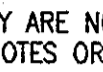


GENERAL NOTES

PART I

- 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.
- ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES. (NORTH AMERICAN DATUM OF 1983 (NAD 83))
- ALL VERTICAL CONTROLS ARE BASED ON U.S.G.S. DATA.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- CLEAR ALL UTILITIES BY A MINIMUM OF 12 INCHES. CLEAR ALL POLES BY 2'-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 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 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 LOCATION OF THE TEST PIT. A NOTES 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 OPERATION AT HIS OWN EXPENSE.
- THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN THESE PLANS:  
 AT & T ..... 1-800-252-1133  
 BGE (CONTRACTOR SERVICE) ..... 410-850-4620  
 BGE (UNDERGROUND DAMAGE CONTROL) ..... 410-291-4607  
 BUREAU OF UTILITIES ..... 410-313-4900  
 COLONIAL PIPELINE CO ..... 410-549-4120  
 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 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 THE 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 CUTTING OR BORING JACKING OF ANY COUNTY ROAD FOR LAYING 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(o) OF THE HOWARD COUNTY CODE.
- THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN WORKING NEAR AND/OR AROUND OVERHEAD UTILITY WIRES.

PART II - WATER

- ALL WATER MAINS TO BE D.I.P. CLASS 52 UNLESS OTHERWISE NOTED.
- TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3'-6" 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. 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.
- ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING UNLESS OTHERWISE NOTED ON PLANS OR IN SPECIFICATIONS.

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 WATERTIGHT FRAME AND COVER, STANDARD DETAIL CS.52. WHERE WATERTIGHT MANHOLE FRAME 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 CELLAR CANNOT BE SERVED.

SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE SPECIFICATIONS AND WITH SITE DEVELOPMENT PLAN SDP-04-42

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

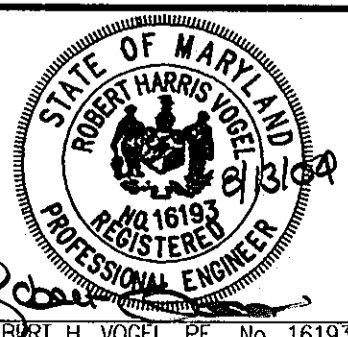
REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

*John K. Blaine* 8/24/04 DATE SOIL CONSERVATION DISTRICT  
*Jim Myers* 8/24/04 DATE SOIL CONSERVATION DISTRICT

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND

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



DES: DZ	KC1	AS-BUILT REVISIONS	2-5-10
DRN: MAN			
CHK: RHV			
DATE: AUGUST 2004	BY NO.	REVISION	DATE

FINAL WATER AND SEWER  
TITLE SHEET

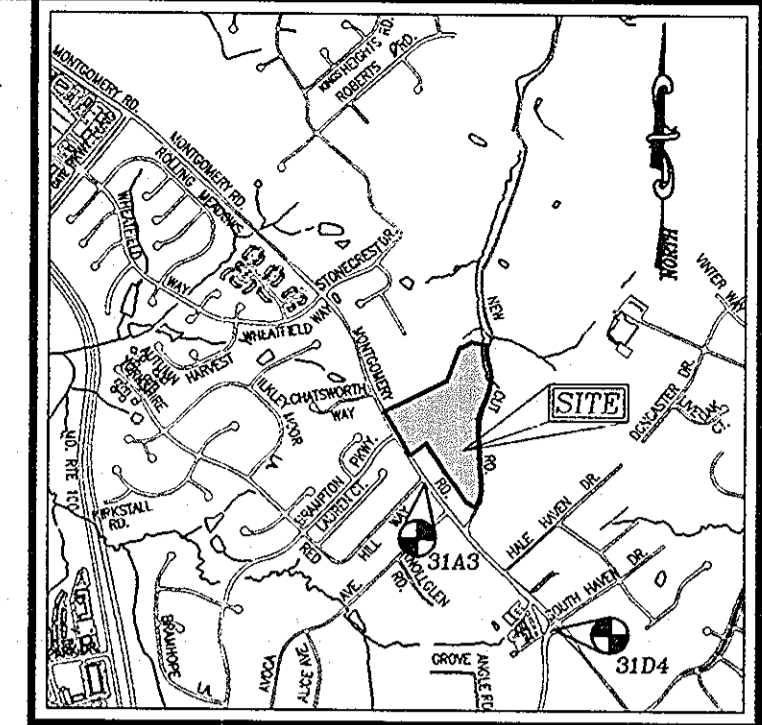
**OWNER/DEVELOPER**  
GLENMAR UNITED METHODIST CHURCH  
8430 GLENMAR ROAD  
ELLCOTT CITY, MD 21043  
AL HAMMER  
(410) 465-4995

