

Contract No. 24-4255-D


PROPOSED FACILITIES FOR

Parcel U-10 Columbia Gateway

PUBLIC WATER CONSTRUCTION PLANS

Howard County, Maryland Department of Public Works

General Notes

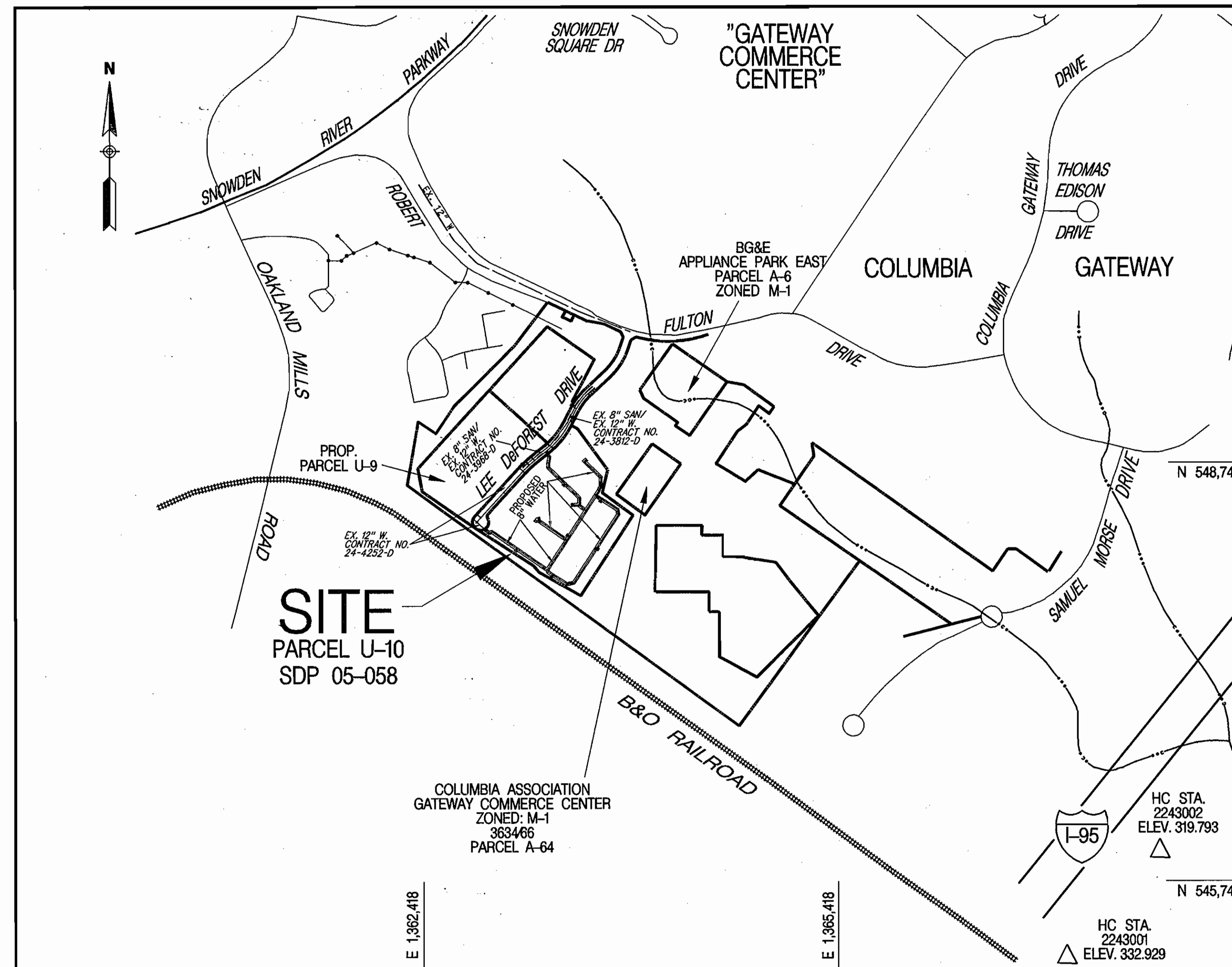
- Approximate locations of existing mains are shown. The contractor shall take all necessary precautions to protect existing mains and services and maintain uninterrupted service. Any damage incurred shall be repaired immediately to the satisfaction of the Engineer at the contractor's expense.
- Topographic field surveys were performed on by DuVal and Associates, P.A. in July 2004.
- Horizontal and Vertical Survey Controls:
The coordinate information shown on the drawings are based on Maryland State Reference System NAD'83/91. All vertical controls provided on the drawings based on Howard County Control Monuments 2243001 and 2243002.
- 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 material 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:
ATT 1-800-252-1133
BGE (Construction Services) 410-850-4620
BGE (Emergency) 410-685-1400
Bureau of Utilities 410-313-4900
Colonial Pipeline Co. 410-795-1990
Miss Utility 1-800-257-7777
State Highway Administration 410-631-5533
Verizon 1-800-743-0033 / 410-224-8210
- 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 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 18.14(a) of the Howard County Code.

Part II WATER

- All water mains shall be DIP 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 1009 and Section 1005 of the Standard Specifications.
- The contractor shall not operate any water main valves on the existing water system.

QUANTITIES					
ITEMS	QUANTITIES ESTIMATED	AS-BUILT			
		QUANTITIES	TYPE	MANUFACTURER / SUPPLIER	
6" D.I.P. WATER MAIN	138 LF	134 L.F.	D.I.P. CL. 52	GRIFFIN PIPE / BELAIR RD. SUPPLY	
8" D.I.P. WATER MAIN	3400 LF	3396 L.F.	D.I.P. CL. 52	GRIFFIN PIPE / BELAIR RD. SUPPLY	
6" VALVE & ROADWAY BOX	9	9	GATE VALVE	MUELLER CO. / BELAIR RD. SUPPLY	
8" VALVE & ROADWAY BOX	11	11	GATE VALVE	MUELLER CO. / BELAIR RD. SUPPLY	
8" X 6" TEE	9	9	F.H. TEE	U.S. PIPE / BELAIR RD. SUPPLY	
8" X 8" TEE	8	8	M.J. TEE	U.S. PIPE / BELAIR RD. SUPPLY	
6" FIRE HYDRANT	9	9	—	MUELLER CO. / BELAIR RD. SUPPLY	
1/8 HORZ. BEND	17	17	M.J.	U.S. PIPE / BELAIR RD. SUPPLY	
1/16 HORZ. BEND	2	2	M.J.	U.S. PIPE / BELAIR RD. SUPPLY	
8" SLEEVE AND SPACER	2	2	M.J.	U.S. PIPE / BELAIR RD. SUPPLY	
1/8 VERT. BEND	4	4	M.J.	U.S. PIPE / BELAIR RD. SUPPLY	

