

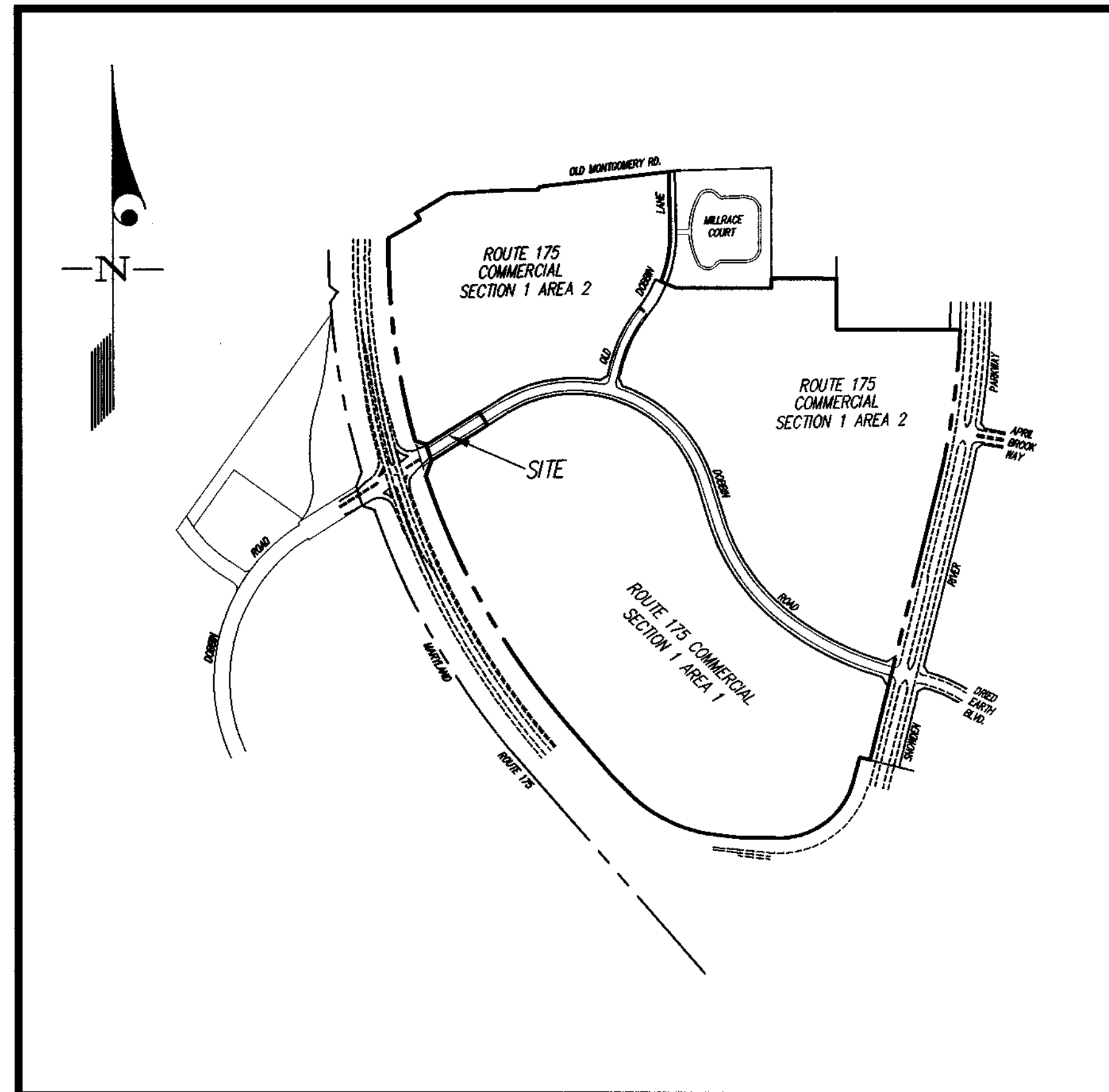
CONSTRUCTION PLAN FOR DOBBIN ROAD IMPROVEMENTS

GENERAL NOTES

1. THE PROJECT IS IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN APPROVED.
2. PROJECT BACKGROUND:
LOCATION: DOBBIN ROAD @ MD. RTE.175
TAX MAP: 36
ZONING: N/A
ELECTION DISTRICT: 6
GROSS AREA OF TRACT: N/A
3. SEE COUNTY FILES NO.'s: S 99-05, FDP 235 & MP 99-117, ~~MP 99-117, WFO 00-41, WFO 00-24, Council Resolution 120-1999 Dobbin Rd File No. 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 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120-1999 Dobbin Rd File No. 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 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4. TOPOGRAPHY SHOWN HAS A 2' CONTOUR INTERVAL AND WAS PHOTOGRAPHED BY MAPPING ASSOCIATES, INC. IN 1989. EXISTING SPOT ELEVATIONS SURVEYED BY GLW.
5. PUBLIC WATER AND SEWER TO BE UTILIZED. SITE IS IN METROPOLITAN DISTRICT.
6. HORIZONTAL AND VERTICAL CONTROL BASED ON HOWARD COUNTY CONTROL STATIONS 370R AND 361A
7. INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM BEST AVAILABLE RECORDS. THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATION OF THE MAINS BY DIGGING TEST PITS BY HAND AT ALL CROSSINGS WELL IN ADVANCE OF CONSTRUCTION. ANY DISCREPANCIES MUST BE COMMUNICATED TO THE ENGINEER AT ONCE.
8. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY AND MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
9. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS /BUREAU OF CONSTRUCTION INSPECTION AT 1 (410) 313 - 1880 AT LEAST FIVE (5) DAYS PRIOR TO THE START OF WORK.
10. THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE (5) WORKING DAYS BEFORE STARTING WORK SHOWN ON THE PLANS.

MISS UTILITY	1-800-257-7777
BELL ATLANTIC COMPANY	729-9976
HOWARD COUNTY BUREAU OF UTILITIES	313-4900
AT&T CABLE LOCATION DIVISION	393-3553
BALTIMORE GAS & ELECTRIC CO.	850-4620 & 787-9068
11. TYPES OF STORM DRAINS REFER TO THE STANDARD DETAILS OF HOWARD COUNTY AND MSHA.
12. TRENCH COMPACTION FOR STORM DRAINS WITHIN ROADS AND STREET RIGHT - OF - WAYS LIMITS SHALL BE IN ACCORDANCE WITH "HOWARD COUNTY DESIGN MANUAL", VOL. IV, STANDARD G-2.01.
13. SEDIMENT CONTROL SHALL BE PROVIDED IN ACCORDANCE WITH "1994 MARYLAND STANDARDS AND SPECIFICATION FOR SOILS EROSION AND SEDIMENT CONTROL".
14. TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
15. STREET TREES SHALL BE PLANTED A MINIMUM OF FIVE (5) FEET FROM STORM DRAIN, WATERLINE OR SEWER PIPE MANHOLES; ALSO A MINIMUM OF TWENTY (20) FEET FROM STREET LIGHTS.
16. Removal/Modifications to the existing road bed for Old Montgomery Road will be indicated on the site Development Plan for Parcel A.
17. MCE Permit/Tracking Number: 200001255.

STA. 79 + 00 TO STA. 81 + 22.98

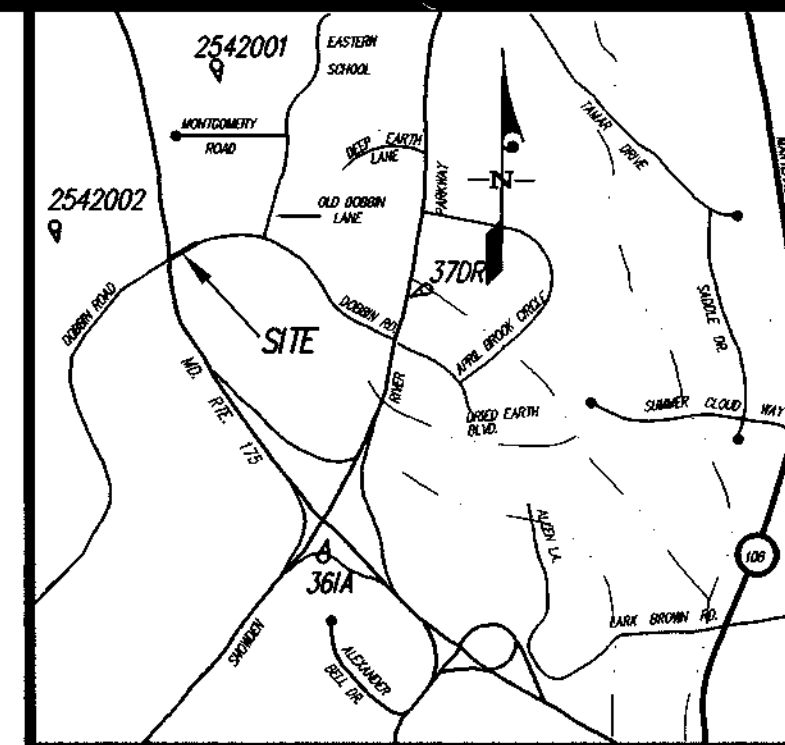


KEY MAP

SCALE: 1" = 600'

