

# ALPHA RIDGE LANDFILL WATER EXTENSION

## 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(C) OF THE HOWARD COUNTY CODE.

## WATER GENERAL NOTES

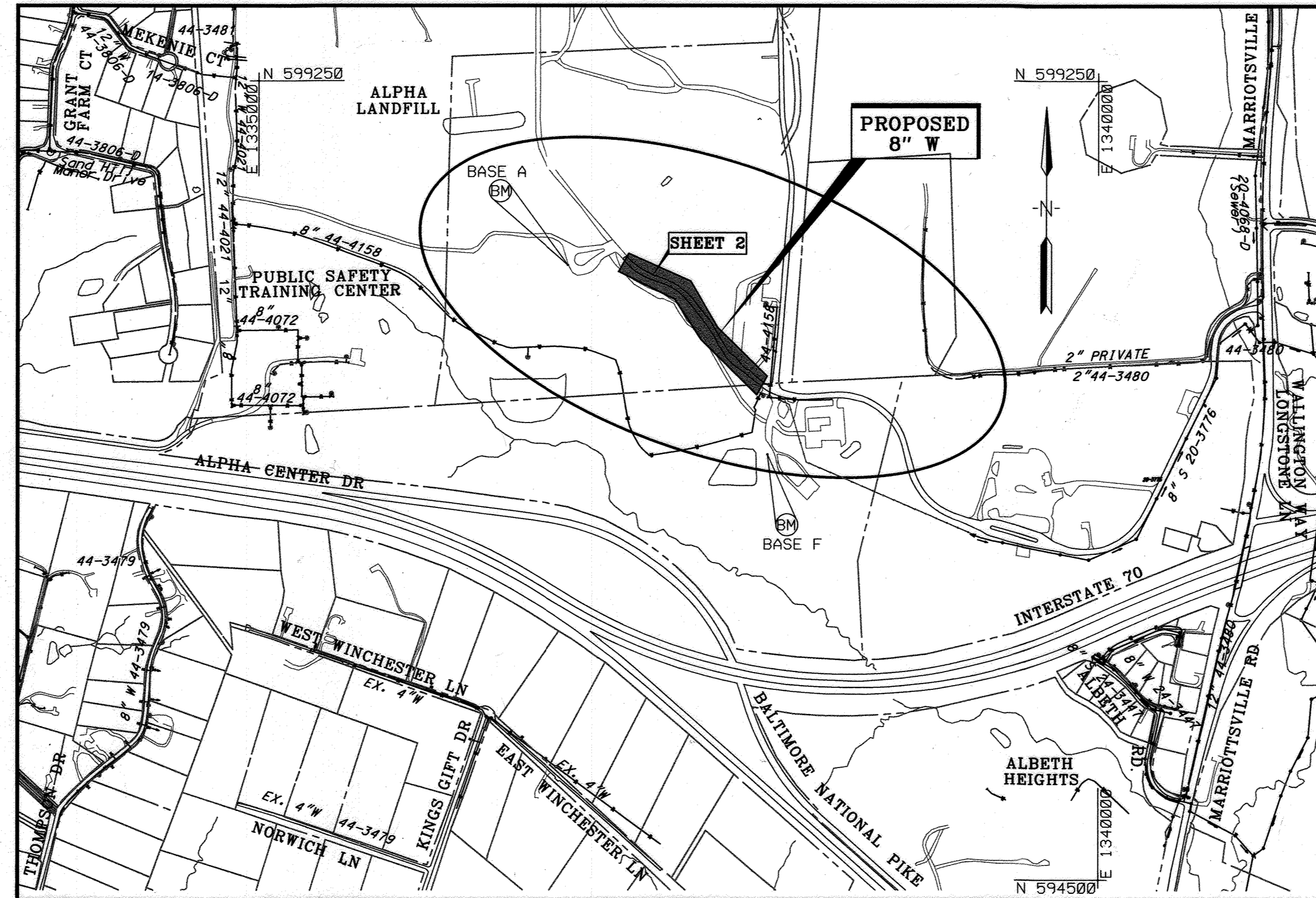
- ALL DUCTILE IRON PIPES TO BE USED ON THE PUBLIC WATER SYSTEM SHALL BE CLASS 54. DUCTILE IRON FITTINGS SHALL MEET THE REQUIREMENTS OF THE HOWARD COUNTY DESIGN MANUAL VOLUME IV-STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION AND SHALL BE EXTERIOR EPOXY COATED IN ACCORDANCE WITH AWWA C116.
- TOPS OF ALL WATER MAINS SHALL HAVE A MINIMUM OF 3'-6" OF COVER UNLESS OTHERWISE NOTED
- VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
- ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
- FIRE HYDRANTS SHALL BE SET TO BURY LINE ELEVATIONS SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE INSTALLED IN ACCORDANCE WITH STANDARD DETAILS. THE SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND SECTION 1005 OF THE STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
- WATER MAINS SHALL BE FILLED WITH WATER AND BROUGHT TO 150 PSI FOR 2 HOURS, VARYING 5 PSI. SEE HOWARD COUNTY DESIGN MANUAL.

### SUGGESTED SEQUENCE OF CONSTRUCTION FOR WATER

- CONSTRUCT NEW 8" DIP WATER MAIN AND ASSOCIATED APPURTENANCES FROM STA. 0+00 TO STA. 11+55. RESTRAIN JOINTS AS SHOWN ON THE DRAWING (SEE SHEET 2 OF 3).
- TEST THE NEW WATER MAIN PER HOWARD COUNTY STAND SPECIFICATIONS.
- CONNECT NEW 8" DIP WATER MAIN TO EX. 8" WATER MAIN WITH NEW 8"x8" CROSS AT STA. 11+22. COORDINATE TEMPORARY SHUTDOWN WITH ALPHA RIDGE LANDFILL FOR CONNECTION.
- RESTORE AREA.

## HOWARD COUNTY, MARYLAND DEPARTMENT OF PUBLIC WORKS

CAPITAL PROJECTS No. W-8288  
CONTRACT NO. 14-4588



### 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

## INDEX OF SHEETS

SHEET No.	DESCRIPTION
1.....	TITLE SHEET
2.....	8" WATER LINE PLAN AND PROFILE
3.....	EROSION AND SEDIMENT CONTROL NOTES AND DETAILS
4.....	WATER MAIN PLAN AND PROFILES - COMPOST FACILITY PHASE IIA
5.....	WATER MAIN PLAN AND PROFILE - COMPOST FACILITY PHASE IIB
6.....	WATER MAIN PIPE PLAN AND PROFILE - COMPOST FACILITY PHASE IIC (FUTURE)

## QUANTITIES

ITEM	UNIT	ESTIMATE	AS-BUILT	MATERIAL SUPPLIER
8" WATER	L.F.	1157	1151	BRS/GRIFFIN PIPE
8" RSGV	EACH	4	4	BRS/MUELLER CO.
NAME OF UTILITY CONTRACTOR: W.F. WILSON & SONS, INC.				
FIRE HYDRANT & VALVE	EACH	1	1	BRS/MUELLER CO.

## RESTORATION SCHEDULE

LOCATION	DISTANCE (FT.)	TYPE
UNPAVED PRIVATE ROAD (SH. 2 OF 3)	17	GRAVEL
PAVED PRIVATE ROAD (SH. 2 OF 3)	44	ASPHALT
WL STA. 0+00 TO STA. 11+57	1157	MULCH & SEEDING

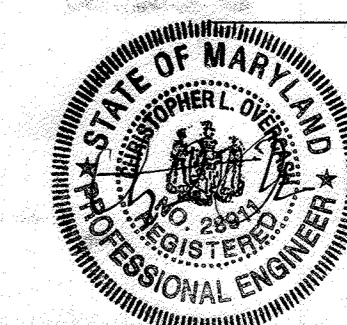
TYPE OF BUILDING:	N/A
NUMBER OF PARCELS:	N/A
DRAINAGE AREA:	LITTLE PATUXENT
PRESSURE ZONE:	730'
WATER TEST GRADIENT	1000'

## LEGEND

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

**AS-BUILT**

DATE 1/6/09



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.: 28311 EXPIRATION DATE: 1/11/10

PLOTTED: 09:31 AM on Wednesday, August 06, 2008  
BY: Jordan Wolfe, Division 0102, Environmental Engineering  
FILE: W:\2008\14-4588\215-08\215-08.dwg

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*James J. Staloe* 8/15/08  
DIRECTOR OF PUBLIC WORKS DATE

*Robert J. Johnson* 8/15/08  
CHIEF, BUREAU OF ENGINEERING DATE

*Shirley S. Coon* 8/15/08  
CHIEF, BUREAU OF UTILITIES DATE

*John J. Johnson* 8/15/08  
CHIEF, UTILITY DESIGN DIVISION DATE

ENGINEERS  
PLANNERS  
SCIENTISTS  
CONSTRUCTION MANAGERS

**KCI**  
TECHNOLOGIES

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www.kci.com

DES: CLO			
DRN: CK			
CHK: TWW	CVH	REVISIONS TO INCLUDE WATER SERVICE TO COMPOST FACILITY	04/20/02
DATE: DEC. 2007	LFN	AS BUILT - DBW 1/6/09	
BY: NO.		REVISION	DATE

