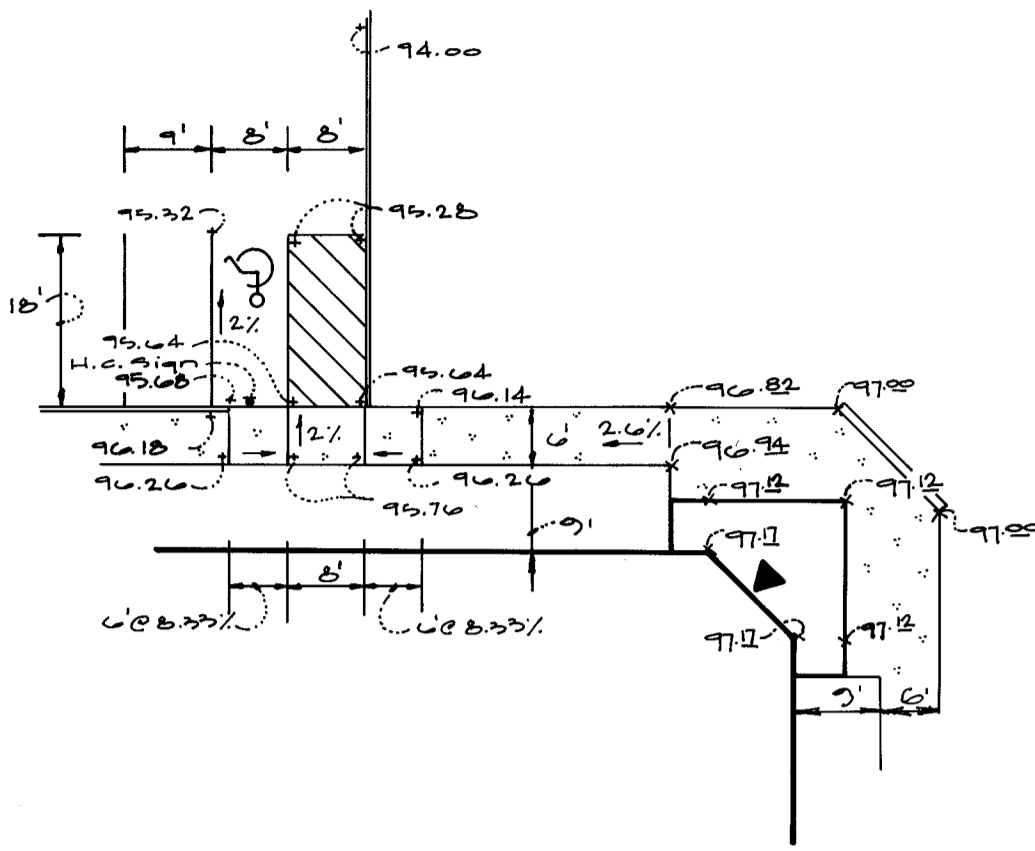
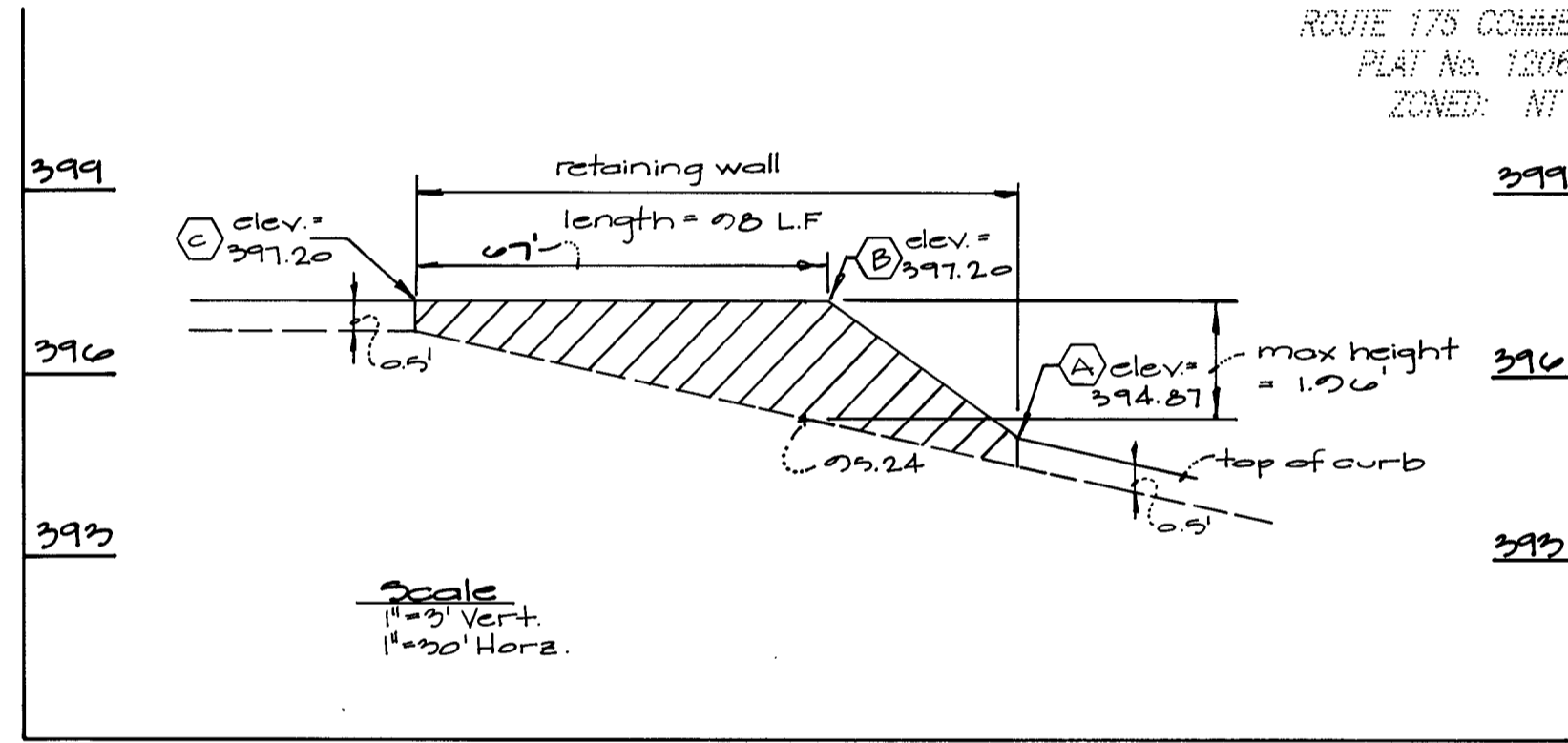


