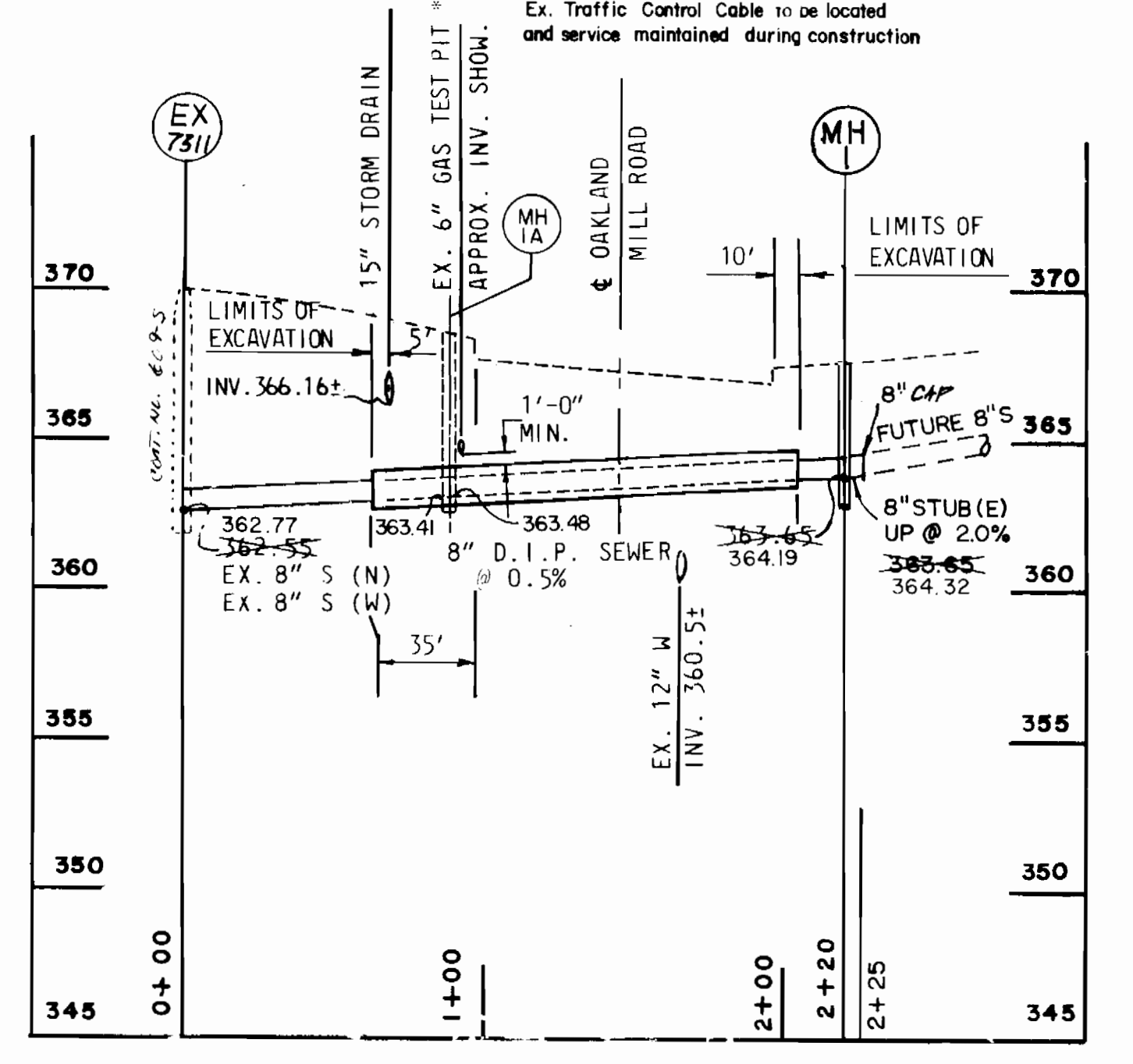


QUANTITIES			
ITEM	BID	AS-BUILT	MATERIAL / SUPPLIER
8" SEWER L.F.	245	222 LF	ATLANTIC SEWER-COAST IRON PIPE COMPANY
MANHOLES EA.	1	2 EA	ATLANTIC CONCRETE PRODUCTS
BORING & JACKING	144 LF		



