

15276 WS/1 DORSEY RUN RD. SEWERS C.P.# S-6165 AS BUILT 9/18/96

QUANTITIES

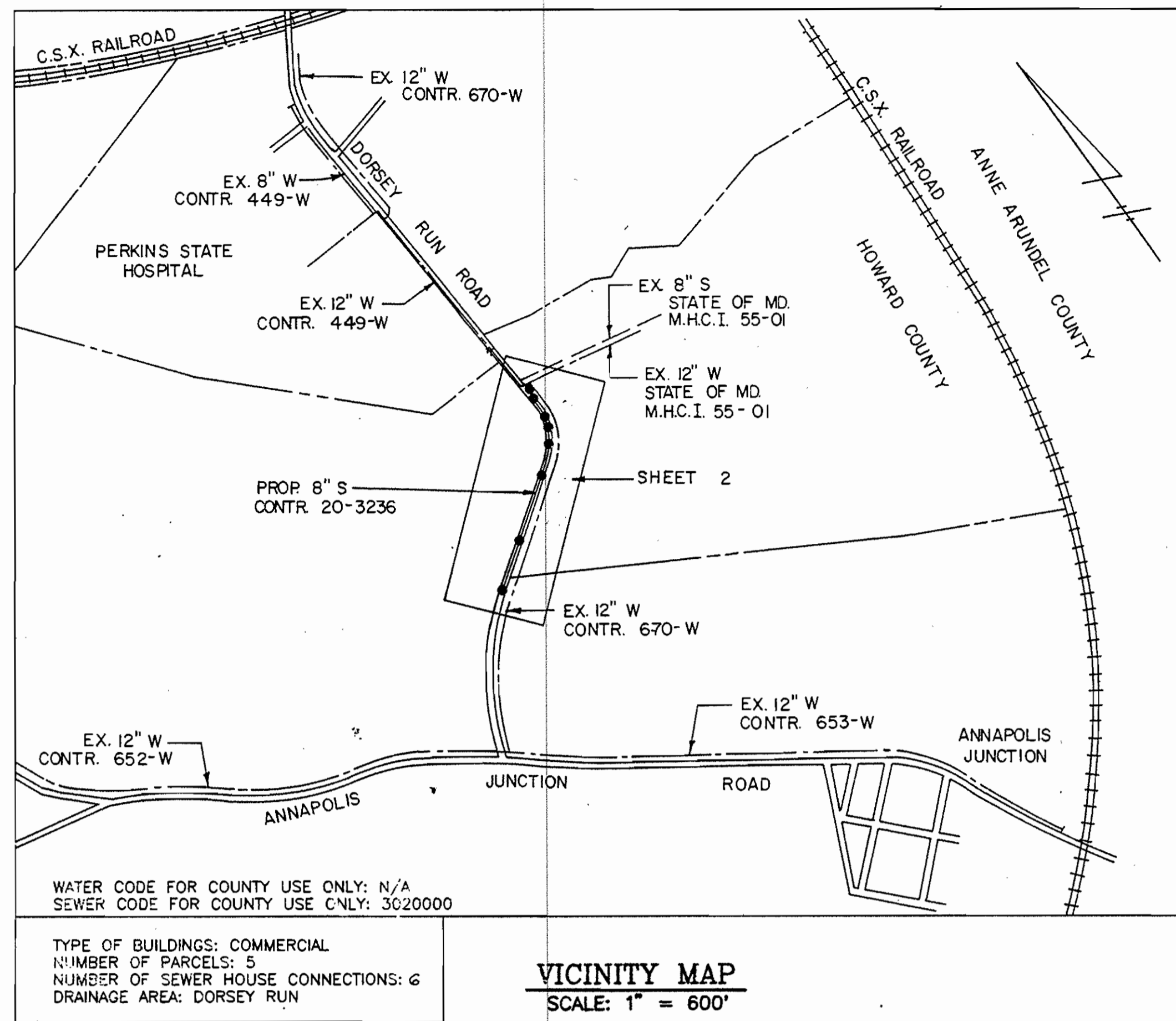
ITEM	BID	AS-BUILT	MATERIAL SUPPLIER
8" PVC SEWER	1269 L.F.	1,273	WATERPRO
4" DIA. M.H.	8	8	ATLANTIC CONCRETE PRO
4" S.H.C.	50 L.F.	141.08	WATERPRO
NAME OF UTILITY CONTRACTOR T.C. SIMONS, INC.			
CHECK BOX AS-BUILT DATE			
SURVEY / DRAFTING DIVISION			

