

ROBEY PUBLIC SAFETY TRAINING CENTER SEWER EXTENSION


HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS

CAPITAL PROJECTS No. S-6261

CONTRACT NO. 14-4577

GENERAL NOTES

- APPROXIMATE LOCATIONS OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
- TOPOGRAPHIC FIELD SURVEYS WERE PERFORMED IN APRIL & OCTOBER, 2007 BY KCI TECHNOLOGIES INC.
- HORIZONTAL AND VERTICAL SURVEY CONTROLS:
THE COORDINATES SHOWN ON THE DRAWINGS ARE BASED ON MARYLAND STATE REFERENCE SYSTEM NAD 83 / 91 AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATION NO. ALPHA 3, BASE A, BASE F AND 16DA. ALL VERTICAL CONTROLS ARE BASED ON NAVD 88. VERTICAL CONTROLS PROVIDED ON THE DRAWINGS ARE REBAR WITH DISC AND CONC. COLUMN WITH DISC.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED ON THE PLANS.
- CLEAR ALL UTILITIES BY A MINIMUM OF 12 INCHES. CLEAR ALL POLES BY 5'-0" MINIMUM OR TUNNEL AS REQUIRED UNLESS OTHERWISE NOTED. THE OWNER HAS CONTACTED THE UTILITY COMPANIES AND HAS MADE ARRANGEMENTS FOR BRACING OF POLES AS SHOWN ON THE DRAWINGS. IN THE EVENT THE CONTRACTOR'S WORK REQUIRES THE BRACING OF ADDITIONAL POLES, ANY COST INCURRED BY THE OWNER FOR THE BRACING OF ADDITIONAL POLES OR DAMAGES SHALL BE DEDUCTED FROM MONIES OWED THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES TO SCHEDULE THE BRACING OF THE POLES.
- FOR DETAILS NOT SHOWN ON THE DRAWING, AND FOR MATERIALS AND CONSTRUCTION METHODS, USE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (LATEST EDITION). THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB.
- WHERE TEST PITS HAVE BEEN MADE ON EXISTING UTILITIES, THEY ARE NOTED BY THE SYMBOL  AT THE LOCATION OF THE TEST PITS. A NOTE OR NOTES CONTAINING THE RESULTS OF THE TEST PIT OR PITS IS INCLUDED ON THE DRAWINGS. EXISTING UTILITIES IN THE VICINITY OF THE PROPOSED WORK FOR WHICH TEST PITS HAVE NOT BEEN DUG SHALL BE LOCATED BY THE CONTRACTOR TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS AT HIS OWN EXPENSE.
- CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:

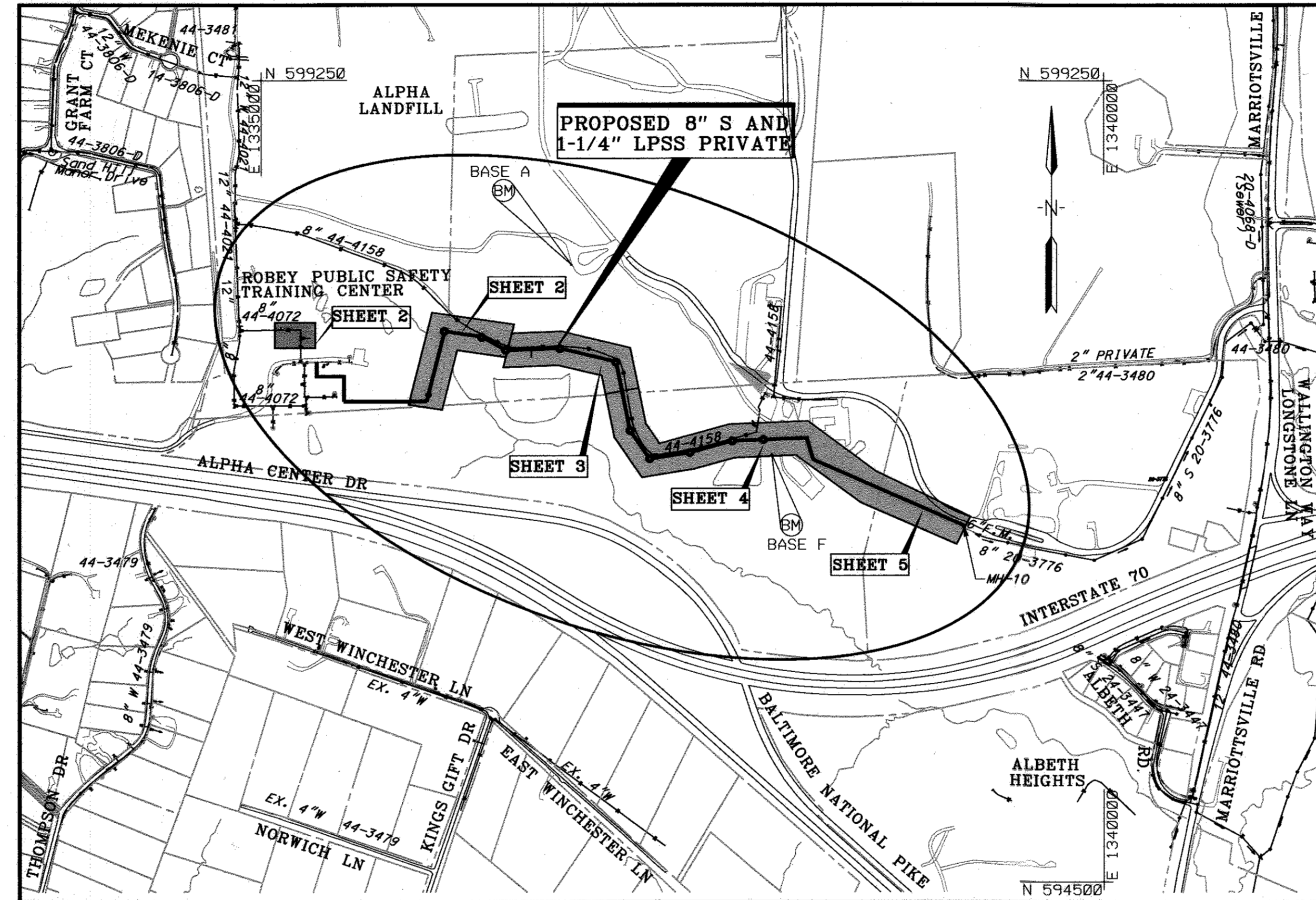
AT&T.....	1-800-252-1133
BGE (CONSTRUCTION SERVICES).....	410-850-4620
BGE (EMERGENCY).....	410-685-1400
BUREAU OF UTILITIES.....	410-313-4900
COLONIAL PIPELINE CO.....	410-795-1390
MISS UTILITY.....	1-800-257-7777
STATE HIGHWAY ADMINISTRATION.....	410-531-5533
VERIZON.....	1-800-743-0033 / 410-224-9210
TRANSCON.....	410-984-3442
- TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO THE MAXIMUM EXTENT. TREES AND SHRUBS LOCATED WITHIN THE CONSTRUCTION STRIP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR.
- THE CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG THE LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN.
- THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, AT (410)313-7450 AT LEAST FIVE WORKING DAYS BEFORE ANY OPEN CUTTING OR BORING / JACKING OF ANY COUNTY ROADS FOR LAYING WATER / SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 18.114(g) OF THE HOWARD COUNTY CODE.

SEWER GENERAL NOTES

- ALL SEWER MAINS SHALL BE DIP OR PVC UNLESS OTHERWISE NOTED.
- ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
- MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVER, STANDARD DETAIL G5-52. WHERE WATERTIGHT MANHOLE FRAMES AND COVERS ARE USED, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.

SUGGESTED SEQUENCE OF CONSTRUCTION FOR SEWER

- CONSTRUCT NEW GRAVITY SEWER, LPSS AND ALL SANITARY SEWER APPURTENANCES FROM EX. MH 10 (DOWNSTREAM) TO EX. MH 2 (UPSTREAM).
- TEST ALL SANITARY GRAVITY SEWERS AND PRESSURE SEWERS INCLUDING GRINDER PUMP STATION PER HOWARD COUNTY STANDARD SPECIFICATIONS AND MANUFACTURER RECOMMENDATIONS.
- CONNECT GRAVITY SEWER TO EX. MH 2 AND REMOVE EXISTING GRINDER PUMP STATION EX GP-1 PER DRAWING NOTES (SEE SHEET 2 OF 7). COORDINATE BYPASS PUMPING IF NECESSARY.
- CONNECT EXISTING GRAVITY SEWER AT EXISTING STORAGE TANK AREA (SMH-A TO SMH-11) - SEE PLAN AND PROFILE ON SHEET 2 OF 7.
- COMPLETE RESTORATION.

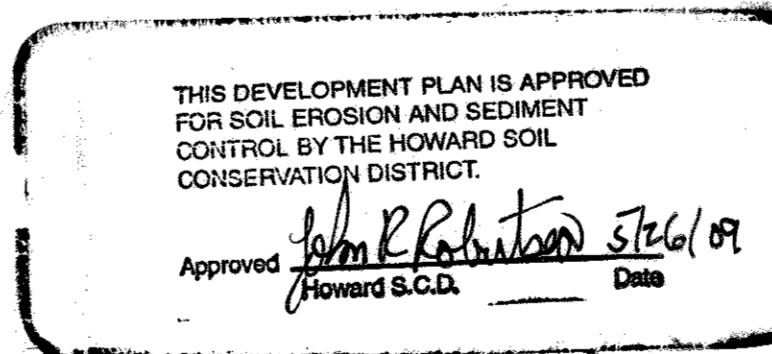


LOCATION MAP

SCALE: 1" = 600'

HORIZONTAL AND VERTICAL CONTROL BASED ON MARYLAND NAD83(91) (HORIZONTAL) AND NAVD88 (VERTICAL) DATUM. HOWARD COUNTY GEODETIC SURVEY CONTROL NUMBERS:

NO. BASE A	NO. BASE F
N 598156.23	N 597030.50
E 1336841.78	E 1338031.40
ELEV. 564.87	ELEV. 512.93



PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO.: 28911 EXPIRATION DATE: 1/11/10

INDEX OF SHEETS

SHEET No.	DESCRIPTION
1.....	TITLE SHEET
2.....	8" SANITARY SEWER PLAN AND PROFILE
3.....	8" SANITARY SEWER PLAN AND PROFILE
4.....	8" & 1-1/4" SANITARY SEWER PLAN AND PROFILE
5.....	1-1/4" SANITARY SEWER FORCE MAIN PLAN AND PROFILE
6.....	GRINDER PUMP STATION PLAN AND DETAILS
7.....	EROSION AND SEDIMENT CONTROL NOTES AND DETAILS

QUANTITIES

ITEM	UNIT	ESTIMATE	AS-BUILT	MATERIAL SUPPLIER
8" SEWER (DIP)	L.F.	390	390	BELAIR RD SUPPLY CO.
8" SEWER (PVC)	L.F.	2466	2463	" " " "
1 1/4" FM (HDPE)	L.F.	1624	1624	FLYING "W" PLASTICS
4' DIA. MH	EA	8	8+(ARV)	ATLANTIC CONCRETE
4' DIA. MH TYPE A DROP MH	EA	2	2	PRODUCTS
GRINDER PUMP STATION	EA	1	1	APCO CORP.
6" STEEL PIPE ASTM A5307	L.F.	136	136	MONUMENTAL SUPPLY CO

NAME OF UTILITY CONTRACTOR: W.F. WILSON & SONS, INC.

RESTORATION SCHEDULE

LOCATION	DISTANCE (FT.)	TYPE
PAVED PRIVATE ROAD (SH. 4 OF 7)	20	ASPHALT
EX. SMH-A - EX. SMH-11	52	MULCH & SEEDING
RIP RAP DITCH (SH. 2,3,4 OF 7)	127	RIPRAP
EX. MH 10 TO EX. MH 2	3845	MULCH & SEEDING



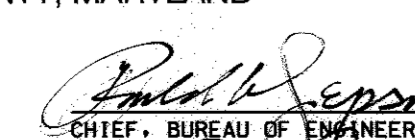

TYPE OF BUILDING:	N/A
NUMBER OF PARCELS:	N/A
NUMBER OF SEWER HOUSE CONNECTION:	0
DRAINAGE AREA:	LITTLE PATUXENT


LEGEND

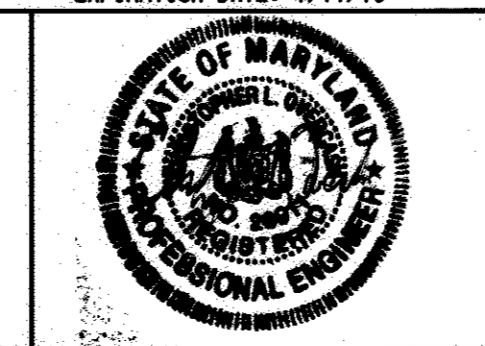
TRAVERSE POINT	EXISTING FIRE HYDRANT
LIMIT OF DISTURBANCE	EXISTING VALVE
WATER HOUSE CONNECTION	EXISTING WATER MAIN
SEWER HOUSE CONNECTION	EXISTING GAS MAIN
TEST PIT LOCATION	EXISTING OVERHEAD ELECTRIC
BORING LOCATION	EXISTING UNDERGROUND ELECTRIC
DECIDUOUS TREE	EXISTING SEWER MAIN
CONIFEROUS TREE	EXISTING MANHOLE
	WATERS OF THE U.S.
	WETLAND
	WETLAND BUFFER

AS-BUILT
DATE 09.15.10

PLOTTED: 03:56 PM on Tuesday, March 10, 2009
BY: Chandler, Kenta Division: 0102 Environmental Engineering
FILE: M:\2004\0103\464_25\Drawings\C-01-04-4577-25Title.dwg

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND  5/21/09 DIRECTOR OF PUBLIC WORKS  5/15/09 CHIEF, BUREAU OF UTILITIES	 5/5/09 CHIEF, BUREAU OF ENGINEERING  5/5/09 CHIEF, UTILITY DESIGN DIVISION
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KCI
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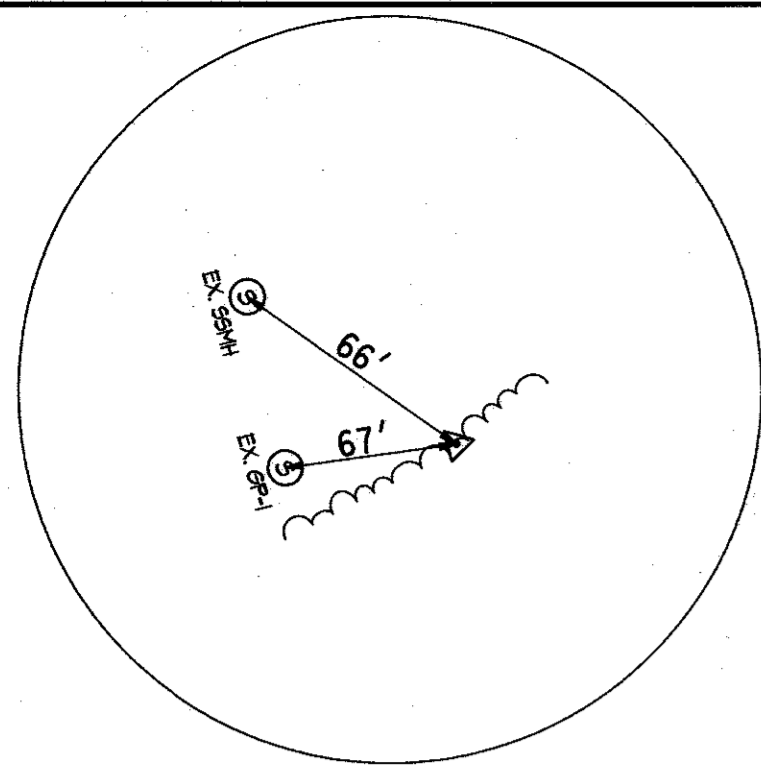


