


**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 SUPPLY. 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.
  - 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 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.
  - 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 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 CONTRACTOR TWO WEEKS IN ADVANCE OF CONSTRUCTION. CONTRACTOR TO NOTIFY THE ENGINEER IMMEDIATELY OF ANY CONFLICTS.
  - THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN THESE PLANS:
 

C & P TELEPHONE	597-9585
A.T. & T.	845-3803
STATE HIGHWAY ADMINISTRATION	531-5533
B.G. & E. CO. CONTRACTOR SERVICES	850-4620
B.G. & E. CO. UNDER-GROUND DAMAGE CONTROL	787-9068
MISS UTILITY	1-800-257-7777
COLONIAL PIPELINE CO.	795-1390
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS BUREAU OF UTILITIES	315-4900
  - 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 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) 351-2450 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 16.14(a) OF THE HOWARD COUNTY CODE.

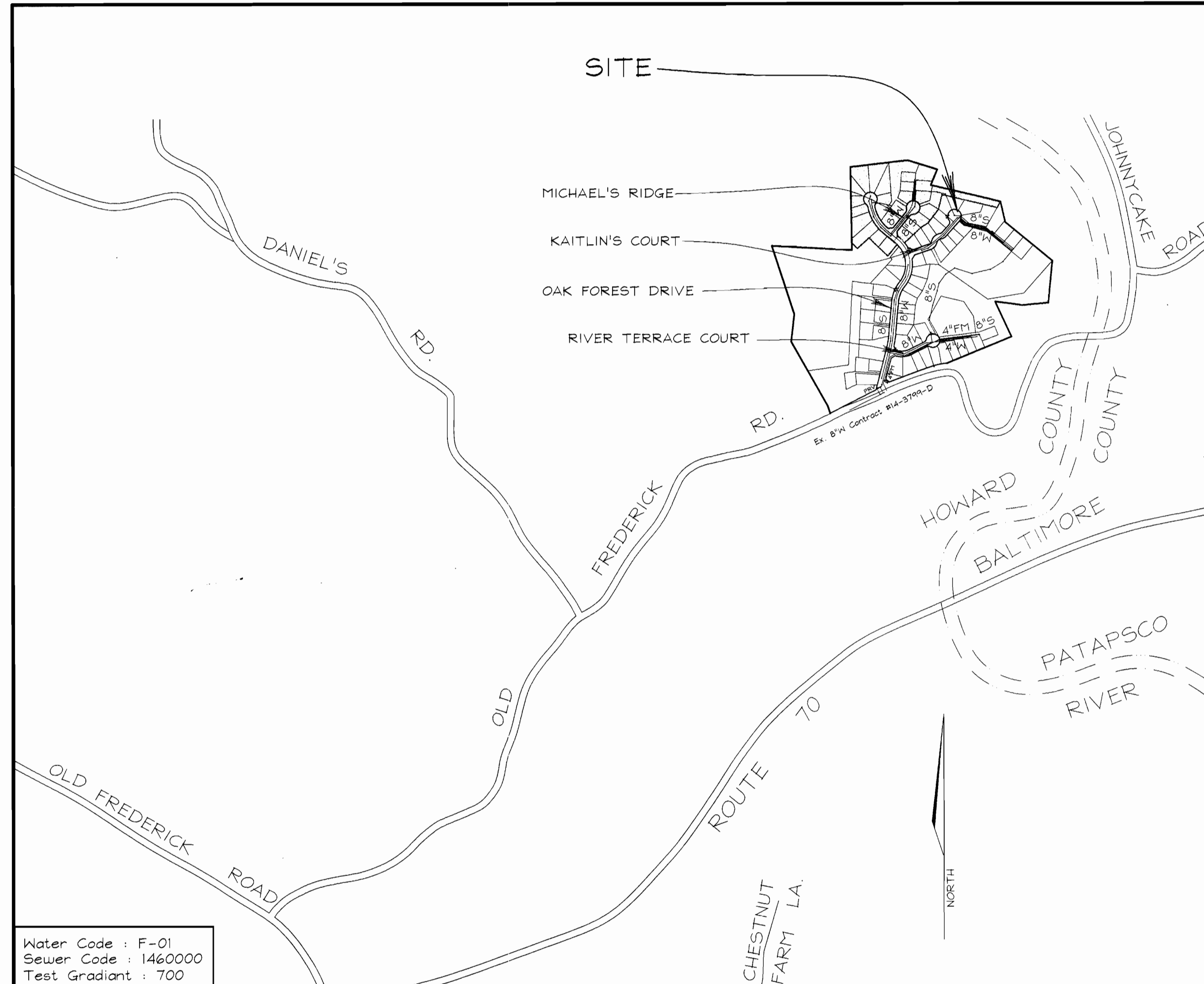
**PART II - WATER**

- ALL WATER MAINS TO BE D.I.P. CLASS 52 UNLESS OTHERWISE NOTED.
- TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3'-1/2' 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 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 DIP CLASS 52 OR P.V.C. UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALL.
- ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
- 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 COVERS, STANDARD DETAIL 6552 WHERE WATERTIGHT MANHOLE FRAME AND COVER IS USED, SET TOP OF FRAME 18" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT CELLAR CANNOT BE SERVED.

TYPE OF BUILDING:	Single Family Detached
NO. OF LOTS/PARCELS:	24
NO. OF WATER HOUSE CONNECTIONS:	24
NO. OF SEWER HOUSE CONNECTIONS:	24
DRAINAGE AREA:	Patapsco
TREATMENT PLANT:	Patapsco

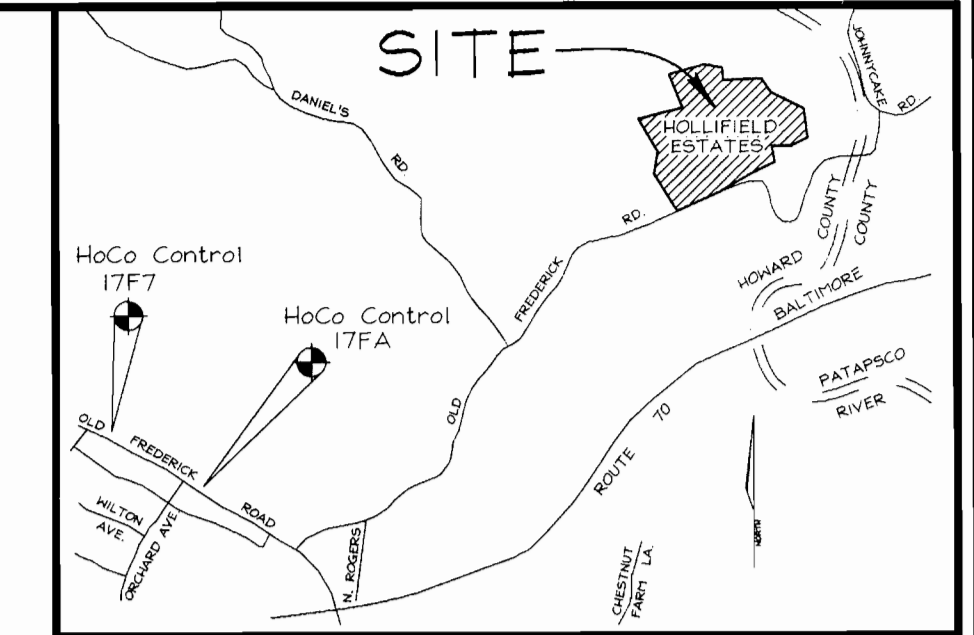


**LOCATION PLAN**  
SCALE : 1"=100'

Water Code : F-01  
Sewer Code : 1460000  
Test Gradient : 700

**BENCHMARKS**

17FA	N594,949.55	E 1,364,629.51	EI = 477.52
17F7	N595,830.83	E 1,363,041.09	EI = 470.19



**VICINITY MAP**  
SCALE: 1"=2000'

**QUANTITIES**

NAME OF UTILITY CONTRACTOR :				
SURVEY AND DRAFTING DIVISION AS-BUILT DATE :				
ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER/SUPPLIER
1 1/2" TWHC	232 Lf			
1" WHC	323 Lf			
4" SHC	595 Lf			
Std. Manhole	9			
8" Sewer	143 Lf			
8" Sewer DIP	921 Lf			
4" Cap & Buttress	1			
8" Cap & Buttress	1			
Fire Hydrant	2			
8" Water	606.6 Lf			
6" Water	49 Lf			
4" Water	193.62 Lf			
8" Valve	2			
4" Valve	1			
8"x4" Reducer	1			
8"x8" Tee	1			

SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE SPECIFICATIONS AND WITH THE ROAD CONSTRUCTION PLAN F-99-076

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 P. Reuter* 2/3/00  
SOIL CONSERVATION DISTRICT DATE

*Cheryl Simms* 2/3/00  
U.S. SOIL CONSERVATION DISTRICT DATE

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND

**VOGEL & ASSOCIATES**  
ENGINEERS-SURVEYORS-PLANNERS  
3691 Park Avenue, Suite 101 • Ellicott City, Maryland 21043  
Tel 410.461.5828 Fax 410.465.3966



DES: GAH/PS  
DRN: RLP/PS  
CHK: JCO  
DATE: Jan 2000

**TITLE SHEET**

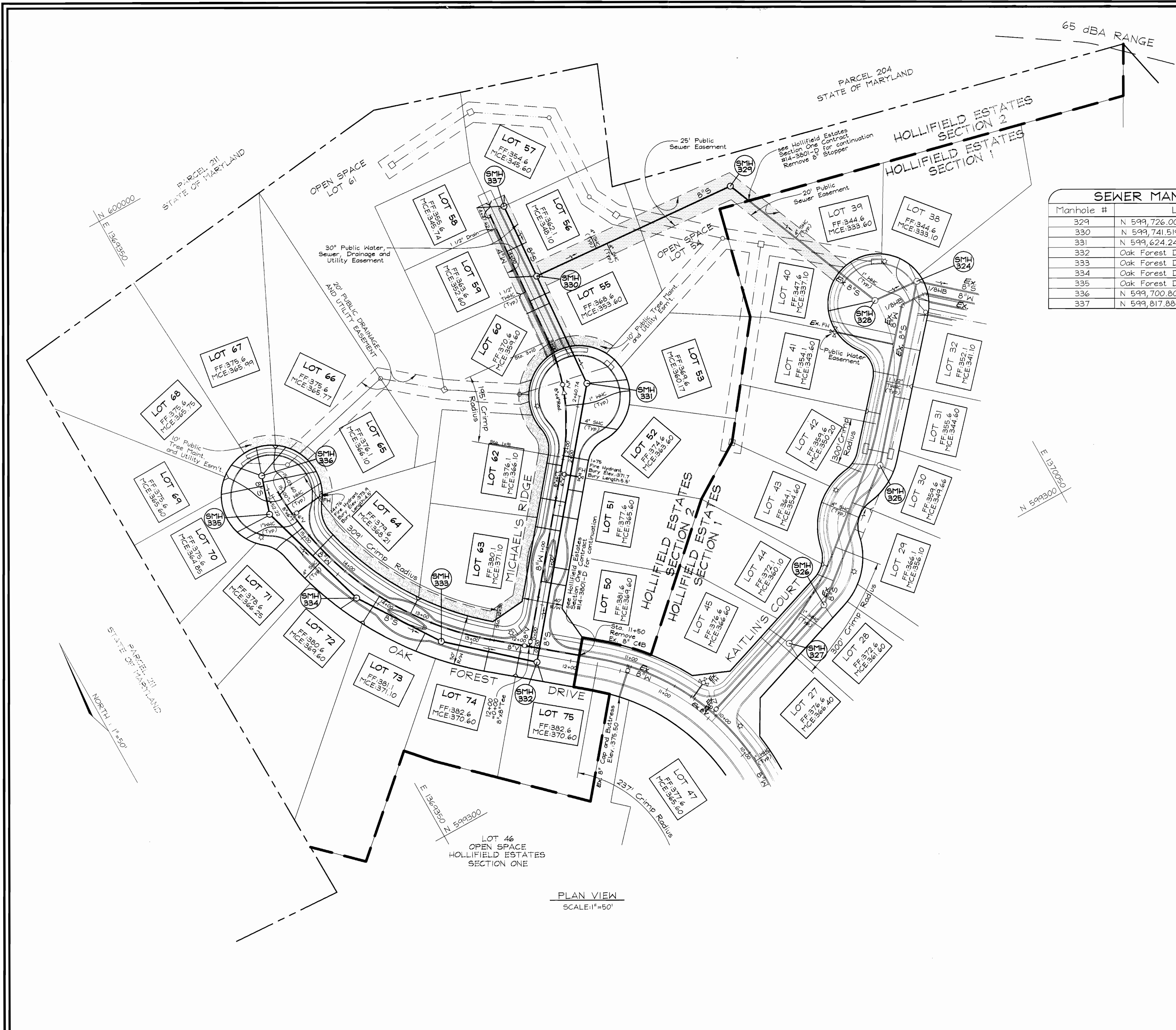
**HOLLIFIELD ESTATES I**  
SECTION TWO (LOTS 50-75)  
CONTRACT NO. 14-3802-D

