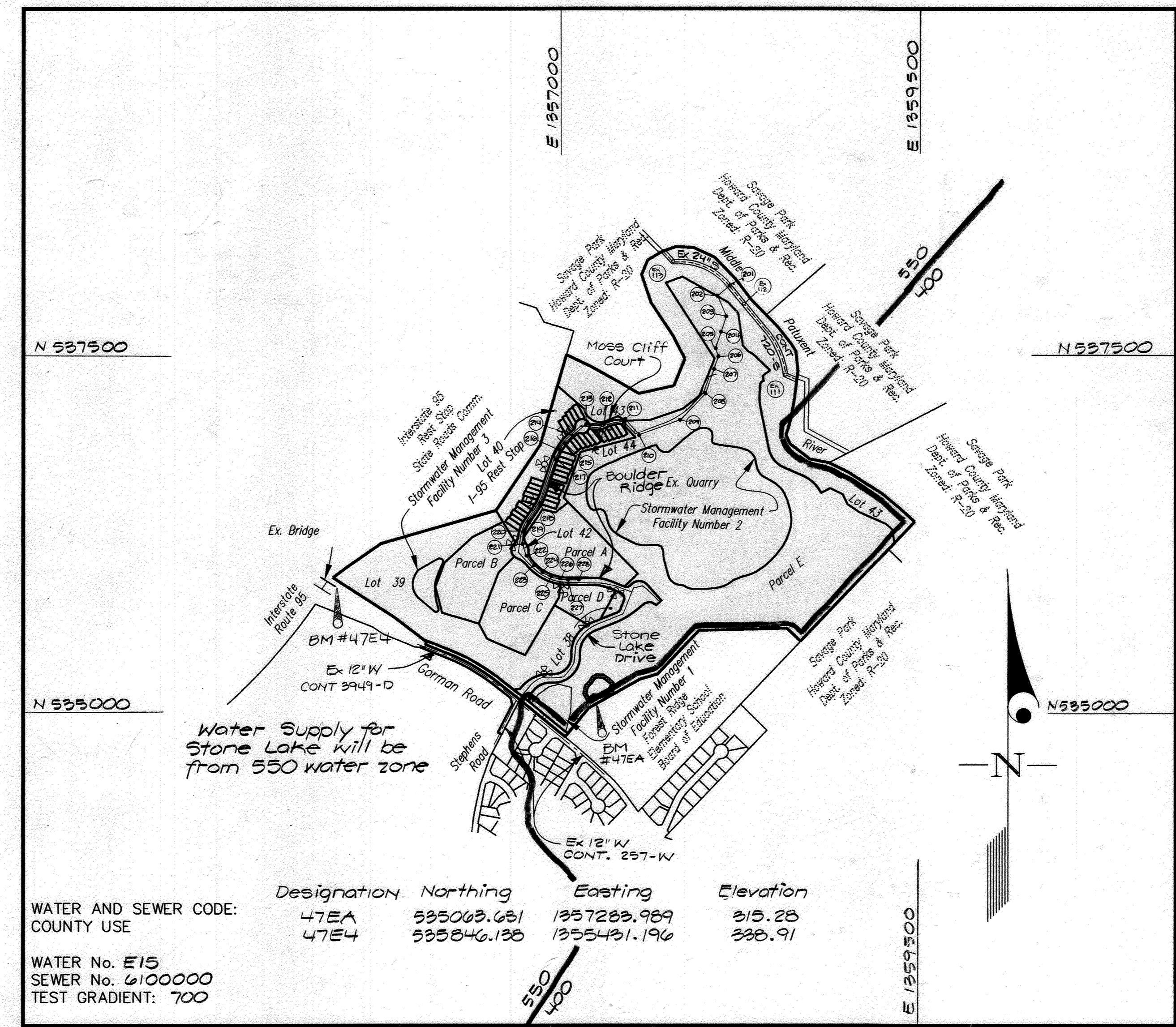


ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER/SUPPLIER
8" Water	4605 L.F.	4605 L.F.	CL 52	U.S. PIPE & FOUNDRY
6" Water	79 L.F.	77.6 L.F.	"	"
4" Water	297 L.F.	297 L.F.	"	"
8" Sewer	1718 L.F.	1883 L.F.	SR 35 PVC	LYN MANUFACTURING / U.S. FILTER
4" Sewer	1027 L.F.	1133 L.F.	PVC 40 SDR	"
Manholes	28 ea.	28 ea.	ATLANTIC CONCRETE	"
8" DIP Sewer	1027 L.F.	1462 L.F.	CL 52	U.S. PIPE & FOUNDRY
8" x 8" CROSS	1 ea.	1 ea.	"	"
8" Cap	9 ea.	9 ea.	"	"
8" Valve	12 ea.	12 ea.	AZ360-20 M&W	MUELLER / U.S. FILTER
8" x 8" Tee	0 ea.	0 ea.	"	"
8" 1/2" HB	7 ea.	7 ea.	"	"
8" 1/2" HB	8 ea.	8 ea.	"	"
6" Valve	7 ea.	7 ea.	AZ360-20 M&W	MUELLER / U.S. FILTER
8" x 6" Tee	7 ea.	7 ea.	"	"
FH	7 ea.	7 ea.	A425	MUELLER / U.S. FILTER
8" Stopper	5 ea.	5 ea.	"	"
4" Water	32 L.F.	32 L.F.	"	"
8" x 4" T	1 ea.	1 ea.	"	"
4" Valve	1 ea.	1 ea.	"	"
4" Cap	1 ea.	1 ea.	"	"
Drop Connection B	3 ea.	3 ea.	"	"
Paving Replacement	20 S.Y.	20 S.Y.	"	"
Drop SMC Type A	12 ea.	12 ea.	"	"
10" Stopper	1 ea.	1 ea.	"	"
10" DIP Sewer	224 L.F.	224 L.F.	"	"

NAME OF UTILITY CONTRACTOR: W.F. WILSON & SONS, INC.

