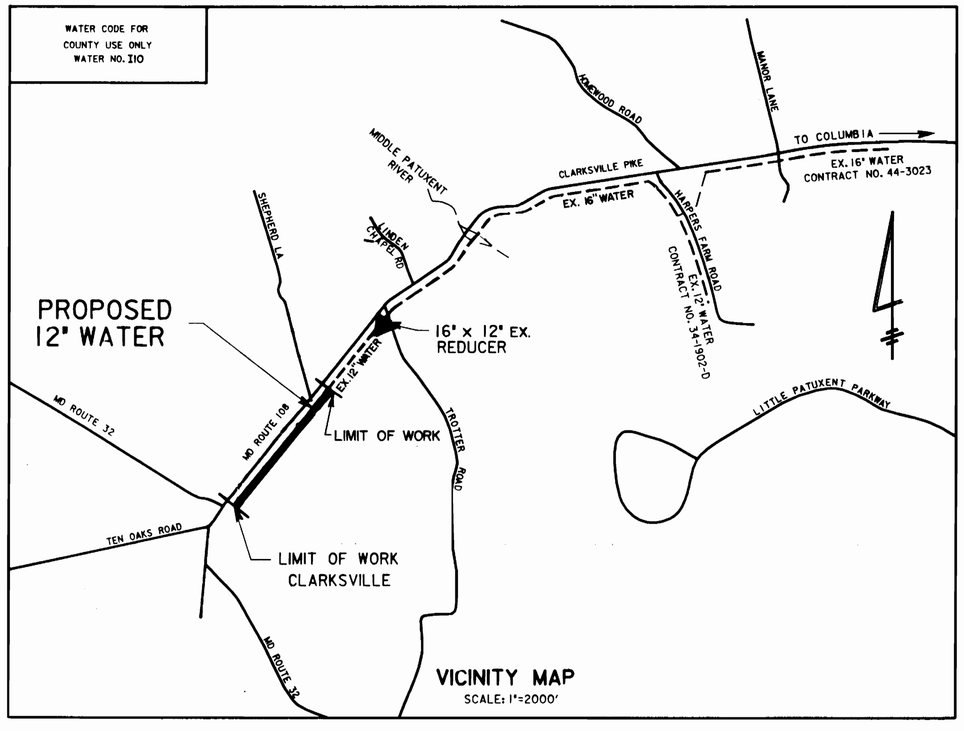
3340 W/1 Md. Rte 108 Water Main (Cap. Proj. # W-8178)

# MD. ROUTE 108
# WATER MAIN
# HOWARD COUNTY, MARYLAND
## DEPARTMENT OF PUBLIC WORKS
## CONTRACT NO. 20-3340

| QUANTITIES | | | | |
|---|---|---|---|---|
| ITEM | UNIT | ESTIMATE | AS-BUILT | MATERIAL SUPPLIER |
| 12" WATER MAIN | L.F. | 3850 | 3828 | GRIFFIN PIPE PROD. |
| 8" WATER MAIN | L.F. | 305 | 208 | GRIFFIN PIPE PROD. |
| 6" WATER MAIN | L.F. | 95 | 79 | GRIFFIN PIPE PROD. |
| BLOWOFF HYDRANT | EACH | 4 | 4 | ECLIPSE/KUPFERLE (B.R.S.) |
| AIR RELEASE VALVE | EACH | 4 | 4 | APCO (B.R.S.) |
| 12" VALVE | EACH | 4 | 5 | MUELLER (B.R.S.) |
| 8" VALVE | EACH | 5 | 4 | MUELLER (B.R.S.) |
| 6" VALVE | EACH | 8 | 8 | MUELLER (B.R.S.) |
| FIRE HYDRANT | EACH | 8 | 8 | U.S. PIPE |
| STEEL TUNNEL CASING | L.F. | 100 | 120 | BALT. PIPE (B.R.S.) |
| 3/4" W.H.C. | L.F. | 175 | 212 | HOWELL METAL (B.R.S.) |
| 1 1/2" W.H.C. | L.F. | 90 | 150 | HOWELL METAL (B.R.S.) |
| 2" W.H.C. | L.F. | 20 | 30 | HOWELL METAL (B.R.S.) |
| | | | | |

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH VOLUME 4 ~~ARTICLE 2~~ SECTION 2.3 OF THE HOWARD COUNTY DESIGN MANUAL AND THIS PLAN.




