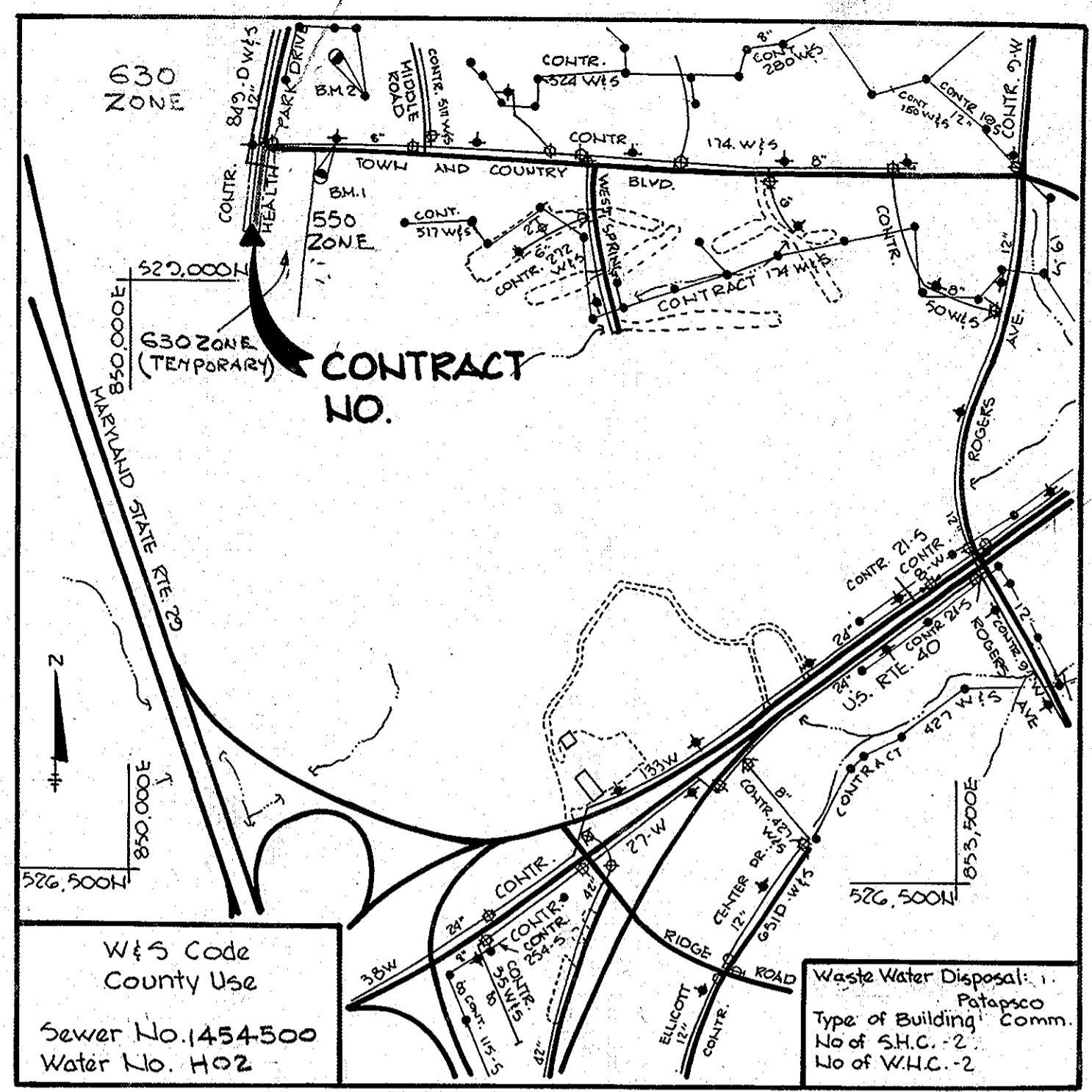


BENCH MARKS

B.M.#1 Top of Ex. Fire Hydrant
Elev. 425.37
B.M.#2 Ex. M.H.#7177 Top of Rim
Elev. 411.68

