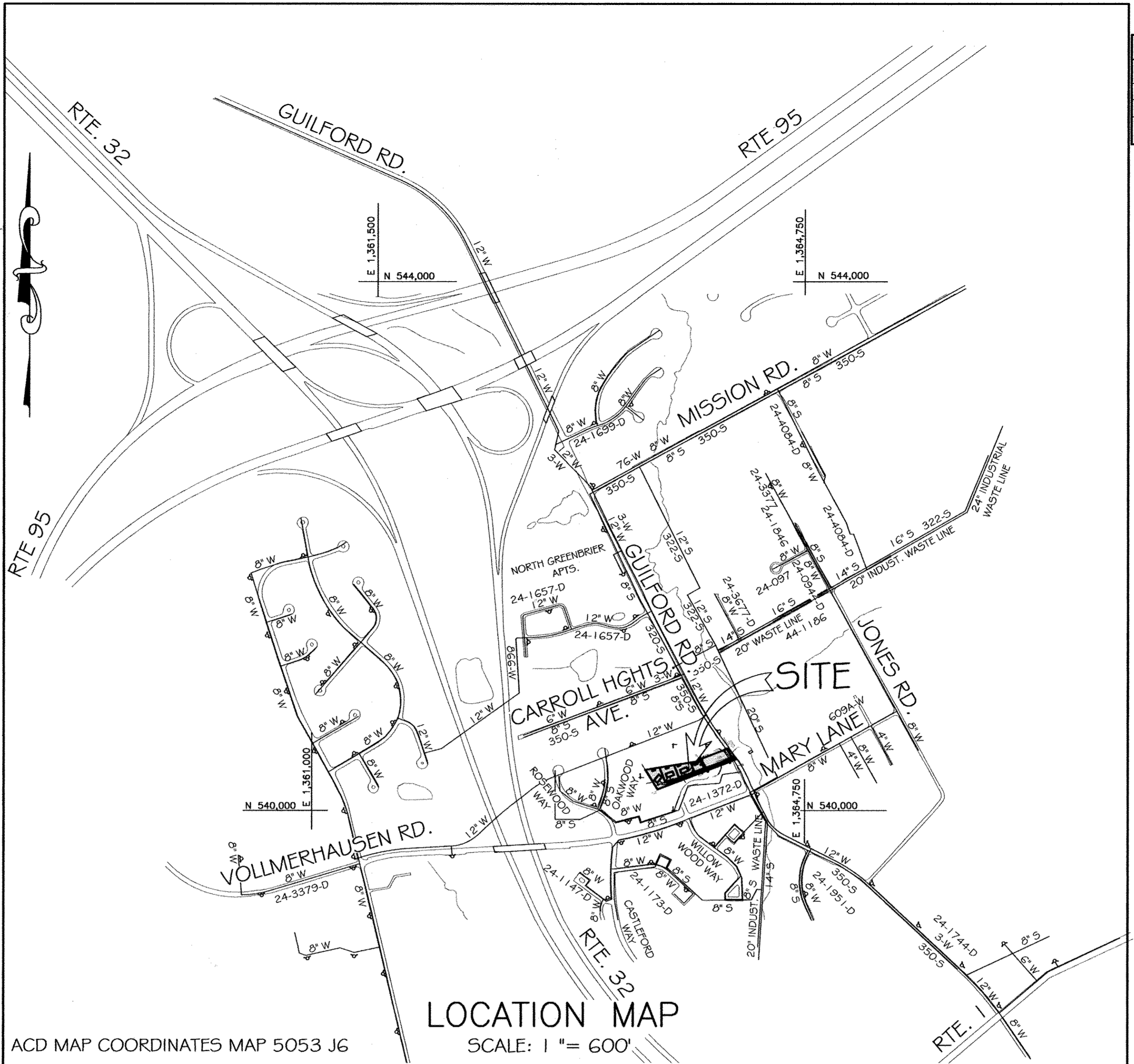


GENERAL NOTES

- PART I: GENERAL**
- APPROXIMATE LOCATION 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.
 - TOPOGRAPHY FROM HOWARD COUNTY GIS DATA, SUPPLEMENTED BY FIELD-RUN LOCATIONS BY VANMAR ASSOCIATES, INC., JUNE 2010. CONTOUR INTERVAL IS 2' VERTICAL DATUM IS NAVD 88.
 - THE COORDINATES SHOWN ON THE DRAWINGS ARE BASED ON MARYLAND STATE COORDINATE SYSTEM, NAD 83/91 PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 41C1 AND NO. 47C0.
 - ALL VERTICAL CONTROLS ARE BASED ON NAVD 88 AND NAD 83 HORIZONTAL CONTROLS.
 - 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 THE 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, IF REQUIRED.
 - 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 LOCATIONS OF THE TEST PIT. A NOTE OR NOTES CONTAINING THE RESULTS OF THE TEST PIT OR PITS IS INCLUDED ON THE DRAWING. 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 (5) WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
 - A. AT&T: (800) 252-1133
 - B. BGE (CONTRACTOR SERVICES): (410) 850-4620
 - C. BGE (EMERGENCY): (410) 685-1400
 - D. HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS BUREAU OF UTILITIES: (410) 313-4900
 - E. COLONIAL PIPELINE CO.: (410) 795-1390
 - F. MISS UTILITY: (800) 257-7777
 - G. STATE HIGHWAY ADMINISTRATION: (410) 531-5533
 - H. COLUMBIA GAS TRANSMISSION CORPORATION: (301) 762-6308
 - I. VERIZON: (800) 743-0033 / (410) 224-9210
 - TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO MAXIMUM EXTENT. TREES AND SHRUBS WITHIN THE CONSTRUCTION AREA 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 1 (410) 313-7450 AT LEAST FIVE (5) WORKING DAYS BEFORE OPEN CUTTING OR BORING / JACKING OF ANY COUNTY ROAD FOR LAYING WATER / SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 18.114(A) OF THE HOWARD COUNTY CODE.