**CONSTRUCTION SEQUENCE
SEDIMENT CONTROL PROCEDURES**

1. OBTAIN SEDIMENT CONTROL PERMIT (ARTICLE 15.05-3).
2. INSTALL SILT FENCE AS SHOWN ON PLAN.
3. CONSTRUCT PIPELINE.
4. ALL EXCAVATED MATERIAL SHALL BE STOCKPILED ON HIGH SIDE OF TRENCH.
5. RESTORE EROSION CONTROL STRUCTURES DISTURBED BY SEWER CONSTRUCTION.
6. STABILIZE DISTURBED AREAS AS CONSTRUCTION PROGRESSES WITH TEMPORARY SEEDING AND MULCHING (OR PERMANENT RESTORATION).
7. RESTORATION (TEMPORARY OR PERMANENT) OF THE AREA BETWEEN MANHOLES SHALL FOLLOW WITHIN ONE WEEK OF PIPE LAYING.
8. ALL SEDIMENT CONTROL DEVICES SHALL REMAIN IN SERVICE UNTIL REMOVAL IS APPROVED BY THE S.C.S. INSPECTOR.

SEEDING NOTES

TEMPORARY SEEDING

Apply to graded or cleared areas likely to be re-disturbed where a short-term vegetative cover is needed.

Seedbed Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding.

Soil Amendments: Apply 600 lbs. per acre 11-10-10 fertilizer (14 lbs./1000 sq ft.)

Seeding: For periods March 1 thru April 30 and from August 15 thru November 15, seed with 21 bushels per acre of annual rye (3.2 lbs/1000 sq. ft.). For the period May 1 thru August 14, seed with 3 lbs per acre of weeping lovegrass (.07 lbs/1000 sq ft.). For the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

Mulching: Apply 11 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes, 8 ft. or higher, use 348 gal per acre (8 gal/1000 sq ft) for anchoring.

Refer to the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.

PERMANENT SEEDING

Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.

Seedbed Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding.

Soil Amendments: In lieu of soil test recommendations, use one of the following schedules:

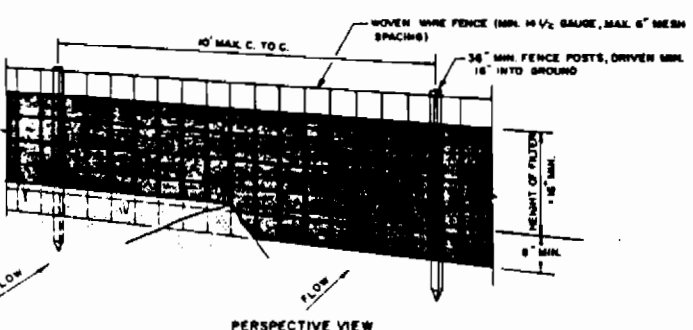
1. Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 square ft) and 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft) before seeding. Barrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs per acre 38-0-0 ureaform fertilizer (9 lbs/1000 sq ft).
2. Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq ft) and 1000 lbs per acre 10-10-10 fertilizer (22 lbs/1000 sq ft) before seeding. Barrow or disc into upper three inches of soil.

Seeding - For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60 lbs per acre (1.4 lbs/1000 sq ft) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 10 lbs per acre (0.22 lbs/1000 sq ft) of Kentucky 31 Tall Fescue per acre and 2 lbs per acre (.05 lbs/1000 sq ft) of weeping lovegrass. During the period of October 16 thru February 28, protect site by application (2) tons per acre of well anchored straw mulch and seed as soon as possible in the spring. Option (2) Use sod. Option (3) Seed with 60 lbs/acre Kentucky 31 Tall Fescue and mulch with 2 tons/acre well anchored straw.

Mulching - Apply 11 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes, 8 ft. or higher, use 348 gals. per acre (8 gal/1000 sq ft) for anchoring.

