

# RIVERS CORPORATE PARK

## SECTION 1, AREA 1, PHASE 1

### CONTRACT NO. 24-1025-D

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

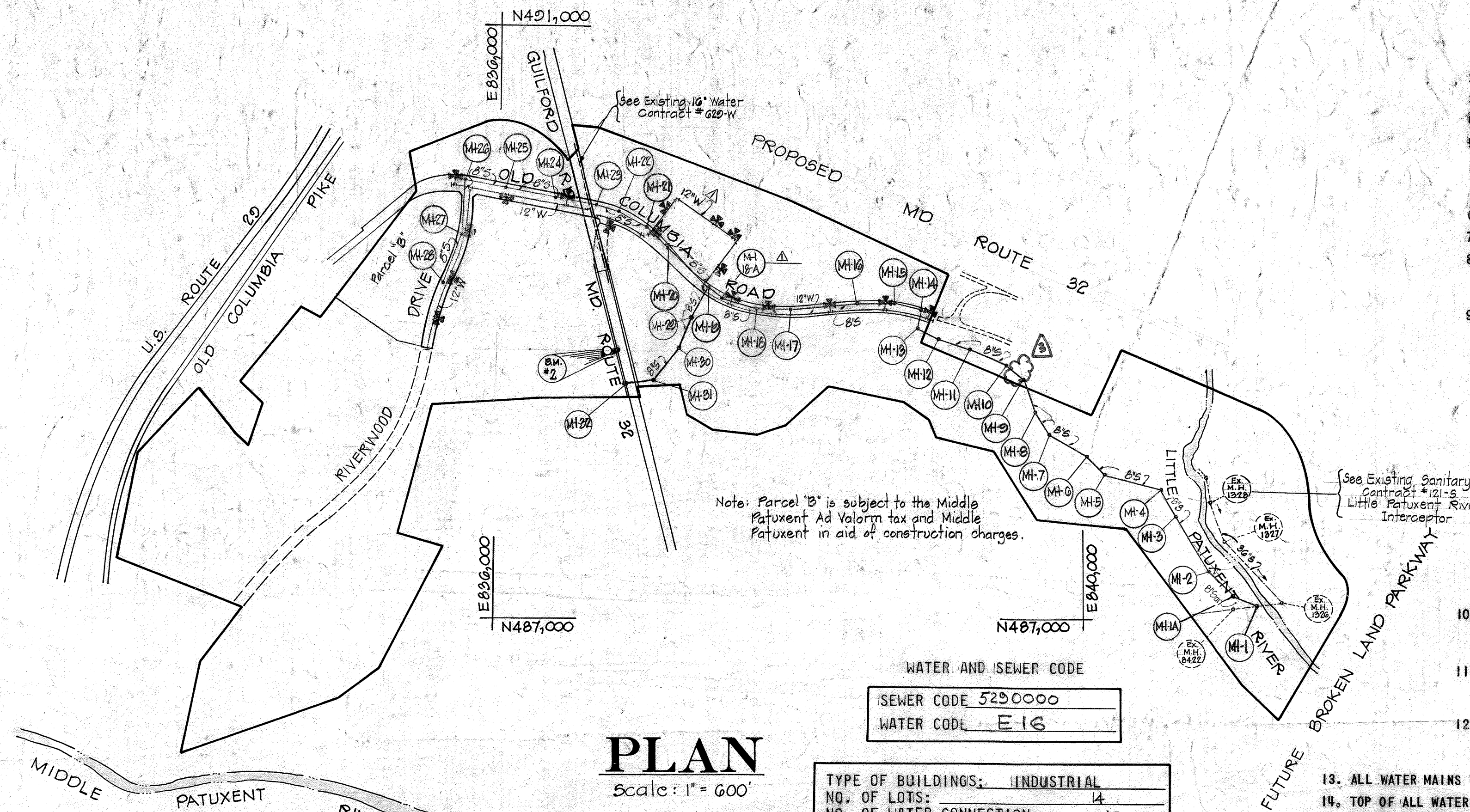
| QUANTITIES                        |      |           |          |                               |
|-----------------------------------|------|-----------|----------|-------------------------------|
| ITEM                              | UNIT | ESTIMATED | AS-BUILT | MATERIAL/SUPPLIER             |
| 8" SEWER                          | L.F. | 8240      | 8384     | P.V.C. CARLOU & J. MANVILLE   |
| 8" WATER                          | L.F. | 385       | 414      | US PIPE & FOUNDRY D.I.P.      |
| MANHOLES                          | Ea.  | 33        | 34       | ATLANTIC COVE. PRODUCTS CORP. |
| 0" WATER                          | L.F. | 440       | 433      | US PIPE & FOUNDRY D.I.P.      |
| 12" WATER                         | L.F. | 5205      | 5324     | US PIPE & FOUNDRY D.I.P.      |
| 0" VALVES (Excluding F.H. Valves) | Ea.  | None      | (17)     | M.H. 6" VALVES & HYDRANTS     |
| 12" VALVES                        | Ea.  | 7         | 7        | US PIPE & FOUNDRY             |
| 8" VALVES                         | Ea.  | 12        | 11       | US & M.H.                     |
| FIRE HYDRANT                      | Ea.  | 17        | 17       | M.H. HYDRANTS                 |
| 16" 1/2" Tapping Tee and Valve    | Ea.  | 2         | 2        | US PIPE & FOUNDRY             |

#### 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 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 AT 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 STD. 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 OR AGENCIES AT LEAST FIVE (5) WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
  - STATE HIGHWAY ADMINISTRATION : 531-5533
  - BALTO. GAS & ELECTRIC CO. (Underground Electric Distribution) Customer Service : 685-0123
  - BALTO. GAS & ELECTRIC CO. (Underground Gas Distribution) Customer Service : 685-0123
  - ENGINEERING "DAMAGE CONTROL" : 234-5621
  - "MISS UTILITY" : (1) 559-0100
  - CHESAPEAKE AND POTOMAC (C & P) TELEPHONE COMPANY : 725-9976
  - AMERICAN TELEPHONE AND TELEGRAPH Cable Location Division : 393-3553
  - COLONIAL PIPELINE COMPANY : 781-4641
  - BUREAU OF UTILITIES HOWARD COUNTY : 992-2366

#### GENERAL NOTES: (Continued)

- ALL SEWER MAINS SHALL BE C.S.P.X., V.C.P.X., P.V.C., 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 SHALL BE 4'-0" INSIDE DIAMETER, UNLESS OTHERWISE NOTED.
- FORCE MAINS SHALL BE D.I.P. ONLY.
- MANHOLES SHOWN WITH 12" AND 16" WALLS ARE BRICK MANHOLES ONLY.
- MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVERS, STANDARD DETAIL S-12 (RCR-63A). WHERE WATERTIGHT MANHOLE FRAME AND COVER IS USED, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE.
- HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT CELLAR CAN NOT BE SERVED.
- WHERE SEWER DEPTH EXCEEDS 12 FEET, USE CLASS 3300 A.C.P.
- THE TOP ELEVATION OF ALL OUTFALL MANHOLES SHOULD BE SET A MINIMUM OF 18" ABOVE EXISTING GROUND AS SHOWN ON STANDARD DETAIL S-1.53.
- ALL PVC PIPE IS TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S AND HOWARD COUNTY SPECIFICATIONS.
- WATERMAIN AND WATERHOUSE CONNECTIONS MUST HAVE AT LEAST ONE FOOT SEPARATION FROM THE SEWER MAIN AND SEWER HOUSE CONNECTION AS THEY PASS ABOVE IT.



**PLAN**  
Scale: 1" = 600'

BENCH MARK

\*1 B.M. #2240001 ELEV.= 329.697  
Description: CONCRETE MONUMENT 16"± S.OF S.EDGE ROAD  
N 486199.369 E 839811.396

\*2 B.M. #2340002 ELEV.= 362.611  
Description: R.B. 1.5'± W. OF W. EDGE ROAD 7' BELOW SURFACE  
N 488839.177 E 836802.852

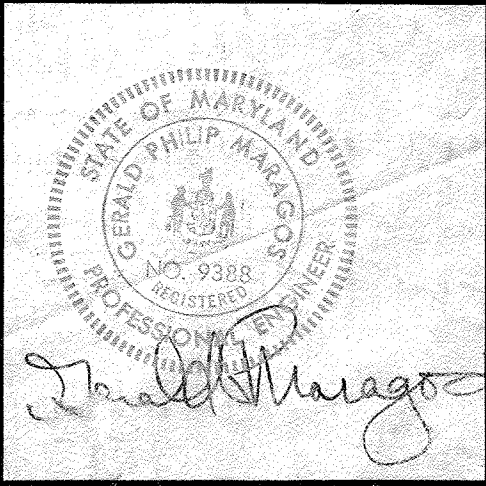
Sanitary Pipe Stabilization 12.12.0  
D.P.W. Comments on sheet 0 of 2 7/21/82  
Revised Quantities, added 12" W & MH18A  
Revision

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY CONSERVATION DISTRICT.

APPROVED: *William V. Kane* 12-11-81  
HOWARD S.C.D. Date

Note: Sediment Control Measures for this contract will be implemented in accordance with article 15 of the specification and also as shown on the grading and sediment control plan, #GR82-02

