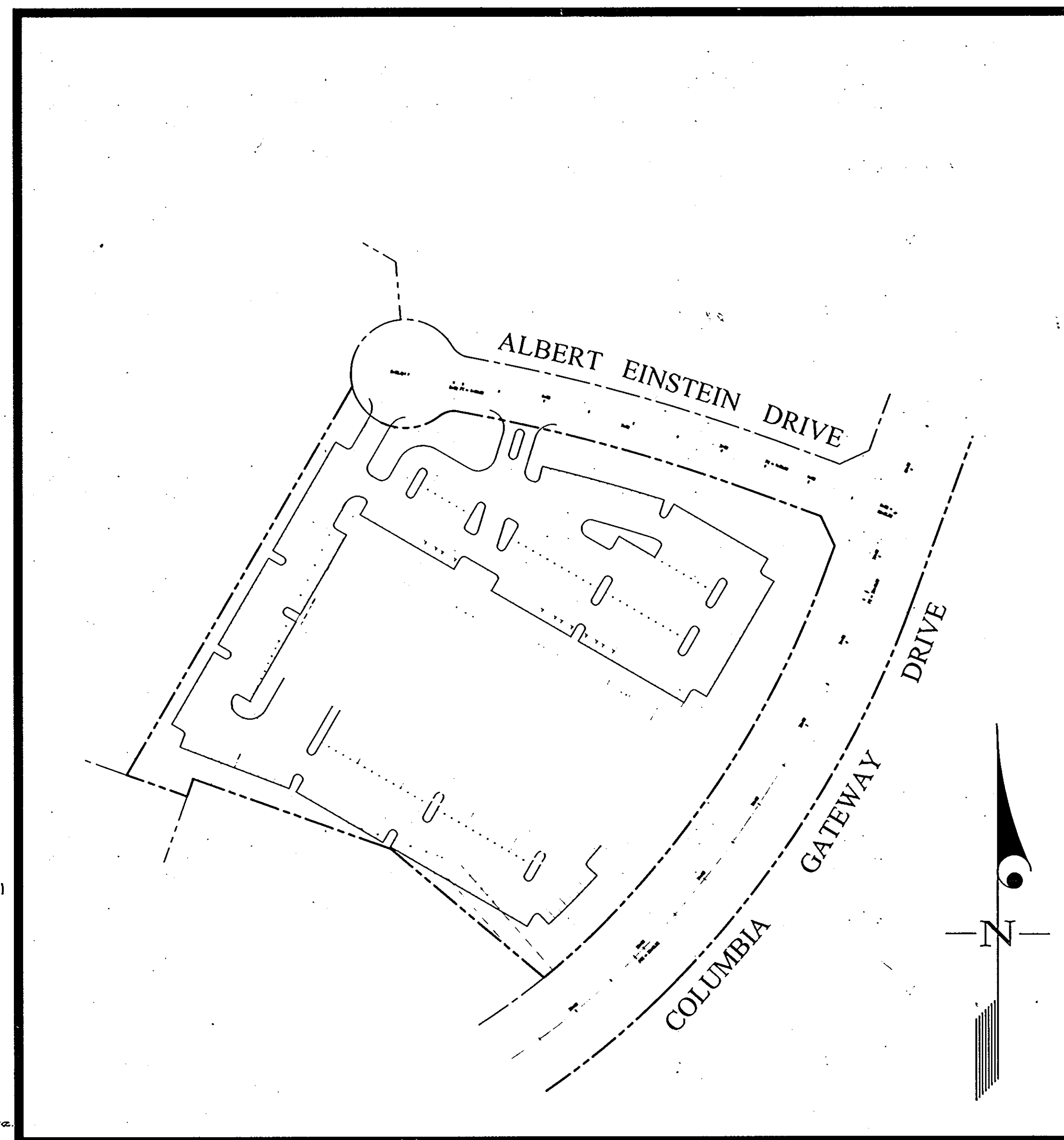
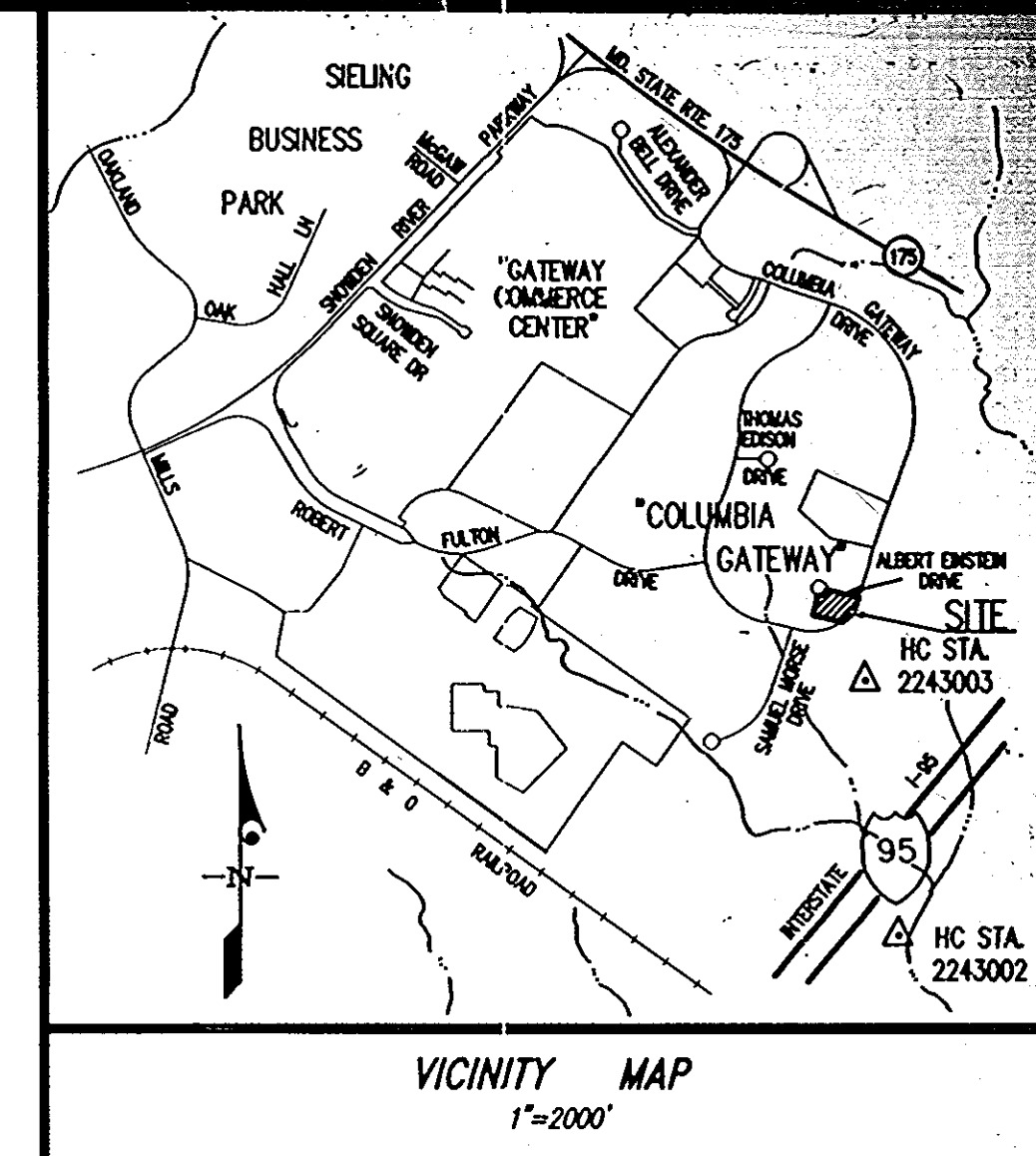


