

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 0057 AND 41C2.
ALL VERTICAL CONTROLS ARE BASED ON (NAVD '27). VERTICAL CONTROLS PROVIDED ON DRAWINGS ARE:
GEODETIC SURVEY CONTROL 0057 (N 550835.217/E 1347017.693)
BRASS DISC SET ON TOP OF A CONCRETE MONUMENT, LOCATED AT SOUTH WEST SIDE OF ROUTE 29 & 32 INTERSECTIONS, 15' EAST SIDE OF LONGVIEW RD. AND 57' OFF THE NORTH WEST CORNER OF 1 STORY BUILDING.
GEODETIC SURVEY CONTROL 41C2 (N 551616.404/E 1348104.227)
BRASS DISC SET ON TOP OF A CONCRETE MONUMENT, LOCATED AT ROUTE 32, EAST OF ROUTE 29, 100' EAST OF BEGINNING OF GUARD RAIL, AND 11.8' SOUTH OF HIGHWAY SIGN BASE.
- 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(c) OF THE HOWARD COUNTY CODE.

PART II - WATER

- ALL WATER MAINS TO BE D.I.P. CLASS 54 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 FINAL ROAD CONSTRUCTION PLAN F-06-023.

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

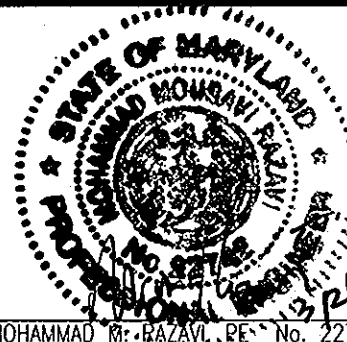
John R. Robertson
SOIL CONSERVATION DISTRICT
DATE: 5/22/08

[Signature]
U.S. SOIL CONSERVATION DISTRICT
DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
[Signature]
CHIEF, BUREAU OF UTILITIES
DATE: 4/25/08

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND
[Signature]
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: 5/22/08

ROBERT H. VOGEL ENGINEERING, INC.
ENGINEERS • SURVEYORS • PLANNERS
8407 MAIN STREET
ELLICOTT CITY, MD 21043
TEL: 410.461.7556
FAX: 410.461.8961



DES:	LJT/LCO	1	MODIFIED WATER & SEWER DESIGN FOR ADDITIONAL SEVEN LOTS	7/24/09
DRN:	KG			
CHK:	MMR			
DATE:	MARCH 2008	BY:	NO.	REVISION

FINAL WATER AND SEWER COVER SHEET
CONTRACT NO. 34-4448-D
600' SCALE MAP NO. 41 BLOCK NO. XX

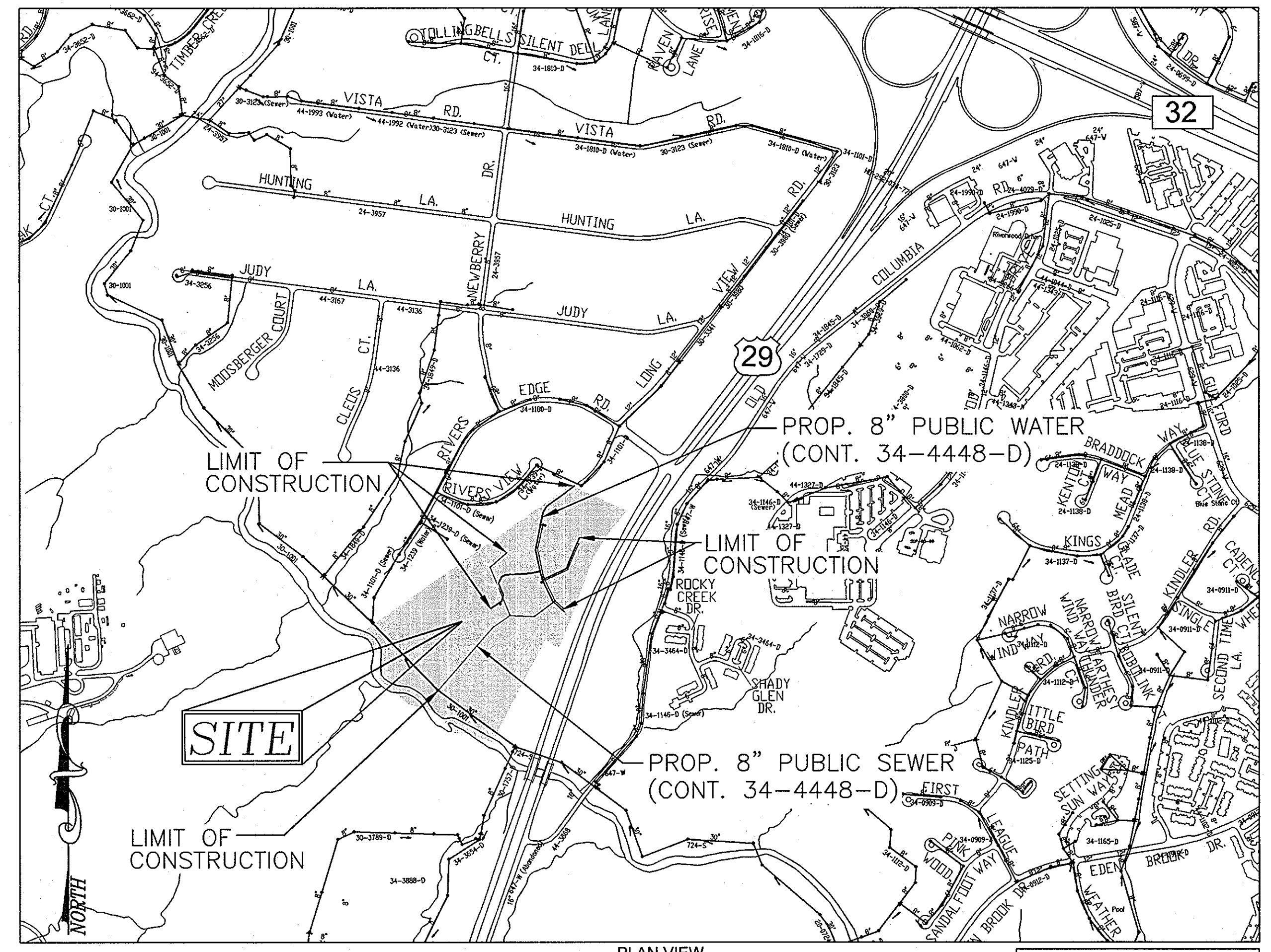
FINAL WATER AND SEWER RIVERSIDE OVERLOOK PHASE I & PHASE II SINGLE FAMILY DETACHED LOTS 4-12, 18-22, 24-33 AND NON-BUILDABLE BULK PARCEL 'B'
TAX MAP 41, GRID 11 5TH ELECTION DISTRICT
PARCEL 179 HOWARD COUNTY, MARYLAND
SCALE AS SHOWN
SHEET 1 OF 6

FINAL WATER & SEWER PLAN

RIVERSIDE OVERLOOK-Phase I & II

SINGLE FAMILY LOTS 4-12, 18-22, 24-33

OPEN SPACE LOTS 17, 23, 34 & 35, AND NON-BUILDABLE BULK PARCEL 'B' (CONT. NO. 34-4448-D)

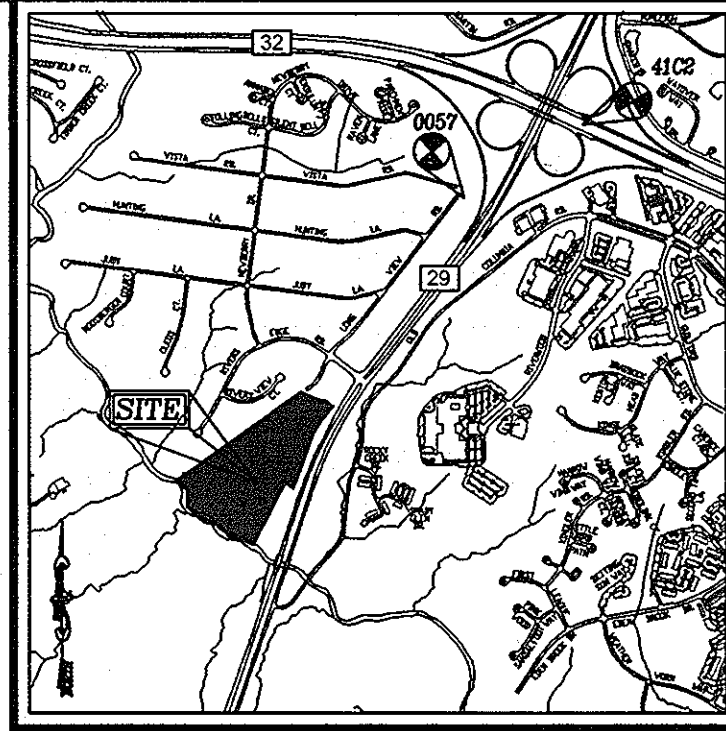


PLAN VIEW
SCALE 1"=600'
WATER CODE: E21
SEWER CODE: 6480000
TEST GRADIENT: 700

Type of Building :	SINGLE FAMILY
No. of Lots/Parcels :	29
No. of single Water House Connections :	26
No. of Twin Water House Connections :	0
No. of Sewer House Connections :	26
Drainage Area :	MIDDLE PATUXENT RIVER
Treatment Plant :	MIDDLE PATUXENT RIVER

BENCHMARKS
COORDINATES BASED ON NAD '83, MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS 41C2, 0057.

