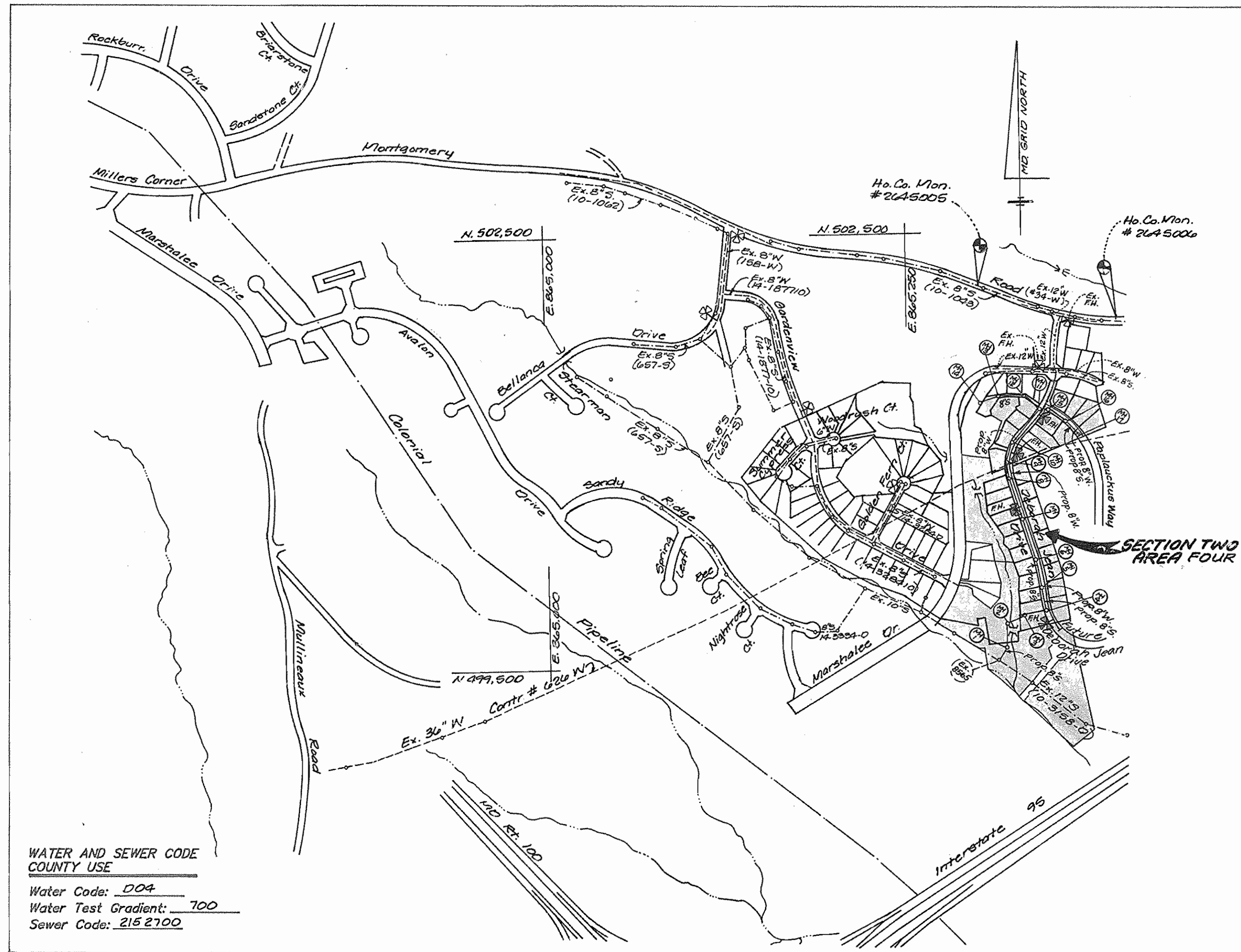


**BENCH MARKS:**

Ho. Co. Monument # 2645005  
Elev 291.929  
Concrete Monument 0.3' Below Surface  
At Top OF Bank

Ho. Co. Monument # 2645006  
Elev N/A  
Concrete Monument 0.2' Below Surface  
At Top OF Bank



WATER AND SEWER CODE  
COUNTY USE  
Water Code: 004  
Water Test Gradient: 100  
Sewer Code: 215 2700

Type of Buildings: Single Family Detached  
Number of Lots/Parcels: 44 (37 Buildable - 6 OS. ZELTMAN)  
Number of W.H.C.'S: 38 (37 BUILDABLE - ZELTMAN)  
Number of S.H.C.'S: 38 (37 BUILDABLE - ZELTMAN)  
Drainage Area: Deep Run  
Treatment Plant: Patapsco Wastewater Treatment Plant

VICINITY MAP  
Scale: 1"=600'

INDEX OF SHEETS	
SHEET NO.	TITLE
1	COVER SHEET
2	PLAN VIEW
3	PLAN VIEW
4	PROFILES
5	PROFILES

**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.
- 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 owned 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  $\square$  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 five (5) working days before starting work shown on these plans:
  - a. SHA: 531-5533
  - b. BGE (Contractor Services): 850-4620
  - c. BGE (Underground damage control): 787-9068
  - d. Miss Utility: 1-800-257-7777
  - e. Colonial Pipeline Company: 795-1390
  - f. Howard County Dept. of Public Works, Bureau of Utilities: 313-4900
- Trees and shrubs are to be protected from damage to maximum extent. Trees and shrubs 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.

**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 the tees shall be strapped to the 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 strapped 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.

**PART III: SEWER**

- All sewer mains to be D.I.P. and P.V.C. unless otherwise noted.
- All proposed sewers shall be public.
- All manholes shall be 4'0" inside diameter unless otherwise noted.
- Force mains shall be D.I.P. only.
- Manholes designated W.T. in plan and profile shall have water tight frame and covers; Standard Detail G5.52. Where watertight manhole frame and cover is used, set top of frame 1'6" above finished grade unless otherwise noted on the drawings.
- Houses with the symbol "C.N.S." indicates that cellar cannot be served.
- Manholes shown with 12" and 16" walls are for brick manholes only.

