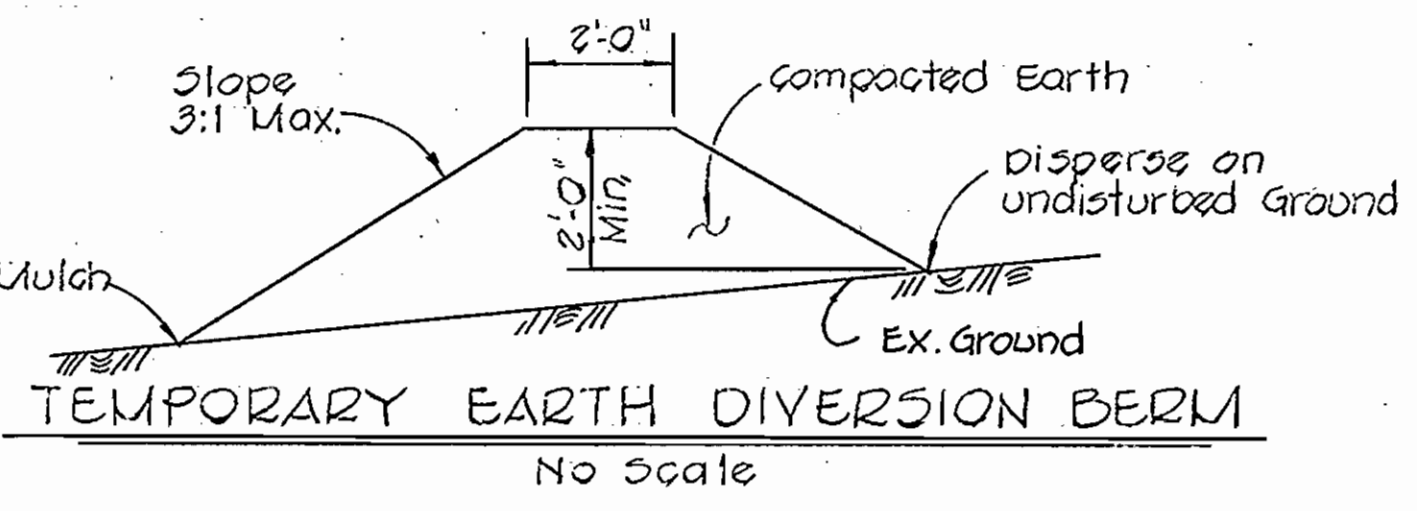


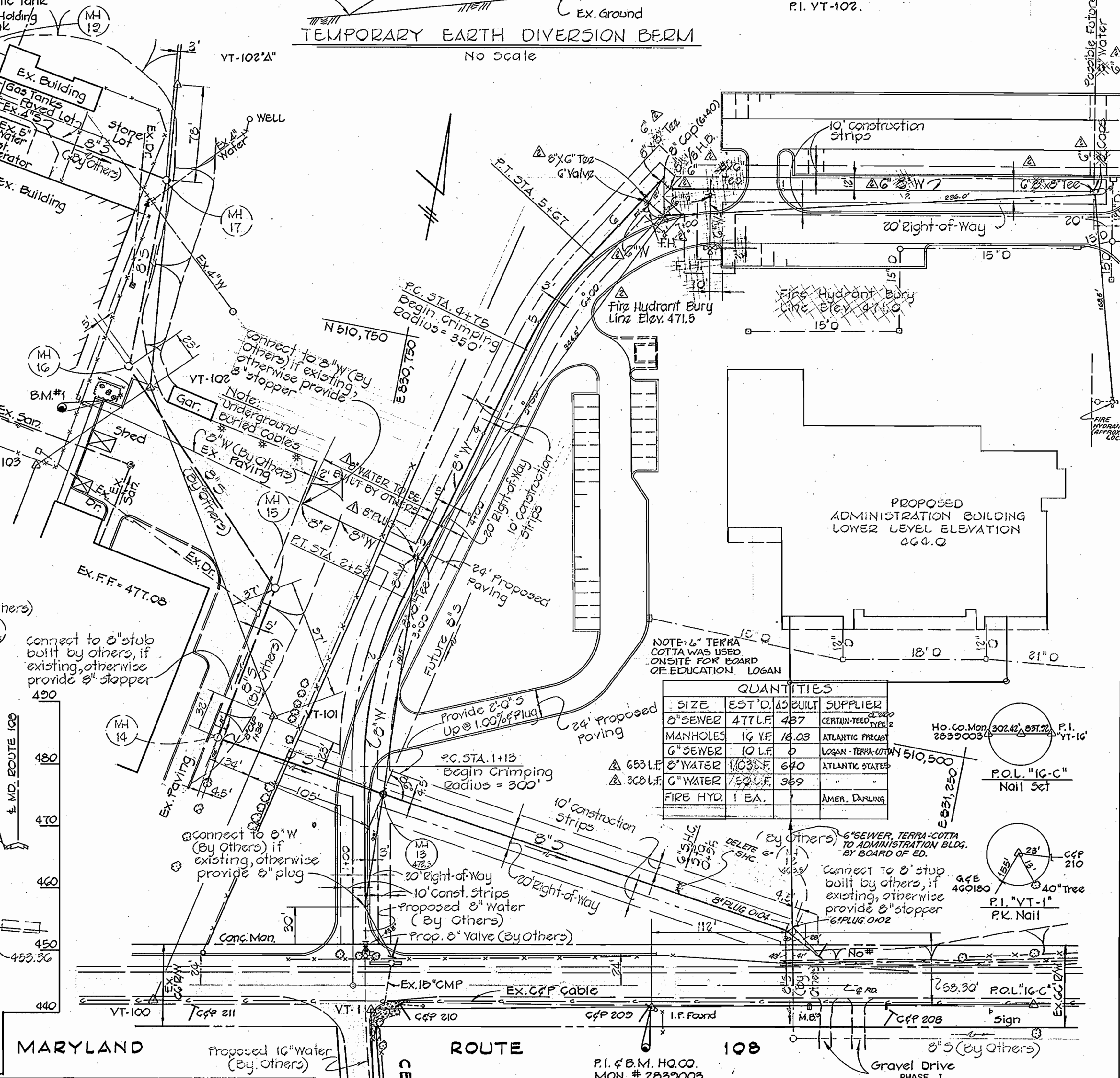
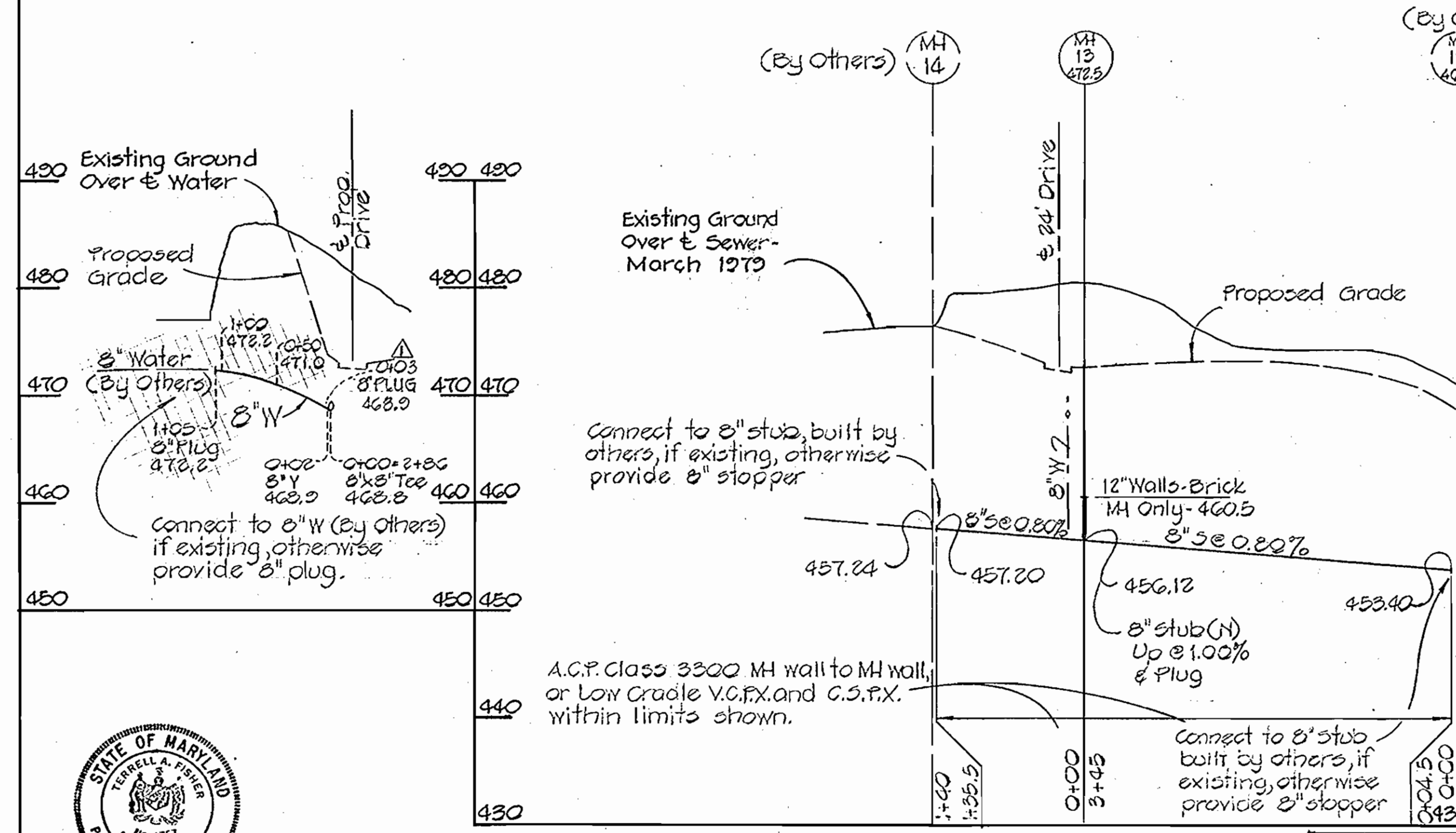
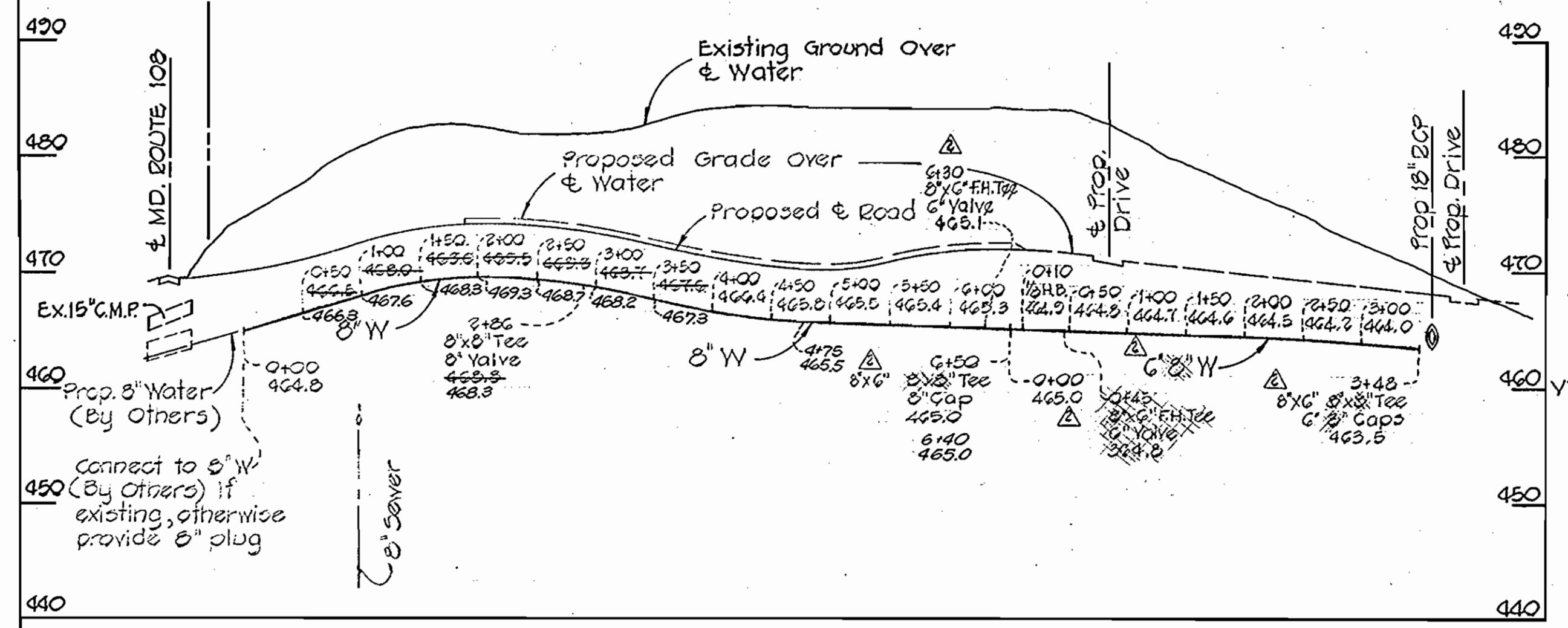
WS 831 -WS/1 (PHASE I)