41C2	N 551616.404	E 1348104.227	ELEV. 395.856
0057	N 550835.217	E 1347017.693	ELEV. 399.610



VICINITY MAP
SCALE: 1"=2000'

QUANTITIES
NAME OF UTILITY CONTRACTOR : SEH EXCAVATING CONTRACTORS, INC.
SURVEY AND DRAFTING DIVISION AS-BUILT DATE : 4-29-2010

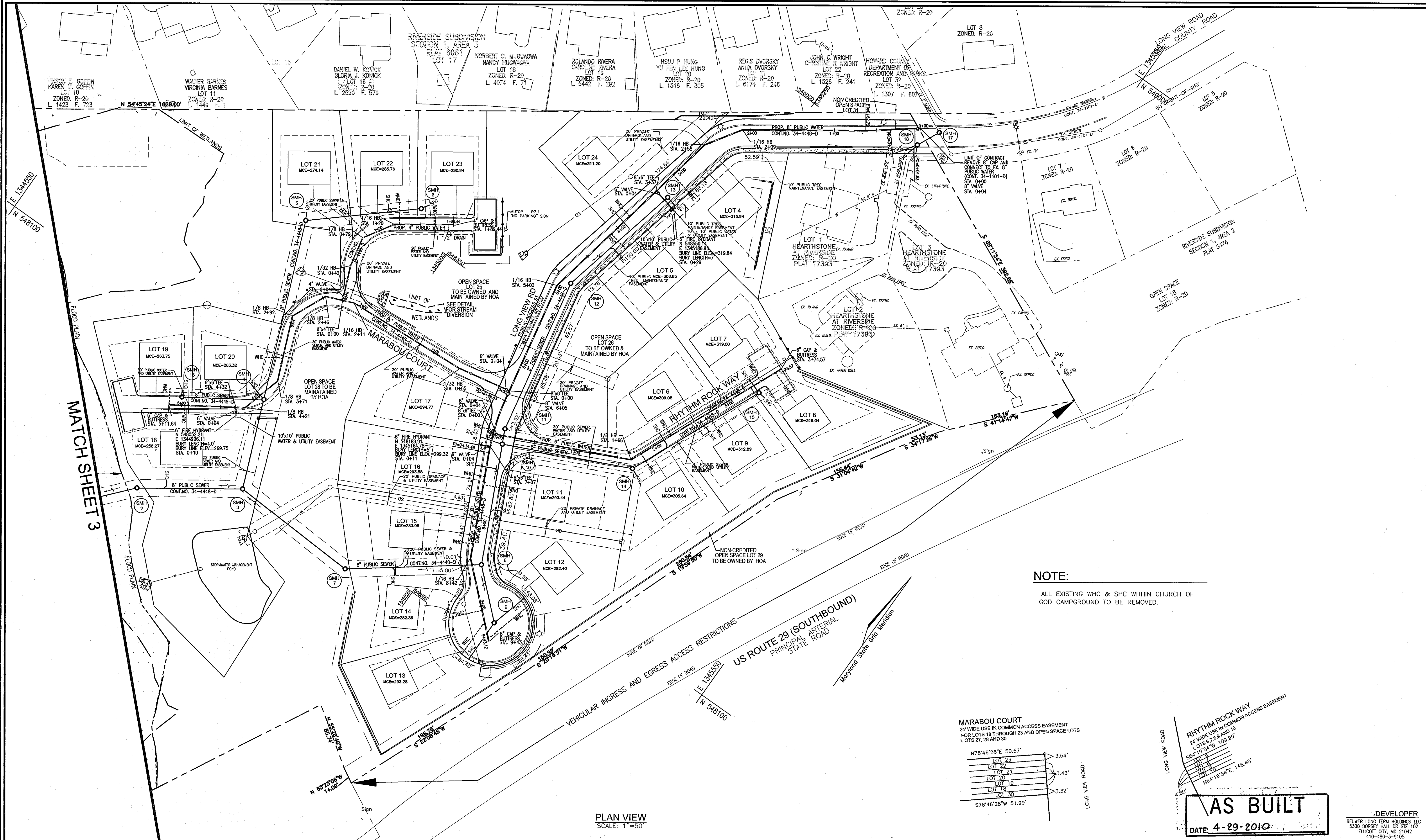
ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER/SUPPLIER
WATER				
8" WATER	2141 LF	2,141 L.F.	DIP	GRIFFIN PIPE
1" W/C	680 LF	680 L.F.	COPPER	CAMBRIDGE LEE
4" S/C	549 LF	549 L.F.	SDR-35	NORTH AMERICAN PIPE
8" X 8" TAPPING SLEEVE	1 EA.	1 EA.	DUCTILE	SIGMA
8" X 6" TEE	5 EA.	5 EA.	DUCTILE	SIGMA
8" X 6" TEE	3 EA.	3 EA.	DUCTILE	SIGMA
6" VALVE	5 EA.	5 EA.	GATE	KENNEDY VALVE
8" VALVE	5 EA.	5 EA.	GATE	KENNEDY VALVE
FIRE HYDRANT				
5" FIRE HYDRANT	5 EA.	5 EA.	5'-0"	KENNEDY VALVE
8" - 1/16 BEND	5 EA.	5 EA.	DUCTILE	SIGMA
8" - 1/8 BEND	4 EA.	4 EA.	DUCTILE	SIGMA
8" - 1/32 BEND	4 EA.	4 EA.	DUCTILE	SIGMA
8" CAP AND BUTTRESS	4 EA.	4 EA.	DUCTILE	SIGMA
6" CAP AND BUTTRESS	1 EA.	1 EA.	DUCTILE	SIGMA
8" SEWER MANHOLE	1876 LF	1,876 L.F.	SDR-35	NORTH AMERICAN PIPE
	25 EA.	25 EA.	PRECAST CONC.	CONTRACTORS PRECAST

PROPERTIES WITH WELL AND SEPTIC

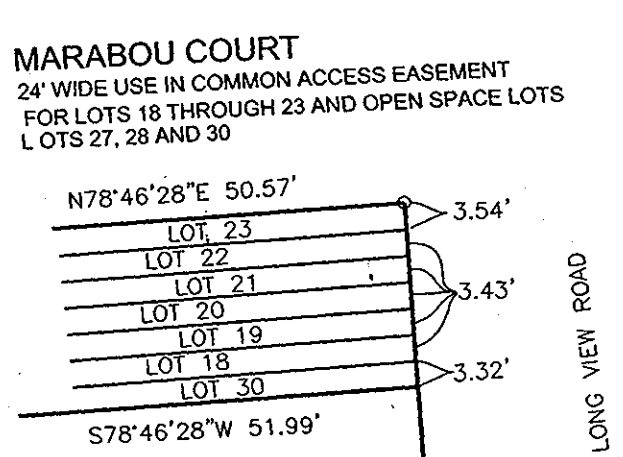
ADDRESS	EX. SEPTIC	EX. WELL
7129 LONGVIEW ROAD	TO BE REMOVED	---
7125 LONGVIEW ROAD	TO BE REMOVED	TO BE REMOVED
7121 LONGVIEW ROAD	TO BE REMOVED	---

AS BUILT
DATE: 4-29-2010

DEVELOPER
REIWER LONG TERM HOLDINGS LLC
5300 DORSEY HALL DR. STE 102
ELLICOTT CITY, MD 21042



NOTE:
ALL EXISTING WHC & SHC WITHIN CHURCH OF GOD CAMPGROUND TO BE REMOVED.



RHYTHM ROCK WAY
24' WIDE USE IN COMMON ACCESS EASEMENT FOR LOTS 8, 9 AND 10

LOT 9	3.43'
LOT 8	3.43'
LOT 10	3.43'

AS BUILT
DATE: 4-29-2010

PLAN VIEW
SCALE: 1"=50'

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

John C. Green
CHIEF, BUREAU OF UTILITIES
4/25/08

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

[Signature]
CHIEF, DEVELOPMENT ENGINEERING DIVISION
4/25/08

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



DES:	LJT/LOC
DRN:	KG
CHK:	MMR
DATE:	MARCH 2008
BY:	NO.
REVISION:	
DATE:	

