


**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 SURVEY IS BASED ON A FIELD RUN SURVEY PERFORMED BY ROBERT H. VOGEL ENGINEERING, INC., DATED JANUARY 2006.
- 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 NO. 361B, AND NO. 42CA.  
ALL VERTICAL CONTROLS ARE BASED ON NAVD '88. VERTICAL CONTROLS PROVIDED ON DRAWINGS ARE:  
GEODETIC SURVEY CONTROL 361B (ELEV. 386.424 FT.)  
BRASS DISC SET ON TOP OF A CONCRETE MONUMENT, 2.9' NORTH OF EAST BOUND LANE CONCRETE CURB OF CENTER MEDIAN ALONG SNOWDEN RIVER PKWY. EAST OF MCGRAW RD.  
GEODETIC SURVEY CONTROL 42CA (ELEV. 376.493 FT.)  
BRASS DISC SET ON TOP OF A CONCRETE MONUMENT, 5.5' EAST OF NORTHBOND LANE OF SNOWDEN RIVER PARKWAY, AND 44.2' SOUTH OF 45 MPH SPEED LIMIT SIGN.
- 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 &T ..... 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(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'-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 GS.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-05-105

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.

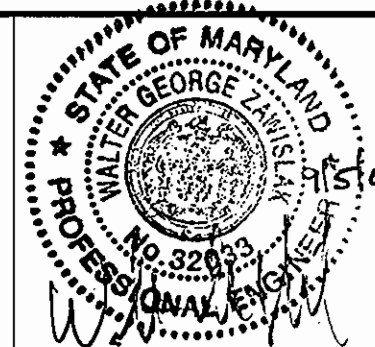
*John K. Roberts* 10/13/06  
SOIL CONSERVATION DISTRICT DATE

*Jim Myers* 10/13/06  
S. SOIL CONSERVATION DISTRICT DATE

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: 410.461.7669 FAX: 410.461.8951



DES:	DZ				
DRN:	KG				
CHK:					
DATE:	AUGUST 2006	BY	NO.	REVISION	DATE

FINAL WATER PLAN  
COVER SHEET

**STONewood BUSINESS CENTER**  
PARCEL 'A-2' - E.G.U. SUBDIVISION  
SECTION 2 / AREA 6  
CONTRACT NO. 24-4364-D

SCALE AS SHOWN

SHEET 1 OF 3

TAX MAP 42 BLOCK 11  
6TH ELECTION DISTRICT

PARCEL 'A-2'  
HOWARD COUNTY, MARYLAND

# FINAL WATER PLAN

## STONewood BUSINESS CENTER

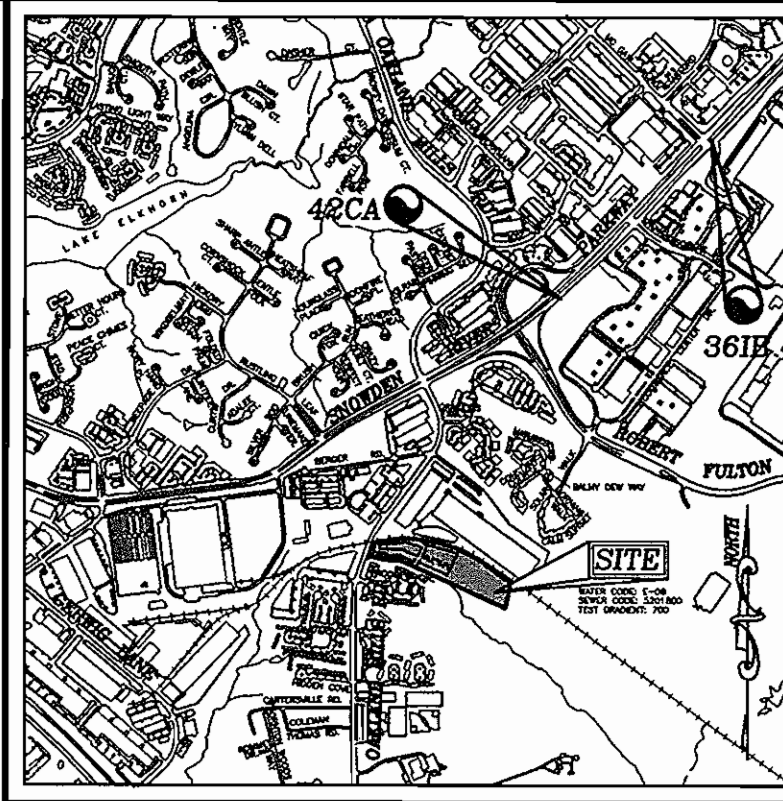
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### SECTION 2 / AREA 6 (PER F-74-19c)