SURVEY AND DRAFTING DIV. CHECKBOX: AS-BUILT DATE: _____

TYPE OF BUILDING	Townhouses
NUMBER OF UNITS	37 Lots ; 5 Bulk Parcels
NUMBER OF S.H.C.'s	38; 7 Future Extensions
NUMBER OF W.H.C.'s	38; 9 Future Extensions
DRAINAGE AREA	MIDDLE PATUXENT
TREATMENT PLANT	LITTLE PATUXENT WATER RECLAMATION PLANT



Designation	Northing	Easting	Elevation
47EA	595063.631	1357283.989	315.28
47E4	595846.138	1355431.196	338.91

WATER AND SEWER CODE: COUNTY USE

WATER No. E15
SEWER No. 6100000
TEST GRADIENT: 700

VICINITY MAP
SCALE: 1"=600'

STONE LAKE - PHASE I (Contract A)
CONTRACT No. 34-3947-D
PARCELS A thru E and LOTS 1-44,
BOULDER RIDGE and MOSS CLIFF COURT
LIBER 5289 FOLIO 330
HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS

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 supply. 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 [North American Datum 1983 (NAD '83)].
 - All vertical controls are based on U.S.G.S. data.
 - All pipe elevations shown are invert elevations.
 - Clear all utilities by a minimum of 6". Clear all poles by 2'-0" minimum or tunnel as required. 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 bracing of additional poles or damages shall be deducted from money 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 Detail 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 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. Contractor shall notify the following utility companies or agencies at least (5) working days before starting work shown on these plans:
 - State Highway Administration 410-531-5533
 - BGE Contractor Services 410-850-4620
 - BGE Under Ground Damage Control 410-291-4607
 - Miss Utility 1-800-257-7777
 - Colonial Pipeline Co. 410-549-4120
 - Howard County Department of Public Works Bureau of Utilities 313-4900
 - Verizon 1-800-446-5266
 - Trees and shrubs are to be protected from damage to maximum extent. Trees and shrubs located within the construction strip are not to be removed or damaged by the contractor.
 - 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) 313-2450 at least five (5) working days before any open cut of any County road or boring/jacking operation on County roads for laying water/sewer mains or house connections. The approval of these drawings will constitute compliance with DPW requirement 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'-1/2' 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 restrained and buttressed with concrete in accordance with the Standard Details. 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.
 - All water house connections shall be for inside meter setting unless otherwise noted on plans or in specifications.
 - For sprinkler system for all townhomes or multi-family dwelling units should have a minimum of 1' connection with a 3/4" meter.
- PART III - SEWER
- All sewer mains shall be DIP and 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 covers, Standard Detail G5.52. Where watertight frame and cover is used, set top of frame 1'-6" above finished grade unless otherwise noted on drawings.
 - House(s) with the symbol "C.N.S." indicates that cellar cannot be served.
 - All sewer connections fall within future driveways and shall have metallic cleanout caps with a recessed nut that are made for installation in traffic areas.

Sediment Control Measures will be implemented in accordance with Section 219 of the Specifications & with these drawings. F 01-177

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENT.

Jim Meyer 12/26/01
SIGNATURE DATE

U.S.D.A. NATURAL RESOURCES CONSERVATION SERVICE

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

APPROVED: *John K. Robertson* 12/26/01
DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Robert Benjamin 12-17-01
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND

Michael J. Trappan 12/18/01
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