**GLEN MAR UNITED METHODIST CHURCH**  
CONTRACT NO. 24-4180-D

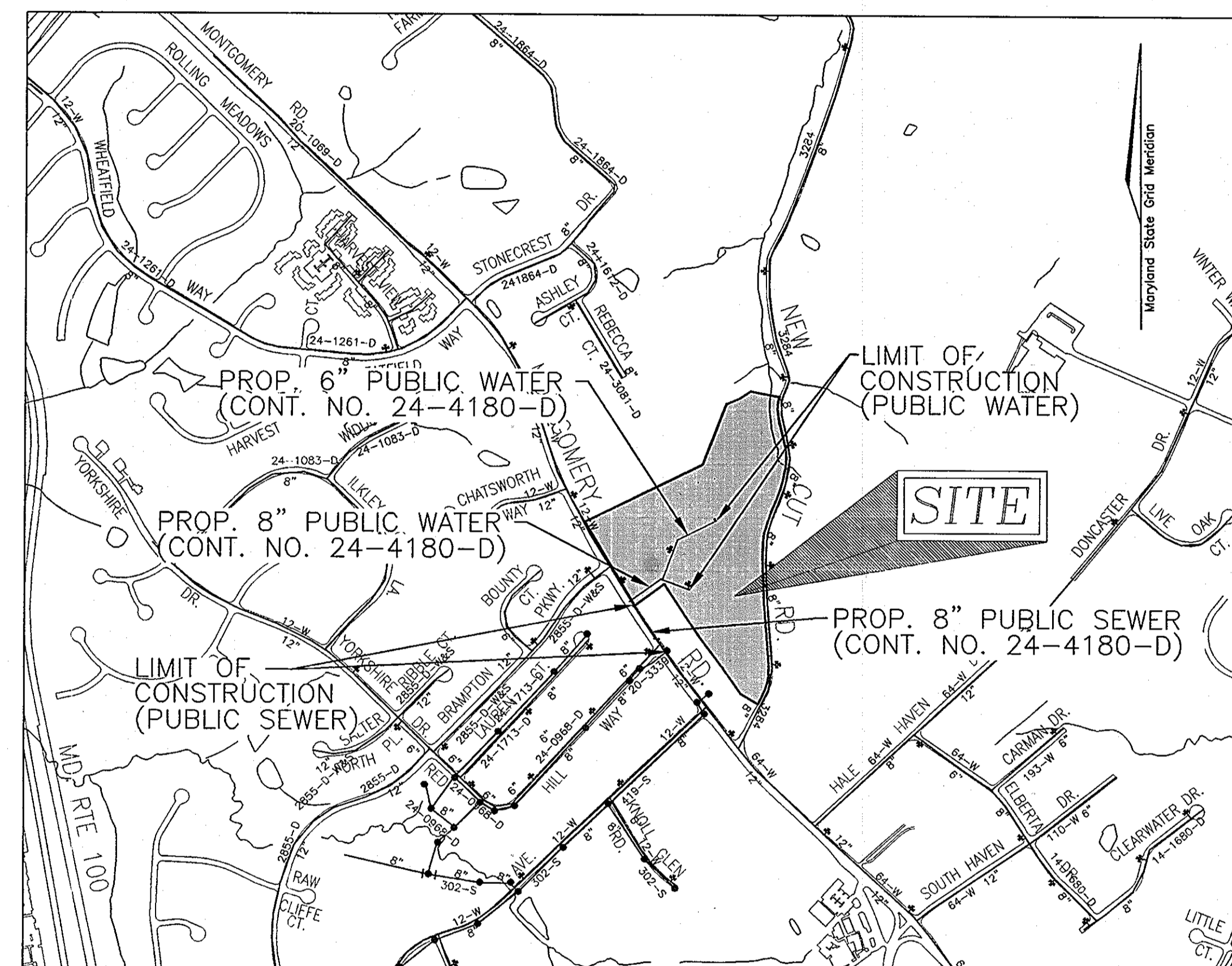
SCALE AS SHOWN  
SHEET 1 OF 3

# GLEN MAR UNITED METHODIST CHURCH FINAL PUBLIC WATER AND SEWER CONSTRUCTION PLAN HOWARD COUNTY, MARYLAND CONTRACT NO. 24-4180-D

