

QUANTITIES			
ITEMS	QUANTITIES ESTIMATED	AS-BUILT	
		QUANTITIES	MANUF./SUPPLIER
8" WATER	787 LF.	787	GRIPPIN/BS
PVC HYDRANTS	482 LF.	482	AMERICAN FLOW
1" W.C.	4	4	COPPER
8" 1/16 HB	4	4	T.V.L.E.R.
8" 1/8 HB	1	1	T.V.L.E.R.
8" x 8" T.S.B.V.	1	1	AMERICAN FLOW
8" CAP & BUTTRESS	1	1	T.V.L.E.R.
6" VALVE	4	4	KENNEDY
6" DIP	4	4	GRIPPIN
8" PVC SEWER	1,133 LF.	1,076.0	J.M. CONTRACTOR PRECAST
MANHOLES	9 EA.	9 EA.	J.M. CONTRACTOR PRECAST
4" SIC	350 LF.	318.0	PVC

NAME OF UTILITY CONTRACTOR: C.J. MILLER  
 SURVEY AND DRAFTING DIVISION AS-BUILT DATE:

NOTES:  
 1. ALL PROPOSED WATER AND SEWER MAINS ARE TO BE "PUBLIC".  
 2. WATER METERS SHALL BE INSIDE.

SEWER HOUSE CONNECTION LOCATION AND ELEVATION DATA								
LOT NO.	RD.WY. C/L STA.	INVERT AT MAIN	INVERT AT SHC	INVERT AT R/W	INVERT AT EASEMENT	MCE	HO.CO.STD.	REMARKS
LOT 1	3+37.90 4.33' R	386.87	387.04	-	387.51	391.9	S-2.11	SHC @ 2%
LOT 2	4+25.02 4.19' R	388.63	388.80	-	389.28	393.6	S-2.11	SHC @ 2%
LOT 3	5+26.06 4.03' R	390.67	390.84	-	391.32	395.7	S-2.11	SHC @ 2%
LOT 4	6+40.33 3.86' R	392.98	393.15	-	393.63	398.0	S-2.11	SHC @ 2%
LOT 5	7+19.70 3.72' R	395.76	395.93	-	396.42	400.8	S-2.11	SHC @ 2%
LOT 6	8+14.52 18.53' R	400.64	400.81	-	401.60	405.8	S-2.11	SHC @ 2%
LOT 7	8+14.52 28.25' R	401.00	401.17	-	401.77	406.2	S-2.11	SHC @ 2%
LOT 8	8+14.52 28.25' R	401.00	401.17	-	401.75	406.4	S-2.11	SHC @ 2%
LOT 9	6+52.13 3.84' H	393.22	393.39	393.97	-	398.4	S-2.11	SHC @ 2%
LOT 10	5+41.92 4.01' R	390.99	391.16	391.74	-	396.1	S-2.11	SHC @ 2%
LOT 11	4+50.99 4.15' R	389.15	389.32	389.90	-	394.3	S-2.11	SHC @ 2%
LOT 12	4+00.23 4.23' R	386.13	386.30	386.88	-	393.3	S-2.11	SHC @ 2%
LOT 13	2+94.34 8.24' R	385.97	386.14	386.81	-	391.2	S-2.11	SHC @ 2%

NOTE: SHC'S SHALL BE AT 2.0% TYP.

WATER HOUSE CONNECTION LOCATION AND ELEVATION DATA							
LOT NO.	RD.WY. C/L STA.	W.M. C/L STA.	INVERT @ MAIN	INVERT @ WHC	INVERT @ R/W	MAIN	REMARKS
LOT 1	3+84.00 7.10' L	3+19.73	392.29	392.58	392.58	8" MAIN	-
LOT 2	4+63.73 6.63' L	4+19.48	395.54	395.83	395.83	8" MAIN	-
LOT 3	5+84.46 6.69' L	5+20.21	400.95	401.24	401.24	8" MAIN	-
LOT 4	6+72.23 6.74' L	6+27.98	403.95	404.24	404.24	8" MAIN	-
LOT 5	7+58.94 3.44' L	7+14.5	405.51	405.80	405.80	8" MAIN	-
LOT 6	7+93.64 3.50' L	7+49.10	406.13	406.42	406.42	8" MAIN	-
LOT 7	8+05.64 6.49' L	7+60.60	406.34	406.63	406.63	8" MAIN	-
LOT 8	8+14.06 8.89' L	7+71.05	406.51	406.80	406.80	8" MAIN	-
LOT 9	7+05.93 6.75' L	6+11.77	404.56	404.85	404.85	8" MAIN	-
LOT 10	5+97.69 6.70' L	5+53.53	402.29	402.58	402.58	8" MAIN	-
LOT 11	4+77.90 6.65' L	4+33.74	396.27	396.56	396.56	8" MAIN	-
LOT 12	4+34.55 6.25' L	3+90.39	394.26	394.55	394.55	8" MAIN	-
LOT 13	3+31.02 8.35' L	2+86.83	391.92	392.21	392.21	8" MAIN	-

WATER HOUSE CONNECTION AS-BUILT LOCATION TABLE			
LOT NO.	ADDRESS	LOCATION DIMENSION 1	LOCATION DIMENSION 2
LOT 1	COLUMBIA HILLS COURT	116.80 TO MH14	75.10 TO MH15
LOT 2	COLUMBIA HILLS COURT	172.90 TO MH15	92.0 TO FH STA. 3+39
LOT 3	COLUMBIA HILLS COURT	44.75 TO FH STA. 5+30	130.0 TO MH16
LOT 4	COLUMBIA HILLS COURT	106.80 TO FH STA. 5+30	33.0 TO MH16
LOT 5	COLUMBIA HILLS COURT	70.20 TO MH16	30.55 TO MH17
LOT 6	COLUMBIA HILLS COURT	55.75 TO MH17	47.6 TO MH18
LOT 7	COLUMBIA HILLS COURT	83.75 TO MH17	31.75 TO MH18
LOT 8	COLUMBIA HILLS COURT	102.20 TO MH17	44.0 TO MH18
LOT 9	COLUMBIA HILLS COURT	131.0 TO FH STA. 5+30	29.8 TO MH16
LOT 10	COLUMBIA HILLS COURT	24.0 TO FH STA. 5+30	100.2 TO MH16
LOT 11	COLUMBIA HILLS COURT	94.8 TO FH STA. 3+39	97.1 TO FH STA. 5+30
LOT 12	COLUMBIA HILLS COURT	144.9 TO MH15	51.3 TO FH STA. 3+39
LOT 13	COLUMBIA HILLS COURT	77.6 TO MH14	48.9 TO MH15