- PART II: WATER**
- 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" COVER UNLESS OTHERWISE NOTED.
 - VALVES ADJACENT TO THE TEES SHALL BE STRAPPED TO THE TEES.
 - ALL FITTINGS SHALL BE BUTTED 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 RESTRAINED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS. SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED WITH SECTION 1000 AND 1005 OF THE STANDARD SPECIFICATIONS.
 - THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
 - ALL WATER HOUSE CONNECTIONS SHALL BE 1-1/2" WIC WITH A 1" OUTSIDE METER SETTING.
- PART III: SEWER**
- ALL SEWER MAINS TO BE D.I.P. 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 WT IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVERS; STANDARD DETAIL G5.52. WHERE WATERTIGHT MANHOLE FRAME AND COVER IS USED, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THESE DRAWINGS.
 - HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT CELLAR CANNOT BE SERVICED.
 - THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALL.
 - THE SEWER HOUSE CONNECTIONS (SHC) SHALL BE 4".

TYPE OF BUILDING:	SFD
NUMBER OF LOTS / PARCELS:	4 (3 BUILDABLE / 1 OPEN SPACE)
NUMBER OF WATER HOUSE CONNECTIONS:	(3 NEW)
NUMBER OF SEWER HOUSE CONNECTIONS:	(3 NEW)
DRAINAGE AREA:	LITTLE PATUXENT RIVER
TREATMENT PLANT:	LITTLE PATUXENT WATER RECLAMATION PLANT



ACD MAP COORDINATES MAP 5053 J6 SCALE: 1" = 600'

WATER AND SEWER PLAN

GUILFORD LANDING

LOTS 1 AND 3-5 AND OPEN SPACE LOT 2
 TAX MAP 47, GRID 6, PARCEL 604
 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 CONTRACT NO. 24-4611-D

AS-BUILT
 By: *[Signature]* Date: 9/27/17

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 308 OF THE STANDARD SPECIFICATION AND THE APPROVED FINAL PLAN, F 09-064.

THIS DEVELOPMENT PLAN (F-09-064) IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

[Signature] 1/13/11
 HOWARD SCD DATE

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. 18417, EXPIRATION DATE: 9/18/11

SIGNED: *[Signature]* DATE: 12/14/10
 RONALD E. THOMPSON, P.E.

CALL "MISS UTILITY" AT
 1-800-257-7777
 48 HOURS BEFORE START OF CONSTRUCTION

TITLE SHEET

DEPARTMENT OF PUBLIC WORKS

[Signature] 12/29/10
 CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING AND ZONING

[Signature] 1/14/11
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE



VANMAR ASSOCIATES, INC. Engineers Surveyors Planners
 310 South Main Street Mount Airy, Maryland 21771
 (301) 829-2890 (301) 831-5015 (410) 549-2751
 Fax (301) 831-5603 ©Copyright, Latest Date Shown

DATE	REVISION

600 SCALE MAP NO. 47, BLOCK G

GUILFORD LANDING
 CONTRACT NO. 24-4611-D
 LOTS 1 & 3-5 AND OPEN SPACE LOT 2, A RESUBDIVISION OF LOT G, NATHANIEL C. BARNES SUBDIVISION (PLAT BOOK 3, FOLIO 24) AND LOT B, ISABELLA CORMAN SUBDIVISION (LIBER 577, FOLIO 42)
 T.M. 47, GRID 6, P/O PARCEL 604
 6TH ELECTION DISTRICT - HOWARD COUNTY, MARYLAND
 ZONING: R-12 DATE: SEPTEMBER, 2010

