

HANOVERVILLE

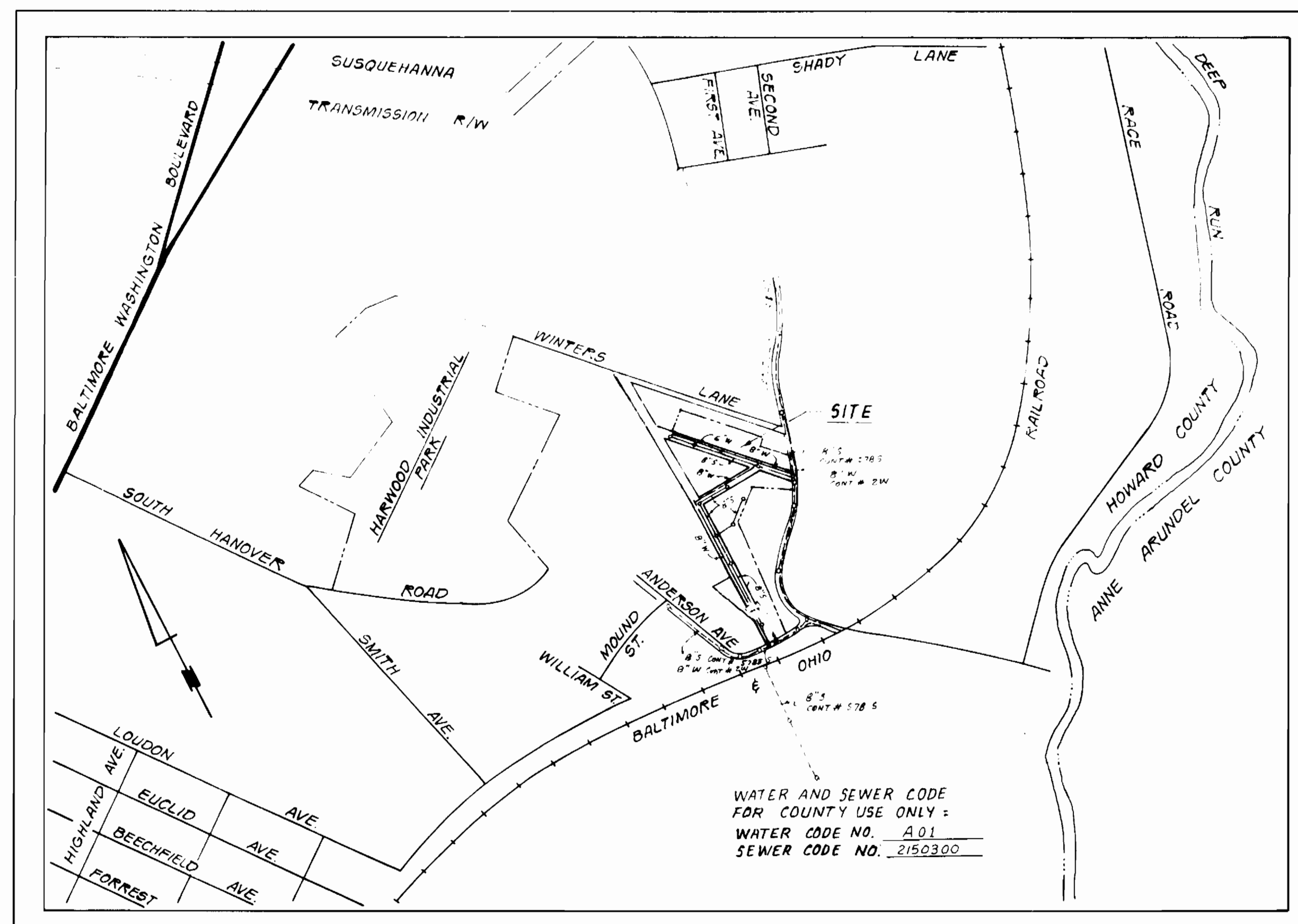
HOWARD COUNTY , MARYLAND

DEPARTMENT OF PUBLIC WORKS

GENERAL NOTES

1. All Water Main To Be D.I.P. Unless Otherwise Shown.
2. Top Of All Water Mains To Have A Minimum Of 3.5 ft. Cover Unless Otherwise Noted.
3. VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
4. Block All Fittings With Concrete, See Standards Bound In Specifications.
5. Bury Line Elevations On Fire Hydrants Shall Be Set To The Elevations Shown On The Drawings. All Fire Hydrants Shall Be Strapped And Outfitted With Concrete In Accordance With STANDARD DETAILS SOIL AROUND THE FIRE HYDRANT TO BE COMPACTED IN ACCORDANCE WITH SECTION 10.03 & 10.08 OF THE STANDARD SPECIFICATIONS.
6. All Sewer Mains Shall Be C.S.P.X., R.C.S.P., PVC, OR V.C.P.X. Unless Otherwise Noted.
7. The Contractor Shall Provide A Joint In All Sewer Mains Within 2'-0" Of Exterior Manhole Wall.
8. All Manholes Shall Be 4'-0" Inside Diameter, Unless Otherwise Noted.
9. Approximate Locations 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.
10. All Horizontal Controls Are Based On Maryland State Coordinates.
11. All Vertical Controls Are Based On U.S.G.S Datum.
12. All Pipe Elevations Shown Are Invert Elevations.
13. Clear All Utilities By A Minimum Of 6"; Clear All Poles By 2'-0" Minimum Or Tunnel As Required. ANY COST INCURRED TO THE CONTRACTOR FOR TUNNELING OR BRACING AT POLES SHALL BE INCLUDED IN UNIT PRICES BID FOR CONSTRUCTION OF MAIN.
14. FOR DETAILS NOT SHOWN ON THE DRAWINGS USE HOWARD COUNTY STANDARD DETAILS.
15. Contractor Shall Locate Existing Utilities A MINIMUM OF TWO (2) WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS IN THE VICINITY OF PROPOSED UTILITIES AT HIS OWN EXPENSE.
16. Trees Are To Be Protected From Damage To Maximum Extent. Trees Located Within The Construction Strip Are Not To Be Removed Or Damaged By The Contractor.