SHEET NO. LIST OF DRAWINGS

- VICINITY MAP & GENERAL NOTES
- PLAN & PROFILE
- SEDIMENT & EROSION CONTROL DETAILS

TRAVERSE		
DESC.	DIST.	BEARING
B-2 TO B-1	934.65	51-37-46 NE
B-1 TO DR-1	220.78	69-32-56 NE
DR-1 TO DR-2	506.15	13-30-47 NE
B-2 TO FLY PT.	369.71	50-08-26 NE

COORDINATE TABLE			
PT.#	DESC.	EASTING	NORTHING
0	D-2	858722.2601	474081.9852
1	D-3	858586.5191	475826.2565
2	B-1	858354.6786	474188.2377
3	B-2	857621.9025	473608.0569
4	B-3	857317.5453	473032.2685
5	FLY PT.	857905.6984	473845.0070
6	DR-1	858561.5430	474265.3799
7	DR-2	858679.8137	474757.5179



WATER CODE FOR COUNTY USE ONLY: N/A
SEWER CODE FOR COUNTY USE ONLY: 3020000

TYPE OF BUILDINGS: COMMERCIAL
NUMBER OF PARCELS: 5
NUMBER OF SEWER HOUSE CONNECTIONS: 6
DRAINAGE AREA: DORSEY RUN

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 SERVICE. ANY DAMAGE SHALL BE IMMEDIATELY REPAIRED 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. DATA.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED ON THE PLANS.
- CLEAR ALL UTILITIES BY A MINIMUM OF 6 INCHES. CLEAR ALL UTILITY POLES BY A 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 ANY ADDITIONAL POLES, ANY COST INCURRED BY THE OWNER FOR THE BRACING OF ADDITIONAL POLES OR DAMAGES SHALL BE DEDUCTED FROM MONEY OWED TO THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES TO SCHEDULE THE BRACING OF POLES.
- 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 (LATEST EDITION). 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. NOTES CONTAINING THE RESULTS OF THE TEST PIT ARE 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.
- CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
 - *C & P TELEPHONE (597-8585)
 - *BALTIMORE GAS & ELECTRIC CO. - CONTRACTOR SERVICES (850-4620)
 - *BALTIMORE GAS & ELECTRIC CO. - UNDERGROUND DAMAGE CONTROL (787-9068)
 - *MISS UTILITY - (1-800-257-7777)
 - *COLONIAL PIPELINE CO. - (795-1390)
 - *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 BID FOR CONSTRUCTION OF THE MAIN.
- ALL SEWER MAINS TO BE P.V.C. UNLESS OTHERWISE NOTED. (TYPE SDR - 35)
- THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, AT (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 18.114 (d) OF THE HOWARD COUNTY CODE.
- ALL MANHOLES SHALL BE 4' - 0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.

DORSEY RUN ROAD SEWERS

CAPITAL PROJECT S-6165

CONTRACT NUMBER 20-3236

HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS

ENGINEER'S CERTIFICATION
"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."
John E. Harms, Jr. 3/16/04 Date
JOHN E. HARMS, JR. & ASSOCIATES, INC.
CONSULTING ENGINEERS
P.O. BOX 5 PASADENA, MARYLAND 21122

DEVELOPER'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 Certification of Attendance at a Maryland Department of Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project."
Robert J. Simon 3/18/04 Date
BUREAU OF ENGINEERING
DEPARTMENT OF PUBLIC WORKS

REVIEWED FOR HOWARD CO. S.C.D. AND MEETS TECHNICAL REQUIREMENTS.
Patricia Engler 3/16/04 Date
U.S. Soil Conservation Service
This Development Plan is approved for the soil erosion and sediment control by the Howard County Soil Conservation District.
Jeffrey J. Schilling 3/16/04 Date
Approved
HOWARD COUNTY S.C.D.

MANHOLE LOCATION BY COORDINATE		
DESC.	EASTING	NORTHING
M.H.1	858656	474724
M.H.2	858671	474563
M.H.3	858664	474495
M.H.4	858637	474428
M.H.5	858580	474359
M.H.6	858436	474239
M.H.7	858122	473996
M.H.8	857889	473816

MD GRANT #C-240993-02 LE (.14)

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
James J. Simon 3/18/04 Date
DIRECTOR OF PUBLIC WORKS
Robert J. Simon 3-28-04 Date
CHIEF, BUREAU OF UTILITIES
CHIEF, WATER & SEWER DESIGN DIVISION

JOHN E. HARMS, JR. & ASSOCIATES, INC.
CONSULTING ENGINEERS
90 GOVERNOR RITCHIE HIGHWAY
PASADENA, MARYLAND 21122
(410) 647-6000



