


FINAL WATER AND SEWER PLAN

ELLICOTT GARDENS AGE RESTRICTED ADULT HOUSING (DEED 10190/263) PARCEL 427 CONT. No. 14-4363-D

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.
 - THE TOPOGRAPHY SHOWN HEREON IS BASED ON AN AERIAL SURVEY BY VRM DATED AUGUST 2004.
 - 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 301B AND 316B.
ALL VERTICAL CONTROLS ARE BASED ON (NAVD 27). VERTICAL CONTROLS PROVIDED ON DRAWINGS ARE:
GEODETIC SURVEY CONTROL 301B (N 566937.926/E 1366270.75)
BRASS DISC SET ON TOP OF A CONCRETE MONUMENT, LOCATED AT S. SIDE OF RT-108 EAST OF HOWARD H.S. AND 17.9' E. OF TRAFFIC LIGHT MAST, 2' BEHIND GUARDRAIL ALONG RT 108.
GEODETIC SURVEY CONTROL 316B (N 567567.473/E 1367353.38)
BRASS DISC SET ON TOP OF A CONCRETE MONUMENT, LOCATED AT TRAFFIC CIRCLE RT-103 NORTH OF RT-100, AND 17.3' NORTH OF MH AND 5.6' WEST OF GUARDRAIL ALONG RT-104.
 - ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED.
 - 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 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 8:1.....1-800-252-1133
BGE (CONTRACTOR SERVICE).....410-850-4620
BGE (EMERGENCY).....410-685-1400
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 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 WATER/SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 18.114(c) 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'-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 INSTALLED 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.

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 G5.52. 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-07-038.

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.

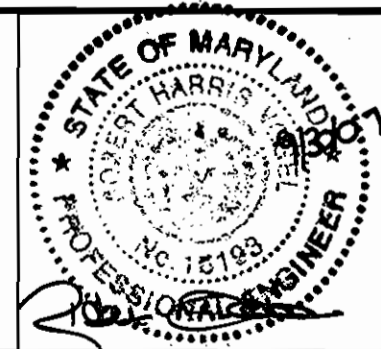
John R. Polenta
SOIL CONSERVATION DISTRICT
DATE: 8/27/07

Jim Meyer
S.O. SOIL CONSERVATION DISTRICT
DATE: 8/27/07

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Michael A. Bussnell
CHIEF, BUREAU OF UTILITIES
DATE: 8/28/07

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND
Alvin Pannunzi
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: 8/31/07