TITLE SHEET

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

ALPHA RIDGE LANDFILL  
WATER EXTENSION

CAPITAL PROJECTS No. W-8288, C-0299  
CONTRACT NO. 14-4588

ELECTION DISTRICT NO.3 HOWARD COUNTY, MARYLAND

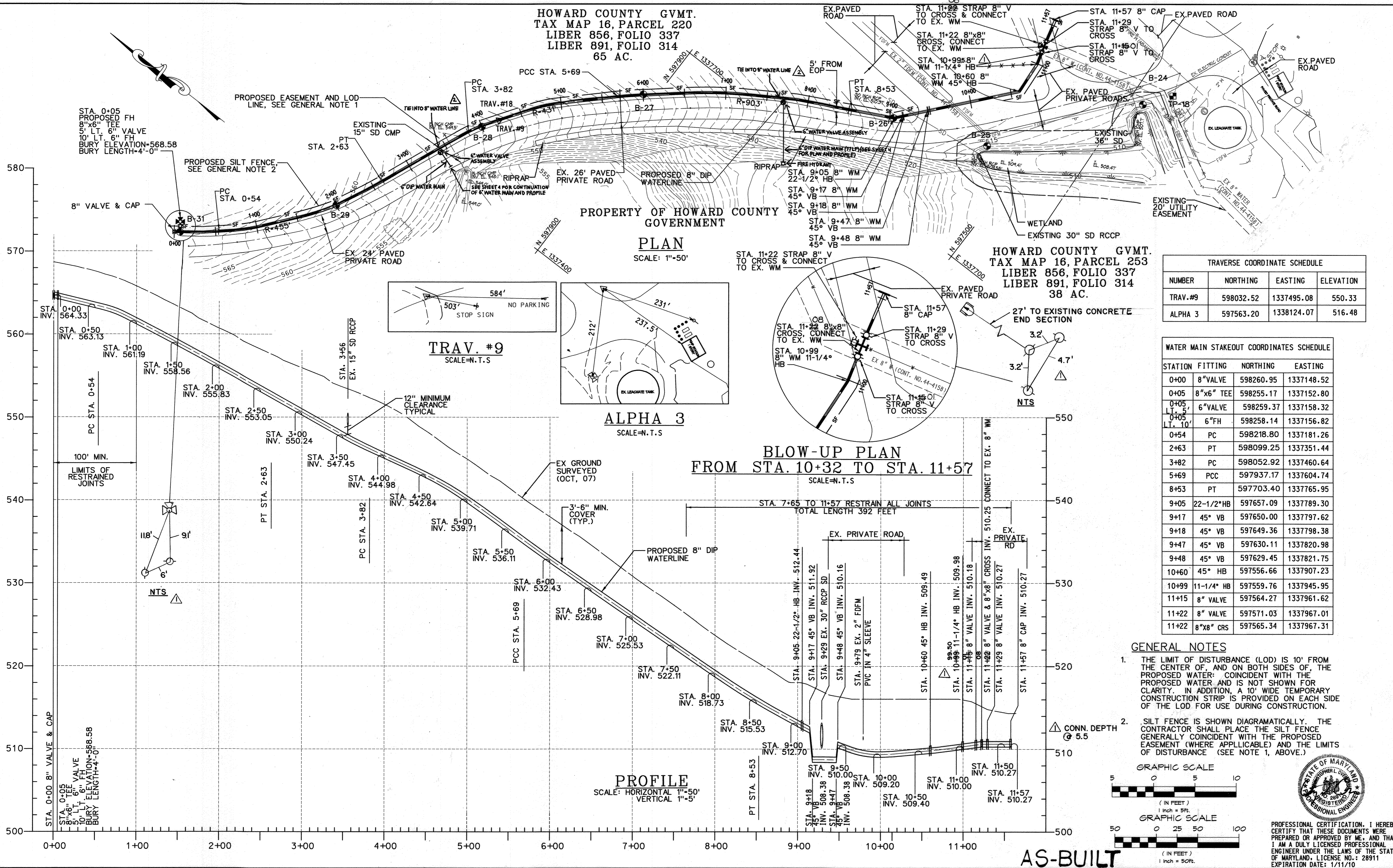
SCALE AS SHOWN

SHEET 6 OF 6



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

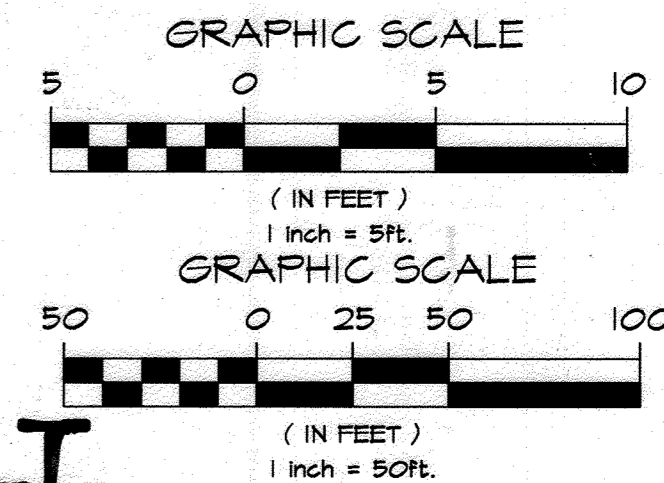
HOWARD COUNTY GVMT.  
TAX MAP 16, PARCEL 253  
LIBER 856, FOLIO 337  
LIBER 891, FOLIO 314  
38 AC.



TRAVERSE COORDINATE SCHEDULE			
NUMBER	NORTHING	EASTING	ELEVATION
TRAV.#9	598032.52	1337495.08	550.33
ALPHA 3	597563.20	1338124.07	516.48

WATER MAIN STAKEOUT COORDINATES SCHEDULE			
STATION	FITTING	NORTHING	EASTING
0+00	8" VALVE	598260.95	1337148.52
0+05	8"x6" TEE	598255.17	1337152.80
0+05	6" VALVE	598259.37	1337158.32
0+05	LT. 6"	598258.14	1337156.82
0+54	PC	598218.80	1337181.26
2+63	PT	598099.25	1337351.44
3+82	PC	598052.92	1337460.64
5+69	PCC	597937.17	1337604.74
8+53	PT	597703.40	1337765.95
9+05	22-1/2" HB	597657.09	1337789.30
9+17	45° VB	597650.00	1337797.62
9+18	45° VB	597649.36	1337798.38
9+47	45° VB	597630.11	1337820.98
9+48	45° VB	597629.45	1337821.75
10+60	45° HB	597556.66	1337907.23
10+99	11-1/4" HB	597559.76	1337945.95
11+15	8" VALVE	597564.27	1337961.62
11+22	8" VALVE	597571.03	1337967.01
11+22	8"x8" CRS	597565.34	1337967.31

- GENERAL NOTES**
- THE LIMIT OF DISTURBANCE (LOD) IS 10' FROM THE CENTER OF, AND ON BOTH SIDES OF, THE PROPOSED WATER. COINCIDENT WITH THE PROPOSED WATER AND IS NOT SHOWN FOR CLARITY. IN ADDITION, A 10' WIDE TEMPORARY CONSTRUCTION STRIP IS PROVIDED ON EACH SIDE OF THE LOD FOR USE DURING CONSTRUCTION.
  - 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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DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*John J. DeStefano*  
DIRECTOR OF PUBLIC WORKS  
DATE: 8/15/08

*Paul J. Johnson*  
CHIEF, BUREAU OF ENGINEERING  
DATE: 8/15/08

*Steve C. Brown*  
CHIEF, BUREAU OF UTILITIES  
DATE: 8/15/08

*John J. DeStefano*  
CHIEF, UTILITY DESIGN DIVISION  
DATE: 8/15/08

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WWW.KCI.COM

DES:	CLD				
DRN:	CK				
CHK:	TWW				
DATE:	DEC. 2007				
BY:	NO.	REVISION	DATE		
		REVISIONS TO INCLUDE WATER SERVICE TO COMPOST FACILITY	09/2011		
		FIXED AS-BUILT STATION BLIST	6/09		
		AS BUILT - DBW 1/6/09			