GENERAL NOTES

- All construction shall be in accordance with the latest standards and specifications of Howard County plus MSHA standards and specifications if applicable.
- The contractor shall notify the Department of Public Works/Bureau of Construction Inspection at (301) 792-7272 at least five (5) working days prior to the start of work.
- The contractor shall notify "Miss Utility" at 1-800-257-7777 at least 48 hours prior to any excavation work.
- The contractor shall notify the Howard County Department of Public Works, Bureau of Utilities at (410) 313-4900 at least five working days prior to starting any excavation work.
- Site area: 1.577 acres
- All plan dimensions are to face of curb unless otherwise noted.
- Existing topography reflects mass grading as shown per as-built, November, 1996.
- Coordinates and bearings are based upon the MD State plan system (NAD 83).
- All existing water and sewer shown is public, per contract 24-3463-D.
- Stormwater management for this site is proposed under GP 96-45 & F-96-41.
- All existing public storm drain is per F-96-41.
- All curb radii is 5' unless noted otherwise.
- Utility information taken from approved final construction plans for development.
- Sidewalks adjacent to perpendicular parking shall be 6' wide, unless dimensioned otherwise. All other sidewalks shall be 4' wide, except where dimensioned otherwise. Provide 3' radius rounding at all angle breaks and intersections.
- Contractor shall utilize PVC pipe for the sewer house connection. Contractor shall utilize type K copper for the water house connection.
- For all storm drain connections at existing stubs, the contractor shall remove the existing blocking and maintain the same grade and alignment to the first structure.
- Use trench bedding class "C" for storm drains.
- Paved areas indicated are private.
- Project background: See Dept. of Planning & Zoning File Numbers: SP 95-08, FDP 226-A, MP 95-94, GP 96-45, F-96-41, PB 302, SDP 96-79, SDP 96-114, SDP 97-37, F 96-114, F 97-54 & SDP 97-85.
- Recording reference: Plat No. 1217B
- All proposed ramps shall be in accordance with current A.D.A. standards. Maximum sidewalk cross slope shall be two percent. Provide a five-foot by five-foot level (2 percent max.) landing at the top and bottom of all ramps and building entrances and exits.
- The water meter shall be located inside the building.
- The limits of public maintenance for the water house connection shall be 7' from the back of curb.
- All proposed site utilities are to terminate 5' from the building. The building plumber shall connect to and extend these utilities to the inside of the building.
- For Gas, Telephone and Electric routing, see separate plan.
- There are no lot line building setbacks, except as indicated from the public Right-of-Way. No parking area shall be located within 10' of any lot line except shared parking facilities between two or more lots and except as approved by the Howard County Planning Board. (FDP-226-A)



Handicap Parking and Accessibility Detail
Scale: 1"=20'



Elev. of Conc. Retaining Wall

SITE ANALYSIS - PARCEL "J"

- AREA OF PARCEL: 59,150 S.F. / 1.3579 AC.
- ZONING: NEW TOWN
- PROPOSED USE: Bank w/ Drive Thru
- GROSS BUILDING AREA: 9900 SQ.FT.
- TOTAL PARKING SPACES REQUIRED: 17 spaces (@ 1000/2000)
- TOTAL PARKING SPACES PROVIDED: 24 spaces
- TOTAL NO. OF HANDICAP SPACES REQUIRED: 1 space
- NO. OF HANDICAP VAN SPACES REQUIRED: 1 space
- TOTAL NO. OF HANDICAP SPACES PROVIDED: 1 space
- NO. OF HANDICAP VAN SPACES PROVIDED: 1 space

RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
1046.00	97.32	48.70	97.28	S 30°33'19" E	05°21'42"

Legend

- Existing Contour
- Proposed Contour
- Existing Spot Elevation
- Proposed Spot Elevation
- Reversed of Curb & Gutter
- Standard of Curb & Gutter
- Entrance to be Utilized by Handicapped Persons
- Ex. Light Fixture

APPROVED
PLANNING BOARD
OF HOWARD COUNTY

DATE: 1/28/98

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

[Signature] 3/20/98
[Signature] 3/20/98
[Signature] 3/18/98

GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK - BURTONSVILLE, MARYLAND 20866

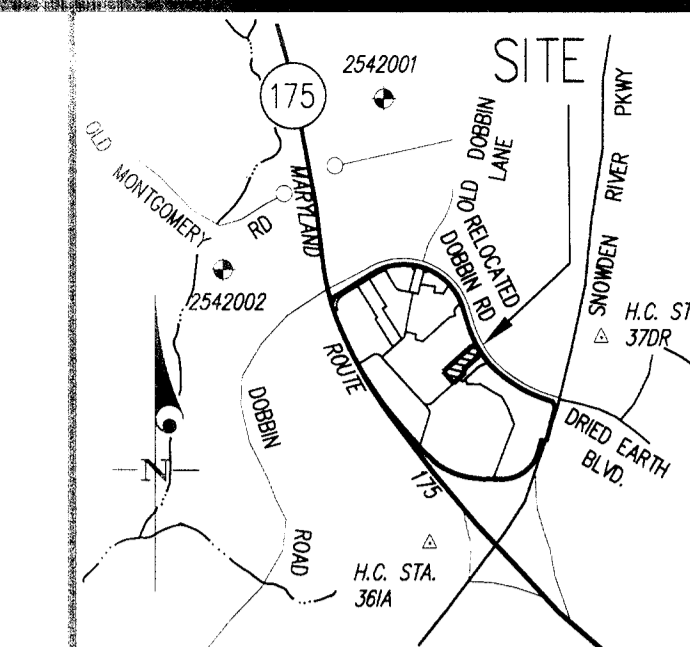
OWNER
THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
10275 LITTLE PATENT PARKWAY
COLUMBIA, MD. 21044
PHONE: (410) 992-6027
ATTN: AL EDWARDS

Contract Purchaser:
Commercial Farmers
8593 Baltimore National Pk
Ellicott City, Md 21043

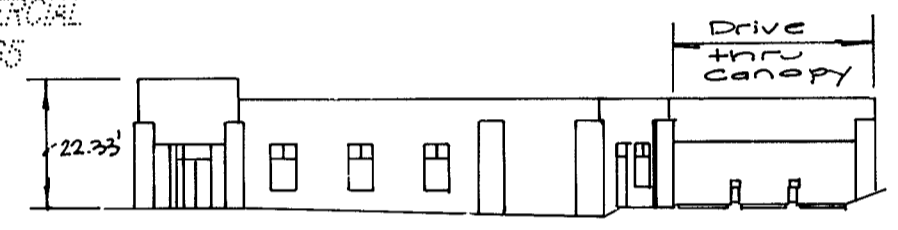
SITE DEVELOPMENT PLAN
ROUTE 175 COMMERCIAL
PARCEL "J"

SCALE 1"=30'
ZONING NT - COMMERCIAL
G. L. W. FILE No. 97126

DATE Feb 11, 98
TAX MAP No. 36
SHEET 1 OF 4



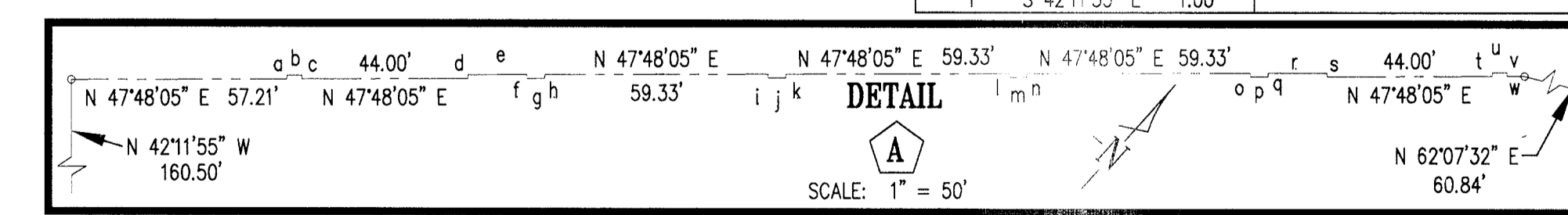
- BENCHMARK DESCRIPTIONS**
- Station 2542001 (concrete monument)
Elevation: 426.971 (for vertical control only)
Station is located on B.C. & E. transmission lines 1080'± S.W. of Dobbin Road.
 - Station 2542002 (concrete monument)
Elevation: 363.638 (for vertical control only)
Station is located 1000'± west of Rte. 175 on transmission line @ B. C. & E. tower 19-E. Station 370R (1/2" rebar)
N 69881.1794, E 416566.7155 (for horizontal control only)
Station is located 0.452 miles North of Rte. 175 and 46'± East of the curb of Dobbin Road.
 - Station 361A (concrete monument)
N 69205.9263, E 416313.5119 (for horizontal control only)
Station is located at the Southeast corner of the intersection of Snowden River Pkwy. and Rte. 175 3'± from curb and 5.7'± from guard rail.