NAME OF UTILITY CONTRACTOR: **WHEELER CONSTRUCTION**
SURVEY AND DRAFTING DIVISION AS-BUILT DATE: **DEC. 2005**



Vicinity Map

SCALE: 1" = 600'

TYPE OF BUILDING: COMMERCIAL OFFICES
NO. OF LOTS / PARCELS: 1
NO. OF WATER HOUSE CONNECTIONS: 4 PROPOSED
NO. OF SEWER HOUSE CONNECTIONS: 1 EXISTING
DRAINAGE AREA: LITTLE PATUXENT
TREATMENT PLANT: LITTLE PATUXENT WATER RECLAMATION PLANT, SAVAGE, HOWARD COUNTY

WATER CODE: E-06
TEST GRADIENT: 700
SEWER CODE: 4900000

AS BUILT
DATE: **DEC. 2005**

SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH THE APPROVED SEDIMENT AND EROSION CONTROL PLAN PER SDP 05-058

F 05-39 and SDP 05-058
REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENT

SIGNATURE: *Jim Meyer / co.* DATE: 2/23/05

U.S.D.A. NATURAL RESOURCES CONSERVATION SERVICE
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 05-058

Matis Warfield
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10540 York Road, Suite M
Hunt Valley, Maryland 21086
Phone 410-688-2100
Facsimile 410-688-1798
www.matiswarfield.com



DESIGNED BY: S.O.C.	MWI	1	REVISED QUANTITIES THIS SHEET	7-21-05
DRAWN BY: A.M./S.C.C.				
CHECKED BY: J.E.M.				
DATE: 2/14/05	BY	NO.	REVISION	DATE

SHEET INDEX	
NO.	SHEET TITLE
1	COVER SHEET
2	WATER PLAN
3	WATER PROFILES
4	WATER PROFILES

Developer / Contract Purchaser
AAK Lee Deforest, LLC
J. Michael Abrams, Managing Member
Abrams Development Group
5850 Waterloo Road Suite 230
Columbia, Maryland 21045
Phone (410) 461-4340
Fax (410) 461-5709

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
R. H. Benjamin 2-2-05
CHIEF - BUREAU OF UTILITIES - DATE

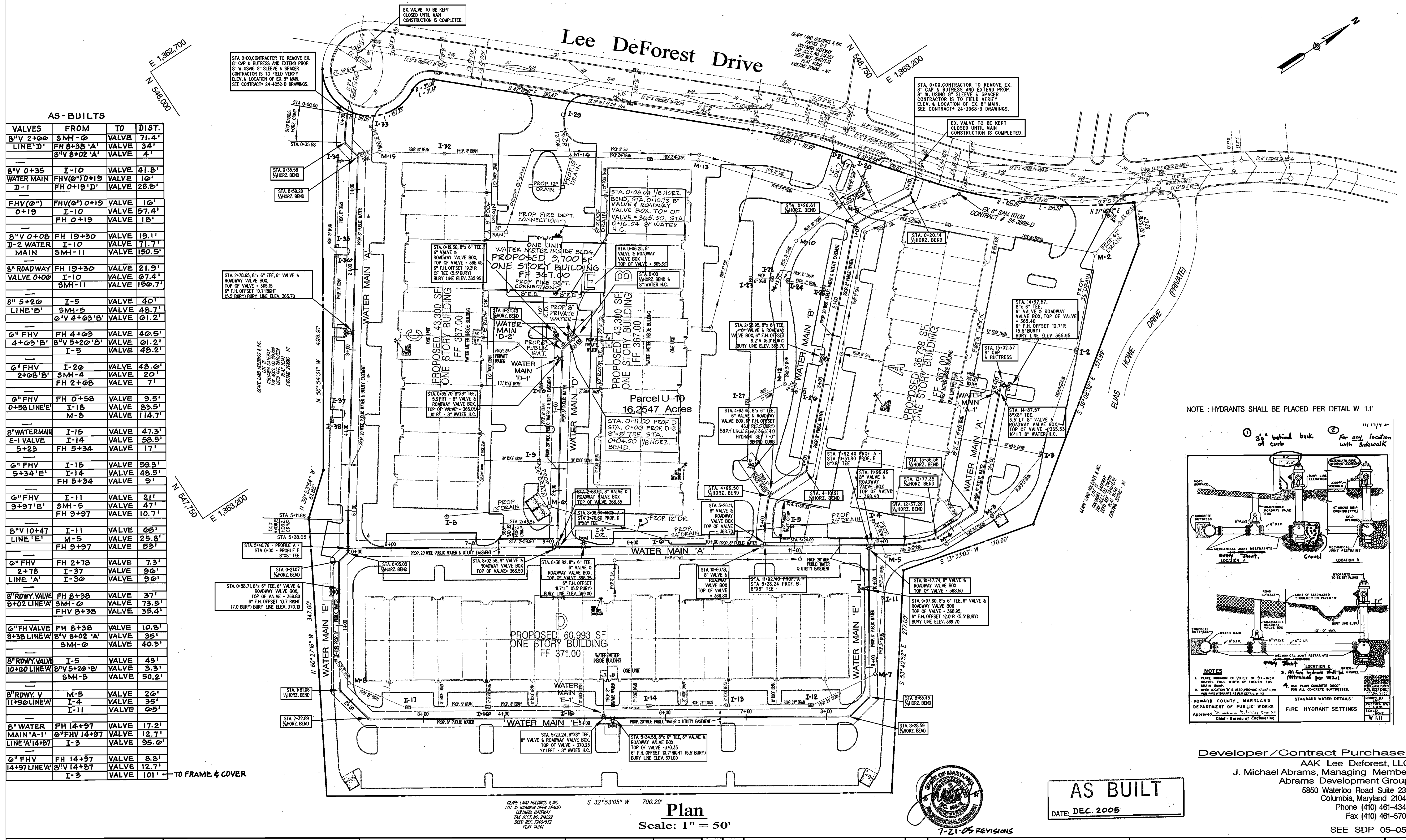
DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND
[Signature] 3/9/05
CHIEF - DEVELOPMENT ENGINEERING DIVISION - DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Water Cover Sheet

600 SCALE MAP NO. 42 BLOCK NO. 12

CONTRACT NO. 24-4255-D
6th Election District

Proposed Water Facilities for
Parcel U-10
Columbia Gateway
SCALE AS SHOWN
SHEET 1 OF 4