INDEX OF SHEETS

1. COVER SHEET
2. PLAN & PROFILE
3. GRADING, SEDIMENT CONTROL & STORM DRAIN PROFILE
4. OFFSITE SEDIMENT CONTROL PLAN & DETAILS. (W & S CONTR. #24-3773-D)
5. SIGNING & STRIPING PLAN & DETAILS



VICINITY MAP
SCALE: 1"=2000'

LEGEND

- ⊙ EXISTING STREET LIGHT
- ⊙ PROPOSED STREET LIGHT
- ⊕ PROP. TOP OF CURB ELEVATION
- EX. 12"W EXISTING WATER MAIN
- EX. 18"SD EXISTING STORM DRAIN
- ==== EXIST. CURB/CURB & GUTTER
- ===== PROP. CURB & GUTTER
- ▭ EXISTING PAVING
- ▭ PROPOSED PAVING
- ~ EXISTING CONTOUR
- 96- PROPOSED CONTOUR
- ⊕ EXISTING STREET TREES
- ⊕ PROPOSED STREET TREES

BENCHMARK DESCRIPTION

STATION 2542001 (CONCRETE MONUMENT)
ELEV. 426.971 (FOR VERTICAL CONTROL ONLY)
STATION IS LOCATED ON B.G. & E. TRANSMISSION LINES 1060± S.W. OF DOBBIN ROAD

BENCHMARK DESCRIPTION

STATION 2542002 (CONCRETE MONUMENT)
ELEV. 363.638 (FOR VERTICAL CONTROL ONLY)
STATION IS LOCATED 1000± WEST OF RTE. 175 ON TRANSMISSION LINE @ G.E. TOWER 19-E.

BENCHMARK DESCRIPTION

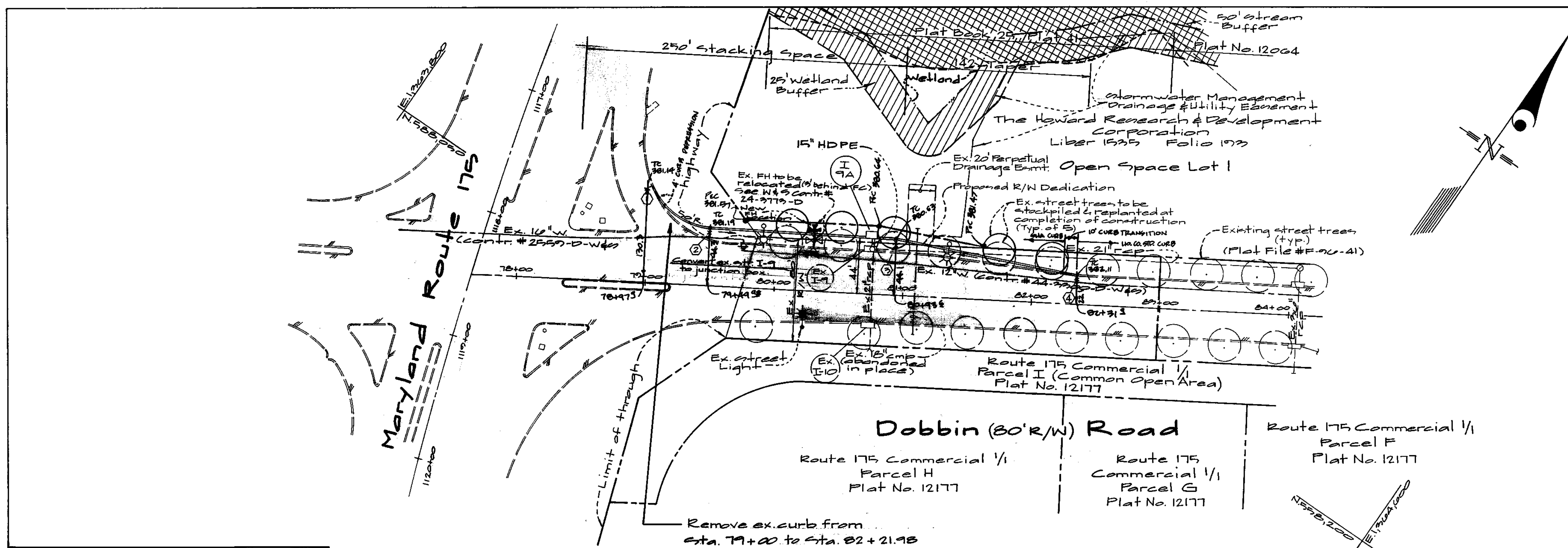
STATION 370R (1/2 REBAR)
N.169881.1794, E.416586.7155 (FOR HORIZONTAL CONTROL ONLY)
STATION IS LOCATED 0.45± MILES NORTH OF RTE. 175 AND 46± EAST OF THE EAST CURB OF SNOWDEN RIVER PKWY.

BENCHMARK DESCRIPTION

No.	Station	Offset	Top of Curb Elev.	Gutter Type
1	78+37.5	LT 130.3	Match ex. curb 301.4	catch
2	79+42.5	LT 131.5	301.19	catch
3	80+32.5	LT 132.1	300.69	catch
4	82+21.5	LT 132.21	Match ex. curb 302.11	catch

No.	Type	Top Elev.	Inv. (in)	Inv. (out)	Location	Std. Detail
Ex I-9	Ex A-10 convert to junction box	300.00	370.70	376.00	80+72.21 93' LT	MD SHA Std. No. MD-286.21
I-9A	A-10	300.07	-	376.92	80+71.5 44.2 82+21.21 44.2 LT	SD 4.41

- Ex. I-9 Conversion Notes.**
- 1) Remove ex. top slab, top slab pipe support & throat section.
 - 2) Saw cut ex. inlet side walls to a highest elevation of 378.50.
 - 3) See std. detail MD-286.21 for new top slab.
 - 4) Precast top slab is acceptable alternate.



Approved: Howard County Department of Public Works
Thomas S. Hill for 1/22/00
 Chief, Bureau of Highways

Approved: Howard County Department of Planning and Zoning
Linda K. Hovatta 2/11/00
 Chief, Division of Land Development

Mark M. ... 2/4/00
 Chief, Development Engineering Division MK

Plan
 Scale 1" = 50'

Location	Lamp Type	Marking (End of Fixture cut-off)	Pole Type
81+00 Lt. 40'	150 watt High Pressure Sodium	Future cut-off	Aluminum
81+35 Lt. 42'	"	"	"

GUTSCHICK, LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20866
 TEL: (301) 421-4024 BALTO: (410) 880-1820 DC/VA: (301) 989-2524 FAX: (301) 421-4186

DESIGNED: **Road Construction Plan Dobbin Road**
 Station 79+00 to 81+22.90
 Route 175 Commercial Section 1 Area 2
 6th Election District
 Howard County, Maryland

