

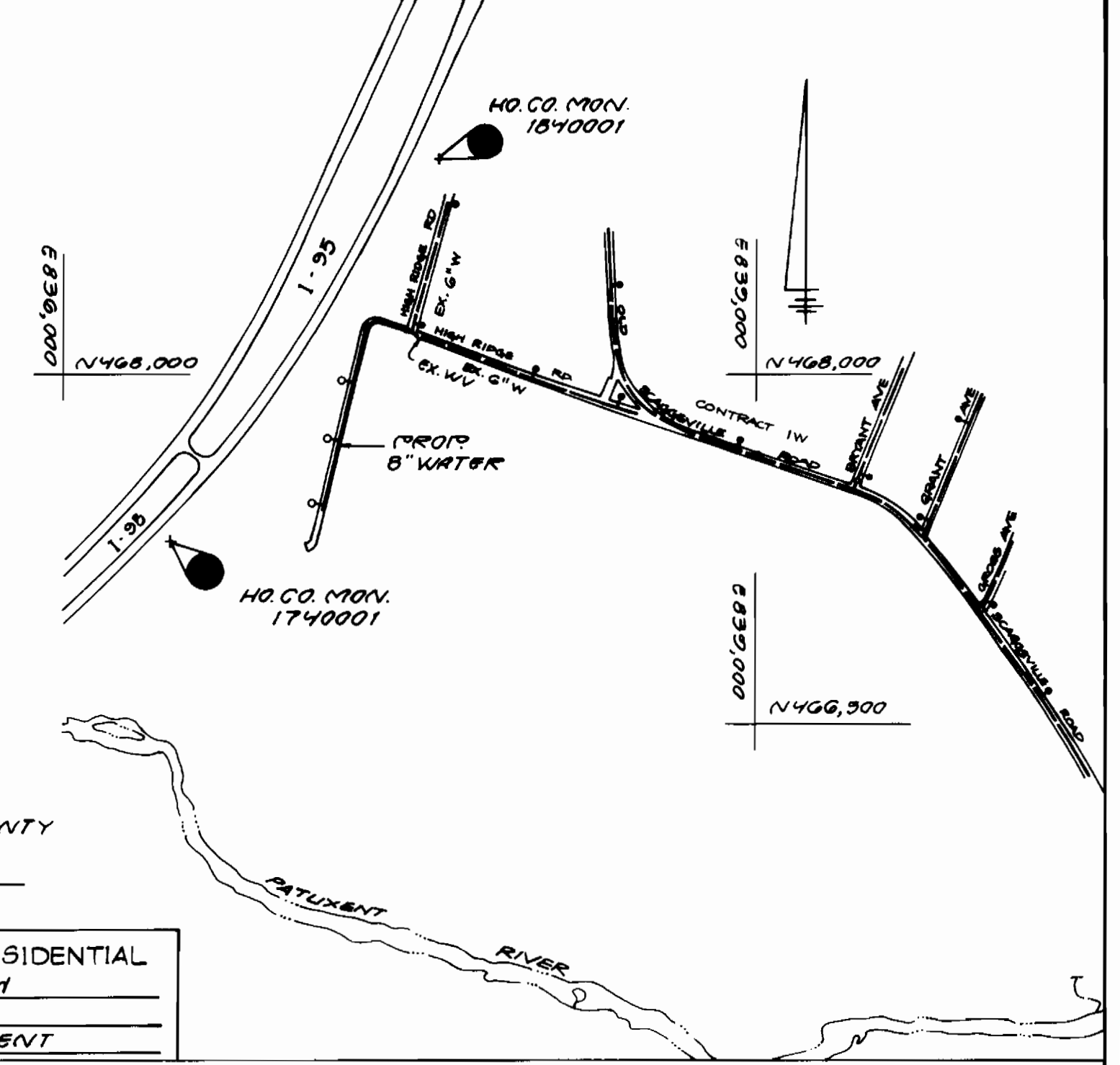
QUANTITIES				
ITEM	UNIT	ESTIMATE	AS BUILT	SUPPLIER
8" WATER	L.F.	1432		
8" 1/32 H.B.	EA.	2		
8" 1/8 H.B.	EA.	1		
8" X 0" TEE	EA.	3		
8" X 0" REDUCER	EA.	1		
8" CAP	EA.	1		
8" 1/16 H.B.	EA.	2		
0" WATER	L.F.	20		
0" VALVE	EA.	4		
FIRE HYDRANT	EA.	3		
3/4" W.H.C.	L.F.	188		
1" W.H.C.	L.F.	340		
3/4" METEN VALVE	EA.	2		

ROBERT LEE BOLTON  
1271 / 180  
R.1

# 10123  
1 STORY FRAME

NOTE: CONTRACTOR TO RESTORE EX. STONE ROAD TO ITS ORIGINAL CONDITION.