17. Contractor Shall Remove Trees, Stumps And Roots Along Line Of Excavation As Directed By The Engineer. Payment For Such Removal Shall Be Included In The Unit Price Bid For CONSTRUCTION OF THE MAIN.
18. 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.
19. Contractor Shall Notify The Following Utilities Or Agencies At Least Five (5) WORKING DAYS Before Starting Work Shown On These Plans:
 - State Highway Administration - 531-5533
 - Baltimore Gas And Electric Company - Underground Electric Distribution Engineering, "Damage Control" - 234-5621 [CUSTOMER SERVICE - 685-0123]
 - Baltimore Gas And Electric Company - Underground Gas Distribution [CUSTOMER SERVICE - 685-0123]
 - MIST UTILITY - 1-559-0100 [CUSTOMER SERVICE - 685-0123]
 - CHESAPEAKE & POTOMAC (C-T-P) TELEPHONE CO - 725-9976 [CUSTOMER SERVICE - 685-0123]
 - AMERICAN TELEPHONE AND TELEGRAPH - CABLE LOCATION DIVISION - 393-3553
 - COLONIAL PIPELINE COMPANY - 795-1390
 - BUREAU OF UTILITIES HOWARD COUNTY - 992-2366
- (20) FOR MATERIALS AND CONSTRUCTION METHODS USE HOWARD COUNTY STANDARD SPECIFICATIONS.
- (21) ALL WATER HOUSE CONNECTIONS SHALL BE FOR AN INSIDE METER SETTING.
- (22) THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING SYSTEM.
- (23) WATER MAIN AND WATER HOUSE CONNECTION LINES MUST HAVE A MINIMUM OF ONE FOOT SEPARATION FROM THE SANITARY SEWER AND SEWER HOUSE CONNECTIONS AS THEY CROSS EXCEPT AT CROSSINGS. WATER AND SEWER LINES SHALL HAVE A MINIMUM HORIZONTAL SEPARATION OF 10'.
- (24) FOR ALL COPPER WATER HOUSE CONNECTIONS, UTILIZE FLARED TYPE FITTINGS ONLY.
- (25) ALL MANHOLES DESIGNATED "W.T." IN PROFILE SHALL HAVE WATERTIGHT FRAMES & COVERS. STANDARD DETAIL G 5.52, WHERE W.T. MANHOLE FRAME & COVER REQUIRED, SET UP TOP OF FRAME 1'-6" ALONG FINISHED GRADE UNLESS OTHERWISE NOTED.

