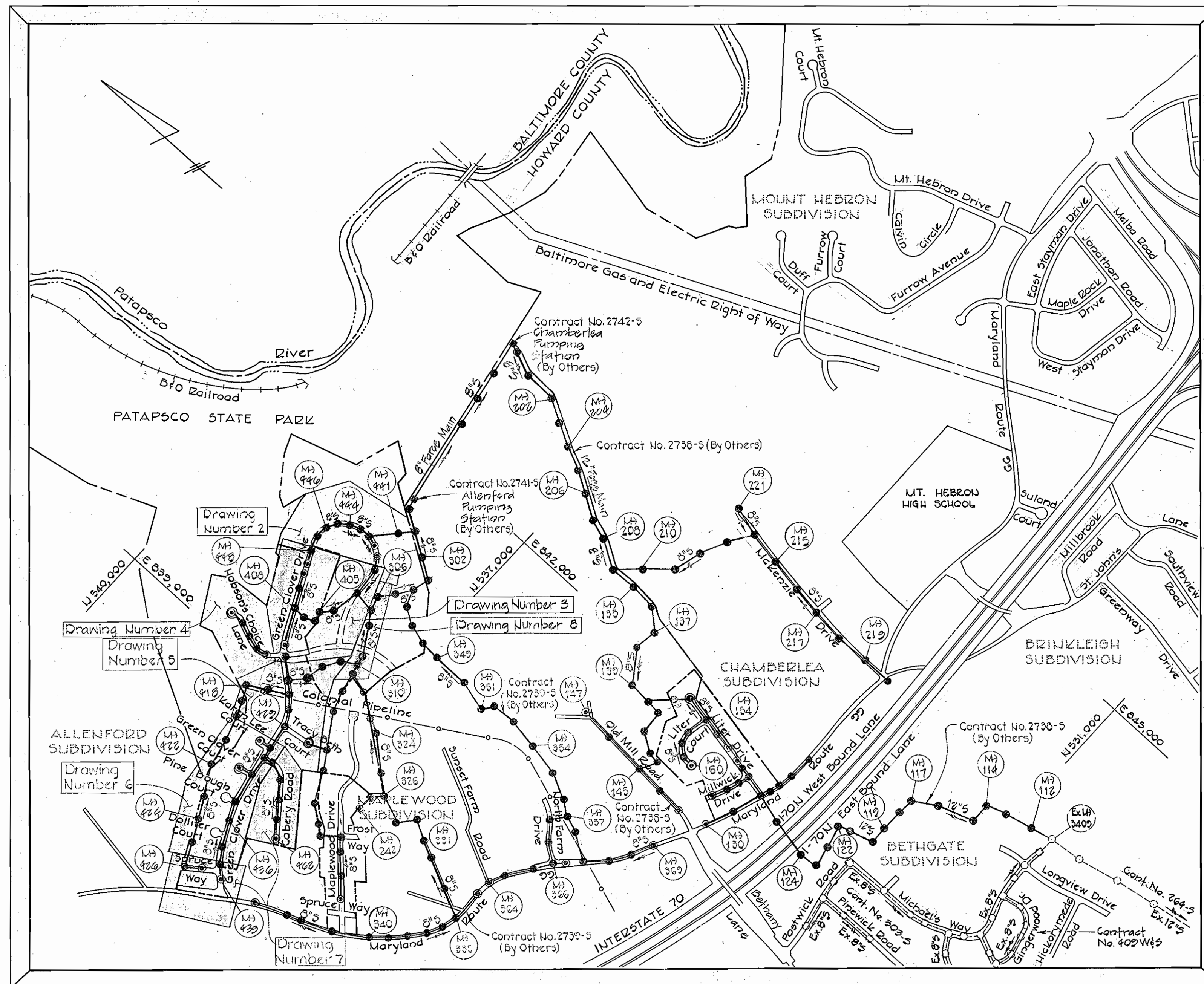


QUANTITIES		
SIZE	ESTIMATED	AS BUILT
27" Sewer	150 L.F.	
8" Sewer	13435 L.F.	
6" Sewer	3300 L.F.	
3" Force Main	585 L.F.	
Manholes	750 V.F.	



GENERAL NOTES

1. Approximate locations of existing utilities are shown. The Contractor shall take all necessary precautions to protect existing utilities and maintain uninterrupted service. Any damage incurred shall be repaired immediately to the satisfaction of the Engineer by the Contractor at the Contractor's expense.
2. All pipe elevations shown are \ominus invert elevations.
3. The Contractor shall locate existing utilities a minimum of two weeks in advance of construction operations in the vicinity of sewers. Cost shall be included in the unit prices bid for excavation and backfill for sewer mains.
4. For details not shown on the construction drawings see Standard Details bound in the Specifications.
5. Clear all utilities by a minimum of 6". Clear all utility poles by 2' 0" minimum or tunnel as required. Any costs incurred to the Contractor for tunneling or bracing at poles shall be included in the unit prices bid for excavation and backfill for sewer mains.
6. Contractor shall notify the following utilities or agencies at least five (5) days before starting work shown on these plans;
 - Baltimore Gas & Electric Company - Underground Electric Distribution Engineering "Damage Control" 234-5691
 - Baltimore Gas & Electric Company - Underground Gas Distribution Engineering 559-0100
 - Chesapeake and Potomac Telephone Company 725-4976
 - Miss Utility (Collect) 1-559-0100
 - Colonial Pipeline Company 781-4641
7. Trees located within the rights of way are to be protected from damage to the maximum extent. Trees located within the construction strips are not to be removed or damaged by the Contractor.
8. Place regulation "Men Working" and warning signs as required to comply with Maryland State Highway Administration Manual of Traffic Control for Highway Construction and Maintenance Operations.
9. All sewer mains shall be C.S.P.X., V.C.P.X., or A.C.P. Class 2400 unless otherwise noted.
10. The Contractor shall provide a joint in each sewer main within 2'-0" of exterior manhole walls.
11. All manholes shall be 4'-0" inside diameter, unless otherwise noted.
12. Watertight manhole frame and cover to be used where indicated on drawings, Standard Detail S-12 (RCR 63A). Where watertight manhole frame and cover is used, set top of frame 1'-6" above finished grade.
13. The Contractor shall remove trees, stumps, and roots along the line of excavation as directed by the Engineer. Cost for such removal shall be included in the unit prices bid for excavation and backfill for sewer mains.
14. Force main shall be ductile iron pipe Class 54 in accordance with Section B of the specifications. Force main shall have a minimum of 4 feet of cover.
15. Buttress or anchor all force main fittings with concrete. For details see Standard Details bound in the specifications.
16. Horizontal and vertical controls are based on the Maryland State Grid Coordinate System.

CONTRACT NO. 2740-S
CHAMBERLEA SANITARY SEWERS
ALLENFORD SUBDIVISION
HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS



CONTRACT NO. 2740-S
 CHAMBERLEA SANITARY SEWERS
 ALLENFORD SUBDIVISION
 HOWARD COUNTY CAPITAL PROJECT S-4-6067

PURDUM & JESCHKE
 ENGINEERS
 1023 N. CALVERT ST.
 BALTIMORE, MARYLAND

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 8-22-77 *W. O. Albert* 8-18-77
 DIRECTOR OF PUBLIC WORKS DATE CHIEF-BUREAU OF ENGINEERING DATE

CONTRACT NO. 2740-S
 CAPITAL PROJECT NO. S-4-6067

LOCATION MAP
 FOR SANITARY SEWERS

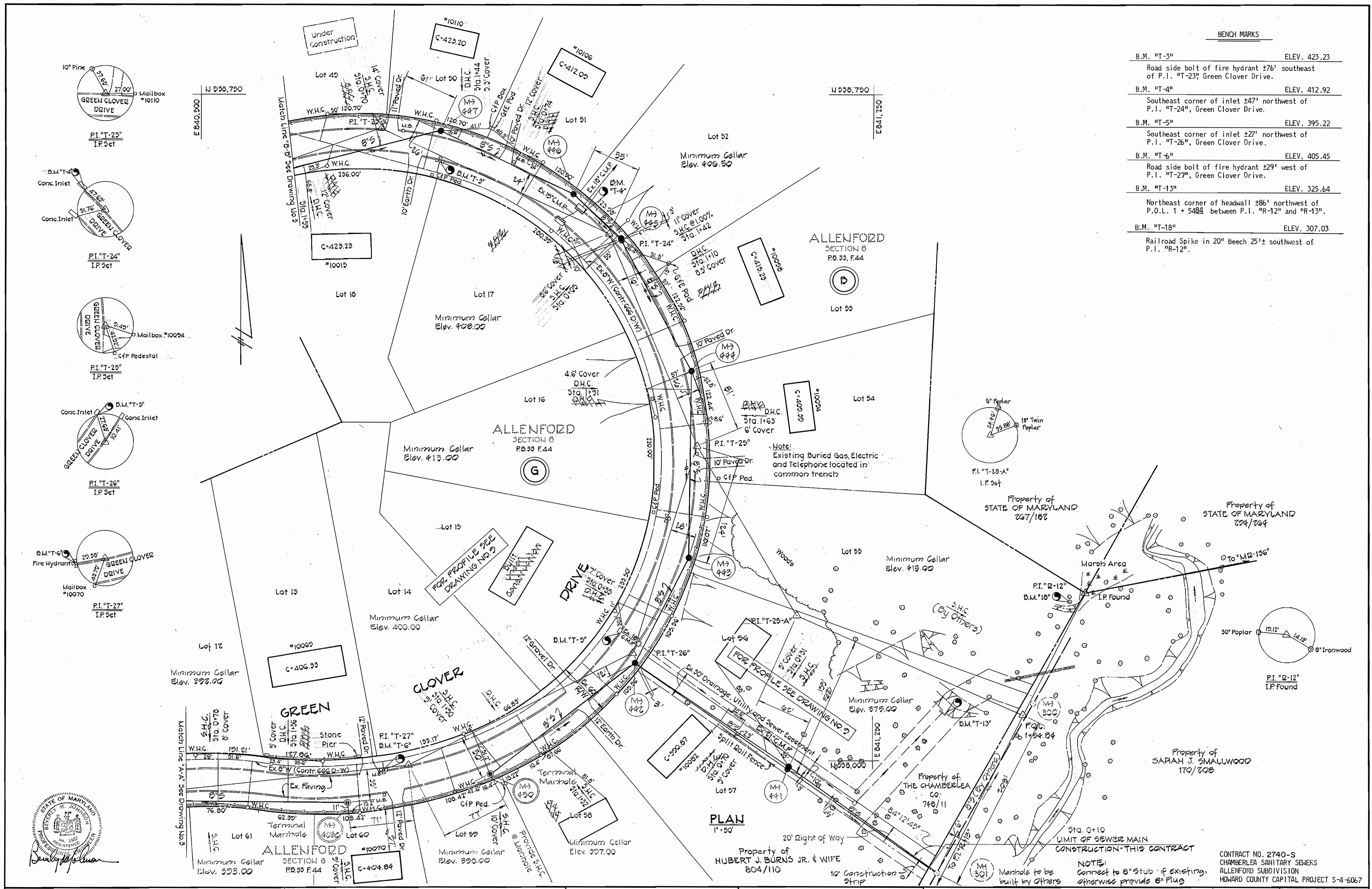
CHAMBERLEA SANITARY SEWERS
 ELECTION DISTRICT NO. 2
 HOWARD COUNTY, MARYLAND

DRAWING NO. OF	SCALE	MAP NOS.:
1 OF 13	1" = 800'	235-40 235-41

WS 740 S/1

BENCH MARKS

B.M. "T-3"	ELEV. 423.23
Road side bolt of fire hydrant ±76' southeast of P.I. "T-23", Green Clover Drive.	
B.M. "T-4"	ELEV. 412.92
Southeast corner of inlet ±47' northwest of P.I. "T-24", Green Clover Drive.	
B.M. "T-5"	ELEV. 395.22
Southeast corner of inlet ±27' northwest of P.I. "T-26", Green Clover Drive.	
B.M. "T-6"	ELEV. 405.45
Road side bolt of fire hydrant ±29' west of P.I. "T-27", Green Clover Drive.	
B.M. "T-13"	ELEV. 325.64
Northeast corner of headwall ±86' northwest of P.O.L. 1 + 5484 between P.I. "R-12" and "R-13".	
B.M. "T-18"	ELEV. 307.03
Railroad Spike in 20' Beech 25'± southwest of P.I. "R-12".	



PURDUM & JESCHKE
ENGINEERS
1023 N. CALVERT ST.
BALTIMORE, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
8-22-77
DIRECTOR OF PUBLIC WORKS