Maintenance - Inspect all seeded areas and make needed repairs, replacements and re-seedings.

OPEN CUT ROADWAY FOR SEWER INSTALLATION AS APPROVED BY HOWARD COUNTY CHIEF, BUREAU OF HIGHWAYS.



CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

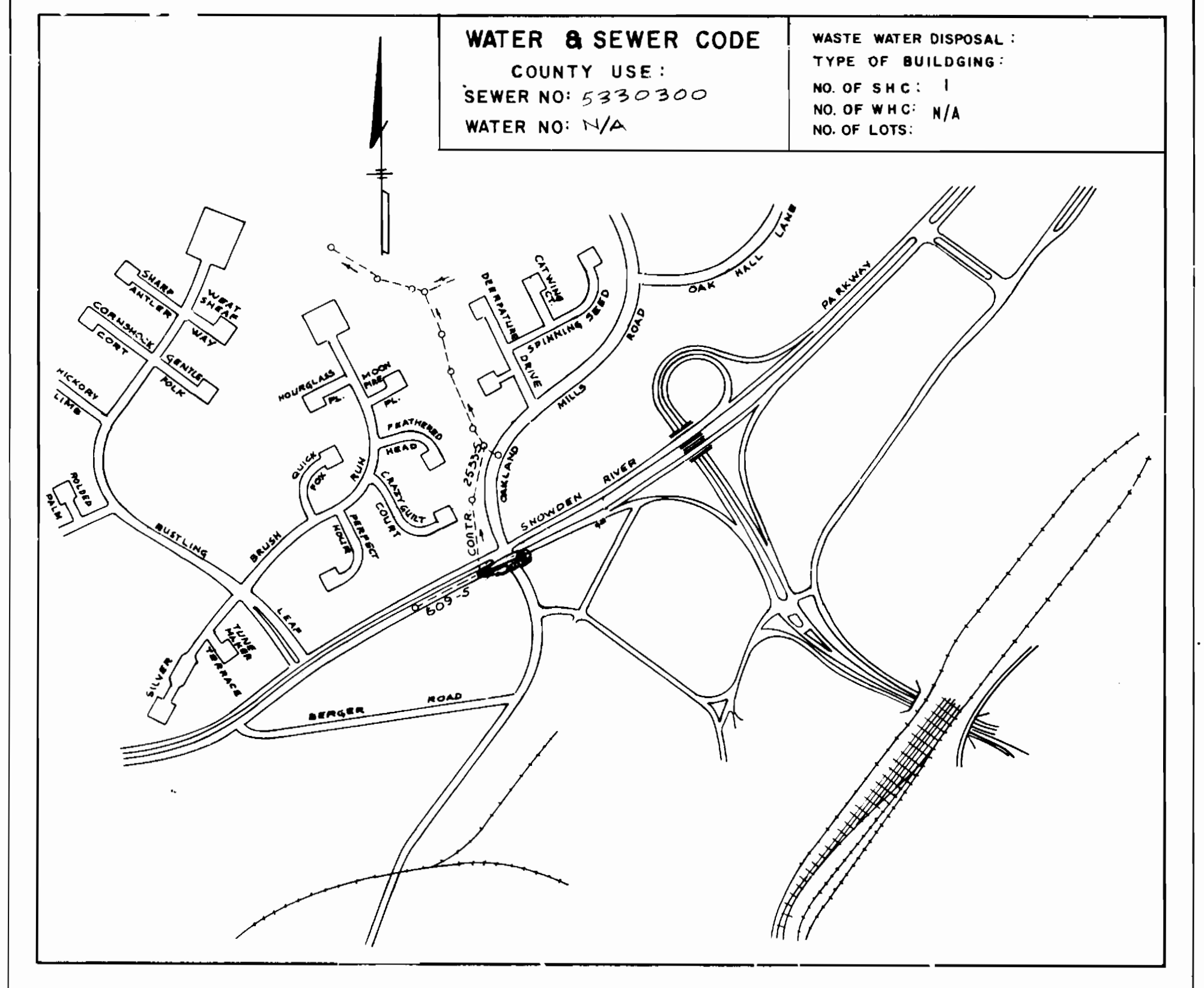
1. MOVIE WIRE FENCE TO BE FASTENED REGULARLY TO STAKES WITH WIRE TIES OR STAPLES.
2. FILTER CLOTH TO BE FASTENED REGULARLY TO MOVIE WIRE FENCE WITH TIE STAPLES EVERY 24" AT TOP AND MID SECTION.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
4. MAINTENANCE SHALL BE PROVIDED AS EXCESSIVE WEAR OR DAMAGE OCCURS TO MAINTAIN DEVELOPMENT IN THE SILT FENCE.

