

**GENERAL NOTES**

**PART I**

- 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.
- THE TOPOGRAPHY SHOWN HEREON IS BASED ON A FIELD RUN TOPOGRAPHIC SURVEY WITH 2'-FOOT CONTOURS PREPARED BY ROBERT H. VOGEL ENGINEERING, INC., DATED JUNE 2012.
- THE PROJECT BOUNDARY SHOWN HEREON IS BASED ON A BOUNDARY SURVEY PREPARED BY ROBERT H. VOGEL ENGINEERING, INC., DATED JUNE 2012.
- 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 STATIONS NO. 3513 AND 410C.  
ALL VERTICAL CONTROLS ARE BASED ON NAVD '88.  
VERTICAL CONTROLS PROVIDED ON THE DRAWINGS ARE:  
HOWARD COUNTY BENCHMARK 3513 (CONC. MON.)  
N 553573.69 E 1346098.09 ELEV. 415.34  
HARRIET TUBMAN LA. BY ATHOLTON HS.  
HOWARD COUNTY BENCHMARK 410C (CONC. MON.)  
N 552494.26 E 1347062.39 ELEV. 399.95  
MARTIN RD. NEAR CORNER OF FREETOWN RD.
- 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 THE 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 LOCATIONS 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.
- THE 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) 410-637-8713  
BGE (EMERGENCY) 410-685-0123  
BUREAU OF UTILITIES 410-313-4900  
COLONIAL PIPELINE COMPANY 410-795-1390  
MISS UTILITY 1-800-257-7777  
STATE HIGHWAY ADMINISTRATION 410-531-5533  
VERIZON 1-800-743-0033
- 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) 513-7450 AT LEAST FIVE 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(6) OF THE HOWARD COUNTY CODE.

**PART II - WATER**

- ALL WATER MAINS SHALL BE C-900 PVC DR-18 UNLESS OTHERWISE NOTED.
- 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 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 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.
- FOR SPRINKLER SYSTEM, ALL SINGLE FAMILY DWELLINGS WILL HAVE A MINIMUM OF A 1-1/2" WHC WITH A 1" OUTSIDE METER SETTING.
- TRACER WIRES AND CONTINUITY TEST STATIONS SHALL BE INSTALLED ON ALL DIP AND PVC WATER MAINS IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL.
- FOR PVC WATER MAINS, ALL RECORDS FOR THE QUALITY CONTROL AND QUALIFICATION TEST REQUIREMENTS NOTED IN SECTION 5.1 OF THE AWWA STANDARD C900 FOR PVC PRESSURE PIPE SHALL BE SUBMITTED WITH THE PIPE MATERIAL CERTIFICATIONS OR SHOP DRAWINGS PRIOR TO APPROVAL OF THE MATERIAL FOR USE. THE TEST RECORDS SHALL BE FOR THE PIPE TO BE INSTALLED UNDER THIS CONTRACT. ALL PVC PIPE SHALL CONTAIN MARKINGS TO ALLOW CROSS REFERENCING OF THE PIPE SUPPLIED TO THE TEST RECORDS RECEIVED.
- UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS, SACRIFICIAL ANODES SHALL BE INSTALLED ON ALL VALVES AND METALLIC FITTINGS USED WITH PVC WATER MAINS IN ACCORDANCE WITH VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION. SEVENTEEN (17) POUND MAGNESIUM ANODES SHALL BE INSTALLED ON ALL VALVES AND DUCTILE IRON FITTINGS INCLUDING RESTRAINTS AND HARNESSES. TWELVE (12) POUND ZINC ANODES SHALL BE INSTALLED ON ALL STAINLESS STEEL FITTINGS AND SADDLES USED WITH PVC MAINS. ALL "TEES" USED WITH PVC MAINS SHALL BE DUCTILE IRON.
- PROPER ASSEMBLY OF GASKETED PVC PIPE JOINTS. THE MANUFACTURER'S INSERTION LINE OF GASKETED PVC PIPE JOINTS INDICATES THE MAXIMUM DEPTH OF INSERTION OF THE SPIGOT INTO THE BELL. AFTER ASSEMBLY OF THE JOINT, THE INSERTION LINE SHALL REMAIN VISIBLE. DUAL INSERTION LINES ON GASKETED PVC PIPE INDICATE THE MAXIMUM AND MINIMUM DEPTH OF INSERTION OF THE SPIGOT INTO THE BELL. THE CONTRACTOR SHALL NOT OVER INSERT OR OVER HOME THE SPIGOT INTO THE BELL OF PVC PIPE.
- ALL CHANGES IN HORIZONTAL OR VERTICAL DIRECTION OF PVC WATER PIPE SHALL BE MADE WITH STANDARD BENDS. 3-DEGREE SWEEPS OR HIGH DEFLECTION (HD) COUPLINGS. NO BENDING OF THE PIPE OR DEFLECTING OF PVC PIPE JOINTS IS PERMITTED. WHERE HIGH DEFLECTION COUPLINGS OR 5-DEGREE SWEEPS ARE PERMITTED, THE CONTRACTOR SHALL PROVIDE ONE FULL PIPE LENGTH (20-FOOT LONG) ON EITHER SIDE OF THE HIGH DEFLECTION COUPLING OR 5-DEGREE SWEEP. THE CONTRACTOR SHALL USE A VIBRATORY PLATE COMPACTOR OR OTHER APPROVED MEANS TO THOROUGHLY COMPACT THE #57 STONE ON BOTH SIDES OF THE HIGH DEFLECTION COUPLING OR 5-DEGREE SWEEP. TAKING CARE NOT TO USE COMPACTION EQUIPMENT DIRECTLY OVER THE FITTING.  
PVC HIGH DEFLECTION COUPLINGS SHALL BE LIMITED TO A TOTAL DEFLECTION OF 3-DEGREES (1.5-DEGREE ON EITHER END OF THE COUPLING). SHALL BE RATED FOR A MINIMUM 200 PSI MEETING THE REQUIREMENTS OF AWWA C900. SHALL HAVE A MINIMUM 14" LENGTH OF 9-INCHES AND SHALL HAVE CENTER STOPS. PVC HIGH DEFLECTION COUPLINGS SHALL BE CERTAINTIED PVC HIGH DEFLECTION (HD) STOP COUPLINGS OR EQUAL.  
FIVE DEGREE SWEEPS SHALL BE BELL BY SPIGOT, RATED FOR A MINIMUM 225 PSI, DR18 MEETING THE REQUIREMENTS OF AWWA C900 AND SHALL BE MULTI FITTINGS (PEX) BLUE BRUTE DR18 OR EQUAL.

SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 308 OF THE SPECIFICATIONS AND WITH FINAL PLAN F-14-049.

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

*John R. Robinson* 3/19/14  
HOWARD SOIL CONSERVATION DISTRICT DATE

**PART III - SEWER**

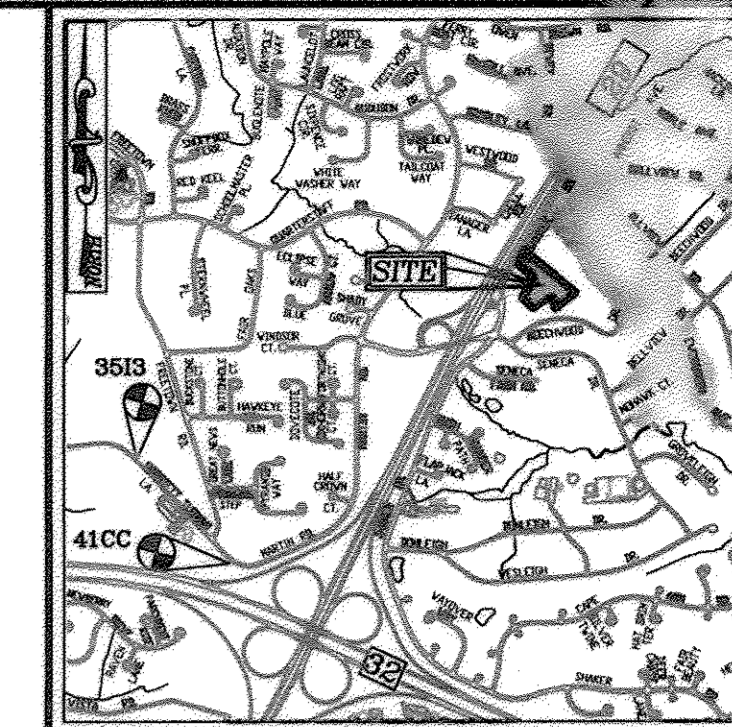
- ALL SEWER MAINS SHALL BE D.I.P. OR P.V.C UNLESS OTHERWISE NOTED.
- ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
- FORCE MAINS SHALL BE D.I.P. ONLY.
- MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY.
- MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATER TIGHT FRAME AND COVER, STANDARD DETAIL G5.52. WHERE WATER TIGHT MANHOLE FRAMES AND COVERS ARE USED, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT THE CELLAR CANNOT BE SERVED.

# FINAL WATER AND SEWER PLAN

## STELLA GLEN LOTS 9-11 & 14-17 AND STELLA GLEN II LOTS 8, 12, 13

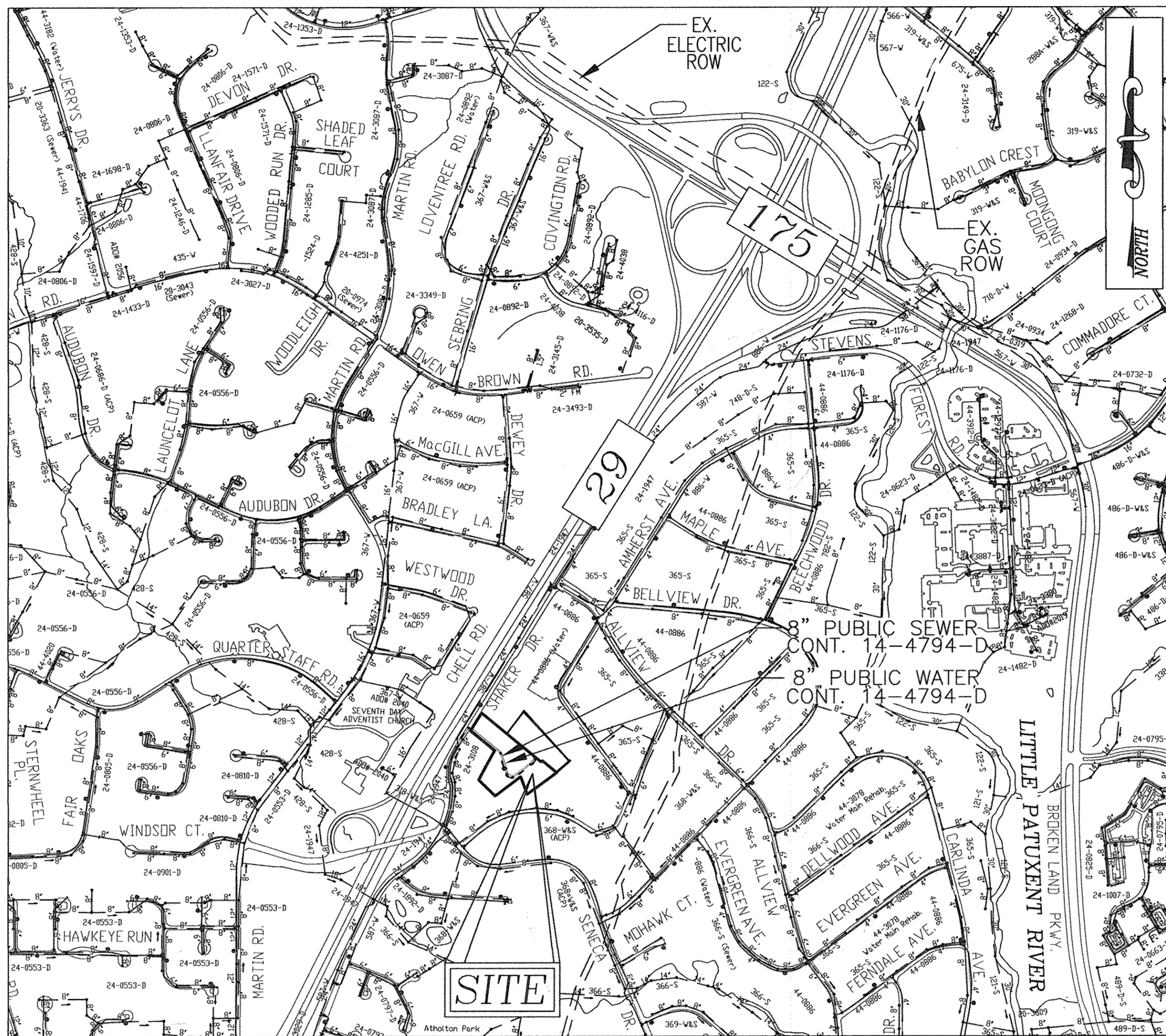
### TAX MAP: 36 PARCELS 57, 58, & 417

#### HOWARD COUNTY, MARYLAND



**VICINITY MAP**  
SCALE: 1"=2,000'  
ADC MAP COORDINATE: 49.35, B-10

**BENCHMARKS**  
HOWARD COUNTY BENCHMARK 3513 (CONC. MON.)  
N 553573.69 E 1346098.09 ELEV. 415.34  
HARRIET TUBMAN LA. BY ATHOLTON HS.  
HOWARD COUNTY BENCHMARK 410C (CONC. MON.)  
N 552494.26 E 1347062.39 ELEV. 399.95  
MARTIN RD. NEAR CORNER OF FREETOWN RD.