GENERAL NOTES

- All construction shall be in accordance with the latest standards and specifications of Howard County plus MSHA standard and specifications if applicable.
- The contractor shall notify the Department of Public Works, Bureau of Engineering, Construction Inspection Division at (410) 313-1880 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: 6.4257 acres.
- All plan dimensions are to face of curb unless otherwise noted.
- Existing topography is shown per field run survey information by Gutschick, Little & Weber, P.A. (JULY, 1998)
- Coordinates and bearings are based upon the MD State plan system (NAD '22).
- Water and sewer shown is public.
- Stormwater management for this site is provided by an existing regional facility (F 87-125).
- All existing water and sewer is per Contracts 24-3038-D and 24-1629-D. The drainage area is Little Poluxent.
- All existing public storm drain is per F-87-125 and
- All curb radii is 5' unless noted otherwise.
- Sidewalks adjacent to perpendicular parking shall be 6' wide. All other sidewalks shall be 4' wide except where dimensioned otherwise.
- Contractor shall utilize PVC pipe for all sewer house connections. Contractor shall utilize D.I.P. (Cl. 51) for water house connections.
- Use trench bedding class "C" for storm drains.
- Paved areas indicated are private except as noted.
- Project background: See Dept. of Planning & Zoning File Numbers: GP-87-24, F-87-125, F-70-120 & F-70-112
- Recording reference: Plat No. 13321
- 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.
- All proposed water meters shall be located inside buildings.
- 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.
- Existing utilities are based on approved design plans for construction and field location by Gutschick, Little & Weber, P.A.
- There is no floodplain on this site.
- There are no wetlands on this site.
- All outside lighting shall comply with zoning section 134.
- The Floor/Area ratio for this site is 0.24 (see Building Coverage in Site Analysis). This is less than the threshold value of 0.30 to satisfy a condition for exemption from A.P.F. within Columbia Gateway.
- TRASH WILL BE COLLECTED AND STORED IN CAN OR ON-SITE DUMPSTERS AND TRASH REMOVAL WILL BE PERFORMED BY A PRIVATE CONTRACTOR.

COLUMBIA GATEWAY PARCEL S-28

SITE DEVELOPMENT PLAN



Legend

- Standard C' Curb & Gutter
- Reverse C' Curb & Gutter
- Existing Curb
- Proposed Spot Elevation
- Existing Contour
- Proposed Contour
- Patron Access
- Handicap Sign Location

Site Analysis

Total Project Area: 279,914 sq ft or 6.4257 ac.
 Zoning: M-1
 Proposed Use: Research and Development, General Office, Light Warehouse
 Floor Space: 65,000 sq ft
 * Total No. of Parking Spaces Required: 204
 * Total No. of Parking Spaces Provided: 201
 Total No. of Handicap Spaces Required: 8
 Total No. of Handicap Spaces Provided: 12
 Total No. of Van Accessible Spaces Required: 1
 Total No. of Van Accessible Spaces Provided: 2
 Building Coverage: 65,000 sq ft (24% of gross area)
 ** 201 spaces to be striped immediately and potential for 222 in future.
 * Based upon office use at 3 spaces/1000 sq ft

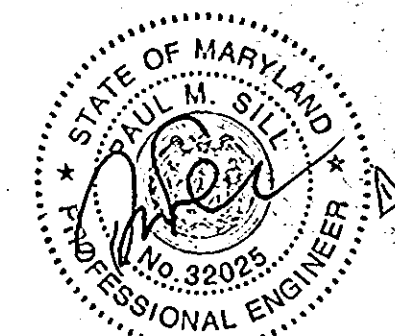
Sheet Index

- Cover Sheet
- Site Development Plan
- Site Details/Paving Plan/Handicap Accessibility Detail
- Landscape Plan
- Landscape Notes & Details
- Sediment Control Plan
- Sediment Control Notes & Details
- Storm Drain, Sewer Profiles & Schedules
- Drainage Area Map

KEY MAP

SCALE: 1" = 100'

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Director: [Signature] Date: 10/2/98
 Chief, Division of Land Development: [Signature] Date: 11/2/98
 Chief, Development Engineering Division: [Signature] Date: 10/1/98



ADDRESS CHART					
BUILDING	STREET ADDRESS				
	7015 ALBERT EINSTEIN DRIVE				
WATER CODE: E06	SEWER CODE: A900000				
SUBDIVISION NAME: GATEWAY COMMERCE CENTER		SECTION/AREA: N/A	PARCEL S-28		
PLAT: 13321	ZONE: M-1	TAX MAP: 42	BLOCK:	ELEC. DIST.: 6	CENSUS TRACT: 0007.07

Owner
 The Howard Research & Development Corporation
 1275 Little Patuxent Pkwy
 Columbia, Maryland 21044
 Phone: 410-772-0027

Respected Eas
 Manakin Corporation
 7105 Columbia Gateway Drive
 Columbia, Maryland 21046
 Attn: Cole Schnorp
 Phone: 410-270-1440

COVER SHEET
COLUMBIA GATEWAY
 PARCEL S-28

SCALE: AS SHOWN	ZONING: M-1	G. L. W. FILE No.: 98075
DATE: Sept. 11, 1998	TAX MAP No.: 42-7	SHEET: 1 OF 9

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20865
 TEL: 301-421-4024 FAX: 301-421-4186

DRAWINGS: 98075\DESIGN\98075SP1.DWG DES. DRN. SJC CHK.

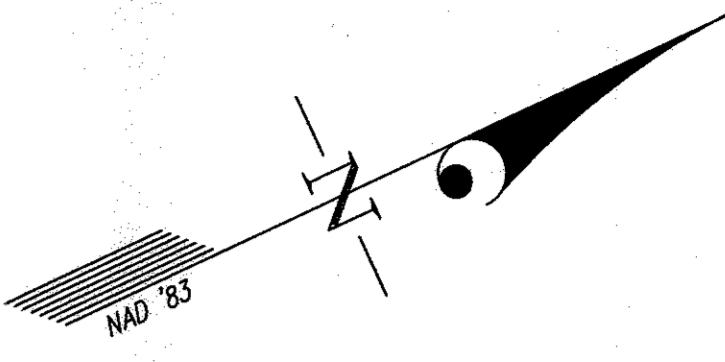
DATE	REVISION	BY	APP'R.
12-27-06	ADD GENERAL NOTE 28	SAA	

ELECTION DISTRICT No. 6

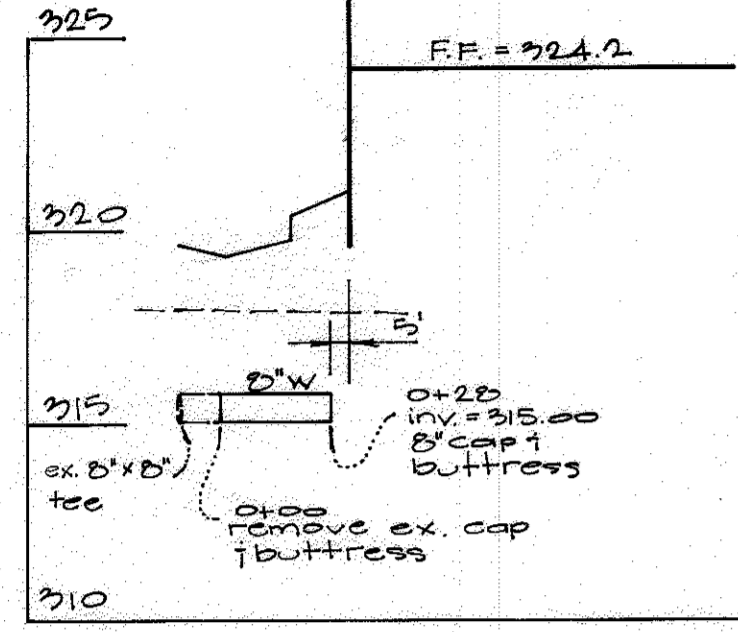
HOWARD COUNTY, MARYLAND

COLUMBIA GATEWAY
PARCEL 'S-2'
PLAT No. 85074
ZONING M-1

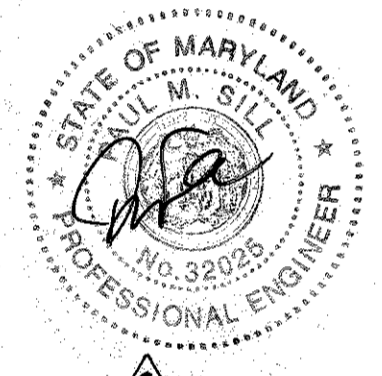
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PARCEL 'S-26'
PLAT No. 13074
ZONING M-1



