



STATE OF DELAWARE  
DEPARTMENT OF TRANSPORTATION  
PO BOX 778  
DOVER, DELAWARE 19903

JACK MARKELL  
GOVERNOR

SHAILEN BHATT  
SECRETARY

**VIA WEBSITE POSTING**

(302) 760-2030  
FAX (302) 739-2254

September 18, 2013

Contract No. T200411210.01  
Federal Aid Project No. ESTP-S026(6)  
SR 26, Atlantic Avenue from Clarksville to Assawoman Canal  
Sussex County

Ladies and Gentlemen:

Enclosed is Addendum No. 1 for the referenced contract consisting of the following:

1. Excel breakout sheets will be posted at the following link:  
<http://deldot.gov/information/business/bids/excel/>
2. One (1) page, Breakout Sheet, Breakout Sheet - 2, Item 265500 - Stream Diversion, revised, to be substituted for the same page in the Proposal.
3. Three (3) pages, Breakout Sheets, Breakout Sheet - 6, Item 737523 - Planting, revised, to be substituted for the same pages in the Proposal.
4. Fifteen (15) sheets, Construction Plans, sheets 35, 47, 553, 565, 567, 571, 573, 575, 576, 577, 580, 581, 582, 583 and 589, revised, to be substituted for the same sheets in the Plan Set.
5. One (1) sheet, Construction Plans, sheet 553A, new, to be added to the Plan Set.

Please note the revisions listed above and submit your bid based upon this information.

Sincerely,

*signature on file*

James H. Hoagland  
Contract Services Administrator

:jhh  
Enclosures

SECTION 1		BREAKOUT SHEET - 2		CONTRACT NO. T200411210	
ITEM 265500 - STREAM DIVERSION					
ITEM NO.	APPROX. QTY.	UOM	DESCRIPTION	UNIT PRICE	AMOUNT
A	1	LS	Supply and Installation of Stream Diversion Completed at Sta. 143+36	\$	\$
B	1	LS	Supply and Installation of Stream Diversion Completed at Sta. 20+15	\$	\$
TOTAL ITEM 265500 - Stream Diversion \$				(LUMP SUM BID PRICE FOR ITEM 265500)	

SECTION 1		BREAKOUT SHEET - 6			CONTRACT NO. T200411210	
ITEM 737523 - PLANTING						
ITEM NO.	APPROX. QTY.	UOM	DESCRIPTION	UNIT PRICE	AMOUNT	
Planting located at Station 28+00 left						
1	25	EA	Chamaecyparic Thyoides 6'-8', B&B	\$	\$	
2	25	EA	Pinus Virginian 6'-8', B&B	\$	\$	
Planting located on the East and West side of Windmill Road						
1	38	EA	Juniperus Virginiana 6'-8', B&B	\$	\$	
2	18	EA	Ilex Opaca 6'-8', B&B	\$	\$	
3	4	EA	Amelanchier Arborea 1.5"-2" Caliper, B&B	\$	\$	
4	8	EA	Carpinus Caroliniana 1.5"-2" Caliper, B&B	\$	\$	
5	7	EA	Cercis Canadensis 1.5"-2" Caliper, B&B	\$	\$	
6	7	EA	Cornus Florida 1.5"-2" Caliper, B&B	\$	\$	
7	3	EA	Quercus Phellos 1.5"-2" Caliper, B&B	\$	\$	

<b>SECTION 1</b>		<b>BREAKOUT SHEET - 6A</b>		<b>CONTRACT NO. T200411210</b>	
<b>ITEM 737523 - PLANTING</b>					
ITEM NO.	APPROX. QTY.	UOM	DESCRIPTION	UNIT PRICE	AMOUNT
8	3	EA	Acer Rubrum 1.5" - 2" Caliper, B&B	\$	\$
9	9	EA	Taxpdiun Distichum 1.5" - 2" Caliper, B&B	\$	\$
10	5	EA	Lagerstroemia Indica 1.5" - 2" Caliper, B&B	\$	\$
11	41	EA	Myrica Pensylvanica, 24" Container	\$	\$
12	11	EA	Llex Verticellata, 24" Container	\$	\$
13	163	EA	Panicum Virgatum, Plug	\$	\$
Planting Located to the East of Woodland Avenue					
1	14	EA	Betula Nigra 'Cully' 1.5" - 2" Caliper, B&B	\$	\$
2	11	EA	Cercis Canadensis 1.5" - 2" Caliper, B&B	\$	\$
3	9	EA	Cornus Florida 1.5" - 2" Caliper, B&B	\$	\$

SECTION 1		BREAKOUT SHEET - 6B		CONTRACT NO. T200411210	
		ITEM 737523 - PLANTING			
ITEM NO.	APPROX. QTY.	UOM	DESCRIPTION	UNIT PRICE	AMOUNT
4	11	EA	Quercus Phellos 1.5"-2" Caliper, B&B	\$	\$
Watering					
1	1	LS	Watering	\$	\$
				TOTAL ITEM 737523 - Planting \$ _____	
				(LUMP SUM BID PRICE FOR ITEM 737523)	

PIPE SCHEDULE						
NO.	SIZE / TYPE	LENGTH	SLOPE	INT. INV.	DIS. INV.	CLASS
17	15" RCP	68	0.0029	9.15	8.95	V
19	15" RCP	131	0.0046	7.50	6.90	V
20	48" RCP	167	0.0024	5.14	4.74	N
21	48" RCP	177	0.0023	5.14	4.73	N
22	15" RCP	4	0.0500	7.80	7.60	V
23	48" RCP	29	0.0023	5.21	5.14	N
24	48" RCP	29	0.0023	5.21	5.14	N
25	48" RCP	56	0.0023	5.34	5.21	V
26	48" RCP	56	0.0023	5.34	5.21	V
27	15" RCP	74	0.0048	7.25	6.90	V
28	15" RCP	105	0.0039	7.67	7.25	V
29	15" RCP	35	0.0037	7.80	7.67	N
30	15" RCP	9	0.0053	6.55	6.50	N
31	15" RCP	56	0.0062	6.50	6.15	N
32	15" RCP	12	0.1343	7.76	6.15	N
33	15" RCP	55	0.0073	9.65	9.25	N
34	15" RCP	83	0.0030	9.90	9.65	N

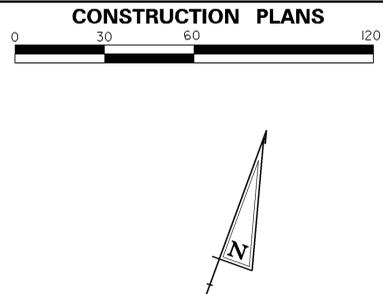
FLARED END SECTION SCHEDULE				
NO.	SIZE / TYPE	SLOPE	SAFETY GRATE	
2	48" / RCP	0.0023	NO	
3	48" / RCP	0.0024	NO	

RIPRAP SCHEDULE				
NO.	CLASS	LENGTH	WIDTH	AREA
*3	R-5	46.0	12.0	61.3 SQ.
4	R-5	20.0	7.0	15.7 SQ.
5	R-4	5.0	5.0	2.8 SQ.

\* BURIED/CHOKED RIPRAP. SEE GABION DETAIL IN CONSTRUCTION DETAILS.

ROADWAY CORE SUMMARY				
C NO.	STATION	OFFSET	DESCRIPTION	
PC-7	17+00	-12.80	4" HMA, 1" ST	
PC-8	17+00	-3.00	8" HMA, 6" PCC	

CURB SCHEDULE			
NO.	TYPE	LENGTH	
9	IPCC CURB & GUTTER, TYPE 3-8	297'	
10	IPCC CURB & GUTTER, TYPE 3-8	204.5'	
11	IPCC CURB & GUTTER, TYPE 3-8	338'	
12	IPCC CURB & GUTTER, TYPE 3-8	431.5'	



CONTRACT	COUNTY	F.A.P. NO.	SHEET NO.	TOTAL SHTS.
T20041210	SUSSEX	SEE TITLE SHEET	35	589

**SR 26, ATLANTIC AVENUE  
FROM CLARKSVILLE TO  
ASSAWOMAN CANAL**

REVISIONS	
Δ	REVISED STRUCTURE REMOVAL 9/13/13 TMB

**NOTES**

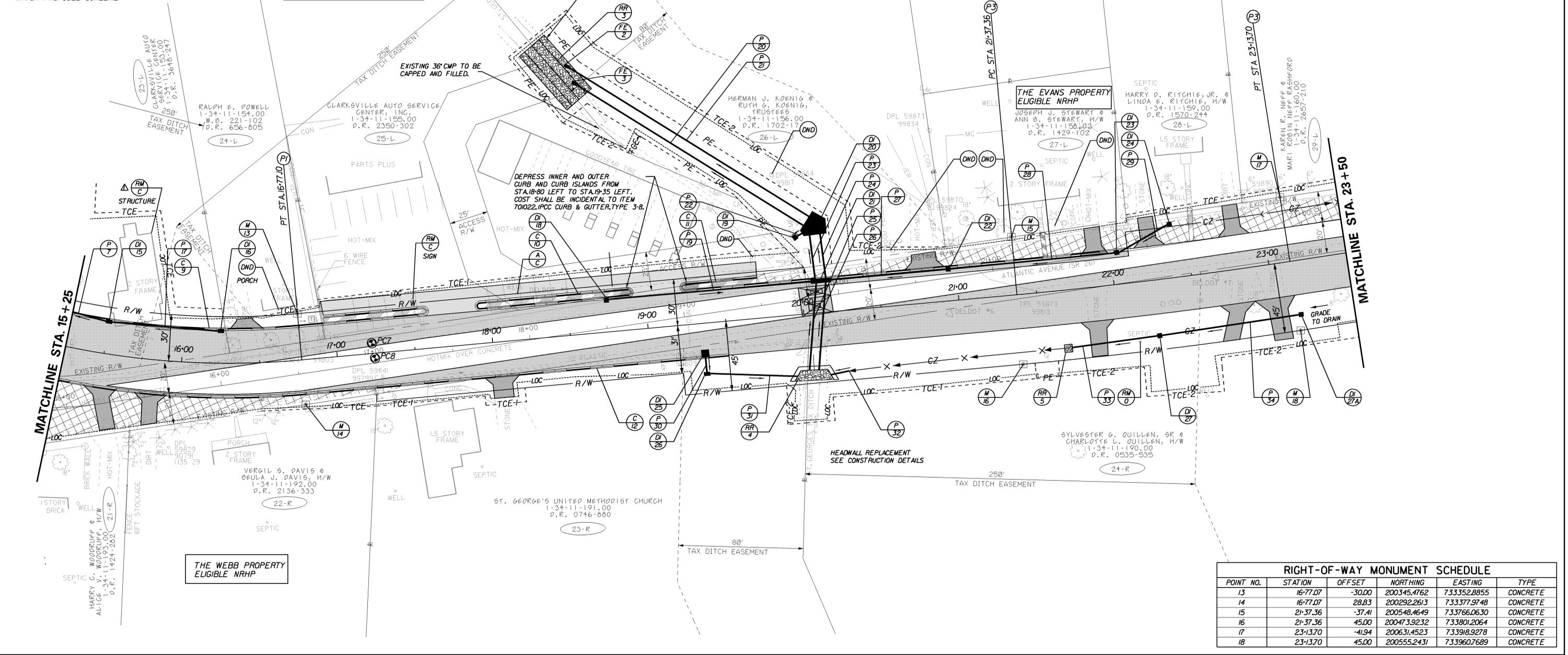
1. UTILITY RELOCATION PLANS IDENTIFY ALL UTILITIES TO BE REMOVED, RELOCATED, PROTECTED AND/OR ADJUSTED. UTILITY TEST HOLE SCHEDULES ARE ALSO LOCATED ON THE UTILITY RELOCATION PLANS.

2. CONTRACTOR SHALL REMOVE ALL EXISTING HEADWALLS ASSOCIATED WITH ROADWAY CROSS-PIPE AT STATION 20+00. REMOVAL WILL BE PAID FOR UNDER ITEM 21000 - REMOVAL OF STRUCTURES AND OBSTRUCTIONS.