PLAN  
SCALE: 1" = 50'



WATER CODE FOR COUNTY USE ONLY.  
WATER NO. COG

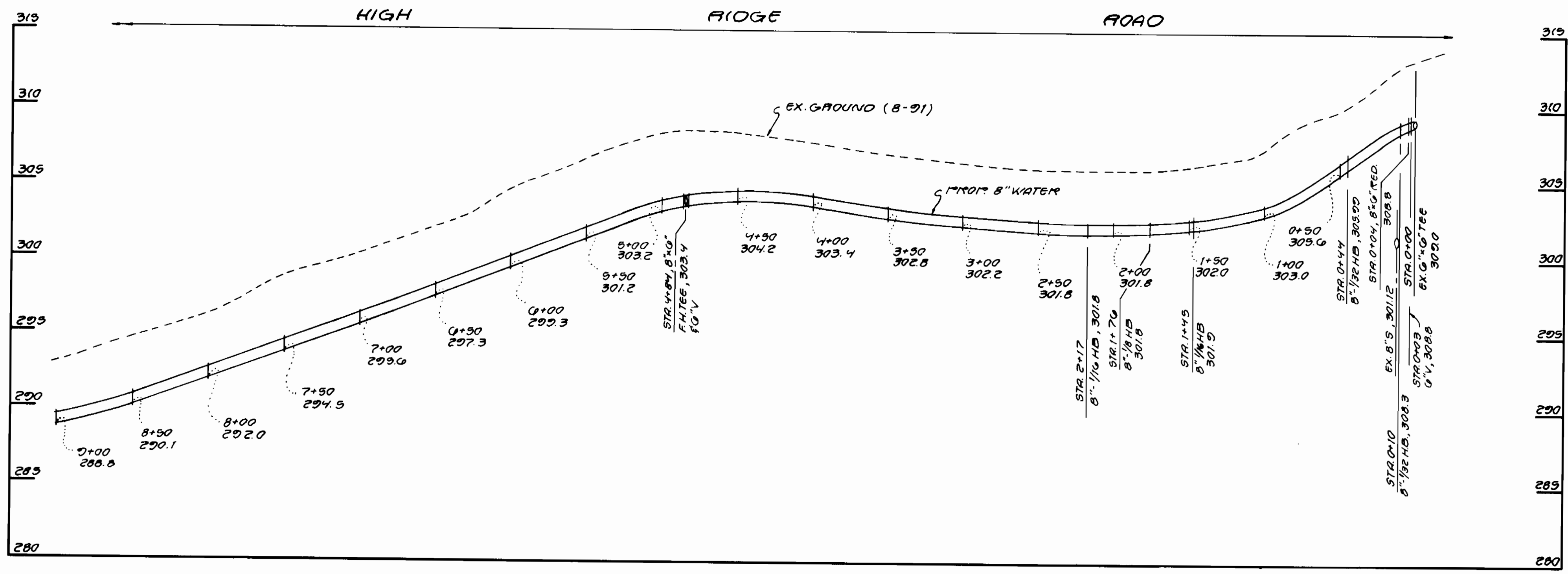
TYPE OF BUILDING: RESIDENTIAL  
NO. OF HOUSE CONN.: 14  
NO. OF PARCELS: 14  
DRAINAGE AREA: PATUXENT

VICINITY MAP  
SCALE: 1" = 600'

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 shown 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.
- 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.
- Where test pits have been made on existing utilities, they are noted by the symbol  $\boxtimes$  at location of 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 tests have not been dug shall be located by the Contractor two weeks in advance of Construction Operations at the Contractor's expense.
- The Contractor shall notify the following utility companies or agencies at least five working days prior to starting work shown on this plan:
 