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



DES:	DZ				
DRN:	DZ				
CHK:	RHV				
DATE:	JULY 2007	BY:	NO.	REVISION	DATE

FINAL WATER AND SEWER PLAN
COVER SHEET

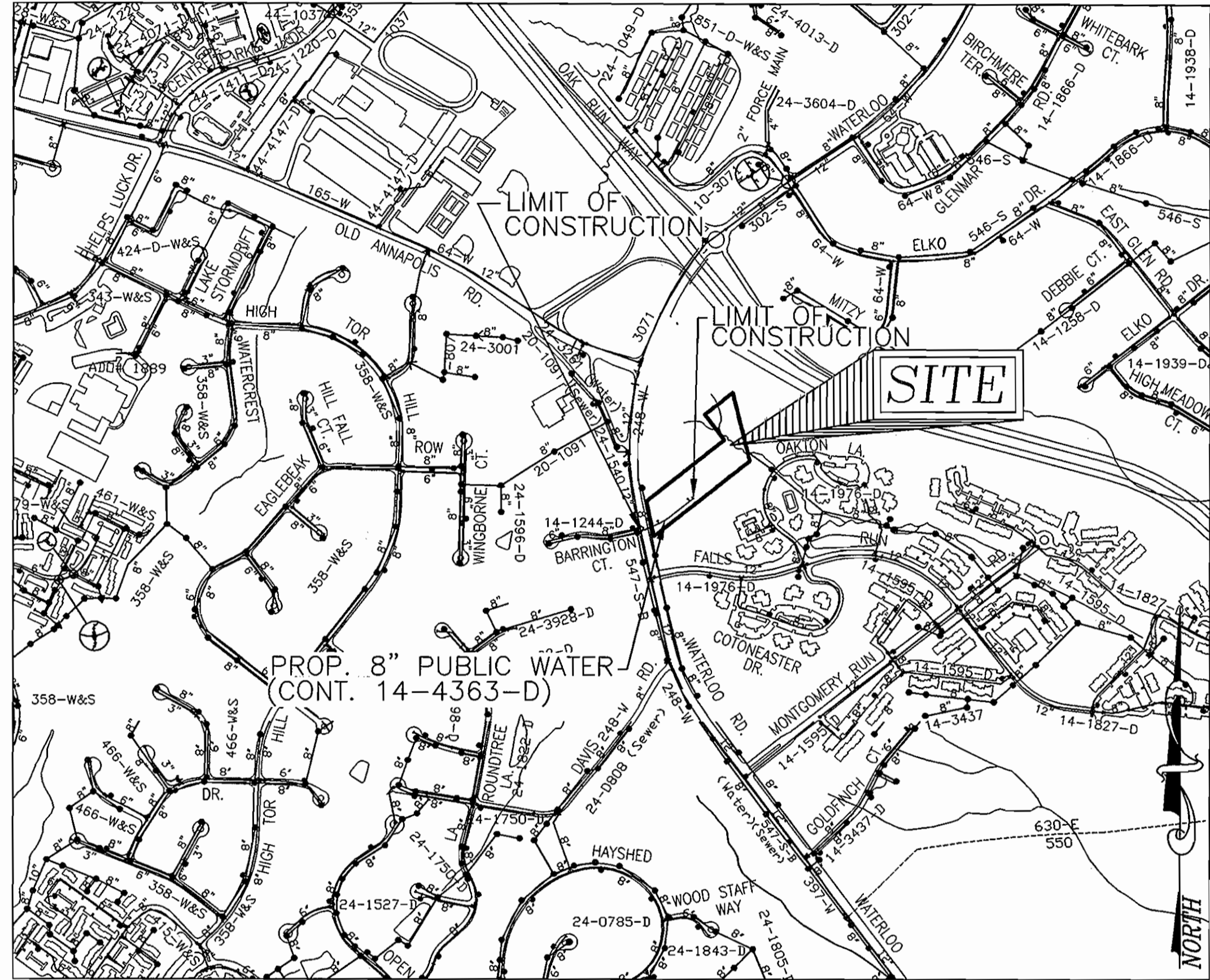
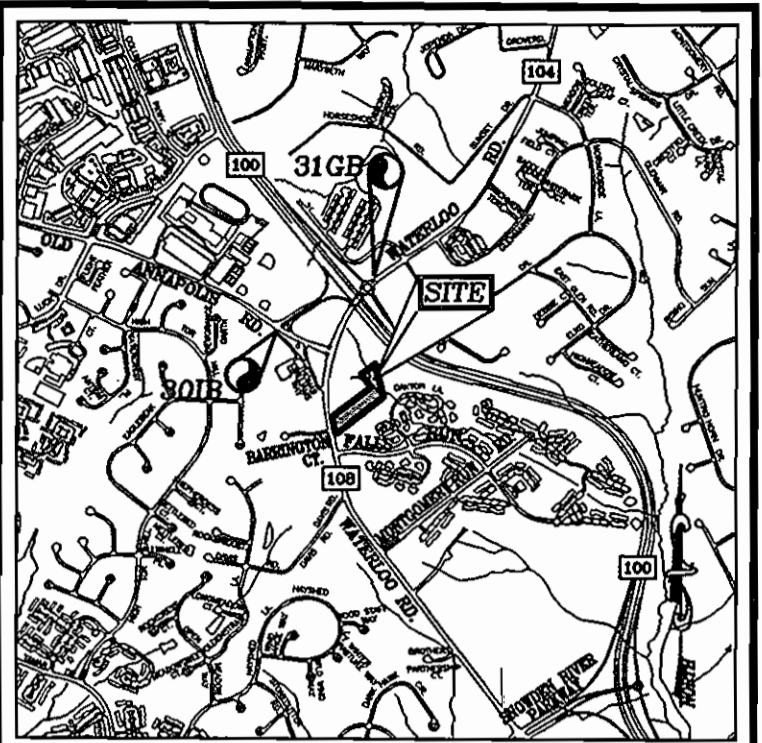
**ELLICOTT GARDENS
AGE RESTRICTED ADULT HOUSING
(DEED 10190/263)
CONTRACT NO. 14-4363-D**

