- ! 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 CONTRACTORS EXPENSE.
- 2. ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES.
- 3. ALL VERTICAL CONTROLS ARE BASED ON U.S.G.S DATA.
- 4. ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- 5. CLEAR ALL UTILITIES BY A MINIMUM OF 6". CLEAR ALL POLES BY 2'-0" MINIMUM OR TUNNEL AS REQUIRED. THE OWNER HAS CONTACTED THE UTILITY COMPANIES AND HAS MADE ARRANGEMENTS FOR BRACING OF POLES AS SHOWN ON 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 MONEY OWED THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES TO SCHEDULE THE BRACING OF THE POLES.
- 6. FOR DETAILS NOT SHOWN ON THE DRAWINGS, 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.
- 7. 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 W WORK FOR WHICH TEST PITS HAVE NOT BEEN DUG SHALL BE LOCATED BY THE CONTRACTOR TWO WEEKS IN ADVANCE OF CONSTRUCTION.
- 8. THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN THESE PLANS:
 - C. & P. TELEPHONE A T & T STATE HIGHWAY ADMINISTRATION B.G. &E. CO. CONTRACTOR SERVICES

865-3803 531-5533 787-9068 1-800-257-7777

B.G. &E CO. UNDER GROUND DAMAGE CONTROL COLONIAL PIPELINE CO. HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

- BUREAU OF UTILITIES 9. 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
- 10. 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 THE CONSTRUCTION OF THE MAIN.
- II. THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, AT (410) 313-2450 AT LEAST FIVE WORKING DAYS BEFORE ANY OPEN CUT OF ANY COUNTY ROAD OR BORING/JACKING OPERATION IN COUNTY ROADS FOR LAYING WATER/SEWER MAIN OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 18.114(a) OF THE HOWARD COUNTY CODE.

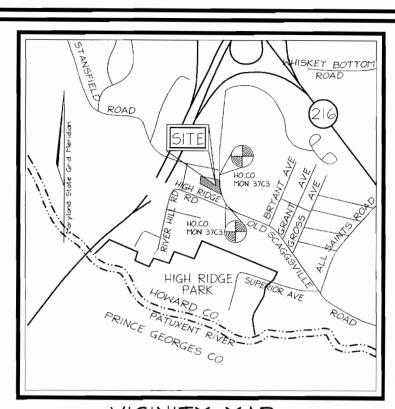
PART II - WATER

- I. ALL WATER MAINS TO BE D.I.P. CLASS 52 UNLESS OTHERWISE NOTED.
- 2. TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3-1/2' COVER UNLESS OTHERWISE NOTED.
- 3. VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
- 4. 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 FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND 1005 OF THE STANDARD SPECIFICATIONS.
- 6. THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
- 7. ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING UNLESS OTHERWISE NOTED ON PLANS OR IN SPECIFICATIONS.

