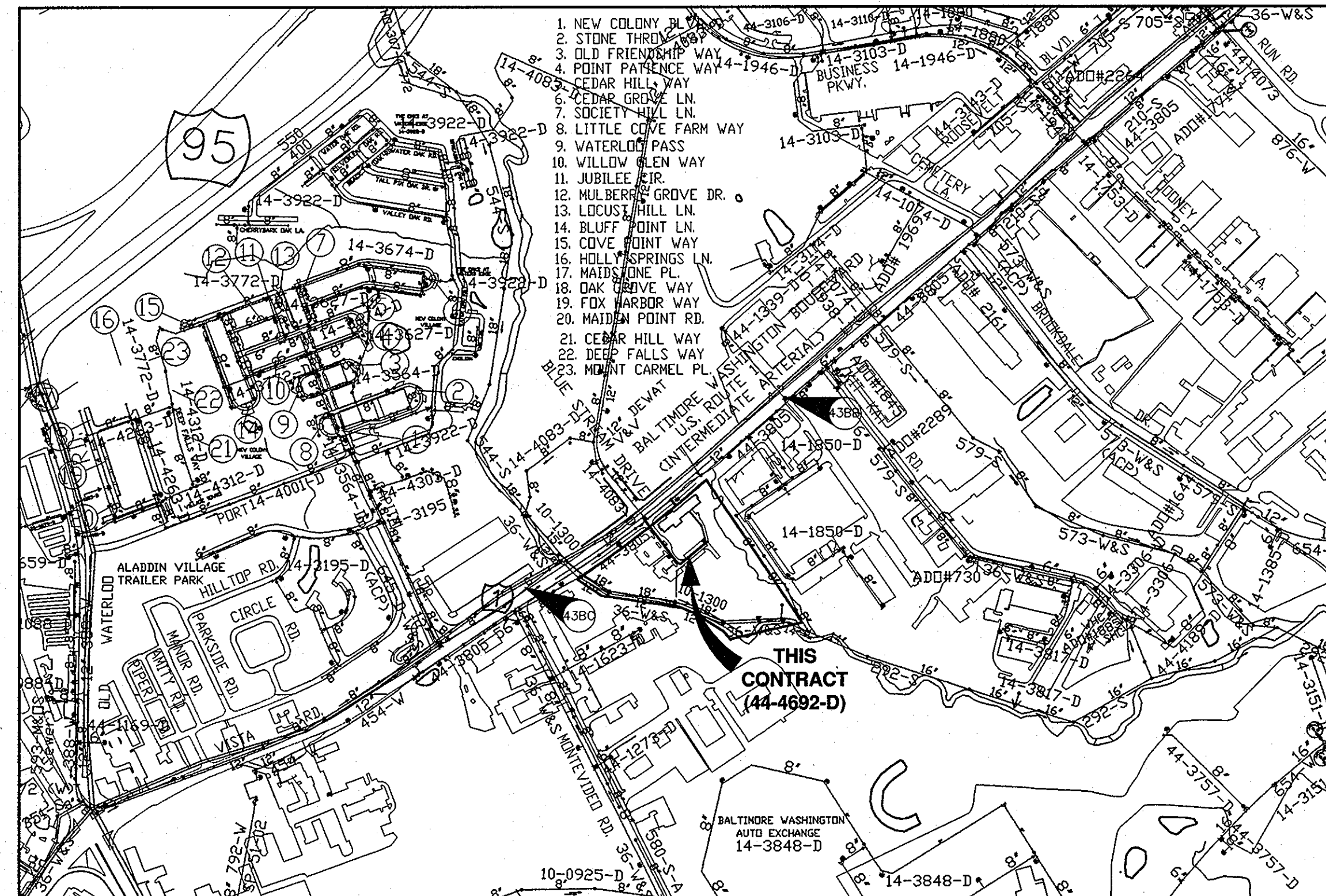
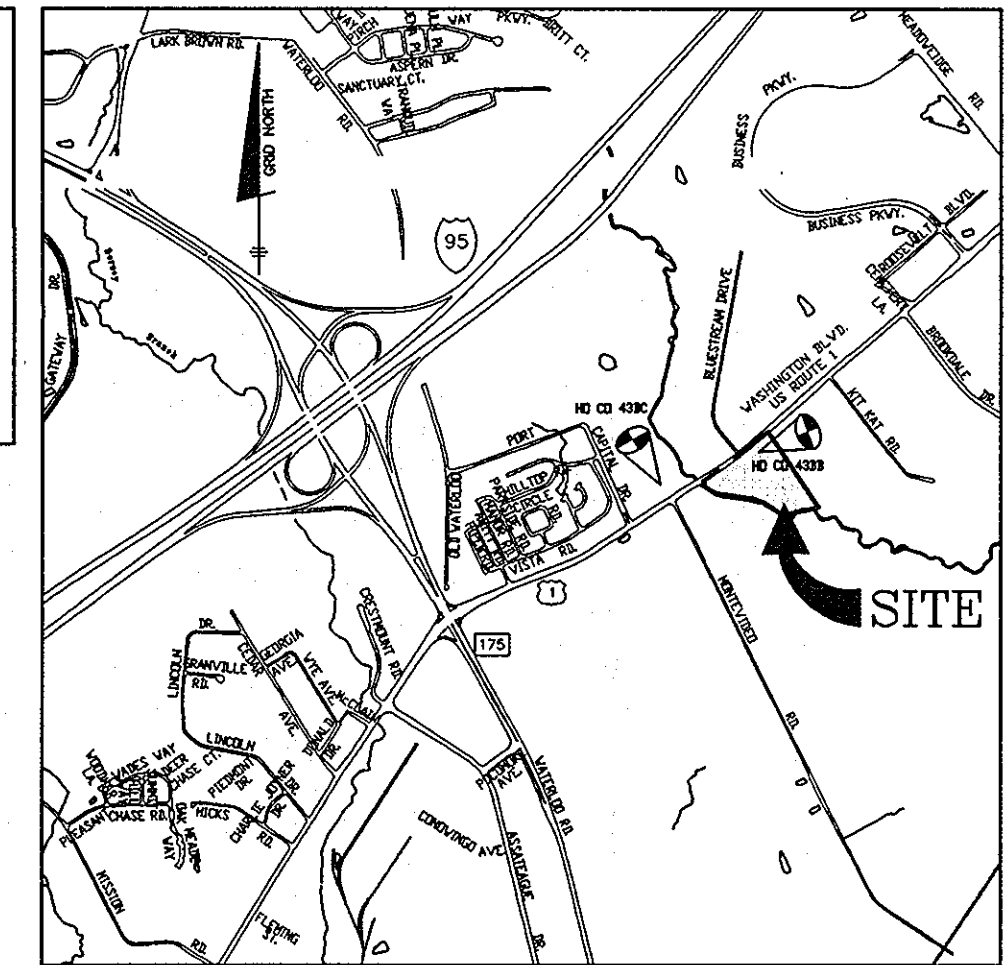