SEWER HOUSE CONNECTION AS-BUILT LOCATION TABLE			
LOT NO.	ADDRESS	LOCATION DIMENSION 1	LOCATION DIMENSION 2
LOT 1	COLUMBIA HILLS COURT	93.1 TO MH14	51.4 TO MH15
LOT 2	COLUMBIA HILLS COURT	135.2 TO MH15	62.0 TO FH STA. 3+39
LOT 3	COLUMBIA HILLS COURT	46.0 TO FH STA. 5+30	38.55 TO WHC LOT 3
LOT 4	COLUMBIA HILLS COURT	78.0 TO FH STA. 5+30	57.6 TO MH16
LOT 5	COLUMBIA HILLS COURT	38.15 TO MH16	61.5 TO MH17
LOT 6	COLUMBIA HILLS COURT	69.9 TO MH17	39.5 TO MH18
LOT 7	COLUMBIA HILLS COURT	88.15 TO MH17	31.1 TO MH18
LOT 8	COLUMBIA HILLS COURT	95.0 TO MH17	33.5 TO MH18
LOT 9	COLUMBIA HILLS COURT	76.15 TO FH STA. 5+30	50.5 TO MH16
LOT 10	COLUMBIA HILLS COURT	34.0 TO FH STA. 5+30	153.0 TO MH16
LOT 11	COLUMBIA HILLS COURT	160.9 TO MH15	67.3 TO FH STA. 3+39
LOT 12	COLUMBIA HILLS COURT	112.75 TO MH15	14.9 TO FH STA. 3+39
LOT 13	COLUMBIA HILLS COURT	47.15 TO MH14	35.5 TO MH15

SHEET INDEX	
NO.	DESCRIPTION
1	PUBLIC WATER AND SEWER TITLE SHEET
2	PUBLIC WATER AND SEWER PLAN, NOTES AND DETAILS
3	PUBLIC WATER AND SEWER PROFILES, NOTES AND DETAILS

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

*John K. Robertson* 2/25/09  
 HOWARD SOIL CONSERVATION DISTRICT DATE

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY STANDARD SPECIFICATIONS AND AS PER ROAD CONSTRUCTION PLANS, F-09-006

SANITARY SEWER MANHOLE DATA									
NO.	TYPE	LOCATION	SHC INV. IN	INV. IN	INV. OUT	RIM ELEV.	EXISTING UNDERGROUND	REMARKS	CONTRACT NO.
EX. MH 2	4" CONC. MANHOLE	SYBERT DRIVE @ STA. 5+48.49 5.29' LEFT	-	-	374.56	374.36	EXISTING UNDERGROUND	UNDER CONTRACT 24-4206-D	
10	STD. 4.0" PRECAST	SYBERT DRIVE @ STA. 3+90.97 6.79' LEFT	-	-	380.74	380.54	EXISTING UNDERGROUND	HO. CO. STD. G-5-11	
11	STD. 4.0" PRECAST	SYBERT DRIVE @ STA. 2+49.95 7.69' LEFT	-	-	383.77	383.57	EXISTING UNDERGROUND	HO. CO. STD. G-5-11	
12	STD. 4.0" PRECAST	COLUMBIA HILLS COURT @ STA. 1+11.12 3.65' RIGHT	-	-	384.48	384.28	EXISTING UNDERGROUND	HO. CO. STD. G-5-11	
13	STD. 4.0" PRECAST	COLUMBIA HILLS COURT @ STA. 1+78.03 3.82' RIGHT	-	-	385.00	384.80	EXISTING UNDERGROUND	HO. CO. STD. G-5-11	
14	STD. 4.0" PRECAST	COLUMBIA HILLS COURT @ STA. 2+55.37 7.51' RIGHT	-	-	385.60	385.40	EXISTING UNDERGROUND	HO. CO. STD. G-5-11	
15	STD. 4.0" PRECAST	COLUMBIA HILLS COURT @ STA. 2+95.07 8.21' RIGHT	-	-	386.01	385.81	EXISTING UNDERGROUND	HO. CO. STD. G-5-11	
16	STD. 4.0" PRECAST	COLUMBIA HILLS COURT @ STA. 2+45.37 3.77' RIGHT	-	-	397.63	397.43	EXISTING UNDERGROUND	HO. CO. STD. G-5-11	
17	STD. 4.0" PRECAST	COLUMBIA HILLS COURT @ STA. 7+73.40 12.43' RIGHT	-	-	399.51	399.31	EXISTING UNDERGROUND	HO. CO. STD. G-5-11	
18	STD. 4.0" PRECAST	N 573,459.76 E 1,361,729.28	401.69/401.73	-	-	401.00	411.77	HO. CO. STD. G-5-11	

NOTES:  
 1. STRUCTURE LOCATION FOR MANHOLES IS AT THE CENTER OF THE STRUCTURE.