C&P Telephone Company	597-8585
State Highway Administration	531-5533
Baltimore Gas & Electric Co. Contractor Service	850-4620
Baltimore Gas & Electric Co. Underground Damage Control	859-9354
Baltimore Gas & Electric Co. Trouble Shooting	298-9001
MISS UTILITY	1-800-257-7777
Colonial Pipeline	795-1330
Bureau of Utilities, Howard County Dept. of Public Works	313-4900
- 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.
- Contractor shall remove trees, stumps and roots along line of excavation. Payment for such removal shall be included in the unit price for construction of the main and service connections.
- All water mains shall be D.I.P. CI. 52 unless otherwise noted.
- Top of all water main pipe to have a minimum of 3 1/2' cover unless otherwise noted.
- Valves adjacent to tees shall be strapped to tees.
- All fittings shall be buttressed 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 elevations shown on the drawings. All Fire Hydrants shall be strapped and buttressed with concrete in accordance with the Standard Details. Soil around the fire hydrants shall be compacted in accordance with Section 1003 of the Standard Specs.
- The Contractor shall not operate any water main valves on the Existing Water System. Call Howard Co. Bureau of Utilities at 313-4900. Coordinate the tie-in to the existing 6" water at least five working days prior to scheduling.
- All Water House Connections shall be for Inside Meter Setting, unless otherwise noted on Plans or in the Specifications.
- Trench repair to be in accordance with Howard Co. Std. Details.



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

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS  
*[Signature]* 2/5/92  
DATE

This Construction Plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.  
APPROVED: *[Signature]* 2/5/92  
DATE

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*[Signature]* 2/5/92  
DIRECTOR OF PUBLIC WORKS DATE

*[Signature]* 1-30-92  
CHIEF, BUREAU OF UTILITIES DATE

HICKS ENGINEERING CO., INC.  
ENGINEERS - SURVEYORS - PLANNERS  
200 E. JOPPA ROAD - SUITE 402  
TOWSON MARYLAND 21204

*[Signature]* 1-23-92  
CHIEF, UTILITY DESIGN DIVISION DATE



DES. E.A.S.	DATE	REVISION	REVISOR
E.A.S.	1	REVISED PER HOWARD CO COMMENTS	2/24/92
DRN: E.A.S.			
CHK: D.E.H.			
DATE:	BY	NO.	REVISION