- GENERAL NOTES**
- 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 DUE TO THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED IMMEDIATELY AT HIS EXPENSE.
  - ALL PIPE ELEVATIONS SHOWN ARE INVERT (I) ELEVATIONS.
  - CLEAR ALL UTILITIES BY A MINIMUM OF 6" CLEAR ALL POLES BY 2'-0" OR TUNNEL AS REQUIRED. ANY COSTS INCURRED TO THE CONTRACTOR FOR TUNNELING OR BRACING AT POLES SHALL BE INCLUDED IN UNIT PRICES BID FOR EXCAVATION.
  - FOR ALL STANDARD DETAILS SEE STANDARDS BOUND IN SPECIFICATIONS.
  - THE CONTRACTOR SHALL LOCATE EXISTING UTILITIES A MINIMUM OF TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS IN VICINITY OF PROPOSED UTILITIES.
  - THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE (5) DAYS IN ADVANCE OF STARTING WORK SHOWN ON THESE PLANS:
    - BALTIMORE GAS & ELECTRIC CO. - UNDERGROUND ELECTRIC DISTRIBUTION ENGINEERING "DAMAGE CONTROL" 234-5691
    - COLONIAL PIPELINE CO. - 781-4641
    - BALTIMORE GAS & ELECTRIC CO. - UNDERGROUND GAS DISTRIBUTION ENGINEERING - 559-0100
    - C & P TELEPHONE CO. - 725-9976
    - A.T.&T. - CABLE LOCATING DIVISION 301-393-3553
    - MISS. UTILITY - 1-800-393-3648
  - TREES ARE TO BE PROTECTED FROM DAMAGE TO MAXIMUM EXTENT.
  - ALL WATER MAINS TO BE C.I.P., D.I.P. OR A.C.P. UNLESS OTHERWISE NOTED.
  - TOP OF ALL WATER MAINS TO HAVE A MINIMUM OF 3-1/2" COVER UNLESS OTHERWISE NOTED.
  - ALL VALVES SHALL BE STRAPPED TO TEES WHERE APPLICABLE, IN ACCORDANCE WITH STANDARD DETAILS.
  - BUTTRSS OR ANCHOR ALL WATER MAIN FITTINGS IN CONCRETE IN ACCORDANCE WITH DETAILS IN THE SPECIFICATIONS.
  - BURY LINE ELEVATIONS ON FIRE HYDRANTS SHALL BE SET TO THE ELEVATIONS SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE STRAPPED AND BUTTRSSED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAILS. COST OF STRAPPING FIRE HYDRANTS AND VALVES TO BE INCLUDED IN UNIT PRICES BID FOR FURNISHING AND INSTALLING FIRE HYDRANTS.
  - ALL GRADING FOR FIRE HYDRANTS SHALL BE IN ACCORDANCE WITH STANDARD DETAIL W-48 UNLESS OTHERWISE NOTED. COST FOR GRADING TO BE INCLUDED IN UNIT PRICE BID FOR FURNISHING AND INSTALLING FIRE HYDRANTS. SOIL AROUND FIRE HYDRANTS TO BE COMPACTED IN ACCORDANCE WITH SECTION 5-15 OF THE SPECIFICATIONS.
  - ALL SEWER MAINS TO BE C.S.P.X., V.C.P.X. OR A.C.P. CLASS 2400, UNLESS OTHERWISE NOTED.
  - THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALL.
  - ALL MANHOLES TO BE 4'-0" INSIDE DIAMETER, UNLESS OTHERWISE NOTED.
  - HORIZONTAL AND VERTICAL CONTROL IS BASED ON THE HOWARD COUNTY GRID COORDINATE SYSTEM.

Division berms are required every 250 feet on continuous slopes of 4% or greater. The berms shall conform to the typical section shown hereon and be constructed across the construction areas immediately after the backfilling of the pipe trench and prior to placing stabilization in order to prevent erosion of the backfilled areas.

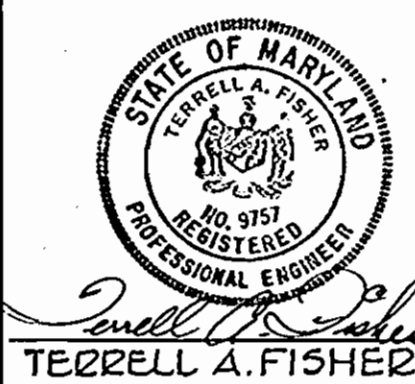


**BENCH MARK**  
Ho. Co. Mon. # 2832003 Elev. 468.72  
Brass disc found on south side of Md. Route 108, ± 235' E. of Cedar Lane.  
B.M. #1 Elev. 481.22  
cut in concrete curb ± 37' SW. of P.I. VT-102.



**QUANTITIES**

SIZE	EST'D. QTY.	BUILT	SUPPLIER
8" SEWER	477 L.F.	487	CERTAIN-TEED
MANHOLES	16 Y.F.	16.03	ATLANTIC PRECAST
6" SEWER	10 L.F.	0	LOGAN - TERRA-COTTA
8" WATER	1,038 L.F.	640	ATLANTIC STATES
6" WATER	320 L.F.	369	"
FIRE HYD.	1 EA.		AMER. DAWLING



**FISHER, COLLINS AND CARTER, INC.**  
CIVIL ENGINEERING CONSULTANTS  
8388 COURT AVENUE  
ELLCOTT CITY, MARYLAND 21043

**DEPARTMENT OF PUBLIC WORKS**  
HOWARD COUNTY, MARYLAND  
3-12-79  
DIRECTOR OF PUBLIC WORKS DATE

**PHASE I**  
CONTRACT NO. 831-W&S

**PLAN AND PROFILE**  
WATER & SEWER MAINS

**HOWARD COUNTY BOARD OF EDUCATION**  
ADMINISTRATION BUILDING AND  
VOCATIONAL TECHNICAL CENTER  
MARYLAND ROUTE 108 - CEDAR LANE