# PUBLIC WATER AND SEWER CONSTRUCTION PLANS

## COLUMBIA HILLS, SECTION 10

### LOTS 1 THRU 13 AND OPEN SPACE LOT 14 THRU 16

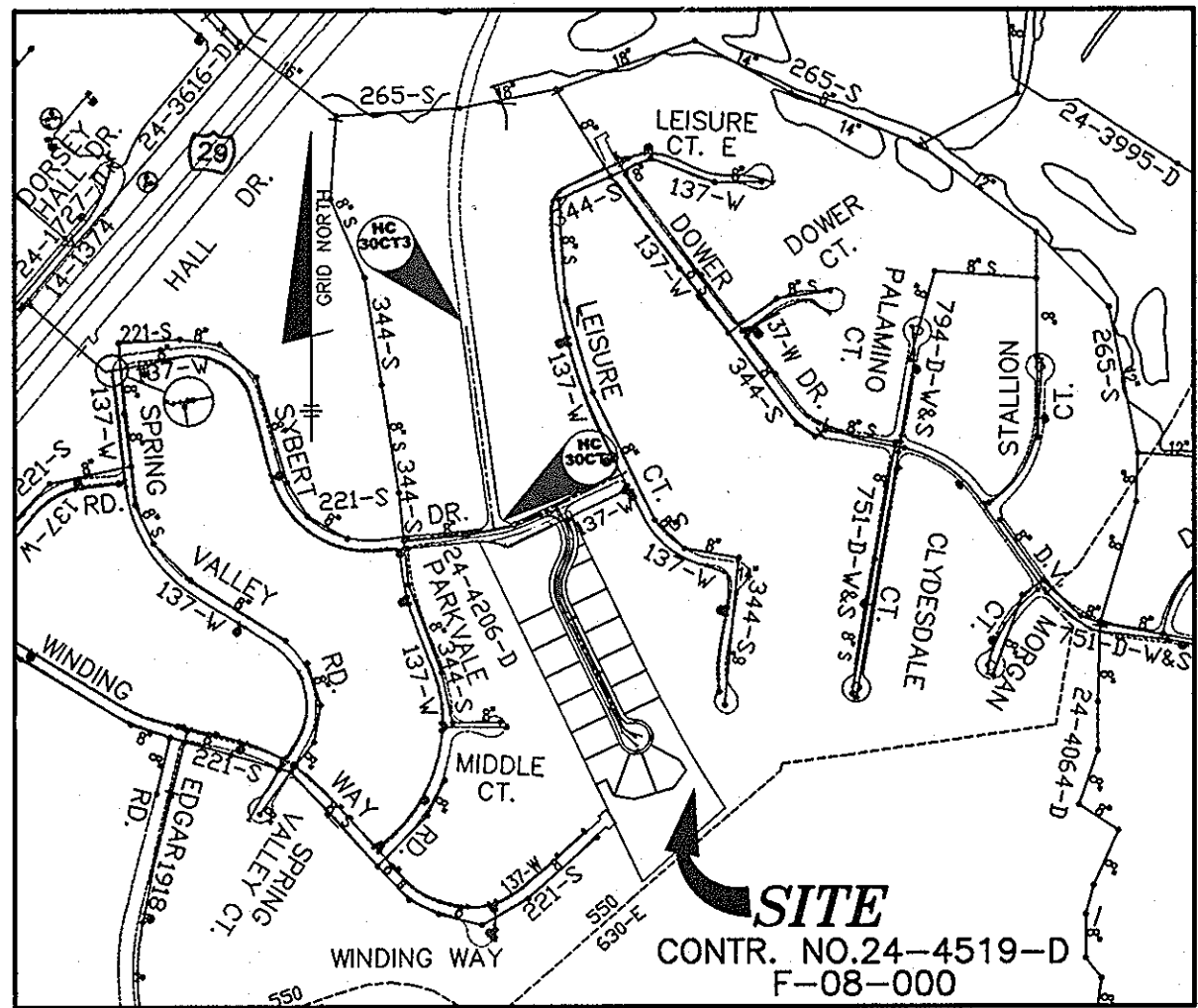
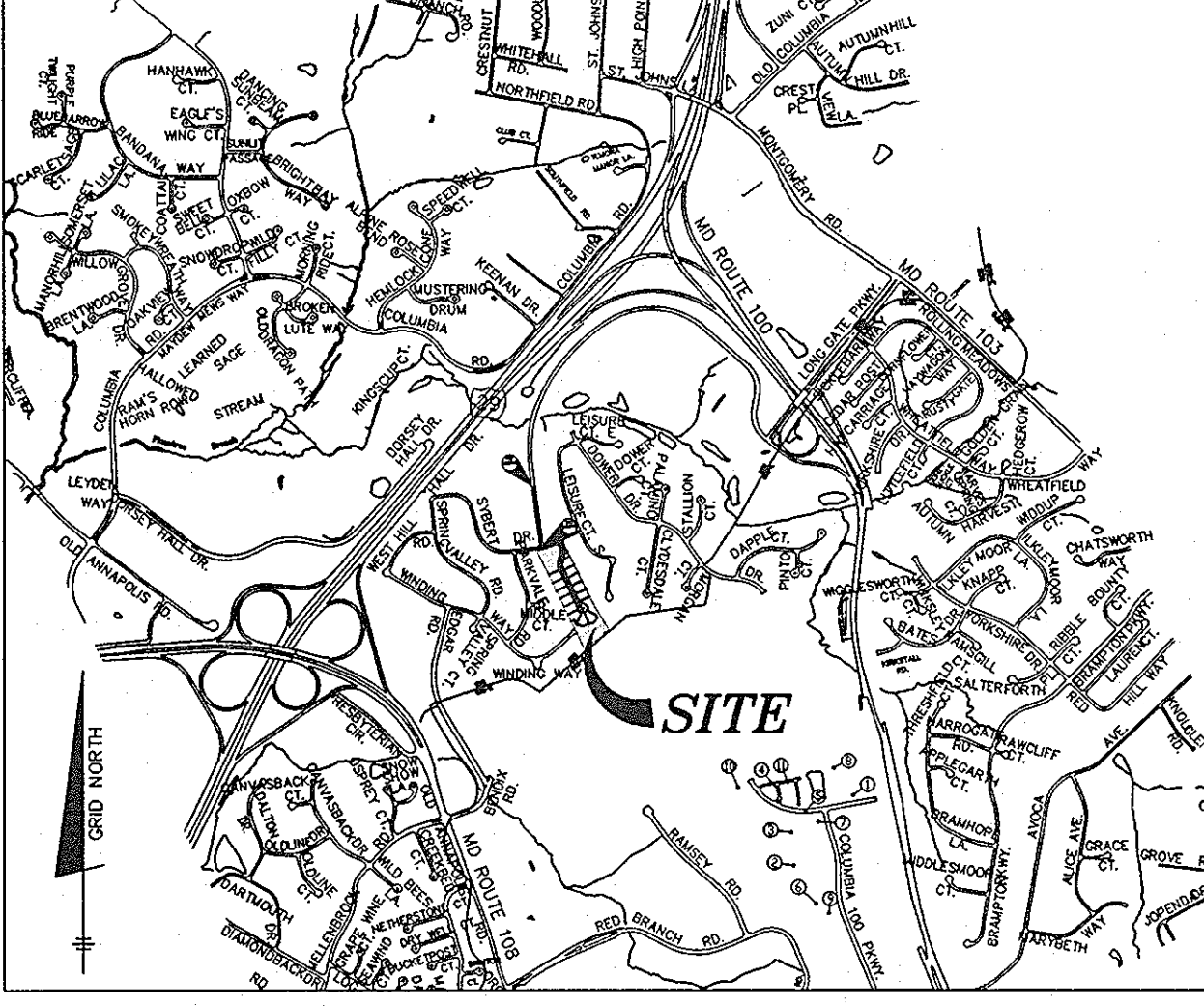
### TAX MAP 30 - GRID 5 - PARCEL 13

