

Contract No. 14-4237-D

# PATAPSCO VALLEY BUSINESS CENTER

Parcel E-1

## PUBLIC WATER AND SEWER CONSTRUCTION PLANS

Howard County, Maryland Department of Public Works

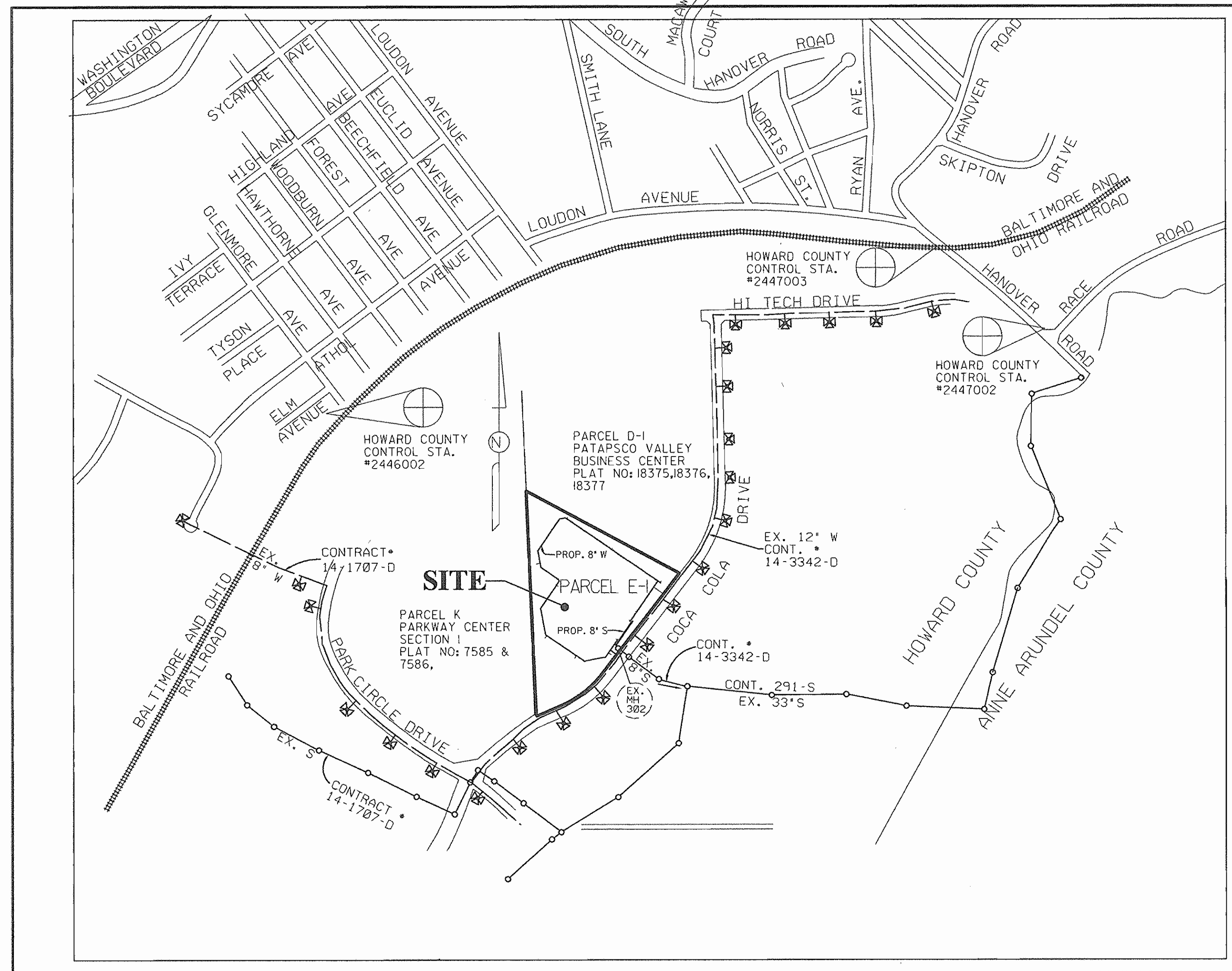
**QUANTITIES**

AS-BUILT				
ITEMS	QUANTITIES ESTIMATED	QUANTITIES	TYPE	MANUFACTURER /SUPPLIER
6" D.I.P. WATER MAIN	50 LF		D.I.P.C.L.52	GRIFFIN PIPE PRODUCTS CO.
6" D.I.P. WATER MAIN (RESTAINED JOINTS)	85 LF		D.I.P.C.L.52	GRIFFIN PIPE PRODUCTS CO.
8" D.I.P. WATER MAIN	1,450 LF		D.I.P.C.L.52	GRIFFIN PIPE PRODUCTS CO.
8" D.I.P. WATER MAIN (RESTAINED JOINTS)	1,461 LF		D.I.P.C.L.52	GRIFFIN PIPE PRODUCTS CO.
6" VALVE & ROADWAY BOX	9 EACH	9 EACH	RSORGATE	MUELLER CO./BRS
8" VALVE & ROADWAY BOX	9 EACH	9 EACH	RSORGATE	MUELLER CO./BRS
8" X 6" TEE	9 EACH	9 EACH	HYDRANTTEE	SIGMA/BRS
6" FIRE HYDRANT	9 EACH	9 EACH	MUELLER	MUELLER CO./BRS
8" CAP & BUTTRESS	5 EACH	3 EACH	CAP MJ	SIGMA/BRS
8" 1/8 HORZ. BEND	13 EACH		SIGMA/BRS	
8" 1/16 HORZ. BEND	2 EACH		SIGMA/BRS	
8" 1/32 VERT. BEND	2 EACH		SIGMA/BRS	
6" P.V.C. SEWER	10 LF		SDR-35	JM MFG./BRS
8" X 8" TEE	5 EACH	5 EACH	TEE MJ	SIGMA/BRS
8" P.V.C. SEWER	192 LF		SDR-35	JM MFG./BRS
8" D.I.P. SEWER	77 LF		D.I.P.C.L.52	SIGMA/BRS
48" DIA. SANITARY MANHOLE	2 EACH	2 EACH		ATLANTIC

NAME OF UTILITY CONTRACTOR: **CCS/WATER - CT& SEWER**  
 SURVEY AND DRAFTING DIVISION AS-BUILT DATE: **FEBRUARY 2008**

**SHEET INDEX**

NO.	SHEET TITLE
1	COVER SHEET
2	WATER AND SEWER PLAN
3	WATER PROFILES
4	WATER & SEWER PROFILES



TYPE OF BUILDINGS: COMMERCIAL  
 NO. OF LOTS / PARCELS: 1  
 NO. OF WATER HOUSE CONNECTIONS: 2  
 NO. OF SEWER HOUSE CONNECTIONS: 2  
