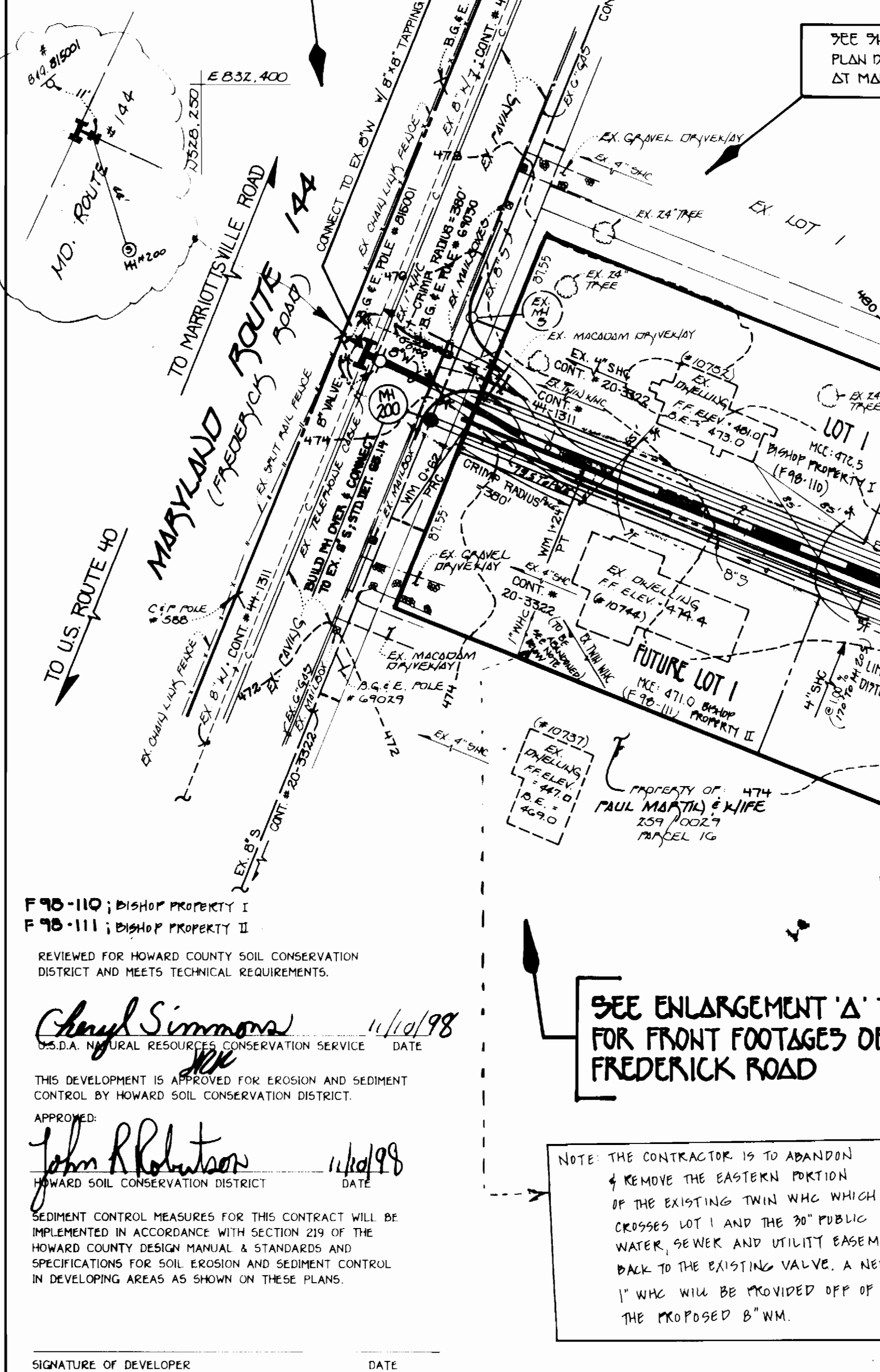


THE CONTRACTOR SHALL REFERENCE SECTION 510 OF THE SPECIAL PROVISIONS WHICH INCORPORATES MD STATE HIGHWAY ADMINISTRATION UTILITY PERMIT NO. 740-4001 INTO THE CONTRACT SPECIFICATIONS. THE PERMIT LISTED CONDITIONS FOR THE WATER MAIN CROSSING OF MD ROUTE 144 AND STIPULATED RESERVING REQUIREMENT.



F 78-110; Bishop Property I  
 F 78-111; Bishop Property II

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

*Carol Simmons* 11/10/98  
 S.D.A. NATURAL RESOURCES CONSERVATION SERVICE DATE

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

APPROVED:  
*John R. Robinson* 11/10/98  
 HOWARD COUNTY SOIL CONSERVATION DISTRICT DATE

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY DESIGN MANUAL & STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS AS SHOWN ON THESE PLANS.

SIGNATURE OF DEVELOPER DATE

SEE ENLARGEMENT 'A' THIS SHEET FOR FRONT FOOTAGES OF LOTS ALONG FREDERICK ROAD

NOTE: THE CONTRACTOR IS TO ABANDON & REMOVE THE EASTERN PORTION OF THE EXISTING TWIN WHC WHICH CROSSES LOT 1 AND THE 30' PUBLIC WATER, SEWER AND UTILITY EASEMENT BACK TO THE EXISTING VALVE. A NEW 1" WHC WILL BE PROVIDED OFF OF THE PROPOSED 8" WM.

| NO. | INVERT PLACE 716 | DISTANCE | SLOPE  | ELEVATION |
|-----|------------------|----------|--------|-----------|
| 200 | ---              | ---      | ---    | 475.00    |
| 205 | 4+33             | 5' RIGHT | +1.06% | 478.87    |
| 210 | ---              | 5' RIGHT | -2.81% | 477.64    |

\* BUILD MH OVER & CONNECT TO EX. 8" W/MEN MAIN

NOTE: \*POIL FROM TRENCHING IS TO BE PLACED ON THE UPHILL SIDE OF THE OPERATION.

