

Water Resources Administration Notes

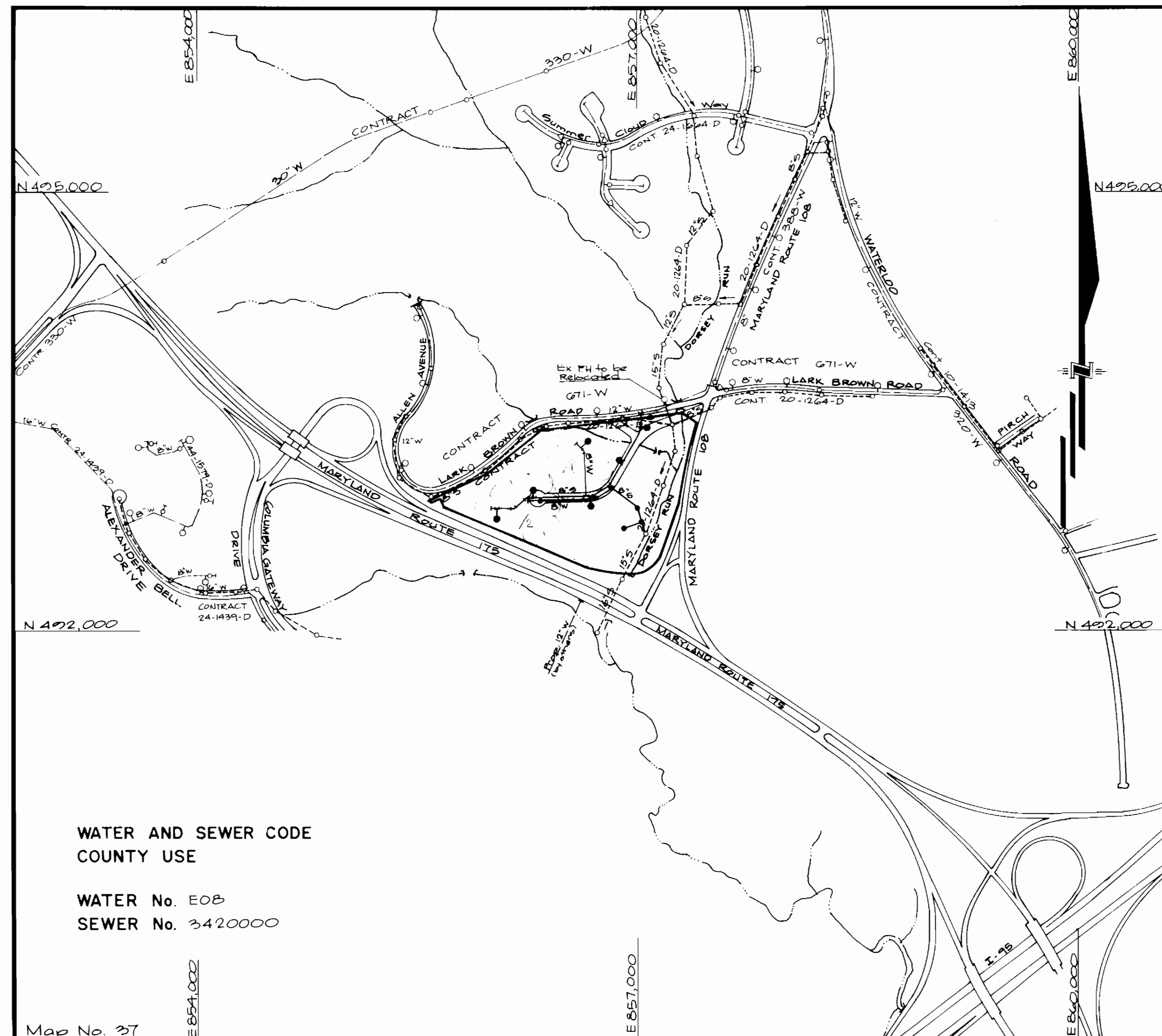
1. Excess fill or construction material shall be removed to an upland disposal area.
2. Heavy equipment working in riparian wetlands shall be placed on mats or suitably designed to minimize damage to the riparian wetland.
3. The post construction bottom contours and elevations of riparian wetlands shall be the same as the original contours and elevations for the utility line.
4. Utility lines shall be backfilled with the soil previously excavated for installation of the utility line.

TYPE OF BUILDING	Commercial
NUMBER OF PARCELS	7
NUMBER OF SHC's	7
NUMBER OF WHC's	7
DRAINAGE AREA	Little Patuxent

GENERAL NOTES

1. 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.
2. All horizontal controls are based on Maryland State Coordinates.
3. All vertical controls are based on U.S.G.S Datum.
4. All pipe elevations shown are invert elevations.
5. Clear all utilities by a minimum of 6" Clear all poles by 2'-0" minimum or tunnel as required. Any cost incurred by the contractor for tunnelling or bracing at poles shall be included in unit prices bid for construction of the main.
6. For details not shown on the drawings, use Howard County Standard Details.
7. For materials and construction methods, use Howard County Standard Specifications & Howard County Design Manual, Volume IV. The Contractor shall have a copy of Volume IV on the job.
8. 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.
9. 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 & Electric Company	
"Miss Utility"	1-559-0100	Contractor Services	561-2585
Chesapeake & Potomac (C&P)		Underground Damage Control	234-5621
Telephone Company	725-3976	Trouble-shooting	298-9013
Colonial Pipeline Company	795-1390	Bureau of Utilities, Howard County	992-2366
10. 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.
11. 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.
12. 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.
13. All water mains to be D.I.P., Class 52 Only.
14. Top of all water mains to have a minimum of 3-1/2' cover unless otherwise noted.
15. Valves adjacent to tees shall be strapped to tees.
16. Block all fittings with concrete.
17. Bury line elevations on fire hydrants shall be set to the elevations shown on the drawings. All fire hydrants shall be strapped and buttressed with concrete in accordance with standard details. Soil around the fire hydrant to be compacted in accordance with Sections 1000 and 1005 of the Standard Specifications.
18. All water house connections shall be for an inside meter setting.
19. The contractor shall not operate any water main valves on the existing system.
20. ~~For all Copper Water House Connections, utilize flared type fittings only.~~
21. All sewer mains shall be CSPX, VCFX, RCSP, PVC unless otherwise noted.
22. The contractor shall provide a joint in all sewer mains within 2'-0" of exterior manhole wall.
23. All manholes shall be 4'-0" inside diameter, unless otherwise noted.
24. 12" and 16" manhole wall thicknesses shown on profiles pertain to brick manholes only.
25. Manholes designated W.T. in plan and profile shall have watertight frames and covers. (See Standard Detail G 5 52) Where watertight manhole frame and cover is used, set top of frame 1'-6" above finished grade. (See Standard Detail G 5 41).
26. House(s) with the symbol "CNS" indicates that cellar cannot be served.
27. Water main and water house connection lines must have a minimum of one foot separation from either sanitary sewer or sewer house connections as they cross. Except at crossings, water and sewer lines shall have a minimum horizontal separation of 10'.
28. All D.I.P. Fittings shall be in accordance with A.W.W.A. specification C-153 ductile iron compact fittings, 3-inch through 12-inch for water and other liquids.