FINAL WATER AND SEWER PLAN VIEW

600' SCALE MAP NO. 41 BLOCK NO. XX

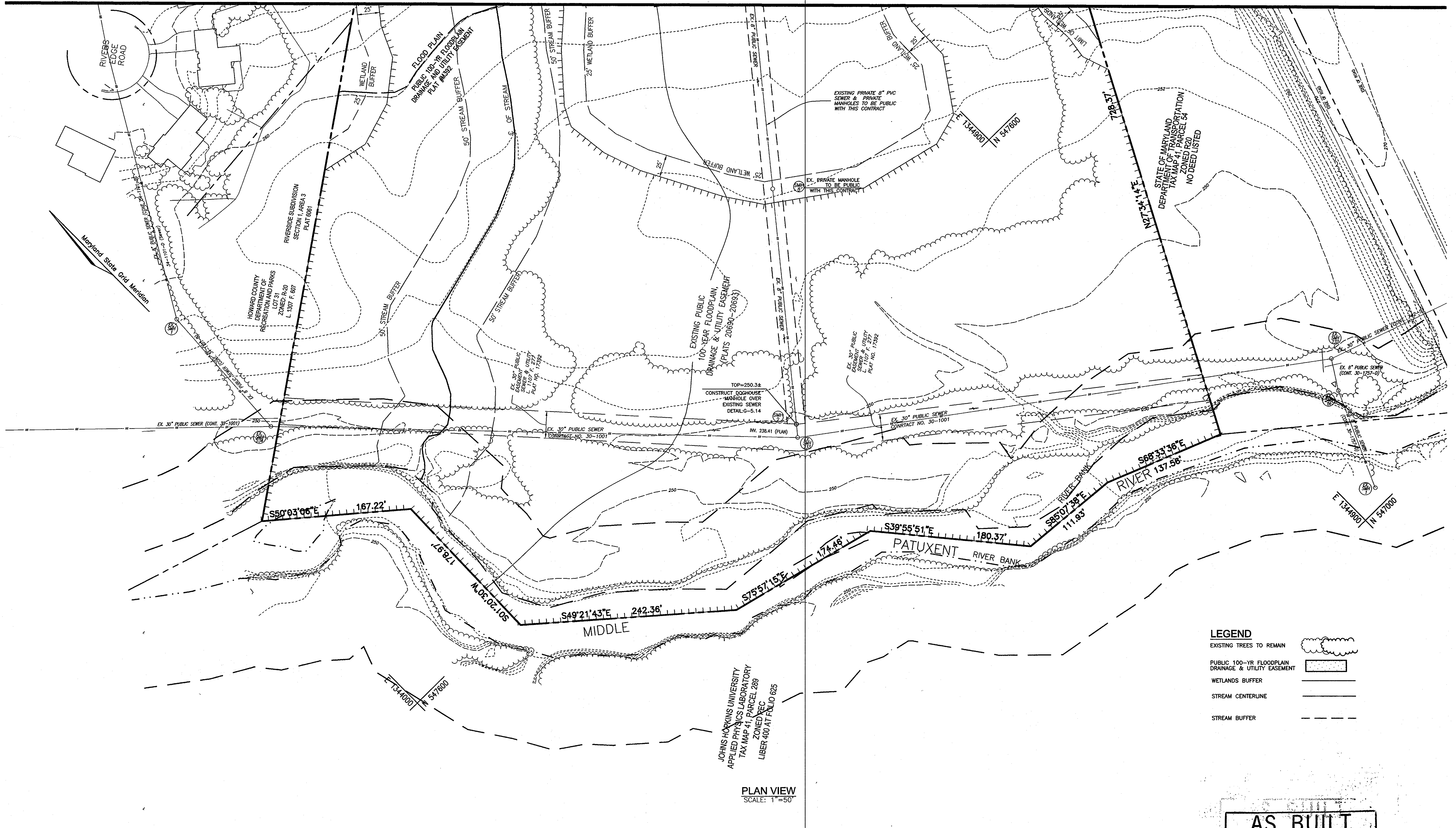
FINAL WATER AND SEWER HEARTHSTONE AT RIVERSIDE CONTRACT NO. 34-4448-D

TAX MAP 41, GRID 11
5TH ELECTION DISTRICT

PARCEL 179
HOWARD COUNTY, MARYLAND

DEVELOPER
REIWER LONG TERM HOLDINGS, LLC
5300 DORSEY HALL DR STE 102
ELICOTT CITY, MD 21042
410-460-5316

SCALE AS SHOWN
SHEET 2 OF 6



LEGEND

EXISTING TREES TO REMAIN	
PUBLIC 100-YR FLOODPLAIN DRAINAGE & UTILITY EASEMENT	
WETLANDS BUFFER	
STREAM CENTERLINE	
STREAM BUFFER	

JOHNS HOPKINS UNIVERSITY
APPLIED PHYSICS LABORATORY
TAX MAP 41, PARCEL 288
ZONED REC
LIBER 400 AT FOLIO 825

PLAN VIEW
SCALE: 1"=50'

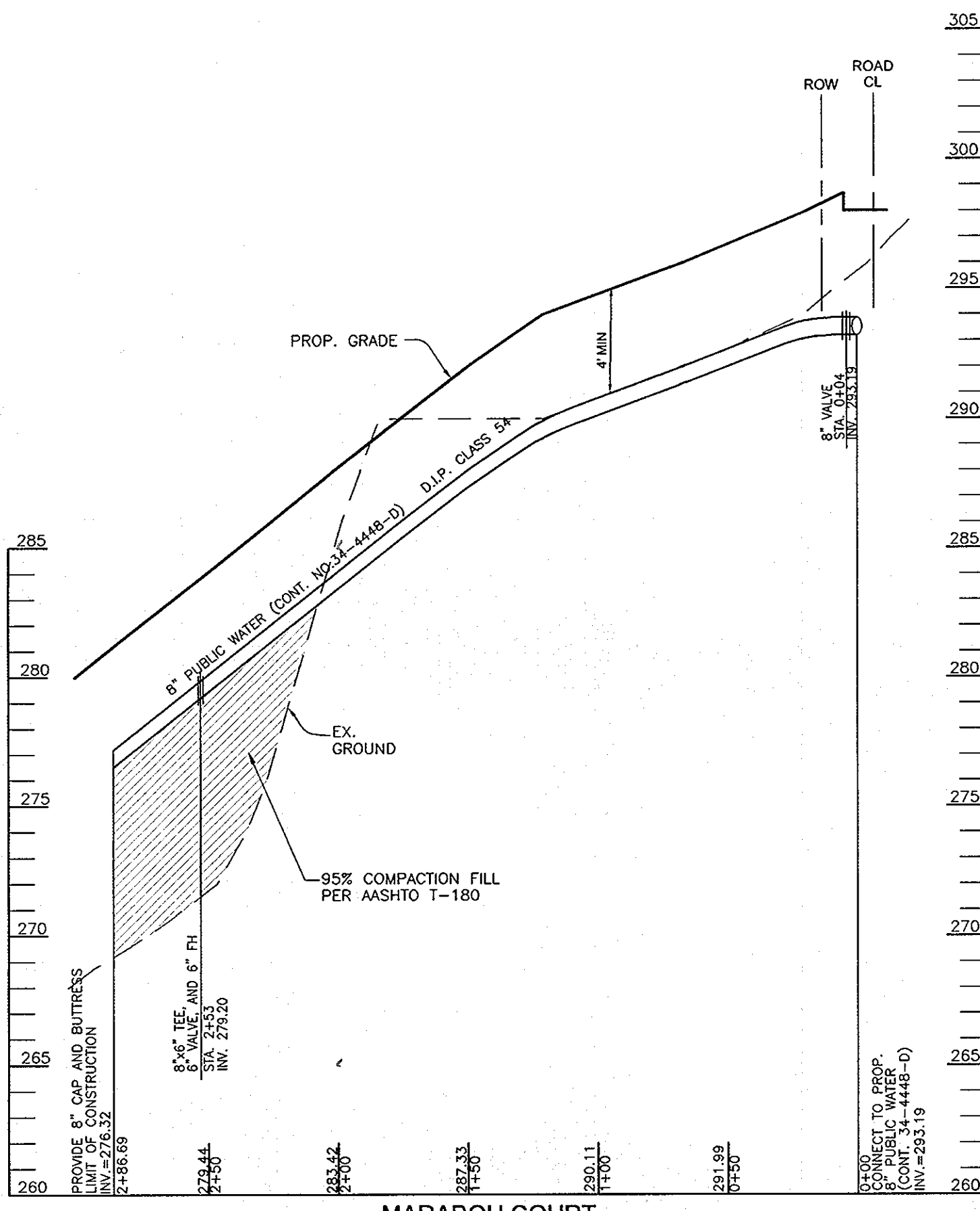
NOTES: THIS SHEET REPLACES SHEET 3 OF 6 SIGNED ON 03/26/08 BY THE CHIEF, BUREAU OF UTILITIES.

AS BUILT
DATE: 4-29-2010

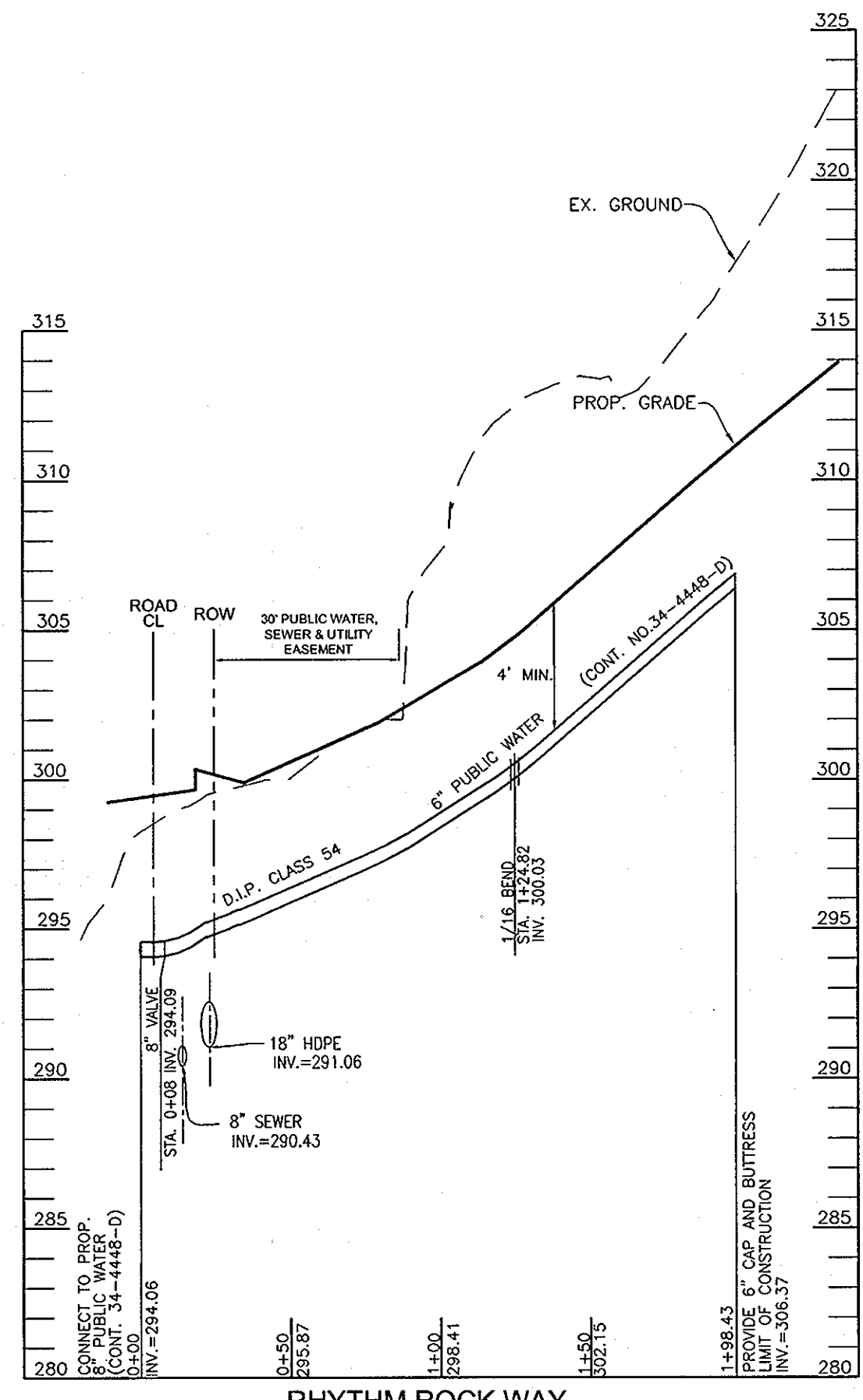
DEVELOPER
REUMER LONG TERM HOLDINGS L.L.C.
C/O DONALD REUMER JR.
5300 DORSEY HALL DRIVE
ELICOTT CITY, MARYLAND 21042
443-367-0422