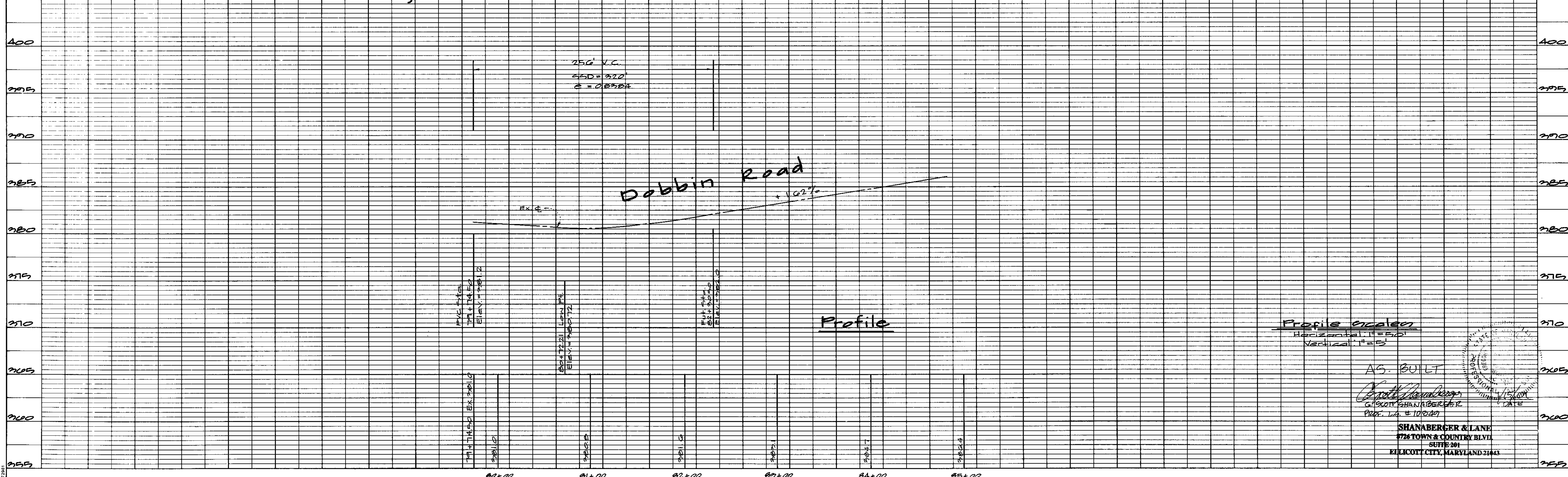
CHECKED: *Wesley*

DATE: Nov, 1999

SCALE: 1" = 50'
 DRAWING: 2 of 5
 Zoning: N/T
 JOB NO.: 95,009

Prepared For: The Howard Research and Development Corporation
 10275 Little Pasture Parkway
 Columbia, Maryland 21044
 Phone: (410) 722-2002

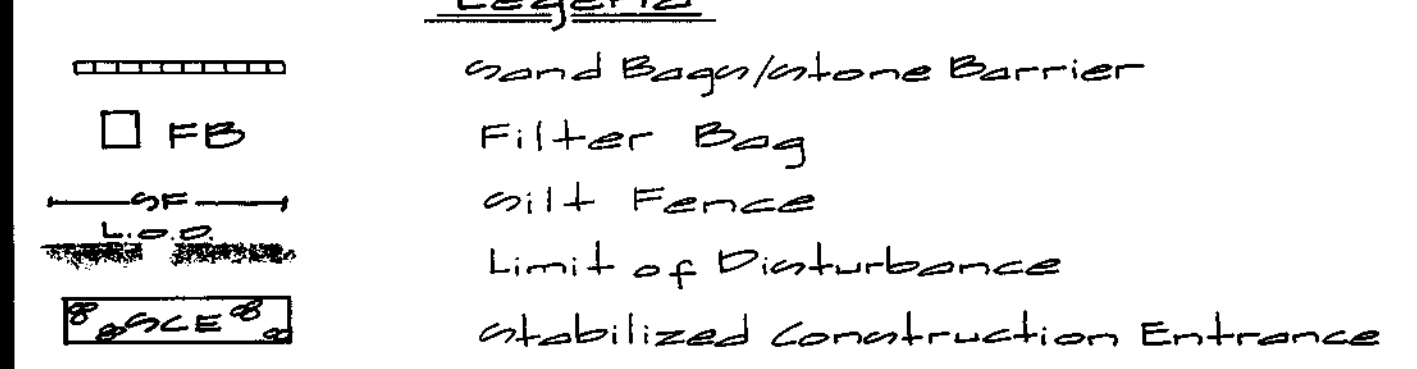
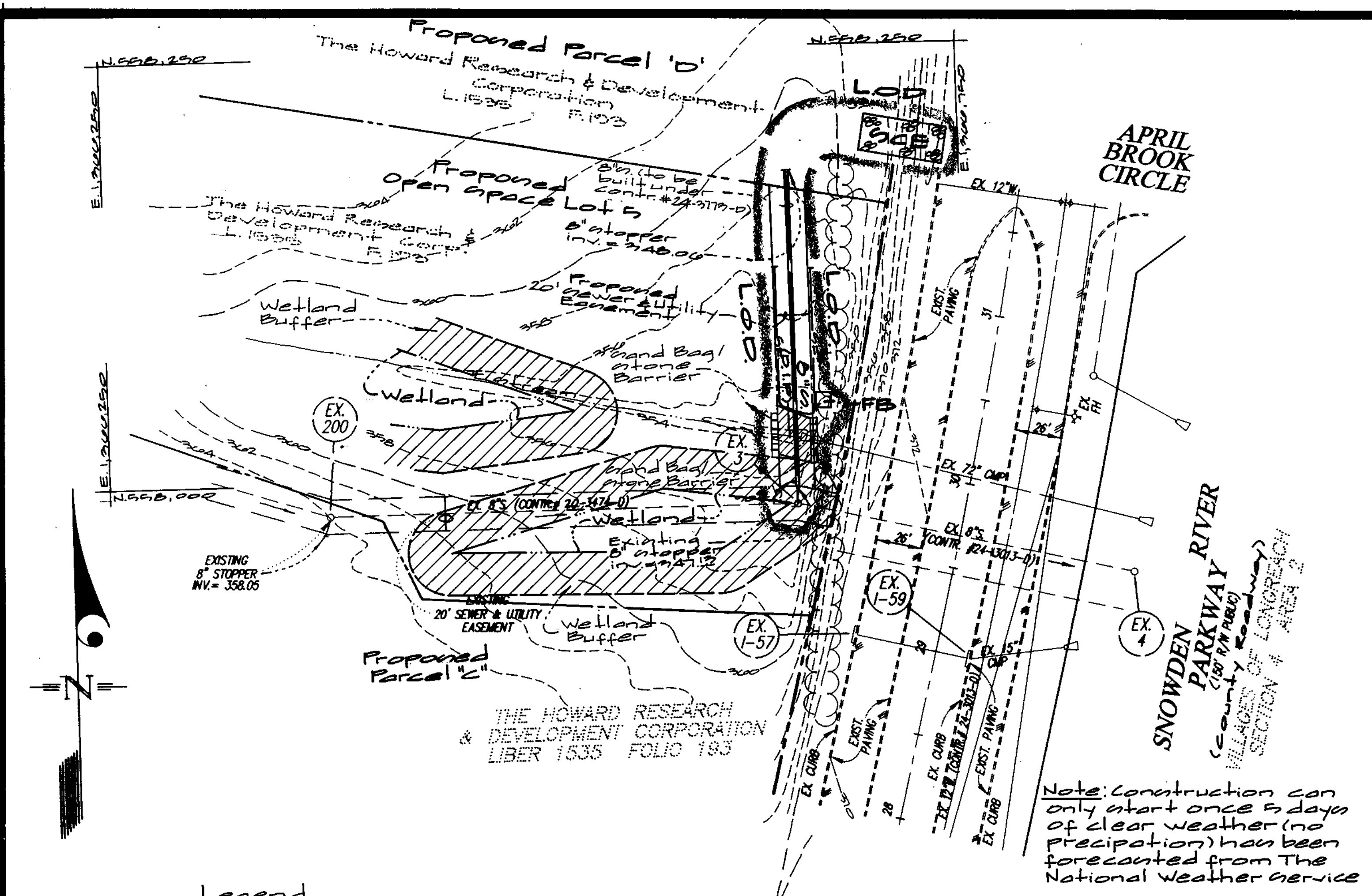
Note: For legend & notes see sheet 1.