### 2nd ELECTION DISTRICT

### HOWARD COUNTY, MARYLAND

## CONTRACT No. 24-4519-D

BENCH MARKS NAD'83 HORIZONTAL	
NO. CO. #30012 3/8" REBAR WITH RED PLASTIC CAP N 574179.232' ELEV. = 388.74	E 1361312.723'
NO. CO. #30013 3/8" REBAR WITH RED PLASTIC CAP N 574812.750' ELEV. = 386.42	E 1361173.247'



WATER AND SEWER COUNTY CODE		TYPE OF BUILDING: SINGLE FAMILY DETACHED	
WATER CODE: F09	NUMBER OF BUILDABLE LOTS: 13	SEWER CODE: 5750610	NUMBER OF WHC'S: 13
TEST GRADIENT: 700	SEWER SHED: PATUXENT	TREATMENT PLANT: LITTLE PATUXENT WATER QUALITY MANAGEMENT CENTER	

LEGEND	
EXIST. WATER MAIN	—
EXIST. SEWER MAIN	—
EXIST. SEWER MANHOLE	○
PROP. WATER MAIN	—
PROP. SEWER MAIN	—
PROP. STORM DRAIN (BY OTHERS)	—
PROP. SEWER MANHOLE	○
PROP. SEWER HOUSE CONNECTION	—
PROP. DROP HOUSE CONNECTION	—
PROP. WATER HOUSE CONNECTION (SINGLE - 1")	—
PROP. FIRE HYDRANT	—
PROP. VALVE	—
PROP. PLUG & BUTTRESS	—

### GENERAL NOTES

- PART 1 - GENERAL
- APPROXIMATE LOCATION OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SUPPLY. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
  - TOPOGRAPHIC FIELD SURVEYS WERE PERFORMED ON JANUARY, 2007 BY BENCHMARK ENGINEERING INC.
  - 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. 30012 AND NO. 30013.
  - ALL VERTICAL CONTROLS ARE BASED ON NAVD'83. VERTICAL CONTROLS PROVIDED ON THE DRAWINGS ARE PROJECTED FROM HOWARD COUNTY MONUMENT 30022.
  - ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED ON PLAN.
  - 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 STANDARD SPECIFICATIONS (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 PIT. 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 MADE SHALL BE LOCATED BY THE CONTRACTOR AT HIS OWN EXPENSE IN ADVANCE OF CONSTRUCTION OPERATIONS AT HIS OWN EXPENSE.
  - CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE (5) WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
    - AT&T.....1-800-252-1133
    - BGE CONSTRUCTION SERVICES.....410-850-4620
    - BGE (ENERGY CO.).....410-695-1400
    - HOWARD CO. DEPT. OF PUBLIC WORKS.....410-313-4900
    - 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
  - TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO MAXIMUM EXTENT. TREES AND SHRUBS LOCATED WITHIN THE CONSTRUCTION STRIP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR.
  - 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 MAINS.
  - PLACE REGULATION "MEN WORKING" AND WARNING SIGNS AS REQUIRED TO COMPLY WITH MARYLAND STATE HIGHWAY ADMINISTRATION MANUAL OF TRAFFIC CONTROL FOR HIGHWAY MAINTENANCE OPERATIONS.
  - THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, AT (410) 313-7450 AT LEAST FIVE (5) WORKING DAYS BEFORE ANY OPEN CUT OF ANY COUNTY ROAD OR BORING/JACKING OPERATION IN 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(a) OF THE HOWARD COUNTY CODE.

### PART 2 - WATER

- ALL WATER MAINS TO BE D.I.P. CLASS 54 UNLESS OTHERWISE NOTED.
- TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3.5" 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 RESTRAINED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAILS. 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.
- ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING UNLESS OTHERWISE NOTED ON PLANS OR IN SPECIFICATIONS. ALL WATER HOUSE CONNECTIONS SHALL BE 1 INCH.
- FOR SPRINKLER SYSTEM FOR ALL TOWN HOMES OR MULTI-FAMILY DWELLING UNITS SHOULD HAVE A MINIMUM OF 1" CONNECTION WITH A 3/4" METER.