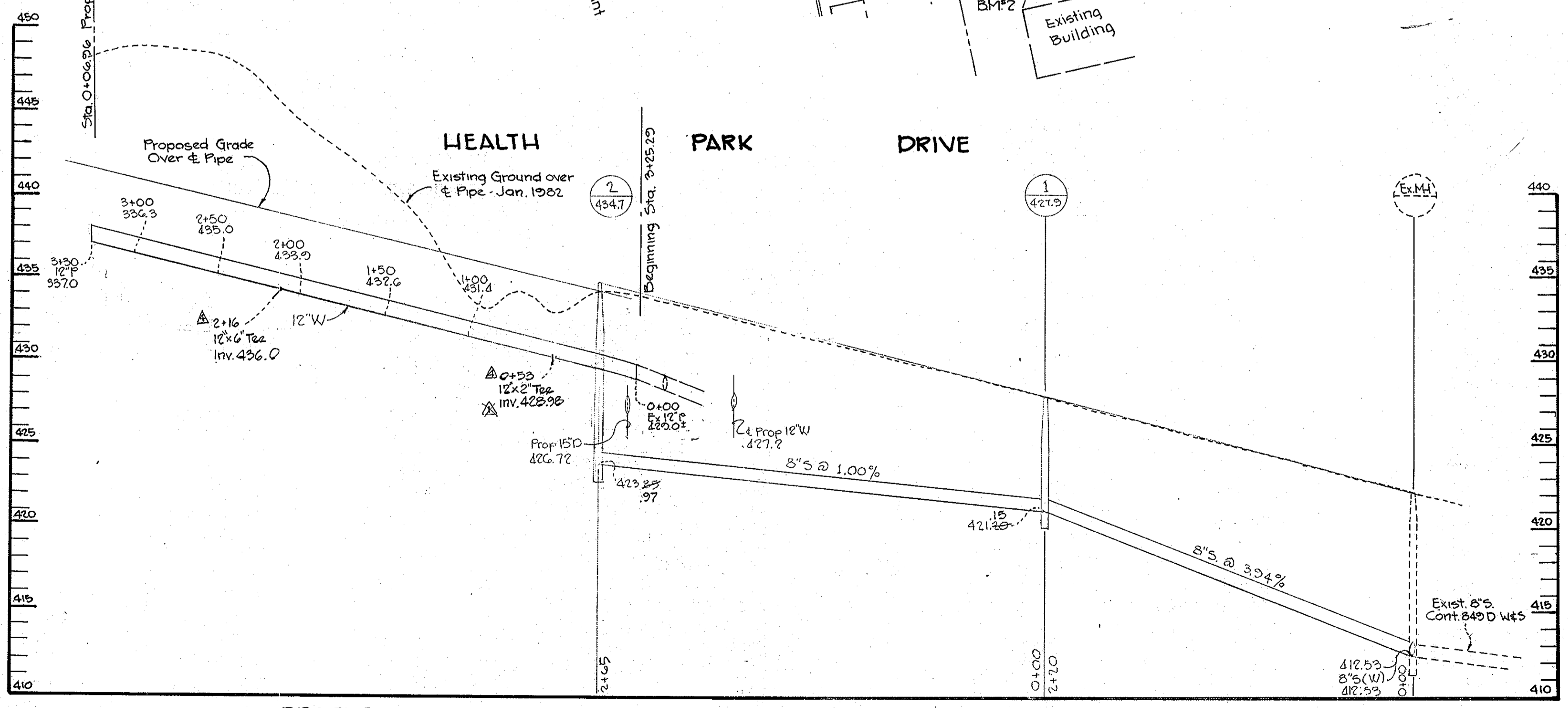
QUANTITIES			
ITEM	ESTIMATED	AS BUILT	MATERIAL/SUPPLIER
6" W.	245 L.F.	245	D.I.P. Griffin Pipe
6" VALVE	1	4	Municipal Constr. Supply
12" W.	596 L.F.	596.5	D.I.P. Griffin
F.H.	2	2	Municipal
6" S.	81 L.F.	84	P.V.C. A&P Supply
8" S.	807 L.F.	800	"
M.H.	20 V.F.	3 each	ATLANTIC PROJECT
12" VALVE	1	1	Municipal
1 1/2" W.H.C.	-	46 L.F.	K-Copper