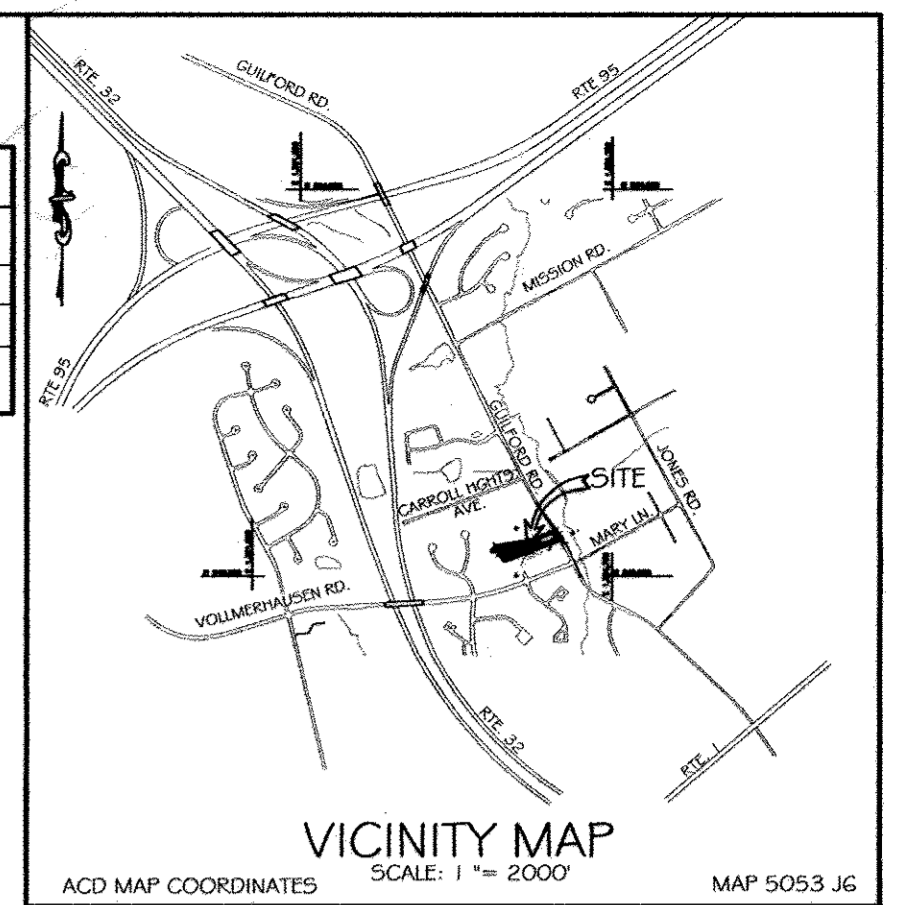
SCALE: AS SHOWN
 SHEET: 1 OF 3

INDEX OF SHEETS

NO.	DESCRIPTION
1	COVER SHEET
2	PRELIMINARY WATER AND SEWER PLAN
3	PRELIMINARY WATER AND SEWER PROFILES AND DETAILS

BENCH MARKS

1	# 47C1 DISK SET ON TOP OF CONCRETE MONUMENT.
	N 539613.7036
	E 1362608.4439
	EL = 260.96
2	# 47C0 DISK SET ON TOP OF CONCRETE MONUMENT
	N 540529.7021
	E 1362460.5328
	EL = 285.74