DRAINAGE INLET SCHEDULE						
NO.	BOX	GRATE	T.G. EL.	INV. EL.	STATION	OFFSET
15	48"X30"	1	**	8.95	15+50	***
16	48"X30"	1	**	9.15	16+25	***
18	34"X24"	1	**	7.50	18+75	***
19	34"X24"	1	**	10.25	19+99	-49.75
20*	SEE DETAIL	1	10.56	5.14	20+17	-55.26
21*	SEE DETAIL	1	**	5.21	20+13	-56.00
22	34"X24"	1	**	7.25	20+95	***
23	48"X30"	1	**	7.67	22+04	***
24	34"X24"	1	**	11.00	22+40	-34.52
25	66"X66"	1	**	6.55	19+35	***
26	48"X30"	1	**	9.73	19+35	32.69
27	34"X24"	1	**	12.00	22+25	36.00
27A	34"X24"	1	**	12.14	23+13	36.00

\* SPECIAL INLET REQUIRED. SEE DETAIL FOR ITEM \*708653  
 \* SPECIAL INLET REQUIRED. SEE DETAIL FOR ITEM \*708518  
 \*\* MATCH FLOWLINE OF PROPOSED CURB AND GUTTER  
 \*\*\* MATCH PROPOSED CURBLINE

CONTAMINATED SOILS AND GROUNDWATER MAY BE ENCOUNTERED ON THIS SITE

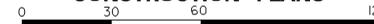


RIGHT-OF-WAY MONUMENT SCHEDULE					
POINT NO.	STATION	OFFSET	NORTHING	EASTING	TYPE
13	16+77.07	-30.00	200345.4762	733352.8855	CONCRETE
14	16+77.07	28.83	200292.2613	733377.9748	CONCRETE
15	21+37.36	-37.41	200548.4649	733766.0630	CONCRETE
16	21+37.36	45.00	200473.9252	733801.2064	CONCRETE
17	23+13.70	-41.94	200631.4523	733918.9278	CONCRETE
18	23+13.70	45.00	200555.2431	733960.7689	CONCRETE

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PREL. TRACING DESIGN CHKD.

**CONSTRUCTION PLANS**



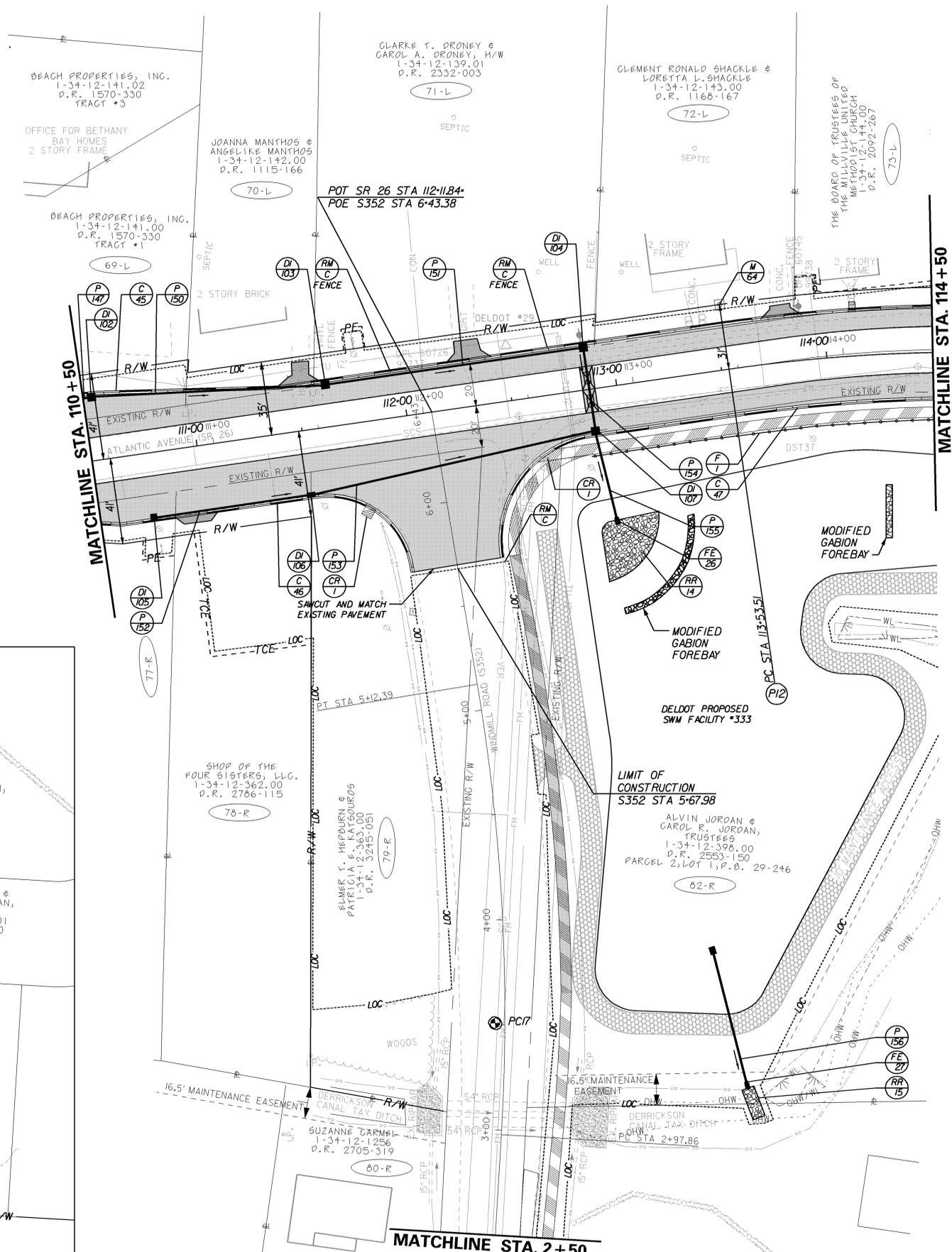
CONTRACT	COUNTY	F.A.P. NO.	SHEET NO.	TOTAL SHTS.
T20041210	SUSSEX	SEE TITLE SHEET	47	589

**SR 26, ATLANTIC AVENUE  
FROM CLARKSVILLE TO  
ASSAWOMAN CANAL**

**REVISIONS**

Δ REVISED P155 9/13/13 TMB	

NOTE: UTILITY RELOCATION PLANS IDENTIFY ALL UTILITIES TO BE REMOVED, RELOCATED, PROTECTED AND/OR ADJUSTED. UTILITY TEST HOLE SCHEDULES ARE ALSO LOCATED ON THE UTILITY RELOCATION PLANS.



**CURB SCHEDULE**

NO.	TYPE	LENGTH
45	IPCC CURB & GUTTER, TYPE 3-8	403.3'
46	IPCC CURB & GUTTER, TYPE 3-8	166.8'
47	IPCC CURB & GUTTER, TYPE 3-8	242'

**RIPRAP SCHEDULE**

NO.	CLASS	LENGTH	WIDTH	AREA
14	R-4	24.0	24.5	65.3 SY.
15	R-5	15.0	6.0	10.0 SY.

**FLARED END SECTION SCHEDULE**

NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
26	30" / RCP	0.0034	NO
27	15" / RCP	0.0029	NO

**PIPE SCHEDULE**

NO.	SIZE / TYPE	LENGTH	SLOPE	INT. INV.	DIS. INV.	CLASS
150	27" RCP	106	0.0033	5.75	5.40	V
151	27" RCP	119	0.0032	5.40	5.02	V
152	15" RCP	72	0.0042	6.90	6.60	V
153	15" RCP	133	0.0045	6.60	6.00	V
154	27" RCP	36	0.0033	5.00	4.88	V
155	30" RCP	38	0.0034	4.60	4.47	W V
156	15" RCP	64	0.0029	3.20	3.02	V

**DRAINAGE INLET SCHEDULE**

NO.	BOX	GRATE	T.G. EL.	INV. EL.	STATION	OFFSET
102	48"X48"	1	**	5.75	110+54	***
103	48"X48"	1	**	5.40	111+64	***
104	48"X48"	1	**	5.00	112+87	***
105	34"X34"	1	**	6.90	110+75	***
106	48"X30"	1	**	6.60	111+50	***
107	48"X48"	1	**	4.60	112+87	***

\*\* MATCH FLOWLINE OF PROPOSED CURB AND GUTTER  
\*\*\* MATCH PROPOSED CURBLINE

**FENCE SCHEDULE**

NO.	QTY.	UNIT	DESCRIPTION	NOTES
1	226	LF	PLACE SPLIT RAIL FENCE	STA. 112+70 RT - 114+96 RT

**ROADWAY CORE SUMMARY**

C NO.	STATION	OFFSET	DESCRIPTION
PC-15	3+50	-4.6	1.25' ST, 3' ATB

**RIGHT-OF-WAY MONUMENT SCHEDULE**

POINT NO.	STATION	OFFSET	NORTHING	EASTING	TYPE
64	113+53.51	-31.00	199744.8059	742435.2674	CONCRETE
65	111+51.95	615.55	199087.8715	742270.6681	CONCRETE

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PREL. TRACING DESIGN CHKD.

**EARTHWORK SUMMARY**

CONTRACT	COUNTY	F.A.P. NO.	SHEET NO.	TOTAL SHEETS
T20041210	SUSSEX	SEE TITLE SHEET	553	589

**SR 26, ATLANTIC AVENUE  
FROM CLARKSVILLE TO  
ASSAWOMAN CANAL**

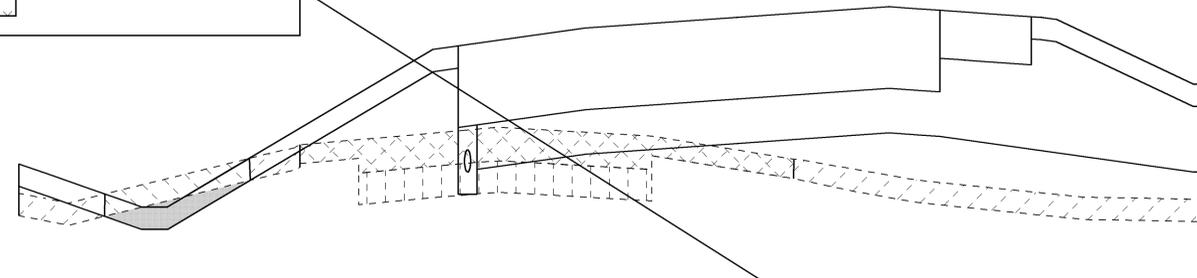
**REVISIONS**

Δ DELETED SHEET 9/13/13 TMB	

Δ DELETED SHEET

**LEGEND**

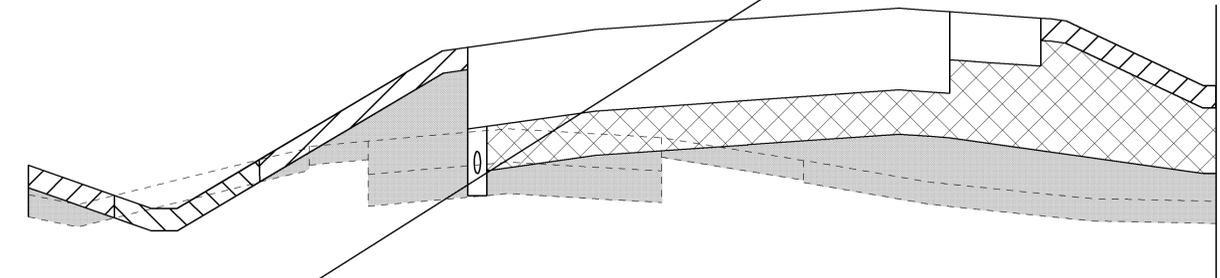
	EXCAVATION
	TOPSOIL REMOVED IN CUT
	TOPSOIL REMOVED UNDER FILL
	PCC PAVE. REMOVED
	ASPHALT REMOVED



**MATERIAL REMOVED DETAIL**  
N.T.S.

**LEGEND**

	TOPSOIL PLACED IN CUT
	TOPSOIL PLACED IN FILL
	BORROW (TYPE A)
	BORROW (TYPE F)