 DRAINAGE AREA: PATAPSCO  
 TREATMENT PLANT: PATAPSCO  
 WASTEWATER TREATMENT PLANT: CITY OF BALTIMORE

**VICINITY MAP**

SCALE: 1" = 600'

WATER CODE: A04  
 TEST GRADIENT: 550  
 SEWER CODE: 2150000

**General Notes**

- 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, NAD 2783.
- ALL VERTICAL CONTROLS ARE BASED ON NAVD 83.
- 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 @ 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 WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:  
 AT&T - 1-800-252-1133  
 BALTIMORE GAS & ELECTRIC CO. - CONTRACTOR SERVICES - (410) 850-4620  
 BALTIMORE GAS & ELECTRIC CO. UNDERGROUND DAMAGE CONTROL - (410) 787-9068  
 BUREAU OF UTILITIES, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS - (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 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(a) OF THE HOWARD COUNTY CODE.

**Water**

- ALL WATER MAINS SHALL BE D.I.P. CLASS 52 UNLESS OTHERWISE NOTED.
- 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.

**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 18" 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 FRAMES 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 THE CELLAR CANNOT BE SERVED.

**OWNER/DEVELOPER**

LIBERTY PROPERTY LIMITED PARTNERSHIP  
 5950 SYMPHONY WOODS ROAD SUITE 210  
 COLUMBIA MD 21044  
 ATTN: MR. JAMES FLANNERY

REVIEWED FOR NATURAL RESOURCE CONSERVATION SERVICE AND MEETS TECHNICAL REQUIREMENT

SIGNATURE: *Jim Myr / Co* DATE: 2/23/05

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

APPROVED: *[Signature]* DATE: 2/23/05  
 HOWARD S.C.D.

SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE SPECIFICATIONS AND SITE DEVELOPMENT PLAN SDP-04-147

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

*[Signature]* 3-2-05  
 CHIEF - BUREAU OF UTILITIES - DATE

DEPARTMENT OF PLANNING & ZONING  
 HOWARD COUNTY, MARYLAND

*[Signature]* slulos  
 CHIEF - DEVELOPMENT ENGINEERING DIVISION - DATE

**BLDG**  
 Baltimore Land Design Group Inc.  
 Consulting Engineers  
 222 SCHILLING CIRCLE SUITE 105 HUNT VALLEY, MARYLAND 21030  
 PHONE: 410.229.9851 FAX: 410.229.9865 BLDG@BLDGINC.COM

*[Signature]*  
 2/15/05

DESIGNED BY:	DG / VZ
DRAWN BY:	DG / VZ
CHECKED BY:	IZ
DATE:	1-13-05
BY	NO.
REVISION	DATE

600 SCALE MAP NO.	38	BLOCK NO.	20
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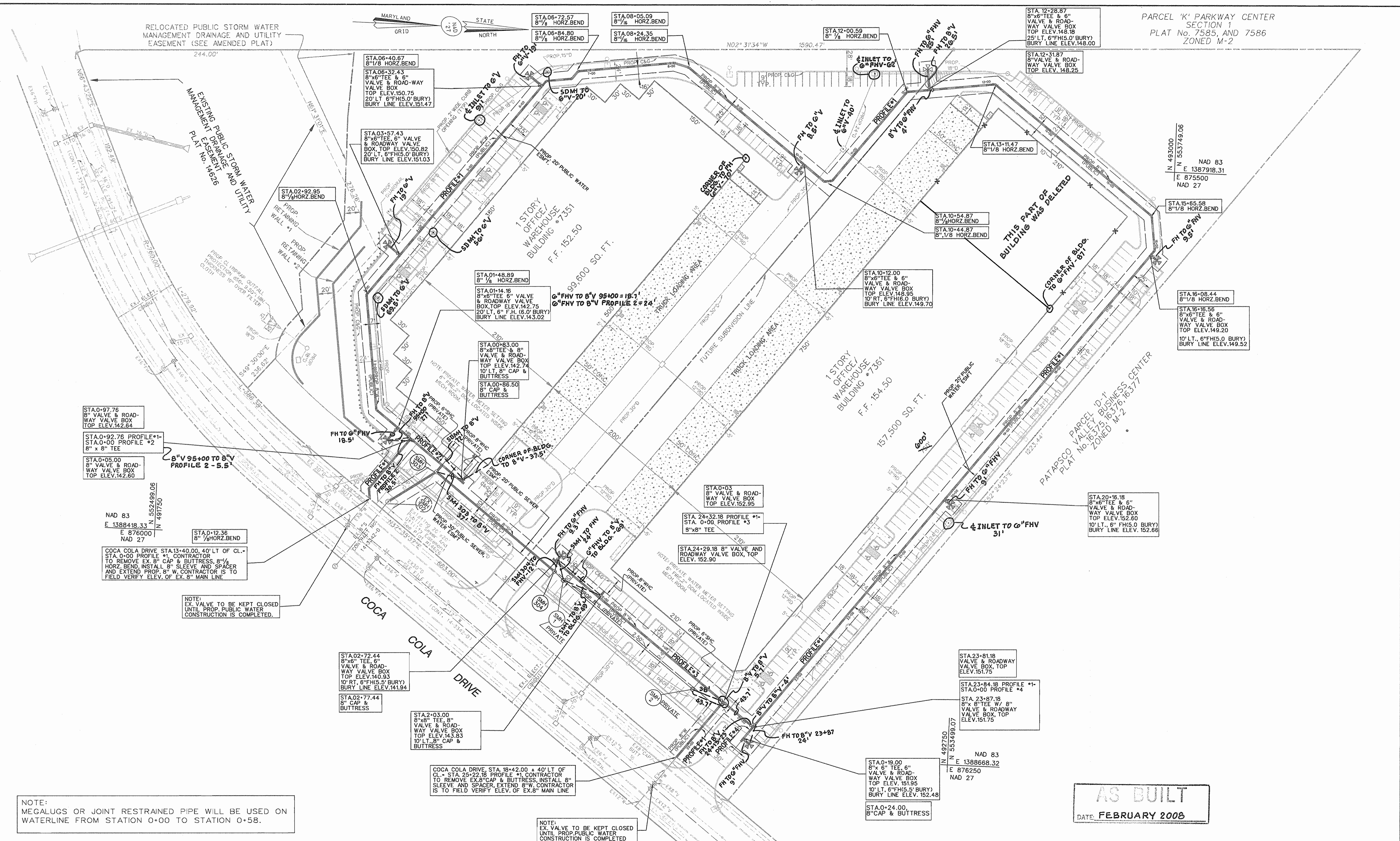
**COVER SHEET**