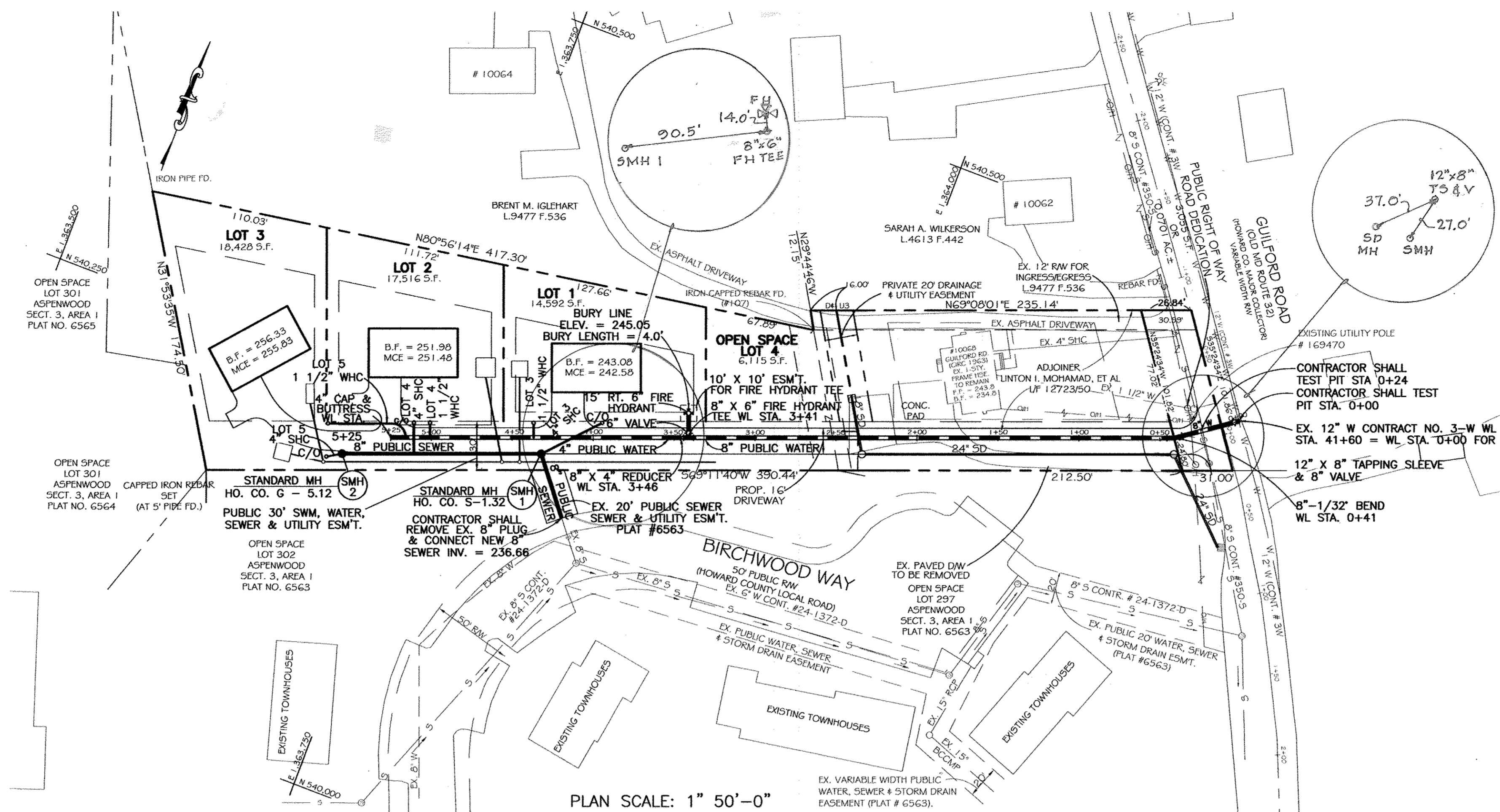


LEGEND

- EXISTING SANITARY SEWER
- EXISTING HOUSE CONNECTION
- EXISTING SANITARY SEWER MANHOLE
- EXISTING WATER MAIN
- EXISTING WATER HOUSE CONNECTION
- EXISTING WATER VALVE
- EXISTING FIRE HYDRANT
- PROPOSED WATER LINE
- PROPOSED SEWER LINE
- PROPOSED WATER LINE VALVES
- PROPOSED WATER LINE TEES
- PROPOSED FIRE HYDRANTS
- PROPOSED WATER LINE BEND
- 2' EXISTING CONTOURS
- 10' EXISTING CONTOURS
- 2' PROPOSED CONTOURS
- 10' PROPOSED CONTOURS
- PROPERTY LINE
- EXISTING TREELINE
- PROPOSED TREELINE
- EXISTING OVERHEAD ELECTRIC
- PROPOSED STORM DRAINS
- PROPOSED LANDSCAPING TREES

QUANTITIES

ITEM	QUANTITIES ESTIMATED	QUANTITIES	TYPE	AS-BUILT	
				MANUFACTURER / SUPPLIER	
12" X 8" TAPPING SLEEVE & VALVE TEE	1 EA.	1		MUELLER COMPANY	
8" WATER - D.I.P.	341 L.F.	343	CL 54	U.S. PIPE	
8" -1/32 HORIZ. BEND	1 EA.	1		STAR PIPE	
8" -1/32 VERT. BEND	3 EA.	3		STAR PIPE	
FIRE HYDRANT	1 EA.	1		MUELLER COMPANY	
8" X 6" FIT	1 EA.	1		STAR PIPE	
8" X 4" REDUCER	1 EA.	1		STAR PIPE	
6" WATER - D.I.P.	15 L.F.	16	CL 54	U.S. PIPE	
4" WATER - D.I.P.	179 L.F.	178	CL 54	U.S. PIPE	
4" CAP & BUTTRESS	1 EA.	1		STAR PIPE	
1.5" WIC	68 L.F.	65		CAMBRIDGE LEE	
1" METER VAULT FOR OUTSIDE METERING	3 EA.	3		ROMAC INDUSTRIES	
TYPE "A" DROP CONNECTION	1 EA.	1	SDR-35	DIAMOND PIPE	
SEWER CLEANOUTS	3 EA.	2		HORN CONCRETE	
4" SEWER MANHOLE	2 EA.	2		CONTRACTOR'S PRECISE	
4" SEWER HOUSE CONNECTION	68 L.F.	50	SDR-35	DIAMOND PIPE	
8" SEWER (SCHEDULE 40 PVC)	163 L.F.	160	SDR-35	DIAMOND PIPE	
CHECK BOX:				SURVEY & DRAFTING DIVISION	
NAME OF UTILITY CONTRACTOR: J & A CONSTRUCTION				AS-BUILT DATE:	



PLAN SCALE: 1" 50'-0"

WATER MAIN STRUCTURE SCHEDULE			
WL STA	INVERT	LOCATION	DESCRIPTION
0+00		N 540415.69 E 1364215.89	12" X 8" TAPPING SLEEVE & VALVE
0+41		N 540391.83 E 1364182.31	11 1/4" HORIZ. BEND
3+41		N 540285.34 E 1363902.05	8" X 6" FIRE HYDRANT TEE
3+46		N 540283.58 E 1363897.39	8" X 4" REDUCER
5+25		N 540219.99 E 1363730.05	4" CAP & BUTTRESS