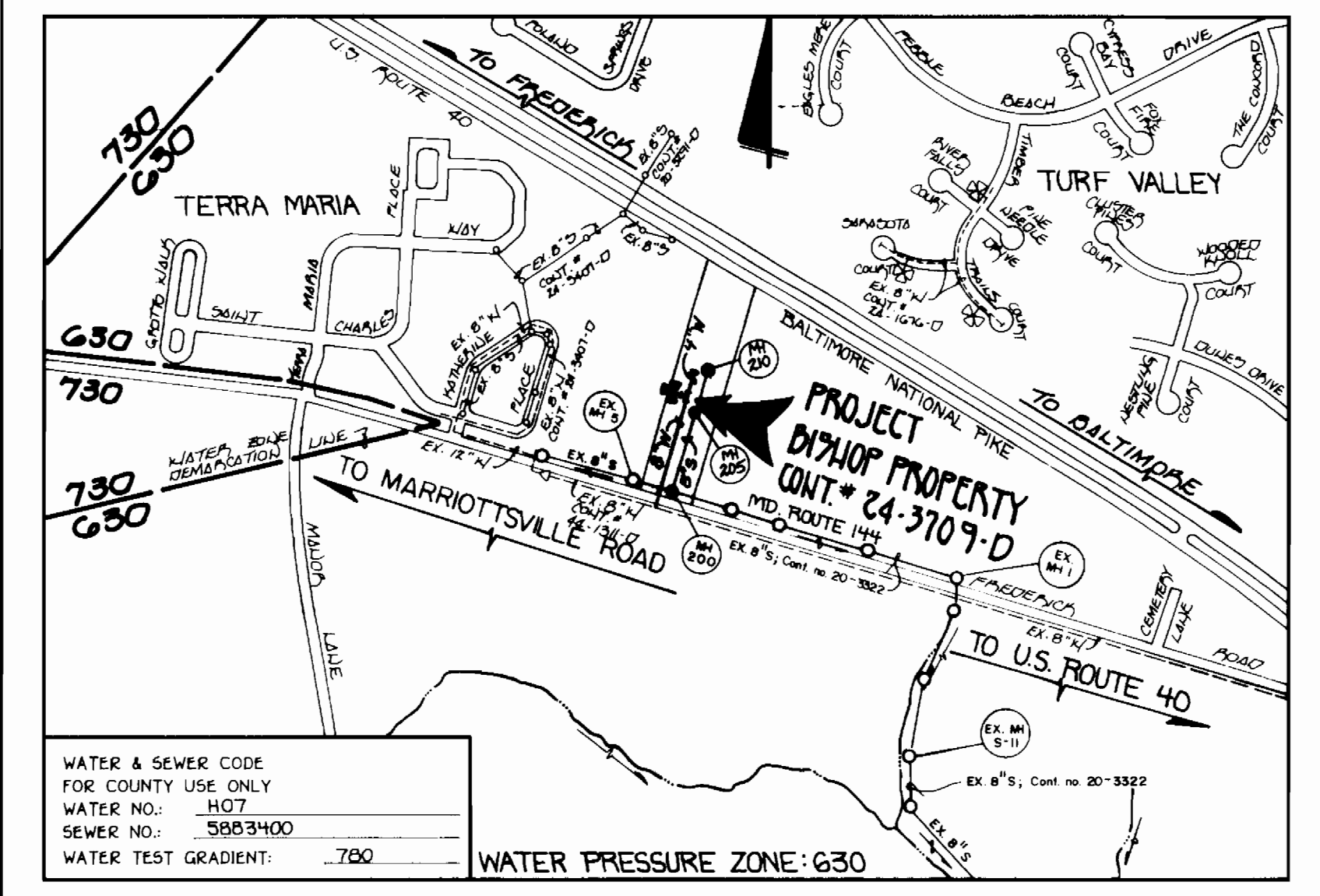
SEE SHEET 3 FOR SEQUENCE OF CONSTRUCTION

SEE SHEET 2 FOR PROFILES OF WATER & SEWER MAINS

| ITEM               | ESTIMATED | AS-BUILT   |                              |
|--------------------|-----------|------------|------------------------------|
|                    |           | QUANTITIES | SUPPLIER                     |
| 8" SEWER           | 570 LF.   | 570        | J.M. D. 2034 MUNICIPAL SALES |
| 4" SEWER           | 87 LF.    | 115        | J.M. D. 2034                 |
| MANHOLES           | 3 EACH    | 3          | ATLANTIC CONCRETE PRODUCTS   |
| 8" WATER           | 454 LF.   | 451        | GRIFFIN 0288 MUNICIPAL SALES |
| 6" WATER           | 17 LF.    | 10         | GRIFFIN 0288                 |
| 4" WATER           | 118 LF.   | 118        | GRIFFIN 0288                 |
| FIRE HYDRANTS      | 1 EACH    | 10         | KENNEDY                      |
| 8" x 8" T.S. & V.  | 1 EACH    | 10         | KENNEDY                      |
| 8" x 8" TEE        | 1 EACH    | 10         | TYLER                        |
| 6" VALVE           | 1 EACH    | 10         | KENNEDY                      |
| 8" x 4" REDUCER    | 1 EACH    | 10         | TYLER                        |
| 4" PLUG & BUTTIRES | 1 EACH    | 10         | TYLER                        |
| 1" WHC             | 180 LF.   | 225        | READING TOOL                 |

NAME OF UTILITY CONTRACTOR: CONSOLIDATED CONSTRUCTION SERVICE INC.  
 SURVEY & DRAFTING DIVISION AS-BUILT DATE: C.O.S.

| STATION                | LOT                   | ELEVATION |
|------------------------|-----------------------|-----------|
| 2+30 RT.               | MH 200 TO MH 205      | 466.50    |
| 2+40 LT.               | FUTURE LOT 2 (0.100%) | 466.02    |
| 0+17 RT.               | MH 205 TO MH 210      | 467.41    |
| 0+27 LT.               | FUTURE LOT 3 (0.100%) | 467.84    |
| 0+17 LT.               | LOT 4 (0.100%)        | 468.77    |
| 0+17 RT.               | FUTURE LOT 5 (0.100%) | 468.76    |
| EX. M4*H4 TO EX. M4*H5 |                       |           |
| 2+75                   | FUTURE LOT 1          | 464.51    |
| 0+14 RT.               | LOT 1                 | 464.09    |



|                                 |   |
|---------------------------------|---|
| TYPE OF BUILDING:               | RESIDENTIAL SINGLE FAMILY                                       |
| NUMBER OF LOTS:                 | 15 (8 BUILT/7 FUTURE)   |
| NO. OF WATER HOUSE CONNECTIONS: | 7   |
| NO. OF SEWER HOUSE CONNECTIONS: | 6   |
| DRAINAGE AREA:                  | LITTLE PATUENT  |
| TREATMENT PLANT:                | PRATAPGO WWTP (CITY OF BALTIMORE) VIA ROUTE 108 PUMPING STATION |
| NUMBER OF WHCS FOR FUTURE LOTS: | 3   |
| NUMBER OF SHCS FOR FUTURE LOTS: | 4   |