**BENCHMARKS**  
HOWARD COUNTY BENCHMARK 31A3  
GEN. LOCATION: CORNER RT-103 & RT-104  
N 573217.87700 E 1368237.66200 ELEV. 487.641  
HOWARD COUNTY BENCHMARK 31D4  
GEN. LOCATION: CORNER RT-103 & RED HILL WAY  
N 571700.65900 E 1369606.28100 ELEV. 495.179



VICINITY MAP  
SCALE: 1"=2000'



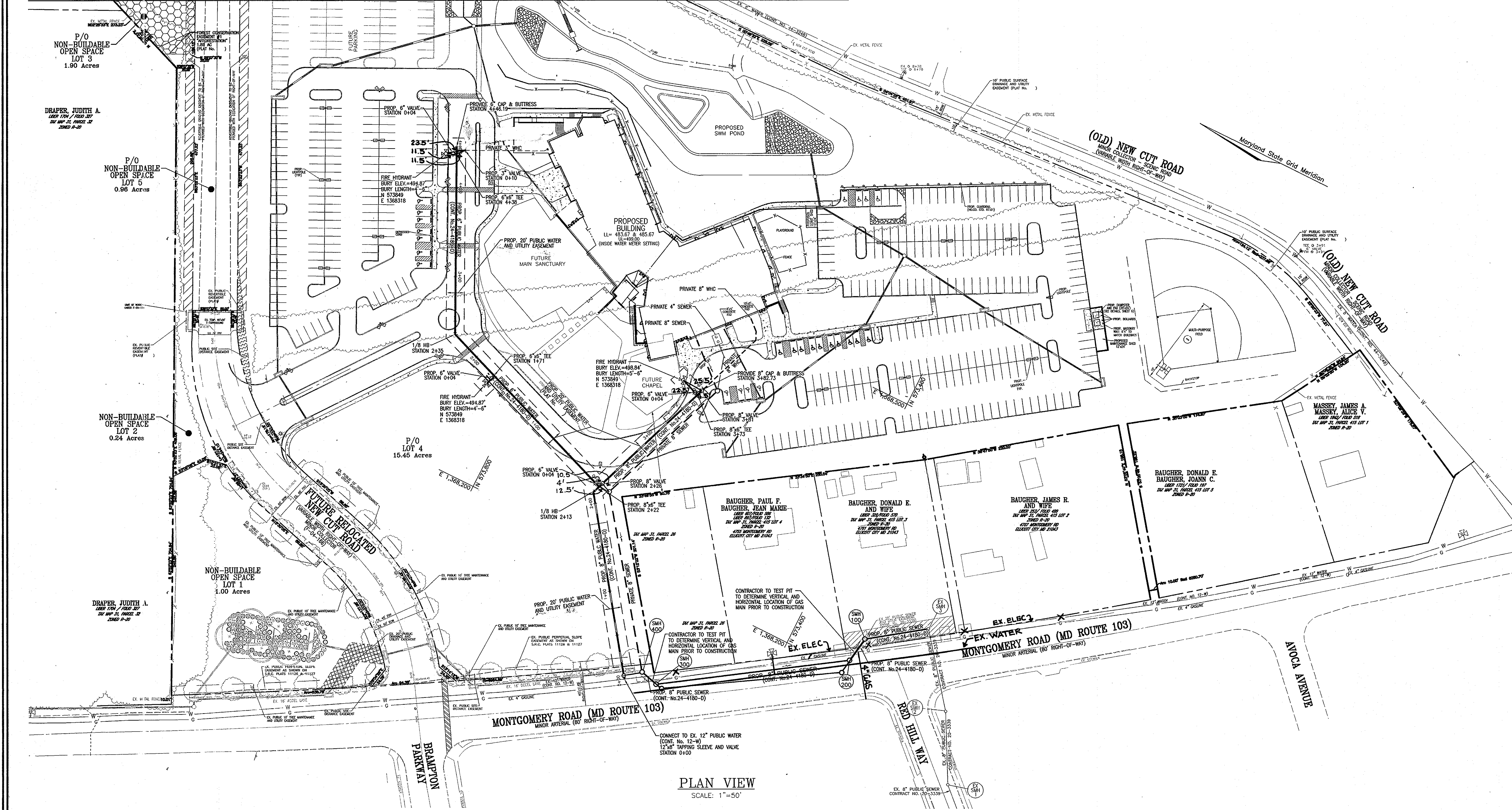
LOCATION MAP  
SCALE: 1"=600'