8" WATER LINE  
PLAN AND PROFILE

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

ALPHA RIDGE LANDFILL  
WATER EXTENSION

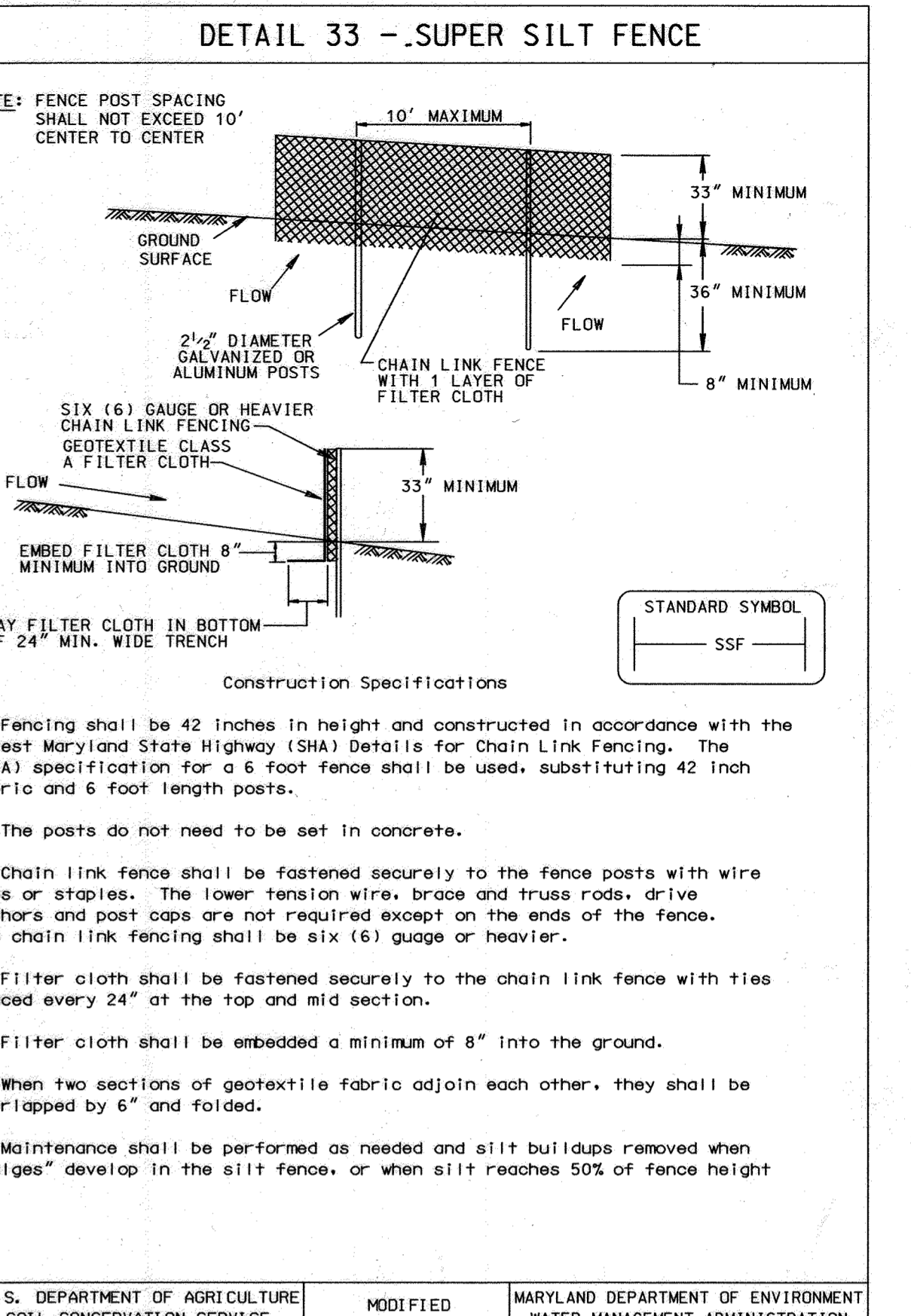
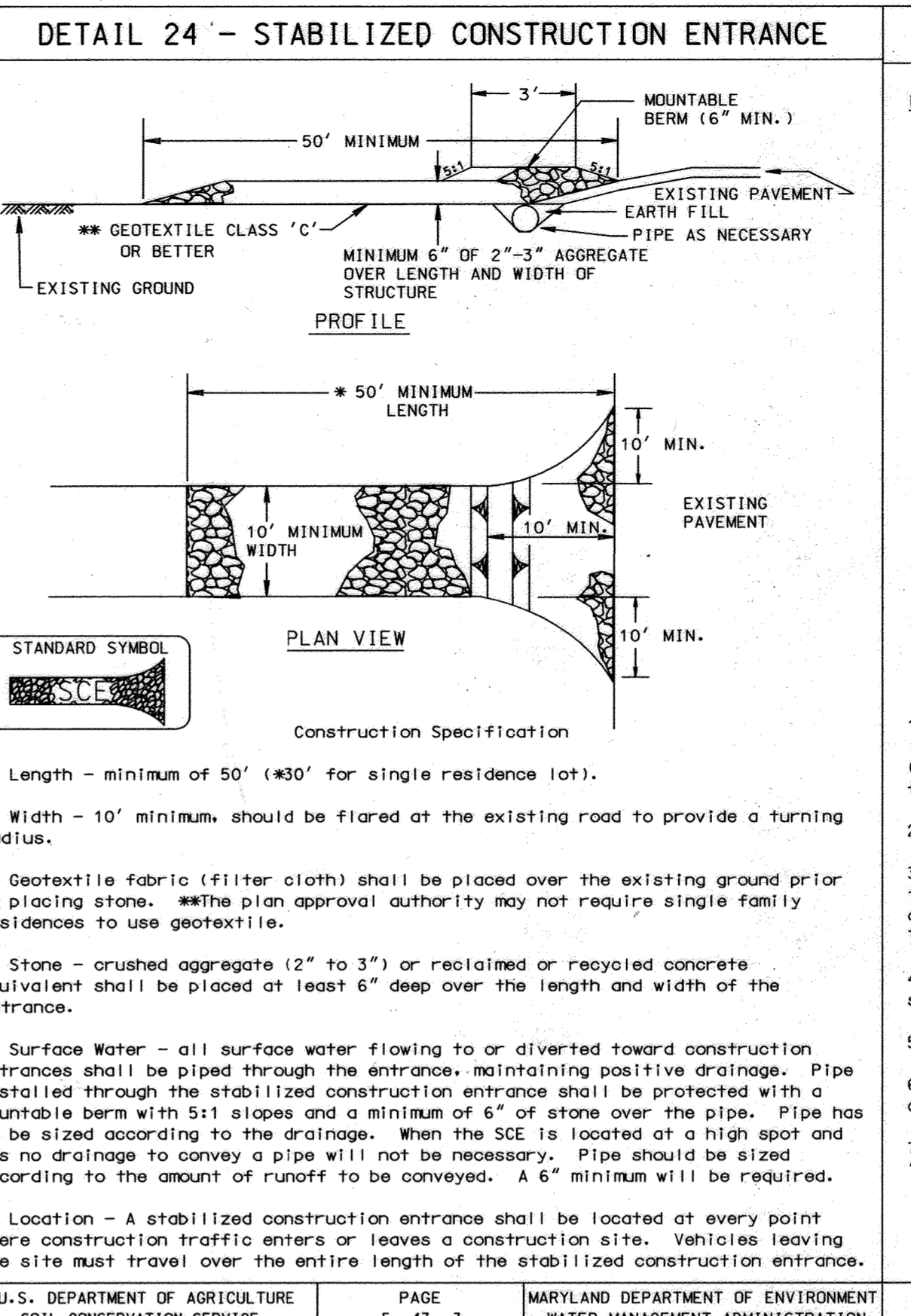