SEWER SERVICE ELEVATION TABLE						
LOT NO.	INVERT ELEV. @ SEWER MAIN	@ 14" SHC SLOPE	INVERT ELEV. @ EASEMENT	MINIMUM CELLAR ELEV.	BASEMENT FLOOR ELEV.	FIRST FLOOR ELEV.
1	238.92	2.0%	239.72	242.58	243.08	252.08
2	248.14	2.0%	248.54	251.48	251.98	260.98
3	251.93	2.0%	252.09	255.83	256.33	255.33

SEWER DISTANCE TO EASEMENT FROM FACE OF WALL	
LOT NO.	DIST.
1	40' + 18'
2	20' + 22'
3	8' + 62'

AS-BUILT
by [Signature] on 9/2/17

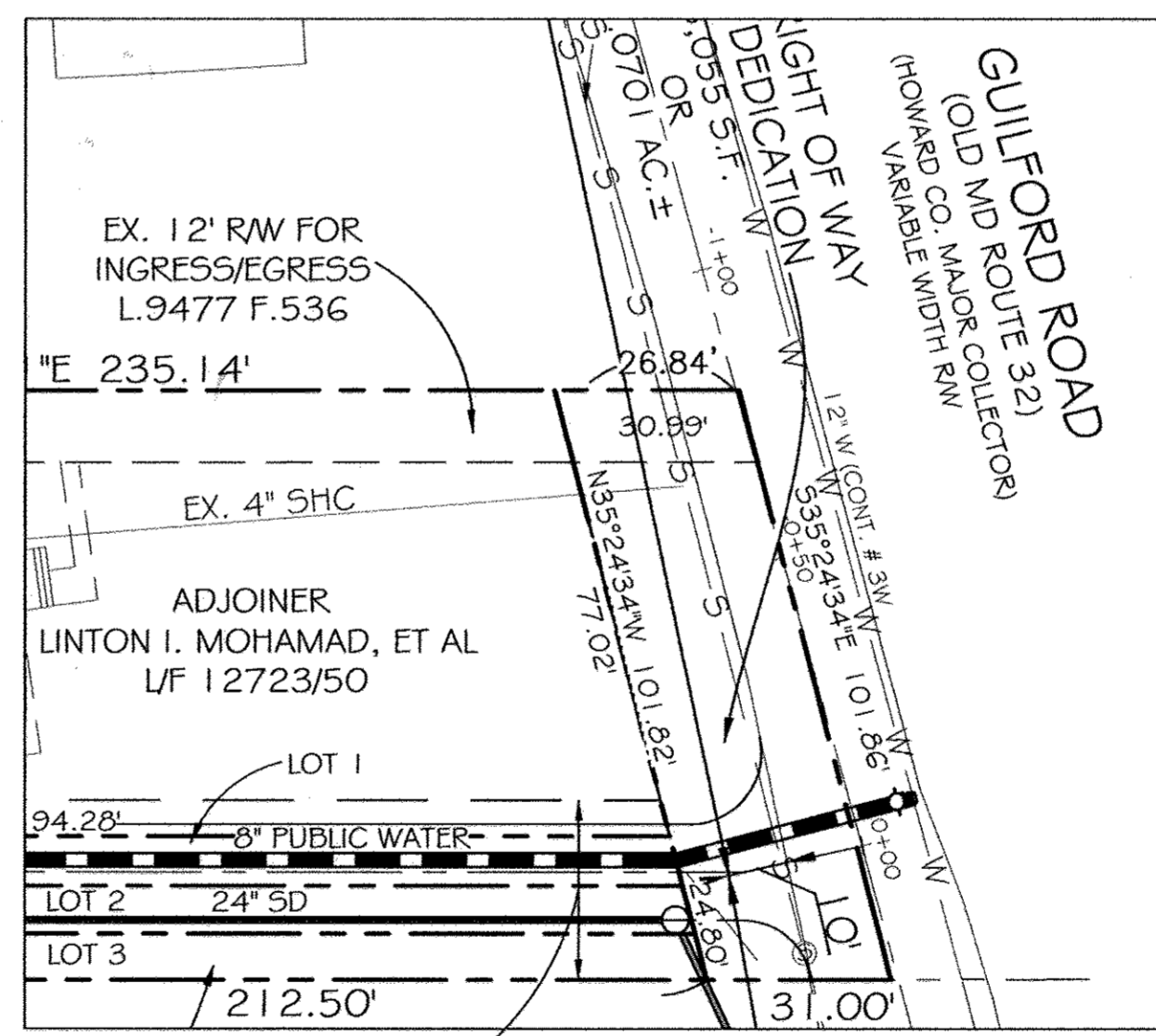
SEWER MAIN STRUCTURE SCHEDULE				
STRUCTURE	INVERT IN	INVERT OUT	TOP ELEV.	LOCATION
SMH-2	251.93	251.60	257.91	N 540199.97 E 1363705.51
SMH-1	241.46	238.26	250.09	N 540243.66 E 1363820.49

OWNER / DEVELOPER:
GUILD DEVELOPMENT, LLC
4609 LEARNED SAGE COURT
ELLCOTT CITY, MD. 21042
410-884-1929

CALL "MISS UTILITY" AT
1-800-257-7777
48 HOURS BEFORE START OF CONSTRUCTION

SHC AS BUILT LOCATION TABLE		
LOT #	LOCATION DIMENSION 1	LOCATION DIMENSION 2
1	FH 58.5'	SMH 1: 38'
2	SMH 1: 84'	SMH 2: 48.5'
3	SMH 2: 13'	WHC LOT 2: 68'

WHC AS BUILT LOCATION TABLE		
LOT #	LOCATION DIMENSION 1	LOCATION DIMENSION 2
1	FH 39'	SMH 1: 55.5'
2	SMH 1: 75'	SMH 2: 57'
3	SMH 2: 26'	WHC LOT 2: 68'



SCALE: 1" = 30'-0"

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 308 OF THE STANDARD SPECIFICATION AND THE APPROVED FINAL PLAN, F 09-064.