CONTRACT NO. 2740-S
CAPITAL PROJECT NO. S-4-6067

PLAN FOR
SANITARY SEWERS

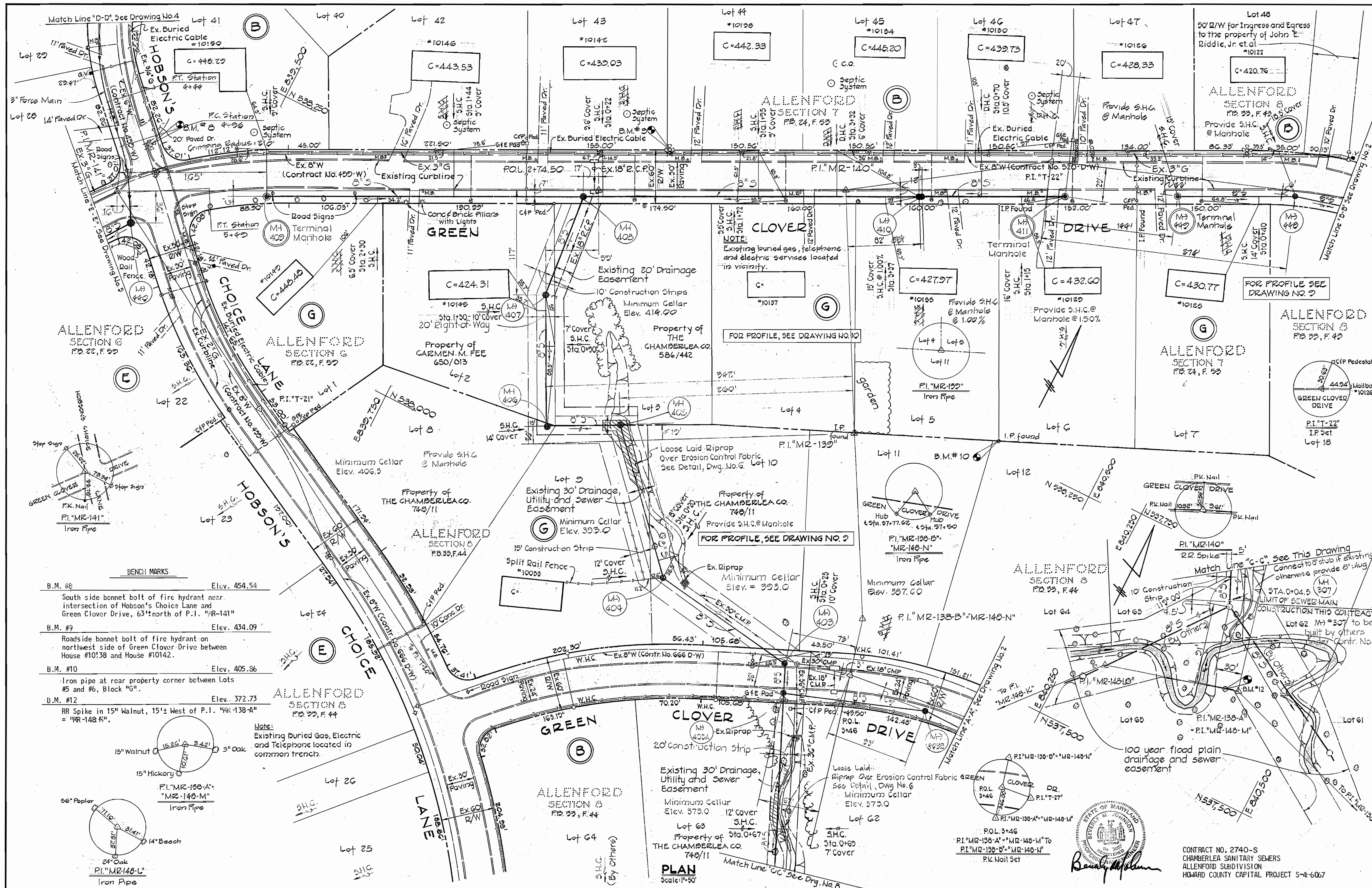
CHAMBERLEA SANITARY SEWERS
ELECTION DISTRICT NO. 2
HOWARD COUNTY, MARYLAND

CONTRACT NO. 2740-S
CHAMBERLEA SANITARY SEWERS
ALLENFORD SUBDIVISION
HOWARD COUNTY CAPITAL PROJECT S-4-6067

DRAWING	SCALE	DESIGNED: RDB
NO. 2	1" = 50'	DRAFTED: ARZ
OF 13		CHECKED: TAF
		POSITION SHEETS

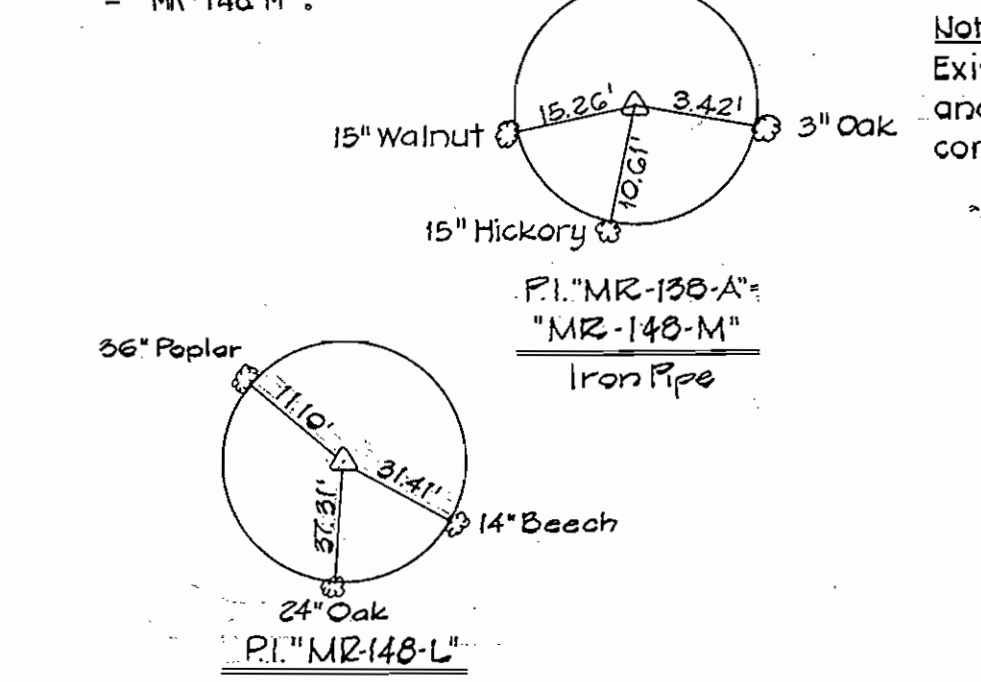
WS 740 S/2

A-5-BL1111-DEC 18 1979



BENCH MARKS

B.M. #6	Elev. 454.54
South side bonnet bolt of fire hydrant near intersection of Hobson's Choice Lane and Green Clover Drive, 63' north of P.I. "MR-141"	
B.M. #7	Elev. 434.09
Roadside bonnet bolt of fire hydrant on northwest side of Green Clover Drive between House #10138 and House #10142.	
B.M. #10	Elev. 405.86
Iron pipe at rear property corner between Lots #5 and #6, Block "G".	
B.M. #12	Elev. 372.73
RR Spike in 15" Walnut, 15'± West of P.I. "MR-138-A" = "MR-148-M".	



Note:
Existing Buried Gas, Electric and Telephone located in common trench.

PLAN
Scale: 1"=50'



CONTRACT NO. 2740-S
CHAMBERLEA SANITARY SEWERS
ALLENFORD SUBDIVISION
HOWARD COUNTY CAPITAL PROJECT S-4-6067

PURDUM & JESCHKE
ENGINEERS
1023 N. CALVERT ST.
BALTIMORE, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
8-22-77
DIRECTOR OF PUBLIC WORKS DATE

CONTRACT NO. 2740-S
CAPITAL PROJECT NO. S-4-6067

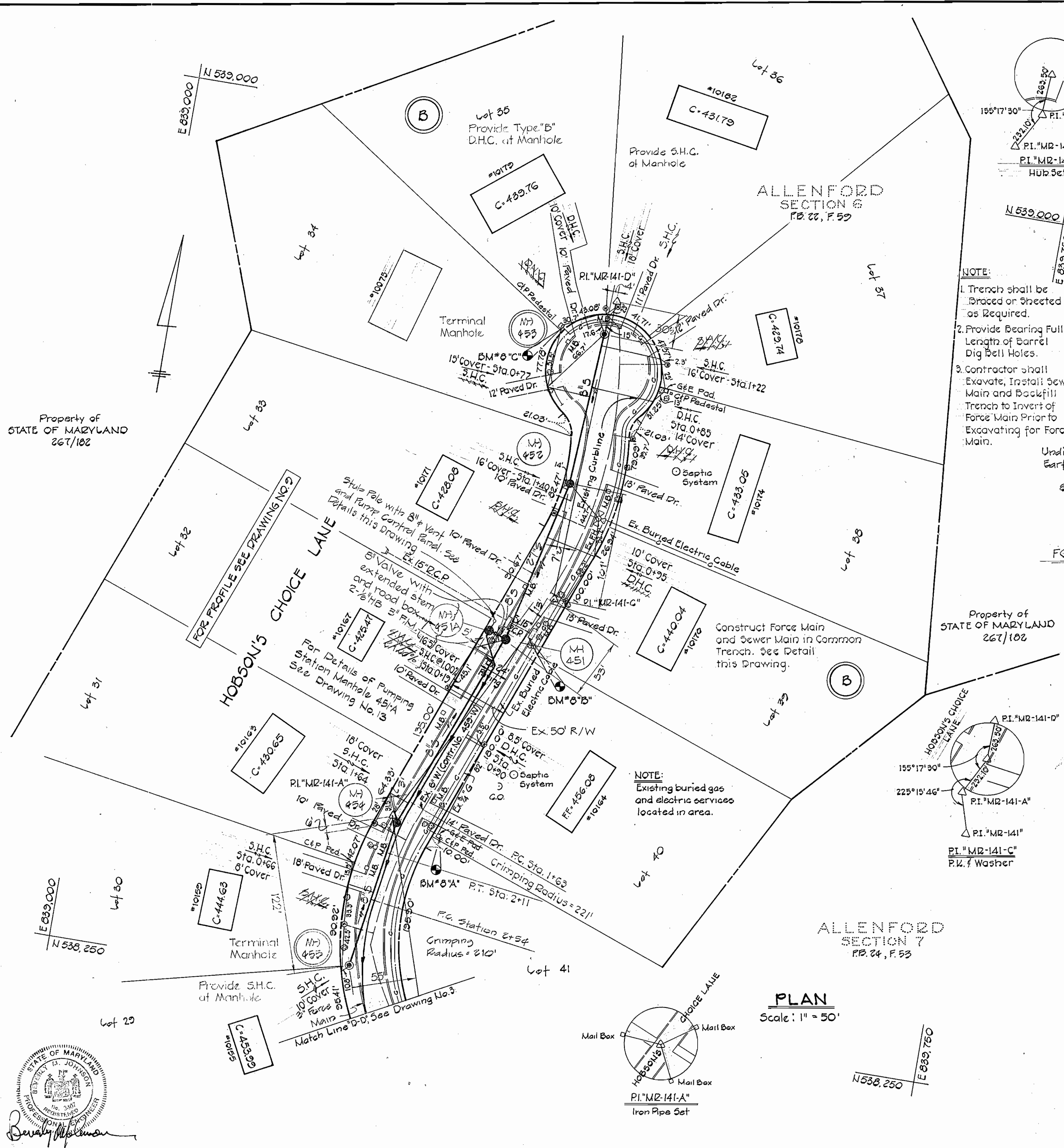
PLAN FOR
SANITARY SEWERS

CHAMBERLEA SANITARY SEWERS
ELECTION DISTRICT NO. 2
HOWARD COUNTY, MARYLAND

DRAWING
NO. 3
OF 13

SCALE
1" = 50'

WS 740 S/3

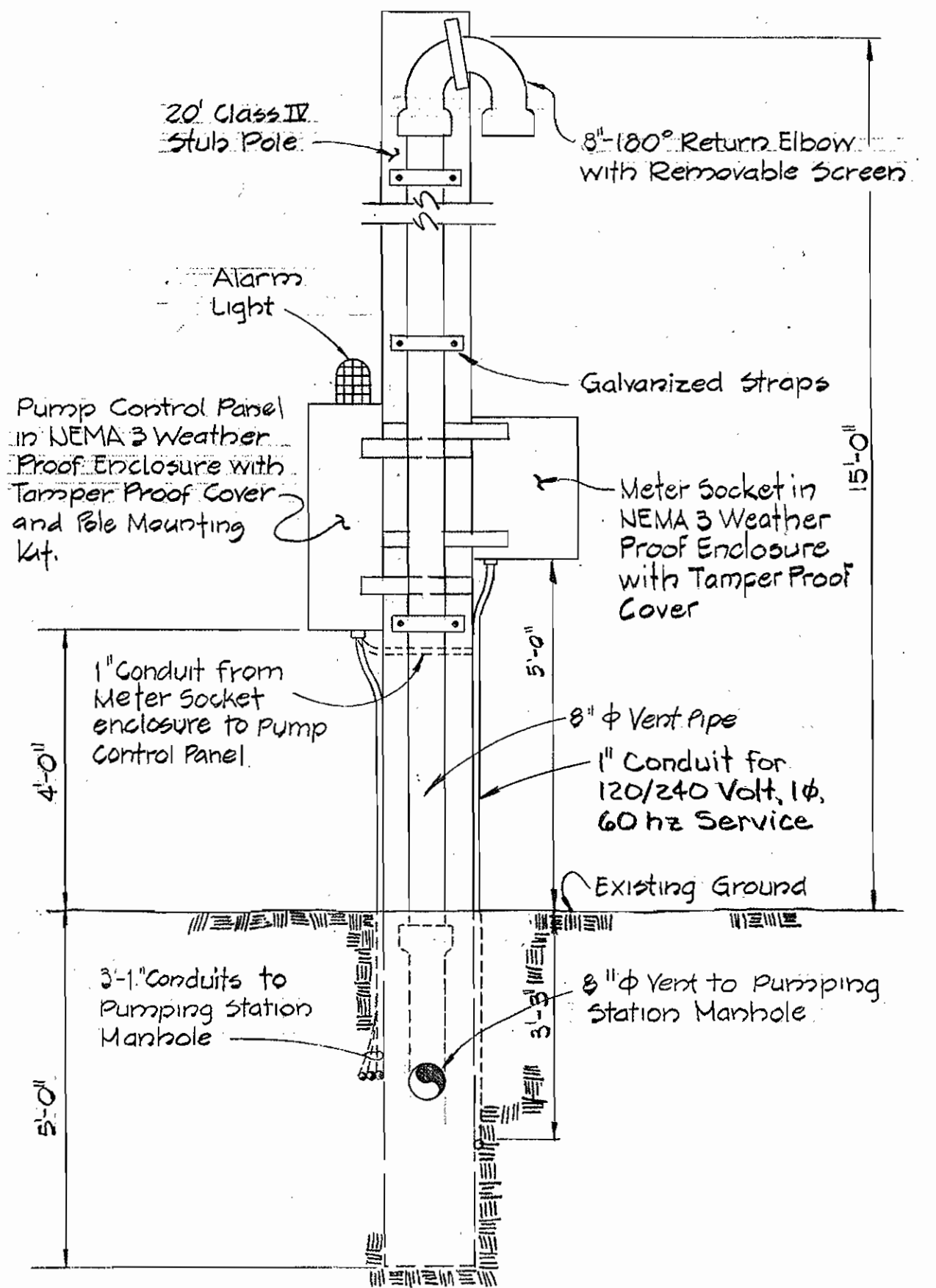


BENCH MARKS

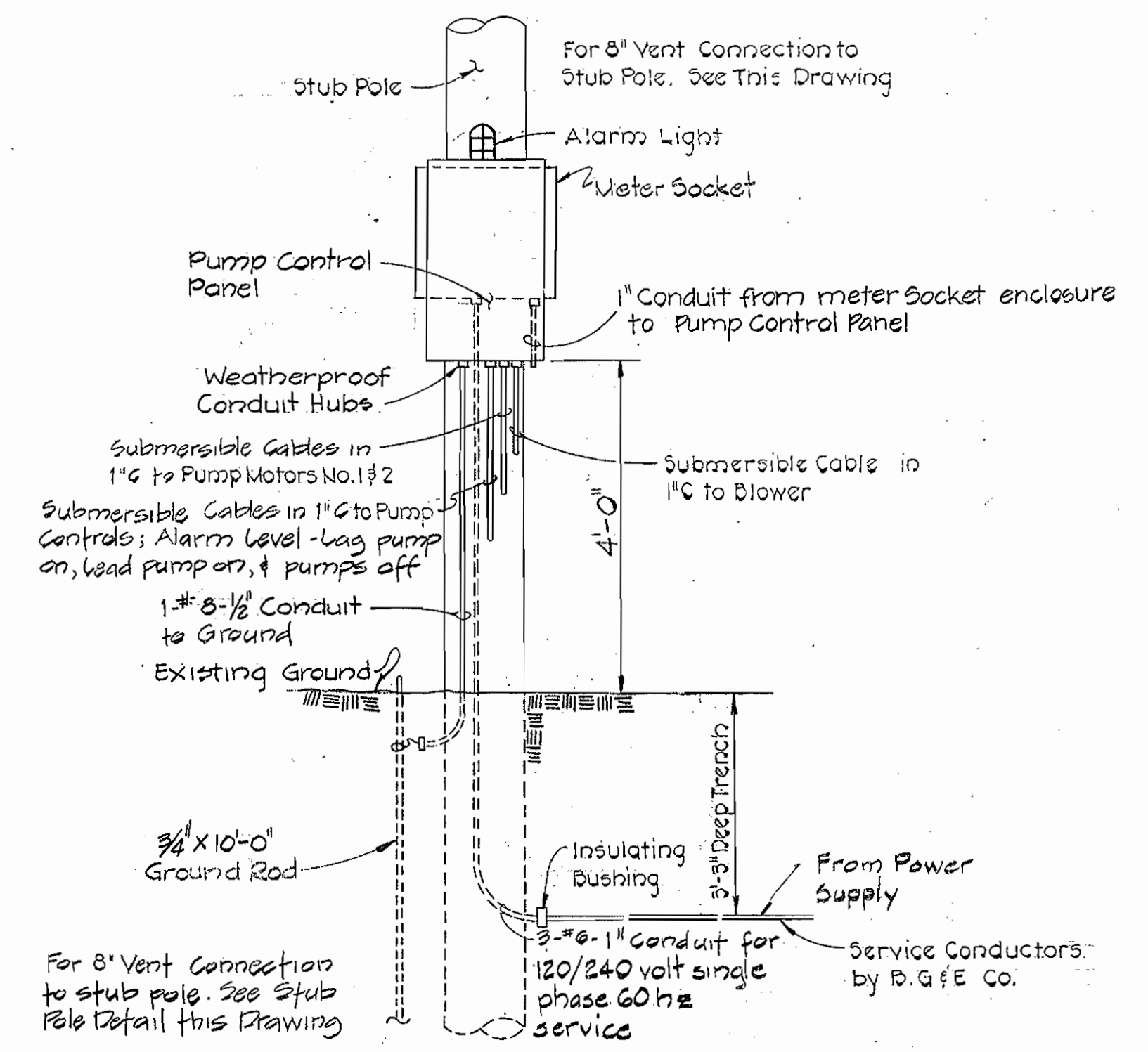
BM# 8-"A"	Elev. 443.45
Cross-cut on southwest corner of concrete foundation of G & E Service cabinet @ driveway of house #10164.	
BM# 8-"B"	Elev. 435.97
Angle-cut on southwest corner inlet east side Hobson's Choice Lane @ driveway of house #10170.	
BM# 8-"C"	Elev. 439.28
Angle-cut on southeast corner of concrete foundation of G & E Service cabinet, on Hobson's Choice Lane @ the end of the cul-de-sac.	