WATER & SEWER CONSTRUCTION PLANS  
MARSHALEE WOODS  
SECTION TWO AREA FOUR

1st ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
CONTRACT NO. 14-3517-D

WATER AND SANITARY AS-BUILTS  
QUANTITIES

ITEM	QUANTITIES ESTIMATED	AS BUILT		
		QUANTITIES	TYPE	MANUFACTURER/SUPPLIER
8" W	2342 LF	2343 LF	DIP	GRIFFIN PIPE PRODUCTS CO.
6" W	85 LF	89 LF	D.I.P.	GRIFFIN PIPE PRODUCTS CO.
4" W	24 LF	27 LF	D.I.P.	" " " "
8" x 8" Tee	1 EA.	1 EA.	D.I.P.	US PIPE & FOUNDRY
Fire Hydrant	4 Each	4 EA.	CAST IRON	" " " "
Metal Joint	4 Each	4 EA.	PLASTIC	" " " "
3/4" W.H.C.	90 LF	90 LF	PRECAST CONCRETE	ATLANTIC CONCRETE PRODUCTS INC.
3/4" W.H.C. Manholes	10 Each	17 EA.	PRECAST CONCRETE	ATLANTIC CONCRETE PRODUCTS INC.
8" San.	2104 LF	2016 LF	PVC	US PIPE & FOUNDRY
4" x 8" Reducer	1 Each	1 EA.	GATE VALVE/CAST IRON	US PIPE & FOUNDRY
2" x 4" Reducer	1 Each	1 EA.	CAST IRON/PLASTIC	US PIPE & FOUNDRY
8" Valve	4 Each	4 EA.	D.I.P.	" " " "
6" Valve	3 Each	3 EA.	CAST IRON/PLASTIC VALVE	MUEHLER CO.
4" Valve	2 Each	2 EA.	CAST IRON/PLASTIC VALVE	MUEHLER CO.
8" San. Plug	3 Each	3 EA.	PVC	JM MANUFACTURING
8" San. Plug	3 Each	3 EA.	PVC	JM MANUFACTURING

QUANTITIES AS BUILT				
ITEM	EST. QUANT.	QUANTITIES	TYPE	MANUFACTURER/SUPPLIER
6" S.H.C.	120 LF			

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEET TECHNICAL REQUIREMENTS.  
Signature: J.H. Washfield  
Date: 8/6/96

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

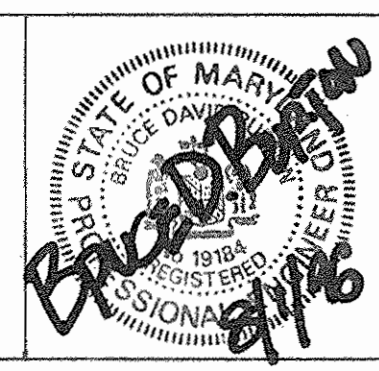
Signature: John P. Roberts  
Date: 8/6/96  
HOWARD SOIL CONSERVATION DISTRICT

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE STANDARD SPECIFICATION AND FINAL ROAD CONSTRUCTION PLANS: F96-G2, F97-104

DEPARTMENT OF PUBLIC WORKS  
Signature: [Signature]  
Date: 8-1-96  
CHIEF-BUREAU OF UTILITIES

DEPARTMENT OF PLANNING & ZONING  
Signature: [Signature]  
Date: 8/6/96  
CHIEF DEVELOPMENT ENGINEERING DIVISION

LDE, INC.  
2925 RUMSEY ROAD, SUITE 106  
COLUMBIA, MARYLAND 21045  
(410) 715-1070 (301) 596-3424



DESIGNED	EDS	DATE
LDE	BEI	7/96
LDE	BEI	5-19-99
LDE	BEI	4-22-97

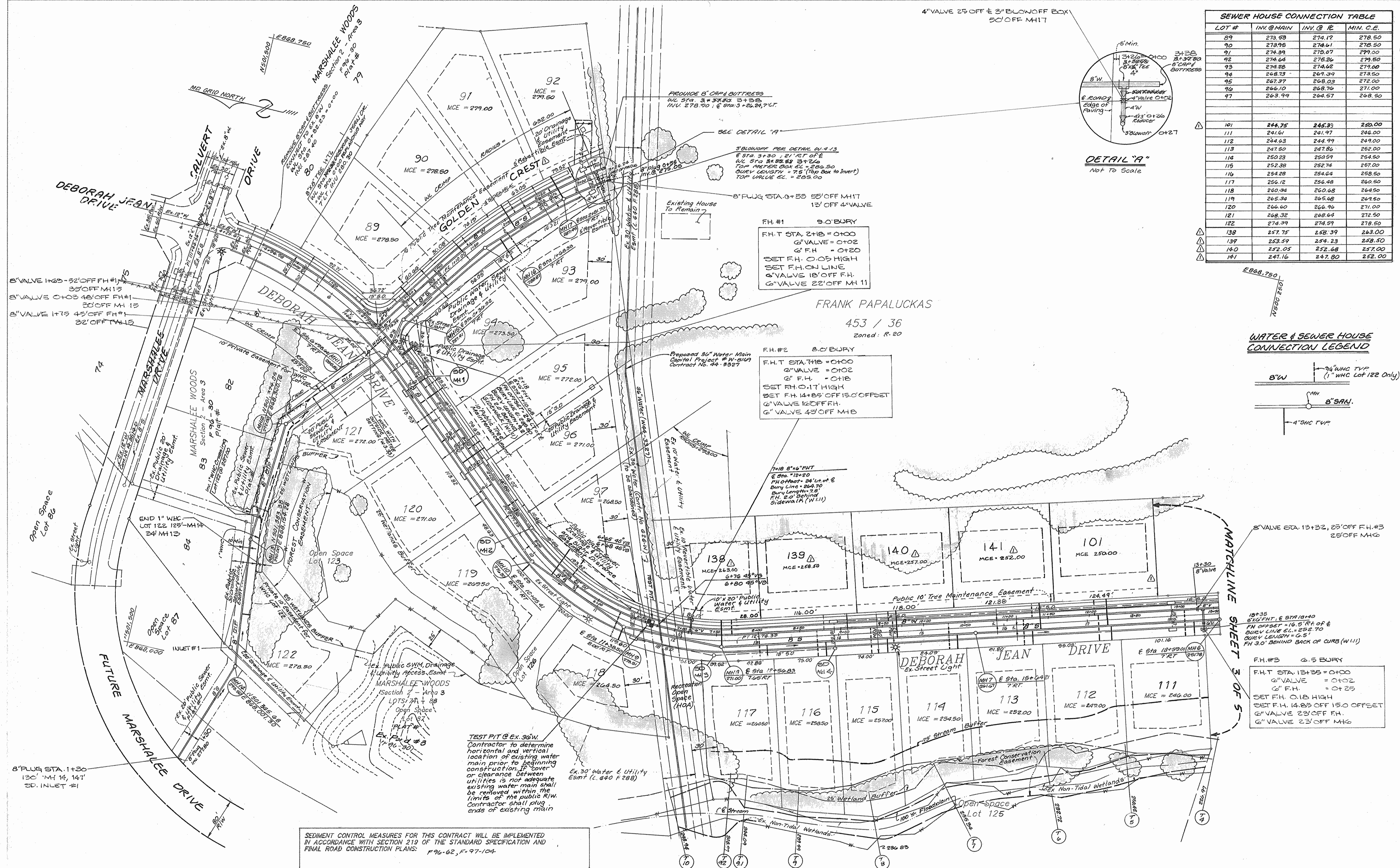
TITLE SHEET  
600 SCALE MAP NO. 37  
BLOCK 1145