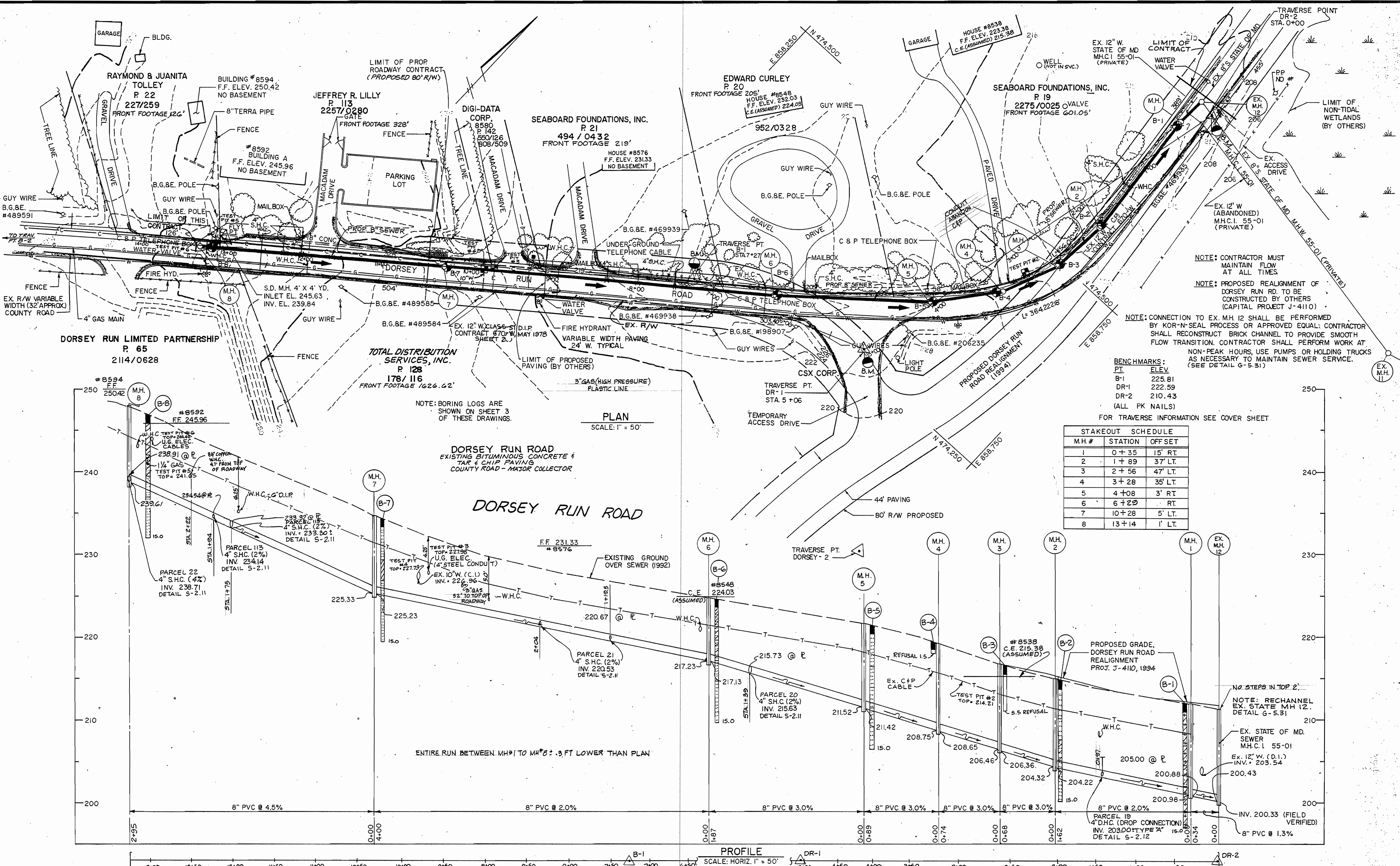
DES: DMD			
DRN: BLC			
CHK: SGZ			
DATE: 1/94	BY: NO	REVISION	DATE

VICINITY MAP & GENERAL NOTES
DORSEY RUN ROAD
SEWER EXTENSION
600 SCALE MAP #48 BLOCK 8 & 14

DORSEY RUN ROAD SEWER EXTENSION
CAPITAL PROJECT S-6165
CONTRACT 20-3236
ELECTION DISTRICT NO.1
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 1 OF 3