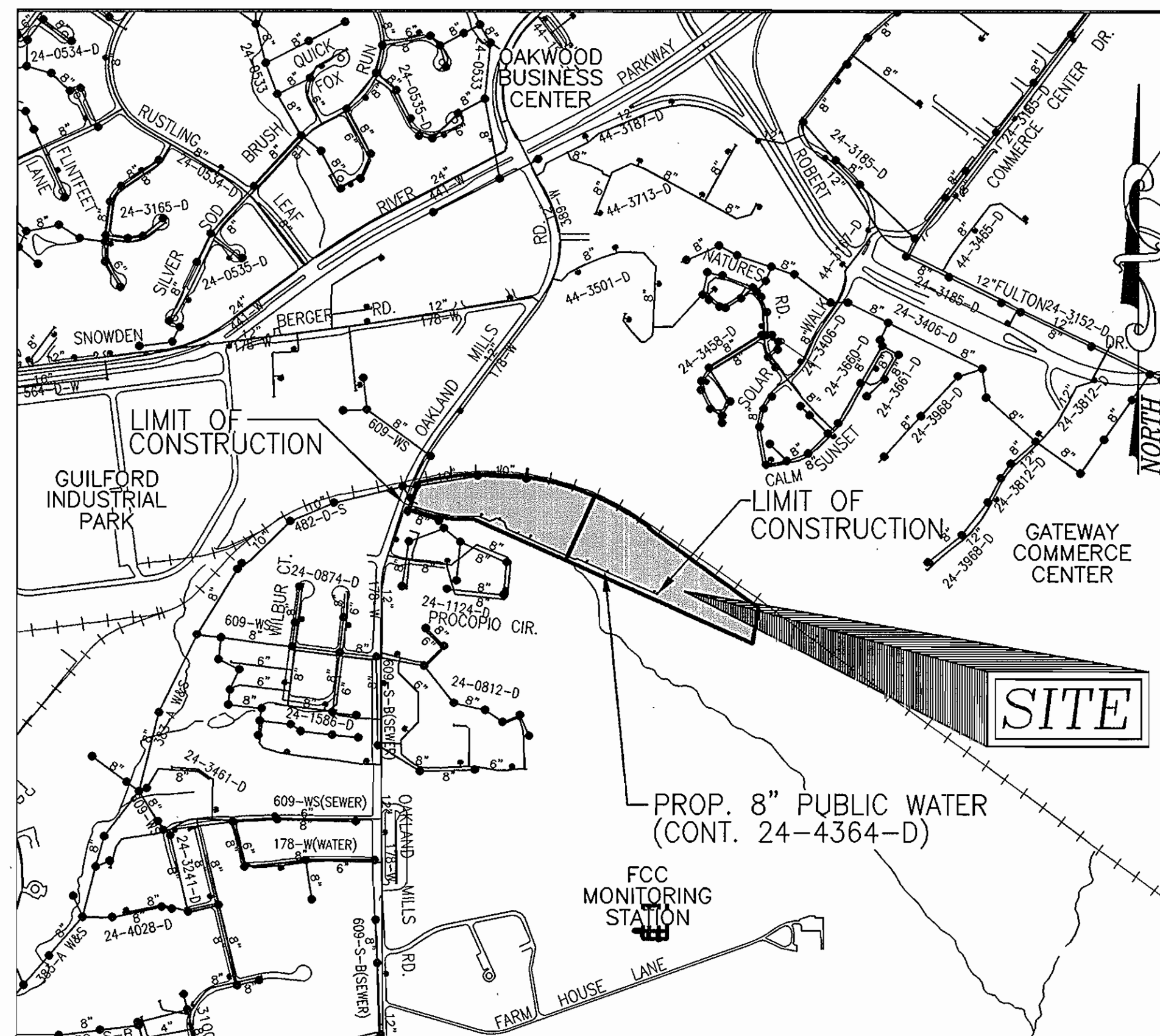
## CONTRACT NUMBER 24-4364-D

**BENCHMARKS**

HOWARD COUNTY BENCHMARK 42CA N 551695.745 E 1362506.381	ELEV. 377.230
HOWARD COUNTY BENCHMARK 361B N 553348.652 E 1364085.211	ELEV. 386.424



VICINITY MAP  
SCALE: 1"=2000'



WATER CODE: F06  
SEWER CODE: 5201800  
TEST GRADIENT: 700

LOCATION MAP  
SCALE: 1"=600'

Type of Building :	WAREHOUSE/OFFICE