SCALE AS SHOWN
SHEET 1 OF 2

TAX MAP 31 BLOCK 19
1ST ELECTION DISTRICT
PARCEL 427
HOWARD COUNTY, MARYLAND

AS BUILT
DATE: MARCH 20, 2009

OWNER/DEVELOPER
HOWARD COUNTY HOUSING COMMISSIONS
6751 COLUMBIA GATEWAY DRIVE
COLUMBIA, MD 21064
410-730-3725

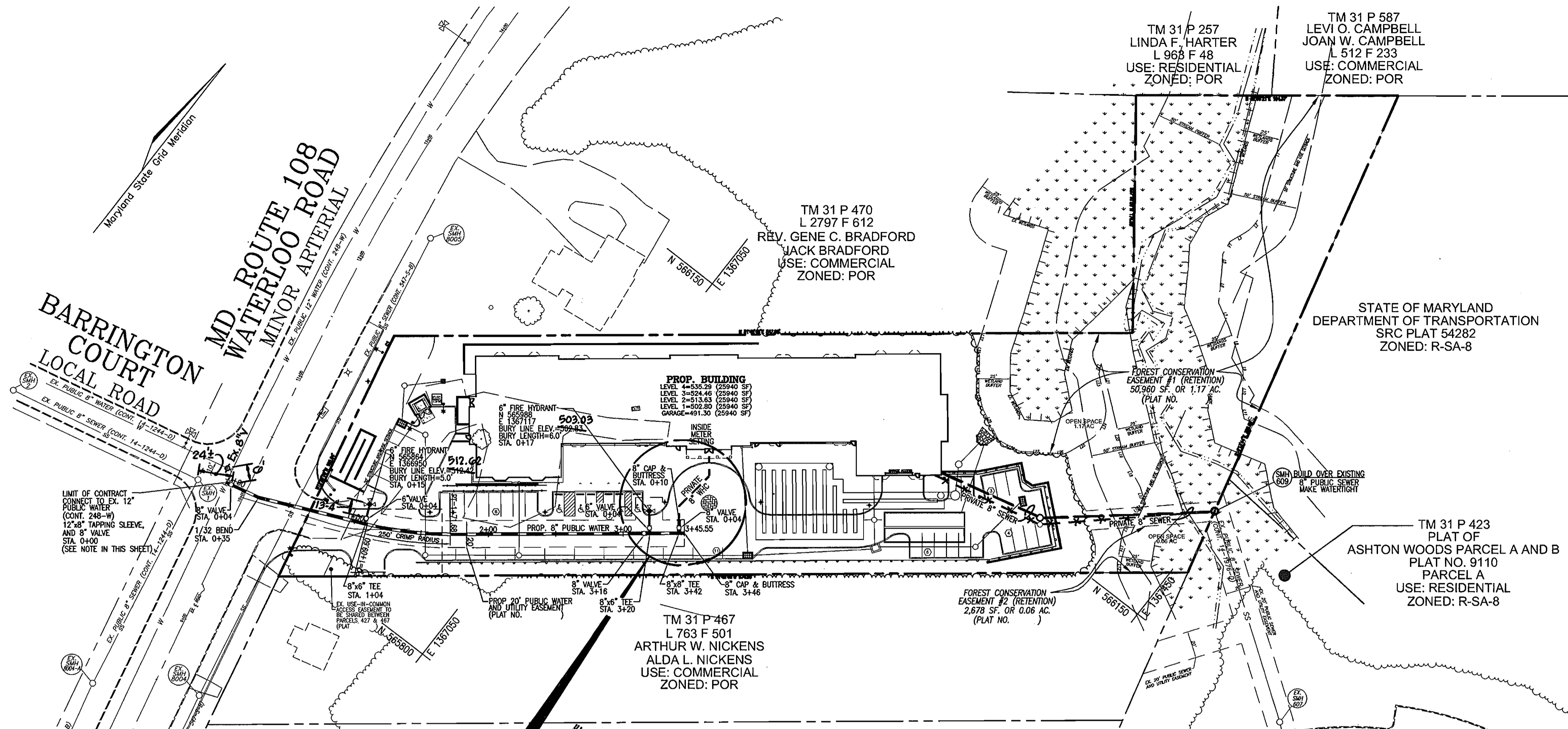


LOCATION MAP
SCALE: 1"=600'