7696 WS/2 DORSEY RUN RD. SEWERS C.P.# S-6165 AS BUILT 9/18/96



DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 3/10/94
 DIRECTOR OF PUBLIC WORKS
 CHIEF, BUREAU OF UTILITIES

JOHN E. HARMS, JR. & ASSOCIATES, INC.
 CONSULTING ENGINEERS
 90 GOVERNOR RITCHIE HIGHWAY
 PASADENA, MARYLAND 21122
 (410) 647-8000



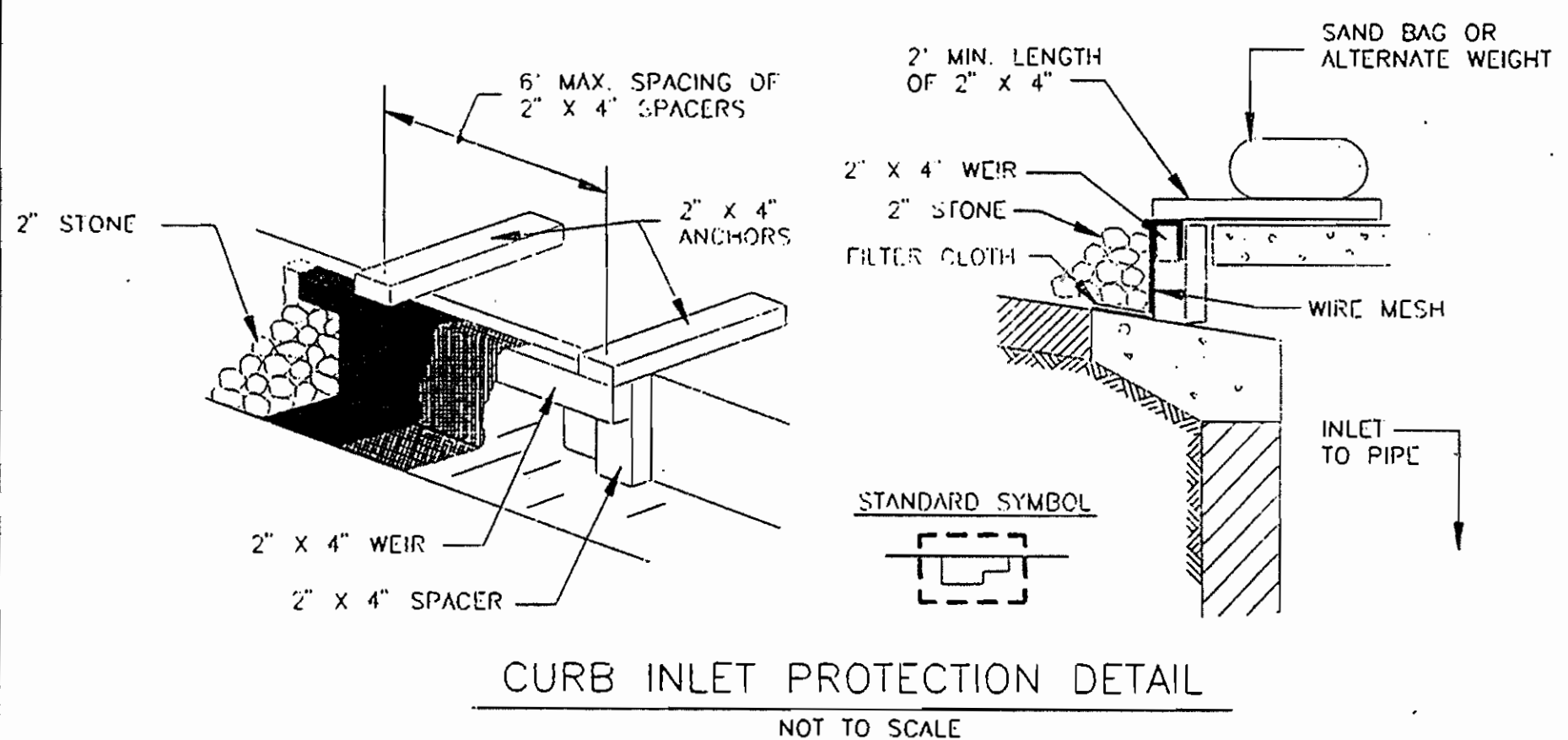
DES: D.M.D.	BY	NO	REVISION	DATE
DRN: M.J.D.				
CHK: S.G.Z.				
DATE: 1/94				

