

SHEET INDEX

SHEET	DESCRIPTION
1	COVER SHEET
2	WATER AND SEWER PLAN
3	WATER AND SEWER PROFILES
4	FENCE LAYOUT PLAN

EMERSON PARCEL F

TAX MAP 47

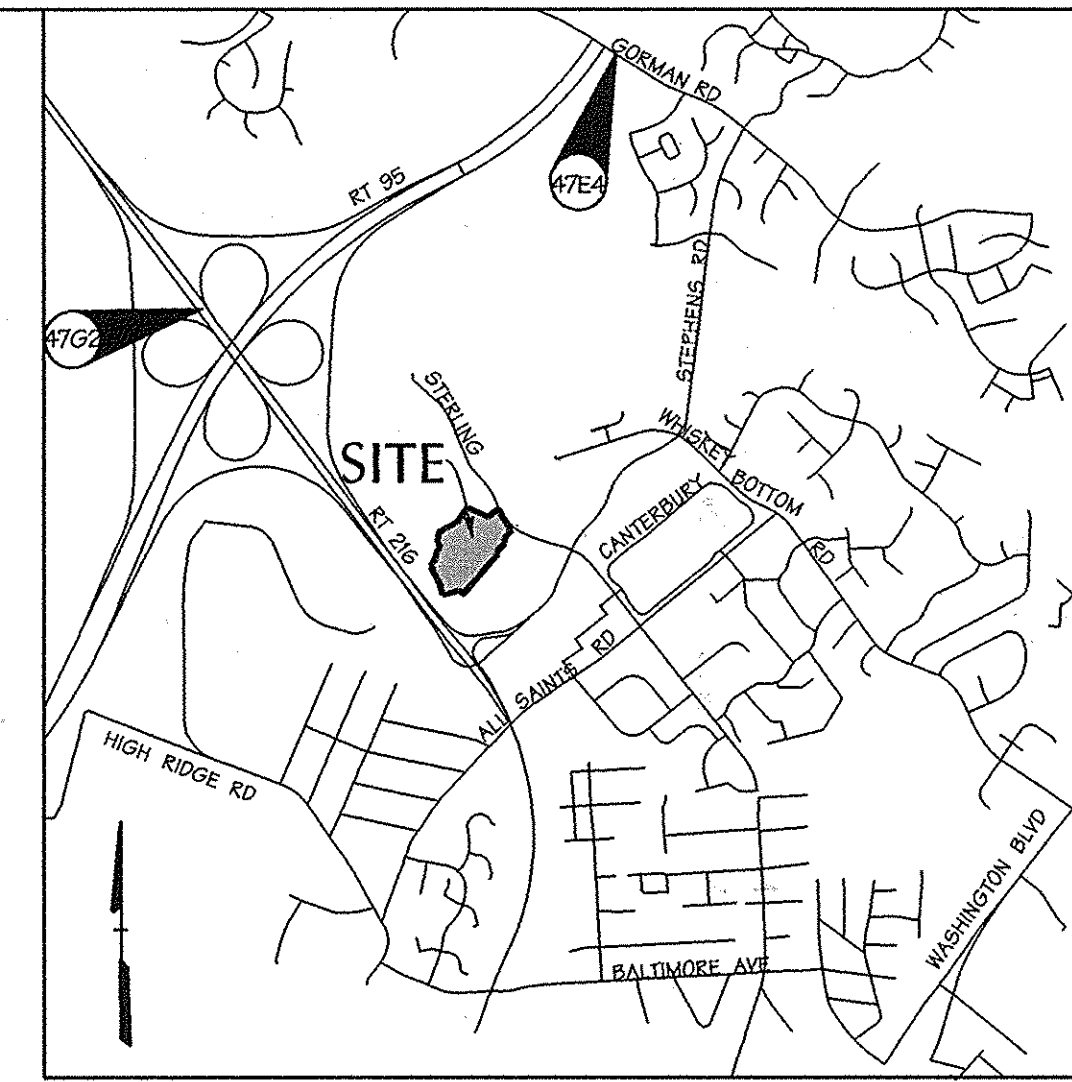
PARCEL 165

6th ELECTION DISTRICT

WATER & SEWER CONSTRUCTION PLANS

Howard County, Maryland Department of Public Works

CONTRACT NO. 24-4683-D



LOCATION MAP

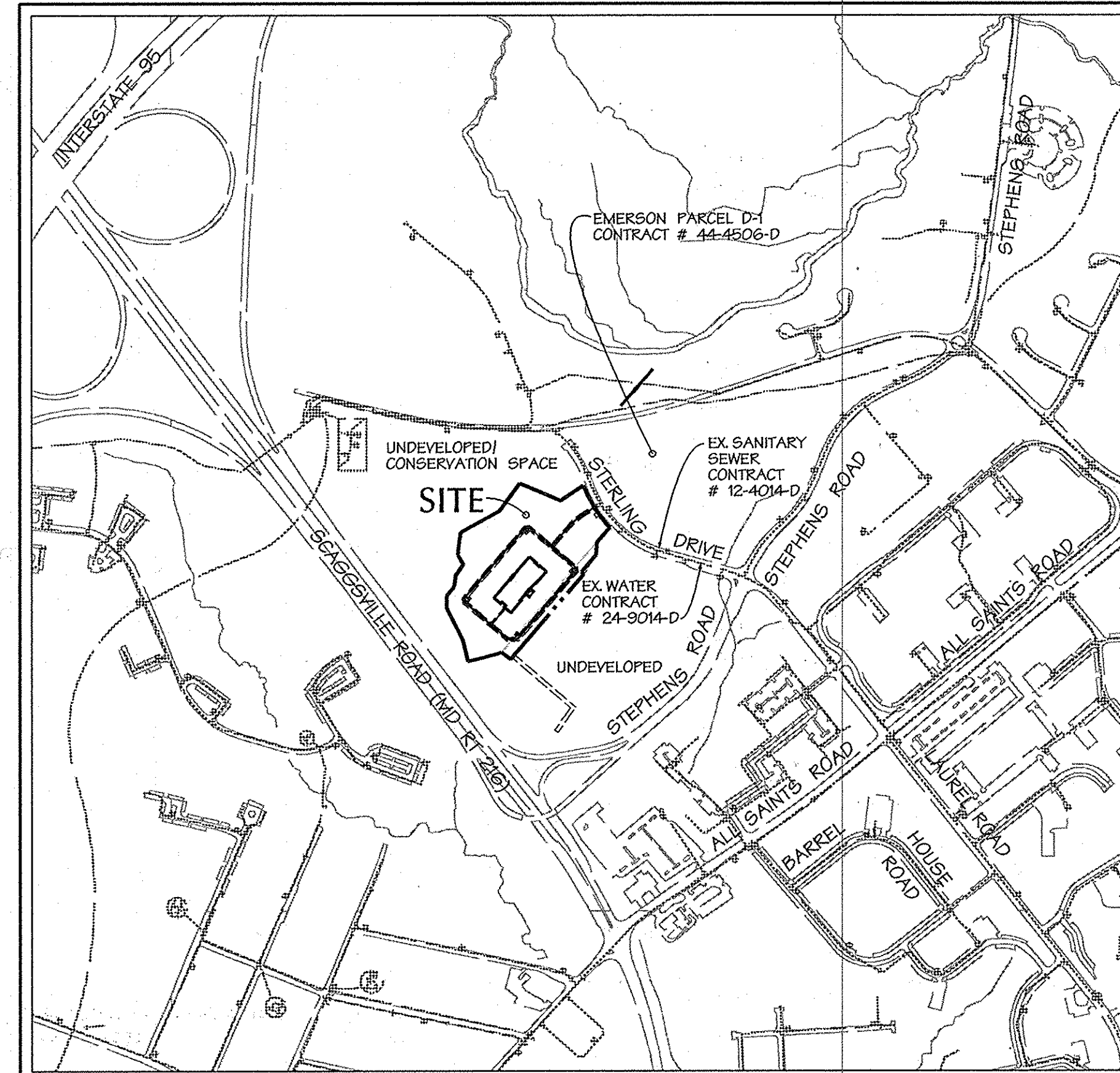
Scale: 1"=2000'
HOWARD COUNTY ADC MAP NUMBER 19, BLOCK H9