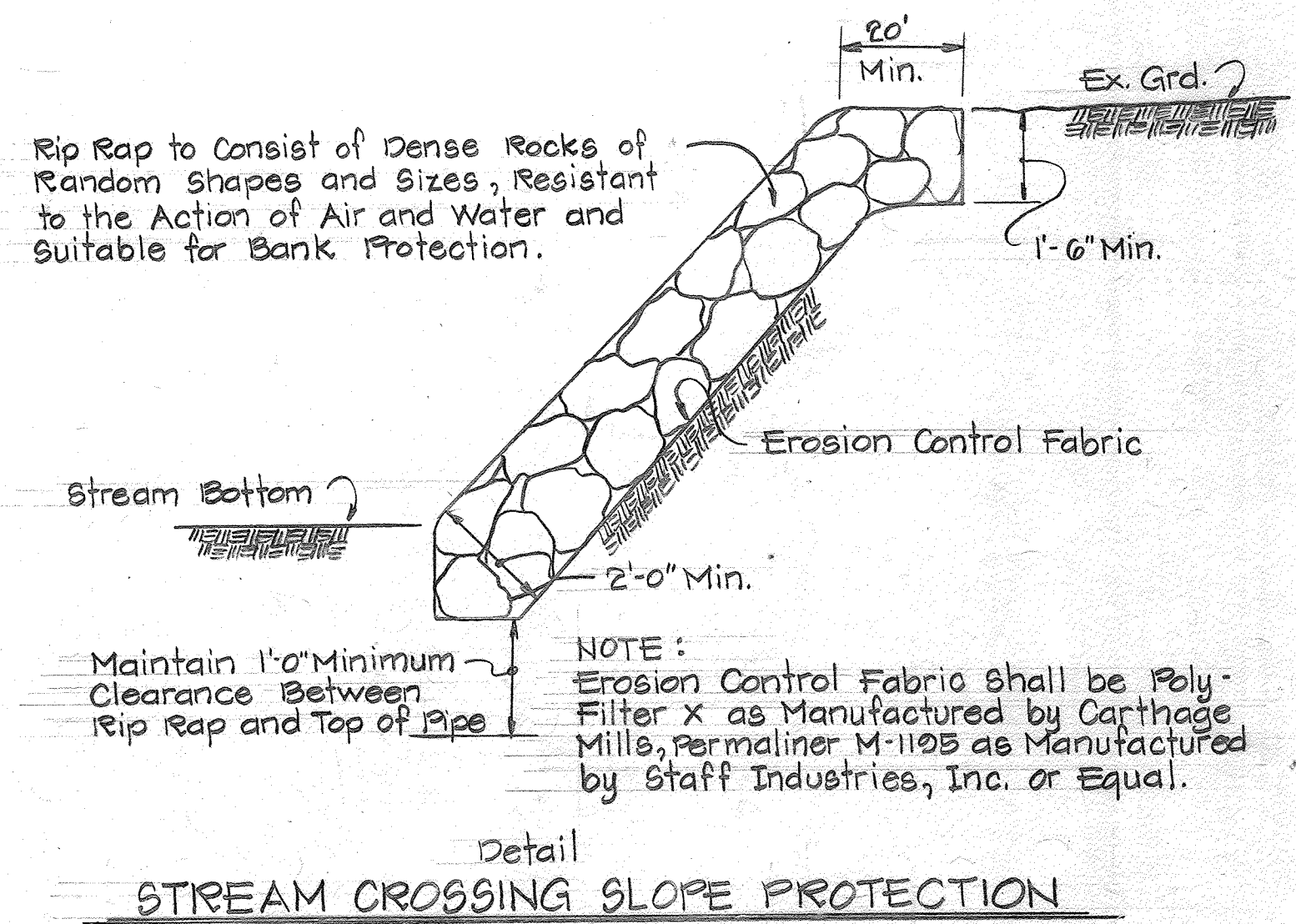
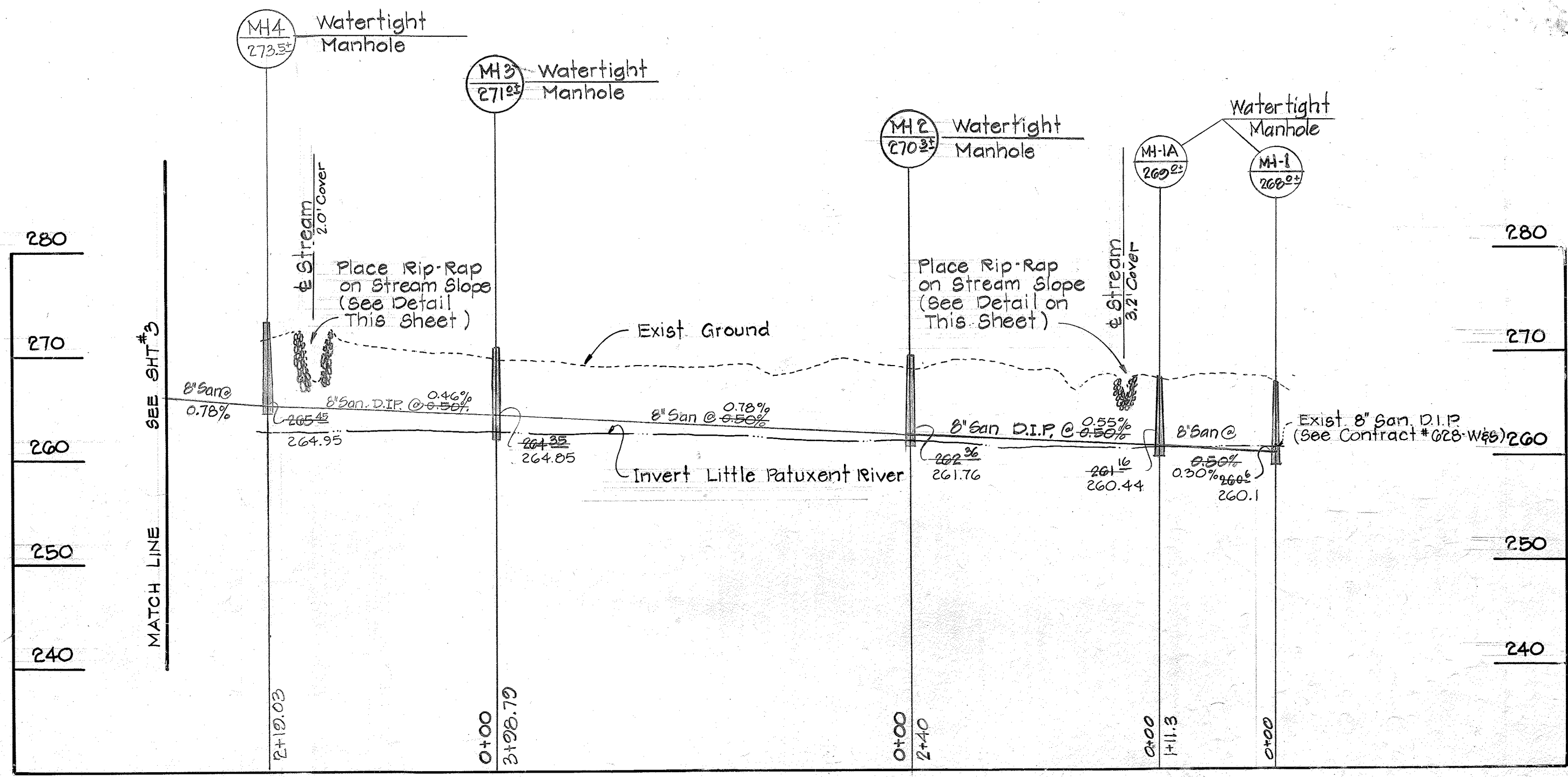
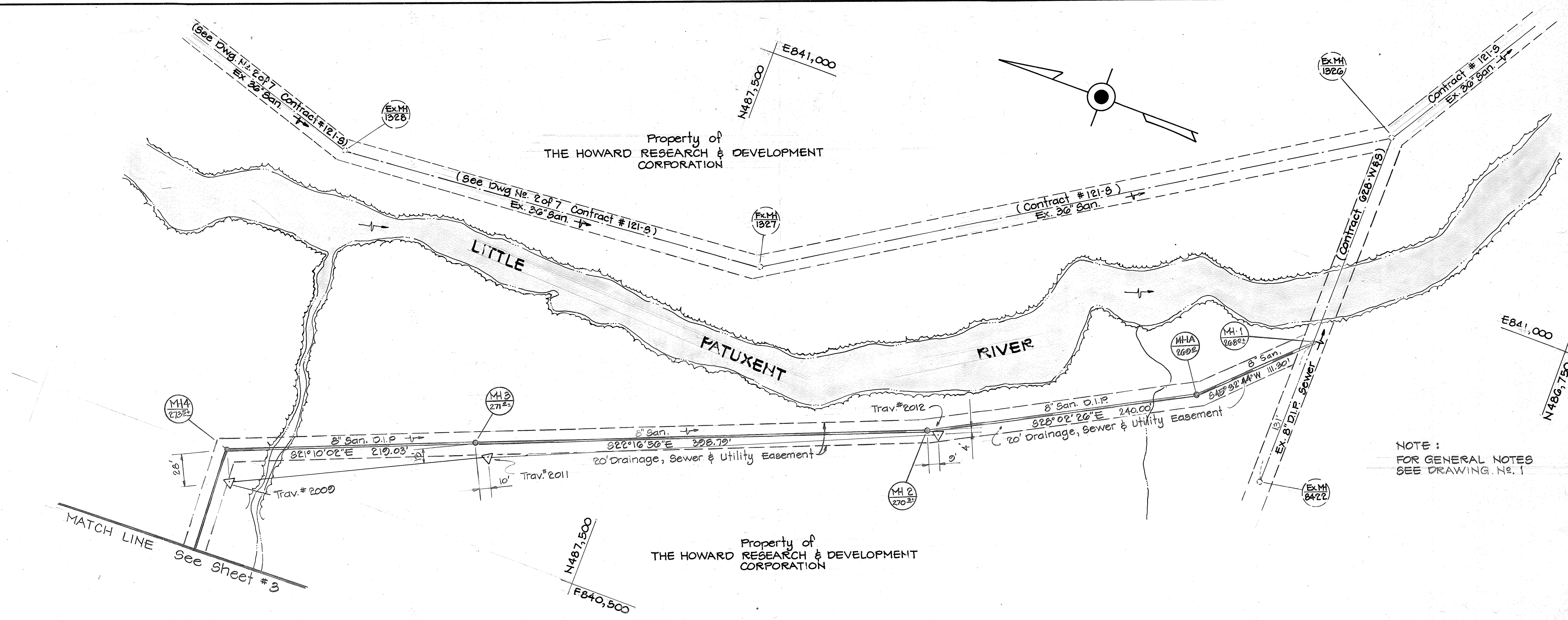
- ALL WATER MAINS TO BE C.I.P. OR D.I.P. UNLESS OTHERWISE NOTED.
- TOP OF ALL WATER MAINS TO HAVE A MINIMUM OF 3'-1/2' COVER UNLESS OTHERWISE NOTED.
- VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
- BLOCK ALL FITTINGS WITH CONCRETE.
- BURY LINE ELEVATIONS ON FIRE HYDRANTS SHALL BE SET TO THE ELEVATIONS SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE STRAPPED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH STD. DETAILS. SOIL AROUND THE FIRE HYDRANT TO BE COMPACTED IN ACCORDANCE WITH SECTION 5-15 OF THE STD. 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.