Michael J. Trappan
PROFESSIONAL ENGINEER

DES: RSP			
DRN: WSJ/CAD			
CHK: MJT			
DATE: 12/01	BY: NO	REVISION	DATE
	KCI 1	AS-BUILT DATA	12/09/02

TITLE SHEET
SCALE: AS SHOWN

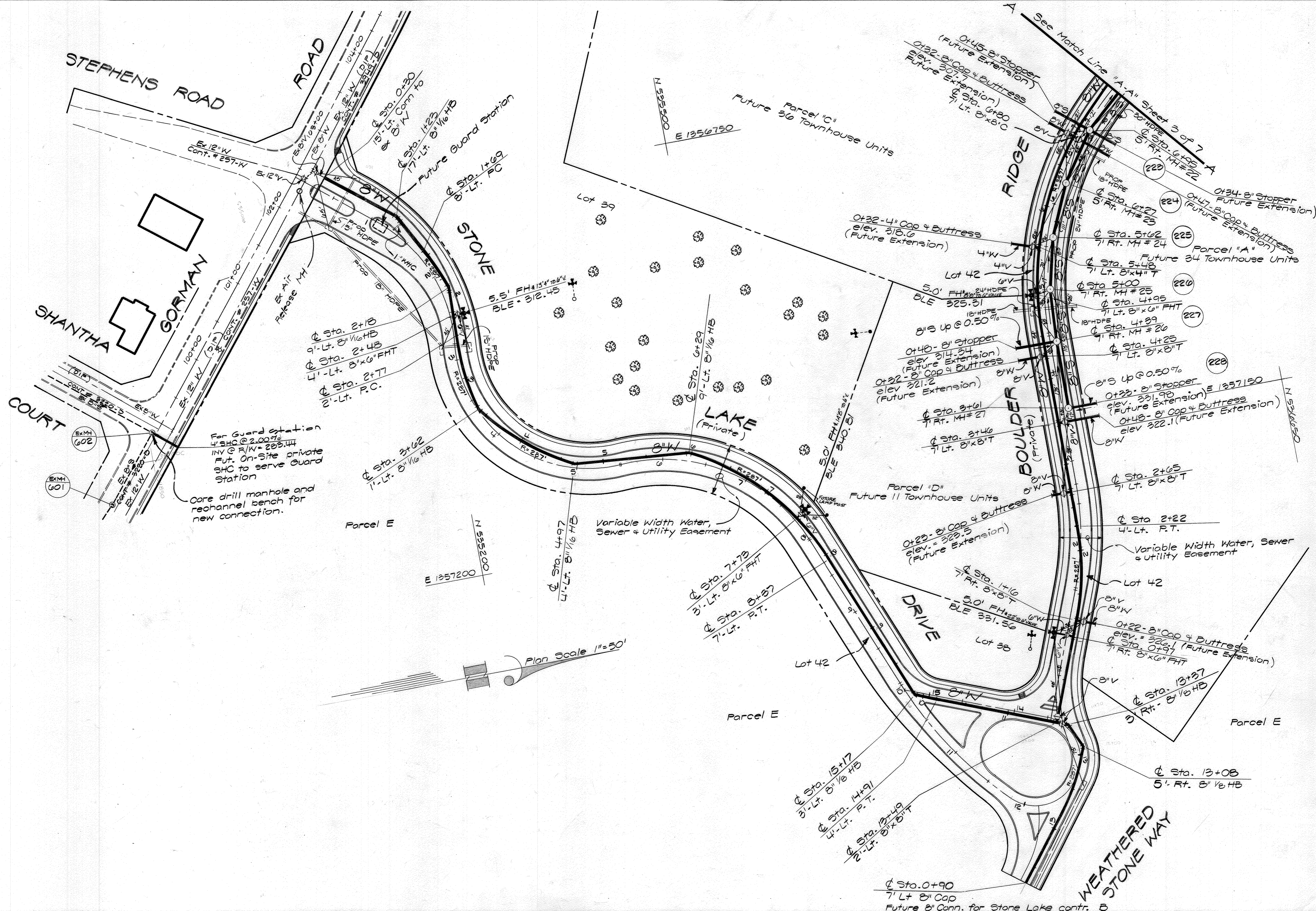
600' SCALE MAP NO. 47 BLOCK NO. 9/10

STONE LAKE
LIBER 5289 FOLIO 330
HOWARD COUNTY, MARYLAND
ELECTION DISTRICT No. 6
CONTRACT No. 34-3947-D

GLW FILE No. 99140

SCALE AS SHOWN

SHEET 1 OF 7



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Robert J. Bennett 12-17-01
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND
Michael J. Trapp 12/17/01
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20866
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-889-2524 FAX: 301-421-4186



DES: RSP			
DRN: RSP			
CHK: rjt.			
DATE: 12/01	BY: NO	REVISION: ASBUILT DATA ADDED TO PLAN	DATE: 12/02/02

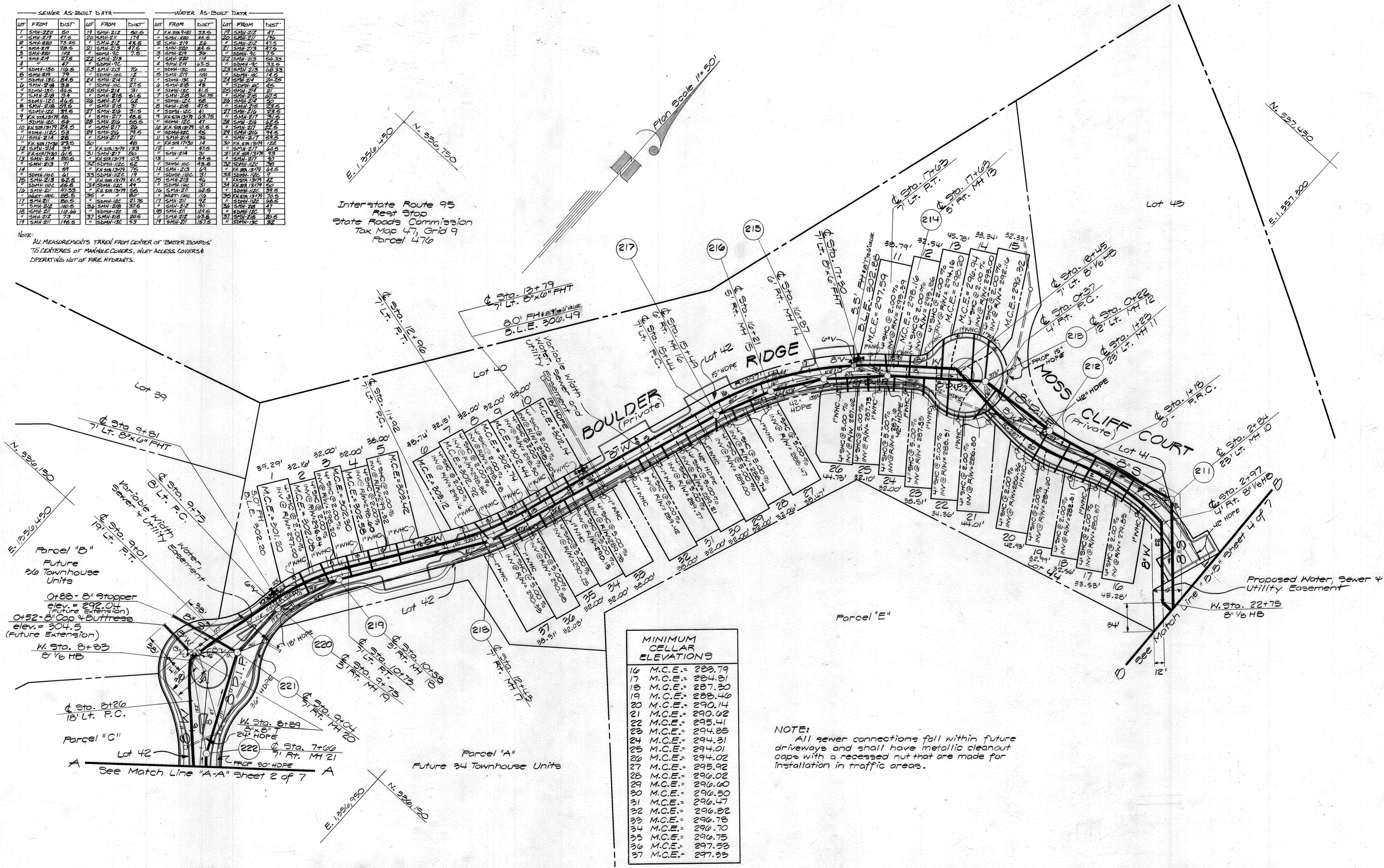
WATER & SEWER PLAN & PROFILE
SCALE: AS SHOWN
600' SCALE MAP NO. 47 BLOCK NO. 9/10