MARSHALEE WOODS  
SECTION TWO AREA FOUR  
LOTS 89-97, 101-103,  
106-126, AND 138-141 & 143-147  
1st ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
CONTRACT NO. 14-3517-D  
SCALE AS SHOWN SHEET 1 OF 5

2/4, lots 89-126 & PAR. 1, 2, 3  
MARSHALEE WOODS  
WS/1

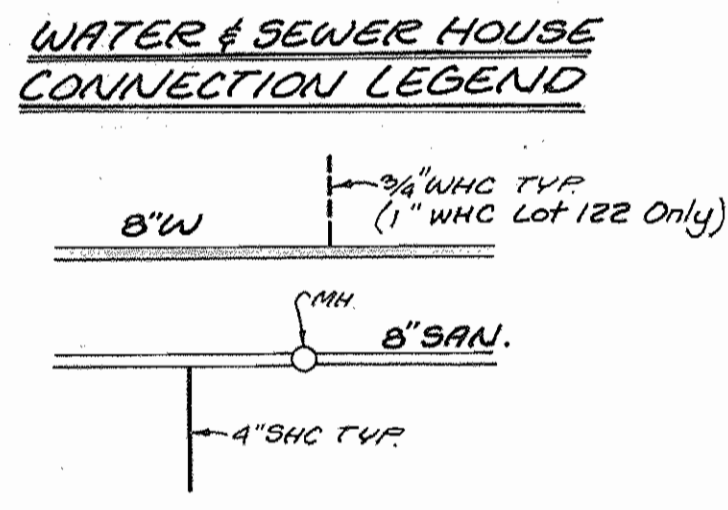
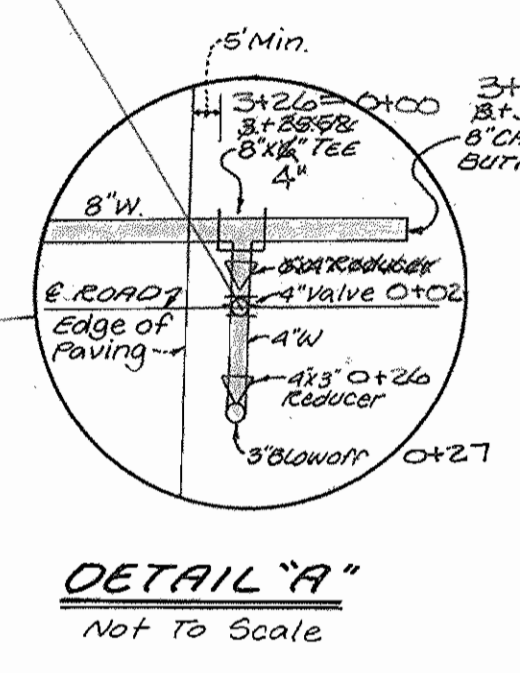
3517

3517  
WS/2  
MARSHALEE WOODS  
C/A



**SEWER HOUSE CONNECTION TABLE**

LOT #	INV @ MAIN	INV @ R	MIN. C.E.
89	278.53	274.17	278.50
90	278.50	274.11	278.50
91	274.39	273.07	279.00
92	274.64	273.86	279.50
93	274.88	274.62	279.00
94	268.73	269.39	273.50
95	267.97	268.03	272.00
96	266.10	266.76	271.00
97	263.99	264.57	268.50
101	244.75	245.39	250.00
111	241.61	241.97	246.00
112	244.63	244.99	249.00
113	247.50	247.86	252.00
114	250.23	250.59	254.50
115	252.38	252.74	257.00
116	254.28	254.64	258.50
117	256.12	256.48	260.50
118	260.34	260.68	264.50
119	265.34	265.68	269.50
120	266.60	266.96	271.00
121	268.32	268.64	272.50
122	274.39	274.59	278.50
138	257.75	258.39	263.00
139	253.59	254.23	258.50
140	252.05	252.68	257.00
141	241.16	247.80	252.00



DEPARTMENT OF PUBLIC WORKS DEPARTMENT OF PLANNING & ZONING LDE, INC. 9250 RUMSEY ROAD, SUITE 106 COLUMBIA, MARYLAND 21045 (410) 715-1070 (301) 595-3424	DESIGNED: EDS DRAWN: BE1 CHECKED: BDB DATE: 7/96	LDE LDE BY NO. REVISION & TITLE BLOCK DATE	REVISE TITLE BLOCK PER F 99-92 5-19-99 UPDATE LOT LINES, #S, FRONTSAGES & WHC LOC. 4-22-97	PLAN MARSHALEE WOODS SECTION TWO - AREA FOUR Lots 89-97, 101-103, 106-126 and 138-141 & 143-147 1st ELECTION DISTRICT HOWARD COUNTY, MARYLAND Contract No. 14-3517-D	SCALE: As Shown SHEET: 2 OF 5
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WATER AS-BUILTS