|  |   |  |  |   |                        |             |  |                    |                |
|--|---|--|--|---|------------------------|-------------|--|--------------------|----------------|
| DEPARTMENT OF PUBLIC WORKS<br>HOWARD COUNTY, MARYLAND<br><i>Robert B. Bennett</i> 12-14-81<br>CHIEF BUREAU OF UTILITIES DATE | REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENT.<br><i>James M. ...</i> 12-11-81<br>Signature Date<br>U.S. SOIL CONSERVATION SERVICE | THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY CONSERVATION DISTRICT.<br>APPROVED: <i>William V. Kane</i> 12-11-81<br>HOWARD S.C.D. Date | CENTURY ENGINEERING, INC.<br>CONSULTING ENGINEERS-PLANNERS<br>TOWSON, MARYLAND 21204 | DEPARTMENT OF PUBLIC WORKS<br>HOWARD COUNTY, MARYLAND<br><i>...</i> 12-15-81<br>DIRECTOR OF PUBLIC WORKS DATE | CONTRACT NO. 24-1025-D | TITLE SHEET | RIVERS CORPORATE PARK<br>SECTION 1, AREA 1, PHASE 1<br>6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND | DRAWING NO. 1 OF 2 | SCALE AS SHOWN |
|--|---|--|--|---|------------------------|-------------|--|--------------------|----------------|

1025/1 WS





1025/2 WS

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

Director of Public Works: *[Signature]* 12-15-81  
Date: 12-15-81

Chief - Bureau of Engineering: *[Signature]* 12-15-81  
Date: 12-15-81

Chief - Bureau of Utilities: *[Signature]* 12-14-81  
Date: 12-14-81

Chief - Land Development Division: *[Signature]* 12-15-81  
Date: 12-15-81

CENTURY ENGINEERING, INC.  
CONSULTING ENGINEERS - PLANNERS  
TOWSON, MARYLAND 21204

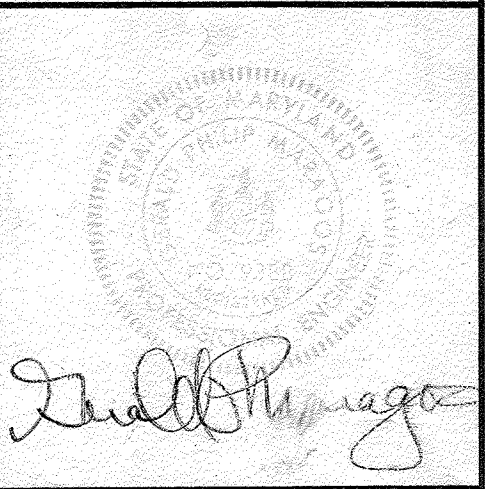
CONTRACT NO. 24-1025-D

PLAN AND PROFILE  
OF  
WATER AND SEWER MAINS

RIVERS CORPORATE PARK  
SECTION I, AREA I, PHASE  
6TH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

DRAWING NO. 2 OF 2

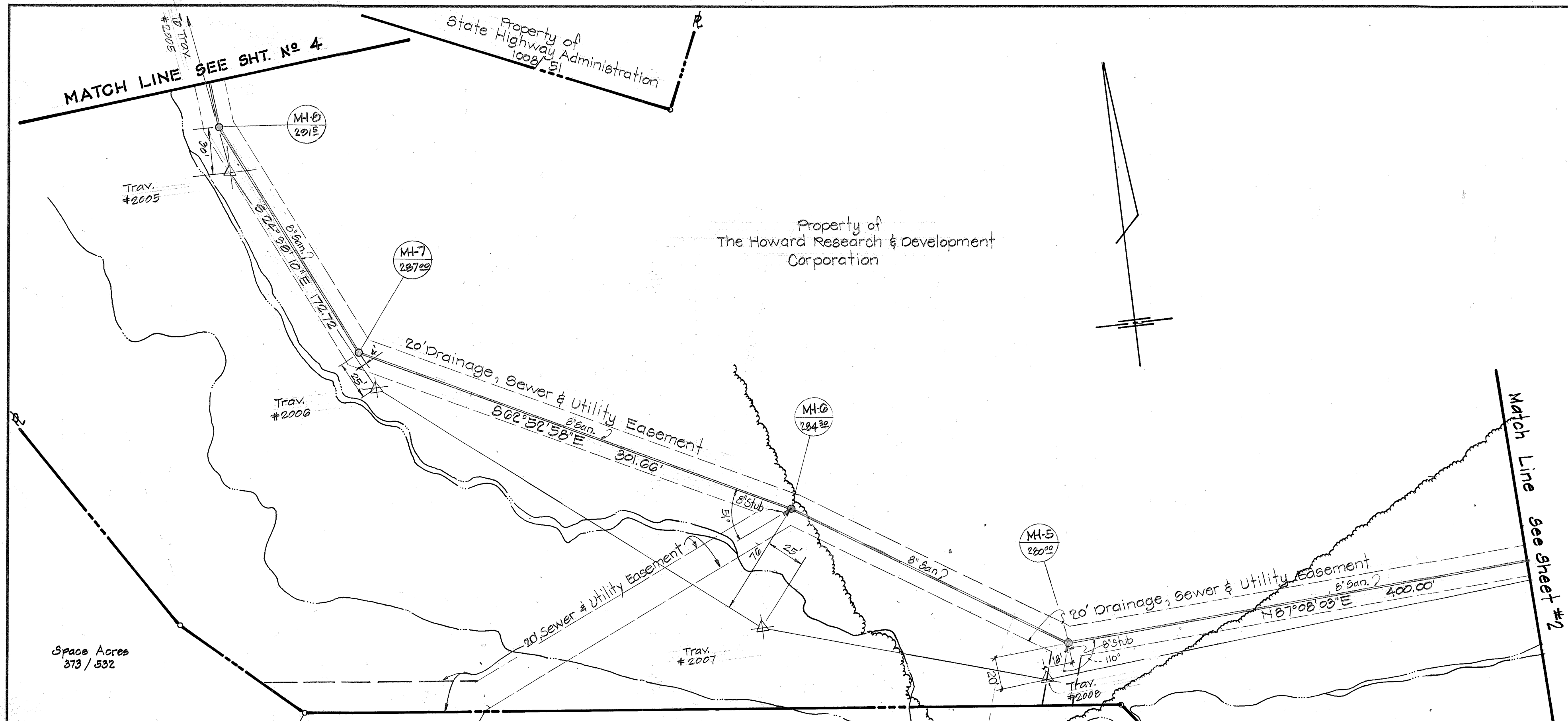
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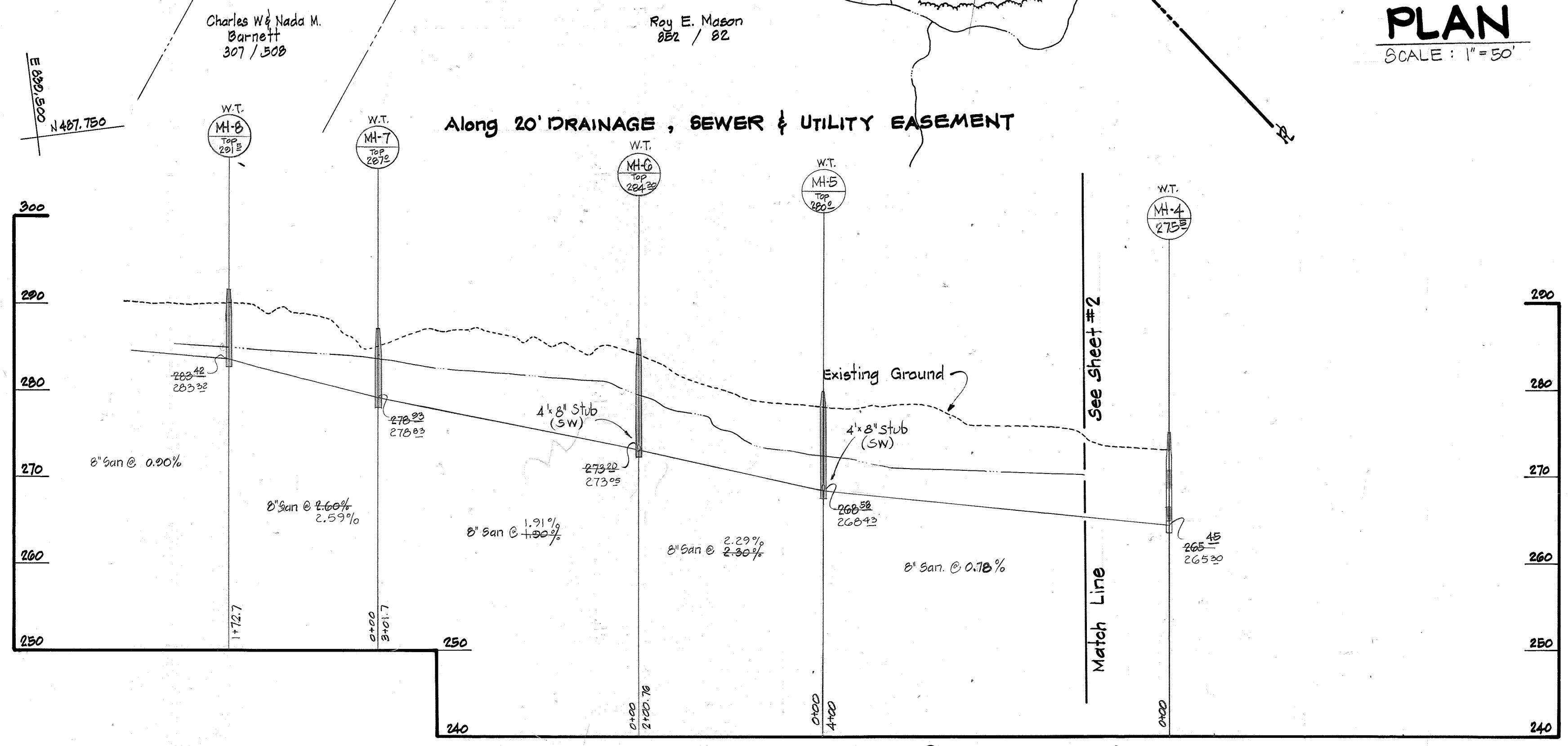