**DRAWING**  
NO. 1  
OF 1  
SCALE AS SHOWN

REV. 56 PT. 25, 1979  
APRIL 25, 1979  
**AS-BUILT OCT. 22, 1979**

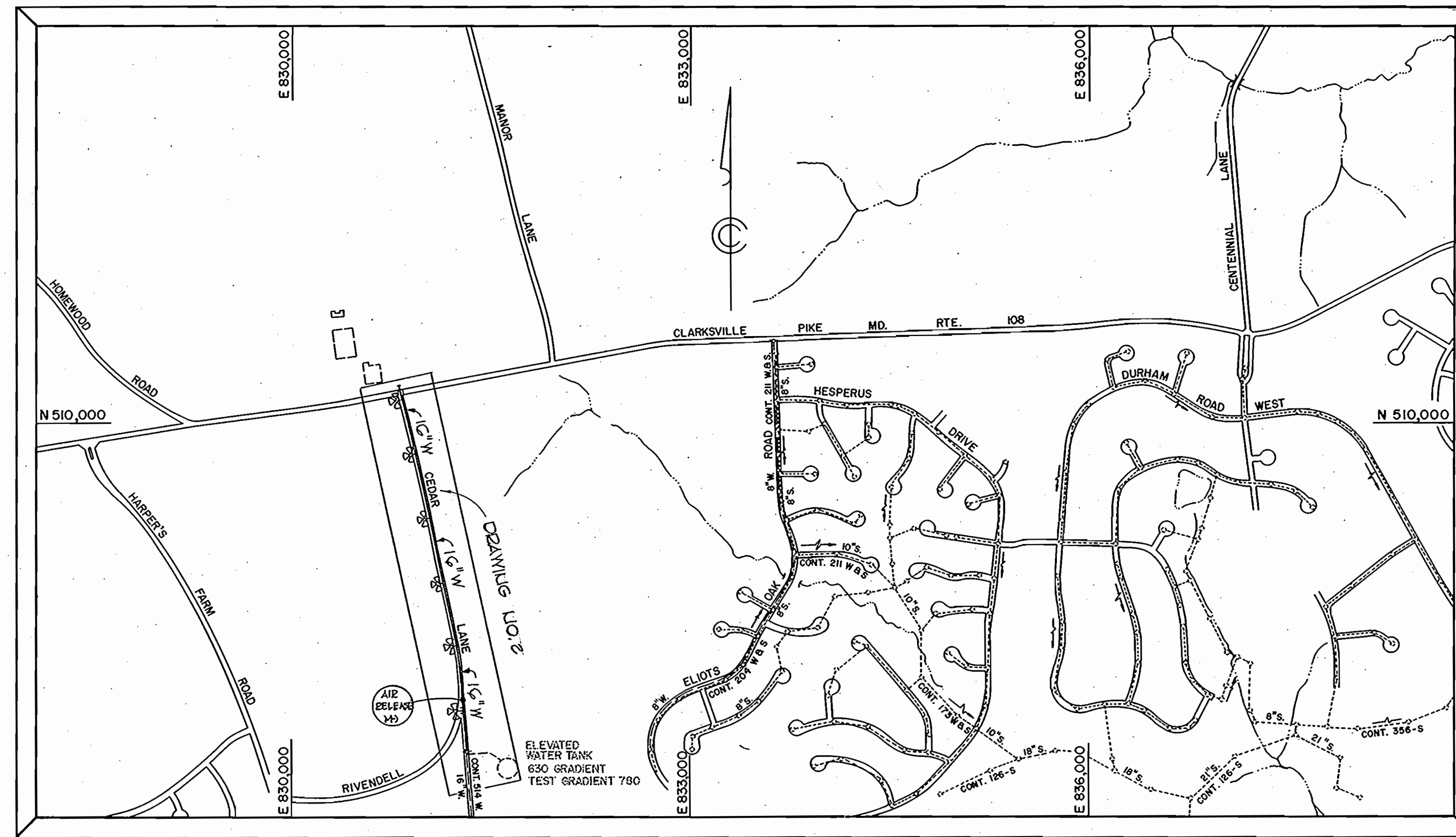
**GENERAL NOTES**

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 due to the contractor's operations shall be repaired immediately at the contractor's expense.
2. All pipe elevations shown are invert elevations.
3. Clear all utilities by a minimum of 6". Clear all 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 unit prices bid for excavation.
4. For all standard details see standards bound in the specifications.
5. The contractor shall locate existing utilities a minimum of two weeks in advance of construction operations in the vicinity of proposed utilities.
6. The contractor shall notify the following utilities or agencies at least five (5) days before starting work shown on these plans:  
 State Highway Administration - 531-5533  
 Baltimore Gas & Electric Co. - Underground Electric Distribution Engineering - "Damage Control" - 224-5631  
 Baltimore Gas & Electric Co. - Underground Gas Distribution Engineering - 552-0100  
 C & P Telephone Co. - 725-3276  
 A.T.&T. - Cable Location Division - 301-393-3553  
 Colonial Pipeline Co. - 781-4641  
 Miss Utility - 1-800-393-3648
7. Trees are to be protected from damage to 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.
9. All water mains to be C.I.P. or D.I.P. unless otherwise noted.
10. Top of all water mains to have a minimum of 3 1/2' of cover unless otherwise noted.
11. All valves shall be strapped to trees, where applicable, in accordance with standard details.
12. Buttress or anchor all water main fittings in concrete in accordance with details in specifications.
13. 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. Cost of strapping fire hydrants and valves to be included in unit prices bid for furnishing and installation of fire hydrants.
14. All grading for fire hydrants shall be in accordance with standard detail W-48, unless otherwise noted. Cost for grading to be included in unit price bid for furnishing and installing fire hydrants.

14. (Cont'd)  
Soil around fire hydrant to be compacted in accordance with section 5-15 of the Standard Specs.
15. Horizontal and vertical control is based on the Howard County Grid Coordinate System.

PHASE II-A  
 CONTRACT NO. 2831-W & S  
 HOWARD COUNTY BOARD OF EDUCATION  
 ADMINISTRATION BUILDING AND  
 VOCATIONAL TECHNICAL CENTER  
 MARYLAND ROUTE 108 - CEDAR LANE  
 WATER AND SEWER EXTENSION

DESIGNED: R.D.B.	DRAWING NO. 1	SCALE 1" = 600'
DRAFTED: D.B.S.	NO. 3	CHECKED: T.A.F.



WATER ZONE CODE: I - 02 EAST OF CEDAR LA.  
 I - 03 WEST OF CEDAR LA.  
 TOTAL LOTS TO BE SERVED 8 WATER

QUANTITIES			
SIZE	ESTD.	AS BUILT	SUPPLIER
16" WATER	2,073 L.F.	2836	
8" WATER	55 L.F.	53.8	
6" WATER	160 L.F.	159.6	
FIRE HYD.	6 EA.		
AIR REL. MH	1 EA.		
20" STEEL CASING PIPE	40 L.F.		

**PHASE II-A**  
**CONTRACT NO. 2831-W & S**  
**HOWARD COUNTY BOARD OF EDUCATION**  
**MARYLAND ROUTE 108 - CEDAR LANE**  
**HOWARD COUNTY, MARYLAND**  
**DEPARTMENT OF PUBLIC WORKS**



Terrell A. Fisher  
 TERRELL A. FISHER, NO. 9757

FISHER, COLLINS AND CARTER, INC.  
 CIVIL ENGINEERING CONSULTANTS  
 8388 COURT AVENUE  
 ELLICOTT CITY, MARYLAND 21043

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
 W. O. Fisher  
 DIRECTOR OF PUBLIC WORKS DATE 9-18-79  
 CHIEF BUREAU OF ENGINEERING DATE

PHASE II-A  
 CONTRACT NO. 2831-W & S

VICINITY MAP

HOWARD COUNTY BOARD OF EDUCATION  
 ADMINISTRATION BUILDING AND  
 VOCATIONAL TECHNICAL CENTER  
 MARYLAND ROUTE 108 - CEDAR LANE

DESIGNED: R.D.B.  
 DRAFTED: D.B.S.  
 CHECKED: T.A.F.

WS 831 - WS / 1 (PHASE II - A)

WS 831-WS/2 (PHASE II-A)

WS

**BENCH MARK**

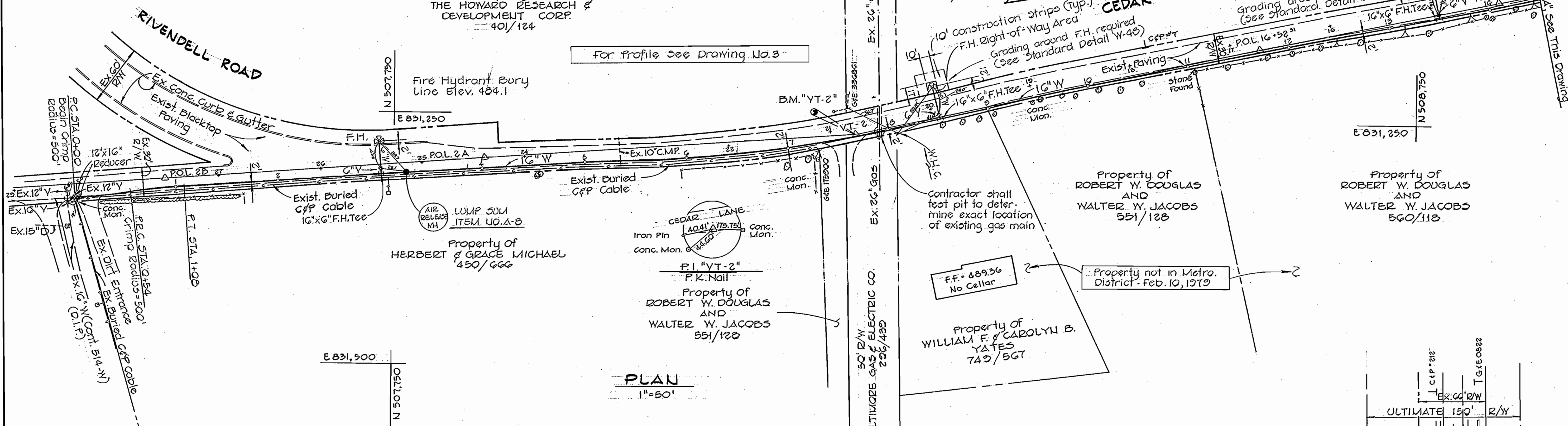
B.M. "YT-2" Elev. 484.84  
P.K. nail in paving on east side of Cedar Lane in vicinity of underground B.G. & E. 26" gas main.

50' R/W  
BALTIMORE GAS & ELECTRIC CO.  
235/19

Fire Hydrant Bury Line Elev. 483.34

Property of THE HOWARD RESEARCH & DEVELOPMENT CORP.  
417/517

Fire Hydrant Bury Line Elev. 480.62



For Profile See Drawing No. 3

**PLAN**  
1"=50'

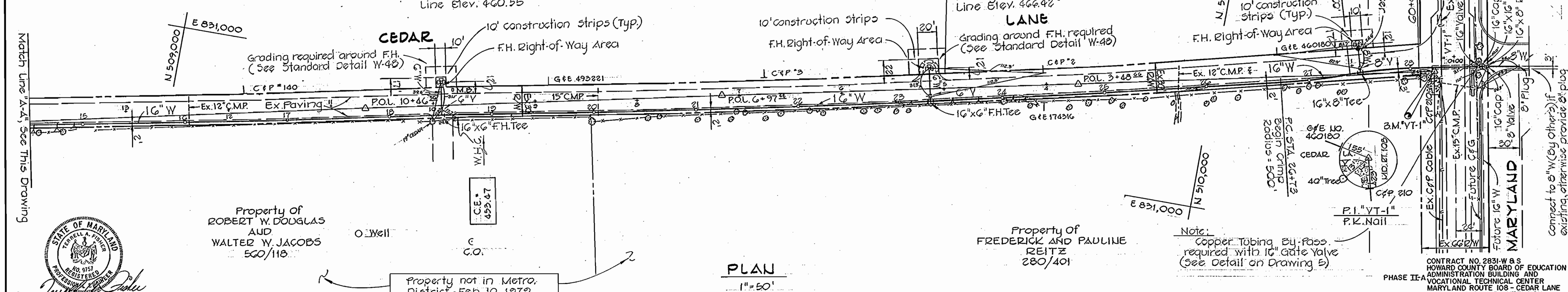
**BENCH MARKS**

B.M. "YT-1" Elev. 468.70  
P.K. nail in paving at southeast corner of intersection of Cedar Lane and Md. Route 108.  
B.M. "Ho. Co. Mon. 2839003" Elev. 468.72  
Brass Disc found on south side of Md. Route 108, 225'± east of P.I. "YT-1".