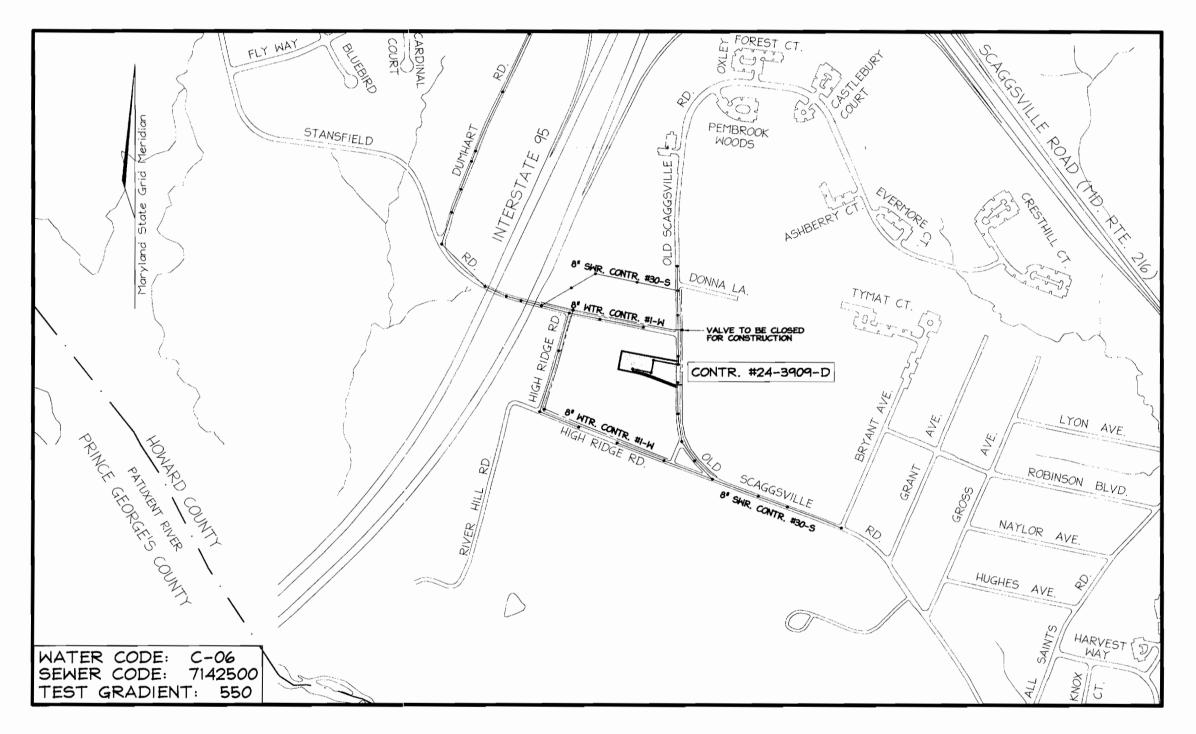
PART III - SEWER

- I. ALL SEWER MAINS SHALL BE DIP CLASS 52 OR P.V.C. UNLESS OTHERWISE NOTED.
- 2. THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALL.
- 3. ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS
- 4. MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES
- 5. MANHOLES DESIGNATED W.T. 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 18" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- 6. HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT CELLAR

HILLTOP ESTATES LOTS 1 THRU 5 PUBLIC WATER AND SEWER PLANS HOWARD COUNTY, MARYLAND CONTRACT NO. 24-3909-D



VICINITY MAP



QUANTITIES						
NAME OF L	UTILITY CONTR	RACTOR :				
SURVEY AN	ND DRAFTING	DIVISION AS-B	UILT DA	TE :		
ITEMS	QUANTITIES ESTIMATED	AS-BUILT				
		QUANTITIES	TYPE	MANUFACTURER/SUPPLIER		
MANHOLE	4					
8" SEWER	383 LF					
4" SHC	107 LF	-				
8" x 8" TAPPING SLEEVE						
8" VALVE	1					
8" WATER	310 LF					
1-1/2" WHC	20 LF					
I" WHC	28 LF					
8" CAP ¢ BUTTRESS	1					
11/2" DRAIN	1					

LOCATION PLAN SCALE : 1"=600"

TYPE OF BUILDING:	SINGLE FAMILY DETATCHED
NO. OF LOTS/PARCELS:	5
NO. OF WATER HOUSE CONNECTIONS:	4
NO. OF SEWER HOUSE CONNECTIONS:	4
DRAINAGE AREA:	LITTLE PATUXENT
TREATMENT PLANT:	PATUXENT

SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE SPECIFICATIONS AND WITH F-01-20.

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

TECHNICAL REQUIREMENTS

NATURAL RESOURCE CONSERVATION SERVICE

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND



FREDERICK WARD ASSOCIATES, INC. ENGINEERS | 7125 Riverwood Drive Columbia, Maryland 21046-2354 ARCHITECTS | Phone: 410-290-9550 Fax: 410-720-6226 SURVEYORS | Bel Air, Maryland Columbia, Maryland Warrenton, Virginia