AS-BUILTS

VALVES	FROM	TO	DIST.
8" V 2+00	SMH-0	VALVE	71.4'
LINE 'D'	FH 8+38 'A'	VALVE	34'
	8" V 8+02 'A'	VALVE	4'
8" V 0+35	I-10	VALVE	41.8'
WATER MAIN	FHV(0") 0+19	VALVE	10'
D-1	FH 0+19 'D'	VALVE	28.8'
FHV(0")	FHV(0") 0+19	VALVE	10'
0+19	I-10	VALVE	57.4'
	FH 0+19	VALVE	18'
8" V 0+08	FH 19+30	VALVE	19.1'
D-2 WATER	I-10	VALVE	71.7'
MAIN	SMH-11	VALVE	150.5'
8" ROADWAY	FH 19+30	VALVE	21.9'
VALVE 0+00	I-10	VALVE	67.4'
	SMH-11	VALVE	150.7'
8" 5+20	I-5	VALVE	40'
LINE 'B'	SMH-5	VALVE	48.7'
	6" V 4+03 'B'	VALVE	61.2'
6" FHV	FH 4+03	VALVE	40.5'
4+03 'B'	8" V 5+20 'B'	VALVE	61.2'
	I-5	VALVE	48.2'
6" FHV	I-20	VALVE	48.0'
2+08 'B'	SMH-4	VALVE	20'
	FH 2+08	VALVE	7'
6" FHV	FH 0+58	VALVE	9.5'
0+58 LINE 'E'	I-18	VALVE	83.5'
	M-8	VALVE	114.7'
8" WATER MAIN	I-15	VALVE	47.3'
E-1 VALVE	I-14	VALVE	58.5'
5+23	FH 5+34	VALVE	17'
6" FHV	I-15	VALVE	59.3'
5+34 'E'	I-14	VALVE	48.5'
	FH 5+34	VALVE	9'
6" FHV	I-11	VALVE	21'
2+78	SMH-5	VALVE	47'
LINE 'A'	FH 9+97	VALVE	10.7'
8" V 10+47	I-11	VALVE	65'
LINE 'E'	M-5	VALVE	25.8'
	FH 9+97	VALVE	53'
6" FHV	FH 2+78	VALVE	7.3'
2+78	I-37	VALVE	90'
LINE 'A'	I-30	VALVE	90'
8" RDWY VALVE	FH 8+38	VALVE	37'
8+02 LINE 'A'	SMH-0	VALVE	73.5'
	FHV 8+38	VALVE	35.4'
6" FHV VALVE	FH 8+38	VALVE	10.8'
8+38 LINE 'A'	8" V 8+02 'A'	VALVE	35'
	SMH-0	VALVE	40.3'
8" RDWY VALVE	I-5	VALVE	43'
10+60 LINE 'A'	8" V 5+20 'B'	VALVE	3.3'
	SMH-5	VALVE	50.2'
8" RDWY V	M-5	VALVE	20'
11+90 LINE 'A'	I-4	VALVE	35'
	I-11	VALVE	65'
8" WATER	FH 14+97	VALVE	17.2'
MAIN 'A-1'	6" FHV 14+97	VALVE	12.7'
LINE 'A' 14+87	I-3	VALVE	95.0'
6" FHV	FH 14+97	VALVE	8.8'
14+97 LINE 'A'	8" V 14+87	VALVE	12.7'
	I-3	VALVE	101'

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

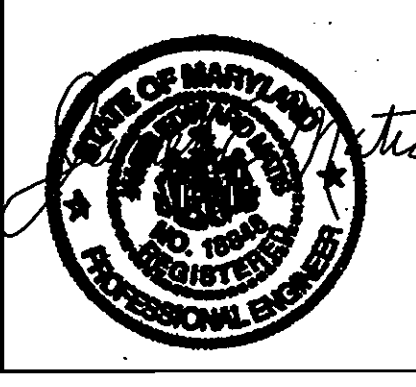
R. L. H. Berman 2-2-05
CHIEF - BUREAU OF UTILITIES - DATE

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

John Dammann 3/9/05
CHIEF - DEVELOPMENT ENGINEERING DIVISION - DATE

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DESIGNED BY: MW/I | REVISED PLAN-ADDED CONNECTION BLDG. E | 7-21-05
S.C.C.

DRAWN BY: | REV. DRAIN ALIGNMENT/SIZES. ADDED
A.M./S.C.C.

CHECKED BY: | WATER MAIN 'D-2'
J.E.M.

DATE: 2/14/05 | BY NO. REVISION DATE 600 SCALE MAP NO. 42 BLOCK NO. 12

Water Plan

DATE: DEC. 2005

7-21-05 REVISIONS

PUBLIC WATER

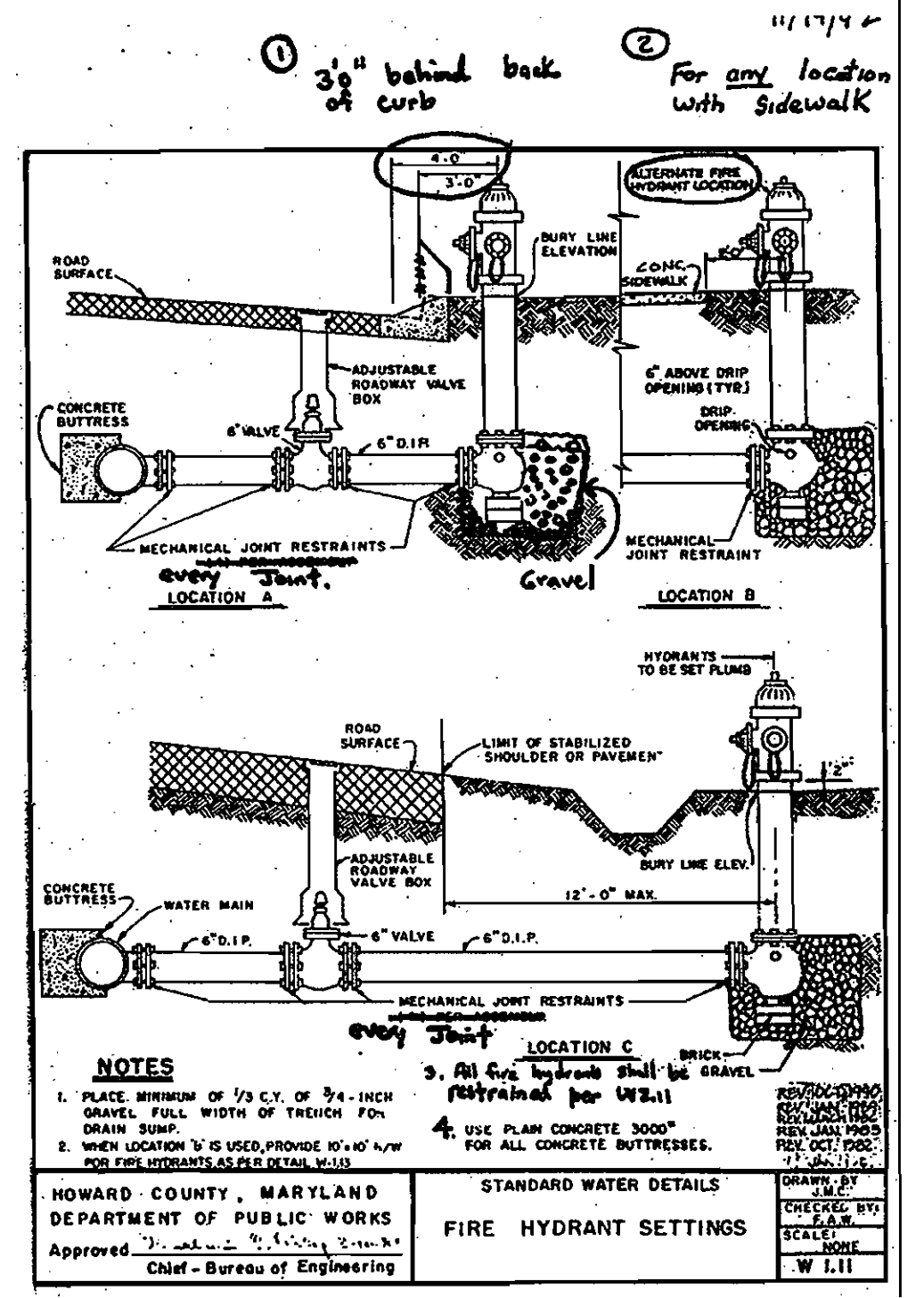
Proposed Water Facilities for Parcel U-10 Columbia Gateway