WATER CODE: F16 & F05  
SEWER CODE: 5750671  
TEST GRADIENT: 700

TYPE OF BUILDING:	COMMERCIAL
NO. OF UNITS/PARCELS:	ONE
NO. OF WATER HOUSE CONNECTIONS:	ONE
NO. OF SEWER HOUSE CONNECTIONS:	ONE
DRAINAGE AREA:	PATAPSCO WATERSHED
TREATMENT PLANT:	PATAPSCO WASTEWATER

QUANTITIES				
NAME OF UTILITY CONTRACTOR : ACCUBID				
SURVEY AND DRAFTING DIVISION AS-BUILT DATE :				
ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER/SUPPLIER
WATER				
12" x 8" TAPPING SLEEVE	1 EA.	1 EA.		MUELLER
8" WATER	397 LF.	409 LF.		GRIFFIN
6" WATER	531 LF.	561 LF.		" "
3" WHC	10 LF.	11.5 LF.		" "
8" VALVE	3 EA.	3 EA.		MUELLER
6" VALVE	4 EA.	4 EA.		" "
3" VALVE	1 EA.	1 EA.		" "
FIRE HYDRANT	3 EA.	3 EA.		KENNEDY
8" CAP & BUTTRESS	1 EA.	1 EA.		U.S. PIPE
6" CAP & BUTTRESS	1 EA.	1 EA.		" "
8" x 6" TEE	2 EA.	2 EA.		U.S. PIPE
6" x 6" TEE	1 EA.	1 EA.		" "
8" - 1/8 BEND	1 EA.	1 EA.		" "
6" - 1/8 BEND	1 EA.	1 EA.		" "
SEWER				
MANHOLES	4 EA.	4 EA.		ATLANTIC
8" PVC SEWER	326 LF.	337 LF.		J.M.

MATCHLINE (SEE SHEET 3)



PLAN VIEW  
SCALE: 1"=50'

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

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

*John K. Blanton*  
SOIL CONSERVATION DISTRICT

8/24/04  
DATE

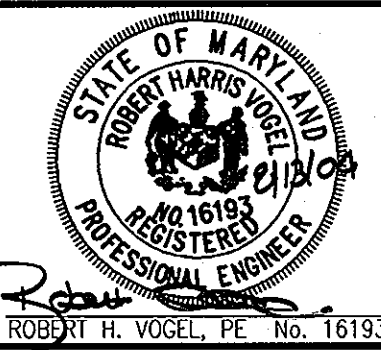
*Jim Meyer*  
S. SOIL CONSERVATION DISTRICT

8/24/04  
DATE

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND

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8407 MAIN STREET TEL: 410.461.7666  
ELLCOTT CITY, MD 21043 FAX: 410.461.8961