DES: CLO			
DRN: CK			
CHK: TWW			
DATE: DEC. 2008	BY: LFN	AS BUILT MARKUPS	9/10
	NO.	REVISION	DATE

TITLE SHEET

600' SCALE MAP NO. 16 BLOCK NO. 9 & 10

ROBEY PUBLIC SAFETY TRAINING CENTER SEWER EXTENSION CAPITAL PROJECTS No. S-6261 CONTRACT NO. 14-4577 ELECTION DISTRICT NO.3 HOWARD COUNTY, MARYLAND	SCALE AS SHOWN SHEET 1 OF 7
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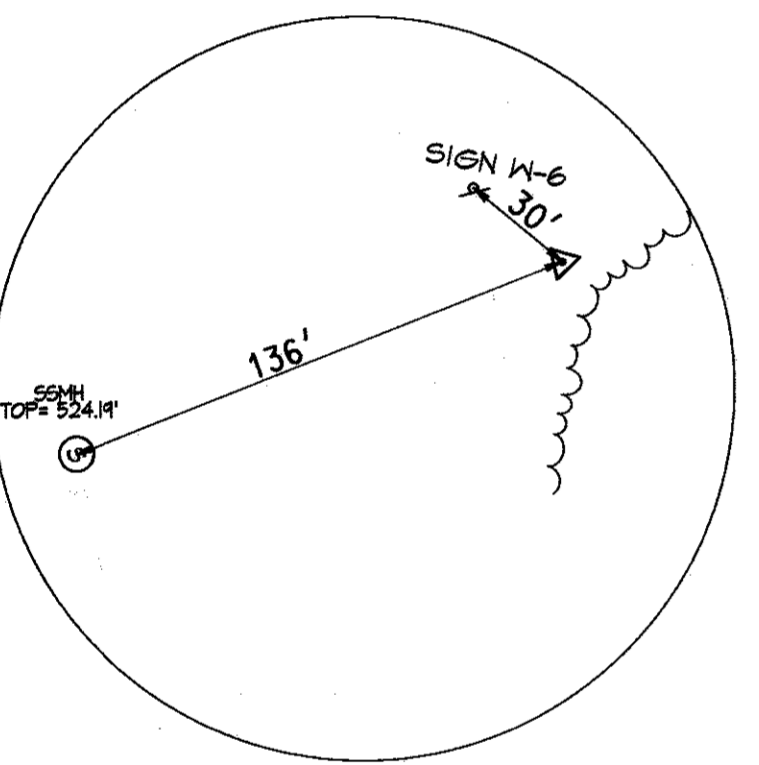
TRAV. #7
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EX. GRINDER PUMP REMOVAL & CONNECTION TO PROP. SYSTEM

1. REMOVE EX. GRINDER PUMP STATION GP-1 AND RETURN TO HOWARD COUNTY.
2. ABANDON AND REMOVE IN ITS ENTIRETY EX. 8" PVC CONNECTION FROM EX. MH-2 TO EX. GP-1 PER HOWARD COUNTY STANDARD DETAIL E-3.02.
3. CORE DRILL AND CONNECT PROP. 8" S PRIVATE TO EX. MH 2.
4. MODIFY EX. MH-2 FLOW CHANNEL TO FLOW TO PROPOSED SYSTEM. (SEE HOWARD COUNTY STD DETAIL G-5.32-TYPE "E")
5. ABANDON EX. GP-1 SITE WITH SELECT BACKFILL MATERIAL.

GENERAL NOTES

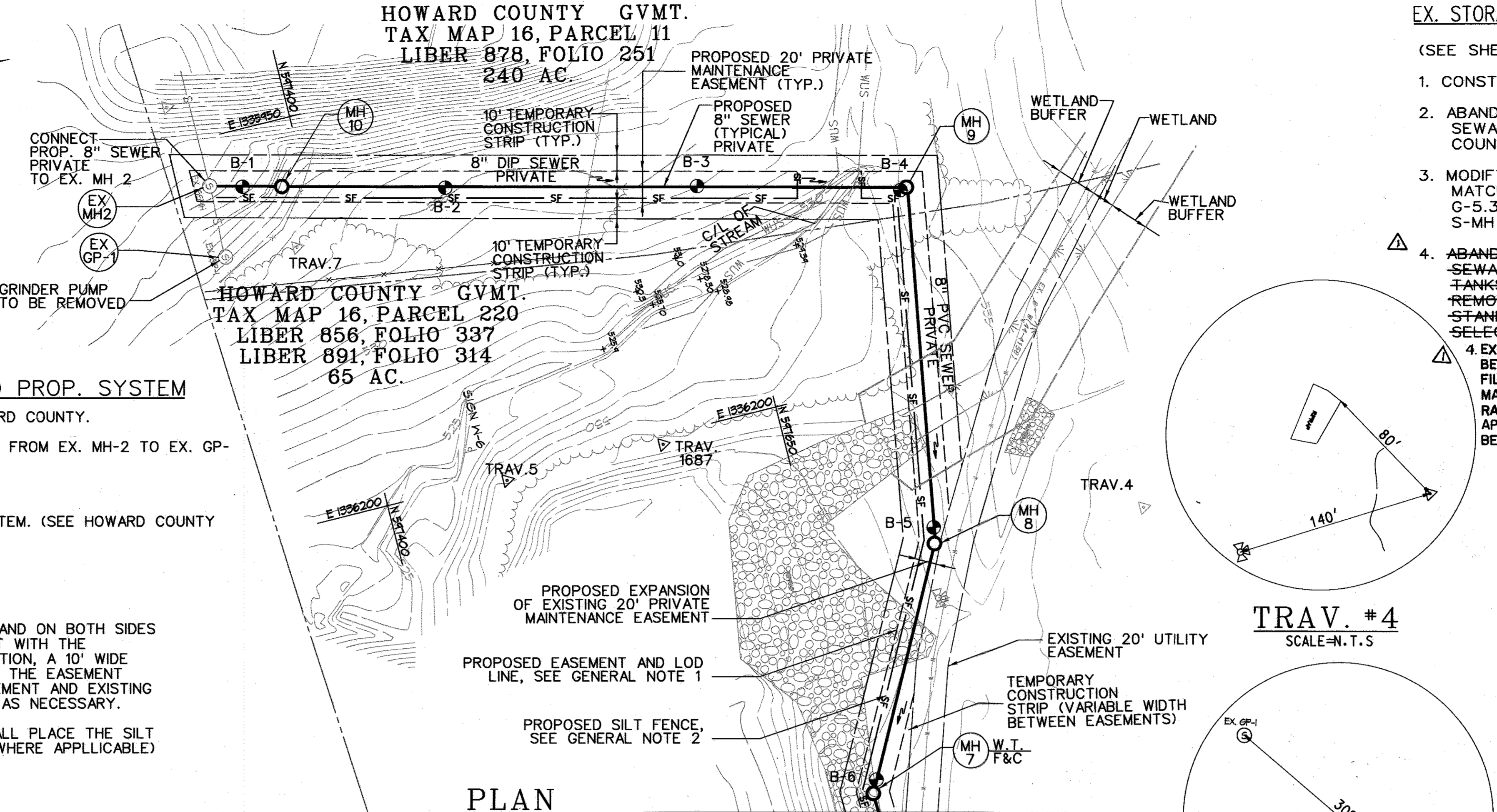
1. THE LIMIT OF DISTURBANCE (LOD) IS 10' FROM THE CENTER OF, AND ON BOTH SIDES OF THE PROPOSED SEWER. THIS LINE IS GENERALLY COINCIDENT WITH THE PROPOSED EASEMENT AND IS NOT SHOWN FOR CLARITY. IN ADDITION, A 10' WIDE TEMPORARY CONSTRUCTION STRIP IS PROVIDED ON EACH SIDE OF THE EASEMENT FOR USE DURING CONSTRUCTION. BETWEEN THE PROPOSED EASEMENT AND EXISTING EASEMENT A VARIABLE WIDTH CONSTRUCTION STRIP IS INDICATED AS NECESSARY.
2. SILT FENCE IS SHOWN DIAGRAMMATICALLY. THE CONTRACTOR SHALL PLACE THE SILT FENCE GENERALLY COINCIDENT WITH THE PROPOSED EASEMENT (WHERE APPLICABLE) AND THE LIMITS OF DISTURBANCE (SEE NOTE 1, ABOVE).



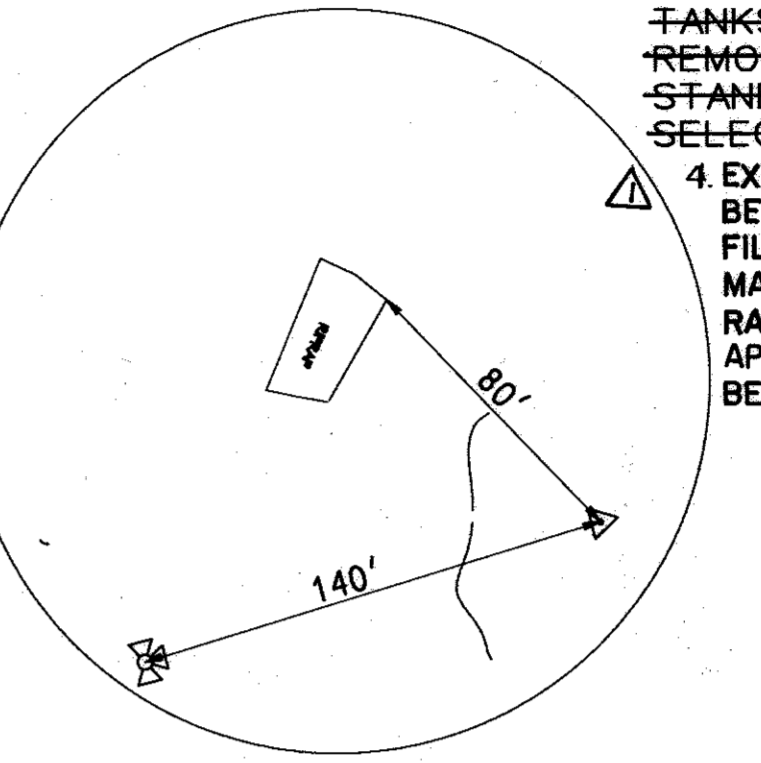
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SANITARY SEWER STAKEOUT COORDINATES SCHEDULE		
NUMBER	NORTHING	EASTING
SMH 7	597649.95	1336448.76
SMH 8	597725.22	1336306.91
SMH 9	597762.65	1336087.24
SMH 10	597384.66	1335991.04

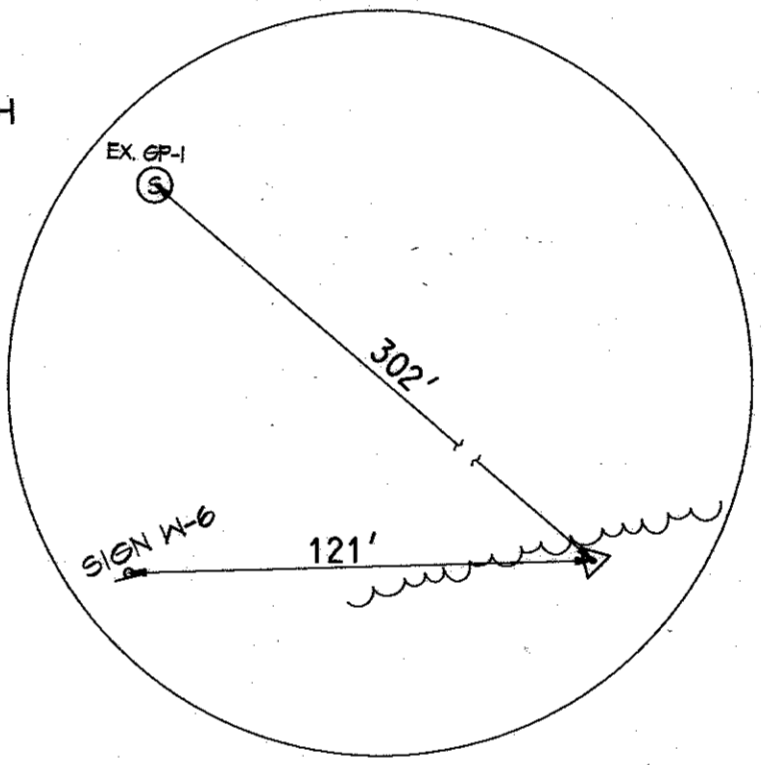
TRAVERSE COORDINATE SCHEDULE			
NUMBER	NORTHING	EASTING	ELEVATION
TRAV.#4	597857.33	1336316.60	538.53
TRAV.#5	597475.98	1336203.08	531.15
TRAV.#7	597384.48	1336030.12	536.02
TRAV.1687	597576.08	1336205.30	532.40



PLAN
SCALE: 1"=50'

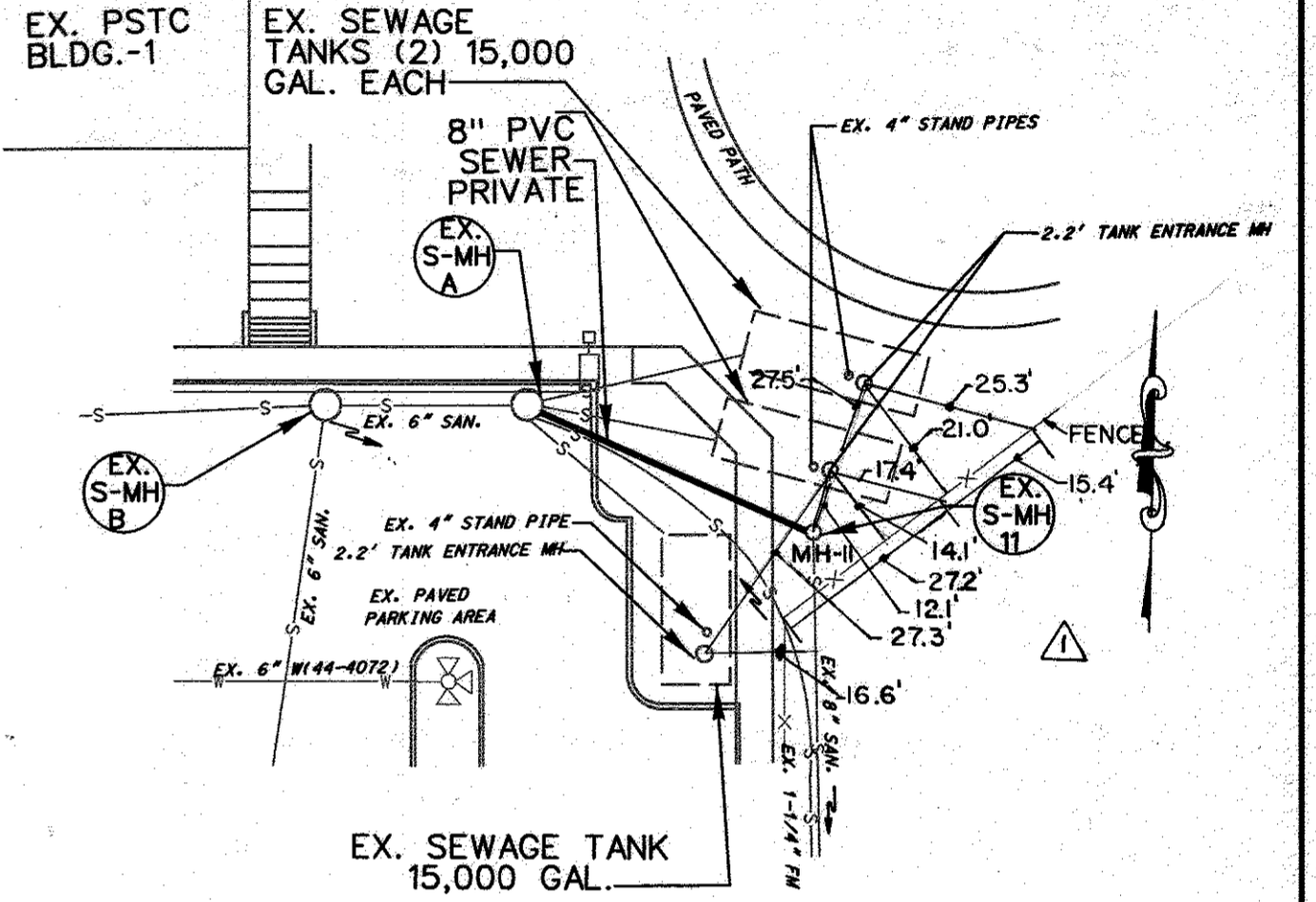


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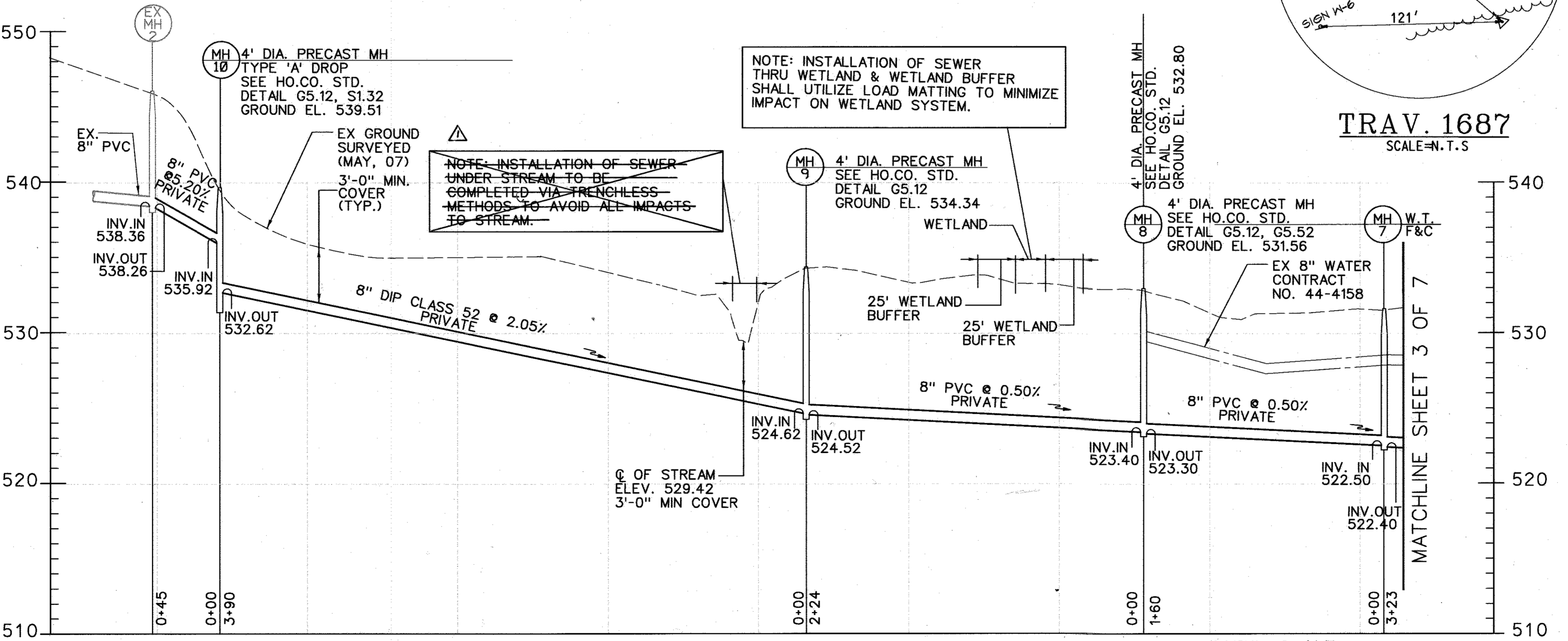