LORIEN-ELKRIDGE PARCEL 'A' CONTRACT NO. 44-4692-D

BENCHMARK NAD'83 HORIZONTAL
 HO. CO. #438B
 STAMPED BRASS DISK SET ON TOP OF
 CONCRETE BASE, NORTH BOUND ROUTE
 1, BY # 7561 US-1 (LESSUP)
 N 550534.19' E 1376905.25'
 ELEVATION: 208.971'
 HO. CO. #438C
 STAMPED BRASS DISK SET ON TOP OF
 CONCRETE BASE, SOUTH BOUND ROUTE 1
 AND MOUNTVEID ROAD.
 N 549592.091' E 1375466.62'
 ELEVATION: 214.137'



VICINITY MAP
SCALE: 1" = 600'

QUANTITIES				
ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUF./SUPPLIER
8" PVC C900 WATER	456 LF			
6" DIP WATER (FH LEED)	107 LF			
FIRE HYDRANTS (INCLUDES TEE & VALVE)	4 EA.			
12"x8" TS&V	1 EA.			
8" VALVE	1 EA.			
NAME OF UTILITY CONTRACTOR:				
SURVEY AND DRAFTING DIVISION AS-BUILT DATE:				

WATER HOUSE CONNECTION AS-BUILT LOCATION TABLE			
BLDG NUMBER	ADDRESS	LOCATION DIMENSION 1	LOCATION DIMENSION 2
'A'	7615 WASHINGTON BOULEVARD		