**MATERIAL PLACED DETAIL**  
N.T.S.

	SECTION 1	SECTION 2	SECTION 3	SECTION 4	TOTAL
<b>EXCAVATION</b>					
1 FROM CROSS SECTIONS	13323.33	3540.08	2395.68	8321.24	27580.33
2 PLUS TOPSOIL REMOVED UNDER FILL	2771.49	446.32	1772.03	3568.14	8557.98
3 PLUS TOPSOIL REMOVED IN CUT	3570.57	735.85	897.28	1590.27	6793.97
4 PLUS ASPHALT REMOVED	6086.85	1668.50	1108.65	2437.02	11301.02
5 LESS PCC REMOVED	842.68	392.11	85.54	468.30	1788.63
6 LESS ROOTMAT REMOVED IN CUT	0.00	0.00	0.00	0.00	0.00
7 LESS ROCK EXCAVATION	0.00	0.00	0.00	0.00	0.00
8 TOTAL ITEM 202000 - EXCAVATION AND EMBANKMENT	24909.57	5998.64	6088.10	17287.22	54283.53
<b>STORMWATER MANAGEMENT POND</b>					
9 FROM CROSS SECTIONS	170.00	0.00	2298.00	3856.00	6324.00
10 PLUS TOPSOIL REMOVED UNDER FILL	0.00	0.00	0.00	0.00	0.00
11 PLUS TOPSOIL REMOVED IN CUT	105.00	0.00	602.00	894.00	1601.00
12 PLUS OVEREXCAVATION FOR SEDIMENTATION	0.00	0.00	0.00	0.00	0.00
13 LESS ROOTMAT REMOVED IN CUT	0.00	0.00	0.00	0.00	0.00
14 LESS ROCK EXCAVATION	0.00	0.00	0.00	0.00	0.00
15 TOTAL ITEM 271000 - STORMWATER MANAGEMENT POND	275.00	0.00	2900.00	4750.00	7925.00
<b>EXCAVATION AVAILABLE FOR EMBANKMENT</b>					
16 TOTAL EXCAVATION AND EMBANKMENT QUANTITY (ITEM 202000 - LINE 8)	0.00	0.00	0.00	0.00	0.00
17 PLUS STORMWATER MANAGEMENT POND EXCAVATION (ITEM 271000-LINE 15)	275.00	0.00	2900.00	4750.00	7925.00
18 PLUS EXCAVATION AND BACKFILL FOR STRUCTURES (ITEM 207000)	0.00	0.00	0.00	0.00	0.00
19 PLUS EXCAVATION AND EMBANKMENT FOR PIPE TRENCHES (ITEM 208000)	0.00	0.00	0.00	0.00	0.00
20 LESS TOPSOIL REMOVED UNDER FILL	0.00	0.00	0.00	0.00	0.00
21 LESS TOPSOIL REMOVED IN CUT	0.00	0.00	0.00	0.00	0.00
22 LESS TOPSOIL REMOVED FROM STORMWATER MANAGEMENT PONDS	105.00	0.00	602.00	894.00	1601.00
23 LESS EXISTING ASPHALT REMOVED	0.00	0.00	0.00	0.00	0.00
24 LESS UNSUITABLE EXCAVATION	0.00	0.00	0.00	0.00	0.00
25 LESS MATERIALS USED FOR BORROW TYPE A,B,AND D	0.00	0.00	0.00	0.00	0.00
26 EXCAVATION AVAILABLE FOR EMBANKMENT FROM THIS STAGE	170.00	0.00	2298.00	3856.00	6324.00
27 PLUS STOCKPILED MATERIAL FROM PREVIOUS STAGES	142.70	0.00	11544.01	35324.71	47011.42
28 TOTAL EXCAVATION AVAILABLE FOR EMBANKMENT AS TYPE A BORROW	312.70	0.00	13842.01	39180.71	53335.42
<b>BORROW, TYPE A</b>					
29 BORROW, TYPE A	2158.05	618.07	644.48	1157.36	4577.96
30 PLUS ADJUSTMENT FACTOR (20%)	431.61	123.61	128.90	231.47	915.59
31 TOTAL REQUIRED BORROW, TYPE A	2589.66	741.68	773.38	1388.83	5493.55
<b>BORROW, TYPE B</b>					
32 BACKFILL FOR MUCK EXCAVATION	0.00	0.00	0.00	0.00	0.00
33 PLUS BACKFILL FOR ROOTMAT REMOVAL	0.00	0.00	0.00	0.00	0.00
34 PLUS BACKFILL FOR UNSUITABLE SOIL	0.00	0.00	0.00	0.00	0.00
35 SUBTOTAL BORROW, TYPE B REQUIRED	0.00	0.00	0.00	0.00	0.00
36 PLUS ADJUSTMENT FACTOR (20%)	0.00	0.00	0.00	0.00	0.00
37 TOTAL ADJUSTED BORROW, TYPE B REQUIRED	0.00	0.00	0.00	0.00	0.00

	SECTION 1	SECTION 2	SECTION 3	SECTION 4	TOTAL
<b>BORROW, TYPE C</b>					
38 FOR PIPE TRENCH BACKFILL AND STRUCTURE BACKFILL (ITEM 210000)	1352.62	243.46	1480.69	840.54	3917.31
39 PLUS ADJUSTMENT FACTOR (30%)	405.78	73.04	444.21	252.16	1175.19
40 TOTAL ADJUSTED BORROW, TYPE C REQUIRED	1758.40	316.50	1924.90	1092.70	5092.50
<b>BORROW, TYPE F</b>					
41 EMBANKMENT REQUIRED BELOW CAPPING	0.00	0.00	0.00	0.00	0.00
42 PLUS ROOTMAT REMOVED UNDER FILL	0.00	0.00	0.00	0.00	0.00
43 PLUS UNSUITABLE MATERIAL REMOVED UNDER FILL	0.00	0.00	0.00	0.00	0.00
44 PLUS STORMWATER POND EMBANKMENT	0.00	3.00	0.00	0.00	0.00
45 PLUS BACKFILL FOR PIPE TRENCHES (OUTSIDE LIMITS OF TYPE C)	0.00	0.00	0.00	0.00	0.00
46 LESS TOPSOIL PLACED ON FILL SLOPES (NOT INCLUDED IN FILL AREAS)	0.00	0.00	0.00	0.00	0.00
47 LESS EXCESS TOPSOIL TO BE PLACED IN OUTER EMBANKMENTS	0.00	0.00	0.00	0.00	0.00
48 LESS MSE WALL BACKFILL (NOT INCLUDED IN EMBANKMENT QUANTITIES)	0.00	0.00	0.00	0.00	0.00
49 SUBTOTAL EMBANKMENT REQUIRED BELOW CAPPING	0.00	0.00	0.00	0.00	0.00
50 PLUS ADJUSTMENT FACTOR (20%)	0.00	0.00	0.00	0.00	0.00
51 TOTAL ADJUSTED BORROW, TYPE F REQUIRED	0.00	0.00	0.00	0.00	0.00
<b>CLAY BORROW</b>					
52 CLAY BORROW, SWM POND, TYPE 1	0.00	0.00	0.00	0.00	0.00
53 PLUS ADJUSTMENT FACTOR (20%)	0.00	0.00	0.00	0.00	0.00
54 TOTAL ADJUSTED CLAY BORROW, SWM POND, TYPE 1 REQUIRED (ITEM 274000)	0.00	0.00	0.00	0.00	0.00
<b>EARTHWORK SUMMARY</b>					
55 TOTAL REQUIRED BORROW, TYPE A (LINE 31)	2589.66	741.68	773.38	1388.83	5493.55
56 LESS EXCAVATION AVAILABLE FOR EMBANKMENT (LINE 28)	72.45	0.00	577.00	1388.83	2038.28
57 TOTAL ADJUSTED BORROW, TYPE A (ITEM 209001)	2517.21	741.68	196.38	0.00	3455.27
58 SURPLUS EXCAVATION AVAILABLE FOR EMBANKMENT	240.24	0.00	13265.00	37791.88	51297.12
59 TOTAL ADJUSTED BORROW, TYPE B (ITEM 209002)	0.00	0.00	0.00	0.00	0.00
60 TOTAL REQUIRED BORROW, TYPE C (LINE 40)	1758.40	316.50	11953.77	1092.70	15121.37
61 LESS EXCAVATION AVAILABLE FOR EMBANKMENT (LINE 28)	97.54	0.00	11749.87	1092.70	12940.11
62 TOTAL ADJUSTED BORROW, TYPE C (ITEM 210000)	1660.86	316.50	203.90	0.00	2181.26
63 SURPLUS EXCAVATION AVAILABLE FOR EMBANKMENT	142.70	0.00	11544.01	36699.18	48385.89
64 TOTAL ADJUSTED BORROW, TYPE F (ITEM 209006)	0.00	0.00	0.00	0.00	0.00
65 TOTAL ADJUSTED CLAY BORROW, SWM POND, TYPE 1 (ITEM 274000)	0.00	0.00	0.00	0.00	0.00
<b>TOPSOIL SUMMARY</b>					
66 STOCKPILED TOPSOIL REMOVED UNDER FILL	0.00	0.00	0.00	0.00	0.00
67 PLUS STOCKPILED TOPSOIL REMOVED IN CUT	0.00	0.00	0.00	0.00	0.00
68 PLUS TOPSOIL REMOVED FROM SWM PONDS	630.00	0.00	3612.00	5364.00	9606.00
69 PLUS STOCKPILED TOPSOIL FROM PREVIOUS STAGES	0.00	0.00	9277.00	1552.00	10829.00
70 SUBTOTAL TOPSOILING AVAILABLE FOR REUSE	630.00	0.00	12889.00	6916.00	20435.00
71 LESS PROPOSED TOPSOIL PLACED	32012.90	6887.00	11803.00	29018.00	79720.90
72 LESS PROPOSED TOPSOIL PLACED FOR SWM PONDS	1557.10	0.00	4865.30	11747.30	18169.70
73 SUBTOTAL EXCESS (-) TOPSOIL OR NEEDED (-) TOPSOIL	-32940.00	-6887.00	-3779.30	-33849.30	-77455.60
74 LESS TOPSOIL PLACED IN OUTER EMBANKMENTS	0.00	0.00	0.00	0.00	0.00
75 TOTAL EXCESS (-) TOPSOIL OR NEEDED (-) TOPSOIL	-32940.00	-6887.00	-3779.30	-33849.30	-77455.60

9/13/2013 11:41:51 AM PROJECT: SR26mainline\_SurveyYear-11workSummary.mxd

PREL. TRACING DESIGN CHKD.

**EARTHWORK SUMMARY**

CONTRACT T20041210	COUNTY SUSSEX	F.A.P. NO. SEE TITLE SHEET	SHEET NO. 553A	TOTAL SHTS. 589
<b>SR 26, ATLANTIC AVENUE FROM CLARKSVILLE TO ASSAWOMAN CANAL</b>				
REVISIONS				
▲ REVISED EARTHWORK SUMMARY 9/13/13 TMB				

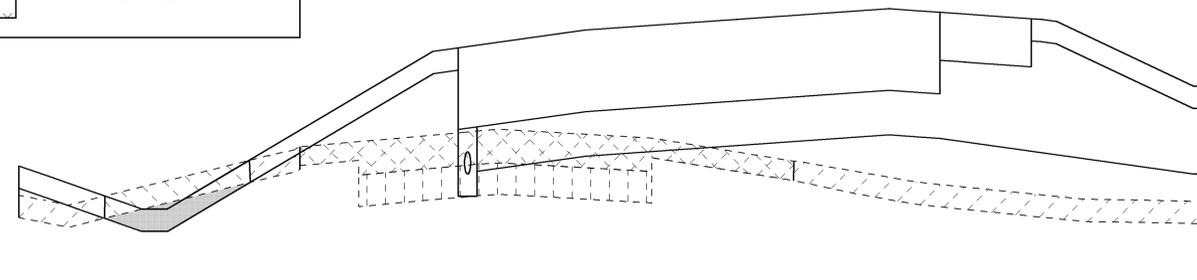
▲ NEW SHEET

**LEGEND**

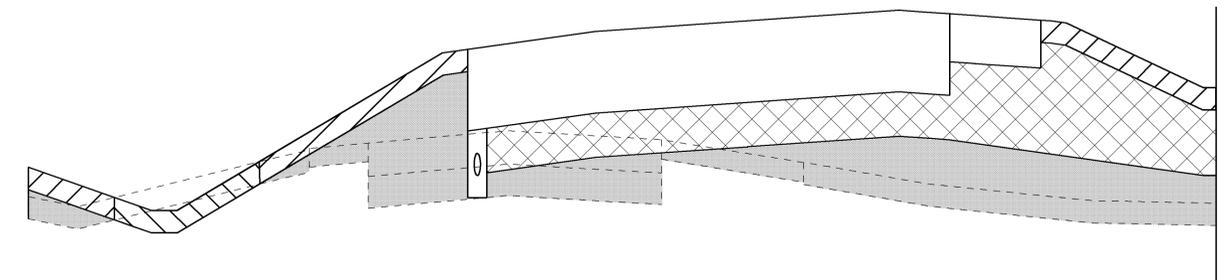
	EXCAVATION
	TOPSOIL REMOVED IN CUT
	TOPSOIL REMOVED UNDER FILL
	PCC PAVE. REMOVED
	ASPHALT REMOVED