Building Footprint/Elevation

DETAIL "A" LINE TABULATION

LINE	DIRECTION	DISTANCE	LINE	DIRECTION	DISTANCE
a	N 42°11'55" W	1.00'	m	N 47°48'05" E	4.67'
b	N 47°48'05" E	4.00'	n	N 42°11'55" W	1.00'
c	S 42°11'55" E	1.00'	o	S 42°11'55" W	1.00'
d	N 42°11'55" W	1.00'	p	N 47°48'05" E	4.67'
e	N 47°48'05" E	15.67'	q	N 47°48'05" E	15.67'
f	S 42°11'55" E	1.00'	r	N 47°48'05" W	15.67'
g	N 47°48'05" E	4.67'	s	S 42°11'55" E	1.00'
h	N 42°11'55" W	1.00'	t	N 42°11'55" W	1.00'
i	S 42°11'55" E	1.00'	u	N 47°48'05" E	4.00'
j	N 47°48'05" E	4.67'	v	S 42°11'55" E	1.00'
k	N 42°11'55" W	1.00'	w	N 47°48'05" E	4.67'
l	S 42°11'55" E	1.00'			



For site lighting, sign locations, and landscaping, see sheet 2.
For sequence of construction, see sheet 2.
For location of sediment control devices, see sheet 3.

Sheet Index

- Site Development Plan
- Landscape Plan, Utility Profiles & Details
- Planting Notes & Details
- Sediment Control Notes & Details

ADDRESS CHART

WATER CODE:	SEWER CODE:	PARCEL NUMBER	STREET ADDRESS
008	4900000	4	175 COLUMBIA CROSSING CIRCLE

SUBDIVISION NAME: ROUTE 175 COMMERCIAL
SECTION/AREA: 1/1
PARCEL: J

SUBDIVISION	ZONE	TAX MAP	BLOCK	ELEC. DIST.	CENSUS TRACT
12.17B	NEW TOWN	36	18	6	6087.03

SDP-9862

PLANT MATERIALS AND PLANTING METHODS

A. Plant Materials

The landscape contractor shall furnish and install and/or dig, ball, burlap and transplant all of the plant materials called for on drawings and/or listed in the Plant Schedule.

1. Plant Names

Plant names used in the Plant Schedule shall conform with "Standardized Plant Names," latest edition.

2. Plant Standards

All plant material shall be equal to or better than the requirements of the "USA Standard for Nursery Stock" latest edition, as published by the American Association of Nurserymen (hereafter referred to as AAN Standards). All plants shall be typical of their species and variety, shall have a normal habit of growth and shall be first quality, sound, vigorous, well-branched and with healthy, well-furnished root systems. They shall be free of disease, insect pests and mechanical injuries.

All plants shall be nursery grown and shall have been grown under the same climate conditions as the location of this project for at least two years before planting. Neither heeled-in plants nor plants from cold storage will be accepted.

3. Plant Measurements

All plants shall conform to the measurements specified in the Plant Schedule as approved by the ARC.

a. Caliper measurements shall be taken six inches (6") above grade for trees under four-inch (4") caliper and twelve (12") above grade for trees four inches (4") in caliper and over.

b. Minimum branching height for all trees shall be six feet (6'), maximum eight feet (8').

c. Minimum size for planting shade trees shall be 3-3 1/2" caliper, 14'-16' in height.

d. Minimum size for planting minor or intermediate focus trees (pines, crabapples, etc.) shall be 3-3 1/2" caliper, 10'-12' in height.

e. Minimum size for planting shrubs shall be 18" - 24" spread unless noted otherwise.

f. Caliper, height, spread and size of ball shall be generally as follows:

CALIPER	HEIGHT	SPREAD	SIZE OF BALL
3" - 3 1/2"	14'-16'	6'-8'	32" diameter
3 1/2" - 4"	14'-16'	8'-10'	36" diameter
4" - 4 1/2"	16'-18'	8'-10'	40" diameter
4 1/2" - 5"	16'-17'	10'-12'	44" diameter
5" - 5 1/2"	16'-20'	10'-12'	48" diameter
5 1/2" - 6"	18'-20'	12'-14'	52" diameter

All plant material shall generally average the median for the size ranges indicated above as indicated in the "AAN Standards".

4. Plant Identification

Legible labels shall be attached to all shade trees, minor trees, specimen shrubs and bundles or boxes of other plant material giving the botanical and common names, size and quantity of each. Each shipment of plants shall bear certificates of inspection as required by Federal, State and County authorities.

5. Plant Inspection

The ARC may, upon request by the builder or developer, at least ten (10) days prior to the installation of any proposed plant material, inspect all proposed plant material at the source of origin.

B. Planting Methods

All proposed plant materials that meet the specifications in Section A are to be planted in accordance with the following methods during the proper planting seasons as described in the following:

1. Planting Seasons

The planting of deciduous trees, shrubs and vines shall be from March 1st to June 15th and from September 15th to December 15th. Planting of deciduous material may be continued during the winter months providing there is no frost in the ground and frost-free topsoil planting mixtures are used.

The planting of evergreen material shall be from March 15th to June 15th and from August 15th to December 1st. No planting shall be done when ground is frozen or excessively moist. No frozen or wet topsoil shall be used at any time.

2. Digging

All plant material shall be dug, balled and burlapped (B+B) in accordance with the "AAN Standards".

3. Excavation of Plant Pits

The landscaping contractor shall excavate all plant pits, vine pits, hedge trenches and shrub beds in accordance with the following schedule:

a. Locations of all proposed plant material shall be staked and approved in the field by the landscape architect before any of the proposed plant material is installed by the landscape contractor.

b. All pits shall be generally circular in outline, vertical sides; depth shall not be less than 6" deeper than the root ball, diameter shall not be less than two times the diameter of the root ball as set forth in the following schedule.

c. If areas are designated as shrub beds or hedge trenches, they shall be excavated to at least 18" depth minimum. Areas designated for ground covers and vines shall be excavated to at least 12" in depth minimum.

d. Diameter and depth of tree pits shall generally be as follows:

PLANT SIZE	ROOT BALL	PIT DIAMETER	PIT DEPTH
3" - 3 1/2" cal.	32"	64"	28"
3 1/2" - 4" cal.	36"	72"	32"
4" - 4 1/2" cal.	40"	80"	36"
4 1/2" - 5" cal.	44"	88"	40"
5" - 5 1/2" cal.	48"	96"	44"
5 1/2" - 6" cal.	52"	104"	48"

A 20% compaction figure of the soil to be removed is assumed and will be allowed in calculation of extra topsoil. The tabulated pit sizes are for purposes of uniform calculation and shall not override the specified depths below the bottoms of the root balls.

