FOR THIS SHEET		5458.51	0.1253	N/A	USACE

TEMPORARY WETLAND IMPACT AREA SCHEDULE					
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
6-WT1	EROSION CONTROL	1983.62	0.0455	N/A	USACE
6-WT2	EROSION CONTROL	1561.31	0.0358	N/A	USACE
6-WT3	GRADING	216.12	0.0050	N/A	USACE
TOTAL FOR THIS SHEET		3761.05	0.0863	N/A	USACE

PERMANENT OPEN WATER IMPACT AREA SCHEDULE					
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
6-O1	FILL	1251.03	0.0287	46.33	USACE/DNREC
6-O2	CULVERT REPLACEMENT	1149.94	0.0264	42.59	USACE/DNREC
6-O3	RIPRAP	83.73	0.0019	3.10	USACE/DNREC
TOTAL FOR THIS SHEET		2484.70	0.0570	92.02	USACE/DNREC

TEMPORARY OPEN WATER IMPACT AREA SCHEDULE					
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
6-OT1	EROSION CONTROL	162.39	0.0037	6.01	USACE/DNREC
TOTAL FOR THIS SHEET		162.39	0.0037	6.01	USACE/DNREC

OPEN WATER CREATION AREA SCHEDULE					
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
6-OC1	PROPOSED CHANNEL	2166.06	0.0497	80.22	USACE/DNREC
6-OC2	PROPOSED CULVERT	1174.20	0.0270	43.49	USACE/DNREC
TOTAL FOR THIS SHEET		3340.26	0.0767	123.71	USACE/DNREC



LEGEND

	PERMANENT IMPACT AREA
	TEMPORARY IMPACT AREA
	CREATION AREA
	ORDINARY HIGH WATER
	ORDINARY HIGH WATER / WETLAND
	WETLAND BOUNDARY
	PROPOSED ORDINARY HIGH WATER
	PROPOSED ORDINARY HIGH WATER / WETLAND
	IMPACT AREA TYPE ID. (SEE BELOW) IMPACT AREA ID. AND/OR NUMBER
O	OPEN WATER IMPACT
T	TEMPORARY IMPACT
W	WETLAND IMPACT
C	CREATION AREA

PERMANENT WETLAND IMPACT AREA SCHEDULE

ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
7-W1	FILL	381.49	0.0088	N/A	USACE
7-W2	FILL	6610.54	0.1518	N/A	USACE
7-W3	RIPRAP	95.59	0.0022	N/A	USACE
7-W4	RIPRAP	131.06	0.0030	N/A	USACE
TOTAL FOR THIS SHEET		7218.68	0.1658	N/A	USACE

TEMPORARY WETLAND IMPACT AREA SCHEDULE

ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
7-WT1	EROSION CONTROL	2086.47	0.0479	N/A	USACE
7-WT2	EROSION CONTROL	6323.18	0.1452	N/A	USACE
TOTAL FOR THIS SHEET		8409.65	0.1931	N/A	USACE

PERMANENT OPEN WATER IMPACT AREA SCHEDULE

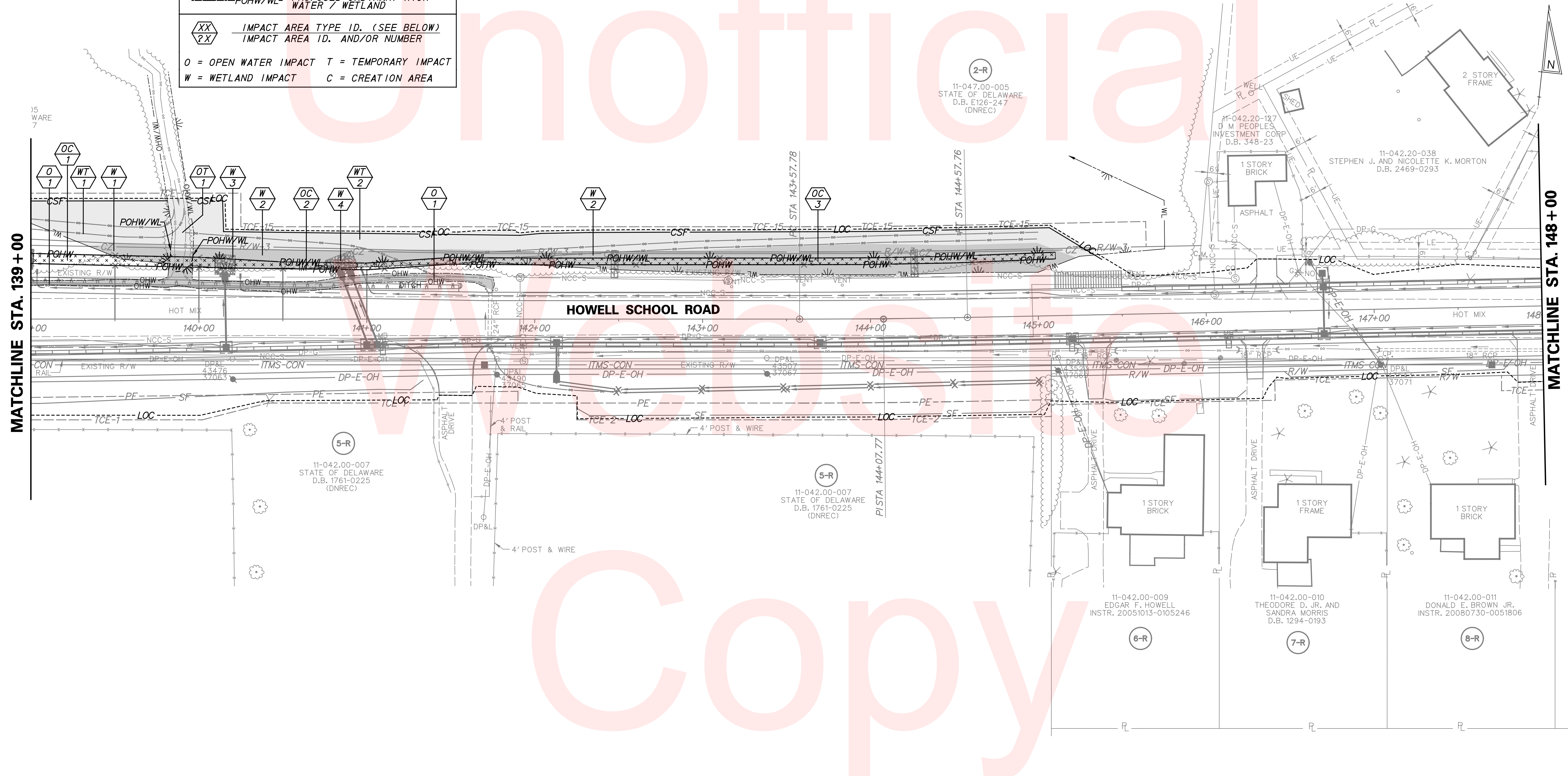
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
7-O1	FILL	1520.58	0.0349	56.32	USACE/DNREC
TOTAL FOR THIS SHEET		1520.58	0.0349	56.32	USACE/DNREC

TEMPORARY OPEN WATER IMPACT AREA SCHEDULE

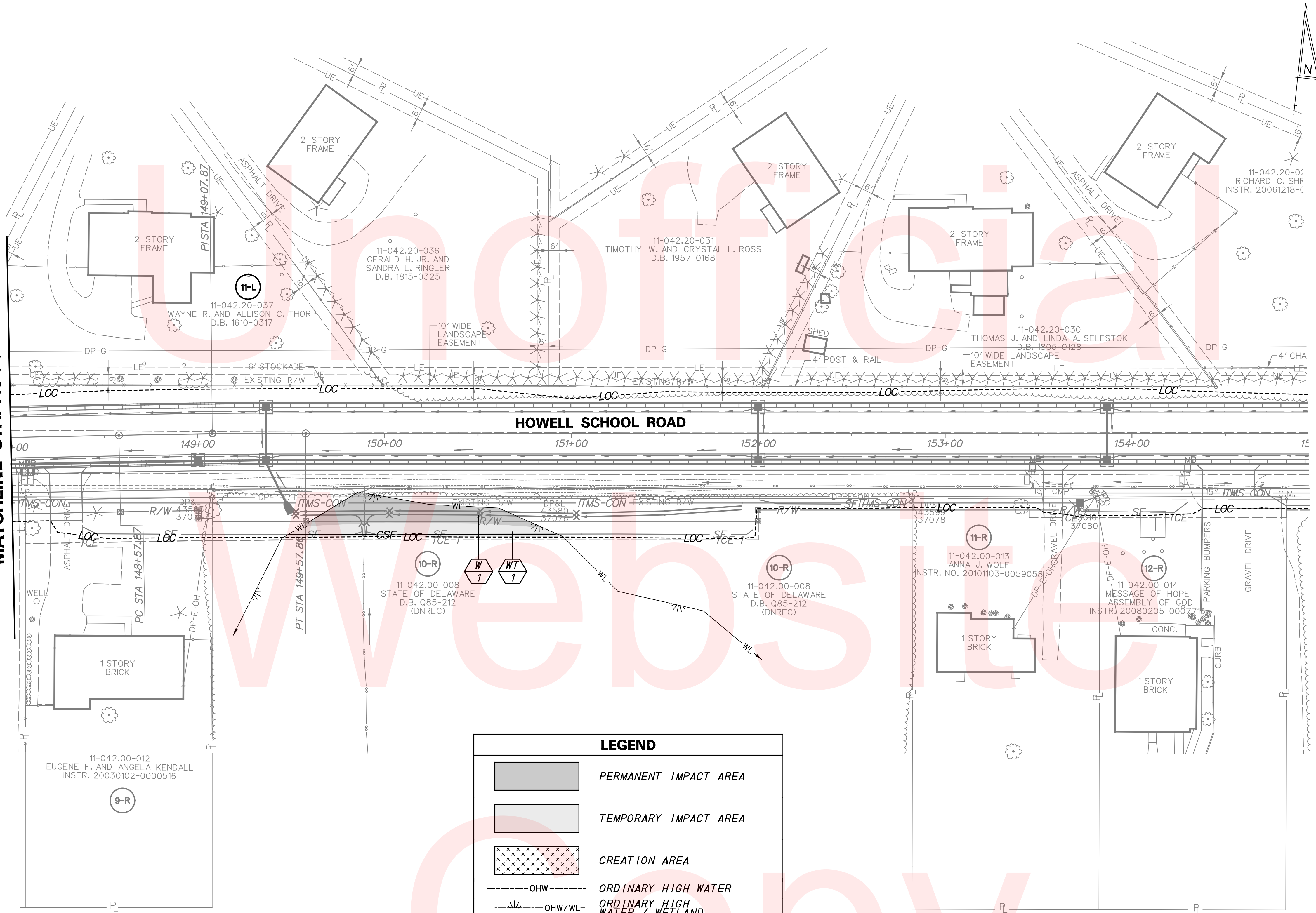
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
7-OT1	EROSION CONTROL	395.97	0.0091	14.67	USACE/DNREC
TOTAL FOR THIS SHEET		395.97	0.0091	14.67	USACE/DNREC

OPEN WATER CREATION AREA SCHEDULE

ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
7-OC1	PROPOSED CHANNEL	647.48	0.0149	23.98	USACE/DNREC
7-OC2	PROPOSED CHANNEL	235.41	0.0054	8.72	USACE/DNREC
7-OC3	PROPOSED CHANNEL	1664.82	0.0382	61.66	USACE/DNREC
TOTAL FOR THIS SHEET		2547.71	0.0585	94.36	USACE/DNREC



MATCHLINE STA. 148+00

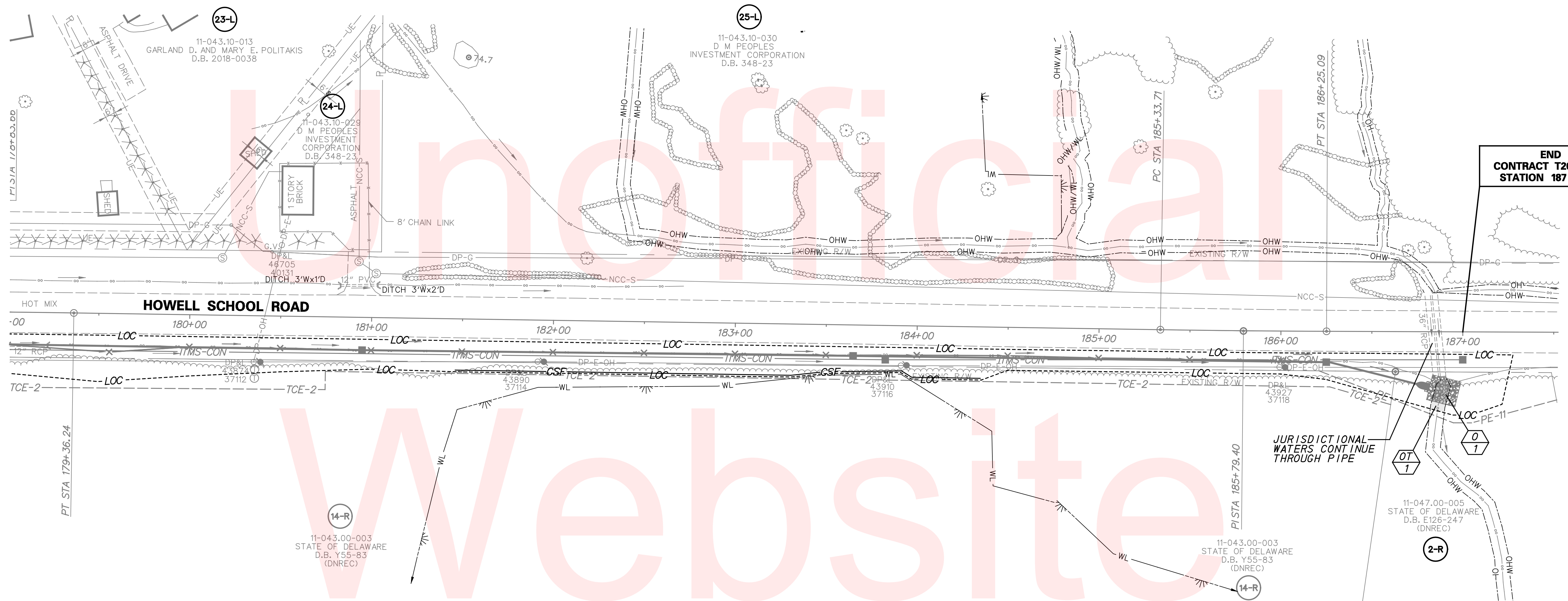
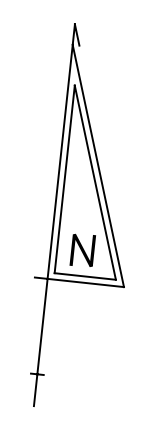


LEGEND

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

PERMANENT WETLAND IMPACT AREA SCHEDULE					
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
8-W1	FILL	1216.72	0.0279	N/A	USACE
TOTAL FOR THIS SHEET		1216.72	0.0279	N/A	USACE

TEMPORARY WETLAND IMPACT AREA SCHEDULE					
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
8-WT1	EROSION CONTROL	932.09	0.0214	N/A	USACE
TOTAL FOR THIS SHEET		932.09	0.0214	N/A	USACE



LEGEND

- PERMANENT IMPACT AREA
- TEMPORARY IMPACT AREA
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- OHW--- ORDINARY HIGH WATER
- OHW/WL--- ORDINARY HIGH WATER / WETLAND
- WL--- WETLAND BOUNDARY
- POHW--- PROPOSED ORDINARY HIGH WATER
- POHW/WL--- PROPOSED ORDINARY HIGH WATER / WETLAND
- XX IMPACT AREA TYPE ID. (SEE BELOW)
- ?X IMPACT AREA ID. AND/OR NUMBER
- O = OPEN WATER IMPACT T = TEMPORARY IMPACT
- W = WETLAND IMPACT C = CREATION AREA

PERMANENT OPEN WATER IMPACT AREA SCHEDULE

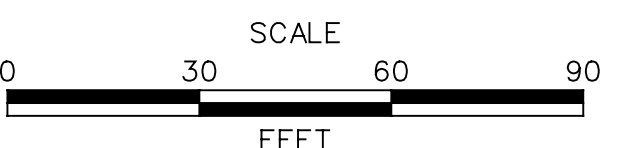
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
9-01	RIPRAP	96.84	0.0022	3.59	USACE/DNREC
TOTAL FOR THIS SHEET		96.84	0.0022	3.59	USACE/DNREC

TEMPORARY OPEN WATER IMPACT AREA SCHEDULE

ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
9-0T1	GRADING	35.69	0.0008	1.32	USACE/DNREC
TOTAL FOR THIS SHEET		35.69	0.0008	1.32	USACE/DNREC



ADDENDUMS / REVISIONS	

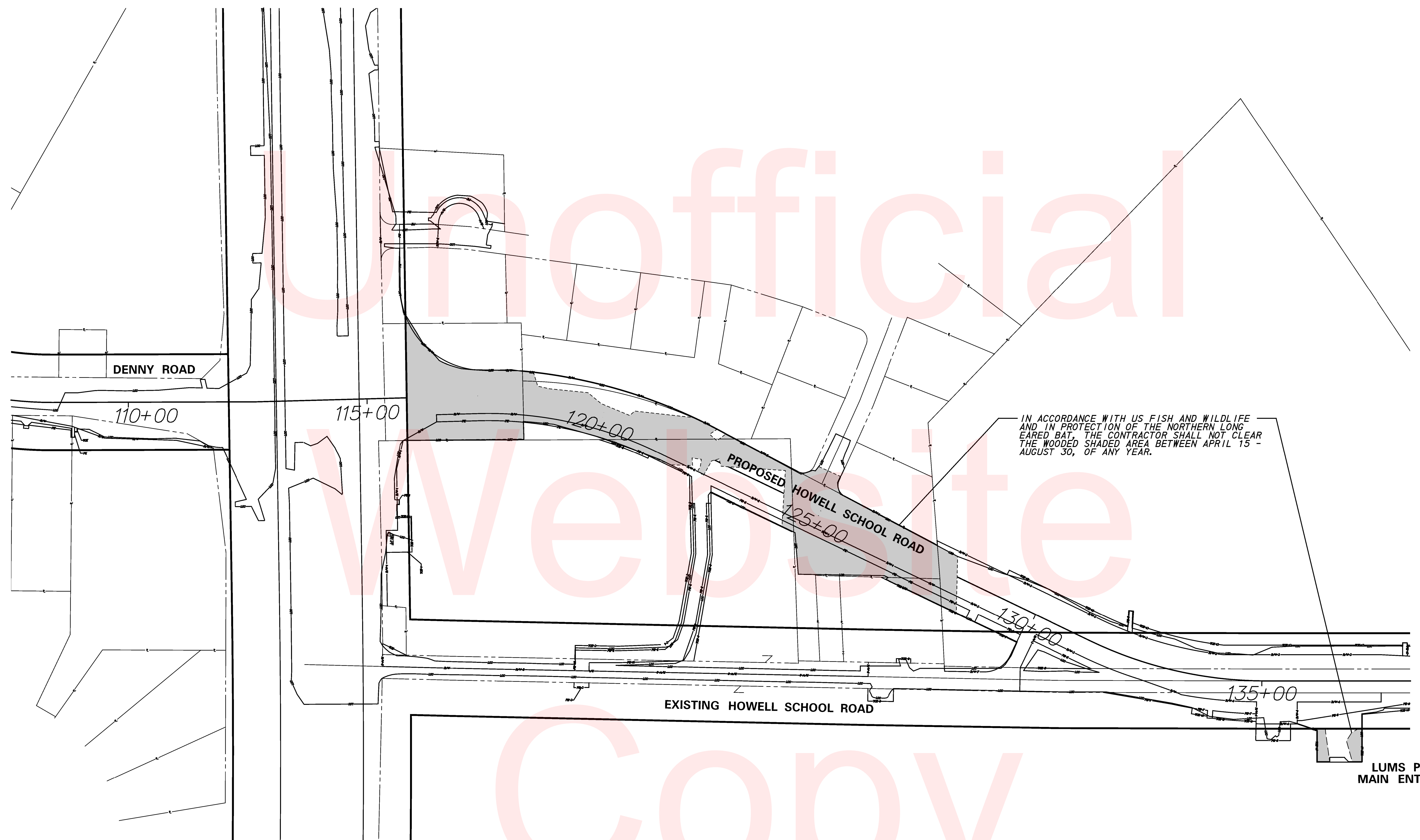
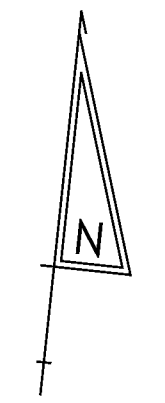


**HSIP NCC, N54, HOWELL SCHOOL ROAD,
SR 896 TO SR 71**

CONTRACT T200504110	BRIDGE NO. BR 1-376 & 1-378
COUNTY NEW CASTLE	DESIGNED BY: RMG
	CHECKED BY: PAH

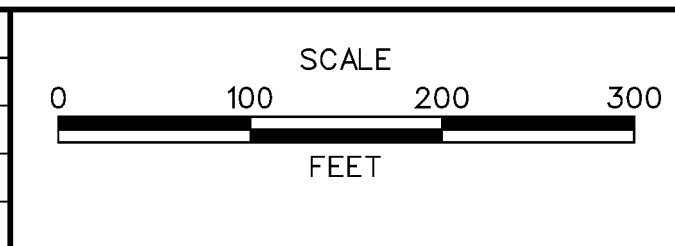
**ENVIRONMENTAL
COMPLIANCE PLANS**

EC-09
SHEET NO. 86
TOTAL SHTS. 138



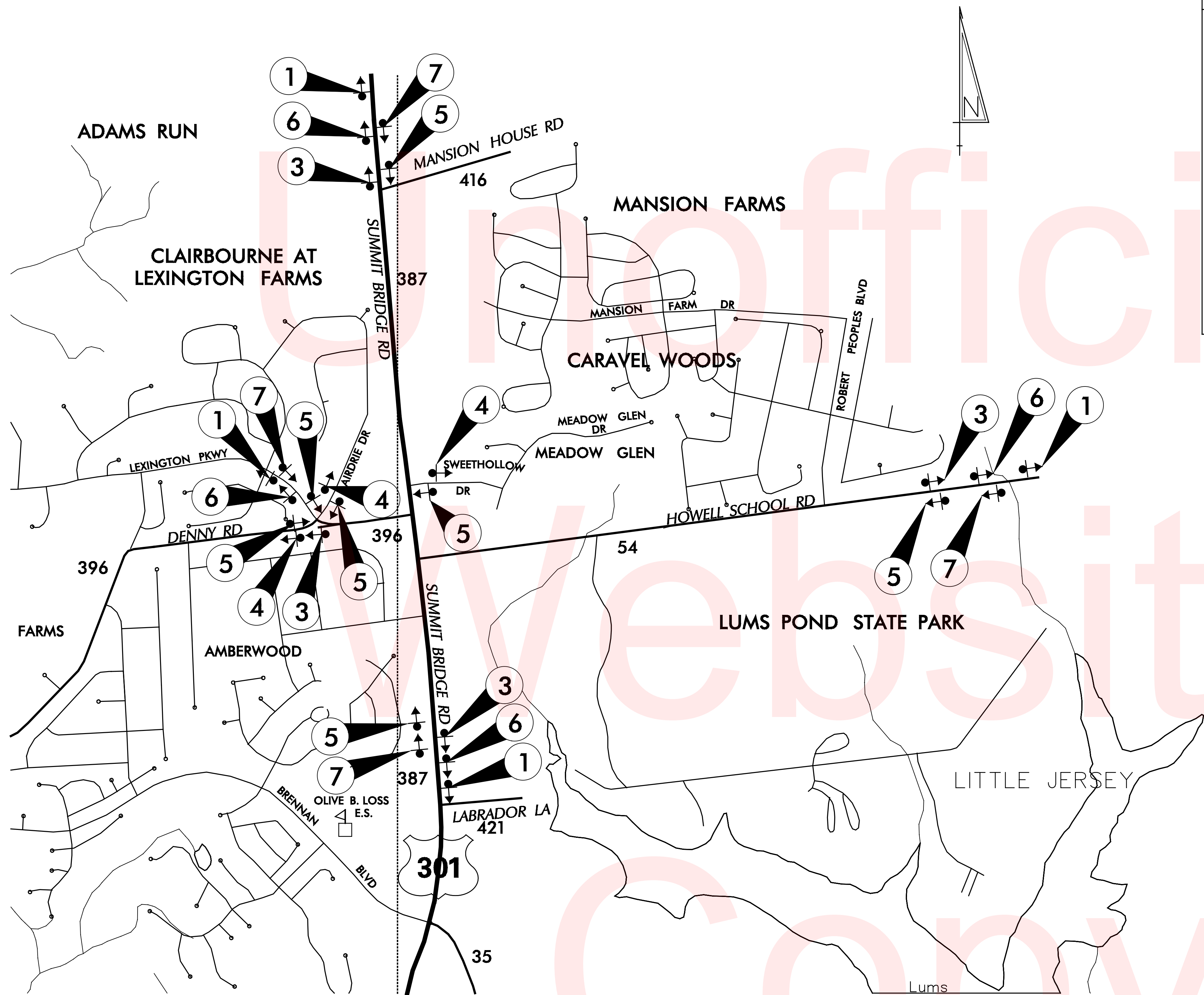
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ADDENDUMS / REVISIONS	



CONTRACT	BRIDGE NO. BR 1-376 & 1-378
T200504110	DESIGNED BY: RMG
COUNTY	CHECKED BY: PAH
NEW CASTLE	

EC-10
SHEET NO. 86A
TOTAL SHTS. 138



WARNING SIGN LEGEND				
W20-1 48" X 48"	W20-1 48" X 48"	W20-1 48" X 48"	W20-1 48" X 48"	G20-2A 48" X 24"
①	②	③	④	⑤
R2-10 36" X 48"	R2-11 36" X 48"			
⑥	⑦			

- NOTES:**
- SEE INDIVIDUAL PHASING PLANS FOR PLACEMENT OF TEMPORARY WARNING SIGNS. FINAL LOCATION OF ALL PERMANENT WARNING SIGNS SHALL BE COORDINATED WITH THE ENGINEER.
 - ALL WARNING SIGNS SHOWN ON THIS SHEET ARE TO BE DISPLAYED THROUGHOUT THE DURATION OF THE CONTRACT AND ARE TO BE PAID FOR UNDER ITEM 743024 - TEMPORARY WARNING SIGNS AND PLAQUES.
 - ANY EXISTING SIGNS THAT CONFLICT WITH CONSTRUCTION WARNING SIGNS SHALL BE COVERED AS NEEDED, AS DIRECTED BY THE ENGINEER.
 - ALL PERMANENT WARNING SIGNS ALONG SR 896 SHALL BE POSTED IN THE MEDIAN AND ADJACENT RIGHT SHOULDER.