**LEGEND**

	TOPSOIL PLACED IN CUT
	TOPSOIL PLACED IN FILL
	BORROW (TYPE A)
	BORROW (TYPE F)



**MATERIAL REMOVED DETAIL**  
N.T.S.



**MATERIAL PLACED DETAIL**  
N.T.S.

**I. GENERAL**

DUE TO THE LIMITED SPACE ADJACENT TO THE EXISTING ROADWAY FOR STAGING EQUIPMENT AND TRUCKS, THE "FILL AREAS" OF THE PROJECT ARE ANTICIPATED TO BE CONSTRUCTED USING A COMBINATION OF BORROW TYPE A FROM AN OUTSIDE SOURCE AND MATERIAL MEETING BORROW TYPE A AVAILABLE FROM STORMWATER POND EXCAVATION. DUE TO THE LIMITED SPACE AVAILABLE FOR EQUIPMENT AND THE SMALL EMBANKMENT HEIGHTS, BORROW TYPE A SHALL BE UTILIZED FOR THE REQUIRED ROADWAY EMBANKMENT AS IDENTIFIED ON THE PLANS. NOTE THAT NOT ALL OF THE STORMWATER POND MATERIAL MAY BE IMMEDIATELY AVAILABLE FOR EMBANKMENT AS A RESULT OF THE CONSTRUCTION PHASING. SHOULD THE CONTRACTOR BE ABLE TO PROCURE ON SITE STOCKPILE AREAS AT THEIR COST, THE DEPARTMENT WOULD ENCOURAGE THE STOCKPILING AND UTILIZATION OF ANY MATERIAL MEETING TYPE A BORROW REQUIREMENTS. COSTS TO STOCKPILE, RE-HANDLE, TRANSPORT, AND COMPACT STOCKPILED MATERIALS ARE INCIDENTAL TO THE EXCAVATION ITEM THAT GENERATED THE MATERIAL.

SINCE THE EXCAVATION AREAS ARE ALSO SMALL AND CONFINED ADJACENT TO THE EXISTING ROADWAY, IT IS NOT INTENDED FOR THE CONTRACTOR TO SEPARATE SMALL AMOUNTS OF TOPSOIL FROM THE EXCAVATED MATERIALS. MATERIAL CONTAINING A MIXTURE OF TOPSOIL AND BORROW IS CONSIDERED AS WASTE IN THE PROJECT COMPUTATIONS. SHOULD THE CONTRACTOR ELECT TO SEPARATE TOPSOIL FROM THE UNDERLYING SOILS, AND IF SUCH SOILS MEET TYPE A BORROW REQUIREMENTS, THERE WOULD BE NO OBJECTION TO USING SUCH MATERIAL FOR EMBANKMENT CONSTRUCTION. STOCKPILING OF SEPARATED MATERIALS WOULD BE ENCOURAGED. SHOULD THE CONTRACTOR BE ABLE TO PROCURE ON SITE STOCKPILE AREAS.

EXCAVATED TOPSOIL WAS NOT CONSIDERED AVAILABLE FOR REUSE EXCEPT FOR THAT STRIPPED AT THE STORMWATER PONDS. THIS MATERIAL IS ANTICIPATED TO BE REPLACED ON THE POND SURFACE FOLLOWING POND EXCAVATION. ANY EXCESS WOULD BE AVAILABLE FOR GENERAL TOPSOILING. THE REMAINING PROJECT NEED FOR TOPSOIL IS ANTICIPATED TO BE FURNISHED FROM OUTSIDE SOURCES AS IDENTIFIED IN THE PROJECT DOCUMENTS.

**2. PIPE EXCAVATION**

EXCAVATED MATERIAL FROM THE PIPE TRENCH MEETING THE REQUIREMENTS FOR BORROW TYPE C MAY BE USED FOR PIPE BACKFILL. EXCESS PIPE TRENCH EXCAVATION MEETING TYPE A BORROW REQUIREMENTS MAY BE STOCKPILED FOR LATER USE IF THE CONTRACTOR CAN PROCURE A SITE, OR MAY BE PLACED IN EMBANKMENT AREAS IF THEY ARE AVAILABLE AT THE TIME OF EXCAVATION.

NOTE THAT MATERIAL EXCAVATED FROM STORMWATER PONDS 330, 332, AND 333 IS ANTICIPATED TO MEET TYPE C BORROW REQUIREMENTS. THE CONTRACTOR MAY ELECT TO UTILIZE SUCH MATERIAL FOR PIPE TRENCH BACKFILL OR TO CONSTRUCT THE TYPE A BORROW EMBANKMENTS (TYPE C WILL ALSO MEET TYPE A REQUIREMENTS).

**3. TYPE B BORROW**

THIS MATERIAL IS ANTICIPATED TO BE FURNISHED FROM AN OUTSIDE SOURCE AND PLACED TO BACKFILL THE BOX CULVERT EXCAVATIONS DESIGNATED AS BRIDGES 3-427 AND 3-428 RESPECTIVELY. AN ADDITIONAL CONTINGENCY QUANTITY IS INCLUDED FOR BACKFILLING OF ANY UNDERCUT AREAS HOLDING WATER. SHOULD EXISTING EXCAVATED MATERIAL MEET TYPE B BORROW REQUIREMENTS, IT MAY BE USED FOR BACKFILL IN THESE AREAS.

**4. FURNISHING BORROW TYPE C**

THIS ITEM IS ANTICIPATED TO BE UTILIZED FOR BACKFILLING SMALL STRUCTURES AND PIPES 24" AND GREATER IN DIAMETER. IT MAY ALSO BE REQUIRED FOR UTILITY BACKFILLING OF WORK DONE BY PRIVATE UTILITY COMPANIES. BACKFILL REQUIRED FOR SEWER LINE AND WATER LINE CONSTRUCTION PERFORMED BY THE CONTRACTOR IS INCIDENTAL TO THE LINEAR FOOT PRICE FOR THE PIPE. EXISTING MATERIALS MEETING TYPE C BORROW REQUIREMENTS MAY ALSO BE USED IN ANY AREAS REQUIRING TYPE C BACKFILL WITH PAYMENT INCIDENTAL TO THE EXCAVATION ITEM GENERATING THE MATERIAL.

**5. SUMMARY**

THE ADVERTISED QUANTITIES WERE COMPUTED ASSUMING MINIMAL ON SITE STOCKPILING AVAILABILITY BECAUSE OF THE DETAILED PHASING REQUIREMENTS AND NO SEPARATION OF TOPSOIL AND EXCAVATED MATERIALS ALONG THE ROADWAY. ONLY THE STORMWATER POND LOCATIONS WERE DEEMED OF SUFFICIENT SIZE TO STRIP AND SEPARATE TOPSOIL FROM THE UNDERLYING SOILS. SHOULD THE CONTRACTOR BE ABLE TO PROCURE STOCKPILE AREAS AT THEIR COSTS, USE OF ADDITIONAL ON SITE MATERIALS IS ENCOURAGED, PROVIDED THEY MEET THE GRADATION REQUIREMENTS FOR THEIR INTENDED USE PER DELDOT SPECIFICATIONS.

**EARTHWORK SUMMARY**

**EXCAVATION**

EXCAVATION FROM CROSS SECTIONS (202000).....	54,284 CY
FROM OTHER SOURCES .....	14,330 CY
<b>TOTAL EXCAVATION.....</b>	<b>68,614 CY</b>

**EXCAVATION AVAILABLE FOR EMBANKMENT**

TOTAL EXCAVATION .....	68,614 CY
EXCAVATION NOT AVAILABLE FOR EMBANKMENT .....	63,493 CY
SUBTOTAL EXCAVATION FOR EMBANKMENT .....	5,121 CY
LESS DENSIFICATION (20%) .....	854 CY
SWM POND EXCAVATION AVAILABLE FOR EMBANKMENT ..	4,267 CY
EXCAVATION MEETING BORROW TYPE 'A'.....	2,039 CY
EXCAVATION MEETING BORROW TYPE 'C'.....	2,228 CY

**EMBANKMENT REQUIREMENTS**

BORROW TYPE 'A' REQUIRED .....	5,494 CY
BORROW TYPE 'C' REQUIRED .....	5,093 CY

**CUT /FILL BALANCE ( + = EXCESS, - = NEED )**

BORROW TYPE 'A' .....	-3,455 CY
BORROW TYPE 'C' .....	-2,865 CY

**TOPSOIL BALANCE ( + = EXCESS, - = NEED )**

TOPSOIL STRIPPING FROM SWM PONDS .....	18,169 SY
TOPSOIL REQUIRED .....	89,877 SY
<b>TOPSOIL BALANCE.....</b>	<b>- 71,708 SY</b>

THIS CHART IS FOR INFORMATIONAL PURPOSES ONLY. EARTHWORK SUMMARY IS BASED ON ESTIMATED QUANTITIES FOR EXCAVATION, BORROW, AND TOPSOIL.

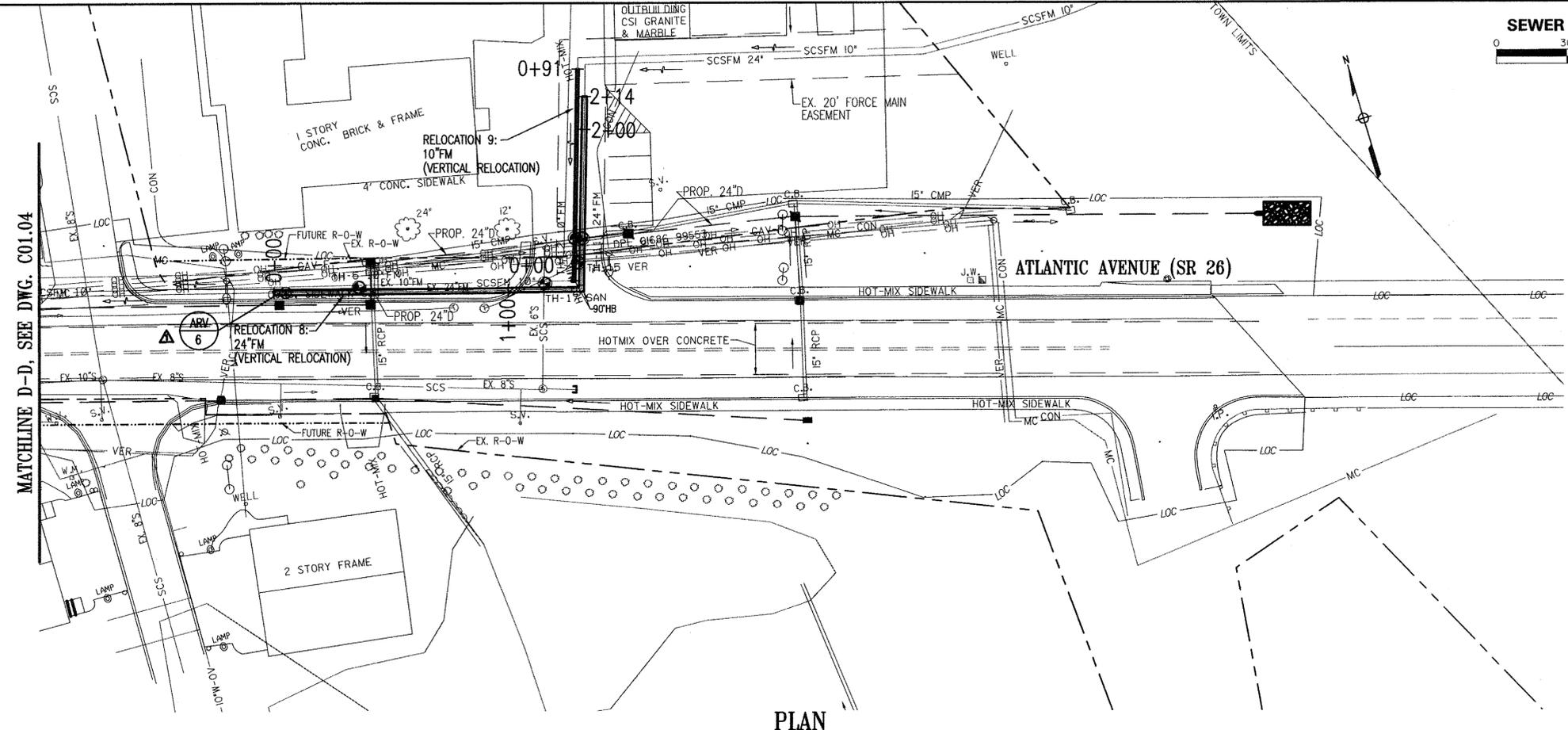
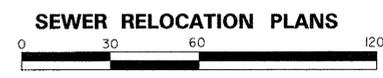
**EARTHWORK SUMMARY NOTES:**