WATER AND SEWER CODE
COUNTY USE

WATER No. EOB
SEWER No. 3420000

VICINITY MAP
SCALE: 1" = 600'

**CONTRACT NO. 24-3026-D
BENSON BUSINESS CENTER
PARCELS A-G**

**HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS**

Sediment Control Measures will be implemented in accordance with Section 219 of the Specifications & with Road Construction Plan F-90-154; Drawings 4.5 & 7 Sediment & Erosion Control

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENT
James M. Nash 7/25/90
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
John L. Roberton 7/25/90
HOWARD S.C. DATE

ITEM	ESTIMATED	QUANTITIES		MATERIAL / SUPPLIER
		AS-BUILT		
12" x 8" T.S. EV	1 ea	1 ea		MUELLER Co. / AWP Water & Sewer Supplies
8" x 6" Reducer	1 ea	1 ea		TYLER PIPE / " " "
8" Water	1655 l.f.	1409 l.f.		ATLANTIC STATES / " " "
6" Water	216 l.f.	281 l.f.		" " / " " "
2" WHC	60 l.f.	70 l.f.		CAMBRIDGE LEE / " " "
8" Valves	3 ea	3 ea		MUELLER Co. / " " "
6" Valves	3 ea	3 ea		" " / " " "
FHT. & Valve	5 ea	5 ea		" " / " " "
8" Sewer	1003 l.f.	1086 l.f.		J.M. MANUFACTURING CORP. / BELAIR RD. SUPPLIES
4" Manholes	6 ea	6 ea		ATLANTIC CONC. PROD. / ATLANTIC CONC. PROD.
4" SHC	10 l.f.	10 l.f.		J.M. MANUFACTURING CORP. / BELAIR RD. SUPPLIES
8" Private Water	---	330 l.f.		ATLANTIC STATES / AWP Water & Sewer Supplies
6" Private Water	---	9 l.f.		" " / " " "
Fire Hyd. Relocated	---	1 ea		MUELLER Co. / " " "

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

GLW GUTSCHICK LITTLE & WEBER, P.A.
ENGINEERS, PLANNERS, SURVEYORS
1919 NATIONAL DRIVE, SUITE 250, JORTONVILLE OFFICE PARK
MARTINSVILLE, VA 22116
(800) 471-4024

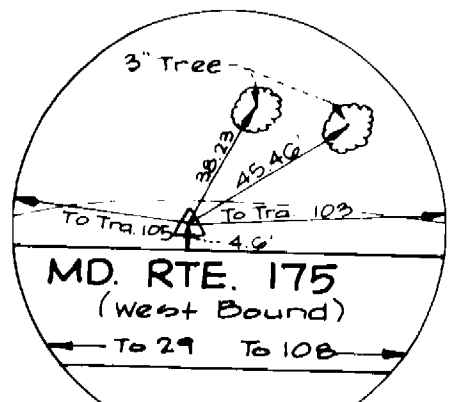
DES: G.A.W.	
DRN: G.A.W.	
CHK: C.K.G.	G.A.W.
DATE: July 1990	MCF

Water and Sewer
Title Sheet

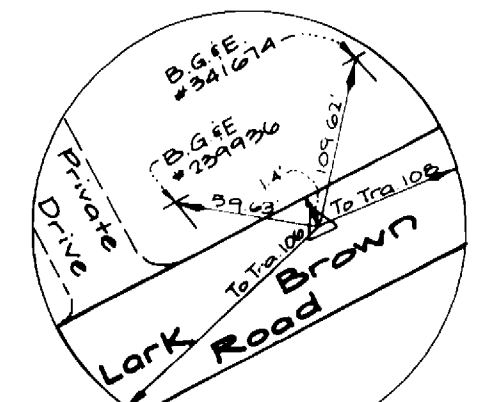
Benson Business Center
Section 1
Sixth Election District
Howard County Maryland
Contract No. 24-3026-D

SCALE AS SHOWN

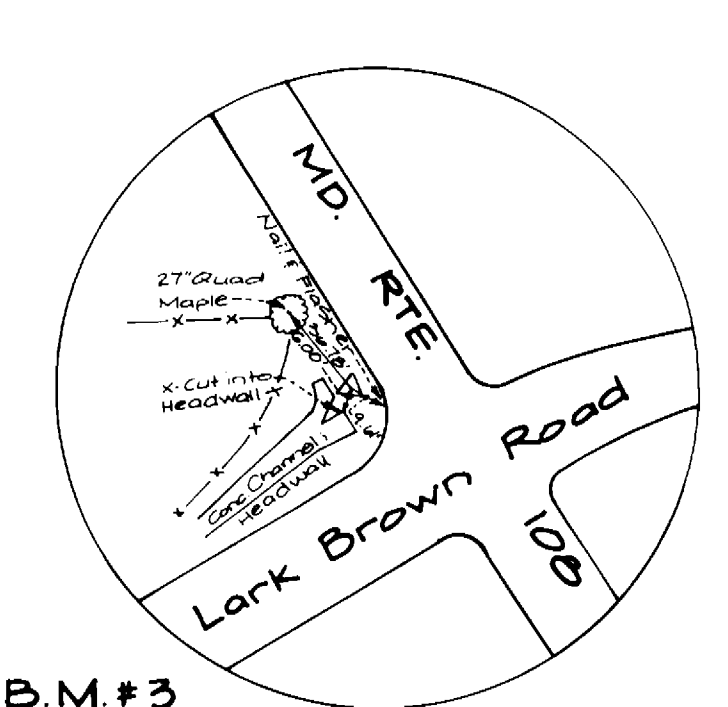
SHEET 1 OF 5



B.M.#1
 Traverse Station R104
 Railroad Spike Set in Shoulder
 of Maryland Route 175 (West Bound)
 N 442509.826
 E 856288.873



B.M.#2
 Traverse Station R107
 Railroad Spike Set in
 Lark Brown Road
 N 449425.306
 E 856478.843