MOT NOTES:

1. MAINTENANCE OF TRAFFIC DURING LANE CLOSURES, LANE SHIFTS, AND LANE DIVERSIONS SHALL CONFORM TO TA-10, TA-11B, OR TA-33 OF THE DELAWARE MUTCD.
2. GRADING AND MAINTAINING HOT MIX TRM THAT IS BEING USED AS A TRAVELWAY, DRIVEWAY, ACCESS RAMP, ETC. SHALL BE INCIDENTAL TO ITEM 743000 - MAINTENANCE OF TRAFFIC. EXCESS HOT MIX TRM SHALL BE PUSHED AHEAD AND USED IN THE NEXT SEGMENT AND SHALL BE INCIDENTAL TO THE PARTICULAR HOT MIX TRM PAY ITEM. NO PAYMENT SHALL BE MADE FOR TEMPORARY ROADWAY MATERIAL (TRM) USED TO PROTECT EDGE DROP-OFFS, UNLESS THE MATERIAL IS EVENTUALLY UTILIZED AS PART OF A PERMANENT ROADWAY AT WHICH TIME THE MATERIAL WOULD BE PAID FOR UNDER THE RESPECTIVE CONTRACT MATERIAL ITEM. CONSTRUCTION OF A PLANNED RUNAROUND OR DETOUR WOULD BE ELIGIBLE FOR PAYMENT AS SPECIFIED IN THE CONTRACT.
3. THIS PROJECT IS CONSIDERED A SIGNIFICANT PROJECT AS DEFINED BY DELDOT'S WORK ZONE MOBILITY PROCEDURES AND GUIDELINES. A TYPE B TRANSPORTATION MANAGEMENT PLAN (TMP) HAS BEEN PREPARED AND IS AVAILABLE FOR VIEWING BY CONTACTING THE DEPARTMENT'S SAFETY PROGRAMS MANAGER AT (302)659-4060. ALL MONITORING REQUIREMENTS OF THE TMP SHALL BE CONDUCTED BY DELDOT FORCES UNLESS OTHERWISE DIRECTED BY THE ENGINEER. MODIFICATIONS TO THE TMP SHALL BE COMPLETED BY THE CONTRACTOR IF CHANGES TO THE TIME RESTRICTIONS OR THE TRAFFIC CONTROL PLAN ARE DESIRED. THE MODIFIED TMP SHALL BE PREPARED BY A PROFESSIONAL ENGINEER, REGISTERED IN THE STATE OF DELAWARE.
4. A TYPE II TRUCK MOUNTED ATTENUATOR (TMA) SHALL BE REQUIRED ON THIS PROJECT DURING THE FOLLOWING PAVEMENT OPERATIONS: TEMPORARY/PERMANENT PAVEMENT MARKINGS, ROADSIDE SPRAYING, PATCHING, MILLING, SWEEPING, TEMPORARY TRAFFIC BARRIER PLACEMENT OR AS DIRECTED BY THE ENGINEER. THE ROLL AHEAD DISTANCE SHALL BE AS PER THE MANUFACTURER'S RECOMMENDATIONS. THE TMA SHALL CONFORM TO THE REQUIREMENTS OF SECTION 6F.86 OF THE DELAWARE MUTCD.
5. MESSAGE BOARD LOCATION AND MESSAGE SHALL BE COORDINATED AND APPROVED BY DISTRICT TRAFFIC SAFETY OFFICER.
6. PEDESTRIAN ACCESS TO ALL PROPERTIES ADJACENT TO ANY PEDESTRIAN FACILITY UNDER CONSTRUCTION SHALL BE MAINTAINED THROUGHOUT ALL PHASES OF CONSTRUCTION. ACCEPTABLE MATERIALS FOR TEMPORARY PEDESTRIAN PATHS SHALL INCLUDE CONCRETE, HOT-MIX, COMPACTED MILLINGS OR PLYWOOD WALKWAY STRUCTURE. PLYWOOD WALKWAY STRUCTURES SHALL ALSO INCLUDE DETECTABLE EDGING AND RAILINGS IN ACCORDANCE WITH ADA GUIDELINES AND THE DELAWARE MUTCD. TEMPORARY PEDESTRIAN PATHS SHALL BE INCIDENTAL TO ITEM 743000 UNLESS OTHERWISE SPECIFIED IN THE PLANS. STONE OR GRADED AGGREGATE BASE COURSE SHALL NOT BE USED FOR TEMPORARY PEDESTRIAN PATHS.
7. DURING CONSTRUCTION THE CONTRACTOR SHALL COORDINATE UPCOMING PEDESTRIAN IMPACTS WITH THE ENGINEER AND DISTRICT TRAFFIC SAFETY OFFICER TWO (2) WEEKS IN ADVANCE OF THE CONSTRUCTION ACTIVITY.
8. DELDOT TRAFFIC RESERVES THE RIGHT TO MODIFY THE TRAFFIC CONTROL AS FIELD CONDITIONS DICTATE.
9. THE CONTRACTOR SHALL BACKFILL DRAINAGE AND UTILITY CROSSINGS WITH TRM AT THE END OF EACH WORK DAY.
10. THE FOLLOWING CHART INDICATES THE ALLOWABLE LANE CLOSURE HOURS FOR THE PROJECT BROKEN DOWN BY PHASE:

ALLOWABLE LANE CLOSURE HOURS	
PHASE DESCRIPTION	TIME
PHASE 1A, 1B, 2A, 2B, 3A, 3B - ALL ROADS EXCEPT SR 896	9 A.M. - 3 P.M. (M-F)
PHASE 1A, 1B, 3B - SR 896	7:30 P.M. - 5:30 A.M. (SUN-F)
PHASE 1A - CULVERT REPLACEMENT (SEE NOTE 11)	NO CLOSURE RESTRICTIONS

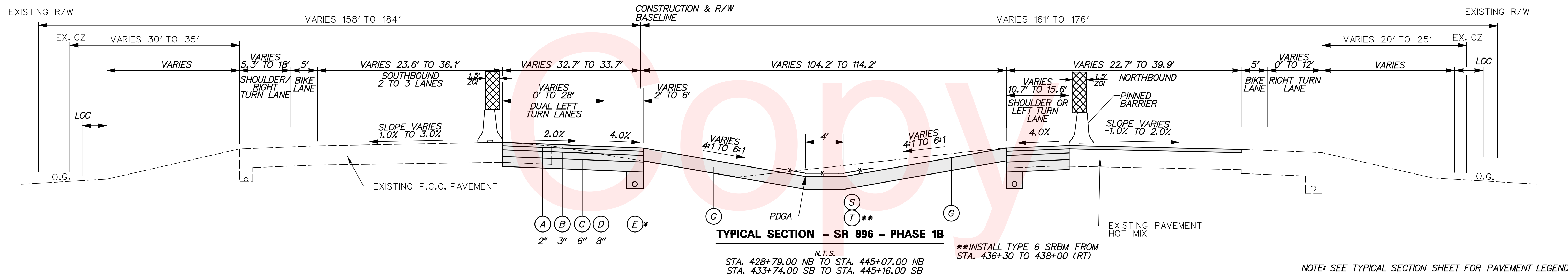
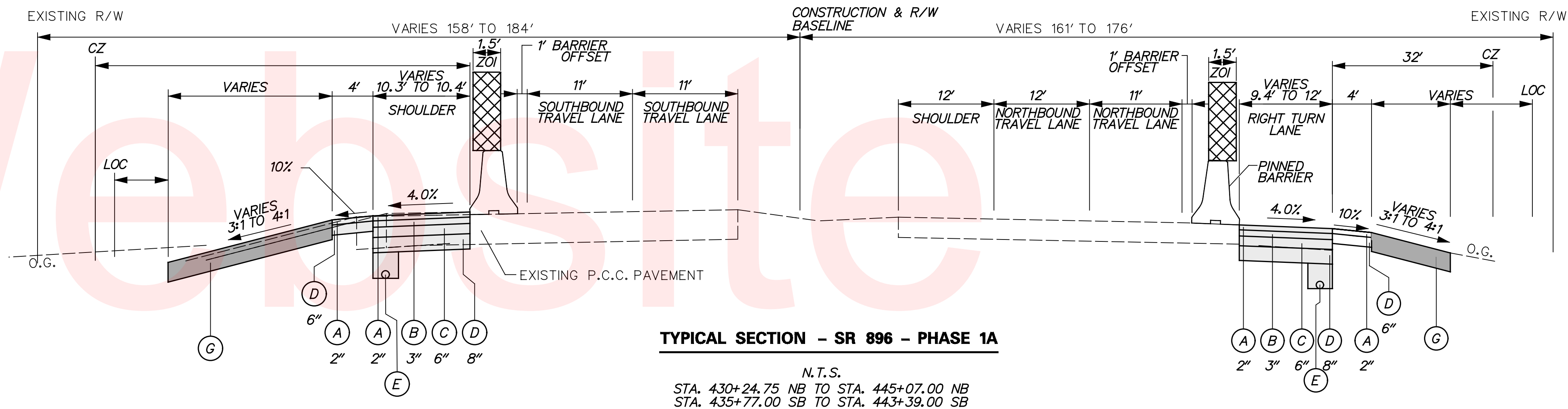
11. NIGHT WORK SHALL BE PERMITTED FOR CONSTRUCTION ACTIVITIES ON SR 896. NIGHT WORK SHALL BE PERMITTED ALONG HOWELL SCHOOL ROAD WITHIN THE FOLLOWING LIMITS: FROM STA. 130+00 TO STA. 136+50, DURING PHASE 1A ONLY. NIGHT WORK IS LIMITED TO THIS AREA OF HOWELL SCHOOL ROAD TO ALLOW FOR CULVERT RECONSTRUCTION, NCC SEWER INSTALLATION, TIE-IN OF PROPOSED HOWELL SCHOOL ROAD, AND ASSOCIATED CONSTRUCTION WITHIN THE AFOREMENTIONED LIMITS. ONE MONTH PRIOR TO COMMENCEMENT OF NIGHT TIME CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT A NIGHT WORK SCHEDULE FOR APPROVAL BY THE DEPARTMENT.
12. THE CONTRACTOR SHALL PROVIDE DELDOT THE PLAN TO MAINTAIN THE WORK ZONE AND ACCOMMODATE ROADWAYS AND PEDESTRIAN FACILITIES WITHIN THE PROJECT LIMITS 2 WEEKS IN ADVANCE OF RESTRICTED DATES.
13. ALL PERMANENT SIGNAGE SHALL BE INSTALLED PRIOR TO OPENING ROADWAY SECTIONS TO TRAFFIC.

EROSION AND SEDIMENT CONTROL NOTES:

1. THE CONTRACTOR SHALL REVIEW THE EROSION AND SEDIMENT CONTROL PLANS AND FAMILIARIZE THEMSELVES WITH THE METHODS REQUIRED FOR IMPLEMENTATION.
2. THE CONTRACTOR SHALL ADHERE TO THE TERMS OF THE VARIOUS PERMITS ISSUED TO THIS PROJECT.
3. CONSTRUCTION OF ANY PROPOSED DRAINAGE, TEMPORARY DRAINAGE, OR INSTALLATION OF EROSION CONTROL MEASURES SHALL START AT THE OUTFALL AND PROGRESS UPSTREAM FOR ALL CONSTRUCTION PHASES. WHEN SHOWN IN PLANS OR AS DIRECTED BY THE ENGINEER, SEDIMENT TRAPS SHALL BE CONSTRUCTED BEFORE STORMWATERS ARE ALLOWED TO DISCHARGE INTO WATERCOURSES.
4. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING POSITIVE DRAINAGE TO ALL EROSION AND SEDIMENT CONTROL DEVICES. SEDIMENT LADEN RUNOFF FROM DISTURBED AREAS SHALL NOT BE ALLOWED TO BYPASS EROSION AND SEDIMENT CONTROL DEVICES.
5. SOIL STOCKPILES: STOCKPILES OF SOIL SHALL BE STABILIZED WITH ITEM 908017 TEMPORARY SEEDING, DRY GROUND.
6. SHOULD THE UTILITY RELOCATIONS BE PERFORMED IN ADVANCE OF THE CONSTRUCTION OR PHASE IN WHICH THE CONTRACTOR IS ACTIVELY WORKING, THE CONTRACTOR SHALL ENSURE THAT PROPER EROSION AND SEDIMENT CONTROLS ARE IN PLACE.
7. THE CONTRACTOR SHALL USE CARE TO REMOVE SILT FROM TEMPORARY SWALES IN AREAS THAT WILL BE CONVERTED TO BIOFILTRATION SWALES. THE COST TO REPAIR OR REPLACE ANY DITCH MATTING THAT IS DAMAGED DURING THE MAINTAINANCE OF TEMPORARY SWALES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

EROSION & SEDIMENT CONTROL	
	INLET SEDIMENT CONTROL
	STONE CHECK DAM
	SANDBAG DIVERSION
	STABILIZED CONSTRUCTION ENTRANCE
	SILT FENCE / LENGTH
	SUPER SILT FENCE / LENGTH
	SILT FENCE
	SUPER SILT FENCE
	EARTH DIKE
	RIPRAP
	SUMP PIT, TYPE 1
	SEDIMENT TRAP

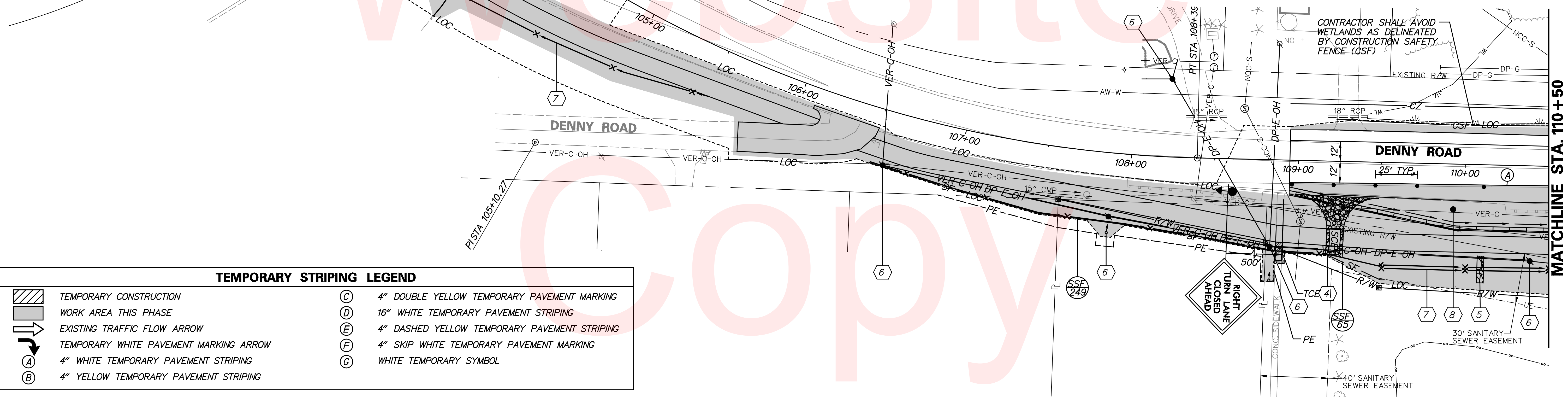
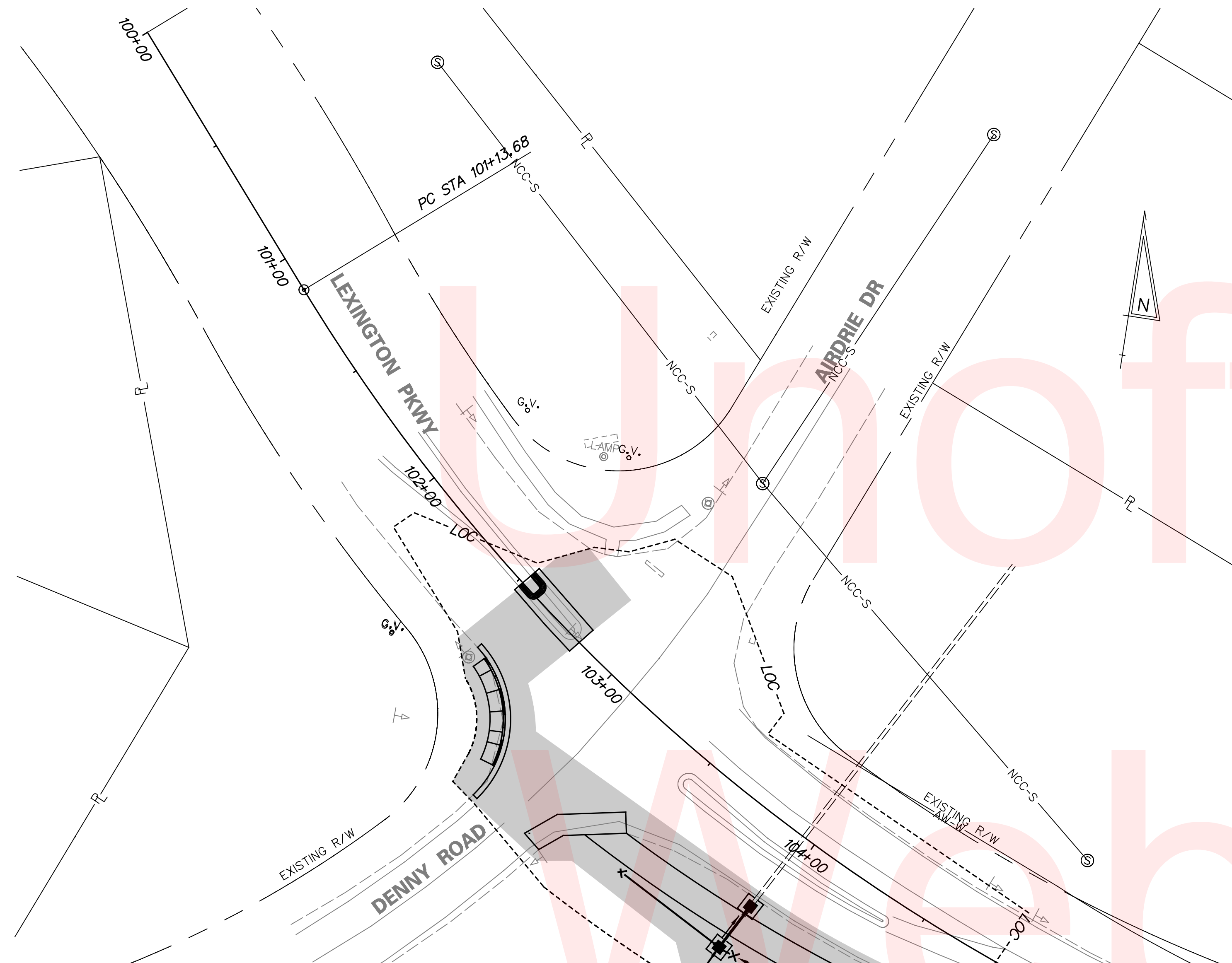
SEDIMENT TRAP SCHEDULE												
NO.	STA.	OFFSET	D. AREA (ACRES)	CHANNEL SLOPE (FT/FT)	ELEVATIONS			DIMENSIONS			TEMP STOR VOL (CF)	OUTLET TYPE
					PROP	BOT EL.	SWALE INV	SED TRAP	LENGTH (FT)	WIDTH (FT)		
1	111+00	65 RT	5.48	0.0482	63.61	59.61	50	10	4	1603	SCD	
2	116+00	91 LT	8.48	0.0332	60.88	56.88	75	12	4	2921	SCD	
3	116+75	42 LT	1.07	0.0312	61.56	57.56	75	10	4	2378	SCD	
4	433+00	180 RT	23.00	0.0080	57.60	53.60	100	10	4	2400	SCD	
5	121+50	30 LT	0.68	0.0121	58.49	54.49	100	10	4	2605	SCD	
6	123+50	38 LT	1.94	0.0103	59.42	55.42	100	10	4	2515	SCD	
7	134+00	38 LT	9.74	0.0100	56.94	52.94	100	10	4	2500	SCD	
8	136+75	55 LT	0.35	0.0032	55.34	52.34	75	14	3	1701	SCD	
9	437+50	44 RT	9.70	0.0060	61.86	57.86	150	12	4	4410	SCD	
11	137+00	37 LT	24.90	0.0035	55.80	51.80	50	14	4	1461	SCD	



NOTE: SEE TYPICAL SECTION SHEET FOR PAVEMENT LEGEND

SEQUENCE OF CONSTRUCTION

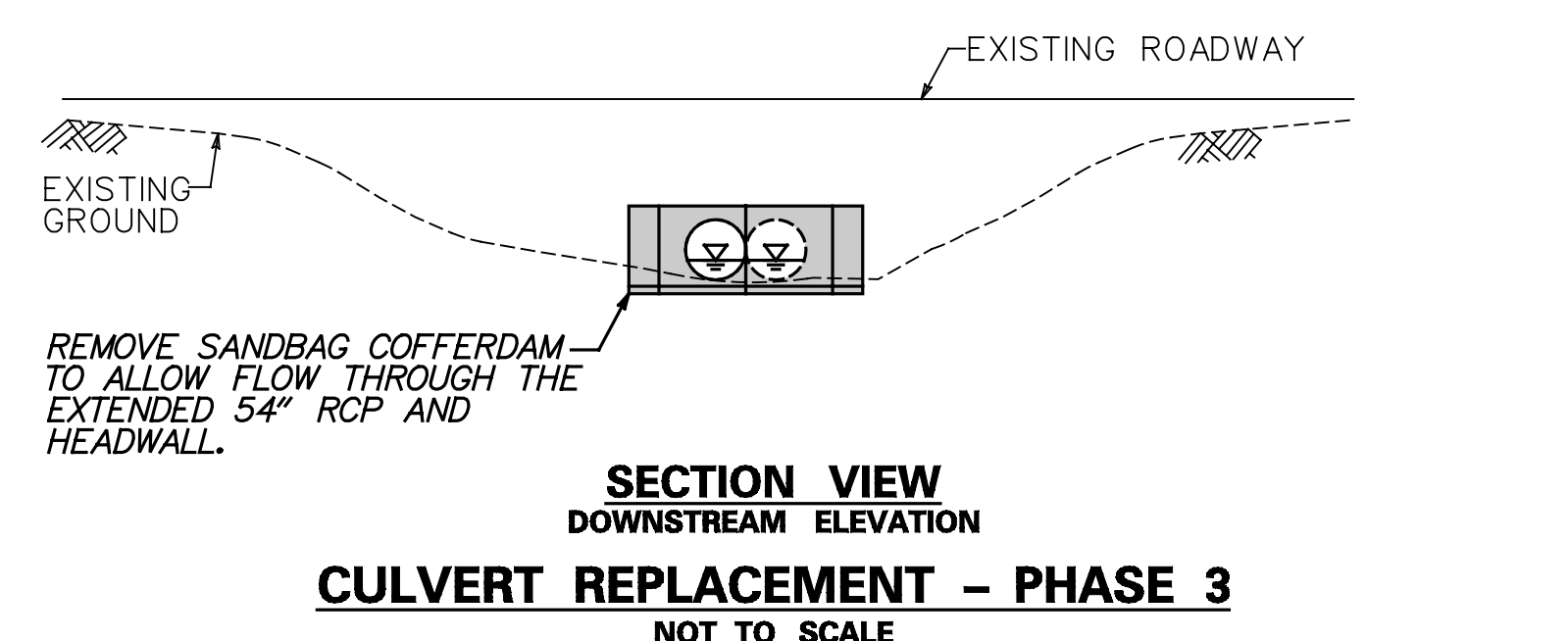
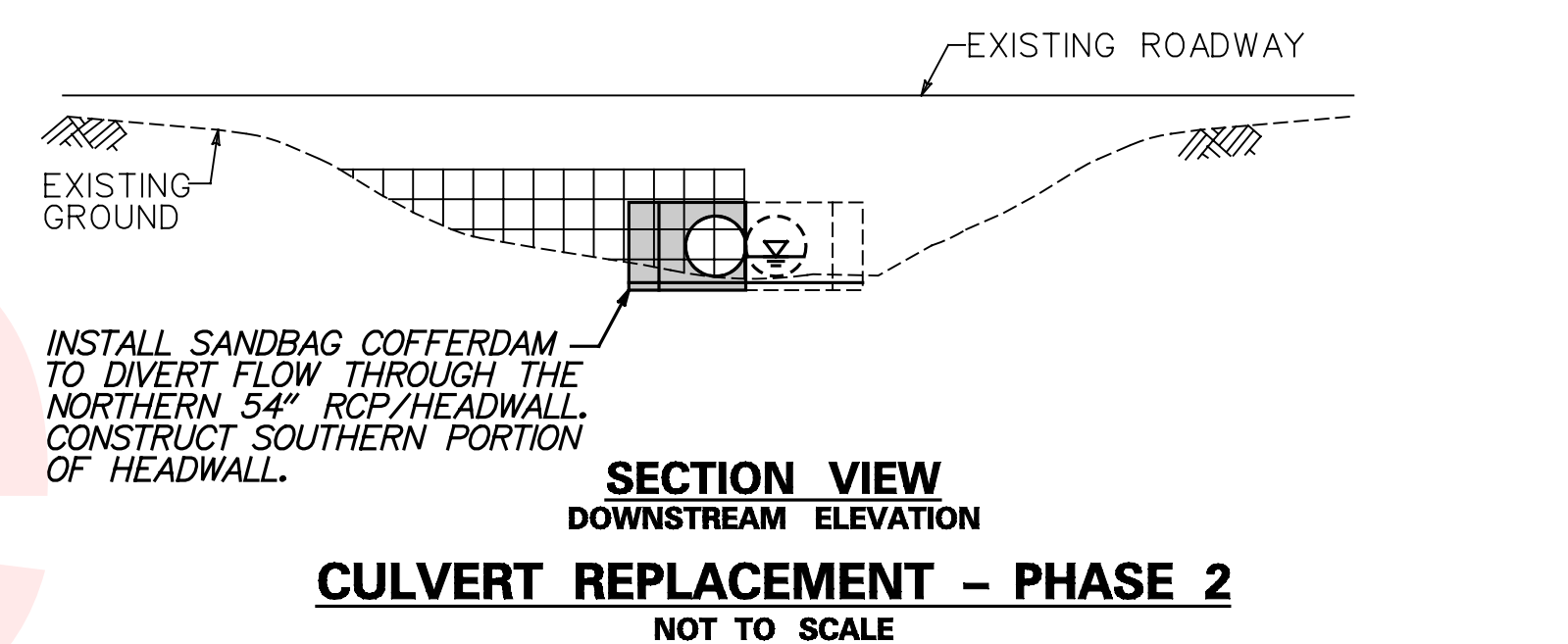
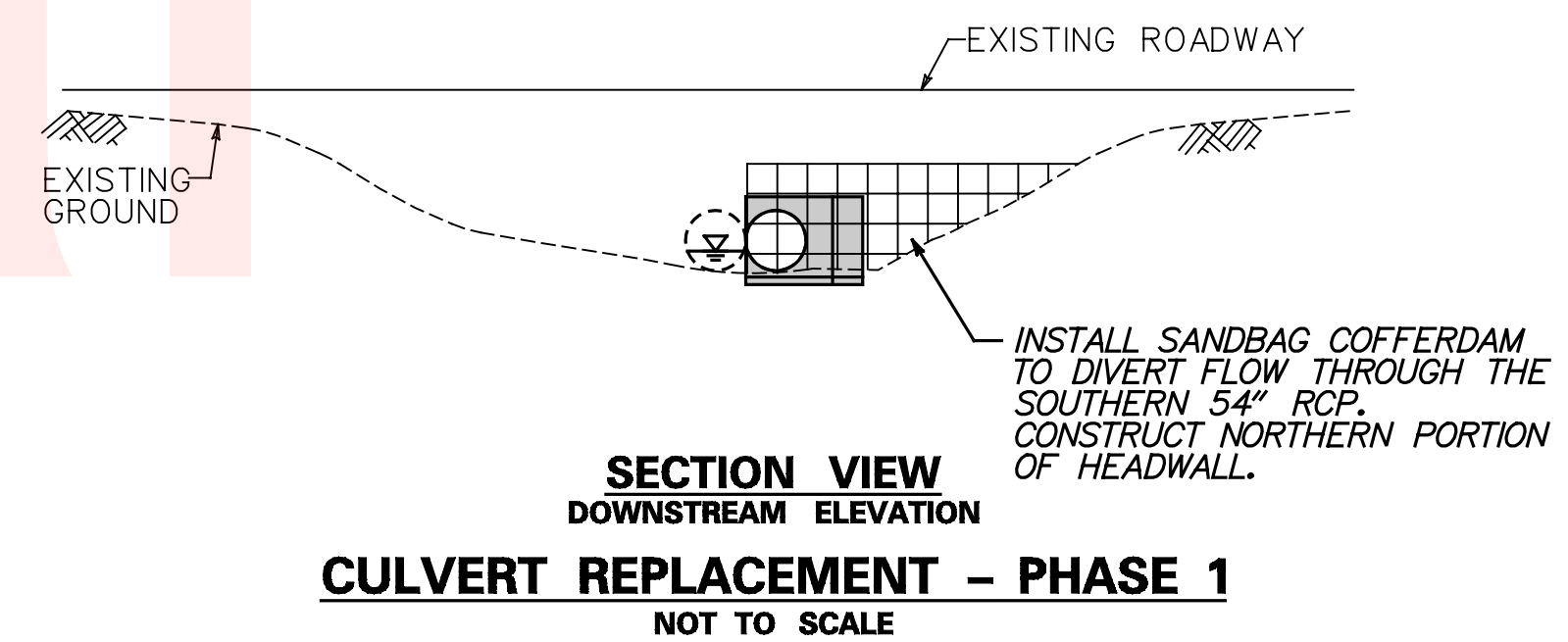
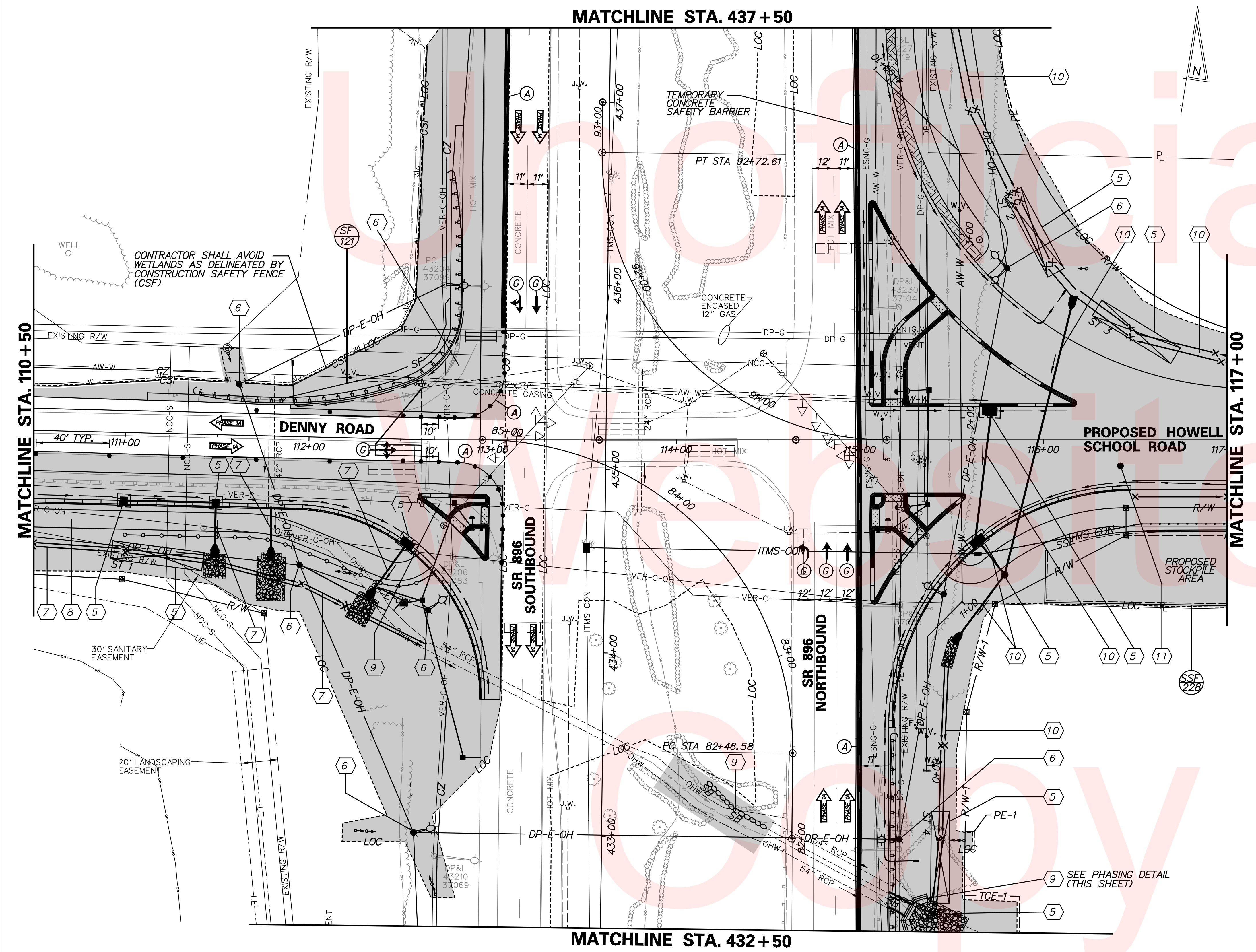
- PHASE 1A**
- 1 INSTALL TEMPORARY SIGNAL EQUIPMENT AS SHOWN IN THE PHASE 1A SIGNAL PLAN.
 - 2 INSTALL MAINTENANCE OF TRAFFIC AND PHASE 1A BICYCLE DETOUR AS SHOWN ON THE BICYCLE DETOUR PLAN FOR PHASE 1A. TA-33 - STATIONARY LANE CLOSURE ON A MULTI-LANE, DIVIDED HIGHWAY SHALL BE USED FOR THE LANE CLOSURE ALONG SR 896. TA-10 - LANE CLOSURE ON A TWO-LANE ROAD USING FLAGGERS SHALL BE USED FOR WORK ON HOWELL SCHOOL ROAD.
 - 3 MAINTAIN ACCESS TO THE ARC PROPERTY AT STA. 912+50 FROM S.R. 896 ON EXISTING HOWELL SCHOOL ROAD AT ALL TIMES. MAINTAIN ACCESS TO SWEET HOLLOW DRIVE UNTIL ACCESS TO MEADOW GLEN HAS BEEN OPENED TO TRAFFIC.
 - 4 INSTALL STABILIZED CONSTRUCTION ENTRANCES AS SHOWN ON THE PLANS.
 - 5 INSTALL REQUIRED EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN ON THE PLANS.
 - 6 PERFORM CLEARING AND GRUBBING, THEN ADJUST/RELOCATE UTILITIES AS SHOWN WITHIN PHASE 1A, INCLUDING ALL DELMARVA POLES TO BE RESET AS SHOWN ON THE CONSTRUCTION PLANS FROM STATION 132+00 THROUGH STATION 187+00, UNLESS OTHERWISE SPECIFIED ON PHASE 1A CONSTRUCTION PHASING PLANS. INSTALL PROPOSED INTERSECTION LIGHTING. INSTALL ITMS CONDUIT AND ASSOCIATED JUNCTION WELLS AS SHOWN ON THE SIGNING, STRIPING, AND CONDUIT PLAN. ARTESIAN TO INSTALL WATERMAIN EXTENSION TO LUMS POND AS IDENTIFIED ON THE PLANS.
 - 7 INSTALL PROPOSED SWALES AND DRAINAGE ALONG SR. 896/DENNY ROAD WITHIN THE WORK AREA AS SHOWN ON THE PLANS.
 - 8 CONSTRUCT DENNY ROAD WIDENING AND INTERSECTION WORK. CONSTRUCT PROPOSED ASPHALT PATH ALONG DENNY ROAD AS SHOWN ON PLANS.
 - 9 INSTALL PROPOSED CULVERT EXTENSION AND HEADWALL ON NORTHBOUND SR. 896 AT STATION 433+00. CONSTRUCT HEADWALL IN PHASES THROUGH USE OF SANDBAG COFFERDAM AND APPROVED DEWATERING PRACTICE. DIRECT EXISTING FLOW THROUGH SOUTHERN CULVERT FIRST, RELOCATE TO THE NORTHERN CULVERT TO COMPLETE. REMOVE EROSION AND SEDIMENT CONTROL PRACTICES UPON COMPLETION.
 - 10 INSTALL PROPOSED SWALES AND DRAINAGE ALONG EXISTING AND PROPOSED HOWELL SCHOOL ROAD WITHIN THE PHASE 1A WORK AREA BEGINNING AT THE OUTFALL LOCATIONS. INSTALL PROPOSED TEMPORARY DIVERSION SWALES AND SANDBAG DIVERSIONS AT STA 122+50 AND 905+75 PRIOR TO CONSTRUCTING DRAINAGE CROSSING AND SWALE.
 - 11 CONSTRUCT PROPOSED HOWELL SCHOOL ROAD AND PATH BETWEEN STA. 115+00 AND STA. 132+00. CONSTRUCT PROPOSED MEADOW GLEN ENTRANCE AT STA 124+75.
 - 12 INSTALL PHASE 1A DETOUR AND CLOSE EXISTING HOWELL SCHOOL ROAD EAST OF LUMS POND (STA. 137+75) AS SHOWN ON THE PHASE 1A DETOUR PLAN.
 - 13 CONSTRUCT TEMPORARY GEOTEXTILE CHANNELS AND INSTALL SANDBAGS AT THE UPSTREAM AND DOWNSTREAM END OF THE PROPOSED CULVERT AT STA. 135+20 TO DIRECT FLOW THROUGH THE EXISTING CULVERT. THE GEOTEXTILE CHANNEL CROSS SECTION SHOULD MATCH THE EXISTING ROAD SIDE SWALE CAPACITY.
 - 14 CONSTRUCT THE PROPOSED CULVERT EXCLUDING THE WINGWALLS.
 - 15 PLACE THE SANDBAG DIKE WITH DIVERSION (INCLUDING A 24" FLEXIBLE PIPE) AT THE UPSTREAM AND DOWNSTREAM END OF THE PROPOSED CULVERT.
 - 16 CONSTRUCT THE PROPOSED BOX CULVERT WINGWALLS.
 - 17 REMOVE THE SANDBAG DIKES AT THE PROPOSED BOX CULVERT. PLACE SANDBAG DIKES AT THE EXISTING CULVERT TO DIVERT ALL FLOW TO THE PROPOSED CULVERT.
 - 18 SET FORMS FOR THE FLOWABLE FILL. COMPLETE PLACEMENT OF THE FLOWABLE FILL IN THE EXISTING CULVERT.
 - 19 CONSTRUCT THE PROPOSED HOWELL SCHOOL ROAD TIE IN TO THE TOP OF THE HOT-MIX TYPE B COURSE. MAINTAIN ACCESS TO LUMS POND STATE PARK AND ARC PROPERTY AT ALL TIMES.
 - 20 REMOVE EXISTING HOWELL SCHOOL ROAD FROM 912+50 TO 917+25. MAINTAIN ARC DRIVEWAY ACCESS FROM THE WEST.
 - 21 CONSTRUCT PROPOSED ARC DRIVEWAY AT STA 130+00. MAINTAIN ACCESS ALONG EXISTING HOWELL SCHOOL ROAD FROM THE WEST.
 - 22 REMOVE EXISTING HOWELL SCHOOL ROAD FROM SR 896 TO 912+50 AND OPEN THE PROPOSED ARC DRIVEWAY AND MEADOW GLEN ENTRANCE FOR USE.
 - 23 FOLLOWING THE OPENING OF THE MEADOW GLEN ENTRANCE, CLOSE SWEET HOLLOW DRIVE AND CONSTRUCT THE PROPOSED CUL-DE-SAC AS SHOWN ON THE PLANS.
 - 24 INSTALL TEMPORARY PAVEMENT MARKINGS ALONG PROPOSED HOWELL SCHOOL ROAD FOLLOWING THE PERMANENT STRIPING PLANS.
 - 25 REMOVE PHASE 1A DETOUR. BARRICADE PROPOSED HOWELL SCHOOL ROAD AT THIS TIME TO RESTRICT FULL TRAFFIC USE. CONTRACTOR TO ALLOW RIGHT IN/OUT AT SR 896 AND PROPOSED HOWELL SCHOOL ROAD INTERSECTION IN PHASE 1B.
 - 26 TOPSOIL AND SEED AREAS DISTURBED DURING PHASE 1A, GEOTEXTILE LINED CHANNELS AND ENSURE STABILIZATION PRIOR TO MOVING TO PHASE 1B.