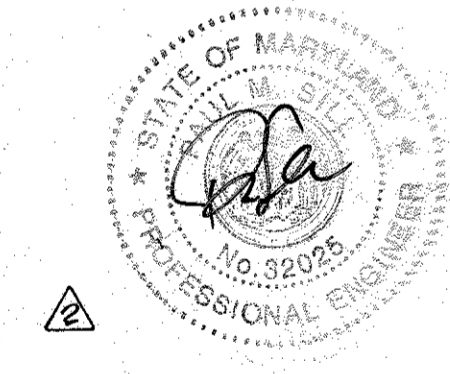
COLUMBIA GATEWAY
PARCEL 'S-27'
PLAT No. 13142
ZONING M-1



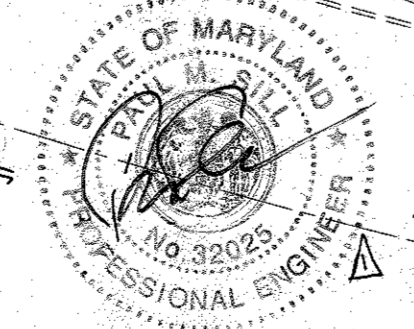
COLUMBIA GATEWAY
PARCEL 'S-1'
PLAT No. 85075
ZONING M-1



Professional Certification: I hereby certify that these documents were prepared or approved by me and that I am a duly licensed Professional Engineer under the laws of the State of Maryland, License No. 32025, expiration date June 6, 2008.



APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
Director: *[Signature]* 10/2/98
Chief, Division of Land Development: *[Signature]* 10/2/98
Chief, Development Engineering Division: *[Signature]* 10/1/98



Gateway
(100' Public R/W)
Plat No. 7540

PROFESSIONAL CERTIFICATION:
HEREBY CERTIFY THAT ONLY THE REVISIONS & MODIFICATIONS WERE PREPARED AND APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE No. 18265, EXPIRATION DATE: 5/13/19. IN ADDITION, THE ORIGINAL EXC. HAS PROVIDED WRITTEN PERMISSION TO MODIFY THIS DRAWING.

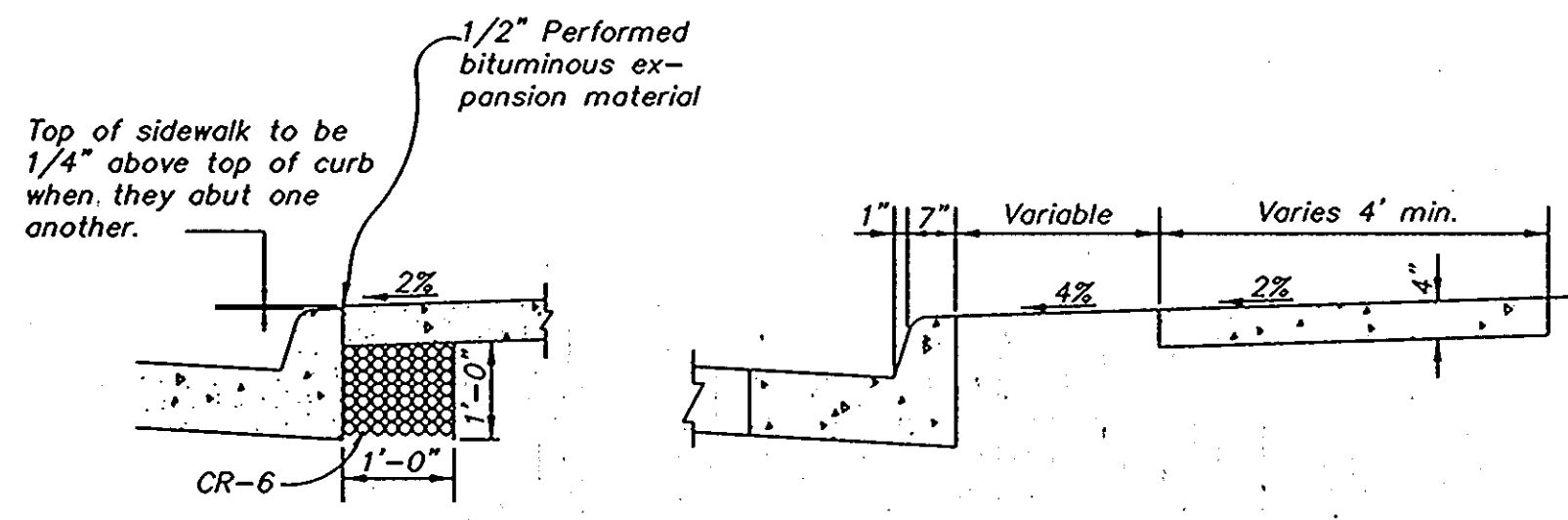
GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
BURTONSVILLE, MARYLAND 20996
TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APPR.
09-15-17	Remove ex. Loading Dock, Stair & Bollards; CONSTRUCT LOADING DOCK, STAIR, PADS & BOLLARDS	GLR	
05-30-08	Replace Loading Dock at rear of building	BAA	
02-16-08	Add 2 Loading Docks with stairs to rear of building	BAA	
12-21-06	REVISE PAVED AREA TO INCLUDE TWO CONC. PADS AND SHOW EXISTING PAD	BAA	

PREPARED FOR:
Manekin Corporation
7105 Columbia Gateway Drive
Columbia, Maryland 21046
Attn: Cole Scherff
Phone: 410-290-1400

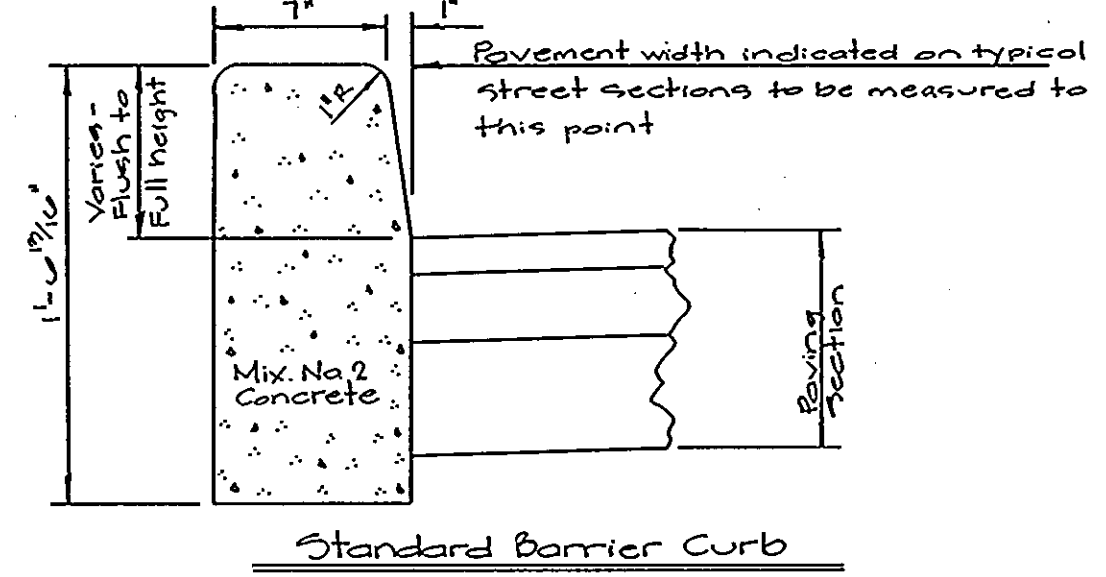
SITE DEVELOPMENT PLAN
Columbia Gateway
PARCEL "S-28"