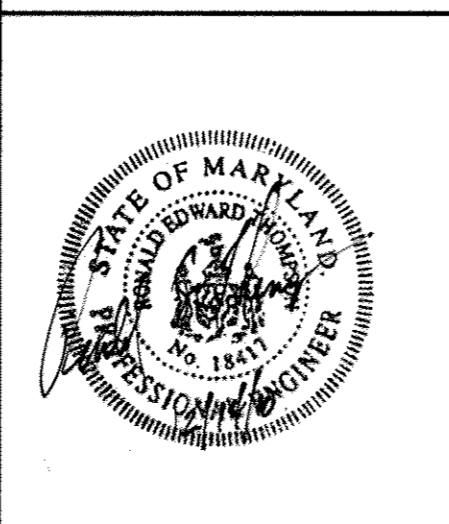
THIS DEVELOPMENT PLAN (F-09-064) IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

HOWARD SOIL CONSERVATION DISTRICT
DATE: 12/14/10

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. 18417, EXPIRATION DATE: 9/1/21
SIGNED: [Signature] DATE: 12/14/10
RONALD E. THOMPSON, P.E.

DEPARTMENT OF PUBLIC WORKS
[Signature] DATE: 12/14/10
CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING AND ZONING
[Signature] DATE: 1/14/11
CHIEF, DEVELOPMENT ENGINEERING DIVISION