TEMPORARY STRIPING LEGEND

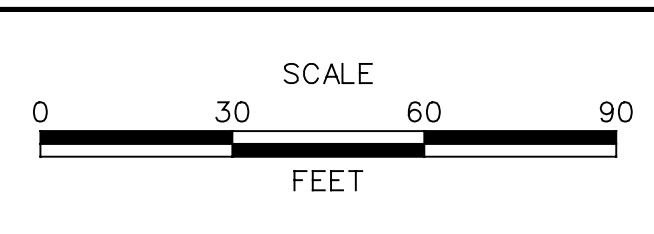
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	WORK AREA THIS PHASE		16" WHITE TEMPORARY PAVEMENT STRIPING
	EXISTING TRAFFIC FLOW ARROW		4" DASHED YELLOW TEMPORARY PAVEMENT STRIPING
	TEMPORARY WHITE PAVEMENT MARKING ARROW		4" SKIP WHITE TEMPORARY PAVEMENT MARKING
	4" WHITE TEMPORARY PAVEMENT STRIPING		WHITE TEMPORARY SYMBOL
	4" YELLOW TEMPORARY PAVEMENT STRIPING		

TEMPORARY STRIPING LEGEND	
	TEMPORARY CONSTRUCTION
	WORK AREA THIS PHASE
	EXISTING TRAFFIC FLOW ARROW
	TEMPORARY WHITE PAVEMENT MARKING ARROW
	4" WHITE TEMPORARY PAVEMENT STRIPING
	4" YELLOW TEMPORARY PAVEMENT STRIPING
	4" DOUBLE YELLOW TEMPORARY PAVEMENT MARKING
	16" WHITE TEMPORARY PAVEMENT STRIPING
	4" DASHED YELLOW TEMPORARY PAVEMENT STRIPING
	4" SKIP WHITE TEMPORARY PAVEMENT MARKING
	WHITE TEMPORARY SYMBOL







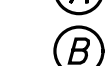



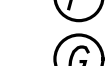
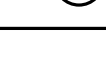

NOTE:
SEE SHEET 88 FOR S.R. 896 TYPICAL SECTION.

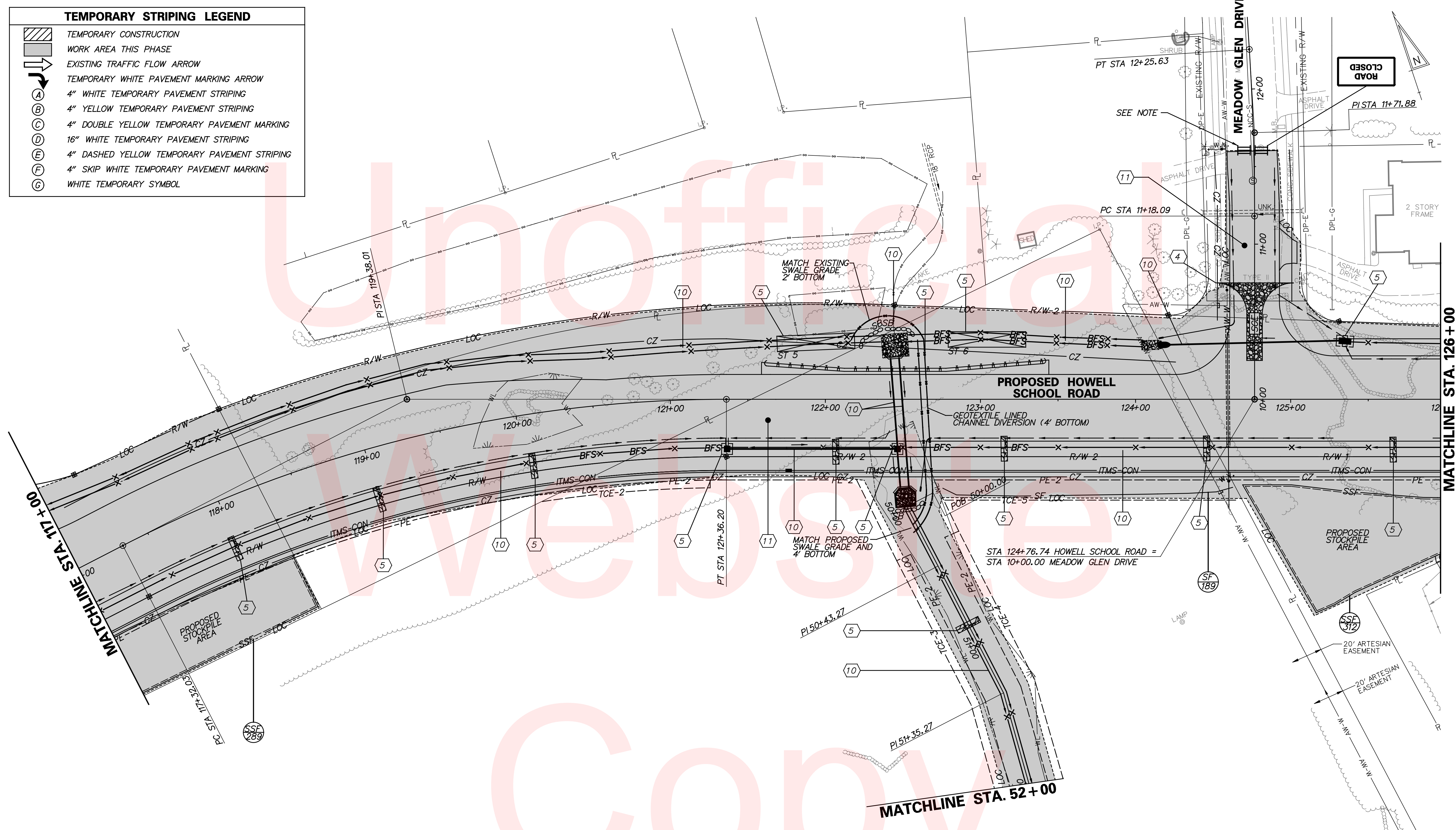
ADDENDUMS / REVISIONS



CONTRACT T200504110	BRIDGE NO. BR 1-376 & 1-378
COUNTY NEW CASTLE	DESIGNED BY: RMG
	CHECKED BY: PAH

TEMPORARY STRIPING LEGEND

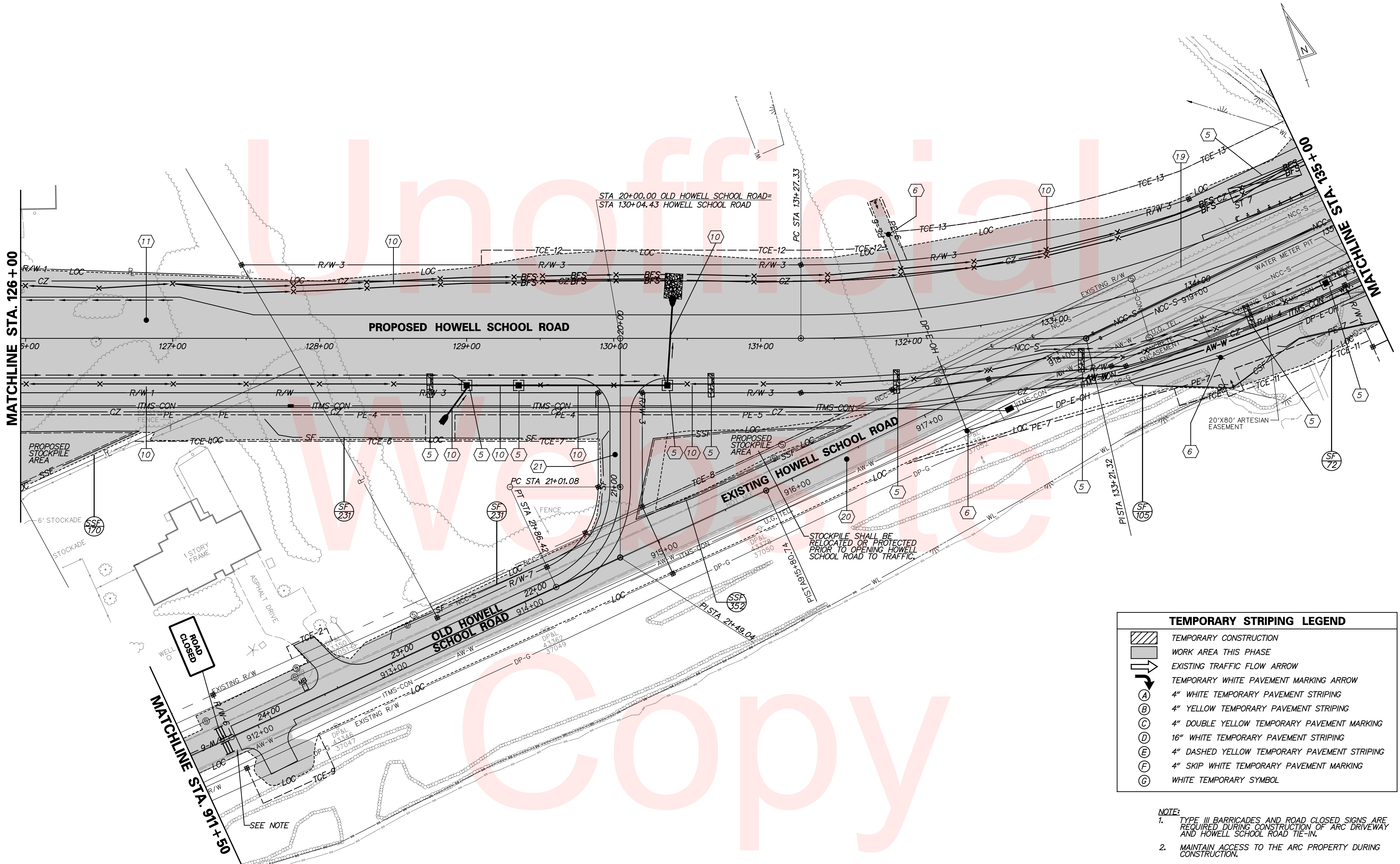
-  TEMPORARY CONSTRUCTION
-  WORK AREA THIS PHASE
-  EXISTING TRAFFIC FLOW ARROW
-  TEMPORARY WHITE PAVEMENT MARKING ARROW
-  4" WHITE TEMPORARY PAVEMENT STRIPING
-  4" YELLOW TEMPORARY PAVEMENT STRIPING
-  4" DOUBLE YELLOW TEMPORARY PAVEMENT MARKING
-  16" WHITE TEMPORARY PAVEMENT STRIPING
-  4" DASHED YELLOW TEMPORARY PAVEMENT STRIPING
-  4" SKIP WHITE TEMPORARY PAVEMENT MARKING
-  WHITE TEMPORARY SYMBOL



NOTE:
 MAINTAIN ACCESS TO RESIDENTS ON MEADOW
 GLEN DRIVE VIA SWEET HOLLOW DRIVE DURING
 CONSTRUCTION OF MEADOW GLEN DRIVE.

MATCHLINE STA. 126+00

MATCHLINE STA. 135+00



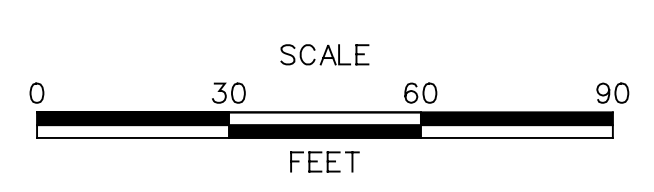
STOCKPILE SHALL BE RELOCATED OR PROTECTED PRIOR TO OPENING HOWELL SCHOOL ROAD TO TRAFFIC.

TEMPORARY STRIPING LEGEND

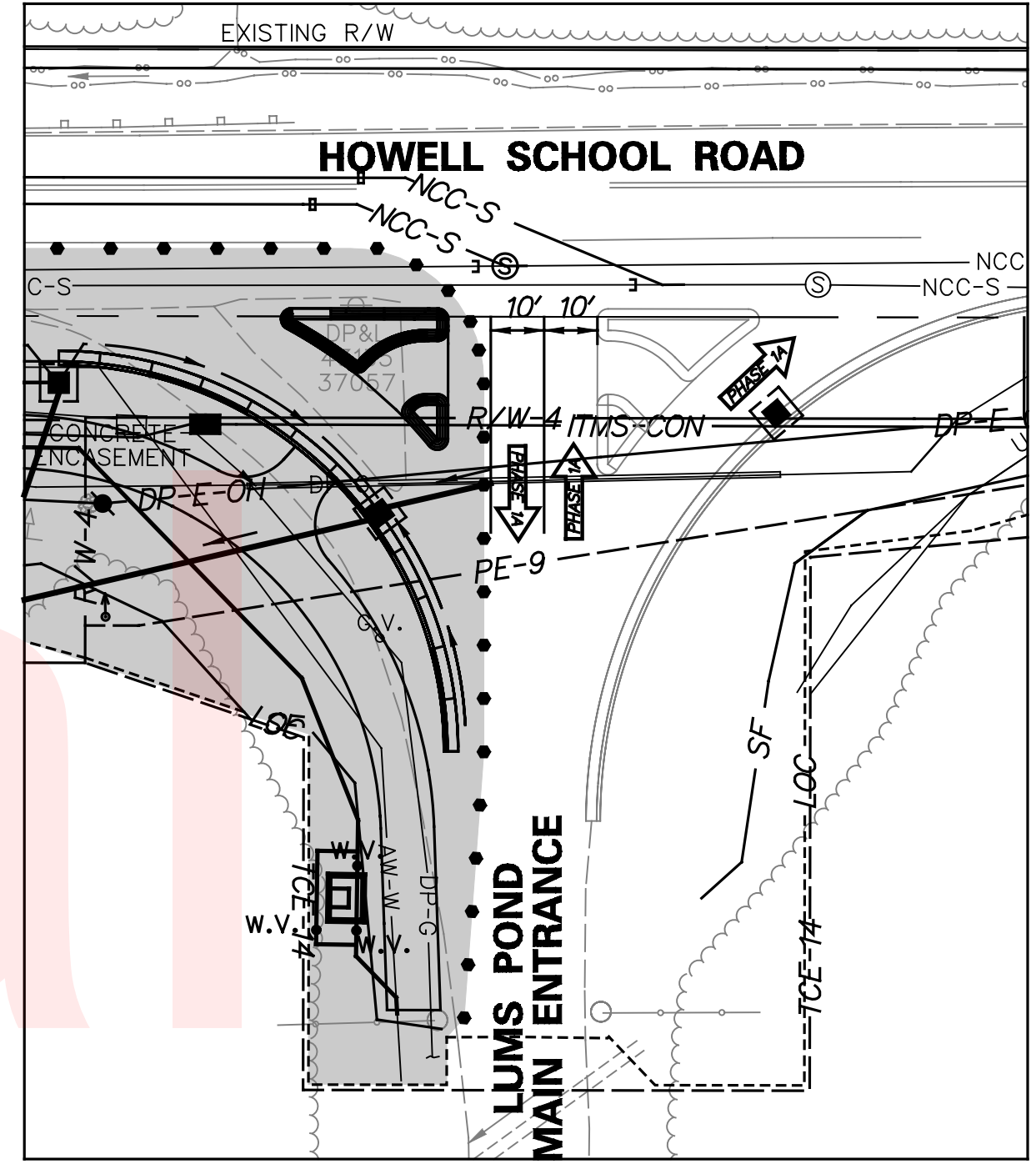
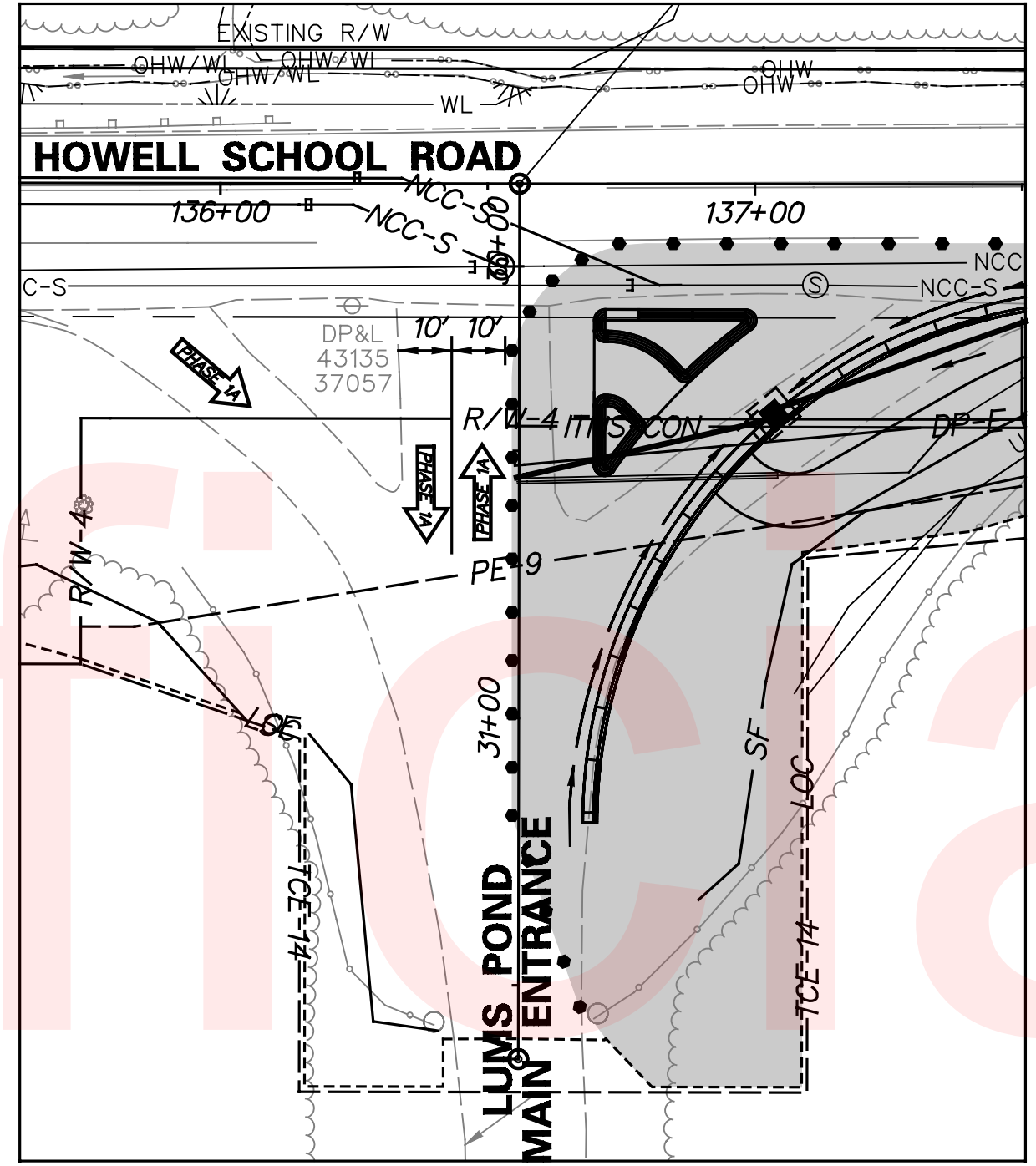
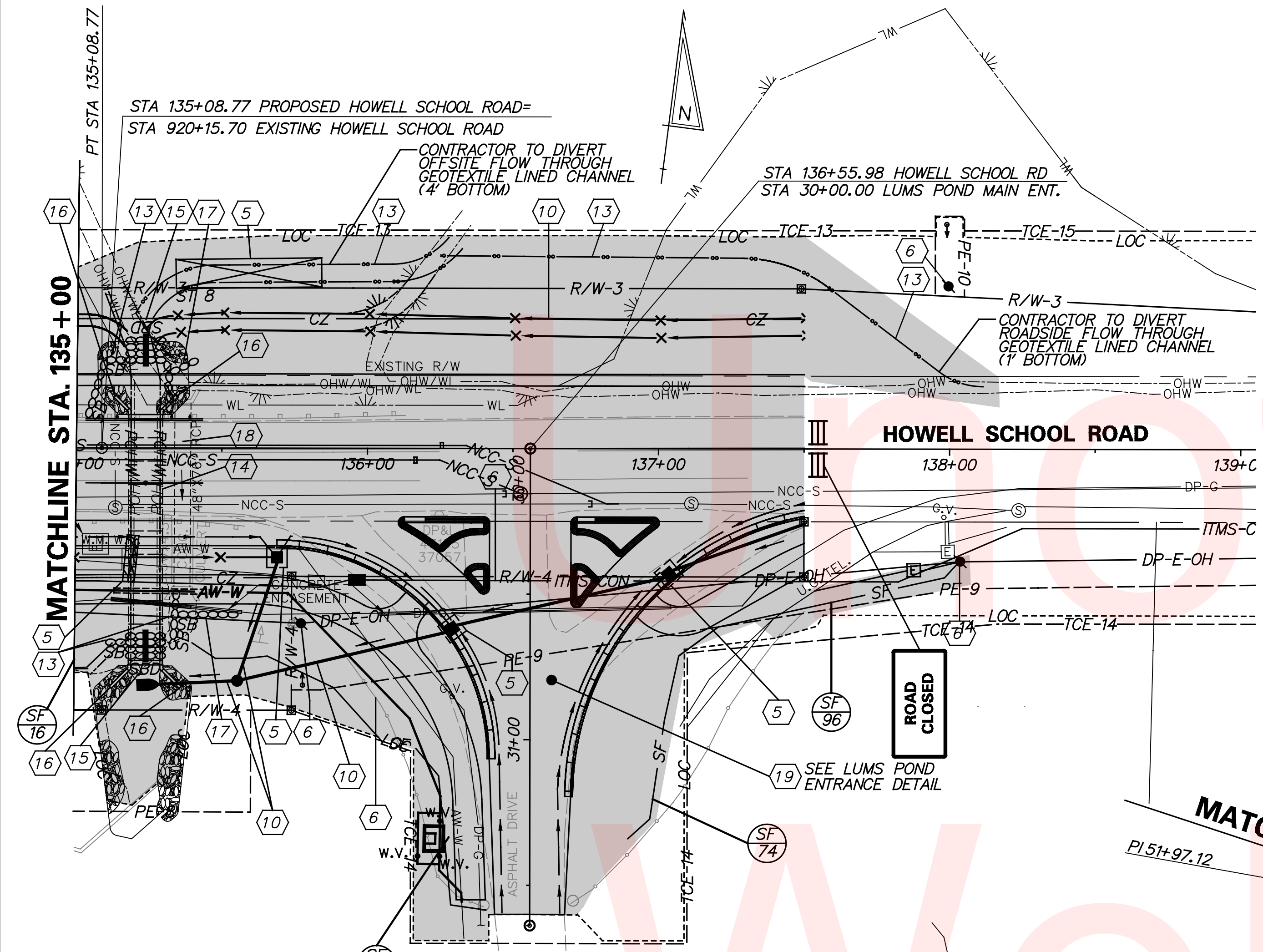
	TEMPORARY CONSTRUCTION
	WORK AREA THIS PHASE
	EXISTING TRAFFIC FLOW ARROW
	TEMPORARY WHITE PAVEMENT MARKING ARROW
	4" WHITE TEMPORARY PAVEMENT STRIPING
	4" YELLOW TEMPORARY PAVEMENT STRIPING
	4" DOUBLE YELLOW TEMPORARY PAVEMENT MARKING
	16" WHITE TEMPORARY PAVEMENT STRIPING
	4" DASHED YELLOW TEMPORARY PAVEMENT STRIPING
	4" SKIP WHITE TEMPORARY PAVEMENT MARKING
	WHITE TEMPORARY SYMBOL

- NOTE:**
- TYPE III BARRICADES AND ROAD CLOSED SIGNS ARE REQUIRED DURING CONSTRUCTION OF ARC DRIVEWAY AND HOWELL SCHOOL ROAD TIE-IN.
 - MAINTAIN ACCESS TO THE ARC PROPERTY DURING CONSTRUCTION.