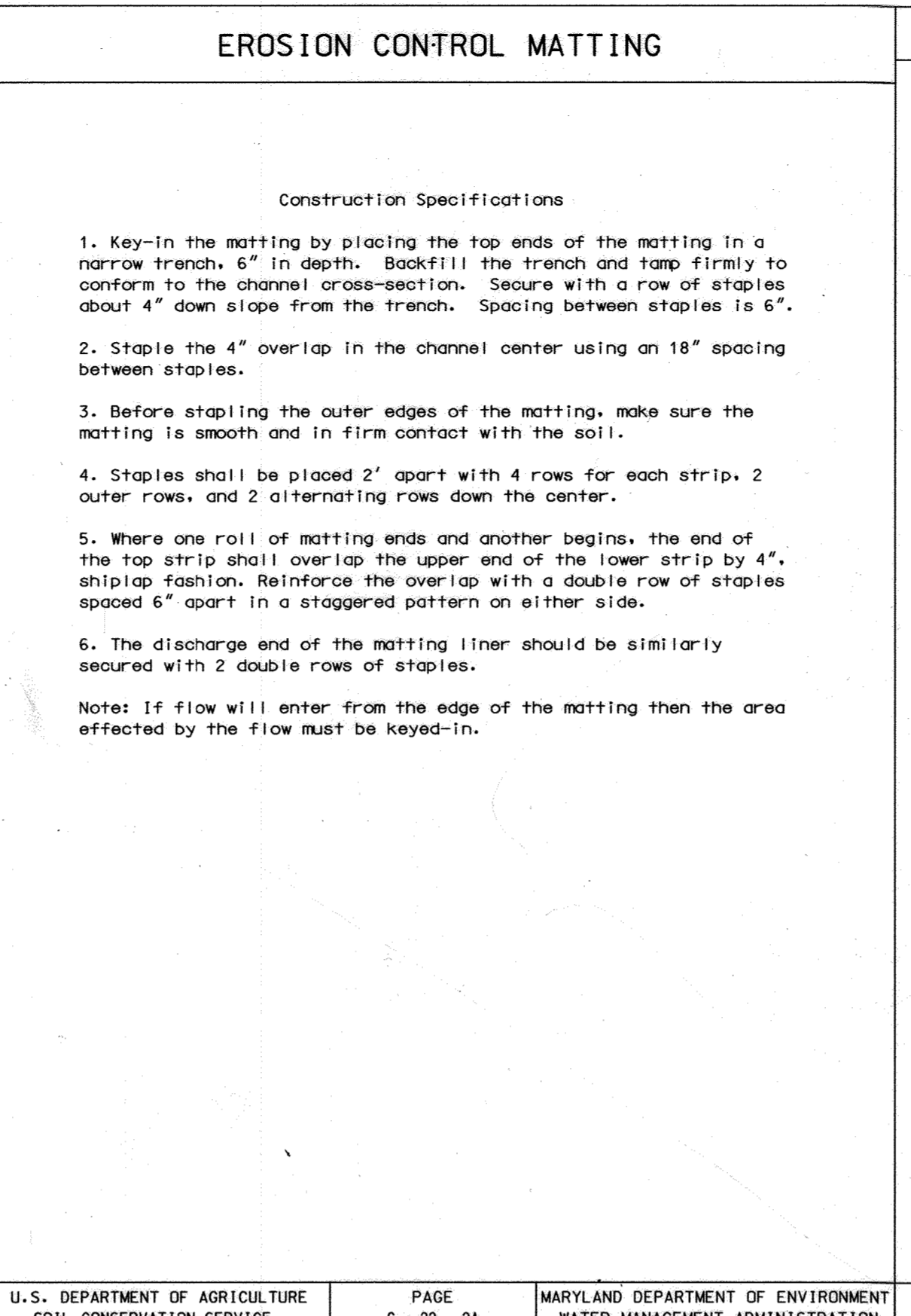
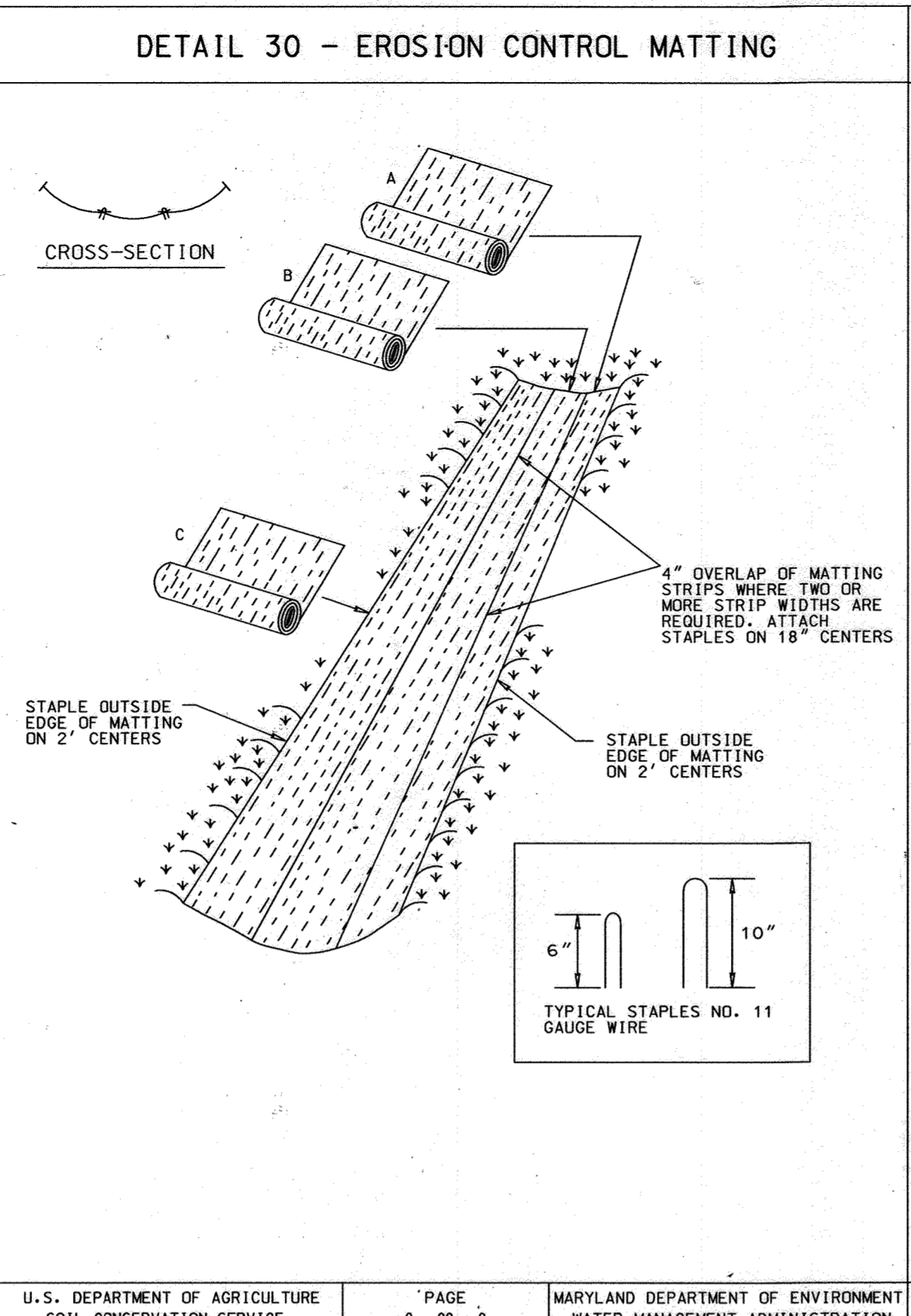
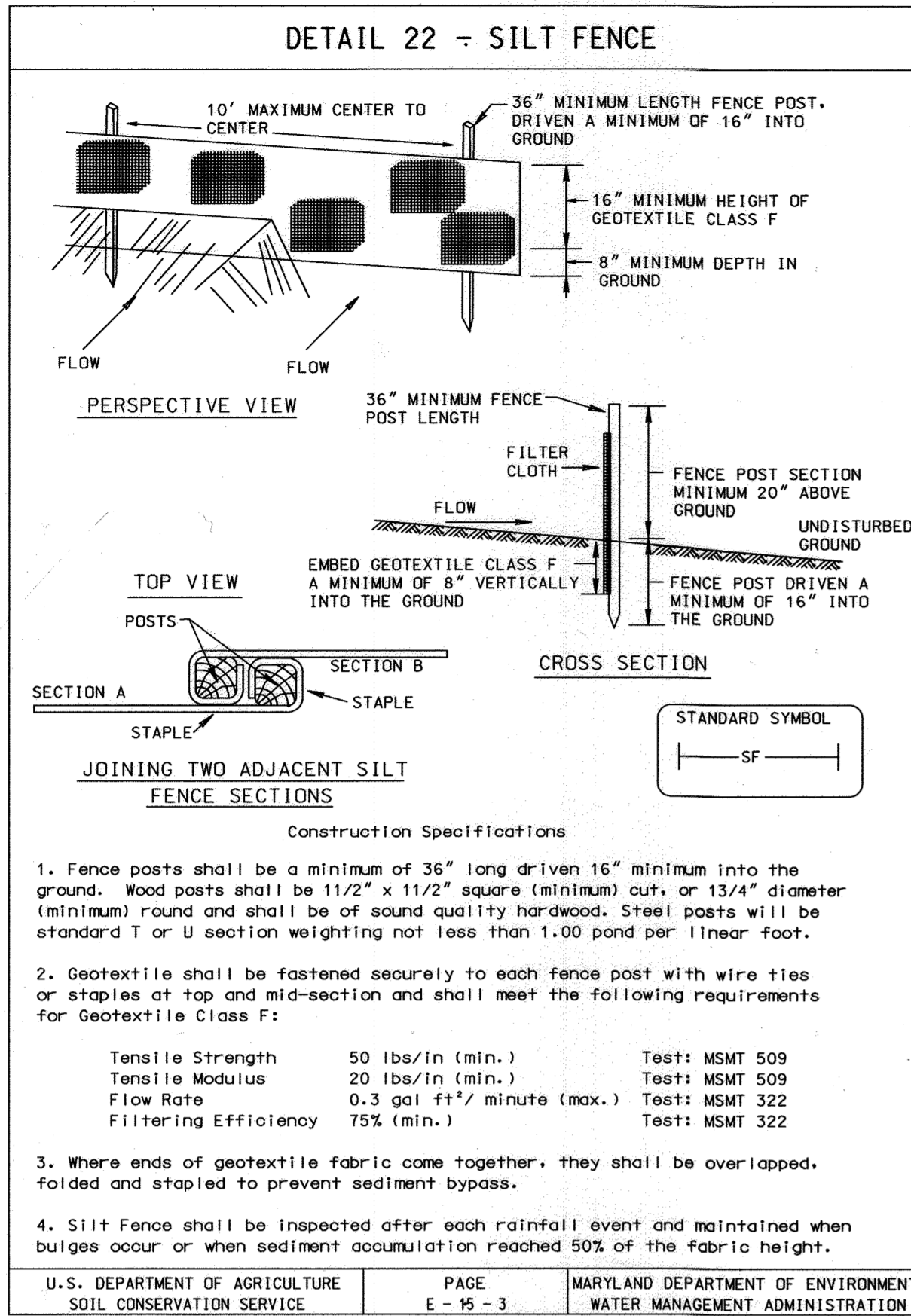
CAPITAL PROJECTS No. W-8288, C-0299  
CONTRACT NO. 14-4588