**LOCATION MAP**

SCALE: 1"=600'

WATER ZONE: 550  
TEST GRADIENT: 700

TYPE OF BUILDING:	SINGLE FAMILY DETACHED
NO. OF LOTS/PARCELS:	10
NO. OF SINGLE WATER HOUSE CONNECTIONS:	10
NO. OF TWIN WATER HOUSE CONNECTIONS:	0
NO. OF SEWER HOUSE CONNECTIONS:	10
NO. OF TWIN SEWER HOUSE CONNECTIONS:	0
DRAINAGE AREA:	LITTLE PATUXENT RIVER
TREATMENT PLANT:	LITTLE PATUXENT WRP

**PRIVATE WELL AND SEPTIC CHART**

PROPERTY	ADDRESS	WELL AND SEPTIC
EXISTING HOUSE ON LOT	10580 SHAKER DRIVE	TO BE ABANDONED
ANN PROPERTY	10560 SHAKER DRIVE	TO BE ABANDONED
EASTER PROPERTY	10590 SHAKER DRIVE	TO REMAIN
ELLIOTT PROPERTY	10550 SHAKER DRIVE	TO REMAIN

**NOTE:**  
WATER METERS WILL NOT BE RELEASED BY HOWARD COUNTY TO ANY NEW BUILDING UNTIL THE EXISTING WELLS AND SEPTIC SYSTEMS HAVE BEEN ABANDONED IN ACCORDANCE WITH HOWARD COUNTY HEALTH DEPARTMENT REGULATIONS AND THE EXISTING BUILDINGS ARE CONNECTED TO THE PUBLIC WATER AND SEWER MAINS.

**QUANTITIES**

NAME OF UTILITY CONTRACTOR:		SURVEY AND DRAFTING DIVISION AS-BUILT DATE:		AS-BUILT	
ITEMS	ESTIMATED	QUANTITIES	TYPE	MANUFACTURER/SUPPLIER	
<b>WATER</b>					
8" WATER (C-900 PVC DR-18)	784 LF		C900 DR-18	JM EAGLE / BRS	
6" WATER (C-900 PVC DR-18)	6 LF		C900 DR-18	JM EAGLE / BRS	
8"x6" TEE	1 EA			AMERICAN FLOW	
6" VALVE	1 EA			AMERICAN FLOW	
FIRE HYDRANT	1 EA		5" BSH	AMERICAN FLOW	
8" 1/8 HORIZONTAL BEND	4 EA		MS FITTING	TYLER UNION	
8" 1/16 HORIZONTAL BEND	1 EA		MS FITTING	TYLER UNION	
8" 1/32 HORIZONTAL BEND	3 EA		MS FITTING	TYLER UNION	
8" 5" HORIZONTAL SWEEP	1 EA		MS FITTING	TYLER UNION	
1 1/2" WHC	110 LF		TYPE K COPPER	TYLER UNION	
8" CAP AND BUTTRESS	1 EA			LANGELOE LEE / BRS	
<b>SEWER</b>					
8" SEWER (PVC)	415 LF		SOR 35 PVC	LB WATER / BRS	
8" SEWER (DIP CLASS 54)	547 LF		DR CL 52	LB WATER / BRS	
STANDARD MANHOLES	10 EA		4" STANDARD	SUPERIOR STRUCTURES	
8" SHC	60 LF		SOR 35 PVC	JM EAGLE / BRS	
4" SHC	110 LF		SOR 35 PVC	JM EAGLE / BRS	

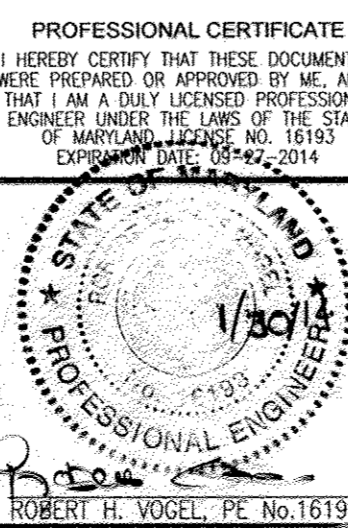
**AS-BUILTS**  
BY DATE: 5-22-15

**DEVELOPER**

TRINITY QUALITY HOMES, INC.  
3675 PARK AVENUE, SUITE 301  
ELLCOTT CITY, MD 21043  
(410) 480-0023

**OWNER**

MARY THERESE PFAU  
3675 PARK AVENUE, SUITE 301  
ELLCOTT CITY, MD 21043  
(410) 480-0023



**ROBERT H. VOGEL ENGINEERING, INC.**  
ENGINEERS • SURVEYORS • PLANNERS  
8407 MAIN STREET  
ELLCOTT CITY, MD 21043  
TEL: 410.461.7666  
FAX: 410.461.8961

DES:	RHV	4	ADD LOTS 8, 12, AND 13, ADD WATER HOUSE CONNECTIONS, UPDATE LOT NUMBERS	1-12-16
DRN:	JMR	3	REVISE LOCATION OF SMH-1; RELOCATE FIRE HYDRANT	5/21/15
CHK:	RHV	GH	2 LOWER SEWER SMH 9 - SMH 10	8/21/14
DATE:	JANUARY 2014	1	ADD WELL AND SEPTIC CHART	6/3/14
BY NO.			REVISION	DATE

**FINAL WATER & SEWER PLAN COVER SHEET**

STELLA GLEN LOTS 9-11 & 14-17, AND STELLA GLEN II LOTS 8, 12, & 13  
TAX MAP: 36 PARCELS 57, 58, & 417  
HOWARD COUNTY, MARYLAND  
CONTRACT 14-4794-D