ADDENDUMS / REVISIONS



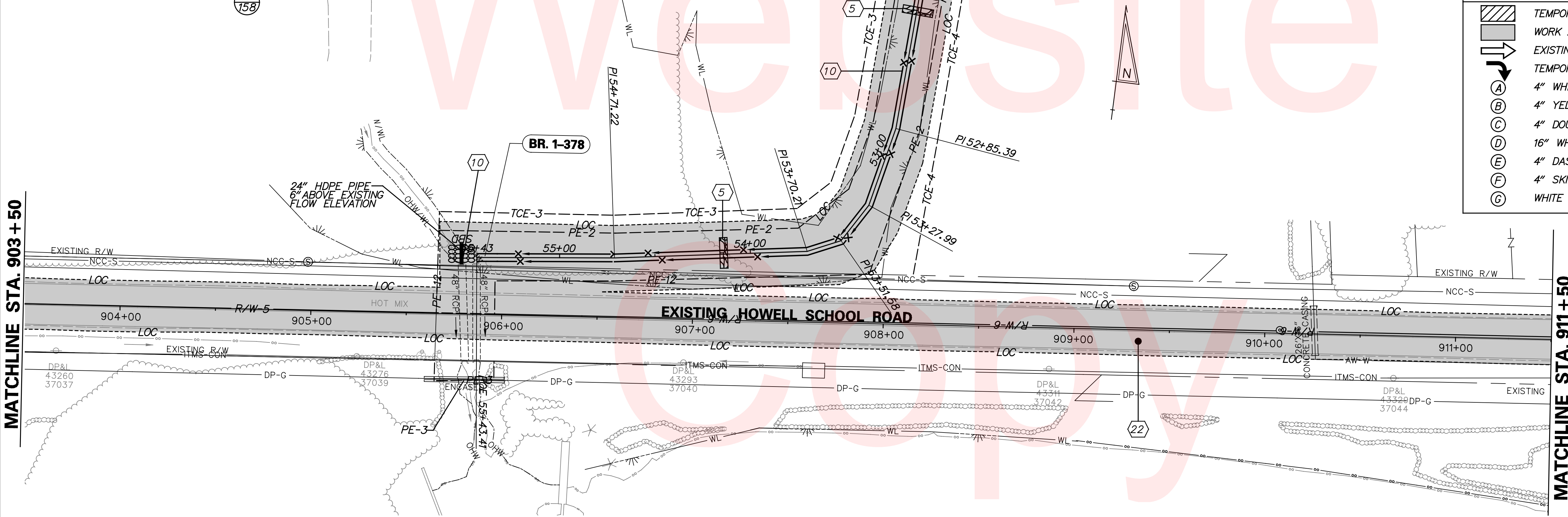
CONTRACT T200504110	BRIDGE NO. BR 1-376 & 1-378
COUNTY NEW CASTLE	DESIGNED BY: RMG
	CHECKED BY: PAH



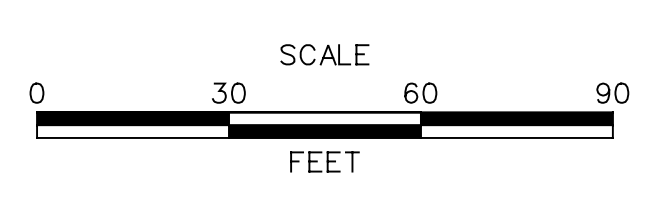
- 19 LUMS POND ENTRANCE DETAIL SEQUENCE OF CONSTRUCTION**
- (A) MAINTAIN FULL ACCESS TO LUMS POND MAIN ENTRANCE AT ALL TIMES.
 - (B) CONSTRUCT CHANNELIZATION ISLAND AND PROPOSED ENTRANCE WORK ON THE SOUTHEAST CORNER.
 - (C) CONSTRUCT CHANNELIZATION ISLAND AND PROPOSED ENTRANCE WORK ON THE SOUTHWEST CORNER.

TEMPORARY STRIPING LEGEND

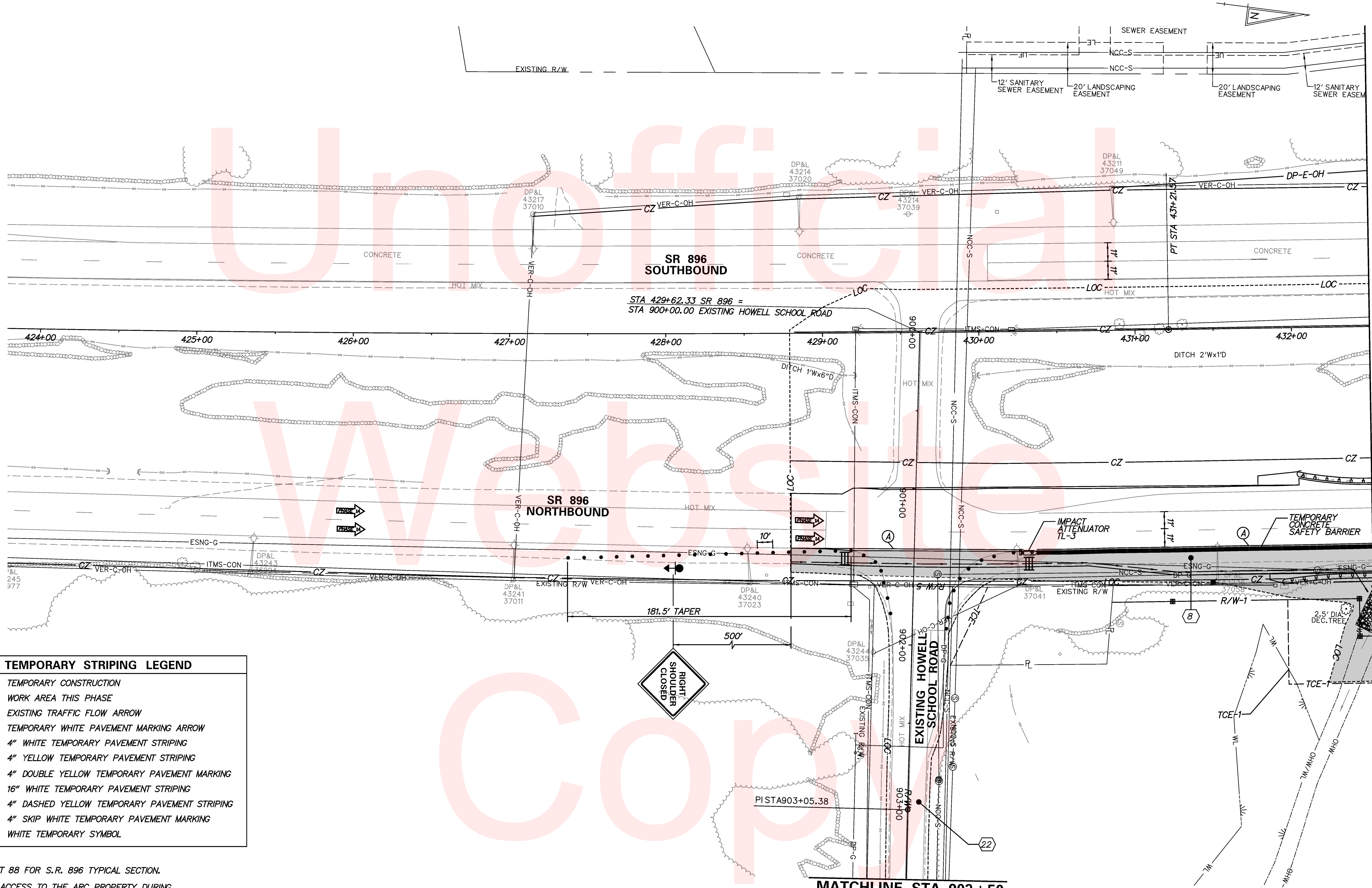
	TEMPORARY CONSTRUCTION WORK AREA THIS PHASE
	EXISTING TRAFFIC FLOW ARROW
	TEMPORARY WHITE PAVEMENT MARKING ARROW
(A)	4" WHITE TEMPORARY PAVEMENT STRIPING
(B)	4" YELLOW TEMPORARY PAVEMENT STRIPING
(C)	4" DOUBLE YELLOW TEMPORARY PAVEMENT MARKING
(D)	16" WHITE TEMPORARY PAVEMENT STRIPING
(E)	4" DASHED YELLOW TEMPORARY PAVEMENT STRIPING
(F)	4" SKIP WHITE TEMPORARY PAVEMENT MARKING
(G)	WHITE TEMPORARY SYMBOL



ADDENDUMS / REVISIONS



CONTRACT	T200504110	BRIDGE NO.	BR 1-376 & 1-378
COUNTY	NEW CASTLE	DESIGNED BY:	RMG
		CHECKED BY:	PAH



MATCHLINE STA. 432 + 50

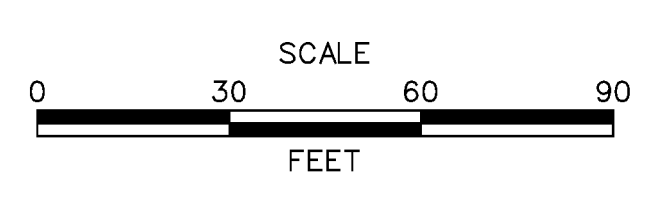
MATCHLINE STA. 903 + 50

TEMPORARY STRIPING LEGEND	
	TEMPORARY CONSTRUCTION
	WORK AREA THIS PHASE
	EXISTING TRAFFIC FLOW ARROW
	TEMPORARY WHITE PAVEMENT MARKING ARROW
	4" WHITE TEMPORARY PAVEMENT STRIPING
	4" YELLOW TEMPORARY PAVEMENT STRIPING
	4" DOUBLE YELLOW TEMPORARY PAVEMENT MARKING
	16" WHITE TEMPORARY PAVEMENT STRIPING
	4" DASHED YELLOW TEMPORARY PAVEMENT STRIPING
	4" SKIP WHITE TEMPORARY PAVEMENT MARKING
	WHITE TEMPORARY SYMBOL

NOTE:
 1. SEE SHEET 88 FOR S.R. 896 TYPICAL SECTION.
 2. MAINTAIN ACCESS TO THE ARC PROPERTY DURING CONSTRUCTION.



ADDENDUMS / REVISIONS



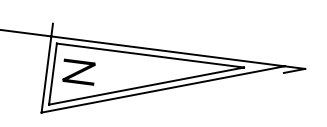
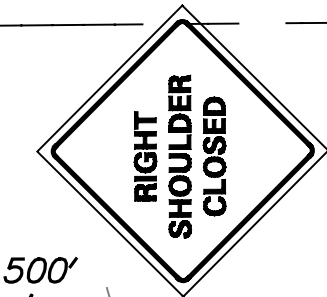
HSIP NCC, N54, HOWELL SCHOOL ROAD,
 SR 896 TO SR 71

CONTRACT T200504110	BRIDGE NO. BR 1-376 & 1-378
COUNTY NEW CASTLE	DESIGNED BY: RMG
	CHECKED BY: PAH

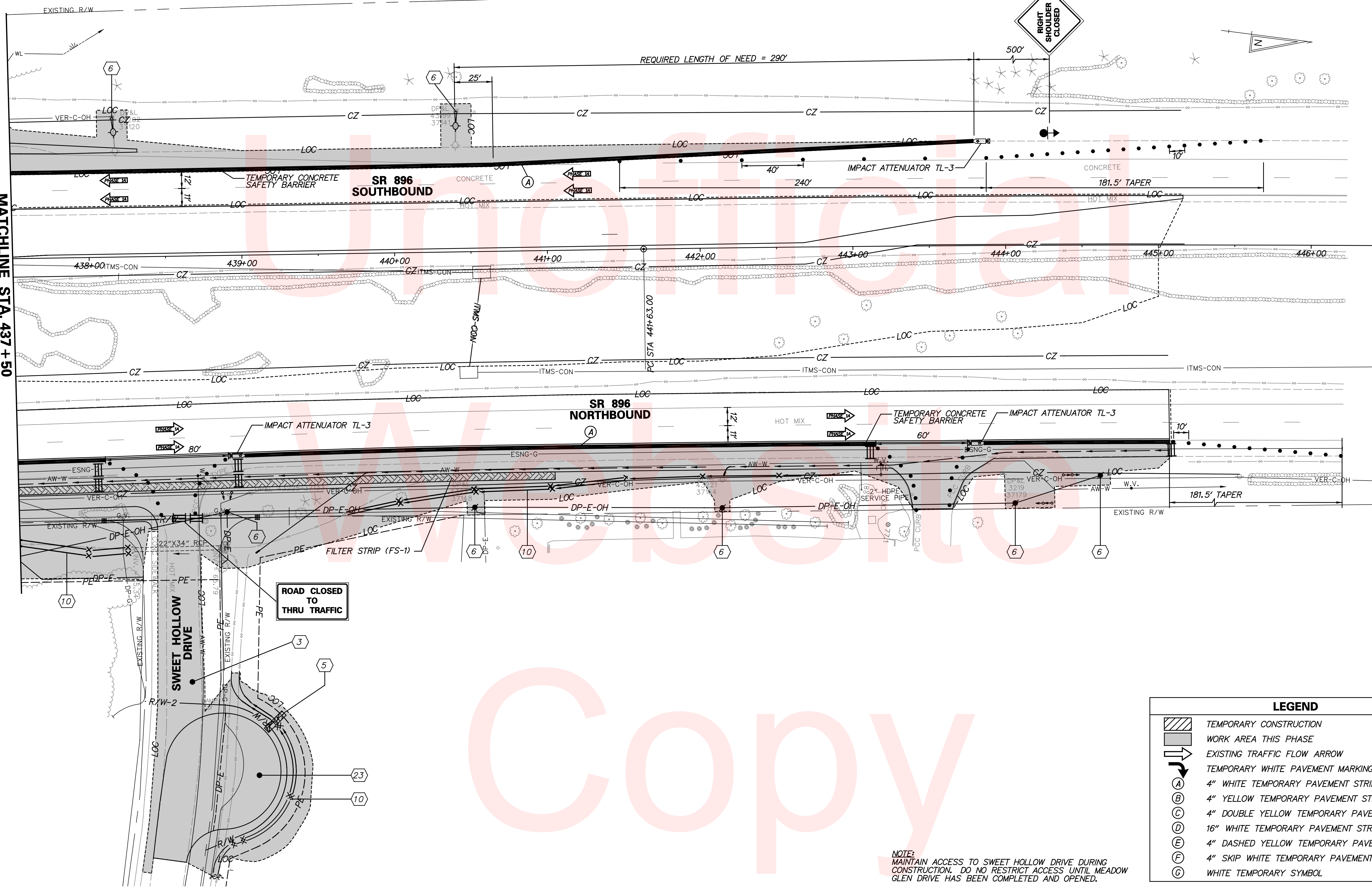
CONSTRUCTION PHASING,
 M.O.T. AND EROSION
 CONTROL PLANS
 PHASE 1A

SHEET NO. 94
TOTAL SHTS. 138

REQUIRED LENGTH OF NEED = 290'



MATCHLINE STA. 437+50

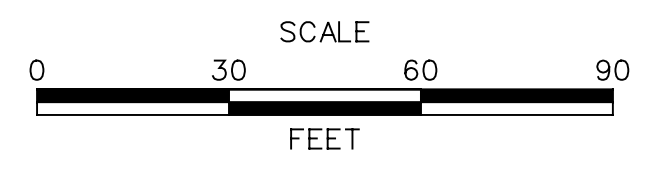


ROAD CLOSED TO THRU TRAFFIC

NOTE: MAINTAIN ACCESS TO SWEET HOLLOW DRIVE DURING CONSTRUCTION. DO NOT RESTRICT ACCESS UNTIL MEADOW GLEN DRIVE HAS BEEN COMPLETED AND OPENED.










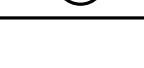

LEGEND	
	TEMPORARY CONSTRUCTION
	WORK AREA THIS PHASE
	EXISTING TRAFFIC FLOW ARROW
	TEMPORARY WHITE PAVEMENT MARKING ARROW
	4" WHITE TEMPORARY PAVEMENT STRIPING
	4" YELLOW TEMPORARY PAVEMENT STRIPING
	4" DOUBLE YELLOW TEMPORARY PAVEMENT MARKING
	16" WHITE TEMPORARY PAVEMENT STRIPING
	4" DASHED YELLOW TEMPORARY PAVEMENT STRIPING
	4" SKIP WHITE TEMPORARY PAVEMENT MARKING
	WHITE TEMPORARY SYMBOL

ADDENDUMS / REVISIONS

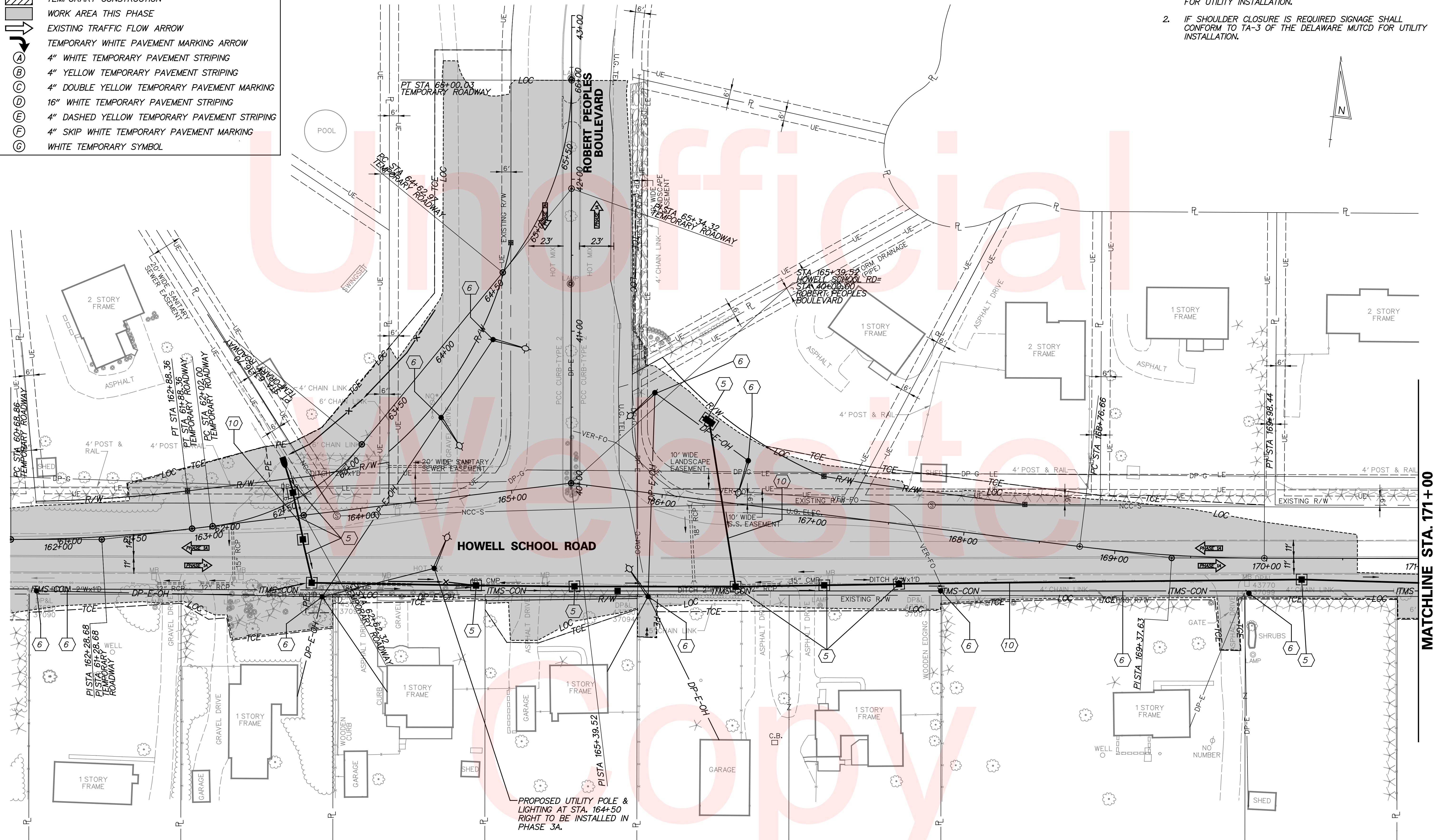


CONTRACT T200504110	BRIDGE NO. BR 1-376 & 1-378
COUNTY NEW CASTLE	DESIGNED BY: RMG
	CHECKED BY: PAH

LEGEND

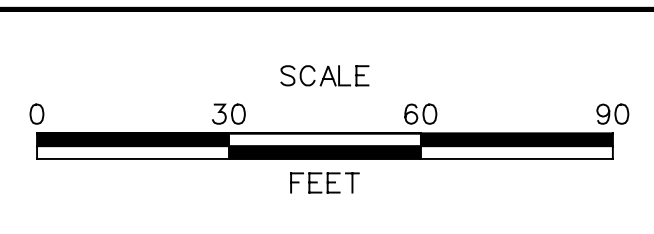
-  TEMPORARY CONSTRUCTION
-  WORK AREA THIS PHASE
-  EXISTING TRAFFIC FLOW ARROW
-  TEMPORARY WHITE PAVEMENT MARKING ARROW
-  4" WHITE TEMPORARY PAVEMENT STRIPING
-  4" YELLOW TEMPORARY PAVEMENT STRIPING
-  4" DOUBLE YELLOW TEMPORARY PAVEMENT MARKING
-  16" WHITE TEMPORARY PAVEMENT STRIPING
-  4" DASHED YELLOW TEMPORARY PAVEMENT STRIPING
-  4" SKIP WHITE TEMPORARY PAVEMENT MARKING
-  WHITE TEMPORARY SYMBOL

- NOTES:**
1. MAINTENANCE OF TRAFFIC DURING LANE CLOSURES AND LANE SHIFTS SHALL CONFORM TO TA-10 OF THE DELAWARE MUTCD FOR UTILITY INSTALLATION.
 2. IF SHOULDER CLOSURE IS REQUIRED SIGNAGE SHALL CONFORM TO TA-3 OF THE DELAWARE MUTCD FOR UTILITY INSTALLATION.