VICINITY MAP
SCALE: 1"=2000'

### GENERAL NOTES

Part I

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. data.
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 tunnel as required. The owner has contacted the utility companies and has made arrangements for bracing of poles as shown on the drawings. In the event the Contractor's work requires the bracing of additional poles, any cost incurred by the owner for the bracing of additional poles or damages shall be deducted from money owed the Contractor. The Contractor shall coordinate with the utility companies to schedule the bracing of the poles.
6. For details not shown on the drawings, and for materials and construction methods, use Howard County Design Manual, Volume IV, Standard Specification 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 operation at his own expense.
8. Contractor shall notify the following utility companies or agencies at least five working days before starting work shown on these plans:
   State Highway Administration -531-5533

   Baltimore Gas and Electric Co. -Contractor Services 850-4620
   Baltimore Gas and Electric Co. underground Damage Control 859-9004
   Miss Utility -1-800-257-7777
   Chesapeake and Potomac Telephone Co.- 597-8585
   Colonial Pipeline Co.- 795-1390
   Bureau of Utilities, Howard County Department of Public Works 313-4900
9. Trees and shrubs are to be protected from damage to the 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. Payment for such removal shall be included in the unit price bid for construction of the main.

Part II WATER

1. All water mains to be D.I.P. Class 52 unless otherwise noted.
2. Tops of all water mains to have a minimum of 3'-6" of cover unless otherwise noted.
3. Valves adjacent to tees shall be strapped to tees.
4. All fittings shall be buttressed or anchored with concrete in accordance with the Standard Details. Soil around the fire hydrant shall be compacted in accordance with Section 1000 of the Standard Specifications.
5. Fire hydrant shall be set to bury line 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 shall be compacted in accordance with Section 1000 of the Standard Specifications.
6. The Contractor shall not operate any water main valves on the existing water system.
7. Length of disturbance/open trench must be limited to three pipe sections or to the length which can be backfilled and stabilized in one working day, whichever is shorter.

TYPE OF BUILDING: RESIDENTIAL, COMMERCIAL
NUMBER OF PARCELS:
NO. OF WATER HOUSE CONNECTIONS: 12
DRAINAGE AREA: MIDDLE PATUXENT RIVER

AS BUILT 2/7/95

| DEVELOPER'S CERTIFICATION | ENGINEER'S CERTIFICATION |
|---|---|
| "I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODING ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT. | "I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODING ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT. |
| BUREAU OF ENGINEERING, DEPARTMENT OF PUBLIC WORKS — DATE 8/12/94 | JOHN C. WALLACE, P.E. — DATE 8.11.94 |
| REVIEWED FOR HOWARD S.C.D. AND MEETS TECHNICAL REQUIREMENTS. | THIS DEVELOPMENT PLAN IS APPROVED FOR THE SOIL EROSION & SEDIMENT CONTROL BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT |
| U.S. SOIL CONSERVATION SERVICE — DATE 8/15/94 | APPROVED HOWARD COUNTY S.C.D. — DATE 8/15/94 |

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

DIRECTOR OF PUBLIC WORKS/Acting — DATE 8/12/94
CHIEF - BUREAU OF ENGINEERING — DATE 8/12/94
CHIEF, BUREAU OF UTILITIES — DATE 8-12-94
CHIEF, UTILITY DESIGN DIVISION — DATE 8-12-94

WALLACE, MONTGOMERY & ASSOCIATES
110 WEST ROAD
TOWSON, MARYLAND 21204
(410) 494-9093

DES: DRN: CHK: DATE:

| BY | NO. | REVISION | DATE |
|---|---|---|---|
| W.M.A. | 1 | AS BUILT | 2/7/95 |

TITLE SHEET
GENERAL NOTES

600' SCALE NO. 34 BLOCK NO.