STONE LAKE
LIBER 572 FOLIO 430
HOWARD COUNTY, MARYLAND
ELECTION DISTRICT No. 6
CONTRACT No. 34-3947-D

SCALE AS SHOWN
SHEET 2 OF 7

SEWER AS-BUILT DATA			WATER AS-BUILT DATA		
LOT	FROM	TO	LOT	FROM	TO
1	SMH-212	80	17	SMH-212	20.5
2	SMH-212	75.25	18	SMH-212	17.4
3	SMH-212	28.5	19	SMH-212	43.6
4	SMH-212	27.5	20	SMH-212	47.5
5	SMH-130	110.5	21	SMH-213	47.5
6	SMH-130	79	22	SMH-213	56.35
7	SMH-130	84.5	23	SMH-213	56.35
8	SMH-130	33	24	SMH-213	56.35
9	SMH-130	46.5	25	SMH-213	56.35
10	SMH-130	34	26	SMH-213	56.35
11	SMH-130	46.5	27	SMH-213	56.35
12	SMH-130	34	28	SMH-213	56.35
13	SMH-130	46.5	29	SMH-213	56.35
14	SMH-130	34	30	SMH-213	56.35
15	SMH-130	46.5	31	SMH-213	56.35
16	SMH-130	34	32	SMH-213	56.35
17	SMH-130	46.5	33	SMH-213	56.35
18	SMH-130	34	34	SMH-213	56.35
19	SMH-130	46.5	35	SMH-213	56.35
20	SMH-130	34	36	SMH-213	56.35
21	SMH-130	46.5	37	SMH-213	56.35
22	SMH-130	34	38	SMH-213	56.35
23	SMH-130	46.5	39	SMH-213	56.35
24	SMH-130	34	40	SMH-213	56.35
25	SMH-130	46.5	41	SMH-213	56.35
26	SMH-130	34	42	SMH-213	56.35
27	SMH-130	46.5	43	SMH-213	56.35
28	SMH-130	34	44	SMH-213	56.35
29	SMH-130	46.5	45	SMH-213	56.35
30	SMH-130	34	46	SMH-213	56.35
31	SMH-130	46.5	47	SMH-213	56.35
32	SMH-130	34	48	SMH-213	56.35
33	SMH-130	46.5	49	SMH-213	56.35
34	SMH-130	34	50	SMH-213	56.35
35	SMH-130	46.5	51	SMH-213	56.35
36	SMH-130	34	52	SMH-213	56.35
37	SMH-130	46.5	53	SMH-213	56.35
38	SMH-130	34	54	SMH-213	56.35
39	SMH-130	46.5	55	SMH-213	56.35
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41	SMH-130	46.5	57	SMH-213	56.35
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44	SMH-130	34	60	SMH-213	56.35
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46	SMH-130	34	62	SMH-213	56.35
47	SMH-130	46.5	63	SMH-213	56.35
48	SMH-130	34	64	SMH-213	56.35
49	SMH-130	46.5	65	SMH-213	56.35
50	SMH-130	34	66	SMH-213	56.35
51	SMH-130	46.5	67	SMH-213	56.35
52	SMH-130	34	68	SMH-213	56.35
53	SMH-130	46.5	69	SMH-213	56.35
54	SMH-130	34	70	SMH-213	56.35
55	SMH-130	46.5	71	SMH-213	56.35
56	SMH-130	34	72	SMH-213	56.35
57	SMH-130	46.5	73	SMH-213	56.35
58	SMH-130	34	74	SMH-213	56.35
59	SMH-130	46.5	75	SMH-213	56.35
60	SMH-130	34	76	SMH-213	56.35
61	SMH-130	46.5	77	SMH-213	56.35
62	SMH-130	34	78	SMH-213	56.35
63	SMH-130	46.5	79	SMH-213	56.35
64	SMH-130	34	80	SMH-213	56.35

NOTE: ALL MEASUREMENTS TAKEN FROM CENTER OF WATER BOARDS TO CENTERS OF MANHOLE COVERS, W/LET ACCESS COVERS & OPERATING NOT OF FIRE HYDRANTS.