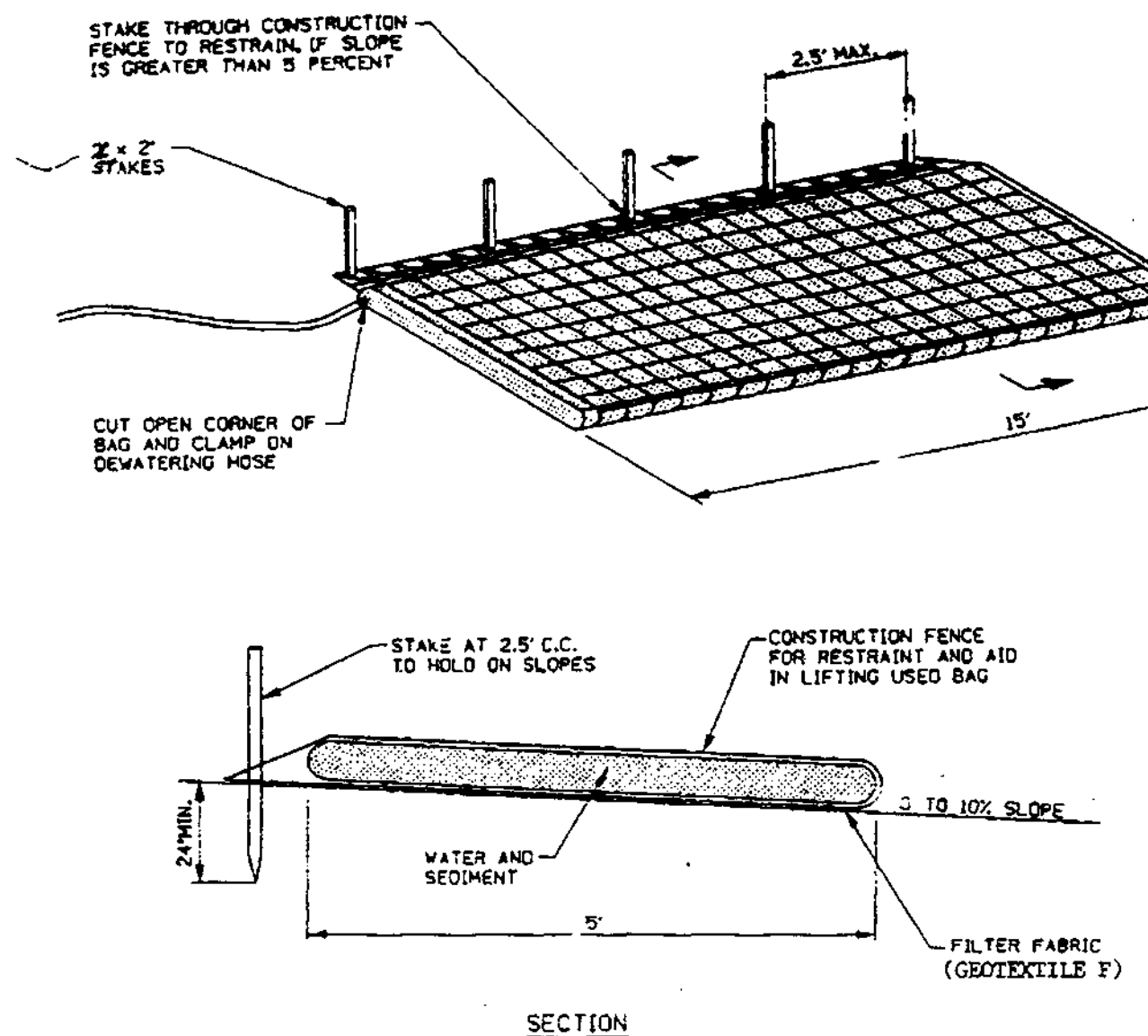
Profile scales
 Horizontal 1" = 50'
 Vertical 1" = 5'

AS-BUILT
Shanaberger & Lane
 GUYTON SHANABERGER
 DATE: 11/10/99

SHANABERGER & LANE
 8726 TOWN & COUNTRY BLVD
 SUITE 301
 ELICOTT CITY, MARYLAND 21043



- Sequence of Construction For Sewer Installation**
1. Obtain grading permit (1 day).
 2. Install stabilized construction entrance (1 day).
 3. Install silt fence, sand bag/stone barrier, and filter bag (1 day).
 4. Install sewer and stabilize trench with grass seed and mulch. Install erosion control matting in the area to the top of the bank (2 days).
 5. Remove sediment controls when areas draining to them have been stabilized and permission has been granted by the sediment control inspector. Stabilize remaining areas (1 day).



- NOTES:**
1. FILTER BAG SHALL BE PLACED ON A SLOPING OR LEVEL, WELL GRADED VEGETATED SITE SUCH THAT WATER WILL FLOW AWAY FROM DEVICE AND ANY WORK AREAS.
 2. WIDTH AND LENGTH SHALL BE AS SHOWN
 3. THE FILTER BAG MUST BE STAKED IN PLACE AND SECURED TO THE PUMP DISCHARGE LINE.
 4. FILTER BAG SHALL NOT BE USED FOR DISCHARGE FLOWS GREATER THAN 300 GPM.
 5. DEVICE SHALL BE REMOVED AND DISPOSED OF AFTER BAG IS FILLED WITH SEDIMENT. SEDIMENT FROM BAG SHALL BE SPREAD IN AN UPLAND AREA.
 6. FILTER FABRIC SHALL MEET THE FOLLOWING REQUIREMENTS FOR GEOTEXTILE CLASS F:

Tensile Strength	50 lbs/in (min.)	Test: MSMT 509
Tensile Modulus	20 lbs/in (min.)	Test: MSMT 509
Flow Rate	0.3 gal +/- 1/2 minute (max.)	Test: MSMT 322
Filtering Efficiency	75% (min.)	Test: MSMT 322

FILTER BAG
TEMPORARY EROSION CONTROL MEASURE (FB)

21.0 STANDARD AND SPECIFICATIONS

FOR TOPSOIL
Definition
Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation.

- Conditions Where Practice Applies**
- I. This practice is limited to areas having 2:1 or flatter slopes where:
 - a. The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
 - b. The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.
 - c. The original soil to be vegetated contains material toxic to plant growth.
 - d. The soil is so acidic that treatment with limestone is not feasible.
 - II. For the purpose of these Standards and Specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate stabilization. Areas having slopes steeper than 2:1 shall have the appropriate stabilization shown on the plans.

- Construction and Material Specifications**
- I. Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-SCS in cooperation with Maryland Agricultural Experimental Station.
 - II. Topsoil Specifications - Soil to be used as topsoil must meet the following:
 - i. Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of contrasting textured subsoils and shall contain less than 5% by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1 1/2" in diameter.
 - ii. Topsoil must be free of plants or plant parts such as bermuda grass, quackgrass, Johnsongrass, nutgrass, poison ivy, thistle, or others as specified.
 - iii. Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread at the rate of 4-8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.

- For sites having disturbed areas under 5 acres:**
- I. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials.
 - II. For sites having disturbed areas over 5 acres:
 - i. On soil meeting Topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:
 - a. pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be prescribed to raise the pH to 6.5 or higher.
 - b. Organic content of topsoil shall be not less than 1.5 percent by weight.
 - c. Topsoil having soluble salt content greater than 500 parts per million shall not be used.
 - d. No sod or seed shall be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phytotoxic materials.
 - ii. Note: Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil.

- Topsoil Application**
- i. When topsoiling, maintain needed erosion and sediment control practices such as diversions, Grade Stabilization Structures, Earth Dikes, Slope Silt Fence and Sediment Traps and Basins.
 - ii. Grades on the areas to be topsoiled, which have been previously established, shall be maintained, albeit 4" - 8" higher in elevation.
 - iii. Topsoil shall be uniformly distributed in a 4" - 8" layer and lightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations shall be corrected in order to prevent the formation of depressions or water pockets.
 - iv. Topsoil shall not be placed while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.

- Alternative for Permanent Seeding - Instead of applying the full amounts of lime and commercial fertilizer, composted sludge and amendments may be applied as specified below:**
- i. Composted Sludge Material for use as a soil conditioner for sites having disturbed areas over 5 acres shall be tested to prescribe amendments and for sites having disturbed areas under 5 acres shall conform to the following requirements:
 - a. Composted sludge shall be supplied by, or originate from, a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under COMAR 26.04.06.
 - b. Composted sludge shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a Ph of 7.0 to 8.0. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements prior to use.
 - c. Composted sludge shall be applied at a rate of 1 ton/1,000 square feet.
 - ii. Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 lb/1,000 square feet, and 1/3 the normal lime application rate.

References: Guideline Specifications, Soil Preparation and Sodding. MD-VA, Pub. #1, Cooperative Extension Service, University of Maryland and Virginia Polytechnic Institutes. Revised 1973.