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND CHIEF, BUREAU OF UTILITIES	DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND CHIEF, DEVELOPMENT ENGINEERING DIVISION	 ROBERT H. VOGEL ENGINEERING, INC. ENGINEERS • SURVEYORS • PLANNERS 8407 MAIN STREET TEL: 410.461.7666 ELLICOTT CITY, MD 21043 FAX: 410.461.8961		PROFESSIONAL CERTIFICATE I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE: 09-27-2010 DRN: KG DES: RJ CHK: RHV DATE: OCTOBER 2009	MODIFIED WATER AND SEWER DESIGN FOR ADDITIONAL SEVEN LOTS 06/11/09 REVISION DATE	FINAL WATER AND SEWER PLAN VIEW CONTRACT NO. 34-4448-D 600' SCALE MAP NO. 41 BLOCK NO. XX	FINAL WATER AND SEWER RIVERSIDE OVERLOOK PHASE I & PHASE II SINGLE FAMILY DETACHED LOTS 4 - 12, 18 - 22, 24 - 33 AND NON-BUILDABLE BULK PARCEL 'B' TAX MAP 41, GRID 11 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	SCALE AS SHOWN SHEET 3 OF 7
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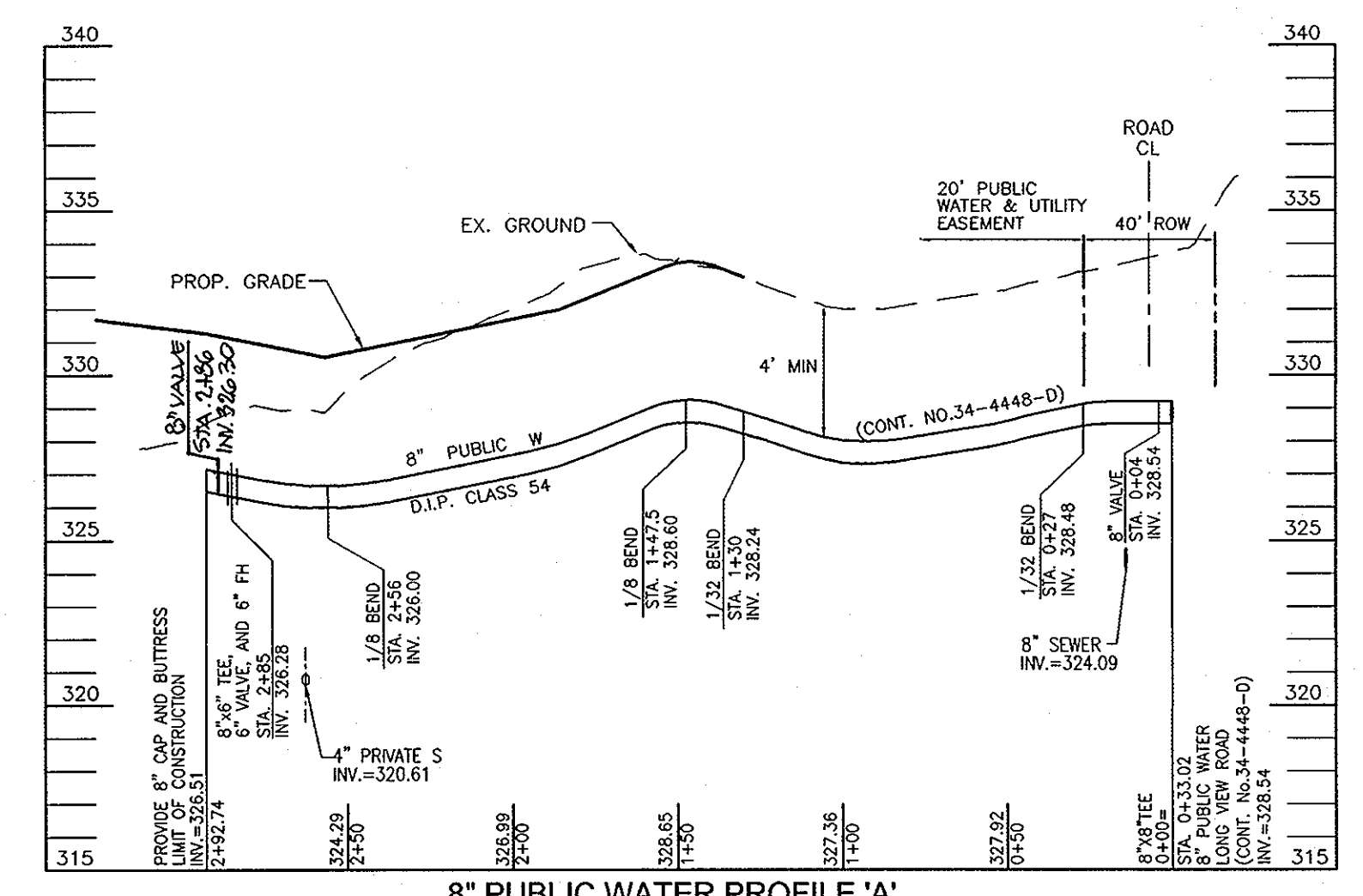
**MARABOU COURT
8" PUBLIC WATER PROFILE**
SCALE: HORIZONTAL - 1"=50'
VERTICAL - 1"=5'



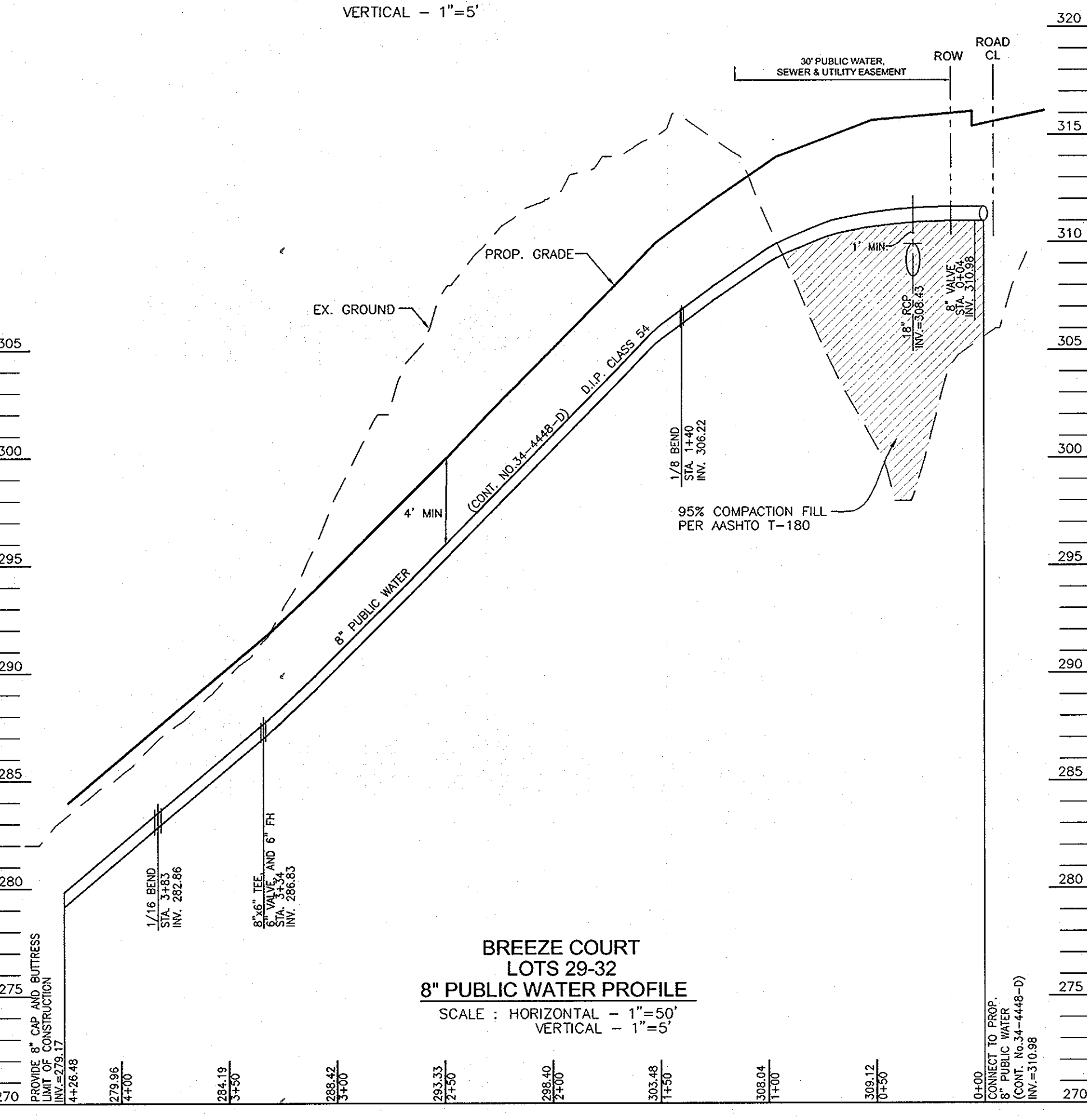
**RHYTHM ROCK WAY
6" PUBLIC WATER PROFILE**
SCALE: HORIZONTAL - 1"=50'
VERTICAL - 1"=5'