SCALE	ZONING	G. L. W. FILE No.
1"=30'	M-1	98075
DATE	TAX MAP - GRID	SHEET
Sept. 11, 1998	43-7	2 OF 7

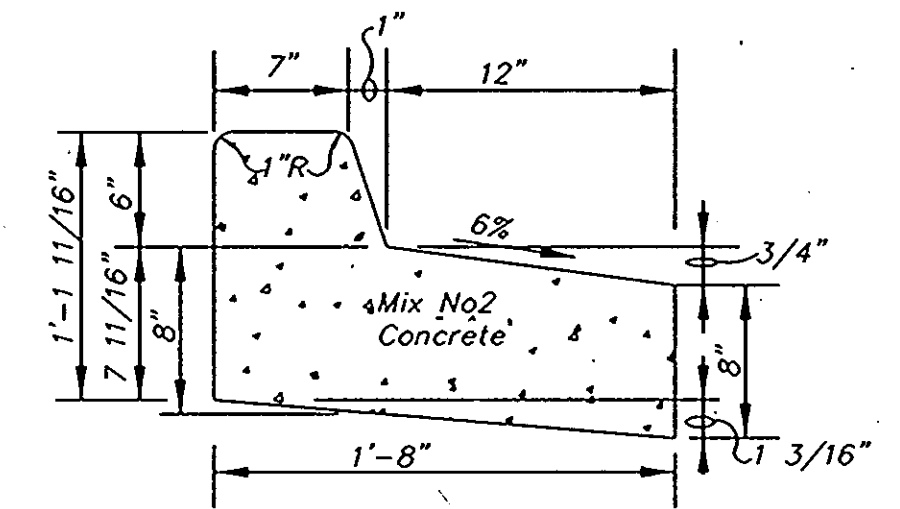


Detail A

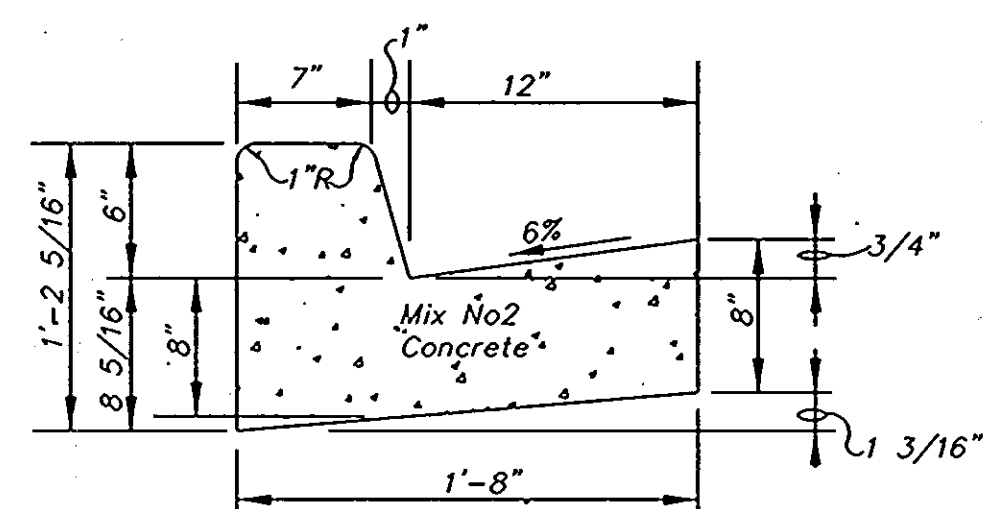
- Notes:
- Sidewalk to be scribed in 5' maximum squares.
 - Expansion joints across the sidewalk not to be more than 15' apart.
 - 1/2" preformed bituminous expansion material in expansion joints to be kept 1/4" below surface of sidewalk.
 - Concrete to be mix No.2
 - When sidewalk abuts curb, walk shall be 1/4" above curb with performed bituminous expansion material between sidewalk and curb and resting on a compacted crushed stone base. See detail A this sheet.
 - On longitudinal sidewalk grades of 5% or greater, a concrete header, 6" thick and 6" deep below the normal 4" sidewalk thickness shall be constructed for the full width of the sidewalk at intervals of 48". The headers shall be placed at expansion joint locations and shall be monolithic with the sidewalk.



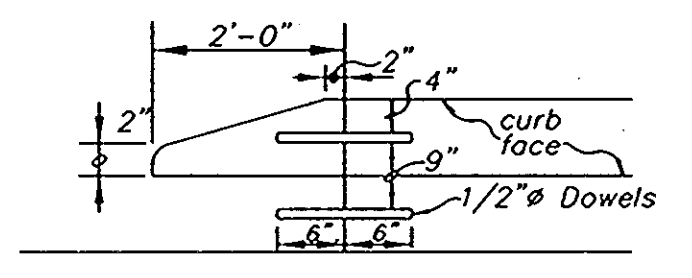
Standard Barrier Curb



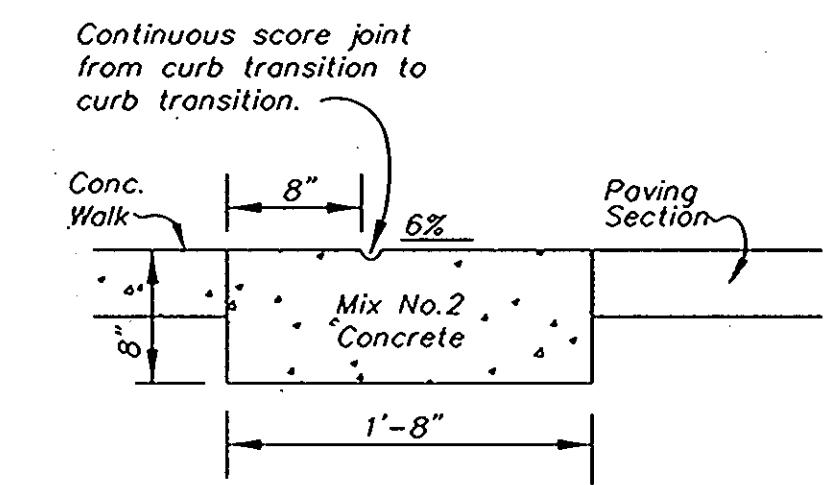
Reverse 6" Combination Curb & Gutter
N.T.S.



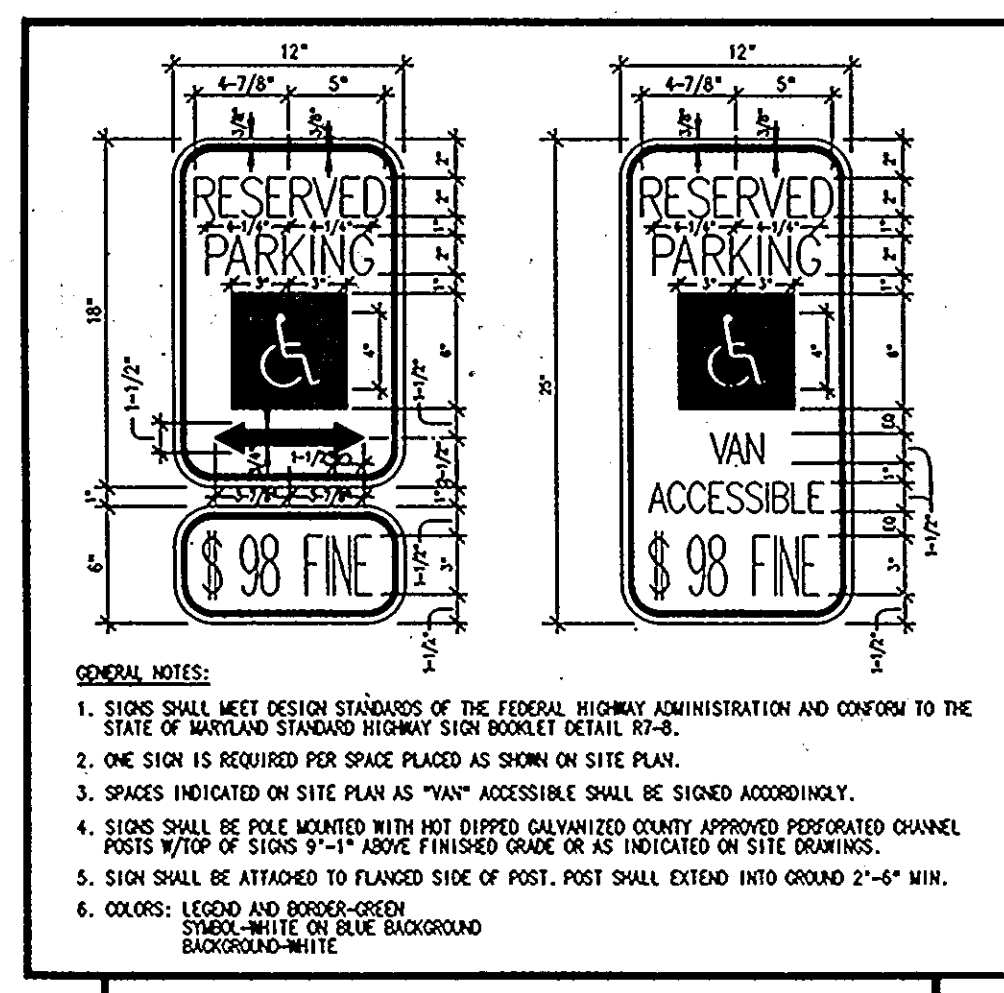
Standard 6" Combination Curb & Gutter
N.T.S.