- NOTE:**
1. Trench shall be braced or sheeted as required.
 2. Provide Bearing Full Length of Barrel Dig Bell Holes.
 3. Contractor shall excavate, install Sewer Main and Backfill Trench to Invert of Force Main Prior to Excavating for Force Main.

FORCE MAIN AND SEWER MAIN IN COMMON TRENCH
Scale: 1/2" = 1'-0"



STUB POLE DETAIL
No Scale



WIRING DETAIL
No Scale

PLAN
Scale: 1" = 50'



PURDUM & JESCHKE
ENGINEERS
1023 N. CALVERT ST.
BALTIMORE, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
8-22-77
DATE

CONTRACT NO. 2740-S
CAPITAL PROJECT NO. S-4-6067

PLAN AND DETAILS
SEWER AND FORCE MAINS

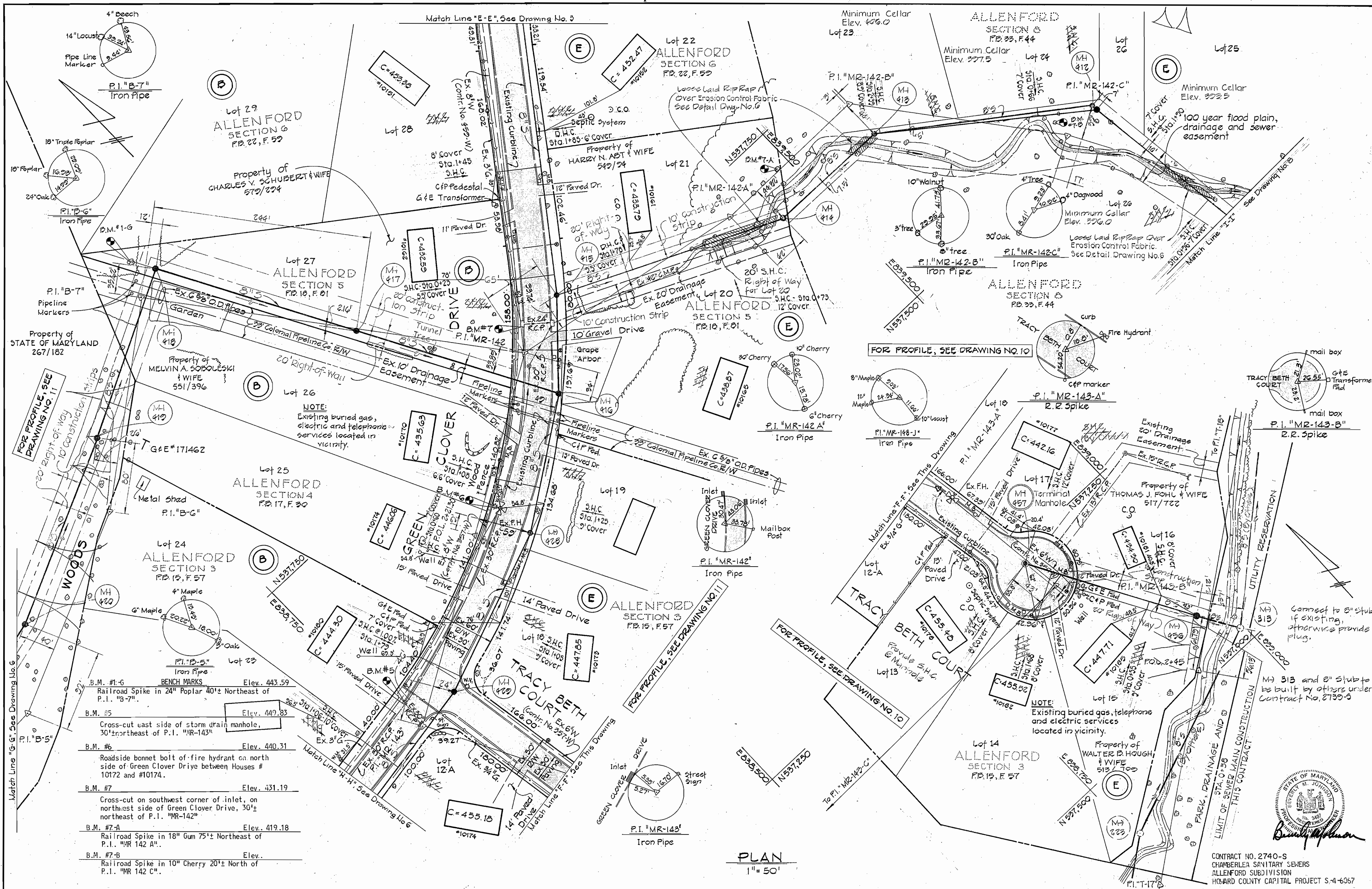
CHAMBERLEA SEWERS
ALLENFORD SUBDIVISION
ELECTION DISTRICT - ELLIOTT CITY NO. 2

DRAWING NO. 4 OF 13
SCALE AS SHOWN
DESIGNED: AEL
DRAFTED: KEC
CHECKED: TAF

CONTRACT NO. 2740-S
ALLENFORD SUBDIVISION
CHAMBERLEA SANITARY SEWERS
HOWARD COUNTY CAPITAL PROJECT S-4-6067

WS 740 S/H

WS 740 S/S



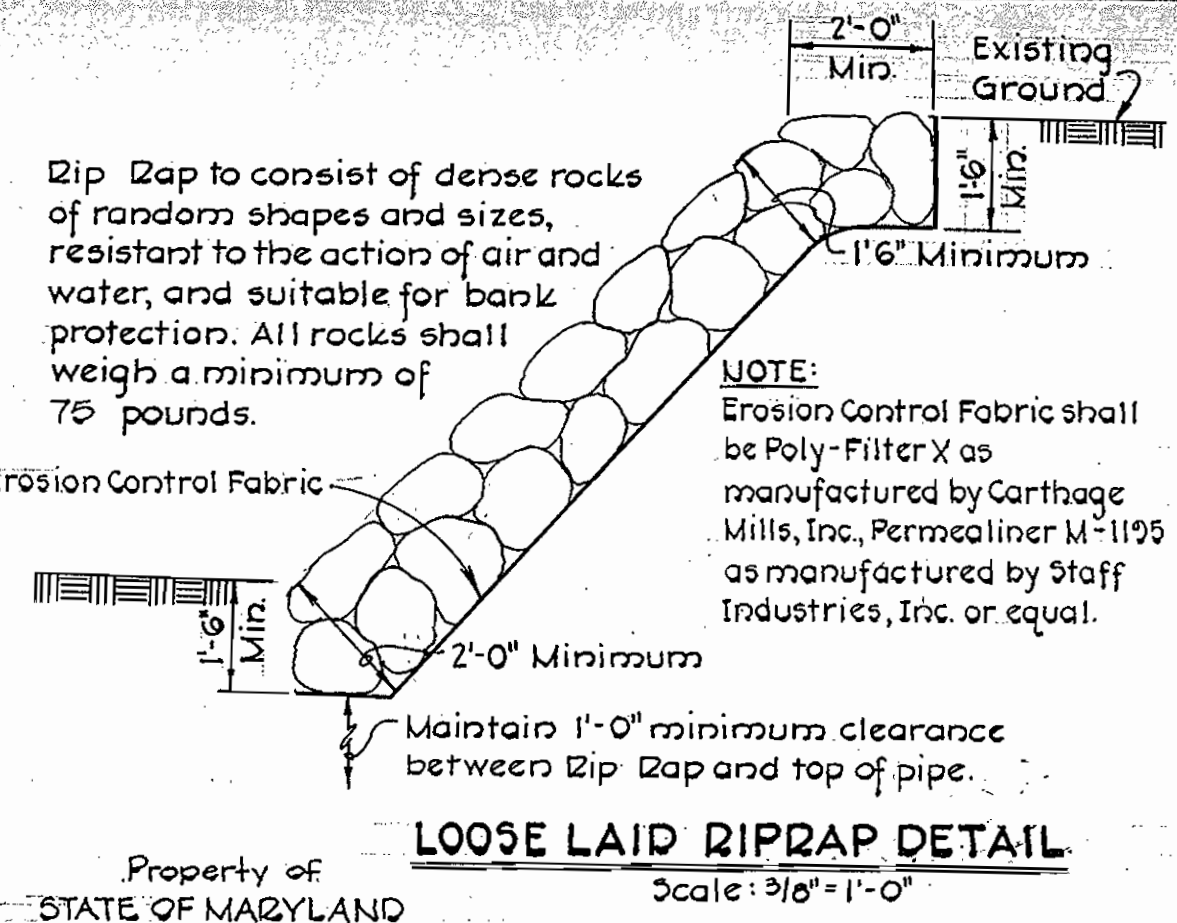
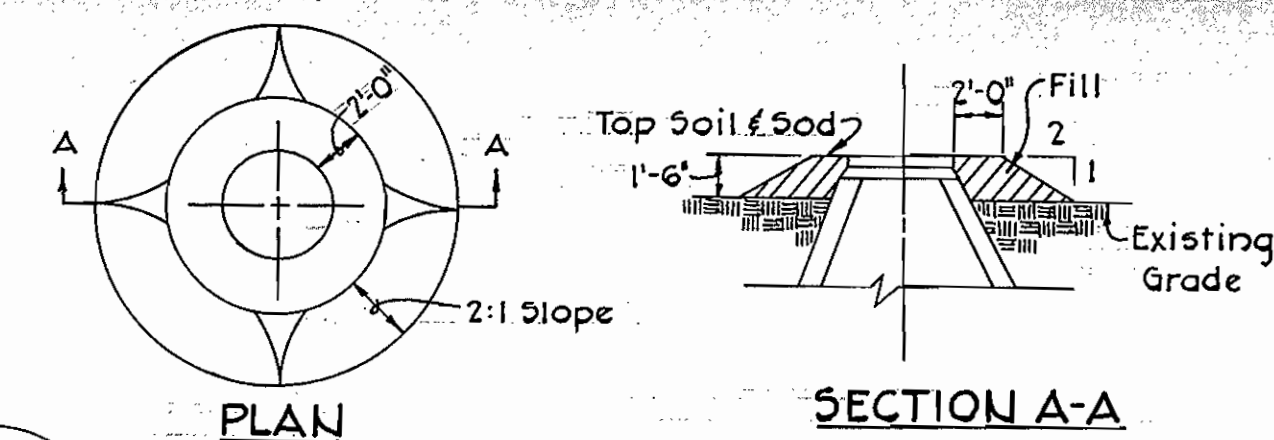
BENCH MARKS

B.M. #1-G	BENCH MARKS	Elev. 443.59
Railroad Spike in 24" Poplar 40'± Northeast of P.I. "B-7"		
B.M. #5		Elev. 449.83
Cross-cut east side of storm drain manhole, 30'± northeast of P.I. "MR-143"		
B.M. #6		Elev. 440.31
Roadside bonnet bolt of fire hydrant on north side of Green Clover Drive between Houses # 10172 and #10174.		
B.M. #7		Elev. 431.19
Cross-cut on southwest corner of inlet, on northeast side of Green Clover Drive, 30'± northeast of P.I. "MR-142"		
B.M. #7-A		Elev. 419.18
Railroad Spike in 18" Gum 75'± Northeast of P.I. "MR 142 A"		
B.M. #7-B		Elev.
Railroad Spike in 10" Cherry 20'± North of P.I. "MR 142 C"		

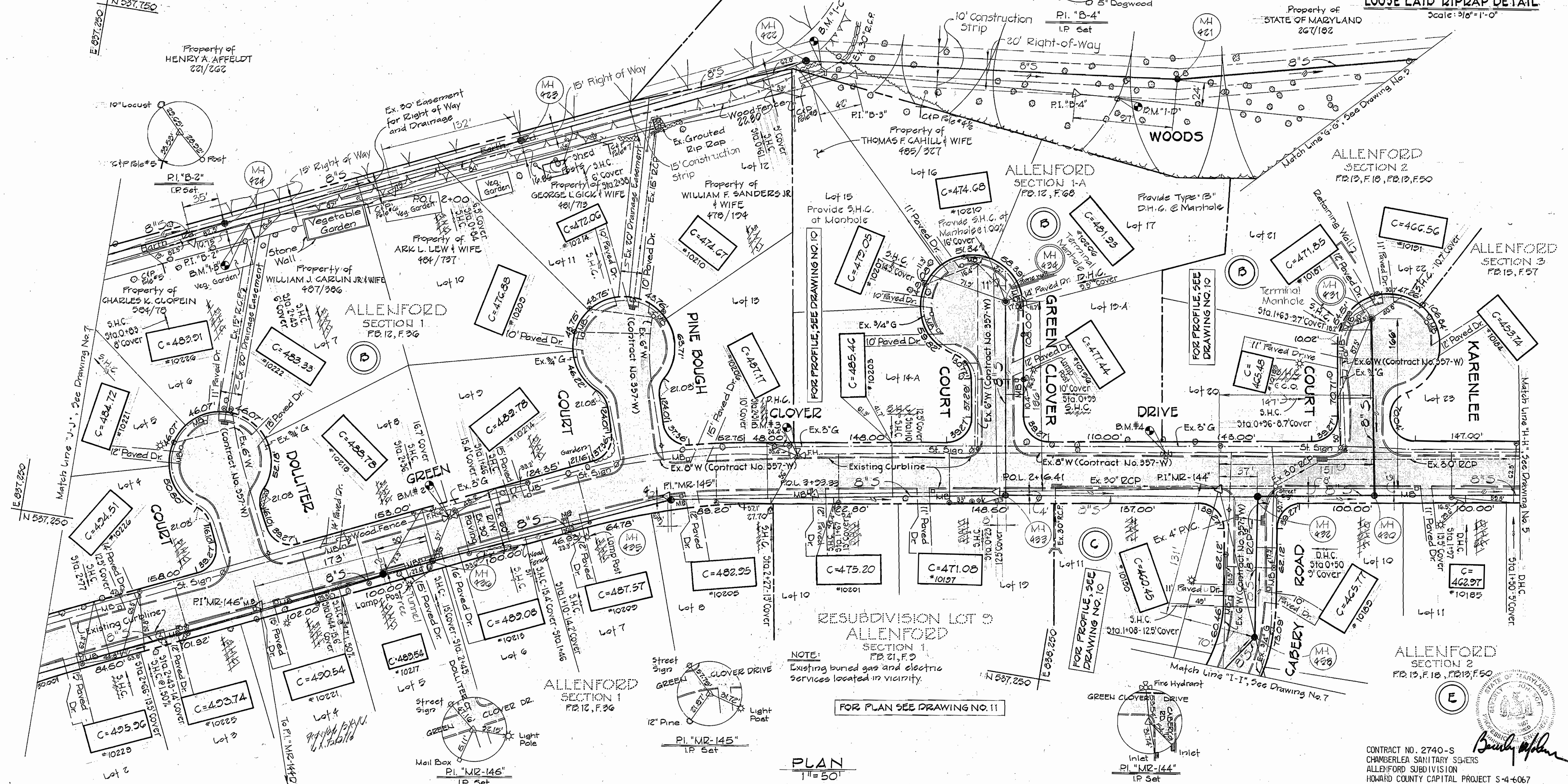
PLAN
1" = 50'

PURDUM & JESCHKE ENGINEERS 1023 N. CALVERT ST. BALTIMORE, MARYLAND	DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND DATE: 8-18-77 DIRECTOR OF PUBLIC WORKS: W. O. P. [Signature] CHIEF-BUREAU OF ENGINEERING: DATE	CONTRACT NO. 2740-S CAPITAL PROJECT NO. S-4-6067	PLAN FOR SANITARY SEWERS	CHAMBERLEA SANITARY SEWERS ELECTION DISTRICT NO. 2 HOWARD COUNTY, MARYLAND	DRAWING NO. 5 OF 13	SCALE 1" = 50' OF 13	DESIGNED: REP DRAFTED: WS CHECKED: T.J.F. PLOTTED: A.J.B. SHEET: 13
					CONTRACT NO. 2740-S CHAMBERLEA SANITARY SEWERS ALLENFORD SUBDIVISION HOWARD COUNTY CAPITAL PROJECT S-4-6067		

BENCHMARKS	
B.M. #2	Elev. 499.81 Roadside bonnet bolt of fire hydrant, Green Clover Drive, opposite house #10213.
B.M. #3	Elev. 489.83 West bonnet bolt of fire hydrant, Green Clover Drive, opposite house #10201.
B.M. #4	Elev. 465.73 East side bonnet bolt of fire hydrant, Green Clover Drive, 60'± N.W. of P.I. "MR-144".
B.M. "1-B"	Elev. 482.44 Northwest corner of headwall, 60'± East of P.I. "B-2".
B.M. "1-C"	Elev. 454.63 Northwest corner of headwall, 32'± northwest of P.I. "B-3".
B.M. "1-D"	Elev. 458.70 Railroad spike in 14" poplar, 42'± North of P.I. "B-4".