No. of Lots/Parcels :	1
No. of single Water House Connections :	2
No. of twin Water House Connections :	0
No. of Sewer House Connections :	2
Drainage Area :	LITTLE PATUXENT RIVER PATAPSCO RIVER

**QUANTITIES**

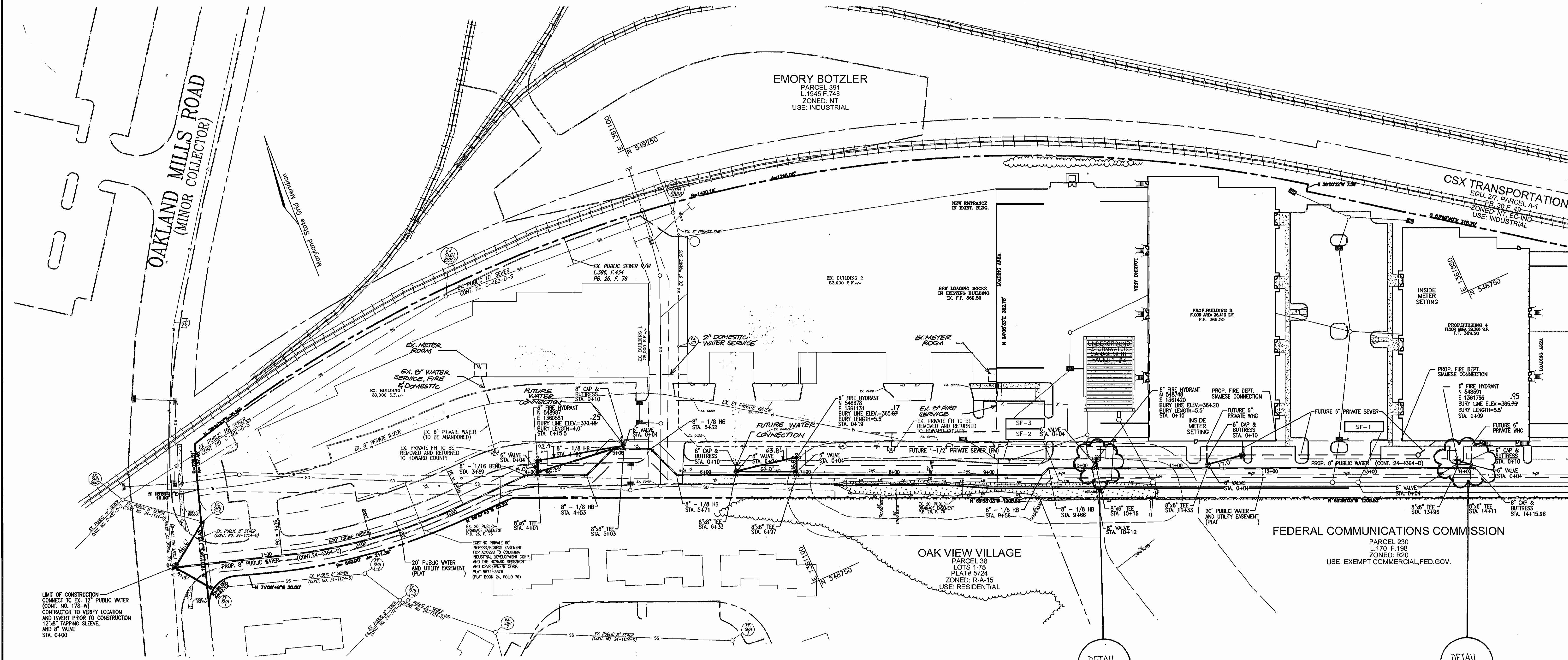
NAME OF UTILITY CONTRACTOR : MAROCCO CONSTRUCTION  
SURVEY AND DRAFTING DIVISION AS-BUILT DATE : 11-6-08

ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER/SUPPLIER
WATER				
8" WATER	1436 LF	1436 LF	DUCTILE CL54	GRIFFEN / GRIFFEN
6" WATER	54 LF	54 LF	DUCTILE CL54	GRIFFEN / GRIFFEN
12" X 8" TAPPING SLEEVE	1 EA	1 EA	TAPPING SLEEVE	FORD / HD SUPPLY
8" X 8" TEE	2 EA	2 EA	MIS TEE	SIGMA / HD SUPPLY
8" X 6" TEE	6 EA	6 EA	MIS HYDRANT/TEE	SIGMA / HD SUPPLY
8" VALVE	4 EA	4 EA	TAPPING VALVE	KENNEDY / HD SUPPLY
6" VALVE	6 EA	6 EA	TAPPING VALVE	KENNEDY / HD SUPPLY
6" FIRE HYDRANT	4 EA	4 EA	HYDRANT	MUELLER / BRS
8" - 1/16 BEND	1 EA	1 EA	MIS	SIGMA / HD SUPPLY
8" - 1/8 BEND	6 EA	6 EA	MIS	SIGMA / HD SUPPLY
8" CAP AND BUTTRISS	3 EA	3 EA	MIS	SIGMA / HD SUPPLY
6" CAP AND BUTTRISS	2 EA	2 EA	MIS	SIGMA / HD SUPPLY