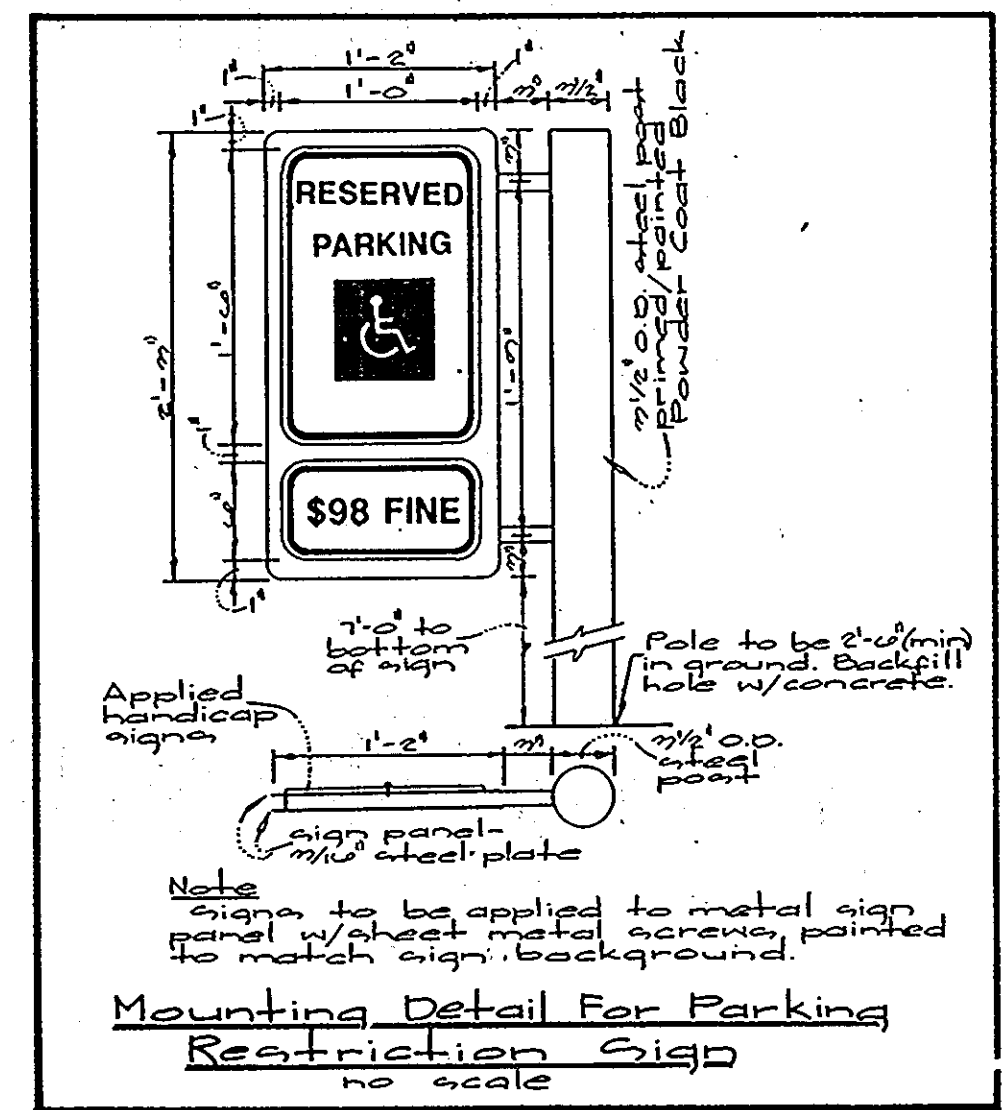
Nose Down Curb Detail
N.T.S.



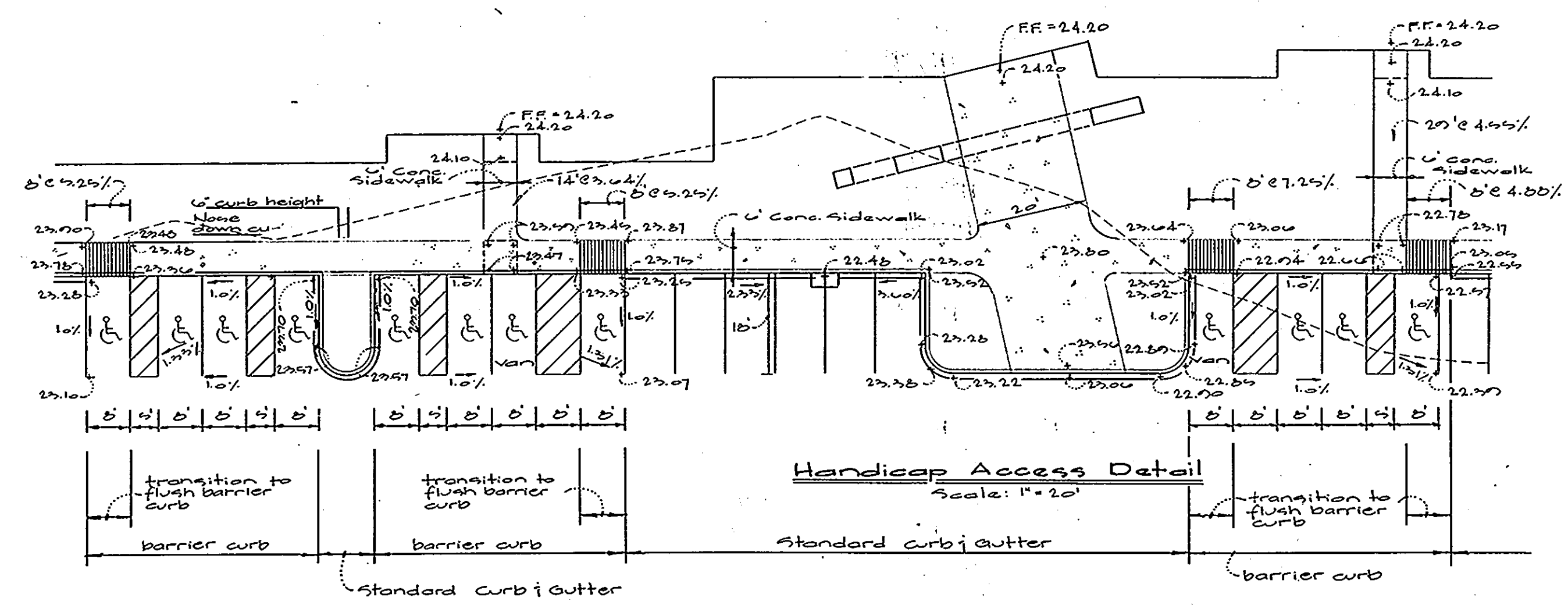
Depressed Curb Entrance
N.T.S.