FOR PROFILE, SEE DRAWING NO. 11



NOTE:
Existing buried gas and electric services located in vicinity.

FOR PLAN SEE DRAWING NO. 11

PLAN
1" = 50'

WS 740 S16

PURDUM & JESCHKE
ENGINEERS
1023 N. CALVERT ST.
BALTIMORE, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
8-22-77
DATE

W. O. Albert 8-18-77
CHIEF-BUREAU OF ENGINEERING
DATE

CONTRACT NO. 740-S
CAPITAL PROJECT NO. S-4-6067

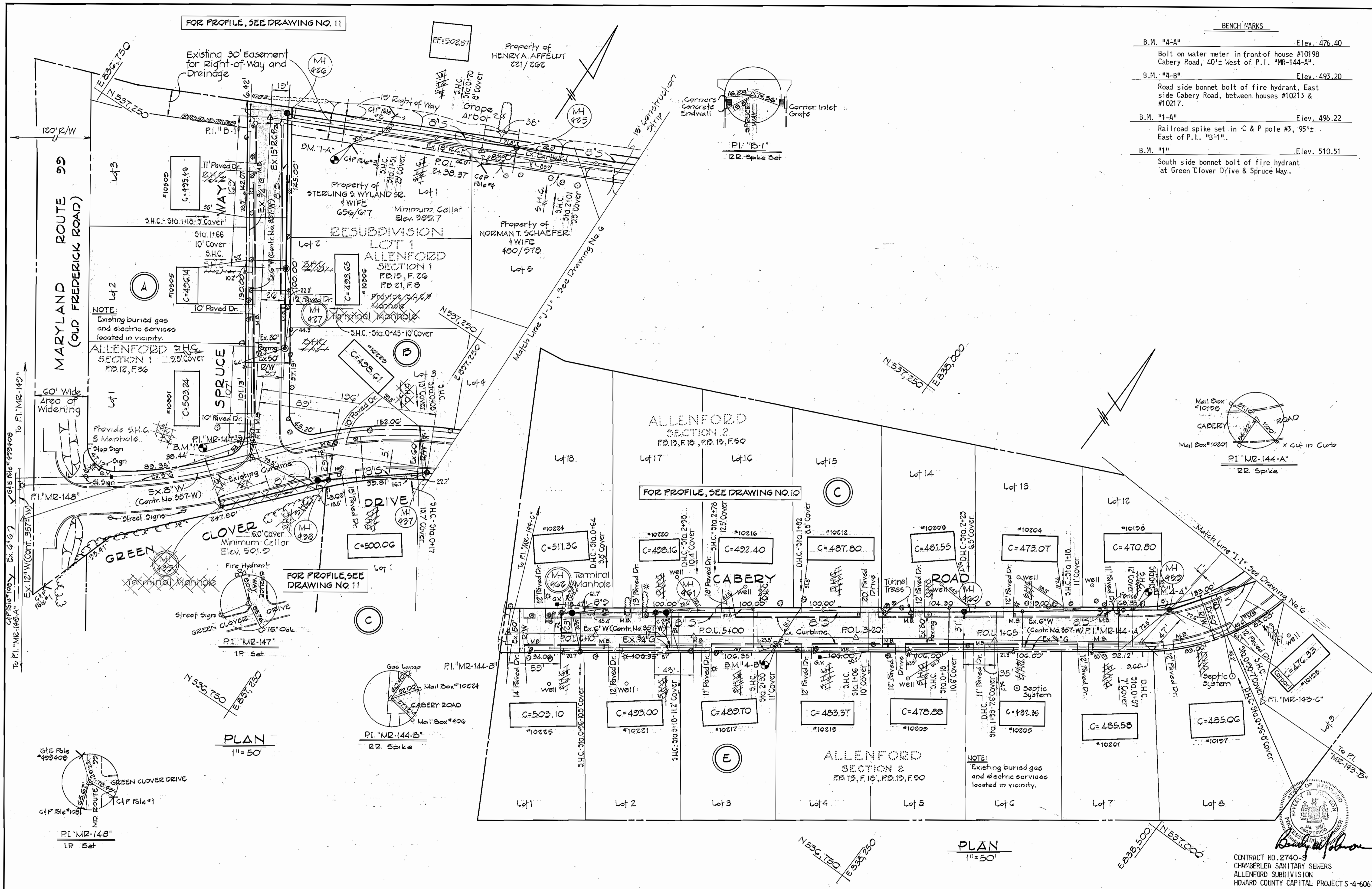
PLAN AND DETAILS
FOR SANITARY SEWERS

CHAMBERLEA SANITARY SEWERS
ELECTION DISTRICT NO. 2
HOWARD COUNTY, MARYLAND

DRAWING NO. 6 OF 13
SCALE As Shown

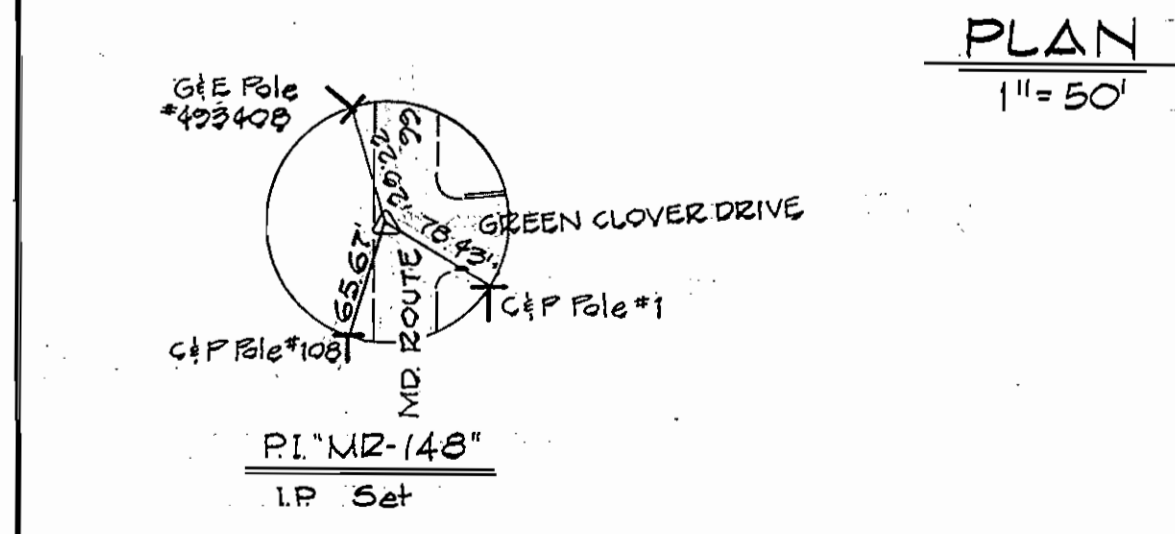
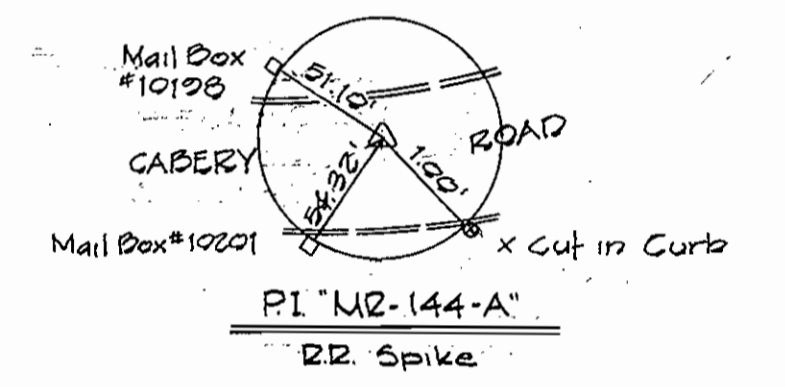
DESIGNED: REP
DRAFTED: TAN
CHECKED: TAF
POSITION: 12 & 13

WS 740 S17



BENCH MARKS

B.M. "4-A"	Elev. 476.40
Bolt on water meter in front of house #10198 Cabery Road, 40'± West of P.I. "MR-144-A".	
B.M. "2-B"	Elev. 493.20
Road side bonnet bolt of fire hydrant, East side Cabery Road, between houses #10213 & #10217.	
B.M. "1-A"	Elev. 496.22
Railroad spike set in C & P pole #3, 95'± East of P.I. "B-1".	
B.M. "1"	Elev. 510.51
South side bonnet bolt of fire hydrant at Green Clover Drive & Spruce Way.	



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ENGINEERS
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BALTIMORE, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
8-22-77
DIRECTOR OF PUBLIC WORKS DATE

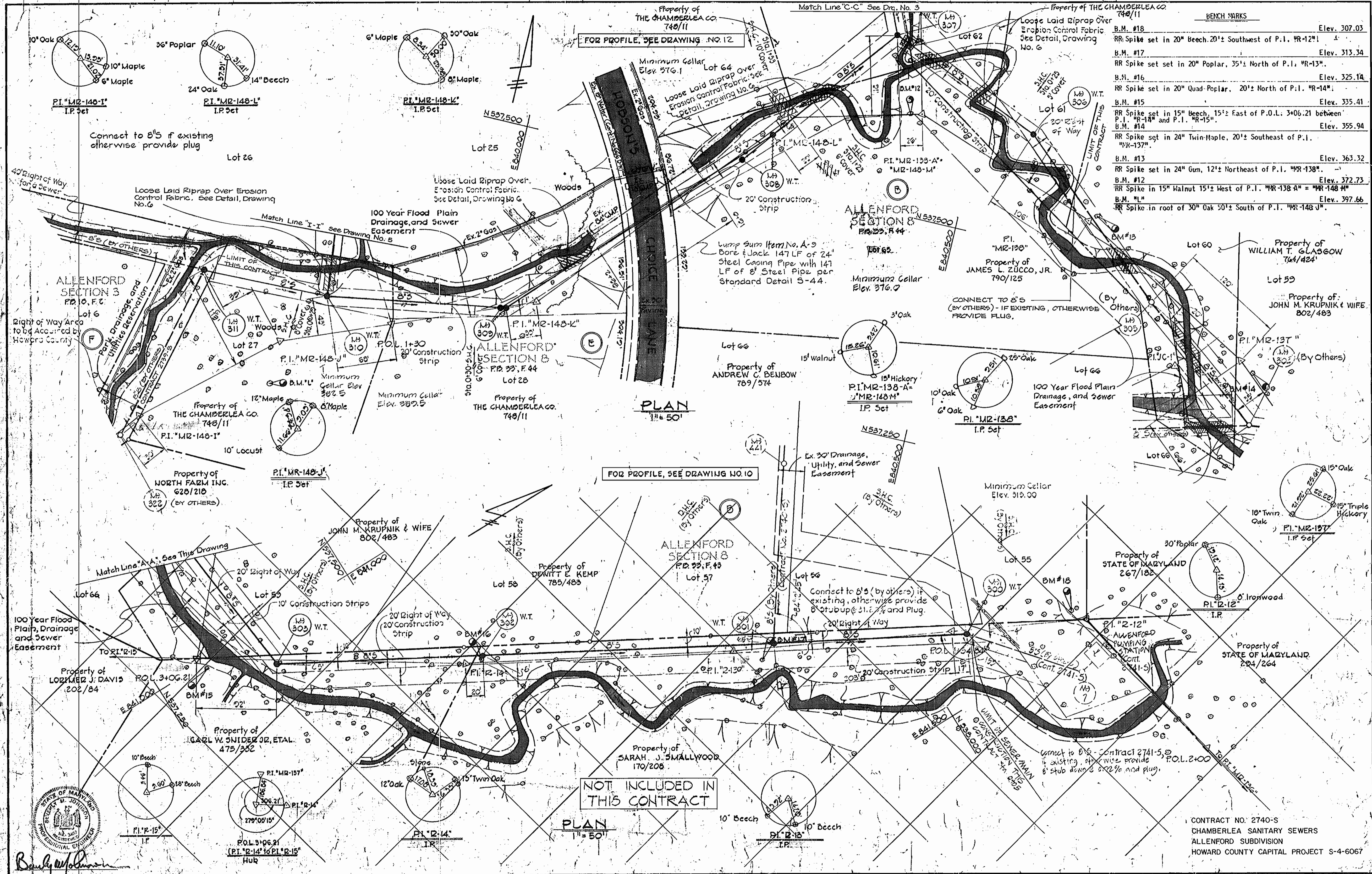
CONTRACT NO. 740-S
CAPITAL PROJECT NO. S-4-6067

PLAN FOR SANITARY SEWERS

CHAMBERLEA SANITARY SEWERS
ELECTION DISTRICT NO. 2
HOWARD COUNTY, MARYLAND

DRAWING SCALE
NO. 7 OF 13
1" = 50'

WS 740 518



BENCH MARKS

B.M. #18	Elev. 307.03
RR Spike set in 20" Beech, 20'± Southwest of P.I. "R-12"	
B.M. #17	Elev. 313.34
RR Spike set in 20" Poplar, 35'± North of P.I. "R-13"	
B.M. #16	Elev. 325.14
RR Spike set in 20" Quad-Poplar, 20'± North of P.I. "R-14"	
B.M. #15	Elev. 335.41
RR Spike set in 15" Beech, 15'± East of P.O.L. 3+06.21 between P.I. "R-13" and P.I. "R-15"	
B.M. #14	Elev. 355.94
RR Spike set in 24" Twin-Maple, 20'± Southeast of P.I. "R-137"	
B.M. #13	Elev. 363.32
RR Spike set in 24" Gum, 12'± Northeast of P.I. "R-138"	
B.M. #12	Elev. 372.73
RR Spike in 15" Walnut 15'± West of P.I. "R-138-A" = "R-148-M"	
B.M. #11	Elev. 397.66
RR Spike in roof of 30" Oak 50'± South of P.I. "R-148-J"	

PLAN 1" = 50'