MINIMUM CELLAR ELEVATIONS	
16	M.C.E. = 288.79
17	M.C.E. = 284.81
18	M.C.E. = 287.20
19	M.C.E. = 288.46
20	M.C.E. = 290.14
21	M.C.E. = 290.62
22	M.C.E. = 295.41
23	M.C.E. = 294.85
24	M.C.E. = 294.31
25	M.C.E. = 294.01
26	M.C.E. = 294.02
27	M.C.E. = 295.92
28	M.C.E. = 296.02
29	M.C.E. = 296.60
30	M.C.E. = 296.50
31	M.C.E. = 296.47
32	M.C.E. = 296.82
33	M.C.E. = 296.78
34	M.C.E. = 296.70
35	M.C.E. = 296.75
36	M.C.E. = 297.53
37	M.C.E. = 297.93

NOTE: All sewer connections fall within future driveways and shall have metallic cleanout caps with a recessed nut that are made for installation in traffic areas.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Robert W. Sawyer 12-17-01
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND
[Signature] 1/6/02
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BERTONSVILLE OFFICE PARK
BERTONSVILLE, MARYLAND 20869
TEL: 301-421-4024 BALT: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

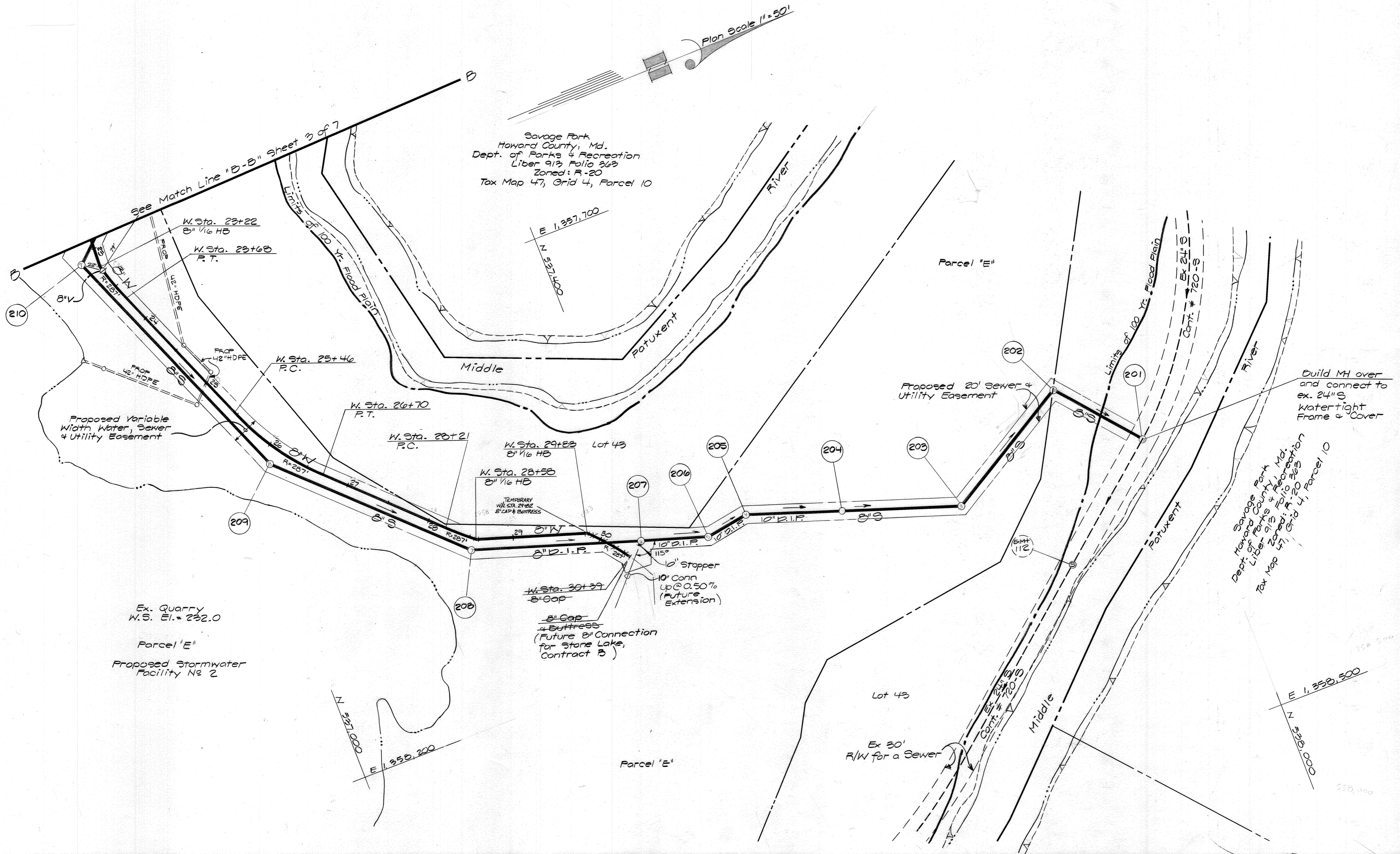


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DRN: RSP			
CHK: rjt			
DATE: 12/01	BY: NO	REVISION	DATE

WATER & SEWER PLAN & PROFILE
SCALE: AS SHOWN
600' SCALE MAP NO. 47 BLOCK NO. 9/10

STONE LAKE
LIBER 572 FOLIO 430
HOWARD COUNTY, MARYLAND
ELECTION DISTRICT No. 6
CONTRACT No. 34-3947-D

SCALE AS SHOWN
SHEET 2 OF 7



Savage Park
Howard County, Md.
Dept. of Parks & Recreation
Liber 913, Folio 263
Zoned: R-20
Tax Map 47, Grid 4, Parcel 10