HANDICAP PARKING SIGNS DETAIL



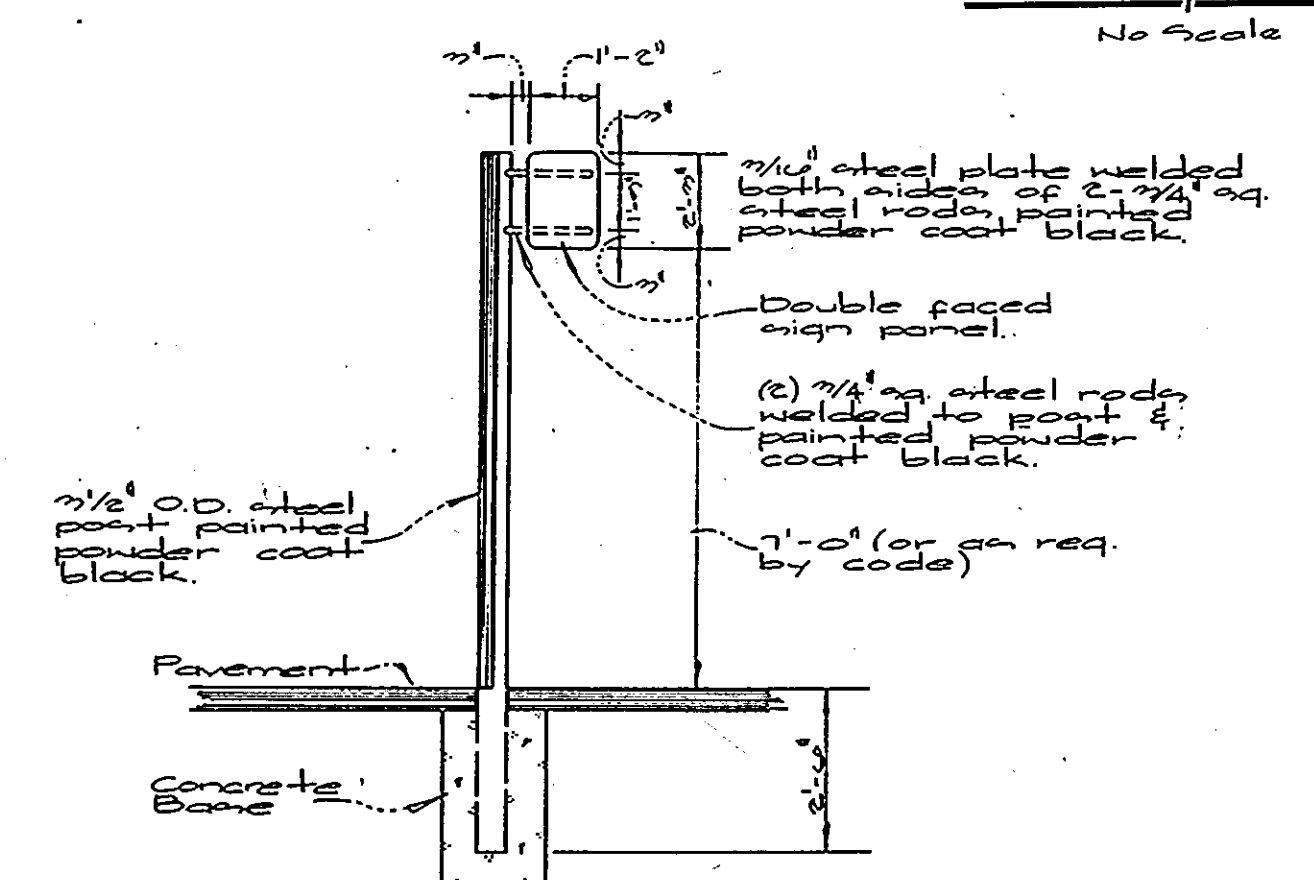
Mounting Detail For Parking Restriction Sign
NO SCALE



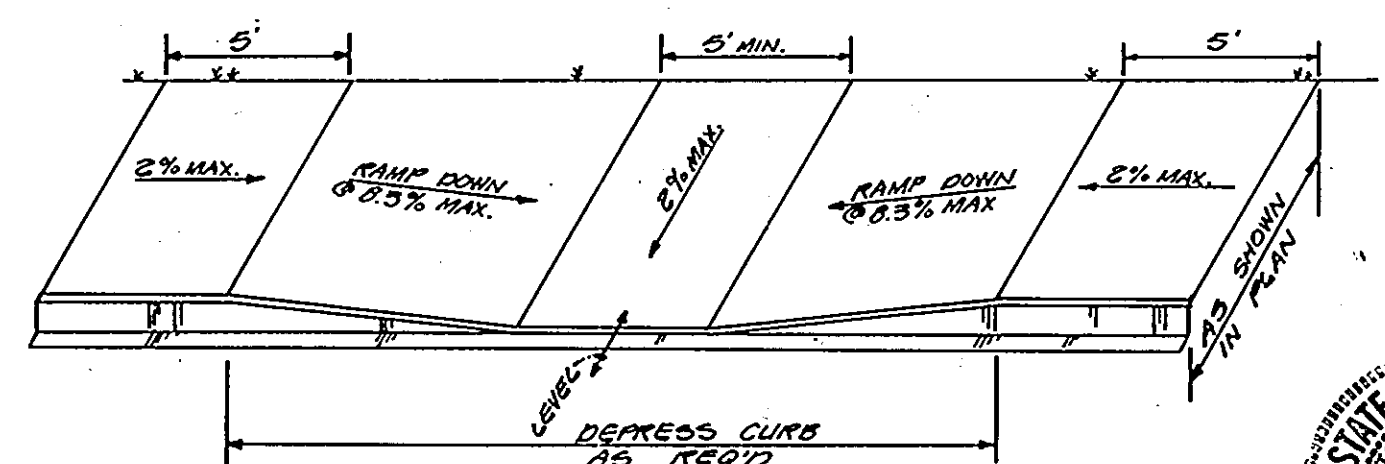
Handicap Access Detail
Scale: 1" = 20'



Building Elevation
NO SCALE



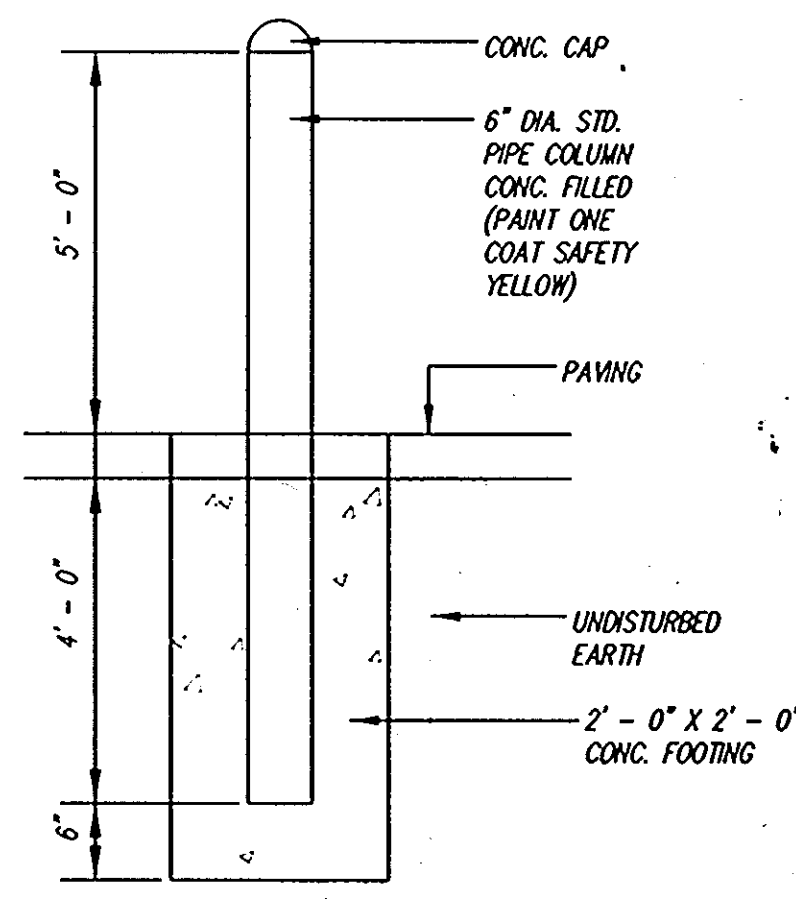
Post & Sign Detail For Parking Restriction Sign
NO SCALE