VICINITY MAP  
 SCALE: 1"=600'

\* AN EX. TWIN HOUSE CONNECTION WAS PREVIOUSLY INSTALLED UNDER CONT. # 44-1311 FOR LOT 1 & FUTURE LOT 1  
 \*\* EX. WHCS WERE PREVIOUSLY INSTALLED UNDER CONT. # 20-3522 FOR LOT 1 & FUTURE LOT 1

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 ARE INVERT ELEVATIONS.
- CLEAR ALL UTILITIES BY A MINIMUM OF 6". CLEAR ALL POLES BY 2'-0" MINIMUM.
- 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 (1991 AMENDMENTS); THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB SITE.
- 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 VERIFIED BY THE CONTRACTOR TO HIS OWN SATISFACTION. ANY DAMAGE TO EXISTING FACILITIES DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- 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 - 850-4620
  - BALTIMORE GAS & ELECTRIC CO. - UNDER GROUND DAMAGE CONTROL - 787-9068
  - MISS UTILITY - 1-800-257-7777
  - COLONIAL PIPELINE CO. - 795-1390
  - BUREAU OF UTILITIES, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS - 313-4900
- 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.
- CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG THE LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN.
- ALL SEWER MAINS SHALL BE D.I.P. OR P.V.C. UNLESS OTHERWISE NOTED.
- ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
- T.B. DENOTES TEST BORING.
- MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY.
- MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVERS, STANDARD DETAIL G. 5.52.
- WHERE WATERTIGHT MANHOLE FRAME AND COVER IS USED, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS.
- HOUSES WITH THE SYMBOL [ ] INDICATES THAT THE CELLAR CANNOT BE SERVED.
- ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING, UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS. ALL SINGLE WATER HOUSE CONNECTIONS SHALL BE 1" DIA. IN 3/4" WALL METERS UNLESS OTHERWISE NOTED.
- MANHOLES LOCATED WITHIN THE PROPOSED ROADWAY SHALL HAVE STANDARD HEAVY TRAFFIC MANHOLE FRAMES AND COVERS, STANDARD DETAIL G5.51.
- WATER MAINS AND WATER HOUSE CONNECTION LINES MUST BE PLACED AS TO HAVE ONE (1) FOOT SEPARATION FROM THE SEWER MAIN OR SEWER HOUSE CONNECTION AS THEY PASS ABOUT IT.
- ALL WATER MAINS SHALL BE D.I.P., CLASS 52 UNLESS OTHERWISE NOTED.
- TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3'-1/2" COVER UNLESS OTHERWISE NOTED.
- VALVES ADJACENT TO TREES SHALL BE STRAPPED TO TREES.
- ALL FITTINGS SHALL BE BUTTIRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
- FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATION SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE RESTRAINED AND BUTTIRESSED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS (W11) AND (W213). SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND 1005 OF THE STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
- ALL D.I.P. FITTINGS SHALL BE IN ACCORDANCE WITH AWWA SPECIFICATIONS C-153, DUCTILE IRON COMPACT FITTINGS, 3-INCH THROUGH 12-INCH FOR WATER AND OTHER LIQUIDS.
- THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, # (410) 313-2450 AT LEAST FIVE WORKING DAYS BEFORE ANY OPEN CUT OF ANY COUNTY ROAD OR BORING/JACKING OPERATION IN COUNTY ROADS FOR LAYING WATER/SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 10.10(4) OF THE HOWARD COUNTY CODE.

PLAN REFERENCE NUMBERS:  
 F 78-110; BISHOP PROPERTY I  
 F 78-111; BISHOP PROPERTY II

CONTRACT NO. 24-5109-D  
 BISHOP PROPERTY I & II  
 WATER AND SEWER MAIN EXTENSIONS  
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING  
 HOWARD COUNTY, MARYLAND

Fisher, Collins & Carter, Inc.  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTENNIAL SQUARE OFFICE PARK  
 10272 Baltimore National Pike  
 Ellicott City, Maryland 21042  
 (410) 481-2865