FROM:	TO LOT:	DIST.:
MH11	89	33'
MH15	89	47'
MH15	90	123'
MH16	90	33'
MH16	91	64'
MH17	91	63'
4" V. STA. 13+32	92	34'
MH17	92	35'
MH16	93	47'
MH17	93	34'
MH11	94	62'
FH#1	94	48'
SDMH#1	95	33'
SDMH#2	95	123'
MH10	96	78'
SDMH#2	96	33'
MH9	97	35'
MH10	97	63'
FH#3	101	112'
MH6	101	126'
8" V. STA. 13+32	101	38'
FH#3	102	64'
MH6	102	43'
MH6	103	143'
MH5	103	38'
3" V. STA. 13+32	103	95'
MH5	104	57'
MH4	104	136'
3" V. STA. 13+32	104	95'
FH#4	106	21'
MH#4	106	53'
FH#4	107	112'
MH#4	107	34'
MH#5	108	53'
MH#4	108	125'

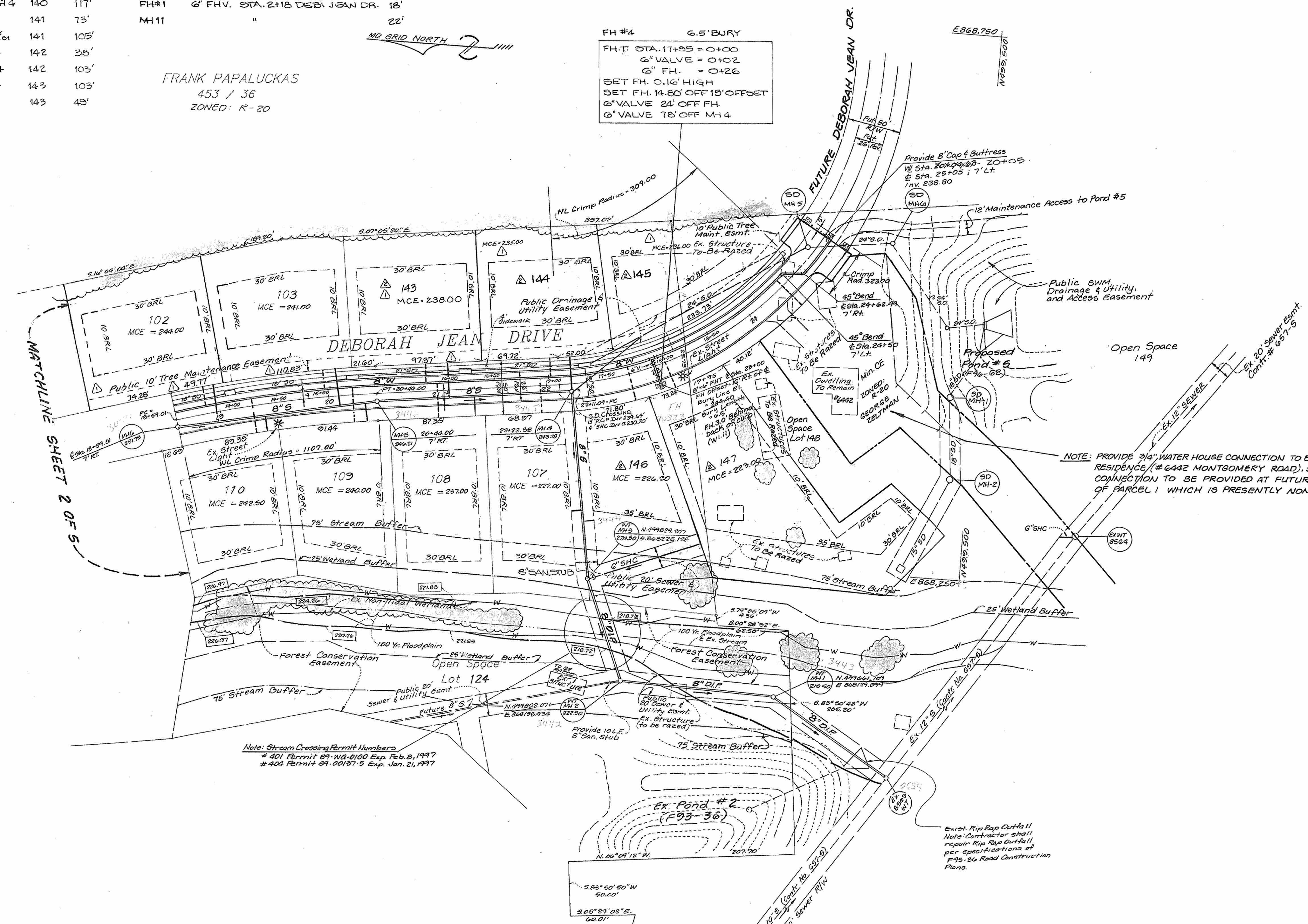
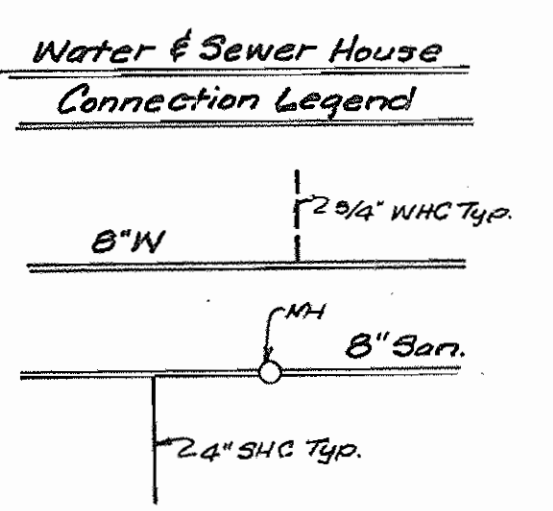
VALVES

FROM:	TO LOT:	DIST.:	FROM:	TO LOT:	DIST.:
MH11	121	28'	4" V. @ 3' BELOW OFF		
FH#1	121	33'	MH17		
FH#2	138	30'	FH#1	8" V. STA. CHOS GOLDEN CREST	48'
MH#8	138	64'	MH15		
3" V. STA. 13+32	139	66'	FH#1	8" V. STA. 1+75 DEBORAH JEAN DR.	32'
SDMH4	139	44'	MH15		
MH8	139	121'	FH#1	8" V. STA. 1+75 DEBORAH JEAN DR.	45'
MH7	140	70'	MH15		
SDMH4	140	117'	FH#1	6" FHV. STA. 2+18 DEB. JEAN DR.	18'
MH7	141	73'	MH11		
3" V. STA. 13+32	141	105'			
MH4	142	38'			
FH#4	142	103'			
MH4	143	103'			
FH	143	42'			