TYPE OF BUILDING:	COMMERCIAL
NO. OF LOTS/PARCELS:	1
NUMBER OF WHC'S:	0
WATER ZONE	400
TEST GRADIENT	.550

SHEET INDEX	
NO.	DESCRIPTION
1	TITLE SHEET PUBLIC WATER MAINS
2	PLAN AND PROFILE OF PUBLIC WATER MAINS

- ### GENERAL NOTES
- PART I - GENERAL**
- APPROXIMATE LOCATIONS 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.
 - TOPOGRAPHIC FIELD SURVEYS WERE PERFORMED IN FEBRUARY, 2003 BY BENCHMARK ENGINEERING, INC.
 - THE COORDINATES SHOWN ON THE DRAWINGS ARE BASED ON MARYLAND STATE REFERENCE SYSTEM AND '83/91 AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 0012 AND NO. 16E1.
 - ALL VERTICAL CONTROLS ARE BASED ON NAVD '88. VERTICAL CONTROLS PROVIDED ON THE DRAWINGS ARE 0012 AND 16E1.
 - ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED ON THE PLANS.
 - 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 THE DRAWINGS. IN THE EVENT THE CONTRACTOR'S WORK REQUIRES THE BRACING OF ADDITIONAL POLES, ANY COST INCURRED BY THE OWNER FOR THE 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 DRAWING, 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 [Symbol] AT THE LOCATIONS OF THE TEST PITS. 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 THE CONTRACTOR TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS AT HIS OWN EXPENSE.
 - THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE (5) WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:

AT&T.....	1-800-252-1133
BGE (CONSTRUCTION SERVICES).....	410-850-4620
BGE (EMERGENCY).....	410-895-1400
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 LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN.
 - THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, AT (410) 313-7450 AT LEAST FIVE (5) WORKING DAYS BEFORE 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 SHALL BE POLYETHYLENE GLYCOL (PE) PIPE MEETING THE REQUIREMENTS OF AWWA C900 DR18, PRESSURE CLASS 150 AND THE HOWARD COUNTY DESIGN MANUAL VOLUME IV STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION AND ALL SUBSEQUENT AMENDMENTS THERE TO.
 - TOPS OF ALL WATER MAINS SHALL HAVE A MINIMUM OF 3'-6" OF 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 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 SECTION 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.
 - VALVES ARE TO BE ATTACHED WITH IRON FITTINGS OR CONCRETE ANCHORS.
 - THE DIMENSION RATIO FOR THE PVC MAIN SHALL BE DR18.
 - WATER MAIN CONSTRUCTION SHALL CONSIST OF PVC MAIN WITH EPOXY COATED DIP FITTINGS OR PVC MAIN WITH PVC FITTINGS.

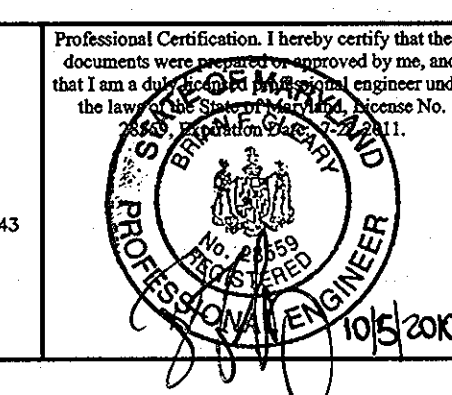
THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

John R. Roberts 4/10/10
 CHIEF, BUREAU OF UTILITIES DATE

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 308 OF THE HOWARD COUNTY STANDARD SPECIFICATIONS AND AS PER ROAD CONSTRUCTION PLANS SDP-11-002.