SCALE AS SHOWN  
SHEET 1 OF 3

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND

CHIEF, BUREAU OF UTILITIES 3/14/14  
CHIEF, DEVELOPMENT ENGINEERING DIVISION 3-20-14

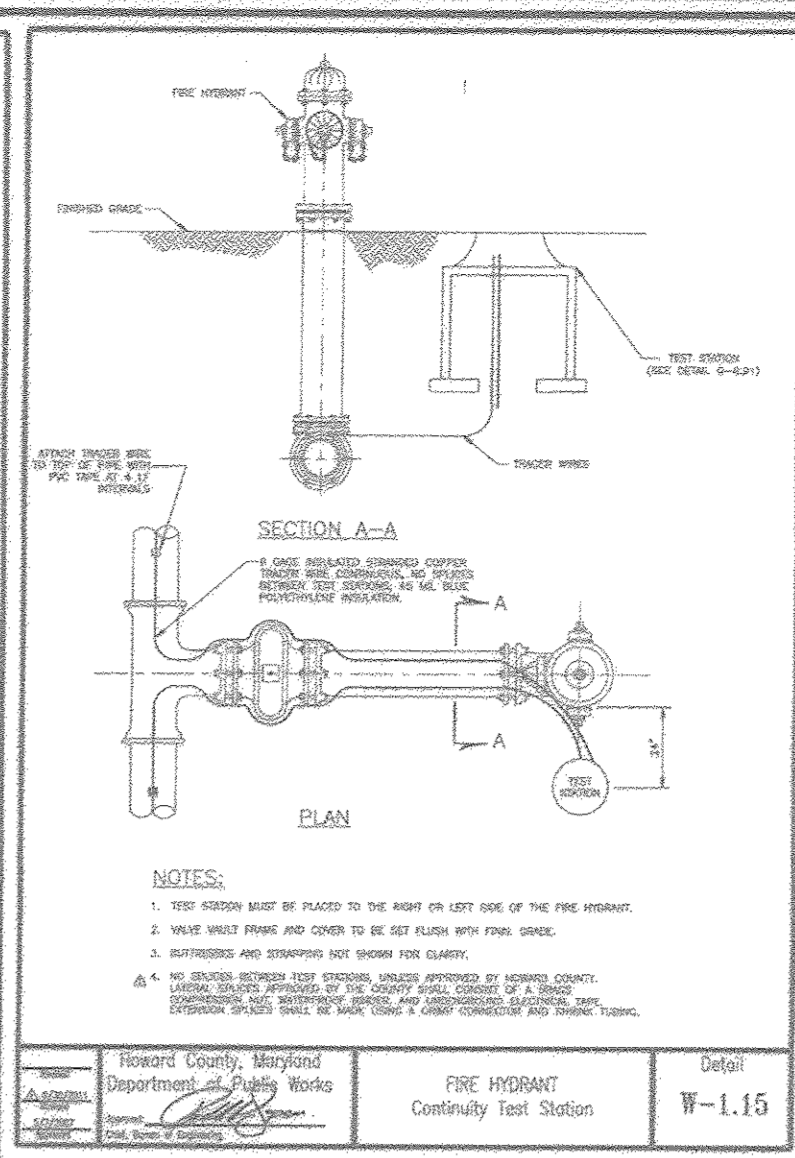
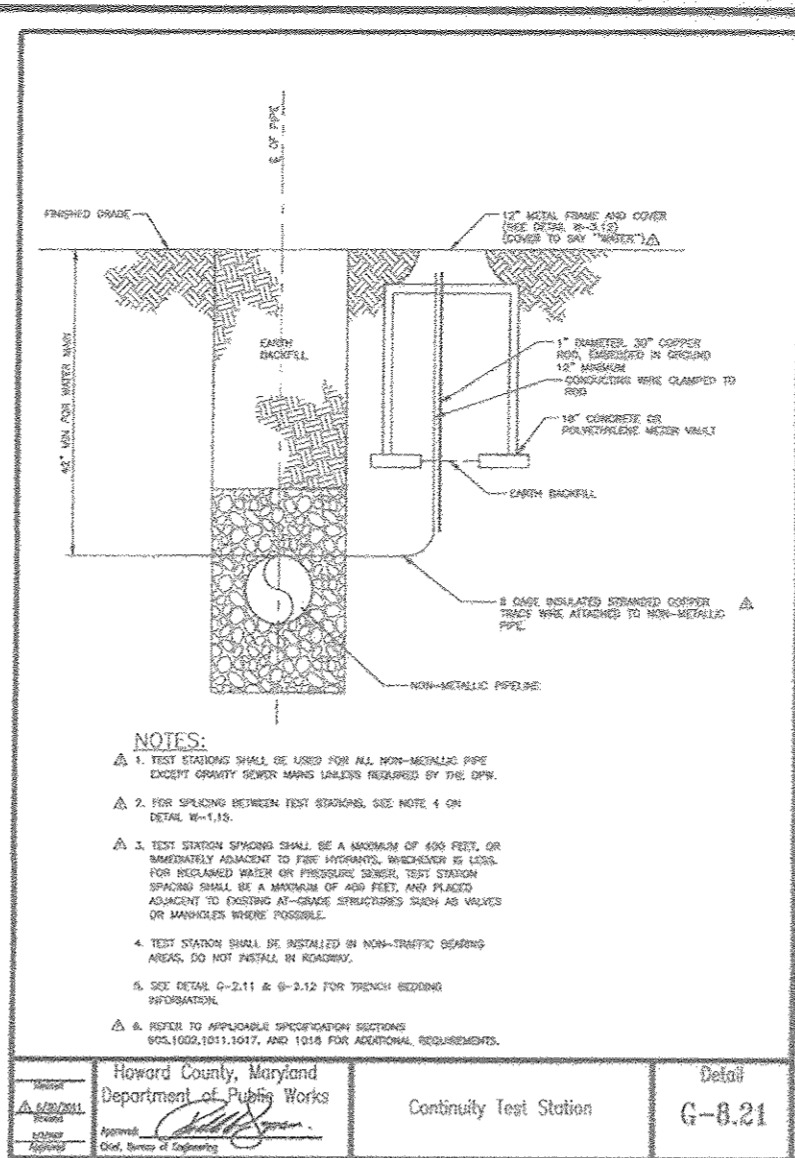
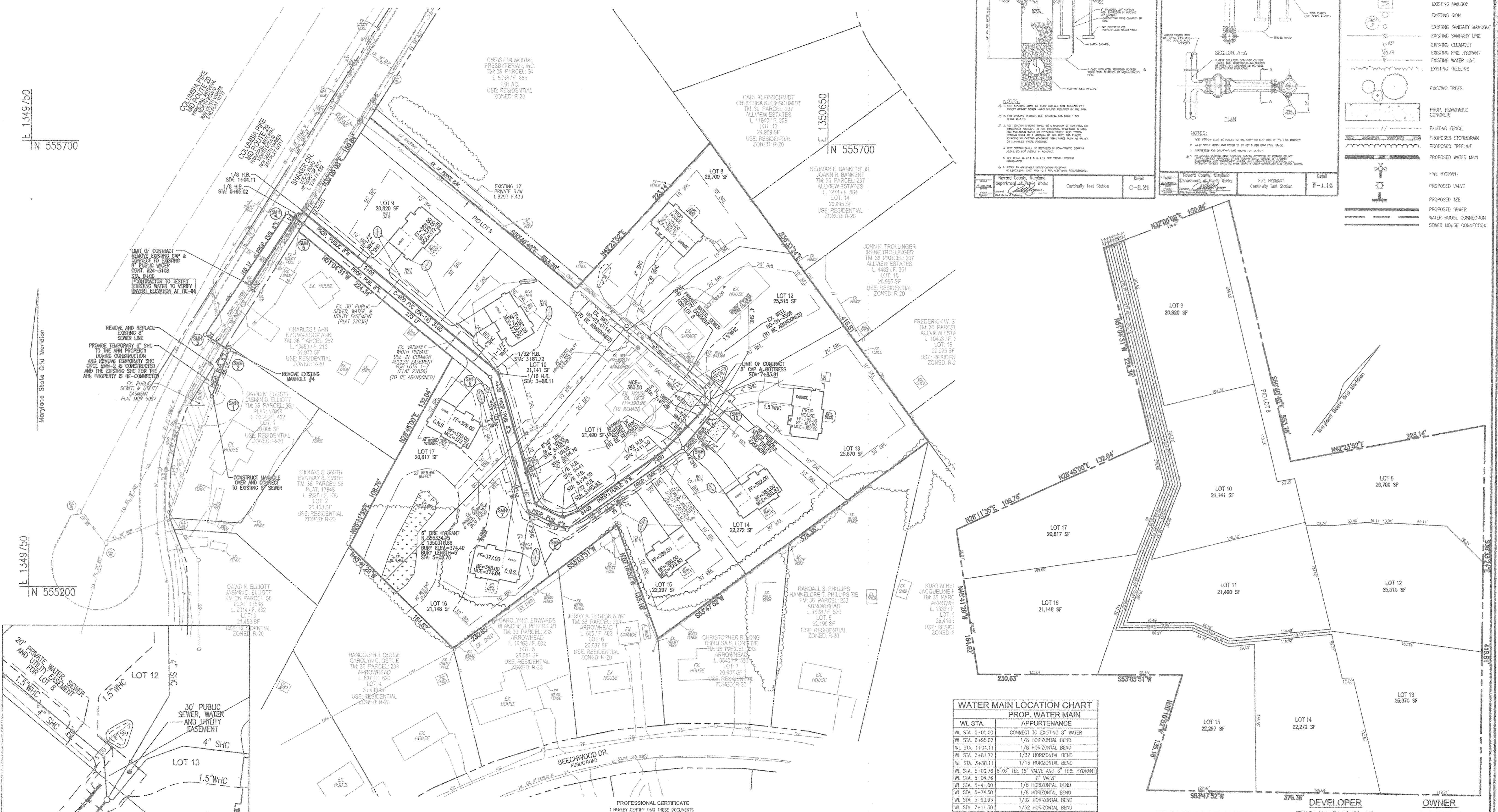
TAX MAP: 36 GRID: 19  
6TH ELECTION DISTRICT  
DPZ REF'S: ECP-13-024,  
SP-13-009, CONT. #24-3108