1025/3 WS

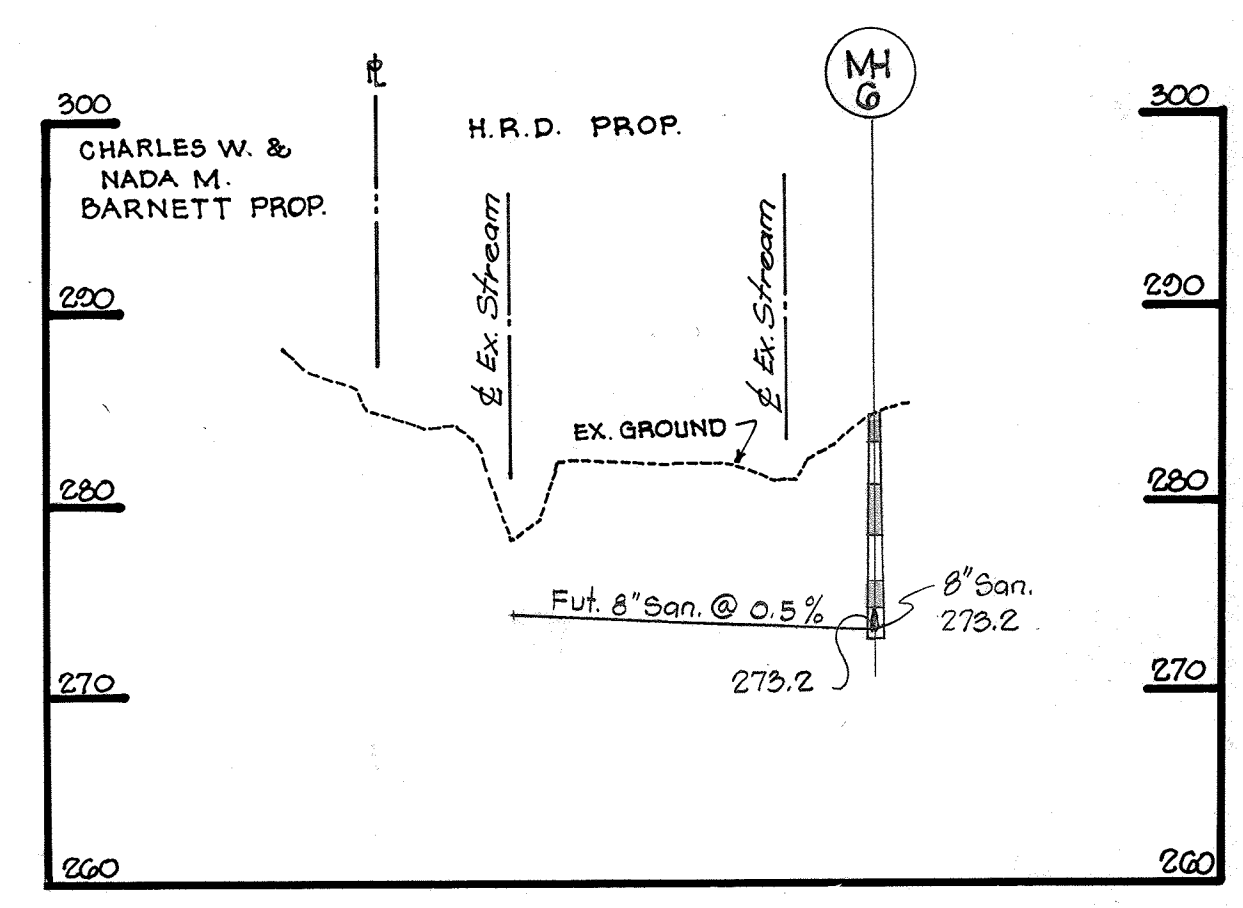
NOTE: FOR GENERAL NOTES SEE DRAWING NO. 1.



**PLAN**  
SCALE: 1" = 50'



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



DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*John F. Newman* 12-15-81  
DIRECTOR OF PUBLIC WORKS - DATE

*William E. Kelly* 12-14-81  
CHIEF - BUREAU OF UTILITIES - DATE

*William E. Kelly* 12-15-81  
CHIEF - LAND DEVELOPMENT DIVISION - DATE

CENTURY ENGINEERING, INC.  
CONSULTING ENGINEERS - PLANNERS  
TOWSON, MARYLAND 21204

CONTRACT NO. 24-1025-D

PLAN AND PROFILE  
OF  
WATER AND SEWER MAINS

RIVERS CORPORATE PARK  
SECTION I, AREA I, PHASE I  
6TH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

DRAWING NO. 3 OF 2  
SCALE: Plan: 1" = 50'  
Profile: Hor. 1" = 100'  
Vert. 1" = 10'

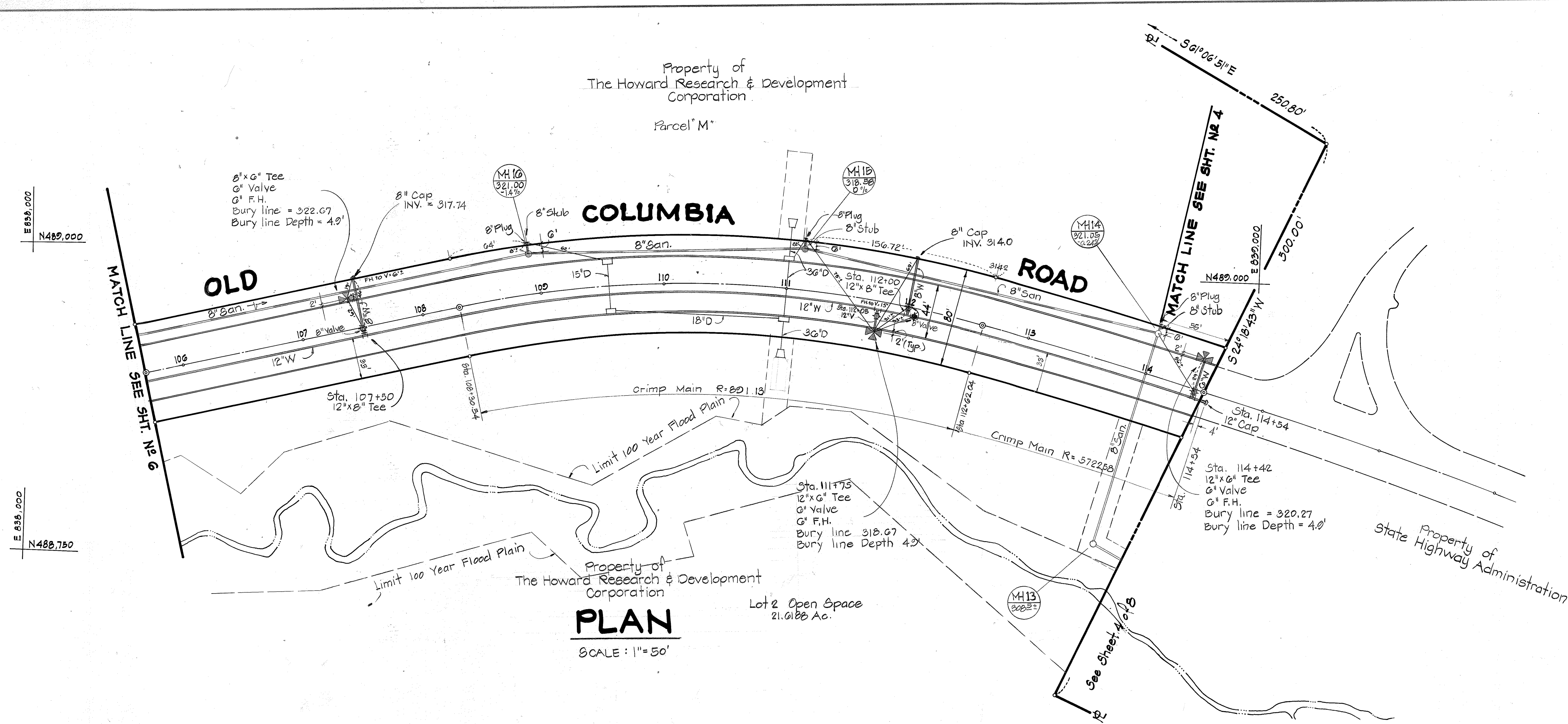
| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |
|      |           |

*David P. Marago*

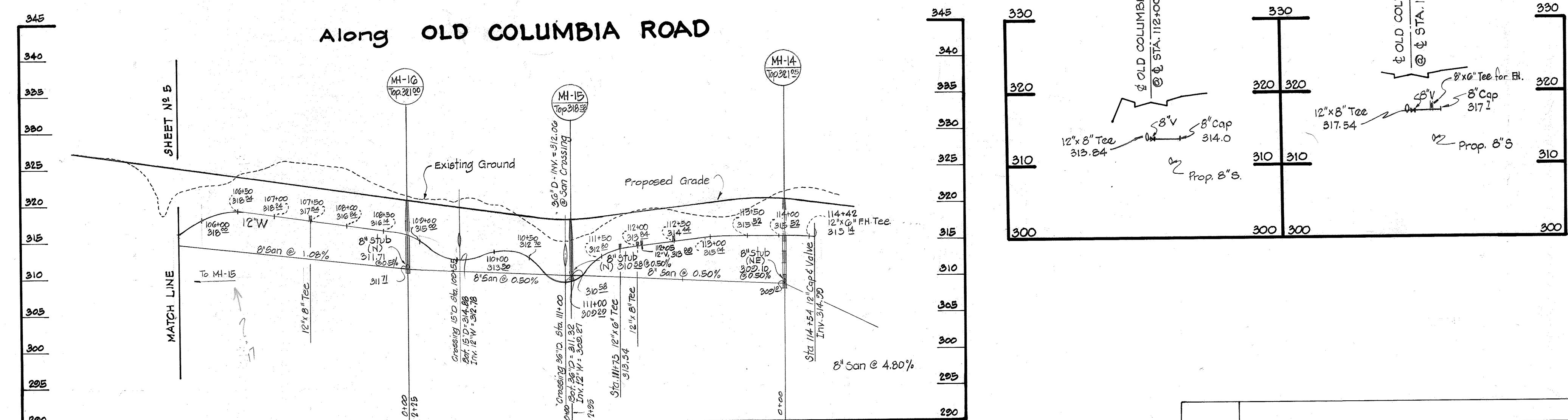








**PLAN**  
SCALE: 1" = 50'



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

1025/5 WS

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*John F. Nunn* 12-15-81  
DIRECTOR OF PUBLIC WORKS DATE