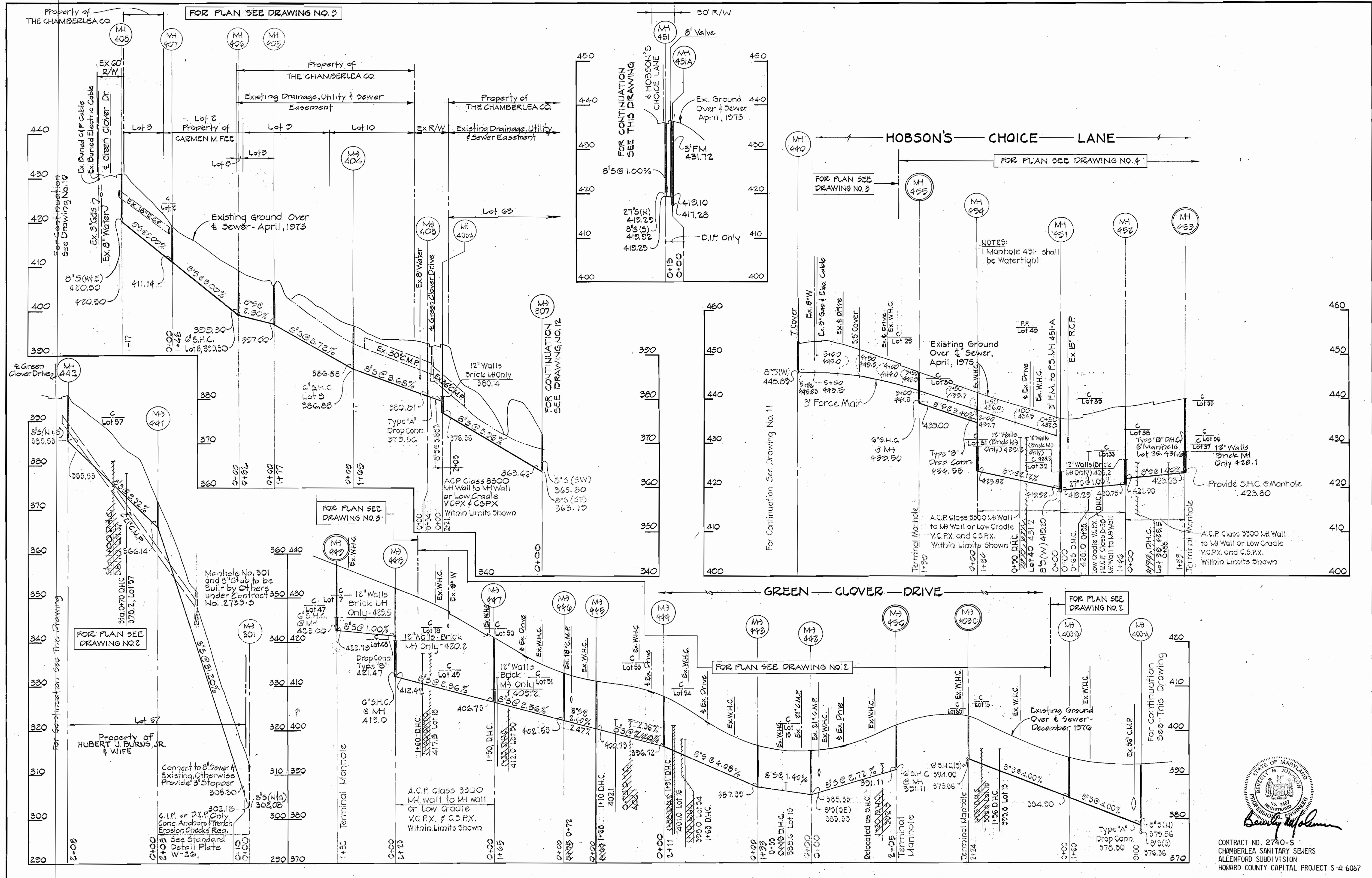
PLAN 1" = 50'

NOT INCLUDED IN THIS CONTRACT

CONTRACT NO: 2740-S
 CHAMBERLEA SANITARY SEWERS
 ALLENFORD SUBDIVISION
 HOWARD COUNTY CAPITAL PROJECT S-4-6067

PURDUM & JESCHKE ENGINEERS 1023 N. CALVERT ST. BALTIMORE, MARYLAND	DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND 831-77 DIRECTOR OF PUBLIC WORKS DATE:	CONTRACT NO: 2740-S CAPITAL PROJECT NO: S-4-6067	PLAN FOR SANITARY SEWERS	CHAMBERLEA SANITARY SEWERS MAPLEWOOD-ALLENFORD SUBDIVISIONS ELECTION DISTRICT NO. 2	DRAWING NO. 8 OF 13	SCALE 1" = 50'	Designed: REP Drafted: TAW Checked: TAF Date:
					W.O. # 3324-11	K&E BALTIMORE 17 0433 PHOENIX MC 3341 2/14/79	

WS 740 S/9



PURDUM & JESCHKE
ENGINEERS
1023 N. CALVERT ST.
BALTIMORE, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
8-22-77
DIRECTOR OF PUBLIC WORKS DATE

CONTRACT NO. 740-S
CAPITAL PROJECT NO. S-4-6067

PROFILES

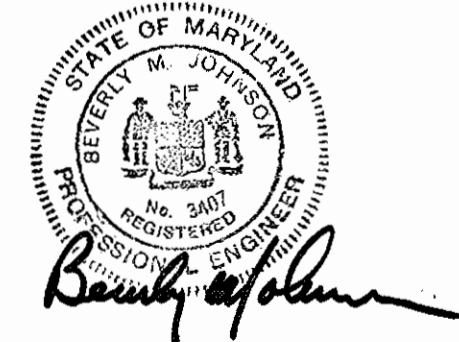
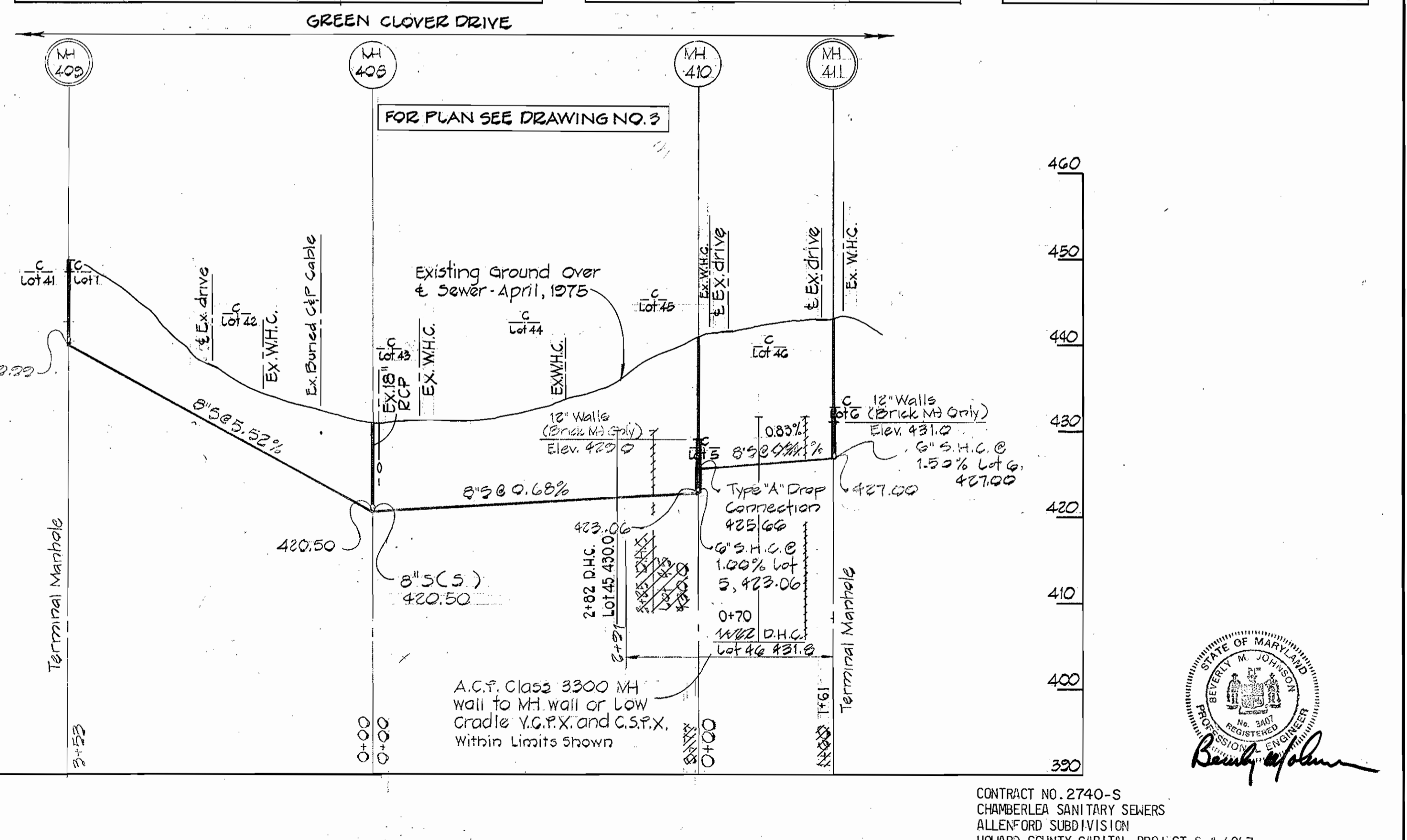
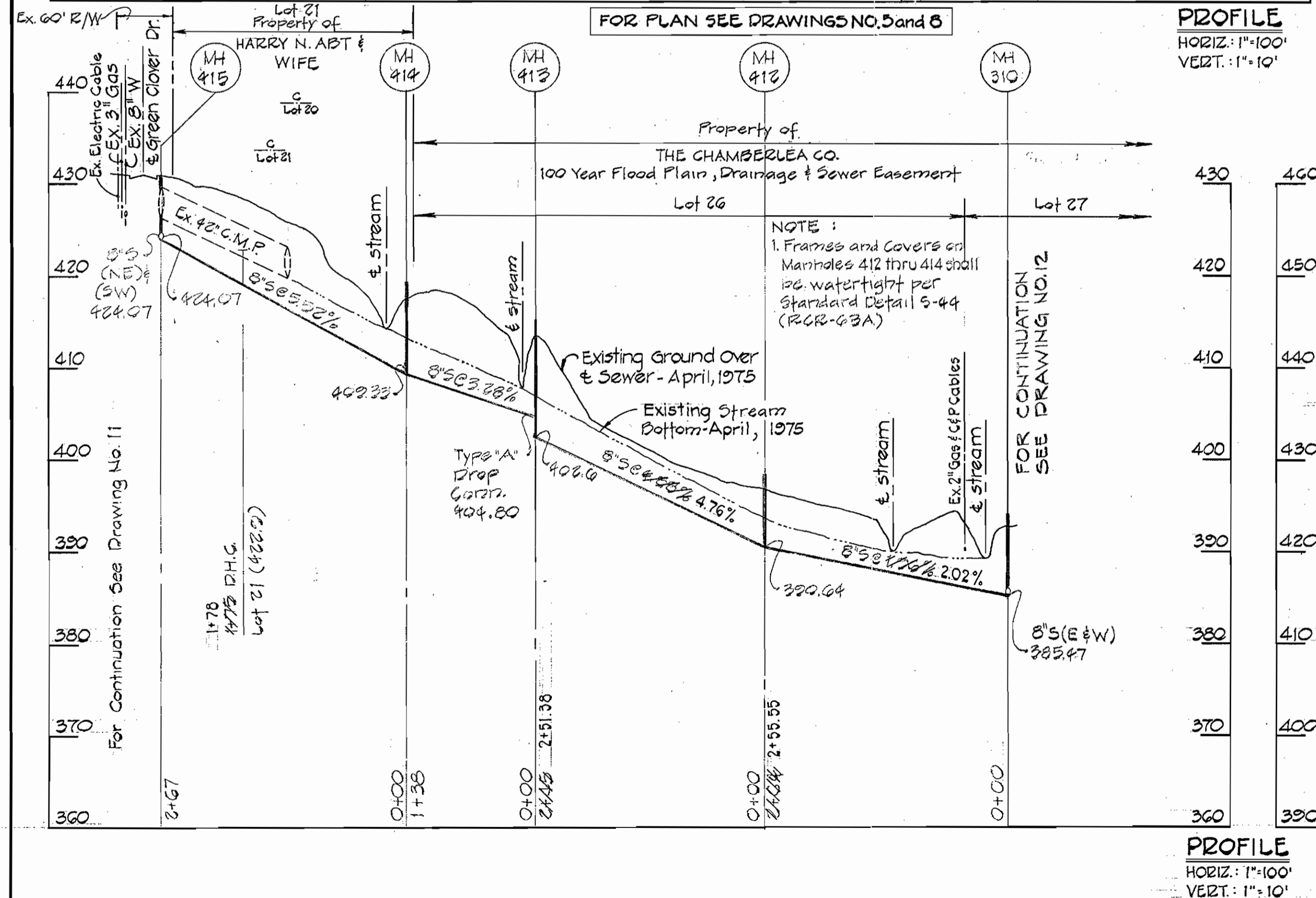
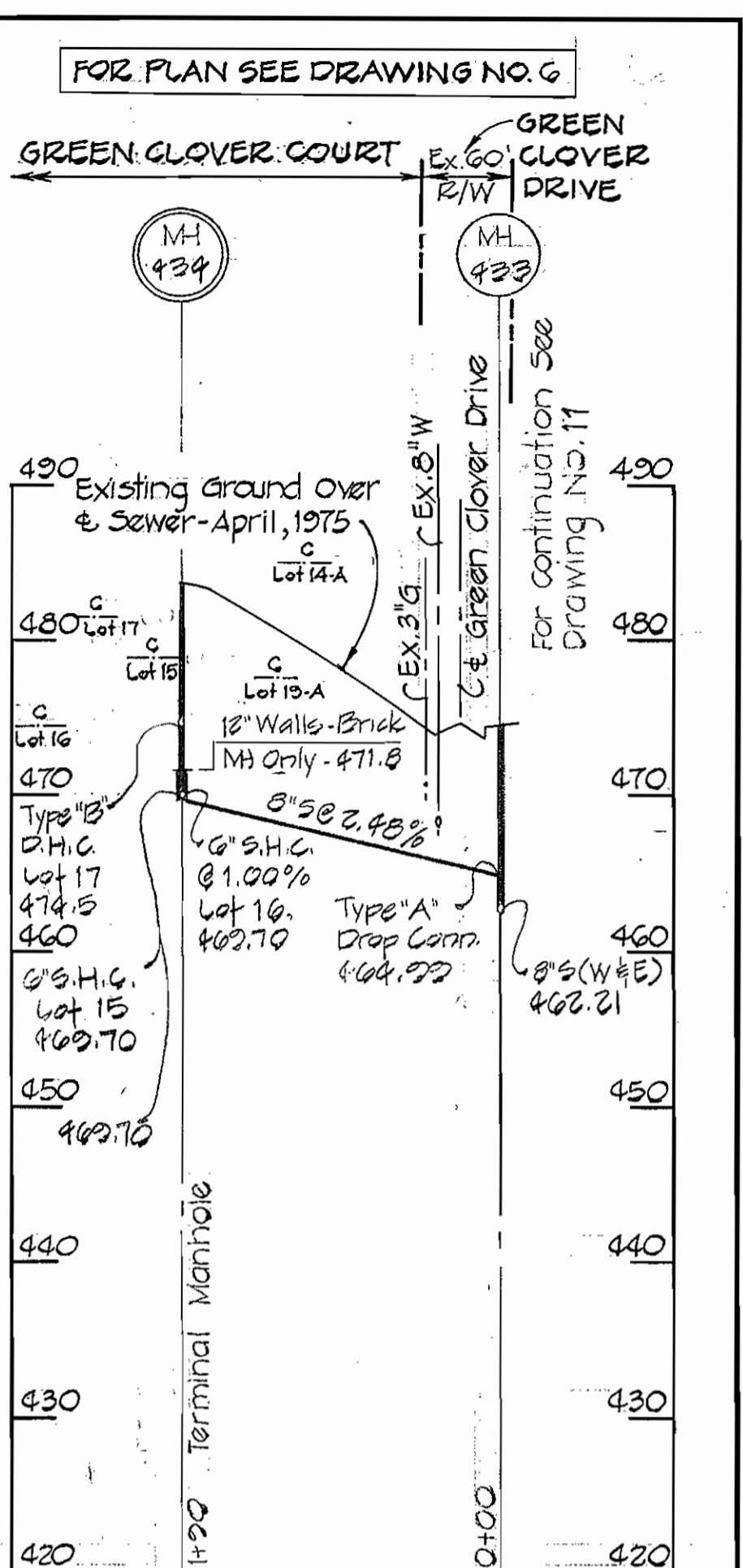
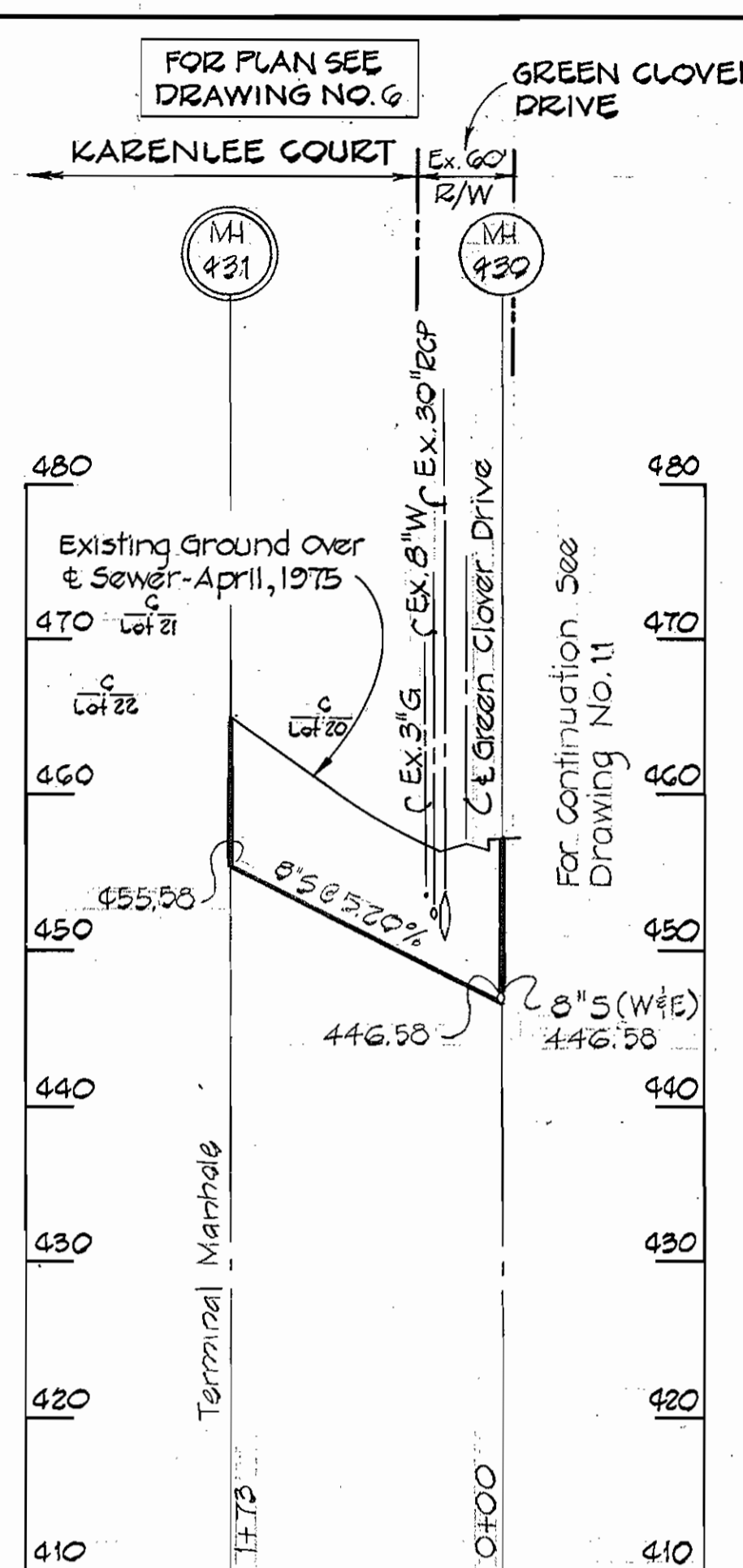
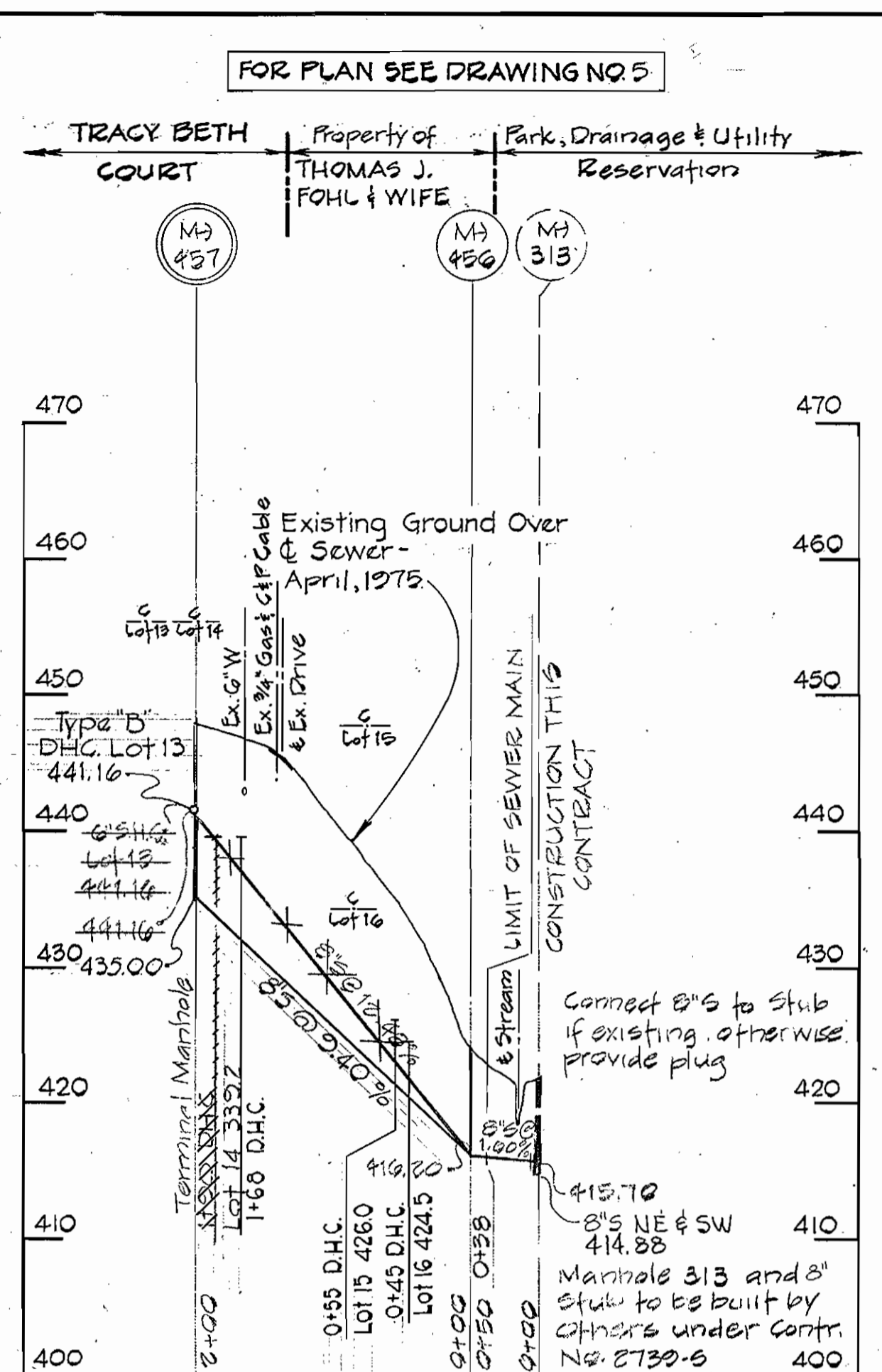
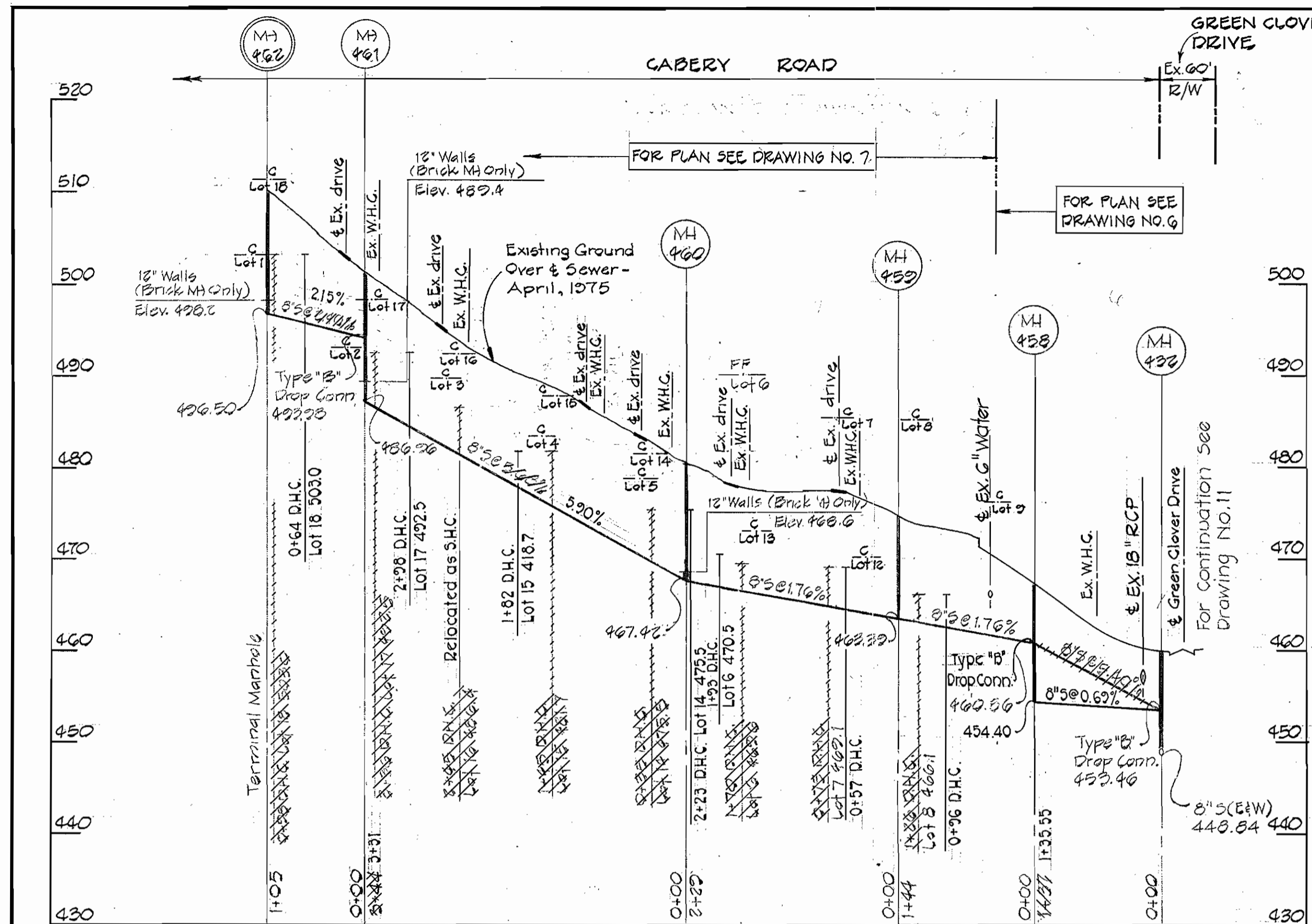
CHAMBERLEA SANITARY SEWERS
ELECTION DISTRICT NO. 2
HOWARD COUNTY, MARYLAND