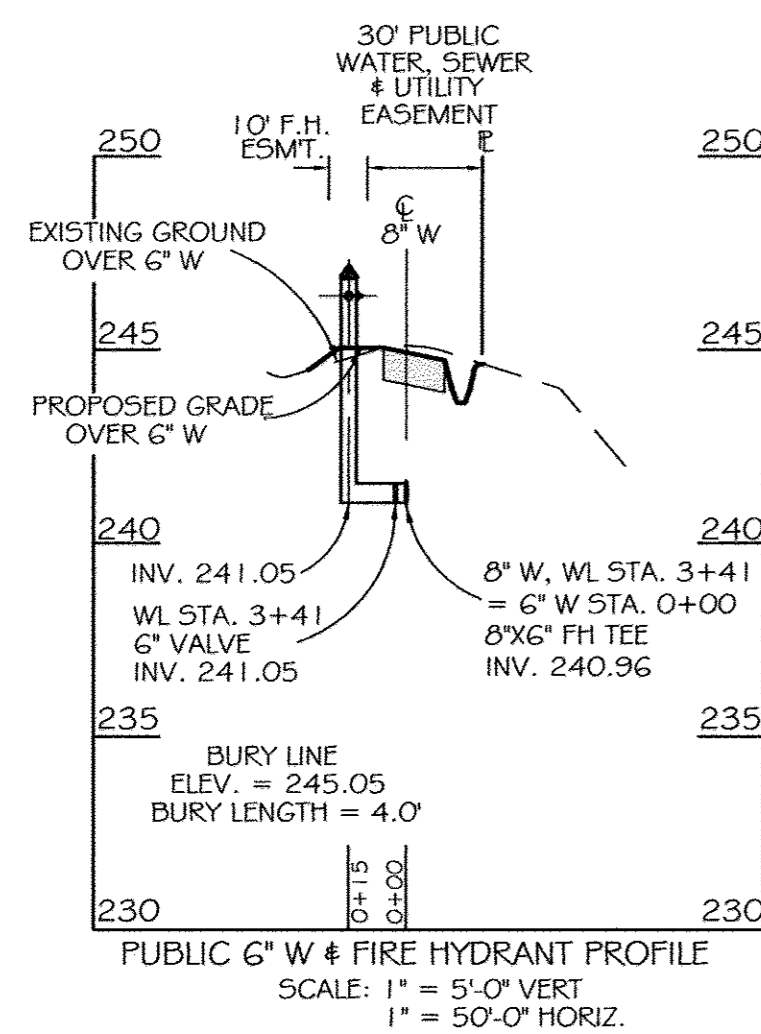
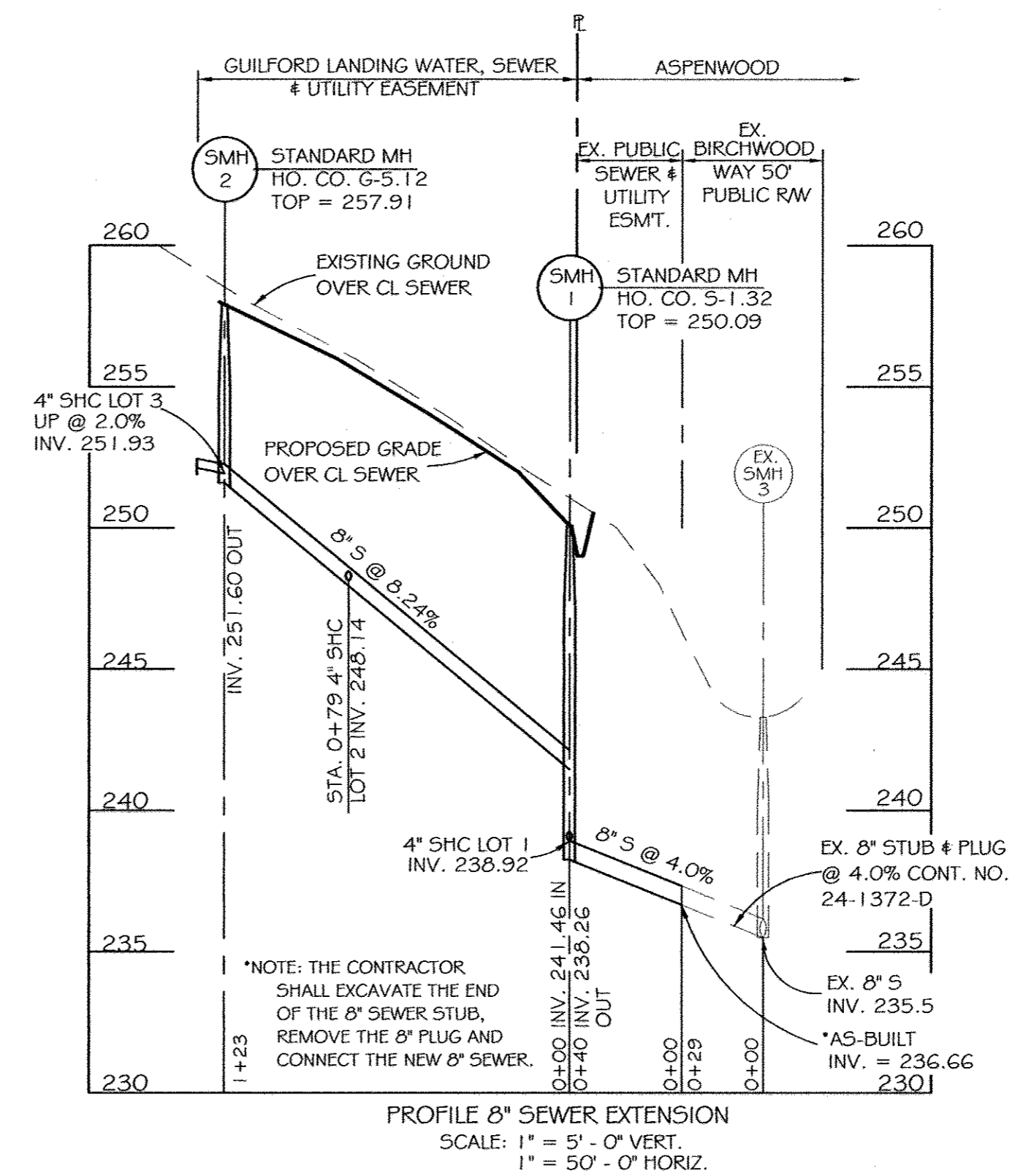
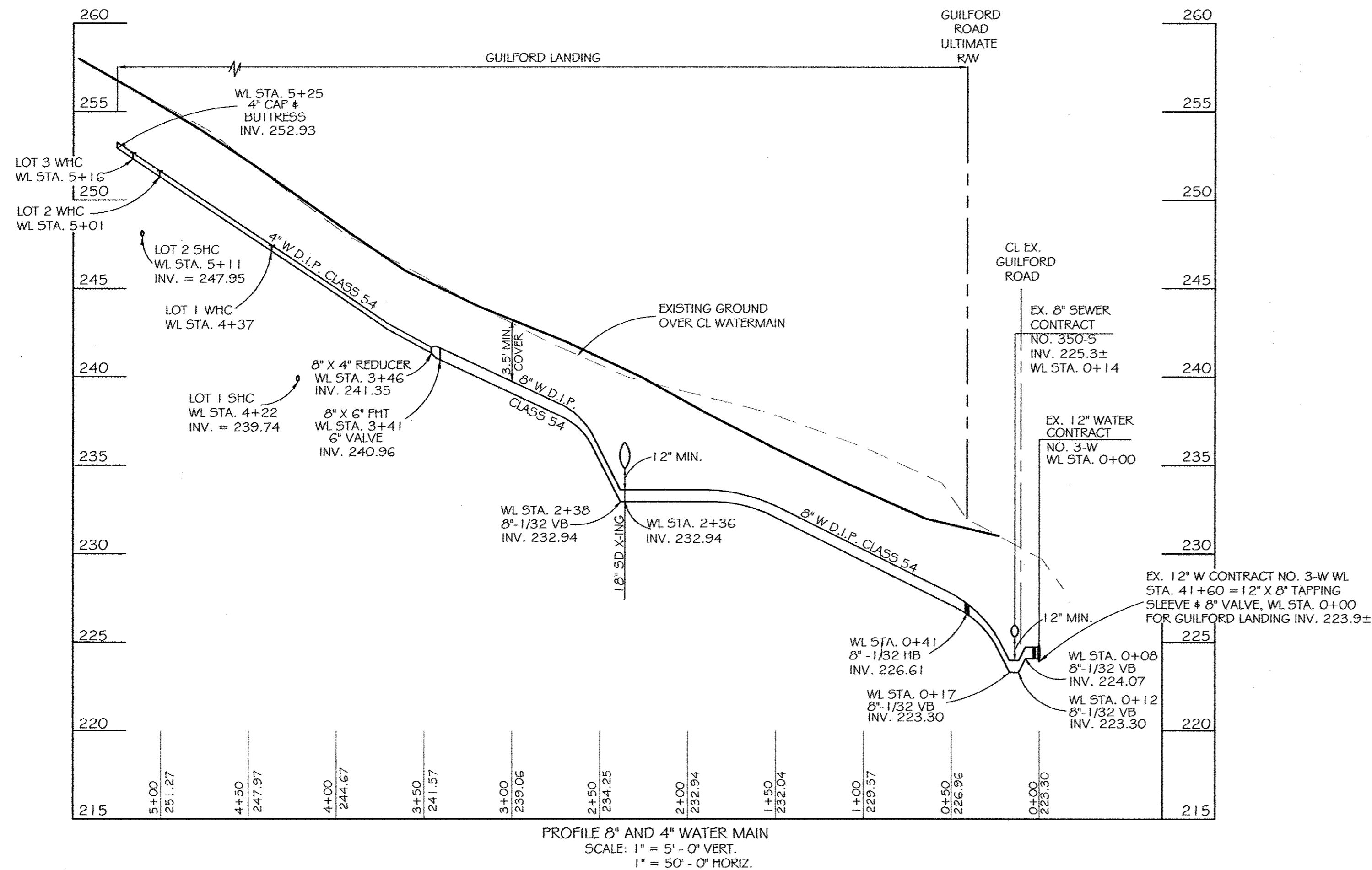
VANMAR ASSOCIATES, INC.
Engineers Surveyors Planners
310 South Main Street Mount Airy, Maryland 21771
(301) 829-2890 (301) 831-5015 (410) 549-2751
Fax (301) 831-5603 ©Copyright, Latest Date Shown