*Richard M. Beatty* 12-14-81  
CHIEF - BUREAU OF UTILITIES DATE

*William E. Riley* 12/15/81  
CHIEF - BUREAU OF ENGINEERING DATE

*William H. F.* 12-15-81  
CHIEF - LAND DEVELOPMENT DIVISION DATE

CENTURY ENGINEERING, INC.  
CONSULTING ENGINEERS - PLANNERS  
TOWSON, MARYLAND 21204

CONTRACT NO. 24-1025-D

PLAN AND PROFILE  
OF  
WATER AND SEWER MAINS

RIVERS CORPORATE PARK  
SECTION I, AREA I, PHASE I  
6TH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

DRAWING NO. 5  
OF 9

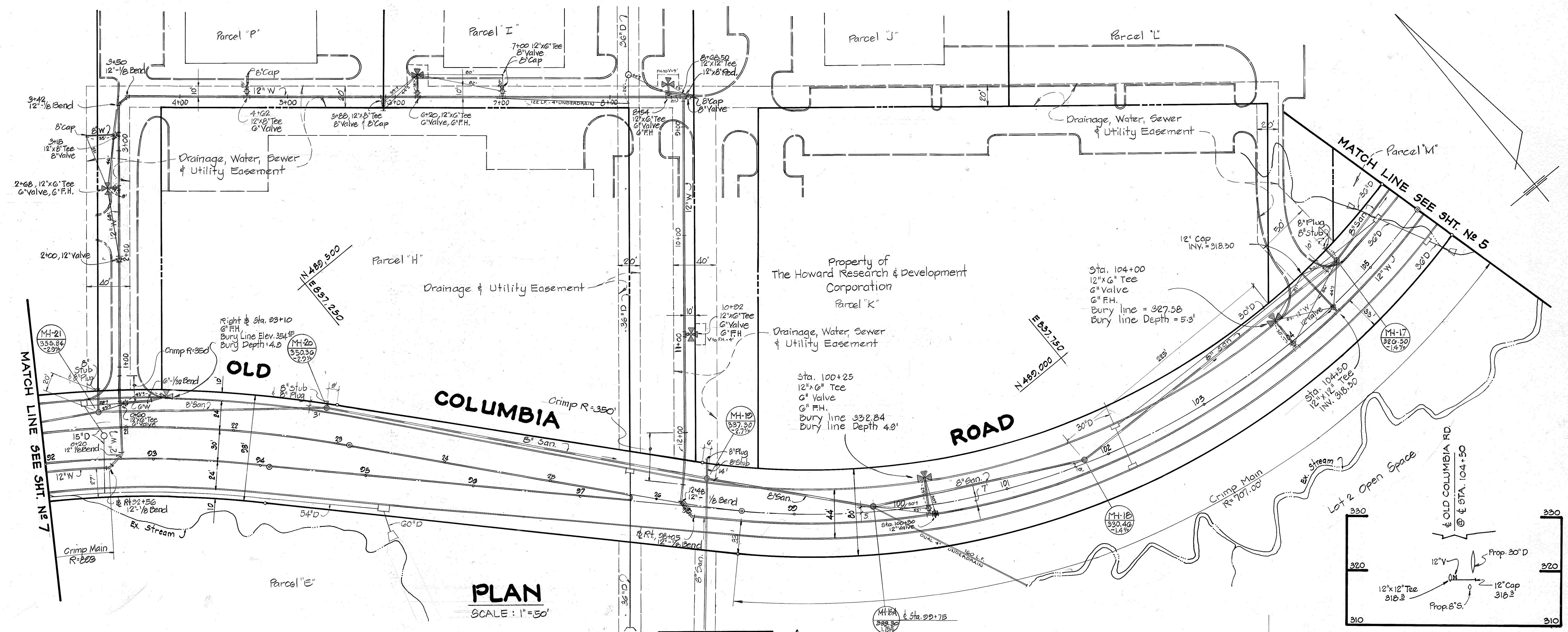
SCALE  
Plan: 1" = 50'  
Profile: 1" = 10'

| DATE | REVISIONS |
|------|-----------|
|      |           |
|      |           |

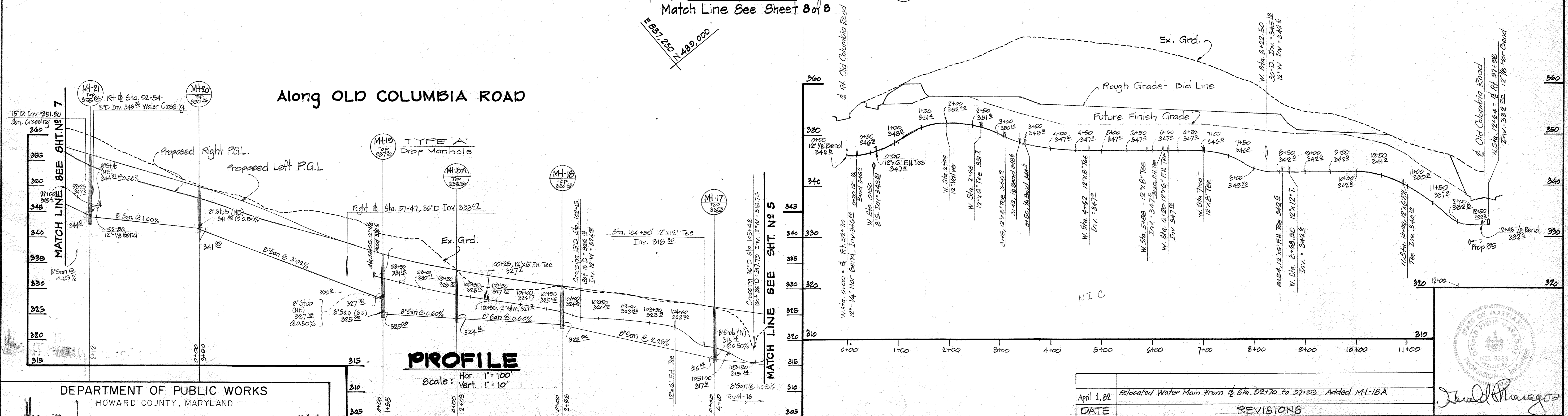
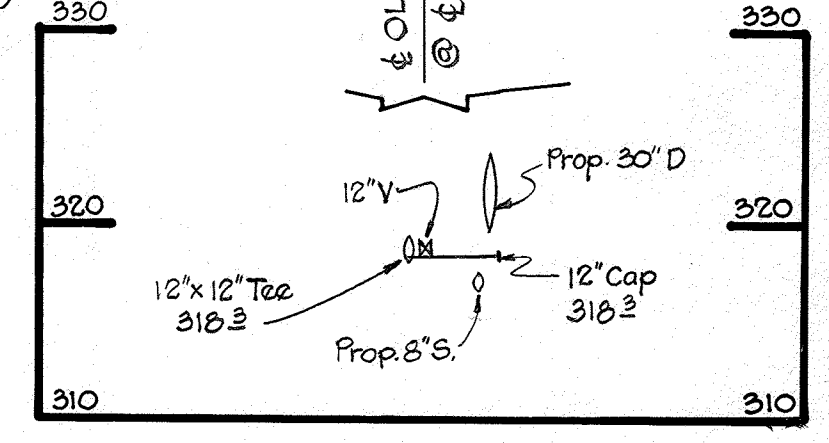
*Paul Marago*



1025/6 WS



PLAN  
SCALE: 1"=50'



PROFILE  
Scale: Hor. 1"=100'  
Vert. 1"=10'

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*William F. Murray* 12-15-81  
DIRECTOR OF PUBLIC WORKS - DATE

*Richard B. Bunn* 12-19-81  
CHIEF - BUREAU OF UTILITIES - DATE

*William E. Ray* 12-15-81  
CHIEF - BUREAU OF ENGINEERING - DATE

*Walter L. Prie* 12-15-81  
CHIEF - LAND DEVELOPMENT DIVISION - DATE

CENTURY ENGINEERING, INC.  
CONSULTING ENGINEERS - PLANNERS  
TOWSON, MARYLAND 21204

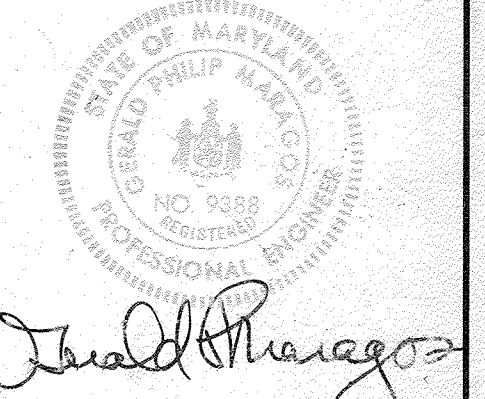
CONTRACT NO. 24-1025-D

PLAN AND PROFILE  
OF  
WATER AND SEWER MAINS

| DATE        | REVISIONS   |
|-------------|---|
| April 1, 82 | Relocated Water Main from Sta. 52+70 to 57+23, Added MH-18A |

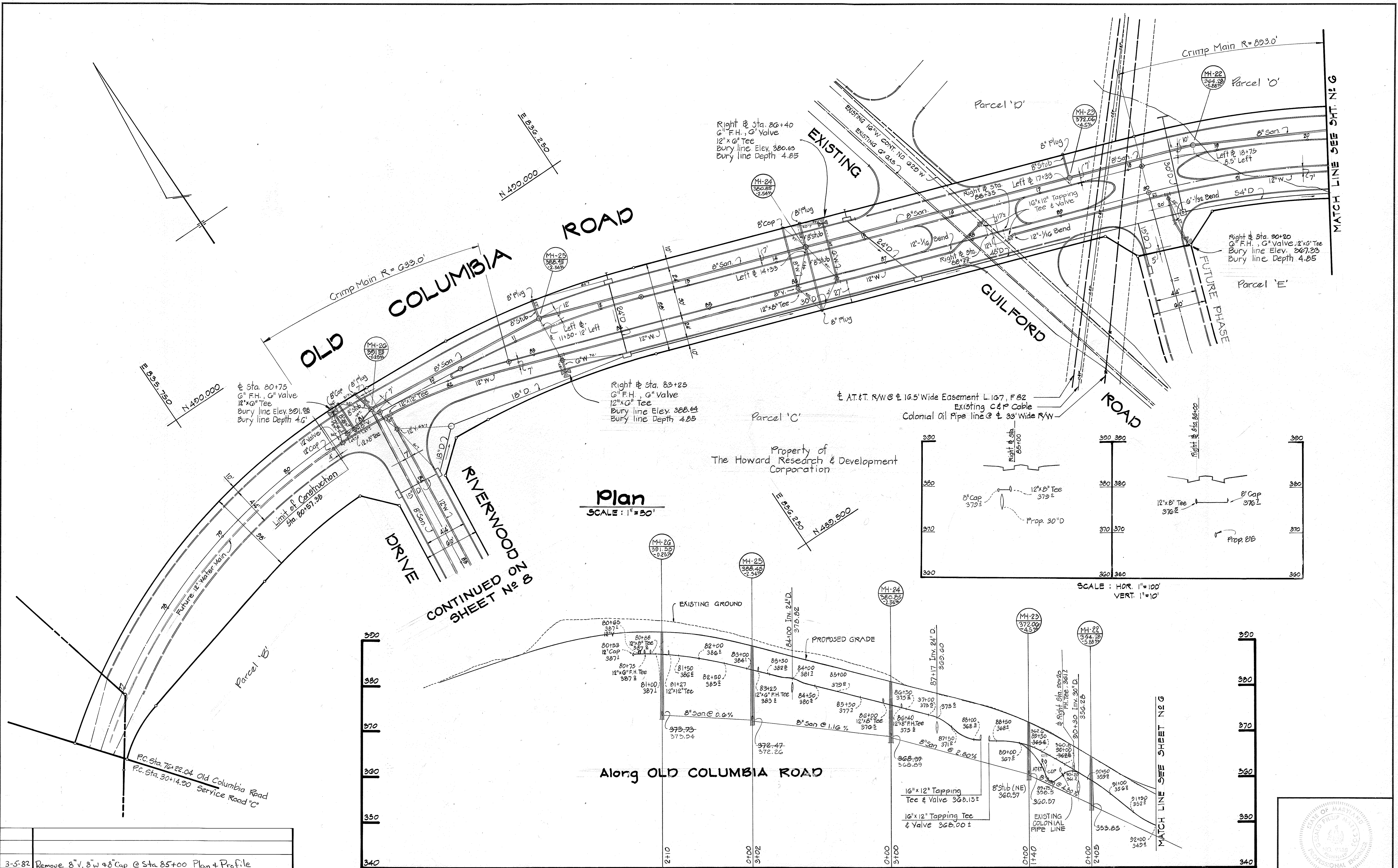
RIVERS CORPORATE PARK  
SECTION I, AREA I, PHASE I  
6TH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