600' SCALE MAP NO. 47.90 BLOCK NO. 12.1

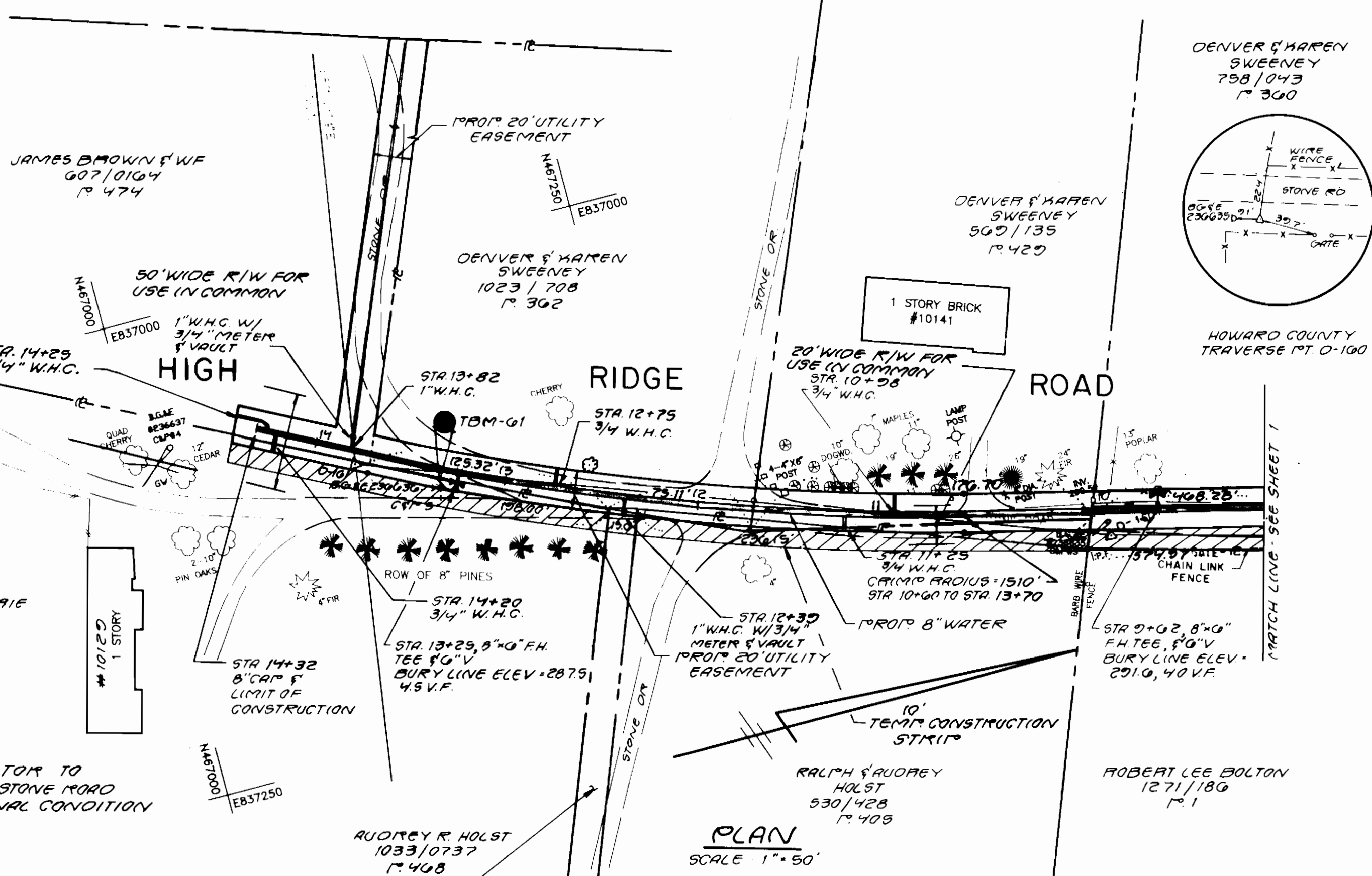
8" WATER MAIN  
CONTRACT NO. 44-3169

HIGH RIDGE ROAD WATER MAIN  
6TH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
CAPITAL PROJECT W-8182

SCALE AS SHOWN  
SHEET 1 OF 2

- NOTES:**
1. OPEN SECTION OF TRENCH TO BE LIMITED TO 3' PIPE LENGTHS.
  2. PLACE ALL EXCAVATED MATERIAL ON HIGH SIDE OF TRENCH.
  3. CONTRACTOR TO PLACE SILT FENCE OR STRAW BALES AT LIMIT OF DISTURBANCE.

THOMAS N. WUCHUOR & WF  
700/0302  
P. 301  
# 10137



FITTING	DISTANCE	OFFSET
6" VALVE, STA 0+03	0-157 TO D-158, 17'	1' RT.
8" G" MEDUCER, STA 0+04	" " " " 10'	1' RT.
8" 1/2" HB, STA 0+10	" " " " 24'	2' RT.
8" 1/2" HB, STA 0+44	" " " " 55'	0'
8" 1/2" HB, STA 1+45	" " " " 158'	17' RT.
8" 1/2" HB, STA 1+76	" " " " 188'	10' RT.
8" 1/2" HB, STA 2+17	0-188 TO D-189, 24'	1' RT.
8" x 6" TEE, STA 4+84	" " " " 291'	10' RT.
8" x 6" TEE, STA 9+62	0-199 TO D-100, 375'	14' RT.
8" x 6" TEE, STA 13+23	0-100 TO D-101, 340'	1' RT.
8" CAP, STA 14+32	" " " " 440'	14' RT.