QUANTITIES				
ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER / SUPPLIER
6" WATER	60'	60'	CL 54 DIP	GRIFFIN PIPE PRODUCTS CO, L/B WATER SERVICE
8" WATER	1935'	1,983'	CL 54 DIP	GRIFFIN PIPE PRODUCTS CO, L/B WATER SERVICE
8" x 6" TEE	4	4	DIP	TYLER PIPE, L/B WATER SERVICE
8" x 8" TEE	2	2	DIP	TYLER PIPE, L/B WATER SERVICE
8" VALVE	5	5	GATE	KENNEDY VALVE, L/B WATER SERVICE
6" VALVE	4	4	GATE	KENNEDY VALVE, L/B WATER SERVICE
8" 1/2" HORIZ BEND	8	8	DIP	TYLER PIPE, L/B WATER SERVICE
8" CAP	1	1	SOLID	TYLER PIPE, L/B WATER SERVICE
6" FIRE HYDRANT	4	4	5/4"	AMERICAN FLOW CONTROL, L/B WATER SERVICE
8" DIP SEWER	35'	13'	CL 52 DIP	GRIFFIN PIPE PRODUCTS CO, L/B WATER SERVICE
8" P.V.C. SEWER	10	10'	SDR 35	M.EAGLE, L/B WATER SERVICE
SEWER MANHOLE	1	1	PRECAST	CONTRACTOR'S PRECAST CORP.

NAME OF UTILITY CONTRACTOR: C.J. MILLER, INC.
SURVEY AND DRAFTING DIVISION AS-BUILT DATE: JANUARY 9, 2011

LEGEND

	PROPERTY BOUNDARY
	EAS RIGHT OF WAY
	ADJACENT PROPERTY BOUNDARY
	EAS ROADS AND WALKS
	EX MAJOR CONTOUR
	EX MINOR CONTOUR
	FOREST CONSERVATION EASEMENT
	PROP. BUILDING
	PROP. CURB / EDGE OF PAVING
	PROP. DEPRESSED CURB
	PROP. GROUP LIGHT
	PROP. SINGLE LIGHT
	PROP. LIGHT
	PROP. WATER
	EX WATER LINE WITH FIRE HYDRANT
	PROP. SANITARY SEWER AND MANHOLE/CLEANOUT
	EX SANITARY SEWER WITH MANHOLE



TYPE OF BUILDING: OFFICE BUILDING
NO. OF PARCELS: 1
NO. OF WATER CONNECTIONS: 1
NO. OF SEWER CONNECTIONS: 1
DRAINAGE AREA: LITTLE PATUXENT
TREATMENT PLANT: LITTLE PATUXENT WATER QUALITY MANAGEMENT CENTER
WATER ZONE: 400
TEST GRADIENT: 550

GENERAL NOTES

A. STANDARD GENERAL NOTES

- Approximate location of existing utility 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 Owner at the contractor's expense.
- Topographic field surveys were performed by Shanabarger and Lane on January 2005, and field verified in April 2010 by Daft McCune Walker Inc.
- The horizontal coordinates shown on the drawings are based on Maryland State Reference System NAD'83/1911 as projected by Howard County Geodetic Control Stations No. #31ea and No. #37CA.
- All vertical controls are based on NGVD 88. Vertical controls provided on the drawings are 4764 N532945-138, E135543-196, Elev. 338.909'; 4762 N532938-964, E1351224-095, Elev. 364.210'.
- All pipe elevations shown are invert elevations unless otherwise noted.
- Clear all utilities by a minimum of 12". 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 bracing of additional poles or damages shall be deducted from monies owed the contractor. The contractor shall coordinate with the utility companies to schedule the bracing of the poles.
- For details not shown on the drawings and for materials and construction methods use Howard County Design Manual, Volume IV, Standard Specifications and Detail 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 locations of the test pits. A note or notes containing the results of the test pit or pits are 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.
- The contractor shall notify the following utility companies or agencies at least five working days before starting work shown on these plans:
Miles Utility 1-800-257-7777
BG&E (Construction Services) 410-850-4620
State Highway Administration 410-531-5533
AT&T 1-800-252-1133
BG&E (Emergency) 410-885-1400
Bureau of Utilities 410-313-4900
Colonial Pipeline CO. 410-795-1390
Verizon 1-800-742-0033/410-224-9210
- 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 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 cut of any county road or boring/jacking of any County roads for laying water/sewer mains or house connections. The approval of these drawings will constitute compliance with DFW requirements per section 18.114(a) of the Howard County code.

B. STANDARD WATER MAIN GENERAL NOTES

- All water mains to be D.I.P. Class 54 unless otherwise noted.
- Tops of all water mains to 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 the bury line elevations shown on the drawings. All fire hydrants shall be installed and buttressed with concrete in accordance with Standard Details. The soil around the fire hydrant shall be compacted in accordance with section 1000 and 1005 of the Standard Specifications.
- The contractor shall not operate any water main valves on the existing water system.
- For sprinkler system for all town homes or multi-family dwelling units should have a minimum of 1-1/2" connection with a 1" outside meter setting.

C. STANDARD SEWER MAIN GENERAL NOTES

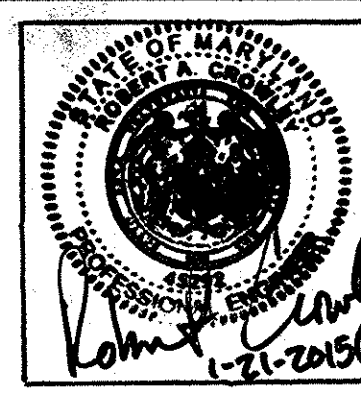
- All sewer mains shall be DIP or P.V.C. unless otherwise noted.
- All manholes shall be 4'-0" inside diameter unless otherwise noted.
- Force mains shall be D.I.P. only.
- Manholes shown with 12" and 16" walls are for brick manholes only.
- Manholes designated W.T. in plan and profile shall have watertight frame and covers. Standard Detail G5.52. Where watertight frame and cover is used, set top of frame 1'-6" above finished grade unless otherwise noted on the drawings.