4. Staking, Guying and Wrapping

All plant material shall be staked or guyed, and wrapped in accordance with the following specifications:

a. Stakes: Shall be sound wood 2" x 2" rough sawn oak or similar durable woods, or lengths, minimum 7'-0" for major trees and 5'-0" minimum for minor trees.

b. Wire and Cable: Wire shall be #10 ga. galvanized or bethanized annealed steel wire. For trees over 3" caliper, provide 5/16" turn buckles, eye and eye with 4" take-up. For trees over 5" caliper, provide 3/16", 7 strand cable cadmium plated steel, with galvanized "eye" thimbles of wire and hose on trees up to 3" in caliper.

c. Hose: Shall be new, 2 ply reinforced rubber hose, minimum 1/2" I.D. "Plastic Lock Ties" or "Paul's Trees Braces" may be used in place of wire and hose on trees up to 3" in caliper.

d. All trees under 3" in caliper are to be planted and staked in accordance with the attached "Typical Tree Staking Detail". All trees over 3" in caliper are to be planted and guyed in accordance with the attached "Typical Tree Guying Detail".

5. Plant Pruning, Edging and Mulching

a. Each tree, shrub or vine shall be pruned in an appropriate manner to its particular requirements, in accordance with accepted standard practice. Broken or bruised branches shall be removed with clean cuts flush with the adjacent trunk or branches. All cuts over 1" in diameter shall be painted with an approved antiseptic tree wound dressing.

b. All trenches and shrub beds shall be edged and cultivated to the lines shown on the drawing. The areas around isolated plants shall be edged and cultivated to the full diameter of the pit. Sod which has been removed and stacked shall be used to trim the edges of all excavated areas to the neat lines of the plant pit saucers, the edges of shrub areas, hedge trenches and vine pockets.

c. After cultivation, all plant materials shall be mulched with a 2" layer of fine, shredded pine bark, peat moss or another approved material over the entire area of the bed or saucer.

6. Plant Inspection and Acceptance

The ARC shall be responsible for inspecting all planting projects on a periodic basis to assure that all work is proceeding in accordance with the approved plans and specifications.

7. Plant Guarantee

All plant material shall be guaranteed for the duration of one full growing season, after final inspection and acceptance of the work in the planting project. Plants shall be alive and in satisfactory growing condition at the end of the guarantee period.

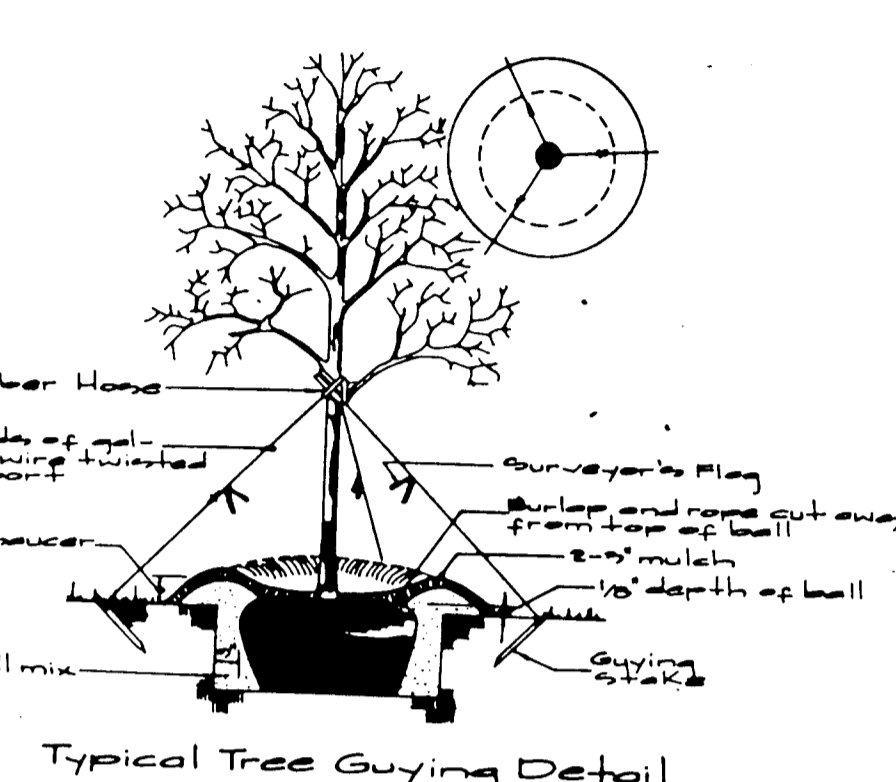
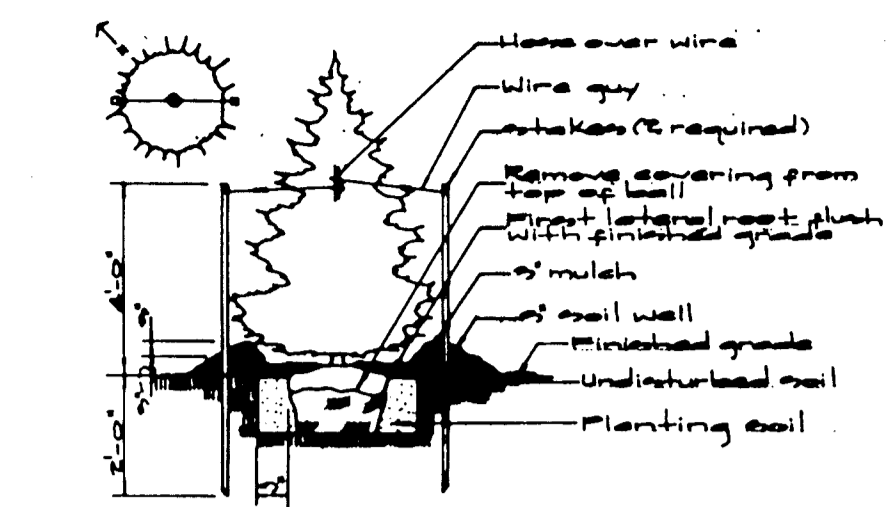
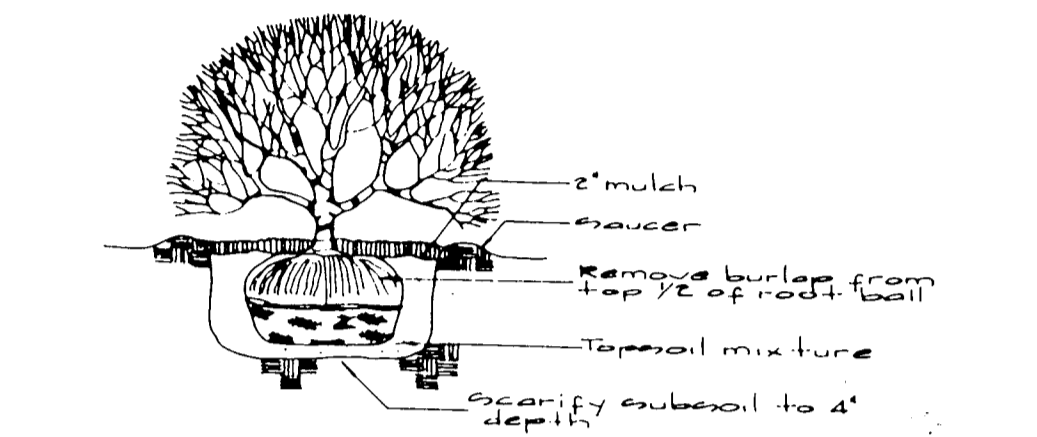
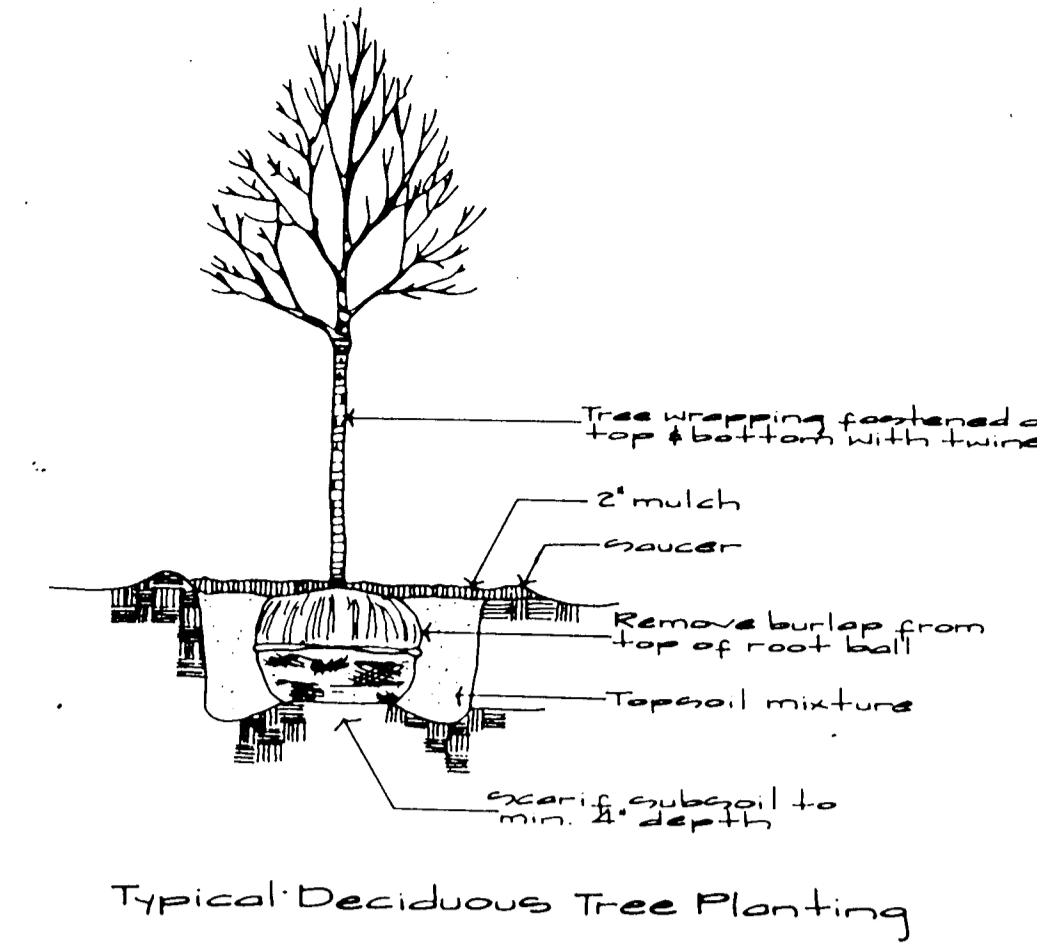
a. For this purpose, the "growing season" shall be that period between the end of the "Spring" planting season, and the commencement of the "Fall" planting season.