1. THE VALUES LISTED IN THE EARTHWORK SUMMARY ARE APPROXIMATE AND ARE NOT TO BE USED AS A BASIS OF PAYMENT.





CONTRACT	COUNTY	P.A.P. NO.	SHEET NO.	TOTAL SHEETS
T20041210	SUSSEX	SEE TITLE SHEET	571	589
<b>SR 26, ATLANTIC AVENUE FROM CLARKSVILLE TO ASSAWOMAN CANAL</b>				
<b>REVISIONS</b>				
ADDENDUM NO. <b>A</b>				
ARV MOVED 9/12/13 TMB				
<b>SR OF SR</b>				

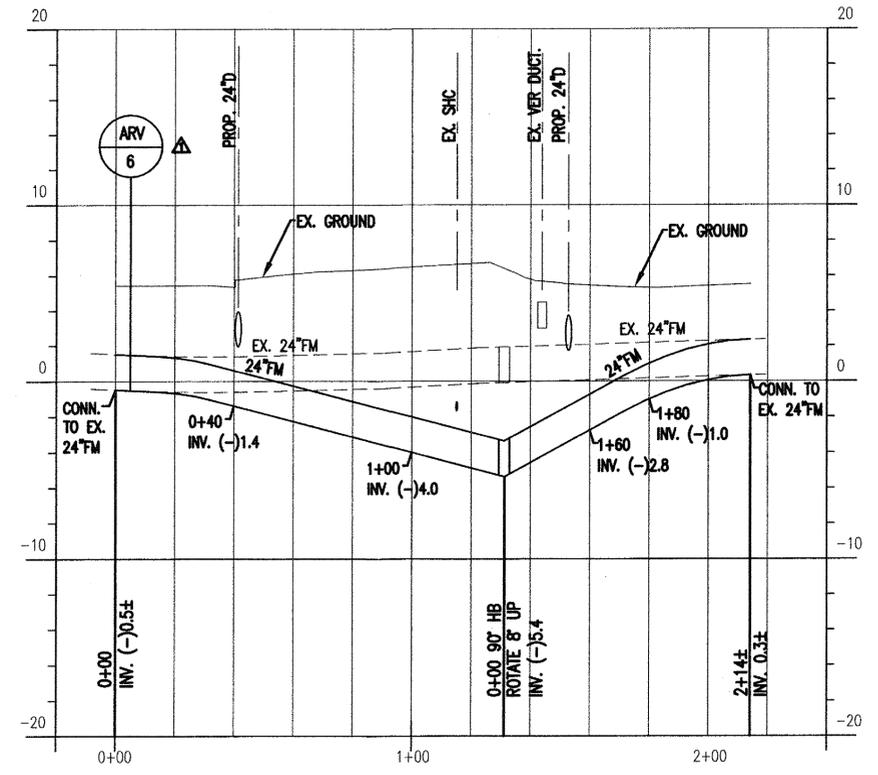


**ARV LOCATION**

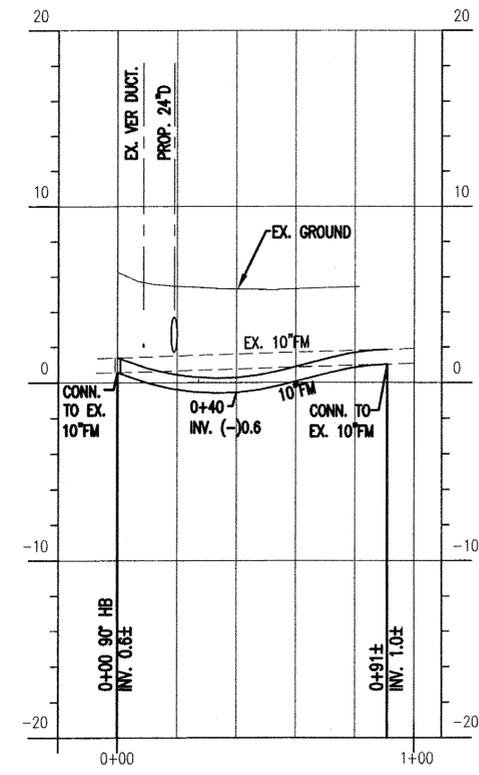
ARV NO.	NORTH	EAST	REMARKS
6	197,928.00±	751,839.57±	ON 24" FORCE MAIN
7	198,000.94±	751,905.60±	ON 24" FORCE MAIN

NOTE: SEE DWG. C2.01 FOR VERTICAL AND HORIZONTAL BEND BUTTRESS DETAIL.

**PLAN**



**PROFILE - RELOCATION 8: 24" FM**



**PROFILE - RELOCATION 9: 10" FM**

**RELOCATION 8: 24" FM**

PIPE STATION	NORTH	EAST	REMARKS
0+00	197,957.97±	751,752.67±	EX. 24" FM CONNECTION
1+31	197,916.81	751,879.12	90' HB
2+14±	197,995.91±	751,904.06±	EX. 24" FM CONNECTION

**RELOCATION 9: 10" FM**

PIPE STATION	NORTH	EAST	REMARKS
0+00	197,922.66±	751,876.84±	EX. 10" FM CONNECTION
0+91±	198,008.09±	751,904.59±	EX. 10" FM CONNECTION

PREL. TRACING

DESIGN

CHKD.

CONTRACT	COUNTY	F.A.P. NO.	SHEET NO.	TOTAL SHEETS
T20041210	SUSSEX	SEE TITLE SHEET	573	589
<b>SR 26, ATLANTIC AVENUE FROM CLARKSVILLE TO ASSAWOMAN CANAL</b>				
<b>REVISIONS</b>				
ADDENDUM NO. <b>A</b>				
SEWER NOTE 12 ADDED 9/12/13 TMB				
<b>SR OF SR</b>				

**GENERAL NOTES**

- THE FOLLOWING ARE GENERAL CONSTRUCTION CONTACT NUMBERS FOR THIS PROJECT:  
 DEL- DOT SOUTH DISTRICT MR. BRAD SABORIO ..... 302-853-1331  
 SUSSEX CONSERVATION DISTRICT ..... 302-856-2105  
 SUSSEX CO. UTILITY CONSTRUCTION DIVISION, MR. BRAD HAWKES ..... 302-855-7717  
 ELECTRIC (DELAWARE ELECTRIC) MR. DAVID SHAPLEY ..... 302-349-3142  
 TELEPHONE (VERIZON) MR. GEORGE ZANG ..... 302-422-1238  
 TELEPHONE (VERIZON)- EMERGENCY REPAIRS ..... 1-800-275-2355  
 CATV (MEDIA COM) MR. JOE LONGFELLOW ..... 302-732-6600  
 TIDEWATER UTILITIES MR. JEREMY KALMBACHER ..... 302-724-7500 EXT.  
 MISS UTILITY OF CENTRAL DELAWARE ..... 1-800-282-8555
- THE CONTRACTOR SHALL LOCATE EXISTING UTILITIES BY TEST PIT. TEST PITS SHALL BE PERFORMED IN ADVANCE OF CONSTRUCTION OPERATIONS.
- ALL EXISTING UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE FROM THE BEST RECORDS AVAILABLE AND ARE FOR THE CONTRACTOR'S CONVENIENCE. THERE IS NO GUARANTEE AS TO THEIR ACCURACY IN PLAN OR PROFILE. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY TO HIS OWN SATISFACTION, THE LOCATION AND DEPTH OF UNDERGROUND UTILITIES BEFORE LAYING ANY PIPE AND TO PROTECT ALL EXISTING UTILITIES AND STORM DRAINS DURING CONSTRUCTION.
- BASE MAPS NORTH OF SR 26 SHOWING TOPOGRAPHY AND GROUND PROFILES ARE BASED UPON AERIAL PHOTOGRAMMETRY BY AXIS GEOSPATIAL IN APRIL 2009 AUGMENTED BY FIELD SURVEYS.
- DASHED CONTOURS ON PLANS INDICATE POSSIBLE DECREASED ACCURACY OF AERIAL TOPOGRAPHY DUE TO HEAVY VEGETATION. LOCATIONS OF POLES AND WATER METERS WITHIN TREED AREAS ARE APPROXIMATE.
- ALL PIPE ELEVATIONS ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED ON PLANS.
- ALL DISTURBED AREAS NOT PAVED OR SODDED SHALL BE FINE GRADED AND SHALL HAVE TOPSOIL, SEED, FERTILIZER, LIME AND MULCH IN ACCORDANCE WITH THE SUSSEX CONSERVATION DISTRICT REQUIREMENTS.
- THE CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS TO THEIR ORIGINAL CONDITION PRIOR TO SUBSTANTIAL COMPLETION.

**SEWER NOTES**

- ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED ON DRAWINGS.
- ALL INSIDE DROP MANHOLES SHALL BE 5'-0" INSIDE DIAMETER AS PER COUNTY DETAIL, UNLESS OTHERWISE INDICATED.
- ALL FITTINGS AND FORCE MAIN PIPE SHALL BE RESTRAINED WITHIN THE LIMITS INDICATED ON THE DRAWINGS.
- LATERAL LOCATIONS SHOWN ON THE PLANS ARE SCHEMATIC. EXACT LOCATIONS FOR WYE AND LATERAL INSTALLATION WILL BE DETERMINED DURING CONSTRUCTION. SEWER SERVICE LATERALS ARE TO BE EXTENDED BEYOND RIGHT OF WAY LINES AS SHOWN ON SUSSEX COUNTY SEWER CLEAN OUT DETAIL. ALL LATERALS SHALL BE 8-INCH UNLESS OTHERWISE INDICATED.
- A LATERAL SHALL BE INSTALLED FOR EACH PARCEL IDENTIFIED ON THE CONTRACT DRAWINGS, EXCEPT AS NOTED ELSEWHERE OR AS DIRECTED BY THE OWNER'S PERSONNEL.
- ALL GRAVITY SEWER PIPE SHALL BE SDR35 PVC. ALL SEWER FITTINGS SHALL BE SDR26 PVC.
- UNLESS OTHERWISE INDICATED, ALL FORCE MAINS 4" AND LARGER SHALL BE DR18 C-900 PVC WITH DIP FITTINGS.
- TOPS OF FORCE MAINS SHALL HAVE A MINIMUM OF 4.0' COVER UNLESS OTHERWISE NOTED ON DRAWINGS.
- CLEAR ALL WATER MAINS BY A MINIMUM OF 18" VERTICALLY (O.D.), CLEAR ALL OTHER UTILITIES BY 6" MIN. CLEAR ALL POLES BY 2'-0" MINIMUM.
- MANHOLE FRAMES AND COVERS SHALL BE COORDINATED WITH TRAVEL LANES TO PREVENT INTERFERENCE WITH VEHICLE WHEEL PATHS.
- ALL SEWER MANHOLES INSTALLED OUTSIDE EXISTING OR PROPOSED ROADWAY SHALL HAVE CONCRETE COLLAR INSTALLED IN ACCORDANCE WITH MANHOLE DETAIL ON DRAWING 4.01.
- ▲** SANITARY SEWER MANHOLE LIDS LOCATED OUTSIDE OF THE EXISTING ROADWAY OR SHOULDERS SHALL BE SET AT THE FINAL PROPOSED GRADE WHEN INITIALLY INSTALLED. MANHOLE LIDS LOCATED WITHIN EXISTING PAVED SURFACES SHALL BE SET WHEN INITIALLY INSTALLED TO MATCH THE EXISTING ROADWAY GRADE. ADJUSTMENT TO FINAL PAVEMENT GRADE SHALL BE MADE JUST PRIOR TO THE FINAL PAVING OPERATION. PAYMENT FOR ADJUSTMENTS TO BE MADE UNDER ITEM 710506, ADJUST AND REPAIR EXISTING SANITARY MANHOLE.