BENCHMARK

DESCRIPTION

COORDINATES IN MARYLAND NAD83(91) (HORIZONTAL) AND NGVD29 (VERTICAL) DATUMS.	4764 NORTHING: 162440.1212 EASTING: 411853.9279 ELEVATION: 364.210ft.	4764 NORTHING: 163326.2295 EASTING: 413136.2590 ELEVATION: 338.909ft.
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A. STANDARD GENERAL NOTES (CONTINUED)
13. A VARIANCE (RESOLUTION NO. HR-2011) PURSUANT TO SECTIONS 16.301 AND 16.200(a) OF THE HOWARD COUNTY CODE WAS GRANTED ON JULY 28, 2011 FOR GOVERNMENT USES FROM THE STRUCTURE AND USE SETBACK FOR A FENCE.



THE PURPOSE OF REDLINE REVISION #2 IS:
1. SHOW THE PROPOSED EMERSON CAMPUS SECURITY FENCE.
2. ADD AN ADDITIONAL DRAWING SHEET ASSOCIATED WITH THE PROPOSED EMERSON CAMPUS SECURITY FENCE.

JACOBS
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. 45292 EXPIRATION DATE: 05/21/2014

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

APPROVED:
HOWARD S.C.D. DATE: 10/6/10

PLAT #21277 & 21278

SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 308 OF THE SPECIFICATIONS AND WITH SDP-10-096

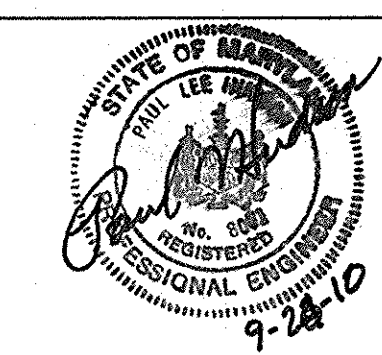
PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 8661 EXPIRATION DATE: 08-26-2011

DESIGN BY:	JDF		
DRAWN BY:	CRH		
CHECKED BY:	JDF		
DATE:	9/15/10		
BY	NO.	REVISION	DATE
MC	3	WATER LINE REVISION SEE DETAIL "A" SITE 2E PROFILE	9/18/10
JACOBS	2	CAMPUS PERIMETER SECURITY FENCE	1/24/11
KCI	1	AS-BUILT REVISIONS	2/22/11

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
CHIEF - BUREAU OF UTILITIES - DATE: 9/15/10

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND
CHIEF - DEVELOPMENT ENGINEERING DIVISION - DATE: 10/15/10

DMW
DAFT MCCUNE WALKER INC.
200 EAST PENNSYLVANIA AVENUE • TOWSON, MD 21286
P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM
A TEAM OF LAND PLANNERS, LANDSCAPE ARCHITECTS, ENGINEERS, SURVEYORS & ENVIRONMENTAL PROFESSIONALS