DESIGNED BY: KOT  
 DRAWN BY: L.M.  
 CHECKED BY: P.W.K.  
 DATE: OCTOBER, 1998

Michael A. Simons  
 CHIEF, BUREAU OF UTILITIES  
 11/3/98

John R. Robinson  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 11/10/98

STATE OF MARYLAND  
 PROFESSIONAL ENGINEER  
 TERRELL A. FISHER

DESIGNED BY: KOT  
 DRAWN BY: L.M.  
 CHECKED BY: P.W.K.  
 DATE: OCTOBER, 1998

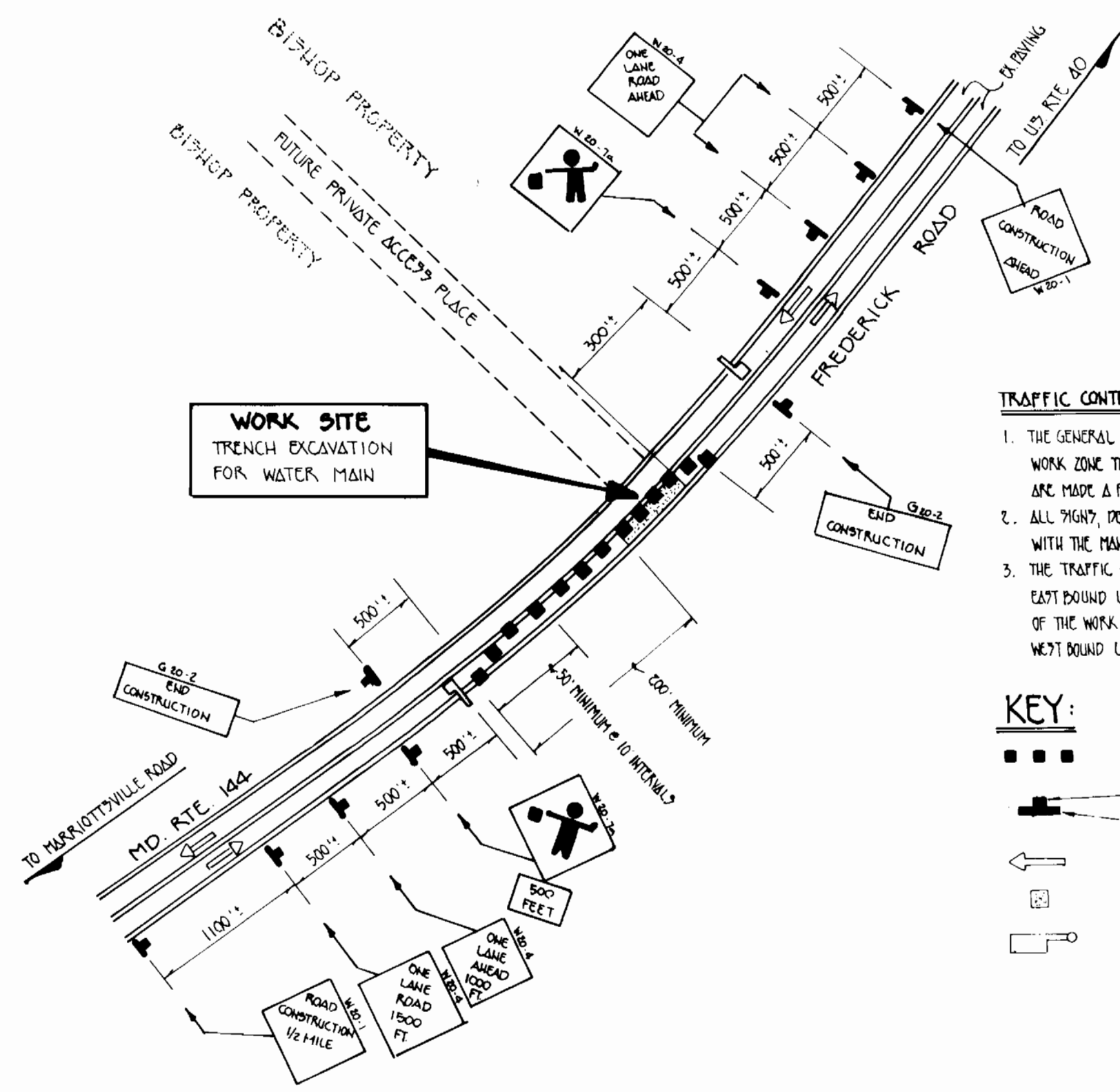
AS-BUILT CONDITIONS ADDED TO PLAN  
 6/99

WATER & SEWER MAINS PLAN

600' SCALE MAP NO. 36 BLOCK NO. 32  
 F.C.C. WORK ORDER NO. 30571  
 FILE NAME: BISHOP PROPERTY

BISHOP PROPERTY  
 BISHOP PROPERTY I; LOTS 1-5  
 BISHOP PROPERTY II; LOTS 1-5  
 CONTRACT NO. 24-3709-D  
 SECOND ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
 SHEET 1 OF 3



**TRAFFIC CONTROL PLAN NOTES**

1. THE GENERAL NOTES INCLUDED WITHIN THE D.H.A. WORK ZONE TRAFFIC CONTROL (W.Z.T.C.) STANDARDS ARE MADE A PART OF THIS TRAFFIC CONTROL PLAN.
2. ALL SIGNS, DEVICES, ETC. SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
3. THE TRAFFIC CONTROL PLAN SHOWS 17 FOR CLOSURE OF THE EAST BOUND LANE. THE SIGN AND DEVICES NORTH & SOUTH OF THE WORK SITE SHALL BE REVERSED FOR CLOSURE OF THE WEST BOUND LANE.

**KEY:**

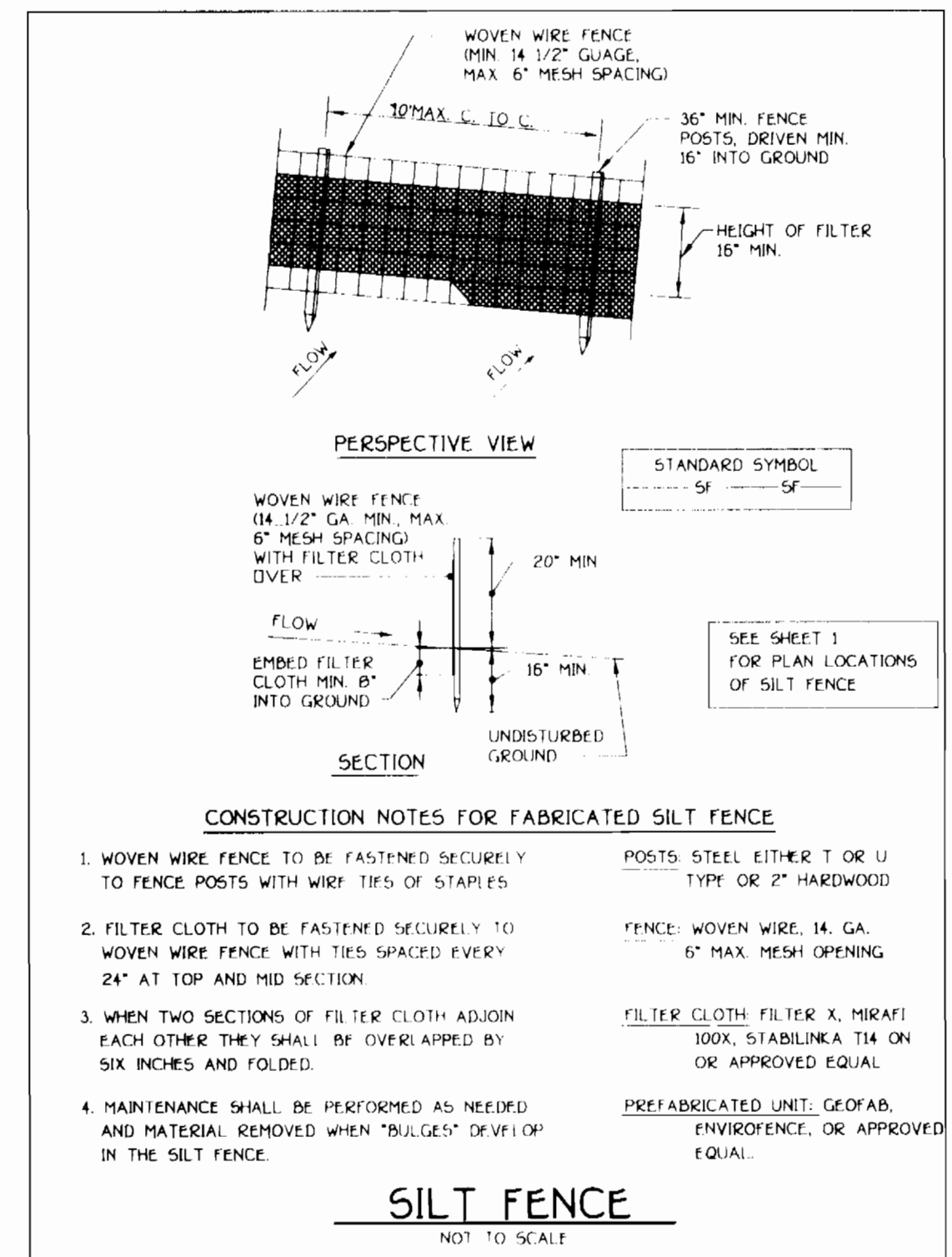
- CHANNELIZING DEVICES
- SIGN SUPPORT
- FACE OF SIGN
- DIRECTION OF TRAFFIC
- WORK SITE
- FLAGGER