Developer/Contract Purchaser
AAK Lee Deforest, LLC
J. Michael Abrams, Managing Member
Abrams Development Group
5850 Waterloo Road Suite 230
Columbia, Maryland 21045
Phone (410) 461-4340
Fax (410) 461-5709

CONTRACT NO. 24-4255-D
6th Election District

SCALE 1" = 50'
SHEET 2 OF 4

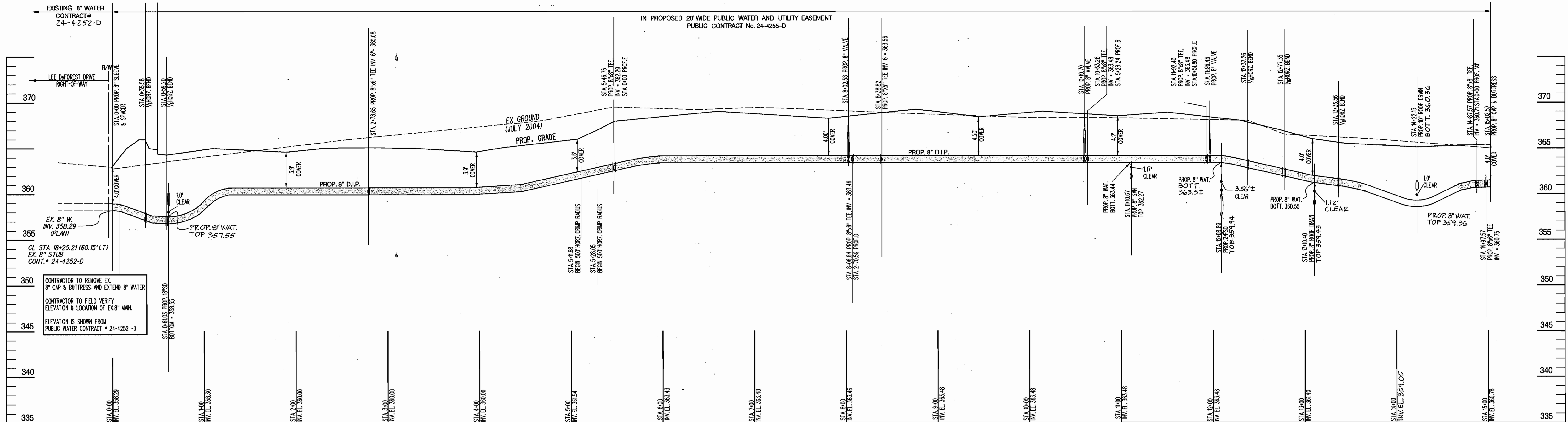
NOTE: HYDRANTS SHALL BE PLACED PER DETAIL W 1.11



Plan
Scale: 1" = 50'