DES: DZ	KCI	A5-BUILT REVISIONS	2-5-10
DRN: MAN			
CHK: RHV			
DATE: AUGUST 2004	BY NO.	REVISION	DATE

FINAL WATER AND SEWER  
PLAN VIEW

GLEN MAR  
UNITED METHODIST CHURCH  
CONTRACT NO. 24-4180-D

SCALE AS SHOWN

SHEET 2 OF 3

*John R. Bunn* 8-22-04  
CHIEF, BUREAU OF UTILITIES DATE

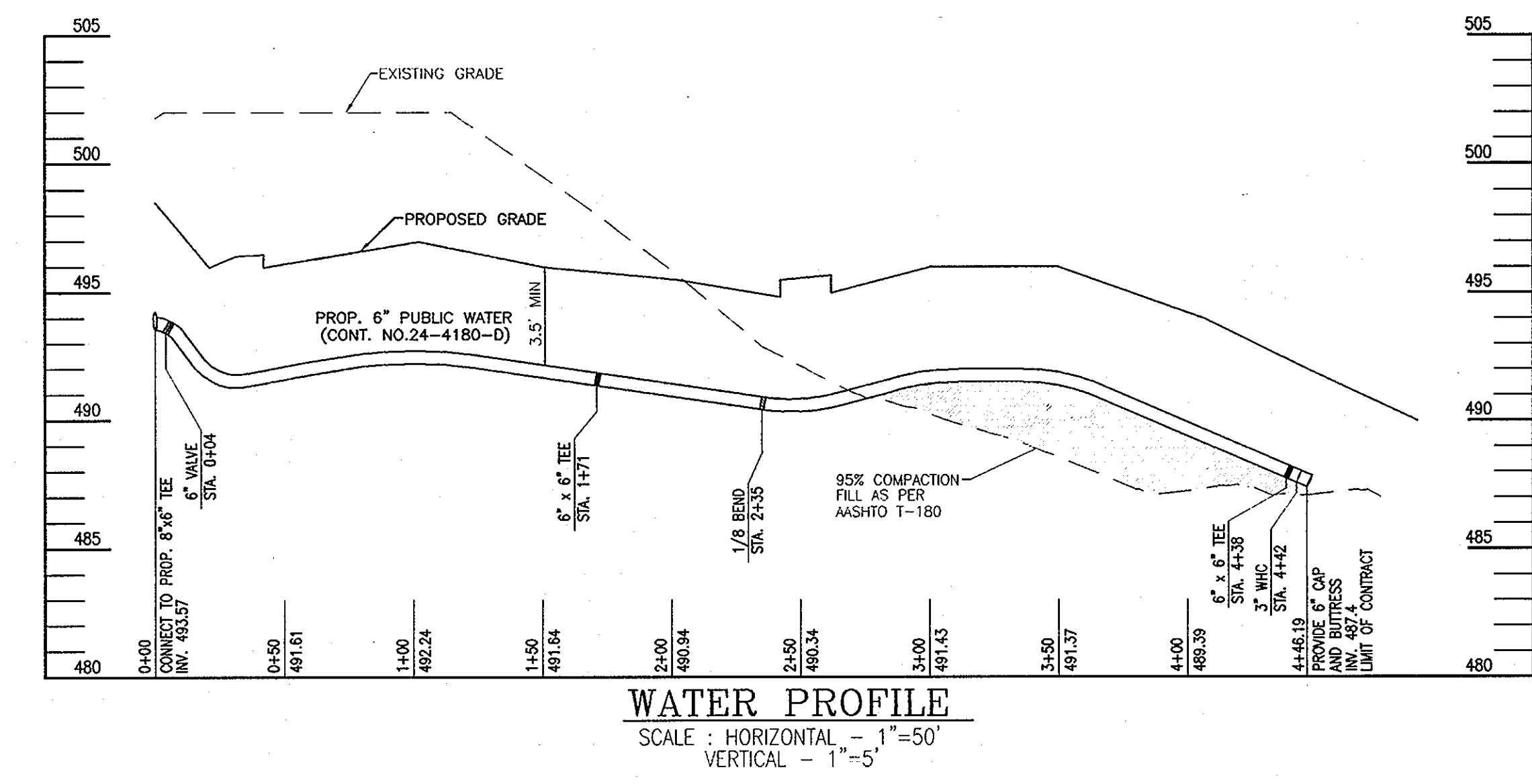
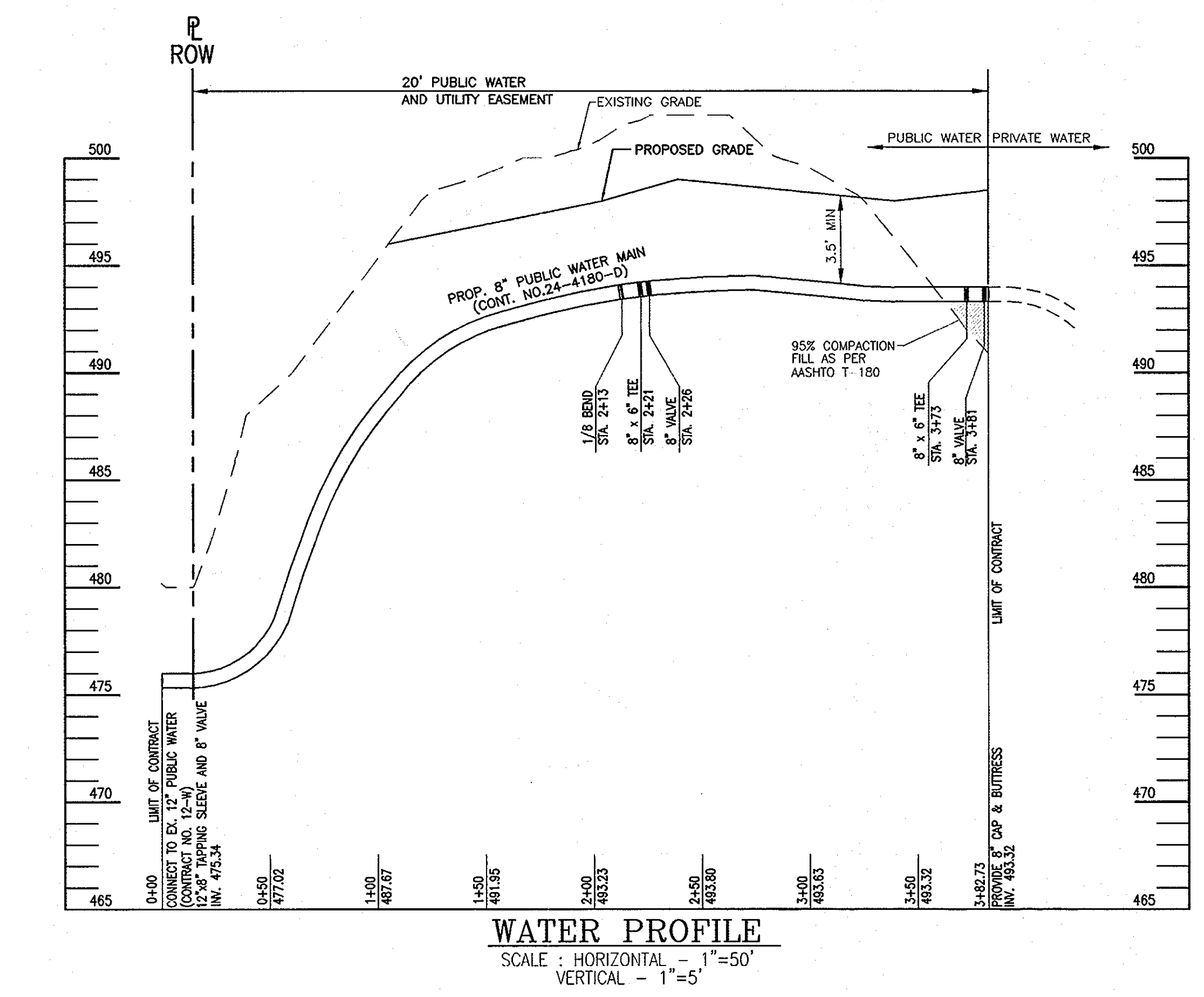