DRAWING NO. 6 OF 9  
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Profile: 1"=10'

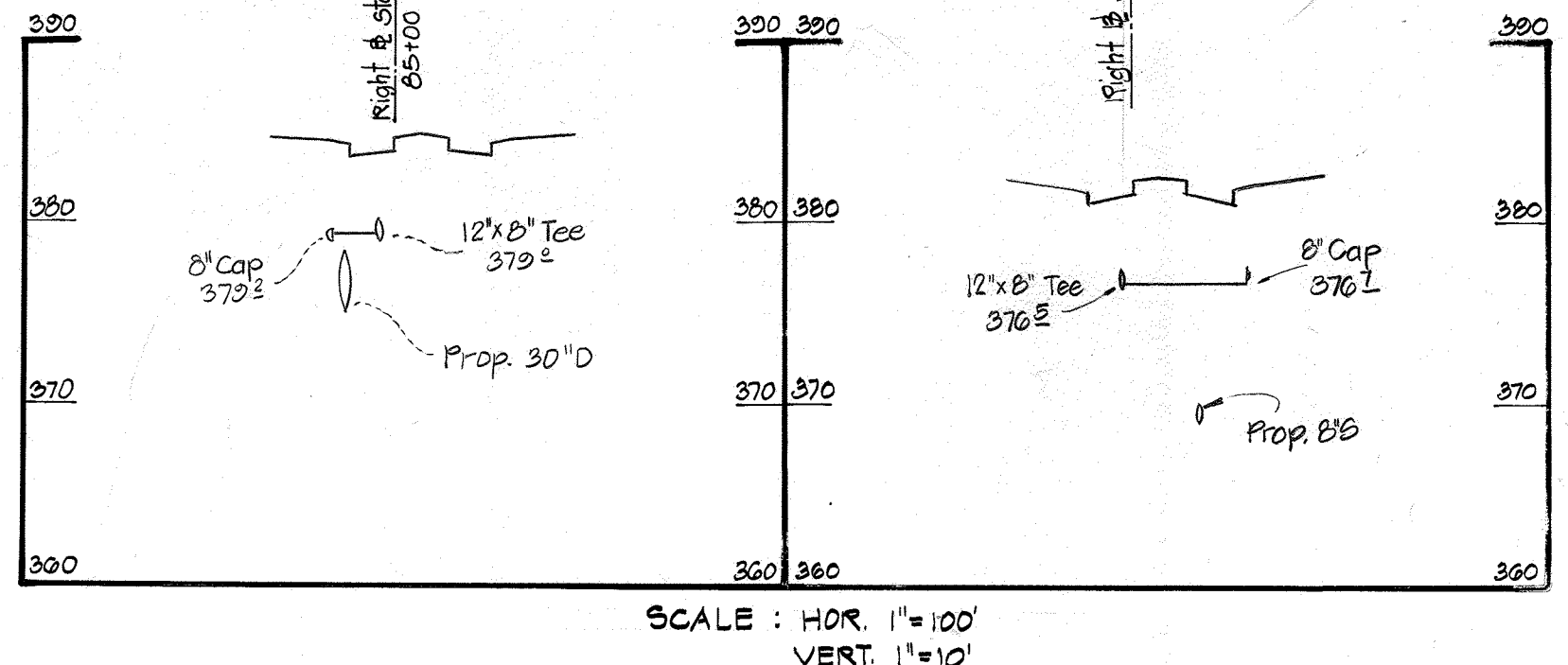




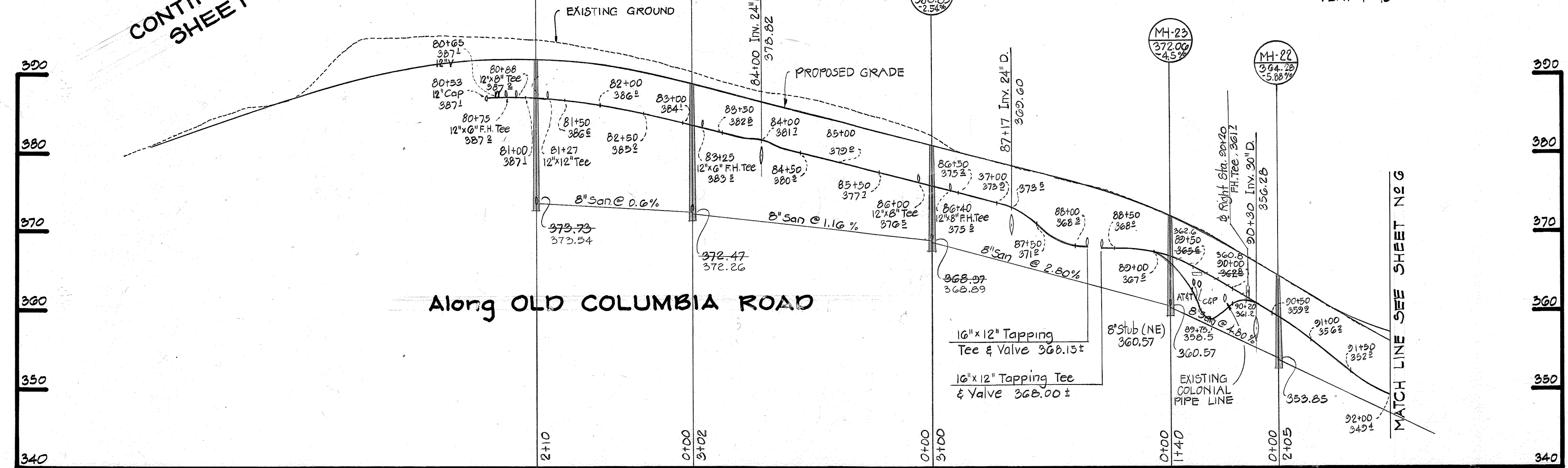
1025/7 WS



**Plan**  
SCALE: 1"=50'



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



**Profile**  
SCALE: HOR. 1"=100'  
VERT. 1"=10'

|  |  |
|--|--|
| 3-5-82   | Remove 8" V. 8" W. 8" Cap @ Sta 85+00 Plan + Profile |
| DATE REVISIONS   |  |
| DEPARTMENT OF PUBLIC WORKS<br>HOWARD COUNTY, MARYLAND<br>DIRECTOR OF PUBLIC WORKS: <i>[Signature]</i> DATE: 12-15-81<br>CHIEF-BUREAU OF ENGINEERING: <i>[Signature]</i> DATE: 12-14-81<br>CHIEF-BUREAU OF UTILITIES: <i>[Signature]</i> DATE: <i>[Signature]</i> CHIEF-LAND DEVELOPMENT DIVISION: <i>[Signature]</i> DATE: |  |

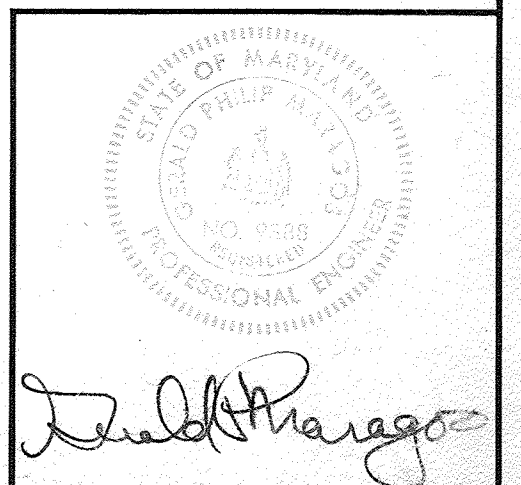
CENTURY ENGINEERING, INC.  
CONSULTING ENGINEERS - PLANNERS  
TOWSON, MARYLAND 21204

CONTRACT NO. 24-1025-D

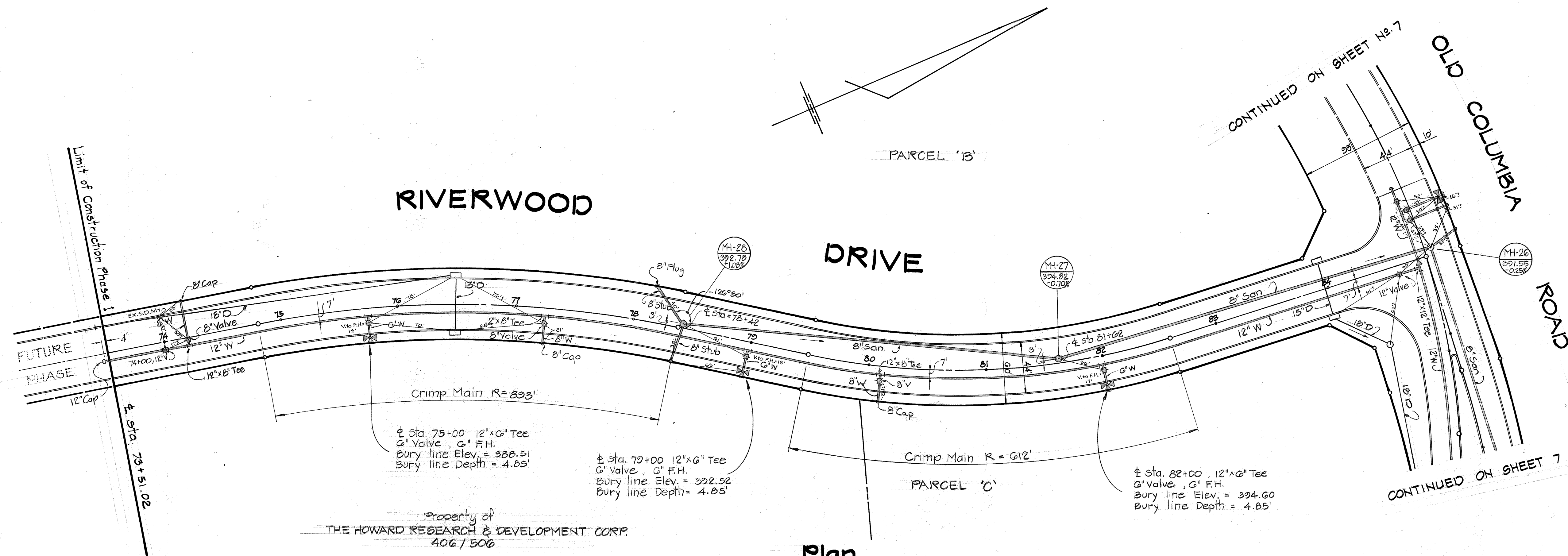
PLAN AND PROFILE  
OF  
WATER AND SEWER MAINS