QUANTITIES			
ITEM	EST'D	AS-BUILT	SUPPLIER
8" WATER	1,660 L.F.	1660 L.F.	Griffin
6" WATER	573 L.F.	582 L.F.	"
1" W.H.C.	573 L.F.	301 L.F.	CARLISLE LEE
3/4" W.H.C.	236 L.F.	203 L.F.	"
FIRE HYDRANT	4 NO.	4 EA.	KENNEDY
8" SEWER	2,164 L.F.	2311 L.F.	AMERICAN
4" SEWER	990 L.F.	1038 L.F.	"
8" VALVE	4 NO.	6 EA.	KENNEDY
8" B.T.S. & VALVE	2 NO.	2 EA.	CLAW-KENNEDY
6" VALVE	1 NO.	5 EA.	KENNEDY
MANHOLE	12 NO.	12 EA.	ATLANTIC



TYPE OF BUILDING	RESIDENTIAL
NUMBER OF LOTS	53
NO. OF WATER HOUSE CONNECTIONS	45
NO. OF SEWER HOUSE CONNECTIONS	45
DRAINAGE AREA	PATAPSCO

LOCATION PLAN
Scale: 1" = 600'

*SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECT-15 OF THE HOWARD COUNTY DESIGN MANUAL AND STANDARD SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS AND F-85-168

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

[Signature] 11/6/89
SIGNATURE DATE
U.S. SOIL CONSERVATION SERVICE

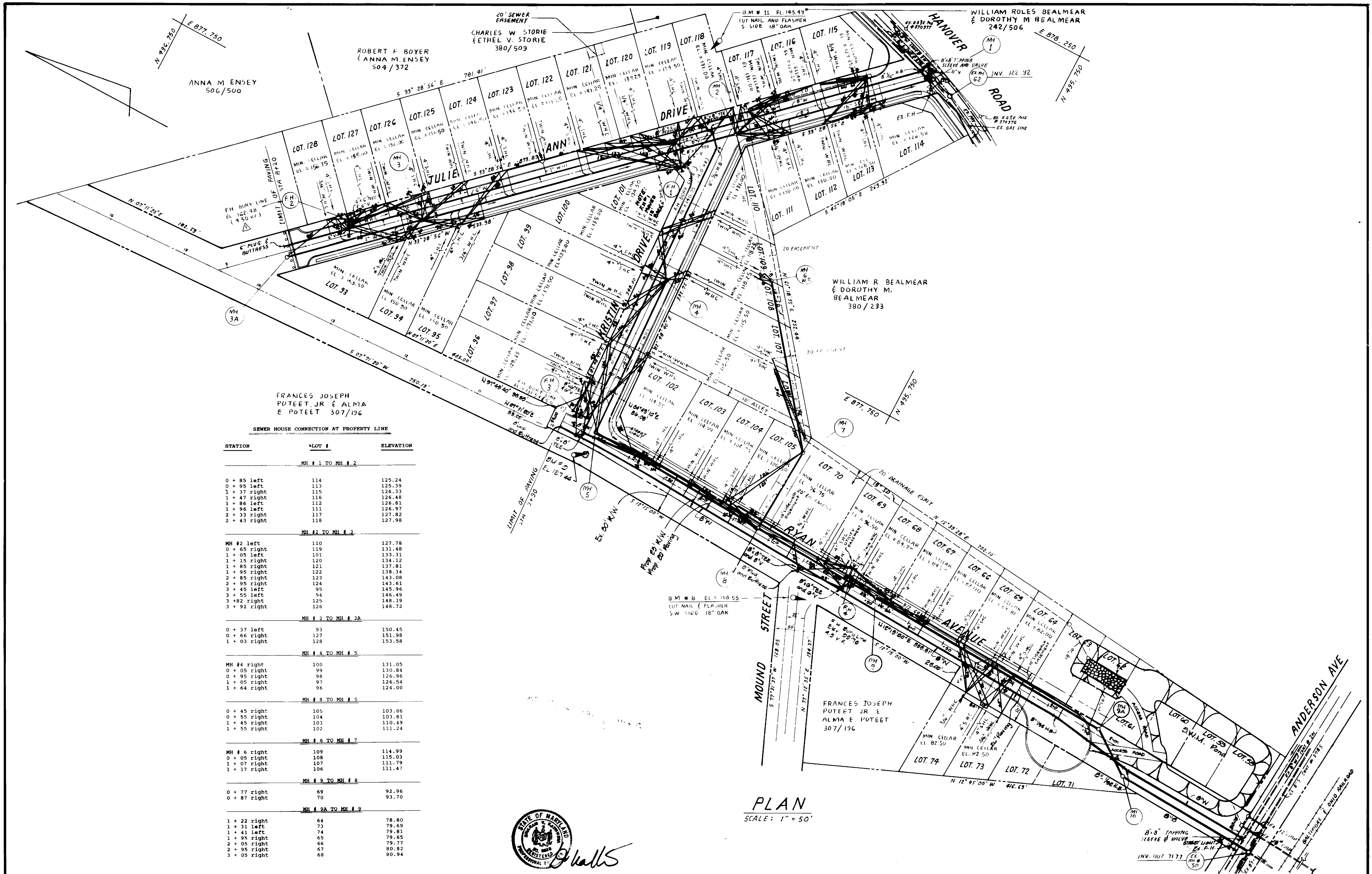
This Development Plan Is Approved For Soil Erosion And Sediment Control By The Howard Soil Conservation District.

