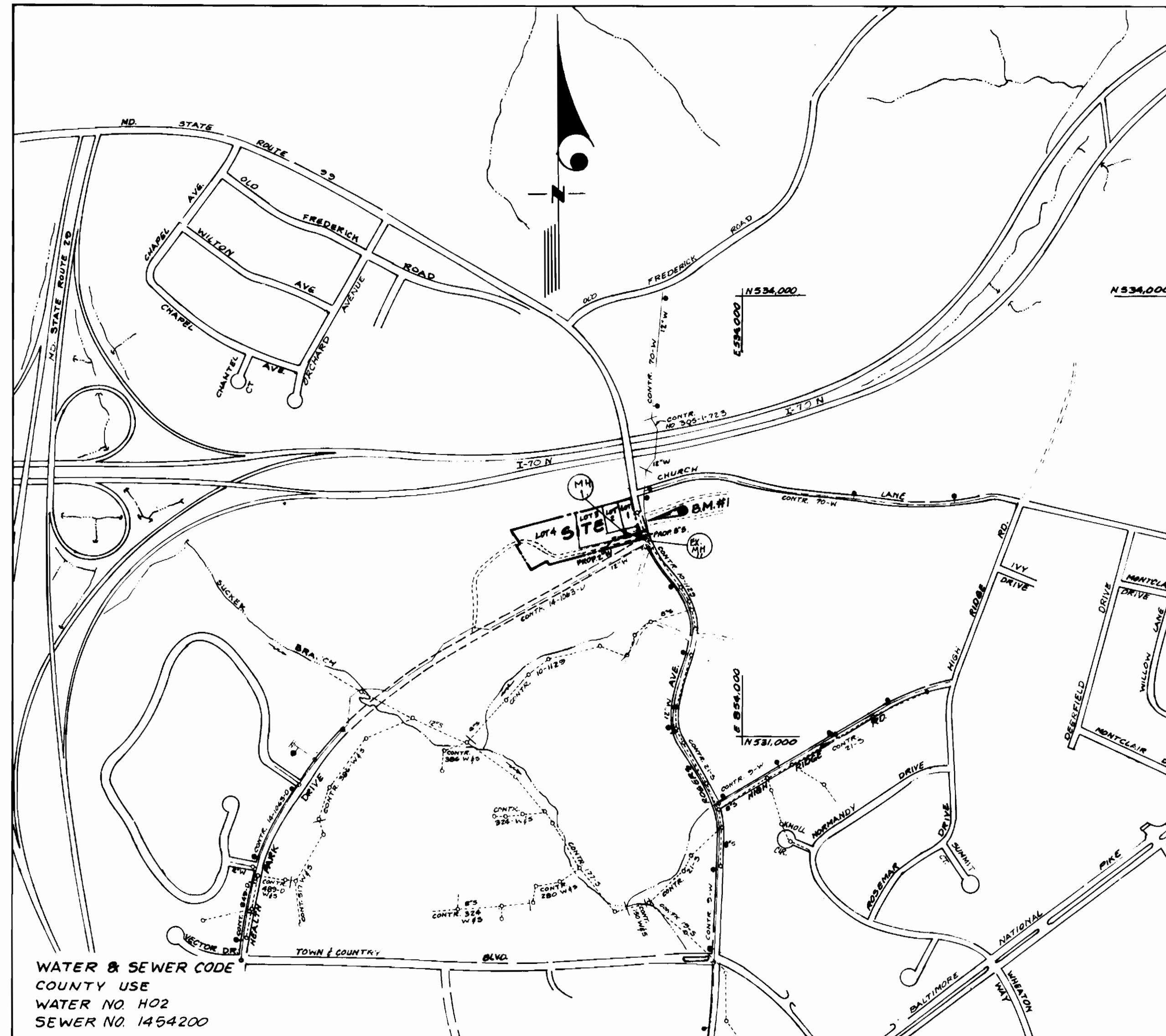


GENERAL NOTES

1. 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 Inspector, 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 to the contractor for tunneling or bracing at poles shall be included in unit prices bid for excavation and backfill.
6. For details not shown on the drawings use Howard County Standard Details.
7. For materials and construction methods use Howard County Standard Specifications and Howard County Design Manual, Volume IV, 1989 Amendments. The Contractor shall have Volume IV, 1989 Amend. on the job site.
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 - Underground Damage Control - 859-9004
 - Baltimore Gas & Electric Company - Contractor Services - 850-4620
 - Baltimore Gas & Electric Company - Trouble Shooting - 298-9001
 - Miss Utility - 1-800-257-7777
 - Chesapeake & Potomac (C&P) Telephone Company - 1-800-257-7777
 - Bureau of Utilities Howard County - 313-4900
 - Colonial Pipeline Company - 795-1390
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 Inspector. Payment for such removal shall be included in the unit price bid for excavation and backfill.
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 unless otherwise noted.
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 & 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. All sewer mains shall be C.S.P.X., V.C.P.X., or P.V.C. unless otherwise noted.
21. The contractor shall provide a joint in all sewer mains within 2'-0" of exterior manhole wall.
22. All manholes shall be 4'-0" inside diameter, unless otherwise noted.