b. Guarantee for planting performed after the specified end of the "Spring" planting season, shall be extended through the end of the next following "Spring" planting season.

Sodding

All sodding shall be in accordance with the "Landscape Specification Guidelines for Baltimore-Washington Metropolitan Areas"-latest edition, approved by the Landscape Contractors Association of Metropolitan Washington and the American Society of Landscape Architects.

All sod shall be strongly rooted sod, not less than two years old and free of weeds and undesirable native grasses. Provide only sod capable of growth development when planted and in strips not more than 18" wide x 4" long. Provide sod composed principally of improved strain Kentucky bluegrass, such as, Columbia, Victa, or Escort.



Schedule 'A' Perimeter Landscape Edge

Category	Adjacent to Roadway	Adjacent to Perimeter Properties
Linear Feet of Roadway Frontage/Perimeter	B	E
Credit for Existing Vegetation (Yes, No, Linear Feet) (Describe Below if Needed)		123'
Credit for Wall, Fence or Berm (Yes, No, Linear Feet) (Describe Below if Needed)		Yes: 20' of Shrub Yes: 20' of Berm Higher than Parking
Number of Plants Required (Shade Trees, Evergreen Trees, Shrubs)	3 0 0	N/A
Number of Plants Provided (Shade Trees, Evergreen Trees, Other Trees (21 sub) shrubs (20 sub) (Describe plant substitution credits below if necessary)	By Alternative Compliance	

- LANDSCAPING NOTES
- This plan has been prepared in accordance with Section 16.124 of the Howard County Code and Chapter VI of the Howard County Landscape Manual.
 - Contractor shall notify all utilities at least (5) five days before starting work. All General Notes, especially those regarding utilities, on Sheet C-1 shall apply.
 - Field verify underground utility locations and existing conditions before starting planting work. Contact architect if any relocations are required.
 - Plant quantities shown on Plant List are provided for the convenience of the contractor only. If discrepancies exist between quantities shown on the plan and those shown on the plant list, the quantities on the plan shall take precedence.
 - All plant material shall be full, heavy, well formed, and symmetrical, and conform to the A.A.N. Specifications, and be installed in accordance with project specifications.
 - No substitution shall be made without written consent of the owner or his representative.
 - All areas disturbed by construction activities but not otherwise planted, paved, or mulched shall be seeded or sodded in accordance with project specifications.
 - The contractor shall notify the owner in writing if he/she encounters soil drainage conditions which may be detrimental to the growth of the plants.
 - All exposed earth within limits of planting beds shall be mulched with shredded hardwood mulch per Planting Details.
 - Schedule A - Perimeter Landscape Edge and Schedule B - Parking Lot Internal Landscaping is provided for landscape survey calculation purposes only. The required survey is:
4 req. shade tree x 100 = \$400.00
 - Tabulation for landscape shown:
Required planting by HRD for 1.36 ac of commercial at 30 trees/ac = 41 trees
Planting provided:
shade trees (existing and proposed) 17
ornamental trees 24 = 12 E.S.T.
evergreen trees (existing and proposed) 12 = 6 E.S.T.
32 E.S.T.
E.S.T. - Equivalent Shade Trees
The balance of the HRD required shade trees is provided by proposed shrubs and ground covers.