DATE	REVISION

WATER AND SEWER MAIN PLAN SHEET
600 SCALE MAP NO. 47, BLOCK G

GUILFORD LANDING
CONTRACT NO. 24-4611-D
LOTS 1 & 3-5 AND OPEN SPACE LOT 2, A RESUBDIVISION OF LOT G, NATHANIEL C. BARNES SUBDIVISION (PLAT BOOK 3, FOLIO 24) AND LOT B, ISABELLA CORMAN SUBDIVISION (LIBER 577, FOLIO 42)
T.M. 47, GRID 6, P/O PARCEL 604
6TH ELECTION DISTRICT - HOWARD COUNTY, MARYLAND
ZONING: R-12 DATE: SEPTEMBER, 2010

SCALE: 1" = 50'
SHEET: 2 OF 3



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. 18417, EXPIRATION DATE: 9/18/11.
 SIGNED: *Ronald E. Thompson* DATE: 12/14/10
 RONALD E. THOMPSON, P.E.

CALL "MISS UTILITY" AT
 1-800-257-7777
 48 HOURS BEFORE START OF CONSTRUCTION

OWNER / DEVELOPER:
 GUILD DEVELOPMENT, LLC
 4609 LEARNED SAGE COURT
 ELLICOTT CITY, MD. 21042
 410-884-1929

AS-BUILT

By *[Signature]* Date: 12/14/10

DEPARTMENT OF PUBLIC WORKS

DEPARTMENT OF PLANNING AND ZONING

[Signature]
 CHIEF, BUREAU OF UTILITIES

12/20/10
 DATE

[Signature]
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 M.G. DATE



VANMAR ASSOCIATES, INC.
 Engineers Surveyors Planners
 310 South Main Street Mount Airy, Maryland 21771
 (301) 829-2890 (301) 831-5015 (410) 549-2751
 Fax (301) 831-5603 ©Copyright, Latest Date Shown

DATE	REVISION

WATER AND SEWER MAIN PROFILE SHEET

GOO SCALE MAP NO. 47, BLOCK 6

GUILFORD LANDING
 CONTRACT NO. 24-4611-D

LOTS 1 # 3-5 AND OPEN SPACE LOT 2, A RESUBDIVISION OF LOT G, NATHANIEL C. BARNES SUBDIVISION (PLAT BOOK 3, FOLIO 24) AND LOT B, ISABELLA CORMAN SUBDIVISION (LIBER 577, FOLIO 42)
 T.M. 47, GRID 6, P/O PARCEL 604
 6TH ELECTION DISTRICT - HOWARD COUNTY, MARYLAND
 ZONING: R-12 DATE: SEPTEMBER, 2010

SCALE:
 AS SHOWN

SHEET:
 3 OF 3