ELECTION DISTRICT NO.3 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN SHEET 6 OF 2

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U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE E-15-3	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION
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U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE G-22-2	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION
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U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE F-47-3	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION
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U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	MODIFIED	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION
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NOTE: SCE TO BE INSTALLED AT THE DIRECTION OF THE SOIL CONSERVATION INSPECTOR.

### 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:

- 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.)
- ACCEPTABLE -** APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ FT.) AND 1000 LBS PER ACRE 10-10-10 FERTILIZER (23 LBS/1000 SQ FT.) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL.

**SEEDING -** FOR THE 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 16 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 (6 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.).

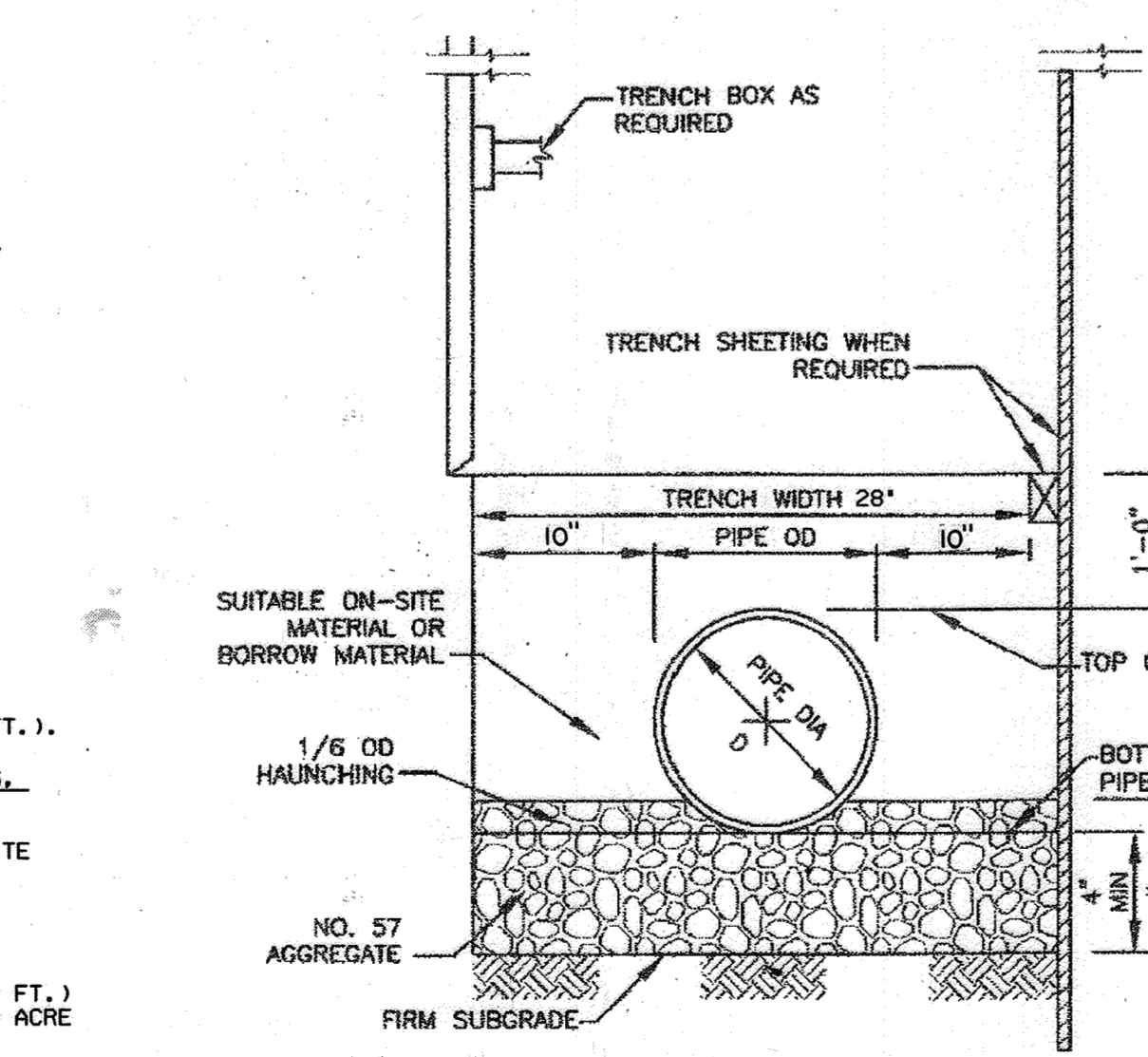
**SEEDING -** FOR PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU OCTOBER 15, SEED WITH 2-1/2 BUSHEL PER ACRE OF ANNUAL RYE (3.2 LBS/1000 SQ FT.). FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS PER ACRE OF WEEPING LOVEGRASS (.07 LBS/1000 SQ FT.). FOR THE PERIOD NOVEMBER 16 THRU FEBRUARY 28, 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 (6 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.

### SEQUENCE OF CONSTRUCTION

- OBTAIN GRADING PERMIT.
- LAYOUT ALIGNMENT AT SITE. (2 DAYS)
- INSTALL SEDIMENT CONTROL DEVICES AS SHOWN ON PLAN.
- EXCAVATE DITCH TO THE GRADE SPECIFIED ON THE PROFILE. INSTALL SEWER MAIN AND BACK FILL TRENCH AND STABILIZE IN KIND (45 DAYS) TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO 28' OF PIPE LENGTH OR THAT WHICH CAN BE BACK FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.
- CLEAN UP CONSTRUCTION SITE. (1 DAY)
- REMOVE SEDIMENT CONTROL DEVICES AFTER PERMISSION IS GRANTED BY THE SEDIMENT CONTROL INSPECTOR. (1 DAY)



\* FOR TRENCHES IN ROCK, MINIMUM BEDDING DEPTH IS 6 INCHES. FOR RCP 96 INCHES AND GREATER, MINIMUM BEDDING DEPTH IS 12 INCHES.

### 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. (313-1855).
- 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. I, 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. G20.0) 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	0.6 ACRES	
AREA TO BE ROOFED OR PAVED	0.5 ACRES	N/A ACRES
AREA TO BE VEGETATIVELY STABILIZED	N/A	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 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 RYEGRASS (LOLIUM MULTIFLORUM), MILLET (SETARIA ITALICA), BARLEY (HORDEUM SP.), OATS (Avena 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 SPECIES. 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 SEED AND MULCHED 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 MATERS\* IN STREAM WORK SHALL NOT BE CONDUCTED DURING THE PERIOD MARCH 1 THROUGH JUNE 15, INCLUSIVE, DURING ANY YEAR.
- STORMWATER RUNOFF FROM IMPROVED 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 ENGINEER'S CERTIFICATION

\*I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY 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 PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

*Robert J. ...* 8/15/08  
BUREAU OF ENGINEERING DEPARTMENT OF PUBLIC WORKS

*Ch. 2 On* 8/6/08  
CHRISTOPHER L. OVERCASH, P.E. DATE  
KCI TECHNOLOGIES, INC. 18 NORTH PARK DRIVE HUNT VALLEY, MD 21138

**AS-BUILT**  
DATE 1/6/09

STATE OF MARYLAND  
REGISTERED PROFESSIONAL ENGINEER

*John R. ...* 8/27/08  
APPROVED  
HOWARD S.C.D.

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*Shah ...* 8/15/08  
DIRECTOR OF PUBLIC WORKS DATE

*Robert J. ...* 8-15-08  
CHIEF, BUREAU OF UTILITIES DATE

*Robert J. ...* 8/15/08  
CHIEF, BUREAU OF ENGINEERING DATE

*Robert J. ...* 8-15-08  
CHIEF, UTILITY DESIGN DIVISION DATE

ENGINEERS  
PLANNERS  
SCIENTISTS  
CONSTRUCTION MANAGERS

**KCI TECHNOLOGIES**

10 NORTH PARK DRIVE  
HUNT VALLEY, MD 21130  
PHONE (410) 316-7800  
FAX (410) 316-7817  
WWW.KCI.COM

DES: CLO			
DRN: CK			
CHK: TWW			
DATE: DEC. 2007			
BY NO.			

EROSION AND SEDIMENT CONTROL NOTES AND DETAILS	
REVISIONS TO INCLUDE WATER SERVICE TO COMPOST FACILITY	04/2013
AS BUILT - DBW 11/01/09	
REVISION	
DATE	600' SCALE MAP NO. 16
DATE	BLOCK NO. 9 & 10