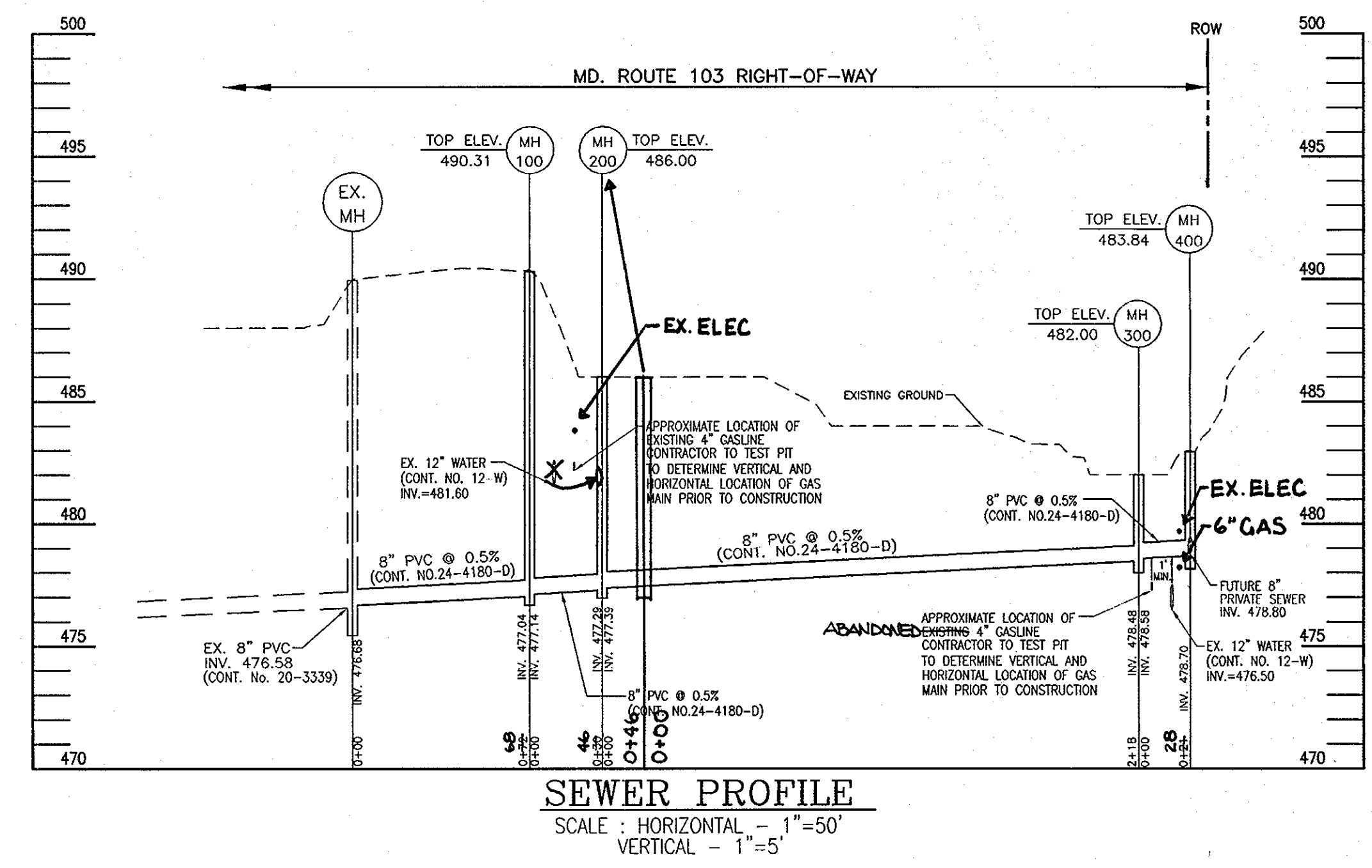
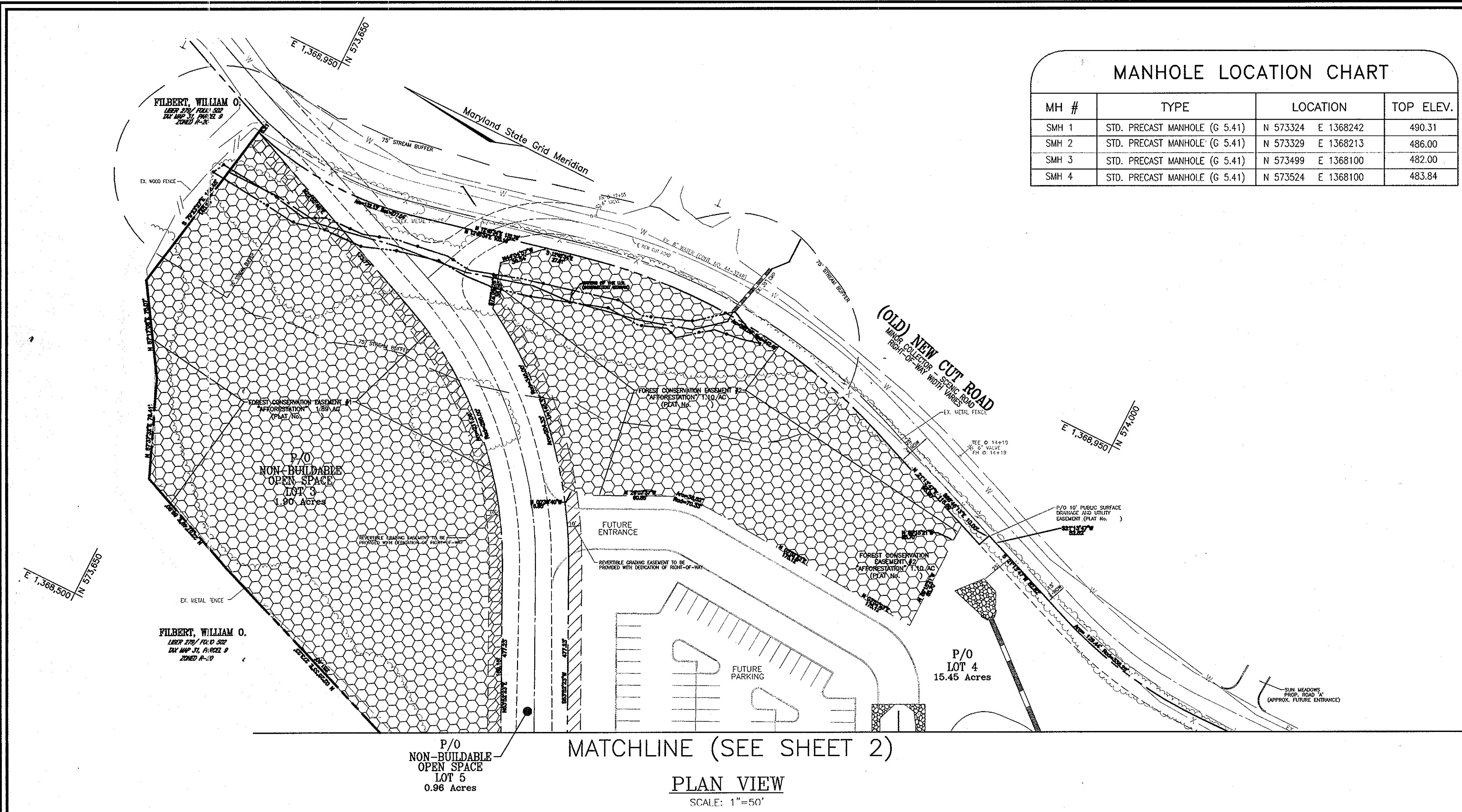
*John R. Bunn* 9/7/04  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