TRAV. 1687
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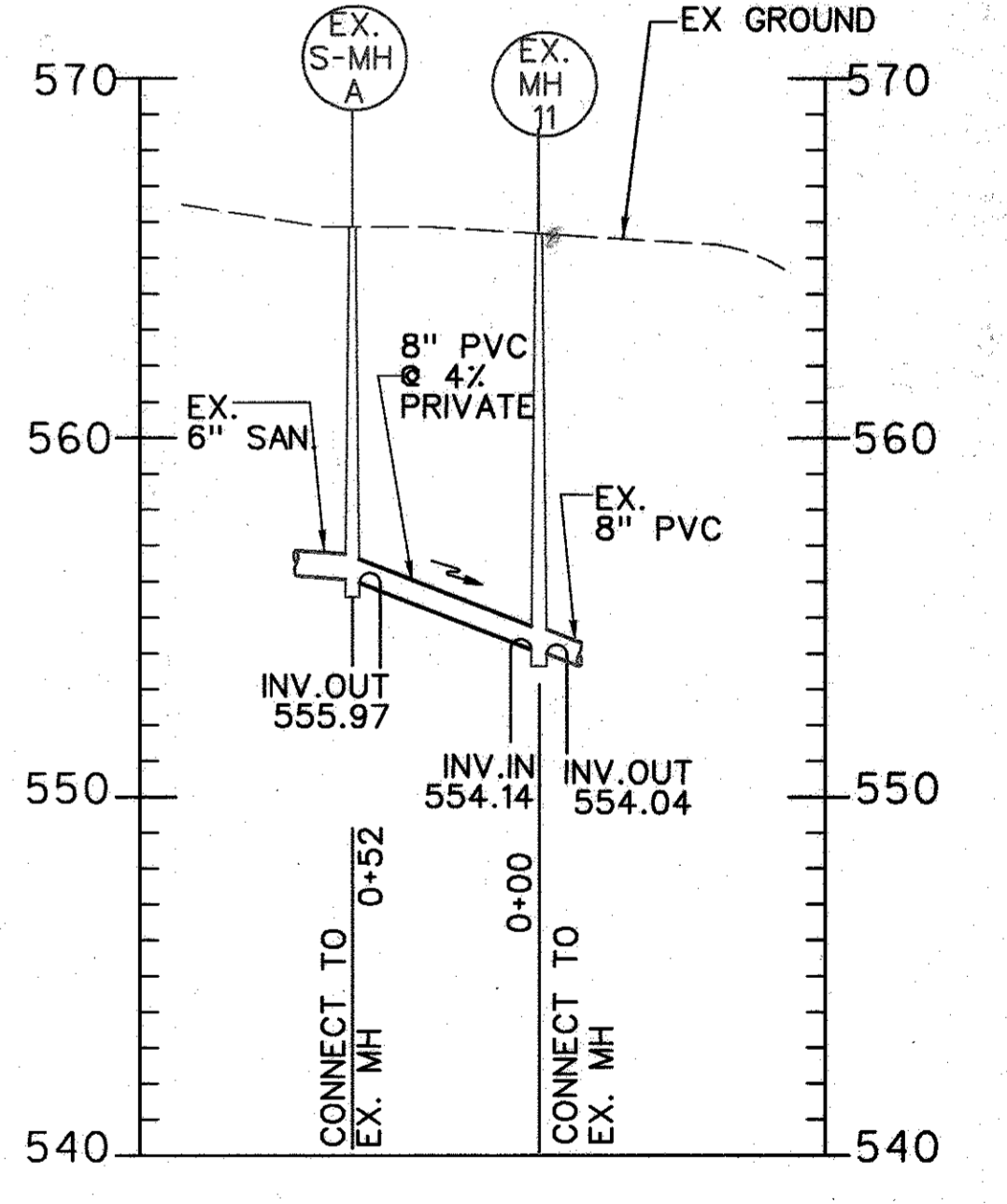
- EX. STORAGE TANK AREA CONNECTION**
(SEE SHEET 1, LOCATION MAP FOR RELATIVE LOCATION)
1. CONSTRUCT 8" PVC SEWER FROM EXISTING S-MH A TO EXISTING MH 11.
 2. ABANDON EXISTING CONNECTIONS FROM EXISTING S-MH A TO SEWAGE TANKS AND EXISTING 1-1/4" FORCE MAIN PER HOWARD COUNTY STD. DETAIL E-3.02
 3. MODIFY EXISTING S-MHA CONNECTION AND FLOW CHANNEL TO MATCH INCOMING 8" PVC.(SEE HOWARD COUNTY STD. DETAIL G-5.32 TYPE "E") AND CONNECT PROPOSED 8" SEWER TO EXISTING S-MH A.
 4. ABANDON EXISTING SEWAGE STORAGE TANKS IN PLACE. REMOVE SEWAGE FROM TANKS. PUNCH HOLES IN BOTTOM OF TANK. FILL TANKS WITH INERT MATERIAL PER HOWARD COUNTY APPROVAL. REMOVE SURFACE APPURTENANCES (ENTRANCE MANHOLE AND STAND PIPES) TO 2' BELOW GRADE AND FILL TO GRADE WITH SELECT BACKFILL MATERIAL.
 4. EXISTING 15,000 GAL FIBER GLASS TANK SHALL BE ABANDONED IN PLACE. SEWAGE SHALL BE REMOVED FROM TANKS PRIOR TO ABANDONMENT AFTER WHICH EACH TANK SHALL BE FILLED, COMPLETELY, WITH FLOWABLE FILL. (ABANDONMENT WITH ALTERNATE INERT MATERIAL (EG. SAND OR SOILS) SHALL REQUIRE THAT THE BOTTOM OF EACH TANK BE RANDOMLY PENETRATED WITH 1" DIAMETER HOLES PRIOR TO FILLING.) SURFACE APPURTENANCES (ENTRANCE MANHOLE AND STAND PIPES) SHALL BE REMOVED TO 2' BELOW GRADE AND ANY VOID FILLED TO GRADE WITH SELECTED BACKFILL MATERIAL.



SITE PLAN
SCALE: 1"=30'



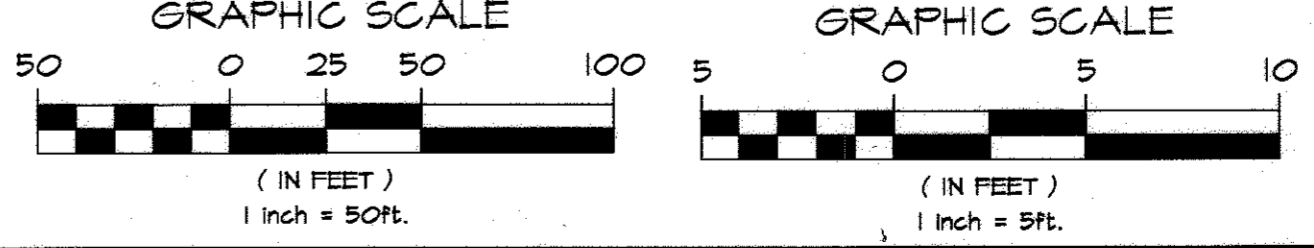
PROFILE
SCALE: HORIZONTAL 1"=50'
VERTICAL 1"=5'



PROFILE
SCALE: HORIZONTAL 1"=50'
VERTICAL 1"=5'

AS-BUILT
DATE 09.15.10

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DES: CLO			
DRN: CK			
CHK: TWW			
DATE: DEC. 2008	LFN	AS BUILT MARKUPS	9/10
BY: NO.		REVISION	

8" SANITARY SEWER PLAN AND PROFILE
600' SCALE MAP NO. 16 BLOCK NO. 9 & 10

ROBEY PUBLIC SAFETY TRAINING CENTER SEWER EXTENSION
CAPITAL PROJECTS No. S-6261
CONTRACT NO. 14-4577
ELECTION DISTRICT NO.3 HOWARD COUNTY, MARYLAND

PLOTTED: 03:58 PM on Tuesday, March 10, 2009
BY: Chandler, Kenta Division: 0102 Environmental Engineering
FILE: M:\2004\0102\43464_23\Drawings\02-04-04-23.dwg

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

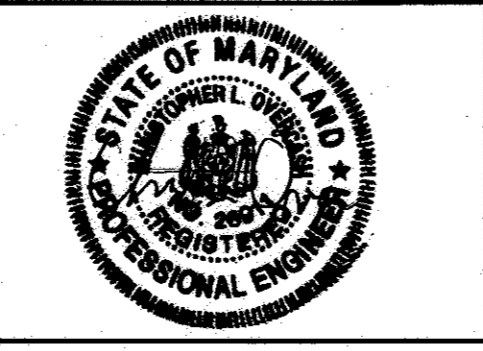
Michael J. O'Brien 5/15/09
DIRECTOR OF PUBLIC WORKS DATE

Paul J. Seaton 5/15/09
CHIEF, BUREAU OF ENGINEERING DATE

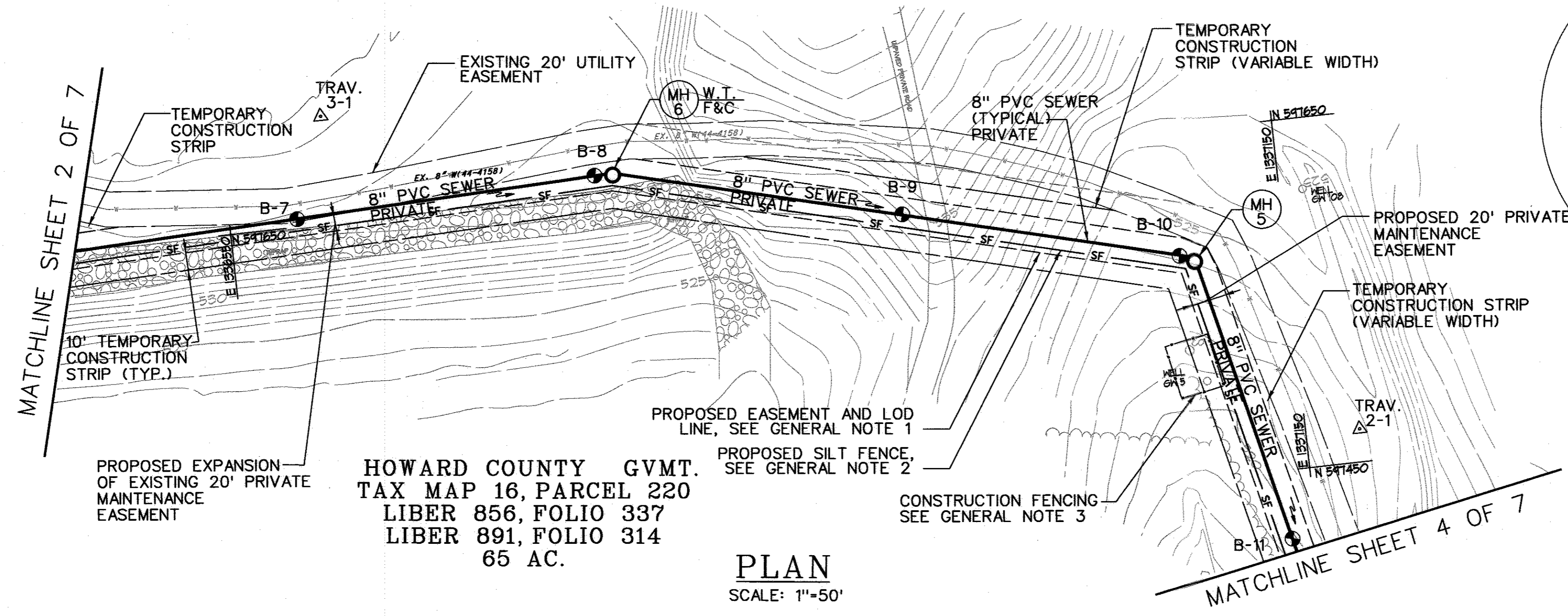
John C. O'Brien 5/15/09
CHIEF, BUREAU OF UTILITIES DATE

Paul J. Seaton 5/15/09
CHIEF, UTILITY DESIGN DIVISION DATE

KCI TECHNOLOGIES
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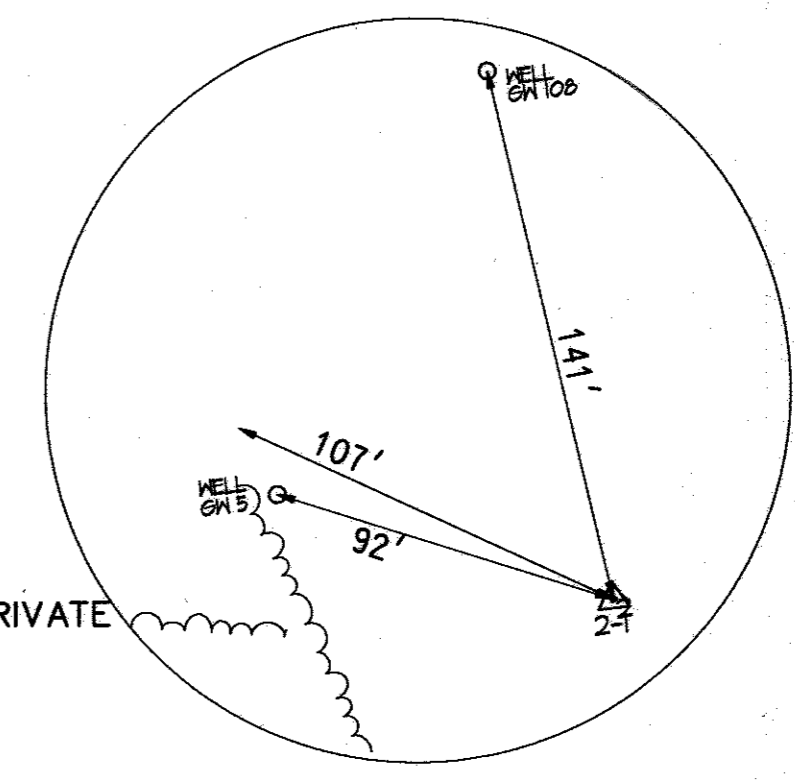


SCALE AS SHOWN
SHEET 2 OF 7

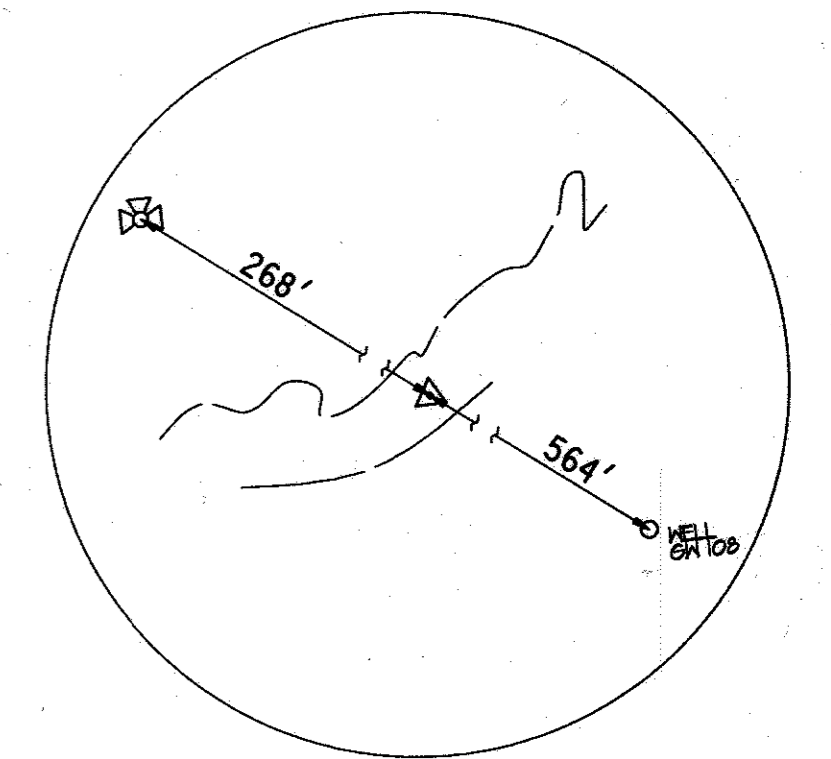


HOWARD COUNTY G.V.M.T.
 TAX MAP 16, PARCEL 220
 LIBER 856, FOLIO 337
 LIBER 891, FOLIO 314
 65 AC.