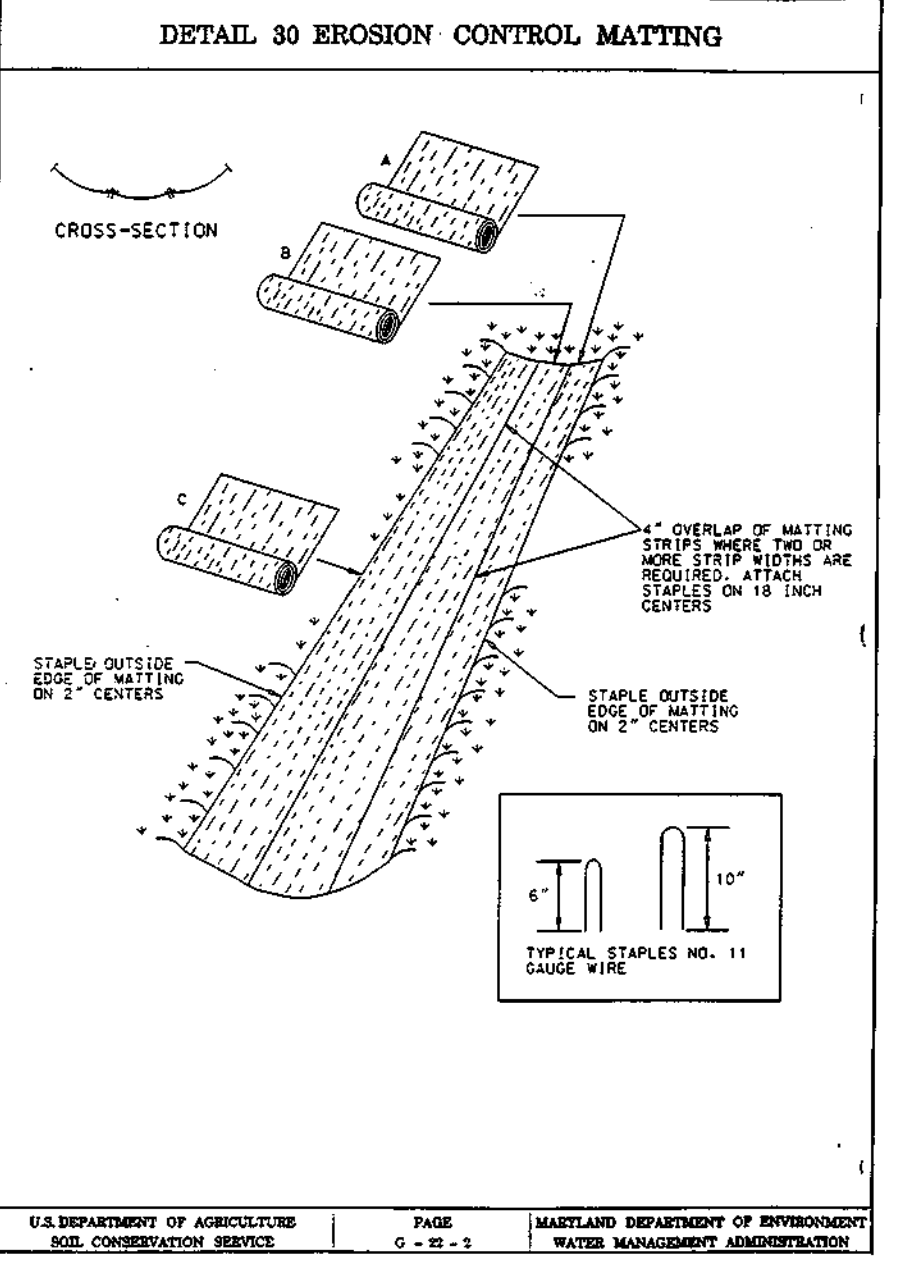
22.0 STANDARD AND SPECIFICATIONS

FOR EROSION CONTROL MATTING
Definition
Erosion control matting is used to temporarily stabilize channels or steep slopes until vegetation is established. There are many types of matting available. The erosion control matting that is used must withstand velocities of 6 feet per second.

- Conditions Where Practice Applies**
- Matting is used to stabilize the flow channels of dikes and swales where the velocity is under 6 feet per second. They may also be used on tidal or stream banks where moving water is likely to wash out new vegetative plantings.

Installation
Some channels will require multiple widths of matting, with two widths being the most commonly used. Unroll the matting starting at the upper end of the channel, allowing a 4" overlap of matting along center of channel. The sequence of construction should be as follows:

1. Bury the top ends of the matting in a narrow trench, 6" in depth. Backfill the trench and tamp firmly to conform to the channel cross-section. Secure with a row of staples about 4" down slope from the trench. Spacing between staples is 6".
2. Staple the 4" overlap in the channel center spacing the staples 18" apart.
3. Make sure the matting is smooth and in firm contact with the soil, then staple the outer edges of the matting. Staples shall be placed 2' apart with 4 rows for each strip, 2 outer rows, and 2 alternating rows down the center.
4. Where one roll of matting ends and another begins, the end of the top strip shall overlap the upper end of the lower strip by 4", shiplap fashion. Reinforce the overlap with a double row of staples spaced 6" apart in a staggered pattern on either side. The discharge end of the matting liner should be similarly secured with 2 double rows of staples.
5. The protective matting can be laid over sprigged areas where small grass plants have been planted. Where ground covers are to be planted, lay the protective matting first and then plant through the matting according to the landscape design.

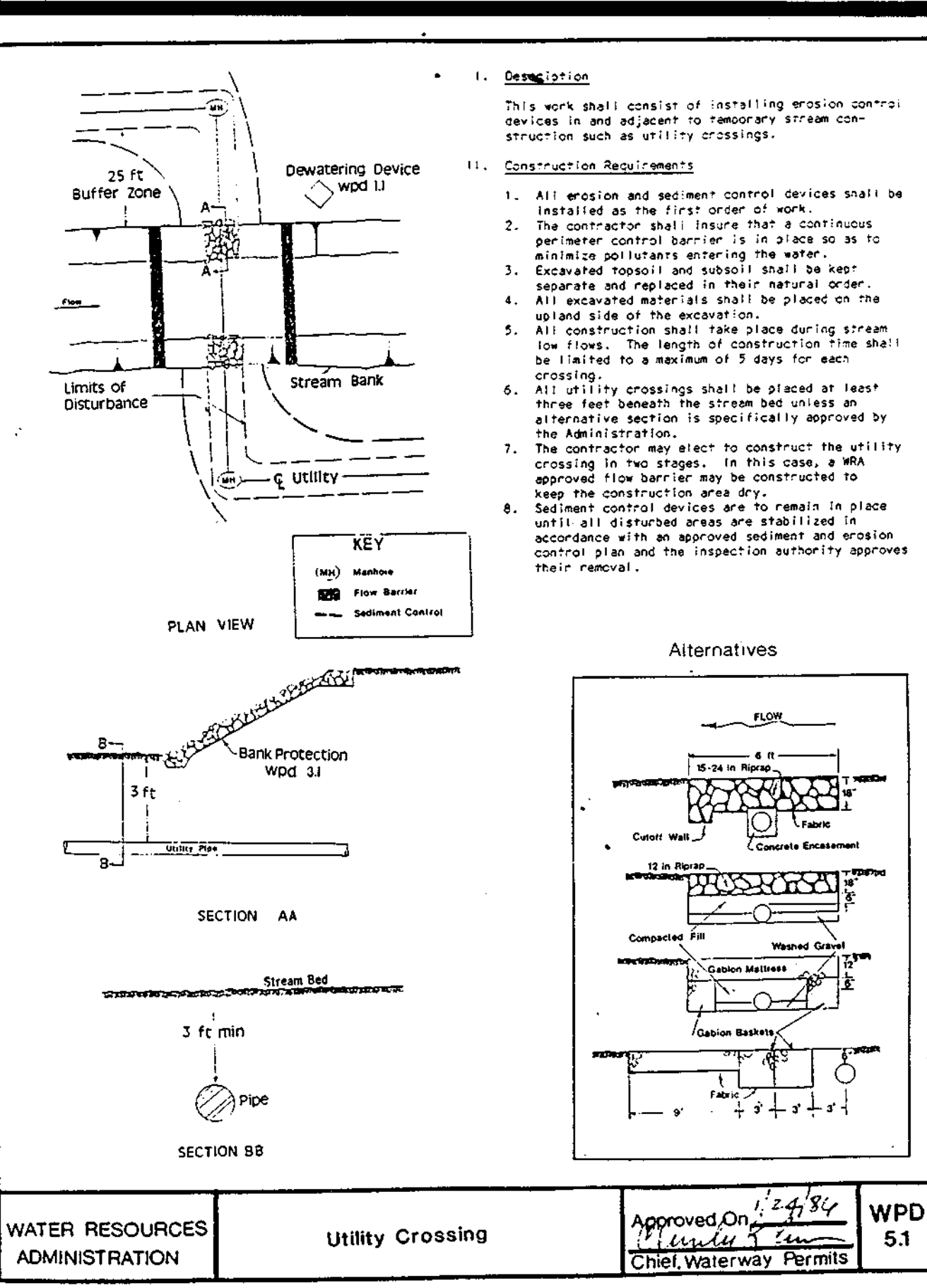


EROSION CONTROL MATTING

Construction Specifications

1. Lay in the matting by placing the top ends of the matting in a narrow trench, 6" in depth. Backfill the trench and tamp firmly to conform to the channel cross-section. Secure with a row of staples about 4" down slope from the trench. Spacing between staples is 6".
2. Staple the 4" overlap in the channel center using an 18" spacing between staples.
3. Before stapling the outer edges of the matting, make sure the matting is smooth and in firm contact with the soil.
4. Staples shall be placed 2' apart with 4 rows for each strip, 2 outer rows, and 2 alternating rows down the center.
5. Where one roll of matting ends and another begins, the end of the top strip shall overlap the upper end of the lower strip by 4", shiplap fashion. Reinforce the overlap with a double row of staples spaced 6" apart in a staggered pattern on either side.
6. The discharge end of the matting liner should be similarly secured with 2 double rows of staples.

Note: If flow will enter from the edge of the matting then the area affected by the flow must be keyed-in.