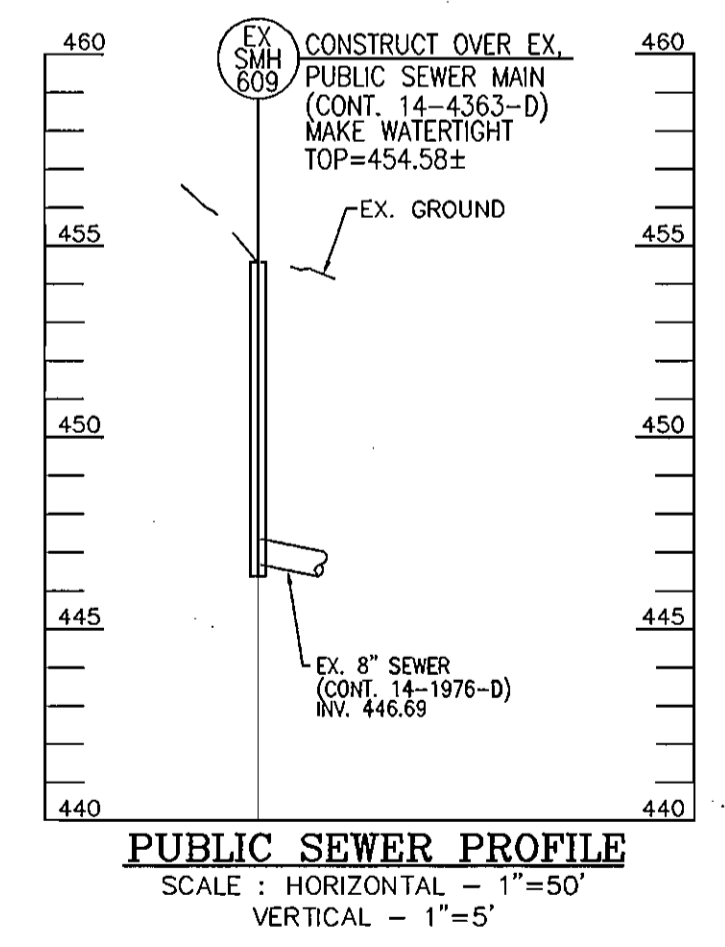
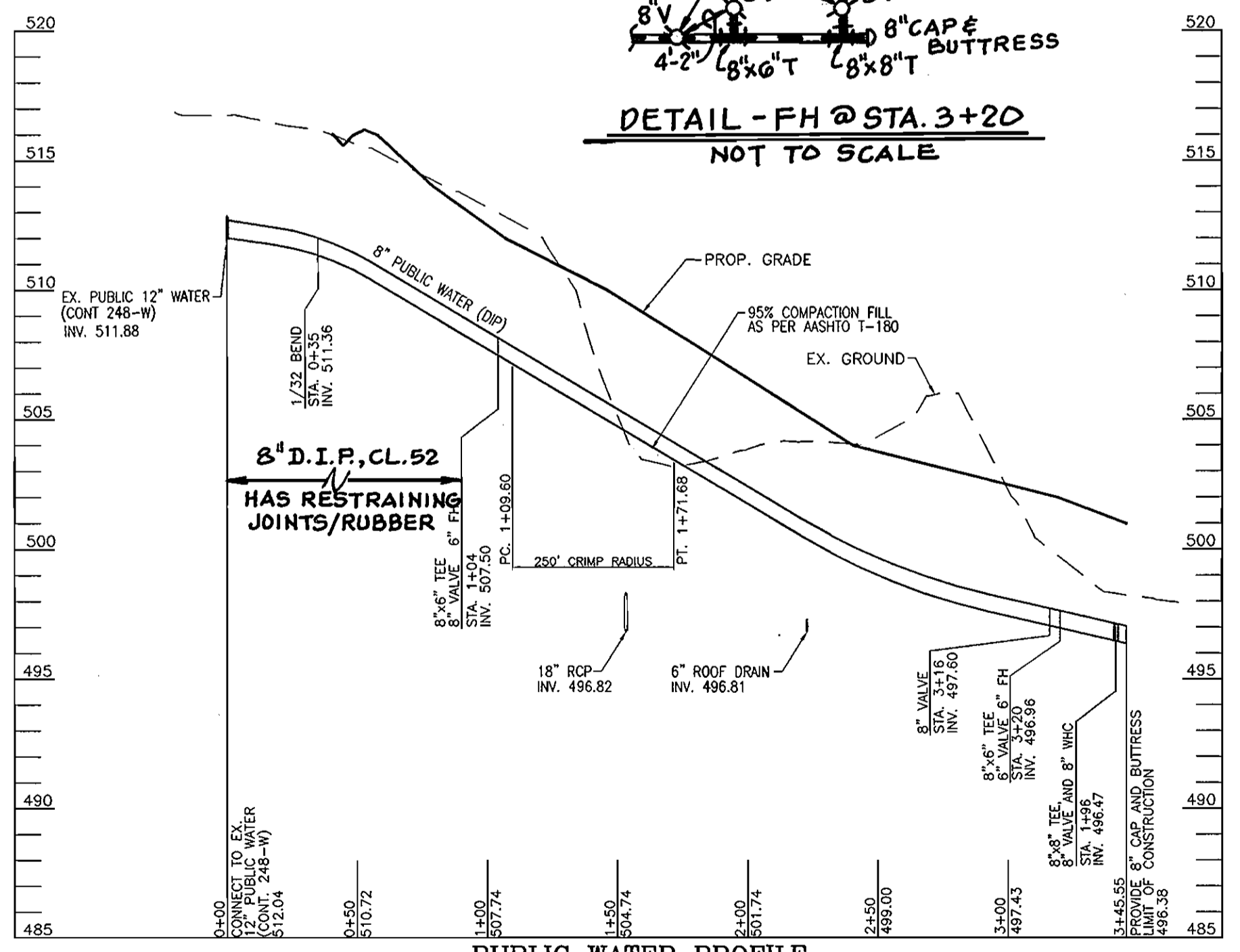
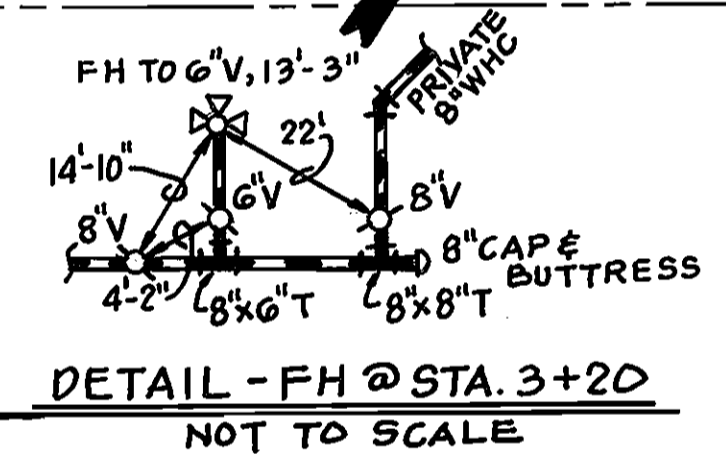
WATER CODE: 607
SEWER CODE: 2780000
TEST GRADIENT: 700