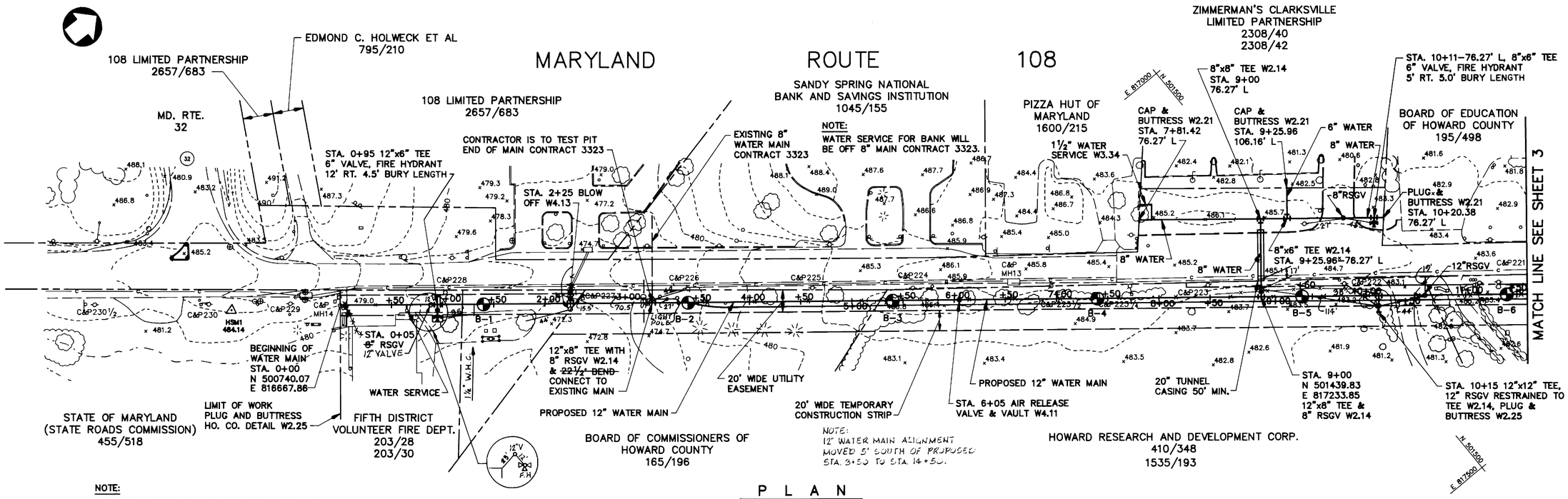
MARYLAND ROUTE 108 ROAD WATER EXTENSION
CAPITAL PROJECT W-8178
CONTRACT NO. 20-3340
ELECTION DISTRICT NO. 5
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

SHEET 1 OF 5

EP-95-03

3340 W/2 Md. Rte 108 Water Main (W-8178)



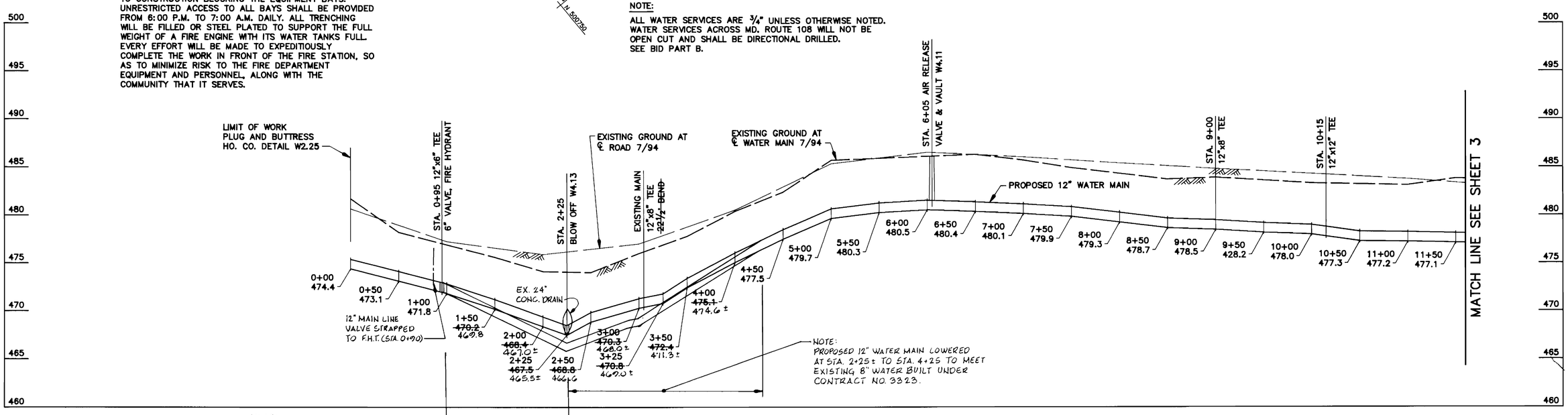

PLAN

SCALE: 1"=50'