### PART 3 - 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.I.T. IN PLAN AND PROFILE SHALL HAVE WATERIGHT FRAME AND COVERS. STANDARD DETAIL 05-52. WATERIGHT MANHOLE FRAME AND COVER IS USED, SET TOP OF FRAME 1'-0" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT CELLAR CANNOT BE SERVED.

NOTE: CONTRACTORS TO EXERCISE EXTREME CAUTION WHEN WORKING IN AREA OF EXIST. OVERHEAD LINES.

NOTE: ALL JOINTS AND CONNECTIONS LOCATED WITHIN STRUCTURAL FILL AREAS SHALL BE MECHANICALLY RESTRAINED IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (LATEST EDITION)

DEVELOPER/OWNER:  
 COLUMBIA HILLS L.L.C.  
 P.O. BOX 417  
 ELLICOTT CITY, MARYLAND 21041  
 PHONE: (410) 465-4244

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
*Steve Clum* 2/25/09  
 CHIEF, BUREAU OF UTILITIES DATE

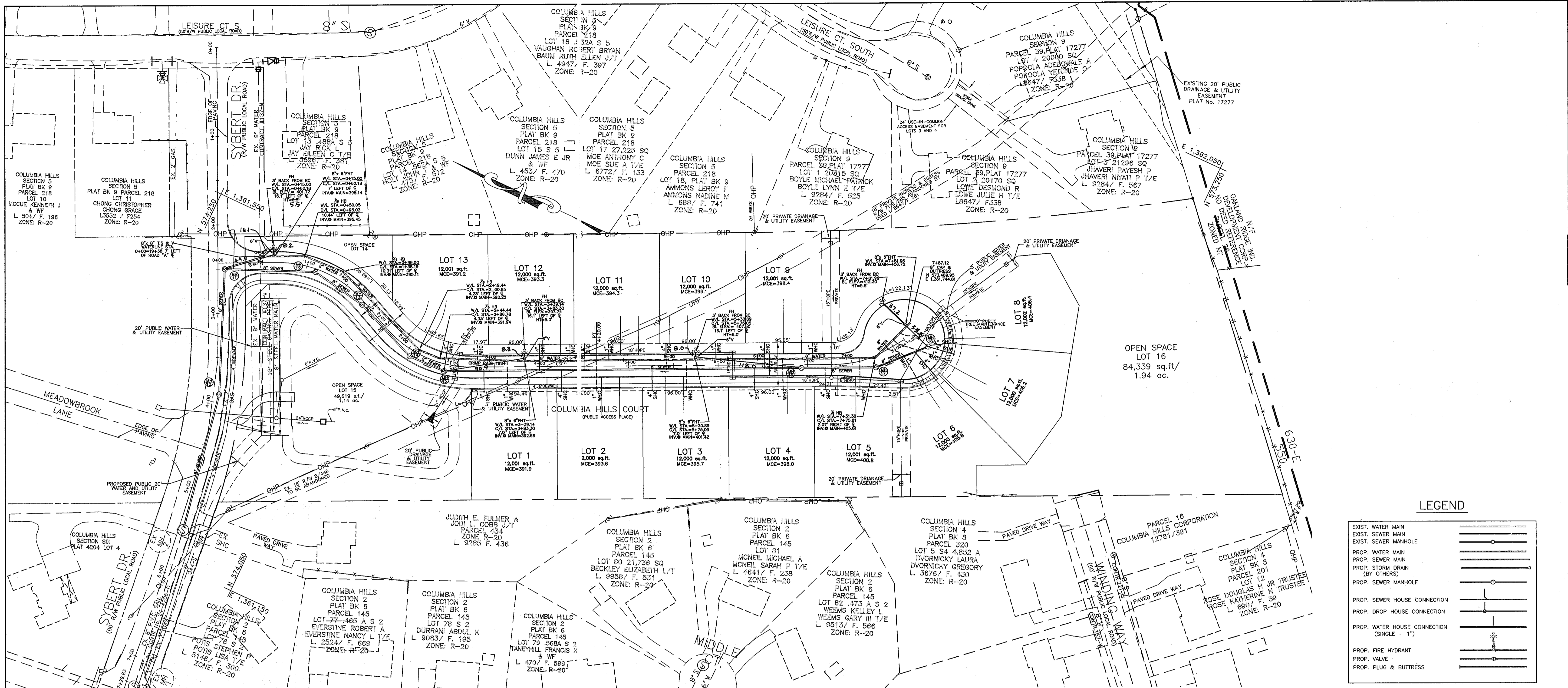
DEPARTMENT OF PLANNING AND ZONING  
 HOWARD COUNTY, MARYLAND  
*John M. G. 3/5/09*  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

BENCHMARK  
 ENGINEERS • LAND SURVEYORS • PLANNERS  
 8480 BALTIMORE NATIONAL PIKE & SUITE 418  
 ELLICOTT CITY, MARYLAND 21043  
 PHONE: 410-465-6105 FAX: 410-465-6644

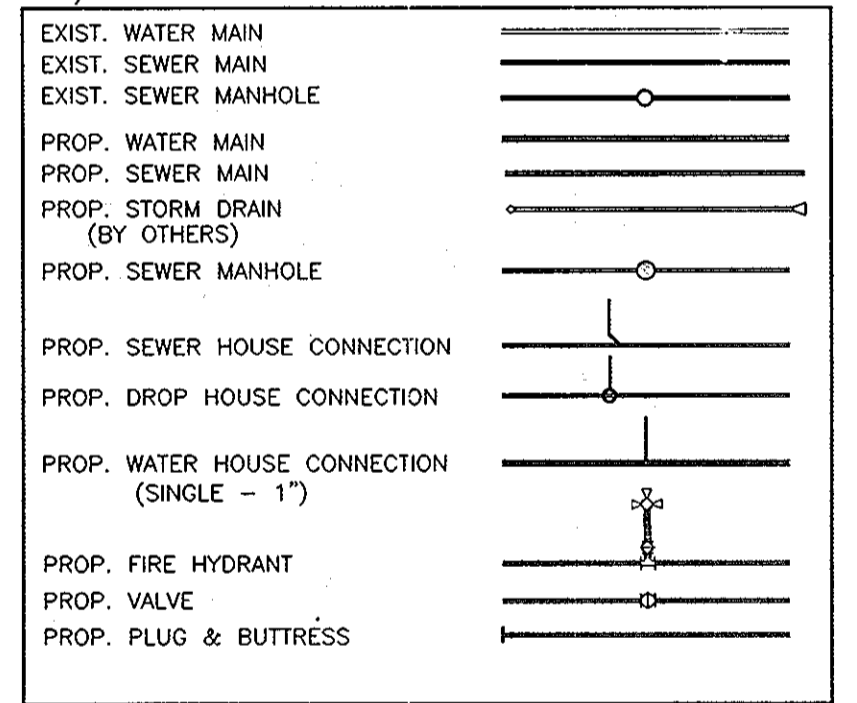
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DRAFT: W.E.O.	
CHK: DAM	
DATE: 06/08	
BY: KCI 1	ASBUILT REVISIONS 8-20-10
NO.	REVISIONS