WATER RESOURCES ADMINISTRATION	Utility Crossing	Approved On 1/24/99 1/24/99 Chief, Waterway Permits	WPD 51
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ENGINEER'S CERTIFICATE

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.

[Signature] 8/17/99
Date

DEVELOPER'S/BUILDER'S CERTIFICATE

I/We certify that all development and/or 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 Maryland 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 HSCD.

[Signature] 8/17/99
Signature of Developer/Builder Date

[Signature] 1/24/99
Natural Resources Conservation Service Date

[Signature] 1/24/99
Howard S.C.D. Date

This Development Plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
[Signature] 1/24/99
Chief, Bureau of Highways

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
[Signature] 2/10/99
Chief, Division of Land Development

[Signature] 2/4/00
Chief, Development Engineering Division MK

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK - BURTONSVILLE, MD 20866
TELEPHONE: (301)421-4024 NO. VA. (301)989-2524 BALTO. (301)880-1820 FAX (301)421-4186

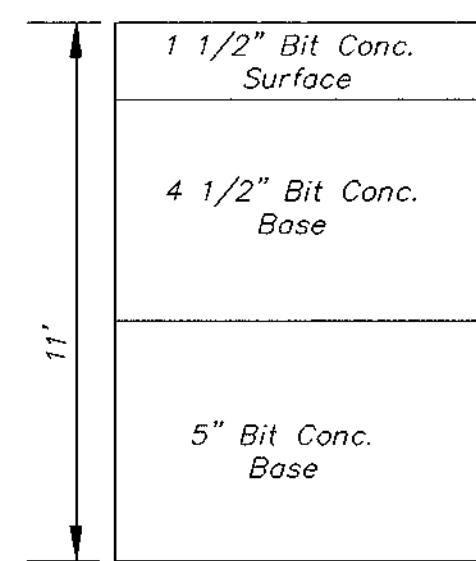
DATE	REVISION	BY	APP'R.

PREPARED FOR:
The Howard Research & Development Corporation
10275 Little Patuxent Pkwy.
Columbia, Maryland 21044
Attn: A. Edwards
Tel: (410)992-0027

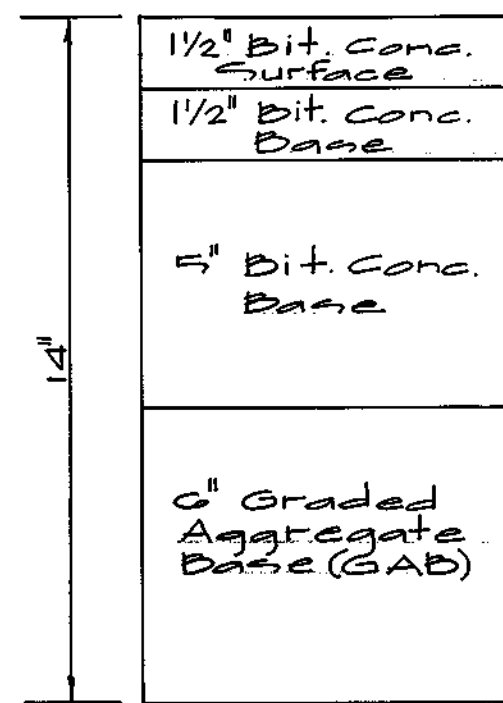
Sediment Control Plan
Route 179 Commercial
Section 1, Area 2
Phase 295
Howard County, Maryland
Election District No. 6

DES.:	SCALE	ZONING	G.L.W. FILE No.
DRN.:	As Shown	NT	95-009
CHK.:	DATE	TAX MAP No.	SHEET
	Nov., 1999	26	4 of 5

Full Depth Bit Conc. Alternative



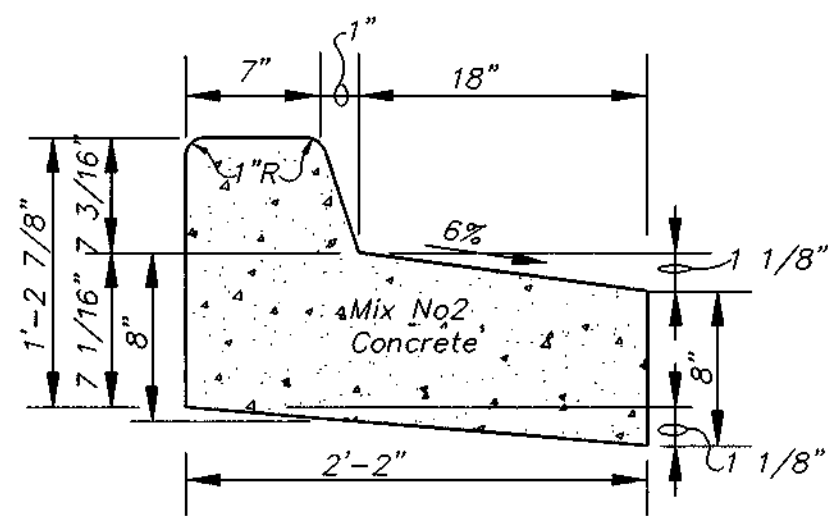
P-5



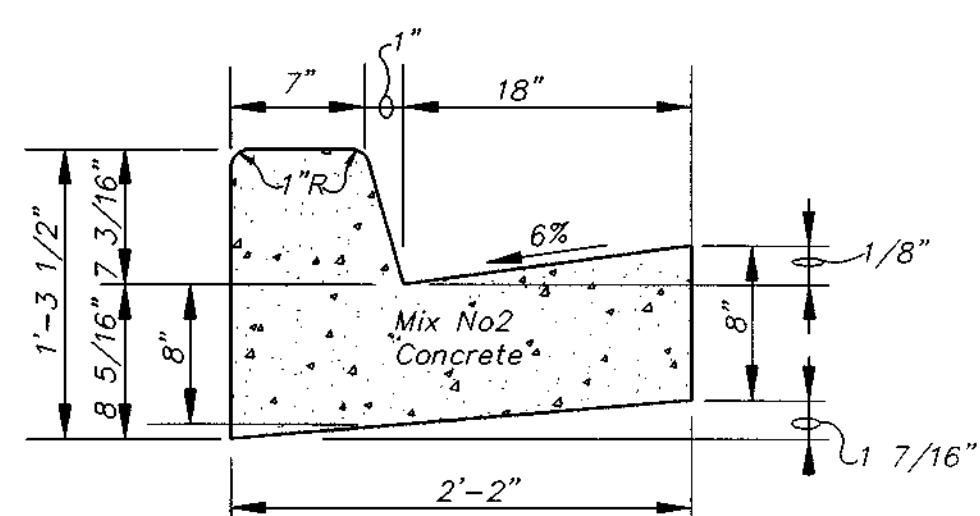
P-5

Paving Sections

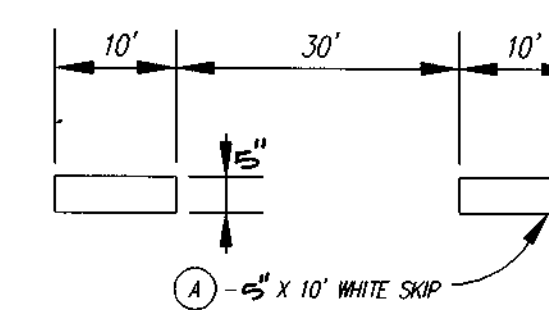
N.T.S.
Note: Other equivalent paving sections may be approved where approved by a professional soils engineer.



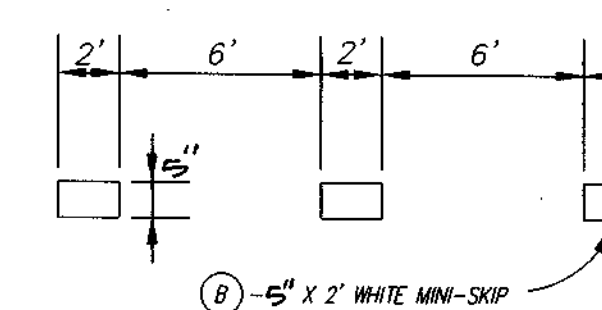
Reverse 7" Combination Curb & Gutter
N.T.S.



Standard 7" Combination Curb & Gutter
N.T.S.