TITLE SHEET

EMERSON PARCEL F

TAX MAP 47 PARCEL F
6th ELECTION DISTRICT OF HOWARD COUNTY, MARYLAND

CONTRACT NO. 24-4683-D

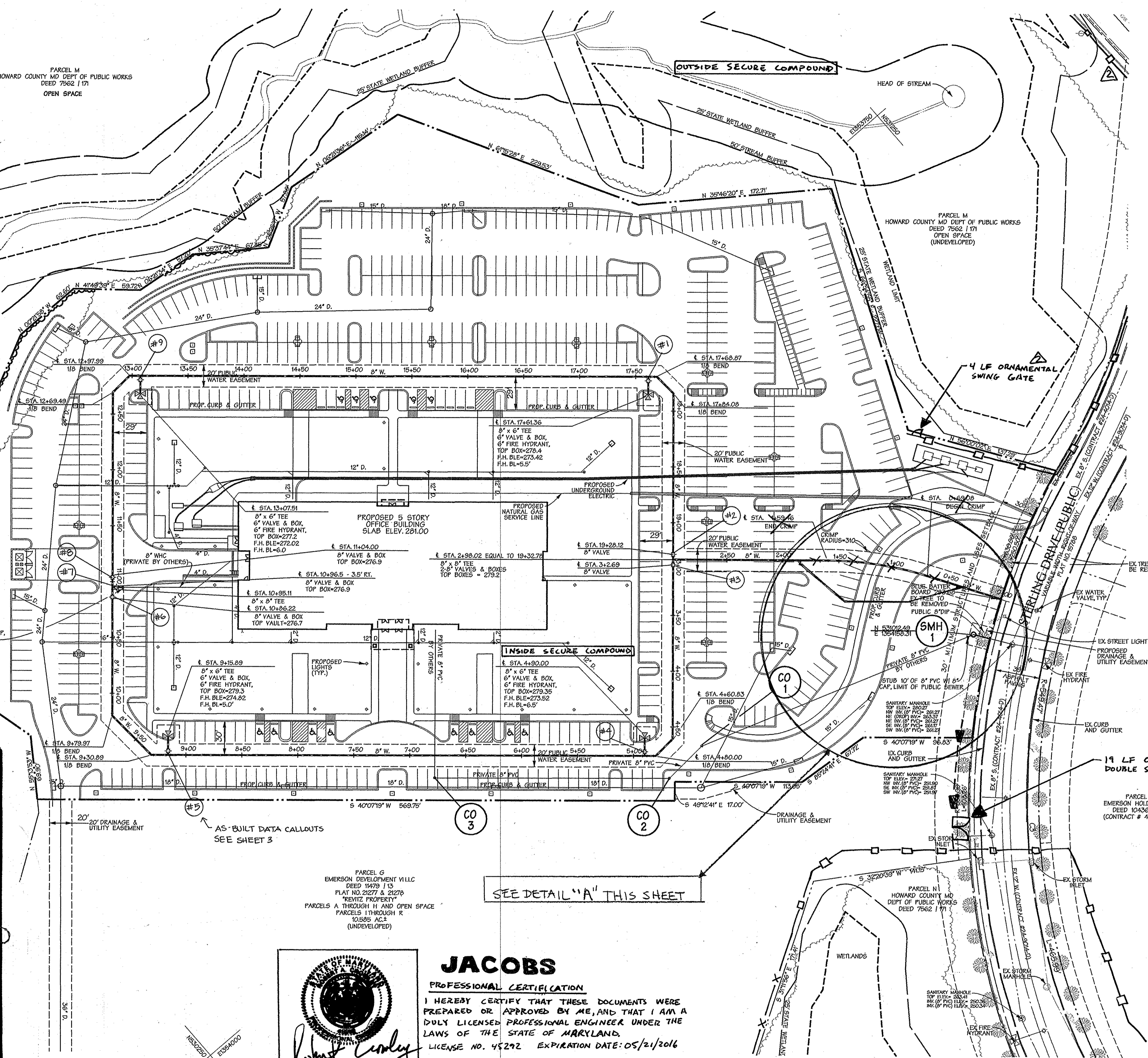
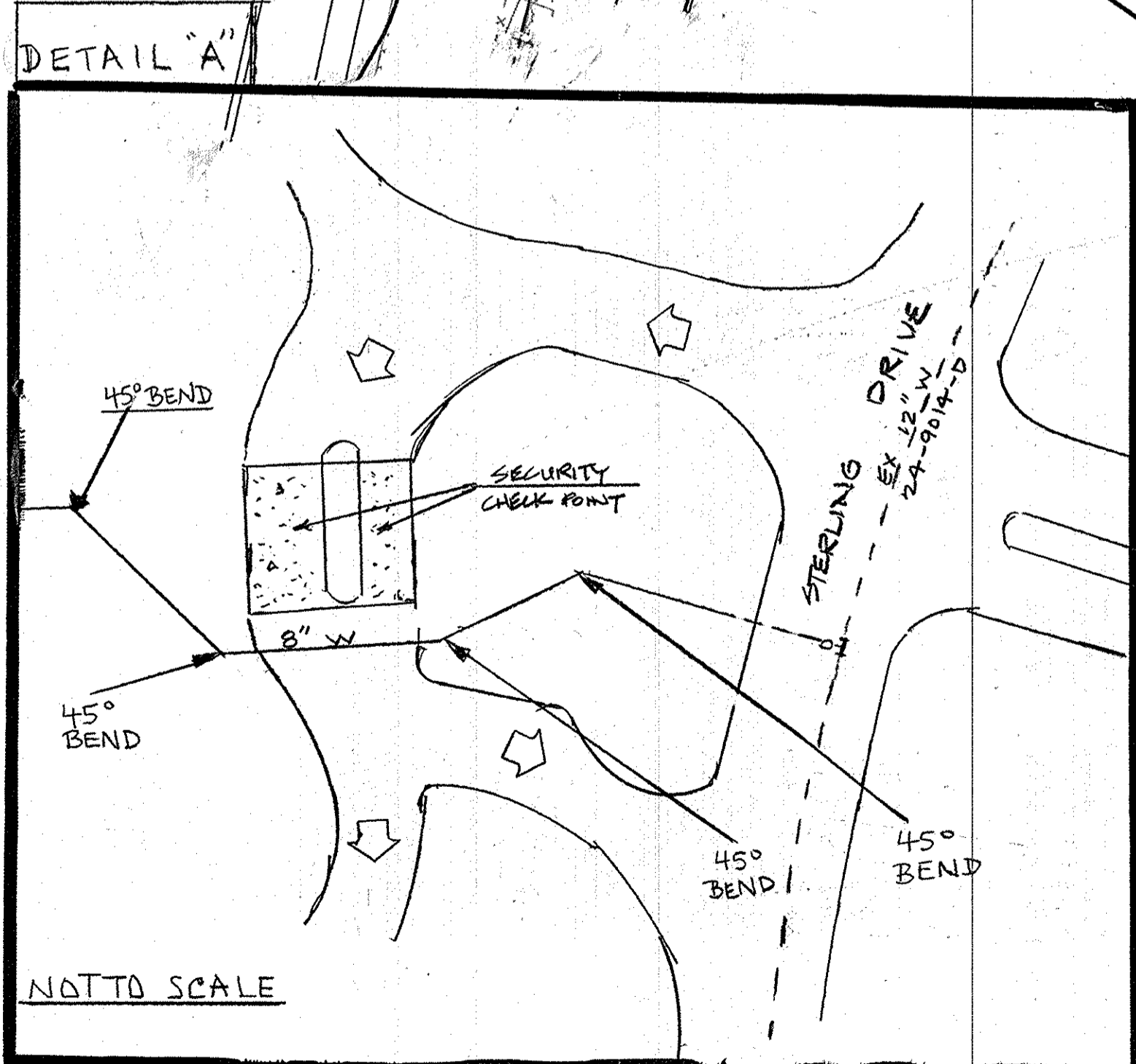
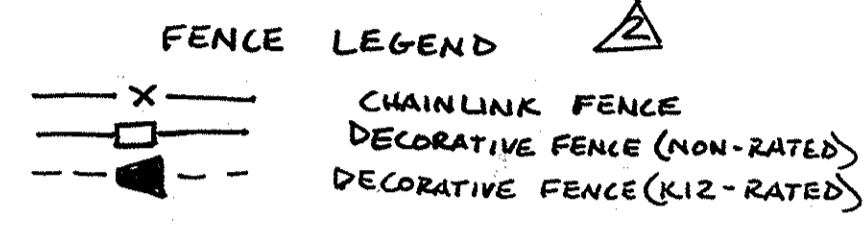
SCALE: As Shown
SHEET 1 of 84

SCAGSVILLE ROAD (MD RT 216)

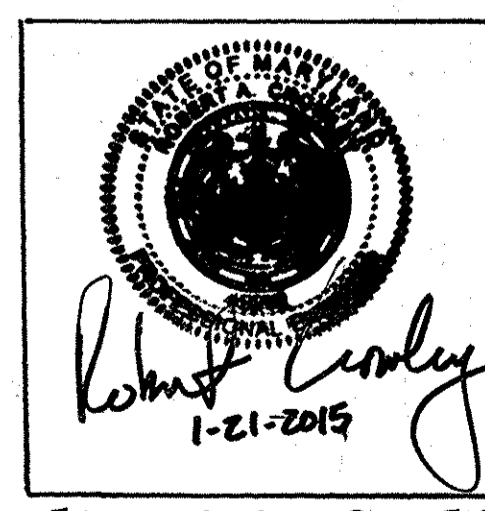
PARCEL M
HOWARD COUNTY MD DEPT OF PUBLIC WORKS
DEED 7562 (17)
OPEN SPACE

PARCEL M
HOWARD COUNTY MD DEPT OF PUBLIC WORKS
DEED 7562 (17)
OPEN SPACE
(UNDEVELOPED)

NOTE: CONTRACTOR TO TEST FIT FOR EXISTING WATER CONNECTION AND SEWER CONNECTION FOR THIS PARCEL AND CONFIRM ITS SIZE PRIOR TO MAKING CONNECTION IN FIELD.
ANY DISTURBANCE TO THE EXISTING CURB AND/OR SIDEWALK ALONG STERLING DRIVE SHALL BE REPAIRED TO HOWARD COUNTY SPECIFICATIONS AS PART OF THIS CONTRACT.
CONTRACTOR TO MAINTAIN TRAFFIC ALONG STERLING DRIVE WHEN MAKING CONNECTIONS.