APPROVED:
[Signature] 11/6/89
Howard S.C.D. DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
11/9/89
DIRECTOR OF PUBLIC WORKS DATE CHIEF, BUREAU OF ENGINEERING DATE
11/2/89
CHIEF, BUREAU OF UTILITIES DATE CHIEF, LAND DEVELOPMENT DATE



ENGINEERING TECHNOLOGIES ASSOCIATES, INC. ENGINEERS, PLANNERS, SURVEYORS <small>3408 ELLICOTT CENTER DRIVE SUITE 101 ELLICOTT CITY, MD 21043 (301) 441-9900</small>	CONTRACT NO. 14-1381-D <small>REVISED F-85-168</small>	TITLE SHEET WATER AND SEWER MAINS	HANOVERVILLE ELECTION DISTRICT ELKCRIDGE NO.1	DRAWING NO. 1 OF 3	SCALE AS SHOWN
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SEWER HOUSE CONNECTION AT PROPERTY LINE

STATION	LOT #	ELEVATION
MH # 1 TO MH # 2		
0 + 85 left	114	125.24
0 + 95 left	113	125.39
1 + 37 right	115	126.33
1 + 47 right	116	126.48
1 + 86 left	112	126.81
1 + 96 left	111	126.97
2 + 33 right	117	127.82
2 + 43 right	118	127.98
MH # 2 TO MH # 3		
MH # 2 left	110	127.78
0 + 65 right	119	131.48
1 + 05 left	101	133.31
1 + 15 right	120	134.12
1 + 85 right	121	137.81
1 + 95 right	122	138.34
2 + 85 right	123	143.08
2 + 95 right	124	143.61
3 + 45 left	95	145.96
3 + 55 left	94	146.49
3 + 82 right	125	148.19
3 + 92 right	126	148.72
MH # 3 TO MH # 3A		
0 + 37 left	93	150.45
0 + 66 right	127	151.98
1 + 03 right	128	153.58
MH # 4 TO MH # 5		
MH # 4 right	100	131.05
0 + 05 right	99	130.84
0 + 95 right	98	126.96
1 + 05 right	97	126.54
1 + 64 right	96	124.00
MH # 8 TO MH # 5		
0 + 45 right	105	103.06
0 + 55 right	104	103.81
1 + 45 right	103	110.49
1 + 55 right	102	111.24
MH # 6 TO MH # 7		
MH # 6 right	109	114.99
0 + 05 right	108	115.03
1 + 07 right	107	111.79
1 + 17 right	106	111.47
MH # 9 TO MH # 8		
0 + 77 right	69	92.96
0 + 87 right	70	93.70
MH # 9A TO MH # 9		
1 + 22 right	64	78.80
1 + 31 left	73	79.69
1 + 41 left	74	79.81
1 + 95 right	65	79.65
2 + 05 right	66	79.77
2 + 95 right	67	80.82
3 + 05 right	68	80.94

PLAN
SCALE: 1" = 50'



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

James Z. [Signature] 11/9/89
DIRECTOR OF PUBLIC WORKS DATE

Richard E. [Signature] 11/2/89
CHIEF, BUREAU OF UTILITIES DATE

Richard E. [Signature] 11/2/89
CHIEF, BUREAU OF UTILITIES DATE

Richard E. [Signature] 11/2/89
CHIEF, LAND DEVELOPMENT DIVISION DATE

ENGINEERING TECHNOLOGIES
ASSOCIATES, INC.