GENERAL NOTES

- Approximate location of existing mains are shown. The contractor shall take 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. Datum.
- 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. Any cost incurred to the contractor for tunneling or bracing of poles shall be included in unit prices bid for excavation and backfill.
- For details not shown on the drawings use Howard County Standard Details.
- For materials and construction methods use Howard County Standard Specifications.
- 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.
- Contractor shall notify the following utilities agencies at least five (5) working days before starting work on these plans.

a. State Highway Administration	531-5533
b. Baltimore Gas and Electric Company	
Underground Electric Distribution Customer Service	685-0123
c. Baltimore Gas and Electric Company	
Underground Gas Distribution Customer Service	685-0123
Engineering "Damage Control"	234-5621
d. Miss Utility	1-552-0100
e. Chesapeake & Potomac (CIP) Telephone Company	725-9976
f. American Telephone and Telegraph Cable Location Division	373-3553
g. Colonial Pipeline Company	781-4641
h. Bureau of Utilities Howard County	992-2306
- 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 contractors.
- 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 excavation and backfill.
- 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.
- All water mains to be D.I.P. unless otherwise noted.
- Top of all water mains to have a minimum of 3'-1/2" cover unless otherwise noted.
- Valves adjacent to tee shall be strapped to tees.
- Block all fittings with concrete.
- 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 Sec. 3701 & 3705 of the Standard Specifications.
- All water house connections shall be for an inside meter setting.
- The contractor shall not operate any water main valves on the existing system.
- Profile stations shall be adjusted as necessary to conform to plan dimensions.
- No pipe shall be laid until lines of excavation have been brought to subgrade.
- For all copper water house connections utilize flared type fittings only.
- All sewer mains shall be C.S.P., V.C.P., P.V.C. or A.C.P. Class 2400 unless otherwise stated.
- The contractor shall provide a joint in all sewer mains within 2'-0" of exterior manhole walls.
- All manholes shall be 42" inside diameter unless otherwise noted.
- Manholes shown with 12" and 18" walls are brick manholes only.
- House(s) with the symbol "C.N.S." indicates that cellar can not be served.
- All water house connections shall have a minimum vertical clearance of 12" above all sanitary sewer crossings.
- All sanitary sewer house connections shall have a minimum vertical clearance of 12" below all main crossings.
- Sediment Control shall be provided under G.P. 84-23 unless otherwise noted.



SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH ARTICLE 15 OF THE SPECIFICATIONS (P-34-35)