LOCATION	DISTANCE	TYPE
STA 0+00 TO 3+81	381'	STOVE
STA 0+52 (W.H.C.)	10'	STOVE & SEED
STA 0+96	8'	"
STA 1+37	8'	"
STA 2+05	10'	"
STA 3+07	10'	"
STA 4+84 (F.H.)	10'	"
STA 6+11 (W.H.C.)	25'	"
STA 7+04	8'	"

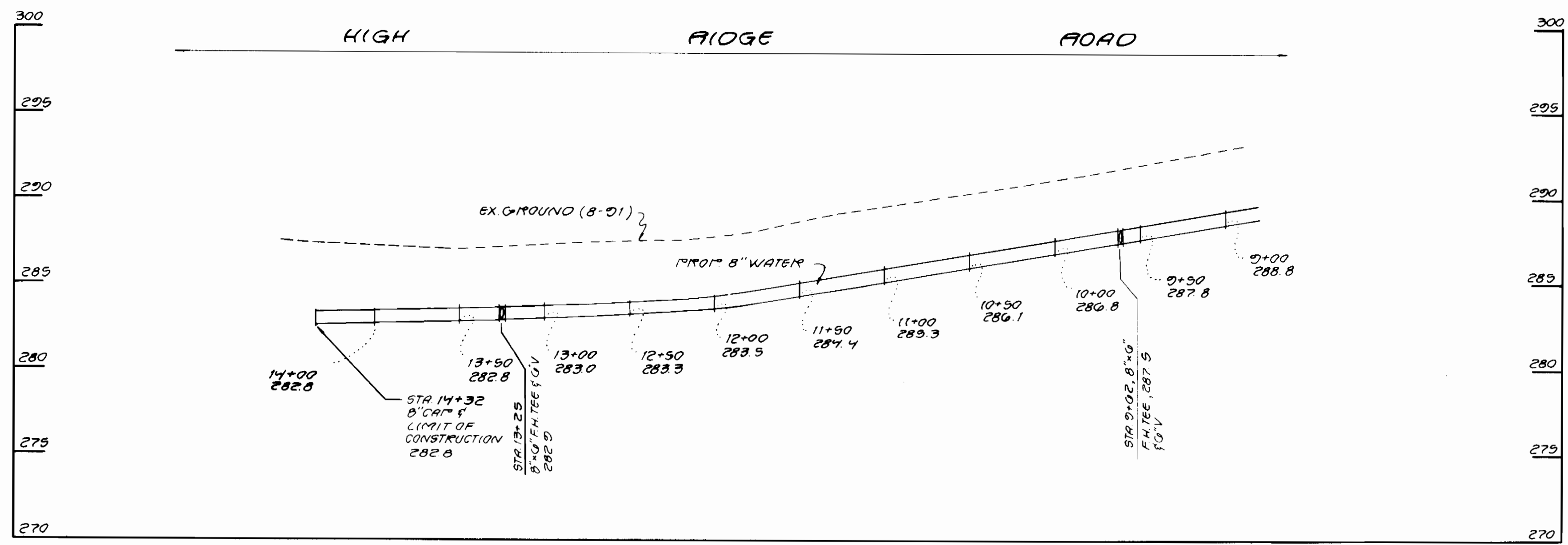
TRAVERSE PT.	DESCRIPTION	COORDINATES NORTH	COORDINATES EAST
D-157	PK	468204.125	837625.744
D-158	1/4" REBAR	468249.271	837421.348
D-159	1/4" REBAR	467802.281	837341.255
D-160	1/4" REBAR	467477.401	837237.293
D-101	HUB	467108.135	837100.792
D-102	HUB	467100.701	836731.044

- BENCH MARKS SET**
- 1. TBM-G1 RR 5" PIPE IN 20' DEEP MOLE # 290636
  - 2. TBM-S7 X-CUT ON SOUTHWEST BARNETT BOLT ON FIRE HYDRANT @ RT. & BEND IN HIGH RIDGE ROAD

- SURVEY CONTROL**
- 1. HOWARD COUNTY CONTROL 1740001 CONC. MON. 0.2' EAST OF EAST EDGE OF MAC SHOULDER, 0.3' BELOW SURFACE APPROX 300' NORTH OF BRIDGE COORDINATES: N 467202.101, E 836471.803 ELEV. 278.30
  - 2. HOWARD COUNTY CONTROL 1840001 CONC. MON. 7.3' EAST OF EAST OF EDGE OF MAC SHOULDER, 0.2' BELOW SURFACE, W/ SET 4/88 COORDINATES: N 468228.161, E 837023.579 ELEV. 303.018

- Sequence of Construction**
1. Contact Howard County Bureau of Construction Inspection (792-7272) prior to starting date.
  2. Install erosion and sediment control devices as per Section 219 of the Howard County Design Manual Vol. IV.
  3. Excavate and install proposed 8" water main and 3/4" water house connection.
  4. Restore paving and earth trenches to their original condition as per Howard County Standards.
  5. Upon permission from Howard County Sediment Control Inspector, remove Sediment Control Devices.
  6. Fine grade all disturbed areas and stabilize with permanent seeding.