RIVERS CORPORATE PARK  
SECTION I, AREA I, PHASE I  
6TH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

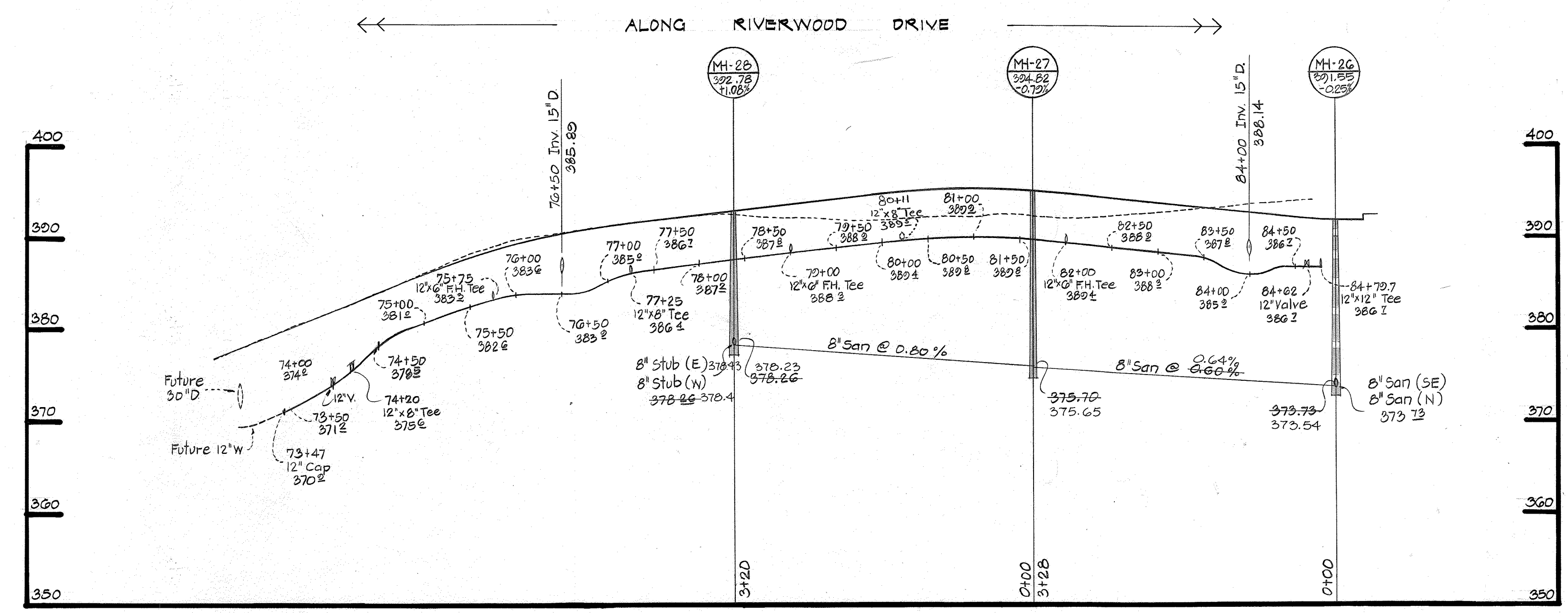
DRAWING NO. 7 OF 9  
SCALE: Plan 1"=50' Profile Hor. 1"=100' Vert. 1"=10'





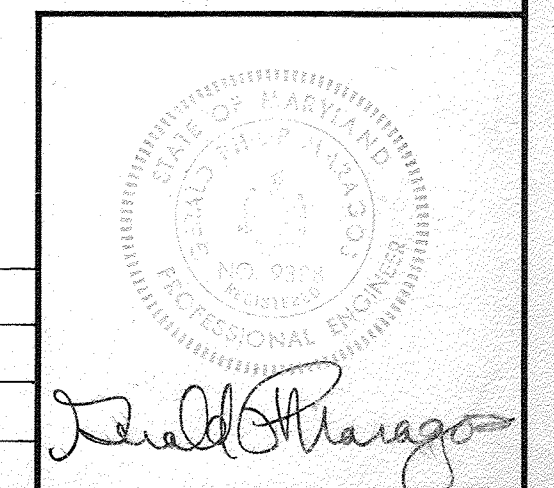


**Plan**  
SCALE: 1" = 50'



**Profile**  
SCALE: HOR. 1" = 100'  
VERT. 1" = 10'

|               |   |
|---------------|---|
| April 1, 1982 | Relocated 8" W Connection from Sta. 78+00 to 74+20; Shift San. Connection @ MH 28 |
| 3-5-82        | Add 8" V, 8" W & 8" Cap Sta 80+11 Plan & Profile                                  |
|               | REVISIONS   |



DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*John E. Kelly* 12-15-81  
DIRECTOR OF PUBLIC WORKS DATE

*Robert A. Bennett* 12-14-81  
CHIEF - BUREAU OF UTILITIES DATE

*William E. Riley* 12-15-81  
CHIEF - BUREAU OF ENGINEERING DATE

*William H. H. 10-5-81*  
CHIEF - LAND DEVELOPMENT DIVISION DATE

CENTURY ENGINEERING, INC.  
CONSULTING ENGINEERS - PLANNERS  
TOWSON, MARYLAND 21204

CONTRACT NO. 24-1025-D

PLAN AND PROFILE  
OF  
WATER AND SEWER MAINS

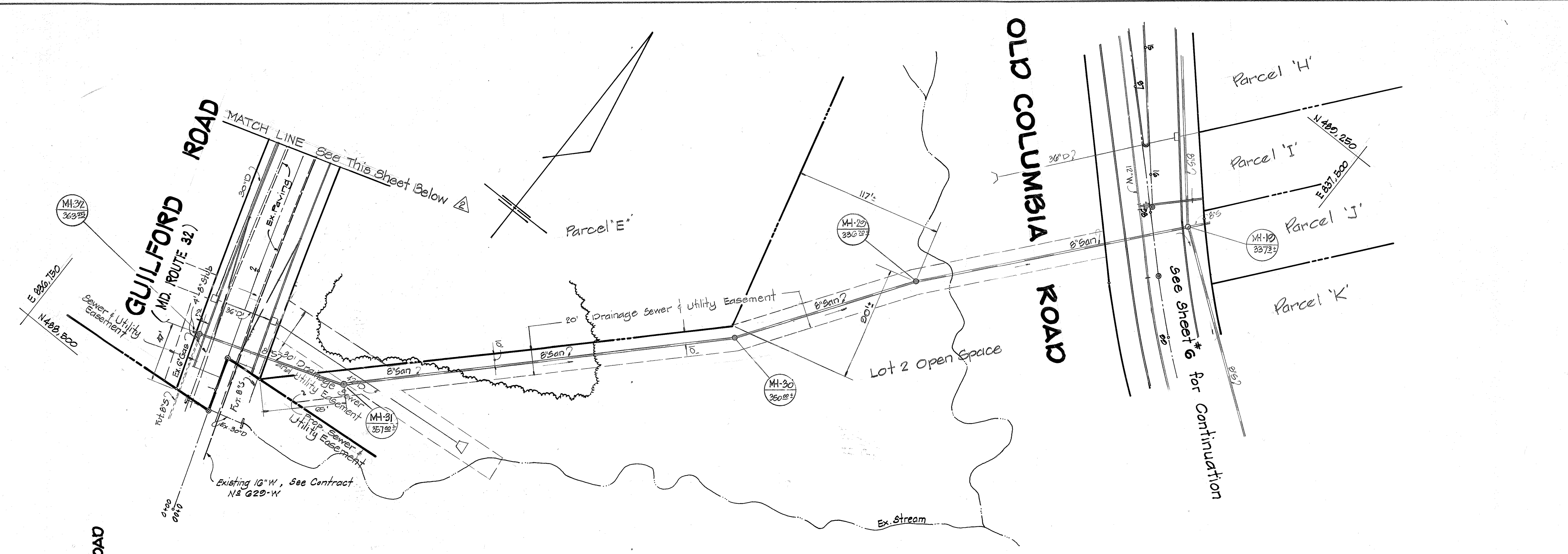
RIVERS CORPORATE PARK  
SECTION I, AREA I, PHASE I  
6TH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

DRAWING NO. 8 OF 9  
SCALE: Plan = 1" = 50'  
Profile Hor. 1" = 100'  
Vert. 1" = 10'