PLAN & PROFILE
 DORSEY RUN ROAD
 SEWER EXTENSION
 600 SCALE MAP 48 BLOCK 8 & 14

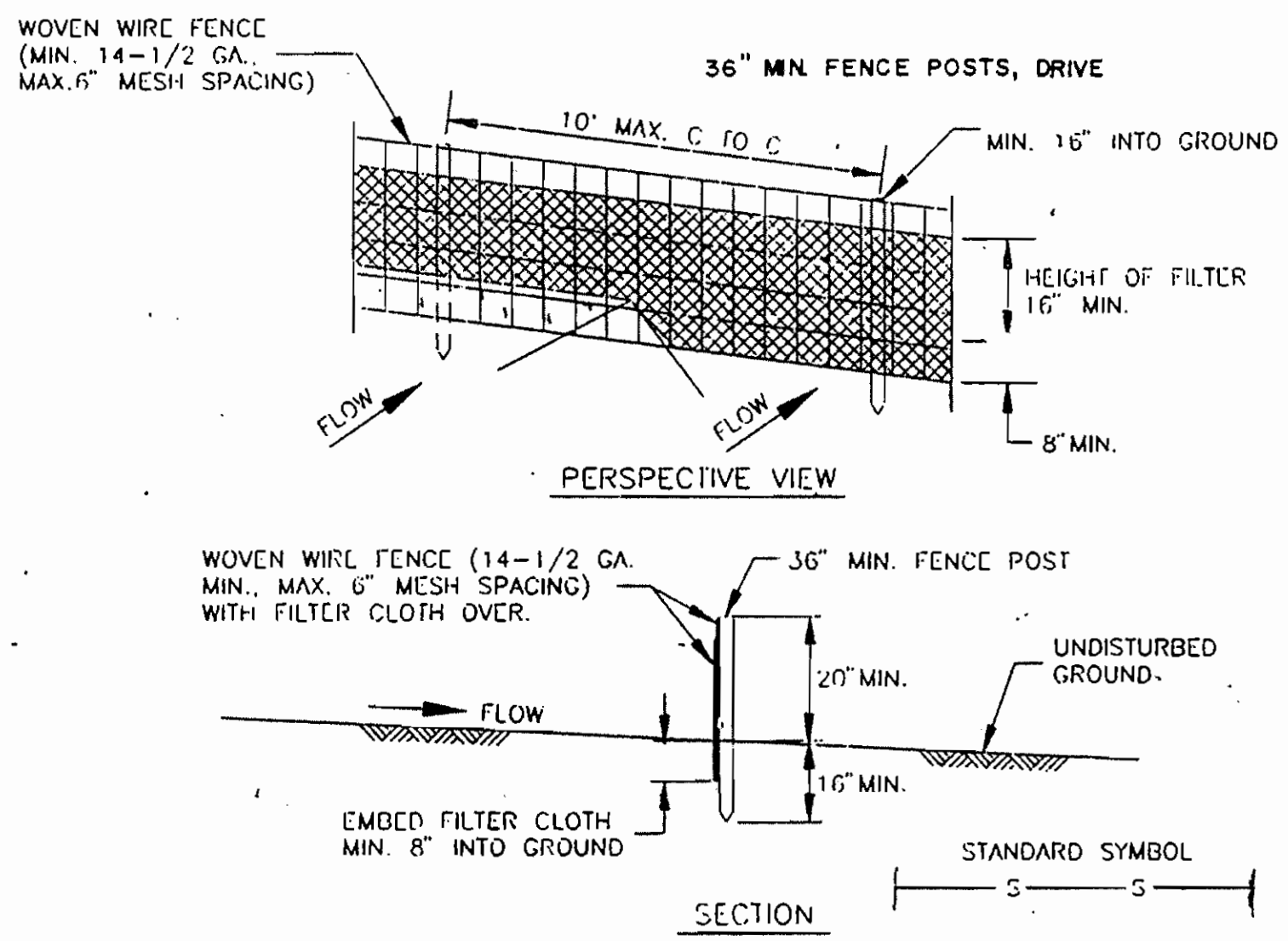
DORSEY RUN ROAD SEWER EXTENSION
 CAPITAL PROJECT S-6165
 CONTRACT 20-3236
 ELECTION DISTRICT NO.1
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET 2 OF 3

3236 WS/3 DORSEY RUN RD. SEWERS C.P.# S-6165



CURB INLET PROTECTION DETAIL
NOT TO SCALE



SILT FENCE DETAILS
NOT TO SCALE

CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

- WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
 - FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP & MID SECTION.
 - WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY 6" AND FOLDED.
 - 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, MIN. 14-1/2 GA., 6" MAX. MESH OPENING
- FILTER CLOTH: FILTER X, MIRAFI 100X, STABILINKA T140N OR APPROVED EQUAL.
- PREFABRICATED UNIT: GEOFAB, ENVIROFENCE, OR APPROVED EQUAL.