See Match Line "B-B" Sheet 3 of 7

Proposed Variable Width Water, Sewer & Utility Easement

Ex. Quarry
W.S. El. = 232.0

Parcel 'E'
Proposed Stormwater Facility No. 2

Proposed 20' Sewer & Utility Easement

Build MH over and connect to ex. 24" S Watertight Frame & Cover

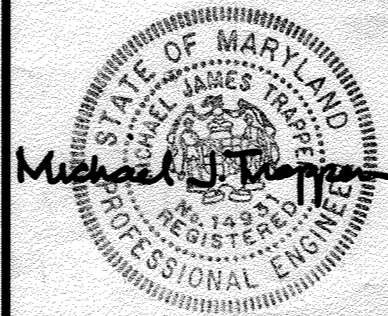
Savage Park
Howard County, Md.
Dept. of Parks & Recreation
Liber 913, Folio 263
Zoned: R-20
Tax Map 47, Grid 4, Parcel 10

Ex 30' R/W for a Sewer

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20869
TEL: 301-421-4024 BAL: 410-880-1820 DC/WA: 301-989-2524 FAX: 301-421-4186



DES: RSP					
DRN: RSP					
CHK: not					
DATE: 12/01	BY: NO	REVISION	DATE		

WATER & SEWER PLAN & PROFILE
SCALE: AS SHOWN

600' SCALE MAP NO. 47 BLOCK NO. 9/10

STONE LAKE
LIBER 572 FOLIO 430
HOWARD COUNTY, MARYLAND
ELECTION DISTRICT No. 6
CONTRACT No. 34-3947-D

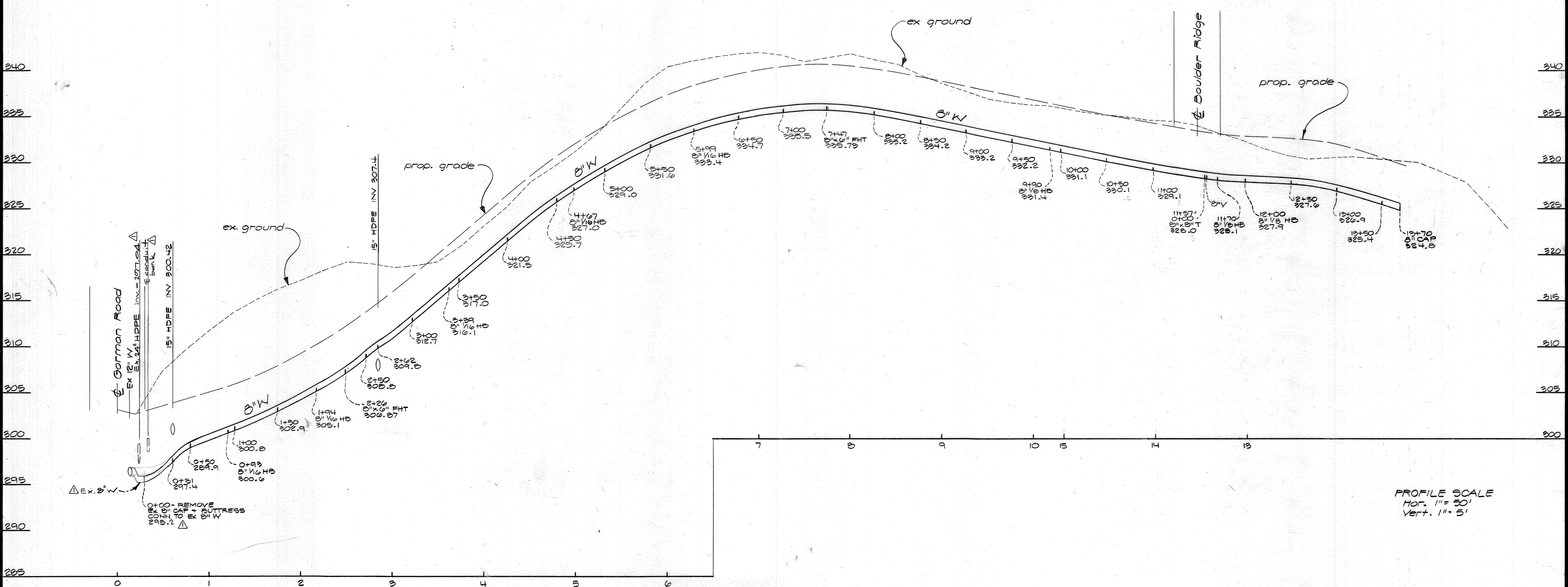
SCALE AS SHOWN

SHEET 4 OF 7

Robert W. Deanna 12-17-01
CHIEF, BUREAU OF UTILITIES DATE

Michael J. Wagner 1/3/02
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

STONE LAKE DRIVE

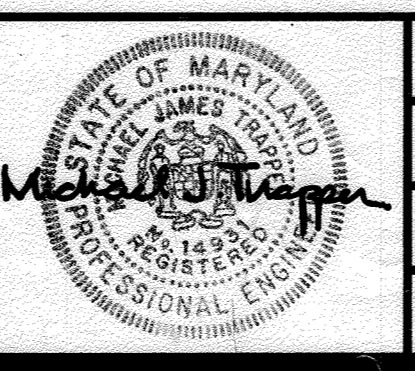


PROFILE SCALE
 Hor. 1" = 50'
 Vert. 1" = 5'

DEPARTMENT OF
 PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Robert W. Bennett 12-17-01
 CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF
 PLANNING AND ZONING
 HOWARD COUNTY, MARYLAND
 [Signature] 1/3/02
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

