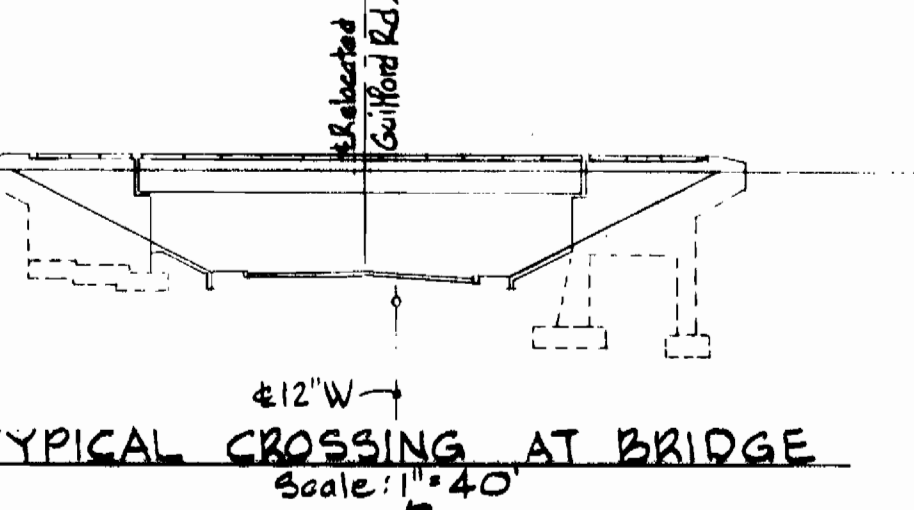
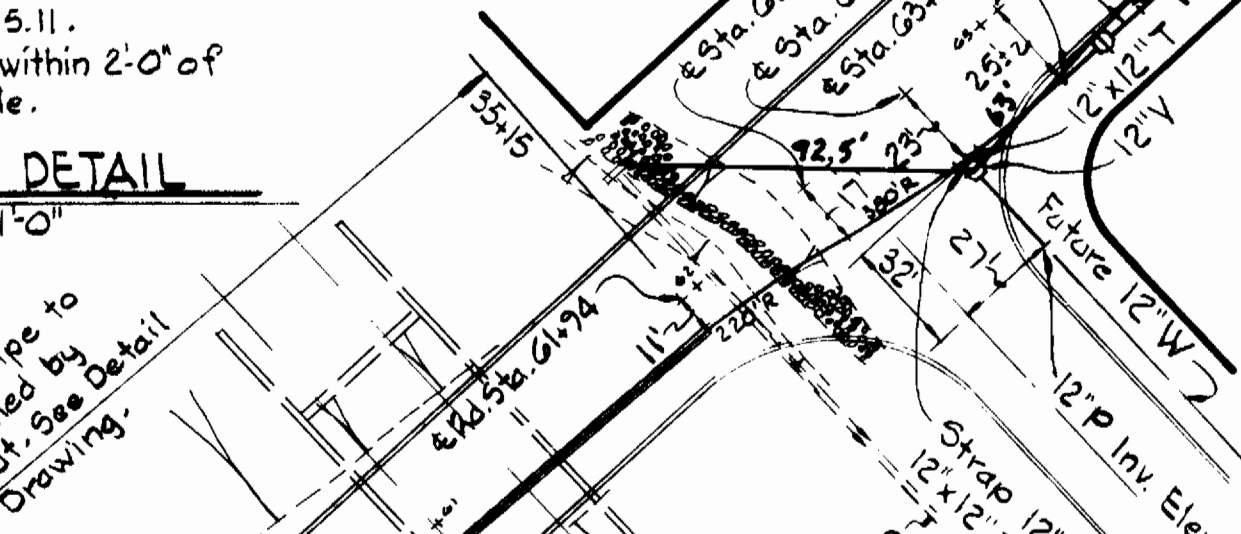