Type of Building :	APARTMENTS
No. of Units :	106
No. of Lots/Parcels :	1
No. of single Water House Connections :	1
No. of twin Water House Connections :	0
No. of Sewer House Connections :	1
Sewer Shed :	PATAPSCO RIVER LOWER NORTH BRANCH
Treatment Plant :	PATAPSCO RIVER

QUANTITIES				
NAME OF UTILITY CONTRACTOR : S.E.H. EXCAVATING CONTRACTORS INC., FINKSBURG, MD.				
SURVEY AND DRAFTING DIVISION AS-BUILT DATE : MARCH 20, 2009				
ITEMS	QUANTITIES ESTIMATED	QUANTITIES AS-BUILT	TYPE	MANUFACTURER/SUPPLIER
WATER				
8" WATER	355 LF	355 LF	D.I.P. CL 52	GRIFFIN PIPE
6" WATER	32 LF	32 LF	D.I.P. CL 52	GRIFFIN PIPE
12" X 8" TEE	1 EA	1 EA	TAPPING	FORD METER BOX/H.D. SUPPLY
8" X 6" TEE	2 EA	2 EA	M.J. HYDNT. SIGMA	H.D. SUPPLY
8" VALVE	2 EA	2 EA	GATE VALVE	KENNEDY VALVE/H.D. SUPPLY
6" VALVE	2 EA	2 EA	GATE VALVE	KENNEDY VALVE/H.D. SUPPLY
6" FIRE HYDRANT	2 EA	2 EA	5'-0" 60°-0"	KENNEDY VALVE/H.D. SUPPLY
8" 1/32 BEND	1 EA	1 EA	M.J. BEND	SIGMA/H.D. SUPPLY
8" CAP AND BUTTRISS	2 EA	2 EA	M.J. CAP	SIGMA/H.D. SUPPLY
SEWER				
MANHOLE	1 EA	1 EA	PRECAST	FREDERICK PRECAST CONG., INC.



PLAN VIEW
SCALE: 1"=50'



AS BUILT
DATE: MARCH 20, 2009

OWNER/DEVELOPER
HOWARD COUNTY HOUSING COMMISSIONS
6751 COLUMBIA GATEWAY DRIVE
COLUMBIA, MD 21064
410-730-3725

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND <i>Michael A. Dorman</i> CHIEF, BUREAU OF UTILITIES	DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND <i>Michael A. Dorman</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION	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					
				DRN: DZ					
DATE: JULY 2007				CHK: RHV					
				DATE: 2007	BY:	NO.	REVISION	DATE	
							FINAL WATER AND SEWER PLAN PLAN VIEW		
							600' SCALE MAP NO. 31	BLOCK NO. 19	
							ELLCOTT GARDENS AGE RESTRICTED ADULT HOUSING (DEED 10190/263) CONTRACT NO. 14-4363-D		
							TAX MAP 31 BLOCK 19 1ST ELECTION DISTRICT	PARCEL 427 HOWARD COUNTY, MARYLAND	SCALE AS SHOWN SHEET 2 OF 2