Schedule 'B' Parking Lot Internal Landscaping

Number of Parking Spaces	24
Number of Trees Required @ 20	1
Number of Trees Provided (Shade Trees, Other Trees (21 sub) shrubs (20 sub) (Describe plant substitution credits below if necessary)	By Alternative Compliance

Sch 'B' total equ. shade trees for bonding:

SYMBOL	QTY.	NAME BOTANICAL/COMMON	SIZE	REMARKS
SHADE TREES				
HL	3	Gleditsia triacanthos 'Inermis' "Skyliner"	26-30" Cal. 12-14' Ht.	888 PP# 1610
ZV	12	Zelkova serrata "Village Green"/ Village Green Zelkova	26-30" Cal. 12-14' Ht.	888 PP# 2337
ORNAMENTAL TREES				
PP	4	Prunus cerasifera "Handcloud"/ Piedleaf Flowering Plum	26-30" Cal. 8-10' Ht.	888
WH	10	Crataegus viridis "Winter King"/ Winter King Hawthorn	26-30" Cal.	888
EVERGREEN TREES				
PO	10	Picea omorika/Serbian Spruce	9-10' Ht.	888
SHRUBS AND GROUND COVERS				
AZ	12	Dwarf hybrid azalea: Gumpo White	18-24" Spr.	#3 Cont.
CD	110	Cotoneaster dammeri "Coral Beauty"/ Coral Beauty Cotoneaster	18-24" Spr.	#3 Cont.
IG	79	Ilex Glabra/Ink Berry	18-24" Spr.	#3 Cont.
JC	609	Juniperus chinensis 'Parsonii' / Parson's Juniper	18-24" Spr.	#3 Cont.
OH	5	Osmunda heterophyllus "Gulfstream"/ Sweet Holly	26-30" Ft.	888
LH	650	Liriope muscari/Green Liriope	5" Pot Flat at 8" O.C.	

Owner
The Howard Research and
Development Corporation
10215 Little Patuxent Parkway
Columbia, Md 21044
(410) 992-6027
Attn: A. Edwards

Contract Purchaser
Commercial Farmers Bank
80915 Baltimore National Pike
Ellicott City, Maryland 21043

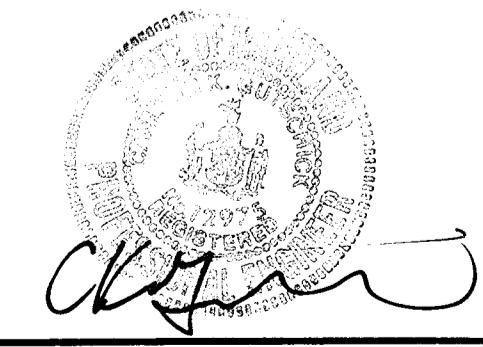
Planting Notes & Details
**ROUTE 175 COMMERCIAL
PARCEL "J"**

DES.	SCALE	ZONING	G.L.W. FILE NO.
	1"=30'	NT comm.	77126
DRN.	DATE	TAX MAP No.	SHEET
	Feb. 11, '98	30	3 of 4
CHK.			

APPROVED
PLANNING BOARD
of HOWARD COUNTY

DATE 1/28/98

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 [Signature] 3/24/98
 [Signature] 3/20/98
 [Signature] 3/10/98



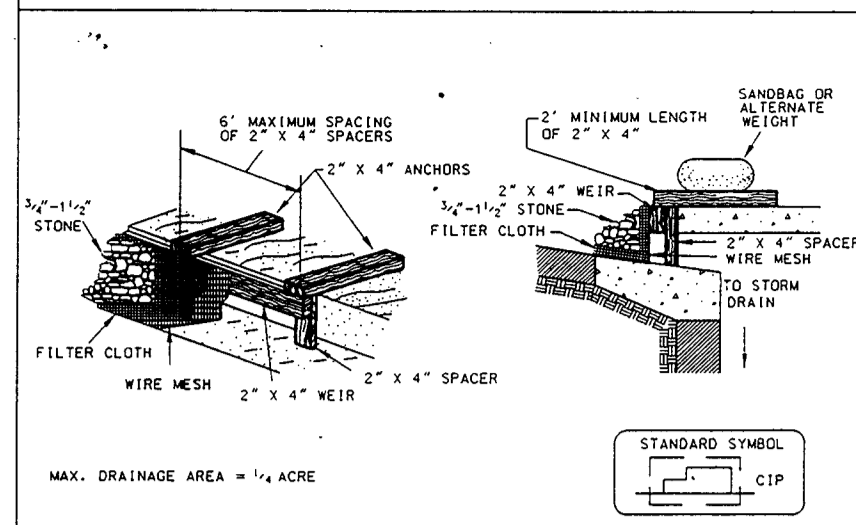
GW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK - BURTONSVILLE, MD 20866
 TELEPHONE (301)421-4024 NO. VA (301)989-2524 BALTO. (301)860-1820 FAX (301)421-4186

DATE	REVISION	BY	APP'R.

GUILFORD ELECTION DISTRICT No. 6

HOWARD COUNTY, MARYLAND

DETAIL 28C - CURB INLET PROTECTION (COG OR COS INLETS)

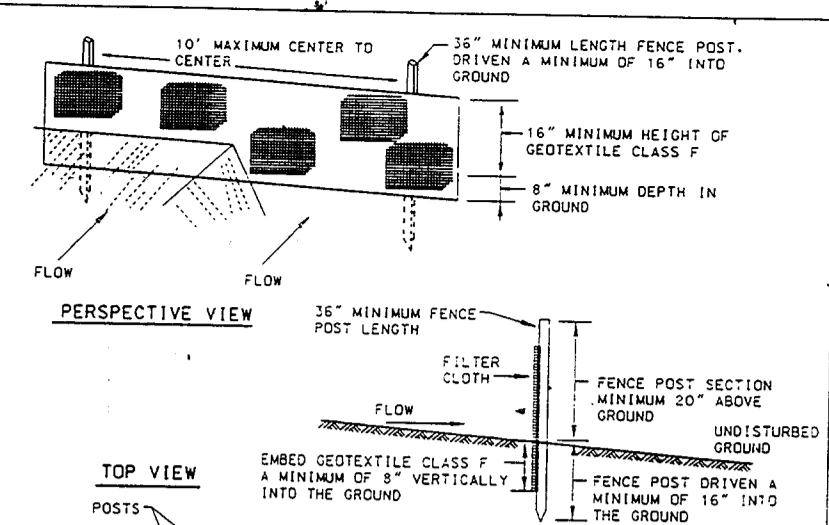


Construction Specifications

- Attach a continuous piece of wire mesh (20" minimum width by throat length plus 4") to the 2" x 4" weir measuring throat length plus 2" as shown on the standard drawing.
- Place a continuous piece of Geotextile Class E the same dimensions as the wire mesh over the wire mesh and securely attach 1" to the 2" x 4" weir.
- Securely nail the 2" x 4" weir to a 6" long vertical spacer to be located between the weir and the inlet face (max. 4" apart).
- Place the assembly against the inlet throat and nail (minimum 2" length of 2" x 4" to the top of the weir or spacer location). These 2" x 4" spacers shall extend across the inlet top and be held in place by anchors or wire mesh weights.
- The assembly shall be placed so that the soil surface is a minimum 1" beyond both ends of the throat opening.
- Form the 1/2" x 1/2" wire mesh and the geotextile fabric to the concrete gutter and against the face of the curb on both sides of the inlet. Place clean 1/2" x 1/2" stones over the wire mesh and geotextile in such a manner to prevent water from entering the throat or around the geotextile.
- This type of protection must be inspected frequently and the filter cloth and stone replaced when clogged with sediment.
- Assure that storm flow does not bypass the inlet by installing a temporary earth or asphalt dike to direct the flow to the inlet.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE 3-18-18 MARYLAND DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES WATER MANAGEMENT ADMINISTRATION