NOTE:
THE CONTRACTOR WILL COORDINATE CONSTRUCTION ACTIVITIES WITH THE FIFTH DISTRICT FIRE DEPARTMENT DURING THE WORKING HOURS OF 7:00 A.M. TO 6:00 P.M. DAILY. THE CONTRACTOR WILL GIVE THE STATION OFFICER ON DUTY 30 MINUTES ADVANCE NOTICE PRIOR TO CONSTRUCTION BLOCKING THE EQUIPMENT BAYS. UNRESTRICTED ACCESS TO ALL BAYS SHALL BE PROVIDED FROM 6:00 P.M. TO 7:00 A.M. DAILY. ALL TRENCHING WILL BE FILLED OR STEEL PLATED TO SUPPORT THE FULL WEIGHT OF A FIRE ENGINE WITH ITS WATER TANKS FULL. EVERY EFFORT WILL BE MADE TO EXPEDITIOUSLY COMPLETE THE WORK IN FRONT OF THE FIRE STATION, SO AS TO MINIMIZE RISK TO THE FIRE DEPARTMENT EQUIPMENT AND PERSONNEL, ALONG WITH THE COMMUNITY THAT IT SERVES.

NOTE:
ALL WATER SERVICES ARE ¾" UNLESS OTHERWISE NOTED. WATER SERVICES ACROSS MD. ROUTE 108 WILL NOT BE OPEN CUT AND SHALL BE DIRECTIONAL DRILLED. SEE BID PART B.

NOTE:
FOR 8" WATER MAIN PROFILES, SEE SHEET 5.




PROFILE

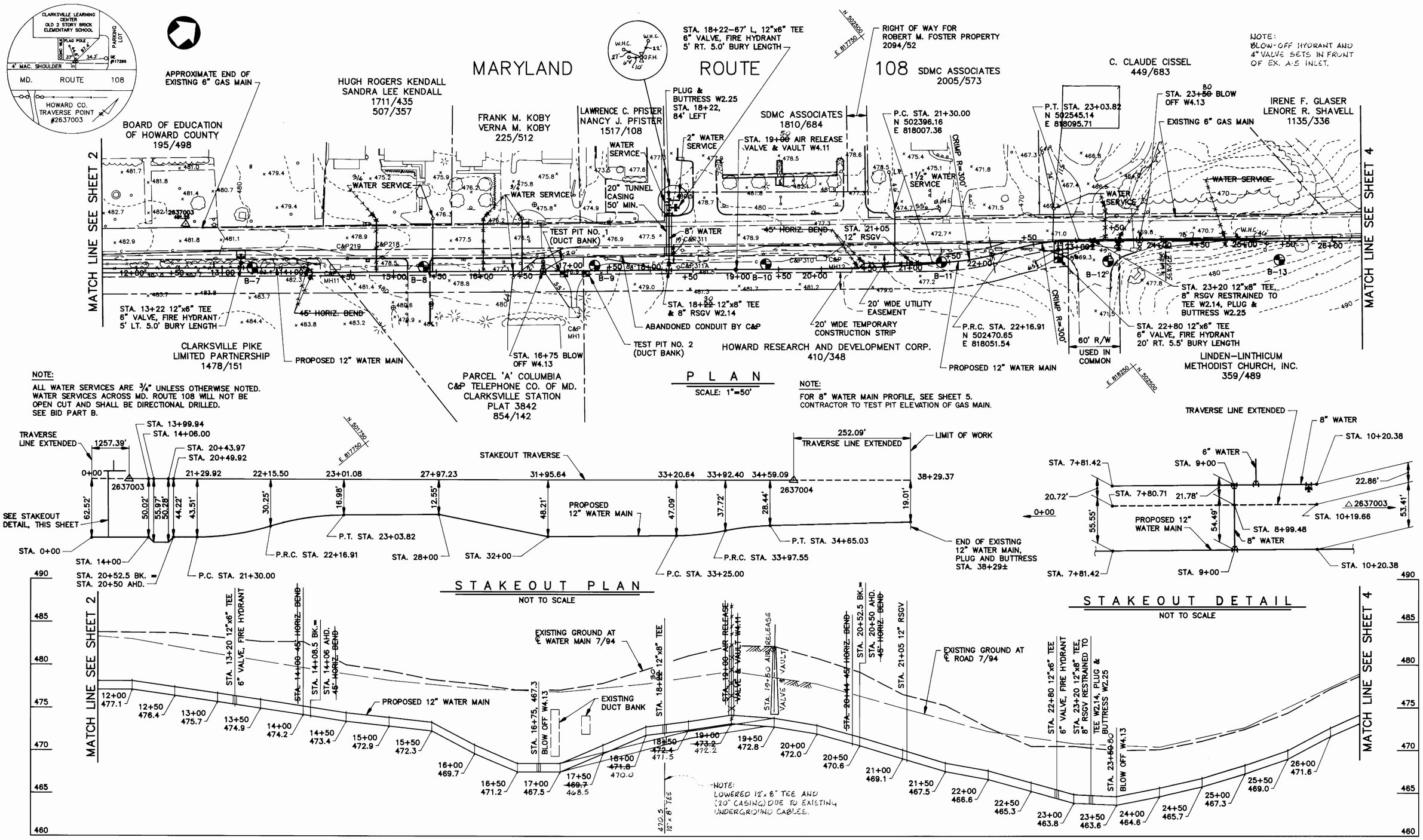
SCALE: 1"=50' HORIZ.
1"=5' VERT.