DRAWING NO. 9 OF 13
SCALE: HORIZ. 1"=100' VERT. 1"=10'
DESIGNED: RPB
DRAFTED: RPB
CHECKED: TAF



CONTRACT NO. 2740-S
CHAMBERLEA SANITARY SEWERS
ALLENFORD SUBDIVISION
HOWARD COUNTY CAPITAL PROJECT S-4-6067

WS 740 S/10



PURDUM & JESCHKE
ENGINEERS
1023 N. CALVERT ST.
BALTIMORE, MARYLAND

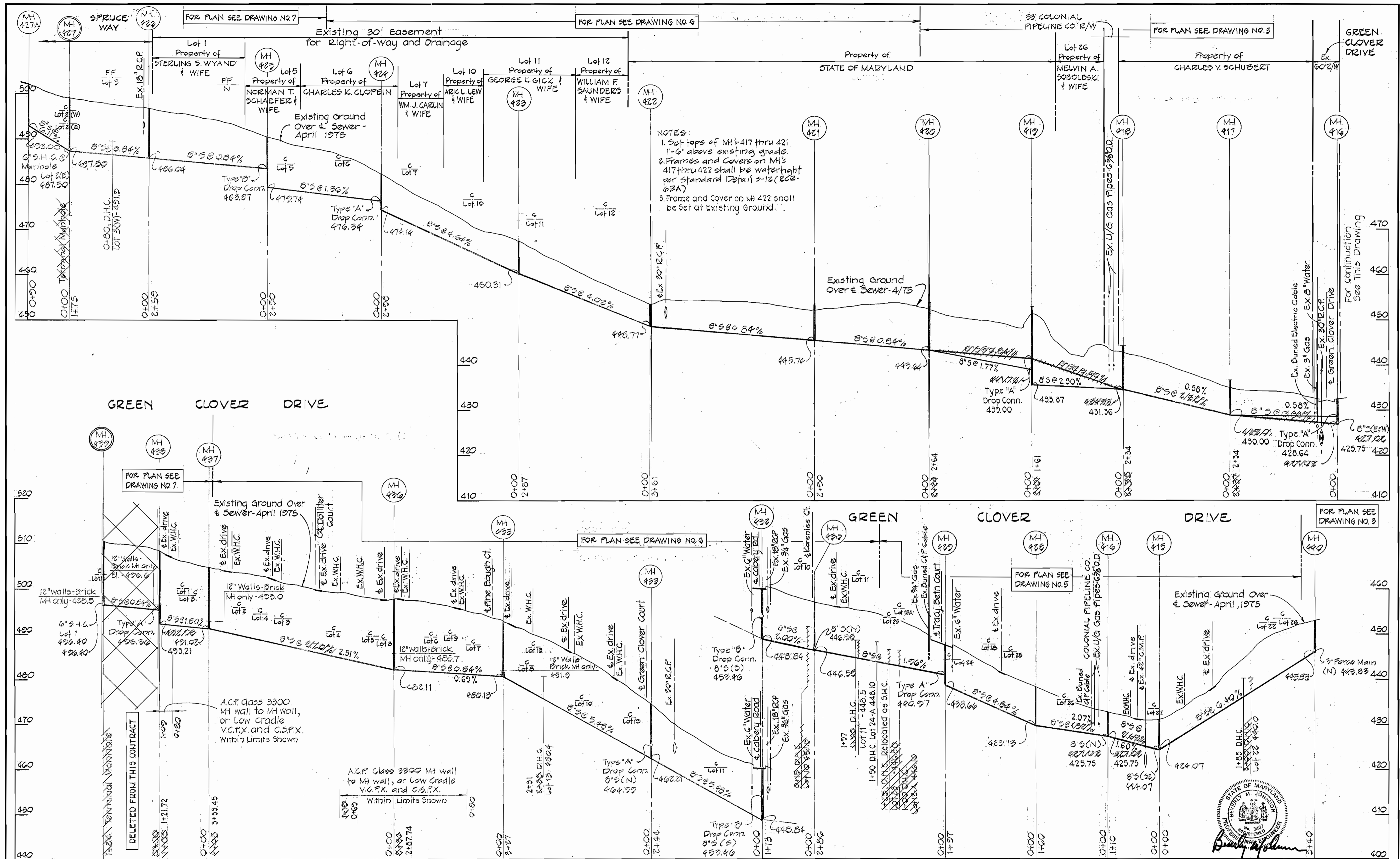
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Director of Public Works: *M. J. Regan* 8-22-77
Chief-Bureau of Engineering: *W. O. Falbert* 8-18-77

CONTRACT NO. 740-S
CAPITAL PROJECT NO. S-4-6067

CHAMBERLEA SANITARY SEWERS
ELECTION DISTRICT NO. 2
HOWARD COUNTY, MARYLAND

DRAWING NO. 10 OF 13
SCALE: HORIZ. 1"=100'
VERT. 1"=10'

WS 740 S/11



NOTES:
 1. Set tops of MH's 417 thru 421
 1'-6" above existing grade.
 2. Frames and Covers on MH's
 417 thru 422 shall be watertight
 per Standard Detail S-10 (202-
 63A)
 3. Frame and Cover on MH 422 shall
 be set at Existing Ground.