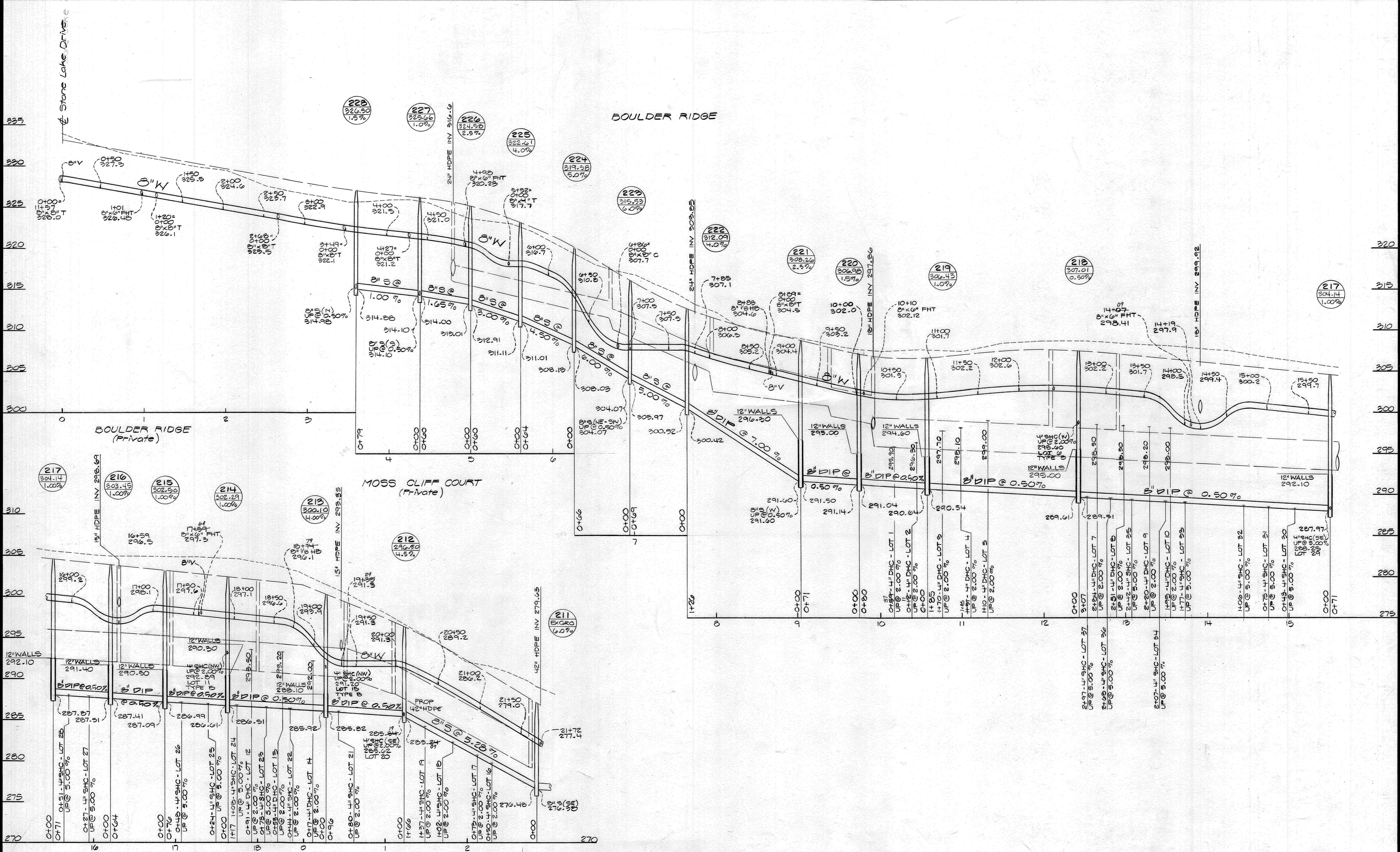
GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20866
 TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186



DES:	RSP				
DRN:	RSP				
CHK:	mt				
DATE:	1/10/02	BY:	NO	REVISION:	Lower Connection @ Gorman Rd. 1-10-02

WATER & SEWER PLAN & PROFILE
 SCALE: AS SHOWN
 600' SCALE MAP NO. 47 BLOCK NO. 9/10

STONE LAKE
 LIBER 572 FOLIO 430
 HOWARD COUNTY, MARYLAND
 ELECTION DISTRICT No. 6
 CONTRACT No. 34-3947-D
 SCALE AS SHOWN
 SHEET 5 OF 7



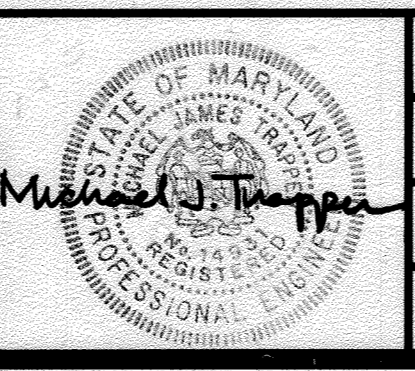
DEPARTMENT OF
PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Robert Berman 12-17-01
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF
PLANNING AND ZONING
HOWARD COUNTY, MARYLAND

Mark Dorman 1/3/02
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTNSVILLE OFFICE PARK
BURTNSVILLE, MARYLAND 20866
TEL: 301-421-4024 BAL: 410-880-1820 DCVA: 301-989-2524 FAX: 301-421-4186