AS BUILT 2/7/95

| | | | |
|---|---|---|---|
| DEPARTMENT OF PUBLIC WORKS<br>HOWARD COUNTY, MARYLAND<br>DIRECTOR OF PUBLIC WORKS — DATE 8/12/94<br>CHIEF, BUREAU OF ENGINEERING — DATE 8/12/94<br>CHIEF, BUREAU OF UTILITIES — DATE 8-12-94<br>CHIEF, WATER AND SEWER DESIGN DIVISION — DATE 8-12-94 | WALLACE, MONTGOMERY & ASSOCIATES<br>110 WEST ROAD<br>TOWSON, MARYLAND 21204<br>(410) 494-9093 | DES: J.C.W.<br>DRN: D.E.D.<br>CHK: J.C.W.<br>DATE: 7/94<br>BY / NO. / REVISION / DATE<br>600' SCALE MAP NO. ____ BLOCK NO. ____ | MARYLAND ROUTE 108 ROAD WATER EXTENSION<br>CAPITAL PROJECT W-8178<br>CONTRACT NO. 20-3340<br>ELECTION DISTRICT NO. 5<br>HOWARD COUNTY, MARYLAND |
| | | | SCALE AS SHOWN<br>SHEET 2 OF 5 |

Water Main (W-8178)