MATCHLINE STA. 171+00

ADDENDUMS / REVISIONS	



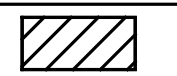
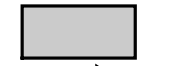









**HSIP NCC, N54, HOWELL SCHOOL ROAD,
SR 896 TO SR 71**

CONTRACT T200504110	BRIDGE NO. BR 1-376 & 1-378
COUNTY NEW CASTLE	DESIGNED BY: RMG
	CHECKED BY: PAH

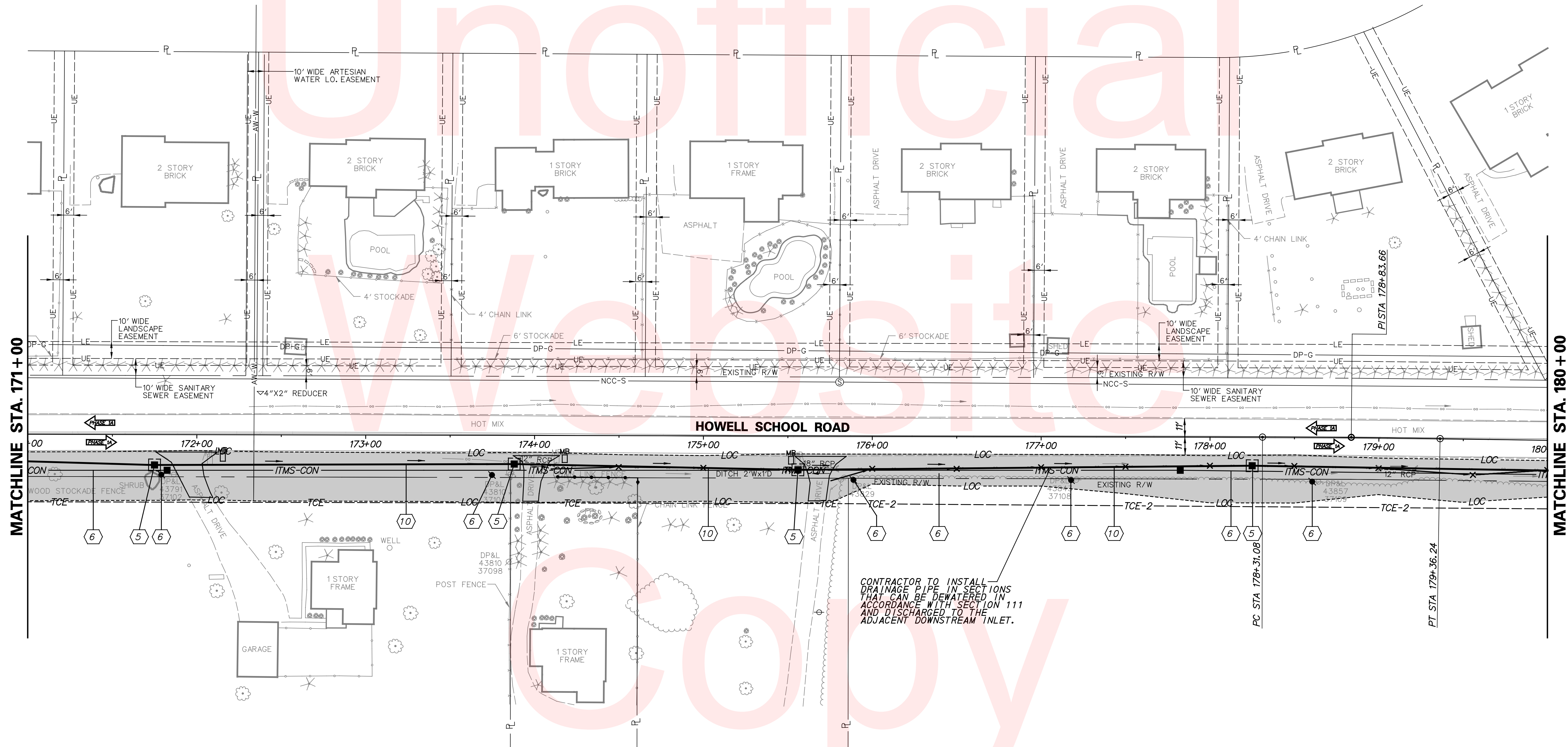
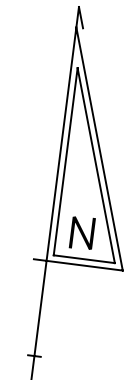
**CONSTRUCTION PHASING,
M.O.T. AND EROSION
CONTROL PLANS
PHASE 1A**

SHEET NO. 96
TOTAL SHTS. 138

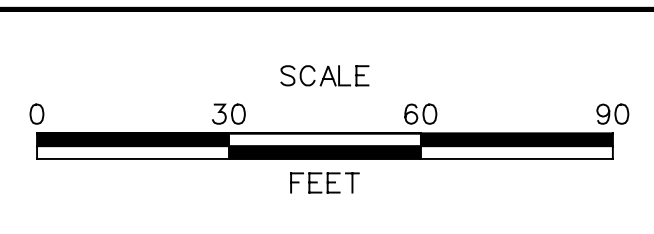
LEGEND

-  TEMPORARY CONSTRUCTION
-  WORK AREA THIS PHASE
-  EXISTING TRAFFIC FLOW ARROW
-  TEMPORARY WHITE PAVEMENT MARKING ARROW
-  4" WHITE TEMPORARY PAVEMENT STRIPING
-  4" YELLOW TEMPORARY PAVEMENT STRIPING
-  4" DOUBLE YELLOW TEMPORARY PAVEMENT MARKING
-  16" WHITE TEMPORARY PAVEMENT STRIPING
-  4" DASHED YELLOW TEMPORARY PAVEMENT STRIPING
-  4" SKIP WHITE TEMPORARY PAVEMENT MARKING
-  WHITE TEMPORARY SYMBOL

- NOTES:**
1. MAINTENANCE OF TRAFFIC DURING LANE CLOSURES AND LANE SHIFTS SHALL CONFORM TO TA-10 OF THE DELAWARE MUTCD FOR UTILITY INSTALLATION.
 2. IF SHOULDER CLOSURE IS REQUIRED SIGNAGE SHALL CONFORM TO TA-3 OF THE DELAWARE MUTCD FOR UTILITY INSTALLATION.



ADDENDUMS / REVISIONS	



**HSIP NCC, N54, HOWELL SCHOOL ROAD,
SR 896 TO SR 71**

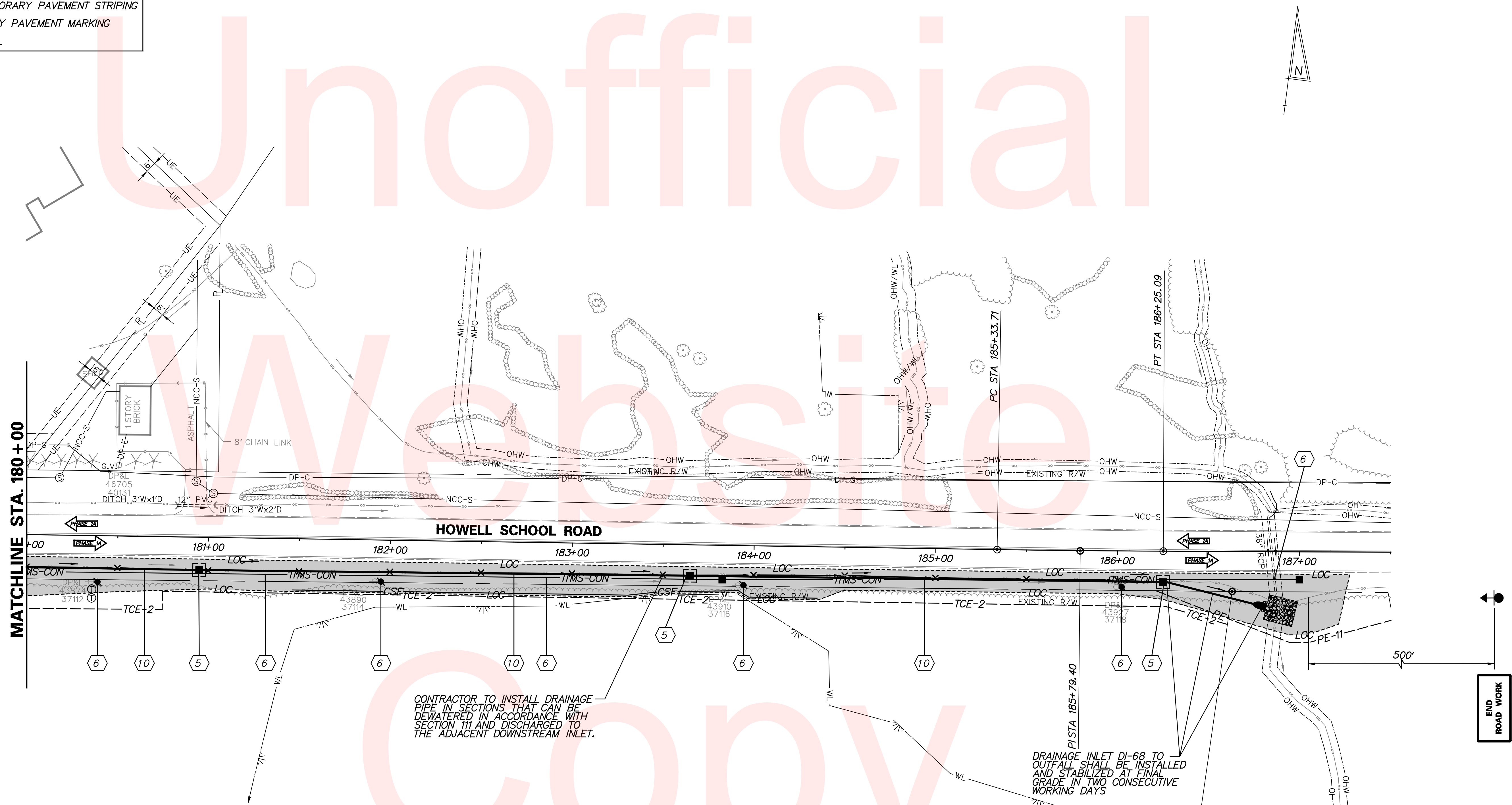
CONTRACT T200504110	BRIDGE NO. BR 1-376 & 1-378
COUNTY NEW CASTLE	DESIGNED BY: RMG
	CHECKED BY: PAH

**CONSTRUCTION PHASING,
M.O.T. AND EROSION
CONTROL PLANS
PHASE 1A**

SHEET NO. 97
TOTAL SHTS. 138

LEGEND	
	TEMPORARY CONSTRUCTION
	WORK AREA THIS PHASE
	EXISTING TRAFFIC FLOW ARROW
	TEMPORARY WHITE PAVEMENT MARKING ARROW
	4" WHITE TEMPORARY PAVEMENT STRIPING
	4" YELLOW TEMPORARY PAVEMENT STRIPING
	4" DOUBLE YELLOW TEMPORARY PAVEMENT MARKING
	16" WHITE TEMPORARY PAVEMENT STRIPING
	4" DASHED YELLOW TEMPORARY PAVEMENT STRIPING
	4" SKIP WHITE TEMPORARY PAVEMENT MARKING
	WHITE TEMPORARY SYMBOL

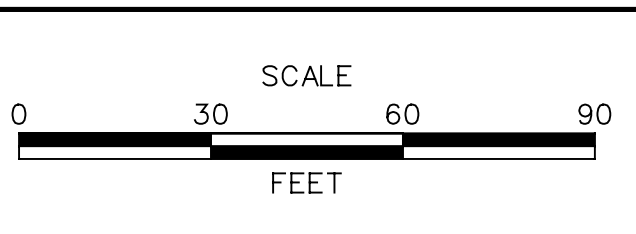
- NOTES:**
1. MAINTENANCE OF TRAFFIC DURING LANE CLOSURES AND LANE SHIFTS SHALL CONFORM TO TA-10 OF THE DELAWARE MUTCD FOR UTILITY INSTALLATION.
 2. IF SHOULDER CLOSURE IS REQUIRED SIGNAGE SHALL CONFORM TO TA-3 OF THE DELAWARE MUTCD FOR UTILITY INSTALLATION.



CONTRACTOR TO INSTALL DRAINAGE PIPE IN SECTIONS THAT CAN BE DEWATERED IN ACCORDANCE WITH SECTION 111 AND DISCHARGED TO THE ADJACENT DOWNSTREAM INLET.

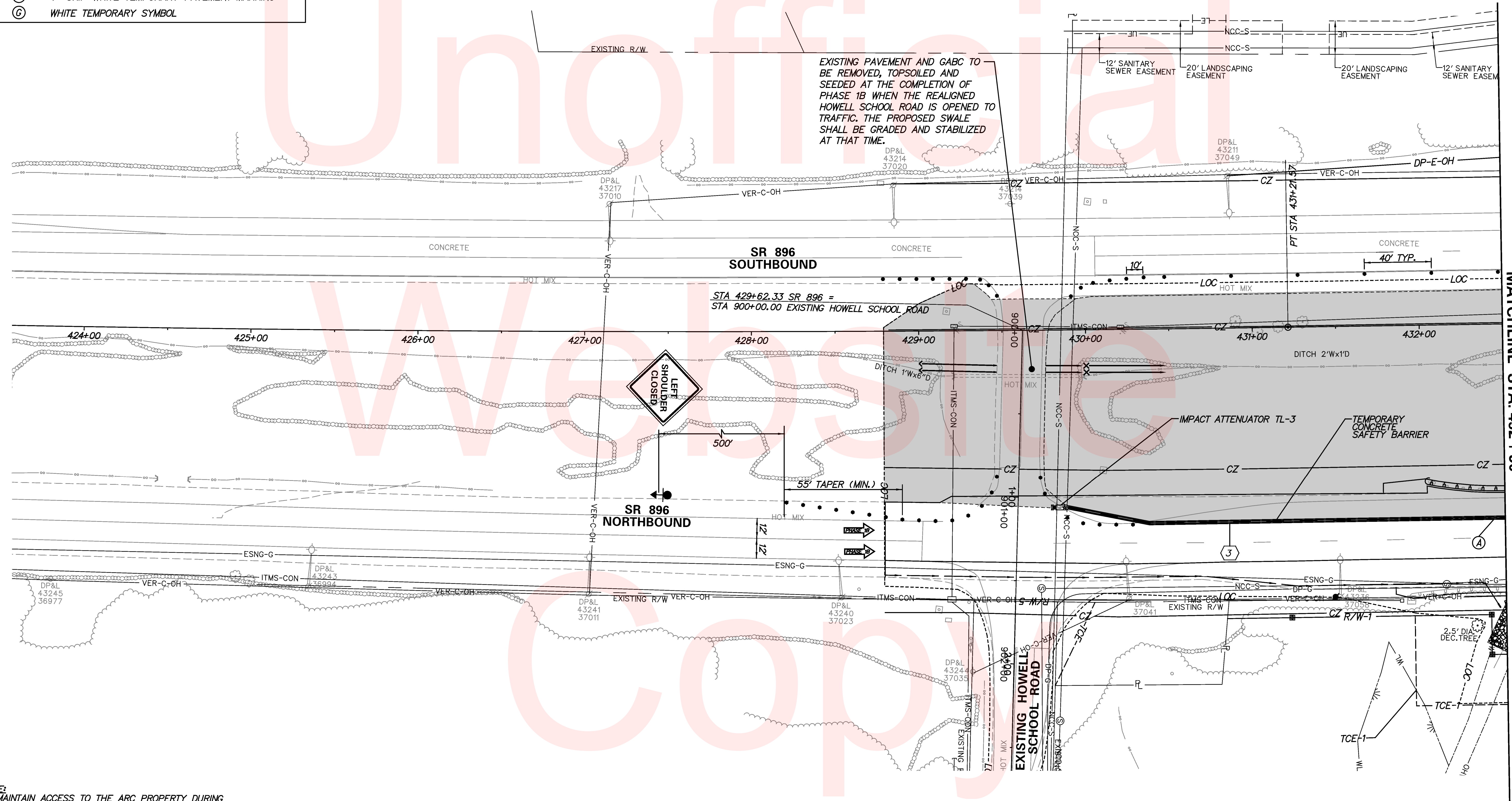
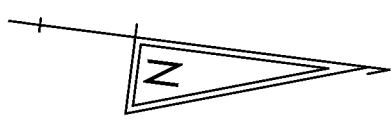
DRAINAGE INLET DI-68 TO OUTFALL SHALL BE INSTALLED AND STABILIZED AT FINAL GRADE IN TWO CONSECUTIVE WORKING DAYS

ADDENDUMS / REVISIONS



CONTRACT T200504110	BRIDGE NO. BR 1-376 & 1-378
COUNTY NEW CASTLE	DESIGNED BY: RMG
	CHECKED BY: PAH

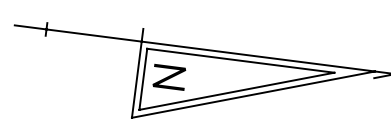
LEGEND	
	TEMPORARY CONSTRUCTION
	WORK AREA THIS PHASE
	EXISTING TRAFFIC FLOW ARROW
	TEMPORARY WHITE PAVEMENT MARKING ARROW
	4" WHITE TEMPORARY PAVEMENT STRIPING
	4" YELLOW TEMPORARY PAVEMENT STRIPING
	4" DOUBLE YELLOW TEMPORARY PAVEMENT MARKING
	16" WHITE TEMPORARY PAVEMENT STRIPING
	4" DASHED YELLOW TEMPORARY PAVEMENT STRIPING
	4" SKIP WHITE TEMPORARY PAVEMENT MARKING
	WHITE TEMPORARY SYMBOL



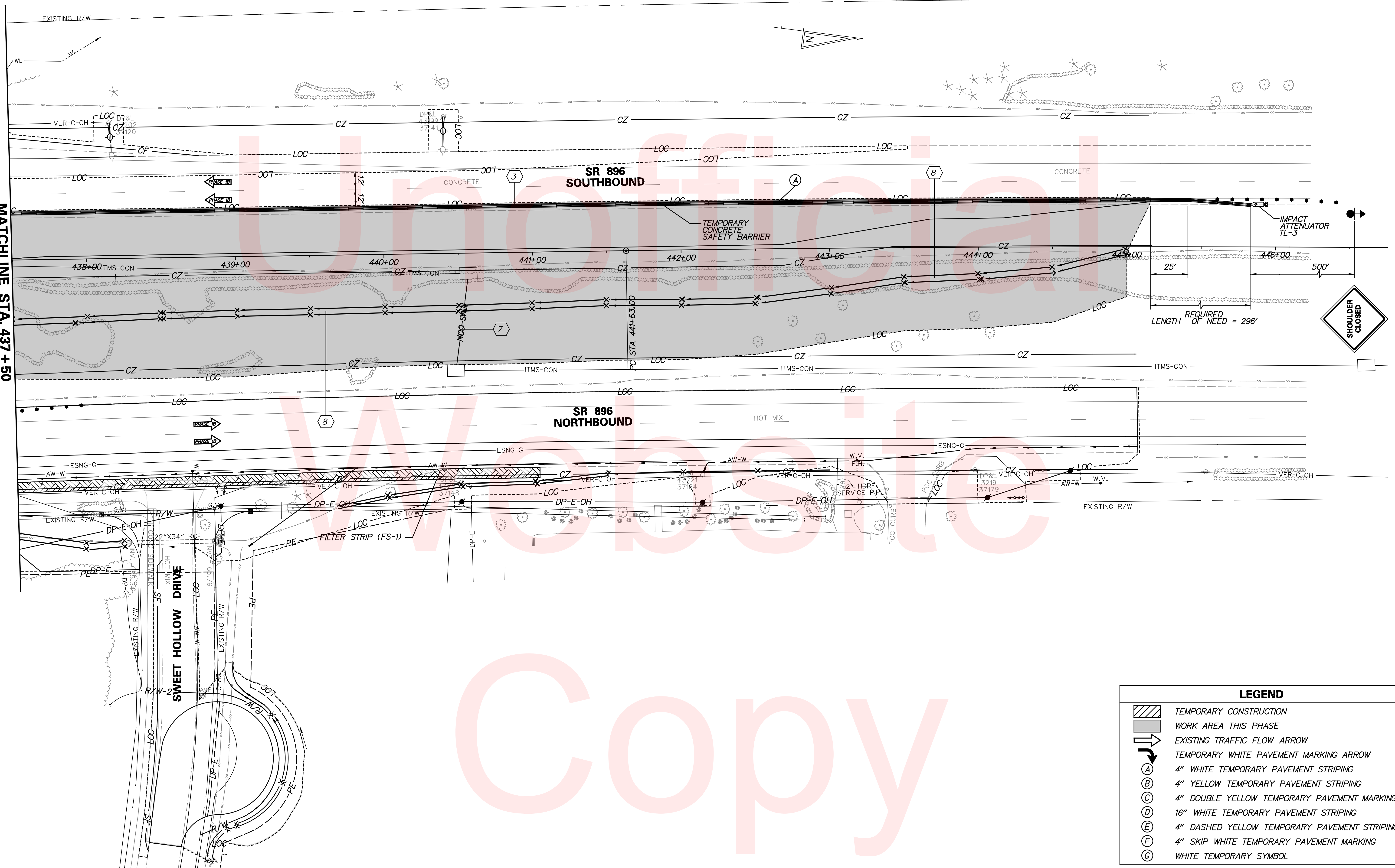
MATCHLINE STA. 432 + 50

NOTE:
1. MAINTAIN ACCESS TO THE ARC PROPERTY DURING CONSTRUCTION.

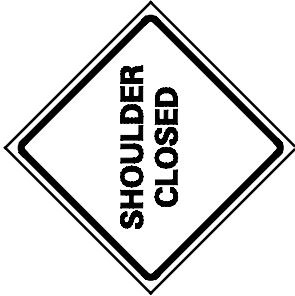
	ADDENDUMS / REVISIONS		SCALE 0 30 60 90 FEET	HSIP NCC, N54, HOWELL SCHOOL ROAD, SR 896 TO SR 71	CONTRACT T200504110	BRIDGE NO. BR 1-376 & 1-378	CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLANS PHASE 1B	SHEET NO.
					COUNTY NEW CASTLE	DESIGNED BY: RMG CHECKED BY: PAH		TOTAL SHTS. 138



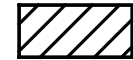









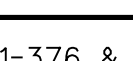
MATCHLINE STA. 437 + 50



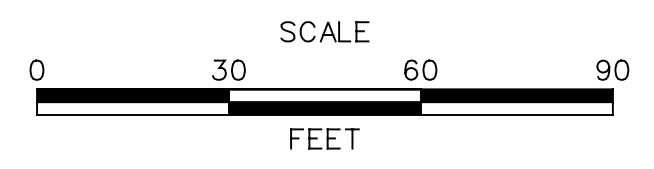
REQUIRED LENGTH OF NEED = 296'



LEGEND

-  TEMPORARY CONSTRUCTION
-  WORK AREA THIS PHASE
-  EXISTING TRAFFIC FLOW ARROW
-  TEMPORARY WHITE PAVEMENT MARKING ARROW
-  4" WHITE TEMPORARY PAVEMENT STRIPING
-  4" YELLOW TEMPORARY PAVEMENT STRIPING
-  4" DOUBLE YELLOW TEMPORARY PAVEMENT MARKING
-  16" WHITE TEMPORARY PAVEMENT STRIPING
-  4" DASHED YELLOW TEMPORARY PAVEMENT STRIPING
-  4" SKIP WHITE TEMPORARY PAVEMENT MARKING
-  WHITE TEMPORARY SYMBOL

ADDENDUMS / REVISIONS	












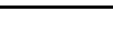

**HSIP NCC, N54, HOWELL SCHOOL ROAD,
SR 896 TO SR 71**

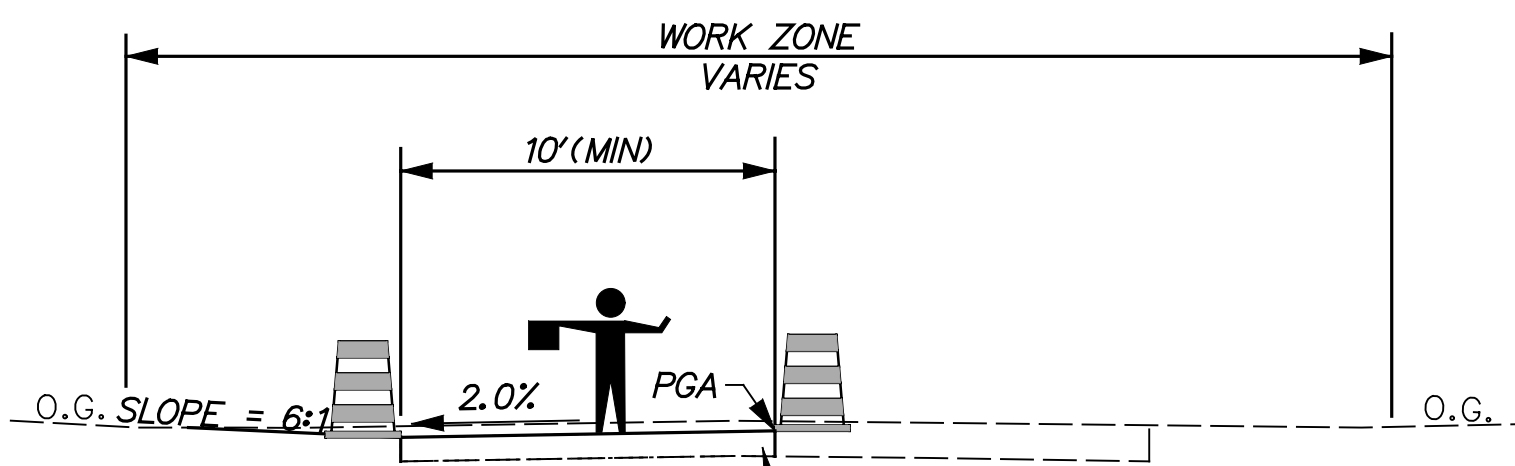
CONTRACT T200504110	BRIDGE NO. BR 1-376 & 1-378
COUNTY NEW CASTLE	DESIGNED BY: RMG
	CHECKED BY: PAH

**CONSTRUCTION PHASING,
M.O.T. AND EROSION
CONTROL PLANS
PHASE 1B**

SHEET NO. 101
TOTAL SHTS. 138

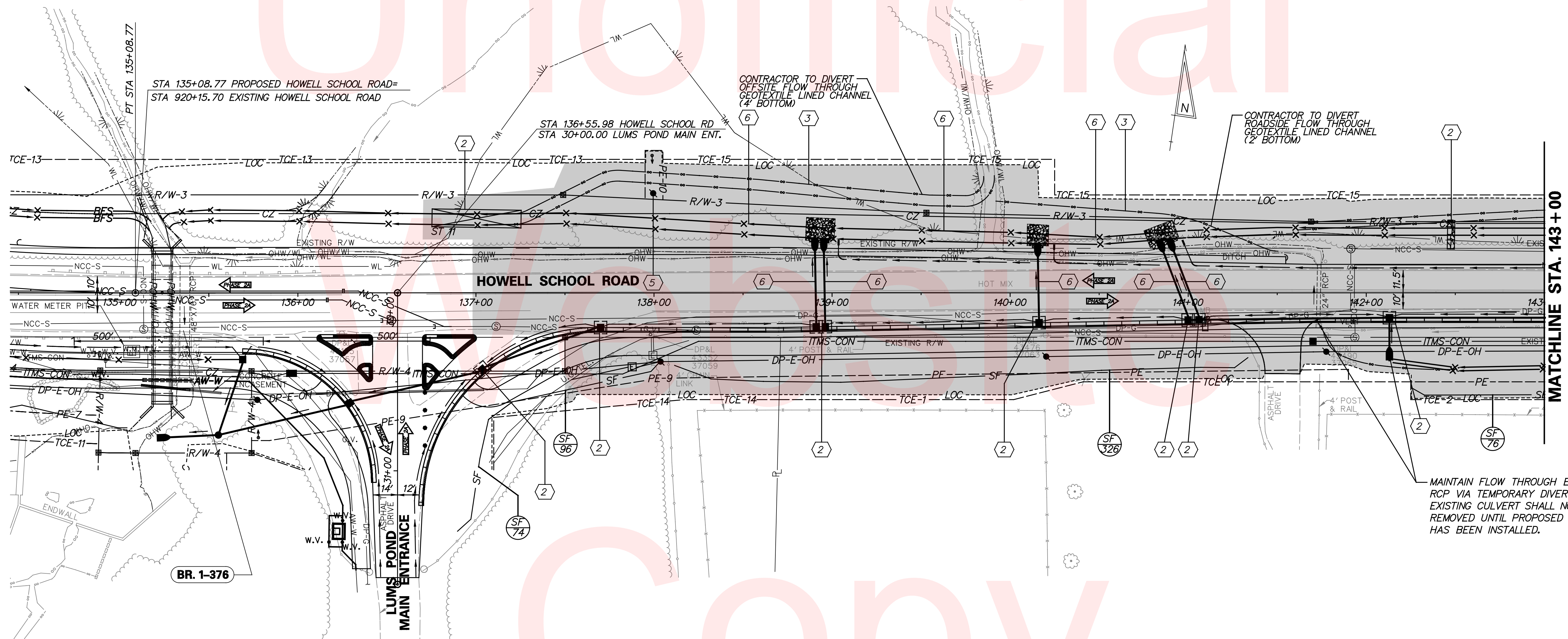
LEGEND

-  TEMPORARY CONSTRUCTION
-  WORK AREA THIS PHASE
-  EXISTING TRAFFIC FLOW ARROW
-  TEMPORARY WHITE PAVEMENT MARKING ARROW
-  4" WHITE TEMPORARY PAVEMENT STRIPING
-  4" YELLOW TEMPORARY PAVEMENT STRIPING
-  4" DOUBLE YELLOW TEMPORARY PAVEMENT MARKING
-  16" WHITE TEMPORARY PAVEMENT STRIPING
-  4" DASHED YELLOW TEMPORARY PAVEMENT STRIPING
-  4" SKIP WHITE TEMPORARY PAVEMENT MARKING
-  WHITE TEMPORARY SYMBOL