ALPHA RIDGE LANDFILL  
WATER EXTENSION

CAPITAL PROJECTS No. W-8288, C-0299  
CONTRACT NO. 14-4588

ELECTION DISTRICT NO.3 HOWARD COUNTY, MARYLAND

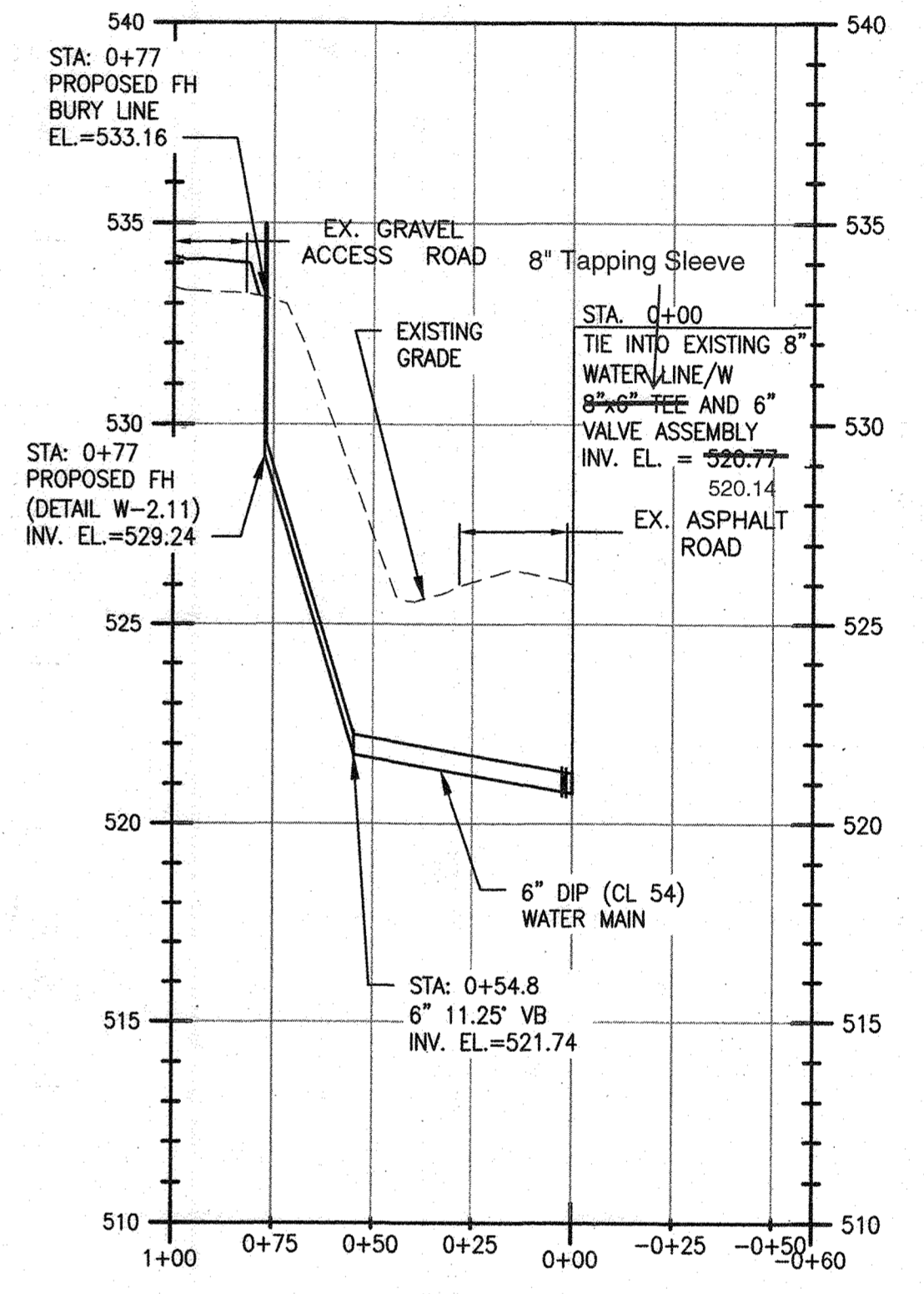
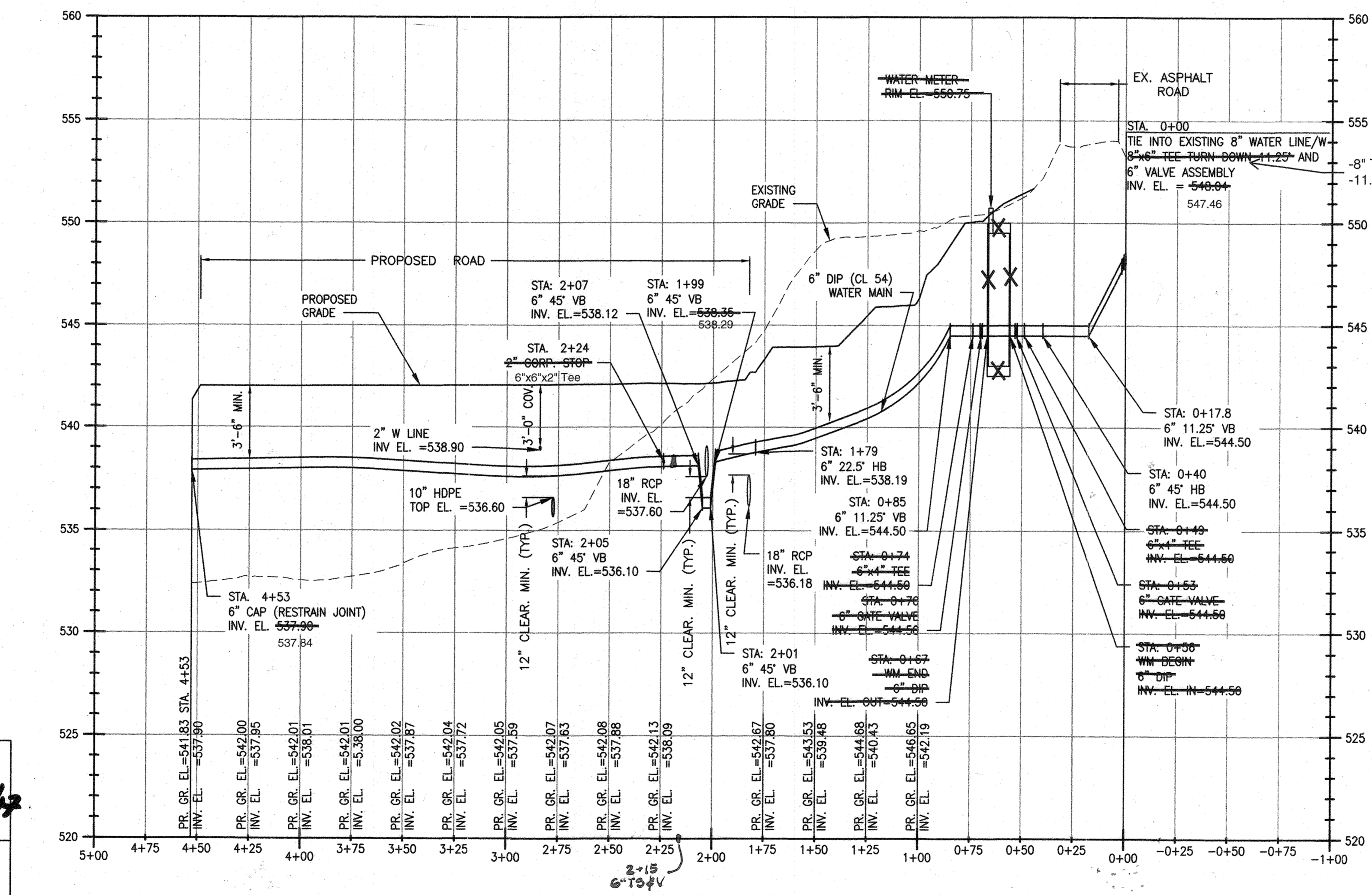
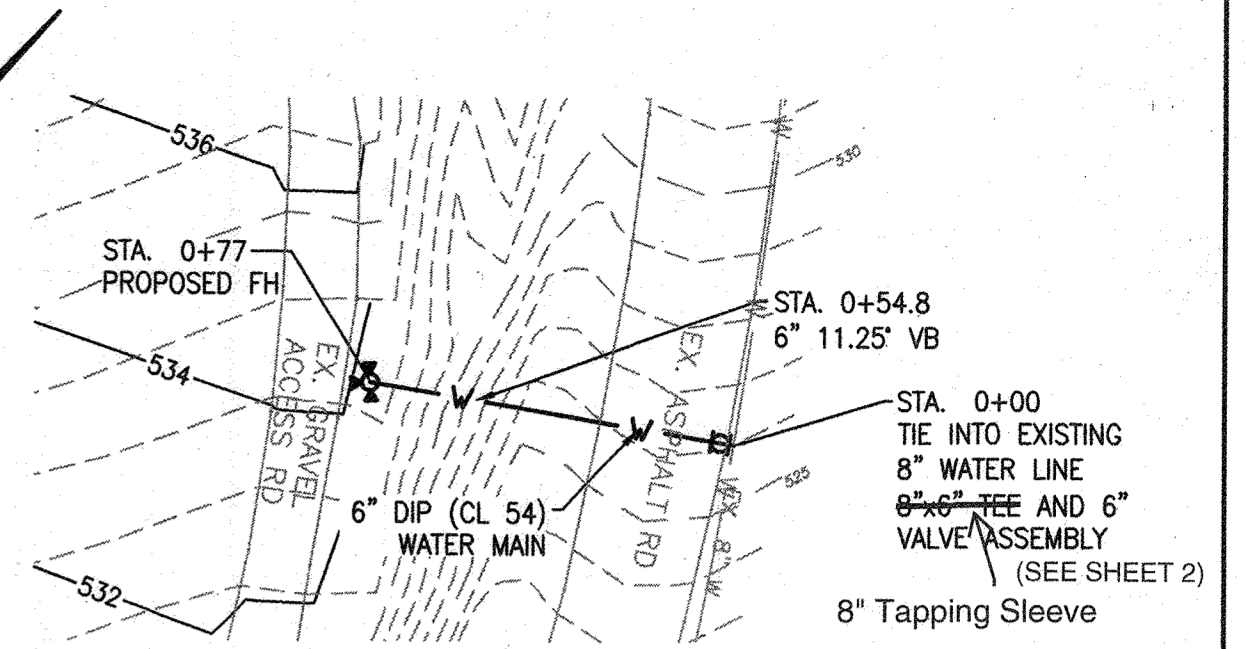
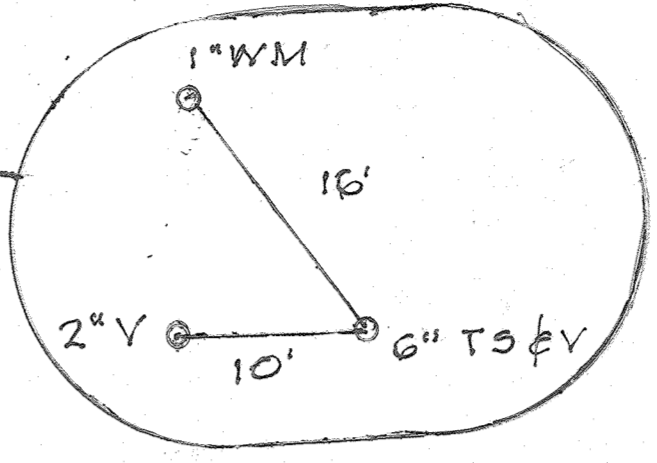
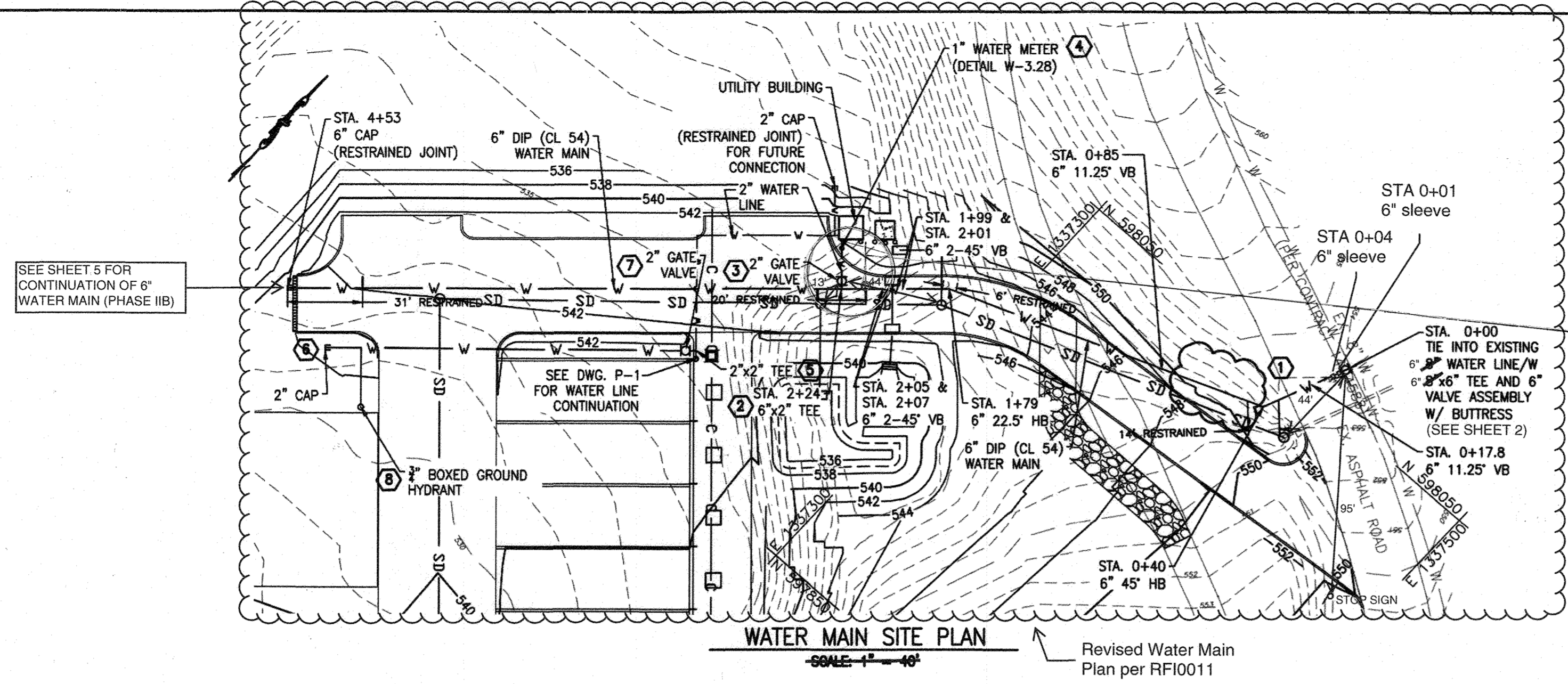
SCALE AS SHOWN