SCALE AS SHOWN

SHEET 1 OF 3

TAX MAP #18 PARCEL # 1 BLOCK # 1 AND 2  
6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

600' SCALE MAP NO. 18 BLOCK NO. 1 & 2

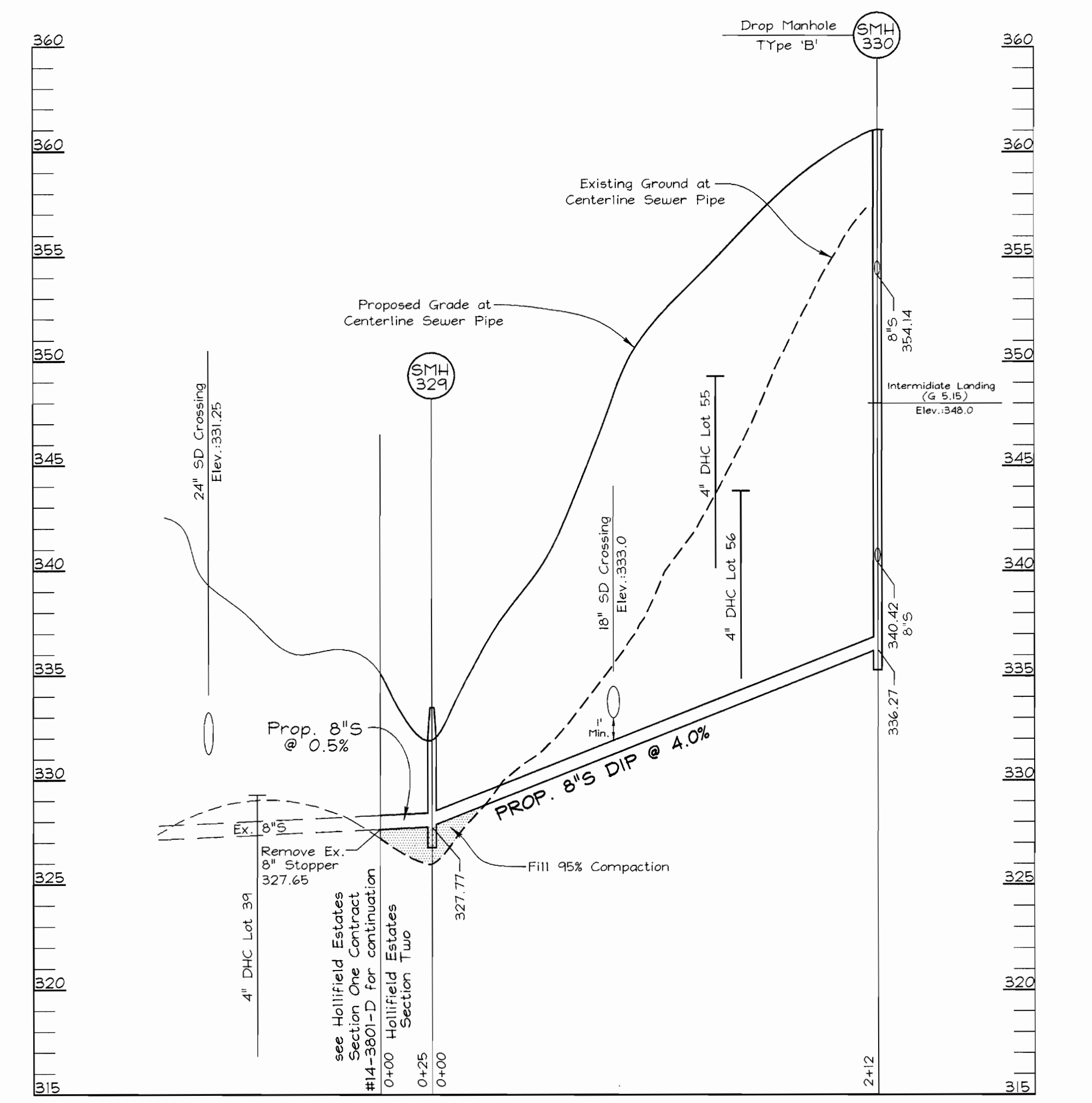


**SEWER MANHOLE TABULATIONS**

Manhole #	Location	Top Elev.
329	N 599,726.0055 E 1,369,912.3677	333.50
330	N 599,741.5198 E 1,369,701.3200	361.04
331	N 599,624.2418 E 1,369,692.6988	365.85
332	Oak Forest Drive 12+32.56-7.0'Lt.	379.58
333	Oak Forest Drive 13+28.47-7.0'Lt.	379.20
334	Oak Forest Drive 14+20.94-7.0'Lt.	376.98
335	Oak Forest Drive 15+37.60-11.76'Lt.	372.60
336	N 599,700.8095 E 1,369,367.1592	371.75
337	N 599,817.8868 E 1,369,706.9338	353.75

**SEWER HOUSE CONNECTIONS**

Lot #	Elev. @ Main	Elev. @ Lot/RW	MCE
50	365.10	365.40	369.60
51	361.10	361.40	365.60
52	358.74	359.50	363.60
53	355.07	355.87	360.17
55	349.30	349.50	353.60
56	343.80	344.00	348.10
57	341.30	341.50	345.60
58	341.30	341.84	345.74
59	348.04	348.60	352.60
60	354.30	354.80	359.60
62	361.40	361.90	366.10
63	365.30	365.60	370.10
64	363.33	363.91	368.21
65	360.92	362.00	366.10
66	360.33	361.07	365.77
67	360.33	360.89	365.99
68	360.33	360.95	365.75
69	360.37	361.23	365.60
70	360.04	360.72	364.85
71	361.53	361.95	366.25
72	365.20	365.60	369.60
73	366.00	366.40	371.10
74	366.10	366.50	370.60
75	366.10	366.50	370.60



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

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*Robert H. Vogels*  
CHIEF, BUREAU OF UTILITIES

1-28-00  
DATE

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND

*[Signature]*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

2/1  
DATE

**VOGEL & ASSOCIATES**  
ENGINEERS-SURVEYORS-PLANNERS

3691 Park Avenue, Suite 101 • Ellicott City, Maryland 21043  
Tel 410.461.5828 Fax 410.465.3966

STATE OF MARYLAND  
REGISTERED PROFESSIONAL ENGINEER  
ROBERT H. VOGEL, P.E. NO. 16193

DES: GAH/PS	BY: NO.	REVISION	DATE
DRN: PS			
CHK: JCO			
Jan. 2000			

**WATER AND SEWER PLAN AND PROFILE**

600' SCALE MAP NO. 18 BLOCK NO.