SEQUENCE OF CONSTRUCTION

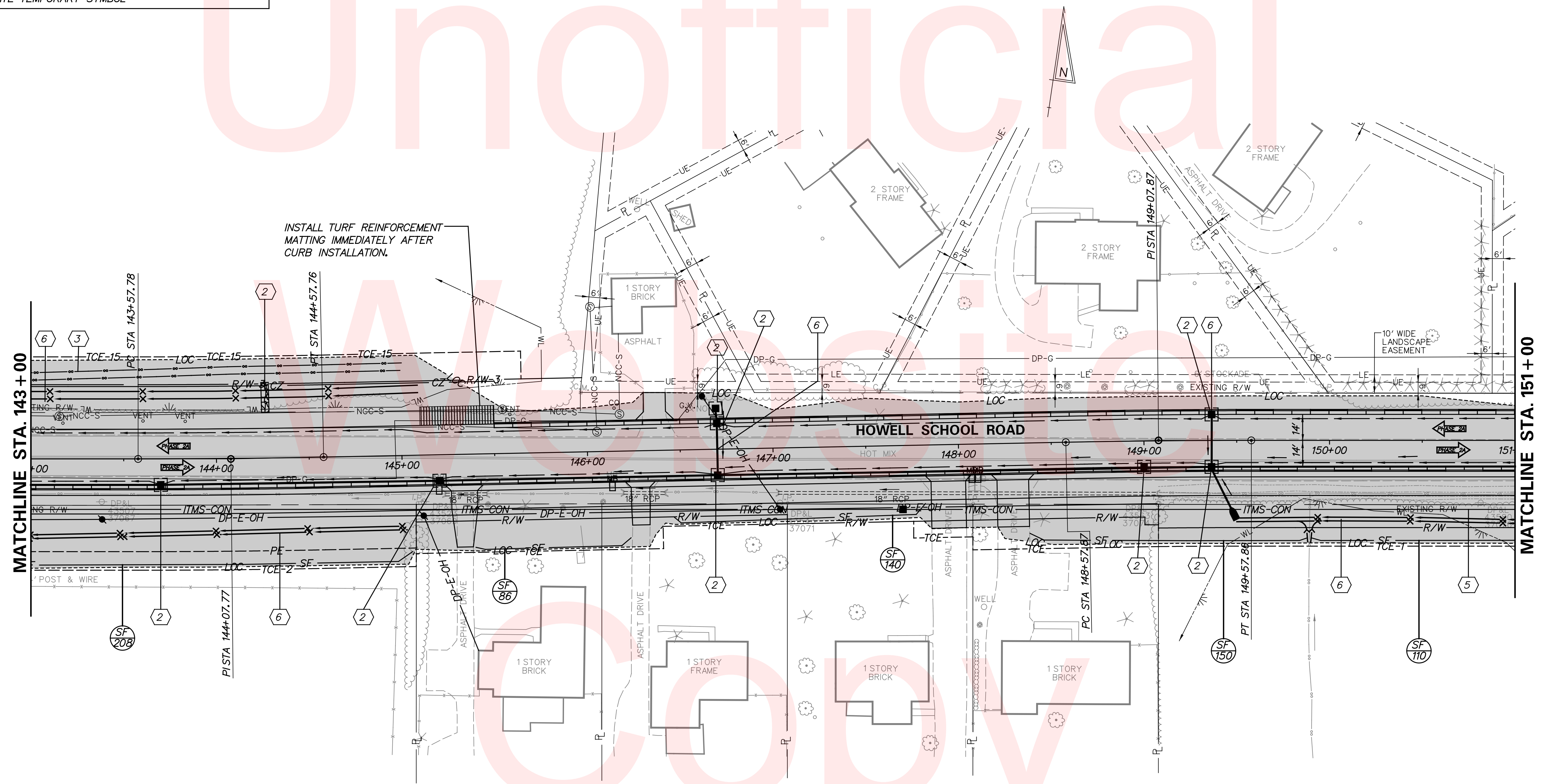
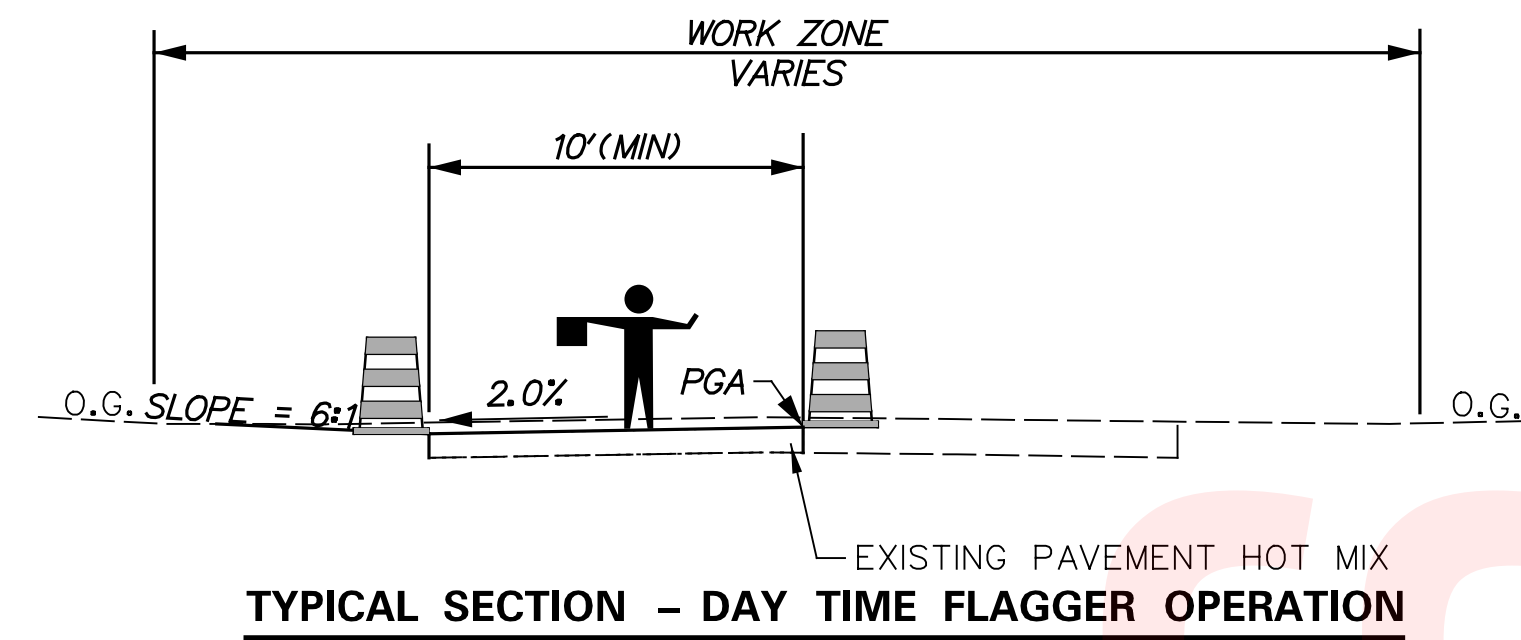
- PHASE 2A - STA. 137+00 TO STA. 162+00
- 1 INSTALL MAINTENANCE OF TRAFFIC AS SHOWN ON THE PLANS. INSTALL PHASE 2A DETOUR AS SHOWN ON THE PHASE 2A DETOUR PLAN. LANE CLOSURES SHALL CONFORM TO TA-10 OF THE DELAWARE MUTCD.
 - 2 INSTALL AND MAINTAIN EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN ON THE PLANS.
 - 3 CONSTRUCT TEMPORARY GEOTEXTILE LINED CHANNEL TO DIRECT OFFSITE FLOW THROUGH THE EXISTING CULVERT. THE CHANNEL CROSS SECTION SHOULD MATCH THE EXISTING ROAD SIDE SWALE CAPACITY.
 - 4 MILL EXISTING HOWELL SCHOOL ROAD TO BASE COURSE AND MAINTAIN MINIMUM ONE LANE OF TRAFFIC DURING WORK HOURS AND MAINTAIN ACCESS AT THE END OF EACH WORK DAY FOR LOCAL TRAFFIC.
 - 5 ADJUST/RELOCATE UTILITIES AS REQUIRED WITHIN PHASE 2A.
 - 6 INSTALL SWALES AND PROPOSED DRAINAGE WITHIN THE WORK AREA AS SHOWN ON THE PLANS.
 - 7 CONSTRUCT WIDENED HOWELL SCHOOL ROAD BETWEEN STA. 137+00 AND STA. 162+00 USING FLAGGER OPERATION.
 - 8 GRADE AND PAVE THIS PORTION OF THE ROAD UP TO THE TOP OF THE HOT-MIX TYPE B COURSE.
 - 9 TOPSOIL AND SEED AREAS DISTURBED DURING PHASE 2A. REMOVE GEOTEXTILE LINED CHANNELS AND ENSURE STABILIZATION PRIOR TO MOVING TO PHASE 2B.
 - 10 INSTALL AND MAINTAIN TEMPORARY PAVEMENT MARKINGS TO FOLLOW THE PERMANENT STRIPING PLANS.



NOTE:
MAINTAIN FLOW THROUGH EXISTING 24" RCP VIA TEMPORARY DIVERSION SWALE. EXISTING CULVERT SHALL NOT BE REMOVED UNTIL PROPOSED DRAINAGE HAS BEEN INSTALLED.

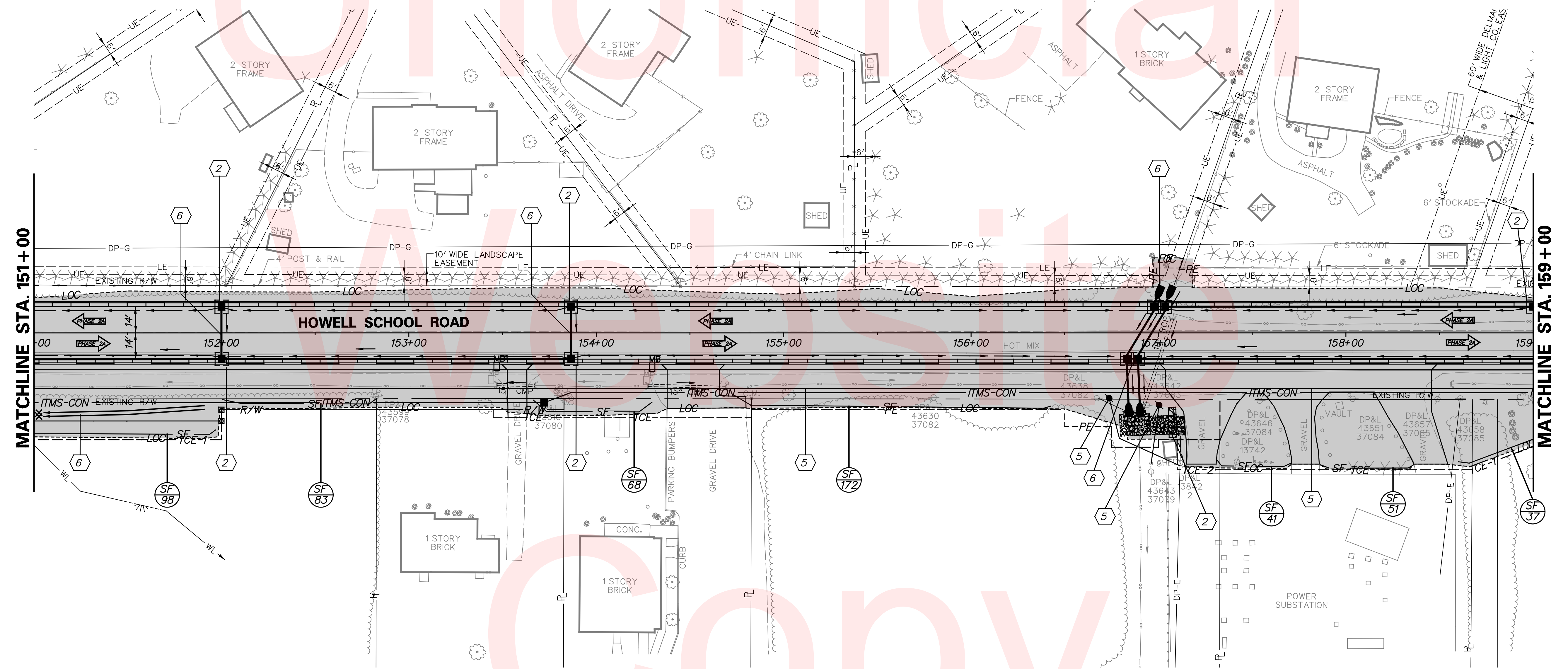
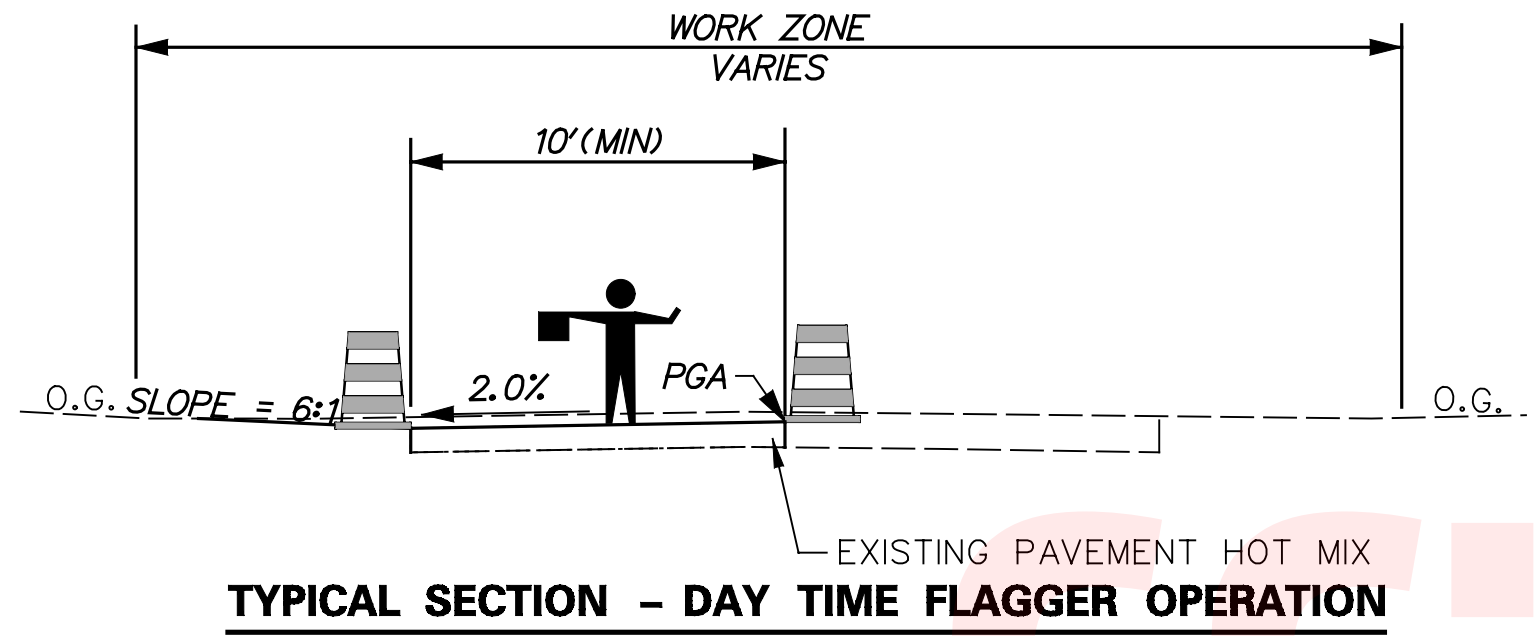
NOTE:
MAINTAIN ACCESS TO ALL DRIVEWAYS AT ALL TIMES.

LEGEND	
	TEMPORARY CONSTRUCTION
	WORK AREA THIS PHASE
	EXISTING TRAFFIC FLOW ARROW
	TEMPORARY WHITE PAVEMENT MARKING ARROW
(A)	4" WHITE TEMPORARY PAVEMENT STRIPING
(B)	4" YELLOW TEMPORARY PAVEMENT STRIPING
(C)	4" DOUBLE YELLOW TEMPORARY PAVEMENT MARKING
(D)	16" WHITE TEMPORARY PAVEMENT STRIPING
(E)	4" DASHED YELLOW TEMPORARY PAVEMENT STRIPING
(F)	4" SKIP WHITE TEMPORARY PAVEMENT MARKING
(G)	WHITE TEMPORARY SYMBOL



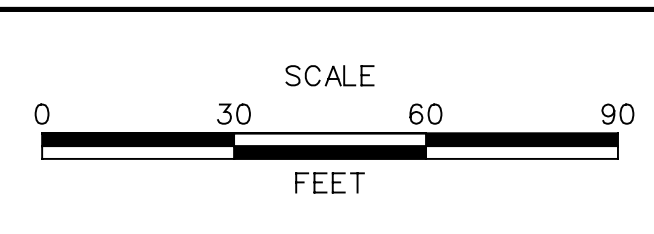
NOTE:
MAINTAIN ACCESS TO ALL DRIVEWAYS AT ALL TIMES.

LEGEND	
	TEMPORARY CONSTRUCTION
	WORK AREA THIS PHASE
	EXISTING TRAFFIC FLOW ARROW
	TEMPORARY WHITE PAVEMENT MARKING ARROW
	4" WHITE TEMPORARY PAVEMENT STRIPING
	4" YELLOW TEMPORARY PAVEMENT STRIPING
	4" DOUBLE YELLOW TEMPORARY PAVEMENT MARKING
	16" WHITE TEMPORARY PAVEMENT STRIPING
	4" DASHED YELLOW TEMPORARY PAVEMENT STRIPING
	4" SKIP WHITE TEMPORARY PAVEMENT MARKING
	WHITE TEMPORARY SYMBOL



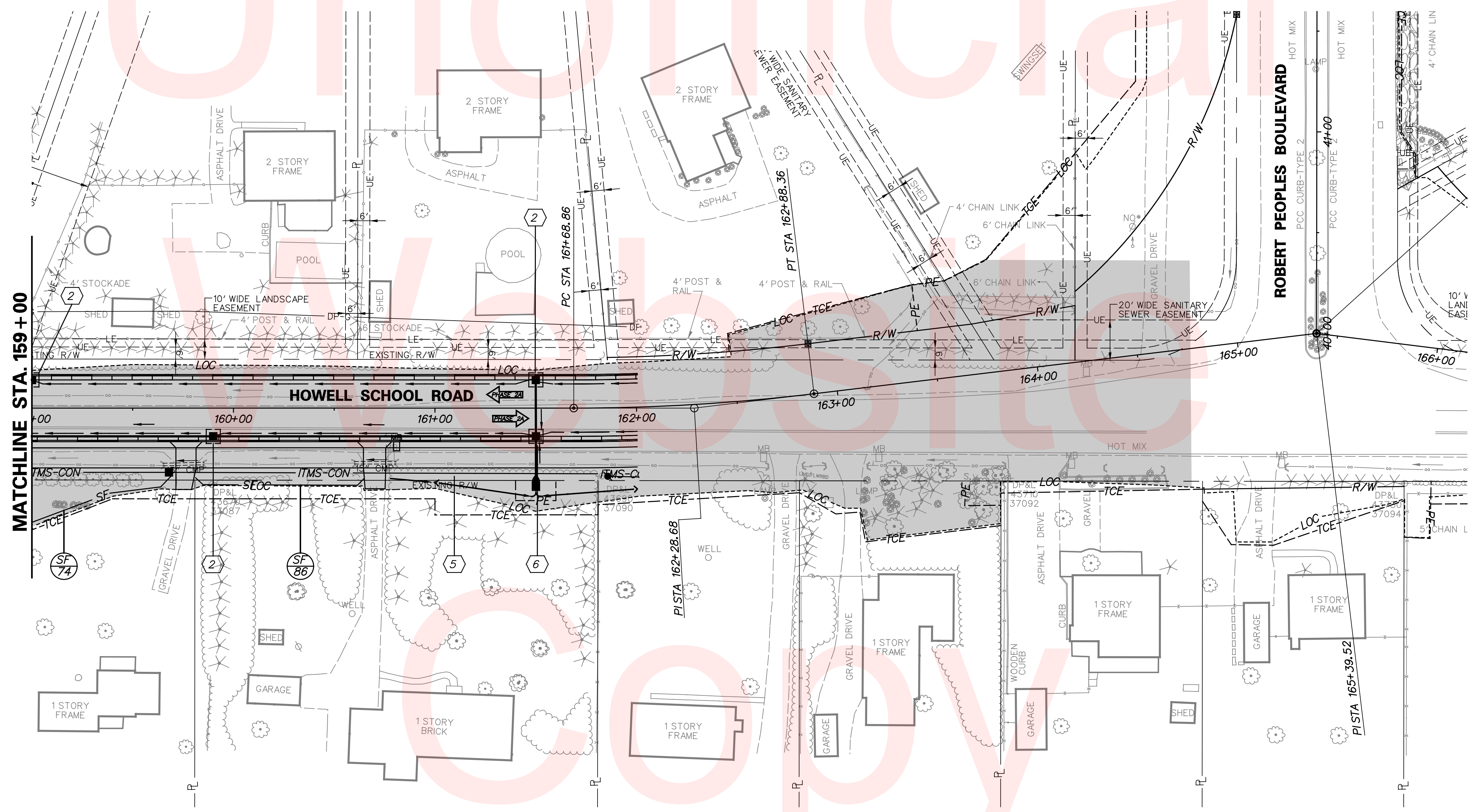
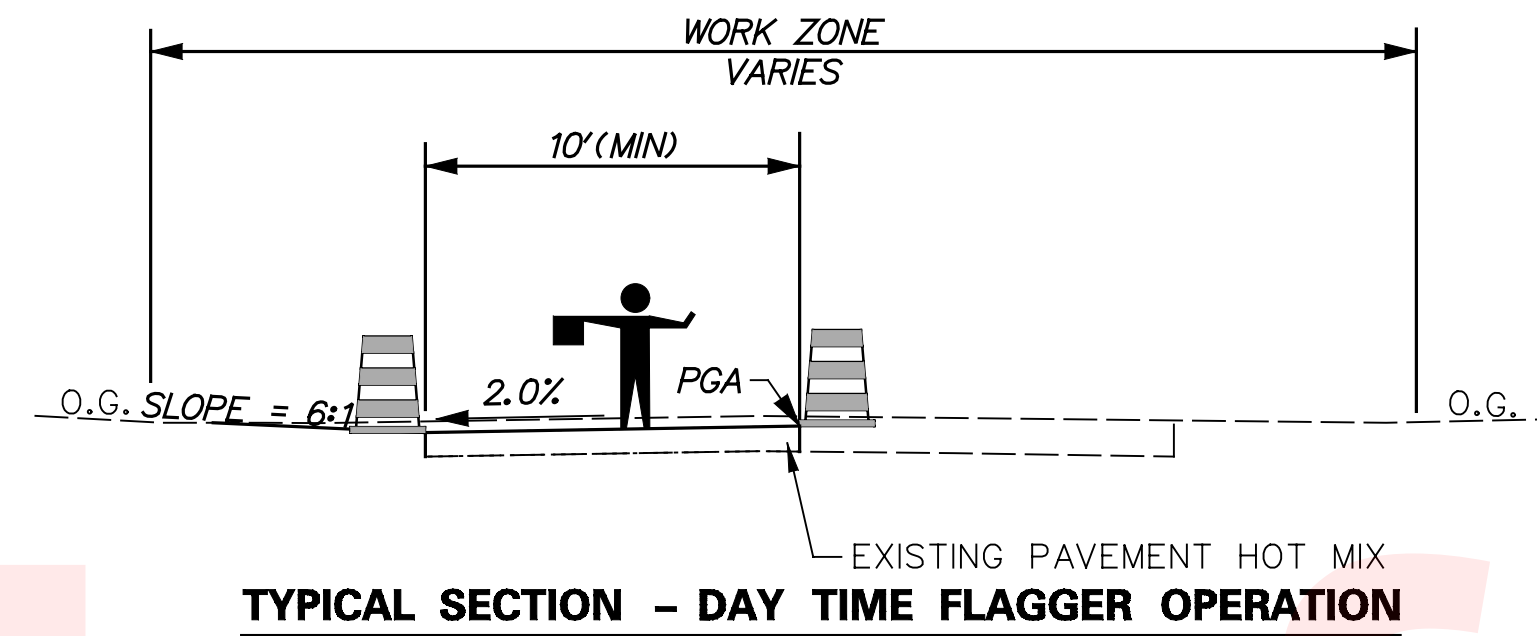
NOTE:
MAINTAIN ACCESS TO ALL DRIVEWAYS AT ALL TIMES.

ADDENDUMS / REVISIONS



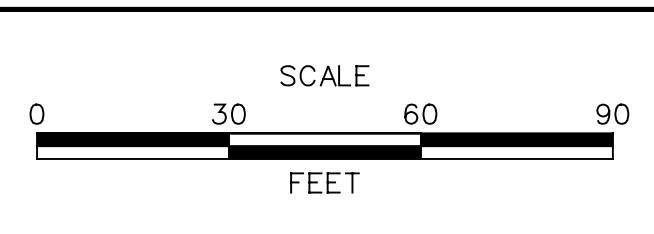
CONTRACT T200504110	BRIDGE NO. BR 1-376 & 1-378
COUNTY NEW CASTLE	DESIGNED BY: RMG
	CHECKED BY: PAH

LEGEND	
	TEMPORARY CONSTRUCTION
	WORK AREA THIS PHASE
	EXISTING TRAFFIC FLOW ARROW
	TEMPORARY WHITE PAVEMENT MARKING ARROW
(A)	4" WHITE TEMPORARY PAVEMENT STRIPING
(B)	4" YELLOW TEMPORARY PAVEMENT STRIPING
(C)	4" DOUBLE YELLOW TEMPORARY PAVEMENT MARKING
(D)	16" WHITE TEMPORARY PAVEMENT STRIPING
(E)	4" DASHED YELLOW TEMPORARY PAVEMENT STRIPING
(F)	4" SKIP WHITE TEMPORARY PAVEMENT MARKING
(G)	WHITE TEMPORARY SYMBOL



NOTE:
MAINTAIN ACCESS TO ALL DRIVEWAYS AT ALL TIMES.

ADDENDUMS / REVISIONS





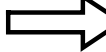





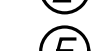

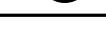
HSIP NCC, N54, HOWELL SCHOOL ROAD, SR 896 TO SR 71

CONTRACT T200504110	BRIDGE NO. BR 1-376 & 1-378
COUNTY NEW CASTLE	DESIGNED BY: RMG
	CHECKED BY: PAH

CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PHASE 2A

SHEET NO. 105
TOTAL SHTS. 138

LEGEND

-  TEMPORARY CONSTRUCTION
-  WORK AREA THIS PHASE
-  EXISTING TRAFFIC FLOW ARROW
-  TEMPORARY WHITE PAVEMENT MARKING ARROW
-  4" WHITE TEMPORARY PAVEMENT STRIPING
-  4" YELLOW TEMPORARY PAVEMENT STRIPING
-  4" DOUBLE YELLOW TEMPORARY PAVEMENT MARKING
-  16" WHITE TEMPORARY PAVEMENT STRIPING
-  4" DASHED YELLOW TEMPORARY PAVEMENT STRIPING
-  4" SKIP WHITE TEMPORARY PAVEMENT MARKING
-  WHITE TEMPORARY SYMBOL

SEQUENCE OF CONSTRUCTION

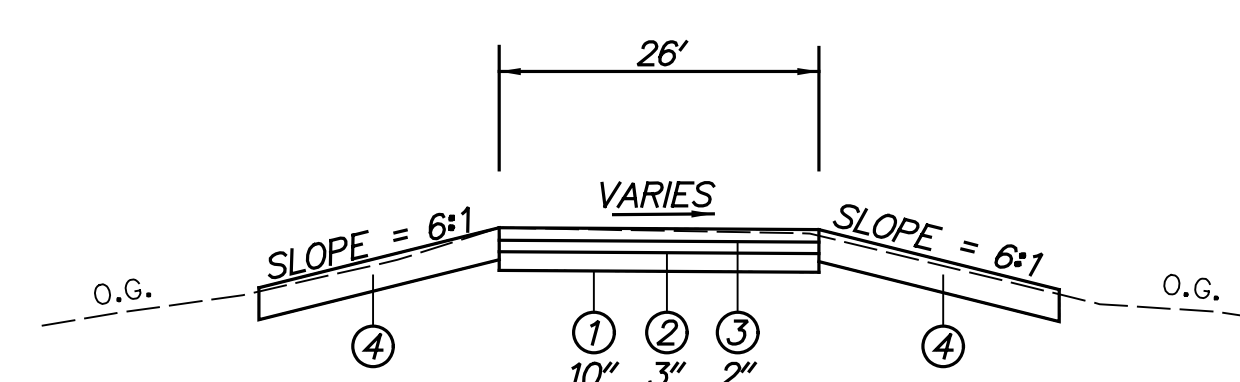
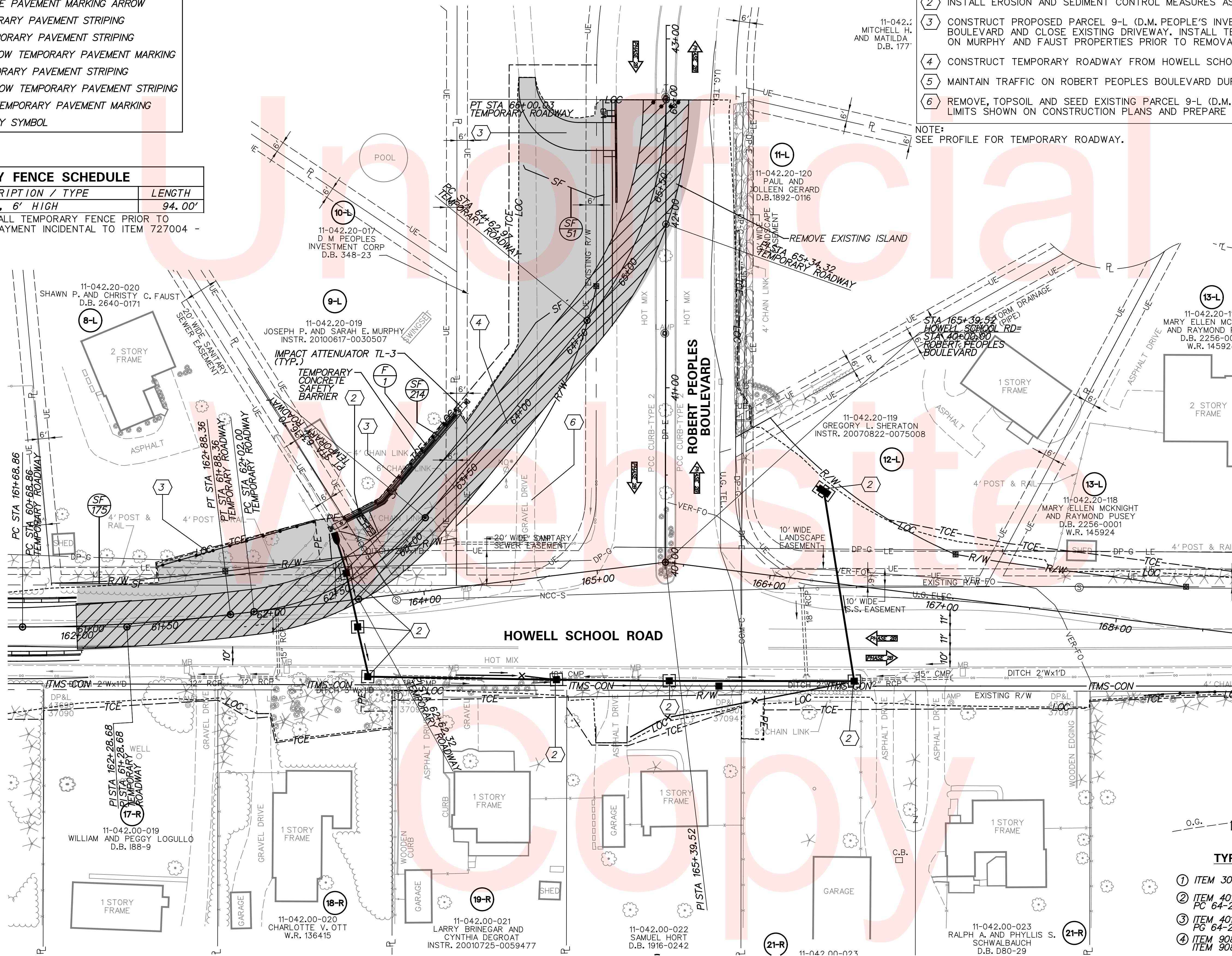
- PHASE 2B
- 1 INSTALL MAINTENANCE OF TRAFFIC AND PHASE 2B DETOUR AS SHOWN ON THE PHASE 2B DETOUR PLAN FOR THE CLOSURE OF HOWELL SCHOOL ROAD WEST OF ROBERT PEOPLES BOULEVARD.
 - 2 INSTALL EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN.
 - 3 CONSTRUCT PROPOSED PARCEL 9-L (D.M. PEOPLE'S INVESTMENT CORP.) DRIVEWAY ONTO ROBERT PEOPLES BOULEVARD AND CLOSE EXISTING DRIVEWAY. INSTALL TEMPORARY FENCE AND CONCRETE SAFETY BARRIER ON MURPHY AND FAUST PROPERTIES PRIOR TO REMOVAL OF EXISTING FENCES.
 - 4 CONSTRUCT TEMPORARY ROADWAY FROM HOWELL SCHOOL ROAD TO ROBERT PEOPLES BOULEVARD.
 - 5 MAINTAIN TRAFFIC ON ROBERT PEOPLES BOULEVARD DURING TIE-IN OF TEMPORARY ROADWAY.
 - 6 REMOVE, TOPSOIL AND SEED EXISTING PARCEL 9-L (D.M. PEOPLE'S INVESTMENT CORP.) DRIVEWAY TO LIMITS SHOWN ON CONSTRUCTION PLANS AND PREPARE TEMPORARY ROADWAY FOR OPENING.