WATER MAIN LOCATION CHART

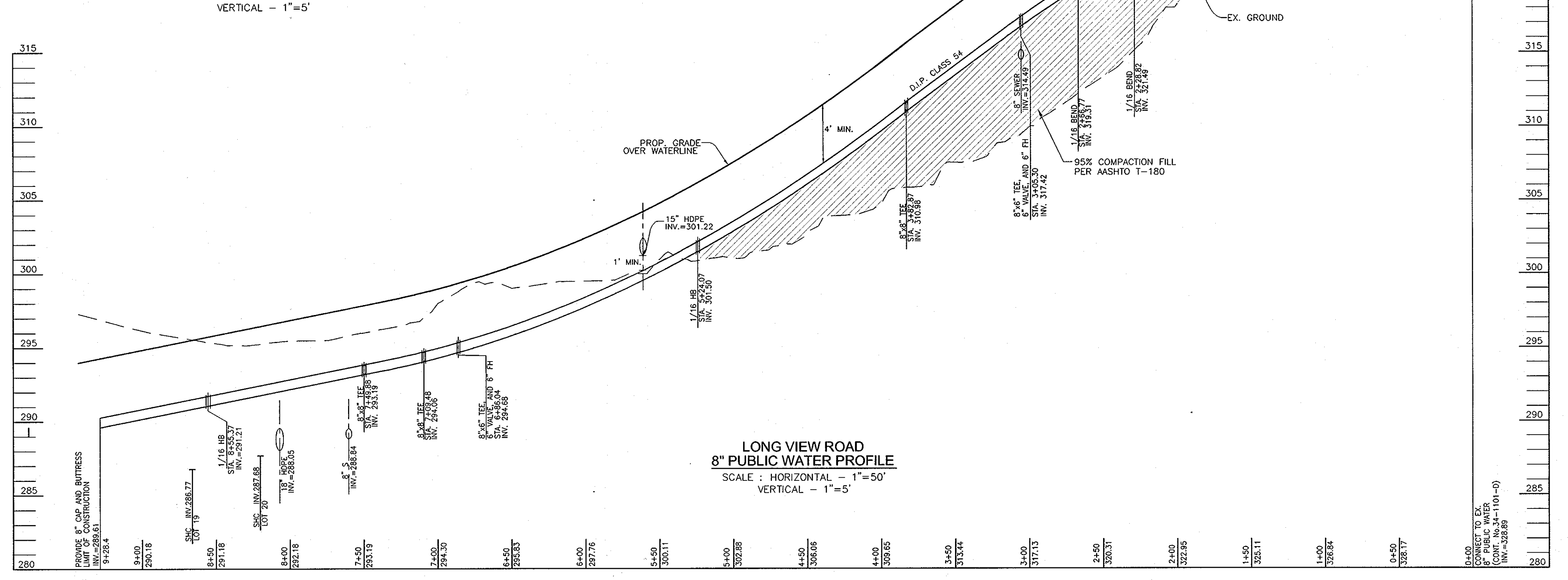
WL STA.	APPURTENANCE
LONG VIEW ROAD	
WL STA. 0+00	8" CAP & BUTTRISS
WL STA. 0+05	8" VALVE
WL STA. 0+13.25	1/32 HB
WL STA. 0+29.23	1/32 HB
WL STA. 0+33.02	8" TEE & VALVE
WL STA. 2+28.82	1/16 HB
WL STA. 2+66.77	1/16 HB
WL STA. 3+05.30	8"x6" TEE, VALVE & FH
WL STA. 3+82.87	8"x6" TEE
WL STA. 5+24.07	1/16 HB
WL STA. 6+86.04	8"x6" TEE, VALVE & FH
WL STA. 7+09.48	8" TEE & VALVE
WL STA. 7+49.86	8" TEE & VALVE
WL STA. 8+55.37	1/16 HB
WL STA. 9+56.10	8" CAP & BUTTRISS
BREEZE COURT (LOT 32-36)	
WL STA. 0+08	8" VALVE
WL STA. 1+41	1/8 HB
WL STA. 3+36.18	8"x6" TEE, VALVE & FH
WL STA. 3+84.59	1/16 HB
WL STA. 4+26.48	8" CAP & BUTTRISS
RHYTHM ROCK WAY (LOT 13-14)	
WL STA. 0+08	8" VALVE
WL STA. 1+24.82	1/8 HB
WL STA. 1+98.43	8" CAP & BUTTRISS (IF REQUIRED)
MARABOU COURT (LOT 21-26)	
WL STA. 0+04	8" VALVE
WL STA. 0+27	1/32 HB
WL STA. 1+30	1/32 HB
WL STA. 1+47.5	1/8 HB
WL STA. 2+56	1/8 HB
WL STA. 2+85	8"x6" TEE, VALVE & FH



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



**BREEZE COURT
LOTS 29-32
8" PUBLIC WATER PROFILE**
SCALE: HORIZONTAL - 1"=50'
VERTICAL - 1"=5'



**LONG VIEW ROAD
8" PUBLIC WATER PROFILE**
SCALE: HORIZONTAL - 1"=50'
VERTICAL - 1"=5'

NOTES: THIS SHEET REPLACES SHEET 4 OF 6 SIGNED ON 03/26/08
BY THE CHIEF, BUREAU OF UTILITIES.

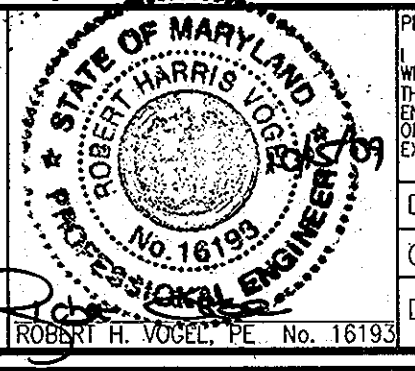
AS BUILT
DATE: 4-29-2010

DEVELOPER
REWER LONG TERM HOLDINGS LLC.
C/O DONALD REWER JR.
5300 DORSEY HALL DRIVE
ELLCOTT CITY, MARYLAND 21042
443-367-0422

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Steve C. Green
CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND
William J. Davis
CHIEF, DEVELOPMENT ENGINEERING DIVISION

**ROBERT H. VOGEL
ENGINEERING, INC.**
ENGINEERS • SURVEYORS • PLANNERS
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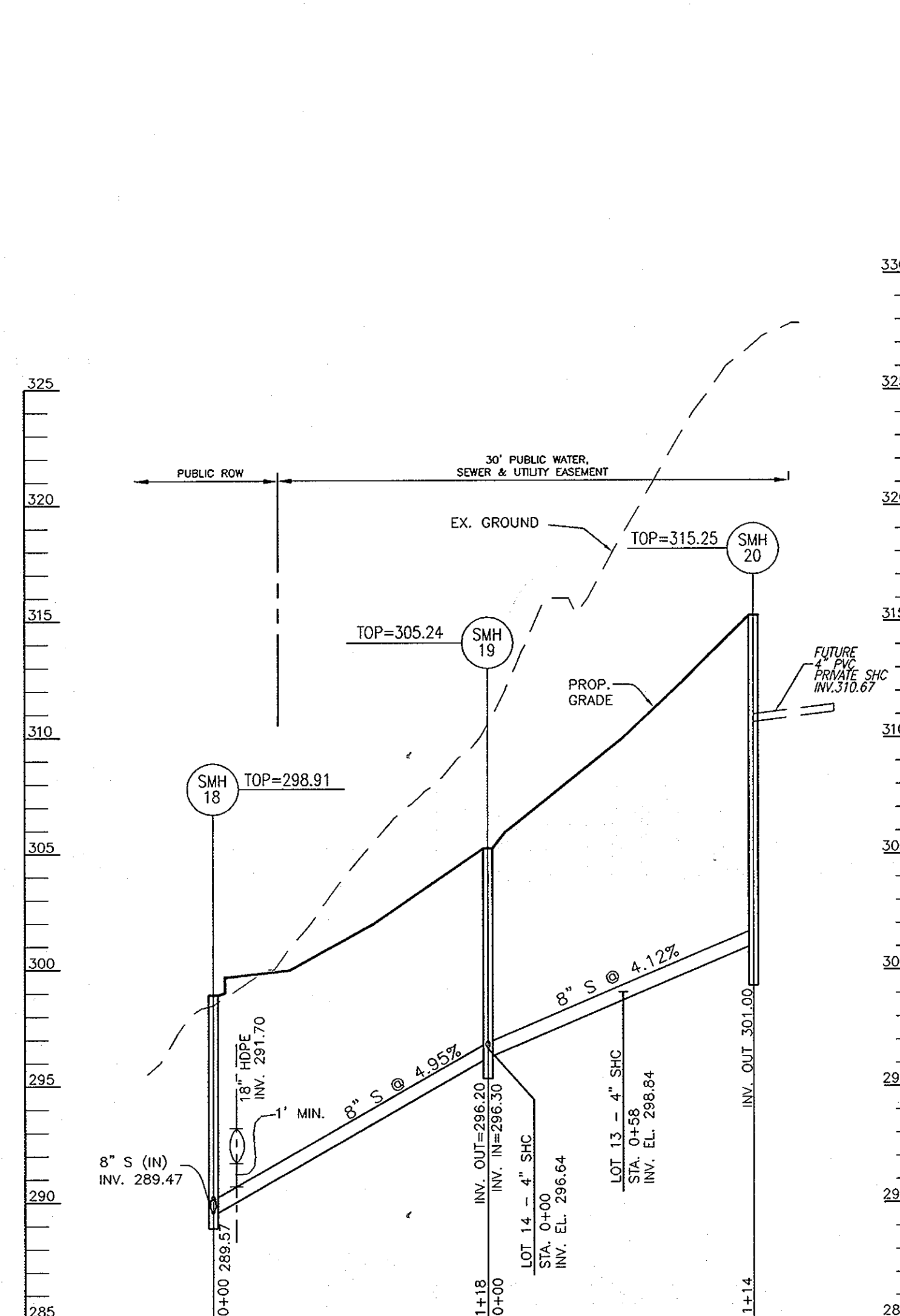
PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS
WERE PREPARED OR APPROVED BY ME AND
THAT I AM A DULY LICENSED PROFESSIONAL
ENGINEER UNDER THE LAWS OF THE STATE
OF MARYLAND, LICENSE NO. 16193
EXPIRATION DATE: 09-27-2010