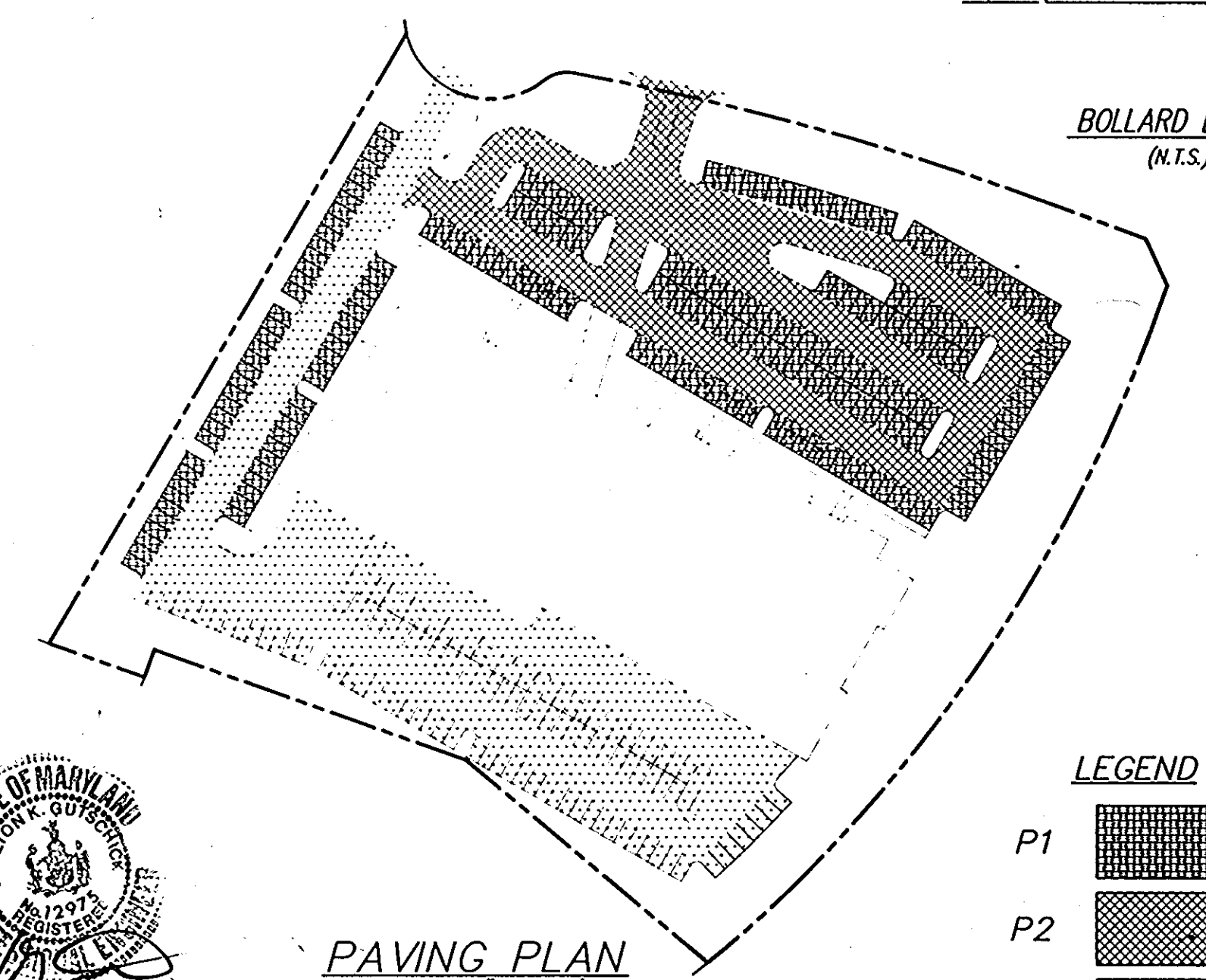
HANDICAP RAMP DETAIL (TYPE 1)
NO SCALE

Section Number	Full Depth Bit. Conc. Alternate	Granular Base Alternates
P-1	1" Bit Conc. Surface 4" Bit Conc. Base	1" Bit Conc. Surface 2" Bit Conc. Base 4" Graded Aggregate Base
P-2	1 1/2" Bit Conc. Surface 5" Bit Conc. Base	1 1/2" Bit Conc. Surface 2 1/2" Bit Conc. Base 6" Graded Aggregate Base
P-3	1 1/2" Bit Conc. Surface 1 1/2" Bit Conc. Base 5" Bit Conc. Base	1 1/2" Bit Conc. Surface 4 1/2" Bit Conc. Base 5" Graded Aggregate Base

Paving Sections
N.T.S.



BOLLARD DETAIL
N.T.S.



PAVING PLAN
SCALE: 1" = 100'

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Director: *[Signature]* 10/12/98
 Chief, Division of Land Development: *[Signature]* 10/2/98
 Chief, Development Engineering Division: *[Signature]* 10/1/98

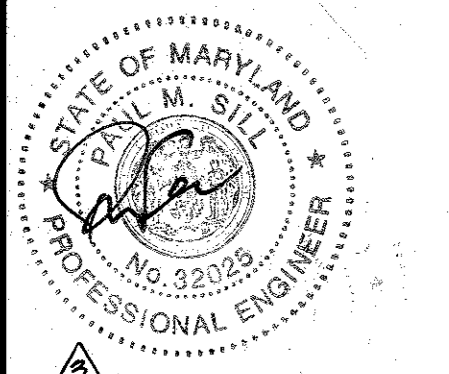
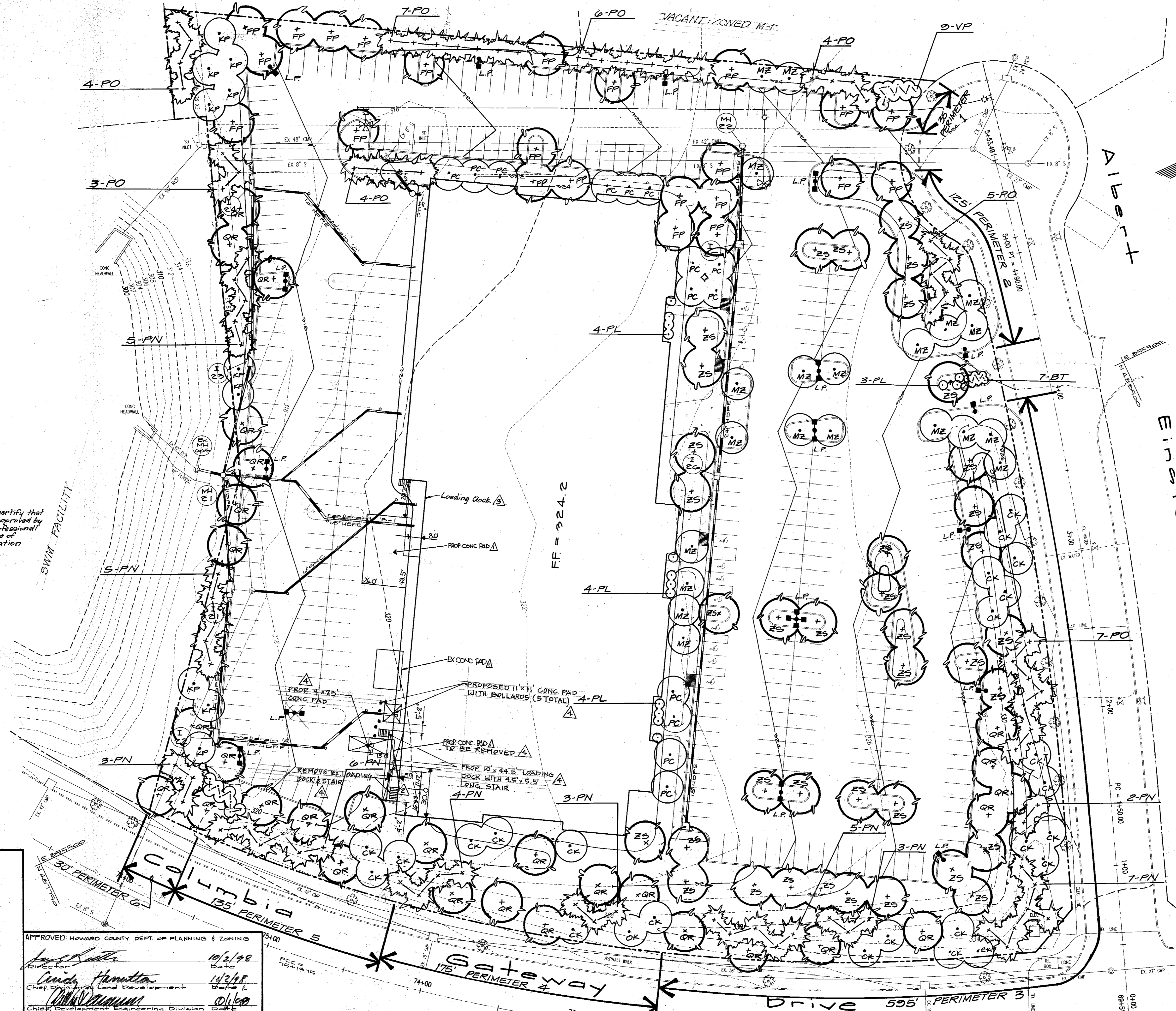
GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK
 BURTONSVILLE, MARYLAND 20866
 TEL: 301-421-4024 FAX: 410-380-1820 DC/VA: 301-989-2524 FAX: 301-421-4188