DEVELOPER:
 COMMERCIAL CONTRACTORS, INC.
 1205 YORK ROAD, FIFTH FLOOR
 LUTHERVILLE, MARYLAND 21093
 410-825-8400

BENCHMARK
 ENGINEERS & LAND SURVEYORS & PLANNERS
ENGINEERING, INC.
 8490 BALTIMORE NATIONAL PRICE A SUITE 418 & ELLICOTT CITY, MARYLAND 21043
 (P) 410-485-6105 (F) 410-485-8644
 60 THOMAS JOHNSON DRIVE & FREDERICK, MARYLAND 21702
 (P) 301-371-3505 (F) 301-371-3508
 WWW.BE-CIVILENGINEERING.COM



DESIGN: DBT				
DRAFT: BFC/DBT				
CHK: BFC				
DATE: 10/2010	BY NO.	REVISIONS	DATE	

**TITLE SHEET
PUBLIC WATER MAINS**

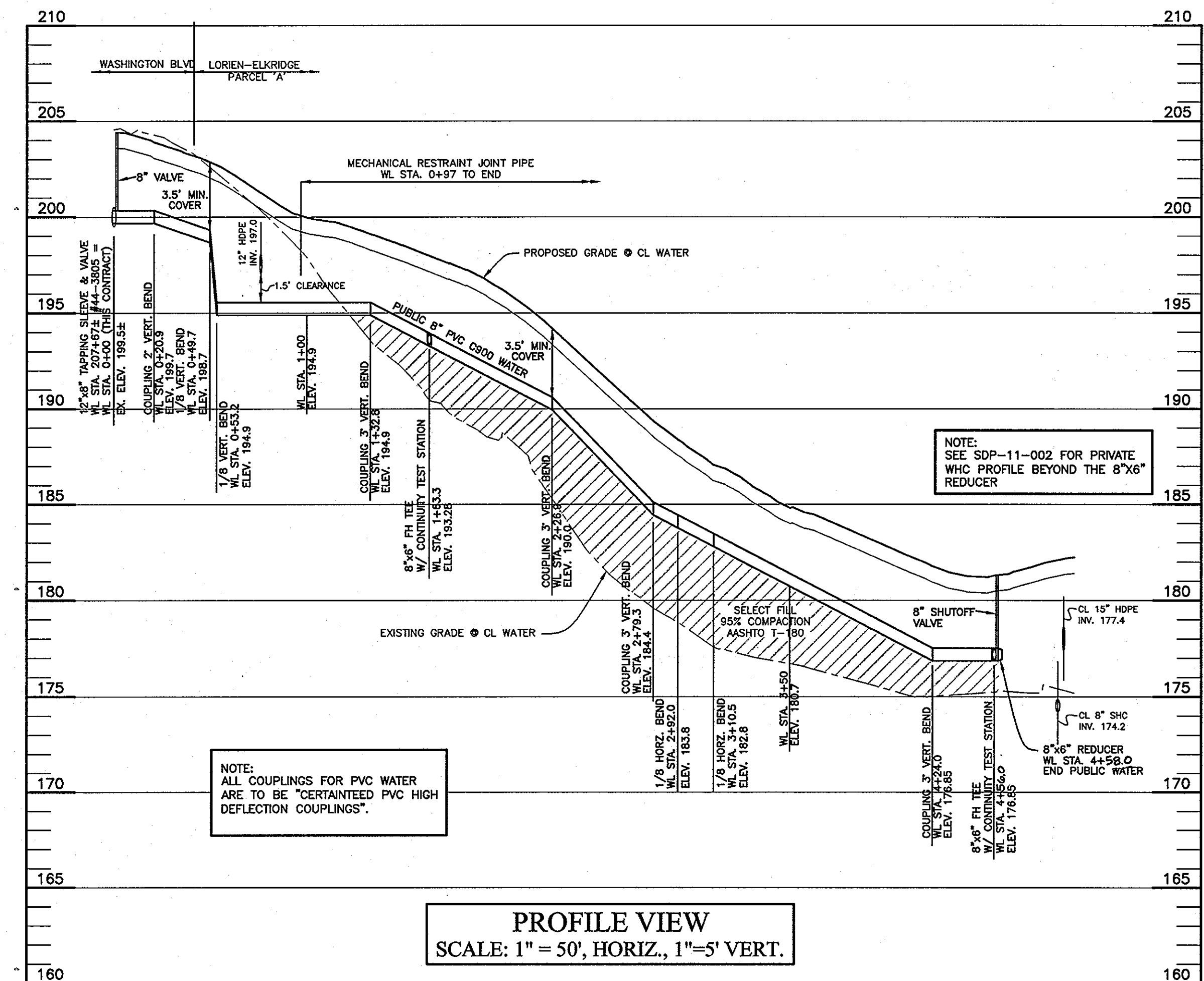
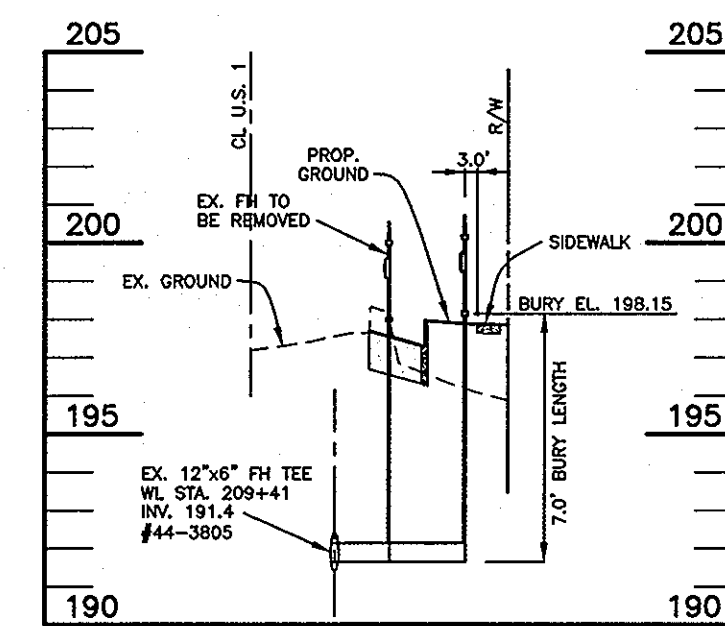
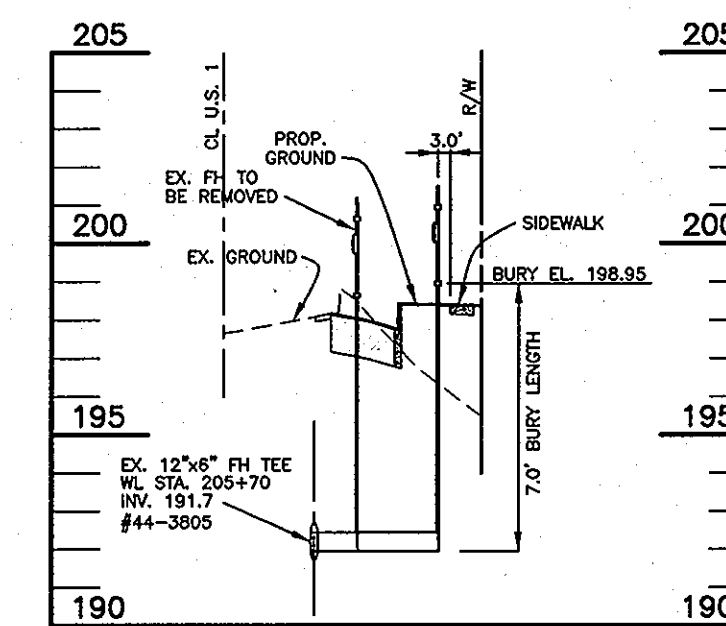
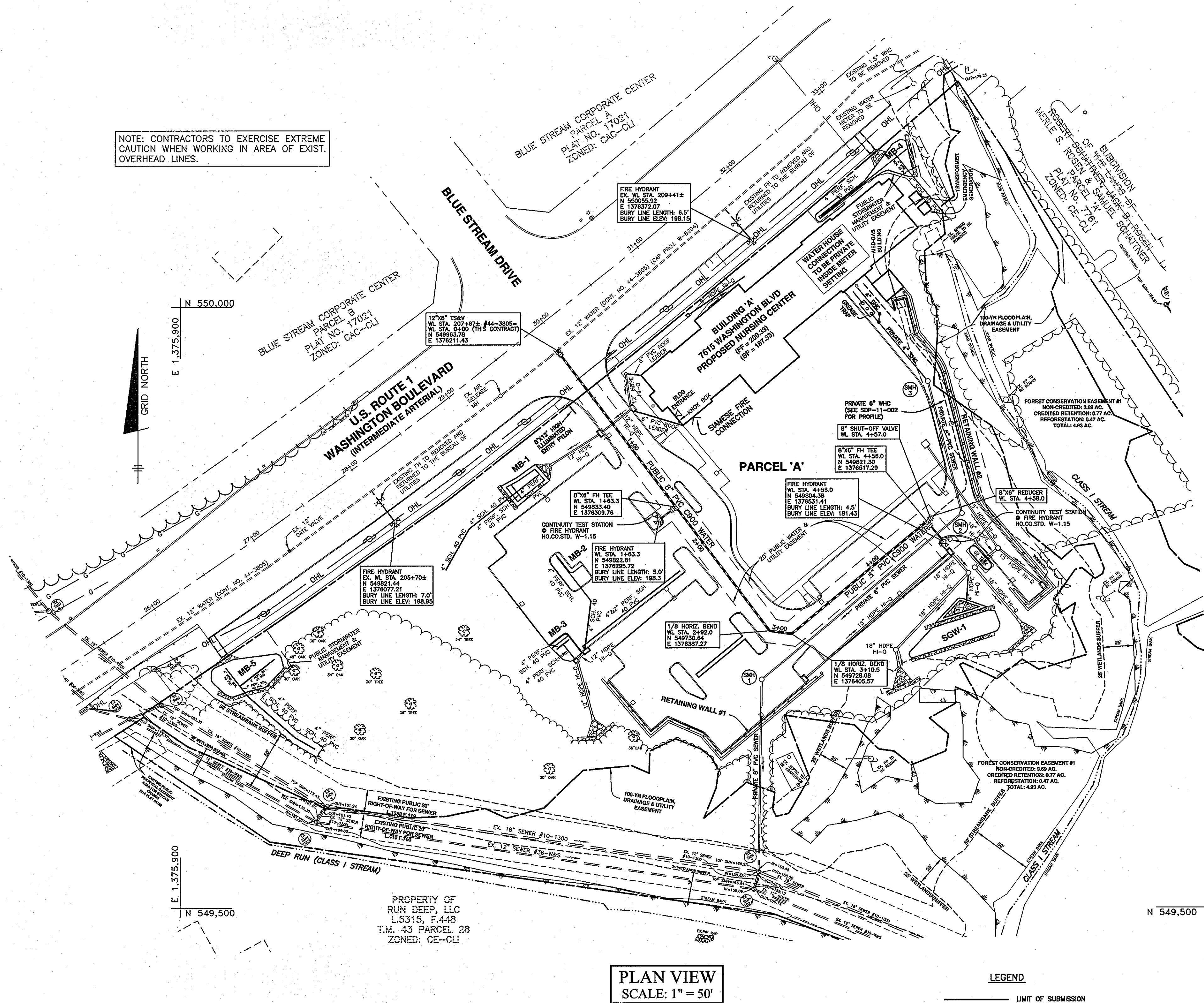
600 SCALE MAP: 43 BLOCK: 10 200 SCALE MAP:

**LORIEN-ELKRIDGE
PARCEL 'A'
ELECTION DISTRICT NO. 1
CONTRACT NO. 44-4692-D**

SCALE:
AS SHOWN

SHEET NO.
1 OF 2

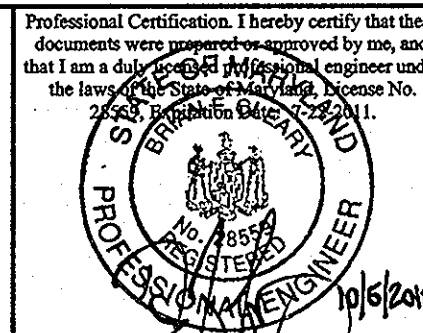
NOTE: CONTRACTORS TO EXERCISE EXTREME CAUTION WHEN WORKING IN AREA OF EXIST. OVERHEAD LINES.



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND

BENCHMARK
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ENGINEERING, INC.
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60 THOMAS JOHNSON DRIVE & FREDERICK, MARYLAND 21702
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WWW.BEI-CIVLENGINEERING.COM



DESIGN: DBT	DATE: 10/2010	BY: NO.	REVISIONS	DATE
DRAFT: BFC/DBT				
CHK: BFC				

PLAN AND PROFILE OF PUBLIC WATER MAINS

LORIEN ELKRIDGE
PARCEL 'A'
ELECTION DISTRICT NO. 1
CONTRACT NO. 44-4692-D

SCALE:
AS SHOWN

SHEET NO.
2 OF 2