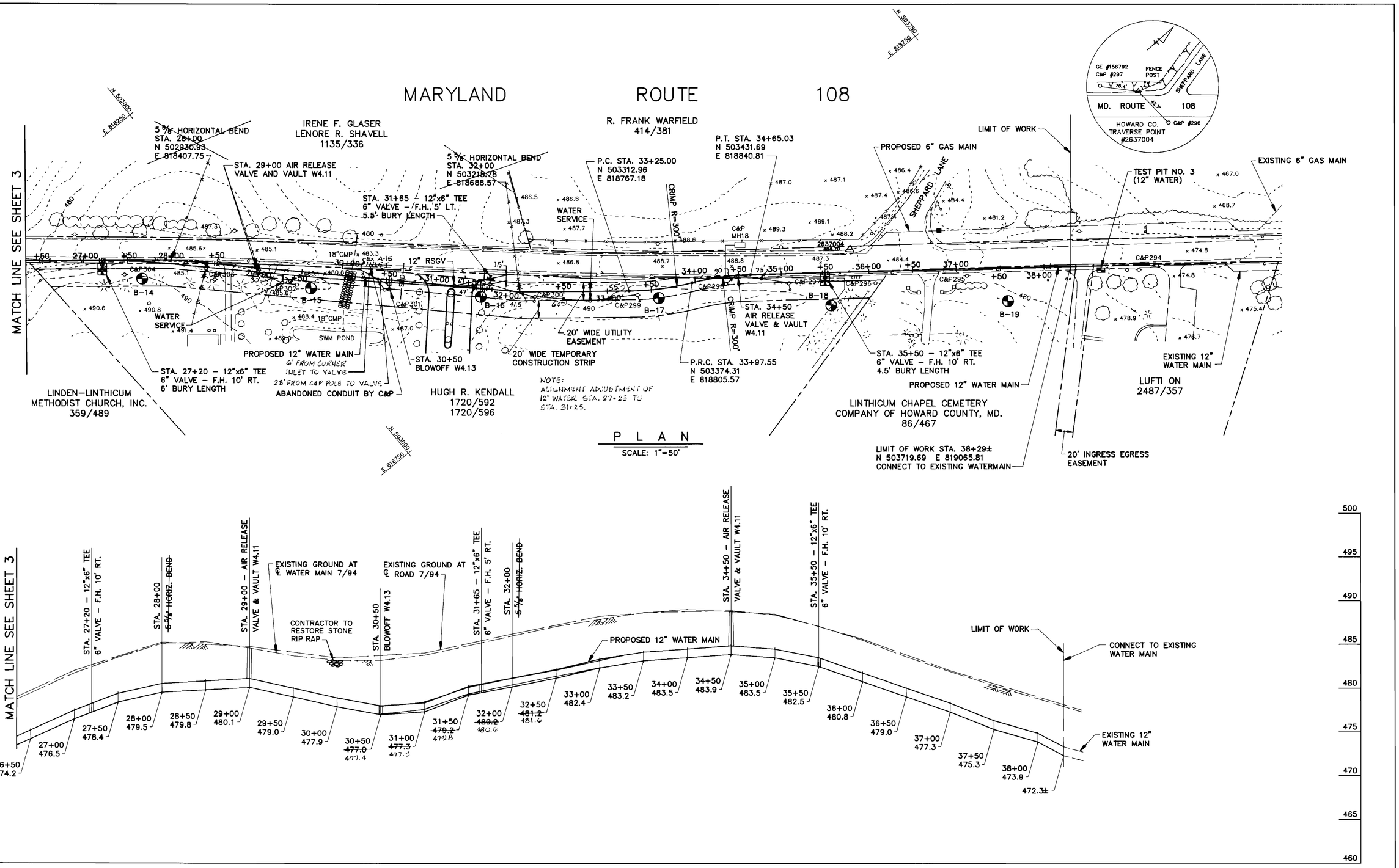
3340 W/3 Md. Rte 108




| DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND | WALLACE, MONTGOMERY & ASSOCIATES 110 WEST ROAD TOWSON, MARYLAND 21204 (410) 494-9093 | DES: J.C.W. DRN: D.E.D. CHK: J.C.W. DATE: 7/94 | BY / NO. / REVISION / DATE | 600' SCALE MAP NO. ____ BLOCK NO. ____ | MARYLAND ROUTE 108 ROAD WATER EXTENSION CAPITAL PROJECT W-8178 CONTRACT NO. 20-3340 ELECTION DISTRICT NO. 5 HOWARD COUNTY, MARYLAND | SCALE AS SHOWN / SHEET 3 OF 5 |
|---|---|---|---|---|---|---|

DIRECTOR OF PUBLIC WORKS — DATE 8/12/94
CHIEF, BUREAU OF ENGINEERING — DATE 8/12/94
CHIEF, BUREAU OF UTILITIES — DATE 8-12-94
CHIEF, WATER AND SEWER DESIGN DIVISION — DATE 8-12-94

3340 W/4 Md. Rte. 108 Water Main (W-8178)




PLAN

SCALE: 1"=50'




PROFILE

SCALE: 1"=50' HORIZ.
1"=5' VERT.

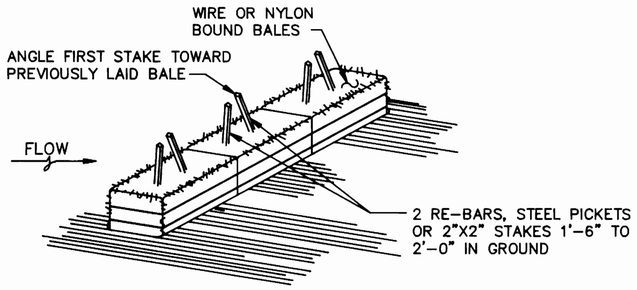
AS BUILT 2/7/95

| DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND | WALLACE, MONTGOMERY & ASSOCIATES 110 WEST ROAD TOWSON, MARYLAND 21204 (410) 494-9093 | DES: J.C.W. / DRN: D.E.D. / CHK: J.C.W. / DATE: 7/94 | BY / NO. / REVISION / DATE | 600' SCALE MAP NO. ____ BLOCK NO. ____ | MARYLAND ROUTE 108 ROAD WATER EXTENSION CAPITAL PROJECT W-8178 CONTRACT NO. 20-3340 ELECTION DISTRICT NO. 5 HOWARD COUNTY, MARYLAND | SCALE AS SHOWN / SHEET 4 OF 5 |
|---|---|---|---|---|---|---|