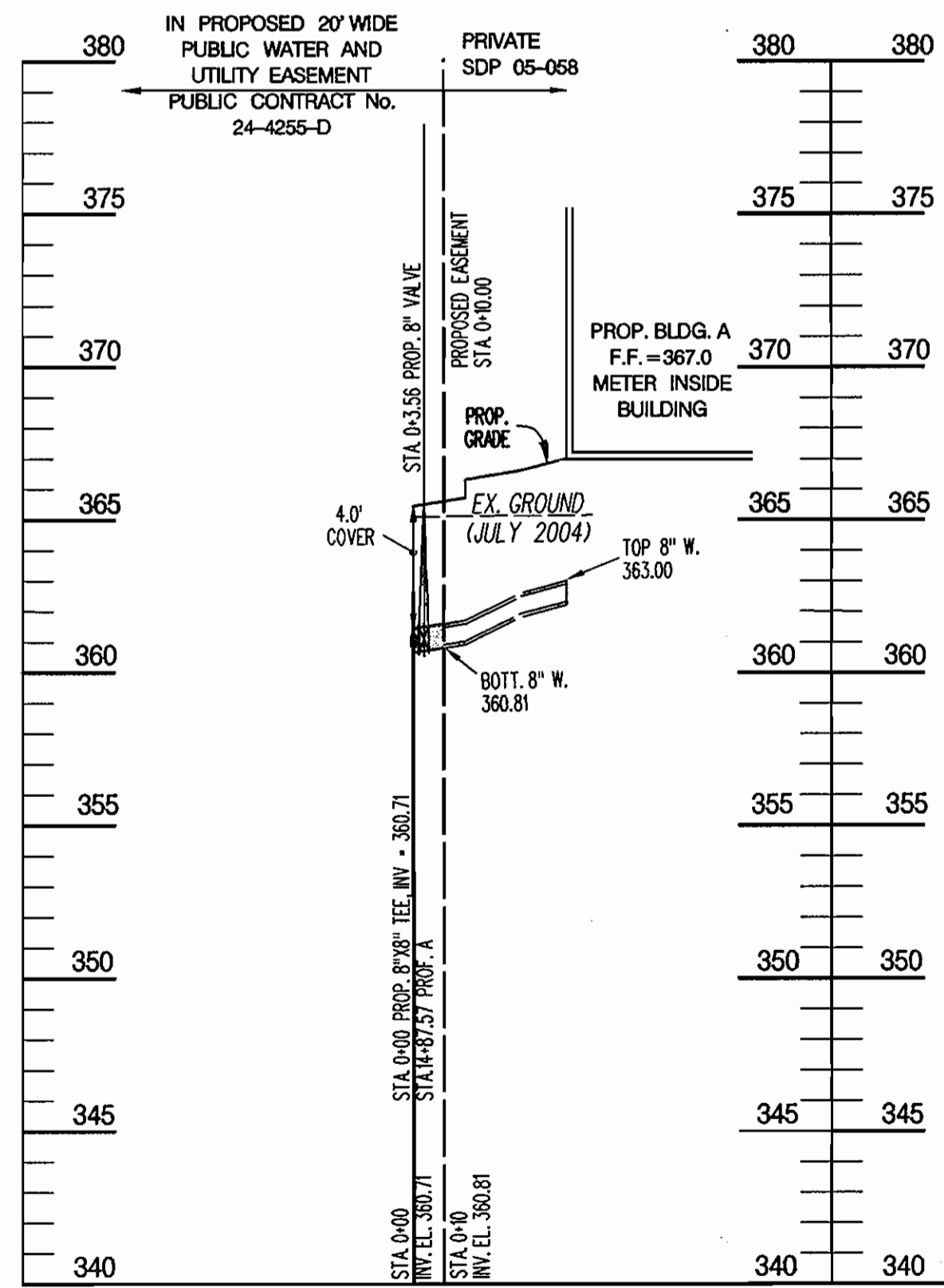


AS BUILT
DATE: DEC. 2005



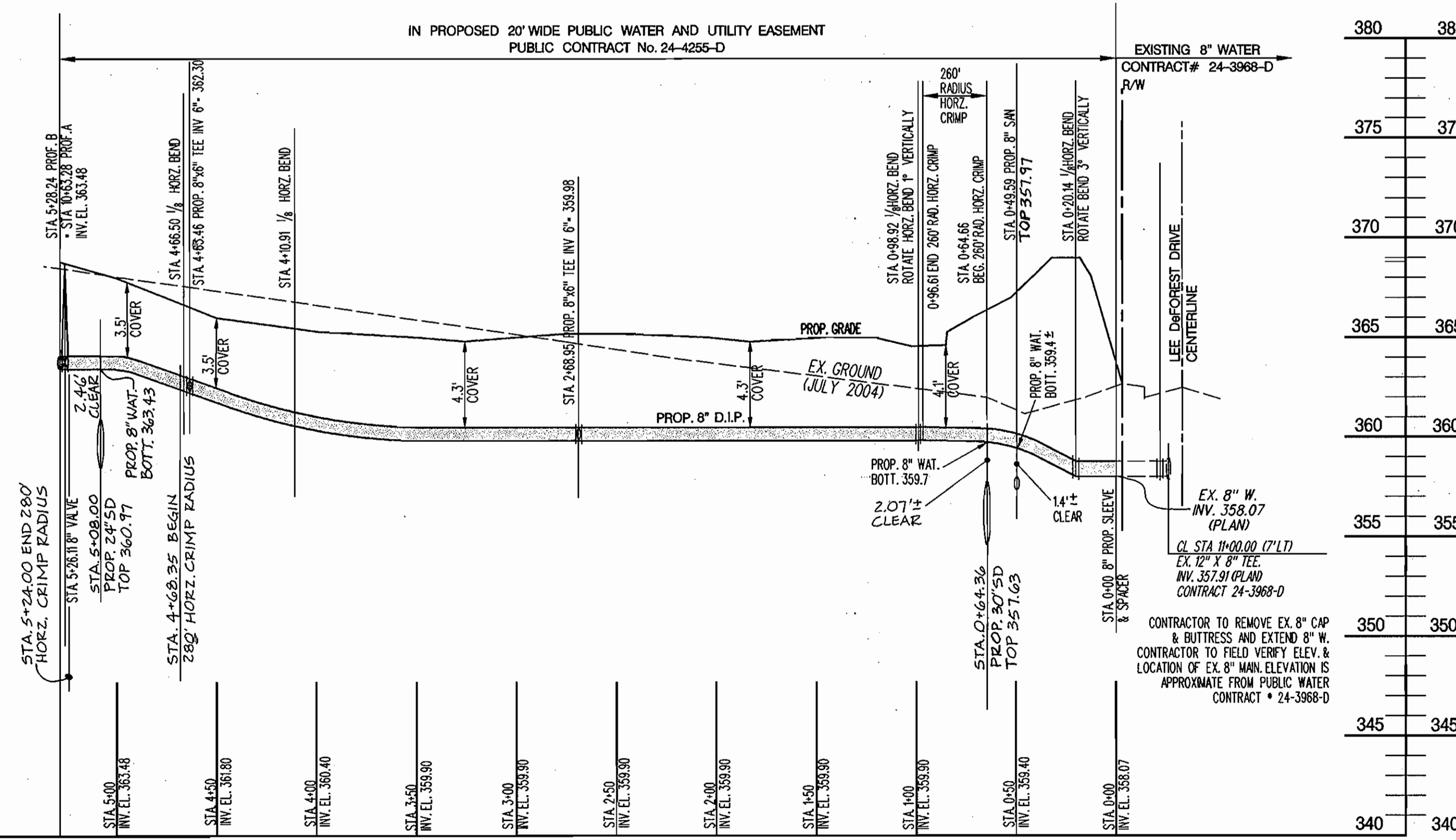
PROP. WATER MAIN PROFILE 'A'

Scale: Horiz: 1" = 50'
Vert: 1" = 5'



PROP. WATER MAIN PROFILE 'A1'

Scale: Horiz: 1" = 50'
Vert: 1" = 5'



PROP. WATER MAIN PROFILE 'B'

Scale: Horiz: 1" = 50'
Vert: 1" = 5'



7-21-05 REVISIONS

AS BUILT
DATE: DEC. 2005

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DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

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DESIGNED BY:	MWJ	REVISED PROFILES A & B	7-21-05
S.C.C.			
DRAWN BY:			
A.M./S.C.C.			
CHECKED BY:	J.E.M.		
DATE:	2/14/05		
BY	NO.	REVISION	DATE