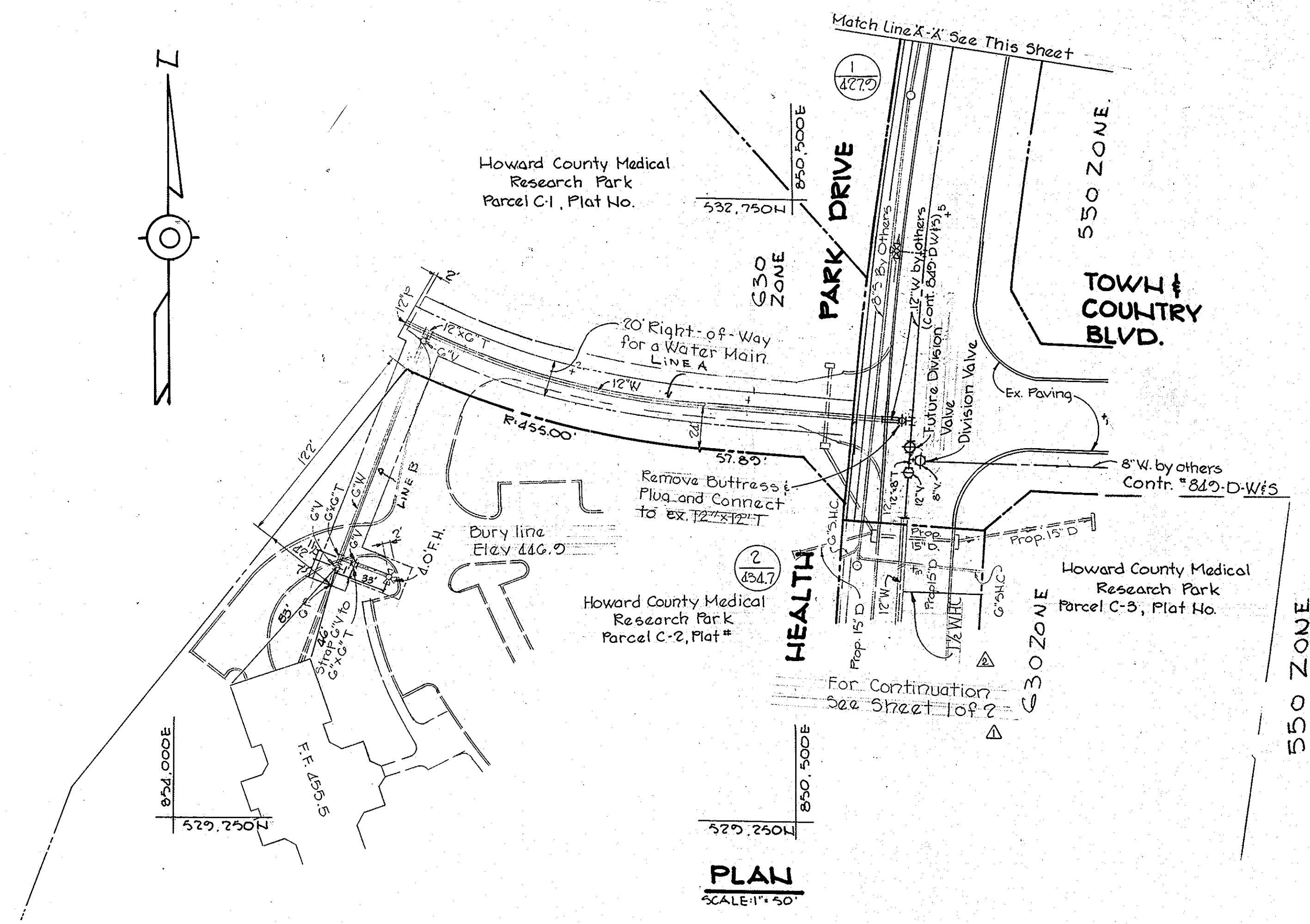
HOWARD SOIL CONSERVATION DISTRICT REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

James M. Helms 11-4-83
U.S. SOIL CONSERVATION SERVICE DATE

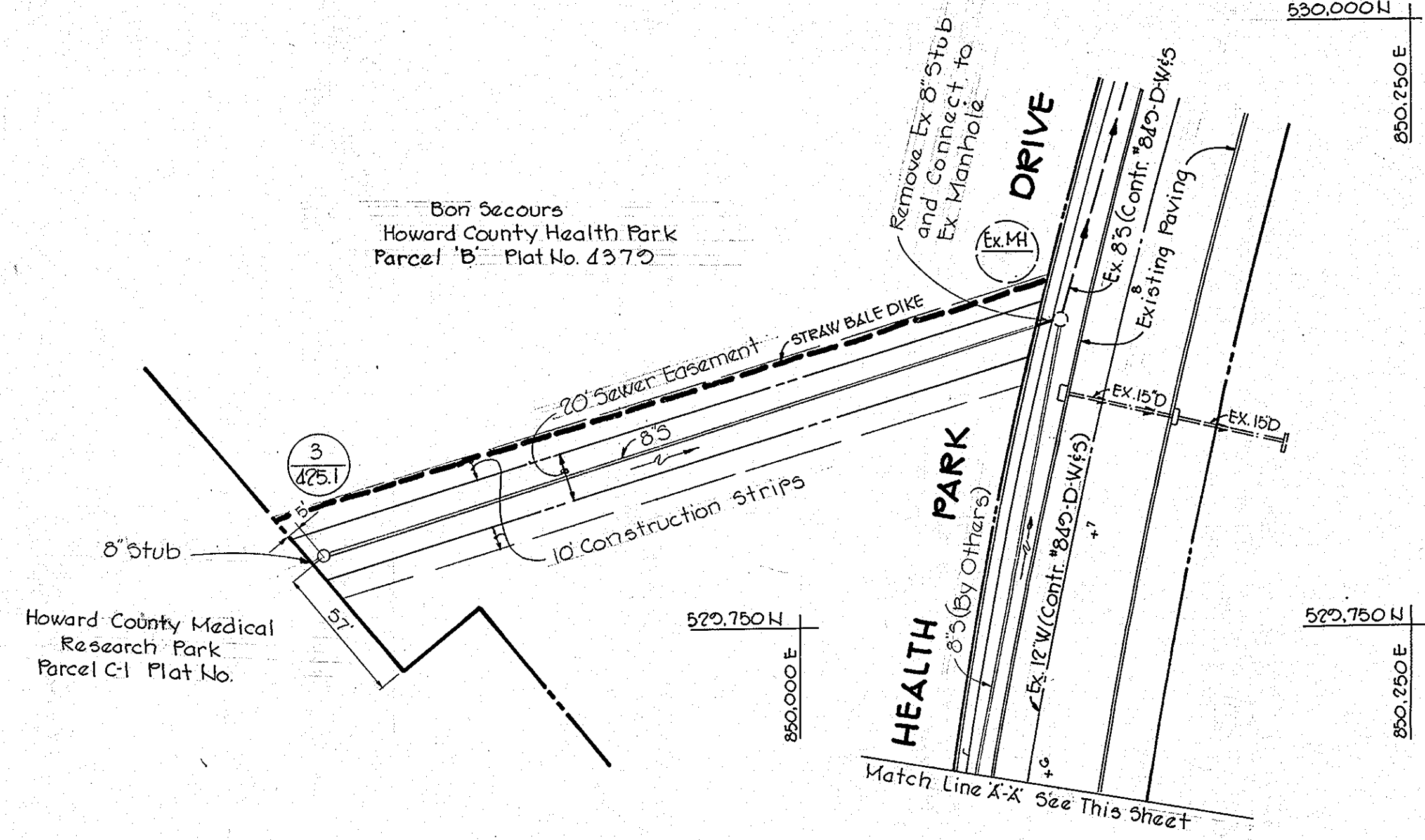
This plan is approved for SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