PUBLIC WATER AND SEWER  
 TITLE SHEET  
 600 SCALE MAP NO. 50  
 BLOCK 3

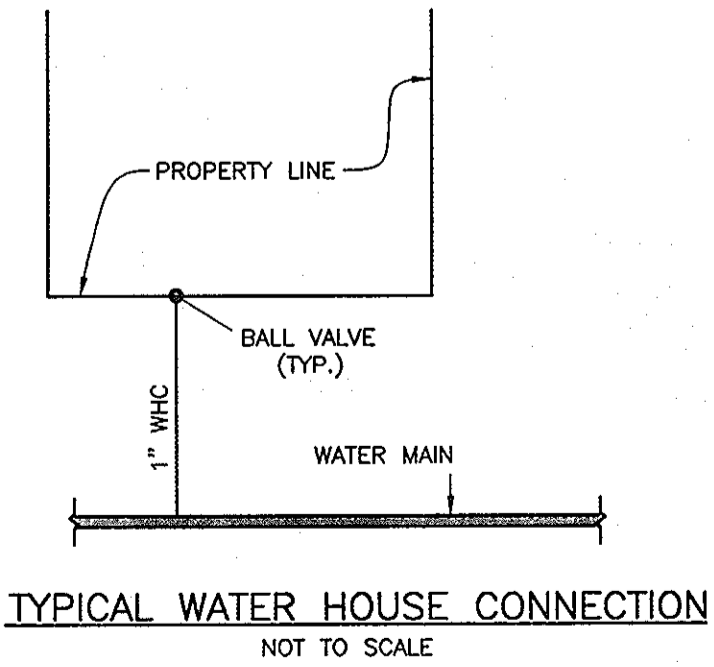
COLUMBIA HILLS  
 SECTION 10  
 LOTS 1-13 AND OPEN SPACE LOTS 14 THRU 16  
 TAX MAP 30 - GRID 05  
 PARCEL 13 - ZONE: R-20  
 2nd ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND  
 CONTRACT NO. 24-4519-D  
 SCALE: AS SHOWN  
 SHEET NO. 1 OF 3



**LEGEND**



PLAN  
SCALE: 1"=50'



NOTE: CONTRACTORS TO EXERCISE EXTREME CAUTION WHEN WORKING IN AREA OF EXIST. OVERHEAD LINES ALONG CEDAR LANE

NOTE: ALL JOINTS AND CONNECTIONS LOCATED WITHIN STRUCTURAL FILL AREAS SHALL BE MECHANICALLY RESTRAINED IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (LATEST EDITION)