**AS BUILT**  
 DATE: FEBRUARY 2008

**PATAPSCO VALLEY BUSINESS CENTER  
 PARCEL E-1**

1ST ELECTION DISTRICT, HOWARD COUNTY, MARYLAND  
 Scale: As Shown CONTRACT NO. 14-4237-D Date: December 2004

SCALE AS SHOWN  
 SHEET 1 OF 4



**AS BUILT**  
DATE: FEBRUARY 2008

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*R. H. Berman* 3-2-05  
CHIEF - BUREAU OF UTILITIES - DATE

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND

*William J. ...* *slulos*  
CHIEF - DEVELOPMENT ENGINEERING DIVISION - DATE

**BLDG**  
Baltimore Land Design Group Inc.  
Consulting Engineers

222 SCHILLING CIRCLE SUITE 105 HUNT VALLEY, MARYLAND 21039  
PHONE: 410.229.9851 FAX: 410.229.9865 BLDG@BLDGINC.COM

*Mona ...*  
Professional Engineer  
2/15/05

DESIGNED BY: DG / VZ	
DRAWN BY: DG / VZ	
CHECKED BY: IZ	
DATE: 1-13-05	
BY NO.	REVISION

**WATER AND SEWER PLAN**

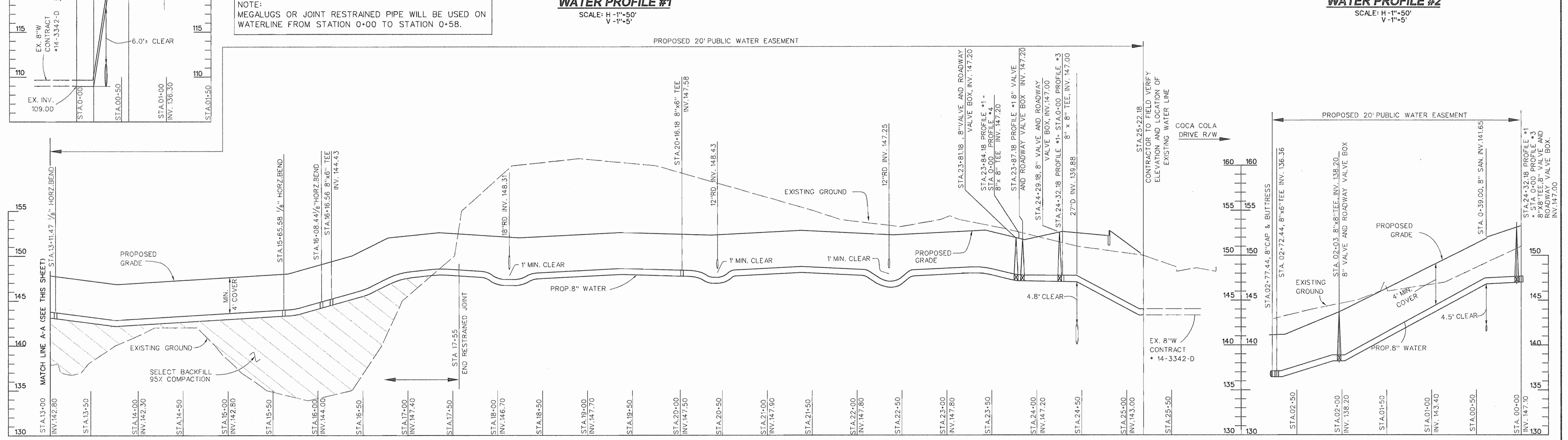
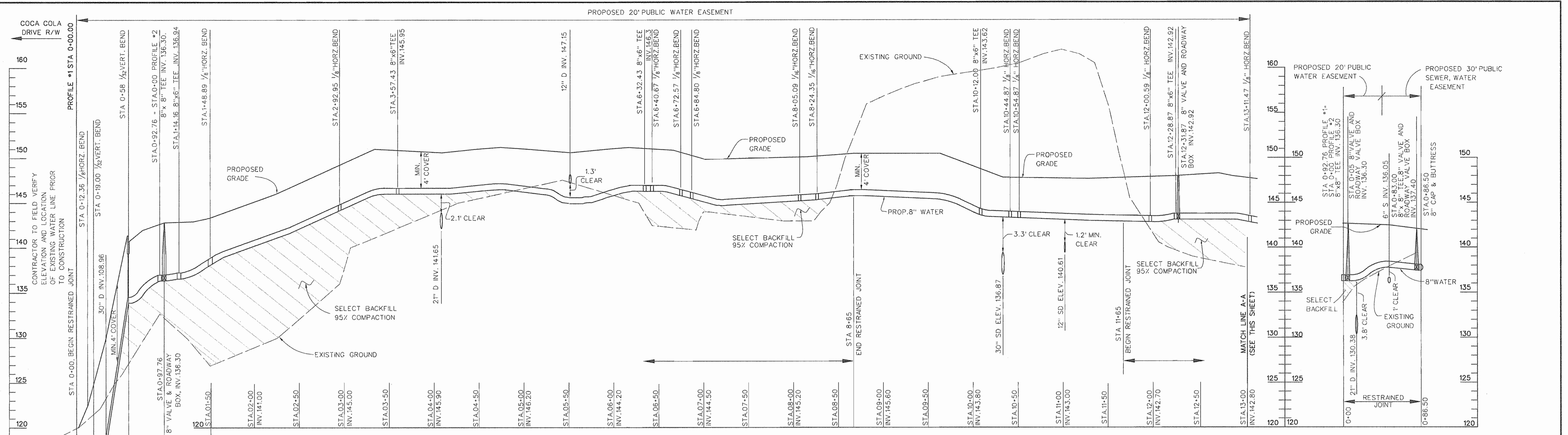
600 SCALE MAP NO. 38 BLOCK NO. 20