PLAN
 SCALE: 1"=50'



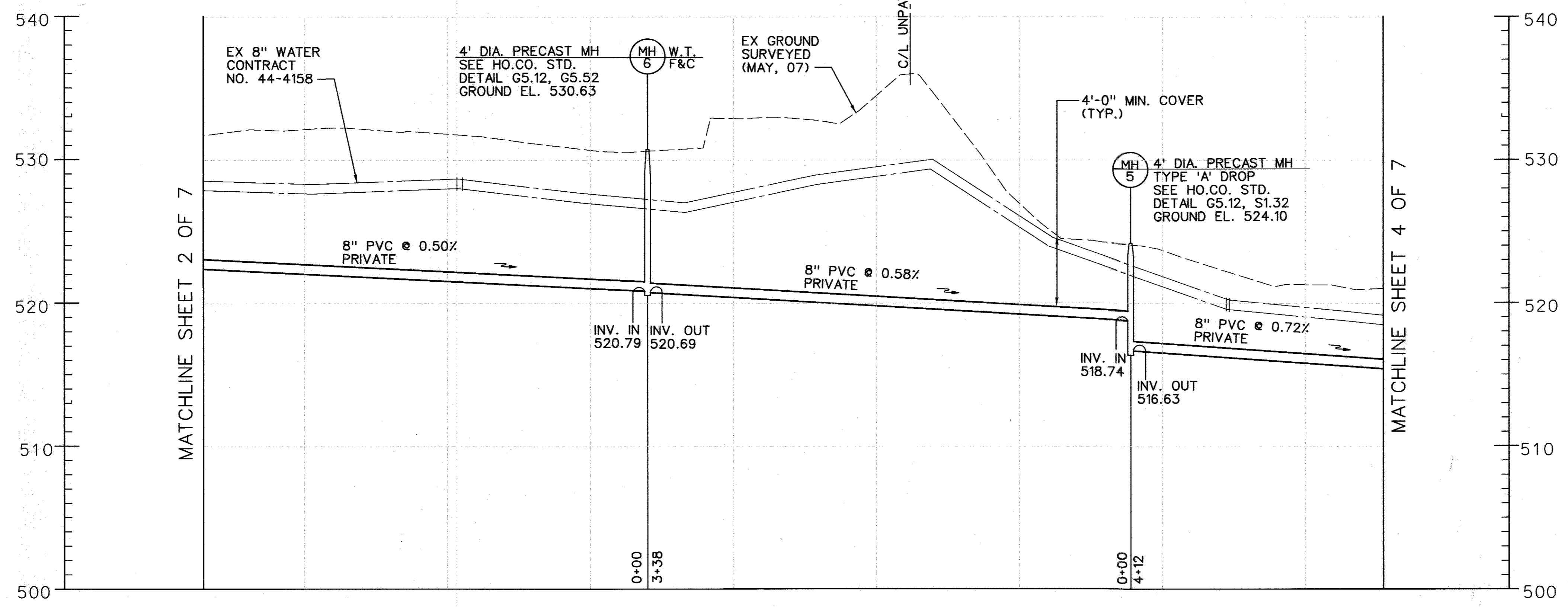
TRAV. #2-1
 SCALE=N.T.S



TRAV. #3-1
 SCALE=N.T.S

TRAVERSE COORDINATE SCHEDULE			
NUMBER	NORTHING	EASTING	ELEVATION
TRAV.#2-1	597468.91	1337180.96	525.23
TRAV.#3-1	597711.67	1336608.52	533.32

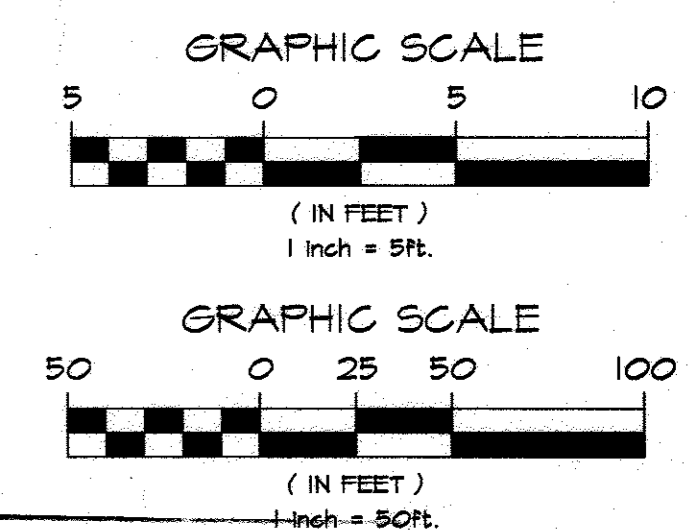
SANITARY SEWER STAKEOUT COORDINATES SCHEDULE		
NUMBER	NORTHING	EASTING
SMH 5	597574.38	1337097.40
SMH 6	597659.88	1336771.30



PROFILE
 SCALE: HORIZONTAL 1"=50'
 VERTICAL 1"=5'

GENERAL NOTES

1. THE LIMIT OF DISTURBANCE IS 10' FROM THE CENTER OF, AND ON BOTH SIDES OF, THE PROPOSED SEWER. THIS LINE IS GENERALLY COINCIDENT WITH THE PROPOSED EASEMENT AND IS NOT SHOWN FOR CLARITY. IN ADDITION, A 10' WIDE TEMPORARY CONSTRUCTION STRIP IS PROVIDED ON EACH SIDE OF THE EASEMENT FOR USE DURING CONSTRUCTION. BETWEEN THE PROPOSED EASEMENT AND EXISTING EASEMENT A VARIABLE WIDTH CONSTRUCTION STRIP IS INDICATED AS NECESSARY.
2. SILT FENCE IS SHOWN DIAGRAMMATICALLY. THE CONTRACTOR SHALL PLACE THE SILT FENCE GENERALLY COINCIDENT WITH THE PROPOSED EASEMENT (WHERE APPLICABLE) AND THE LIMITS OF DISTURBANCE (SEE NOTE 1, ABOVE.)
3. CONTRACTOR SHALL PLACE HIGH-VISIBILITY CONSTRUCTION FENCING AROUND EACH MONITORING WELL INDICATED, AND SHALL TAKE PRECAUTIONS TO PROTECT THEM FROM DAMAGE. THE CONTRACTOR SHALL REPLACE, AT NO COST TO THE COUNTY, ANY MONITORING WELL DAMAGED BY THE CONSTRUCTION OPERATION.



AS-BUILT
 DATE 09.15.10

PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO.: 28911 EXPIRATION DATE: 1/11/10

PLOTTED: 04:00 PM on Tuesday, March 10, 2009
 BY: Chandler Kanta Division: 0102 Environmental Engineering
 FILE: M:\2008\01031664_25\Drawings\C-03-043464-25.dgn

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

William C. Brown 5/5/09
 DIRECTOR OF PUBLIC WORKS DATE

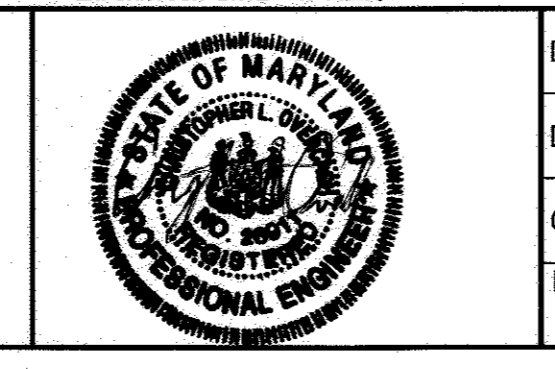
William C. Brown 5/5/09
 CHIEF, BUREAU OF UTILITIES DATE

William C. Brown 5/5/09
 CHIEF, UTILITY DESIGN DIVISION DATE

KCI TECHNOLOGIES

ENGINEERS
 PLANNERS
 SCIENTISTS
 CONSTRUCTION MANAGERS

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 FAX: (410) 316-7817
 www.kci.com



DES: CLO			
DRN: CK			
CHK: TWW			
DATE: DEC. 2008	LFN	AS BUILT MARKUPS	9/10
BY	NO.	REVISION	DATE

**8" SANITARY SEWER
 PLAN AND PROFILE**

600' SCALE MAP NO. 16 BLOCK NO. 9 & 10

**ROBEY PUBLIC SAFETY
 TRAINING CENTER
 SEWER EXTENSION**

CAPITAL PROJECTS No. S-6261
 CONTRACT NO. 14-4577

ELECTION DISTRICT NO.3 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN SHEET 3 OF 7

HOWARD COUNTY GVMT.
TAX MAP 16, PARCEL 220
LIBER 856, FOLIO 337
LIBER 891, FOLIO 314
65 AC.

HOWARD COUNTY GVMT.
TAX MAP 16, PARCEL 253
LIBER 856, FOLIO 337
LIBER 891, FOLIO 314
38 AC.

1-1/4" LPSS STAKEOUT COORDINATE SCHEDULE			
STATION	FITTING	NORTHING	EASTING
0+00	GPS	597114.72	1337981.05
0+09	90° V.B. (2)	597115.42	1337989.69
2+45	45° & 11-1/2° H.B.	597127.03	1338226.15

SANITARY SEWER STAKEOUT COORDINATES SCHEDULE		
NUMBER	NORTHING	EASTING
GRINDER PUMP STATION	597114.72	1337981.05
SMH 1	597095.44	1337755.16
SMH 2	597021.96	1337548.48
SMH 3	596978.28	1337324.78
SMH 4	597172.56	1337190.50

TRAVERSE COORDINATE SCHEDULE			
NUMBER	NORTHING	EASTING	ELEVATION
TRAV.# 1-1	596963.51	1337333.11	525.89
TRAV.# 5-1	597115.65	1338079.28	507.20

GENERAL NOTES

1. THE LIMIT OF DISTURBANCE (LOD) IS 10' FROM THE CENTER OF, AND ON BOTH SIDES OF, THE PROPOSED SEWER. THIS LINE IS GENERALLY COINCIDENT WITH THE PROPOSED EASEMENT AND IS NOT SHOWN FOR CLARITY. IN ADDITION, A 10' WIDE TEMPORARY CONSTRUCTION STRIP IS PROVIDED ON EACH SIDE OF THE EASEMENT FOR USE DURING CONSTRUCTION. BETWEEN THE PROPOSED EASEMENT AND EXISTING EASEMENT A VARIABLE WIDTH CONSTRUCTION STRIP IS INDICATED AS NECESSARY.
2. SILT FENCE IS SHOWN DIAGRAMMATICALLY. THE CONTRACTOR SHALL PLACE THE SILT FENCE GENERALLY COINCIDENT WITH THE PROPOSED EASEMENT (WHERE APPLICABLE) AND THE LIMITS OF DISTURBANCE (SEE NOTE 1, ABOVE.)

MATCHLINE SHEET 3 OF 7

10' TEMPORARY CONSTRUCTION STRIP (TYP.)
TEMPORARY CONSTRUCTION STRIP (VARIABLE WIDTH)
EXISTING 20' UTILITY EASEMENT
PROPOSED 20' PRIVATE MAINTENANCE EASEMENT

8" PVC SEWER PRIVATE
8" PVC SEWER PRIVATE
8" PVC SEWER PRIVATE
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8" PVC SEWER PRIVATE
8" PVC SEWER PRIVATE
8" PVC SEWER PRIVATE

4' DIA. PRECAST MH
SEE HO.CO. STD.
DETAIL G5.12, G5.41
GROUND EL. 522.14

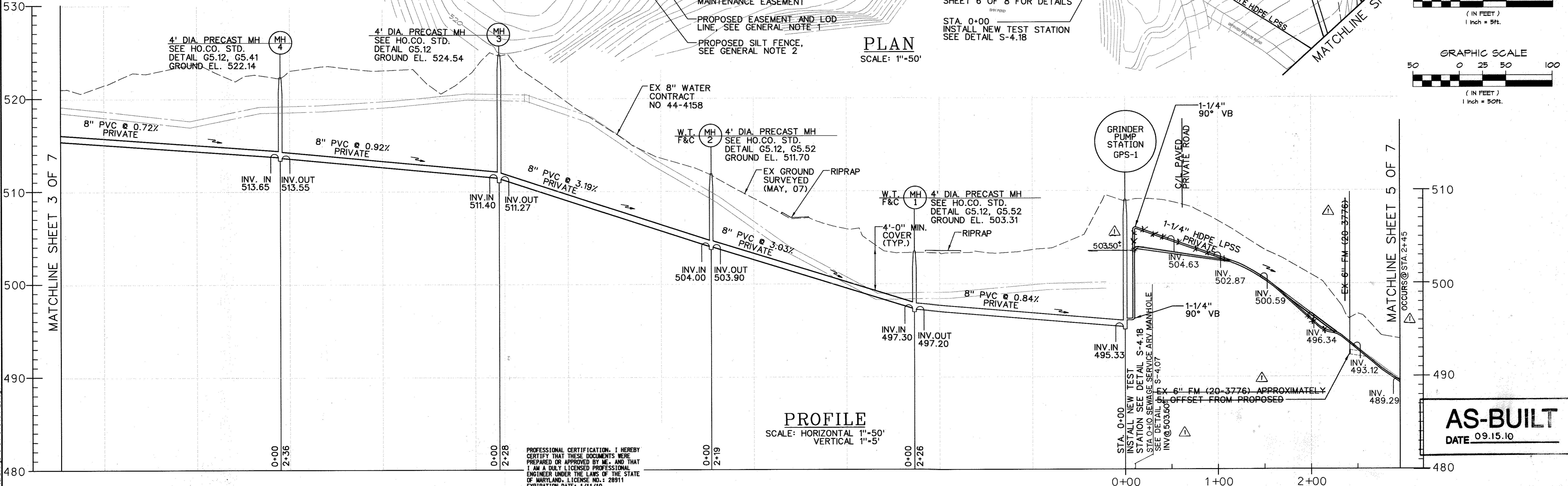
4' DIA. PRECAST MH
SEE HO.CO. STD.
DETAIL G5.12, G5.52
GROUND EL. 511.70

4' DIA. PRECAST MH
SEE HO.CO. STD.
DETAIL G5.12, G5.52
GROUND EL. 503.31

GRINDER PUMP STATION
GPS-1

EX 6" C-900 PVC FM
(20-3776)

EXISTING 20' UTILITY EASEMENT
PROPOSED 20' PRIVATE MAINTENANCE EASEMENT

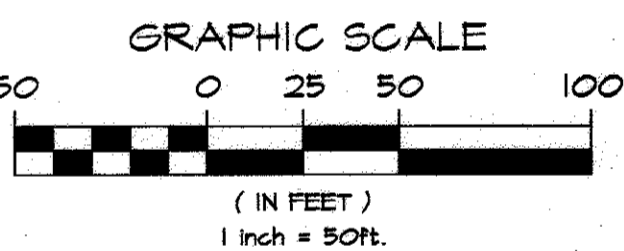
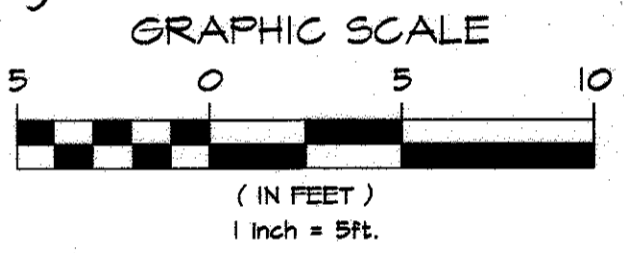