DETAIL 22 - SILT FENCE

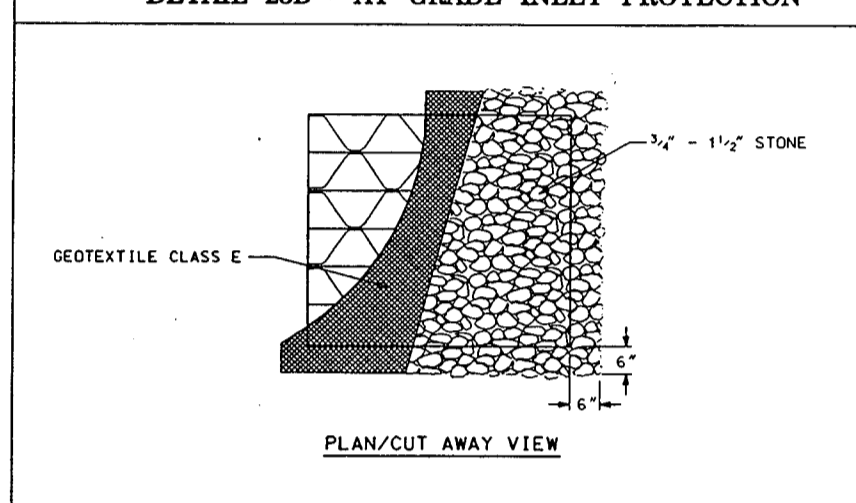


Construction Specifications

- Fence posts shall be a minimum of 16" long driven 15" minimum into the ground. Wood posts shall be 1 1/2" x 1 1/2" square (minimum cut) or 1 1/2" diameter (minimum round) and shall be of sound quality hardwood. Steel posts will be standard 1" or 1 1/2" section weighing not less than 1.00 pound per linear foot.
- Geotextile shall be fastened to each fence post with wire ties or staples at top and mid-section and shall meet the following requirements for Geotextile Class F:
- Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.
- Silt fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reaches 50% of the fabric height.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE 3-18-18 MARYLAND DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES WATER MANAGEMENT ADMINISTRATION

DETAIL 28B - AT GRADE INLET PROTECTION

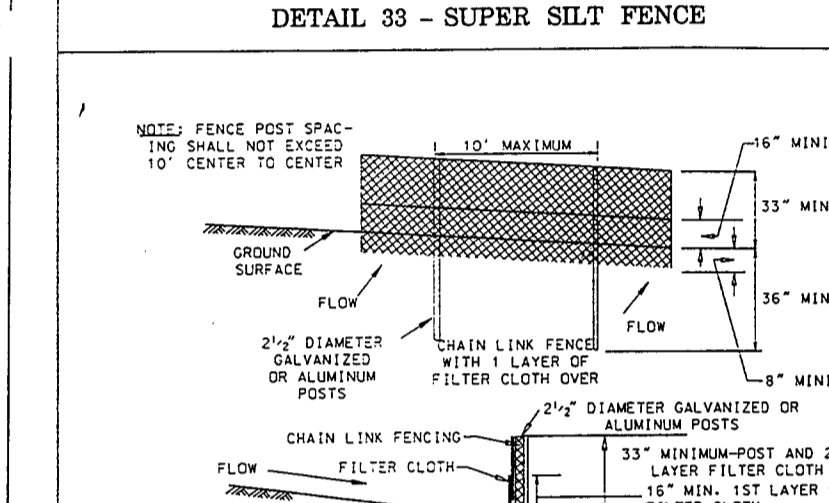


Construction Specifications

- Lift grate and wrap with Geotextile Class E to completely cover all openings. Then set grate back in place.
- Place 1/2" x 1/2" stone, 4"-6" thick on the grate to secure the fabric and provide additional filtration.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE 3-18-18 MARYLAND DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES WATER MANAGEMENT ADMINISTRATION

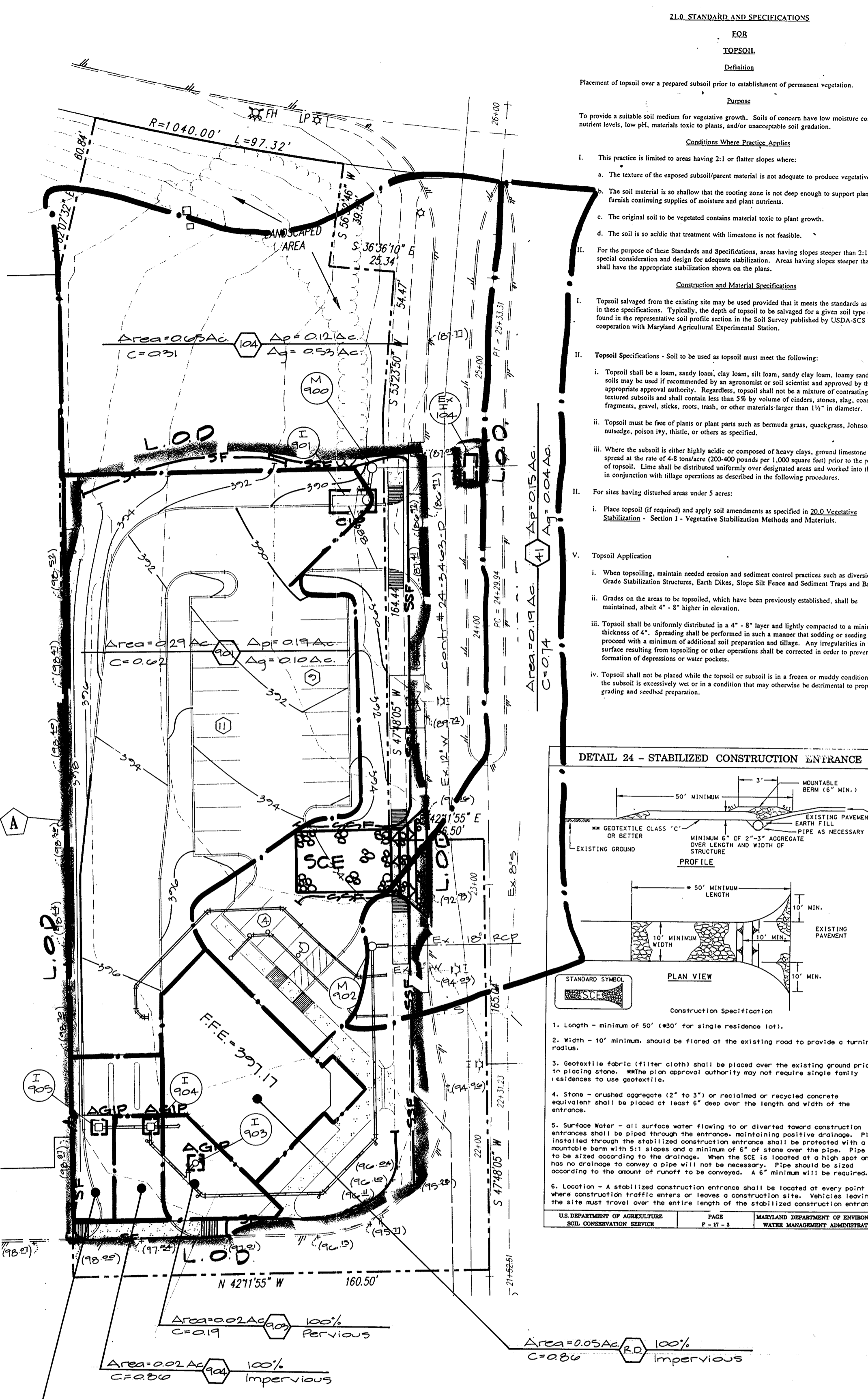
DETAIL 33 - SUPER SILT FENCE



Construction Specifications

- The poles do not need to set in concrete.
- Chain link fence shall be fastened securely to the fence posts with wire ties or staples.
- Filter cloth shall be fastened securely to the chain link fence with wire ties spaced every 24" of the top and mid section.
- Filter cloth shall be embedded a minimum of 6" into the ground.
- When two sections of filter cloth join each other, they shall be overlapped by 6" and folded.
- Maintenance shall be performed as needed and silt fence removed when "bulges" develop in the silt fence.