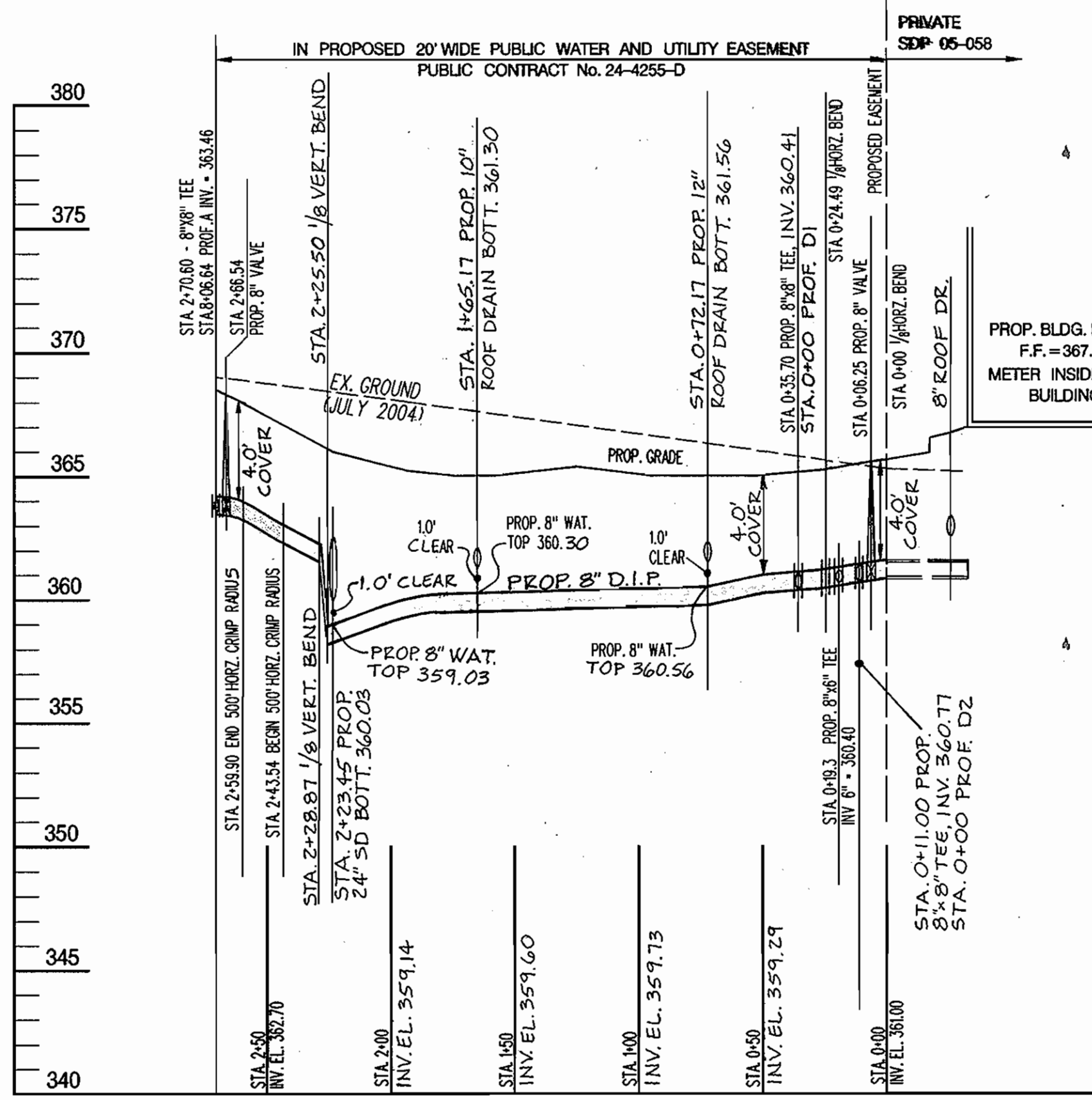
Water Profiles

600 SCALE MAP NO. 42 BLOCK NO. 12

PUBLIC WATER	SCALE AS SHOWN
Proposed Water Facilities for Parcel U-10 Columbia Gateway	SHEET 3 OF 4
CONTRACT NO. 24-4255-D	6th Election District

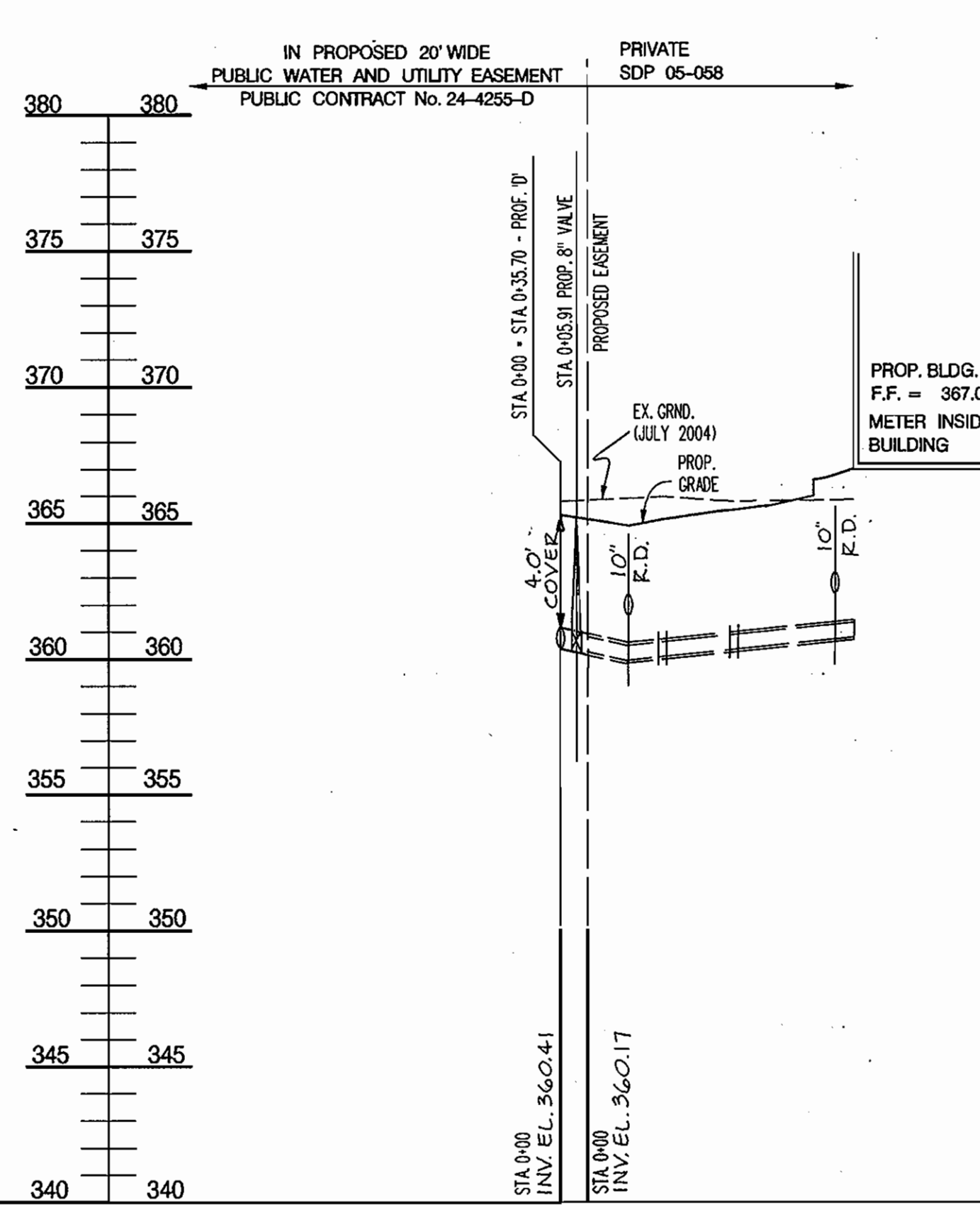
R. H. Berman 2-2-05
CHIEF - BUREAU OF UTILITIES - DATE