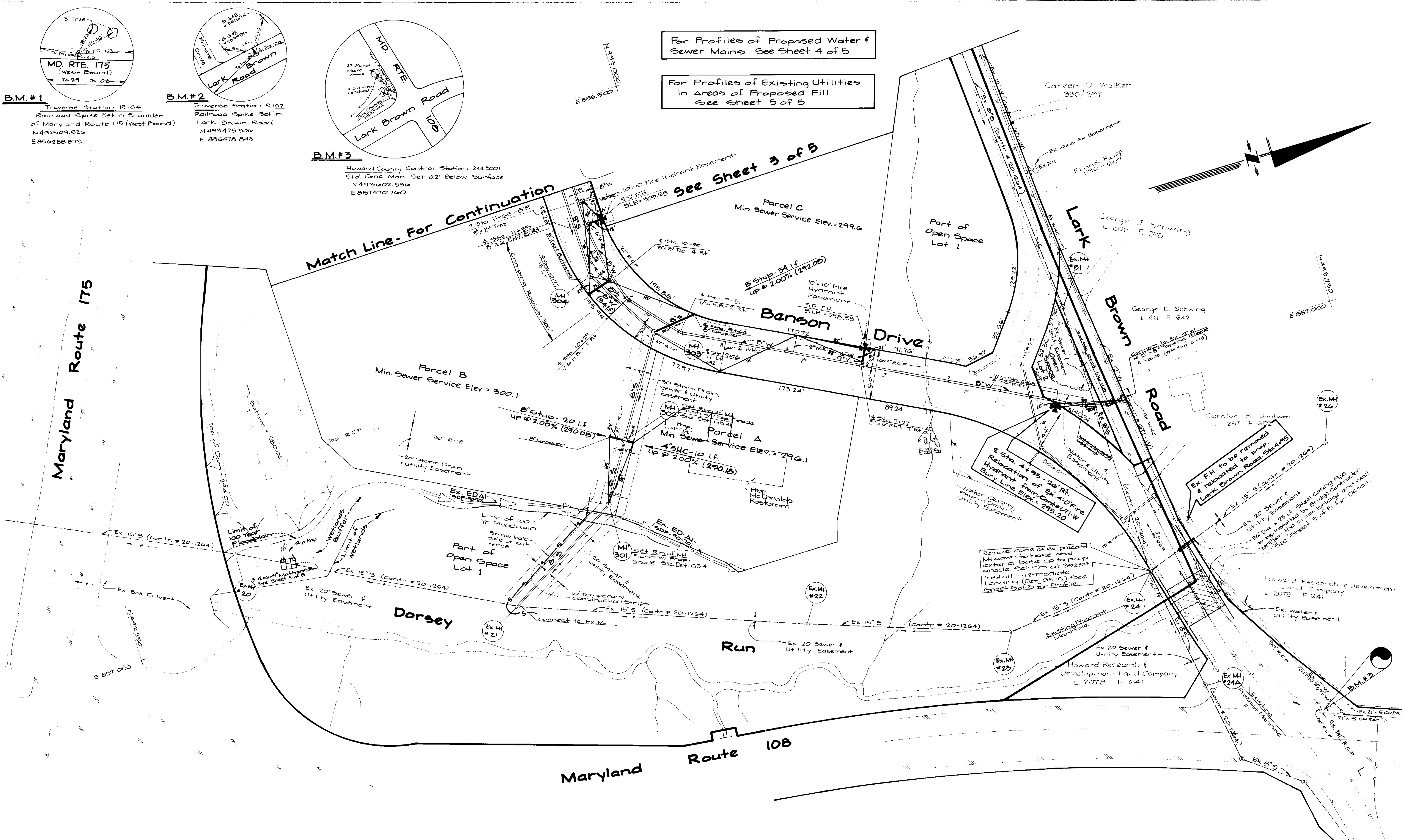


B.M.#3
 Howard County Control Station 2442001
 54d Conc Men Set 02' Below Surface
 N 4493402.5916
 E 857470.760

For Profiles of Proposed Water &
 Sewer Mains See Sheet 4 of 5

For Profiles of Existing Utilities
 in Areas of Proposed Fill
 See Sheet 5 of 5

Match Line - For Continuation
 See Sheet 3 of 5



Plan
 Scale: 1" = 50'

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
Granville W. Theard 1/26/90
 CHIEF BUREAU OF ENGINEERING
Michael A. Gurnam 7-25-90
 CHIEF, LAND DEVELOPMENT DIV.

GW GUTSCHICK LITTLE & WEBER, P.A.
 ENGINEERS, PLANNERS, SURVEYORS
 1301421-4104

DES. G.A.W.
 DRN. G.A.W.
 CHK. C.K.G.
 DATE: July 1990
 MCF BY NO

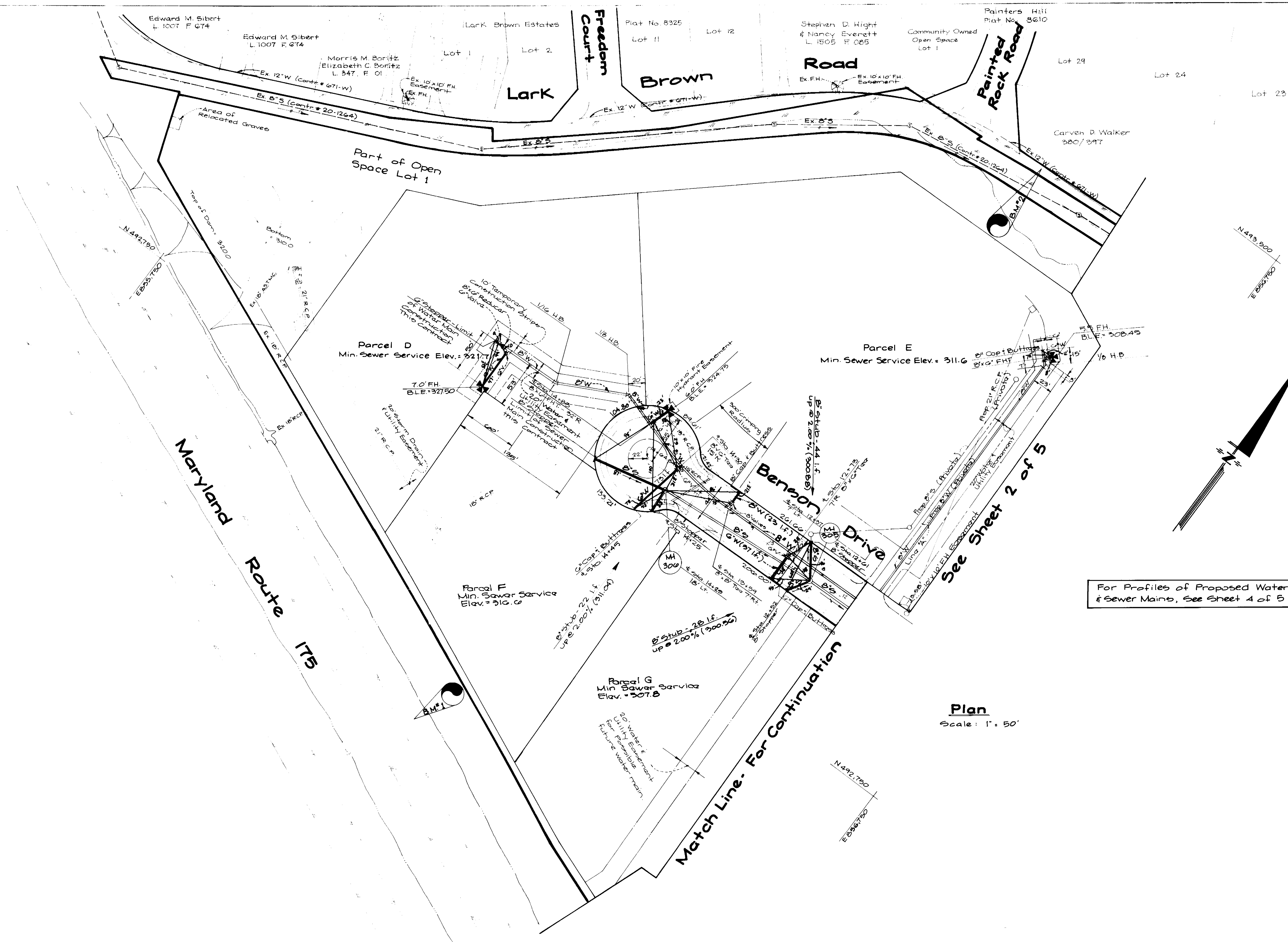
Revise Parcel Identification
 Change 12"W to B"W & Tazs
 12/18/90
 9/28

Water and Sewer Plan
 SCALE MAP NO. BLOCK NO.