SPECIFICATIONS FOR VEGETATIVE ESTABLISHMENT

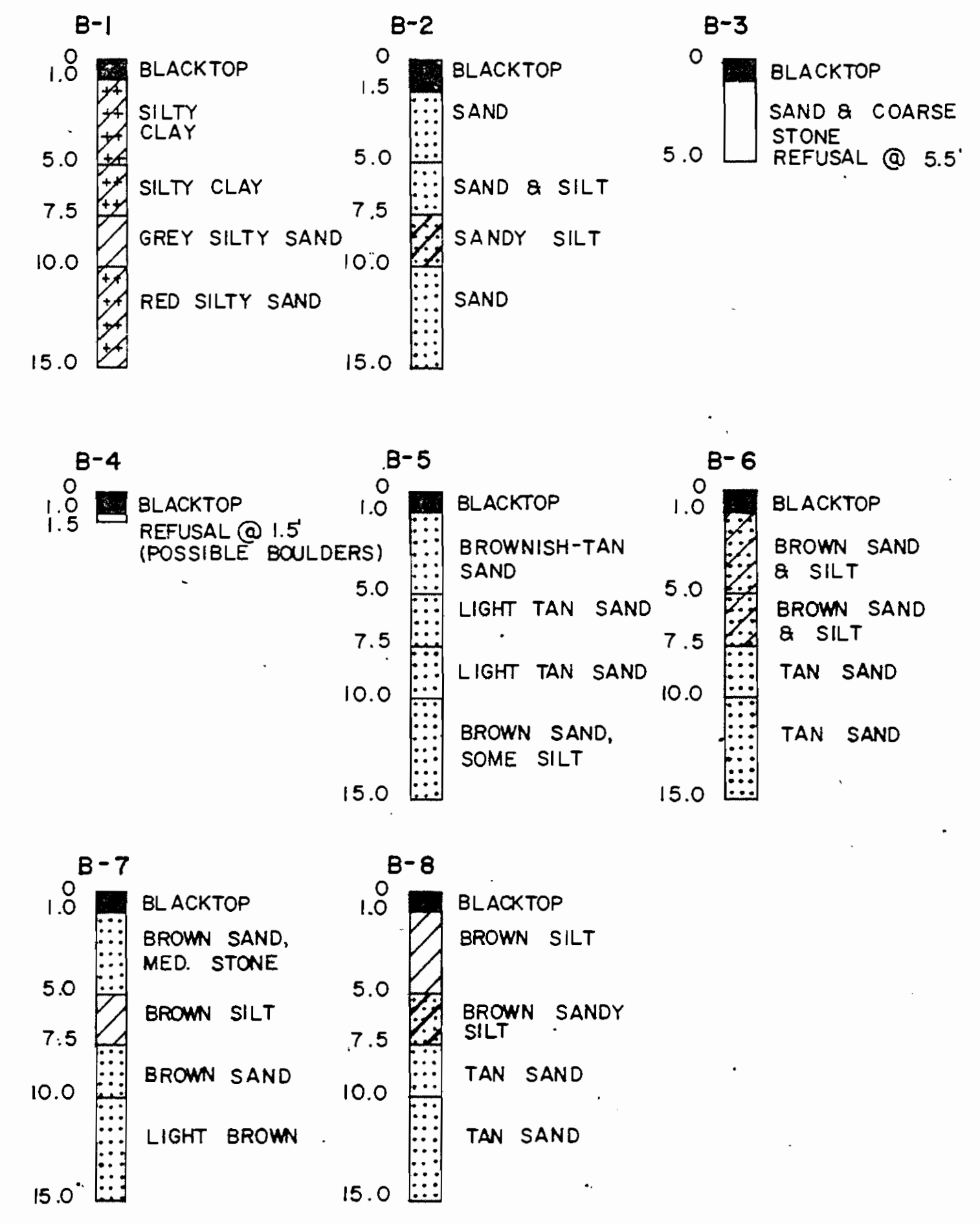
- Permanent Seeding**
- Seedbed Preparation: Loosen upper 3" of soil by raking, disking or other acceptable means prior to seeding.
 - Soil Amendments: In lieu of soil test use one of the following:
 - Before seeding apply 92 lbs. of dolomitic limestone and 14 lbs. of 10-10-10 fertilizer per 1,000 square feet. Harrow or disc into upper 3" of soil. At time of seeding apply 9 lbs. of 30-0-0 ureaform fertilizer per 1,000 square feet.
 - Before seeding apply 92 lbs. of dolomitic limestone and 23 lbs. of 10-10-10 fertilizer per 1,000 square feet. Harrow or disc into upper 3" of soil.
 - Seeding: Apply 1.4 lbs. per 1,000 square feet of Kentucky 31 Tall Fescue between March 1 and April 30 or between August 1 and October 15. Apply 1.4 lbs. of Kentucky 31 Tall Fescue and 0.05 lbs. of Weeping Lovegrass per 1,000 square feet between May 1, and July 31. Apply 1.4 lbs. of Kentucky 31 tall Fescue per 1,000 square feet and mulch with 2 tons per acre of well anchored straw between October 16 and February 28 or apply sod.
 - Mulching: Apply 70 to 90 lbs. per 1,000 square feet of rotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 5 gal. per 1,000 square feet or emulsified asphalt on flat areas. On slopes 8' or higher use 8 gal. per 1,000 square feet for anchor.
- Temporary Seeding**
- Seedbed Preparation: Loosen upper 3" of soil by raking, disking or other acceptable means prior to seeding.
 - Soil Amendments: Apply 14 lbs. per 1,000 square feet of 10-10-10 fertilizer.
 - Seeding: Apply 3.2 lbs. per 1,000 square feet of Annual Rye between March 1 and April 30 or between August 15 and November 15. Apply 0.07 lbs. per 1,000 square feet of Weeping Lovegrass between May 1, and August 14. Apply 2 tons of well anchored straw mulch and seed as soon as possible in the spring between November 16 and February 28, or use sod.
 - Mulching: Apply 70 to 90 lbs. per 1,000 square feet of rotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring or 5 gal. per 1,000 square feet of emulsified asphalt on flat areas. On slopes 8' or higher use 8 gal. per 1,000 square feet for anchoring.
- Permanent Sod**
- Permanent sod is to be Kentucky 31 Tall Fescue state approved sod; lime and fertilizer per permanent seeding specifications and lightly irrigate soil prior to laying sod. Sod is to be laid on the contour with all ends tightly abutting. Water and roll or tamp sod to insure positive root contact with the soil. All slopes greater than 3 to 1, as shown, are to be permanently sodded. Additional watering for establishment may be required. Sod is not to be applied on frozen ground.