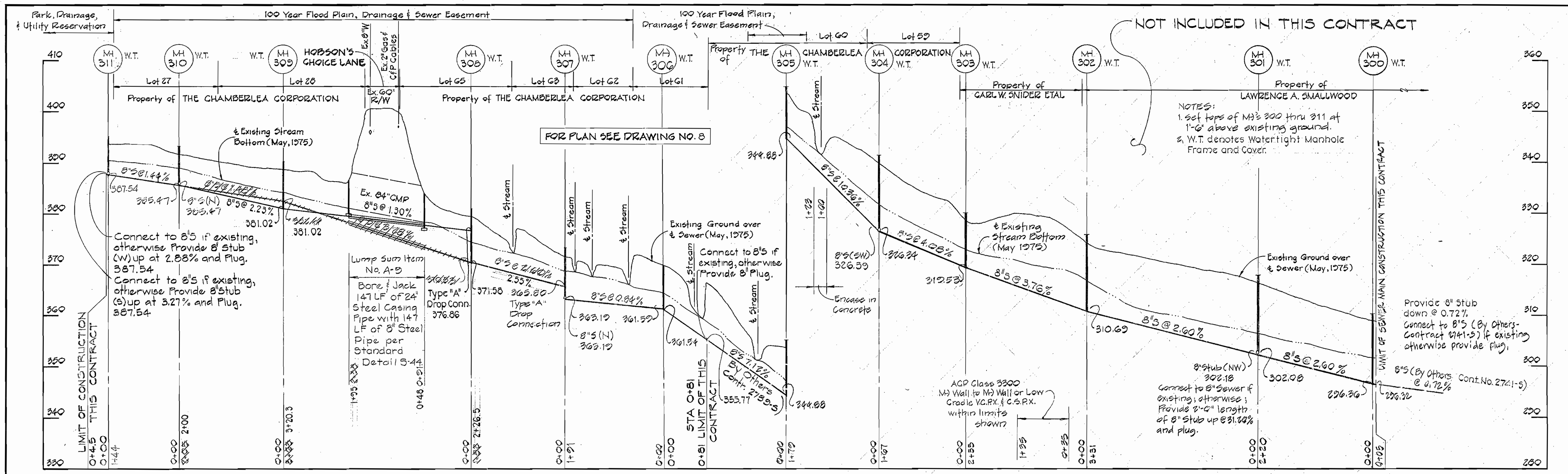
PROFILES
 HORIZ.: 1"=100'
 VERT.: 1"=10'



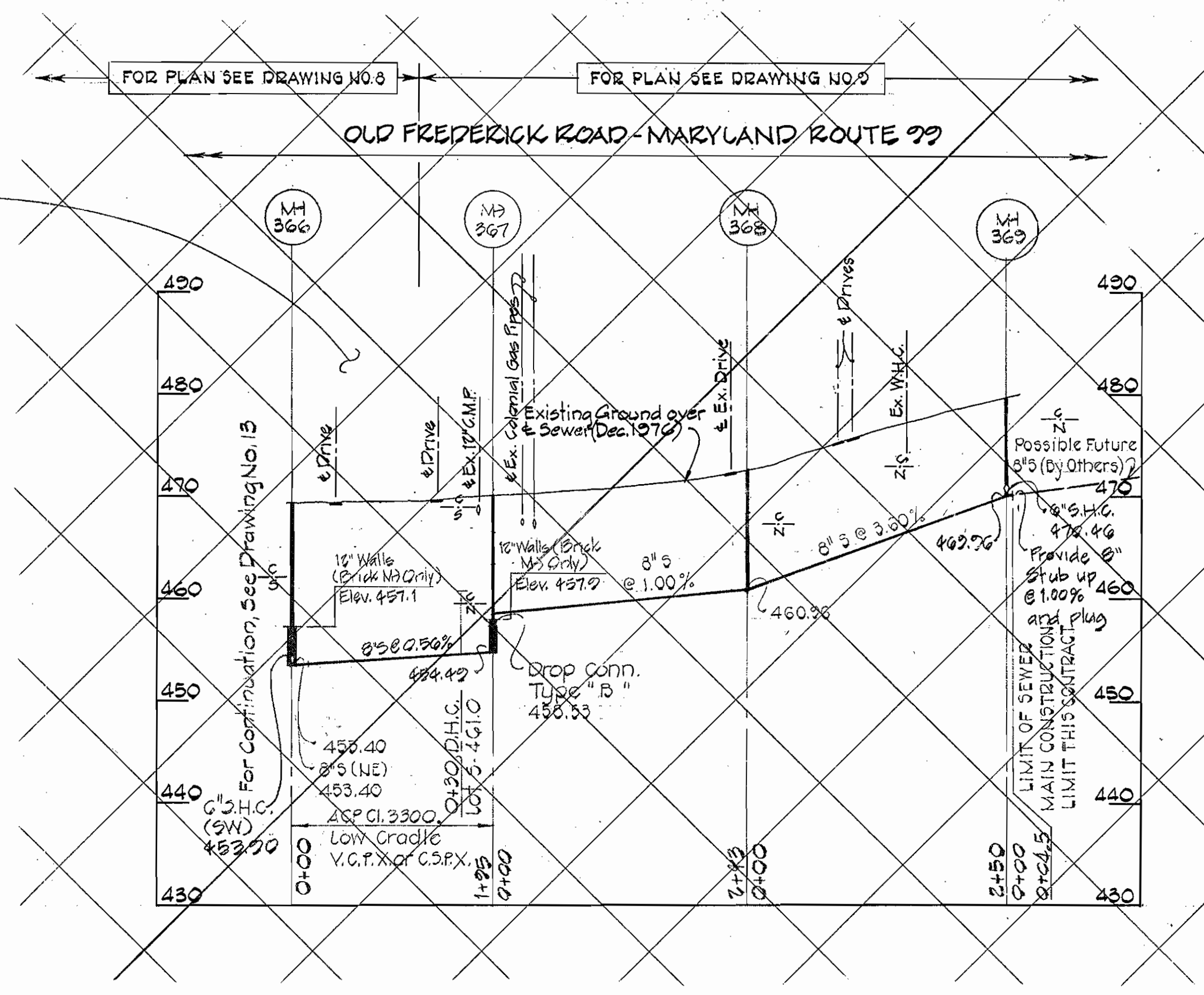
CONTRACT NO. 2740-S
 CHAMBERLEA SANITARY SEWERS
 ELECTION DISTRICT NO. 2
 HOWARD COUNTY, MARYLAND
 ALLENFORD SUBDIVISION
 HOWARD COUNTY CAPITAL PROJECT S-4-6067

<p>PURDUM & JESCHKE ENGINEERS 1023 N. CALVERT ST. BALTIMORE, MARYLAND</p>	<p>DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND <i>W. J. Robert</i> 8-22-77 DIRECTOR OF PUBLIC WORKS DATE CHIEF-BUREAU OF ENGINEERING DATE</p>	<p>CONTRACT NO. 740-S CAPITAL PROJECT NO. S-4-6067</p>	<p>PROFILES</p>	<p>CHAMBERLEA SANITARY SEWERS ELECTION DISTRICT NO. 2 HOWARD COUNTY, MARYLAND</p>	<p>DRAWING NO. 11 OF 13</p>	<p>SCALE: HORIZ. 1"=100' VERT. 1"=10'</p>
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NOT INCLUDED IN THIS CONTRACT



NOT INCLUDED IN THIS CONTRACT



Burley Johnson

PURDUM & JESCHKE
ENGINEERS
1023 N. CALVERT ST.
BALTIMORE, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
8-31-77
DIRECTOR OF PUBLIC WORKS DATE CHIEF-BUREAU OF ENGINEERING DATE

CONTRACT NO. 2740-S
CAPITAL PROJECT NO. S-4-6067

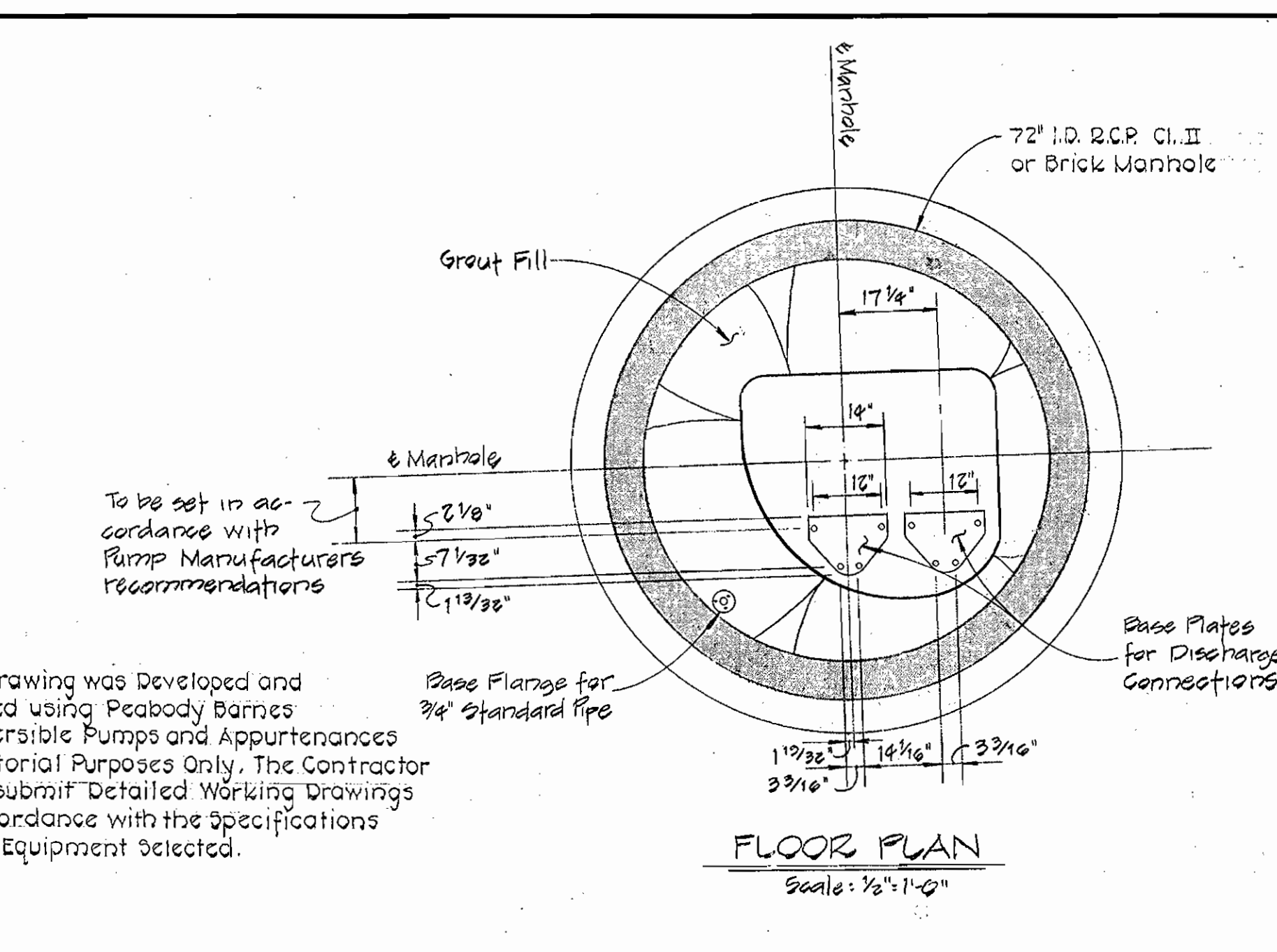
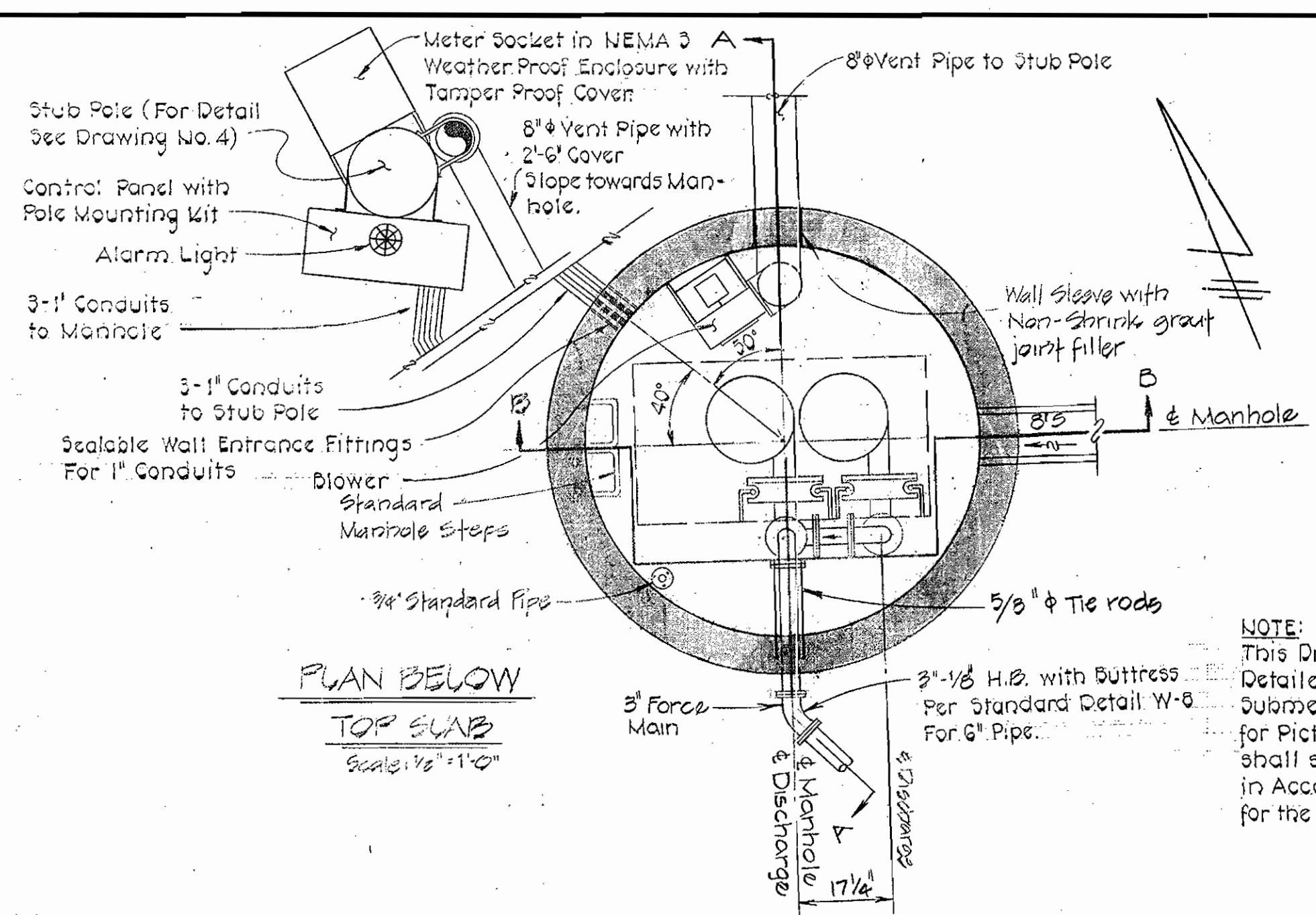
PROFILES FOR
SANITARY SEWERS