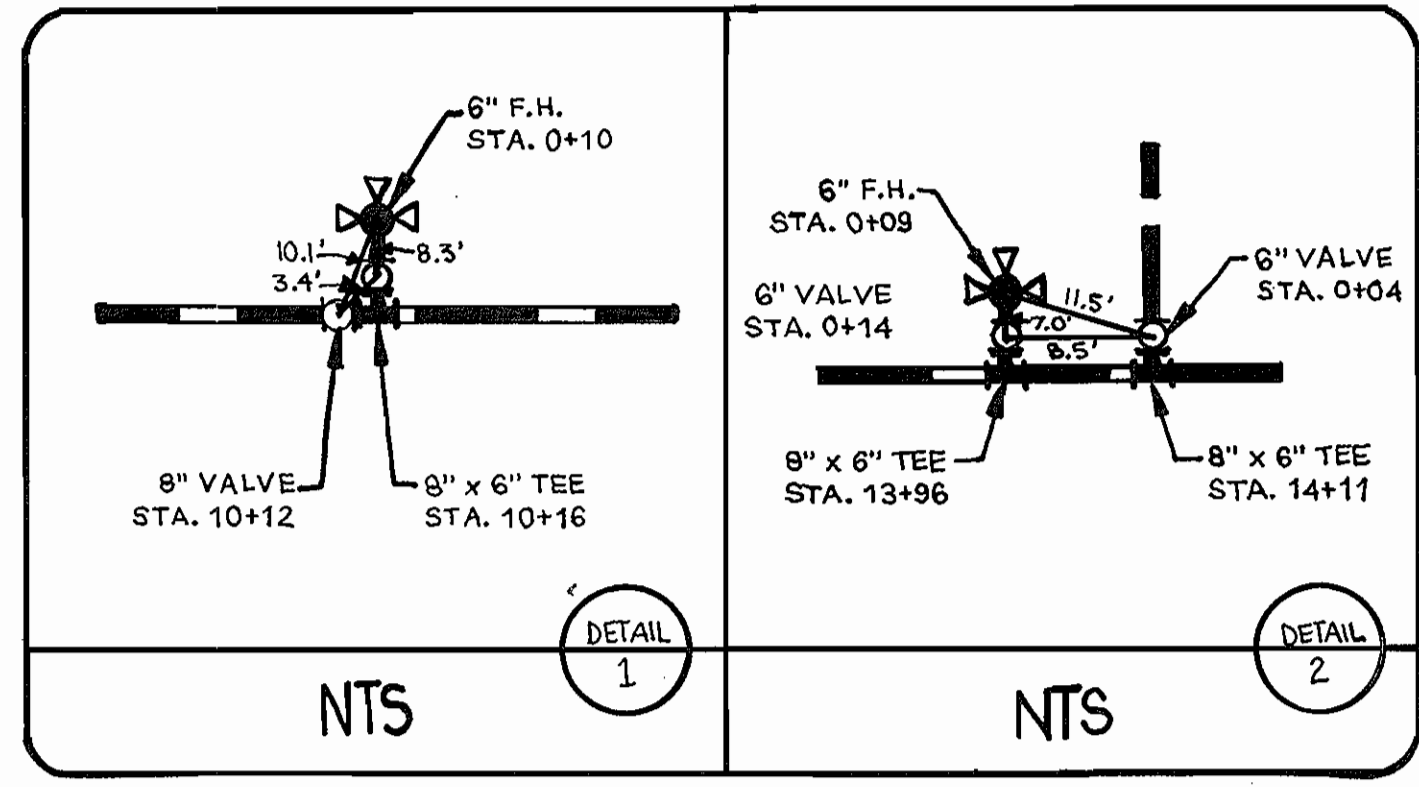
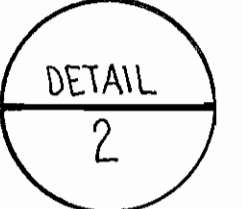
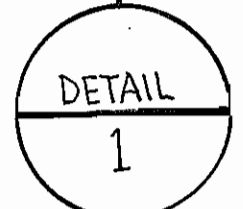
AS-BUILT 11-6-08

**DEVELOPER**

STONewood BUSINESS CENTER  
GUILFORD I LIMITED PARTNERSHIP  
11628 LOG JUMP TRAIL  
ELLICOTT CITY, MARYLAND 21043  
301-596-0222



PLAN VIEW  
SCALE: 1"=50'



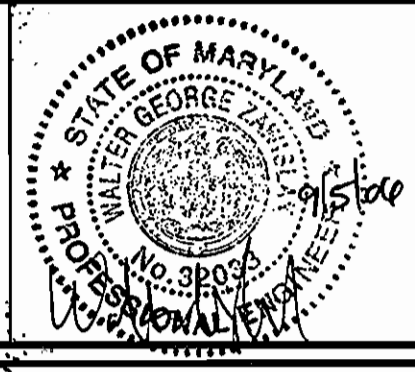
AS-BUILT 11.6.08

DEVELOPER  
STONEWOOD BUSINESS CENTER  
GUILFORD I LIMITED PARTNERSHIP  
11628 LOG JUMP TRAIL  
ELLICOTT CITY, MARYLAND 21043  
301-596-0222

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
R. J. ...  
CHIEF, BUREAU OF UTILITIES  
DATE: 11/11/09

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND  
...  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
DATE: 10/11/09