ZONING: R-20  
PARCELS: 57, 58, & 417  
HOWARD COUNTY, MARYLAND



PRIVATE WELL AND SEPTIC CHART		
PROPERTY	ADDRESS	WELL AND SEPTIC
EXISTING HOUSE ON LOT 3	10580 SHAKER DRIVE	TO BE ABANDONED
AHN PROPERTY	10560 SHAKER DRIVE	TO REMAIN
EASTER PROPERTY	10590 SHAKER DRIVE	TO REMAIN
ELLIOTT PROPERTY	10550 SHAKER DRIVE	TO REMAIN

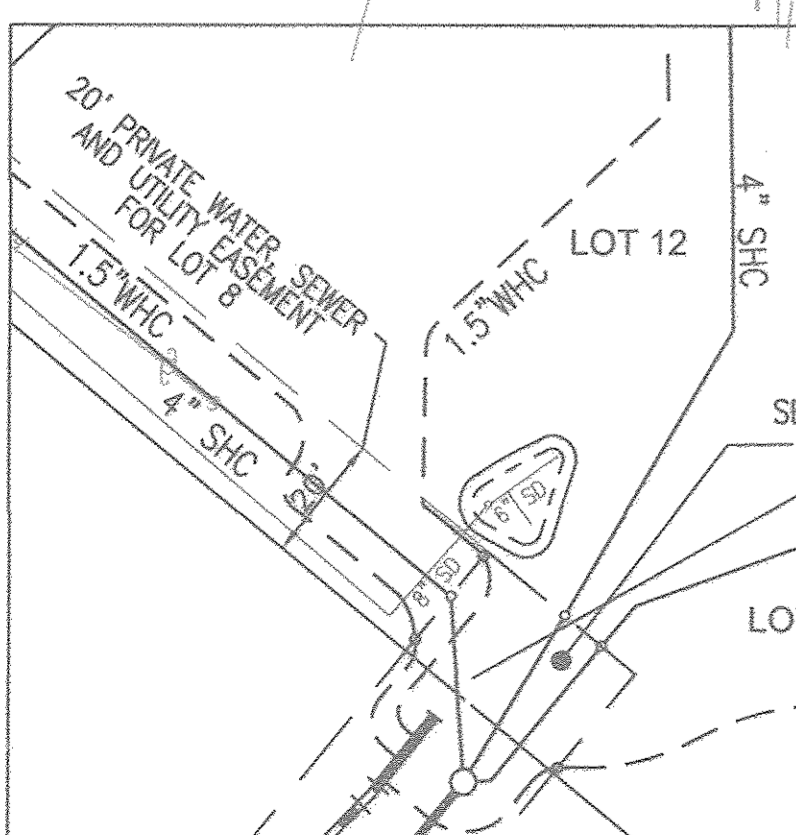
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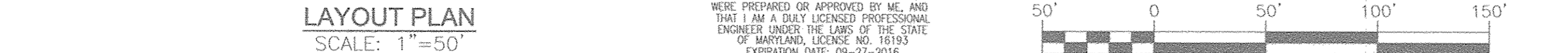
LEGEND:	
	PROPERTY LINE
	RIGHT-OF-WAY LINE
	ADJACENT PROPERTY LINE
	EXISTING CURBS AND GUTTERS
	EXISTING UTILITY POLE
	EXISTING LIGHT POLE
	EXISTING MANHOLE
	EXISTING SIGN
	EXISTING SANITARY MANHOLE
	EXISTING SANITARY LINE
	EXISTING CLEANOUT
	EXISTING FIRE HYDRANT
	EXISTING WATER LINE
	EXISTING TREE
	PROP. PERMEABLE CONCRETE
	EXISTING FENCE
	PROPOSED STORM DRAIN
	PROPOSED TREE LINE
	PROPOSED WATER MAIN
	FIRE HYDRANT
	PROPOSED VALVE
	PROPOSED TEE
	PROPOSED SEWER
	WATER HOUSE CONNECTION
	SEWER HOUSE CONNECTION