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PHONE: (410) 465-4244

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND

**BENCHMARK**  
ENGINEERS & LAND SURVEYORS & PLANNERS  
**ENGINEERING, INC.**

8480 BALTIMORE NATIONAL PIKE A SUITE 418  
ELLICOTT CITY, MARYLAND 21043  
PHONE: 410-465-6105 FAX: 410-465-6644

DESIGN:	W.E.O.			
DRAFT:	W.E.O.			
CHK:	DAM			
DATE:	06/08	KCI	1	ASBULT REVISIONS
BY:	NO.			REVISIONS
				DATE

PUBLIC WATER AND SEWER  
PLAN, NOTES AND DETAILS

600 SCALE MAP NO. 50 BLOCK 3

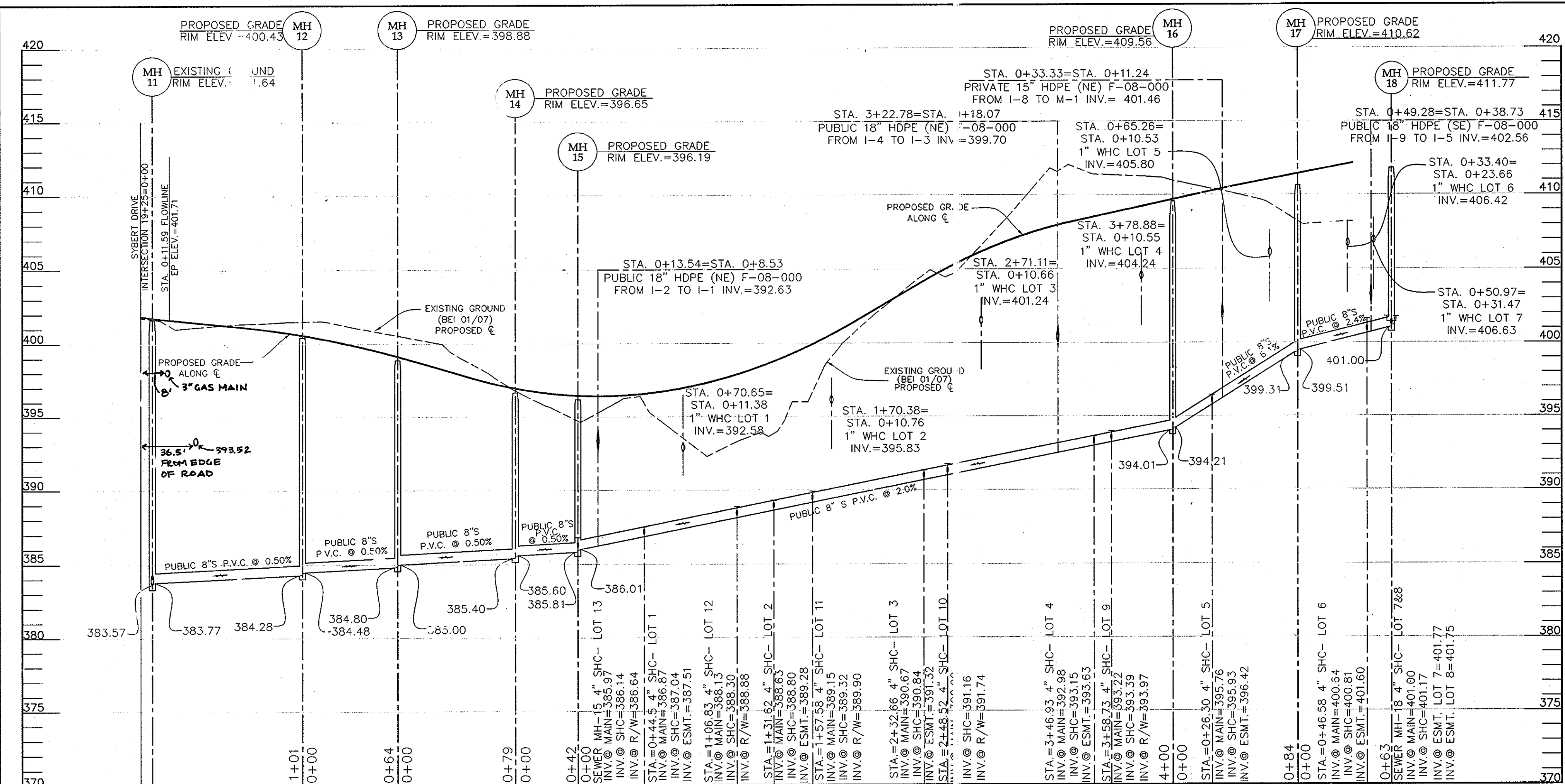
**COLUMBIA HILLS**  
SECTION 10  
LOTS 1-13 AND OPEN SPACE LOTS 14 thru 16  
TAX MAP 30 - GRID 05  
PARCEL 13 - ZONE: R-20  
2nd ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE:  
AS SHOWN  
SHEET NO.  
2 OF 3