-6 160				
ES: JCO				
RN: CMH				
K: JCO				
TE: JUNE,	BY	NO	DEVICION	

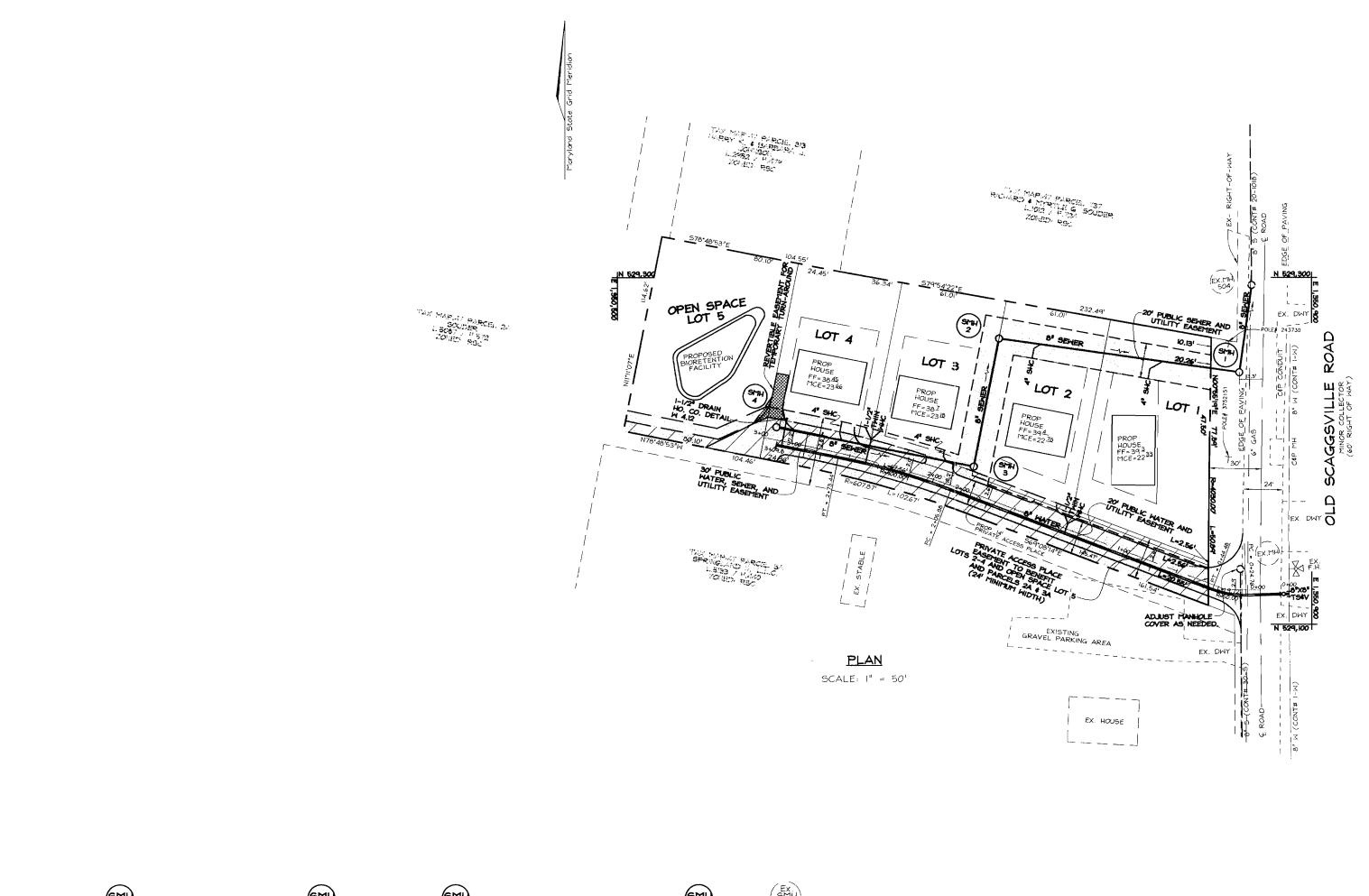
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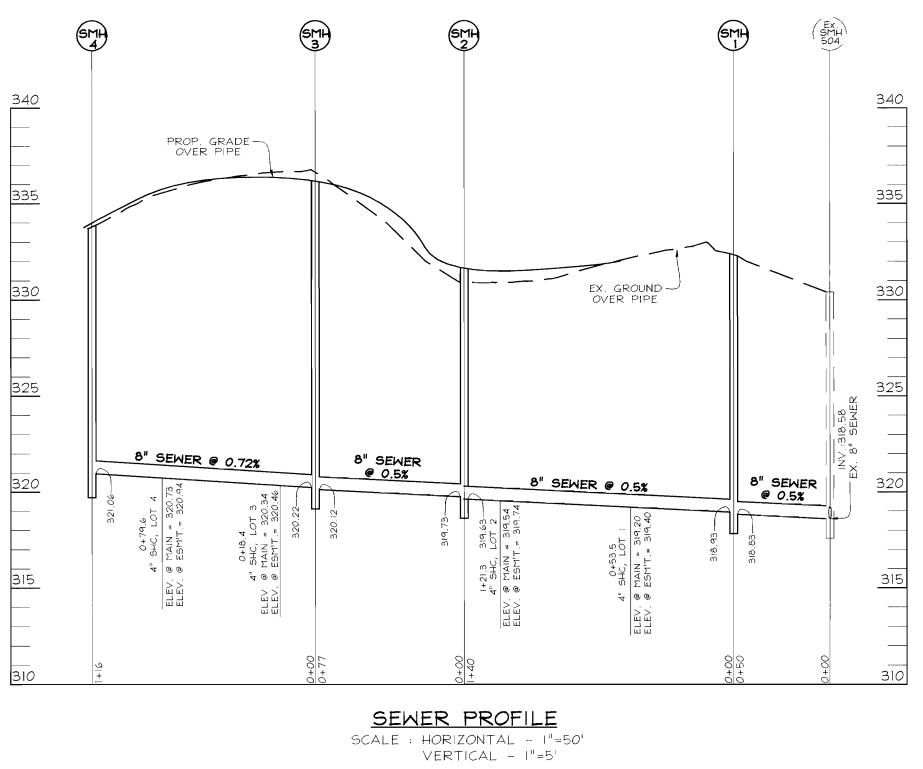
600' SCALE MAP NO. 47 BLOCK NO. 19