1	MODIFIED WATER AND SEWER DESIGN FOR ADDITIONAL SEVEN LOTS	06/11/09
DRN:	KC	DES: RJ
CHK:	RHV	
DATE:	JUNE 2009	
BY NO.		REVISION
		DATE

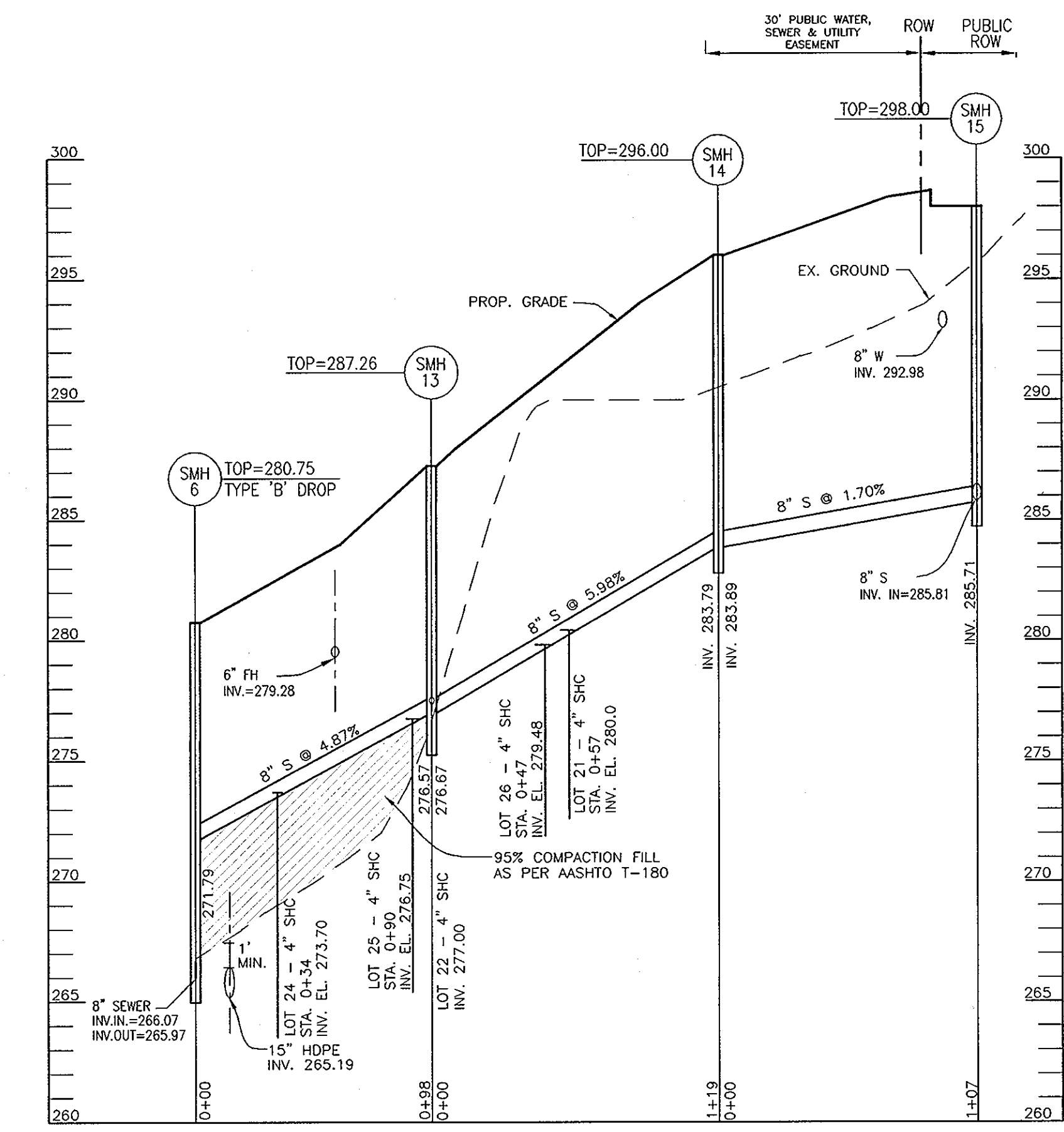
**FINAL WATER AND SEWER
PROFILES**
CONTRACT NO. 34-4448-D

**FINAL WATER AND SEWER
RIVERSIDE OVERLOOK
PHASE I & PHASE II**
SINGLE FAMILY DETACHED LOTS 4 TO 12,
18 TO 22, 24 TO 33, AND
NON-BUILDABLE BULK PARCEL 'B'
TAX MAP 41, GRID 11
5TH ELECTION DISTRICT

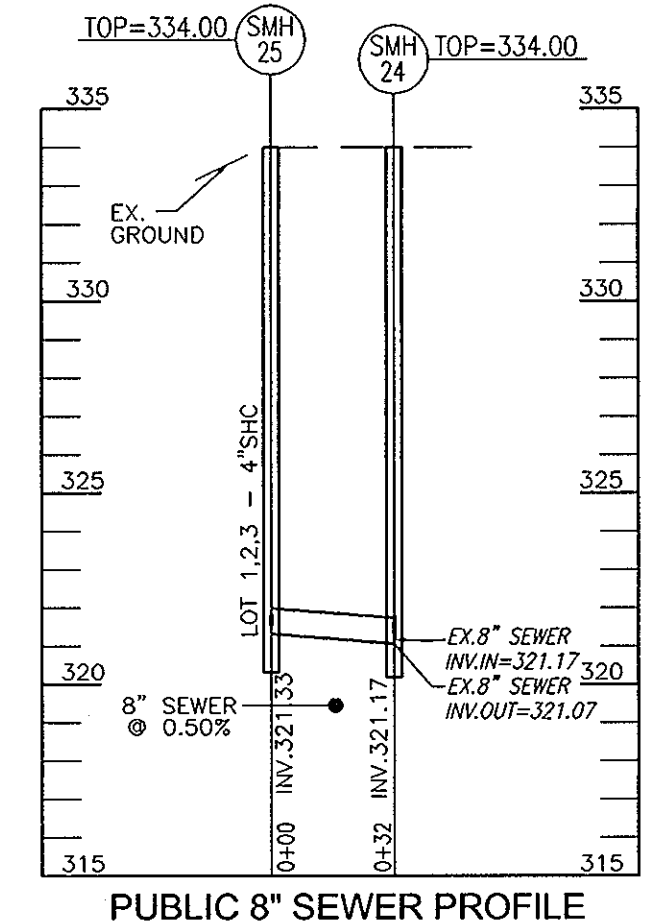
SCALE
AS
SHOWN
SHEET
4 OF 7



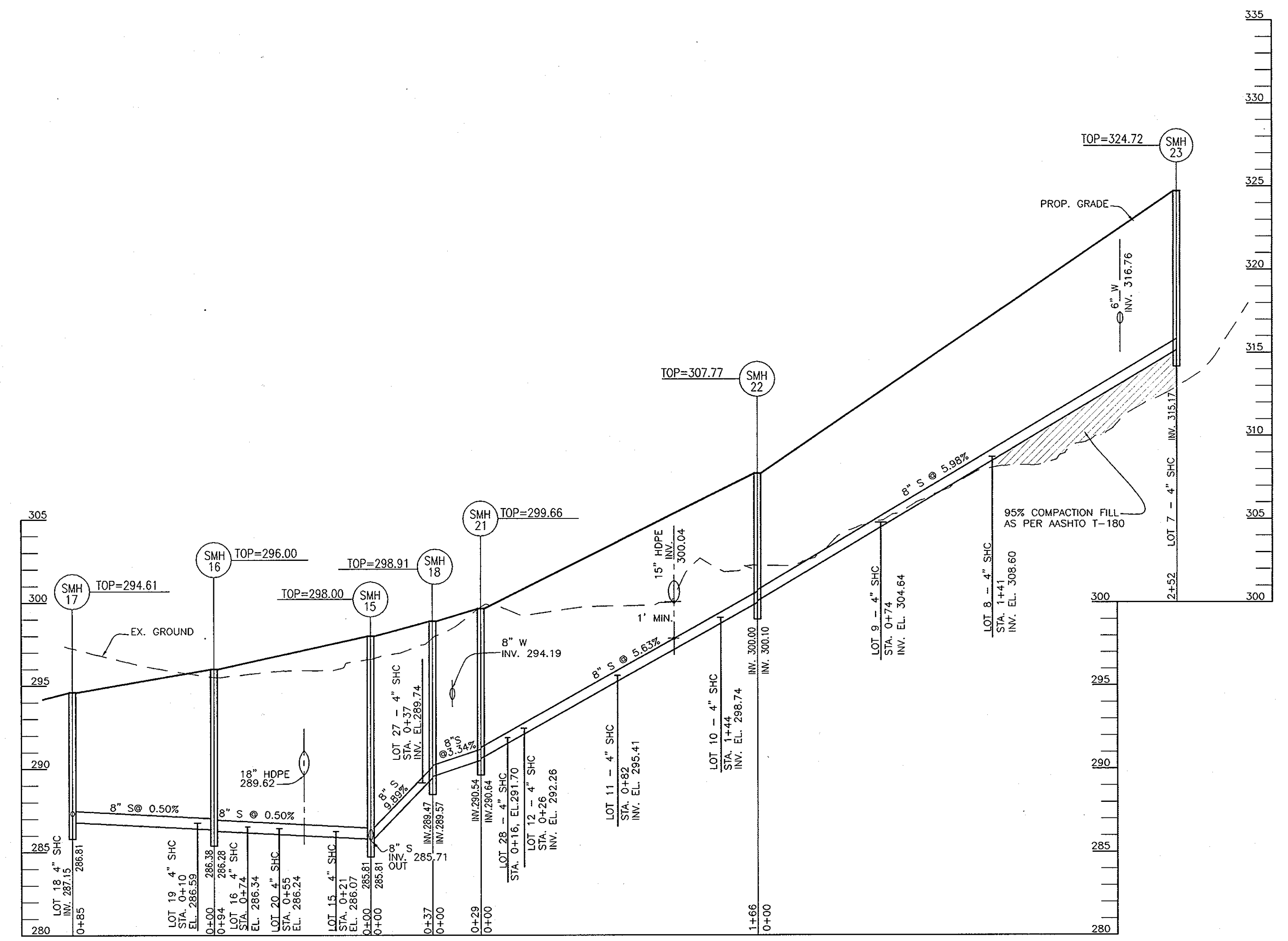
**RHYTHM ROCK WAY
PUBLIC 8" SEWER PROFILE**
SCALE: HORIZONTAL - 1"=50'
VERTICAL - 1"=5'