DIRECTOR OF PUBLIC WORKS — DATE 8/12/94
CHIEF, BUREAU OF ENGINEERING — DATE 8/12/94
CHIEF, BUREAU OF UTILITIES — DATE 8-12-94
CHIEF, WATER AND SEWER DESIGN DIVISION — DATE 8-12-94

3340 w/S Md. Rte 108 Water Main (W-8178)

EMBEDDING DETAIL




ANCHORING DETAIL

## CONSTRUCTION SPECIFICATIONS

1. BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4".
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY STAKES OR RE-BARS DRIVEN THRU THE BALES. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD PREVIOUSLY LAID BALE TO FORCE BALES TOGETHER.
4. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
5. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

STANDARD SYMBOL – ———— S.B.D. ————

## STRAW BALE DIKE DETAIL

NOT TO SCALE

## SEDIMENT CONTROL NOTES

1. A MINIMUM OF 24 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY OFFICE OF INSPECTION AND PERMITS PRIOR TO THE START OF ANY CONSTRUCTION. (880-3450)
2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH SEC. 219 OF THE HOWARD COUNTY STANDARDS AND SPECIFICATIONS.
3. FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: a) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1, b) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
4. ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPER 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
5. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE "1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" FOR PERMANENT SEEDINGS (SEC. 51) SOD (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.
6. ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
7. SITE ANALYSIS:

| | | |
|---|---|---|
| TOTAL AREA OF SITE | 1.87 | ACRES |
| AREA DISTURBED | 0.47 | ACRES |
| AREA TO BE ROOFED OR PAVED | 0.13 | ACRES |
| AREA TO BE VEGETATIVELY STABILIZED | 0.34 | ACRES |
| TOTAL CUT | 3014 | CU. YDS. |
| TOTAL FILL | 3014 | CU. YDS. |
| OFFSITE WASTE/BORROW AREA LOCATION | | |

8. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
9. ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY DPW SEDIMENT CONTROL INSPECTOR.
10. 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 OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
11. ALL TRENCH MATERIAL SHOULD BE PLACED ON THE HIGHER SIDE OF THE TRENCH, ABOVE THE TOP-OF-CURB.

## PERMANENT SEEDING NOTES

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, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:

PREFERRED – APPLY 2 TONS PER ACRES DOLOMITIC LIMESTONE (92 LBS/1000 SQ FT.) AND 600 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ FT.) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL. AT THE TIME OF SEEDING, APPLY 400 LBS PER ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS/1000 SQ FT.)

ACCEPTABLE – APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ FT.) AND 1000 LBS PER ACRE 10-10-10 FERTILIZER (23 LBS/1000 SQ FT.) BEFORE SEEDING. HARROW OR DISK 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 60 LBS 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, PROTEST SITE BY: OPTION (1) 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 1½ 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 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ FT.) FOR ANCORING.

MAINTENANCE – INSPECT ALL SEEDED AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

## TEMPORARY SEEDING NOTES

APPLY TO GRADED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.

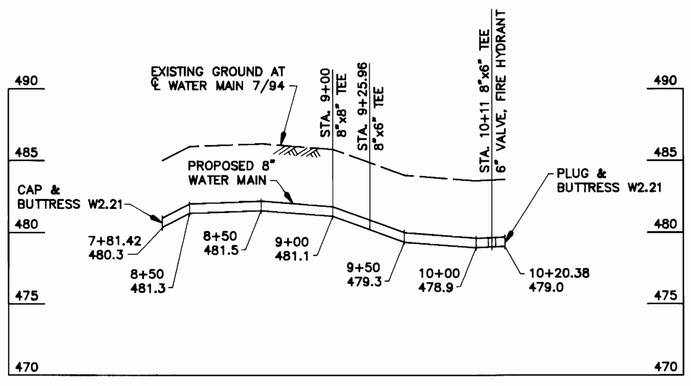
SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: APPLY 60 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ FT.)
SEEDING: FOR PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU OCTOBER 15, SEED WITH 2-½ BUSHEL PER ACRE 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 TH PERIOD NOVEMBER 16 THRU FEBRUARY 28, PROTECT SITE BT APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOD.