W.D. Brown 11-4-83
HOWARD SOIL CONSERVATION DISTRICT DATE

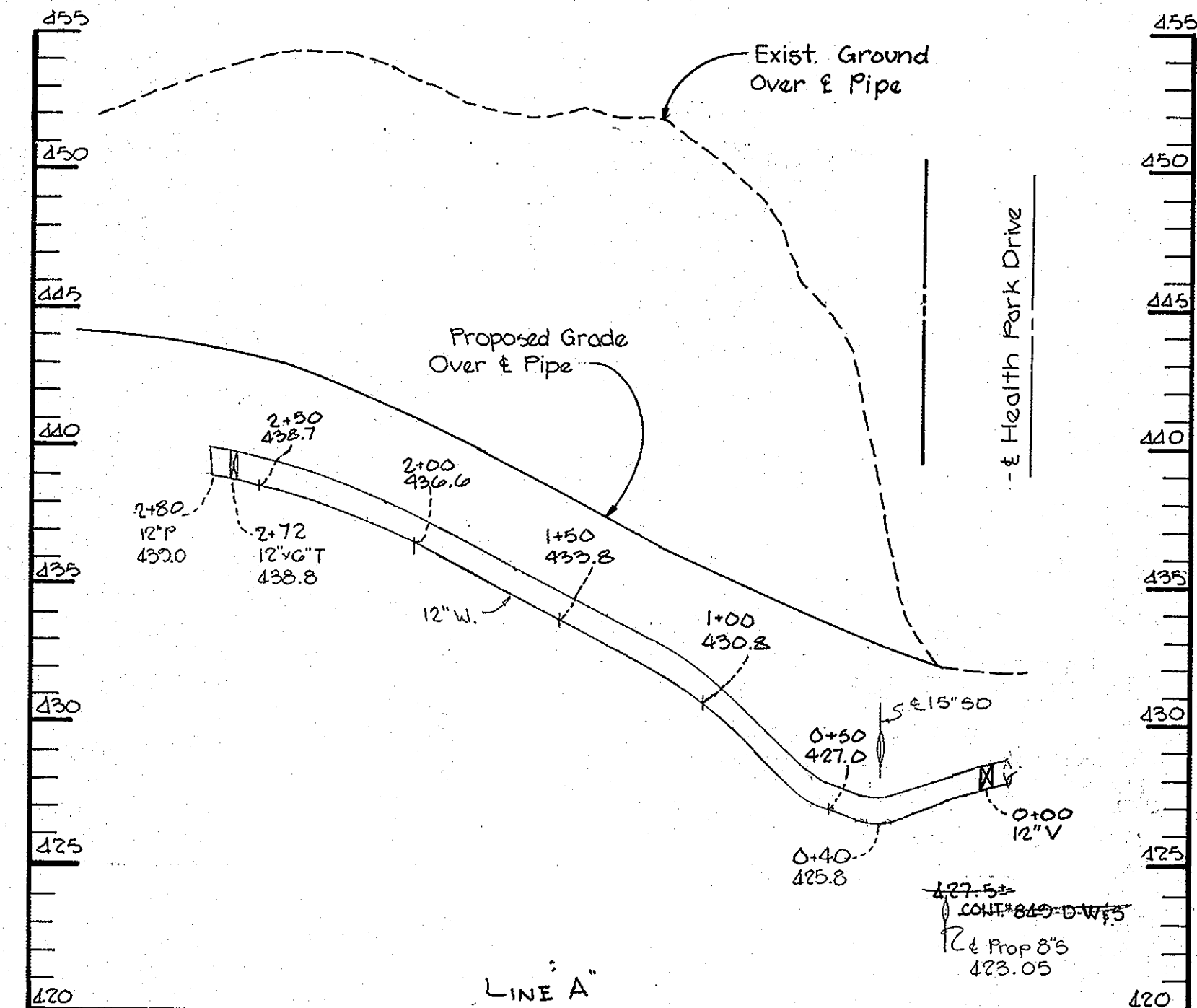
DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND Mary F. Nemey 11-15-83 DIRECTOR OF PUBLIC WORKS DATE Robert M. Bennett 11-11-83 CHIEF BUREAU OF UTILITIES DATE	THE RIEMER GROUP, INC. 8659 BALTIMORE NATIONAL PIKE ELLICOTT CITY, MARYLAND 21043 Arthur E. Meege CHIEF-LAND DEVELOPMENT DIVISION DATE	DES: GRB DRW: JSK CHK: W.D.S. D.A.M. DATE: 9/21/83 BY NO. REVISIONS DATE	PLAN AND PROFILE OF WATER AND SEWER MAINS 600' SCALE MAP NO. 17 BLOCK NO.	HOWARD COUNTY MEDICAL RESEARCH PARK 2ND ELECTION DISTRICT HOWARD COUNTY MARYLAND CONTRACT NO. 14-1156-D AS BUILT JUNE 1984	SCALE AS SHOWN SHEET 1 OF 2
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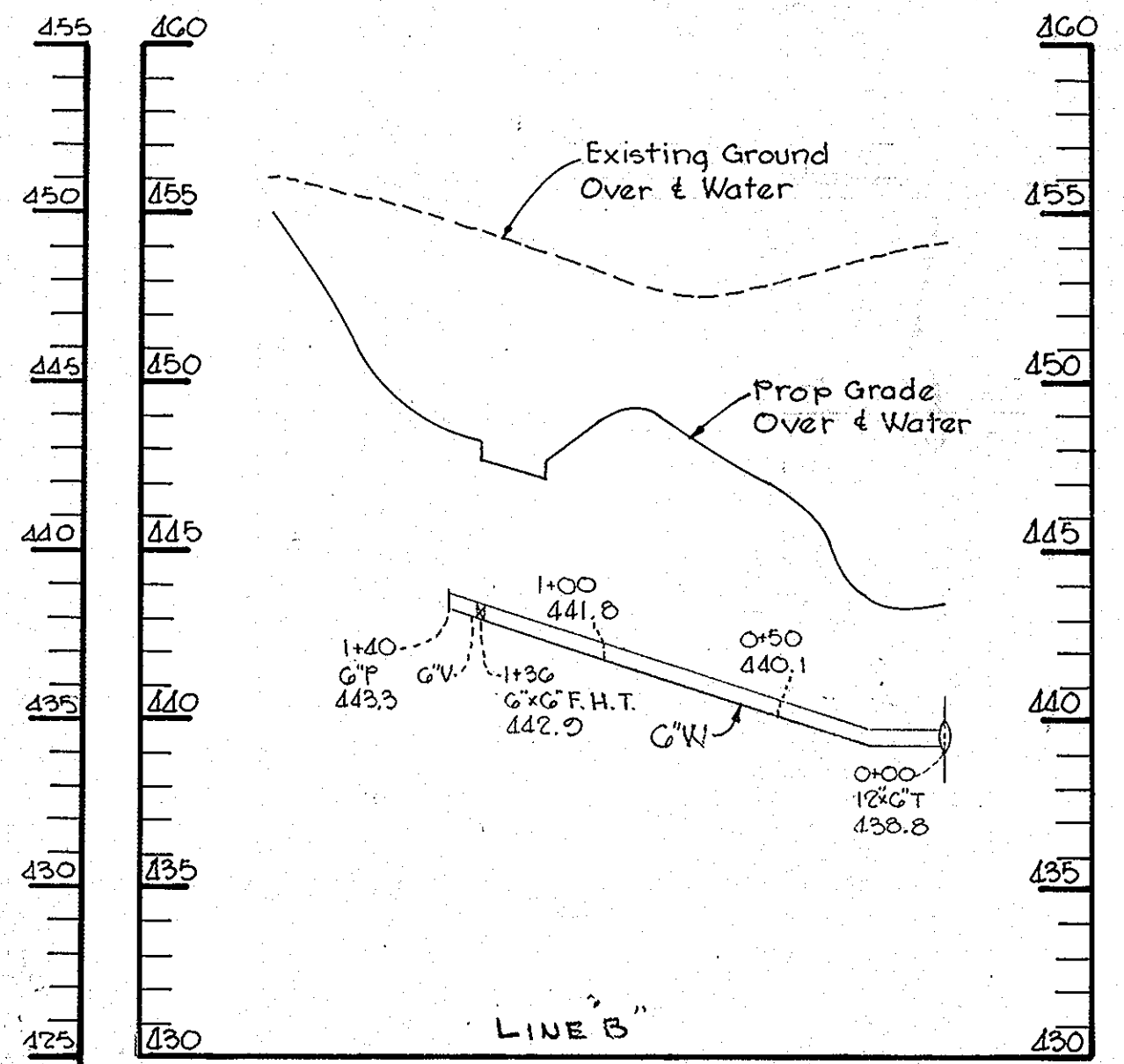
PLAN
SCALE: 1" = 50'