**NOTE:**  
DPOIL FROM TRENCHING IS TO BE PLACED ON THE UPHILL SIDE OF THE OPERATIONS

SEE SHEET 3 FOR SEQUENCE OF CONSTRUCTION

THE CONTRACTOR SHALL REFERENCE SECTION 510 OF THE SPECIAL PROVISIONS WHICH INCORPORATES MD STATE HIGHWAY ADMINISTRATION UTILITY PERMIT NO. T-40-4001 INTO THE CONTRACT SPECIFICATIONS. THE PERMIT LISTS CONDITIONS FOR THE WATER MAIN CROSSING OF MD ROUTE 144 AND STIPULATES RE-PAVING REQUIREMENTS.

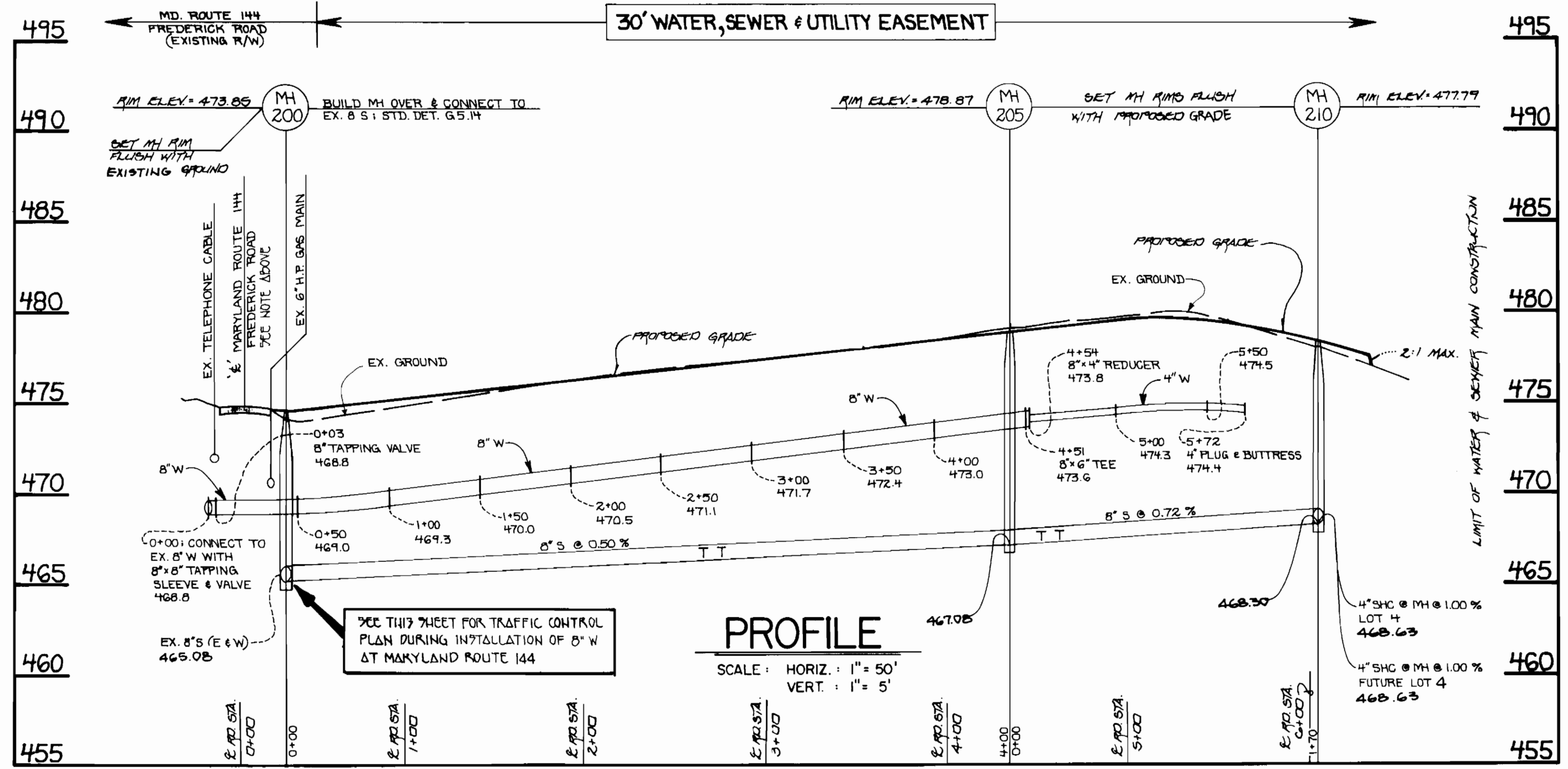
**TRAFFIC CONTROL PLAN**  
NO SCALE



- CONSTRUCTION NOTES FOR FABRICATED SILT FENCE**
1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
  2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED 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 PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.
- POSTS: STEEL EITHER T OR U TYPE OR 2" HARDWOOD  
FENCE: WOVEN WIRE, 14 GA. 6" MAX. MESH OPENING  
FILTER CLOTH: FILTER X, MIRAFL 100L, STABILINA T14 OR APPROVED EQUAL  
PREFABRICATED UNIT, GEOPAR, ENVIRONMENT, OR APPROVED EQUAL.