NOTE: SEE PROFILE FOR TEMPORARY ROADWAY.

TEMPORARY FENCE SCHEDULE









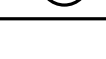

NO.	ITEM DESCRIPTION / TYPE	LENGTH
1	CHAIN LINK FENCE, 6' HIGH	94.00'

NOTE: CONTRACTOR TO INSTALL TEMPORARY FENCE PRIOR TO IMPACTING EXISTING FENCE. PAYMENT INCIDENTAL TO ITEM 727004 - CHAIN-LINK FENCE, 6' HIGH.



- TYPICAL SECTION - TEMPORARY ROADWAY**
- 1 ITEM 302007 - GRADE AGGREGATE BASE, TYPE B
 - 2 ITEM 401801 - WMA, SUPERPAVE, TYPE C HOT-MIX, 160 GYRATIONS, PC 64-22 (CARBONATE STONE)
 - 3 ITEM 401810 - WMA, SUPERPAVE, TYPE B HOT-MIX, 160 GYRATIONS, PG 64-22
 - 4 ITEM 908004 - TOPSOIL, 6" DEPTH
ITEM 908014 - PERMANENT GRASS SEEDING, DRY GROUND

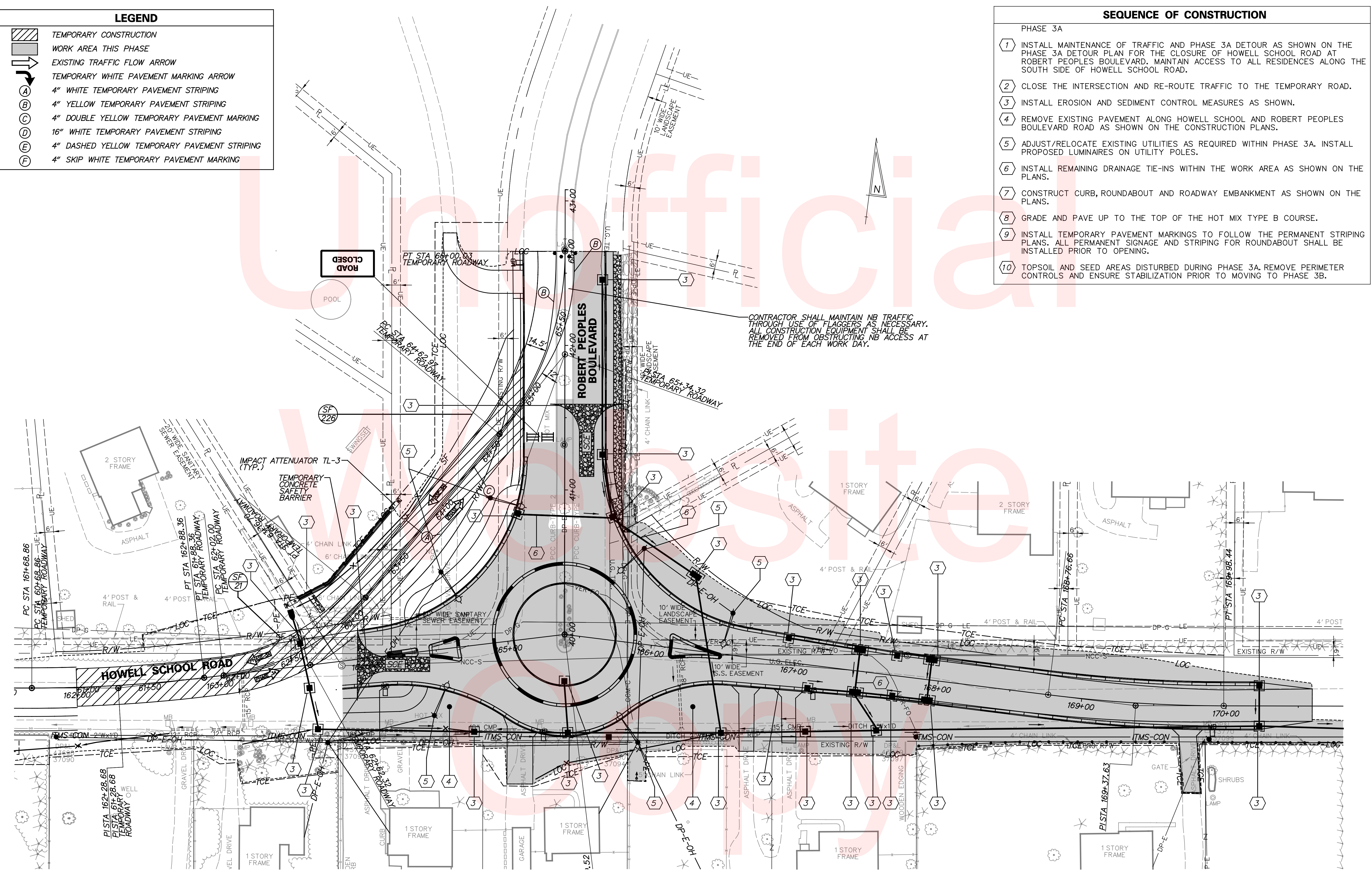
LEGEND

-  TEMPORARY CONSTRUCTION
-  WORK AREA THIS PHASE
-  EXISTING TRAFFIC FLOW ARROW
-  TEMPORARY WHITE PAVEMENT MARKING ARROW
-  4" WHITE TEMPORARY PAVEMENT STRIPING
-  4" YELLOW TEMPORARY PAVEMENT STRIPING
-  4" DOUBLE YELLOW TEMPORARY PAVEMENT MARKING
-  16" WHITE TEMPORARY PAVEMENT STRIPING
-  4" DASHED YELLOW TEMPORARY PAVEMENT STRIPING
-  4" SKIP WHITE TEMPORARY PAVEMENT MARKING

SEQUENCE OF CONSTRUCTION






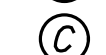




PHASE 3A

- 1 INSTALL MAINTENANCE OF TRAFFIC AND PHASE 3A DETOUR AS SHOWN ON THE PHASE 3A DETOUR PLAN FOR THE CLOSURE OF HOWELL SCHOOL ROAD AT ROBERT PEOPLES BOULEVARD. MAINTAIN ACCESS TO ALL RESIDENCES ALONG THE SOUTH SIDE OF HOWELL SCHOOL ROAD.
- 2 CLOSE THE INTERSECTION AND RE-ROUTE TRAFFIC TO THE TEMPORARY ROAD.
- 3 INSTALL EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN.
- 4 REMOVE EXISTING PAVEMENT ALONG HOWELL SCHOOL AND ROBERT PEOPLES BOULEVARD ROAD AS SHOWN ON THE CONSTRUCTION PLANS.
- 5 ADJUST/RELOCATE EXISTING UTILITIES AS REQUIRED WITHIN PHASE 3A. INSTALL PROPOSED LUMINAIRES ON UTILITY POLES.
- 6 INSTALL REMAINING DRAINAGE TIE-INS WITHIN THE WORK AREA AS SHOWN ON THE PLANS.
- 7 CONSTRUCT CURB, ROUNDABOUT AND ROADWAY EMBANKMENT AS SHOWN ON THE PLANS.
- 8 GRADE AND PAVE UP TO THE TOP OF THE HOT MIX TYPE B COURSE.
- 9 INSTALL TEMPORARY PAVEMENT MARKINGS TO FOLLOW THE PERMANENT STRIPING PLANS. ALL PERMANENT SIGNAGE AND STRIPING FOR ROUNDABOUT SHALL BE INSTALLED PRIOR TO OPENING.
- 10 TOPSOIL AND SEED AREAS DISTURBED DURING PHASE 3A. REMOVE PERIMETER CONTROLS AND ENSURE STABILIZATION PRIOR TO MOVING TO PHASE 3B.



CONTRACTOR SHALL MAINTAIN NB TRAFFIC THROUGH USE OF FLAGGERS AS NECESSARY. ALL CONSTRUCTION EQUIPMENT SHALL BE REMOVED FROM OBSTRUCTING NB ACCESS AT THE END OF EACH WORK DAY.

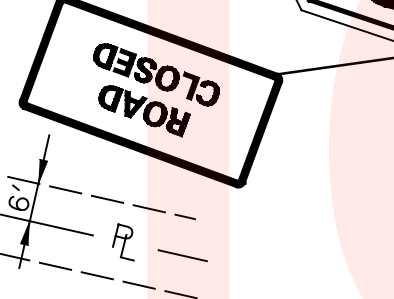
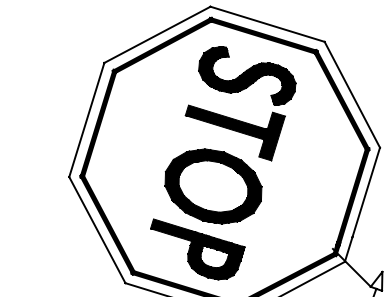
LEGEND

-  TEMPORARY CONSTRUCTION
-  WORK AREA THIS PHASE
-  EXISTING TRAFFIC FLOW ARROW
-  TEMPORARY WHITE PAVEMENT MARKING ARROW
-  4" WHITE TEMPORARY PAVEMENT STRIPING
-  4" YELLOW TEMPORARY PAVEMENT STRIPING
-  4" DOUBLE YELLOW TEMPORARY PAVEMENT MARKING
-  16" WHITE TEMPORARY PAVEMENT STRIPING
-  4" DASHED YELLOW TEMPORARY PAVEMENT STRIPING
-  4" SKIP WHITE TEMPORARY PAVEMENT MARKING

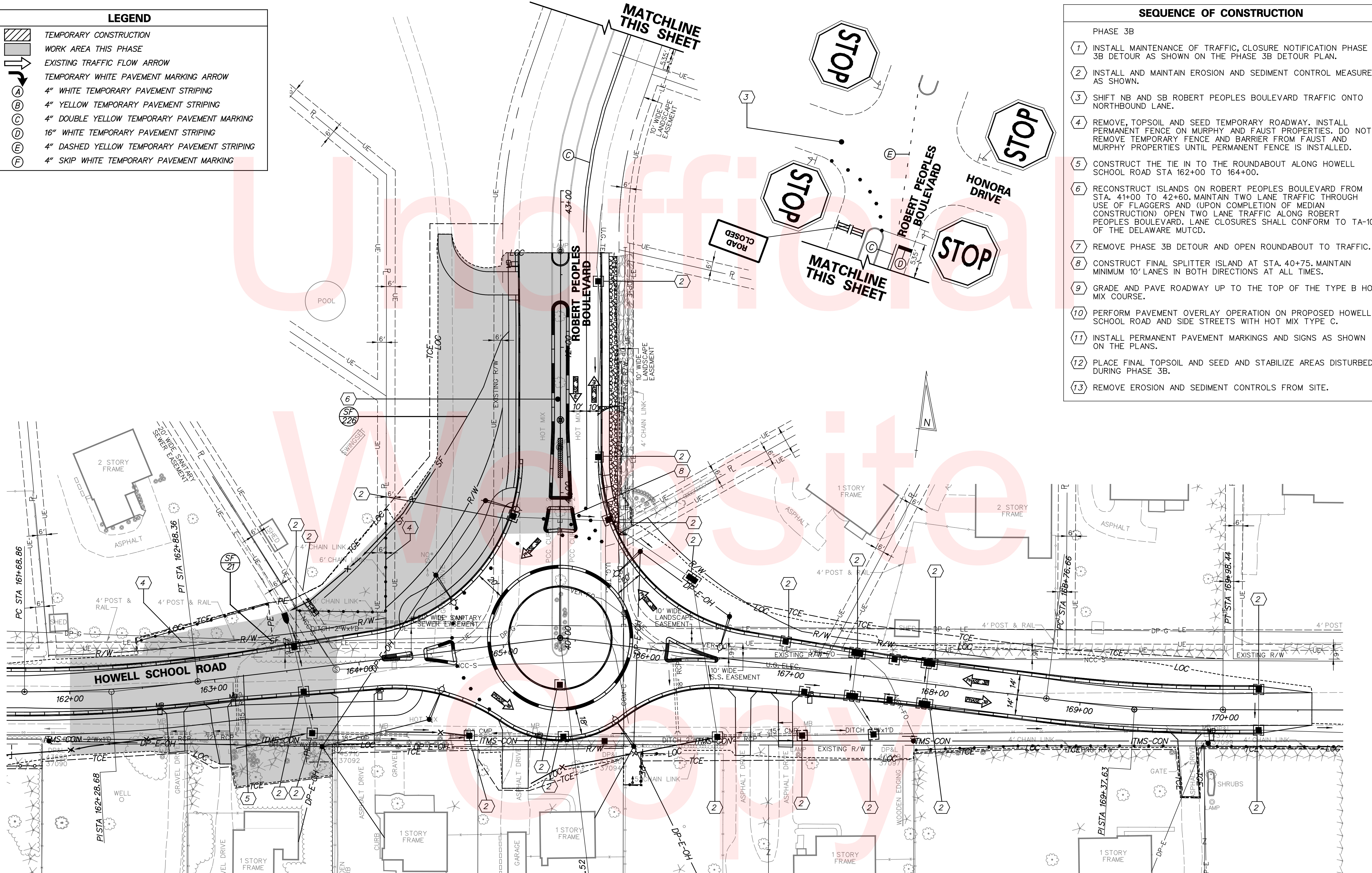
SEQUENCE OF CONSTRUCTION

- PHASE 3B
- 1 INSTALL MAINTENANCE OF TRAFFIC, CLOSURE NOTIFICATION PHASE 3B DETOUR AS SHOWN ON THE PHASE 3B DETOUR PLAN.
 - 2 INSTALL AND MAINTAIN EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN.
 - 3 SHIFT NB AND SB ROBERT PEOPLES BOULEVARD TRAFFIC ONTO NORTHBOUND LANE.
 - 4 REMOVE, TOPSOIL AND SEED TEMPORARY ROADWAY. INSTALL PERMANENT FENCE ON MURPHY AND FAUST PROPERTIES. DO NOT REMOVE TEMPORARY FENCE AND BARRIER FROM FAUST AND MURPHY PROPERTIES UNTIL PERMANENT FENCE IS INSTALLED.
 - 5 CONSTRUCT THE TIE IN TO THE ROUNDABOUT ALONG HOWELL SCHOOL ROAD STA 162+00 TO 164+00.
 - 6 RECONSTRUCT ISLANDS ON ROBERT PEOPLES BOULEVARD FROM STA. 41+00 TO 42+60. MAINTAIN TWO LANE TRAFFIC THROUGH USE OF FLAGGERS AND (UPON COMPLETION OF MEDIAN CONSTRUCTION) OPEN TWO LANE TRAFFIC ALONG ROBERT PEOPLES BOULEVARD. LANE CLOSURES SHALL CONFORM TO TA-10 OF THE DELAWARE MUTCD.
 - 7 REMOVE PHASE 3B DETOUR AND OPEN ROUNDABOUT TO TRAFFIC.
 - 8 CONSTRUCT FINAL SPLITTER ISLAND AT STA. 40+75. MAINTAIN MINIMUM 10' LANES IN BOTH DIRECTIONS AT ALL TIMES.
 - 9 GRADE AND PAVE ROADWAY UP TO THE TOP OF THE TYPE B HOT MIX COURSE.
 - 10 PERFORM PAVEMENT OVERLAY OPERATION ON PROPOSED HOWELL SCHOOL ROAD AND SIDE STREETS WITH HOT MIX TYPE C.
 - 11 INSTALL PERMANENT PAVEMENT MARKINGS AND SIGNS AS SHOWN ON THE PLANS.
 - 12 PLACE FINAL TOPSOIL AND SEED AND STABILIZE AREAS DISTURBED DURING PHASE 3B.
 - 13 REMOVE EROSION AND SEDIMENT CONTROLS FROM SITE.

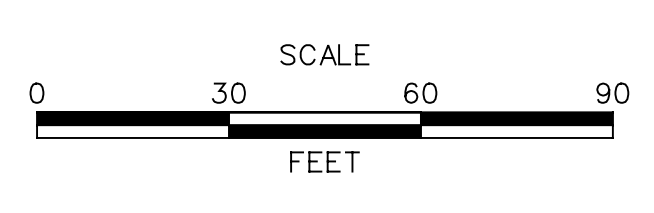
MATCHLINE THIS SHEET



MATCHLINE THIS SHEET



ADDENDUMS / REVISIONS	



HSP1 NCC, N54, HOWELL SCHOOL ROAD, SR 896 TO SR 71

CONTRACT T200504110	BRIDGE NO. BR 1-376 & 1-378
COUNTY NEW CASTLE	DESIGNED BY: RMG
	CHECKED BY: PAH

CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLANS PHASE 3B

SHEET NO. 108
TOTAL SHTS. 138

PORTABLE CHANGEABLE MESSAGE SIGNS

PRIOR TO DETOUR
(10 Days prior to beginning of detour)

CMS-1

HOWELL SCH RD TO CLOSE

AT 896 STARTING XX/XX/XX

DURING DETOUR
(Shall be installed for 5 Days after implementation of detour)

CMS-1

HOWELL SCH RD CLOSED

AT 896 FOLLOW DETOUR

SPECIAL SIGNS

66" x 78" sign: Howell Sch CLOSED W of Lums Pond Park FOLLOW DETOUR

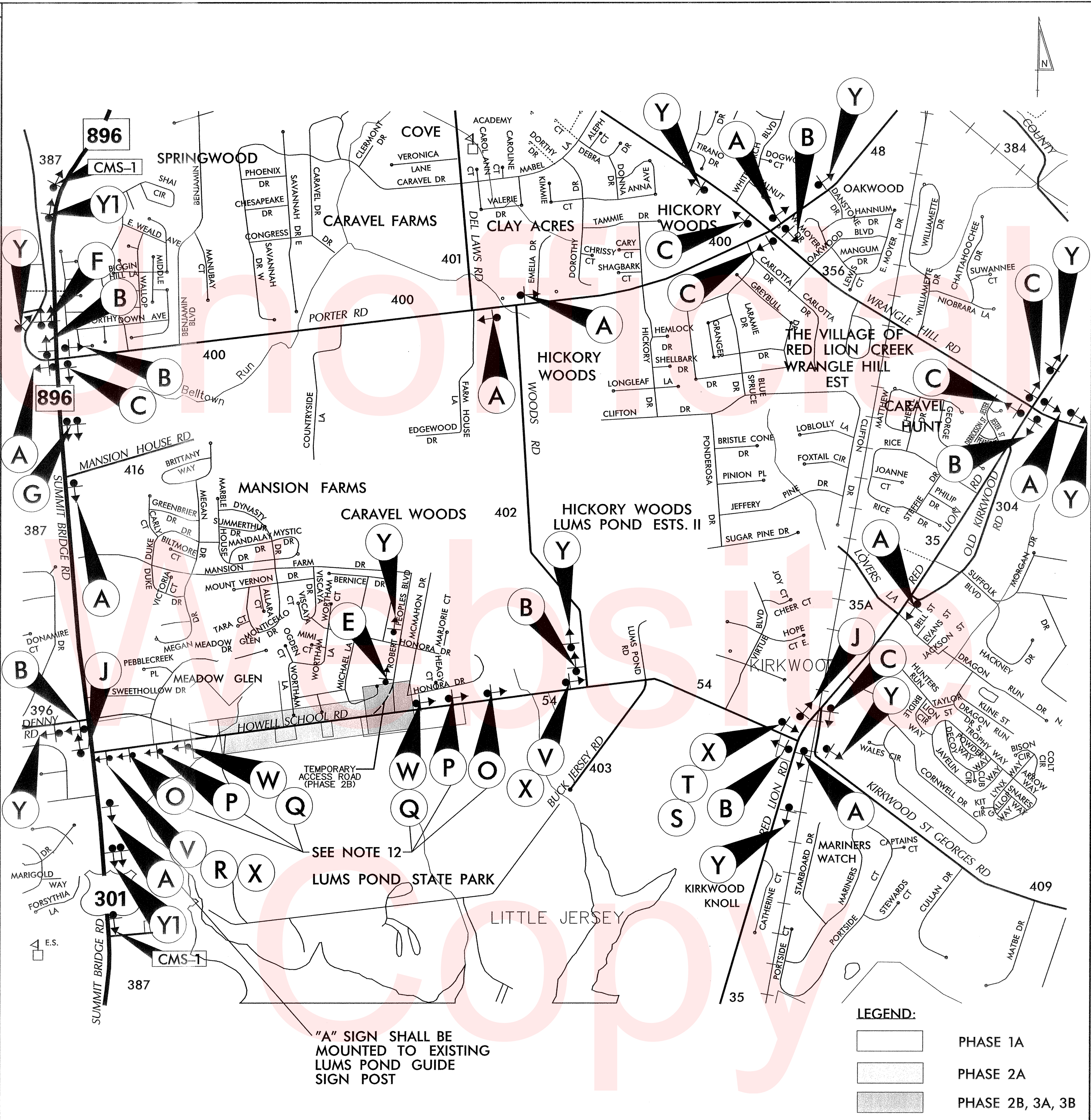
48" x 30" sign: STARTING XX/XX/XX

66" x 96" sign: Howell Sch CLOSED W of Lums Pond Park FOLLOW DETOUR

66" x 42" sign: STARTING XX/XX/XX

*STARTING PLAQUE TO BE USED 10 DAYS PRIOR TO DETOUR

NOTE: SPECIAL SIGNS SHALL HAVE BLACK LEGEND ON A FLUORESCENT ORANGE BACKGROUND.



LEGEND

(A) DETOUR (M4-9-DE)

(B) DETOUR (M4-9)

(C) DETOUR (M4-9)

(D) DETOUR (M4-9)

(E) DETOUR (M4-9)

(F) DETOUR (M4-9)

(G) DETOUR (M4-9)

(H) DETOUR (M4-9)

(I) DETOUR (M4-9)

(J) END DETOUR (M4-8c)

(K) DETOUR AHEAD (W20-2)

(L) DETOUR 1000 FT (W20-2)

(M) DETOUR 500 FT (W20-2)

(N) ROAD CLOSED AHEAD (W20-3)

(O) ROAD CLOSED 1000 FT (W20-3)

(P) ROAD CLOSED 500 FT (W20-3)

(Q) ROAD CLOSED (R11-2)

(R) DETOUR (M4-10(L))

(S) DETOUR (M4-10(R))

(T) ROAD CLOSED 2 MILES AHEAD LOCAL TRAFFIC ONLY (R11-3a)

(U) BRIDGE OUT XX MILES AHEAD LOCAL TRAFFIC ONLY (R11-3b)

(V) ROAD CLOSED TO THRU TRAFFIC (R11-4)

(W) BARRICADE

(X) BARRICADE

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 "Q" AND "T" AND "V" WHERE 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.
- SIGNAGE ALONG SR 896 SHALL BE MOUNTED ON BOTH SIDES OF THE ROADWAY.
- SIGNAGE AND BARRICADES SHALL BE ADJUSTED AND RELOCATED TO THE LIMITS OF WORK ZONE FOR EACH PHASE. PAYMENT SHALL BE INCIDENTAL TO SIGNAGE AND BARRICADE ITEMS.
- CONTRACTOR SHALL MAINTAIN ACCESS TO LUMS POND STATE PARK ENTRANCE AND RESIDENCES AT ALL TIMES.