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. Manholes designated thus: WT, shall have a Watertight Frame and Cover.
25. 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.
26. All sewer house connections shall be 4" dia.

SEWER HOUSE CONNECTION TABLE		
LOT	Inv. at R.	Min. C.El.
1	441.60	447.50
2	440.90	446.90
3	440.80	448.50
4	NOT TO BE SERVED	



WATER & SEWER CODE
COUNTY USE
WATER NO. H02
SEWER NO. 1454200

TYPE OF BUILDING SINGLE FAMILY DETACHED
NO. OF LOTS 4
NO. OF WHC'S 3
NO. OF SMC'S 3
DRAINAGE AREA PATAPSCO
WASTEWATER TREATMENT PLANT PATAPSCO

VICINITY MAP
SCALE: 1" = 600'

BENCHMARK # 1
W.R. & A. B.M. 20-E ELEV. 458.19
RAILROAD SPIKE IN BASE OF G&E CO. POLE
205405 ON EAST SIDE OF ROBERTS AVENUE
5,000' ± NORTH OF US ROUTE 40 IN
FRONT OF CEMETERY.

QUANTITIES			
ITEM	EST'D	AS BUILT	MATERIAL / SUPPLIER
2" W	170 L.F.	183 L.F.	CAMBRIDGE LEE, MAC SALBS INC.
1" WHC	35 L.F.	39 L.F.	"
2" V	1 EA.	1 EA.	FORD
3 WAY CONN.	1 EA.	1 EA.	"
3/4" WHC	43 L.F.	45 L.F.	CAMBRIDGE LEE
8" S	178 L.F.	181 L.F.	NATIONAL PIPE CO.
4" SMC	70 L.F.	84 L.F.	"
4" MANHOLE	1 EA.	1 EA.	ATLANTIC CONC. PRODUCTS

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.
John M. Helms 9/27/91
SIGNATURE DATE
S.O.S. SOIL CONSERVATION SERVICE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.
John R. Roberts 9/27/91
SIGNATURE DATE
HOWARD S.C.D.

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 215 OF THE STANDARD SPECIFICATIONS & FINAL RD. CONSTRUCTION PLANS. (F91-111)

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
9/1/91
DIRECTOR OF PUBLIC WORKS DATE
9-24-91
CHIEF BUREAU OF UTILITIES DATE
9/2/91
CHIEF-LAND DEVELOPMENT DIVISION DATE