SOIL EROSION AND SEDIMENT CONTROL NOTES

- 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. (313-1855)
 - All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1991 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
 - Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed with 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1 and 14 days for all other disturbed or graded areas on the project site.
 - All disturbed areas must be stabilized within the time period specified above in accordance with the 1991 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings (Sec. 20) sod (Sec. 20), temporary seeding (Sec. 20) and mulching (Sec. 20). 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 permission for their removal has been obtained from the Howard County Sediment Control Inspector.
 - Site Analysis:

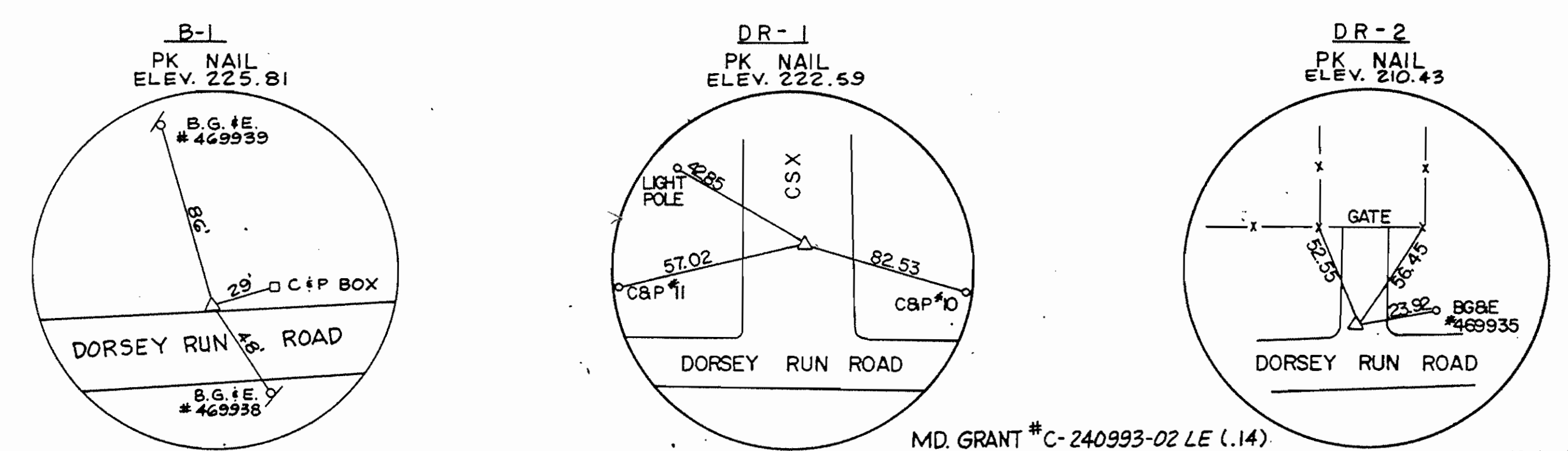
Total Area of Site	1.19 Acres
Area Disturbed	0.24 Acres
Area to be roofed or paved	0.24 Acres
Area to be vegetatively stabilized	0 Acres
Cut volume	2350 Cu. Yd.
Fill volume	2350 Cu. Yd.
Borrow volume	90 Cu. Yd.
Waste volume	90 Cu. Yd.
 - Any sediment control practice which is disturbed by grading activity 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 DPW 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 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.
 - All excavated material will be placed on the high side of the trench.
 - Erosion control measures will include sandbag filters, gravel filters, straw mulch, or any other applicable devices which will prevent erosion and sediment damage to adjacent properties, in accordance with the contract documents.
 - Restoration shall proceed on each section of the right of way after each three pipe lengths of open trench. If it is not the proper seeding season then a straw mulch shall be spread over the disturbed area until final restoration can be performed. If as a result of limited access road then the disturbed areas on either side of the access road should be restored. The maximum width of an access road shall be 15 feet. The contractor shall regard at completion of project all such areas to conform to general topography of the area so as to avoid trapping of water. The access road shall be vegetated when it is no longer used.