LOCATION	DISTANCE	TYPE
STA 2+02 (F.H.)	10'	STOVE & SEED
STA 10+58 (W.H.C.)	5'	"
STA 11+25	17'	"
STA 12+30	14'	"
STA 13+23 (F.H.)	7'	"
STA 12+75 (W.H.C.)	10'	"
STA 13+82	340'	"
STA 14+20	10'	SEED
STA 14+25	10'	SEED



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

By the Engineer:  
"I 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 Soil Conservation District."  
*Carolee H. Hildebrand* 1/20/92  
Signature of Engineer Date

By the Developer:  
"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 Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspection by the Howard Soil Conservation District."  
*William B. Riley* 1-24-92  
Signature of Developer Date

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS  
*James M. Hildebrand* 2/5/92  
U.S. SOIL CONSERVATION SERVICE DATE

This Construction Plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.  
APPROVED:  
*Robert J. Kelly* 2/5/92  
HOWARD S.C.D. DATE

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
*James M. Hildebrand* 2/19/92  
DIRECTOR OF PUBLIC WORKS DATE  
*Robert J. Kelly* 1-30-92  
CHIEF, BUREAU OF UTILITIES DATE

HICKS ENGINEERING CO., INC.  
ENGINEERS SURVEYORS PLANNERS  
200 E. JOPPA ROAD SUITE 402  
TOWSON MARYLAND 21204  
*William B. Riley* 1-23-92  
CHIEF, UTILITY DESIGN DIVISION DATE



DES: E.A.S.	E.A.S. 1	REVISED PER HOWARD CO. COMMENTS	2/21/92
DRN: E.A.S.			
CHK: O.E.H.			
DATE: 12-24-91	BY: NO.	REVISION	DATE

8" WATER MAIN  
CONTRACT NO. 44-3169  
600' SCALE MAP NO. 47750 BLOCK NO. 12, 1

HIGH RIDGE ROAD WATER MAIN  
6TH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
CAPITAL PROJECT W-8182  
SCALE AS SHOWN  
SHEET 2 OF 2

- 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 THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
  3. FOLLOWING INITIAL SOIL DISTURBANCE OR RESTORATION, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DICES, 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 TRAP/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.
  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. 34) 300 (SEC. 30), 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 --- ACRES  
AREA DISTURBED --- ACRES  
AREA TO BE ROOFED OR PAVED --- ACRES  
AREA TO BE VEGETATIVELY STABILIZED --- ACRES  
TOTAL CUT --- CU. YDS.  
TOTAL FILL --- CU. YDS.  
OPPOSITE MASTERS/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 DEPT. SEDIMENT CONTROL INSPECTOR.
  10. ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF ANY SEDIMENT CONTROL PRACTICE 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.

**PERMANENT SEEDING NOTES**

- APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.
- SEEDING 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 SQ. FT.) AND 400 LBS PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ. FT.) BEFORE SEEDING. HARRON OR DISC INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS PER ACRE 30-0-0 UREA/TOP DRESSING 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 (23 LBS/1000 SQ. FT.) BEFORE SEEDING. HARRON 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 60 LBS PER ACRE OF KENTUCKY 31 TALL FESCUE PER ACRE (1.05 LBS/1000 SQ. FT.) OF KEEPING LOWGROSS. DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 28, PROTECT 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 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ. FT.) OF UNROTTED SMALL CHAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 2 1/2 GALLONS PER ACRE (5 GAL/1000 SQ. FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHER, USE 3 1/2 GALLONS PER ACRE (8 GAL/1000 SQ. FT.) FOR ANCHORING.
- MAINTENANCE - INSPECT ALL SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.