Michael Abrams 3/1/05
CHIEF - DEVELOPMENT ENGINEERING DIVISION - DATE



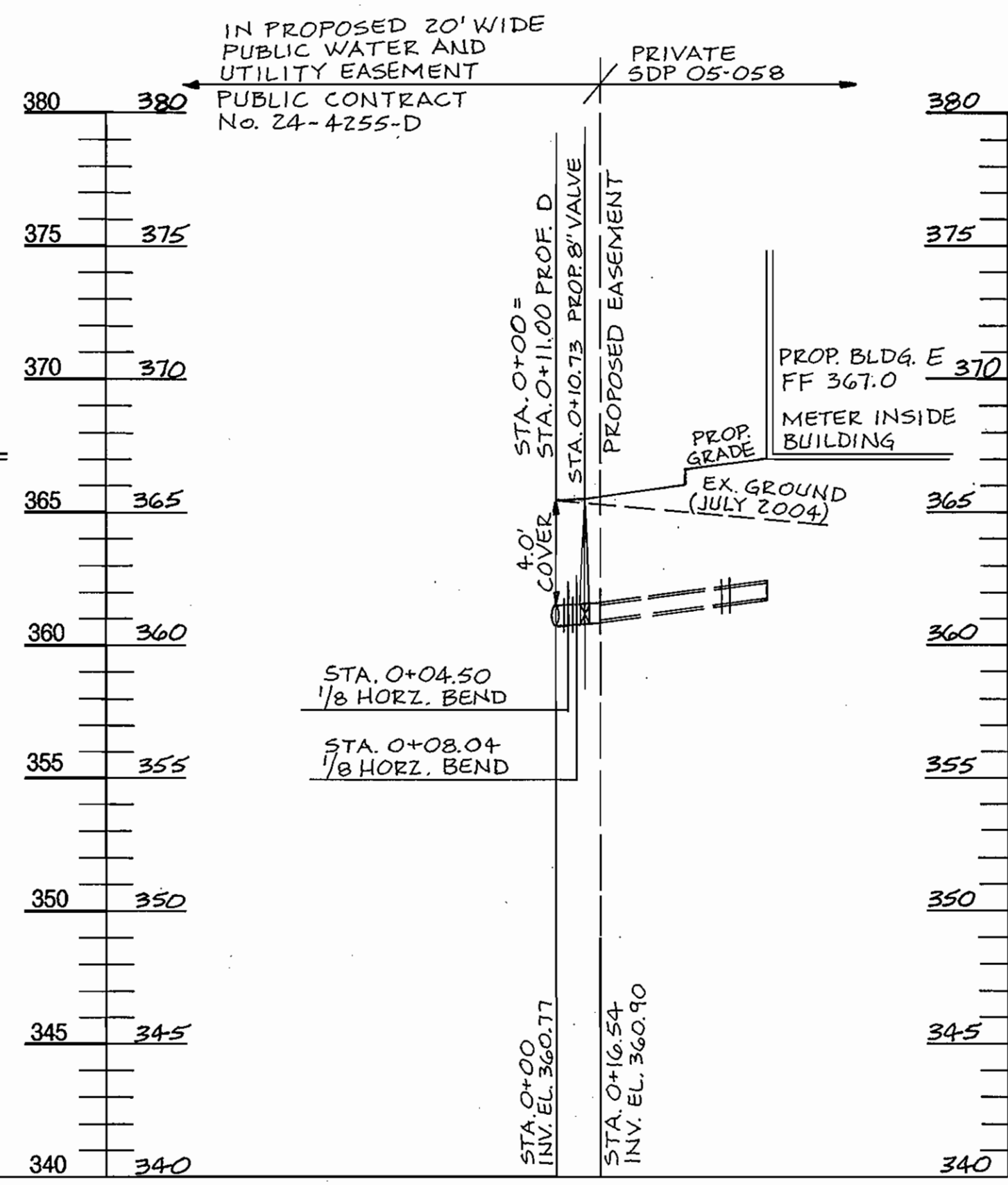
PROP. WATER MAIN PROFILE 'D'

Scale: Horz: 1" = 50'
Vert: 1" = 5'