**SILT FENCE**  
NOT TO SCALE

SEE SHEET 1 FOR PLAN OF WATER & SEWER MAINS



**PROFILE: 8" SEWER MAIN & 8/4" WATER MAINS**

CONTRACT NO. 24-3709-D  
BISHOP PROPERTY I & II  
WATER AND SEWER MAIN EXTENSIONS  
HOWARD COUNTY, MARYLAND

|  |  |  |                                      |   |  |   |                                |
|--|--|--|--------------------------------------|---|--|---|--------------------------------|
| DEPARTMENT OF PUBLIC WORKS<br>HOWARD COUNTY, MARYLAND<br>Michael A. Strawn<br>CHIEF, BUREAU OF UTILITIES | DEPARTMENT OF PLANNING AND ZONING<br>HOWARD COUNTY, MARYLAND<br>[Signature]<br>CHIEF, DEVELOPMENT ENGINEERING DIVISION | FISHER, COLLINS & CARTER, INC.<br>CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS<br>1000 SQUARE OFFICE PARK, SUITE 202, BALTIMORE, MARYLAND 21201<br>4100-461-2895 | 49757<br>[Seal]<br>TERRELL A. FISHER | DESIGNED BY: P.W.E.<br>DRAWN BY: L.M.<br>CHECKED BY: P.W.E.<br>DATE: OCTOBER, 1998      | WATER & SEWER MAINS<br>PROFILES<br>NOTES AND DETAILS | BISHOP PROPERTY I & II<br>BISHOP PROPERTY II, LOTS 1-5<br>CONTRACT NO. 24-3709-D<br>SECOND ELECTION DISTRICT<br>HOWARD COUNTY, MARYLAND | SCALE AS SHOWN<br>SHEET 2 OF 3 |
|  |  |  |                                      | 600' SCALE MAP NO. 16 BLOCK NO. 23<br>F.C.C. WORK ORDER NO. 30579<br>FILE NAME: G/30579 |  |   |                                |

## SECTION 20 : STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION

Using vegetation as cover for barren soil to protect it from erosion.

Vegetative stabilization specifications are used to promote the establishment of vegetation on exposed soil. When soil is stabilized with vegetation, the soil is less likely to erode, thereby reducing sediment loads and run-off to downstream areas, and improving wildlife habitat and visual resources.

This practice shall be used on denuded areas or specified on the plans and on highly erodible or critically eroding areas. This specification is divided into Temporary Seeding, to quickly establish vegetative cover for short duration (up to one year), and Permanent Seeding, for long term vegetative cover. Examples of applicable areas for Temporary Seeding are temporary soil stockpiles, cleared areas, construction areas, earth dams, etc. and for Permanent Seeding are lawns, dunes, cut and fill slopes and other areas of final grade, former stockpiles and staging areas, etc.

Planting vegetation in disturbed areas will have an effect on the water budget, especially on volume and rates of runoff, infiltration evaporation, transpiration, percolation, and groundwater recharge. Vegetation, over time, will increase organic matter content and improve the water holding capacity of the soil and subsequent plant growth. Vegetation will help reduce the movement of sediment, nutrients, and other chemicals carried by runoff to receiving waters. Plants will also help protect groundwater supplies by stabilizing those substances present within the root zone.

Sediment control devices must remain in place during grading, seedbed preparation, seeding, mulching and vegetative establishment to prevent large quantities of sediment and associated chemicals and nutrients from washing into surface waters.

**DEFINITION**  
CONDICTIONS WHERE PRACTICE APPLIES  
Grade stabilization structures, berms, waterways, or sediment control basins.

**A. Site Preparation**  
1. Install erosion and sediment control structures (either temporary or permanent) such as diversions, grade stabilization structures, berms, waterways, or sediment control basins.

**B. Soil Amendments (Fertilizer and Lime Specifications)**  
1. Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas over 5 acres. Soil analysis may be performed by the University of Maryland or a recognized commercial laboratory. Soil samples taken for engineering purposes may also be used for chemical analysis.

**C. Temporary Seeding**  
1. Seeded preparation shall consist of loosening soil to a depth of 3" to 5" by means of suitable agricultural or construction equipment, such as disc harrows or chisel plows or rippers mounted on construction equipment. After the soil is loosened it should not be rolled or dragged smooth, but left in the roughened condition. Sloped areas (greater than 3:1) should be treated leaving the surface in an irregular condition with ridges running parallel to the contour of the slope.

**D. Seed Specifications**  
1. All seed must meet the requirements of the Maryland State Seed Law. All seed shall be subject to re-testing by a recognized seed laboratory. All seed used shall have been tested within 6 months immediately preceding the date of sowing or material on the job.

**E. Methods of Seeding**  
1. Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer), broadcast or drop seeded, or a cutbacker seeder.

**F. Mulch Specifications (in order of preference)**  
1. Straw shall consist of thoroughly threshed wheat, rye or oat straw, reasonable bright in color, and shall not be musty, moldy, caked, decayed, or excessively dusty and shall be free of noxious weed seeds as specified in the Maryland Seed Law.

## SEDIMENT CONTROL NOTES

- 1) A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (313-1855).
- 2) ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERE TO.
- 3) FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: a) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DICES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3:1; b) 14 DAYS AS TO ALL OTHER DISTURBED AREAS ON THE PROJECT SITE.

ALL SEDIMENT TRAPS/BASINS SHALL BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.

ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1984 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (SEC. 31), SOO (SEC. 54), TEMPORARY SEEDING (SEC. 50), AND MULCHING (SEC. 52). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.

ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMITS FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

7) SITE ANALYSIS:  
TOTAL AREA OF SITE: 4,150 ACRES  
AREA DISTURBED: 0.411 ACRES  
AREA TO BE ROCKED OR PAVED: 0.154 ACRES  
AREA TO BE VEGETATIVELY STABILIZED: 3.717 ACRES  
TOTAL CUT: 1,046.46 CU YDS.  
TOTAL FILL: 0.000 CU YDS.

OFFSITE WASTE/BORROW AREA LOCATION: N/A  
ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.

ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR. ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY GRADING, DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.

TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

## PERMANENT SEEDING NOTES

ALL DISTURBED AREAS SHALL BE STABILIZED AS FOLLOWS:  
**SEEDING PREPARATION:**  
LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING.

**SOIL AMENDMENTS:**  
APPLY TWO TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS./1,000 SQ.FT.) AND 500 LBS. PER ACRE 20-20 FERTILIZER (14 LBS./1,000 SQ.FT.) BEFORE SEEDING HARROW OR DISC INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS. PER ACRE 36-0-0 UREANOUS FERTILIZER (9 LBS./1,000 SQ.FT.) AND 500 LBS. PER ACRE (11 LBS./1,000 SQ.FT.) OF 10-20-20 FERTILIZER.

**SEEDING:**  
FOR THE PERIODS MARCH 1 THROUGH APRIL 30, AND AUGUST 1 THROUGH OCTOBER 15, SEED WITH 100 LBS. PER ACRE (2.3 LBS./1,000 SQ.FT.) OF KENTUCKY 31 TALL FESCUE, FOR THE PERIOD MAY THROUGH JULY, SEED WITH 80 LBS./ACRE (1.4 LBS./1,000 SQ.FT.) KENTUCKY 31 TALL FESCUE AND 2 LBS. PER ACRE (0.07 LBS./1,000 SQ.FT.) OF WEEDING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 THROUGH FEBRUARY 28, PROJECT SITE BY: OPTION (1) - TWO TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING; OPTION (2) - USE SOO; OPTION (3) - SEED WITH 100 LBS./ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH TWO TONS/ACRE WELL ANCHORED STRAW. ALL SLOPES SHOULD BE HYDROSEEDED.

**MULCHING:**  
APPLY 1.5 TO 2 TONS PER ACRE (10 TO 90 LBS./1,000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING 200 GALLONS PER ACRE (5 GAL./1,000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL./1,000 SQ.FT.) FOR ANCHORING.

**MAINTENANCE:**  
INSPECT ALL SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

## TEMPORARY SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.  
**SEEDING PREPARATION:**  
LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

**SOIL AMENDMENTS:**  
APPLY 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS./1,000 SQ.FT.)

**SEEDING:**  
FOR THE PERIODS MARCH 1 THROUGH APRIL 30, AND AUGUST 15 THROUGH NOVEMBER 15, SEED WITH 1.5 BUSHELLS PER ACRE OF ANNUAL RYE (3.2 LBS./ACRE) OR WEEDING LOVEGRASS (0.7 LBS./1,000 SQ.FT.) FOR THE PERIOD NOVEMBER 16 THRU FEBRUARY 28, PROJECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOO.

**MULCHING:**  
APPLY 1.5 TO 2 TONS PER ACRE (10 TO 90 LBS./1,000 SQ.FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GAL./1,000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL./1,000 SQ.FT.) FOR ANCHORING.

REFER TO THE 1988 MARYLAND STANDARDS AND SPECIFICATION FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

## SECTION 21 : STANDARD AND SPECIFICATIONS FOR TOPSOIL

- 1) DEFINITION: PLACEMENT OF TOPSOIL OVER A PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION.
- 2) PURPOSE: TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH.
- 3) SPECIFICATIONS: A. TOPSOIL SHALL BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, OR LOAMY SAND.  
B. TOPSOIL SHALL NOT BE A MIXTURE OF CONTRASTING SUBSOILS.  
C. TOPSOIL SHALL CONTAIN LESS THAN 5% BY VOLUME OF DIMERS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1/2" IN DIAMETER.  
D. TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4" - 6" LAYER AND LIGHTLY COMPACTED TO A MINIMUM THICKNESS OF 4".  
E. PLACE TOPSOIL AND APPLY SOIL AMENDMENTS AS SPECIFIED IN "STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION".  
F. TOPSOIL SHALL NOT BE PLACED DURING FROZEN, MUDDY, OR EXCESSIVELY WET CONDITIONS.
- 4) APPLICATION:

## DEVELOPER'S CERTIFICATION

I/WE HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR EROSION AND SEDIMENT CONTROL, REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY CONSERVATION DISTRICT.