**MARABOU COURT
PUBLIC 8" SEWER PROFILE**
SCALE: HORIZONTAL - 1"=50'
VERTICAL - 1"=5'



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



**LONG VIEW ROAD
PUBLIC 8" SEWER PROFILE**
SCALE: HORIZONTAL - 1"=50'
VERTICAL - 1"=5'

AS BUILT
DATE: 4-29-2010

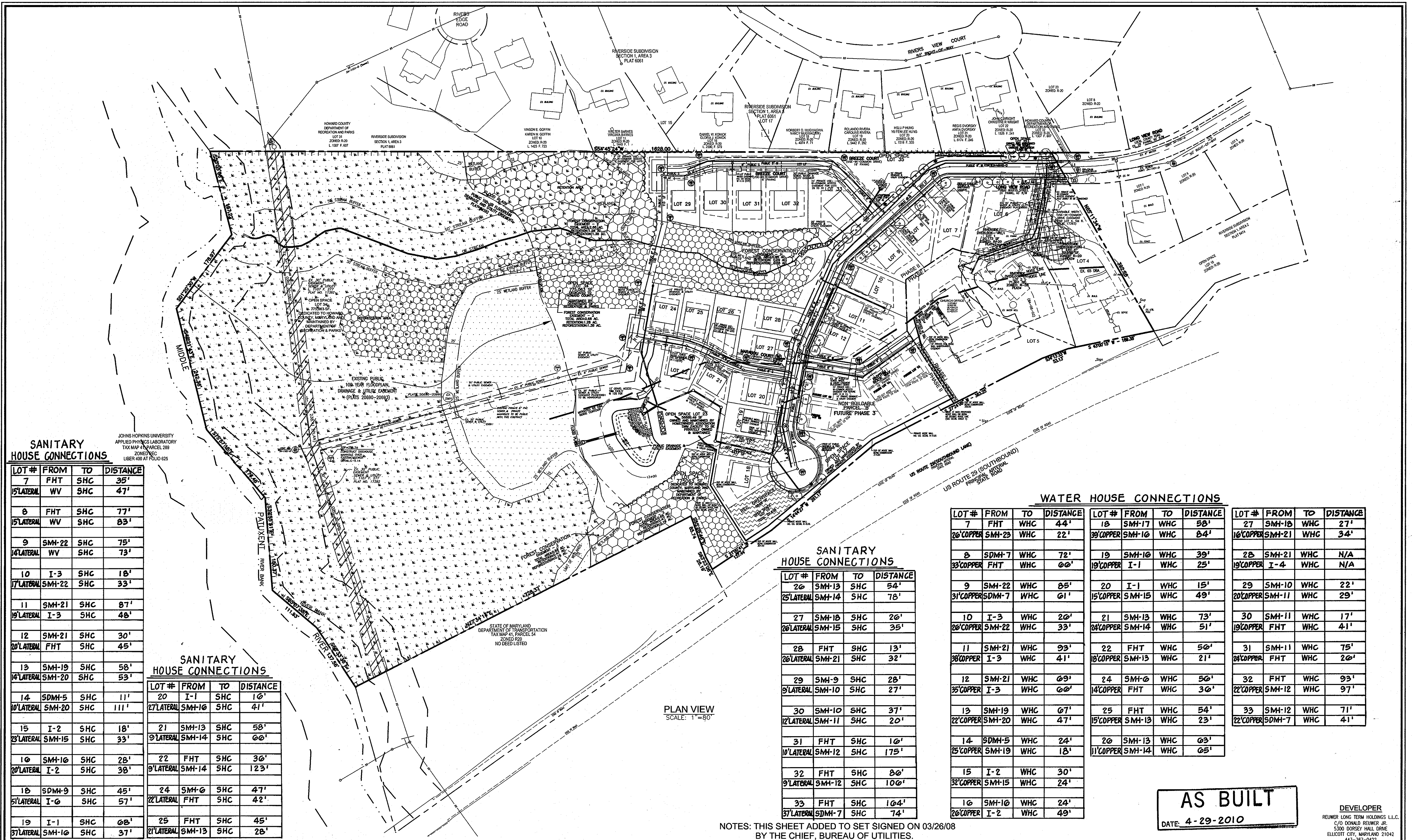
SEWER CONNECTION TABULATION						
LOT NO	TYPE	ELEV. @ MAIN	ELEV. @ DHC	ELEV. @ R/W OR EASEMENT	ELEV. @ UNITS	M.C.E.
1	4" SHC, @2.0%	320.72	-	(14') 321.00	(80') 322.32	
3	4" SHC, @2.0%	324.72	-	(13') 324.98	(309') 330.90	
4	4" SHC, @1.0%	319.02	-	(15') 319.17	(233') 321.35	323.85
5	4" SHC, @1.0%	319.04	-	(26') 319.30	(28') 319.32	321.82
6	4" SHC, @1.0%	317.28	-	(13') 317.41	(88') 318.16	320.66
7	4" SHC, @2.0%	315.17	-	(17') 315.51	(39') 315.95	318.45
8	4" SHC, @2.0%	308.60	-	(14') 308.88	(28') 309.16	311.66
9	4" SHC, @2.0%	304.64	-	(13') 304.90	(29') 305.22	307.72
10	4" SHC, @2.0%	298.74	-	(16') 299.06	(42') 299.58	302.08
11	4" SHC, @2.0%	295.41	-	(15') 295.71	(41') 296.23	298.73
12	4" SHC, @2.0%	292.26	-	(13') 292.52	(30') 293.04	295.54
13	4" SHC, @5.0%	298.84	-	(10') 299.34	(32') 300.44	302.94
14	4" SHC, @2.0%	296.64	-	(10') 296.84	(28') 297.20	299.70
15	4" SHC, @5.0%	286.07	-	(17') 286.92	(43') 288.22	290.72
16	4" SHC, @5.0%	286.34	-	(17') 287.19	(40') 288.34	290.64
OPEN SPACE LOT 17						
18	4" SHC, @2.0%	287.15	-	(9') 287.88	(85') 288.85	291.35
19	4" SHC, @2.0%	286.59	-	(23') 287.05	(59') 287.77	290.27
20	4" SHC, @2.0%	286.24	-	(23') 286.70	(54') 287.32	289.82
21	4" SHC, @2.0%	280.00	-	(9') 280.18	(26') 280.52	283.02
22	4" SHC, @1.0%	277.00	-	(8') 277.08	(20') 277.20	279.70
OPEN SPACE LOT 23						
24	4" SHC, @2.0%	273.70	-	(9') 273.88	(39') 274.48	276.98
25	4" SHC, @2.0%	276.75	-	(21') 277.17	(40') 277.55	280.05
26	4" SHC, @2.0%	279.48	-	(22') 279.92	(52') 280.52	283.02
27	4" SHC, @2.0%	289.74	-	(22') 290.18	(55') 290.84	293.34
28	4" SHC, @1.0%	291.70	-	(26') 291.96	(58') 292.28	294.78
29	4" SHC, @2.0%	272.32	276.48	(27') 273.32	(33') 274.44	279.94
30	4" SHC, @2.0%	276.78	-	(10') 276.98	(46') 277.70	280.20
31	4" SHC, @2.0%	283.43	-	(11') 283.65	(47') 284.37	286.87
32	4" SHC, @2.0%	290.14	-	(10') 290.34	(47') 291.08	293.58
33	4" SHC, @2.0%	300.34	-	(34') 301.02	(52') 301.38	303.88