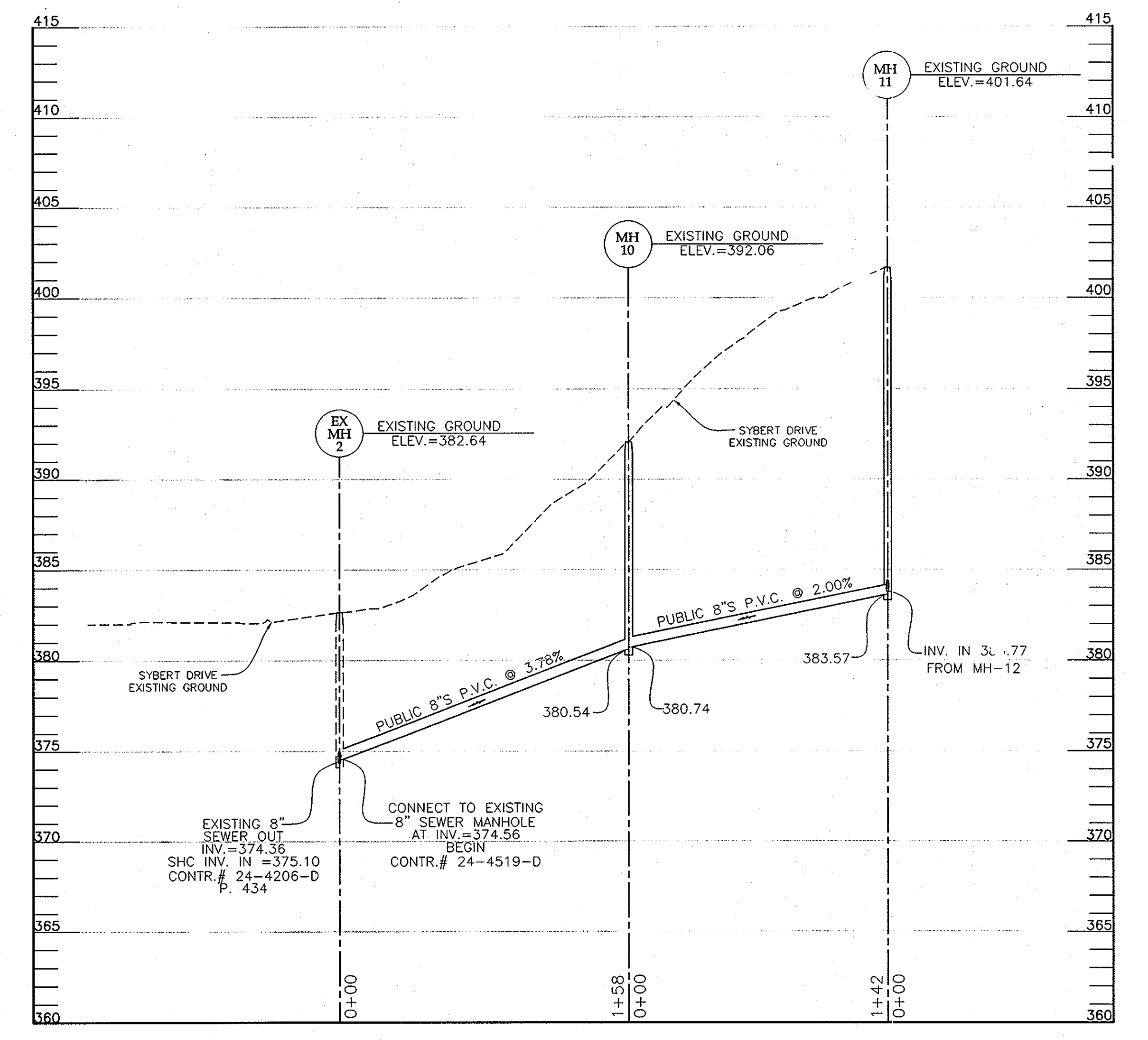
CONTRACT NO. 24-4519-D

CHIEF, BUREAU OF UTILITIES

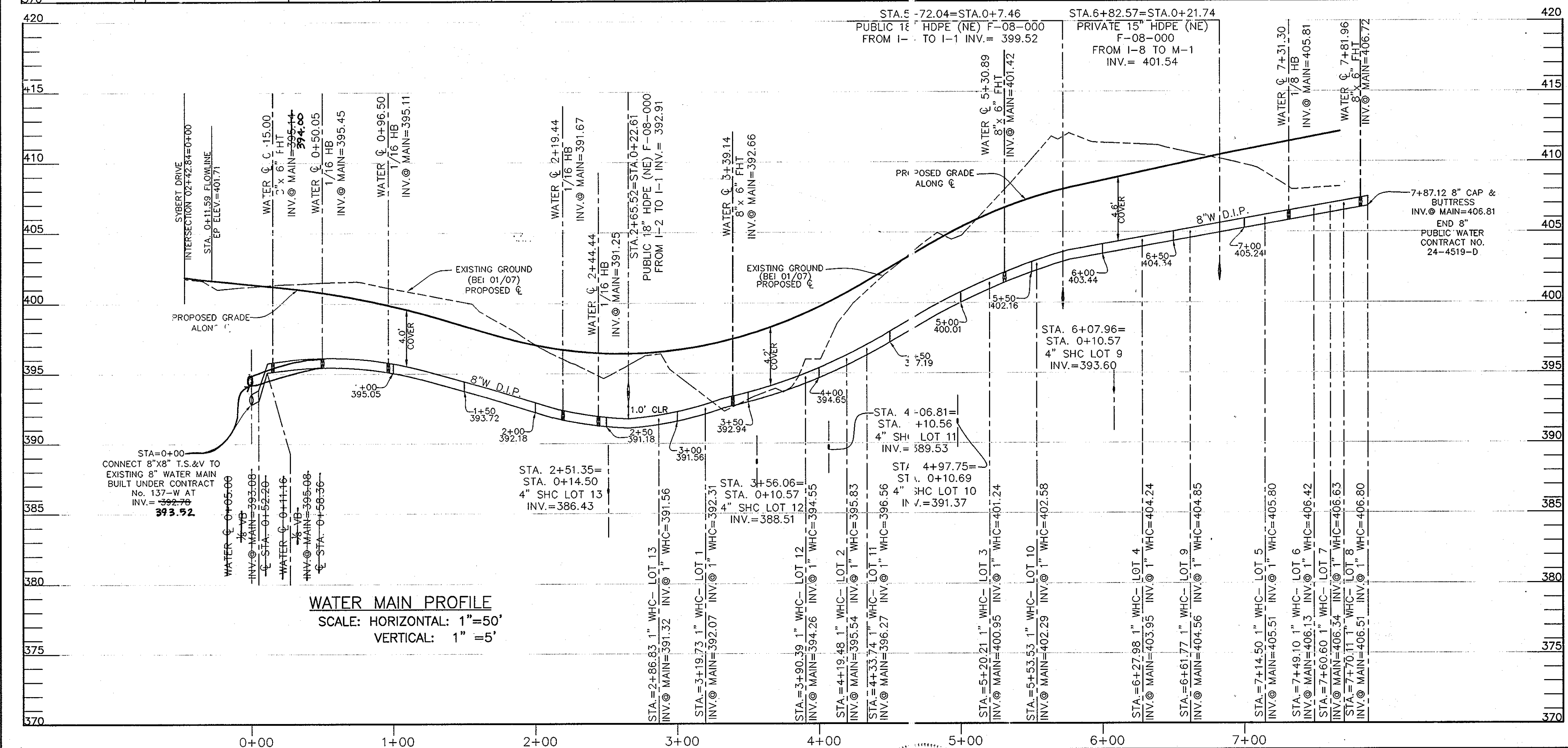
CHIEF, DEVELOPMENT ENGINEERING DIVISION



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



SYBERT DRIVE SEWER MAIN PROFILE  
SCALE: HORIZONTAL: 1"=50'  
VERTICAL: 1"=5'



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

NOTE: CONTRACTORS TO EXERCISE EXTREME CAUTION WHEN WORKING IN AREA OF EXIST. OVERHEAD LINES ALONG CEDAR LANE

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ELLCOTT CITY, MARYLAND 21041  
PHONE: 410-465-4244

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
Slater C. Lamm  
CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND  
DATE: 3/5/09

**BENCHMARK**  
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**ENGINEERING, INC.**  
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ELLCOTT CITY, MARYLAND 21043  
PHONE: 410-465-6105 FAX: 410-465-6644

DESIGN: WEO  
DRAFT: WEO  
CHK: DAM  
DATE: 06/08

NO.	REVISIONS	DATE
KCI-1	ASBUILT REVISIONS	6-25-10

PUBLIC WATER AND SEWER  
PROFILES, NOTES AND DETAILS  
600 SCALE MAP NO. 30  
BLOCK 5

COLUMBIA HILLS  
SECTION 10  
LOTS 1-13 AND OPEN SPACE LOT 14 & 15  
TAX MAP 30 - GRID 05  
PARCEL 13 - ZONE: R-20  
2nd ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
CONTRACT NO. 24-4519-D

SCALE:  
AS SHOWN  
SHEET NO.  
3 OF 3