**PATAPSCO VALLEY BUSINESS CENTER  
PARCEL E-1**

1ST ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

Scale: As Shown CONTRACT NO. 14-4237-D Date: December 2004

SCALE 1" = 50'  
SHEET 2 OF 4



**AS BUILT**  
 DATE: FEBRUARY 2008

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

*Ruth Beaman* 3-2-05  
 CHIEF - BUREAU OF UTILITIES - DATE

DEPARTMENT OF PLANNING & ZONING  
 HOWARD COUNTY, MARYLAND

*Michael Williams* 3/1/05  
 CHIEF - DEVELOPMENT ENGINEERING DIVISION - DATE

**BLDG**  
 Baltimore Land Design Group Inc.  
 Consulting Engineers

222 SCHILLING CIRCLE SUITE 105 HUNT VALLEY, MARYLAND 21086  
 PHONE: 410.229.9851 FAX: 410.229.9865 BLDG@BLDGINC.COM

*Hana Kishel-Jarvis*

2/15/05

DESIGNED BY:	DC / VZ		
DRAWN BY:	DC / VZ		
CHECKED BY:	IZ		
DATE:	1-13-05		
BY	NO.	REVISION	DATE

**WATER PROFILES**

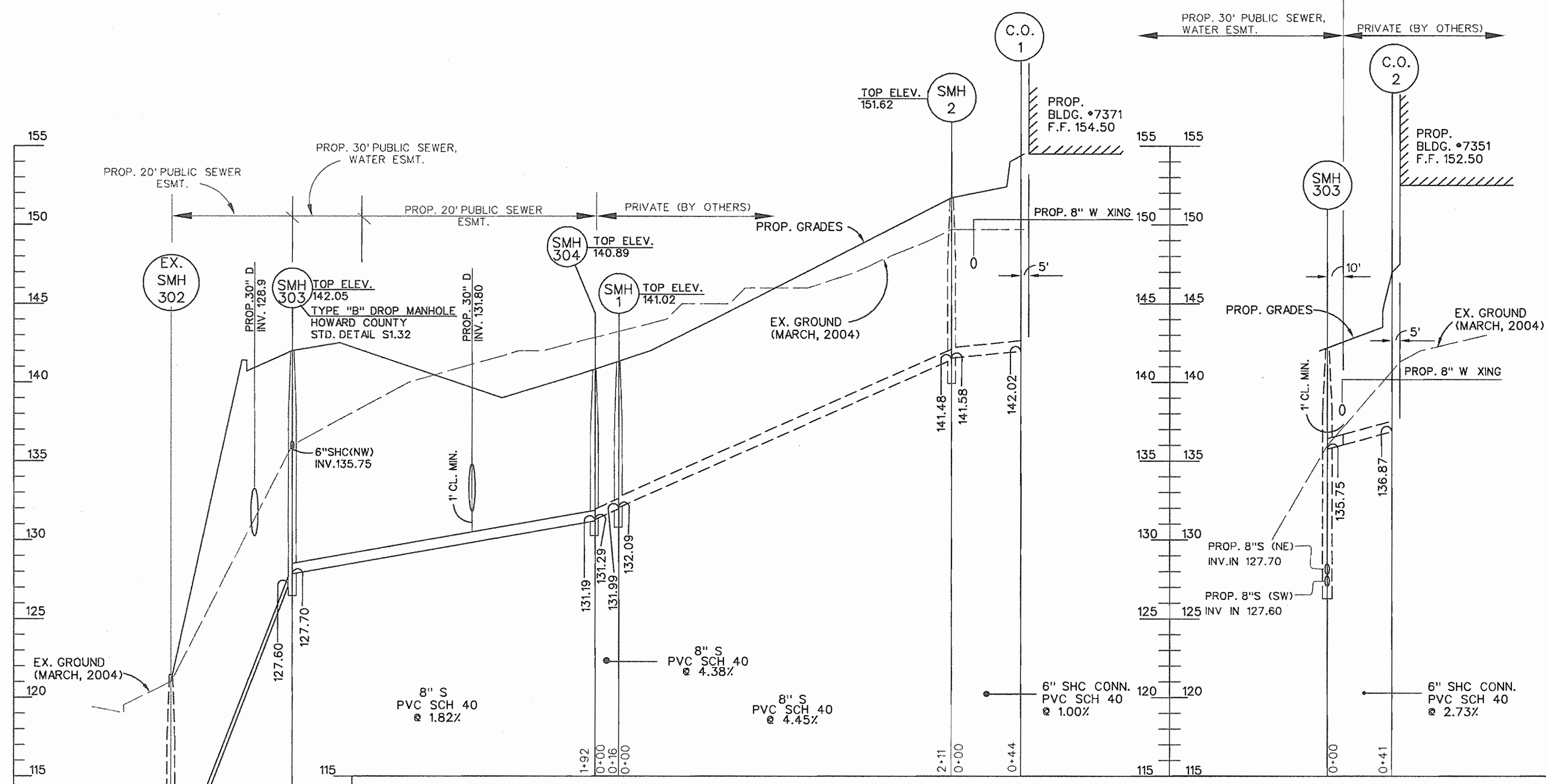
600 SCALE MAP NO. 38 BLOCK NO. 20

**PATAPSCO VALLEY BUSINESS CENTER PARCEL E-1**

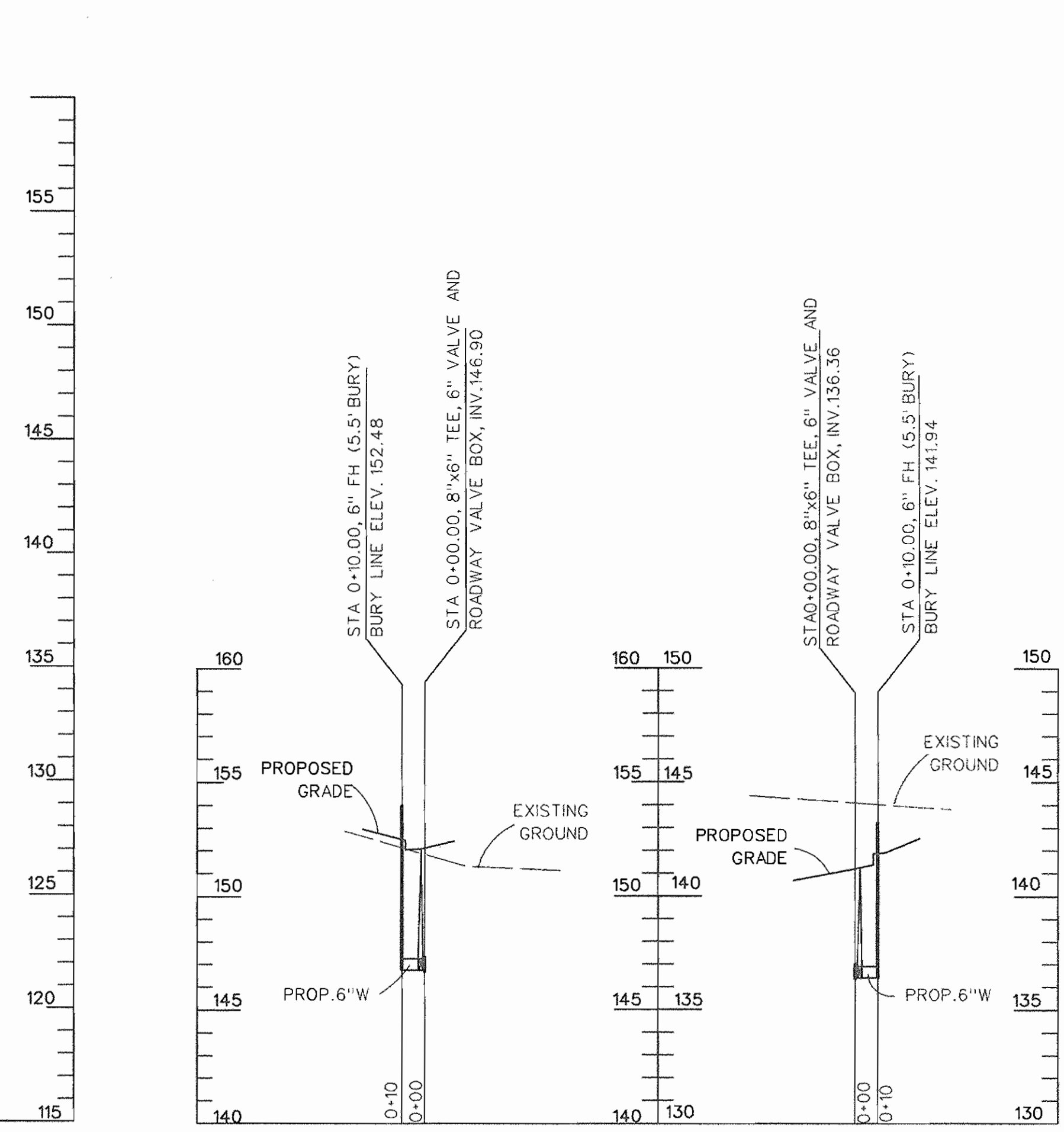
1ST ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

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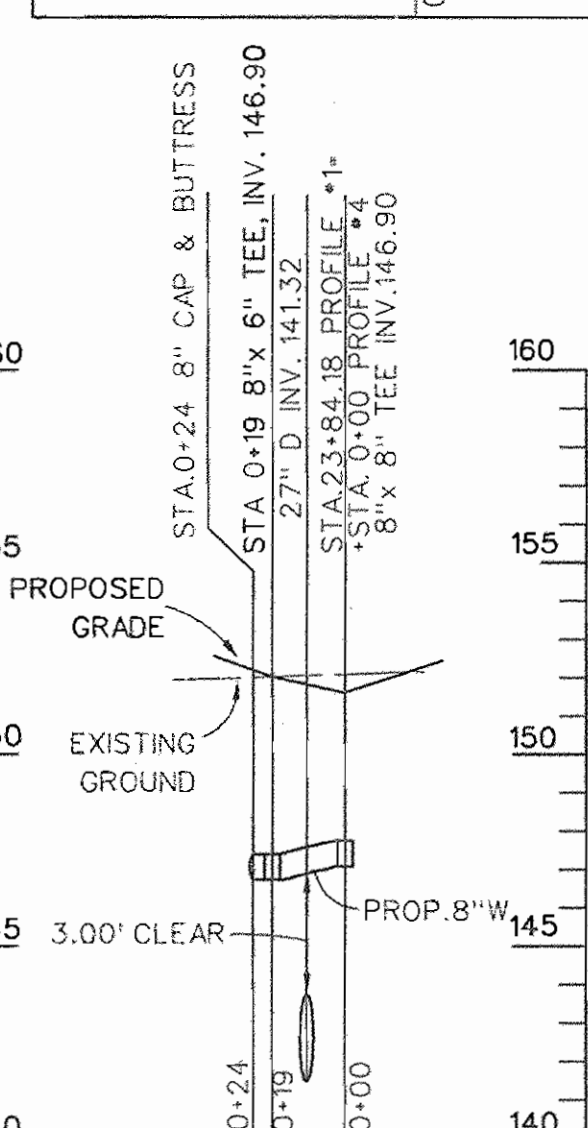
SCALE AS SHOWN  
 SHEET 3 OF 4