PLAN
SCALE: 1"=50'

PROFILE
SCALE: HORIZONTAL 1"=50'
VERTICAL 1"=5'

TRAV. #1-1
SCALE=N.T.S

TRAV. #5-1
SCALE=N.T.S



AS-BUILT
DATE 09.15.10

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO.: 28911 EXPIRATION DATE: 1/11/10

PLOTTED: 10/4/10 PM, on: Tuesday, March 10, 2009
 BY: Chandler, Kaitie Division: 002, Environmental/Engineering
 FILE: M:\2004\0043464_25 Drawings\04-04-3464-25.dgn

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS
 DATE 5/21/09

CHIEF, BUREAU OF ENGINEERING
 DATE 5/5/09

CHIEF, UTILITY DESIGN DIVISION
 DATE 5/5/09

KCI
 TECHNOLOGIES
 10 NORTH PARK DRIVE
 HORT VILLEY, MD 21030
 PHONE: (410) 316-7800
 FAX: (410) 316-7817
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DES:	CLO				
DRN:	CK				
CHK:	TWW				
DATE:	DEC, 2008	BY:	NO.	AS BUILT MARKUPS	9/10
				REVISION	DATE

8" & 1-1/4" SANITARY SEWER
PLAN AND PROFILE

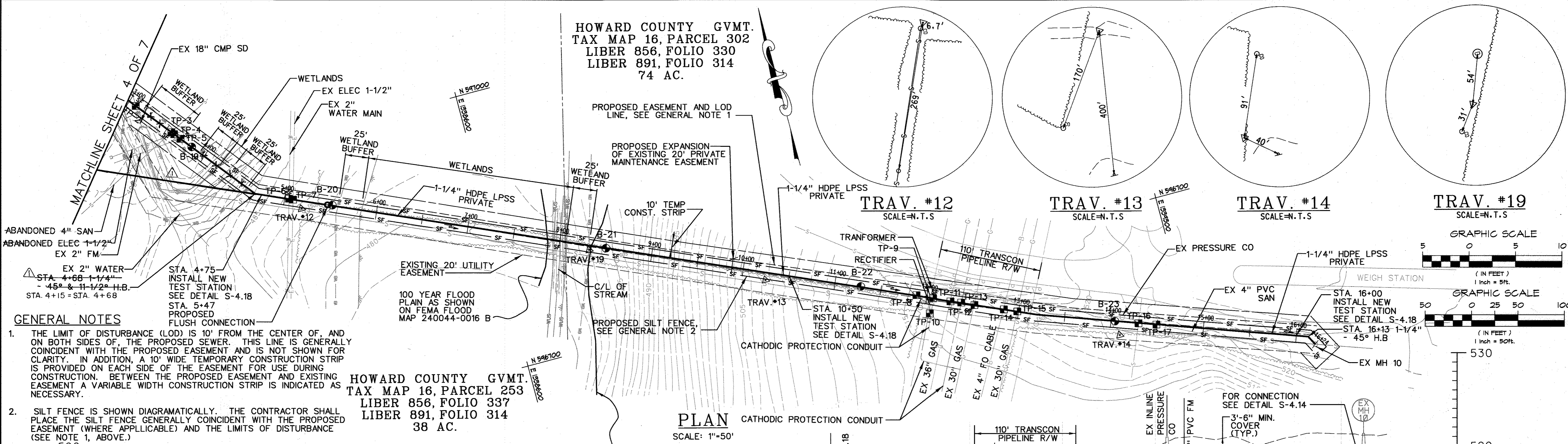
600' SCALE MAP NO. 16 BLOCK NO. 9 & 10

ROBEY PUBLIC SAFETY
TRAINING CENTER
SEWER EXTENSION
CAPITAL PROJECTS No. S-6261
CONTRACT NO. 14-4577
ELECTION DISTRICT NO.3 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 4 OF 7

HOWARD COUNTY GVM.T.
TAX MAP 16, PARCEL 302
LIBER 856, FOLIO 330
LIBER 891, FOLIO 314
74 AC.

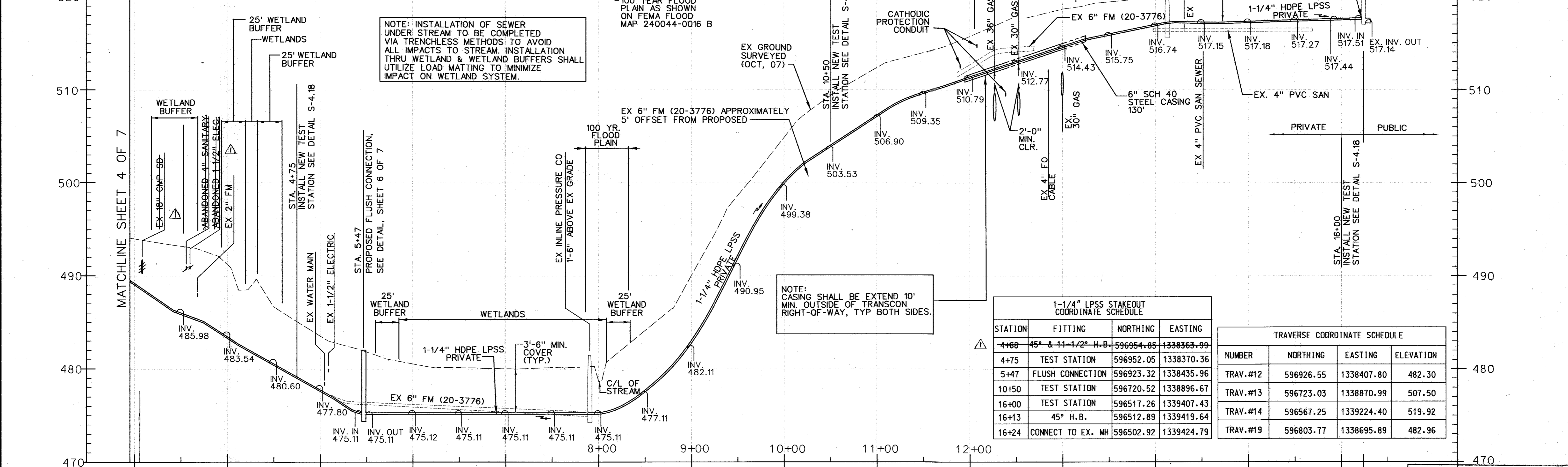
HOWARD COUNTY GVM.T.
TAX MAP 16, PARCEL 253
LIBER 856, FOLIO 337
LIBER 891, FOLIO 314
38 AC.



- GENERAL NOTES**
1. THE LIMIT OF DISTURBANCE (LOD) IS 10' FROM THE CENTER OF, AND ON BOTH SIDES OF, THE PROPOSED SEWER. THIS LINE IS GENERALLY COINCIDENT WITH THE PROPOSED EASEMENT AND IS NOT SHOWN FOR CLARITY. IN ADDITION, A 10' WIDE TEMPORARY CONSTRUCTION STRIP IS PROVIDED ON EACH SIDE OF THE EASEMENT FOR USE DURING CONSTRUCTION. BETWEEN THE PROPOSED EASEMENT AND EXISTING EASEMENT A VARIABLE WIDTH CONSTRUCTION STRIP IS INDICATED AS NECESSARY.
 2. SILT FENCE IS SHOWN DIAGRAMATICALLY. THE CONTRACTOR SHALL PLACE THE SILT FENCE GENERALLY COINCIDENT WITH THE PROPOSED EASEMENT (WHERE APPLICABLE) AND THE LIMITS OF DISTURBANCE (SEE NOTE 1, ABOVE.)

NOTE: INSTALLATION OF SEWER UNDER STREAM TO BE COMPLETED VIA TRENCHLESS METHODS TO AVOID ALL IMPACTS TO STREAM. INSTALLATION THRU WETLAND & WETLAND BUFFERS SHALL UTILIZE LOAD MATTING TO MINIMIZE IMPACT ON WETLAND SYSTEM.

NOTE: CASING SHALL BE EXTEND 10' MIN. OUTSIDE OF TRANSCON RIGHT-OF-WAY, TYP BOTH SIDES.



PROFILE
SCALE: HORIZONTAL 1"=50'
VERTICAL 1"=5'

1-1/4" LPSS STAKEOUT COORDINATE SCHEDULE			
STATION	FITTING	NORTHING	EASTING
4+60	45° & 11-1/2° H.B.	596954.85	1338363.99
4+75	TEST STATION	596952.05	1338370.36
5+47	FLUSH CONNECTION	596923.32	1338435.96
10+50	TEST STATION	596720.52	1338896.67
16+00	TEST STATION	596517.26	1339407.43
16+13	45° H.B.	596512.89	1339419.64
16+24	CONNECT TO EX. MH	596502.92	1339424.79

TRAVERSE COORDINATE SCHEDULE			
NUMBER	NORTHING	EASTING	ELEVATION
TRAV.#12	596926.55	1338407.80	482.30
TRAV.#13	596723.03	1338870.99	507.50
TRAV.#14	596567.25	1339224.40	519.92
TRAV.#19	596803.77	1338695.89	482.96

6" FM CROSSING a STA 3+05; 6" FM INV. = 492.00
4" SAN. CROSSING a STA 2+75; 4" SAN. INV. UNKNOWN

PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO.: 28911 EXPIRATION DATE: 1/11/10

AS-BUILT
DATE 09.15.10

PLOTTED: 10:40:33 PM on Tuesday, March 10, 2009
BY: Chander, Kanta Division: 0102 Environmental Engineering
FILE: M:\2004\0103464\25\Drawings\C-05-043464-25.dgn

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

William J. Stalos
DIRECTOR OF PUBLIC WORKS
DATE 5/5/09

David J. Seaman
CHIEF, BUREAU OF ENGINEERING
DATE 5/5/09

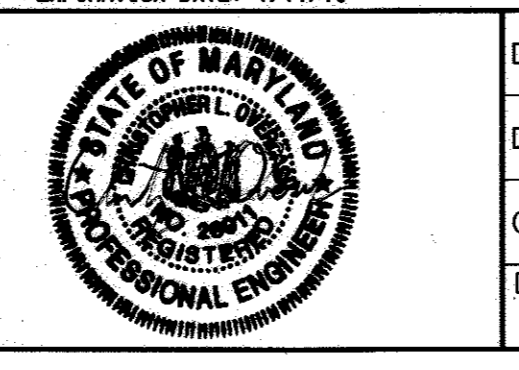
Steve A. Gann
CHIEF, BUREAU OF UTILITIES
DATE 5/5/09

David J. Seaman
CHIEF, UTILITY DESIGN DIVISION
DATE 5/5/09

KCI TECHNOLOGIES

ENGINEERS
PLANNERS
SCIENTISTS
CONSTRUCTION MANAGERS

10 NORTH PARK DRIVE
HUNTS VALLEY, MD 21030
PHONE (410) 316-7800
FAX (410) 316-7817
www.kci.com



DES: CLO			
DRN: CK			
CHK: TW			
DATE: DEC. 2008	BY: LFN	AS BUILT MARKUPS	9/10
	NO.	REVISION	DATE

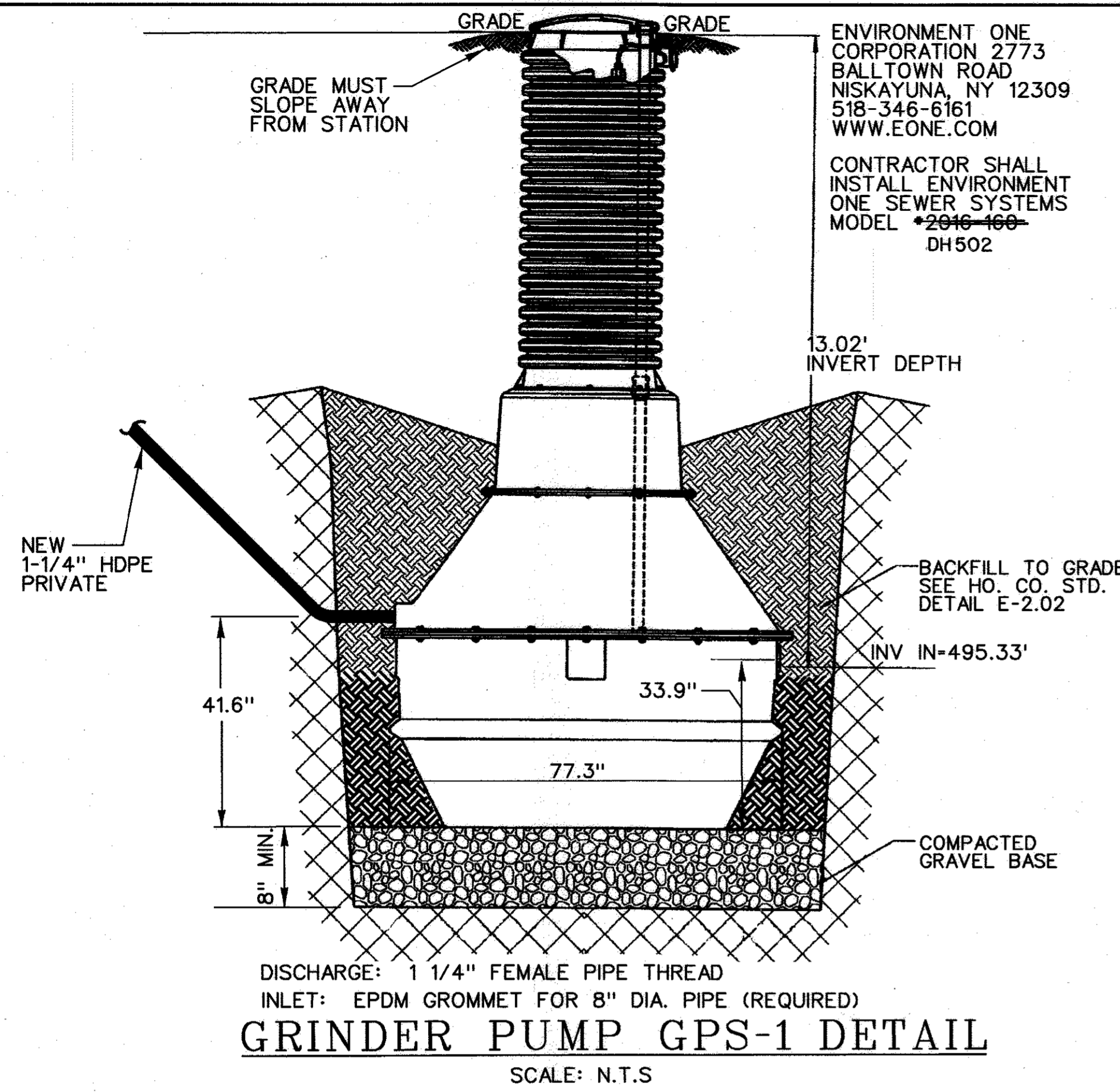
1-1/4" SANITARY SEWER FORCE MAIN PLAN AND PROFILE