Benson Business Center
 Section 1
 Sixth Election District
 Howard County Maryland
 Contract No. 24-3026-D

SCALE AS SHOWN
 SHEET 2 OF 5

AS BUILT 3-12-91

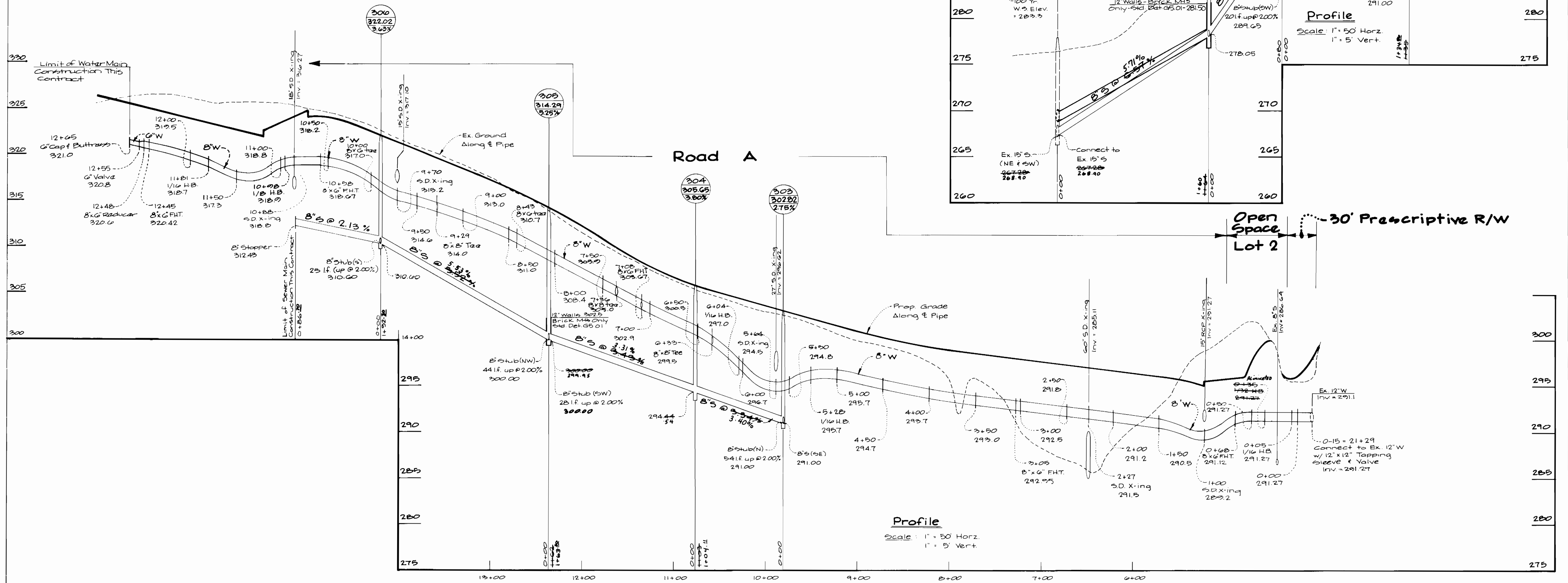
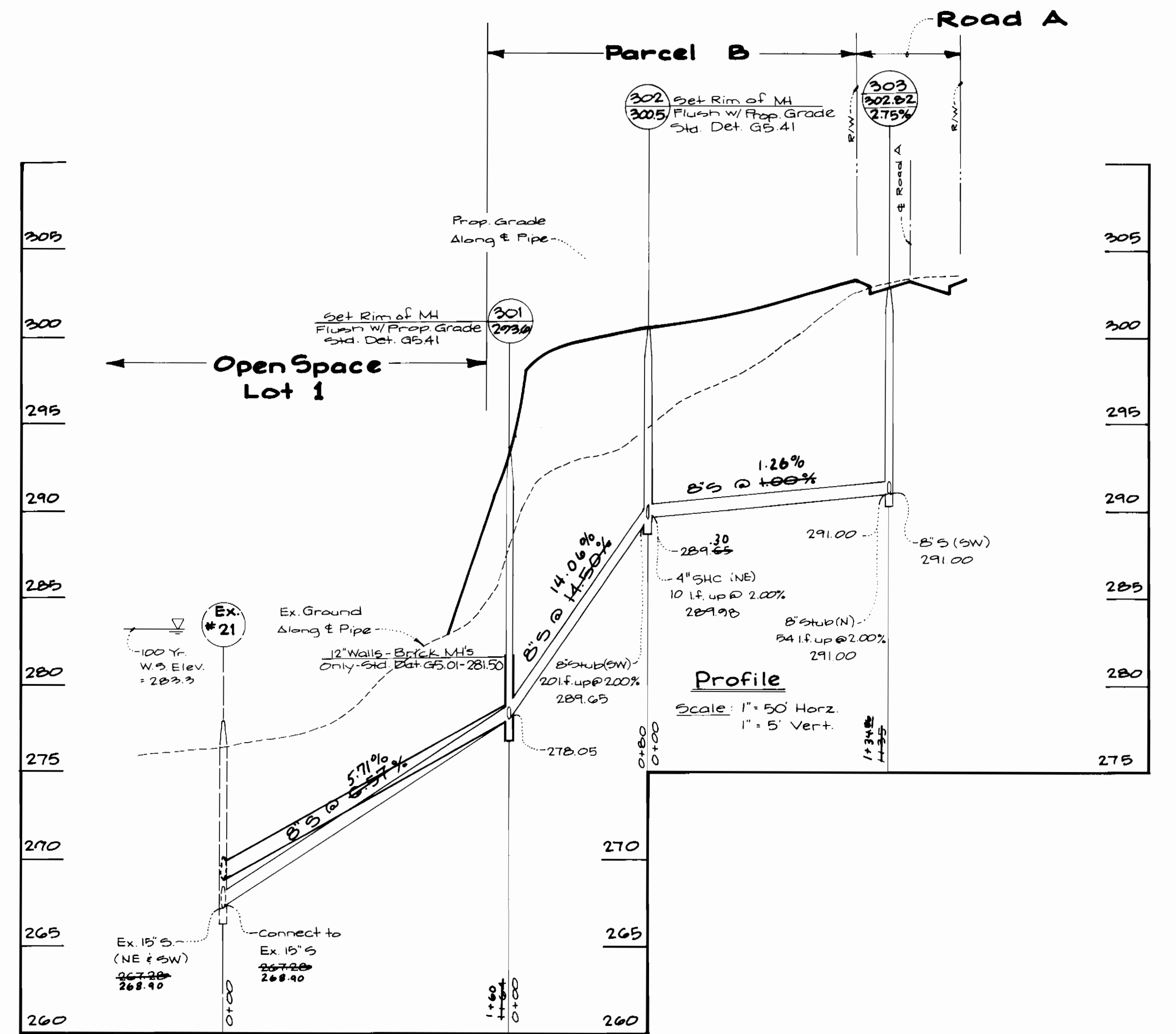
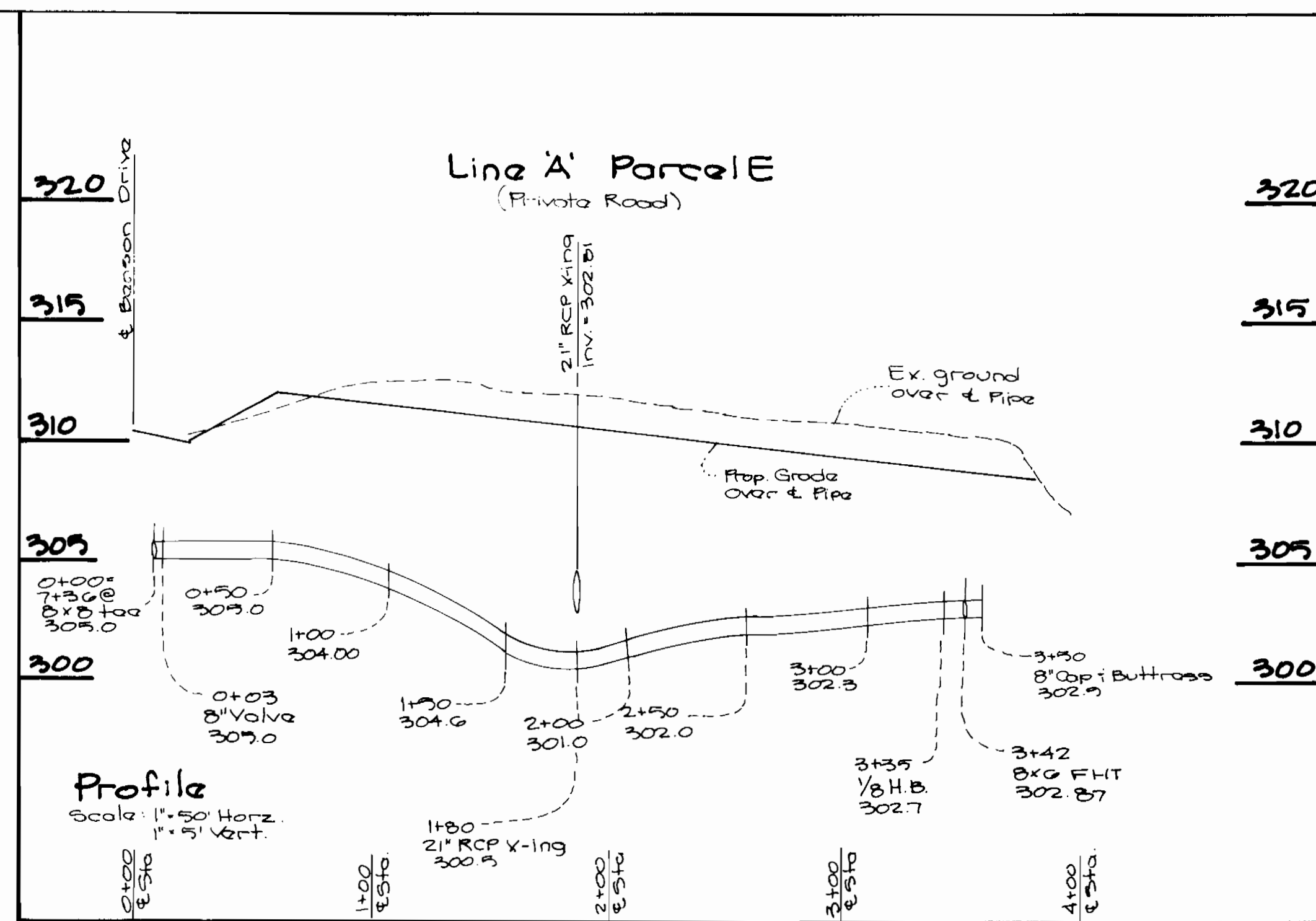