LAND DESIGN ENGINEERING, INC.
10620 GUILFORD ROAD
SUITE 210
JESSUP, MARYLAND 20794
(301) 604-6264
(301) 880-0034

John R. Roberts
9-3-91

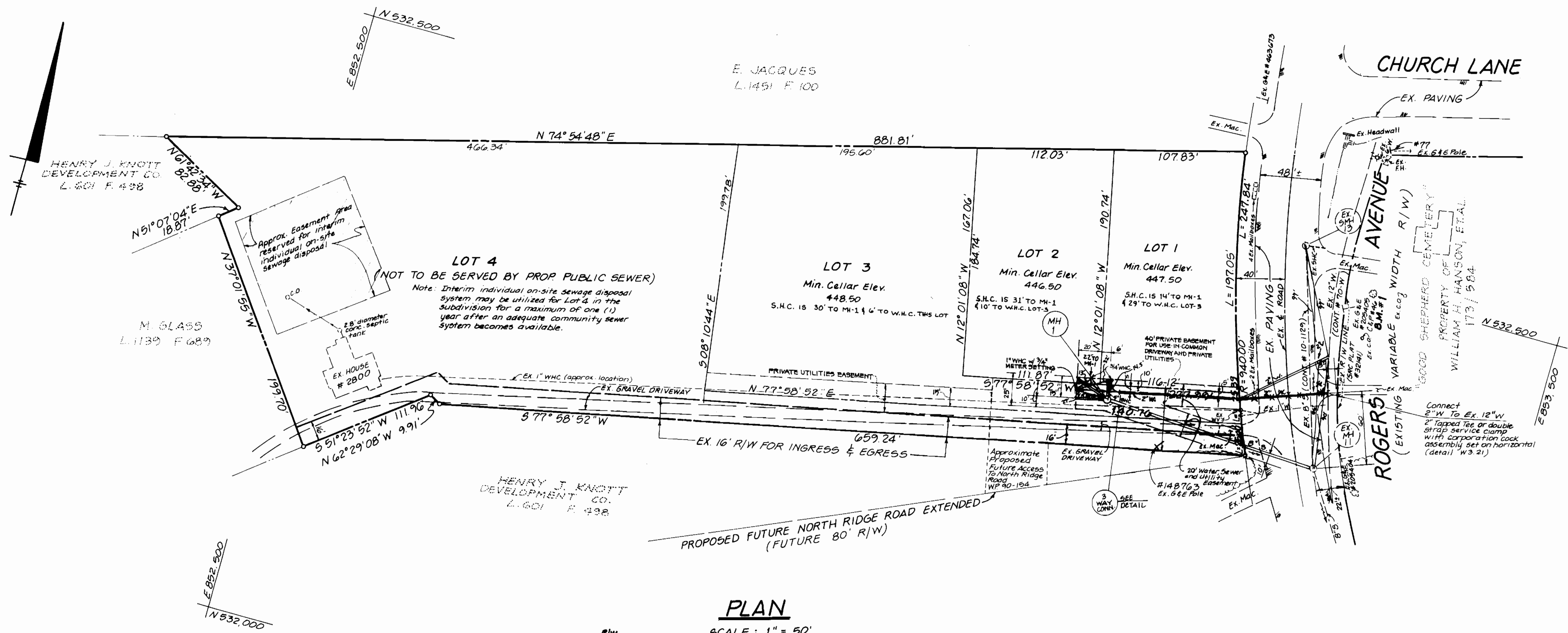
DES.	BY	NO.	REVISION	DATE
J.L.				
ORN.				
K.W.				
CHK.				
MYD.				
DATE:				5/91