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2.0. STANDARD SPECIFICATIONS

SOIL TOPOSOIL
Definition: Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation.
Purpose: To provide a suitable soil medium for vegetative growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptably soil gradation.

Conditions Where Practice Applies

- This practice is limited to areas having 2:1 or flatter slopes where:
 - The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
 - The soil material is so shallow that the rooting zone is not deep enough to support plants or fertilis containing supplies of moisture and plant nutrients.
 - The original soil to be treated contains material toxic to plant growth.
 - The soil is so acidic that vegetation with limestone is not feasible.
- 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.

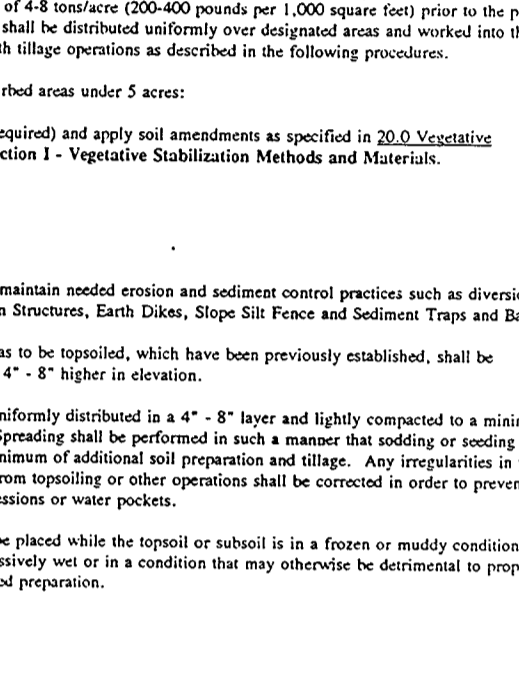
Construction and Material Specifications

- 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 Experiment Station.
- Topsoil Specifications - Soil to be used as topsoil must meet the following:
 - Topsoil shall be a loam, sandy loam, clay loam, silty loam, sandy clay loam, loamy sand. Other appropriate 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.
 - Topsoil must be free of plants or plant parts such as bermuda grass, quackgrass, Johnsongrass, nutsedge, poison ivy, thistle, or others as specified.
 - 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 (200-200 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:
 - Place topsoil (if required) and apply soil amendments as specified in 2.0.0 Vegetative Stabilization - Section 1 - Vegetative Stabilization Methods and Materials.

Topsoil Application

- When topsoiling, maintain needed erosion and sediment control practices such as diversions, Grade Stabilization Structures, Earth Dikes, Slope Soil Erosion and Sediment Traps and Basins.
- Grades on the area to be topsoiled, which have been previously established, shall be maintained, about 4" - 8" higher in elevation.
- Topsoil shall be uniformly distributed in a 4" - 8" layer and tightly 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.
- Topsoil shall not be placed where the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively loose, trash or other materials larger than 1 1/2" in diameter.

DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE



Construction Specifications

- Length - minimum of 50' (x30' for single residence lots).
- Width - 10' minimum should be flared at the existing road to provide a turning radius.
- Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. The plan approval authority may not require single family residences to use geotextile.
- Stone - crushed aggregate (1 1/2" to 3") or recycled or repurposed concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.
- Surface Water - all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable curb with 5:1 slopes and a minimum of 6" of stone over the pipe. Pipe has to be sized according to the drainage. When the SCS is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6" minimum will be required.
- Location - A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

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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. (410) 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 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
- Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, dikes and perimeter slopes and all slopes greater than 3:1, b) 14 days as to all other disturbed or graded areas on the project site.
- All sediment traps/basins shown must 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 1994-MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings, sod, temporary seeding and mulching (Sec. G). 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 : 1,297.9 Acres
 - Area Disturbed : 0.92 Acres
 - Area to be roofed or paved : 0.00 Acres
 - Area to be vegetatively stabilized : 0.00 Acres
 - Total Cut : 0.00 Cu. Yds.
 - Total Fill : 0.00 Cu. Yds.
 - Off-site waste/borrow area location: NA

Mulching: Apply 1-1/2 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 anchoring.

Maintenance: Inspect all seeded areas and make needed repairs, replacements and reseeding.

Additional sediment control must be provided, if deemed necessary by the Howard County DILP 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.

Trenches for the construction of utilities is limited to 3 pipe lengths or that which shall be backfilled and stabilized within one working day, whichever is shorter.

PERMANENT SEEDING NOTES

Apply to graded or cleared area 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, discing or other acceptable means before seeding (unless previously loosened).

Soil Amendments: In lieu of soil test recommendations, use one of the following schedules

- Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 square feet) and 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft) before seeding. Harrow or disc into upper three inches of soil. At 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 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 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, 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 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 anchoring.

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Trenches for the construction of utilities is limited to 3 pipe lengths or that which shall be backfilled and stabilized within one working day, whichever is shorter.

Seeding: For periods March 1 thru April 30 and from August 15 thru October 15, seed with 2-1/2 bushel per acre of 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 the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

Mulching: Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrotted, weed-free, 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.

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APPROVED PLANNING BOARD OF HOWARD COUNTY

DATE: 1/28/90

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Director: [Signature] 3/20/98
 Chief, Development Engineering Division: [Signature] 3/10/98

[Professional Engineer Seal]

This plan is for sediment control only!
 For information to construct site improvements see sheet 1.

Note: For Sequence of Construction see sheet 2.

OWNER: The Howard Research and Development Corporation, 10215 Little Potomac Parkway, Columbia, Md 21044, (410) 992-0021, Attn: Al Edwards

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 of Developer/Builder: [Signature] 12/9/97 Date

Signature of Engineer: [Signature] 12/9/97 Date

Signature of District: [Signature] 3/12/98 Date

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK - BURTONSVILLE, MARYLAND 20866

SCALE	ZONING	G. L. W. FILE No.
1"=20'	NT Commer.	9712C
DATE	TAX MAP No.	SHEET
Feb. 11, 1998	30	4 of 4

Contract Purchaser: Commercial Farmers Bank, 8599 Baltimore National Pike, Ellicott City, Maryland 21043

Sediment Control Plan / Drainage Area Map
ROUTE 175 COMMERCIAL PARCEL "J"
 GULFORD ELECTION DISTRICT No. 6
 HOWARD COUNTY, MARYLAND