Property of THE HOWARD RESEARCH & DEVELOPMENT CORP.  
417/517

Property of MARY CARROLL MUTH  
339/381

Fire Hydrant Bury Line Elev. 467.16



For Profile See Drawing No. 3

**PLAN**  
1"=50'



FISHER, COLLINS AND CARTER, INC.  
CIVIL ENGINEERING CONSULTANTS  
8388 COURT AVENUE  
ELLCOTT CITY, MARYLAND 21043

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
Director of Public Works DATE 5-14-79  
Chief Bureau of Engineering DATE 5-14-79

CONTRACT NO. 831-W & S  
PHASE II-A

PLAN  
WATER MAIN

HOWARD COUNTY BOARD OF EDUCATION  
ADMINISTRATION BUILDING AND  
VOCATIONAL TECHNICAL CENTER  
MARYLAND ROUTE 108 - CEDAR LANE

DRAWING NO. 2 OF 3  
SCALE 1"=50'

DESIGNED-R.D.B.  
DRAFTED-D.B.S.  
CHECKED-T.A.F.

A5-BUILT FEB 4, 1980

SEPT. 18, 1979

CONTRACT NO. 2831-W & S  
HOWARD COUNTY BOARD OF EDUCATION  
ADMINISTRATION BUILDING AND  
VOCATIONAL TECHNICAL CENTER  
MARYLAND ROUTE 108 - CEDAR LANE  
WATER AND SEWER EXTENSION

Note:  
Copper Tubing By-Pass required with 16" gate valve (See Detail on Drawing 5)

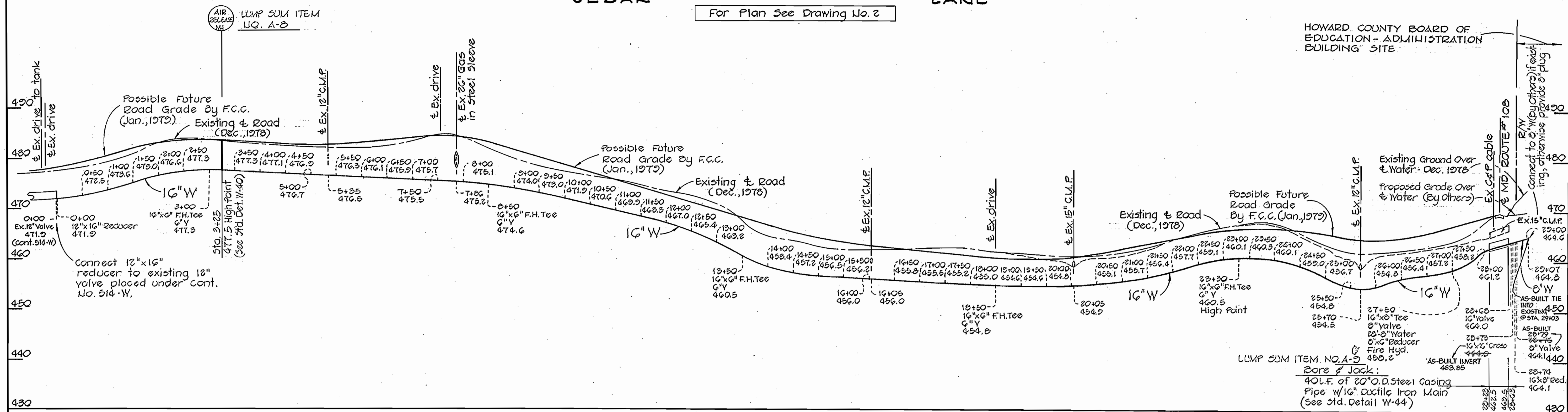
connect to 8" W (by others) if existing, otherwise provide plug

WS 831-W S/3 (PHASE II-A)

CEDAR LANE

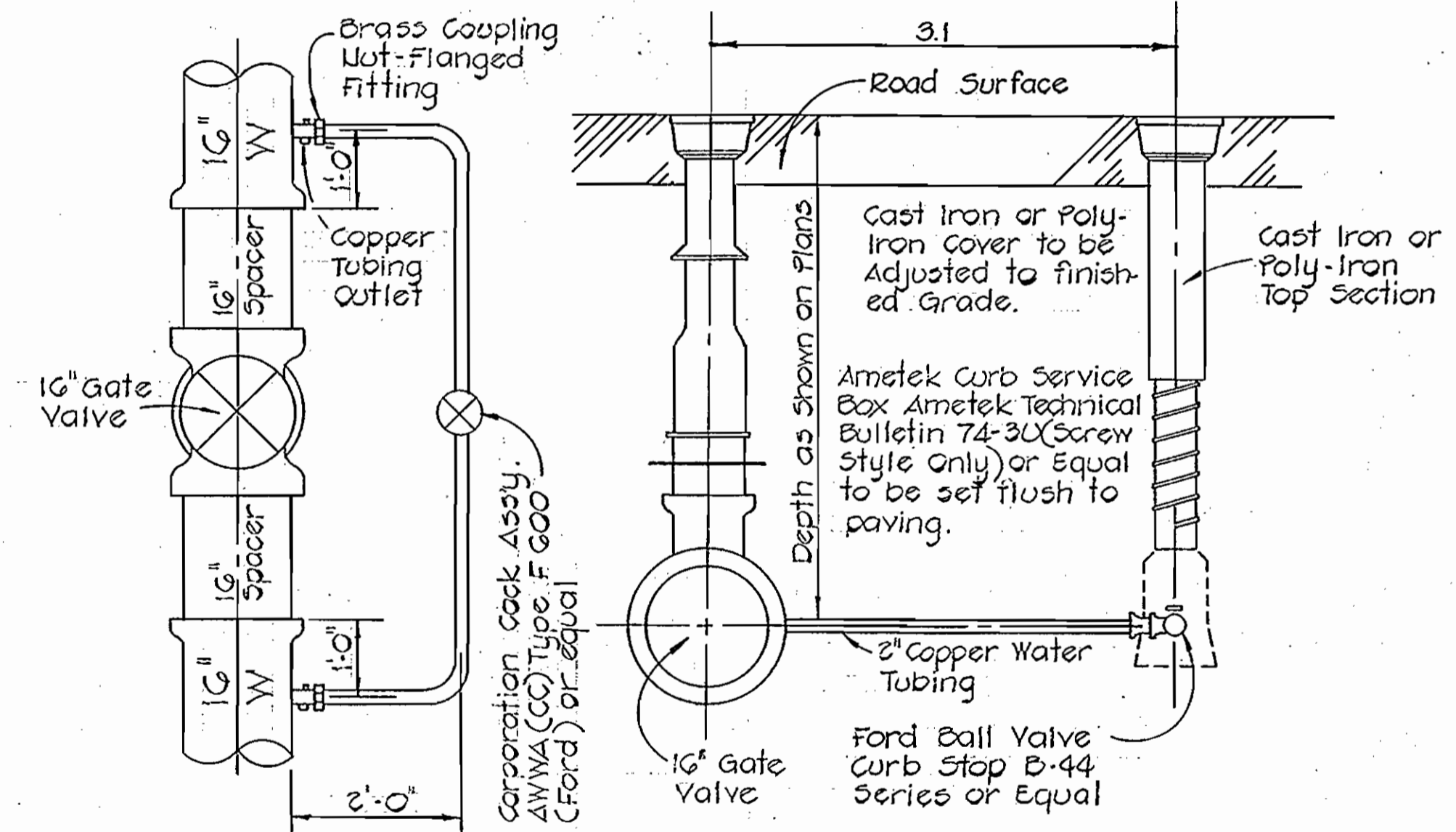
For Plan See Drawing No. 2

HOWARD COUNTY BOARD OF EDUCATION - ADMINISTRATION BUILDING SITE



PROFILES

Scale: Horz.-1"=100'  
Vert.-1"=10'



16" GATE VALVE WITH BY-PASS

No Scale



TERRELL A. FISHER, NO. 9757  
FISHER, COLLINS AND CARTER, INC.  
CIVIL ENGINEERING CONSULTANTS  
8388 COURT AVENUE  
ELLCOTT CITY, MARYLAND 21043

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
5-14-79  
DIRECTOR OF PUBLIC WORKS DATE

PHASE II-A  
CONTRACT NO. 831-W & S

PROFILES AND DETAILS  
WATER & SEWER MAINS

HOWARD COUNTY BOARD OF EDUCATION  
ADMINISTRATION BUILDING AND  
VOCATIONAL TECHNICAL CENTER  
MARYLAND ROUTE 108 - CEDAR LANE