PARCEL G
EMERSON DEVELOPMENT VLLC
DEED 10436 1/13
PLAT NO. 20277 & 20278
"RENTZ PROPERTY"
PARCELS A THROUGH H AND OPEN SPACE
10.585 AC ±
(UNDEVELOPED)



JACOBS
PROFESSIONAL CERTIFICATION
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LICENSE NO. 45292 EXPIRATION DATE: 05/21/2016

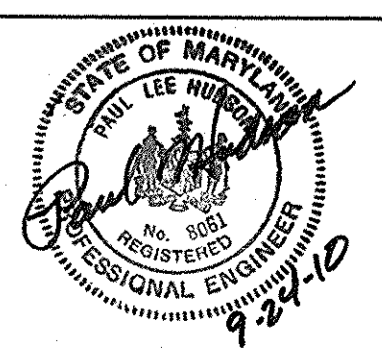
PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 18261 EXPIRATION DATE: 08-26-2011

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

Chief - Bureau of Utilities - DATE
Chief - Development Engineering Division - DATE

DMW
DAFT MCCUNE WALKER INC
200 EAST PENNSYLVANIA AVENUE • TOWSON, MD 21286
P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM
A TEAM OF LAND PLANNERS, LANDSCAPE ARCHITECTS, ENGINEERS, SURVEYORS & ENVIRONMENTAL PROFESSIONALS



DESIGN BY:	JDF			
DRAWN BY:	CRH			
CHECKED BY:	JDF			
DATE:	9/15/10			222-11
BY NO.	MC 2	WATER LINE REVISION - SEE DETAIL "A"		
REVISION	KCI 1	AS-BUILT REVISIONS		

WATER & SEWER PLAN

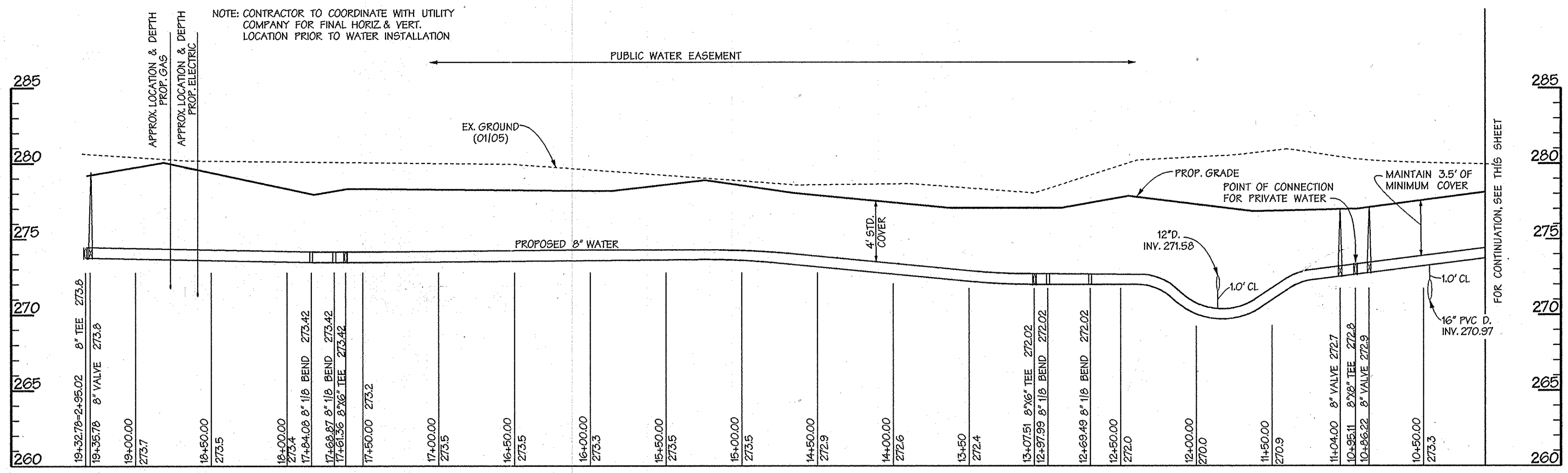
EMERSON PARCEL F
TAX MAP 47 PARCEL F
6th ELECTION DISTRICT OF HOWARD COUNTY, MARYLAND