FRANK PAPALUCKAS  
453 / 36  
ZONED: R-20

SEWER HOUSE CONNECTIONS

LOT #	INV. @ MAIN	INV. @ R	MIN. C.E.
102	239.49	240.19	244.00
103	236.17	236.87	241.00
143	233.36	233.86	238.00
144	230.34	230.92	235.00
146	222.12	222.92	226.50
107	222.78	222.98	227.00
108	232.66	233.02	237.00
109	235.44	235.83	240.00
110	238.22	238.50	242.50
145	230.40	231.70	236.00
147	213.92	216.1	223.00



SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE STANDARD SPECIFICATION AND FINAL ROAD CONSTRUCTION PLANS: F96-62, F97-104

DEPARTMENT OF PUBLIC WORKS  
DATE: 8-1-96

DEPARTMENT OF PLANNING & ZONING  
DATE: 8/2/96

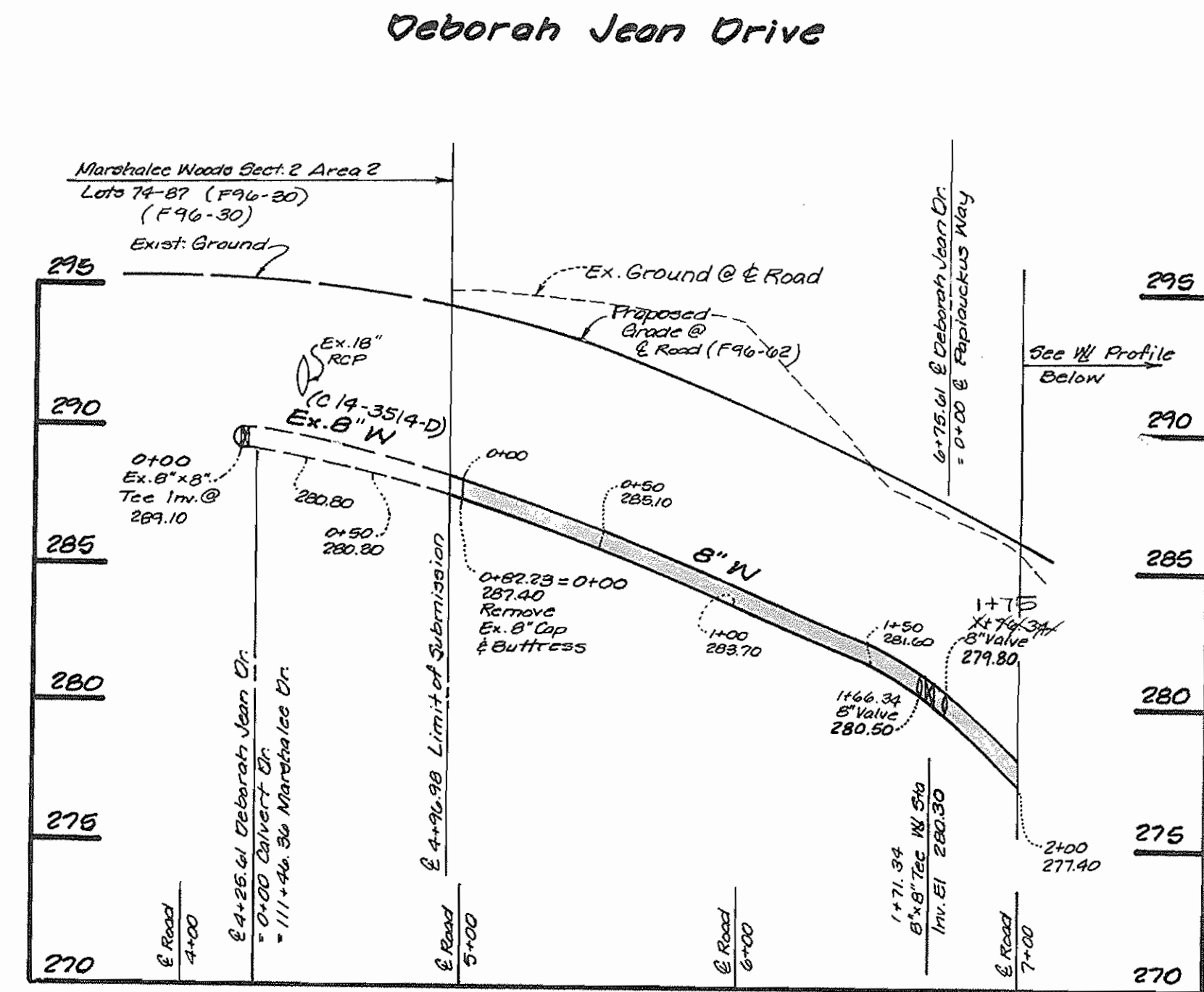
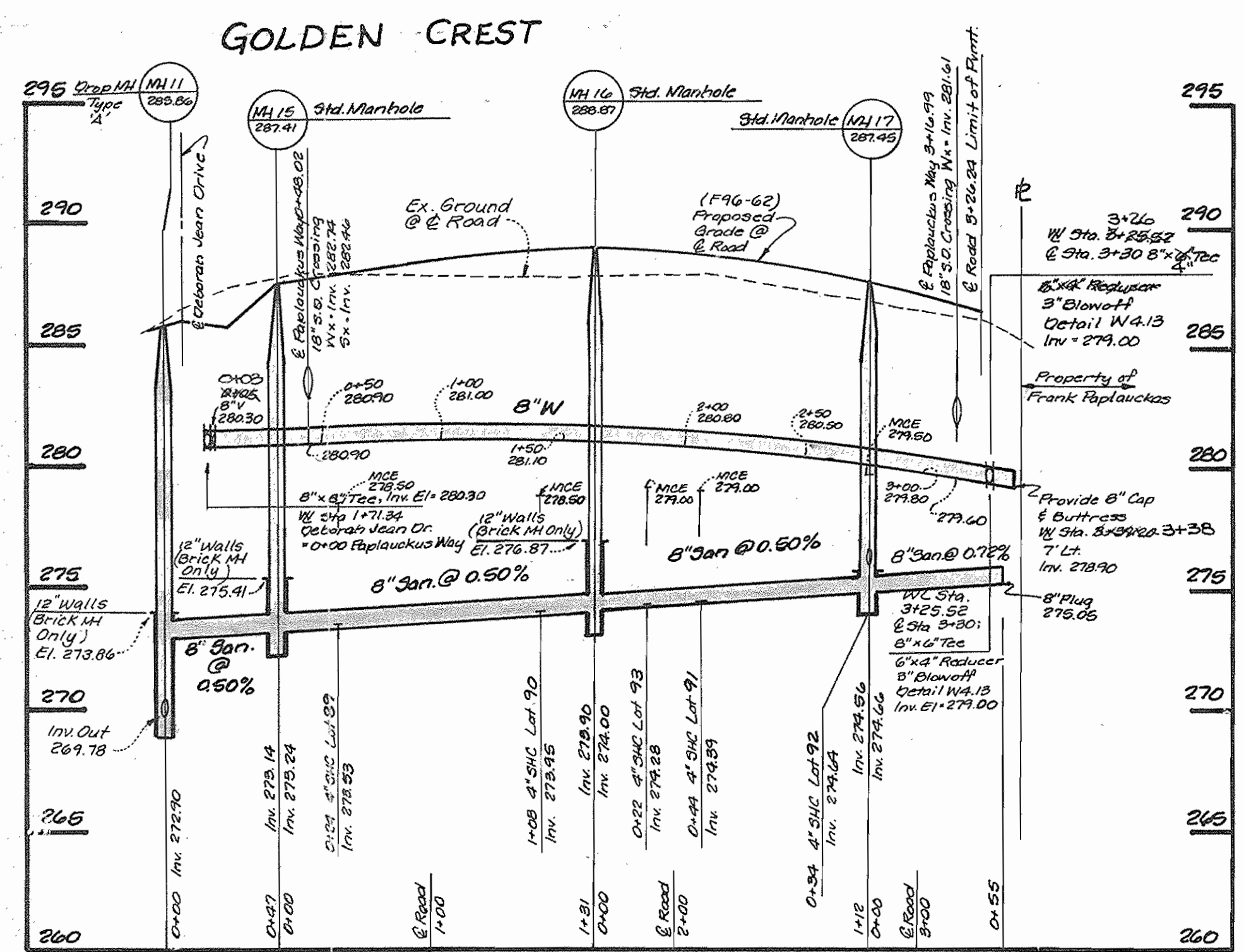
LDE, INC.  
9250 RUMSEY ROAD, SUITE 106  
COLUMBIA, MARYLAND 21045  
(410) 715-1070 (301) 596-3424