*Michael McCann*  
SIGNATURE OF DEVELOPER  
DATE: 8/27/88

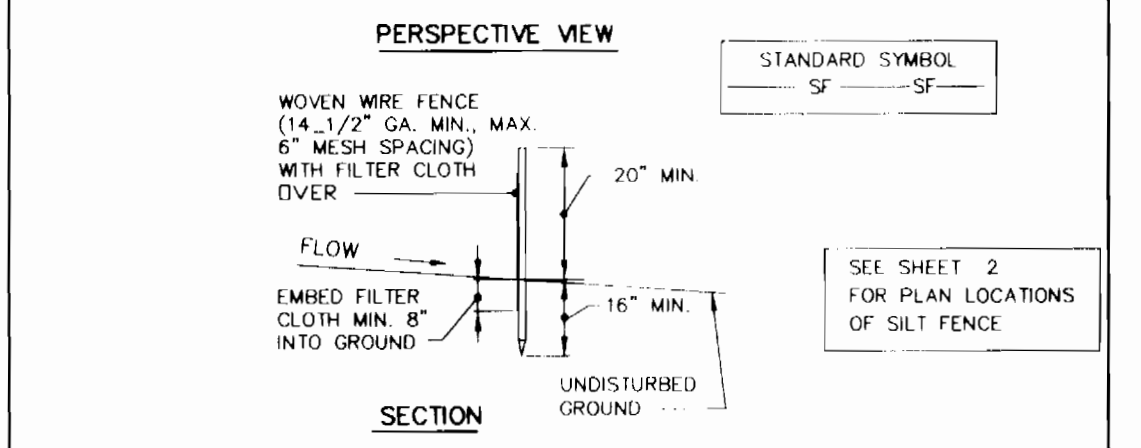
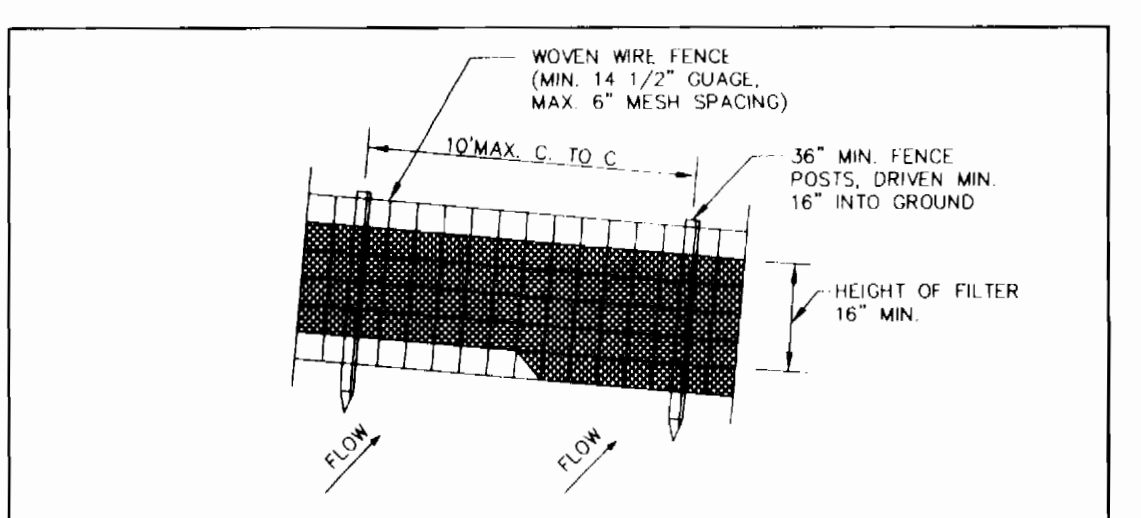
## ENGINEER'S CERTIFICATION

I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY CONSERVATION DISTRICT.

*Paul A. Fisher*  
SIGNATURE OF ENGINEER  
DATE: 08/27/88

## SEQUENCE OF CONSTRUCTION

1. OBTAIN THE REQUIRED GRADING PERMITS
2. NOTIFY MDP UTILITY 48 HOURS BEFORE ANY WORK (1-800-287-1111)
3. NOTIFY HOWARD COUNTY INSPECTION DIVISION 48 HOURS BEFORE DISTURBING ANY WORK (410-313-1010)
4. INSTALL THE REQUIRED PERIMETER EROSION CONTROL DEVICES AS INDICATED ON THE PLANS
5. CLEAR AND GRADE AS NECESSARY; ONLY AS REQUIRED FOR EXAMINATION AND INSTALLATION OF THE WATER AND POWER MAINS; AND ONLY WITHIN THE DESIGNATED WIDTH, PERKS AND UTILITY EXEMPTIONS (1 DAY)
6. NOTE: THE LENGTH OF OPEN WATER AND POWER MAIN TRENCH SHALL BE LIMITED TO THREE (3) PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE (1) WORKING DAY, WHICHEVER IS SHORTER.
7. MAINTAIN THE WATER AND POWER MAINS AND APPURTENANCES (1 DAY)
8. STABILIZE FILL AND MULCH ALL DISTURBED AREAS IN ACCORDANCE WITH THE PERMANENT SEEDING NOTES SHOWN ON THIS PROJECT (1 DAY)
9. FOLLOWING SUCCESSFUL STABILIZATION OF ALL DISTURBED AREAS; AND OBTAIN PERMITS HAVE BEEN OBTAINED FROM THE HOWARD COUNTY PERMITTING DIVISION, REMOVE ALL EROSION AND SEDIMENT CONTROL DEVICES (1 DAY)



- CONSTRUCTION NOTES FOR FABRICATED SILT FENCE**
1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS: STEEL EITHER 1" OR 1 1/2" TYPE OR 2" HARDWOOD
  2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE: WOVEN WIRE, 14 GA. 6" MAX. MESH OPENING
  3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHOULD BE OVERLAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH: FILTER X, MIRAFI 100X, STABIL X 114 ON OR APPROVED EQUAL
  4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE. PREFABRICATED UNIT: GEOPAF ENFORCEMENT, OR APPROVED EQUAL
- SILT FENCE**  
NOT TO SCALE

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*Michael D. Sullivan*  
CHIEF, BUREAU OF UTILITIES  
DATE: 11/3/88

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND

*Paul A. Fisher*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
DATE: 11/16/88

#0757  
FISHER, COLLINS & CARTER, INC.  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PARK  
ELIOTT CITY, MARYLAND 20624  
(410) 481 - 2853

*Terrell A. Fisher*  
TERRELL A. FISHER  
DATE: 08/27/88

| DESIGNED BY : | DATE:    |
|---------------|----------|
| M.J.M.        | 08/27/88 |
| DRAWN BY :    | DATE:    |
| M.J.M.        | 08/27/88 |
| CHECKED BY :  | DATE:    |
| P.W.K.        | 08/27/88 |
| DATE:         | BY NO.   |
| 08/27/88      |          |
| REVISION      | DATE     |
|               |          |

NOTES AND DETAILS

600' SCALE MAP NO. 16 BLOCK NO. 23  
F.C.C. WORK ORDER NO. 30579  
FILE NAME: G:\LIBRARY\WATSEW\BLANKS\DETAILS\BISHOP.DWG

BISHOP PROPERTY  
BISHOP PROPERTY II; LOTS 1-5  
BISHOP PROPERTY III; LOTS 1-5  
CONTRACT NO. 24-3709-D  
SECOND ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 3 OF 3

CONTRACT NO. 24-3709-D  
BISHOP PROPERTY  
BISHOP PROPERTY II  
BISHOP PROPERTY III  
WATER AND SEWER MAIN EXTENSIONS  
HOWARD COUNTY, MARYLAND