SHEET 6

3 OF 2

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By: Jordan Wolf, Division 0102, Environmental Engineering  
File: M:\2008\10242349\25 Drawings\AT-C-03-03-04-25SED.dwg





APPROVED: DEPARTMENT OF PUBLIC WORKS  
*Charles S. Bepko* 6/20/17  
CHIEF, BUREAU OF UTILITIES

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
\_\_\_\_\_  
DIRECTOR DATE

CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

CHIEF, DIVISION OF LAND DEVELOPMENT DATE

**DHILLON ENGINEERING, INC.**  
10902 REISTERSTOWN ROAD, # 204  
OWINGS MILLS, MD 21117



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. 8020, EXPIRATION DATE 08/19/2017.

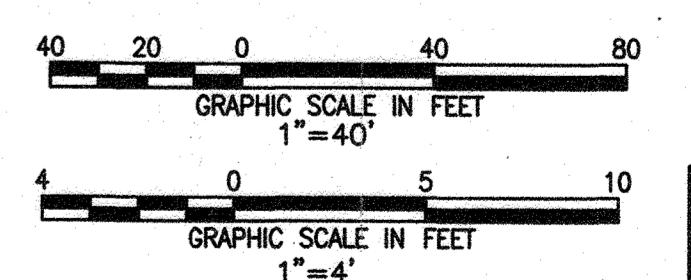


DSN. BY: LMB/MM	
DRN. BY: MM	
CHK. BY: AM	
DATE: JUNE 2017	
BY NO.	REVISION
	DATE

**WATER MAIN PLAN AND PROFILES**

**AS-BUILT CERTIFICATION**  
I hereby certify that to the best of my knowledge and belief that the facilities shown on this plan were constructed as shown on this "AS-BUILT" plan meet the Approved Plans and Specifications

*Daryl Glangloff*  
Daryl Glangloff - Project Engineer  
1/9/2016



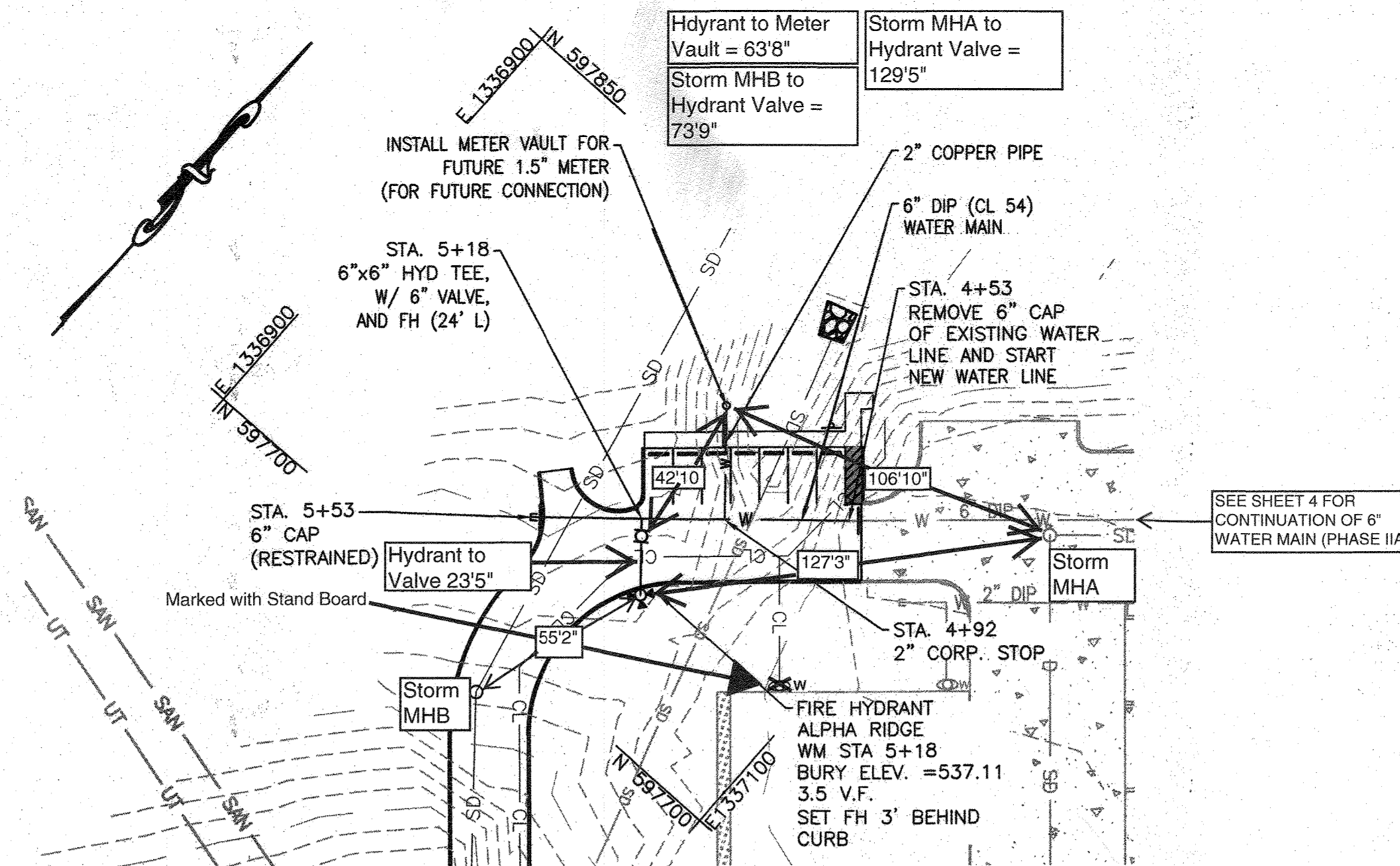
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ZONING: RC-DEO PARCEL/LOT: 220, 253, 11, 23, 54  
TAX MAP: 0016 ELECTION DISTRICT: 3-02