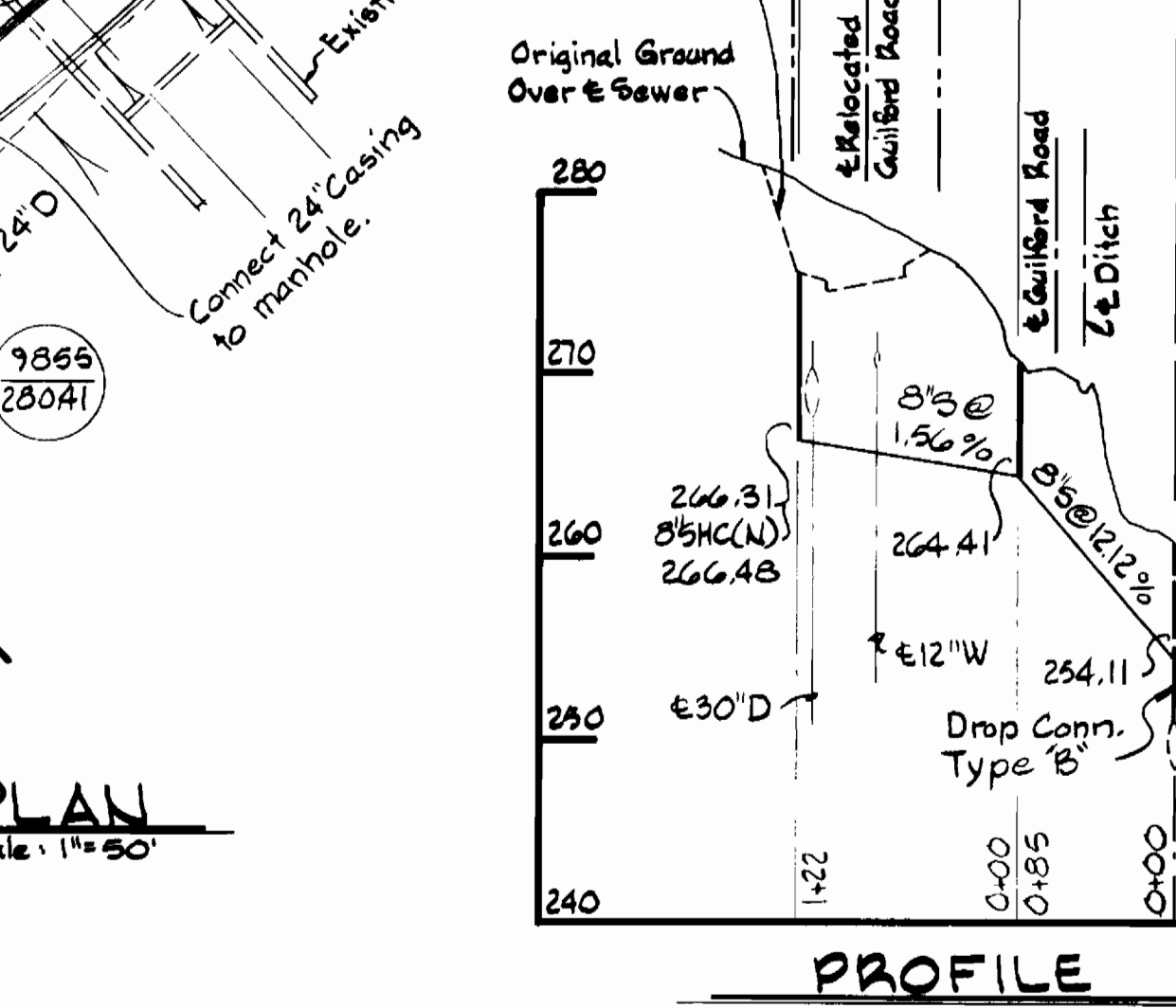
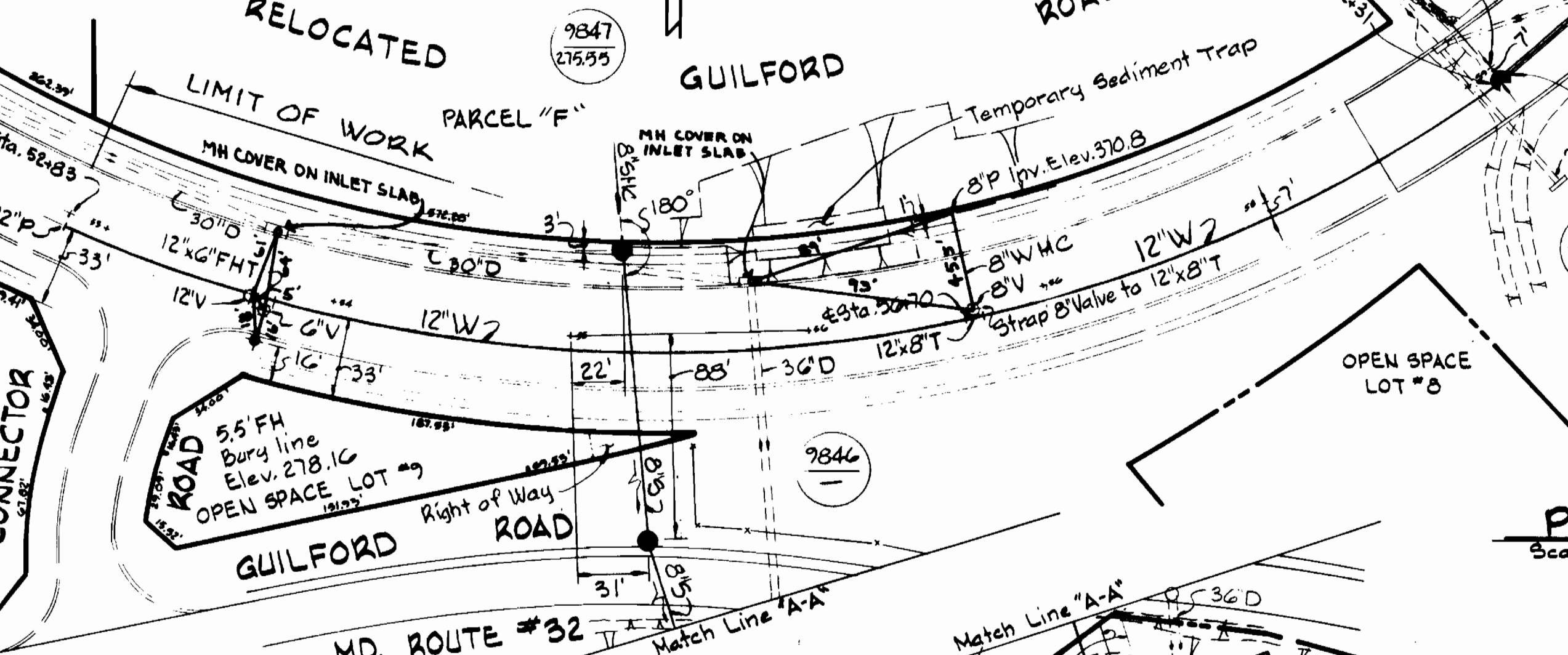
NOTE:
Original Ground over Water and Sewer was taken from Aerial Photography prepared by Maps and Inc., and verified by field survey in August, 1981.