TITLE SHEET

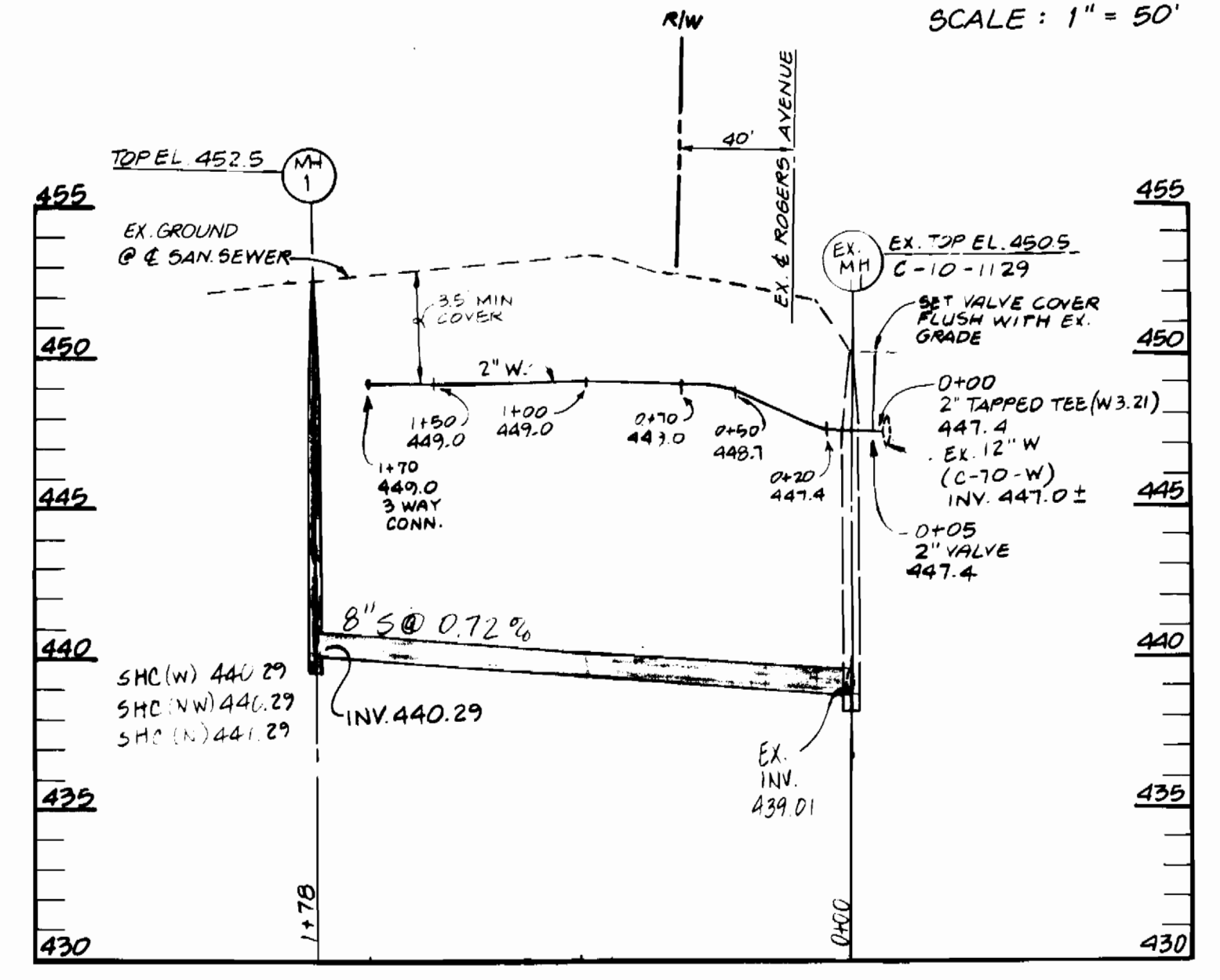
600 SCALE MAP NO. 17 BLOCK NO. 18

ROBANAN ACRES
LOTS 1 THRU 4
CONTRACT NO. 14-3141-D
2ND ELECTION DISTRICT

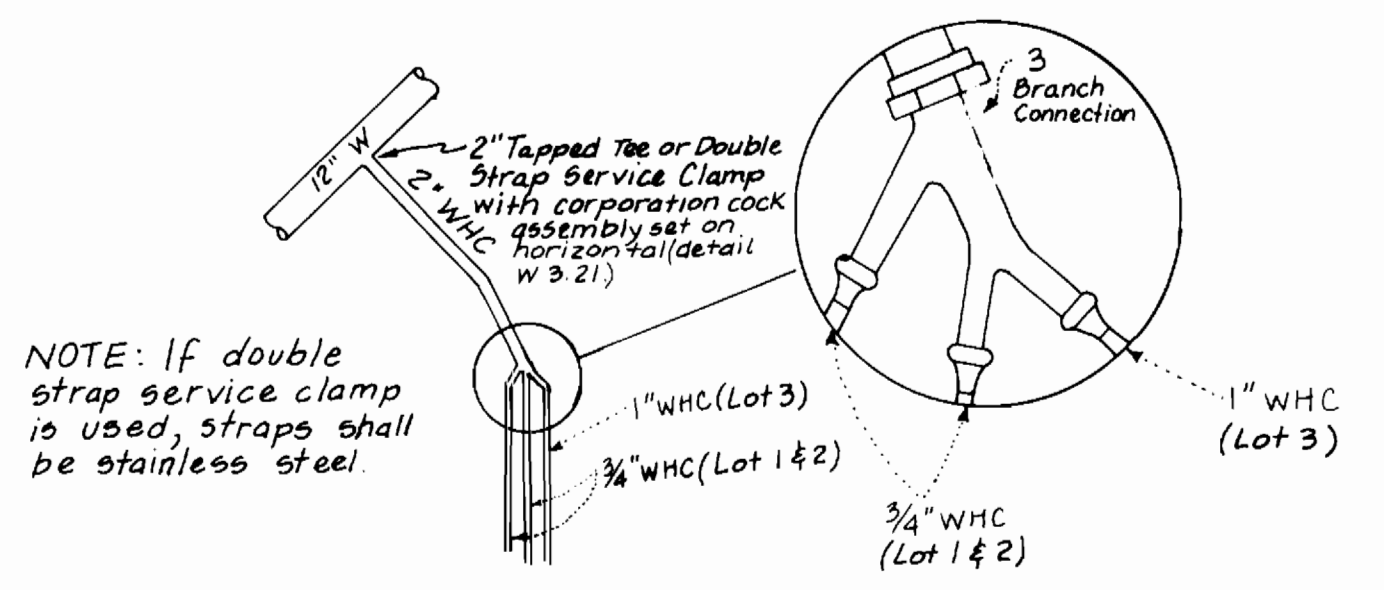
SCALE AS SHOWN
SHEET 1 OF 2



PLAN
SCALE: 1" = 50'



PROFILE
SCALE: 1" = 50' HOR.
1" = 5' VER.



3-WAY WHC DETAIL
NO SCALE

NOTE: If double strap service clamp is used, straps shall be stainless steel.

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.
James M. Hahn 9/27/91
SIGNATURE DATE
U.S. SOIL CONSERVATION SERVICE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.
John R. Rohntzer 9/27/91
SIGNATURE DATE
HOWARD S.C.O.

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE STANDARD SPECIFICATIONS & FINAL R.D. CONSTRUCTION PLANS. (F91-111)

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
James M. Hahn 10/1/91
DIRECTOR OF PUBLIC WORKS DATE
Michael A. Givens 9-24-91
CHIEF-BUREAU OF UTILITIES DATE
Charles M. Hanson 9/27/91
CHIEF - LAND DEVELOPMENT DIVISION DATE

LAND DESIGN ENGINEERING, INC.
10620 GUILFORD ROAD
SUITE 210
JESSUP, MARYLAND 20794
(301) 404-6264
(301) 880-0034
Robert M. Hahn 9-3-91

DES: J.L.			
DRN: K.W.			
CHK: MVD			
DATE: 5/9/91			
BY	NO.	REVISION	DATE

PLAN AND PROFILE

600 SCALE MAP NO. 17 BLOCK NO. 1B

ROBAN ACRES
LOTS 1 THRU 4
CONTRACT NO. 14-3141-D
2ND ELECTION DISTRICT

SCALE AS SHOWN
SHEET 2 OF 2