**HOLLIFIELD ESTATES**  
SECTION TWO (LOTS 50-75)

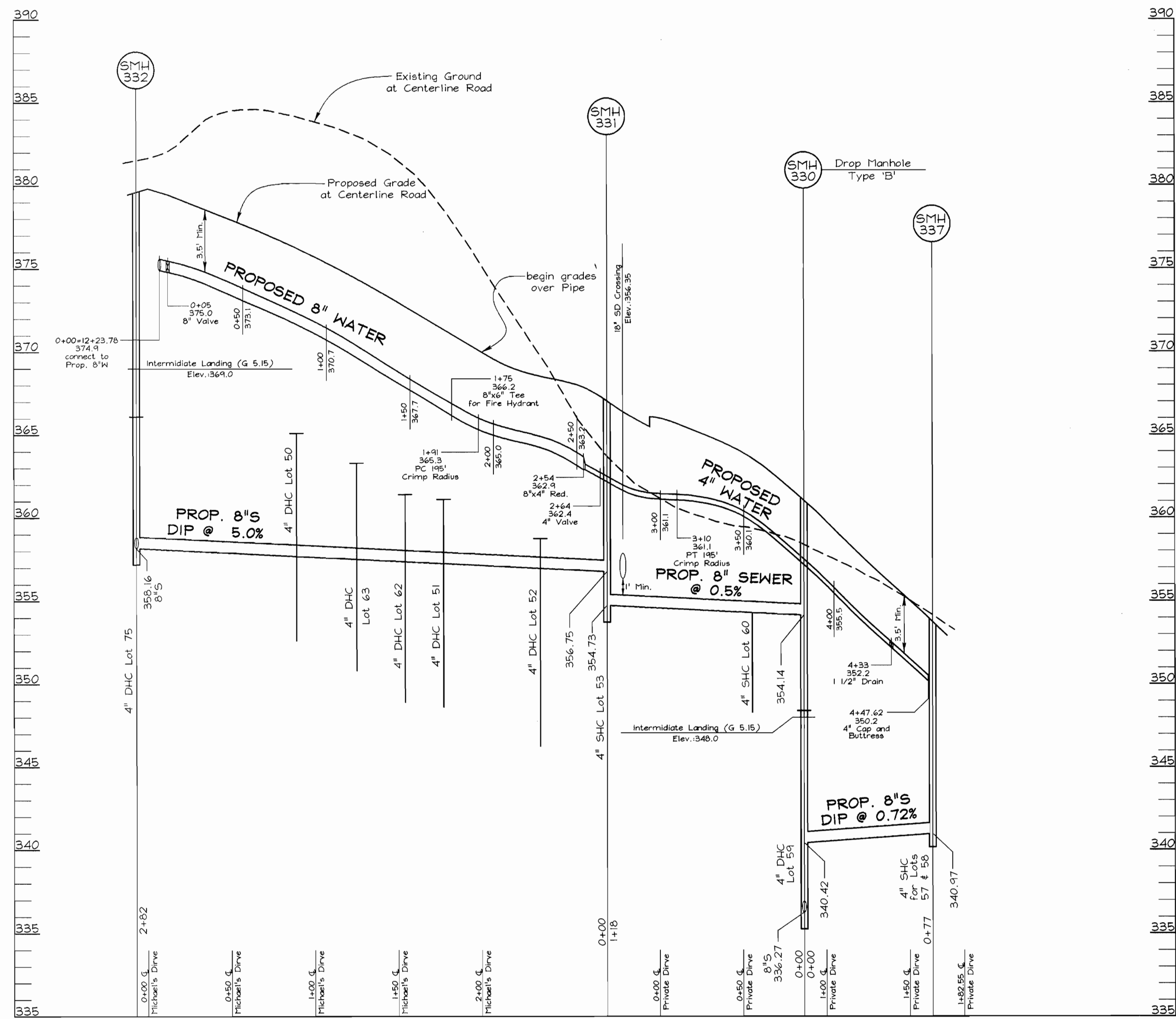
CONTRACT #14-3802-D

TAX MAP #18 PARCEL 1  
2nd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

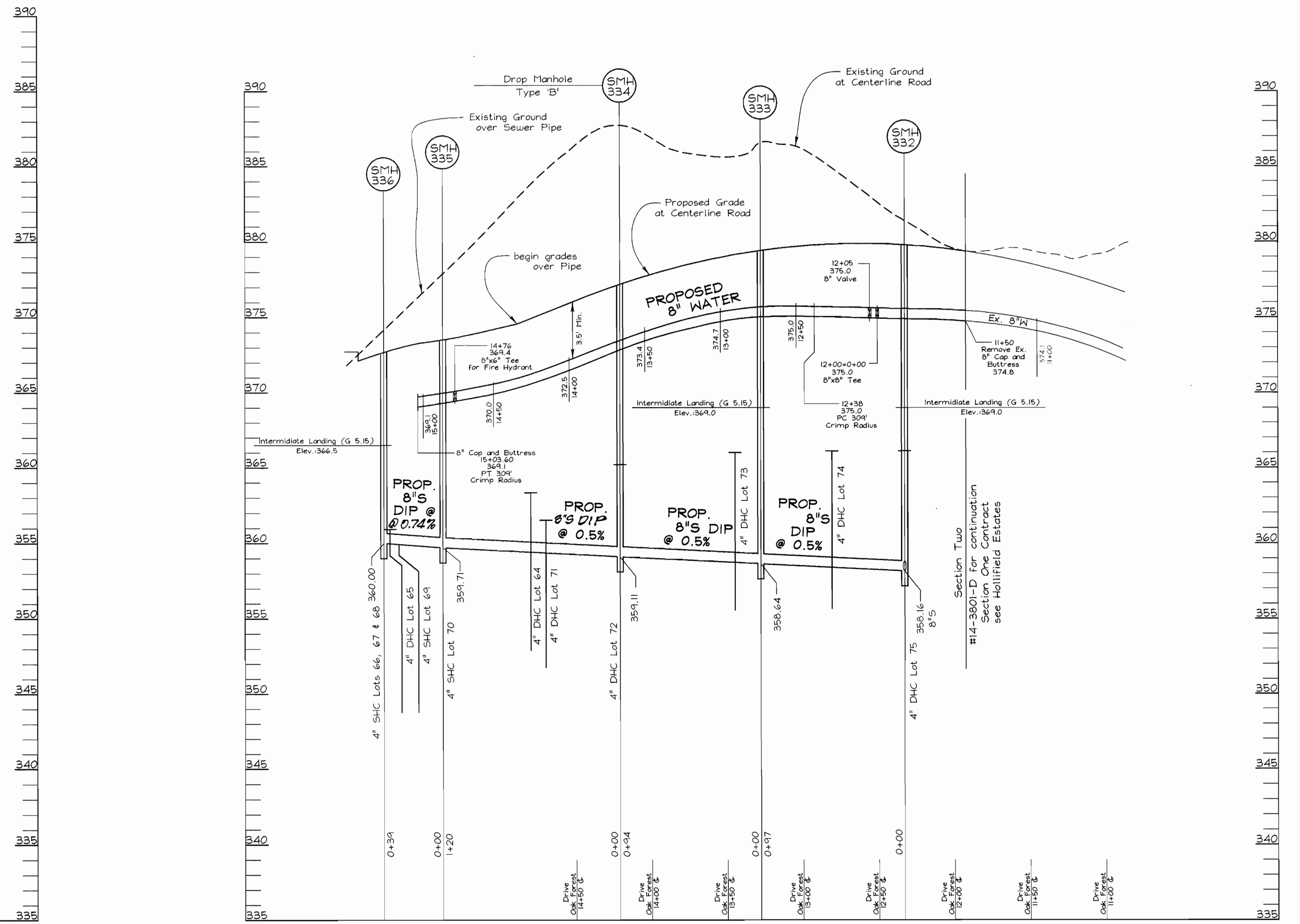
SCALE AS SHOWN

SHEET 2 OF 3

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**WATER AND SEWER PROFILES  
MICHAEL'S DRIVE**  
SCALE: HORIZONTAL - 1"=50'  
VERTICAL - 1"=5'



**WATER AND SEWER PROFILES  
OAK FOREST DRIVE**  
SCALE: HORIZONTAL - 1"=50'  
VERTICAL - 1"=5'

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND



DES:	GAH/PS				
DRN:	PS				
CHK:	JCO				
DATE:	Jan. 2000	BY	NO.	REVISION	DATE

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SECTION TWO (LOTS 50-75)  
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PARCEL 1  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