**DELDOT/ROAD WORK NOTES**

- WORK SHALL BE PERFORMED IN A MANNER THAT WILL ENSURE THE LEAST PRACTICAL OBSTRUCTION TO TRAFFIC, CONSISTENT WITH SAFETY STANDARDS AND SHALL COMPLY WITH THE LATEST ADDITION OF THE MANUAL TITLED "DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) FOR STREETS AND HIGHWAYS", HEREAFTER REFERRED TO AS THE TRAFFIC CONTROL MANUAL.
- ACCESS TO ALL COMMERCIAL AND RESIDENTIAL DEVELOPMENTS AND RESIDENTIAL DRIVEWAYS WITHIN THE PROJECT LIMITS SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE UTILITY RELOCATIONS PERFORMED. ANY TEMPORARY CLOSURE OF A RESIDENTIAL DRIVEWAY SHALL BE COORDINATED WITH DELDOT AND/OR PROPERTY OWNER A MINIMUM OF ONE WEEK IN ADVANCE OF CLOSURE. ACCESS TO COMMERCIAL PROPERTIES AND RESIDENTIAL DEVELOPMENTS SHALL BE MAINTAINED UNDER DELDOT CERTIFIED FLAGGER CONTROL AS DIRECTED BY DELDOT.
- WITHIN DELDOT ROADWAYS, A MINIMUM OF 3-INCHES DEPTH OF TEMPORARY HOT MIX MUST BE INSTALLED FOR ALL DISTURBED HOT MIX ROADWAY AREAS AT THE END OF EACH WORK WEEK PRIOR TO END OF THE LAST WORKDAY. ALL MAINTENANCE OF TEMPORARY RESTORATION IS THE COMPLETE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE MAINTAINED TO A SMOOTH AND RIDEABLE CONDITION AT THE POSTED SPEED LIMIT FOR THE ROAD (OR 50 MPH IF THE ROAD'S SPEED LIMIT IS UNPOSTED). CONTRACTOR IS RESPONSIBLE FOR ADEQUATE SUBGRADE CONDITIONS UNDER TEMPORARY PAVING. CONTRACTOR MUST MAINTAIN SUFFICIENT QUANTITIES OF CRUSHER RUN OR COLD PATCH ON SITE AT ALL TIMES TO PERFORM PERIODIC MAINTENANCE REPAIRS AS NECESSARY PRIOR TO TEMPORARY AND PERMANENT HOTMIX INSTALLATION. UPON NOTIFICATION OF MAINTENANCE ISSUES, CONTRACTOR MUST RESPOND AND CORRECT WITHIN 2 HOURS OF NOTIFICATION BY EITHER DELDOT OR THE ENGINEER.
- ALL CONSTRUCTION PHASING, MAINTENANCE OF TRAFFIC, AND ROAD DETOURS SHALL BE IN ACCORDANCE WITH DELDOT REQUIREMENTS ESTABLISHED FOR THE DELDOT CONTRACT. SEE DELDOT SHEET 9 FOR GENERAL UTILITY NOTES.
- SEE DELDOT SHEET 155 FOR PAVEMENT RESTORATION DETAILS.

**LEGEND**

**PROPOSED**

**EXISTING / AERIAL TOPOGRAPHY**

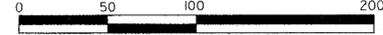
PROPERTY LINE	
RIGHT OF WAY LINE	
STREAM	
MINOR CONTOUR	
MAJOR CONTOUR	
OBSTRUCTED CONTOUR	
BUILDING WITH SIDEWALK & DRIVEWAY	
PAVED ROAD (UNLESS OTHERWISE NOTED)	
DUAL LANE HIGHWAY	
BANK/SLOPE	
FENCE	
U/G TELEPHONE	
U/G POWER	
U/G CABLE TV	
F.M. CURVE P.I./TRAVERSE P.I.	
WATER	
SEWER (IN THIS CONTRACT)	
FUTURE SEWER (BY OTHERS)	
SEWER LATERAL	
FORCE MAIN	
SEWER MANHOLE (NUMBER AND RIM ELEV.)	
COMBINATION AIR/VACUUM VALVE AND VAULT	
SEWER VALVE	
TERMINAL CLEANOUT (NUMBER AND RIM ELEVATION)	
WATER VALVE	
FIRE HYDRANT	
SOIL BORING	
POST	
UTILITY BOX/MISC. STORAGE TANK	
UNIDENTIFIED OBJECT	
POWER POLE	
LIGHT POLE	
CATCH BASIN /STORM DRAIN	
MAIL BOX	
SIGN	
SWAMP/MARSH	
TREE	
TREELINE/DENSE VEGETATION	
CURB	
TAX MAP PARCEL NUMBER	
OVERHEAD UTILITY	

**LIST OF DRAWINGS**

<b>GENERAL</b>	
1.01	GENERAL NOTES, LEGEND, AND LIST OF DRAWINGS
1.02	PROJECT KEY AND MANHOLE SHEET
<b>COLLECTION AND CONVEYANCE</b>	
2.01 - 2.07	PLAN OF SEWER MAINS
3.01 - 3.04	SEWER MAIN PROFILES
<b>DETAILS</b>	
4.01	MANHOLE DETAILS
4.02	SEWER/LATERAL DETAILS
4.03	FORCE MAIN DETAILS AND ROAD RESTORATION
4.04	PUMP STATION WETWELL

PREL. TRACING DESIGN CHKD.





CONTRACT	COUNTY	P.A.P. NO.	SHEET NO.	TOTAL SHEETS
T2004210	SUSSEX	SEE TITLE SHEET	575	589

**SR 26, ATLANTIC AVENUE  
FROM CLARKSVILLE TO  
ASSAWOMAN CANAL**

**REVISIONS**

ADDENDUM NO. A	
SEWER MODIFICATIONS - DNREC	
9/12/13 TMB	

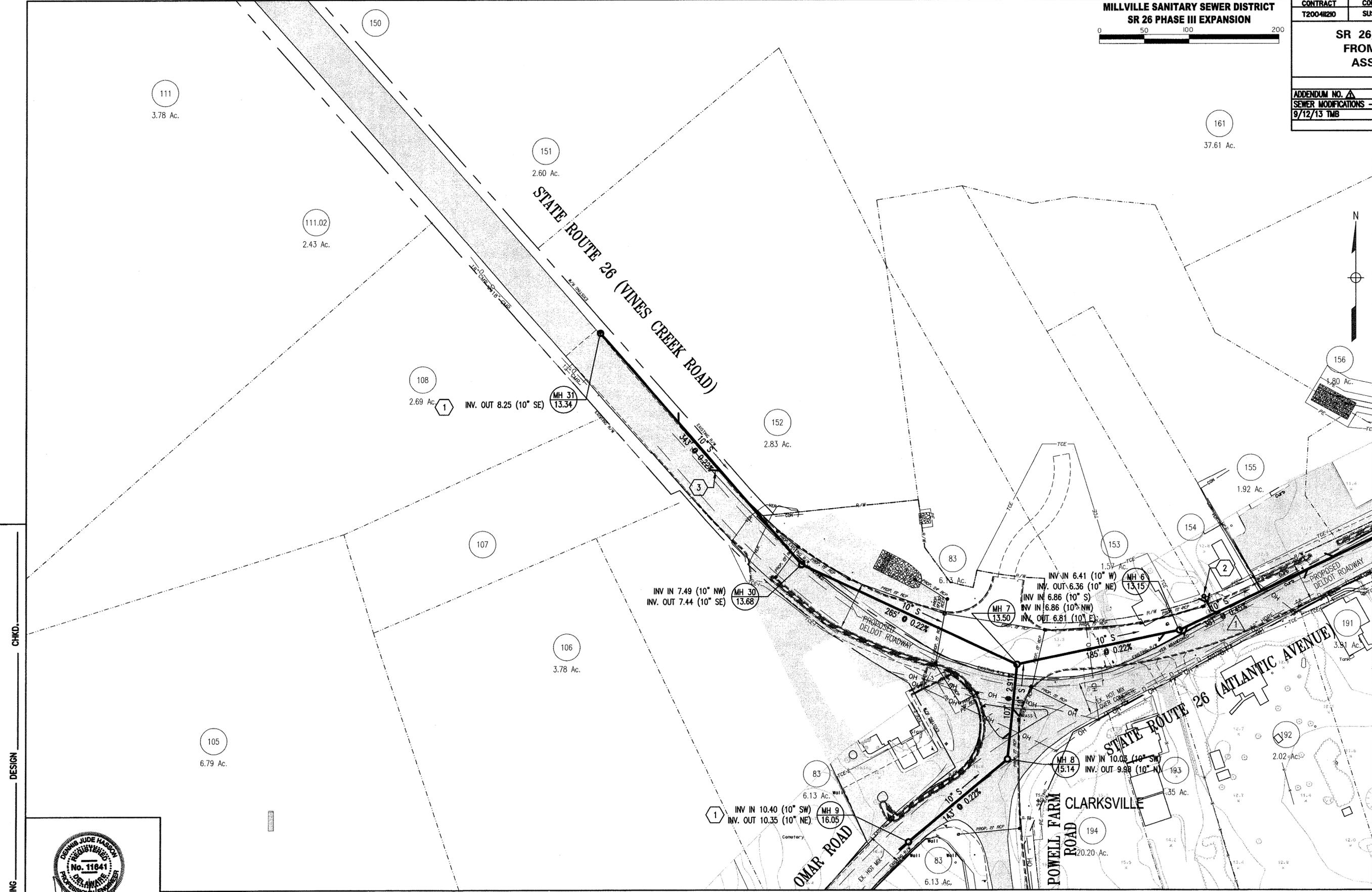
SR OF SR

**CONSTRUCTION NOTES**

- 1 PROVIDE PLUGGED CONNECTION FOR FUTURE EXTENSION BY OTHERS
- 2 INSTALL 8" LATERAL TO TERMINAL CLEANOUT. SEE DETAIL 4.02-5. INSTALL A WYE BRANCH, 6-INCH LATERAL, AND CLEANOUT FOR EACH ADJOINING PANEL.
- 3 INSTALL 6" LATERAL.



MATCH SHEET DN-38 DRAWING NO. 2.02



PREL. TRACING DESIGN CHKD.



**SEWER PROFILE SCHEDULE**

ROAD	PROFILE DWG. NO.
VINES CREEK ROAD	3.03
OMAR ROAD	3.01
ATLANTIC AVENUE	3.01

PLAN OF SEWER MAINS	DRAWING 2.01	SHEET DM-38
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CONTRACT T2004H20	COUNTY SUSSEX	P.A.P. NO. SEE TITLE SHEET	SHEET NO. 576	TOTAL SHEETS 589
<b>SR 26, ATLANTIC AVENUE FROM CLARKSVILLE TO ASSAWAMUCK CANAL</b>				
REVISIONS				
ADDENDUM NO. A				
SEWER MODIFICATIONS - DNREC				
9/12/13 TMB				

SR OF SR

CONSTRUCTION NOTES

- 1 INSTALL 10 FT DIAMETER WETWELL WITH AN INTERIOR INVERT OF -15.0'.
- 2 SEE DWG. 4.04 FOR FUTURE PUMP STATION NOTES.
- 3 INFLUENT MANHOLE INTO STATION SHALL BE A 5' DIAMETER MANHOLE.
- 4 INSTALL 8" LATERAL TO TERMINAL CLEANOUT. SEE DETAIL 4.02-5. INSTALL A WYE BRANCH, 6-INCH LATERAL, AND CLEANOUT FOR EACH ADJOINING PANEL.
- 5 JACK AND BORE 20" CASING PIPE UNDERNEATH EXISTING CULVERT.
- 6 INSTALL 6" LATERAL.