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

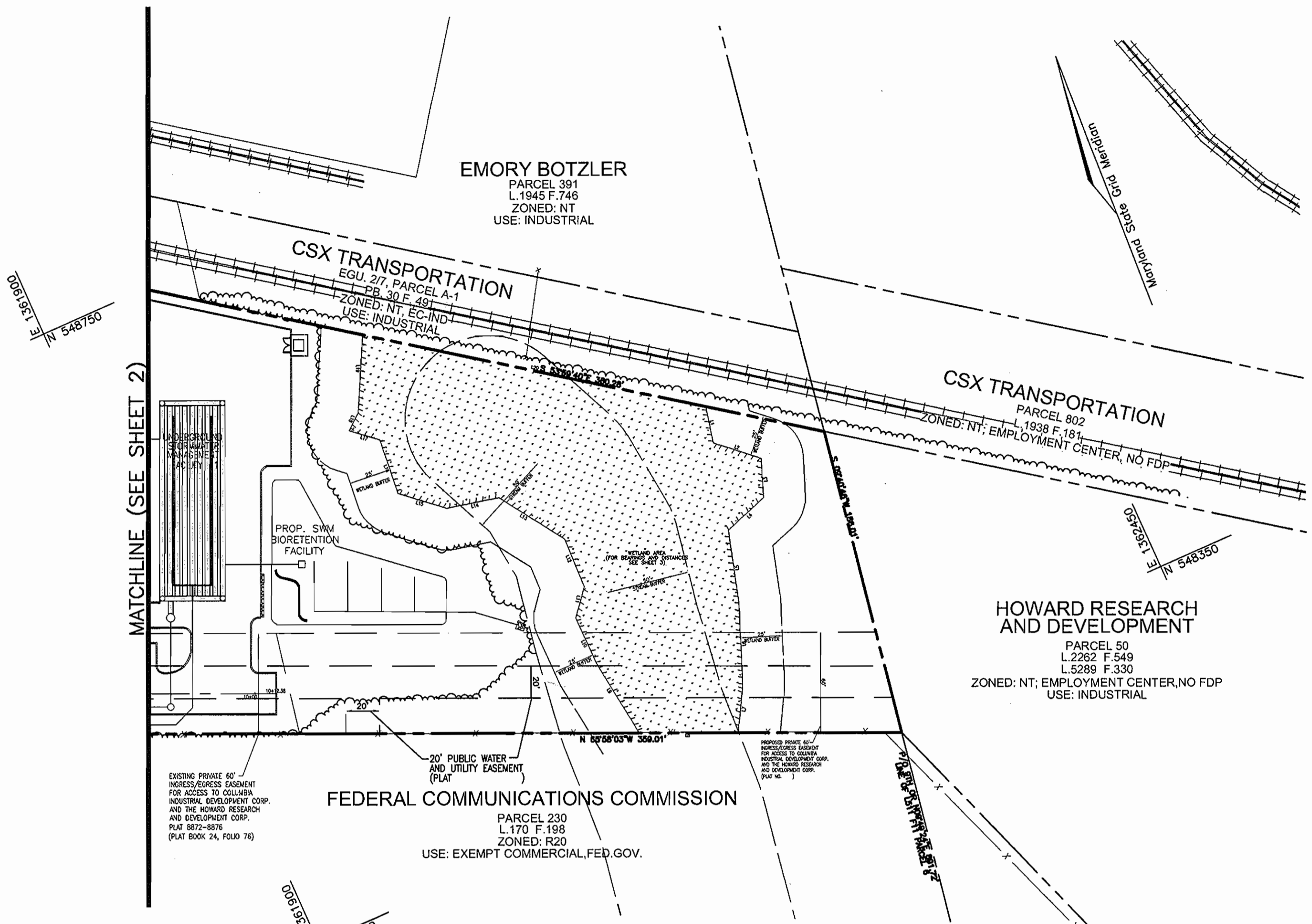


DES:	DZ			
DRN:	KG			
CHK:				
DATE:	AUGUST 2006	BY:	NO.	
		REVISION		DATE
		1	REVISE WATER SERVICE TO BUILDINGS 1&2	8/31/09