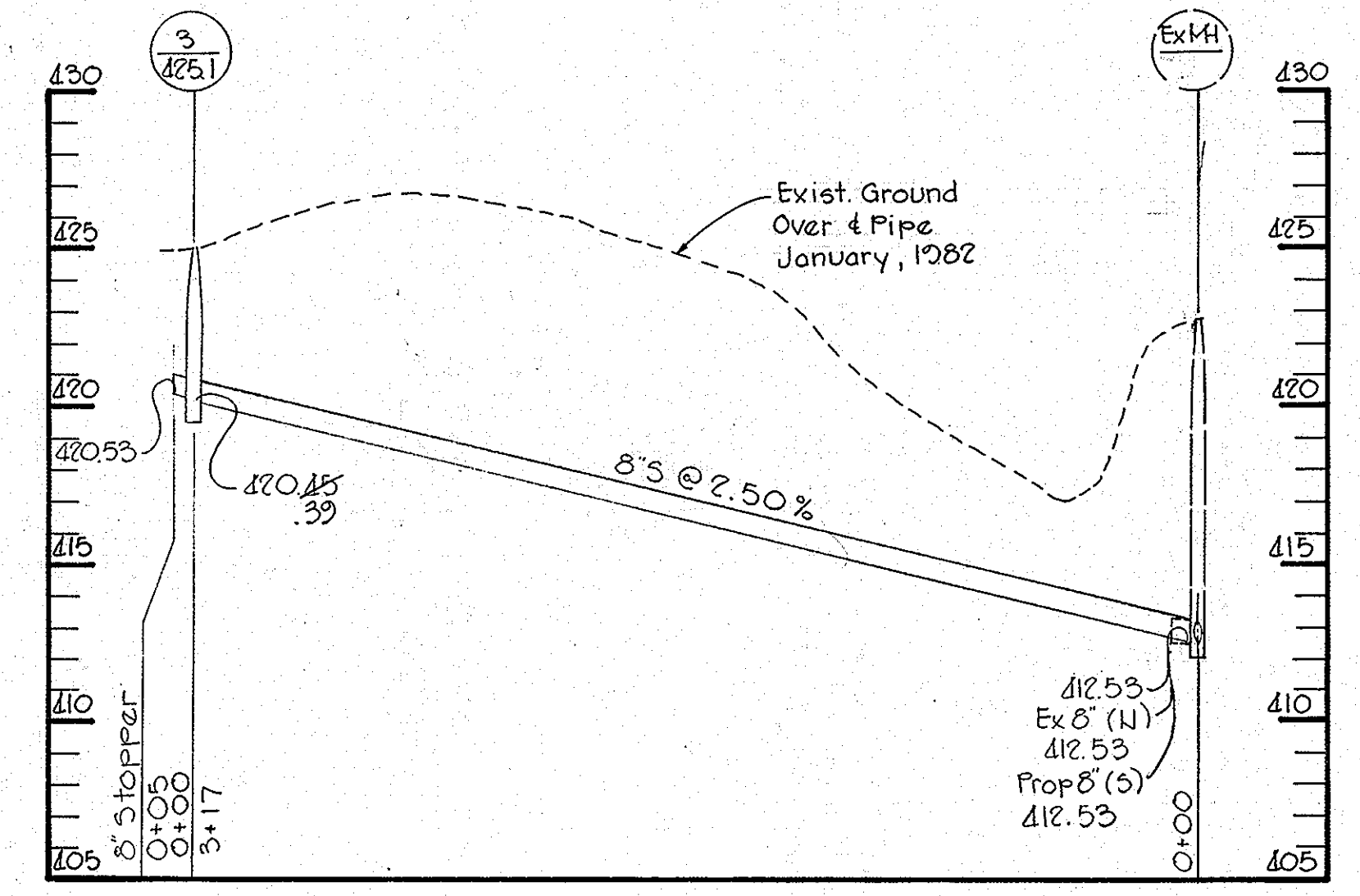
PLAN
SCALE: 1" = 50'