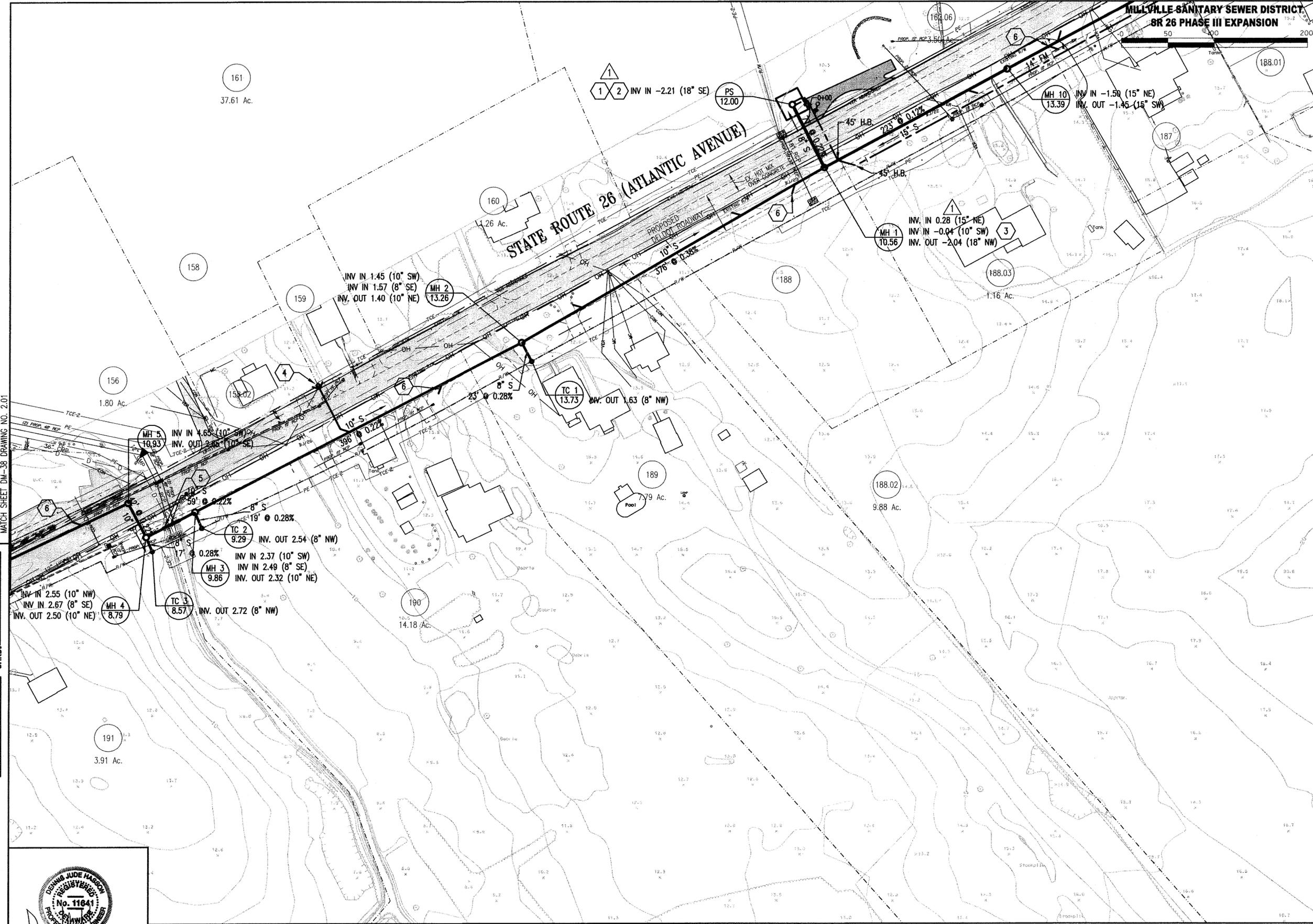
FORCE MAIN PROFILE SCHEDULE

ROAD	PROFILE DWG. NO.
ATLANTIC AVENUE	3.03

SEWER PROFILE SCHEDULE

ROAD	PROFILE DWG. NO.
ATLANTIC AVENUE	3.01

PLAN OF SEWER MAINS	DRAWING	SHEET
	2.02	DN-38



MATCH SHEET DN-38 DRAWING NO. 2.01

PREL. TRACING DESIGN CHKD.



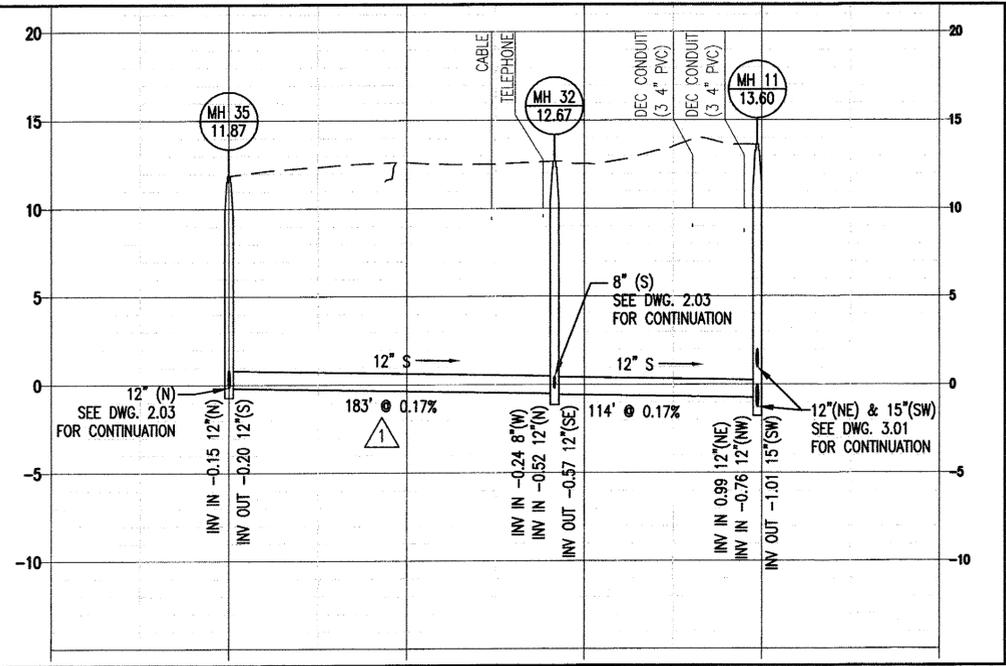
SR 26, ATLANTIC AVENUE  
FROM CLARKSVILLE TO  
ASSAWOMAN CANAL

REVISIONS

ADDENDUM NO. A	
SEWER MODIFICATIONS - DNREC	
9/12/13 TMB	

SR OF SR

- CONSTRUCTION NOTES
- 1 PROVIDE PLUGGED CONNECTION FOR FUTURE EXTENSION BY OTHERS
  - 2 INSTALL CRITICAL DEPTH LATERAL. SEE SCHEDULE FOR MAXIMUM INVERT AT RIGHT OF WAY.
  - 3 INSTALL 6" LATERAL.



146  
14.07 Ac.

162.01  
2.32 Ac.

162.07  
1.51 Ac.

162.02

162.04

162  
3.11 Ac.

162.05  
1.00 Ac.

1  
INV IN -0.15 (12" N)  
INV. OUT -0.20 (12" S)

MH 35  
11.87

3

INV IN -0.24 (8" W)  
INV IN -0.52 (12" N)  
INV. OUT -0.57 (12" SE)

MH 32  
12.67

TC 11  
12.10

INV. OUT -0.11 (8" E)

162.06  
3.50 Ac.

INV IN 0.99 (12" NE)  
INV IN -0.76 (12" NW)  
INV. OUT -1.01 (15" SW)

MH 11  
13.60

172  
3.13 Ac.

161  
37.61 Ac.

CRITICAL DEPTH LATERAL SCHEDULE

PARCEL	STORM DRAIN INV.	LATERAL INV.
188.01	9.59	7.17
188.04	9.90	7.48

FORCE MAIN PROFILE SCHEDULE

ROAD	PROFILE DWG. NO.
ATLANTIC AVENUE	3.03

SEWER PROFILE SCHEDULE

ROAD	PROFILE DWG. NO.
ATLANTIC AVENUE	3.01
IRONS LANE	2.03

MATCH SHEET DO-39 DRAWING NO. 2.04

MATCH SHEET DN-38 DRAWING NO. 2.02

PREL. TRACING DESIGN CHD.



PLAN OF SEWER MAINS

DRAWING  
2.03

SHEET  
DN-39



**SR 26, ATLANTIC AVENUE  
FROM CLARKSVILLE TO  
ASSAWOMAN CANAL**

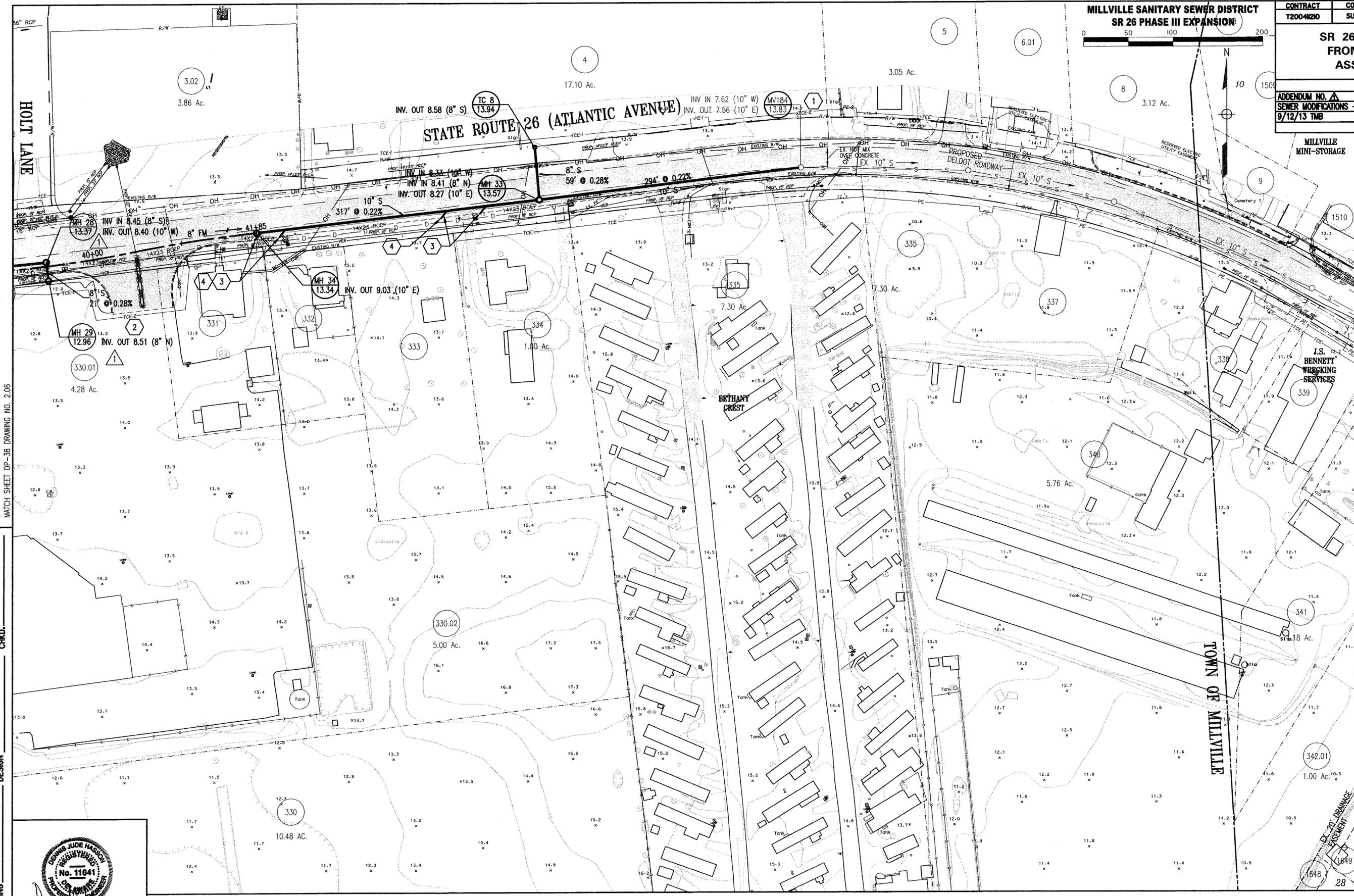
**REVISIONS**

ADDENDUM NO. A	
SEWER MODIFICATIONS - DNREC	
9/12/13 TMB	

**SR OF SR**

**CONSTRUCTION NOTES**

- 1 CONNECT TO EXISTING STUB CONNECTION.
- 2 PROVIDE PLUGGED CONNECTION FOR FUTURE EXTENSION.
- 3 INSTALL CRITICAL DEPTH LATERAL. SEE SCHEDULE FOR MINIMUM INVERT AT RIGHT OF WAY.
- 4 INSTALL 6" LATERAL.