RECOMMENDED *[Signature]* DATE: 9/12/14 RECOMMENDED *[Signature]* DATE: RECOMMENDED *[Signature]* DATE: 9/17/14 APPROVED CHIEF SAFETY OFFICER *[Signature]* DATE: 9-18-14 APPROVED TRAFFIC ENGINEER *[Signature]* DATE: 9/22/14

W:\MSVB\CELLS\PROJDEV\SB.CEL

PORTABLE CHANGEABLE MESSAGE SIGNS

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

MEDIAN CLOSED
DENNY RD

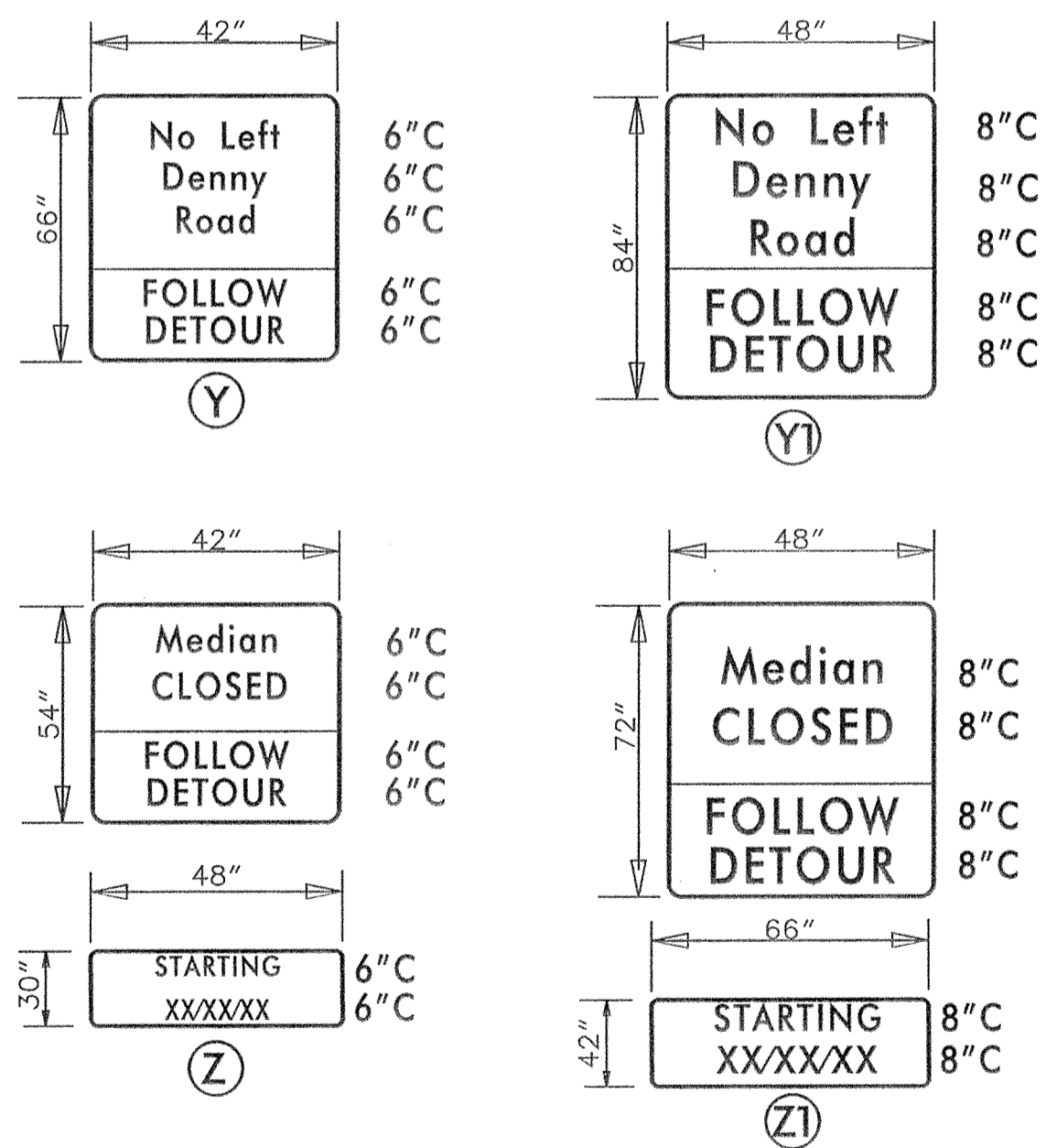
STARTING
XXXXXX

CMS-1 DURING DETOUR
(Shall be installed for 5 Days after implementation of detour)

MEDIAN CLOSED
DENNY RD

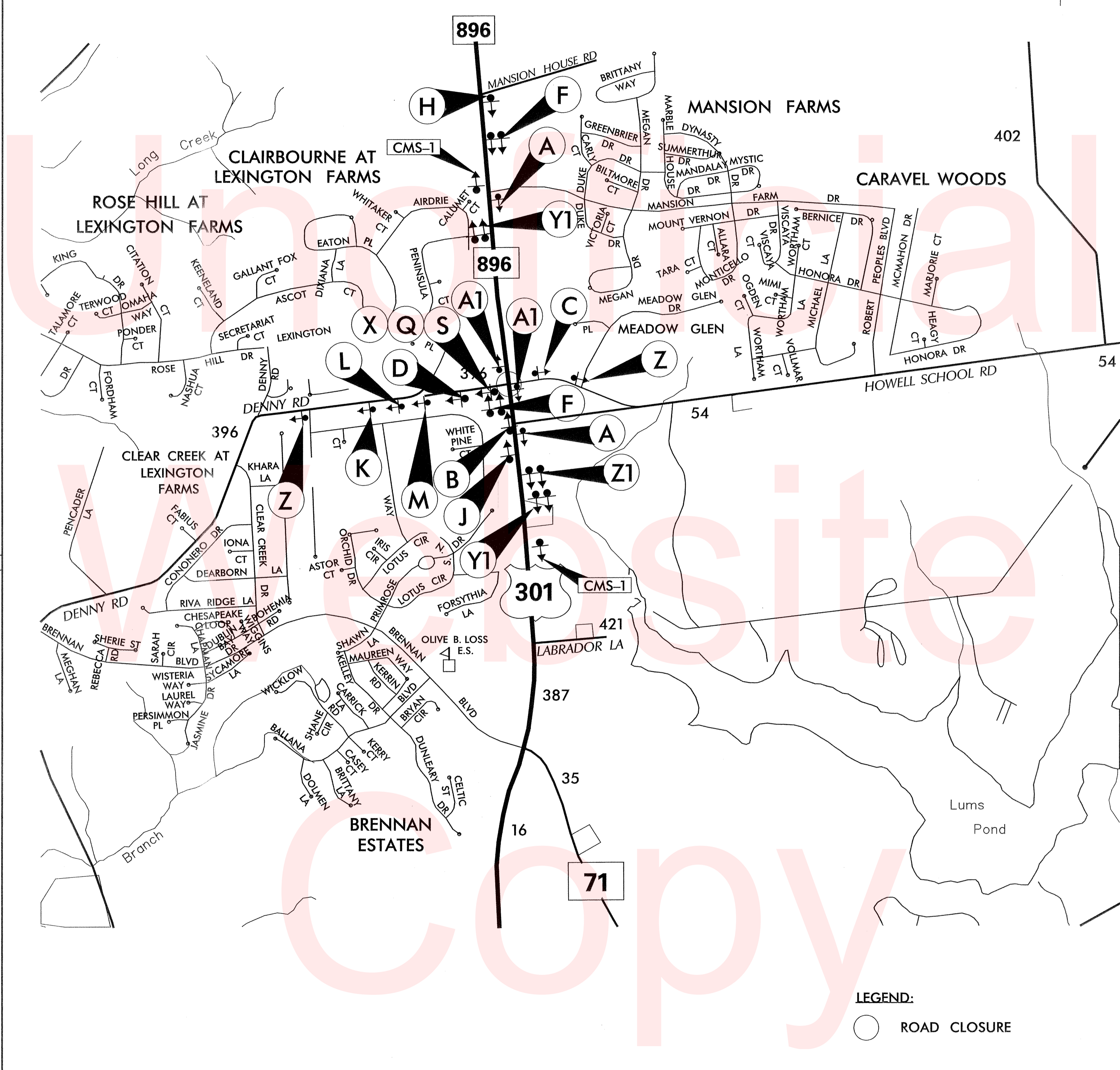
FOLLOW
DETOUR

SPECIAL SIGNS

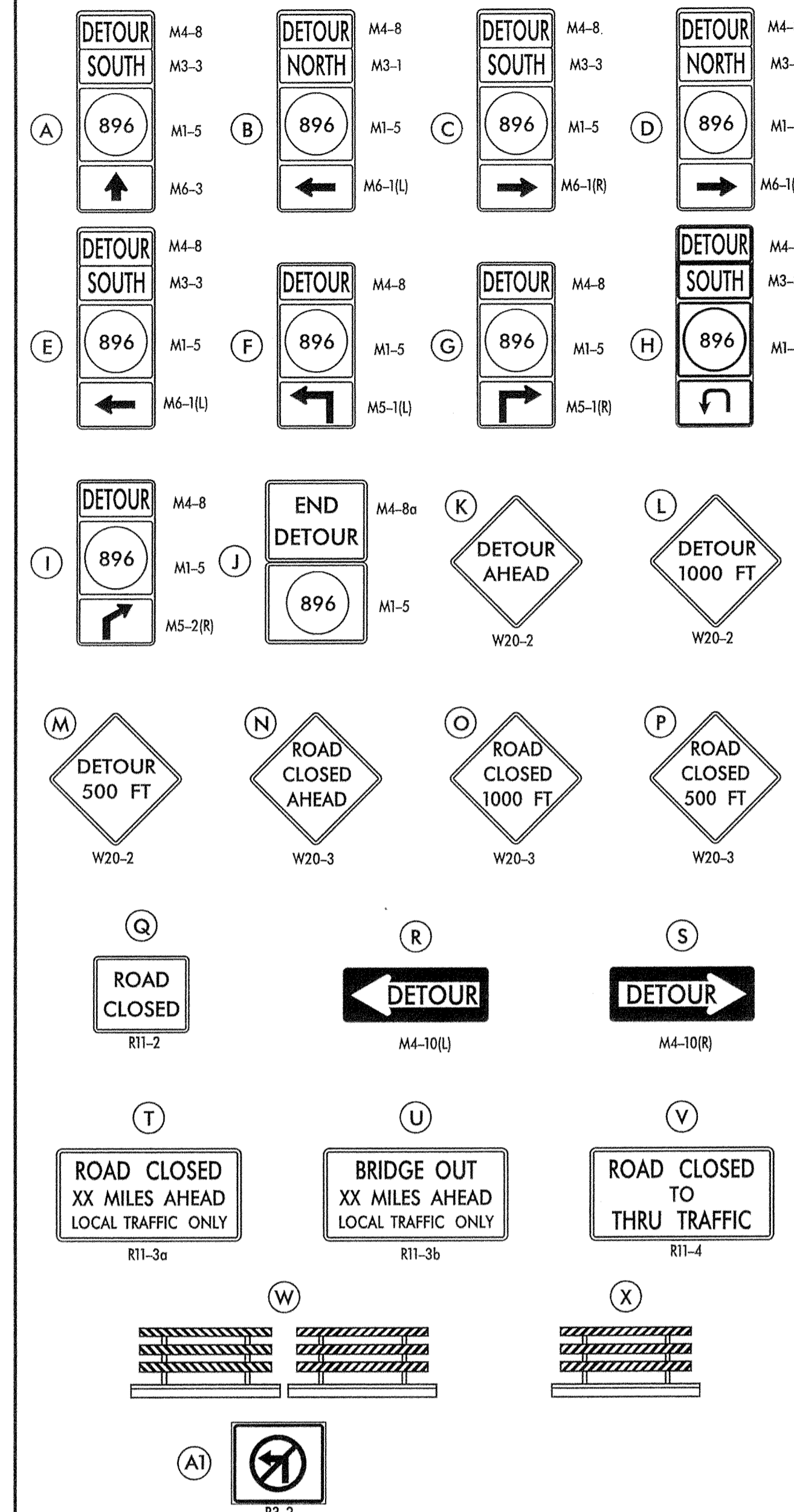


*STARTING PLAQUE TO BE USED 10 DAYS PRIOR TO DETOUR

NOTE: SPECIAL SIGNS SHALL HAVE BLACK LEGEND ON A FLUORESCENT ORANGE BACKGROUND.



LEGEND:
○ ROAD CLOSURE



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) 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.
- THE COLORS, DIMENSIONS, AND CHARACTERISTICS OF ALL INTERSTATE, U.S. ROUTE, AND STATE ROUTE SHIELD SIGNS SHALL BE IN ACCORDANCE WITH SECTION 2D.11 OF "THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (DE MUTCD.)
- 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 "Q" 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.
- SIGNAGE ALONG SR 896 SHALL BE MOUNTED ON BOTH SIDES OF THE ROADWAY.

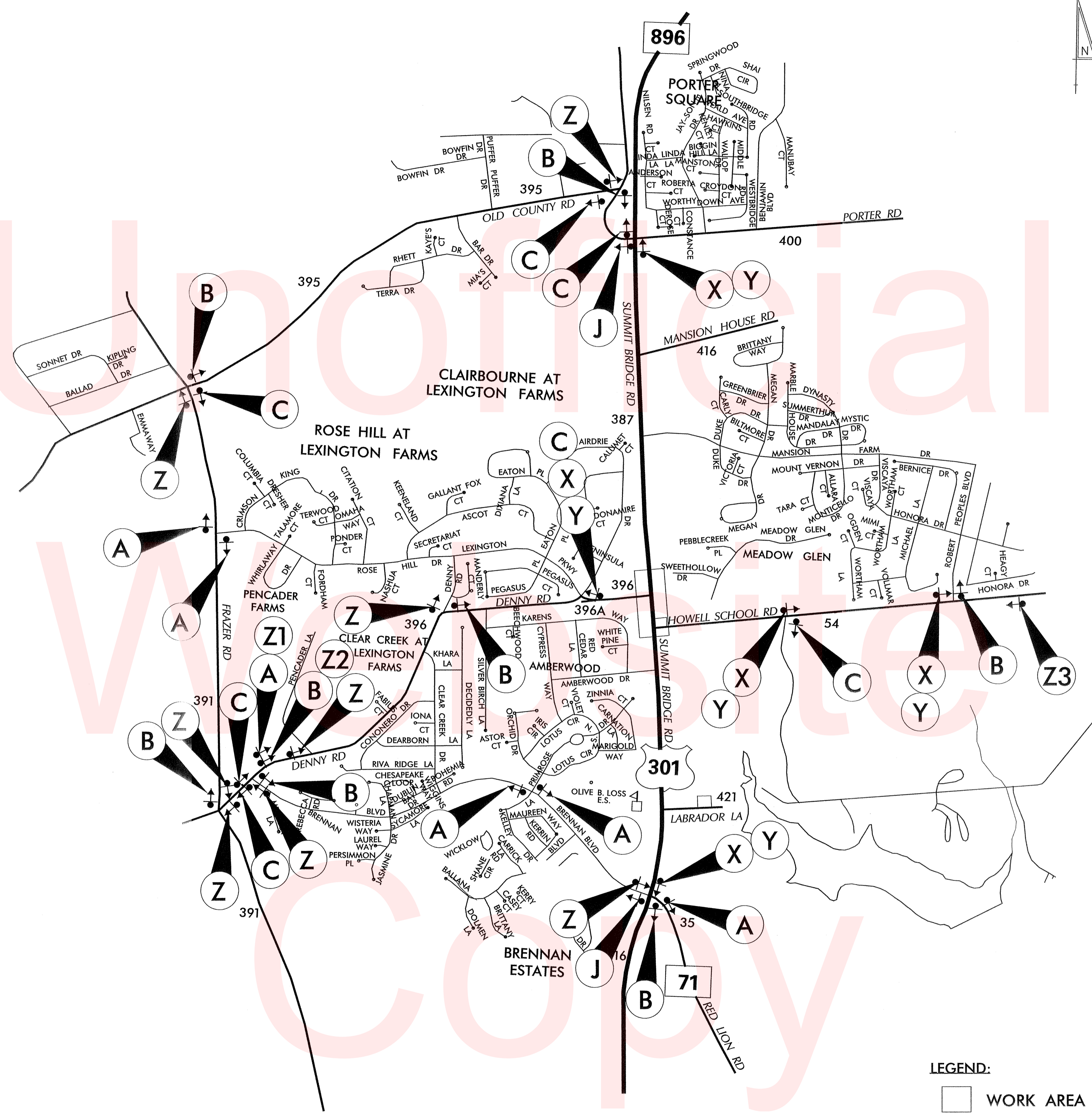
H:\TRANSPORTATION\DOT\0806 (HOWELL SCHOOL ROAD)\03 FINAL ENGINEERING\GNS\02.DGN

RECOMMENDED PLA DATE: 9/11/14 RECOMMENDED PLA DATE: 9/11/14 RECOMMENDED PLA DATE: 9/11/14 APPROVED CHIEF SAFETY OFFICER Michael P. Morgan Jr. DATE: 9-18-14 APPROVED TRAFFIC ENGINEER TKF DATE: 9/24/14

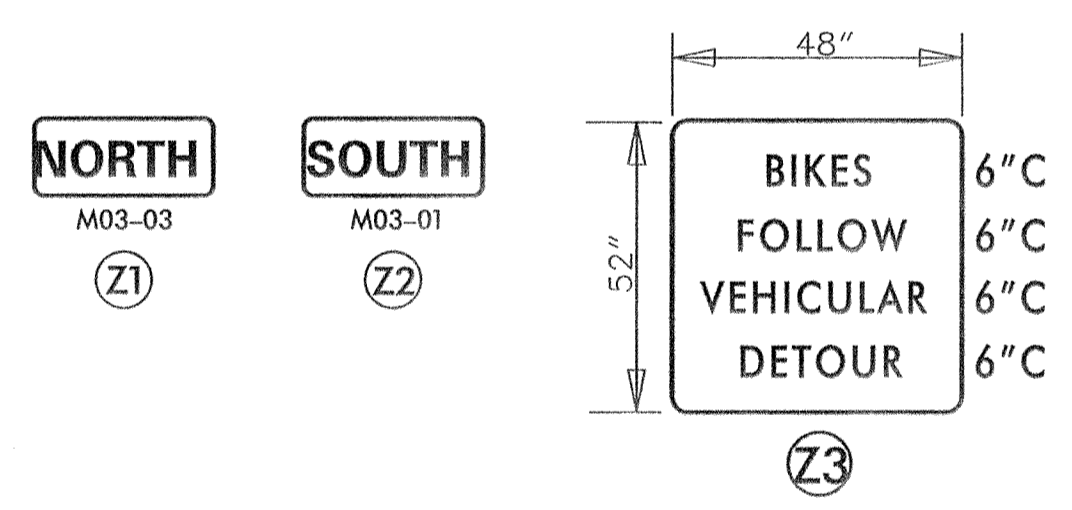
<p>DELAWARE DEPARTMENT OF TRANSPORTATION</p>	ADDENDUM / REVISIONS		<p>NOT TO SCALE</p>	<p>N54, HOWELL SCHOOL ROAD FROM SR 896 TO SR 71</p>	CONTRACT	PERMIT NO.	N54	<p>DETOUR PLAN PHASE 1B</p>	SHEET NO.	110
					COUNTY	DESIGNED BY:	AB		TOTAL SHTS.	138
					NEW CASTLE	CHECKED BY:	TKF			

SPECIAL NOTES

LEGEND



SPECIAL SIGNS



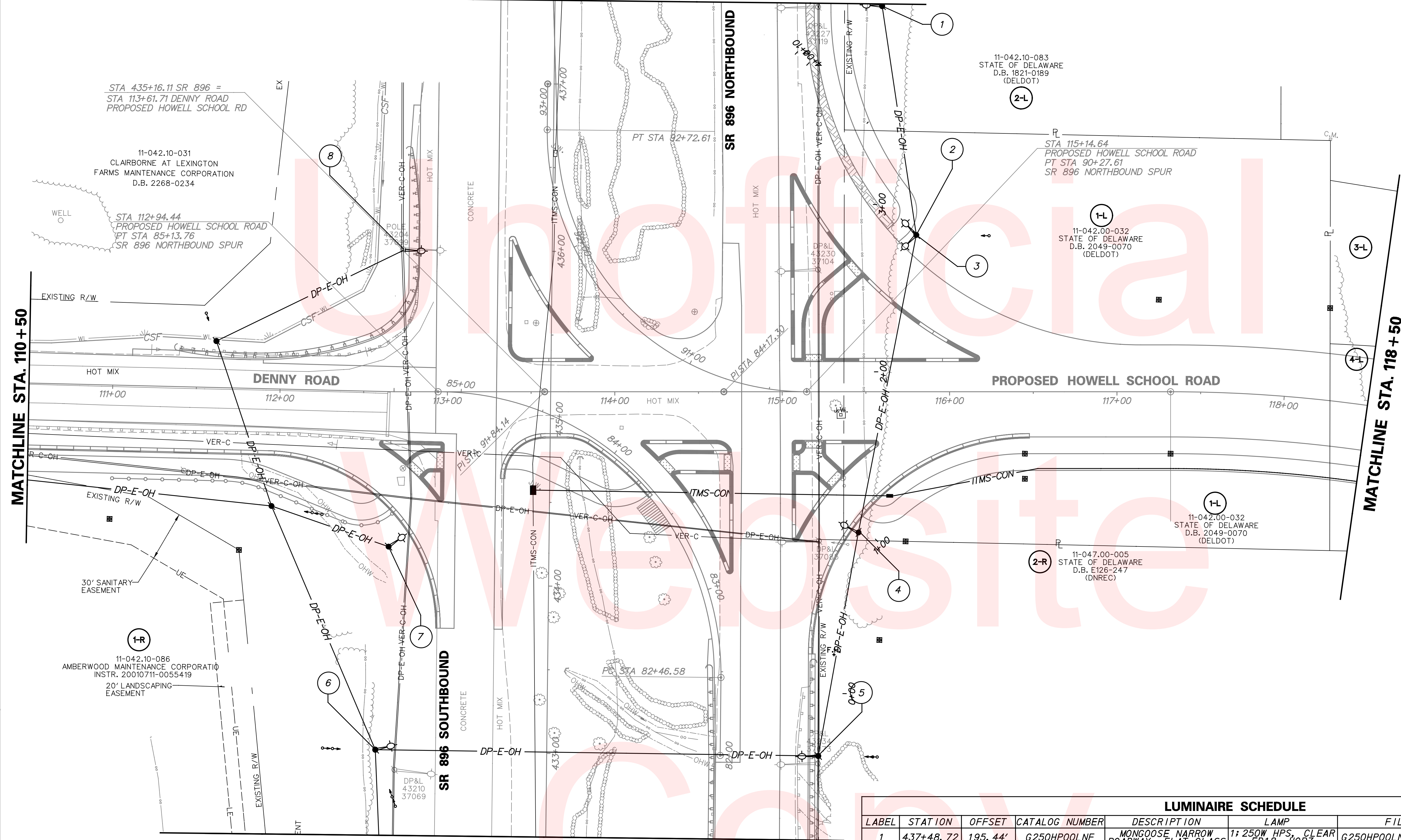
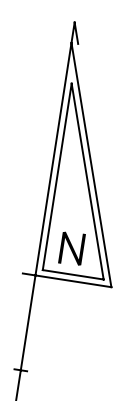
GENERAL NOTES

- 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 "Q" 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 ROADWAY OR BICYCLE PATH.
- BARRICADES SHALL BE A MINIMUM OF 6 FEET WIDE UNLESS DIRECTED BY THE ENGINEER.

LEGEND:
 WORK AREA

NOTE: SPECIAL SIGNS SHALL HAVE BLACK LEGEND ON A FLUORESCENT ORANGE BACKGROUND.

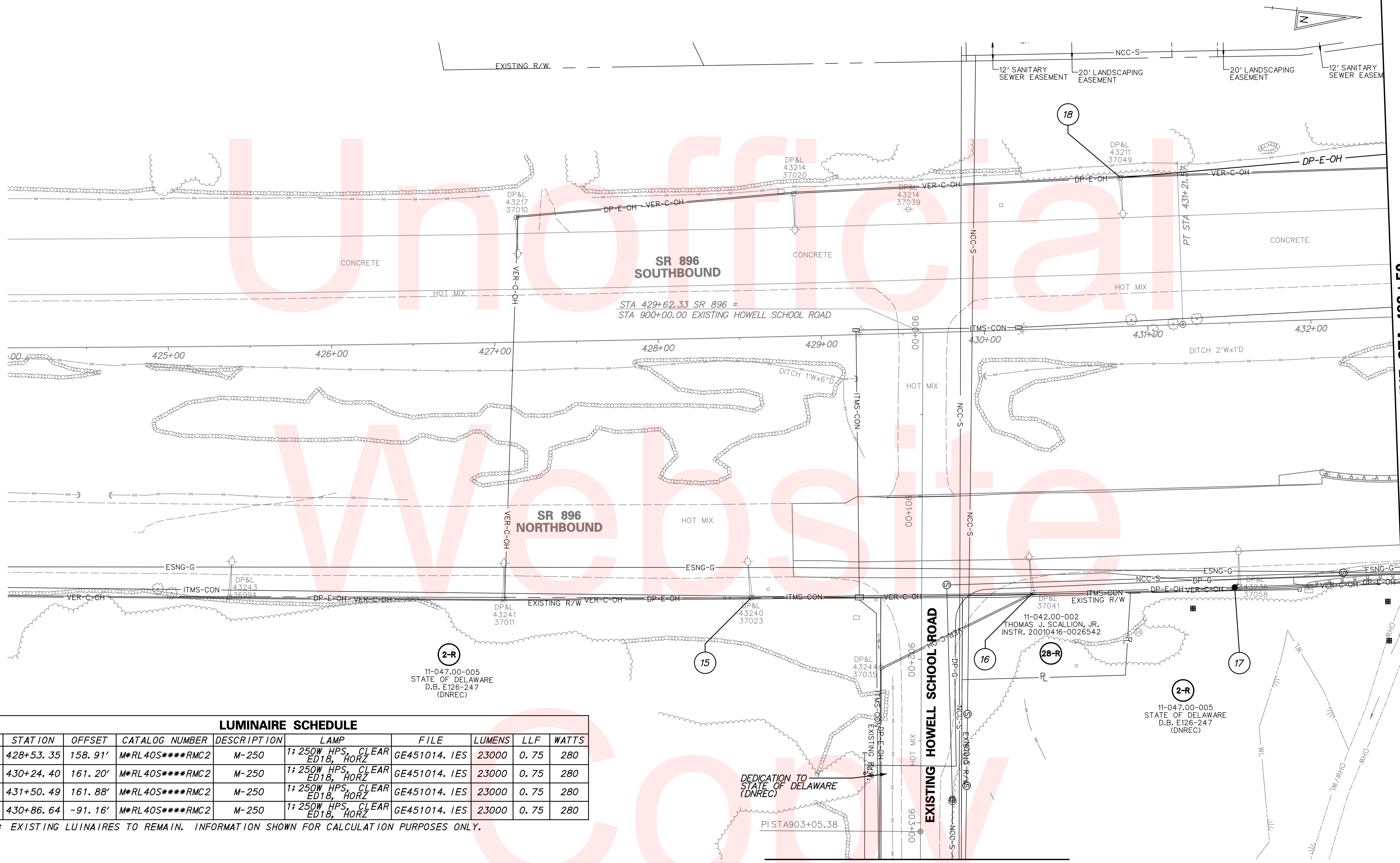
RECOMMENDED *[Signature]* DATE: 9/22/14 RECOMMENDED *[Signature]* DATE: RECOMMENDED *[Signature]* DATE: 9/23/14 APPROVED CHIEF SAFETY OFFICER *[Signature]* DATE: 9/23/14 APPROVED TRAFFIC ENGINEER *[Signature]* DATE: 9/23/14



MATCHLINE STA. 110 + 50

MATCHLINE STA. 118 + 50

LUMINAIRE SCHEDULE											
LABEL	STATION	OFFSET	CATALOG NUMBER	DESCRIPTION	LAMP	FILE	LUMENS	LLF	WATT	STILT	ARM
1	437+48.72	195.44'	G250HP00LNF	MONGOOSE NARROW ROADWAY, FLAT GLASS	1: 250W HPS, CLEAR ED18, HORZ	G250HP00LNFXXX.1ES	23000	0.75	280	15'	15'
2	115+80.12	-93.68'	G250HP00LFF	MONGOOSE FORWARD THROW, FLAT GLASS	1: 250W HPS, CLEAR ED18, HORZ	G250HP00LFFXXX.1ES	23000	0.75	280	10'	15'
3	115+80.12	-93.68'	G250HP00LFF	MONGOOSE FORWARD THROW, FLAT GLASS	1: 250W HPS, CLEAR ED18, HORZ	G250HP00LFFXXX.1ES	23000	0.75	280	10'	15'
4	115+45.62	84.05'	G250HP00LFF	MONGOOSE FORWARD THROW, FLAT GLASS	1: 250W HPS, CLEAR ED18, HORZ	G250HP00LFFXXX.1ES	23000	0.75	280	10'	15'
5	433+00.30	162.22'	G250HP00LNF	MONGOOSE NARROW ROADWAY, FLAT GLASS	1: 250W HPS, CLEAR ED18, HORZ	G250HP00LNFXXX.1ES	23000	0.75	280	15'	15'
6	433+01.11	-102.42'	G250HP00LNF	MONGOOSE NARROW ROADWAY, FLAT GLASS	1: 250W HPS, CLEAR ED18, HORZ	G250HP00LNFXXX.1ES	23000	0.75	280	15'	15'
7	112+67.05	92.59'	G250HP00LNF	MONGOOSE NARROW ROADWAY, FLAT GLASS	1: 250W HPS, CLEAR ED18, HORZ	G250HP00LNFXXX.1ES	23000	0.75	280	15'	15'
8	112+73.42	-85.18'	G250HP00LNF	MONGOOSE NARROW ROADWAY, FLAT GLASS	1: 250W HPS, CLEAR ED18, HORZ	G250HP00LNFXXX.1ES	23000	0.75	280	15'	15'



MATCHLINE STA. 432+50

MATCHLINE STA. 903+22.50

LUMINAIRE SCHEDULE									
LABEL	STATION	OFFSET	CATALOG NUMBER	DESCRIPTION	LAMP	FILE	LUMENS	LLF	WATTS
*15	428+53.35	158.91'	M*RL40S****RMC2	M-250	1; 250W HPS, CLEAR ED18, HORZ	GE451014.1ES	23000	0.75	280
*16	430+24.40	161.20'	M*RL40S****RMC2	M-250	1; 250W HPS, CLEAR ED18, HORZ	GE451014.1ES	23000	0.75	280
*17	431+50.49	161.88'	M*RL40S****RMC2	M-250	1; 250W HPS, CLEAR ED18, HORZ	GE451014.1ES	23000	0.75	280
*18	430+86.64	-91.16'	M*RL40S****RMC2	M-250	1; 250W HPS, CLEAR ED18, HORZ	GE451014.1ES	23000	0.75	280

*NOTE: EXISTING LUMINAIRES TO REMAIN. INFORMATION SHOWN FOR CALCULATION PURPOSES ONLY.