DESIGNED	EDS
DRAWN	BE1
CHECKED	BDB
DATE	7/96

NO.	REVISION	DATE
1	Update Plan Per F99-92/Revise SHC Table/Title Block	5-19-99
2	UPDATE LOT LINES, 3" S. FRONTAGE, SHC LOCATION & TITLE BLOCK	4-22-97

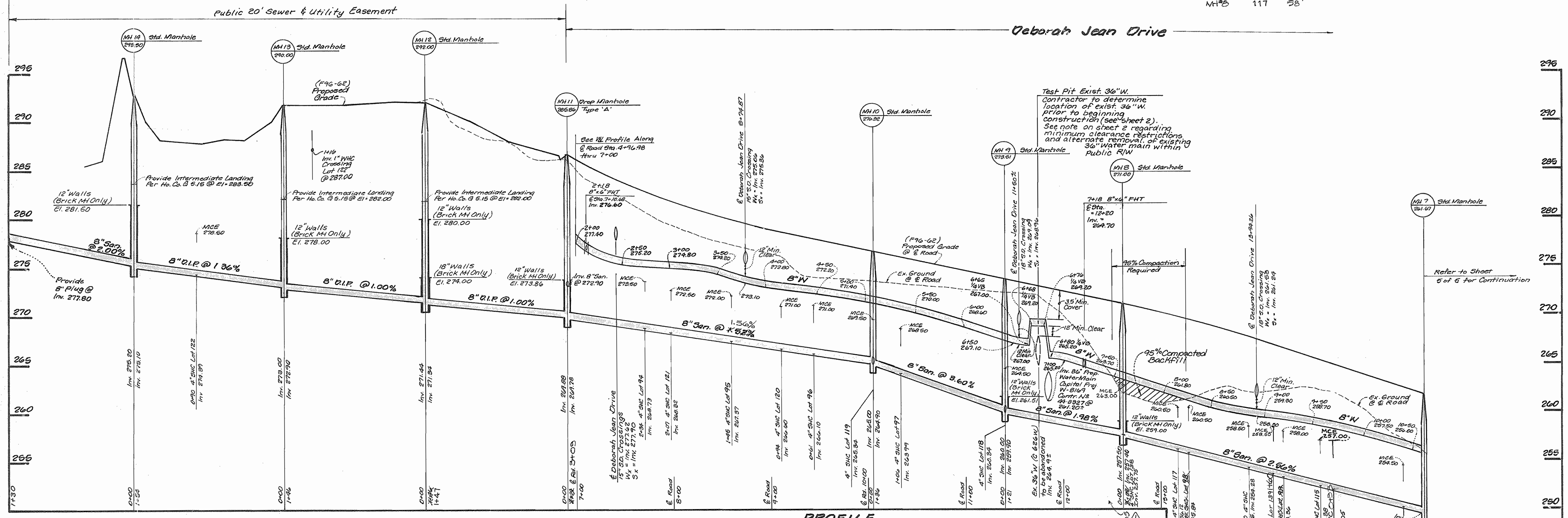
PLAN  
MARSHALEE WOODS  
SECTION TWO - AREA FOUR  
Lot 89-97, 101-103, 106-126 AND 138-141 & 143-147  
1st ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
Contract No. 143517-0