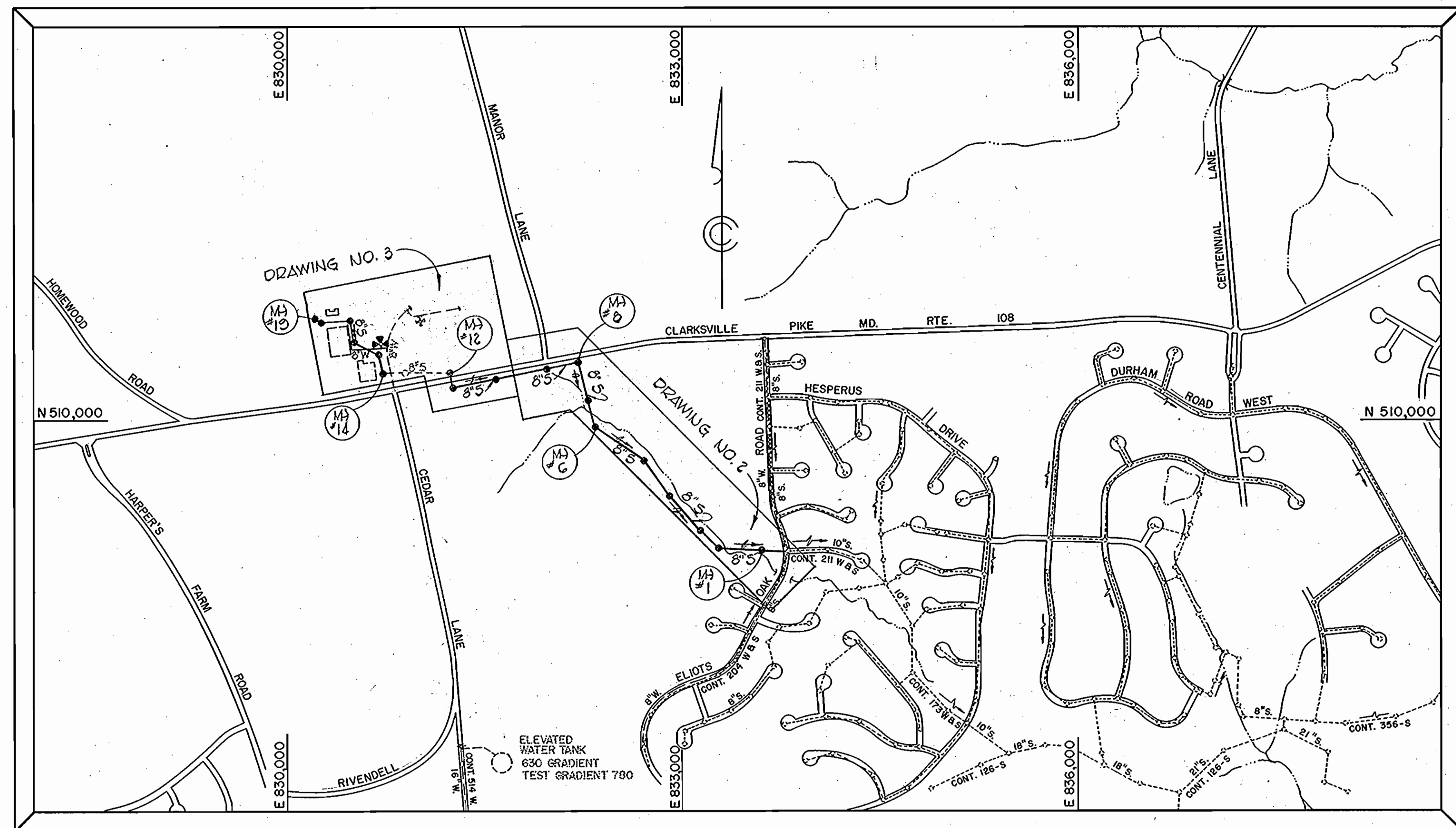
PHASE II-A  
CONTRACT NO. 2831-W & S  
HOWARD COUNTY BOARD OF EDUCATION  
ADMINISTRATION BUILDING AND  
VOCATIONAL TECHNICAL CENTER  
MARYLAND ROUTE 108 - CEDAR LANE  
WATER AND SEWER EXTENSION

AS-BUILT FEB. 4, 1980 SEPT. 18, 1979

USE ONLY

USE ONLY

QUANTITIES			
SIZE	ESTD.	AS BUILT	SUPPLIER
8" WATER	470 L.F.		
8" SEWER	4120 L.F.		
MANHOLES	222 V.F.		
12 1/4" STEEL CASING PIPE	40 L.F.		
FIRE HYD.	1 EA.		



- 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 due to the contractor's operations shall be repaired immediately at the contractor's expense.
  2. All pipe elevations shown are invert elevations.
  3. Clear all utilities by a minimum of 6". Clear all poles by 2'-0" minimum or tunnel as required. Any costs incurred to the contractor for tunneling or bracing of poles shall be included in unit prices bid for excavation.
  4. For all standard details see standards bound in the specifications.
  5. The contractor shall locate existing utilities a minimum of two weeks in advance of construction operations in the vicinity of proposed utilities.
  6. The contractor shall notify the following utilities or agencies at least five (5) days before starting work shown on these plans:
    - State Highway Administration - 531-5533
    - Baltimore Gas & Electric Co. - Underground Electric Distribution Engineering - "Damage Control" - 224-5601
    - Baltimore Gas & Electric Co. - Underground Gas Distribution Engineering - 552-0100
    - C & P Telephone Co. - 725-2276
    - A.T.&T. - Cable Location Division - 301-323-3553
    - Colonial Pipeline Co. - 781-4641
    - Miss Utility - 1-800-393-3648
  7. Trees are to be protected from damage to 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.
  9. All water mains to be C.I.P. or D.I.P. unless otherwise noted.
  10. Top of all water mains to have a minimum of 3 1/2' of cover unless otherwise noted.
  11. All valves shall be strapped to trees, where applicable, in accordance with standard details.
  12. Buttress or anchor all water main fittings in concrete in accordance with details in specifications.
  13. All sewer mains shall be C.S.P.X., V.C.P.X. or A.C.P. class 2400 unless otherwise noted.
  14. The contractor shall provide a joint in all sewer mains within 2'-0" of exterior manhole walls.
  15. All manholes to be 4'-0" inside dia. unless otherwise noted.
  16. Horizontal controls are based on Maryland State coordinates. Vertical controls are based on U.S.G.S. datum.
  17. Bury line elevations on fire hydrants shall be set to the elevations shown on the drawings.

WATER ZONE CODE: I-02 EAST OF CEDAR LA.  
I-03 WEST OF CEDAR LA.  
SEWER ZONE CODE: 5583000  
TOTAL LOTS TO BE SERVED: 10 SEWER  
1 WATER

**PHASE II-B**  
**CONTRACT NO. 2831-W & S**  
**HOWARD COUNTY BOARD OF EDUCATION**  
**MARYLAND ROUTE 108 - CEDAR LANE**  
**HOWARD COUNTY, MARYLAND**  
**DEPARTMENT OF PUBLIC WORKS**

All fire hydrants shall be strapped and buttressed with concrete in accordance with standard details. Cost of strapping fire hydrants and valves to be included in unit price bids for furnishing and installing fire hydrants.

18. All grading for fire hydrants shall be in accordance with standard detail W-48, unless otherwise noted. Cost for grading to be included in unit price bid for furnishing and installing fire hydrants. Soil around fire hydrants to be compacted in accordance with section 5-15 of the standard specs.

PHASE II-B  
CONTRACT NO. 2831-W & S  
HOWARD COUNTY BOARD OF EDUCATION  
ADMINISTRATION BUILDING AND  
VOCATIONAL TECHNICAL CENTER  
MARYLAND ROUTE 108 - CEDAR LANE  
WATER AND SEWER EXTENSION



TERRELL A. FISHER, NO. 9757  
FISHER, COLLINS AND CARTER, INC.  
CIVIL ENGINEERING CONSULTANTS  
8388 COURT AVENUE  
ELLCOTT CITY, MARYLAND 21043

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
5-14-79  
DIRECTOR OF PUBLIC WORKS DATE

PHASE II-B  
CONTRACT NO. 2831-W & S  
VICINITY MAP

HOWARD COUNTY BOARD OF EDUCATION  
ADMINISTRATION BUILDING AND  
VOCATIONAL TECHNICAL CENTER  
MARYLAND ROUTE 108 - CEDAR LANE

DRAWING NO. 1 OF 5  
SCALE 1" = 600'  
DESIGNED: R.D.B.  
DRAFTED: D.B.S.  
CHECKED: T.A.F.

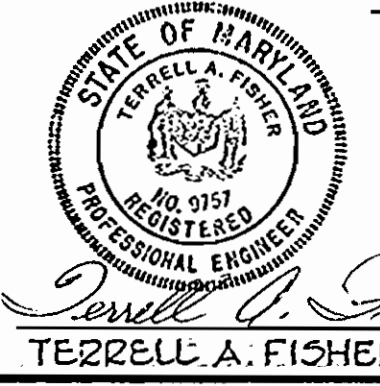
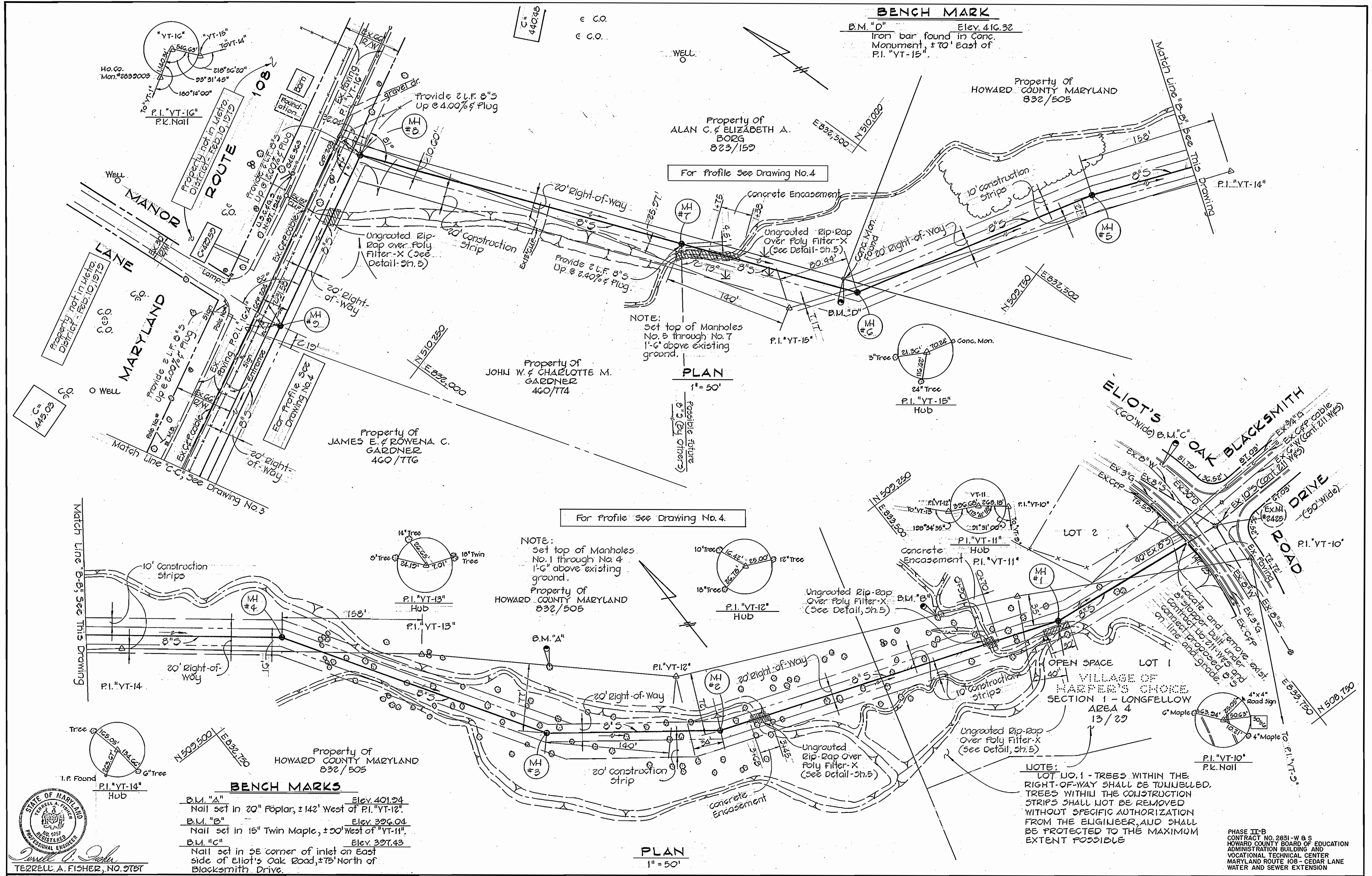
W.O. #100

FEBRUARY 22, 1980

WS 831 -WS/1 (PHASE II B) 0251

WS 831 - WS/2 (PHASE II-B)

0282



**BENCH MARKS**

B.M. "A" Elev. 401.24  
Nail set in 20" Poplar, ±142' West of P.I. "VT-12".