600' SCALE MAP NO. 31

BLOCK NO. 1 & 8

TAX MAP 31, BLOCK 1 & 8  
5TH ELECTION DISTRICT

PARCELL 10  
HOWARD COUNTY, MARYLAND



**8" WATER MAIN STRUCTURE SCHEDULE**

STATION	DESCRIPTION
0+00	12" x 8" TAPPING SLEEVE AND 8" VALVE
2+13	8" - 1/8 BEND
2+22	8" x 6" TEE
2+26	8" VALVE
3+73	8" x 6" TEE
3+82	8" VALVE
3+82.73	8" CAP AND BUTTRISS

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

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

*John K. Blanton* 8/24/04  
SOIL CONSERVATION DISTRICT DATE

*Jim Myler* 8/24/04  
S.O. SOIL CONSERVATION DISTRICT DATE

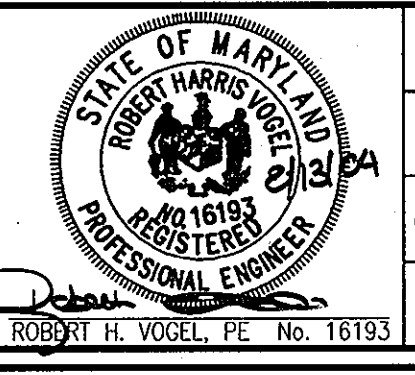
DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*R. D. Dennis* 8-27-04  
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND

*Carol Dammicus* 9/1/04  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

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DZ			
DRN:			
MAN			
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AUGUST 2004			
BY:			
NO.			
REVISION			
DATE			

**FINAL WATER AND SEWER PLAN VIEW & PROFILES**

600' SCALE MAP NO. 31

**GLEN MAR UNITED METHODIST CHURCH**  
CONTRACT NO. 24-4180-D

TAX MAP 31, BLOCK 1 & 8  
5TH ELECTION DISTRICT

PARCEL 10  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

SHEET 3 OF 3