SCALE: As Shown  
SHEET: 3 OF 5



SANITARY AS-BUILTS

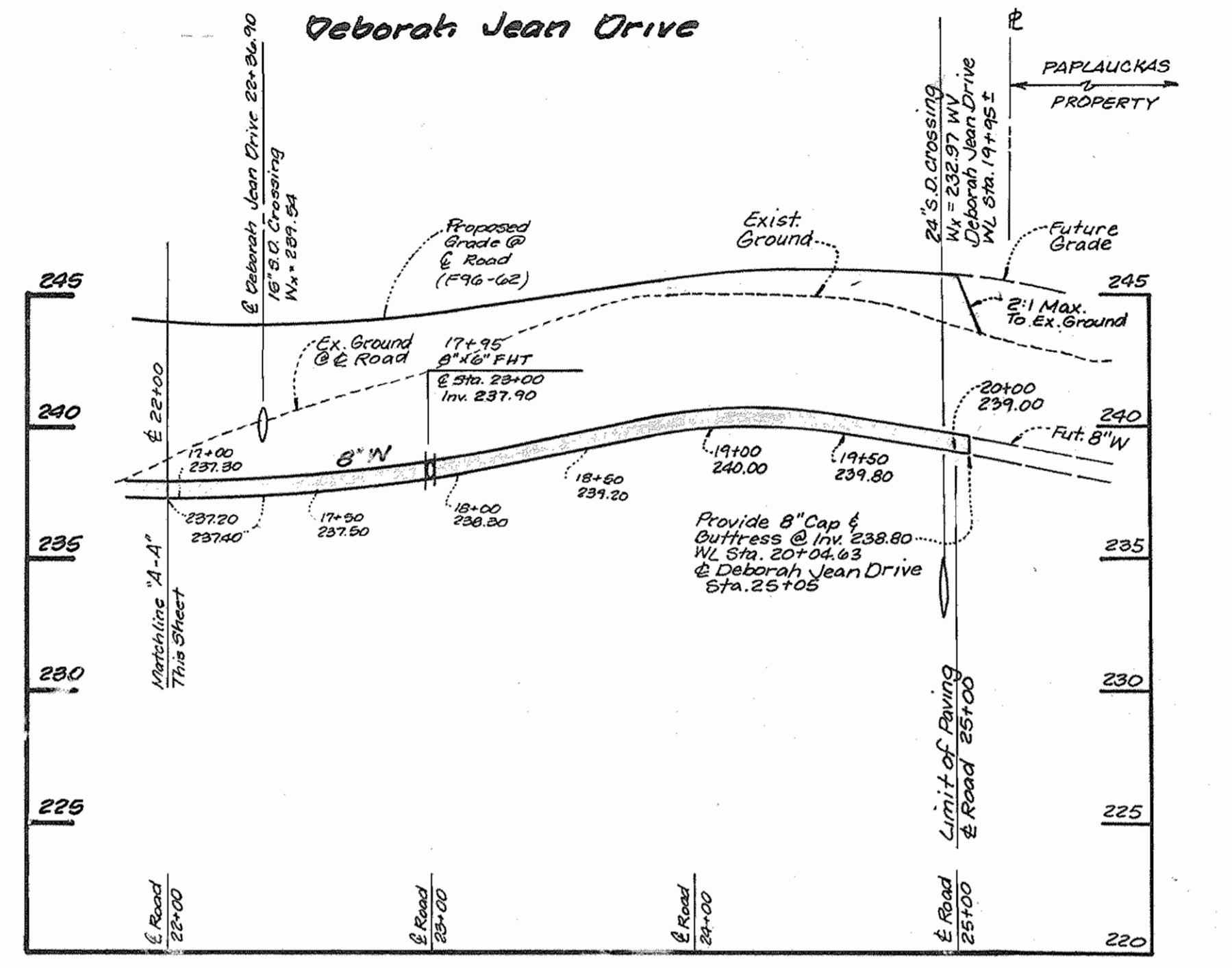
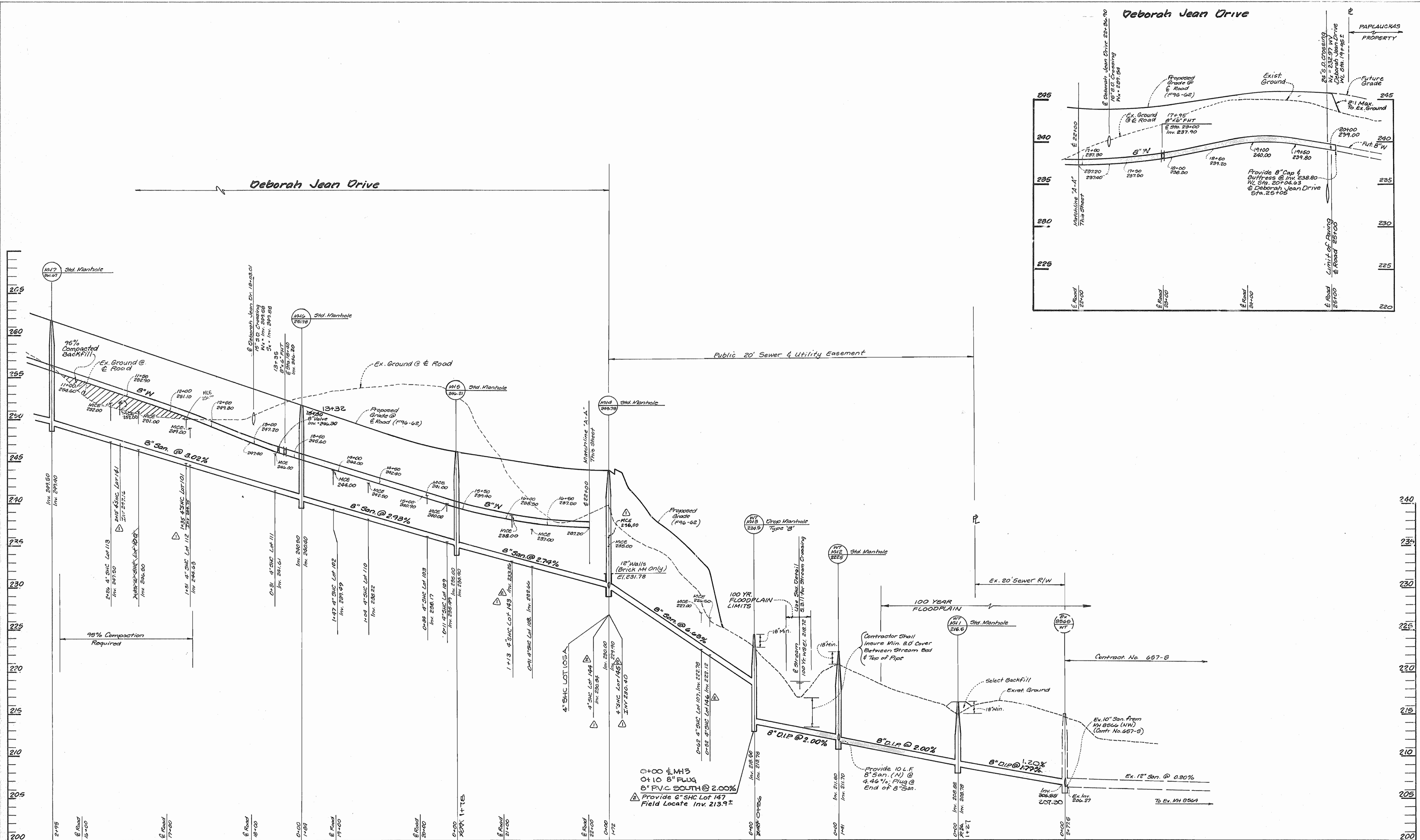
FROM:	TO:	LOT:	DIST.:	FROM:	TO:	LOT:	DIST.:		
MH11	85	85'		MH4	106	120'	MH9	118	18'
MH15	89	43'		MH3	106	54'	FH#2	118	93'
MH15	90	112'		MH4	107	105'	MH10	119	17'
MH16	90	42'		MH3	107	64'	SDMH2	119	53'
MH16	91	55'		MH4	108	51'	MH10	120	94'
MH17	91	71'		MH5	108	53'	SDMH2	120	74'
MH17	92	33'		MH5	109	103'	MH11	121	95'
MH17	92	57'		MH6	109	174'	SDMH2	121	63'
MH16	93	38'		LOT110	109	91'	MH14	122	65'
MH17	93	95'		MH6	110	83'	MH13	122	92'
MH11	94	75'		FH#3	110	100'	FH#2	138	37'
FH#1	94	60'		FH#3	111	13'	MH8	138	33'
SDMH1	95	112'		5'x13+32	111	33'	MH7	139	162'
SDMH2	95	113'		FH#3	112	113'	MH8	139	153'
SDMH2	96	31'		5'x13+32	112	105'	LOT140	139	70'
MH10	96	70'		MH7	113	70'	MH7	140	93'
SDMH2	97	53'		FH#3	113	208'	MH8	140	220'
MH10	97	50'		LOT114	113	93'	LOT133	140	70'
FH#3	101	123'		MH7	114	29'	MH7	141	162'
MH5	101	113'		MH8	114	281'	MH8	141	153'
FH#3	102	72'		LOT115	114	85'	LOT140	141	70'
MH6	102	50'		MH8	115	201'	FH#4	143	33'
MH5	103	45'		LOT116	115	74'	MH4	143	74'
MH5	104	74'		MH8	116	128'			
MH4	104	117'		MH7	116	183'			
MH4	105	53'		LOT117	116	72'			
FH#4	105	88'		FH#2	117	105'			
				MH8	117	58'			



SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE STANDARD SPECIFICATION AND FINAL ROAD CONSTRUCTION PLANS: F96-62, F97-104

DEPARTMENT OF PUBLIC WORKS DEPARTMENT OF PLANNING & ZONING DATE: 8-1-96 CHIEF-BUREAU OF UTILITIES	LDE, INC. 9250 RUMSEY ROAD, SUITE 106 COLUMBIA, MARYLAND 21045 (410) 715-1070 (301) 596-3424	DESIGNED: EDS DRAWN: BEI CHECKED: BDB DATE: 7/96	PROFILE 600 SCALE MAP NO. 37 BLOCK 1145	MARSHALEE WOODS SECTION TWO - AREA FOUR Lot 89-97, 101-103, 106-126 and 138-141 & 143-147 1st ELECTION DISTRICT HOWARD COUNTY, MARYLAND Contract No 14-3517-D	SCALE: 1"=50'H 1"=5' V. SHEET: 4 OF 6
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3517 WS/5 MARSHALEE WOODS 2/9

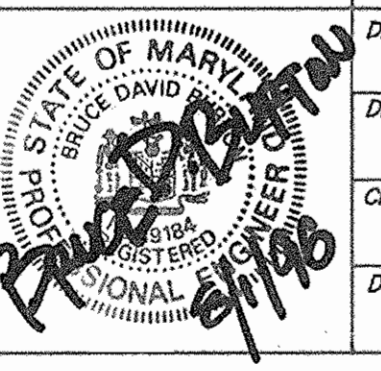


SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE STANDARD SPECIFICATION AND FINAL ROAD CONSTRUCTION PLANS: F 96-62, F 97-104

DEPARTMENT OF PUBLIC WORKS  
*R. L. ...*  
 CHIEF-BUREAU OF UTILITIES  
 8-1-96  
 DATE

DEPARTMENT OF PLANNING & ZONING  
*...*  
 CHIEF-DEVELOPMENT ENGINEERING DIVISION  
 DATE

LDE, INC.  
 9250 RUMSEY ROAD, SUITE 106  
 COLUMBIA, MARYLAND 21045  
 (410) 715-1070 (301) 596-3424



DESIGNED	EDS		
DRAWN	BEI		
CHECKED	BDB		
DATE	7/96		
BY	NO.	REVISION	DATE
LDE	Δ	Revise Profile - Lot Nos. SHC/Revise Title Block	5-19-99
LDE	Δ	REVISE PROFILE (SHC FUTURE LOTS & REBUS LOT)	4-22-97

PROFILE  
 600 SCALE MAP NO. 37  
 BLOCK 11 & 5

MARSHALEE WOODS  
 SECTION TWO - AREA FOUR  
 LOT 89-97, 101-103, 106-126 and 138-141 & 143-147  
 1st ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 Contract No 14-3517-0  
 SCALE As Shown  
 SHEET 5 of 5