B.M. "B" Elev. 396.04  
Nail set in 15" Twin Maple, ±20' West of "VT-11".

B.M. "C" Elev. 397.43  
Nail set in SE corner of inlet on East side of Eliot's Oak Road, ±75' North of Blacksmith Drive.

**NOTE:**  
LOT NO. 1 - TREES WITHIN THE RIGHT-OF-WAY SHALL BE TUNNELLED. TREES WITHIN THE CONSTRUCTION STRIPS SHALL NOT BE REMOVED WITHOUT SPECIFIC AUTHORIZATION FROM THE ENGINEER, AND SHALL BE PROTECTED TO THE MAXIMUM EXTENT POSSIBLE.

PHASE II-B  
CONTRACT NO. 2831-W & S  
HOWARD COUNTY BOARD OF EDUCATION  
ADMINISTRATION BUILDING AND  
VOCATIONAL TECHNICAL CENTER  
MARYLAND ROUTE 108 - CEDAR LANE  
WATER AND SEWER EXTENSION

**FISHER, COLLINS AND CARTER, INC.**  
CIVIL ENGINEERING CONSULTANTS  
8388 COURT AVENUE  
ELLCOTT CITY, MARYLAND 21043

**DEPARTMENT OF PUBLIC WORKS**  
HOWARD COUNTY, MARYLAND  
5-14-77  
DATE

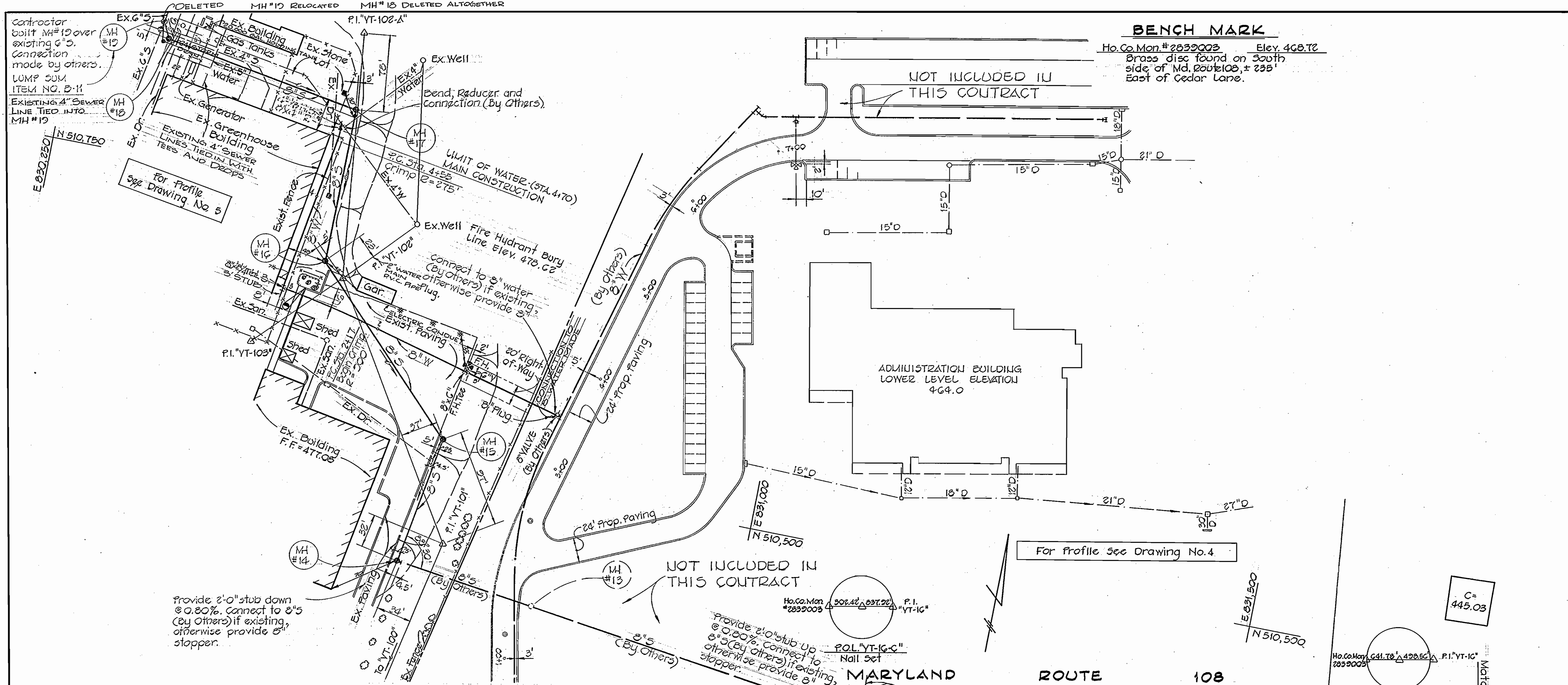
CONTRACT NO. **2831-W & S**  
PHASE II-B

**PLAN**  
SEWER MAIN

HOWARD COUNTY BOARD OF EDUCATION  
ADMINISTRATION BUILDING AND  
VOCATIONAL TECHNICAL CENTER  
MARYLAND ROUTE 108 - CEDAR LANE

DRAWING NO. **2** OF **5**  
SCALE 1" = 50'  
DESIGNED: R.D.B.  
DRAFTED: D.B.S.  
CHECKED: T.A.F.

WS 831 - WS/3 (PHASE II-B)



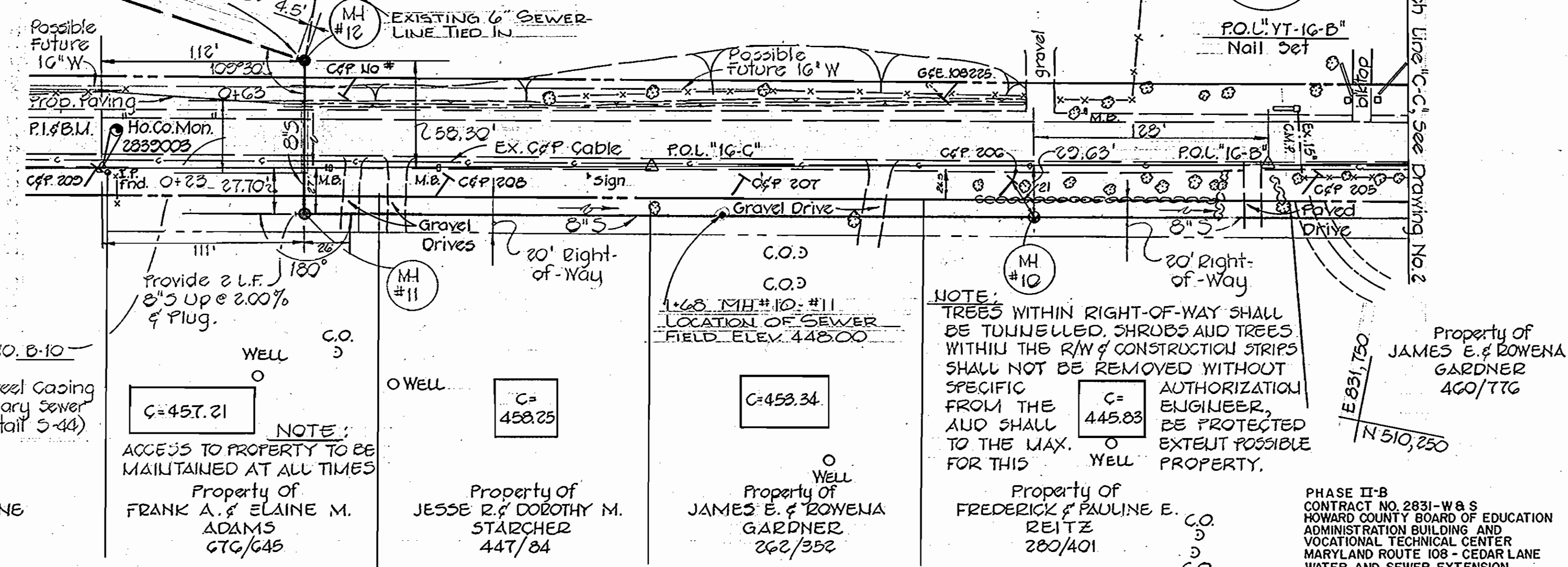
**BENCH MARK**  
 Ho. Co. Mon. #2832003 Elev. 468.72  
 Brass disc found on South side of Md. Route 108, ± 225' East of Cedar Lane.

For Profile See Drawing No. 4

NOT INCLUDED IN THIS CONTRACT

Provide 2'-0" stub down @ 0.80% connect to 8" (By Others) if existing, otherwise provide 8" stopper.

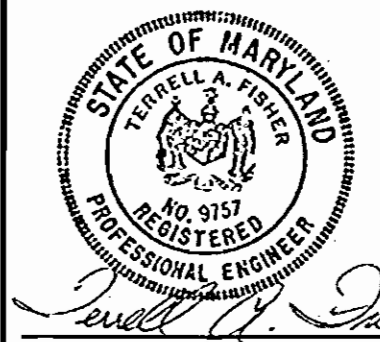
Provide 2'-0" stub up @ 0.20% connect to 8" (By Others) if existing, otherwise provide 8" stopper.