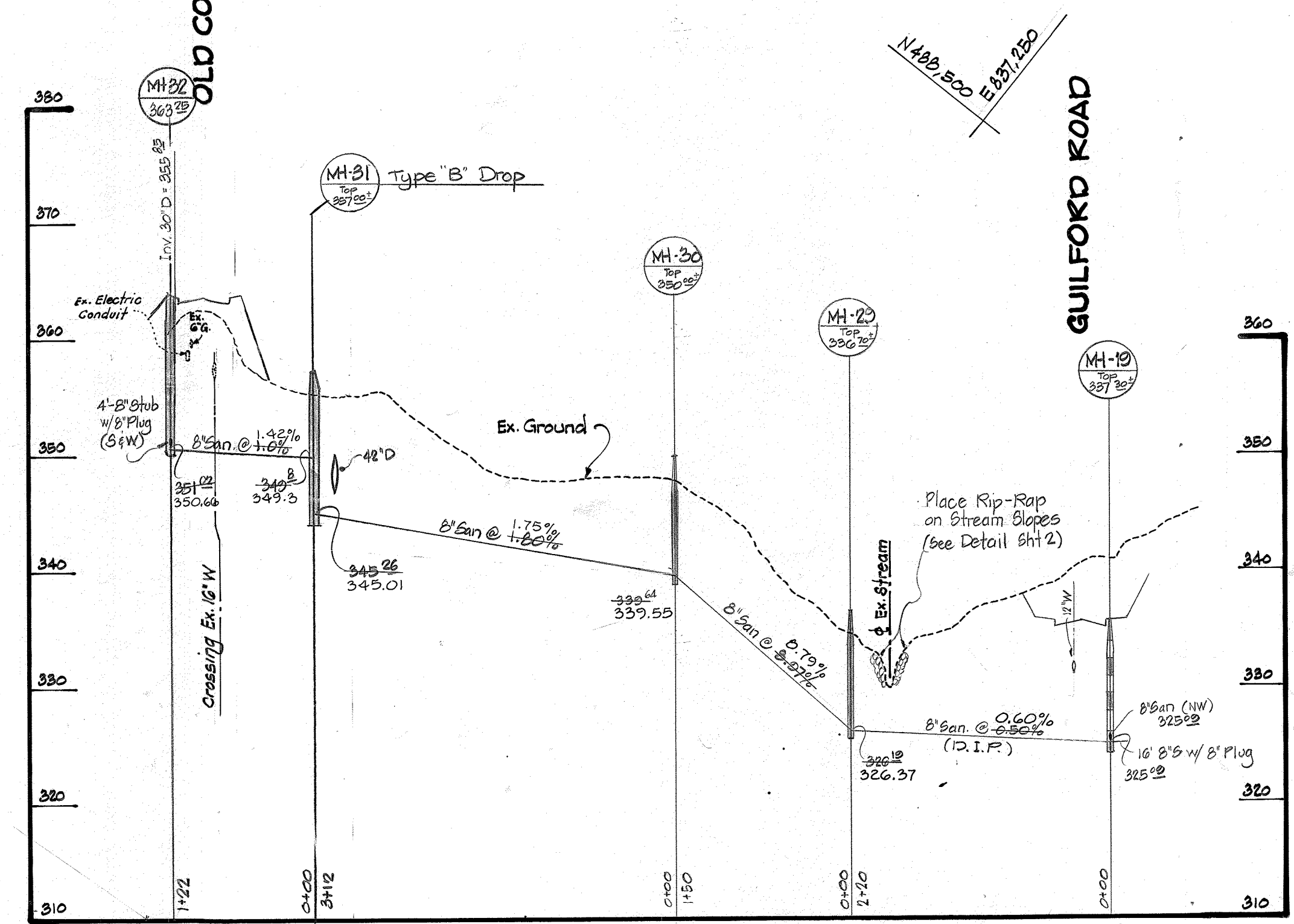
1025/8 WS



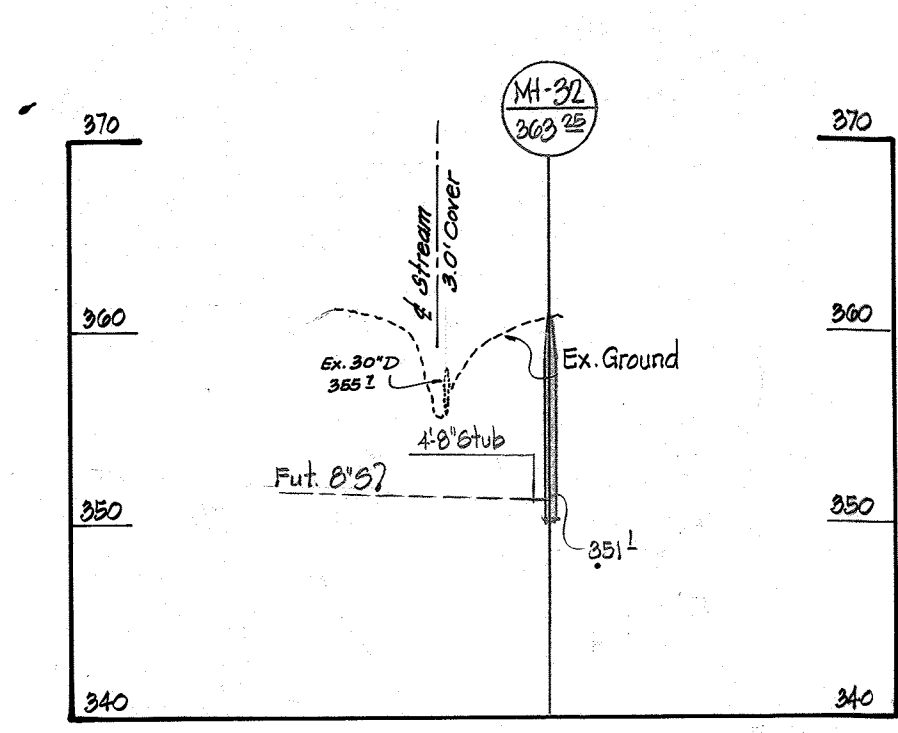
1025/9 WS



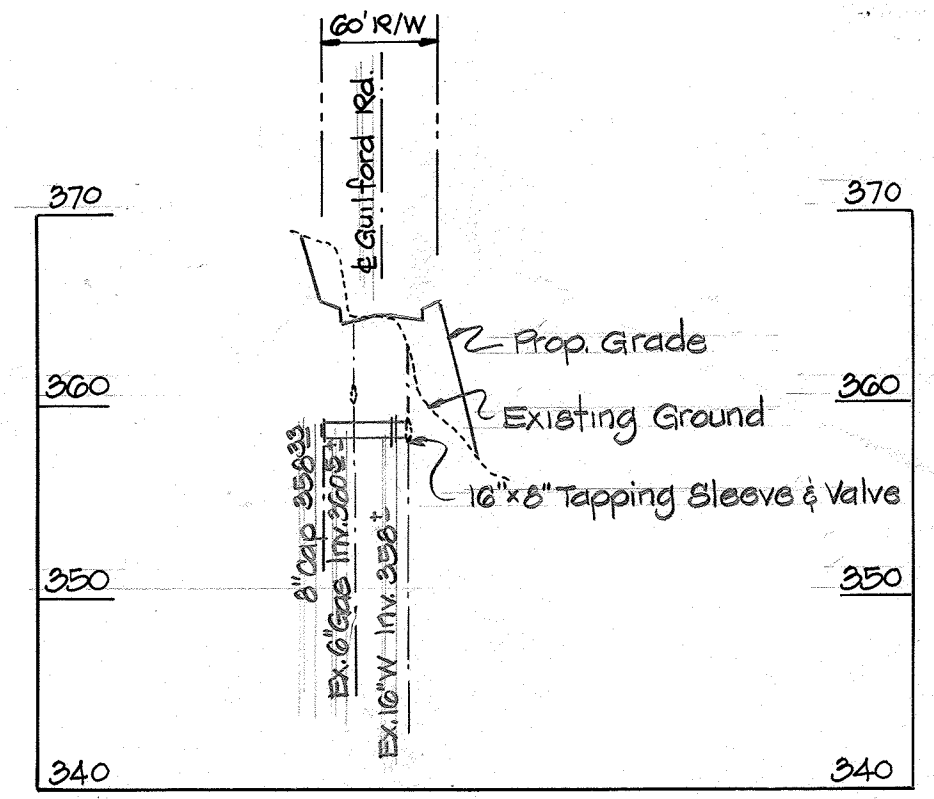
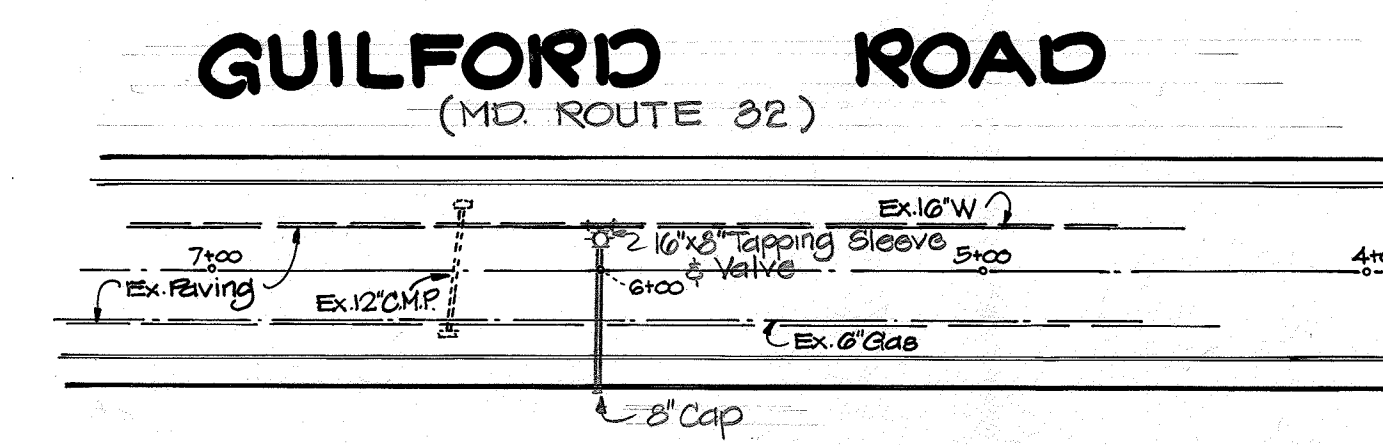
**Plan**  
Scale: 1"=50'



**Profile**  
Scale: Hor. 1"=100'  
Vert. 1"=10'



**Profile - For 6" Sanitary along GUILFORD ROAD**  
Scale: Hor. 1"=100'  
Vert. 1"=10'



**Profile**  
Scale: Hor. 1"=100'  
Vert. 1"=10'

**Plan**  
Scale: 1"=50'

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*W. F. N...* 12-15-81  
DIRECTOR OF PUBLIC WORKS - DATE

*R. Benjamin* 12-14-81  
CHIEF - BUREAU OF UTILITIES - DATE

*W. C. ...* 11-15-81  
CHIEF - BUREAU OF ENGINEERING - DATE

*W. L. ...* 12-17-81  
CHIEF - LAND DEVELOPMENT DIVISION - DATE

CENTURY ENGINEERING, INC.  
CONSULTING ENGINEERS - PLANNERS  
TOWSON, MARYLAND 21204

CONTRACT NO. 24-1025-D

PLAN AND PROFILE  
OF  
WATER AND SEWER MAINS

RIVERS CORPORATE PARK  
SECTION I, AREA I, PHASE I  
6TH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

DRAWING NO. 2  
OF 2

SCALE AS SHOWN

| DATE        | REVISIONS                                       |
|-------------|---|
| 7/21/82     | Added 8" Water Conn. @ Sta. 6+00 Plan & Profile |
| April 1, 82 | Revise Inverts of MH-19 & MH-20                 |

*Thad Paragon*