CONTRACT NO. 24-4683-D

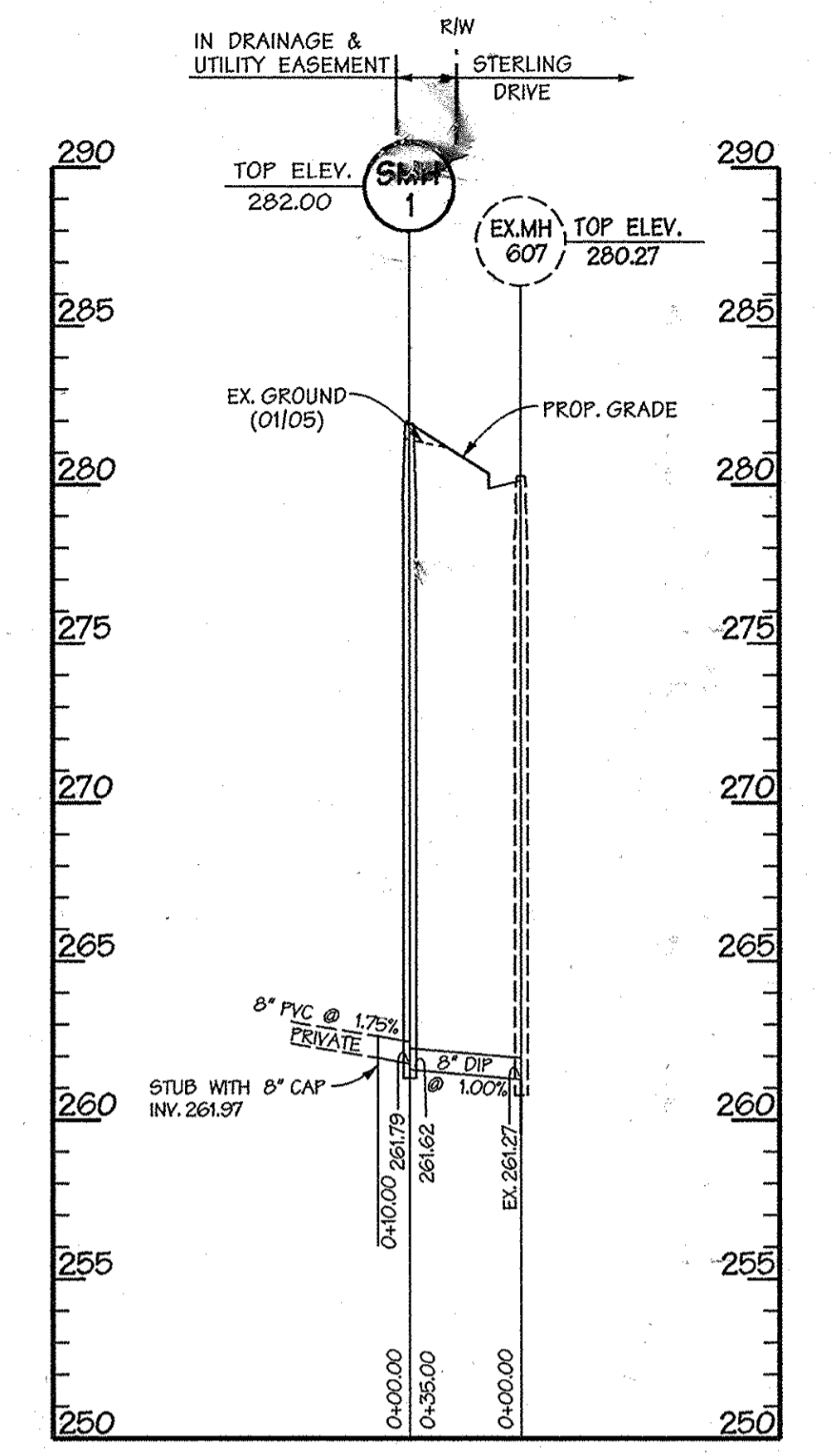
SCALE:
1"=50'
SHEET
2 of 34

F:\SP_24_132011\20100514\100541\DWG\24-4683-D

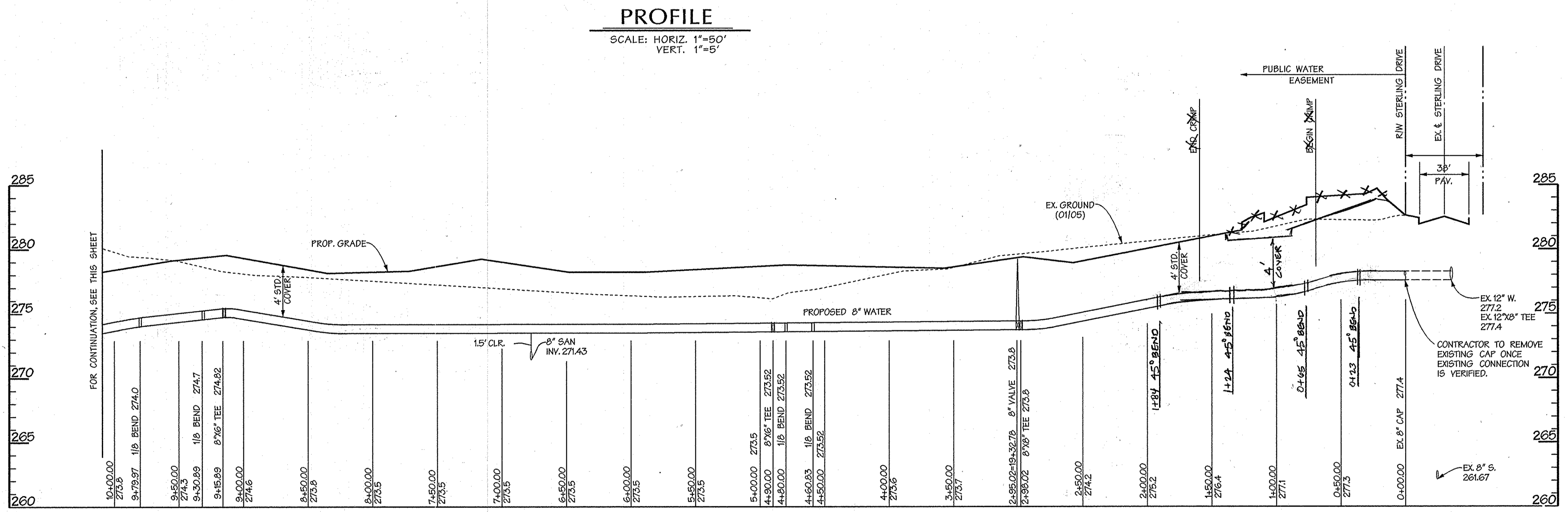
F:\SP_24_132011\20100514\100541\DWG\24-4683-D



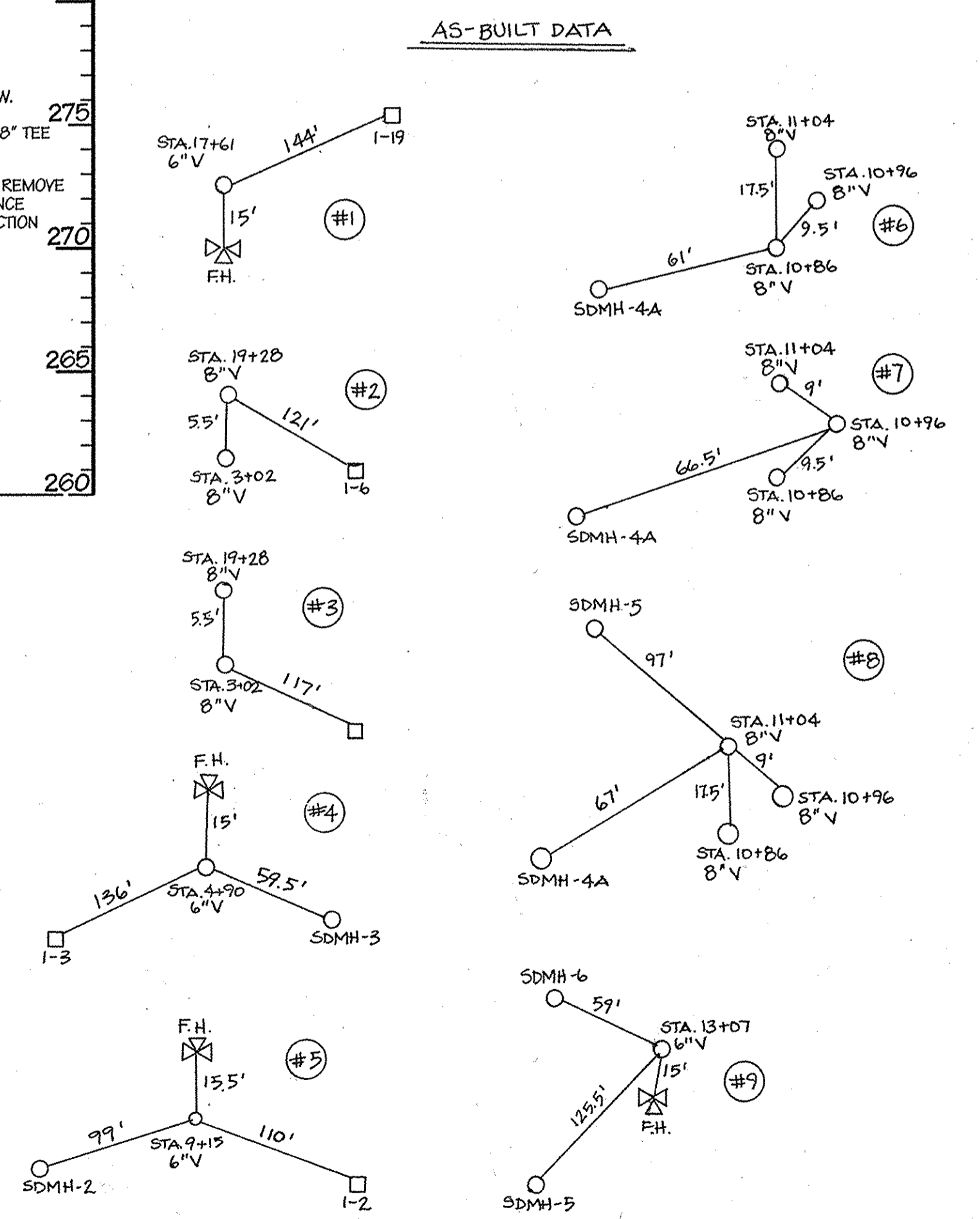
NOTE: CONTRACTOR TO MAINTAIN A MINIMUM OF 4' COVER OVER WATERLINE WHENEVER POSSIBLE (EXCEPT WHERE NOTED)