For Profiles of Proposed Water & Sewer Mains, See Sheet 4 of 5

Plan
Scale: 1" = 50'

<p>DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND</p> <p><i>Granville W. Wickland</i> 7/26/90 DIRECTOR</p> <p><i>Michael A. Karamanellis</i> 7-25-90 CHIEF, BUREAU OF UTILITIES</p>	<p>G&W GUTSCHICK LITTLE & WEBER, P.A. ENGINEERS, PLANNERS, SURVEYORS</p> <p><i>CK R...</i></p>	<p>DATE: July 1990</p>	<p>1. G.A.W. 2. J.N.G.A.W. 3. G.A.W. M.C.P. 4. G.A.W. M.C.P.</p> <p>Extend 8" W to Parcel D - Move Inlet & SMC Change 12" W to 8" W & Taps</p>	<p>Water and Sewer Plan</p> <p>12/8/90 9/2/90</p>	<p>Benson Business Center Section 1 Sixth Election District Howard County Maryland Contract No. 24-2020-D</p>	<p>SCALE AS SHOWN SHEET 2 OF 5</p>
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AS-BUILT 3-12-91



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Francis W. Wickland 7/26/90
CHIEF BUREAU OF ENGINEERING

Michael A. Scriminello 7-25-90
CHIEF, BUREAU OF UTILITIES

Clayton J. Duggan 7/26/90
CHIEF, LAND DEVELOPMENT

GW GUTSCHICK LITTLE & WEBER, P.A.
ENGINEERS, PLANNERS, SURVEYORS

2100 NATIONAL DRIVE, SUITE 200, HARTONSVILLE OFFICE PARK
HARTONSVILLE, MD 20886
(301) 421-4024

CK

DES: G.A.W.			
DRN: G.A.W.			
CHK: C.K.G.			
DATE: July 1990			

Water and Sewer Profiles

Extend 8" W to Parcel D - change prop grade M4 302.12/64'p
Change 12" W to 8" W & Taps & Elevations