**CRITICAL DEPTH LATERAL SCHEDULE**

PARCEL	STORM DRAIN CROWN	LATERAL INV.
331	9.56	9.89
332	9.66	9.99
333	9.95	10.28
334	9.84	10.17

**FORCE MAIN PROFILE SCHEDULE**

ROAD	PROFILE DWG. NO.
ATLANTIC AVENUE	3.04

**SEWER PROFILE SCHEDULE**

ROAD	PROFILE DWG. NO.
ATLANTIC AVENUE	3.02, 3.03

MATCH SHEET DP-38 DRAWING NO. 2.06

CHKD.

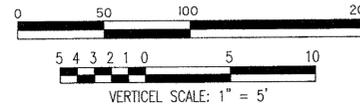
DESIGN

PREL. TRACING





MILLVILLE SANITARY SEWER DISTRICT  
SR 26 PHASE III EXPANSION



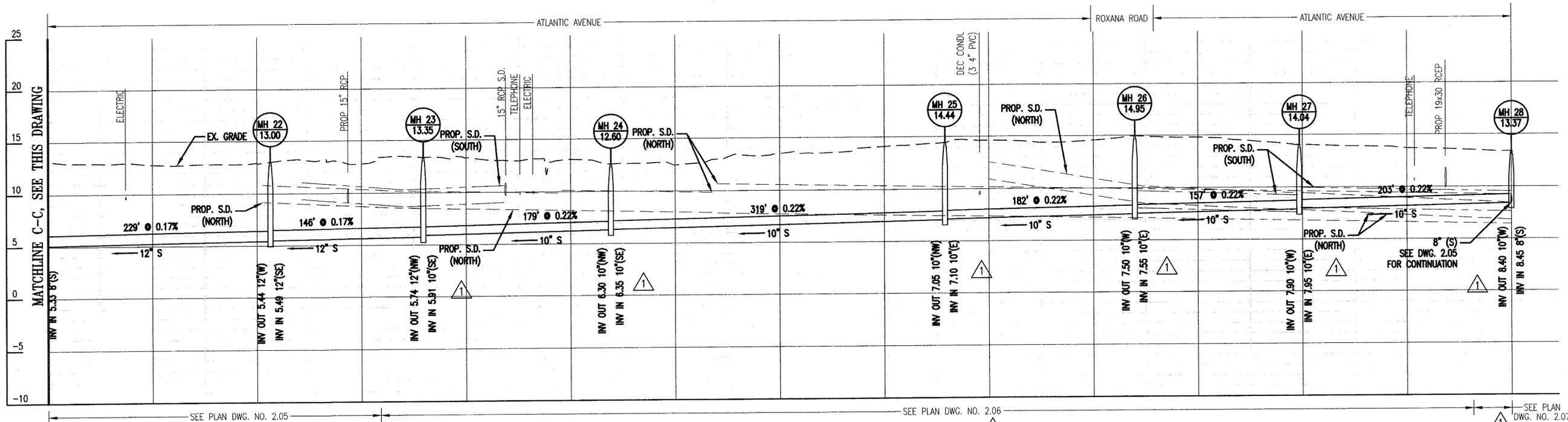
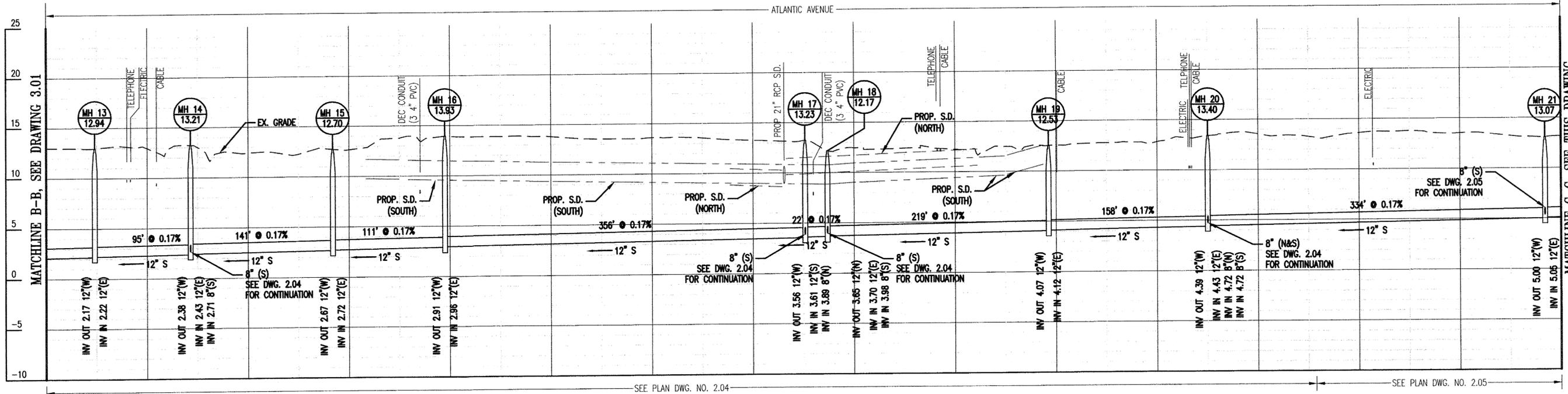
CONTRACT	COUNTY	P.A.P. NO.	SHEET NO.	TOTAL SHEETS
T2004R210	SUSSEX	SEE TITLE SHEET	583	589

SR 26, ATLANTIC AVENUE  
FROM CLARKVILLE TO  
ASSAWOMAN CANAL

REVISIONS

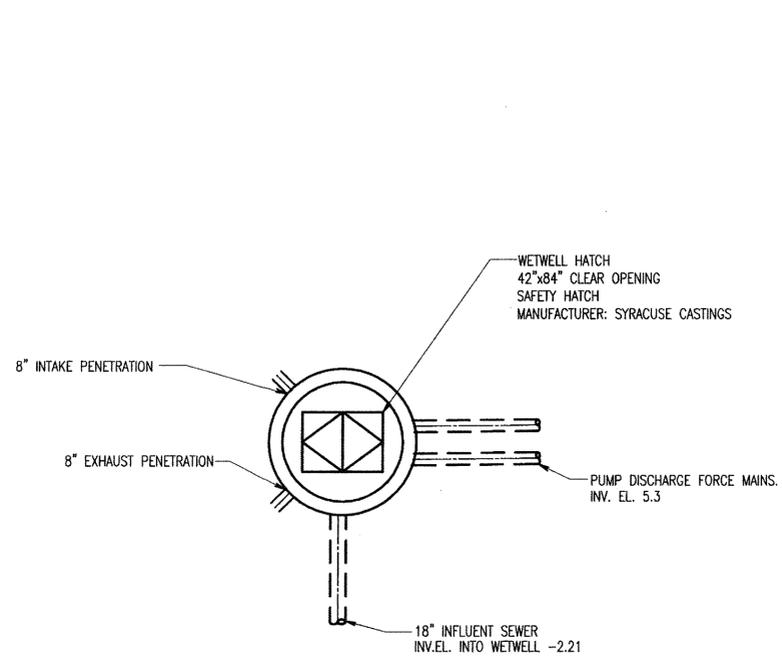
ADDENDUM NO. A	
SEWER MODIFICATIONS - DNREC	
9/12/13 TMB	

SR OF SR

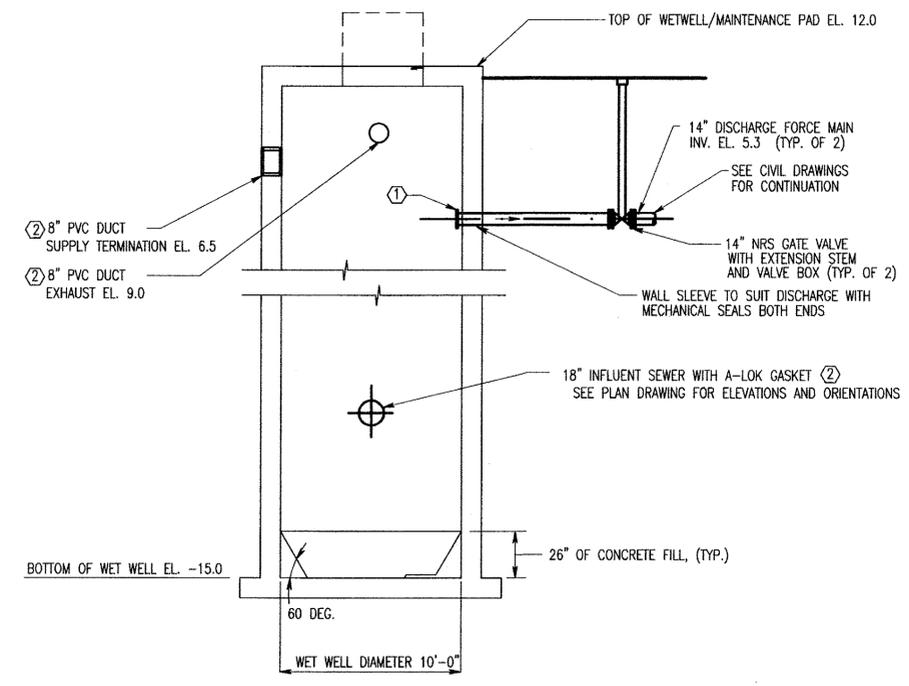


PREL. TRACING DESIGN CHKD.

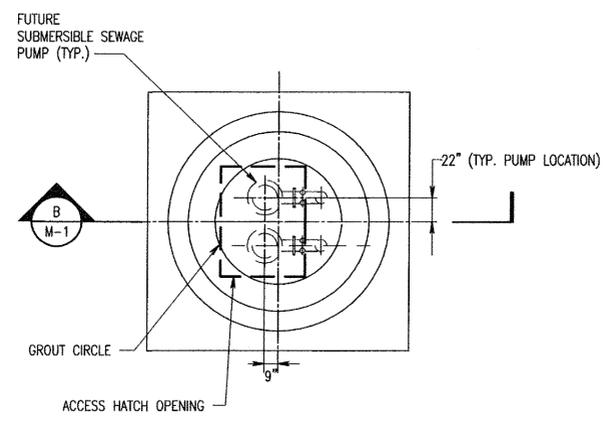
CONTRACT	COUNTY	F.A.P. NO.	SHEET NO.	TOTAL SHEETS
T20041210	SUSSEX	SEE TITLE SHEET	589	589
<b>SR 26, ATLANTIC AVENUE FROM CLARKSVILLE TO ASSAWOMAN CANAL</b>				
<b>REVISIONS</b>				
ADDENDUM NO. <b>A</b>				
SEWER MODIFICATIONS - DNREC				
9/12/13 TMB				
		SR OF SR		



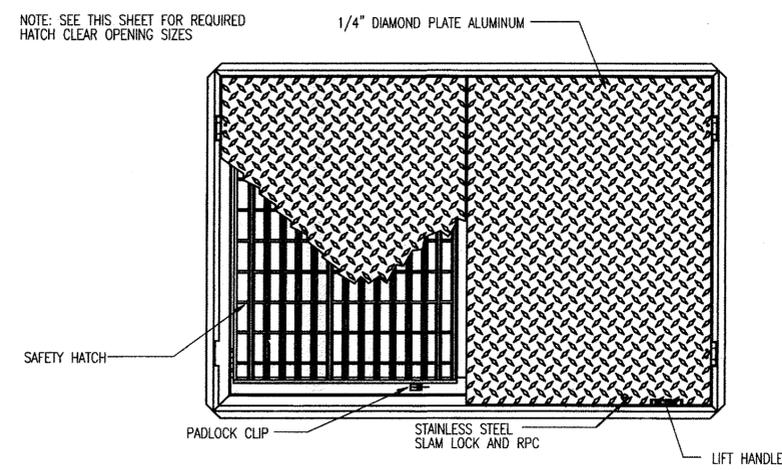
**1 GRADE LEVEL PLAN**  
M-1 SCALE: NONE



**B SECTION**  
M-1 SCALE: NONE



**2 LOWER LEVEL PLAN**  
M-1 SCALE: NONE



**E TYPICAL PUMP STATION WETWELL HATCH**  
M-1 SCALE: NONE

**NOTES:**  
 ① PROVIDE TEMPORARY CAP  
 ② PROVIDE PLUGGED CONNECTION

PREL. TRACING DESIGN CHKD.