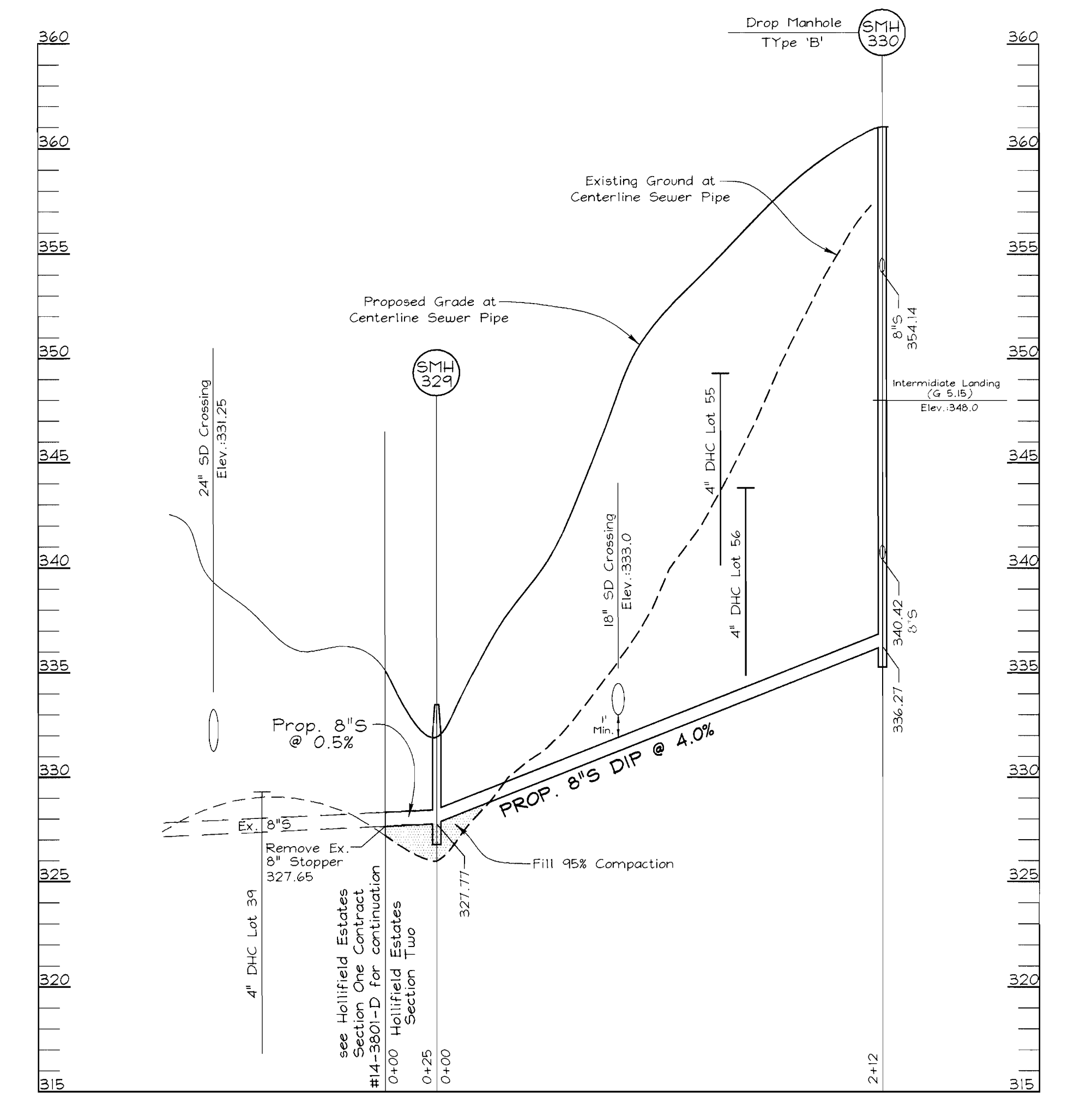
SHEET 3 OF 3



PLAN VIEW  
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DES:	GAH/PS				
DRN:	PS				
CHK:	JCO				
DATE:	Jan 2000	1	ADD FRONT PROPERTY LINE DIMENSIONS	3/15/00	
BY:		NO.	REVISION	DATE	

WATER AND SEWER  
PLAN AND PROFILE  
600' SCALE MAP NO. 18 BLOCK NO.

**HOLLIFIELD ESTATES II**  
SECTION TWO (LOTS 50-75)  
CONTRACT #14-3802-D  
TAX MAP #18 PARCEL 1  
2nd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 2 OF 3

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