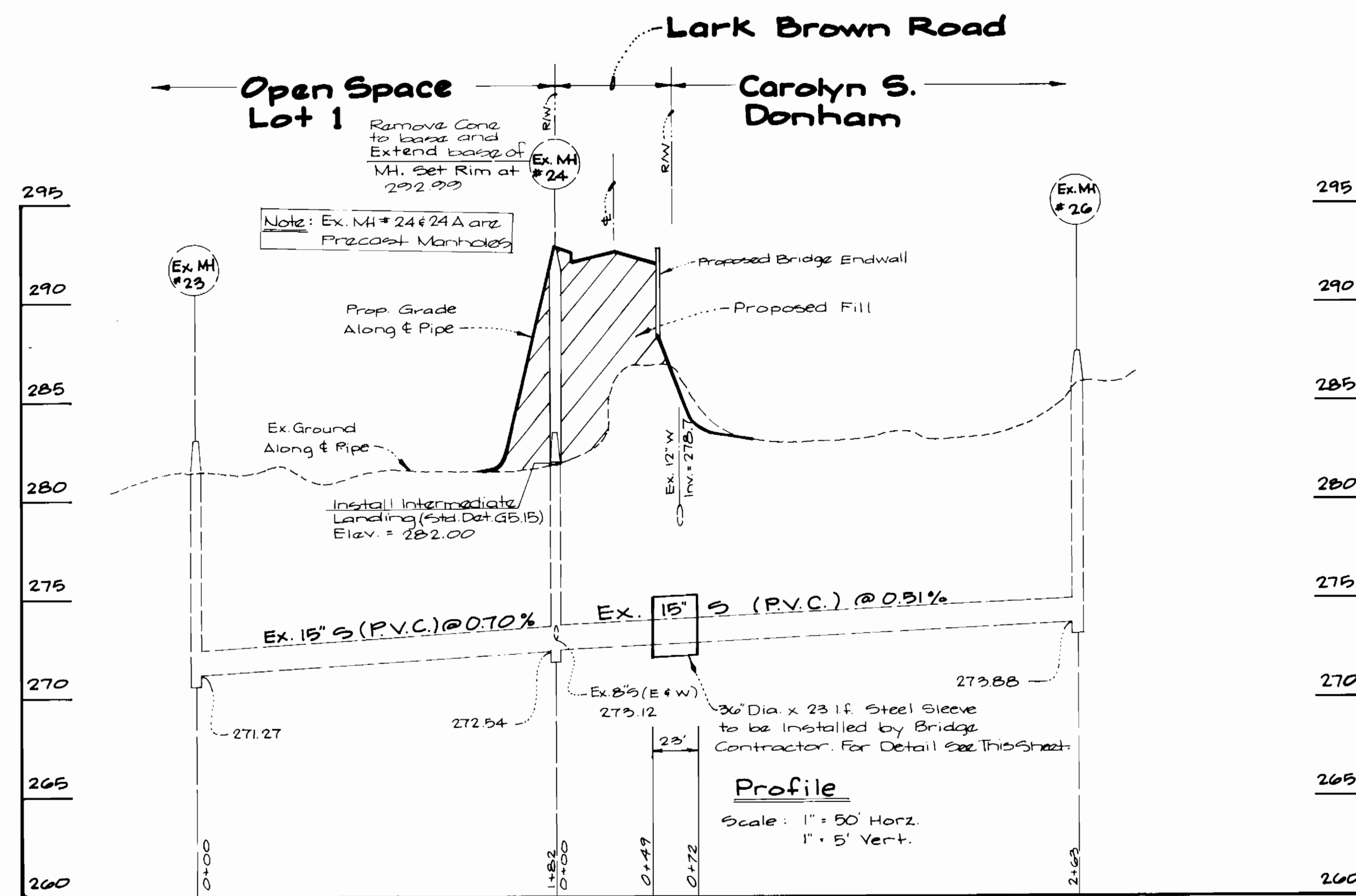
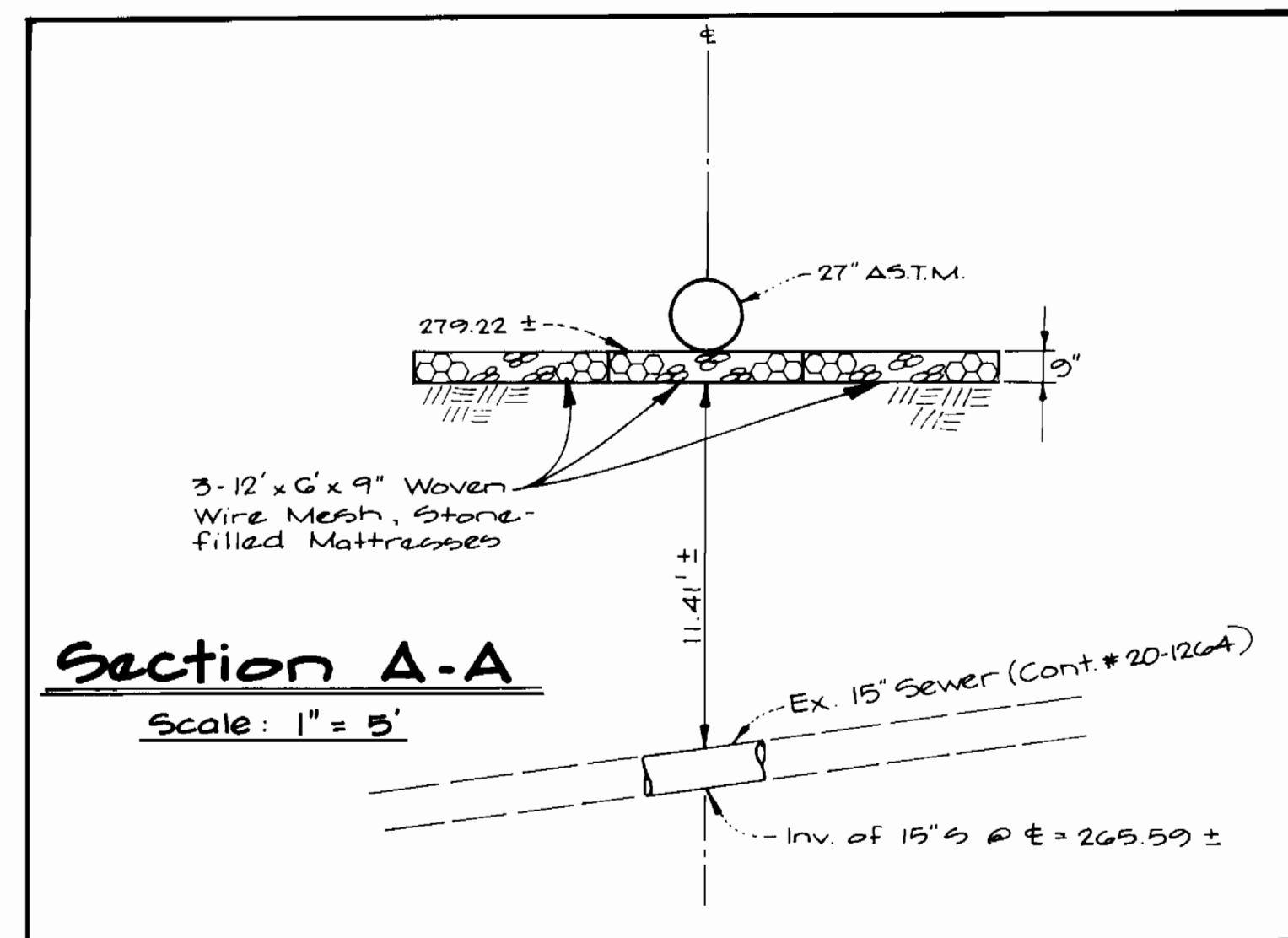
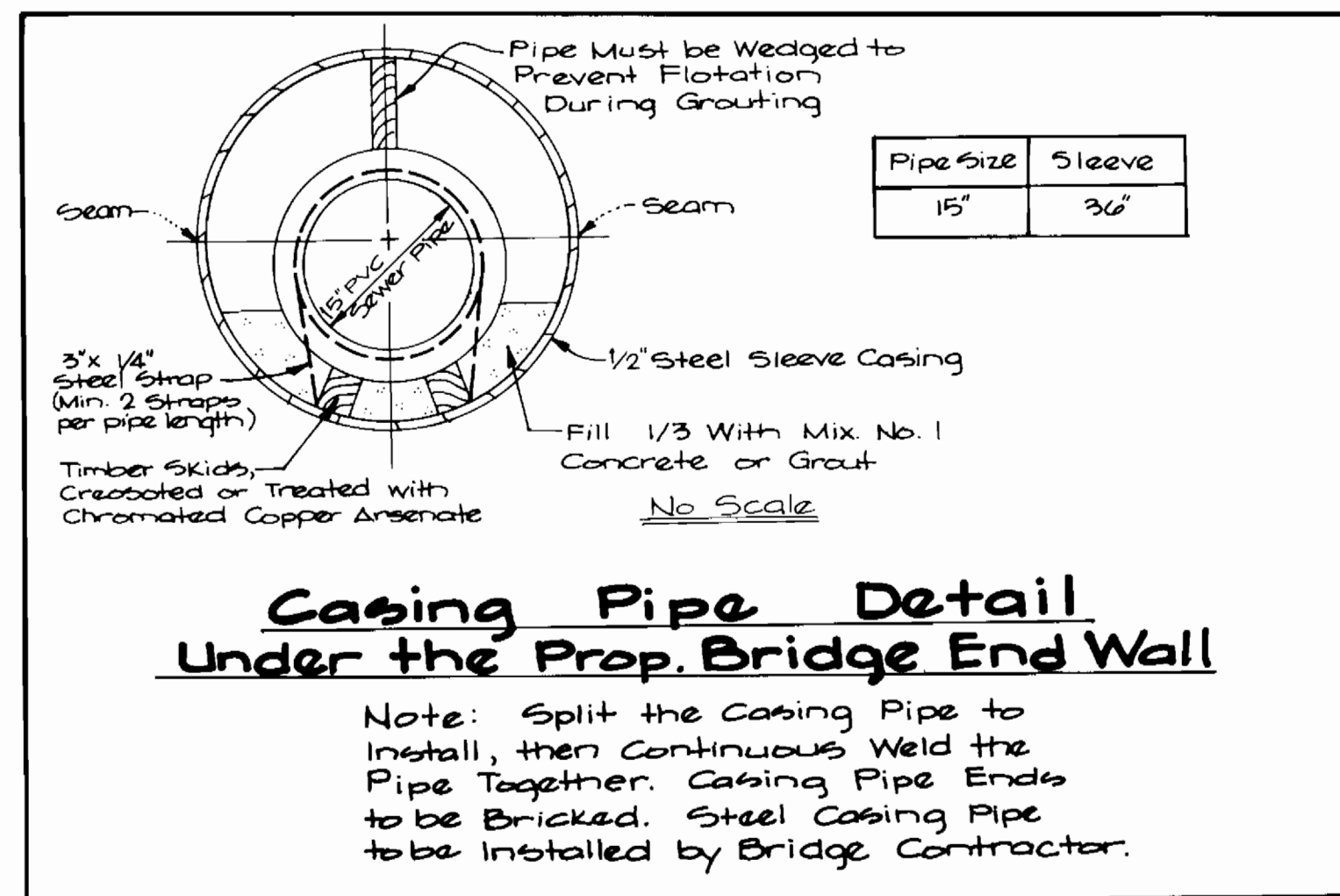
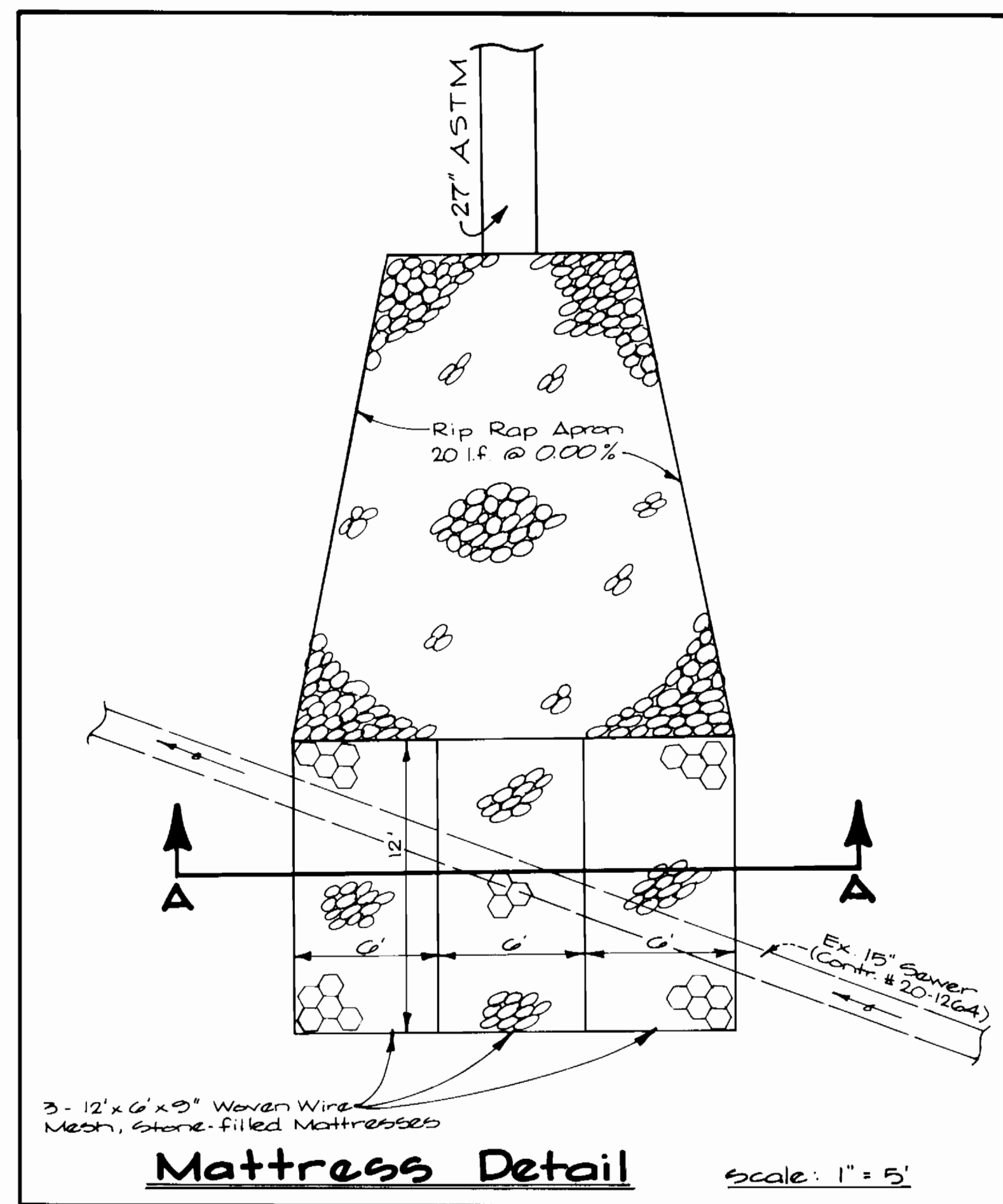
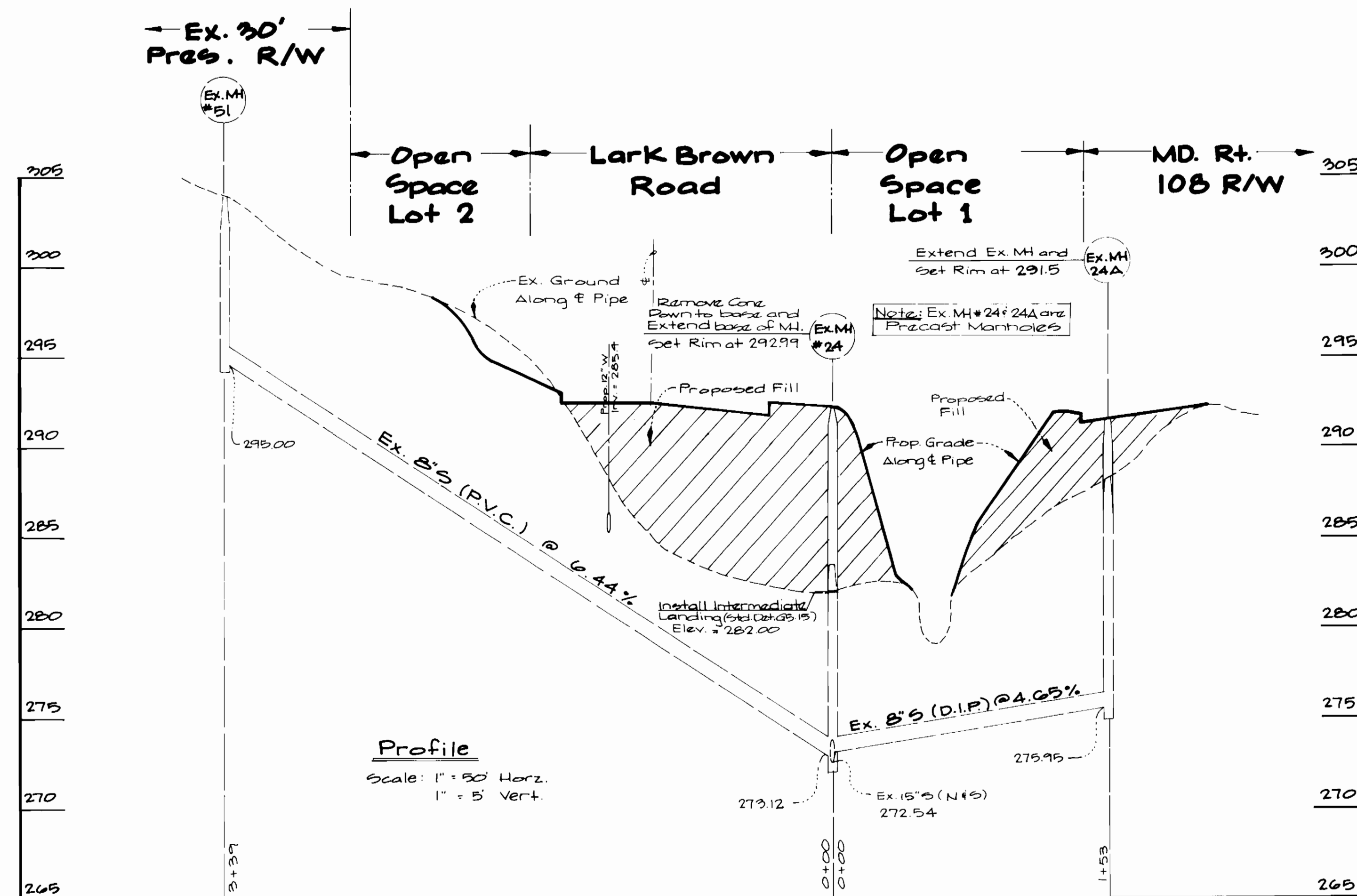
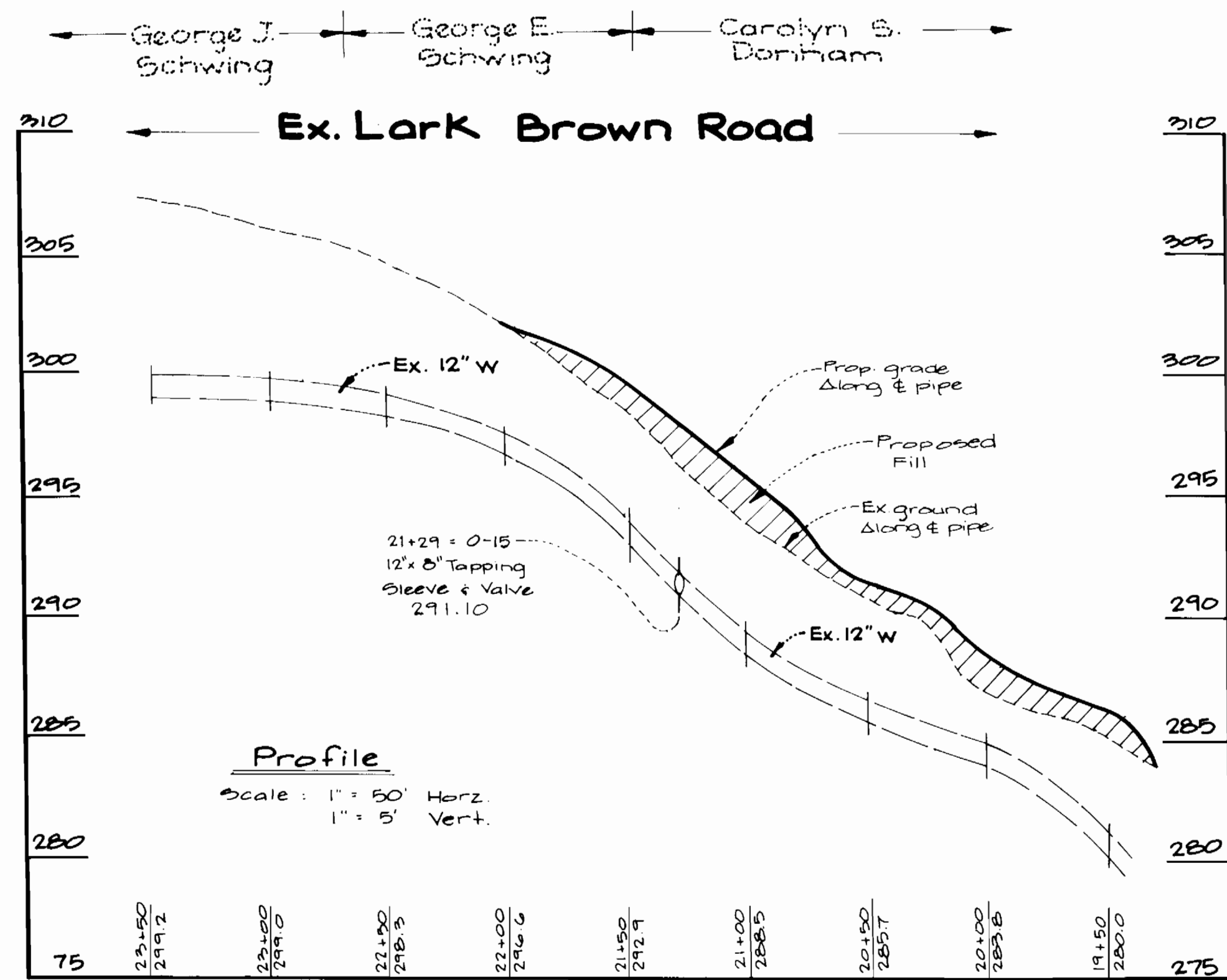
DATE: 7/28

Benson Business Center

Section 1
Sixth Election District
Howard County, Maryland
Contract No. 24-3026-D

SCALE AS SHOWN

SHEET 4 OF 5



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Brawville W. Wickland 7/26/90
Michael H. Williams 7/25/90
John M. Emery 7/25/90

GW GUTSCHICK LITTLE & WEBER, P.A.
ENGINEERS, PLANNERS, SURVEYORS
C.K.G.

C.K.G.

DATE: July 1990
BY: MCF
NO: Change 12x12 To 4V To 12V8 To 4V
REVISION: 7/28

Profiles of Existing Utilities and Details

Benson Business Center
Section 1/
Sixth Election District
Howard County, Maryland
Contract No. 24-3026-D

SCALE AS SHOWN
SHEET 5 OF 5