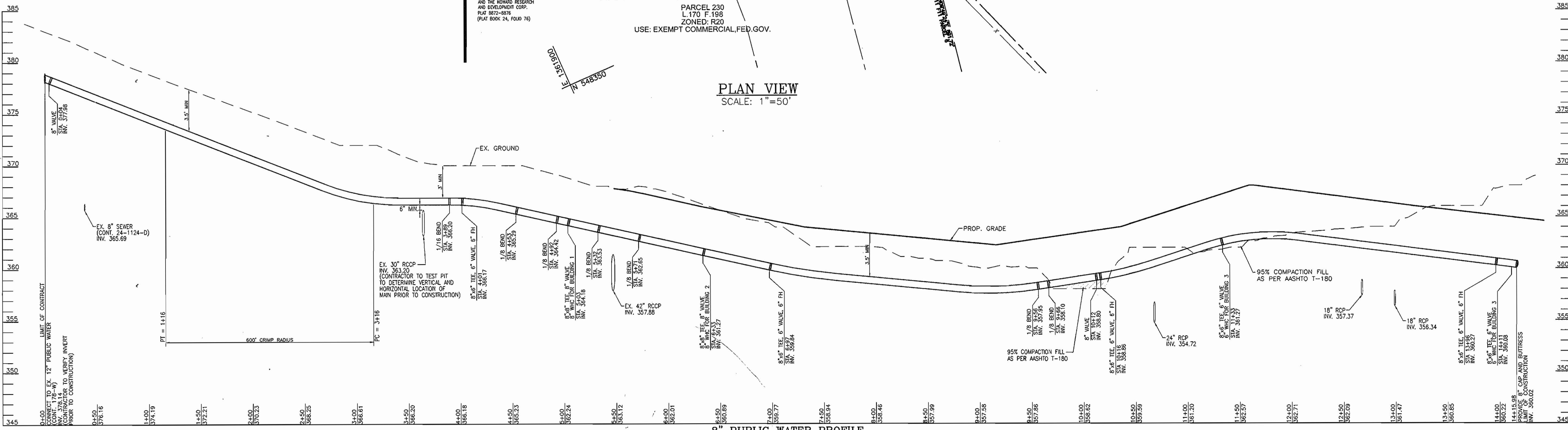
FINAL WATER PLAN  
PLAN VIEW  
600' SCALE MAP NO. 42  
BLOCK NO. 11

STONEWOOD BUSINESS CENTER  
PARCEL A-2 E.G.U. SUBDIVISION  
SECTION 2 / AREA 6  
CONTRACT NO. 24-4364-D  
TAX MAP 42 BLOCK 11 PARCEL 'A-2'  
6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 2 OF 3



PLAN VIEW  
SCALE: 1"=50'



8" PUBLIC WATER PROFILE  
SCALE: HORIZONTAL - 1"=50'  
VERTICAL - 1"=5'

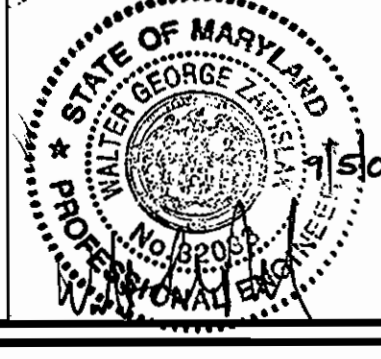
AS-BUILT 11-6-08

DEVELOPER  
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ELLCOTT CITY, MARYLAND 21043  
301-596-0222

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
*R. H. Vogel*  
9-18-04  
CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND  
*[Signature]*  
10/1/08  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

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FINAL WATER PLAN  
PLAN VIEW  
600' SCALE MAP NO. 42  
BLOCK NO. 11

STONEWOOD BUSINESS CENTER  
PARCEL A-2 - E.G.U. SUBDIVISION  
SECTION 2 / AREA 6  
CONTRACT NO. 24-4364-D  
TAX MAP 42 BLOCK 11  
6TH ELECTION DISTRICT  
PARCEL 'A-2'  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 3 OF 3