PUBLIC SANITARY SEWER PROFILE
SCALE: HORIZ. 1"=50'
VERT. 1"=5'



PROFILE
SCALE: HORIZ. 1"=50'
VERT. 1"=5'



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. 8061, EXPIRATION DATE: 08-28-2011

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

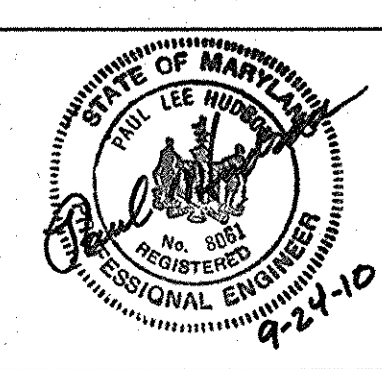
S. C. Green 9/15/10
CHIEF - BUREAU OF UTILITIES - DATE

M. D. ... 10/15/10
CHIEF - DEVELOPMENT ENGINEERING DIVISION - DATE

DMW
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A TEAM OF LAND PLANNERS, LANDSCAPE ARCHITECTS,
ENGINEERS, SURVEYORS & ENVIRONMENTAL PROFESSIONALS



DESIGN BY:	JDF			
DRAWN BY:	CRH			
CHECKED BY:	JDF	MC 2	REVISED WATER LINE ALIGNMENT	3-13-15
DATE:	9/15/10	K.C.I. 1	AS-BUILT REVISIONS	2-22-11
BY NO.			REVISION	DATE

WATER & SEWER PROFILES

600.00 SCALE MAP NO. 47 BLOCK NO. 20

EMERSON PARCEL F

TAX MAP 47 PARCEL F
6th ELECTION DISTRICT OF HOWARD COUNTY, MARYLAND

CONTRACT NO. 24-4683-D

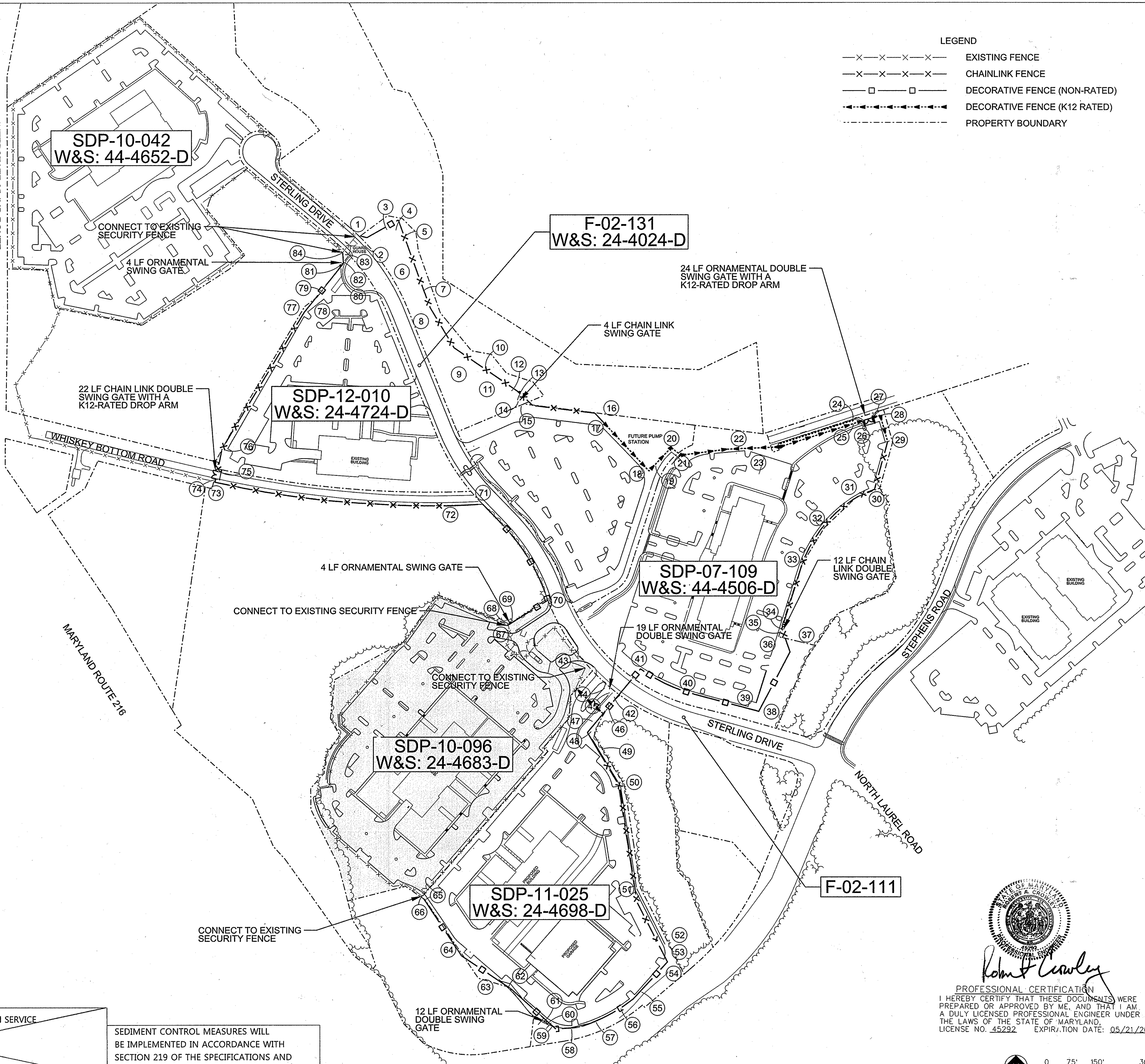
SCALE: 1"=50'
SHEET 3 of 34

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P:\9924\9924.dwg 10/15/10 10:15:30 10/15/10 10:15:30 10/15/10 10:15:30