NOTES:
1. Wood Blocking shall be pressure treated.
2. Strap wood blocks to 12" D.I.P. with 1"x3/8" steel bands.
3. Paint straps with two coats of Mobile Asphalt 35-J-11 paint or equal.
4. Provide 2 sets of blocking per length of 12" D.I.P.
5. Build 8" brick bulkhead at sta. 35+15.
6. Build Entry Manhole at Sta. 32+31. Similar to Standard Detail W4.11 and G 5.11.
7. Provide joint in water main within 2'-0" of brick bulkhead and manhole.



NOTE:
The following Butress dimensions shall be used:
12" Plug Standard Detail 2.21 F=2'-6" G=4'-0"
12"x12" T Standard Detail 2.23 I=1'-10" J=1'-5"
All other buttresses shall be as per Standard Details.



GENERAL NOTES

- APPROXIMATE LOCATION OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO 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 PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- CONTRACTOR SHALL LOCATE EXISTING UTILITIES A MINIMUM OF TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS IN THE VICINITY OF UTILITIES AT HIS EXPENSE.
- FOR DETAILS NOT SHOWN ON THE DRAWINGS, USE HOWARD COUNTY STANDARD DETAILS.
- FOR MATERIALS AND CONSTRUCTION REQUIREMENTS, USE HOWARD COUNTY STANDARD SPECIFICATIONS.
- ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES.
- ALL VERTICAL CONTROLS ARE BASED ON UGDS DATUM.
- CLEAR ALL UTILITIES BY A MINIMUM OF 6". CLEAR ALL POLES BY 2'-0" MINIMUM OR TUNNEL AS REQUIRED. THE COST FOR TUNNELING OR BRACING POLES SHALL BE INCLUDED IN APPROPRIATE UNIT PRICES BID.
- 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 AND ELECTRIC COMPANY
UNDERGROUND ELECTRIC AND GAS DISTRIBUTION-CUSTOMER SERVICE - 685-0123
DAMAGE CONTROL - 294-5621
"MISS UTILITY" - 1 - 569-0100
CHEAPEAKE AND POTOMAC TELEPHONE COMPANY - 726-0875
AMERICAN TELEPHONE AND TELEGRAPH - CABLE LOCATION DIVISION - 388-3555
BUREAU OF UTILITIES HOWARD COUNTY - 988-2306
- 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 CONTRACTOR.
- CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG LINE OF EXCAVATION AS DIRECTED BY THE ENGINEER. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN APPROPRIATE UNIT PRICES BID.
- PLACE REGULATION "HIGH 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 C.I.P. OR D.I.P. UNLESS OTHERWISE NOTED.
- TOP OF ALL WATER MAINS SHALL HAVE A MINIMUM OF 3/4 FEET OF COVER UNLESS OTHERWISE NOTED.
- VALVES SHALL BE STRAPPED WHERE APPLICABLE.
- 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 THE STANDARD SPECIFICATIONS.
- WATER HOUSE CONNECTIONS SHALL BE FOR AN INSIDE METER SETTING.
- THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING SYSTEM.
- ALL SEWER MAINS SHALL BE CSRX, V.C.P.X., A.C.P. OR PVC. UNLESS OTHERWISE NOTED.
- ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER, UNLESS OTHERWISE NOTED.
- PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALLS.

QUANTITIES

ITEM	BID	AS-BUILT	MATERIAL/SUPPLIER
12" Water LF	1040	1032	U.S. PIPE
12" Valves Ea.	2	2	SMITH
8" Sewer LF	220	199	CERTAIN-TEED
Manholes Ea.	3	3	2 ATLANTIC/1 BRICK
24" Casing	282	282	CONCRETE PIPE PROD.

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENT
 SIGNATURE: *William T. Lane* DATE: 4-7-82
 U.S. SOIL CONSERVATION SERVICE
 This Development Plan is approved for Soil Erosion and Sediment Control by the Howard County Conservation District
 APPROVED: *William T. Lane* DATE: 4-7-82
 HOWARD SCD

PROPERTY OF THE COLUMBIA PARK AND RECREATION ASSOCIATION
 OPEN SPACE LOT #21
 Old Mill Ruins
 Connect 8" to Ex. M4 Rebuild channel to suit.
 Connect 8" to Ex. M4 (20-5)
 Connect 8" to Ex. M4 (20-5)
 Connect 8" to Ex. M4 (20-5)

Revision #2 JUNE 10, 1982
 Revision #1 APRIL 21, 1982

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 DIRECTOR OF PUBLIC WORKS - DATE: 4-12-82
 CHIEF - BUREAU OF UTILITIES - DATE: *Robert J. ...*
 CHIEF - LAND DEVELOPMENT DIVISION - DATE: 4-7-82

WHITMAN, REQUARDT AND ASSOCIATES
 ENGINEERS
 2315 ST. PAUL ST.
 BALTIMORE, MARYLAND

CONTRACT NO. 24-1051-D
 PLAN OF WATER & SEWER MAINS

COLUMBIA RIVERS CORPORATE PARK
 ELECTION DISTRICT GUILFORD NO. 6

DRAWING NO. 1 OF 1
 SCALE AS SHOWN