PROFILE
Horiz: 1" = 50'
Scale: Vert: 1" = 5'



PROFILE
Horiz: 1" = 50'
Scale: Vert: 1" = 5'



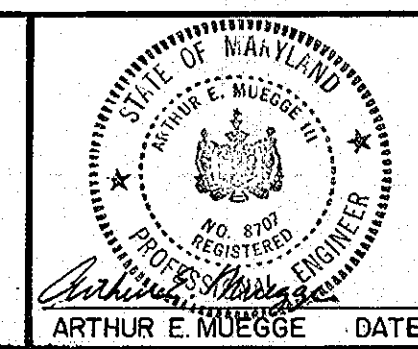
PROFILE
Horiz: 1" = 50'
Scale: Vert: 1" = 5'

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

John F. Nemy
DIRECTOR OF PUBLIC WORKS
11-18-83
Robert M. Beaman
CHIEF BUREAU OF UTILITIES
11-11-83

William E. Peltz
CHIEF BUREAU OF ENGINEERING
11-11-83
William E. Peltz
CHIEF - LAND DEVELOPMENT DIVISION
DATE

THE RIEMER GROUP, INC.
8659 BALTIMORE NATIONAL PIKE
ELLCOTT CITY, MARYLAND 21043



DES: GRB
DRW: JSK
CHK:
DATE: 9/21/83

NO.	REVISIONS	DATE
1	As Built	4/20/84
2	ADDED 12" W AND 12" VALVE	4/20/84
3	CHANGE SIZE OF W.H.C. TO PARCEL C-3 TO 1 1/2"	
4	ADDED FOR CONTINUATION SEE SHEET 10P2	1/19/84

PLAN AND PROFILE
OF WATER AND SEWER MAINS

HOWARD COUNTY MEDICAL RESEARCH PARK
2 ELECTION DISTRICT
HOWARD COUNTY MARYLAND
CONTRACT NO. 14 - 1156 - D

AS BUILT JUNE 1984

SCALE AS SHOWN
SHEET 2 OF 2