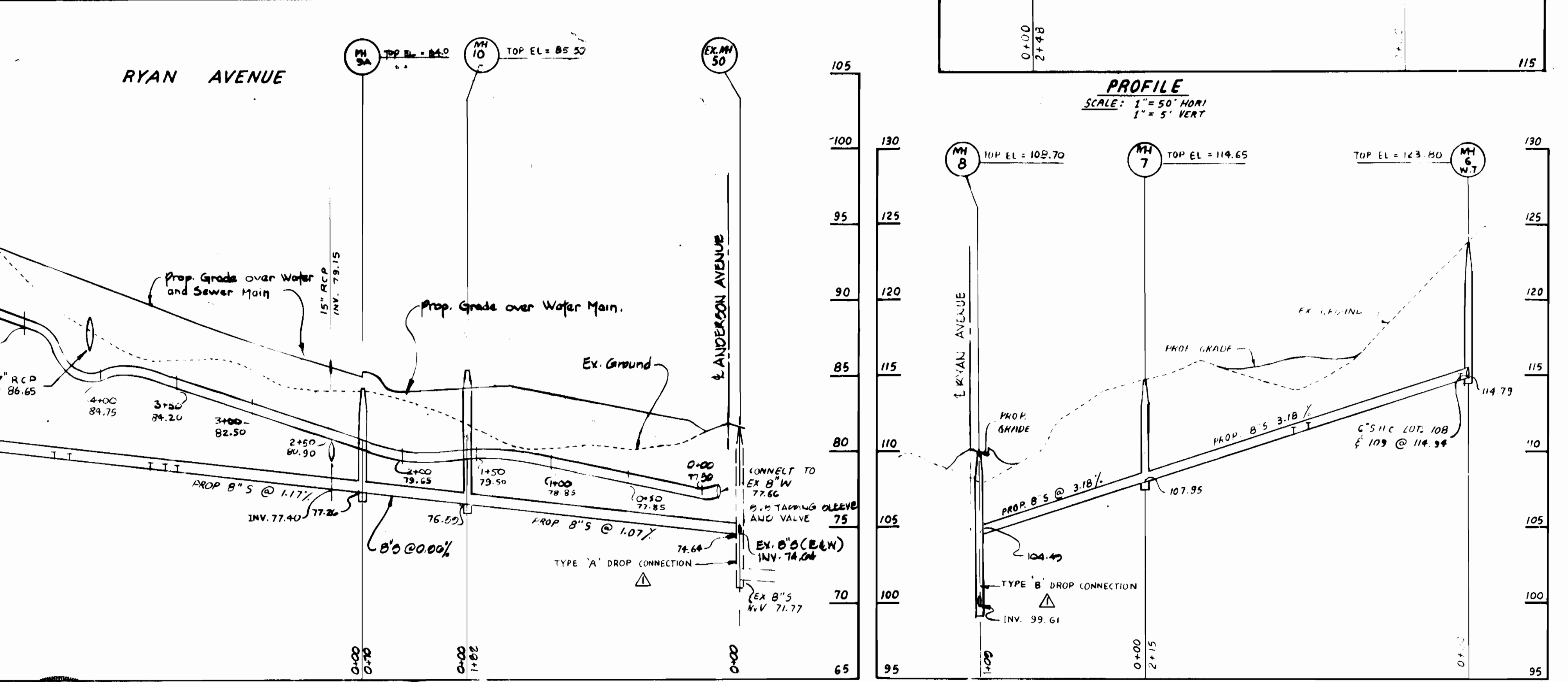
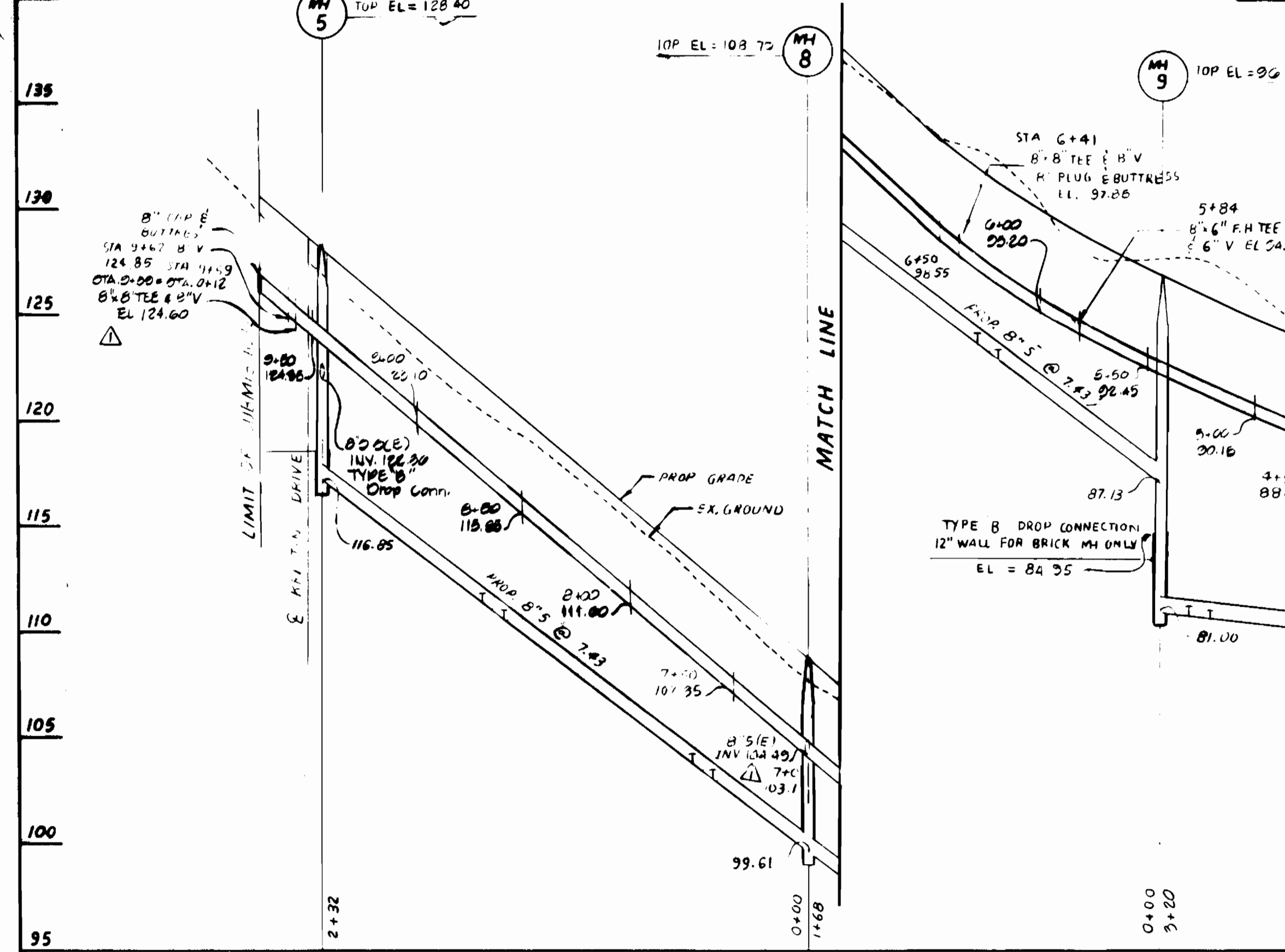