 - A buffer strip of undisturbed ground shall be left between the stream bank and the construction area in those areas where construction comes extremely close to the stream and a straw bale or sandbag filter berm shall be placed along the top of the stream bank.
 - Sediment Removal - all trapped sediment is to be removed and disposed of at the authorized land fills prior to removal of sediment control structures.
 - All tree removal and repair work shall be conducted in accordance with the State of Maryland, Department of Forest and Parks.
 - Roadside ditches and drainage pipes to be returned to original condition following completion of construction.
- Sequence of Construction**
- Install sediment control measures downgrade of construction site, after notification of Howard County Sediment Control Division, (313-1855)
 - Construct sewer in uphill direction from existing M.H. 12 to M.H. 8.
 - Bypass State and county sewers as necessary to maintain flow at all times.
 - Connect new sewer to existing M.H. 12. Form channel as necessary to meet existing.
 - Restore site and remove sediment controls.

BORING LOGS



RESTORATION SCHEDULE		
LOCATION	LENGTH	MATERIAL
Ex. MH 12 STA. 0+00 TO STA. 0+34	34'	BIT. CONC. PATCH PAVING*
MH 1 STA. 0+00 TO STA. 1+62	162'	" " " "
MH 2 STA. 0+00 TO STA. 0+68	68'	" " " "
MH 3 STA. 0+00 TO STA. 0+74	74'	" " " "
MH 4 STA. 0+00 TO STA. 0+89	89'	" " " "
MH 5 STA. 0+00 TO STA. 1+87	187'	" " " "
MH 6 STA. 0+00 TO STA. 4+00	400'	" " " "
MH 7 STA. 0+00 TO STA. 2+95	295'	" " " "

* SEE DETAIL G-4.01



MD. GRANT #C-240993-02 LE (1.14)

<p>DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND</p> <p><i>James J. ...</i> 3/10/94 DIRECTOR OF PUBLIC WORKS DATE</p> <p><i>Robert ...</i> 3-28-94 CHIEF BUREAU OF UTILITIES DATE</p>	<p>JOHN E. HARMS, JR. & ASSOCIATES, INC. CONSULTING ENGINEERS</p> <p>90 GOVERNOR RITCHIE HIGHWAY PASADENA, MARYLAND 21122</p> <p>(410) 647-6000</p>		DES: D.M.D.	BY	NO.	REVISION	DATE	600' SCALE MAP NO. 48	BLOCK NO. B 4 14
			DRN: R.P.E.	CHK: S.G.Z.	DATE: 1/94	SEDIMENT & EROSION CONTROL		DORSEY RUN ROAD	
			SCALE AS SHOWN		SHEET 3 OF 3		<p>CONTRACT PROJECT S-6165 CONTRACT 20-3236 ELECTION DISTRICT NO. 1 HOWARD COUNTY, MARYLAND</p>		