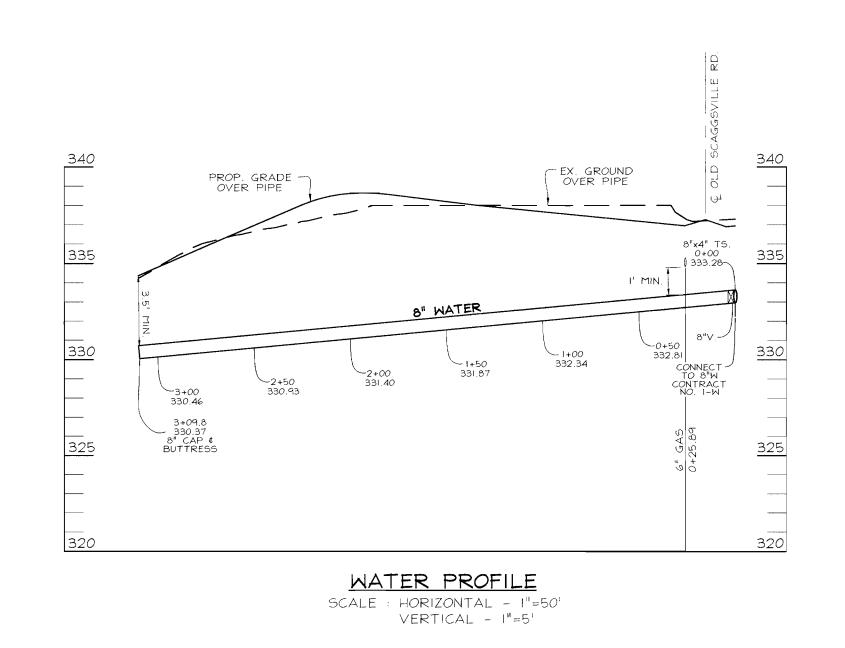
HILLTOP ESTATES LOTS 1 THRU 5 CONTRACT #24-3909-D

TAX MAP 47 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

AS SHOWN







SEWER CONNECTION TABULATION					
MANHOLE	LOCATION	TOP ELEV.			
	N 529,245 E 1,350,858 332.23				
2	N 529,265 E 1,350,720	331.68			
3	N 529,191 E 1,350,705	336.20			
4	N 529,213 E 1,350,591	333,87			

SEWER CONNECTION TABULATION					
LOT	ELEV.@MAIN	ELEV.@LOT	M.C.E.		
	319.20	319.40	322.23		
2	319.54	319.74	322.78		
3	320.34	320.46	323.18		
4	320.73	320.94	323.66		

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND



FREDERICK WARD ASSOCIATES, INC. ENGINEERS 7125 Riverwood Drive Columbia, Maryland 21046–2354

ARCHITECTS Phone: 410–290–9550 Fax: 410–720–6226

SURVEYORS Bel Air, Maryland Columbia, Maryland Warre



	DES: JCO					
	DRN: CMH					WATER AND SEWER
	CHK: JCO					PLAN AND PROFILES
35	DATE: JUNE,	BY	NO.	REVISION	DATE	600' SCALE MAP NO. <u>47</u> BLOCK NO. <u>19</u>

HILLTOP ESTATES LOTS 1 THRU 5 CONTRACT #24-3909-D

TAX MAP 47 6TH ELECTION DISTRICT

PARCEL '560' HOWARD COUNTY, MARYLAND

SCALE AS SHOWN