	COORDINATE ID	NORTHING	EASTING	FEET OFFSET FROM PROPERTY LINE
8' HIGH IMPASSE NON-RATED ORNAMENTAL FENCE	1	532233.7	1353530.0	9.3
	2	532207.6	1353557.9	7.5
	3	532254.3	1353623.0	32.3
	4	532253.0	1353648.8	37.7
8' HIGH CHAIN LINK FENCE WITH 1' DOUBLE OUTRIGGER	5	532232.6	1353672.5	35.5
	6	532150.6	1353690.4	37.6
	7	532074.1	1353729.9	25.6
	8	531998.0	1353749.7	30.5
	9	531857.1	1353847.0	43.8
	10	531845.2	1353912.5	39.6
	11	531802.7	1353938.5	45.9
	12	531778.8	1353989.5	44.9
	13	531751.5	1354006.8	68.9
	14	531747.9	1354009.1	69.3
	15	531733.7	1354018.0	6.9
	16	531703.5	1354263.8	6.2
	17	531681.1	1354261.0	28.8
	8' HIGH IMPASSE K12 RATED ORNAMENTAL FENCE	18	531559.4	1354378.6
19		531557.3	1354413.3	132.7
20		531610.8	1354459.0	73.8
21		531594.4	1354480.8	0.3
22		531612.3	1354683.4	44.4
23		531600.0	1354722.0	51.8
24		531686.8	1354994.2	6.0
25		531678.9	1354996.7	14.2
26		531689.1	1355028.8	14.2
27		531696.4	1355051.5	14.2
28		531704.0	1355075.4	14.2
29		531625.6	1355097.0	14.4
30		531487.3	1355058.4	2.5
8' HIGH CHAIN LINK FENCE WITH 1' DOUBLE OUTRIGGER		31	531466.2	1355003.9
	32	531375.2	1354908.7	2.5
	33	531266.0	1354845.0	0.0
	34	531075.5	1354783.8	0.0
8' HIGH IMPASSE NON-RATED ORNAMENTAL FENCE	35	531053.8	1354780.1	0.0
	36	531045.8	1354774.3	6.0
	37	531033.3	1354827.1	6.0
	38	530846.1	1354723.0	50.0
	39	530837.3	1354691.9	33.0
	40	530891.5	1354495.6	34.4
	41	530953.0	1354360.7	26.5
	42	530874.1	1354291.6	14.5
8' HIGH IMPASSE K12 RATED ORNAMENTAL FENCE	43	530959.6	1354206.6	13.4
	44	530900.0	1354263.2	12.8
	45	530886.4	1354277.9	10.0
	46	530854.5	1354274.0	7.5
8' HIGH IMPASSE NON-RATED ORNAMENTAL FENCE	47	530802.1	1354227.0	20.0
	48	530771.7	1354223.7	12.3
	49	530720.0	1354255.0	2.0
	50	530615.3	1354318.4	2.0
8' HIGH CHAIN LINK FENCE WITH 1' DOUBLE OUTRIGGER	51	530308.5	1354367.5	2.0
	52	530158.1	1354440.4	4.7
	53	530119.5	1354450.4	13.0
	54	530090.6	1354444.4	31.4
	55	530001.4	1354372.7	40.2
	56	529952.2	1354311.7	29.6
	57	529912.6	1354238.4	28.6
	58	529892.6	1354166.4	31.3
	59	529903.4	1354111.0	51.6
	60	529912.9	1354100.1	46.3
	61	529920.8	1354091.1	36.4
	62	530016.4	1353981.6	0.0
	63	530042.7	1353942.5	14.2
	64	530141.4	1353828.3	2.2
8' HIGH IMPASSE NON-RATED ORNAMENTAL FENCE	65	530275.8	1353737.0	1.9
	66	530286.0	1353726.9	4.4
	67	531084.8	1353977.6	3.7
	68	531089.6	1353984.8	0.0
	69	531092.0	1353988.4	0.0
	70	531164.5	1354095.9	0.9
	71	531443.9	1353905.8	0.9
	72	531440.2	1353802.7	0.0
	73	531508.5	1353124.3	0.0
	74	531518.5	1353126.4	10.2
	75	531540.6	1353131.8	7.0
	76	531605.3	1353145.4	6.4
	77	532012.6	1353378.9	5.7
	78	532035.8	1353407.9	10.0
79	532070.3	1353434.3	4.4	
8' HIGH IMPASSE NON-RATED ORNAMENTAL FENCE	80	532140.6	1353488.1	4.7
	81	532155.9	1353492.3	1.1
	82	532160.1	1353493.5	2.7
	83	532181.5	1353499.4	7.9
	84	532187.4	1353492.6	8.5

INTERSTATE 95 (MD ROUTE 216) INTERCHANGE RAMP (S) (SRC PLAT NOS. 38841, 38942)



LEGEND
 -x-x-x-x-x- EXISTING FENCE
 -x-x-x-x-x- CHAINLINK FENCE
 -□-□-□-□- DECORATIVE FENCE (NON-RATED)
 -□-□-□-□- DECORATIVE FENCE (K12 RATED)
 PROPERTY BOUNDARY

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

REVIEWED FOR NATURAL RESOURCES CONSERVATION SERVICE AND MEETS TECHNICAL REQUIREMENT

SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE SPECIFICATIONS AND WITH ROAD CONSTRUCTION PLANS F-10-16

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. 45292 EXPIRATION DATE: 05/21/2016

John J. Crowley
 PROFESSIONAL ENGINEER

HOWARD S.C.D. DATE SIGNATURE DATE

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

Steve C. Coen
 CHIEF - BUREAU OF UTILITIES - DATE

DEPARTMENT OF PLANNING & ZONING
 HOWARD COUNTY, MARYLAND

John J. Crowley
 CHIEF - DEVELOPMENT ENGINEERING DIVISION - DATE

JACOBS

1100 NORTH GLEBE ROAD SUITE 500 ARLINGTON, VA 22201
 P. 703-218-1000 F. 703-218-1600

DESIGN BY:	M. WERDER
DRAWN BY:	M. WERDER
CHECKED BY:	R. CROWLEY
DATE:	JANUARY 5, 2015
BY	NO.
REVISION	DATE

EMERSON-CAMPUS FENCE
 FENCE LAYOUT PLAN

600 SCALE MAP NO. 47 BLOCK NO. 20

EMERSON PARCEL F
 OWNER DEVELOPER: EMERSON DEVELOPMENT VII LLC
 1 TEXAS STATION COURT, SUITE 200
 TIMONIUM, MARYLAND 21093
 (443) 680-8000

JACOBS CONTRACT NO. 31435

SCALE: 1"=150'
 SHEET 4 of 4

SDP-10-096 24-4683-D