**NOTE:**  
 TREES WITHIN RIGHT-OF-WAY SHALL BE TUNNELED, SHRUBS AND TREES WITHIN THE R/W OF CONSTRUCTION STRIPS SHALL NOT BE REMOVED WITHOUT SPECIFIC AUTHORIZATION FROM THE ENGINEER, AND SHALL BE PROTECTED TO THE MAX. EXTENT POSSIBLE FOR THIS PROPERTY.

LUMP SUM ITEM NO. 6-10 -  
 Bore & Jack:  
 40 L.F. 18 3/4" O.D. Steel Casing  
 Pipe with 8" Sanitary Sewer  
 (See Standard Detail 5-44)

**NOTE:**  
 ACCESS TO PROPERTY TO BE MAINTAINED AT ALL TIMES



**FISHER, COLLINS AND CARTER, INC.**  
 CIVIL ENGINEERING CONSULTANTS  
 8388 COURT AVENUE  
 ELLICOTT CITY, MARYLAND 21043

**DEPARTMENT OF PUBLIC WORKS**  
 HOWARD COUNTY, MARYLAND  
 DATE: 5-14-79  
 CHIEF BUREAU OF ENGINEERING

**CONTRACT NO. 2831-W&S**  
 PHASE II-B

**PLAN SEWER MAIN**

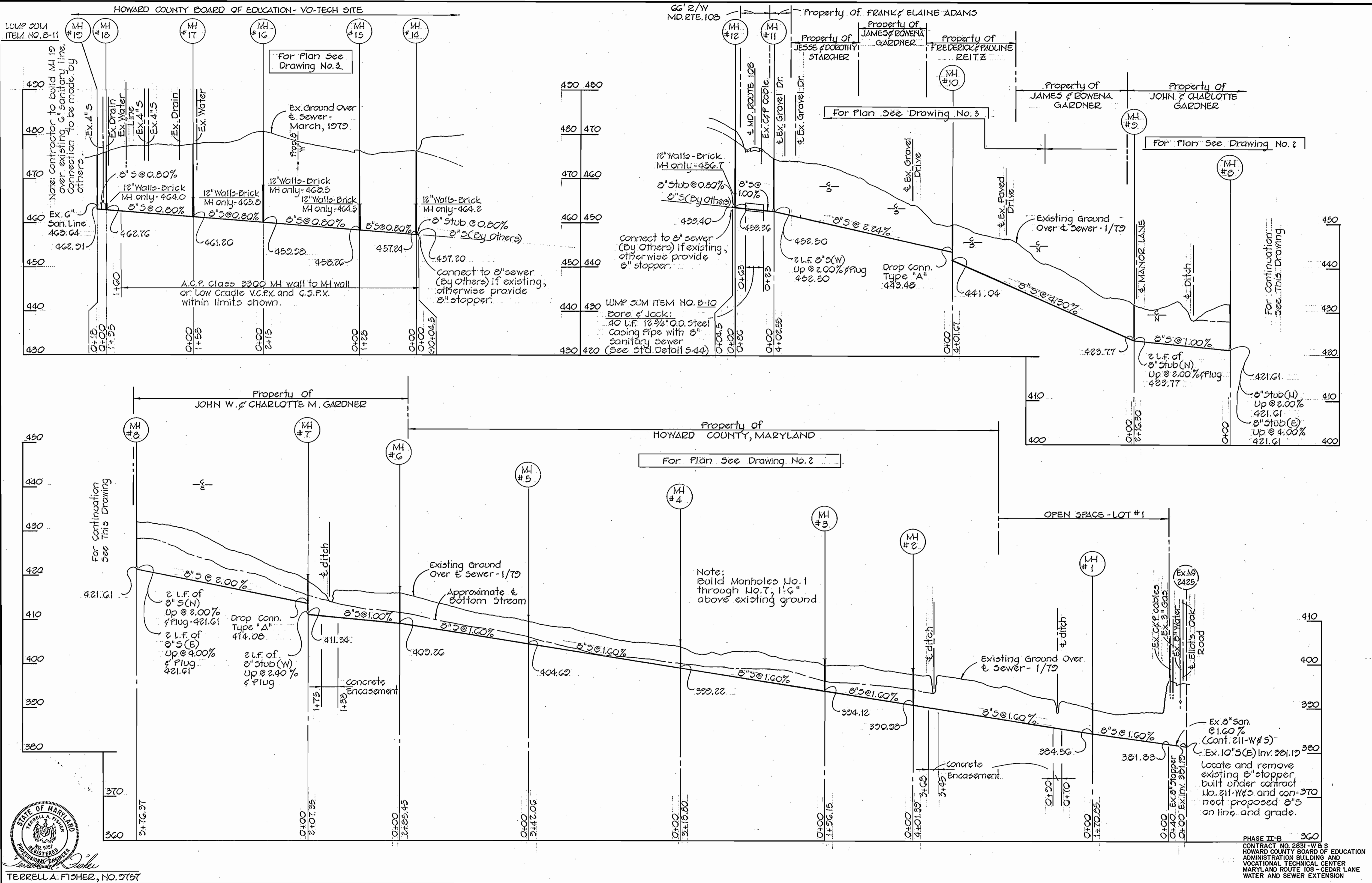
**HOWARD COUNTY BOARD OF EDUCATION**  
 ADMINISTRATION BUILDING AND  
 VOCATIONAL TECHNICAL CENTER  
 MARYLAND ROUTE 108 - CEDAR LANE  
 WATER AND SEWER EXTENSION

**DRAWING NO. 3 OF 5**  
**SCALE 1" = 50'**  
**DESIGNED: R.D.B.**  
**DRAFTED: D.B.S.**  
**CHECKED: T.A.F.**

W.O. # 100

AS BUILT FEBRUARY 22, 1980

WS 831 - WS/4 (PHASE II-B)  
 02B4



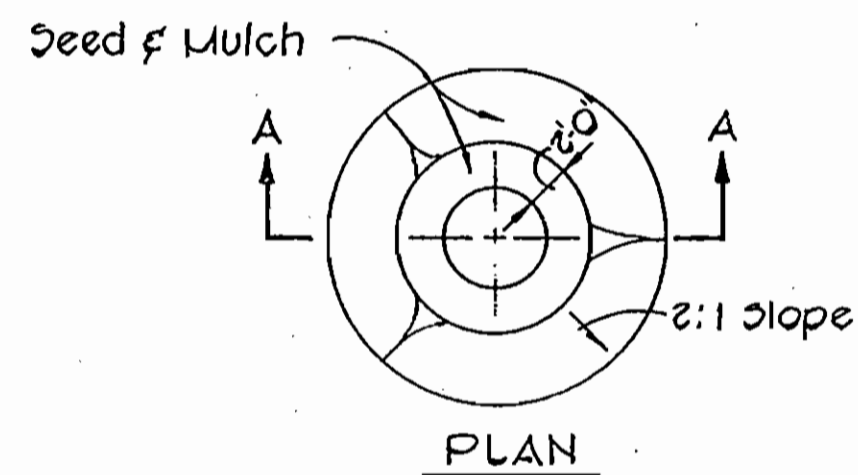
FISHER, COLLINS AND CARTER, INC. CIVIL ENGINEERING CONSULTANTS 8388 COURT AVENUE ELLICOTT CITY, MARYLAND 21043	DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND Director of Public Works DATE: 5-14-79 Chief Bureau of Engineering DATE: 5-14-79	CONTRACT NO. 831-W & S PHASE II-B	PROFILE WATER & SEWER MAINS	HOWARD COUNTY BOARD OF EDUCATION ADMINISTRATION BUILDING AND VOCATIONAL TECHNICAL CENTER MARYLAND ROUTE 108 - CEDAR LANE	DRAWING NO. 4 OF 5 SCALE: HOR. 1"=100' VERT. 1"=10' DESIGNED: R.D.B. DRAFTED: D.B.S. CHECKED: T.A.F.
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W.O. 100

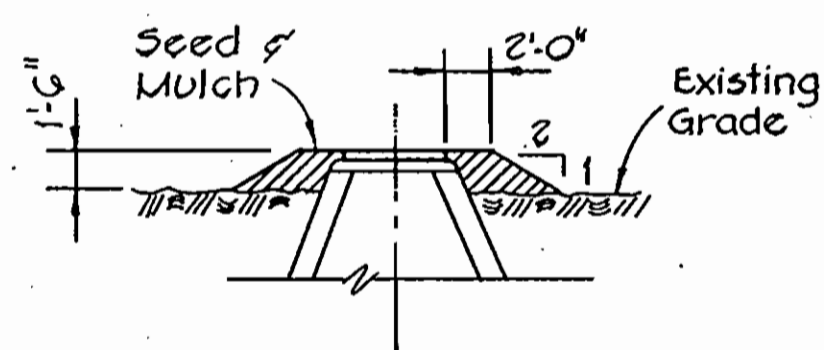
AS-BUILT FEBRUARY 22, 1980



WS 831 - WS/5 (PHASE II-B)