CHAMBERLEA SANITARY SEWERS
ALLENFORD SUBDIVISIONS
ELECTION DISTRICT NO. 2

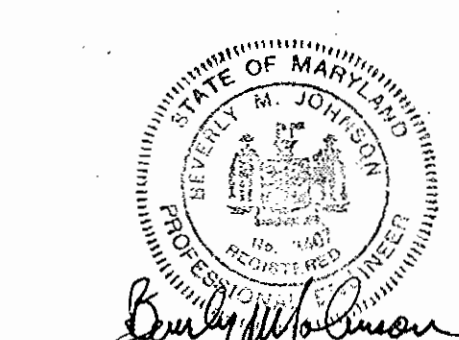
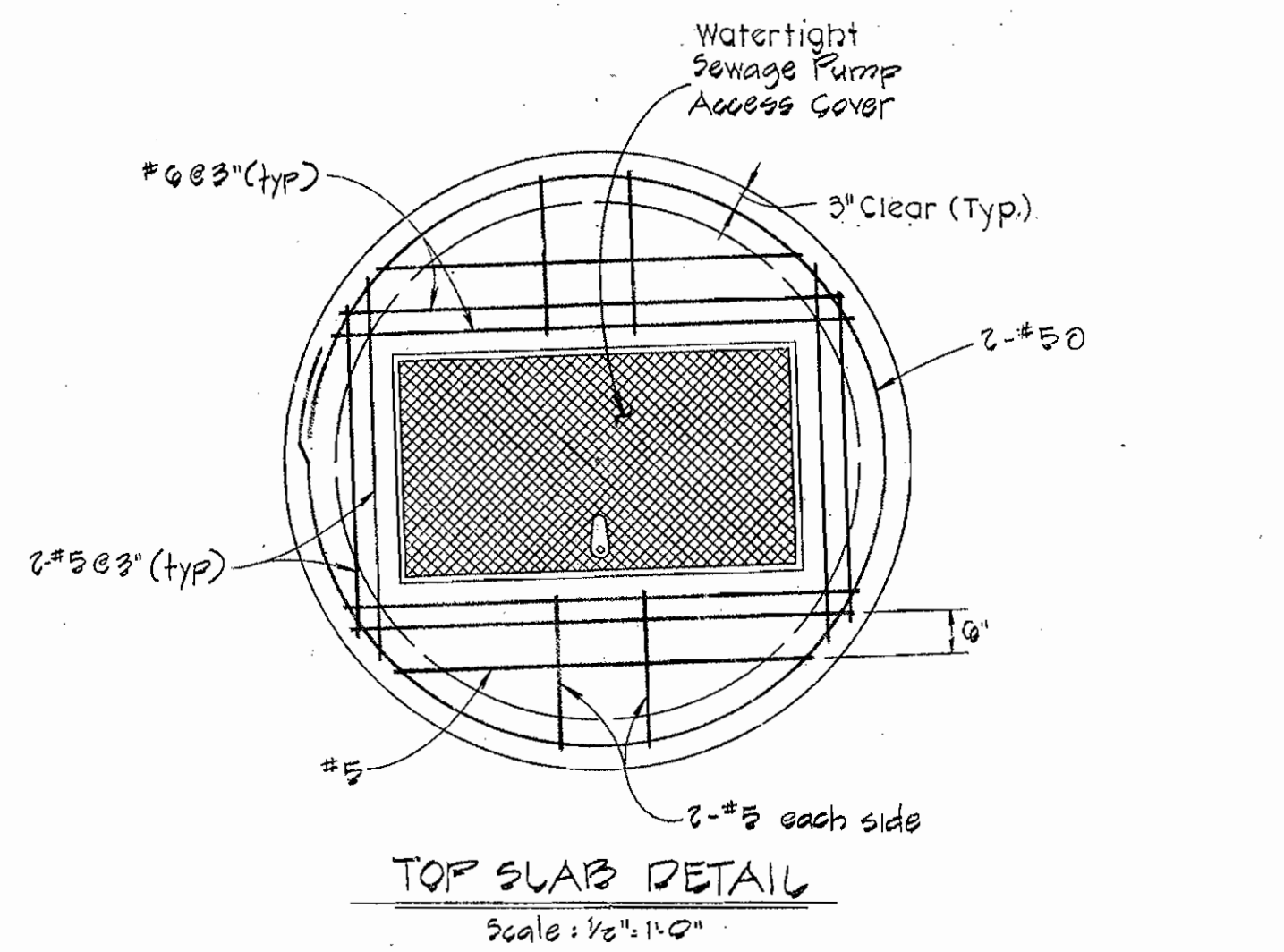
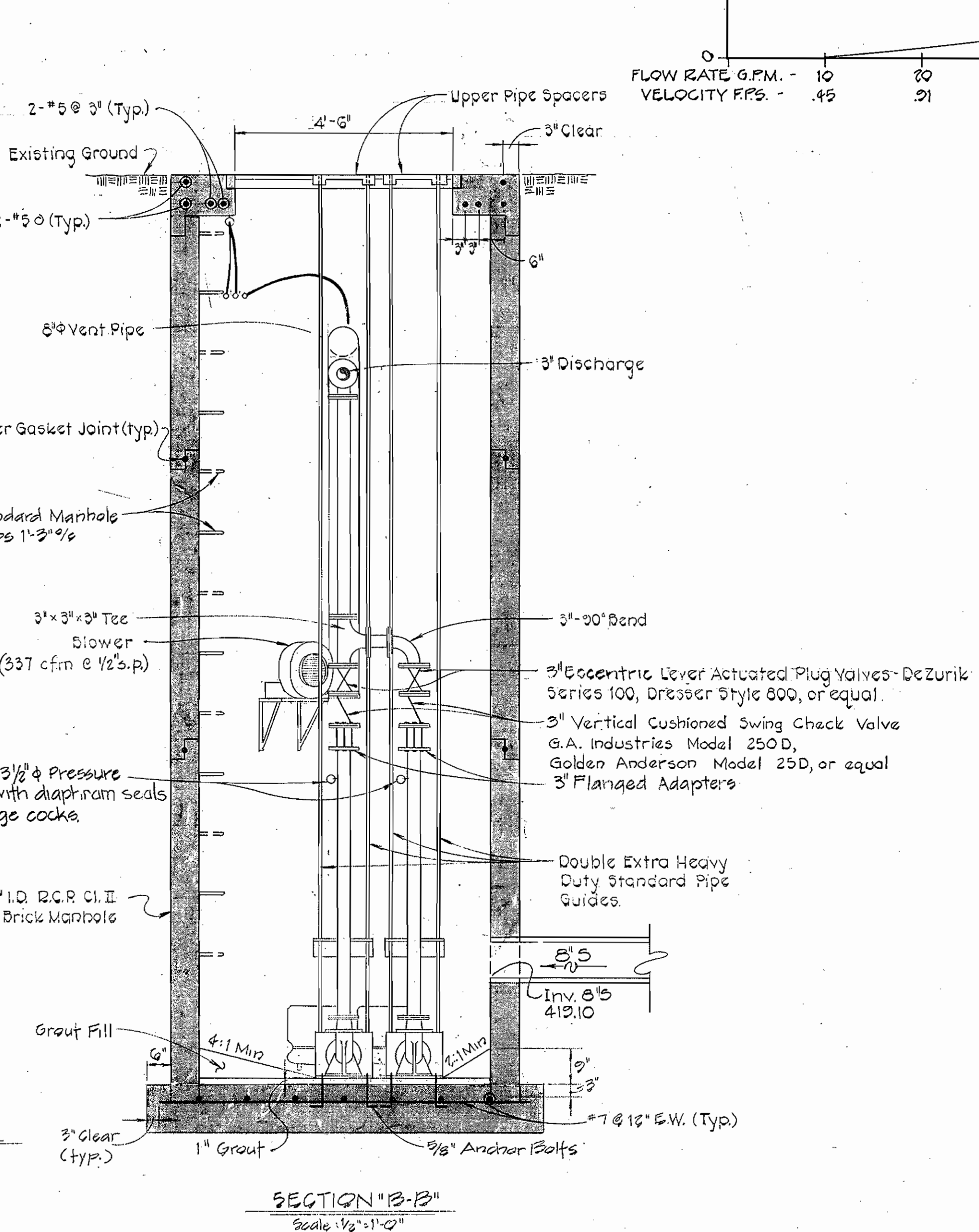
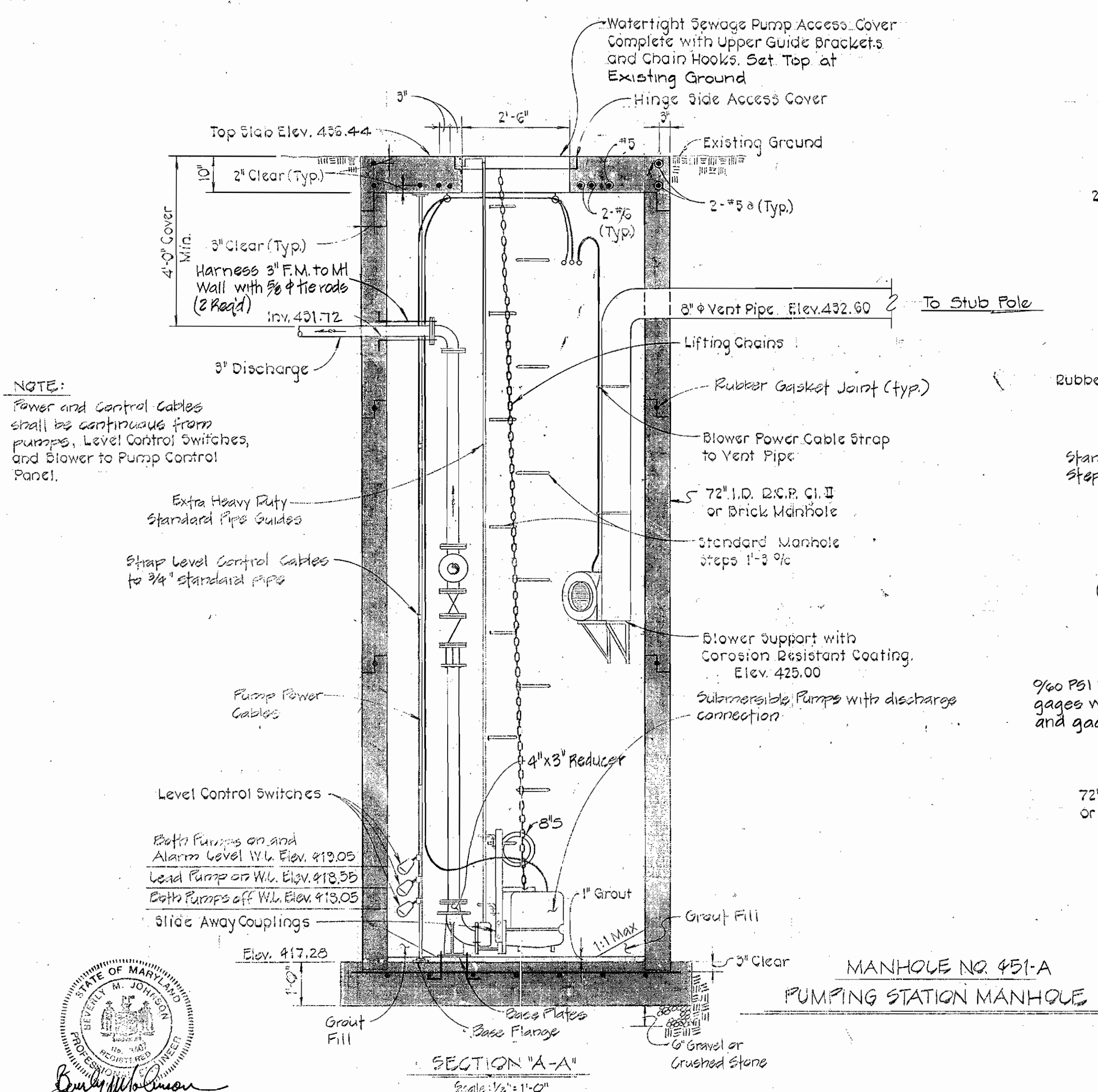
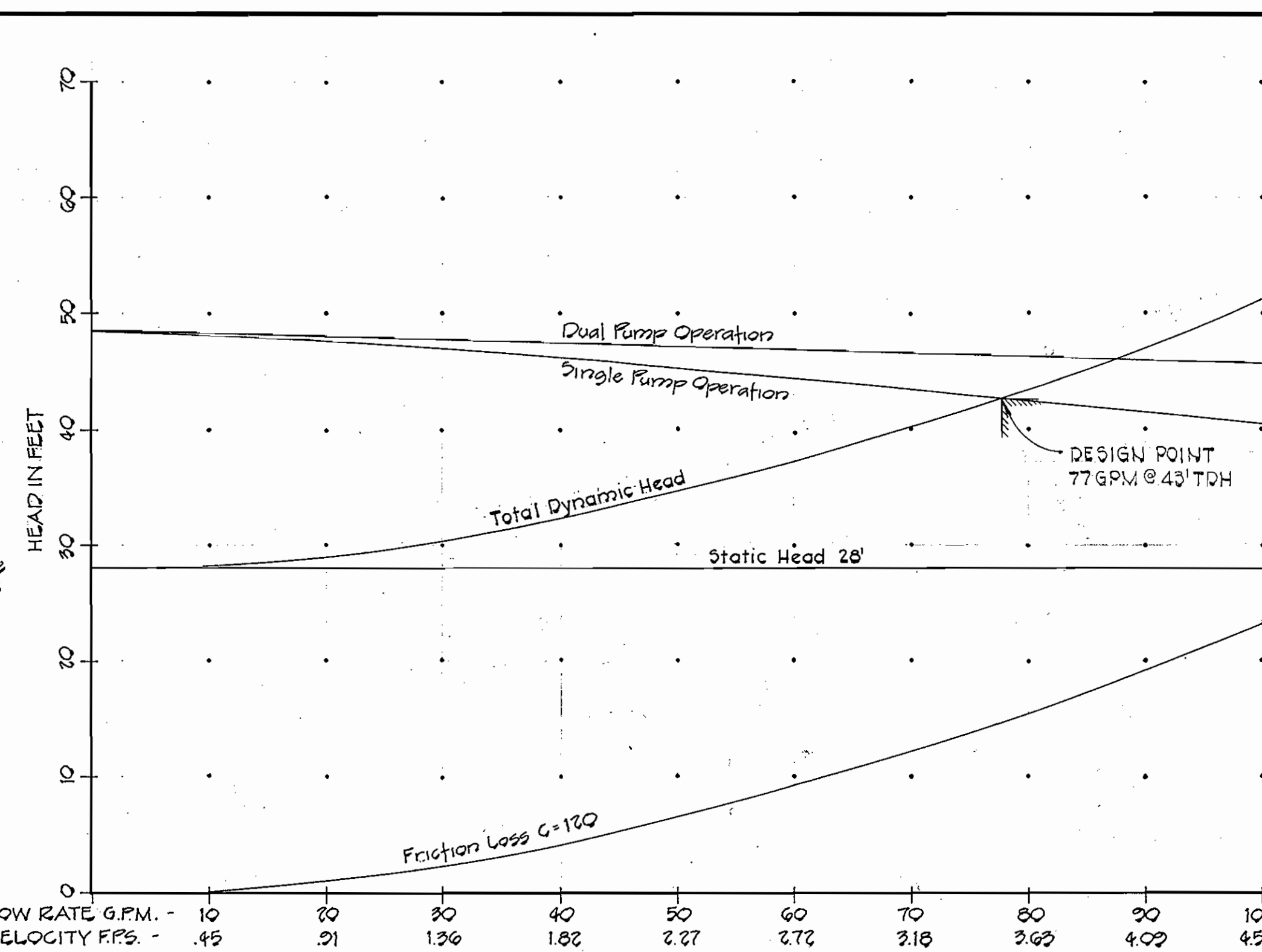
CONTRACT NO. 2740-S
CHAMBERLEA SANITARY SEWERS
ALLENFORD SUBDIVISION
HOWARD COUNTY
CAPITAL PROJECT S-4-6067

DRAWING NO. 12 OF 13	SCALE HORIZ. 1"=100' VERT. 1"=10'	Designed: REP Drafted: REC Checked: TAF
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WS 740 S/12



NOTE:
This Drawing was Developed and Detailed using Peabody Barnes Submersible Pumps and Appurtenances for Pictorial Purposes Only. The Contractor shall submit Detailed Working Drawings in Accordance with the Specifications for the Equipment Selected.



PURDUM & JESCHKE
ENGINEERS
1023 N. CALVERT ST.
BALTIMORE, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
8-22-77
DIRECTOR OF PUBLIC WORKS DATE

CONTRACT NO. 2740-S
CAPITAL PROJECT NO. S-4-6067

DETAILS FOR PUMPING STATION

CHAMBERLEA SANITARY SEWERS
ELECTION DISTRICT NO. 2
HOWARD COUNTY, MARYLAND

DRAWING NO. OF	SCALE	DESIGNED: TAF	DRAFTED: REC	CHECKED: REP
13 OF 13	As Shown			

WS 740 S/13