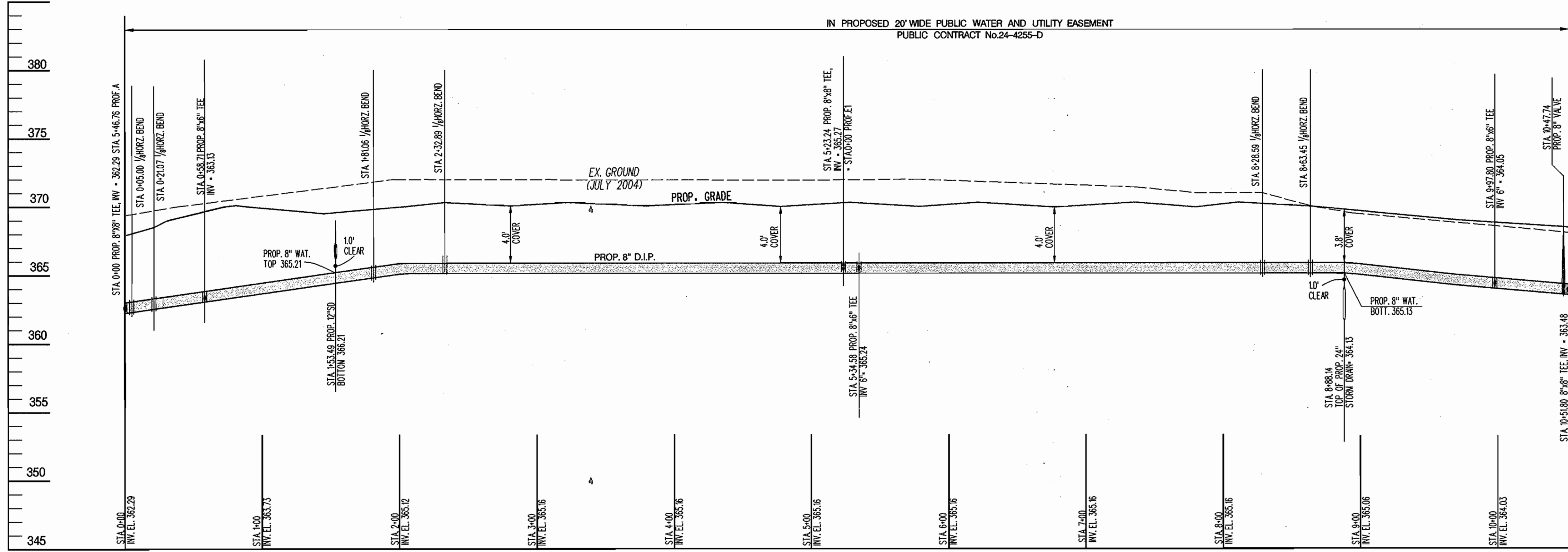
PROP. WATER MAIN PROFILE 'D1'

Scale: Horz: 1" = 50'
Vert: 1" = 5'



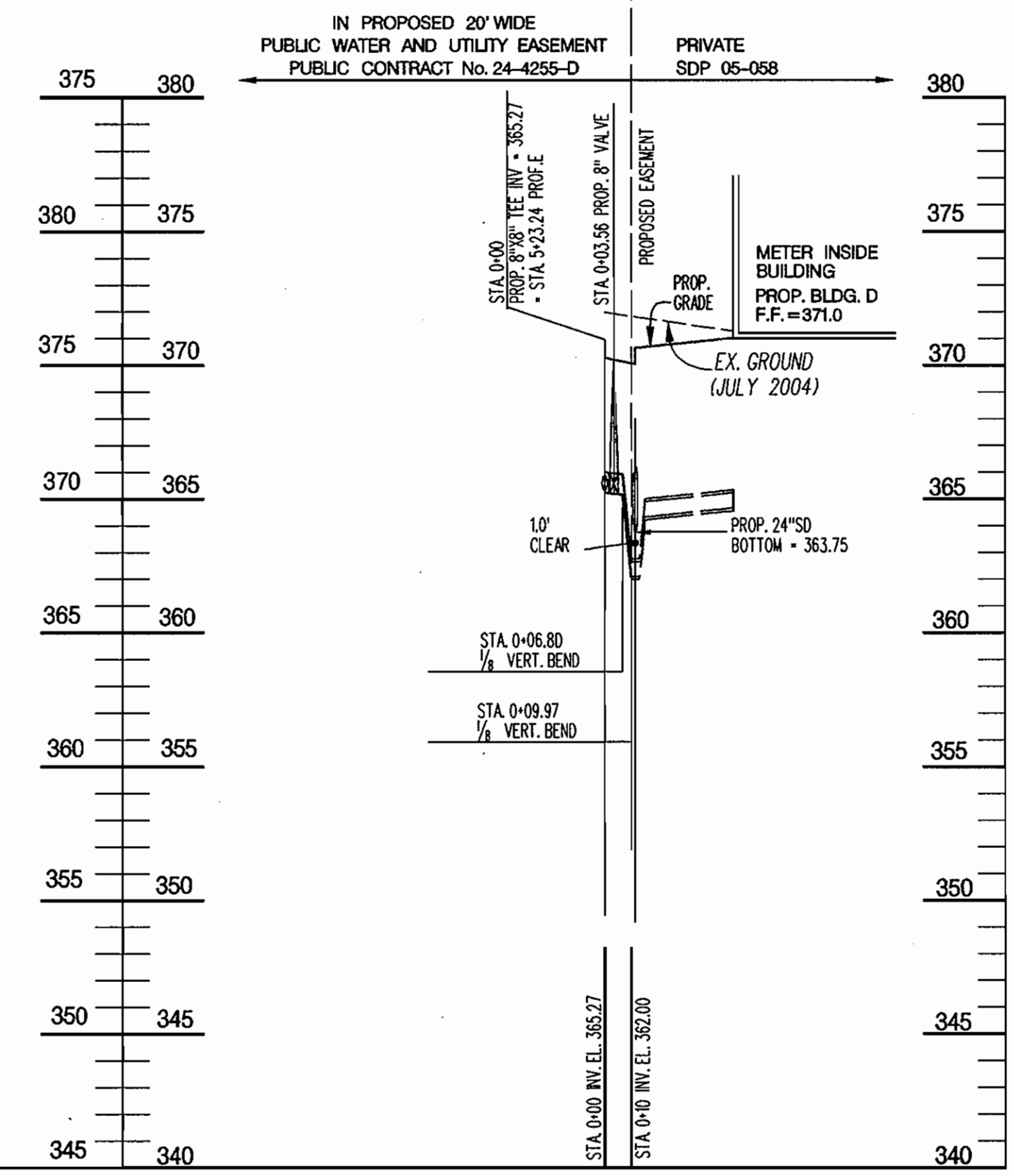
PROP. WATER MAIN PROFILE 'D2'

Scale: Horz: 1" = 50'
Vert: 1" = 5'



PROP. WATER MAIN PROFILE 'E'

Scale: Horz: 1" = 50'
Vert: 1" = 5'



PROP. WATER MAIN PROFILE 'E1'

Scale: Horz: 1" = 50'
Vert: 1" = 5'



7-21-05 REVISIONS

AS BUILT
DATE: DEC. 2005

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

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND
Michael Damman 3/1/05
CHIEF - DEVELOPMENT ENGINEERING DIVISION - DATE

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DESIGNED BY:	MWI	REVISED PROFILES D & D1-ADDED PROFILE	7-21-05
S.C.C.		D2	
DRAWN BY:			
A.M. / S.C.C.			
CHECKED BY:			
J.E.M.			
DATE:	2/14/05	REVISION	DATE
BY	NO.		

Water Profiles
600 SCALE MAP NO. 42 BLOCK NO. 12

PUBLIC WATER
Proposed Water Facilities for
Parcel U-10
Columbia Gateway
CONTRACT NO. 24-4255-D
6th Election District
SCALE AS SHOWN
SHEET 4 OF 4