Howard County, Maryland Department of Public Works	Continuity Test Station	Detail	G-8.21
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Howard County, Maryland Department of Public Works	FIRE HYDRANT	Continuity Test Station	Detail	W-1.15
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CONNECTION DETAIL  
SCALE: 1"=30'



LAYOUT PLAN  
SCALE: 1"=50'

WATER MAIN LOCATION CHART	
WL STA.	PROP. WATER MAIN APPURTENANCE
WL STA. 0+00.00	CONNECT TO EXISTING 8" WATER
WL STA. 0+95.02	1/8 HORIZONTAL BEND
WL STA. 1+04.11	1/8 HORIZONTAL BEND
WL STA. 3+81.72	1/32 HORIZONTAL BEND
WL STA. 3+88.11	1/16 HORIZONTAL BEND
WL STA. 5+00.76	8"x6" TEE (6" VALVE AND 6" FIRE HYDRANT)
WL STA. 5+04.76	8" VALVE
WL STA. 5+41.00	1/8 HORIZONTAL BEND
WL STA. 5+74.50	1/8 HORIZONTAL BEND
WL STA. 5+93.93	1/32 HORIZONTAL BEND
WL STA. 7+11.30	1/32 HORIZONTAL BEND
WL STA. 7+67.89	5" HORIZONTAL SWEEP
WL STA. 7+83.81	8" CAP AND BUTTRISS

FRONT FOOT SKETCH  
SCALE: 1"=50'

DEVELOPER	OWNER
TRINITY QUALITY HOMES, INC. 3675 PARK AVENUE, SUITE 301 ELLICOTT CITY, MD 21043 (410) 480-0023	MARY THERESA PFAU 3675 PARK AVENUE, SUITE 301 ELLICOTT CITY, MD 21043 (410) 480-0023

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND

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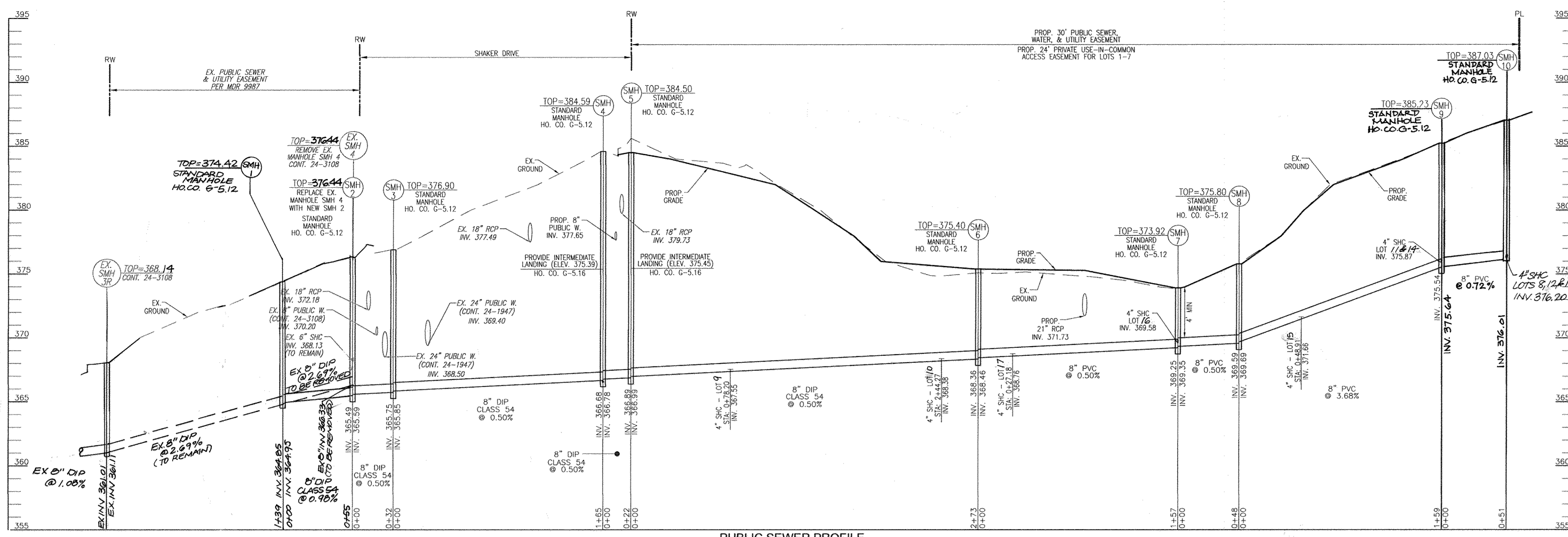
DES:	RHV			
DRN:	JMR	KG	4	ADD F-15-105 STELLA GLEN II.
			5	REVISE LOCATION OF SMH 1; RELOCATE FIRE HYDRANT.
CHK:	RHV	GH	2	LOWER SEWER SMH 9 - SMH 10.
			1	ADD WELL AND SEPTIC CHART.
DATE:	JANUARY 2014	BY	NO.	REVISION

**FINAL WATER & SEWER PLAN LAYOUT PLAN**  
800' SCALE MAP NO. 36  
BLOCK NO. 19

**STELLA GLEN - LOTS 9-11 & 14-17 AND STELLA GLEN II LOTS 8, 12, 13**  
TAX MAP: 36 PARCELS 57, 58, & 417  
HOWARD COUNTY, MARYLAND  
CONTRACT 14-4794-D  
TAX MAP: 36 GRID: 19  
6TH ELECTION DISTRICT  
SP-13-009, CONT. #24-3108  
ZONING: R-20  
PARCELS: 57, 58, & 417  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 2 OF 3