600' SCALE MAP NO. 16 BLOCK NO. 9 & 10

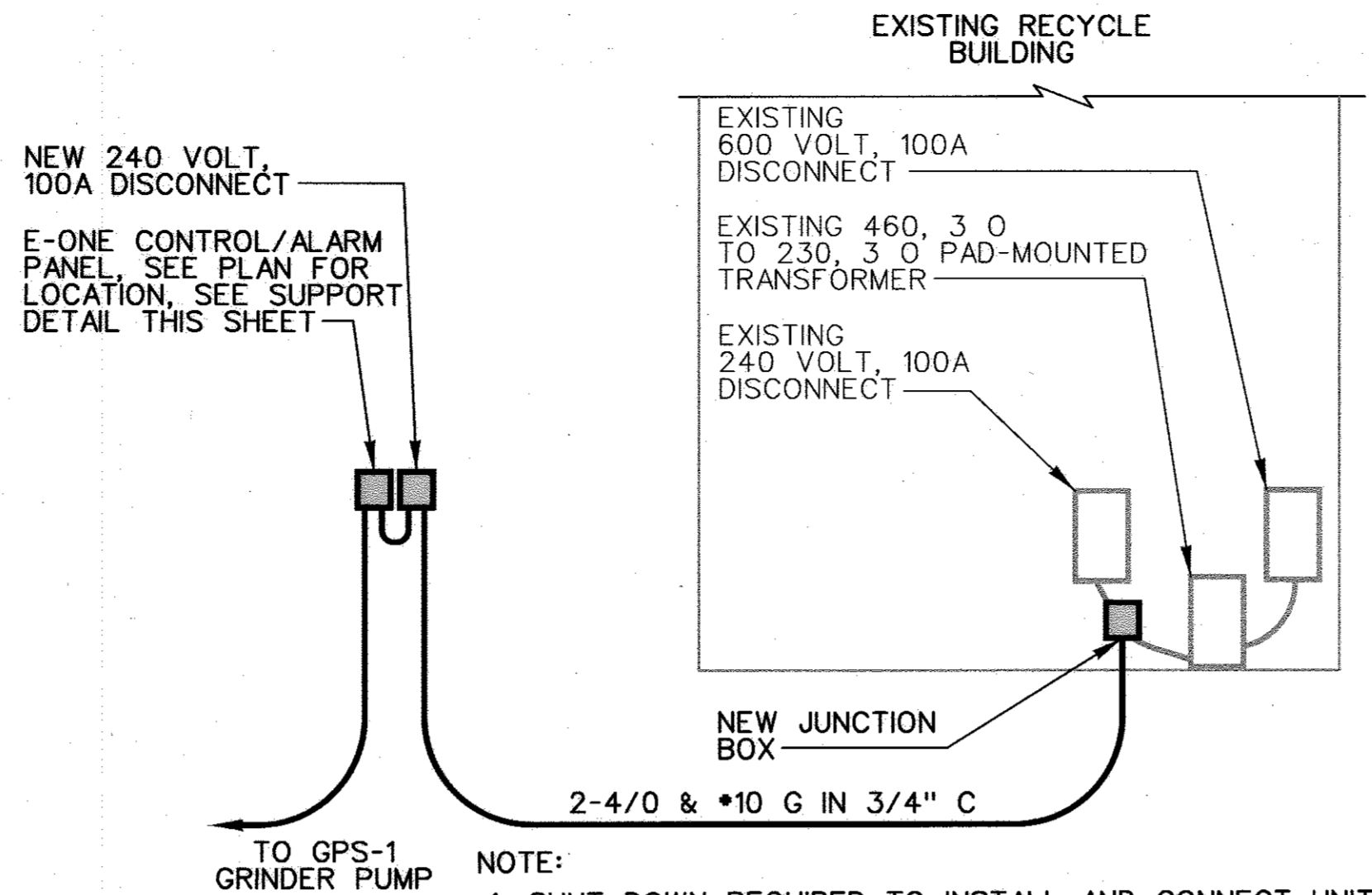
ROBEY PUBLIC SAFETY TRAINING CENTER
SEWER EXTENSION
CAPITAL PROJECTS No. S-6281
CONTRACT NO. 14-4577

ELECTION DISTRICT NO.3 HOWARD COUNTY, MARYLAND

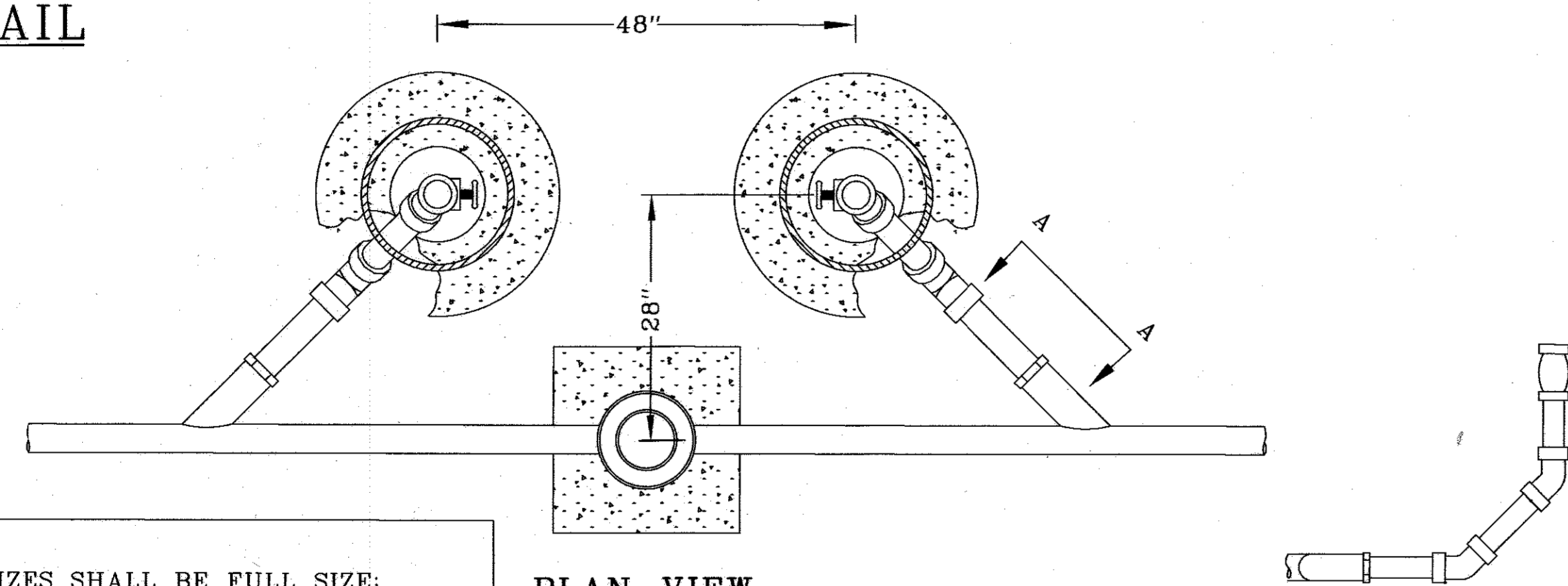
SCALE AS SHOWN
SHEET 5 OF 7



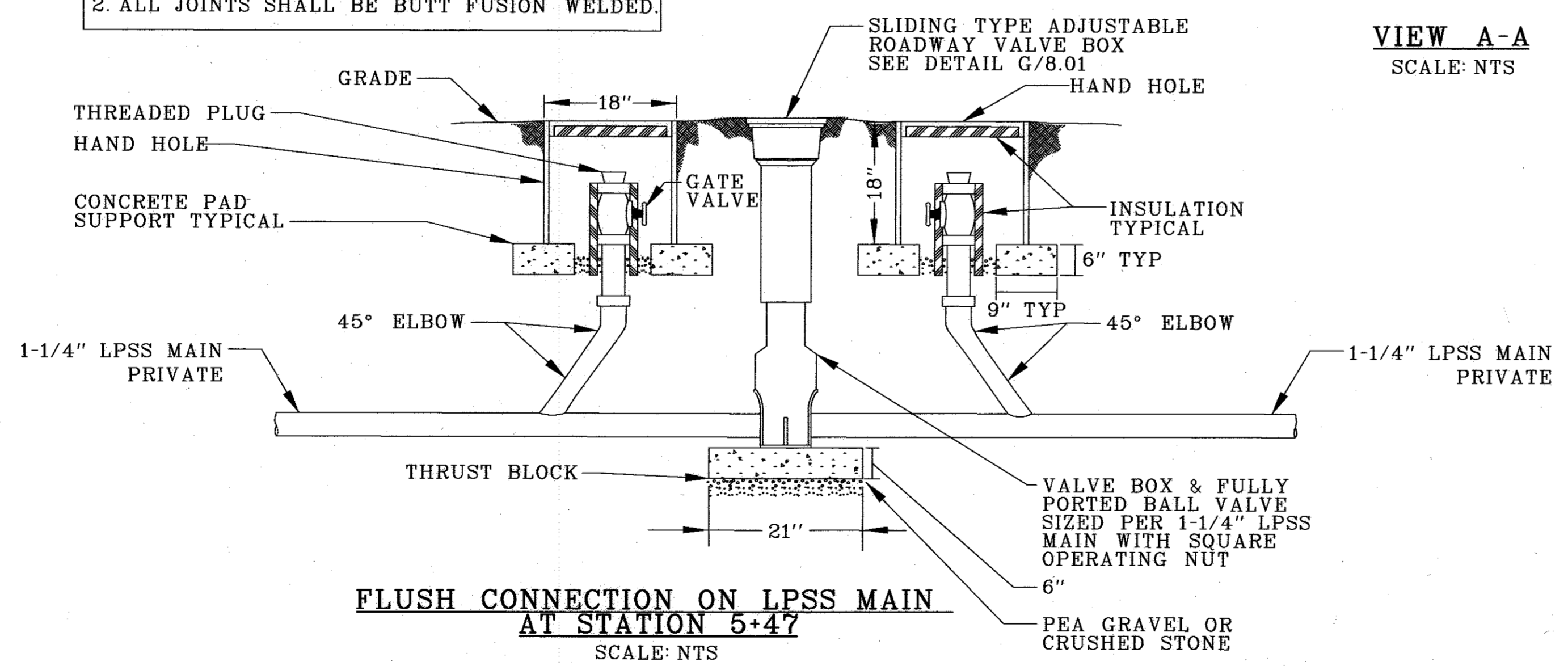
- NOTES:
1. NO FIELD JOINTS ARE ALLOWED.
 2. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.



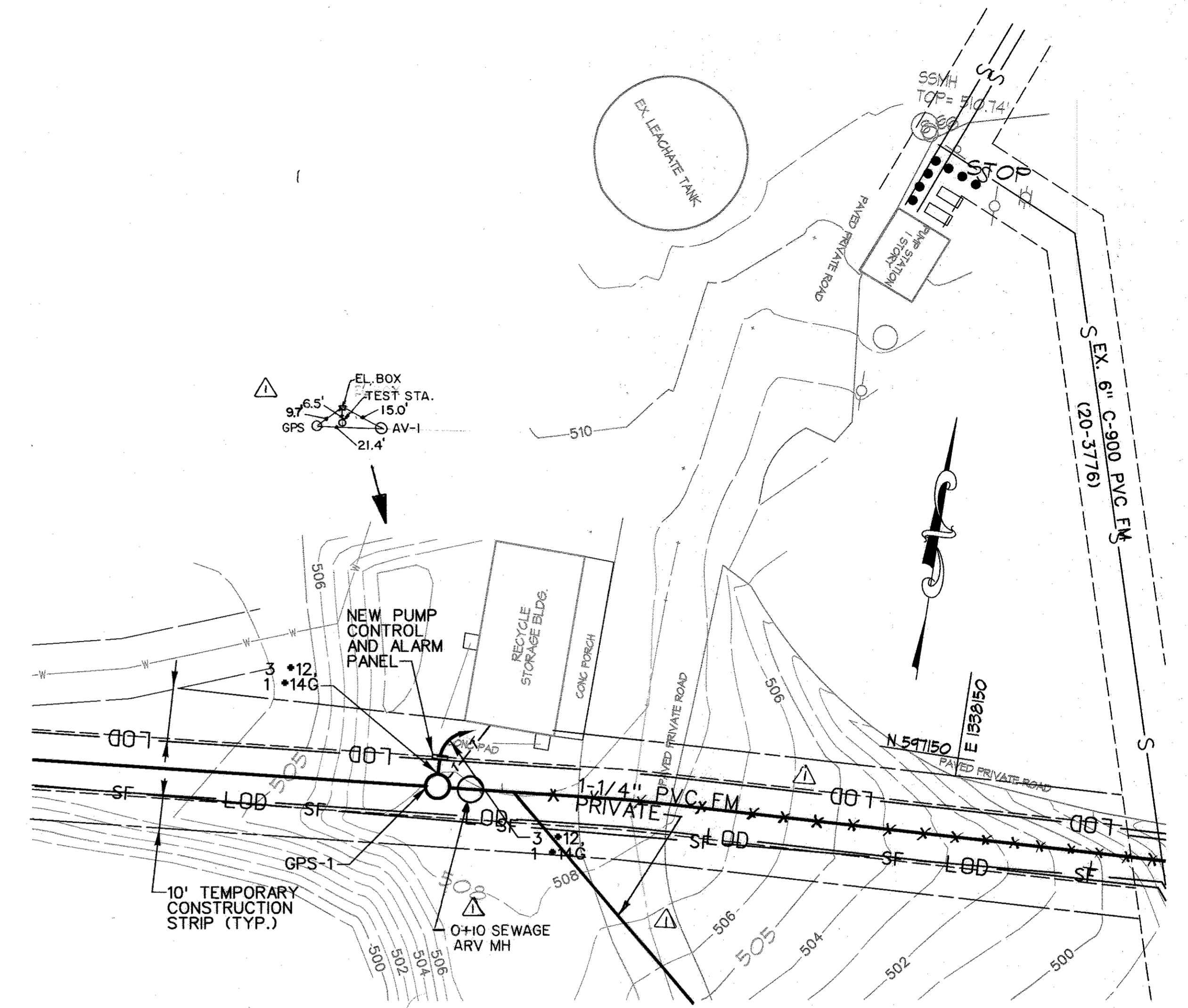
ELECTRICAL CONNECTIONS
SCALE: N.T.S.



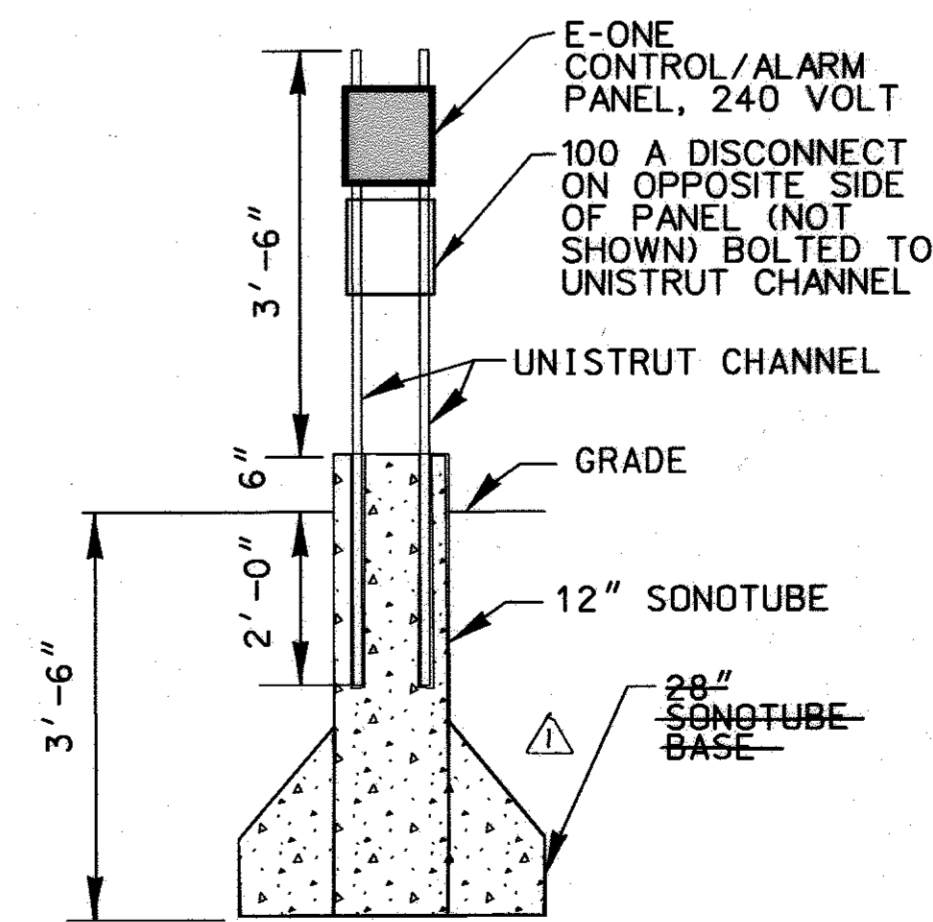
- NOTES:
1. ALL PIPE SIZES SHALL BE FULL SIZE.
 2. ALL JOINTS SHALL BE BUTT FUSION WELDED.



FLUSH CONNECTION ON LPSS MAIN AT STATION 5+47
SCALE: N.T.S.



PARTIAL SITE PLAN
SCALE: 1"=30'



CONTROL PANEL SUPPORT
SCALE: N.T.S.

- CONTROL PANEL NOTES:
1. CONTROL PANEL SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND THE NATIONAL ELECTRIC CODE.
 3. ALL POWER AND CONTROL WIRES SHALL BE IN CONDUIT.
 2. THE CONTRACTOR SHALL PROVIDE SLEEVES FOR POWER AND CONTROL CONDUIT THAT PASS THROUGH THE CONCRETE CONTROL PANEL SUPPORT BASE.
 3. THE CONTROL PANEL AND ALL APPURTENANCES SHALL BE SECURELY MOUNTED TO THE SUPPORT.
 4. ALL FASTENERS SHALL BE STAINLESS STEEL.