SEWER MANHOLE SCHEDULE					
NO.	TYPE	LOCATION	TOP ELEV.	INV. IN	INV. OUT
EX. SMH 233	EXISTING MANHOLE TO REMAIN (CONTR. NO. 30-1001-D)	N 547512.50 E 1344512.62	251.00	240.24	(30" S) 238.41±
SMH 2	PROVIDE DOGHOUSE MANHOLE, HO. CO. DET. G5.14	N 547524.26 E 1344522.11	250.3±	240.59	240.59
SMH 3	EXISTING MANHOLE TO REMAIN	N 547730.69 E 1344688.75	254.20± (EXIST.)	246.70	246.65
SMH 4	STD. PRECAST MH HO. CO. STD. DET. G5.12	N 547898.91 E 1344824.41	253.24 (EXIST.)	253.24	253.24
SMH 5	EXISTING MANHOLE TO REMAIN	N 547993.10 E 1344900.37	272.50	260.58	260.48
SMH 6	STD. PRECAST MH HO. CO. STD. DET. G5.12	N 548052.37 E 1344902.03	280.75	271.79	265.97
SMH 7	STD. PRECAST MH HO. CO. STD. DET. G5.12	N 548132.59 E 1344863.46	278.75	266.91	266.81
SMH 8	STD. PRECAST MH HO. CO. STD. DET. G5.12	N 548256.57 E 1344815.32	276.50	268.08	267.98
SMH 9	STD. PRECAST MH HO. CO. STD. DET. G5.12	N 548334.90 E 1344760.31	280.99	270.33	270.23
SMH 10	STD. PRECAST MH HO. CO. STD. DET. G5.12	N 548362.92 E 1344799.78	284.38	274.09	273.99
SMH 11	STD. PRECAST MH HO. CO. STD. DET. G5.12	N 548401.04 E 1344823.72	287.90	277.33	277.23
SMH 12	STD. PRECAST MH HO. CO. STD. DET. G5.12	N 548538.07 E 1345016.75	310.73	-	300.00
SMH 13	STD. PRECAST MH HO. CO. STD. DET. G5.12	N 548092.94 E 1344990.98	287.26	276.67	276.57
SMH 14	STD. PRECAST MH HO. CO. STD. DET. G5.12	N 548118.66 E 1345107.57	296.00	283.89	283.79
SMH 15	STD. PRECAST MH HO. CO. STD. DET. G5.12	CL STA. 7+43.54', LONG VIEW ROAD, 3.48' LT.	298.00	285.81	285.71
SMH 16	STD. PRECAST MH HO. CO. STD. DET. G5.12	CL STA. 8+37.61', LONG VIEW ROAD, 2.11' LT.	296.00	286.38	286.28
SMH 17	STD. PRECAST MH HO. CO. STD. DET. G5.12	N 548022.56 E 1345304.74	294.61	-	286.81
SMH 18	STD. PRECAST MH HO. CO. STD. DET. G5.12	CL STA. 7+06.50', LONG VIEW ROAD, 6.18' LT.	298.91	289.57	289.47
SMH 19	STD. PRECAST MH HO. CO. STD. DET. G5.12	N 548249.90 E 1345293.59	305.24	296.30	296.20
SMH 20	STD. PRECAST MH HO. CO. STD. DET. G5.12	N 548357.62 E 1345330.91	315.25	-	301.00
SMH 21	STD. PRECAST MH HO. CO. STD. DET. G5.12	CL STA. 6+76.41', LONG VIEW ROAD, 7.53' LT.	299.66	290.64	290.54
SMH 22	STD. PRECAST MH HO. CO. STD. DET. G5.12	CL STA. 5+10.46', LONG VIEW ROAD, 3.27' LT.	307.77	300.10	300.00
SMH 23	STD. PRECAST MH HO. CO. STD. DET. G5.12	CL STA. 2+55.10', LONG VIEW ROAD, 7.41' LT.	324.72	-	315.17
SMH 24	STD. PRECAST MH HO. CO. STD. DET. G5.12	N 548811.53 E 1345388.38	334.00	321.17	-
SMH 25	STD. PRECAST MH HO. CO. STD. DET. G5.12	CL STA. 0+08.59', LONG VIEW ROAD, 6.86' LT.	334.00	-	321.33

NOTES: THIS SHEET REPLACES SHEET 5 OF 6 SIGNED ON 03/26/08 BY THE CHIEF, BUREAU OF UTILITIES.

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND [Signature] 11/6/09 CHIEF, BUREAU OF UTILITIES	DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND [Signature] 11/9/09 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	PROFESSIONAL CERTIFICATE I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193 EXPIRATION DATE: 09-27-2010 DRN: KG DES: RJ CHK: RHV DATE: JUNE 2009	1 MODIFIED WATER AND SEWER DESIGN FOR ADDITIONAL SEVEN LOTS 06/11/09	FINAL WATER AND SEWER PROFILES CONTRACT NO. 34-4448-D	FINAL WATER AND SEWER RIVERSIDE OVERLOOK PHASE I & PHASE II SINGLE FAMILY DETACHED LOTS 4 TO 12, 18 TO 22, 24 TO 33, AND NON-BUILDABLE BULK PARCEL 'B' TAX MAP 41, GRID 11 PARCEL 179 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND	SCALE AS SHOWN SHEET 6 OF 7
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K:\Project\03-28\ENGR\dwg\WIS REDLINE\FINAL_W05-06_PROFILES.dwg, 01/30/2009 2:16:05 PM, rgh



SANITARY HOUSE CONNECTIONS

LOT #	FROM	TO	DISTANCE	
7	FHT	SHC	35'	
15	LATERAL	WV	SHC	47'
8	FHT	SHC	77'	
15	LATERAL	WV	SHC	83'
9	SMH-22	SHC	75'	
14	LATERAL	WV	SHC	73'
10	I-3	SHC	18'	
17	LATERAL	SMH-22	SHC	33'
11	SMH-21	SHC	87'	
19	LATERAL	I-3	SHC	48'
12	SMH-21	SHC	30'	
20	LATERAL	FHT	SHC	45'
13	SMH-19	SHC	58'	
14	LATERAL	SMH-20	SHC	53'
14	SDMH-5	SHC	11'	
10	LATERAL	SMH-20	SHC	111'
15	I-2	SHC	18'	
23	LATERAL	SMH-15	SHC	33'
10	SMH-10	SHC	28'	
20	LATERAL	I-2	SHC	38'
18	SDMH-9	SHC	45'	
51	LATERAL	I-0	SHC	57'
19	I-1	SHC	08'	
57	LATERAL	SMH-10	SHC	37'

SANITARY HOUSE CONNECTIONS

LOT #	FROM	TO	DISTANCE	
20	I-1	SHC	10'	
27	LATERAL	SMH-10	SHC	41'
21	SMH-13	SHC	58'	
9	LATERAL	SMH-14	SHC	00'
22	FHT	SHC	30'	
9	LATERAL	SMH-14	SHC	123'
24	SMH-0	SHC	47'	
22	LATERAL	FHT	SHC	42'
25	FHT	SHC	45'	
21	LATERAL	SMH-13	SHC	28'

SANITARY HOUSE CONNECTIONS

LOT #	FROM	TO	DISTANCE	
20	SMH-13	SHC	54'	
25	LATERAL	SMH-14	SHC	78'
27	SMH-18	SHC	26'	
20	LATERAL	SMH-15	SHC	35'
28	FHT	SHC	13'	
20	LATERAL	SMH-21	SHC	32'
29	SMH-9	SHC	28'	
9	LATERAL	SMH-10	SHC	27'
30	SMH-10	SHC	37'	
12	LATERAL	SMH-11	SHC	20'
31	FHT	SHC	10'	
10	LATERAL	SMH-12	SHC	175'
32	FHT	SHC	80'	
9	LATERAL	SMH-12	SHC	100'
33	FHT	SHC	104'	
37	LATERAL	SDMH-7	SHC	74'

WATER HOUSE CONNECTIONS

LOT #	FROM	TO	DISTANCE	
7	FHT	WHC	44'	
20	COPPER	SMH-23	WHC	22'
8	SDMH-7	WHC	72'	
33	COPPER	FHT	WHC	00'
9	SMH-22	WHC	85'	
31	COPPER	SDMH-7	WHC	01'
10	I-3	WHC	20'	
20	COPPER	SMH-22	WHC	33'
11	SMH-21	WHC	93'	
30	COPPER	I-3	WHC	41'
12	SMH-21	WHC	09'	
35	COPPER	I-3	WHC	00'
13	SMH-19	WHC	07'	
22	COPPER	SMH-20	WHC	47'
14	SDMH-5	WHC	24'	
25	COPPER	SMH-19	WHC	18'
15	I-2	WHC	30'	
32	COPPER	SMH-15	WHC	24'
16	SMH-10	WHC	24'	
20	COPPER	I-2	WHC	49'
18	SMH-17	WHC	58'	
39	COPPER	SMH-10	WHC	84'
19	SMH-10	WHC	39'	
19	COPPER	I-1	WHC	25'
20	I-1	WHC	15'	
15	COPPER	SMH-15	WHC	49'
21	SMH-13	WHC	73'	
24	COPPER	SMH-14	WHC	51'
22	FHT	WHC	50'	
18	COPPER	SMH-13	WHC	21'
24	SMH-0	WHC	50'	
14	COPPER	FHT	WHC	30'
25	FHT	WHC	54'	
15	COPPER	SMH-19	WHC	23'
20	SMH-13	WHC	05'	
11	COPPER	SMH-14	WHC	05'
27	SMH-18	WHC	27'	
16	COPPER	SMH-21	WHC	34'
28	SMH-21	WHC	N/A	
19	COPPER	I-4	WHC	N/A
29	SMH-10	WHC	22'	
20	COPPER	SMH-11	WHC	29'
30	SMH-11	WHC	17'	
19	COPPER	FHT	WHC	41'
31	SMH-11	WHC	75'	
24	COPPER	FHT	WHC	20'
32	FHT	WHC	93'	
22	COPPER	SMH-12	WHC	97'
33	SMH-12	WHC	71'	
22	COPPER	SDMH-7	WHC	41'

PLAN VIEW
SCALE: 1"=80'

NOTES: THIS SHEET ADDED TO SET SIGNED ON 03/26/08 BY THE CHIEF, BUREAU OF UTILITIES.

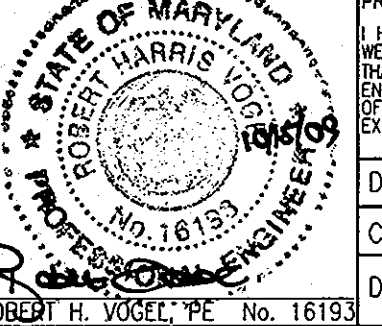
AS BUILT
DATE: 4-29-2010

DEVELOPER
REIMER LONG TERM HOLDINGS L.L.C.
C/O DONALD REIMER, JR.
5300 DORSEY HALL DRIVE
ELICOTT CITY, MARYLAND 21042
443-367-0422

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
S. C. [Signature]
CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND
[Signature]
CHIEF, DEVELOPMENT ENGINEERING DIVISION

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



PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS
WERE PREPARED OR APPROVED BY ME, AND
THAT I AM A DULY LICENSED PROFESSIONAL
ENGINEER UNDER THE LAWS OF THE STATE
OF MARYLAND, LICENSE NO. 16193
EXPIRATION DATE: 09-27-2010
DRN: KG -DES: RJRW
CHK: RHV
DATE: OCTOBER 2009

BY	NO.	REVISION	DATE

FINAL WATER AND SEWER
OVERALL SITE
CONTRACT NO. 34-4448-D
600' SCALE MAP NO. 41
BLOCK NO. XX

FINAL WATER AND SEWER
RIVERSIDE OVERLOOK
PHASE I & PHASE II
SINGLE FAMILY DETACHED LOTS 4 - 12,
18 - 22, 24 - 33 AND
NON-BUILDABLE BULK PARCEL 'B'
TAX MAP 41, GRID 11
5TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
PARCEL 179

SCALE
AS
SHOWN
SHEET
7 OF 7