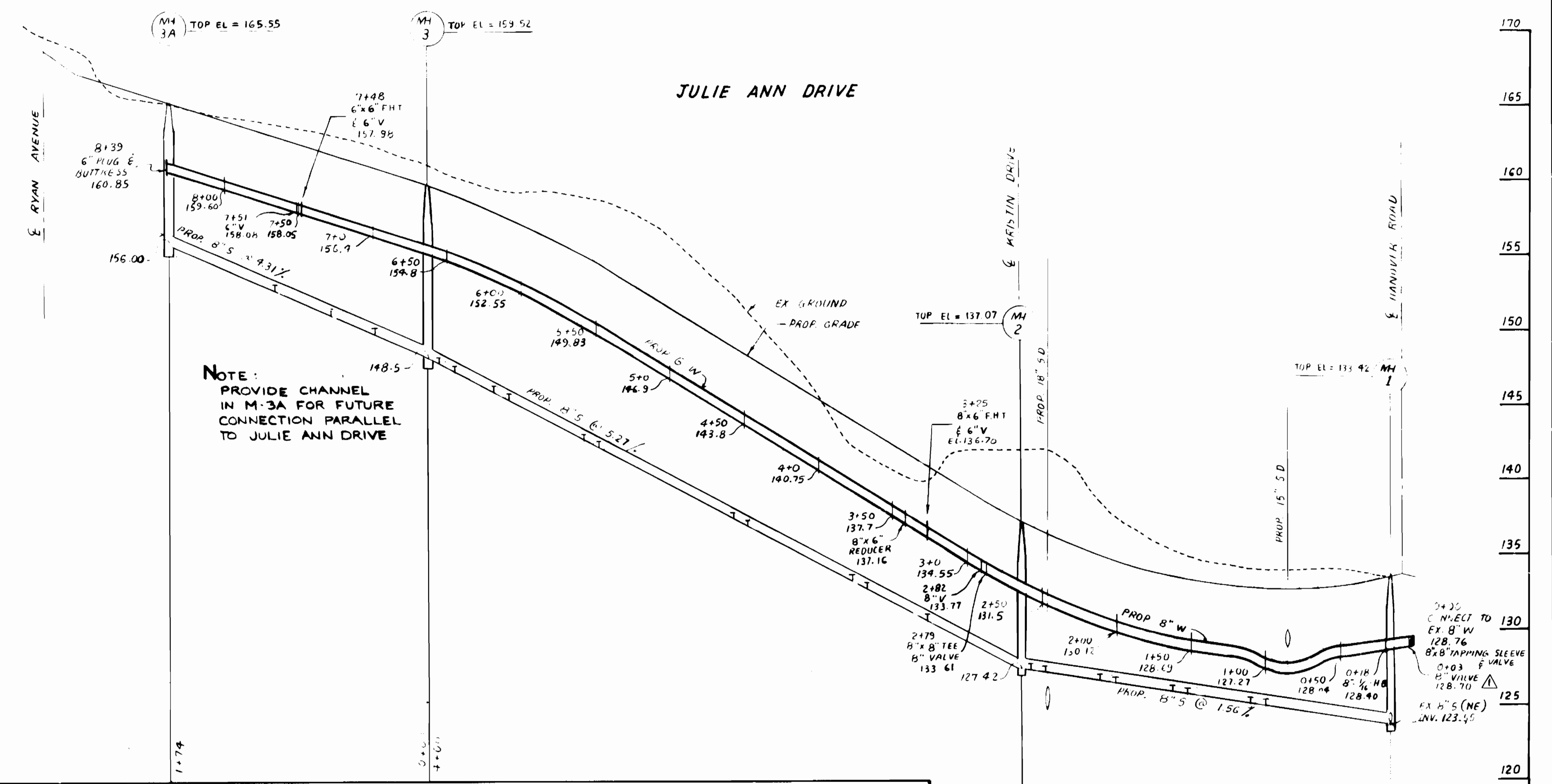
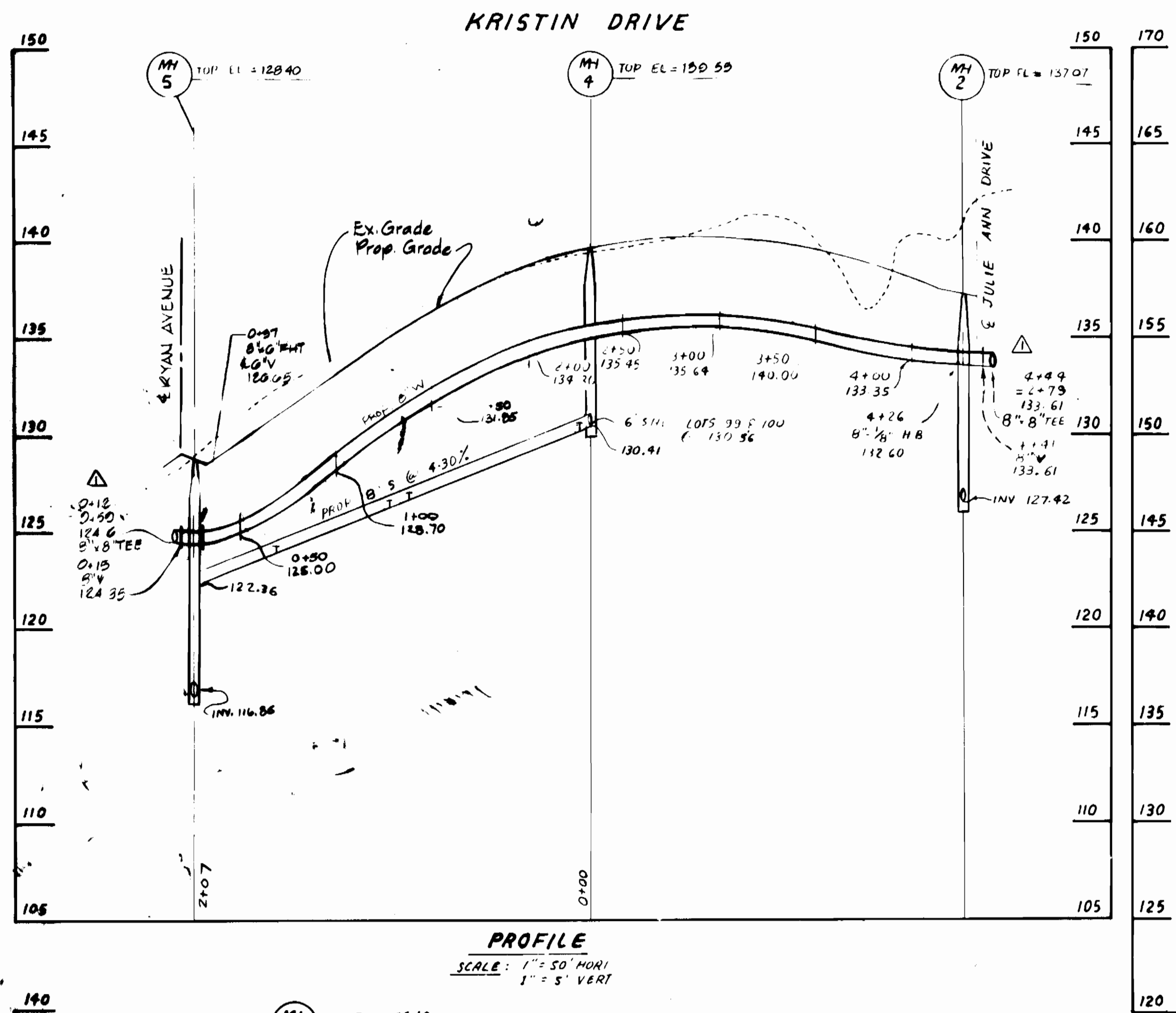
ENGINEERS, PLANNERS, SURVEYORS
3458 ELLICOTT CENTER DRIVE, SUITE 101
ELLICOTT CITY, MD. 21043
(301) 481-9920