MULCHING: APPLY 1½ 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.

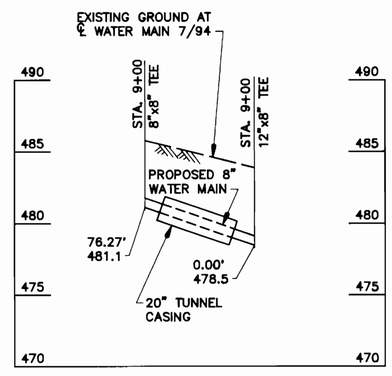
| RESTORATION SCHEDULE | | |
|---|---|---|
| LOCATION | DISTANCE | TYPE |
| STA. 0+00 TO STA. 15+15 | 1515 FT. | SEEDING |
| STA. 15+15 TO STA. 15+42 | 27 FT. | PAVING |
| STA. 15+42 TO STA. 22+75 | 733 FT. | SEEDING |
| STA. 22+75 TO STA. 29+00 | 625 FT. | PAVING |
| STA. 29+00 TO STA. 30+95 | 195 FT. | SEEDING |
| STA. 30+95 TO STA. 31+45 | 50 FT. | PAVING |
| STA. 31+45 TO STA. 34+20 | 275 FT. | SEEDING |
| STA. 34+20 TO STA. 38+29± | 409 FT. | PAVING |
| STA. 7+81 TO STA. 9+61, 76' LT. | 180 FT. | SEEDING |
| STA. 9+26, 76' LT. TO 106' LT. | 30 FT. | SEEDING |
| STA. 9+61 TO STA. 9+96, 76' LT. | 35 FT. | PAVING |
| STA. 9+96 TO STA. 10+26, 76' LT. | 30 FT. | SEEDING |




STA. 7+81.42 TO STA. 10+20.38–76.27' LEFT

PROFILE

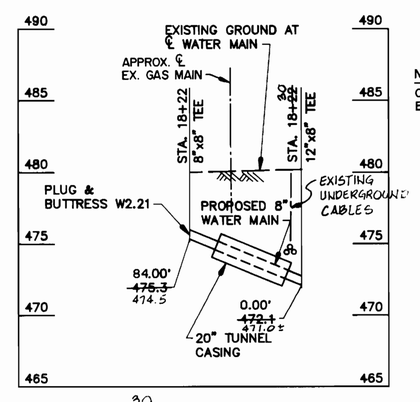
SCALE: 1"=50' HORIZ. 1"=5' VERT.




STA. 9+00–0.00' TO 76.27' LEFT

PROFILE

SCALE: 1"=50' HORIZ. 1"=5' VERT.




NOTE:
CONTRACTOR TO TEST PIT ELEVATION OF GAS MAIN.

STA. 18+~~22~~ 30–0.00' TO 84.00' LEFT

PROFILE

SCALE: 1"=50' HORIZ. 1"=5' VERT.

AS BUILT 2/7/95

| DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND | WALLACE, MONTGOMERY & ASSOCIATES 110 WEST ROAD TOWSON, MARYLAND 21204 (410) 494-9093 | DES: J.C.W. / DRN: D.E.D. / CHK: J.C.W. / DATE: 7/94 | BY / NO. / REVISION / DATE | 600' SCALE MAP NO. ____ BLOCK NO. ____ | MARYLAND ROUTE 108 ROAD WATER EXTENSION CAPITAL PROJECT W-8178 CONTRACT NO. 20-3340 ELECTION DISTRICT NO. 5 HOWARD COUNTY, MARYLAND | SCALE AS SHOWN / SHEET 5 OF 5 |
|---|---|---|---|---|---|---|

DIRECTOR OF PUBLIC WORKS — DATE 8/12/94
CHIEF, BUREAU OF ENGINEERING — DATE 8/12/94
CHIEF, BUREAU OF UTILITIES — DATE 8-12-94
CHIEF, WATER AND SEWER DESIGN DIVISION — DATE 8-12-94