POSTS: STEEL (2" DIA. 10' OR 12' TYPE OR WOODEN)

FENCE: MOVIE WIRE, 16" GA. 2" DIA. TIE STAPLES

FILTER CLOTH: FILTER CLOTH, 100% STAIN-LIGHT TIGHT OR APPROVED EQUAL.

PREFABRICATED UNIT: GEOWEB, POLYPROPYLENE, OR APPROVED EQUAL.



VICINITY MAP
SCALE: 1"=600'

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 ENGINEER 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 MORE AS REQUIRED.
6. FOR DETAILS NOT SHOWN ON THE DRAWINGS, AND FOR MATERIALS AND CONSTRUCTION METHODS, USE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION. THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB.
7. WHERE TEST PITS HAVE BEEN MADE ON EXISTING UTILITIES, THEY ARE NOTED BY THE SYMBOL AT THE LOCATION OF THE TEST PIT. A NOTE OR NOTES CONTAINING THE RESULTS OF THE TEST PIT OR PITS IS INCLUDED ON THE DRAWINGS. EXISTING UTILITIES IN THE VICINITY OF THE PROPOSED WORK FOR WHICH TEST PITS HAVE NOT BEEN DUG SHALL BE LOCATED BY THE CONTRACTOR TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS AT HIS OWN EXPENSE.
8. CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
 - STATE HIGHWAY ADMINISTRATION - 531-5533
 - BALTIMORE GAS & ELECTRIC CO. - CONTRACTOR SERVICES 561-2585
 - BALTIMORE GAS & ELECTRIC CO. - UNDER GROUND DAMAGE CONTROL - 234-5321
 - BALTIMORE GAS & ELECTRIC CO. TROUBLE SHOOTING - 298-9013
 - MISS UTILITY - 1-559-0100
 - COLONIAL PIPELINE CO 795-1390
 - BUREAU OF UTILITIES, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS - 992-2366
9. TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO MAXIMUM EXTENT. TREES AND SHRUBS LOCATED WITHIN THE CONSTRUCTION STRIP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR.
10. CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG LINE OF EXCAVATION.
11. ALL SEWER MAINS SHALL BE 8" D.I.P.
12. THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALL.
13. ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
14. MANHOLES SHOWN WITH 12" AND 16" WALLS ARE BRICK MANHOLES ONLY.
15. STRAW BALE DIKE AND SILT FENCE ARE INTERCHANGEABLE.

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE STANDARD SPECIFICATIONS

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENT

SIGNATURE: *[Signature]* DATE: 5-13-87
U.S. SOIL CONSERVATION SERVICE

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

HOWARD S.C.D. *[Signature]* DATE: 5-13-87

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS: *[Signature]* DATE: 5-25-87
CHIEF-BUREAU OF UTILITIES

CHIEF-BUREAU OF ENGINEERING: *[Signature]* DATE: *[Date]*
CHIEF-LAND DEVELOPMENT DIVISION

CENTURY ENGINEERING, INC.
CONSULTING ENGINEERS - PLANNERS
TOWSON, MARYLAND 21284

CONTRACT NO. 20-1620-D

PLAN & PROFILES OF
8" SEWER MAIN

APPLIANCE PARK - EAST (PARCEL A-4)
GENERAL ELECTRIC CO
6TH ELECTION DISTRICT
HOWARD COUNTY, MD.

DRAWING NO. 1 OF 1
SCALE AS SHOWN