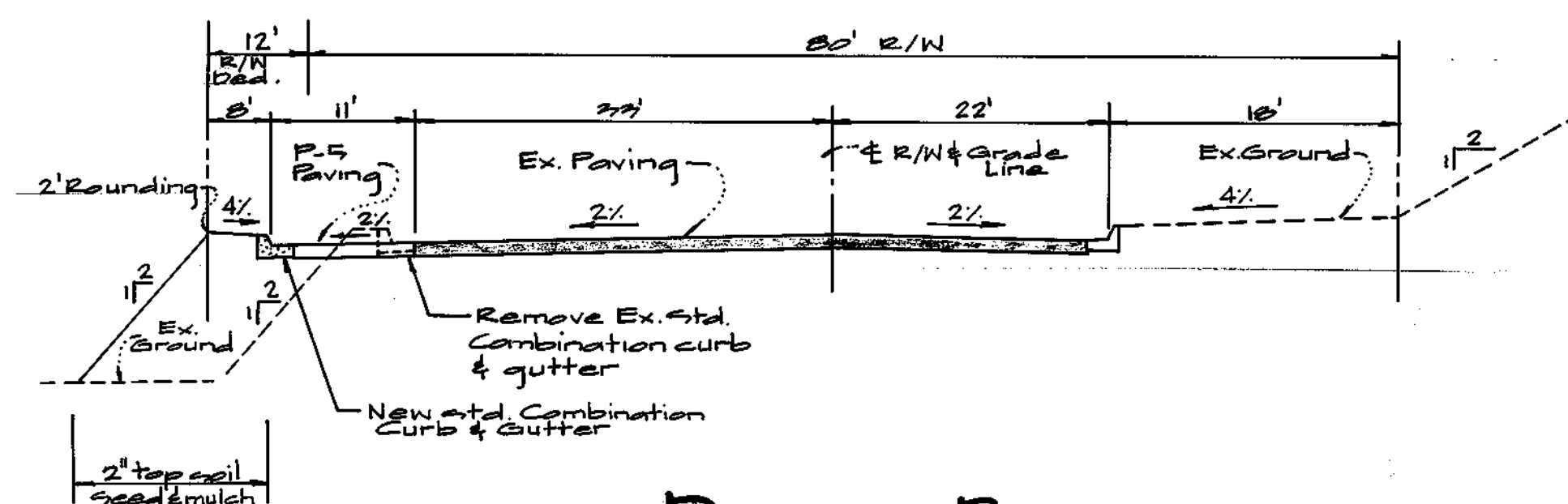
(A) - 5" X 10' WHITE SKIP



(B) - 5" X 2' WHITE MINI-SKIP

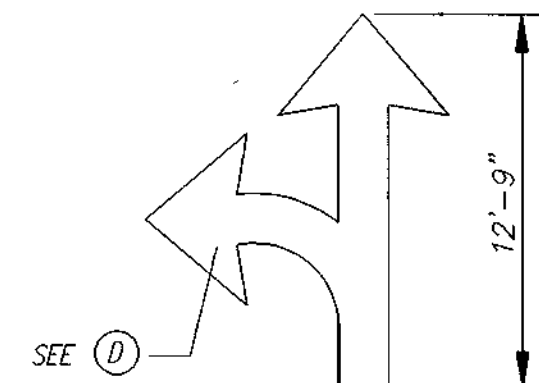
Typical Spacing Longitudinal Pavement Lines

NO SCALE



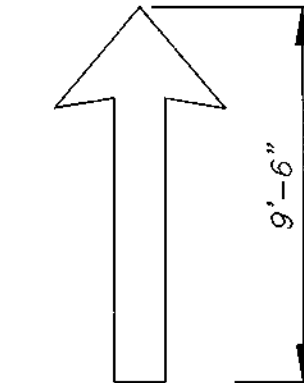
DOBBIN ROAD

Street Trees to be located approximately 5' behind curbs. (Sta. 79+48 to Sta. 80+92)

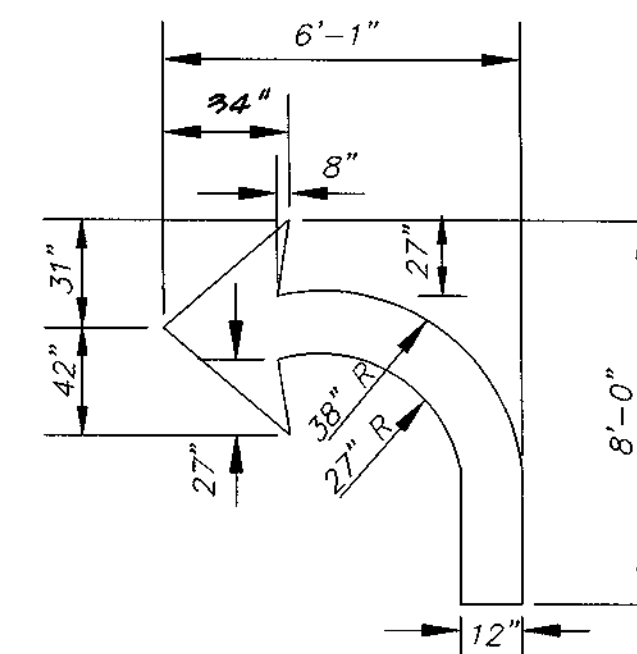


(J) (K)*

*K IS OPPOSITE VIEW



(L)



(E) (F)*

*E IS OPPOSITE VIEW

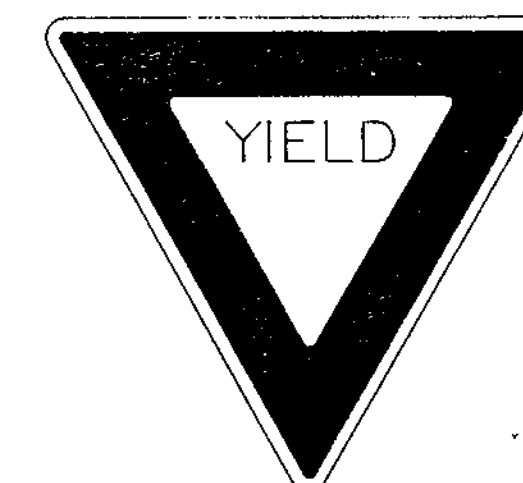
ONLY

(F)

PAVEMENT SYMBOLS

Pavement Marking Details

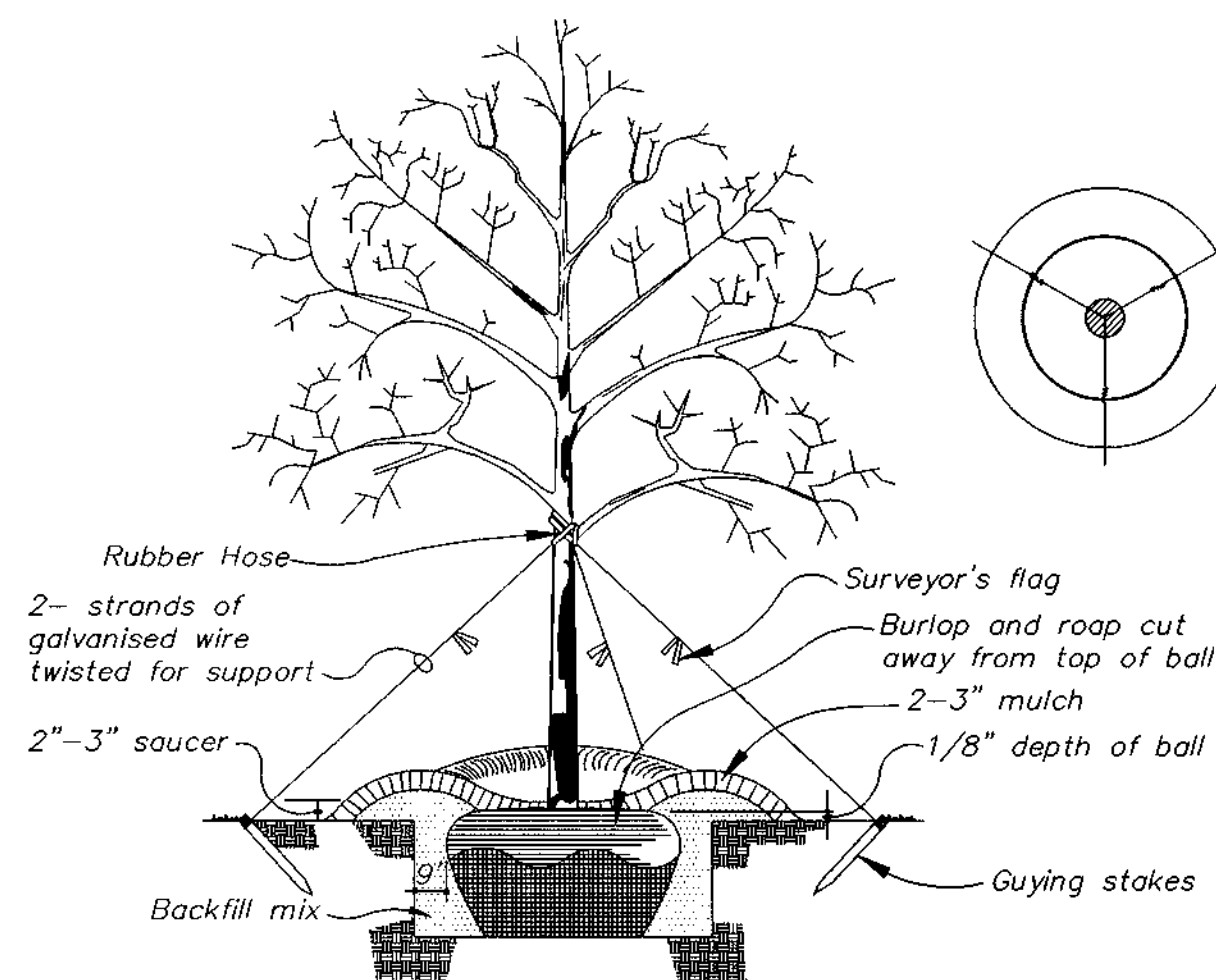
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R1-2
36" X 36" X 36"