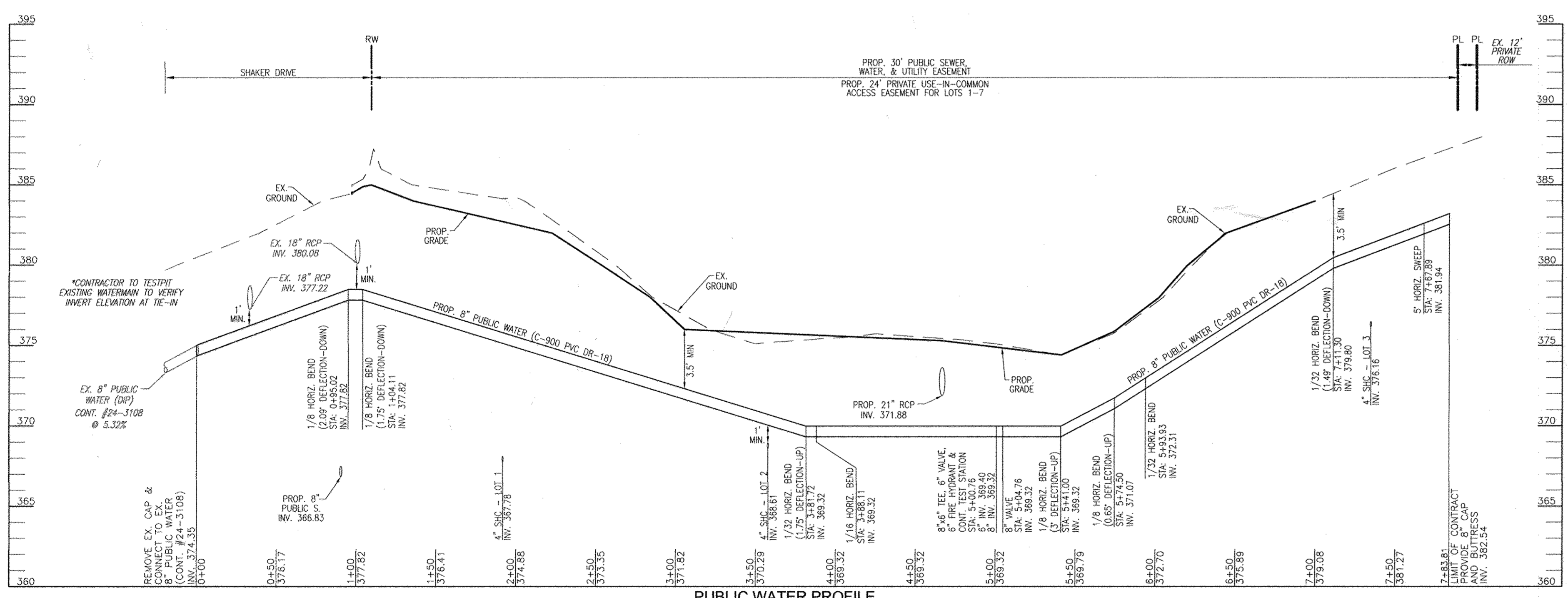
**PUBLIC SEWER PROFILE**  
SCALE: HORIZONTAL - 1"=50'  
VERTICAL - 1"=5'

WATER HOUSE CONNECTION AS-BUILT LOCATION TABLE			
LOT #	ADDRESS	LOCATION DIMENSION 1	LOCATION DIMENSION 2
LOT 9		WHC TO SMH-5-61'	WHC TO SMH-6-205'
LOT 10		WHC TO SMH-6-21'	WHC TO FH - 132'
LOT 11		WHC TO SMH-9-30'	WHC TO SMH-10-32'
LOT 14		WHC TO SMH-9-24'	WHC TO SMH-10-30'
LOT 15		WHC TO SMH-8-65'	WHC TO SMH-9-95'
LOT 16		WHC TO SMH-7-32'	WHC TO FH - 76'
LOT 17		WHC TO SMH-6-44'	WHC TO FH - 76'

SEWER HOUSE CONNECTION AS-BUILT LOCATION TABLE			
LOT #	ADDRESS	LOCATION DIMENSION 1	LOCATION DIMENSION 2
LOT 9		SHC TO SMH-5-72'	SHC TO SMH-6-194'
LOT 10		SHC TO SMH-6-31'	SHC TO FH - 142'
LOT 11		SHC TO SMH-9-22'	SHC TO SMH-10-42'
LOT 14		SHC TO SMH-9-12'	SHC TO SMH-10-54'
LOT 15		SHC TO SMH-8-54'	SHC TO SMH-9-106'
LOT 16		SHC TO SMH-7-135'	SHC TO FH - 88'
LOT 17		SHC TO SMH-6-33'	SHC TO FH - 88'
LOT 2		SHC TO SMH-9-74'	SHC TO SMH-10-28.8'
LOT 12		SHC TO SMH-9-82.1'	SHC TO SMH-10-31.8'
LOT 13		SHC TO SMH-9-82.2'	WHC TO SMH-10-31.8'

WATER HOUSE CONNECTION AS-BUILT LOCATION TABLE			
LOT #	ADDRESS	LOCATION DIMENSION 1	LOCATION DIMENSION 2
LOT 9		WHC TO SMH-9-66'	WHC TO SMH-10-23.1'
LOT 12		WHC TO SMH-9-82.3'	WHC TO SMH-10-25.2'
LOT 13		WHC TO SMH-9-63'	WHC TO SMH-10-15.7'

VALVE AS-BUILT LOCATION TABLE			
VALVE	DIMENSION 1	DIMENSION 2	
FHV AT STA. 5+00	TO FH - 5.5'	TO SMH-7 - 45.5'	
8" V @ STA 5+04	TO FH - 7.5'	TO SMH-7 - 42'	