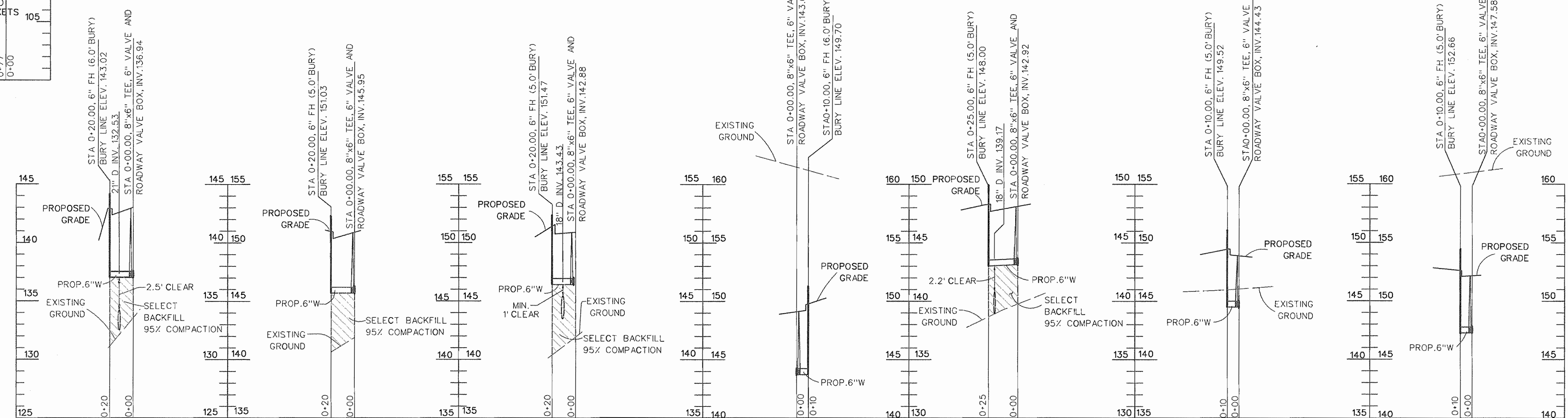
**SANITARY PROFILE**  
SCALE: HORZ. 1" = 50'  
VERT. 1" = 5'



**FIRE HYDRANT PROFILES**  
SCALE: 1" = 50'  
VERT. 1" = 5'



**WATER PROFILE #4**  
SCALE: H - 1" = 50'  
V - 1" = 5'



**FIRE HYDRANT PROFILES**

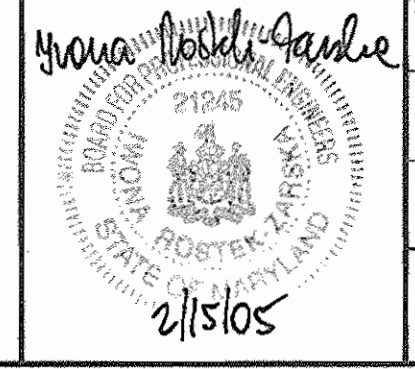
NOTE:  
FIRE HYDRANTS WITHIN FILL AREAS SHALL BE INSTALLED WITH MECHANICALLY RESTRAINED JOINTS (MEGALUG) AS PER HOWARD COUNTY DETAIL W-2.11.

**AS BUILT**  
DATE: FEBRUARY 2008

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
*Ruth Berman* 3-2-05  
CHIEF - BUREAU OF UTILITIES - DATE

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND  
*Alfred D...* 3/11/05  
CHIEF - DEVELOPMENT ENGINEERING DIVISION - DATE

**BLDG**  
Baltimore Land Design Group Inc.  
Consulting Engineers  
222 SCRIBLING CIRCLE SUITE 105 HUNT VALLEY, MARYLAND 21038  
PHONE: 410.229.9851 FAX: 410.229.9865 BLDG@BLDGRINC.COM



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BY	NO.	REVISION	DATE

**WATER AND SEWER PROFILES**  
600 SCALE MAP NO. 38 BLOCK NO. 20

**PATAPSCO VALLEY BUSINESS CENTER PARCEL E-1**  
1ST ELECTION DISTRICT, HOWARD COUNTY, MARYLAND  
Scale: As Shown CONTRACT NO. 14 - 4237 - D Date: December 2004

SCALE AS SHOWN  
SHEET 4 OF 4