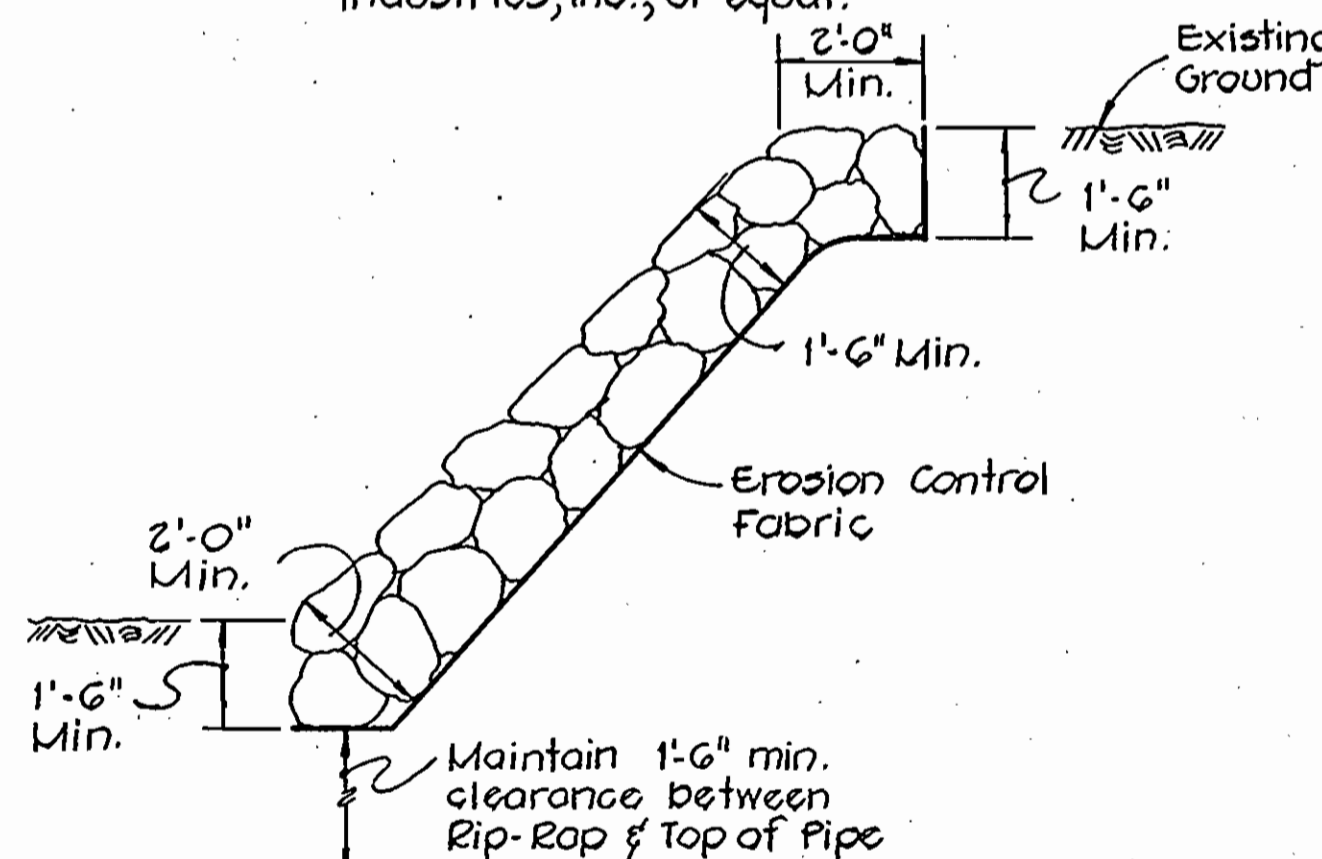
PLAN



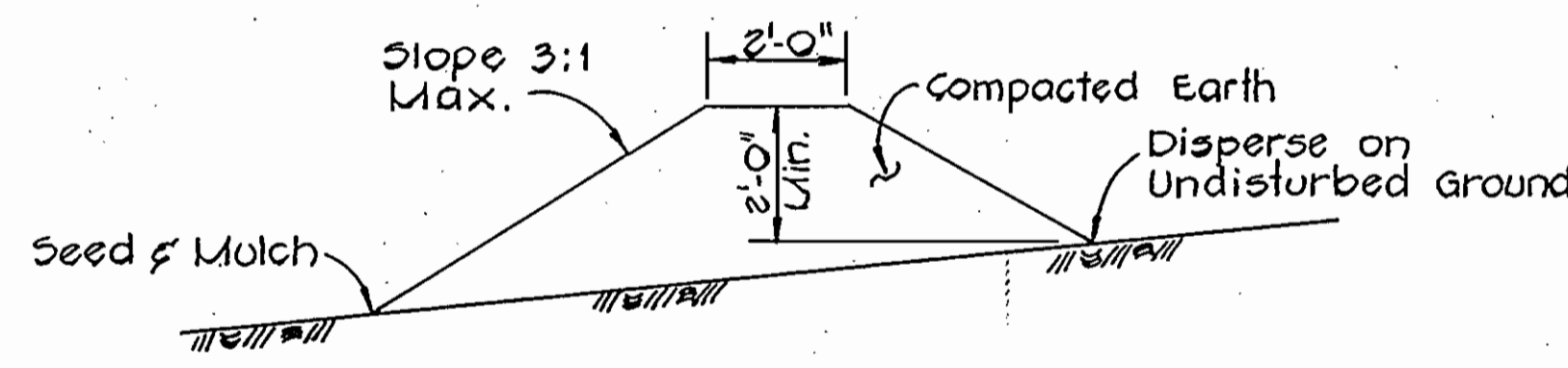
SECTION "A-A"  
FILL AT MANHOLE  
Not To Scale

Rip-Rap to consist of dense rocks of random shapes & sizes, resistant to the action of air and water and suitable for bank protection. All rocks shall weigh a minimum of 75 pounds.

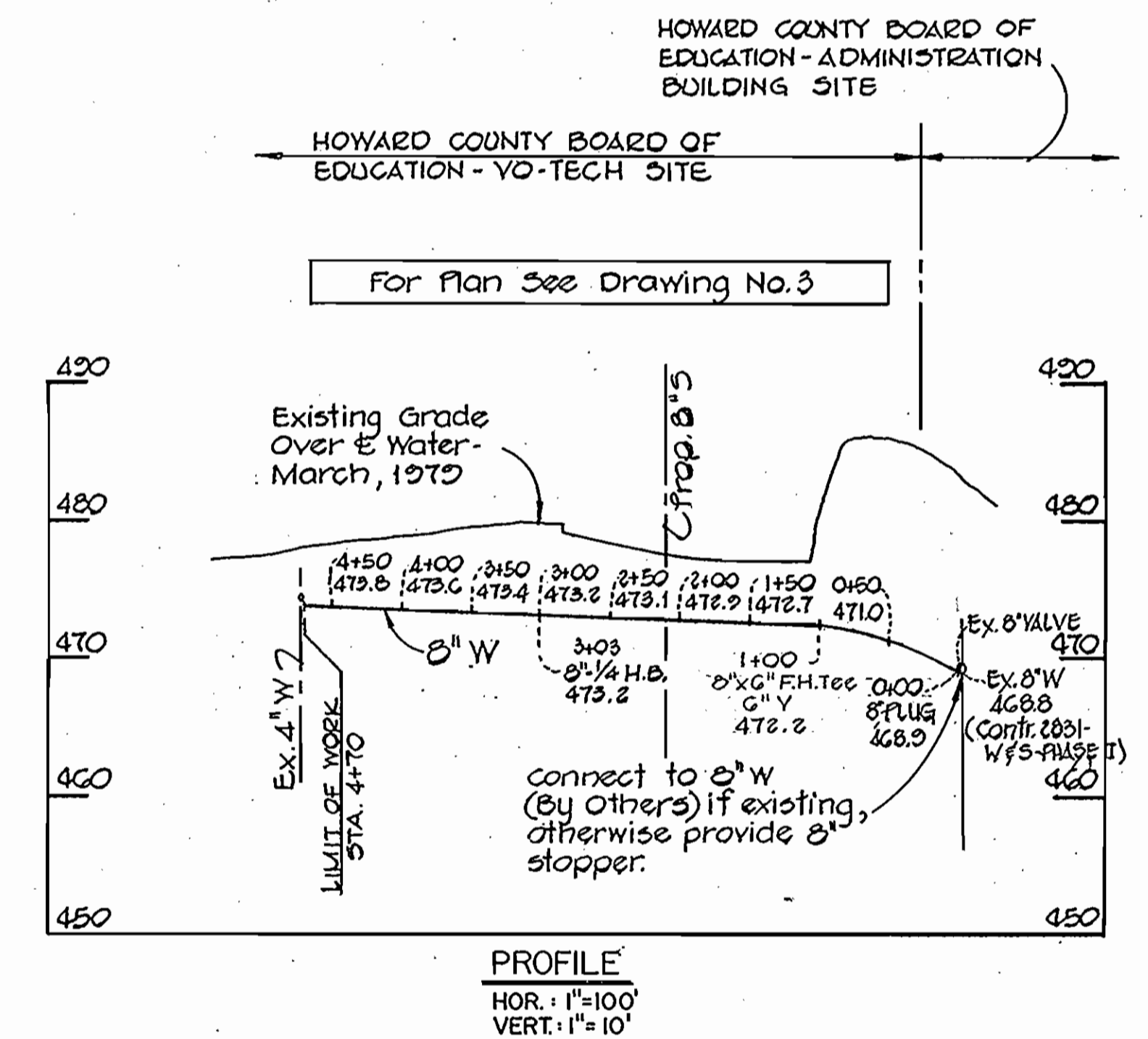
Erosion Control Fabric shall be Poly Filter-X as manufactured by Garthage Mills, Inc., or Permealiner M-1195 as manufactured by Staff Industries, Inc., or equal.



UNGRADED RIP-RAP DETAIL  
No Scale



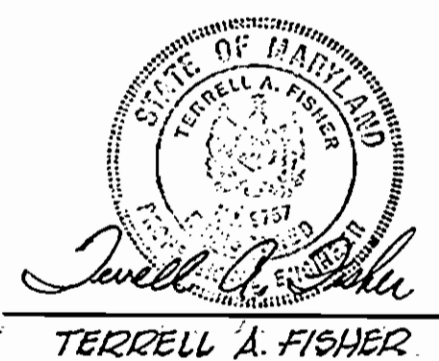
TEMPORARY EARTH DIVERSION BERM  
No Scale



PROFILE  
HOR. : 1"=100'  
VERT. : 1"=10'

Diversion berms are required every 250 feet on continuous slopes of 4% or greater. The berms shall conform to the typical section shown hereon and shall be constructed across the construction areas immediately after the backfilling of the pipe trench and prior to placing stabilization in order to prevent erosion of the backfilled areas.

PHASE II-B  
CONTRACT NO. 2831-W & S  
HOWARD COUNTY BOARD OF EDUCATION  
ADMINISTRATION BUILDING AND  
VOCATIONAL TECHNICAL CENTER  
MARYLAND ROUTE 108 - CEDAR LANE  
WATER AND SEWER EXTENSION



FISHER, COLLINS AND CARTER, INC.  
CIVIL ENGINEERING CONSULTANTS  
8388 COURT AVENUE  
ELLCOTT CITY, MARYLAND 21043

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
DATE: 2-21-80  
DATE: 2-20-80

PHASE II-B  
CONTRACT NO. 2831-W & S

PROFILES AND DETAILS  
WATER & SEWER MAINS

HOWARD COUNTY BOARD OF EDUCATION  
ADMINISTRATION BUILDING AND  
VOCATIONAL TECHNICAL CENTER  
MARYLAND ROUTE 108 - CEDAR LANE

DRAWING NO. 5 OF 5  
SCALE AS SHOWN  
DESIGNED: R.D.B.  
DRAFTED: D.B.S.  
CHECKED: T.A.F.

AS BUILT FEBRUARY 22, 1980