*John E. Daniels*  
DIVISION CHIEF - BUREAU OF ENVIRONMENTAL SERVICES OPERATIONS  
DATE: 6/20/17

DRAWING: C-8  
PROJECT: 14982.05  
SHEET: 4 OF 6  
11 OF 54

ALPHA RIDGE LANDFILL WATER EXTENSION  
COMPOST FACILITY - PHASE IIA  
AT ALPHA RIDGE LANDFILL  
HOWARD COUNTY, MARYLAND  
CAPITAL PROJECT NO. C-0299  
CONTRACT NO. 14-4588

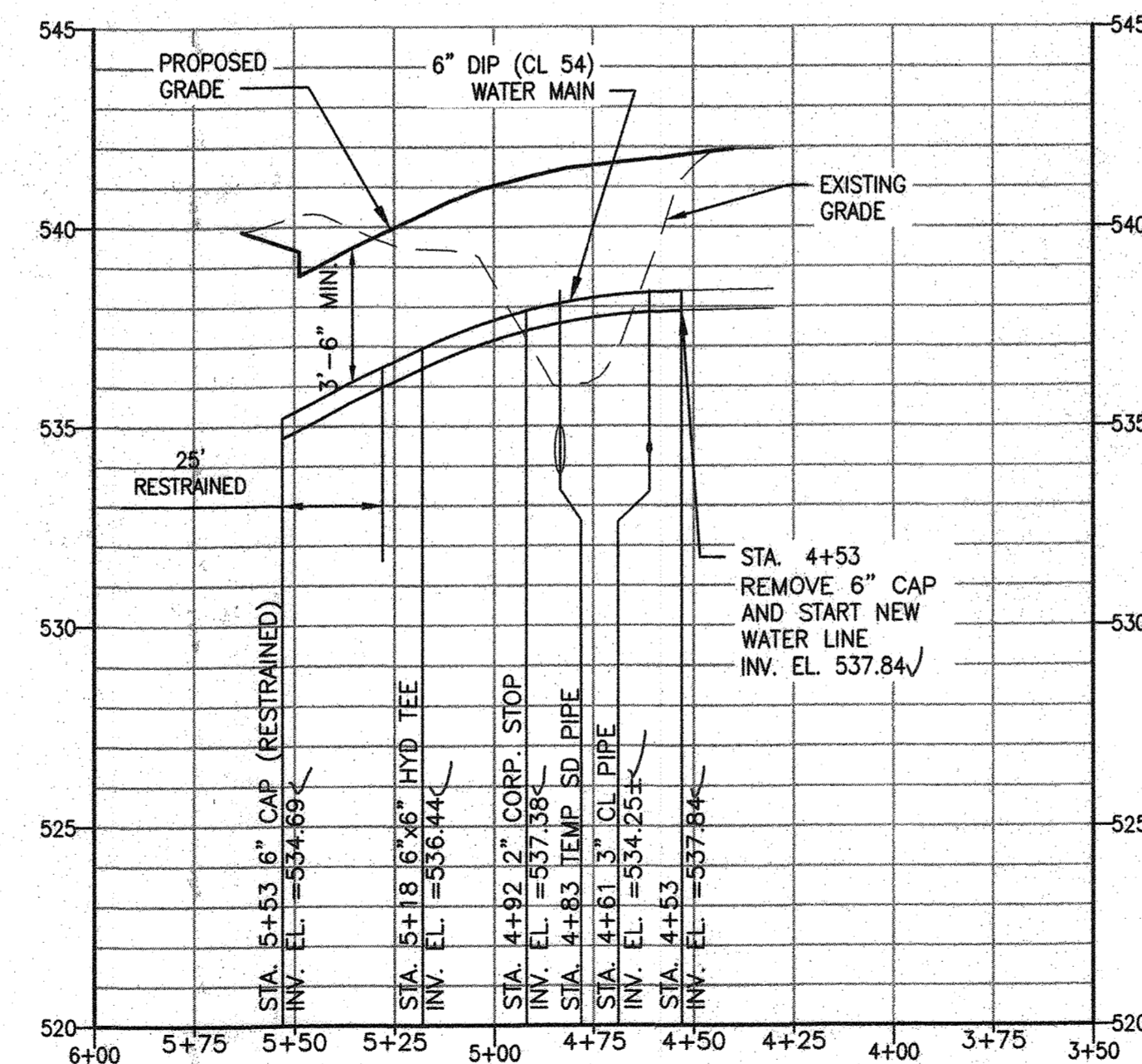




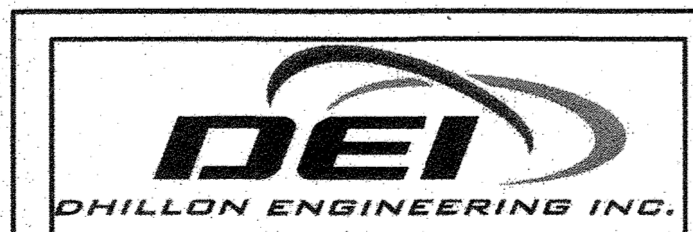
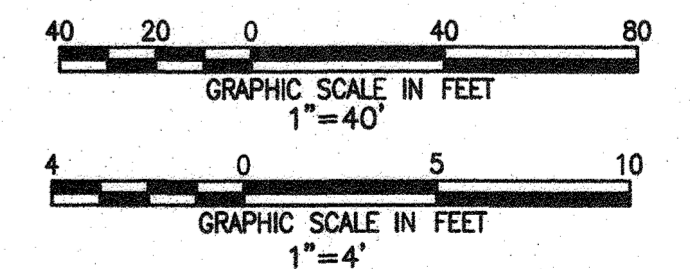
**1 WATER MAIN SITE PLAN**  
SCALE: 1" = 40'

**WATER CONSTRUCTION NOTES:**

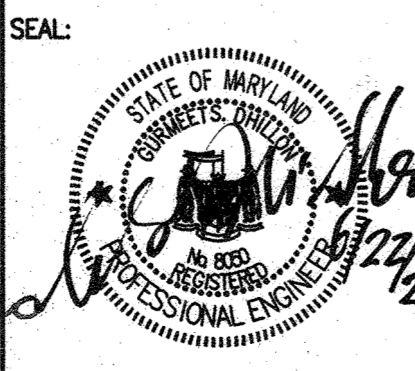
1. ALL WATER MAINS SHALL BE D.I.P. CLASS 54 UNLESS OTHERWISE NOTED.
2. TOPS OF ALL WATER MAINS SHALL HAVE A MINIMUM OF 3'-6" OF COVER UNLESS OTHERWISE NOTED.
3. VALVES ADJACENT TO TEES SHALL BE STRAPPED TO THE TEES.
4. ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON DRAWINGS.
5. FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATIONS SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE INSTALLED IN ACCORDANCE WITH STANDARD DETAILS. THE SOIL AROUND THE FIRE HYDRANTS SHALL BE COMPACTED IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL VOLUME IV (LATEST EDITION).
6. THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.



**2 6" DIP WATER MAIN PROFILE**  
SCALE: HORIZ. 1" = 40'  
SCALE: VERT. 1" = 4'



APPROVED: DEPARTMENT OF PUBLIC WORKS  
*[Signature]*  
CHIEF, BUREAU OF UTILITIES  
DATE: 6-24-2020



**PROFESSIONAL CERTIFICATION:**  
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. 8050, EXPIRATION DATE 08/19/2021.

**EA ENGINEERING, SCIENCE, AND TECHNOLOGY**

DSN. BY: LMB/MM	
DRN. BY: MM	
CHK. BY: AM	
DATE: MAY 2020	
BY NO.	REVISION
	DATE

GRID: 8  
ZONING: RC-DEO  
TAX MAP: 0016

BLOCK: N/A  
PARCEL/LOT: 220, 253, 11, 23, 54  
ELECTION DISTRICT: 3-02

*[Signature]*  
DIVISION CHIEF, BUREAU OF ENVIRONMENTAL SERVICES OPERATIONS  
DATE: 6/24/2020

AS-BUILT DRAWING

WATER MAIN PLAN AND PROFILE

ALPHA RIDGE LANDFILL WATER EXTENSION  
COMPOST FACILITY - PHASE IIB  
AT ALPHA RIDGE LANDFILL  
HOWARD COUNTY, MARYLAND  
CAPITAL PROJECT NO. C-0299  
CONTRACT NO. 14-4588

DRAWING: C-8  
PROJECT: 15564.05  
SHEET: 5 OF 6  
44 OF 38