**PUBLIC WATER PROFILE**  
SCALE: HORIZONTAL - 1"=50'  
VERTICAL - 1"=5'

SEWER MANHOLE SCHEDULE						
NO.	TYPE	LOCATION	TOP ELEV.	INV. IN	INV. OUT	
SMH 1	PRECAST MH HO. CO. STD. DET. G-5.12	N 555435.07 E 1349956.00	374.42	364.95	364.85	
SMH 2	PRECAST MH HO. CO. STD. DET. G-5.12	N 555465.44 E 1349975.12	376.44	365.59	365.49	
SMH 3	PRECAST MH HO. CO. STD. DET. G-5.12	N 555482.98 E 1349948.08	376.90	365.85	365.75	
SMH 4	PRECAST MH HO. CO. STD. DET. G-5.12	N 555620.00 E 1350039.61	384.59	366.78	366.68	
SMH 5	PRECAST MH HO. CO. STD. DET. G-5.12	N 555607.96 E 1350058.17	384.50	366.99	366.89	
SMH 6	PRECAST MH HO. CO. STD. DET. G-5.12	N 555436.73 E 1350270.19	375.40	368.46	368.36	
SMH 7	PRECAST MH HO. CO. STD. DET. G-5.12	N 555285.86 E 1350314.18	373.92	369.58	369.25	
SMH 8	PRECAST MH HO. CO. STD. DET. G-5.12	N 555265.52 E 1350358.12	375.80	369.69	369.59	
SMH 9	PRECAST MH HO. CO. STD. DET. G-5.12	N 555357.56 E 1350488.35	385.23	375.64	375.54	
SMH 10	PRECAST MH HO. CO. STD. DET. G-5.12	N 555396.83 E 1350520.52	387.03	-	376.01	

MCE CHART							
LOT #	EL @ MAIN	TYPE	DIST. TO ESMT.	EL @ ESMT.	DIST. ESMT. TO HOUSE	EL @ HOUSE	MCE
9	367.55	SHC	21.24	367.97	89	369.75	372.25
10	368.38	SHC	21.24	368.80	67	370.14	372.64
11	375.87	SHC	22.73	376.32	84	378.00	380.50
14	375.87	SHC	10	376.07	113	378.33	380.83
15	371.66	SHC	11.24	371.88	112	374.12	376.62
16	369.58	SHC*	12.27	369.83	86	371.54	374.04
17	368.76	SHC*	11.41	368.99	62	370.24	372.74

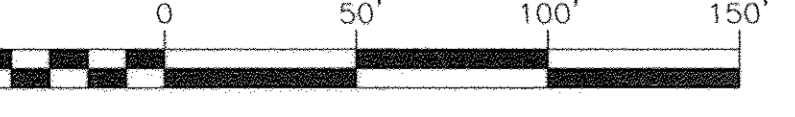
MCE CHART							
LOT#	EL @ MAIN	TYPE	DIST. TO ESMT.	EL @ ESMT.	DIST. ESMT. TO HOUSE	EL @ HOUSE	MCE
9	367.55	SHC	21.24	367.97	89	369.75	372.25
10	368.38	SHC	21.24	368.80	67	370.14	372.64
11	375.87	SHC	22.73	376.32	84	378.00	380.50
14	375.87	SHC	10	376.07	113	378.33	380.83
15	371.66	SHC	11.24	371.88	112	374.12	376.62
16	369.58	SHC*	12.27	369.83	86	371.54	374.04
17	368.76	SHC*	11.41	368.99	62	370.24	372.74

WATER APPURTENANCES		
FROM	TO	DISTANCE
FIVE STA 5+00	F.H.	5.5'
FHV @ STA 5+00	SMH-7	45.5'
8" V @ STA 5+04	F.H.	7.5'
8" V @ STA 5+04	SMH-7	42'

FROM	LOT 1 TO	DISTANCE	FROM	LOT 2 TO	DISTANCE
SHC	SMH-5	72'	SHC	SMH-6	31'
SHC	SMH-6	194'	F.H.	SMH-6	142'
WHC	SMH-5	61'	WHC	SMH-6	21'
WHC	SMH-6	205'	WHC	F.H.	132'

FROM	LOT 3 TO	DISTANCE	FROM	LOT 4 TO	DISTANCE
SHC	SMH-9	22'	SHC	SMH-9	12'
SHC	SMH-10	42'	SHC	SMH-10	54'
WHC	SMH-9	30'	WHC	SMH-9	24'
WHC	SMH-10	32'	WHC	SMH-10	30'

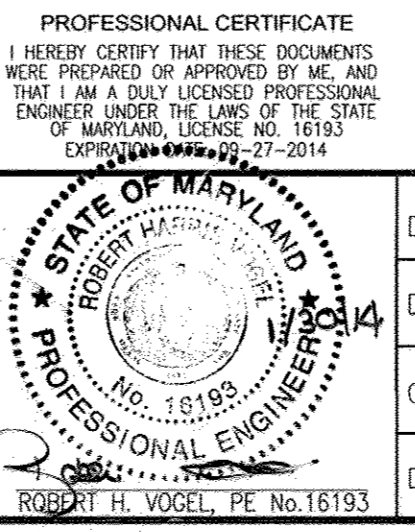
FROM	LOT 6 TO	DISTANCE	FROM	LOT 7 TO	DISTANCE
SHC	SMH-7	13.5'	SHC	SMH-6	33'
SHC	F.H.	88'	SHC	F.H.	88'
WHC	SMH-7	32'	WHC	SMH-6	44'
WHC	F.H.	76'	WHC	F.H.	76'



DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
S. G. Gern  
CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND  
Chris Chisholm  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

**ROBERT H. VOGEL ENGINEERING, INC.**  
ENGINEERS • SURVEYORS • PLANNERS  
8407 MAIN STREET  
ELLCOTT CITY, MD 21043  
TEL: 410.461.7666  
FAX: 410.461.8961



DES:	RHV	4	ADD LOTS 6, 12 AND 13, ADD WATER HOUSE CONNECTIONS; UPDATE LOT NUMBERS	1-12-16
DRN:	JMR	3	REVISE LOCATION OF SMH-1; RELOCATE FIRE HYDRANT	5/5/15
CHK:	RHV	GH 1	LOWER SEWER SMH 9 - SMH 10	08/21/14
DATE:	JANUARY 2014	BY	NO.	REVISION

**FINAL WATER & SEWER PLAN  
UTILITY PROFILES**

DEVELOPER: TRINITY QUALITY HOMES, INC.  
3675 PARK AVENUE, SUITE 301  
ELLCOTT CITY, MD 21043  
(410) 480-0023

OWNER: MARY THERESE PFAU  
3675 PARK AVENUE, SUITE 301  
ELLCOTT CITY, MD 21043  
(410) 480-0023

STELLA GLEN  
LOTS 9-11 & 14-17 AND STELLA GLEN LOTS 8, 12, 13  
TAX MAP: 36 PARCELS 57, 58, & 417  
HOWARD COUNTY, MARYLAND  
CONTRACT 14-4794-D

TAX MAP: 36 GRID: 19  
6TH ELECTION DISTRICT  
022-REF'S: EOP-13-024,  
SP-13-009; CONT. #24-3108

ZONING: R-20  
PARCELS: 57, 58, & 417  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 3 OF 3