DESIGNED	K.A.P.	DATE	REVISIONS		
DRAWN	K.A.P.	DATE	DATE	BY	DESCRIPTION
CHECKED	D.V.K.	DATE			
APPROVED		DATE			

PLAN
WATER AND SEWER MAINS
AS-BUILT

HANOVERVILLE
CONTRACT NO. 14-1381-D
1ST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE: AS SHOWN DATE: Feb 1989 SHEET: 2 OF 3



PROFILE
SCALE: 1" = 50' HORIZ.
1" = 5' VERT.

g. hall

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

James A. ... 11/2/89
DIRECTOR OF PUBLIC WORKS DATE

Michael A. ... 11/2/89
CHIEF, BUREAU OF UTILITIES DATE

Michael A. ... 11/2/89
CHIEF, LAND DEVELOPMENT DIVISION DATE

ENGINEERING TECHNOLOGIES
ASSOCIATES, INC.

ENGINEERS, PLANNERS, SURVEYORS
3458 ELLICOTT CENTER DRIVE, SUITE 101
ELLICOTT CITY, MD 21043
(301) 461-9920

DESIGNED	DATE	REVISIONS	
		BY	DESCRIPTION
K A P	date	12-G-85	ETA STATE HEALTH DEPT. COMMENTS
DRAWN	K A P	date	
CHECKED	D V K	date	
APPROVED		date	

PROFILE

WATER AND SEWER MAINS
AS-BUILT

HANOVERVILLE
REVISION F-85-186

CONTRACT NO. 14-1381-D

1ST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE: AS SHOWN DATE: FEB 1989 SHEET: 3 OF 3