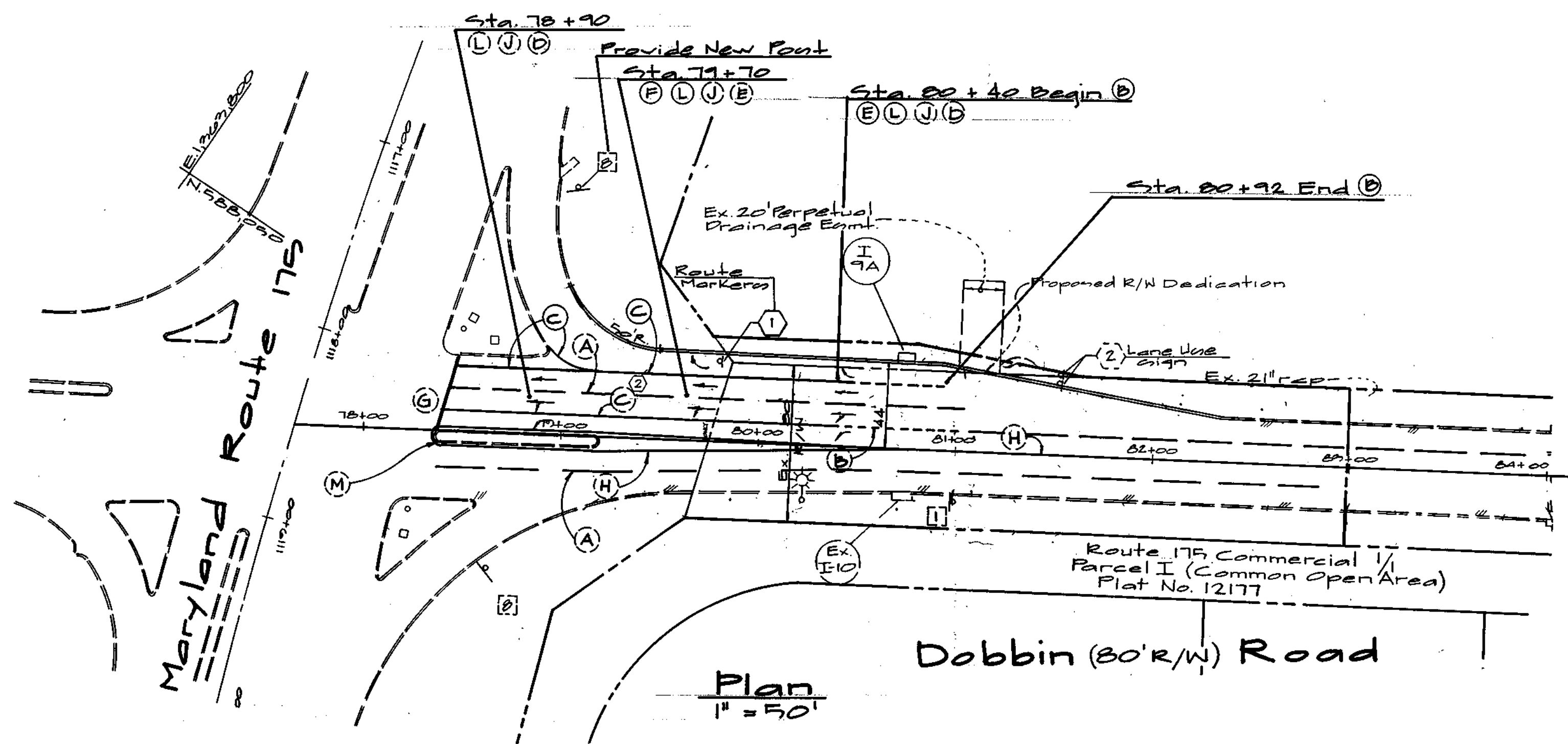
Signing Details

NO SCALE



Typical Tree Guying Detail

N.T.S.



Dobbin (80' R/W) Road

Plan
1" = 50'

LEGEND

- (1) - EXISTING SIGN TO REMAIN
- (1) - EXISTING SIGN TO BE REMOVED AND SALVAGED
- (2) - EXISTING SIGN TO BE REMOVED AND RESET AT NEW LOCATION
- (2) - NEW SIGNS - SEE BELOW
- (G) - EXISTING PAVEMENT MARKING
- (G) - NEW PAVEMENT MARKING

PAVEMENT MARKING NOTES

1. ALL PAVEMENT MARKINGS TO BE APPLIED USING "SETFAST PREMIUM ALKYD TRAFFIC PAINT" BY SHERWIN WILLIAMS OR APPROVED EQUAL.
2. EXISTING PAVEMENT MARKINGS THAT ARE IN CONFLICT WITH THE PROPOSED PAVEMENT MARKINGS FOR THIS CONTRACT WILL BE REMOVED BY THE CONTRACTOR BY ANY METHOD WHICH IS APPROVED BY THE ENGINEER. ONLY METHOD CURRENTLY APPROVED IS GRINDING.

SIGNING NOTES

1. SIGN ERRECTED AT THE SIDE OF THE ROAD SHALL BE MOUNTED AT A HEIGHT OF AT LEAST 7 FEET MEASURED FROM THE BOTTOM OF THE SIGN TO THE NEAR EDGE OF THE PAVEMENT.
2. ALL SIGNS TO BE MOUNTED ON 4"x4"x12" WOLMANIZED, (PRESSURE TREATED), WOODEN POSTS.
3. SIGNS SHALL BE 12" TO 18" FROM EDGE OF SIGN TO CURB LINE. STOP SIGNS SHALL BE LOCATED 15' BACK FROM INTERSECTING STREET CURB LINE OR AS DIRECTED BY HOWARD COUNTY TRAFFIC DIVISION.

LEGEND

- (A) - PAVEMENT LINES - 5" X 10' WHITE SKIP
- (B) - PAVEMENT LINES - 5" X 2' WHITE MINI-SKIP
- (C) - PAVEMENT LINES - 5" WHITE SOLID
- (D) - PAVEMENT SYMBOL - LEFT TURN ARROW
- (E) - PAVEMENT SYMBOL - RIGHT TURN ARROW
- (F) - PAVEMENT SYMBOL - ONLY
- (G) - PAVEMENT LINES - 24" WHITE TRANSVERSE STOP LINE (SEE PAVEMENT MARKING NOTE #3)
- (H) - PAVEMENT LINES - 5" DOUBLE YELLOW SOLID
- (I) - PAVEMENT LINES - 5" YELLOW SOLID - TEMPORARY TAPE
- (J) - PAVEMENT SYMBOL - LEFT TURN AND THROUGH ARROW
- (K) - PAVEMENT SYMBOL - RIGHT TURN AND THROUGH ARROW
- (L) - PAVEMENT SYMBOL - THROUGH ARROW
- (M) - PAVEMENT LINES - 5" YELLOW SOLID

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Clayton Hamilton 2/10/00
Chief, Division of Land Development
William M. ... 2/4/00
Chief, Development Engineering Division MK

GLW GUTSCHICK LITTLE & WEBER, P.A.

CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
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BURTOWVILLE, MARYLAND 20686
TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DES. DRN. CHK.

DATE

REVISION

BY

APPR.

PREPARED FOR:
THE HOWARD RESEARCH & DEVELOPMENT CORP.
THE ROUSE BUILDING
10275 LITTLE PATENT PARKWAY
COLUMBIA, MD. 21044
ATTN: MR. BILL BROWN
(410) 992-6027

STRIPING PLAN & TYPICAL DETAILS

Route 175 Commercial
Section 1 Area 2
Phase 2a

6TH ELECTION DISTRICT

SCALE

AS SHOWN

DATE

Nov., 1999

ZONING

New Town

TAX MAP - GRID

36

G. L. W. FILE NO.

95-003

SHEET

5 OF 5

HOWARD COUNTY, MARYLAND