AS-BUILT
DATE 09.15.10

PLOTTED: 04:08 PM on Tuesday, March 10, 2009
 BY: Chandler Kanto, Division 0102, Environmental Engineering
 FILE: M:\2004\0304\3164\23\Grinders\C-08-04-3164-23.dwg

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Walter Staloy 5/5/09
DIRECTOR OF PUBLIC WORKS DATE

Debra S. Jones 5/5/09
CHIEF, BUREAU OF ENGINEERING DATE

John C. Smith 5/5/09
CHIEF, BUREAU OF UTILITIES DATE

Dy Don Cline 5/5/09
CHIEF, UTILITY DESIGN DIVISION DATE

ENGINEERS
PLANNERS
SCIENTISTS
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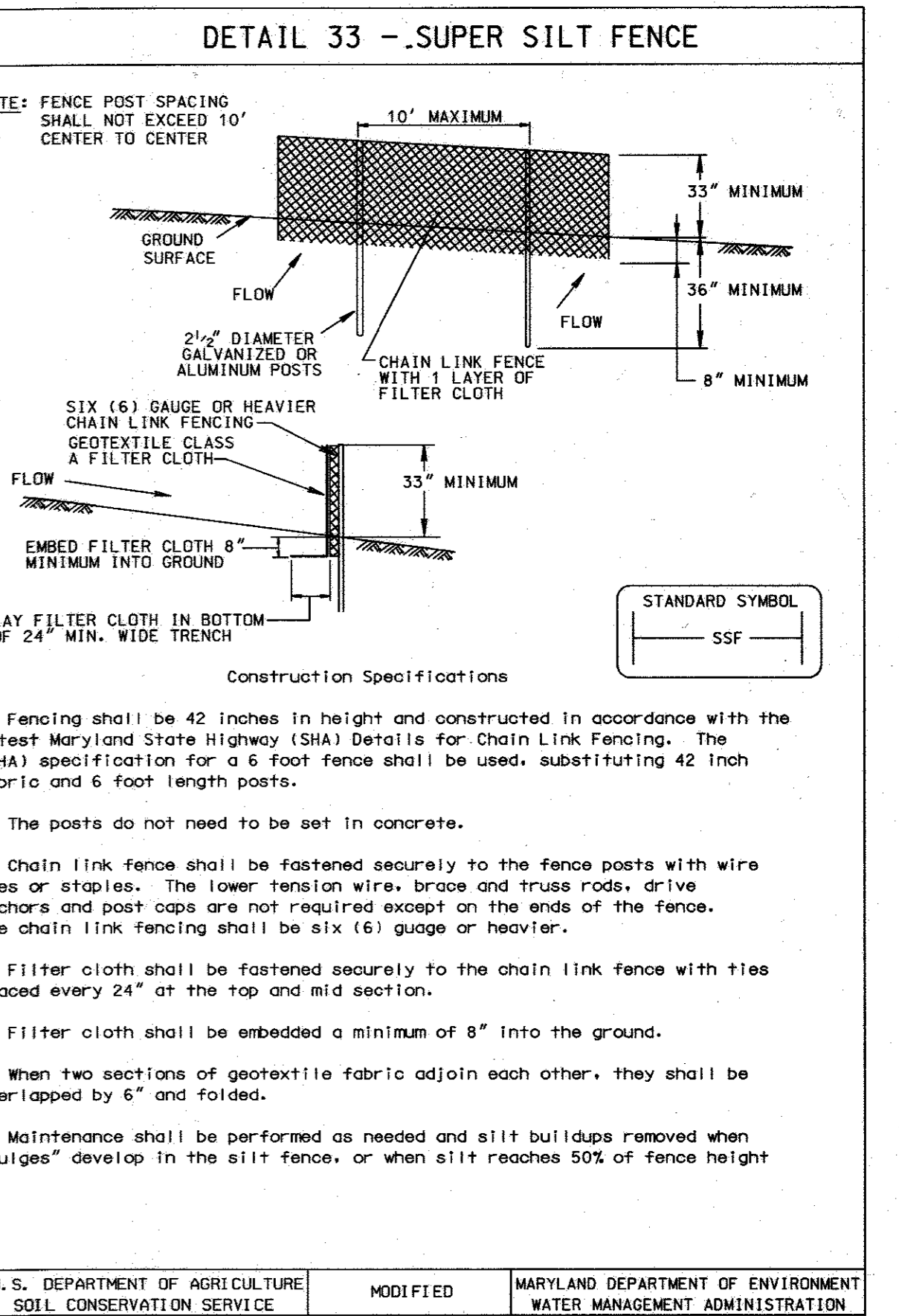
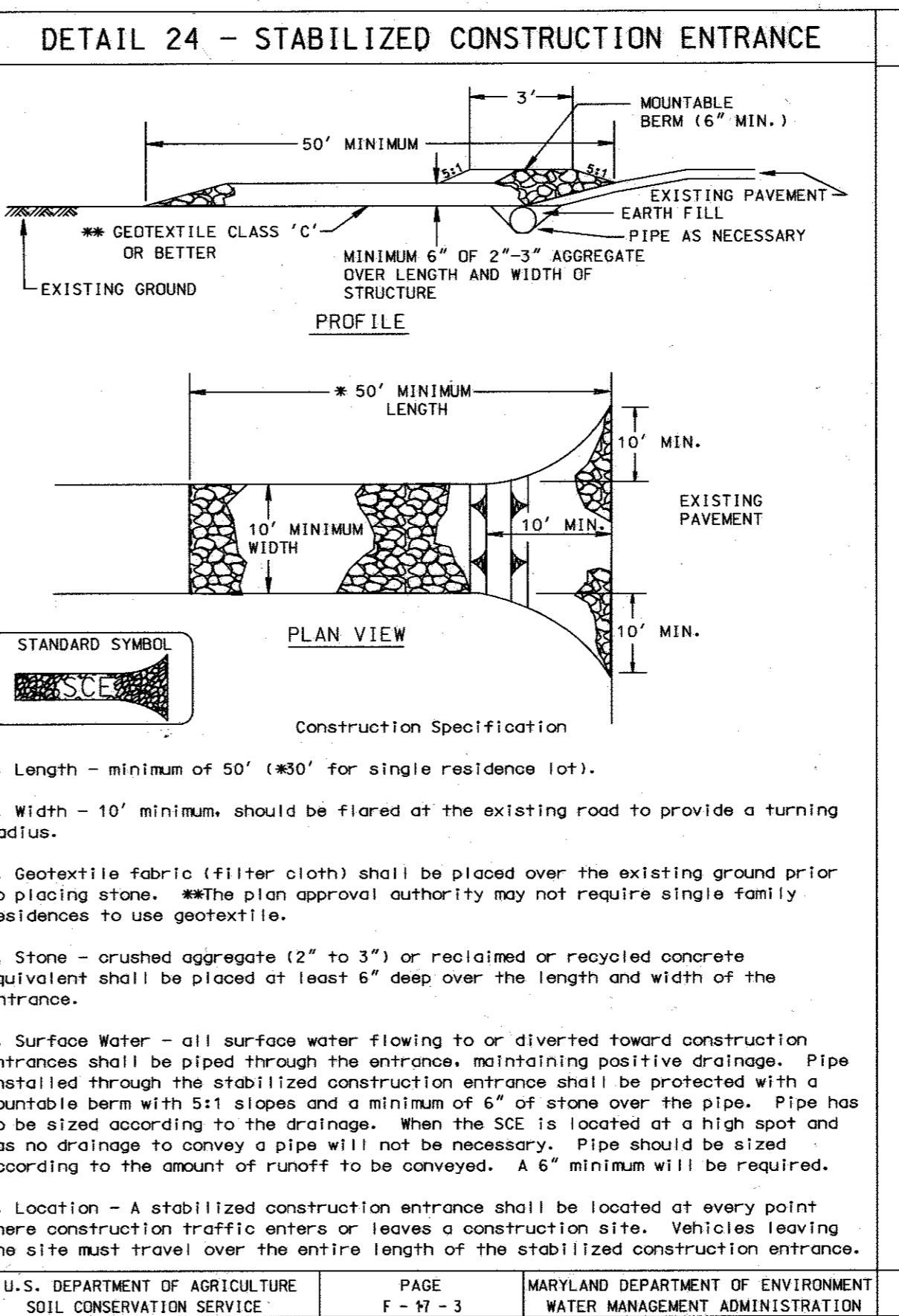
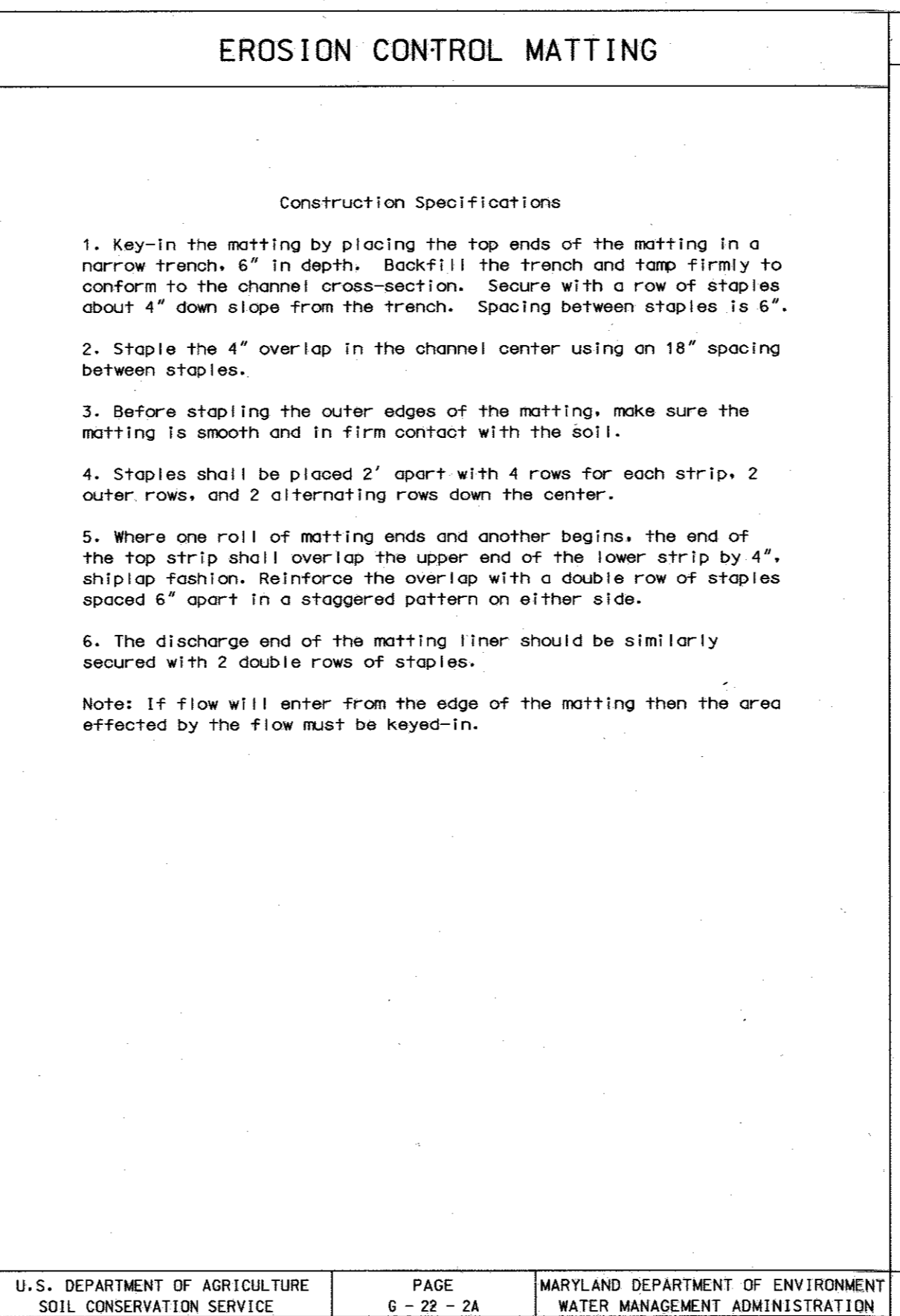
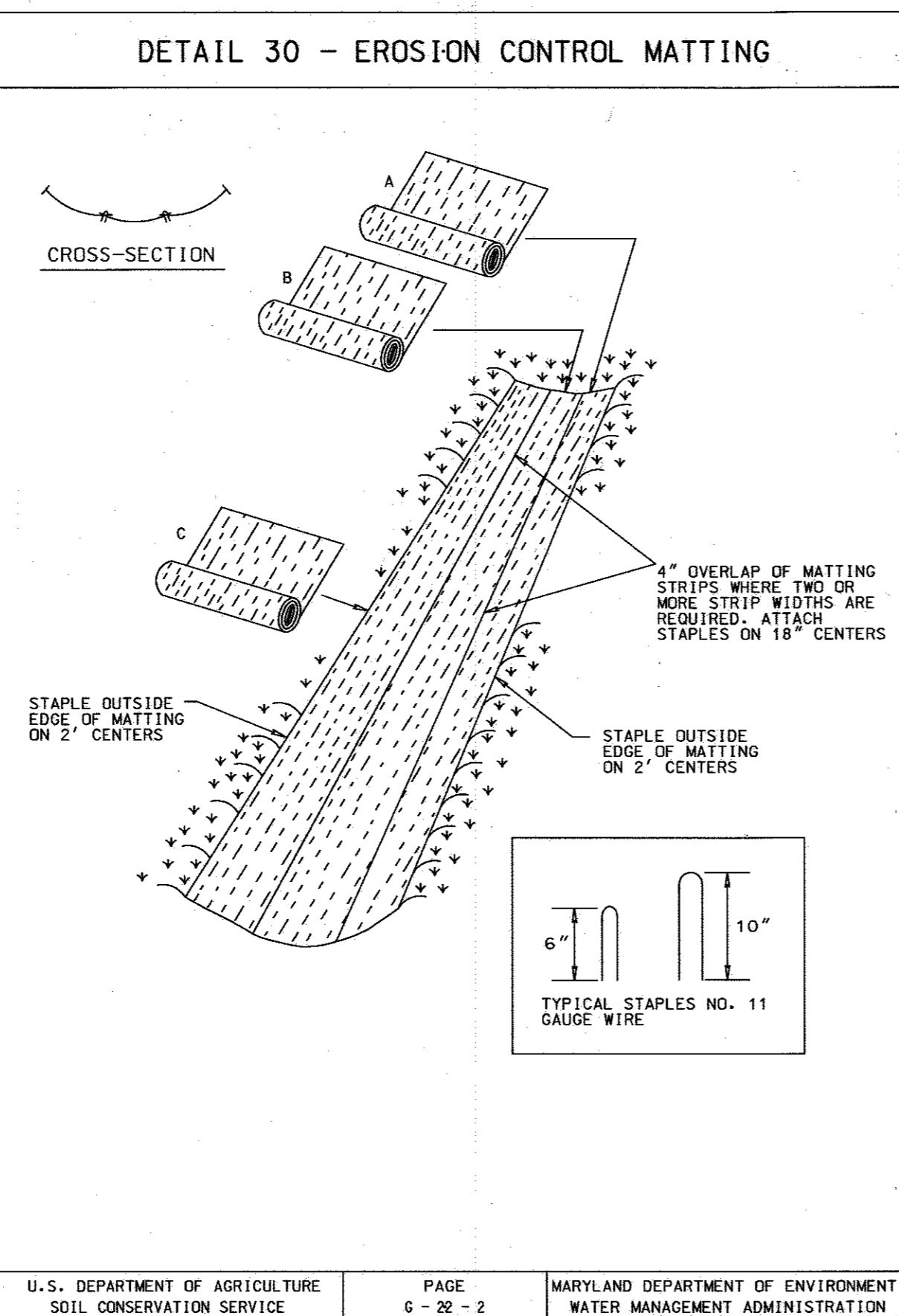
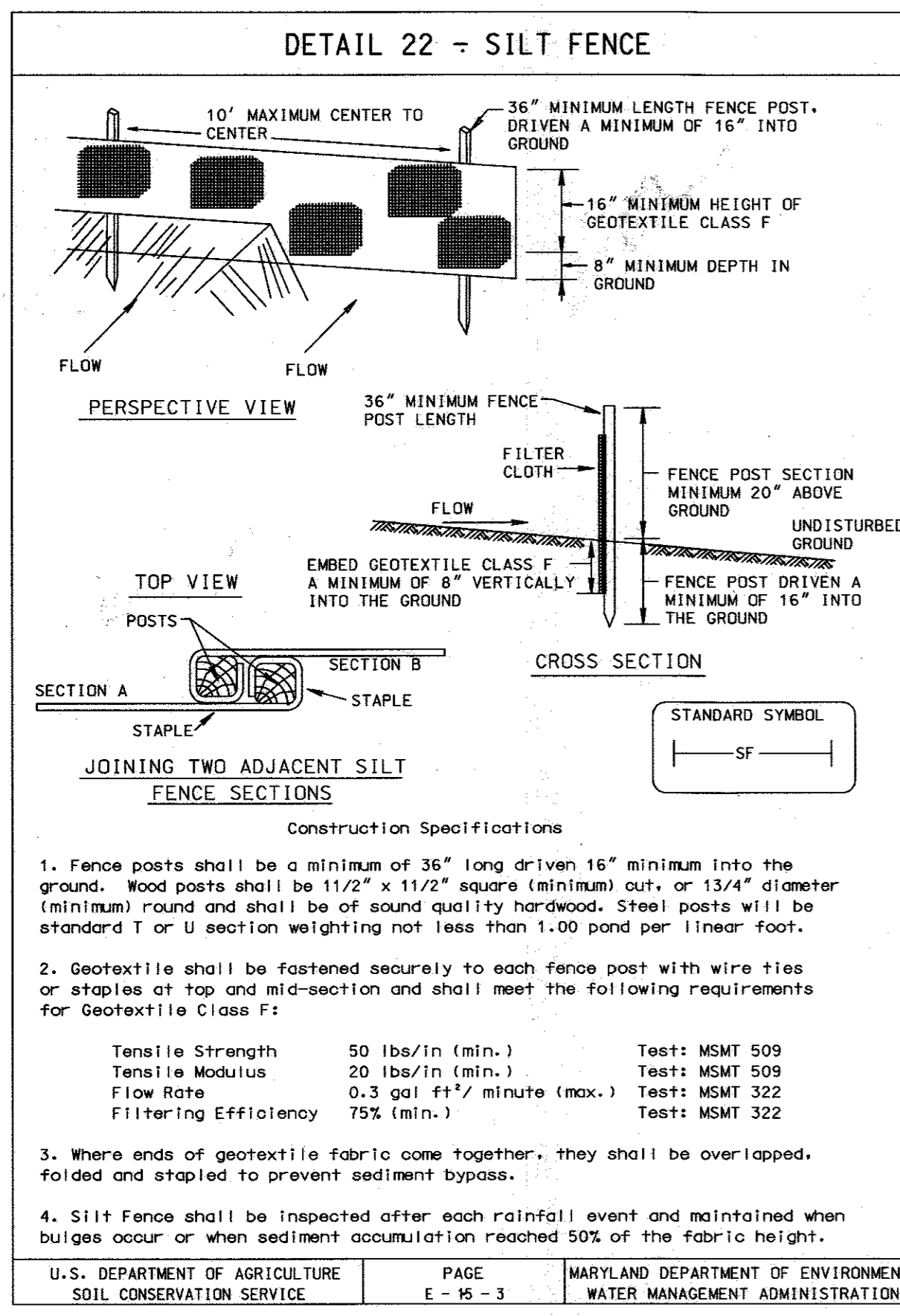
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DRN:	CK				
CHK:	TWW				
DATE:	DEC. 2008	LFN	AS BUILT MARKUPS	9/10	
BY:	NO.	REVISION			