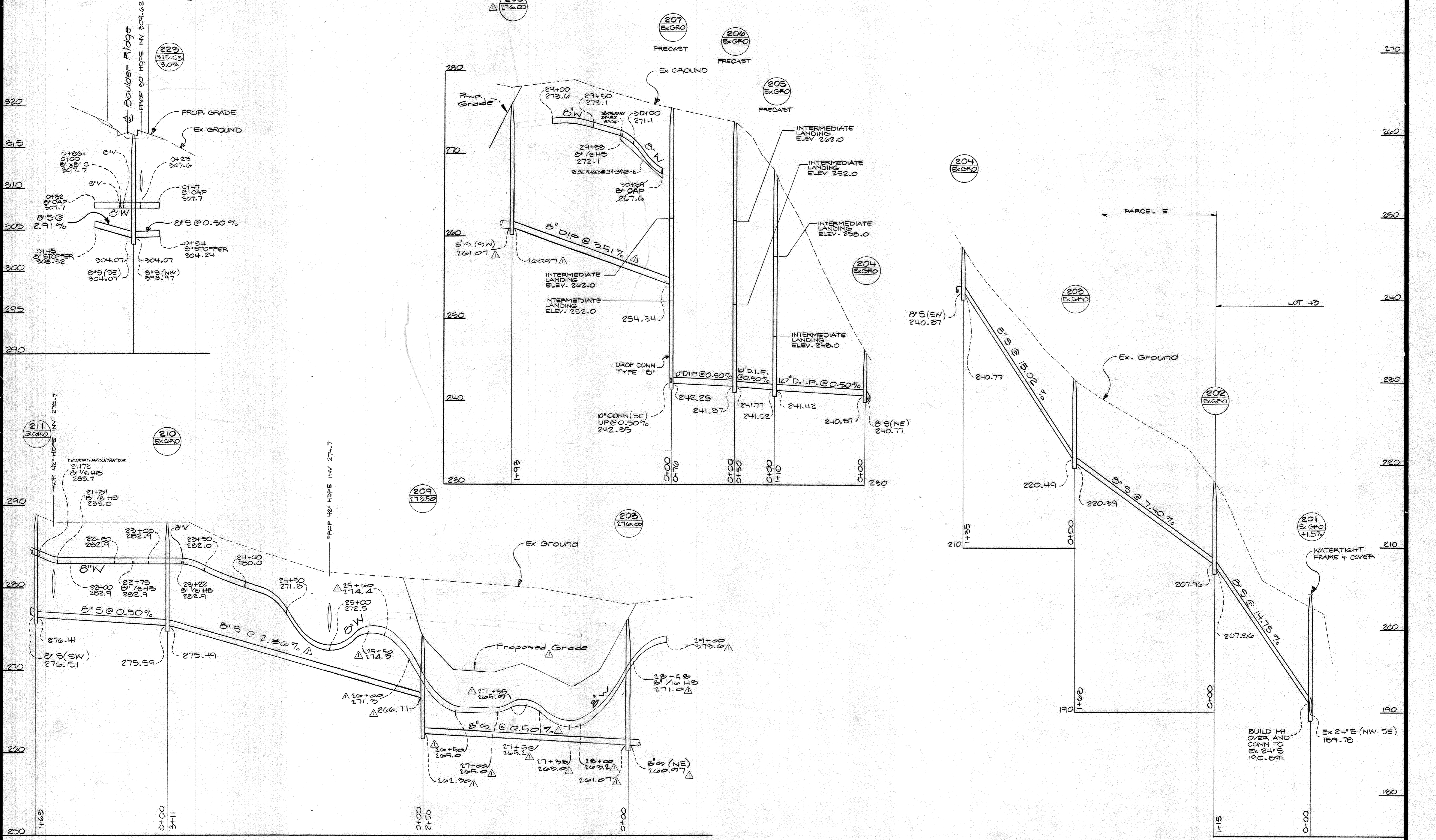
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CHK: dt			
DATE: 1/6/02	BY: NO	REVISION	DATE

WATER & SEWER PLAN & PROFILE
SCALE: AS SHOWN

600' SCALE MAP NO. 47 BLOCK NO. 9/10

STONE LAKE
LIBER 572 FOLIO 430
HOWARD COUNTY, MARYLAND
ELECTION DISTRICT No. 6
CONTRACT No. 34-3947-D

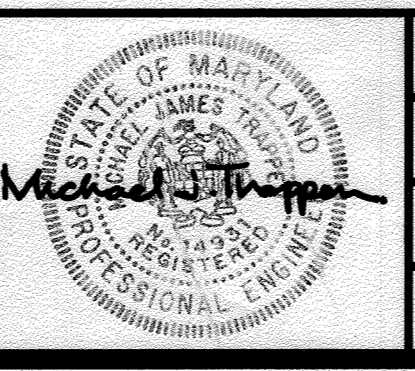
SCALE AS SHOWN
SHEET 2 OF 7



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Robert Benner 12-17-01
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING AND ZONING
HOWARD COUNTY, MARYLAND
Michael Thompson 1/3/02
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTOWNVILLE OFFICE PARK
BURTOWNVILLE, MARYLAND 20896
TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186



DES: RSP					
DRN: RSP					
CHK: rpt.					
DATE: 12/01	BY: NO	REVISION	DATE		
		Lowered for quarry rim grading	4-10-02		

WATER & SEWER PLAN & PROFILE
SCALE: AS SHOWN
600' SCALE MAP NO. 47 BLOCK NO. 9/10

STONE LAKE
LIBER 572 FOLIO 430
HOWARD COUNTY, MARYLAND
ELECTION DISTRICT No. 6
CONTRACT No. 34-3947-D

SCALE AS SHOWN
SHEET 7 OF 7