GRINDER PUMP STATION
PLAN AND DETAILS

600' SCALE MAP NO. 16 BLOCK NO. 9 & 10

ROBEY PUBLIC SAFETY
TRAINING CENTER
SEWER EXTENSION
CAPITAL PROJECTS No. S-6261
CONTRACT NO. 14-4577
ELECTION DISTRICT NO. 3 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 6 OF 7



PERMANENT SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:

- 1) PREFERRED -** APPLY 2 TONS PER ACRES DOLOMITIC LIMESTONE (92 LBS/1000 SQ FT.) AND 500 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ FT.) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS PER ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS/1000 SQ FT.).
- 2) ACCEPTABLE -** APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ FT.) AND 1000 LBS PER ACRE 10-10-10 FERTILIZER (22 LBS/1000 SQ FT.) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL.

SEEDING - FOR PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 1 THRU OCTOBER 15, SEED WITH 60 LBS PER ACRE (1.4 LBS/1000 SQ FT.) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THRU JULY 31, SEED WITH 60 LBS KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS PER ACRE (.05 LBS/1000 SQ FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 15 THRU FEBRUARY 28, PROTECT SITE BY OPTION (1) 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (2) USE SOD. OPTION (3) SEED WITH 60 LBS/ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS/ACRE WELL ANCHORED STRAW.

MULCHING - APPLY 1-1/2 TO 2 TONS PER ACRE (.70 TO 90 LBS/1000 SQ FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GAL/1000 SQ FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ FT.) FOR ANCHORING.

MAINTENANCE - INSPECT ALL SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

TEMPORARY SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.

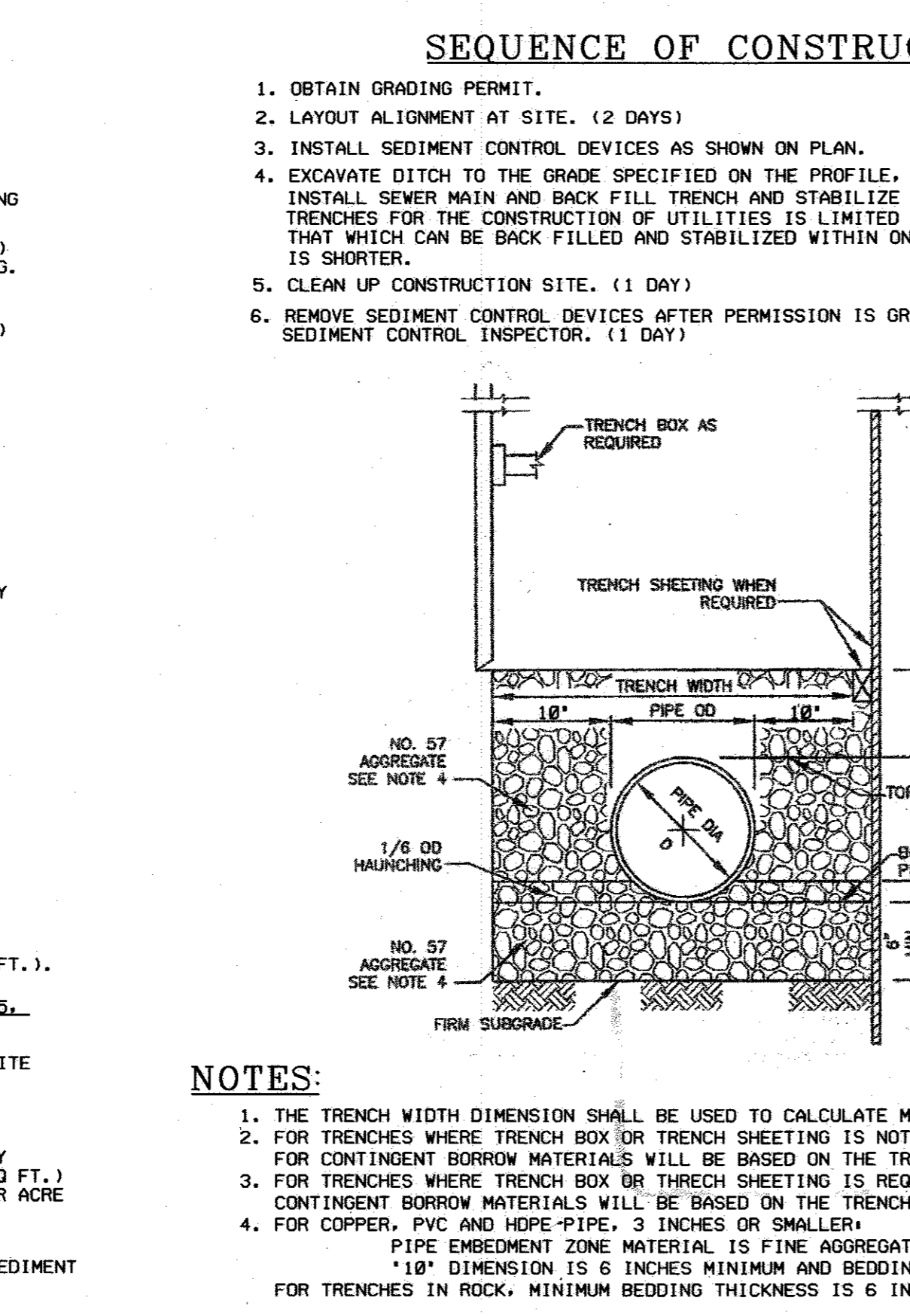
SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: - APPLY 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ FT.).

SEEDING: - FOR PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU OCTOBER 15, SEED WITH 2-1/2 BUSHEL PER ACRE OF ANNUAL RYE (3.2 LBS/1000 SQ FT.). FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS PER ACRE OF WEEPING LOVEGRASS (.07 LBS/1000 SQ FT.). FOR THE PERIOD NOVEMBER 15 THRU FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOD.

MULCHING - APPLY 1-1/2 TO 2 TONS PER ACRE (.70 TO 90 LBS/1000 SQ FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GAL PER ACRE (5 GAL/1000 SQ FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FT OR HIGHER, USE 348 GAL PER ACRE (8 GAL/1000 SQ FT.) FOR ANCHORING.

REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.



STANDARD SEDIMENT CONTROL NOTES

- A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION. (313-1895).
- ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT "MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL", AND REVISIONS THERETO.
- FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
 - 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1.
 - 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL (SEC. 620.8) FOR PERMANENT SEEDINGS, SOD, TEMPORARY SEEDING AND MULCHING. TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
- ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- SITE ANALYSIS:**

TOTAL AREA OF SITE	1.9 ACRES
AREA DISTURBED	1.7 ACRES
AREA TO BE ROOFED OR PAVED	N/A ACRES
AREA TO BE VEGETATIVELY STABILIZED	N/A ACRES
TOTAL CUT	N/A CU. YDS.
TOTAL FILL	N/A CU. YDS.
OFFSITE WASTE/BORROW AREA LOCATION	N/A
- ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF THE DISTURBANCE.
- ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
- TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE (3) PIPE LENGTHS OR THAT WHICH CAN BE BACK FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.
- CONTRACTOR SHALL PLACE EXCAVATED MATERIALS ON UPHILL SIDE OF TRENCH AND PLACE SILT FENCE ON DOWNHILL SIDE OF TRENCH.

BEST MANAGEMENT PRACTICE (BMP) NOTES

- NO EXCESS FILL, CONSTRUCTION MATERIAL, OR DEBRIS SHALL BE STOCKPILED OR STORED IN NONTIDAL WETLANDS, NONTIDAL WETLAND BUFFERS, WATERWAYS, OR THE 100 YEAR FLOODPLAIN.
- PLACE MATERIALS IN A LOCATION AND MANNER WHICH DOES NOT ADVERSELY IMPACT SURFACE OR SUBSURFACE WATER FLOW INTO OR OUT OF NONTIDAL WETLANDS, NONTIDAL WETLAND BUFFERS, WATERWAYS, OR THE 100 YEAR FLOODPLAIN.
- DO NOT USE THE EXCAVATED MATERIAL AS BACKFILL IF IT CONTAINS WASTE METAL PRODUCTS, UNSIGHTLY DEBRIS, TOXIC MATERIAL, OR ANY OTHER DELETERIOUS SUBSTANCE. IF ADDITIONAL BACKFILL IS REQUIRED USE CLEAN MATERIAL FREE OF WASTE METAL PRODUCTS, UNSIGHTLY DEBRIS, TOXIC MATERIAL, OR ANY OTHER DELETERIOUS SUBSTANCE.
- PLACE HEAVY EQUIPMENT ON MATS OR SUITABLY OPERATE THE EQUIPMENT TO PREVENT DAMAGE TO NONTIDAL WETLANDS, NONTIDAL WETLAND BUFFERS, WATERWAYS, OR THE 100 YEAR FLOODPLAIN.
- REPAIR AND MAINTAIN ANY SERVICEABLE STRUCTURE OR FILL SO THERE IS NO PERMANENT MODIFICATION OF THE 100 YEAR FLOODPLAIN IN EXCESS OF THAT LOST UNDER THE ORIGINALLY AUTHORIZED STRUCTURE OR FILL.
- RECTIFY ANY NONTIDAL WETLANDS, WETLAND BUFFERS, WATERWAYS, OR 100 YEAR FLOODPLAIN TEMPORARILY IMPACTED BY ANY CONSTRUCTION.
- ALL STABILIZATION IN THE NONTIDAL WETLAND AND NONTIDAL WETLAND BUFFER SHALL CONSIST OF THE FOLLOWING SPECIES: ANNUAL BREADGRASS (LIGULUM MULTIFLORUM), MILLET (SETARIA ITALICA), BARLEY (HORDEUM SP.), GOSS. LINDLERA SP.) AND/OR RYE (SECALE CEREALE). THESE SPECIES WILL ALLOW FOR THE STABILIZATION OF THE SITE WHILE ALSO ALLOWING FOR THE VOLUNTARY REVEGETATION OF NATURAL WETLAND VEGETATION. OTHER NON-PERSISTENT VEGETATION MAY BE ACCEPTABLE BUT MUST BE APPROVED BY THE NONTIDAL WETLANDS AND WATERWAYS DIVISION. KENTUCKY 31 FESCUE SHALL NOT BE UTILIZED IN WETLAND OR BUFFER AREAS. THE AREA SHOULD BE MULCHED AND MULCH TO REDUCE EROSION AFTER CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED.
- AFTER INSTALLATION HAS BEEN COMPLETED, MAKE POST CONSTRUCTION GRADES AND ELEVATIONS THE SAME AS THE ORIGINAL GRADES AND ELEVATIONS IN TEMPORARILY IMPACTED AREAS.
- TO PROTECT AQUATIC SPECIES, IN-STREAM WORK IS PROHIBITED AS DETERMINED BY THE CLASSIFICATION OF THE STREAM.

USE 1 WATERBODIES IN STREAM WORK SHALL NOT BE CONDUCTED DURING THE PERIOD MARCH 1 THROUGH JUNE 15, INCLUSIVE, DURING ANY YEAR.
- STORMWATER RUNOFF FROM IMPERVIOUS SURFACES SHALL BE CONTROLLED TO PREVENT THE WASHING OF DEBRIS INTO THE WATERWAYS.
- CULVERTS SHALL BE CONSTRUCTED AND ANY RIPRAP PLACED SO AS NOT TO OBSTRUCT THE MOVEMENT OF AQUATIC SPECIES, UNLESS THE PURPOSE OF THE ACTIVITY IS TO IMPOUND WATER.

DEVELOPER'S CERTIFICATION

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE ACCORDING TO THIS PLAN, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE THE SEDIMENT CONTROL INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."

Christopher L. Overcash 3/11/09
 CHRISTOPHER L. OVERCASH, P.E. DATE
 KCI TECHNOLOGIES, INC
 18 NORTH PARK DRIVE
 HUNT VALLEY, MD 21030

ENGINEER'S CERTIFICATION

"I/WE CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

Paul J. Ryan 5/5/09
 BUREAU OF ENGINEERING DATE
 DEPARTMENT OF PUBLIC WORKS

THIS DEVELOPMENT PLAN IS APPROVED FOR THE SOIL EROSION & SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

John P. Robertson 5/26/09
 APPROVED DATE
 HOWARD S.C.D.

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

Michael J. Steeles 5/5/09
 DIRECTOR OF PUBLIC WORKS DATE

Paul J. Ryan 5/5/09
 CHIEF, BUREAU OF ENGINEERING DATE

John P. Robertson 5/5/09
 CHIEF, UTILITY DESIGN DIVISION DATE

ENGINEERS
 PLANNERS
 SCIENTISTS
 CONSTRUCTION MANAGERS

KCI TECHNOLOGIES

10 NORTH PARK DRIVE
 HUNT VALLEY, MD 21030
 PHONE: (410) 316-7800
 FAX: (410) 316-7817
 WWW.KCI.COM

DES:	CLO			
DRN:	CK			
CHK:	TWW			
DATE:	DEC, 2008	BY	NO.	
				REVISION
				DATE

EROSION AND SEDIMENT CONTROL NOTES AND DETAILS

600' SCALE MAP NO. 16 BLOCK NO. 9 & 10

ROBEY PUBLIC SAFETY TRAINING CENTER
 SEWER EXTENSION
 CAPITAL PROJECTS No. S-6261
 CONTRACT No. 14-4577

ELECTION DISTRICT NO.3 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN SHEET 1 OF 1

PLOTTED: 04:09 PM on Tuesday, March 10, 2009
 By: Chandler, Kanta, Division: 002, Environmental Engineering
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