Manekin Corporation
 7105 Columbia Gateway Dr.
 Columbia, Maryland 21046
 (410) 270-1400
 attn: Cole Scherff

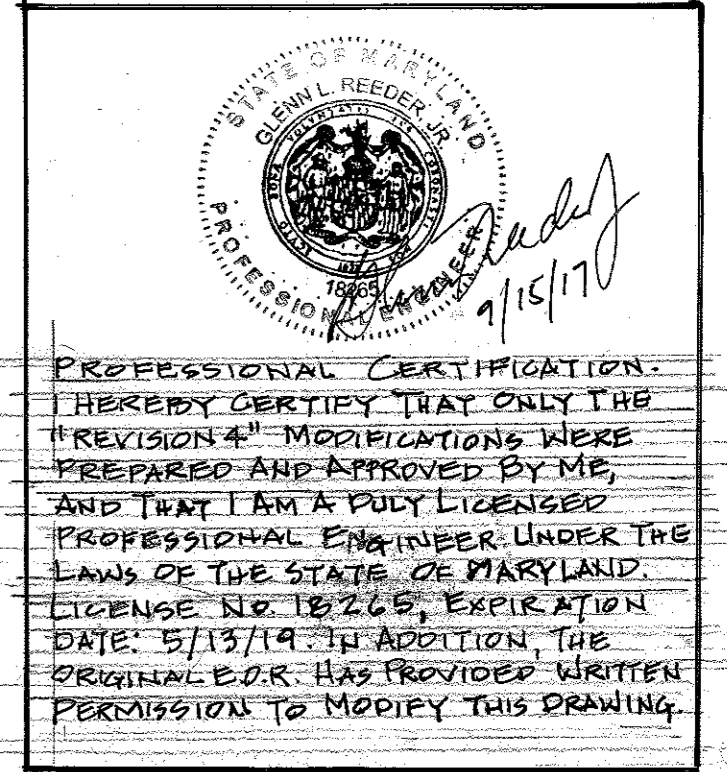
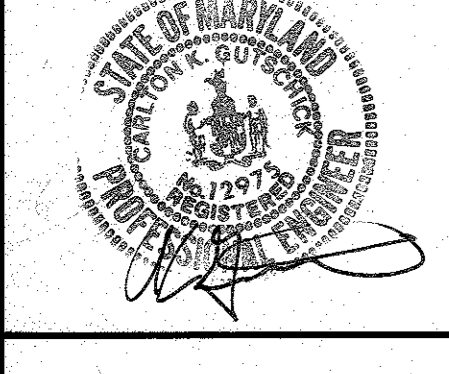
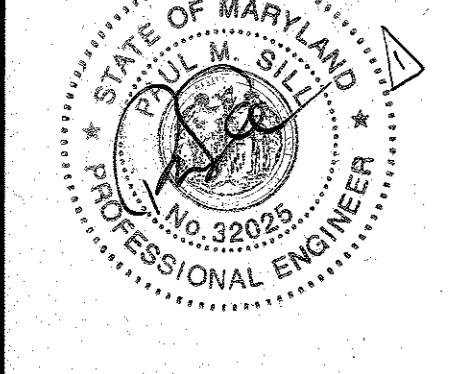
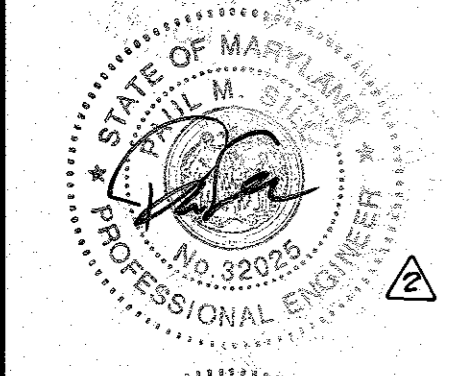
Site Details/Paving Plan/Handicap Accessibility Detail
COLUMBIA GATEWAY
 PARCEL S-28
 6th ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
AS SHOWN	M-1	98075
DATE	TAX MAP No.	SHEET
Sept. 17, 1998	43-7	3 of 7

SDP 98-22



Professional Certification: I hereby certify that these documents were prepared or approved by me and that I am a duly licensed Professional Engineer under the laws of the State of Maryland, License No. 32025, expiration date: June 6, 2005.



PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT ONLY THE "REVISION 4" MODIFICATIONS WERE PREPARED AND APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 18265, EXPIRATION DATE: 5/13/19. IN ADDITION, THE ORIGINAL D.W.G. HAS PROVIDED WRITTEN PERMISSION TO MODIFY THIS DRAWING.

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

<i>James K. Miller</i>	10/2/98
Director	Date
<i>Cecilia Hamilton</i>	11/2/98
Chief, Dept. of Land Development	Date
<i>John DeMunn</i>	01/10
Chief, Development Engineering Division	Date

THIS PLAN IS FOR LANDSCAPING PURPOSES ONLY!

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BIRTONSVILLE OFFICE PARK
 BIRTONSVILLE, MARYLAND 20866
 TEL: 301-421-4024 FAX: 410-880-1820 DC/VA: 301-989-2524 FAX: 301-421-6186

DATE	REVISION	BY	APPR
09.16.17	REMOVE EX. LOADING DOCK, STAIR & BOLLARDS; CONSTRUCT LOADING DOCK, STAIR, PADS & BOLLARDS	GLR	
09.30.17	Replace Loading Dock at rear of building	SAA	
02.16.18	Add 2 Loading Docks with stairs to rear of building	SAA	
12.21.18	REVISE PAVED AREA TO INCLUDE TWO CONC. PADS AND SHOW EXISTING CONC. PADS	SAA	

PREPARED FOR:
 Manekin Corporation
 7105 Columbia Gateway Drive
 Columbia, Maryland 21046
 Attn: Cale Scharp
 Phone: 410-290-1400

LANDSCAPE PLAN
COLUMBIA GATEWAY
 PARCEL "S-28"
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE NO.
1"=30'	M-1	98075
DATE	TAX MAP - GRID	SHEET
Sept. 17, 2018	43 - 7	4 OF 9

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 "USA Standard," as published by the American Association of Nurserymen (hereafter referred to as "A.A.N. 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 diseases, 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 healthy 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.

- 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.
- Minimum branching height for all trees shall be at least 6 feet (6'), maximum eight feet (8').
- Minimum size for planting shade trees shall be 3-3/4" caliper, 14'-16" in height.
- Minimum size for planting minor or intermediate focus trees (Pinus, Crataegus, etc.) shall be 3-3/4" caliper, 10'-12' in height.
- Minimum size for planting shrubs shall be 18" - 24" spread unless noted otherwise.
- Caliper, height, spread and size of ball shall be generally as follows:

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

6. 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:

- 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.
- 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.
- 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 1/4" cal.	32"	64"	28"
3 1/4" - 4" cal.	36"	72"	32"
4" - 4 1/4" cal.	40"	80"	36"
4 1/4" - 5" cal.	44"	88"	40"
5" - 5 1/4" cal.	48"	96"	44"
5 1/4" - 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 bottom 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:

- 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.
- Wire and Cable: Wire shall be #10 galvanized or blackened annealed steel wire. For trees over 3" caliper, provide 5/16" turn buckles, eye and eye with 4" take-up. For trees over 3" caliper, provide 3/16", 7 strand cable cadmium plated steel, with galvanized "eyes" shingles of wire and hose on trees up to 3" in caliper.
- Hose: Shall be new, 2 ply reinforced rubber hose, minimum 1/2" I.D. "Plastic Lock Ties" or "Paul's Tree Ties" may be used in place of wire and hose on trees up to 3" in caliper.
- 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

- Each tree, shrub or vine shall be pruned in an appropriate manner to its particular requirements, in accordance with accepted standard practice. Broken or broken 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.
- 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 real lines of the plant pit saucers, the edges of shrub areas, hedge trenches and vine pockets.
- 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.

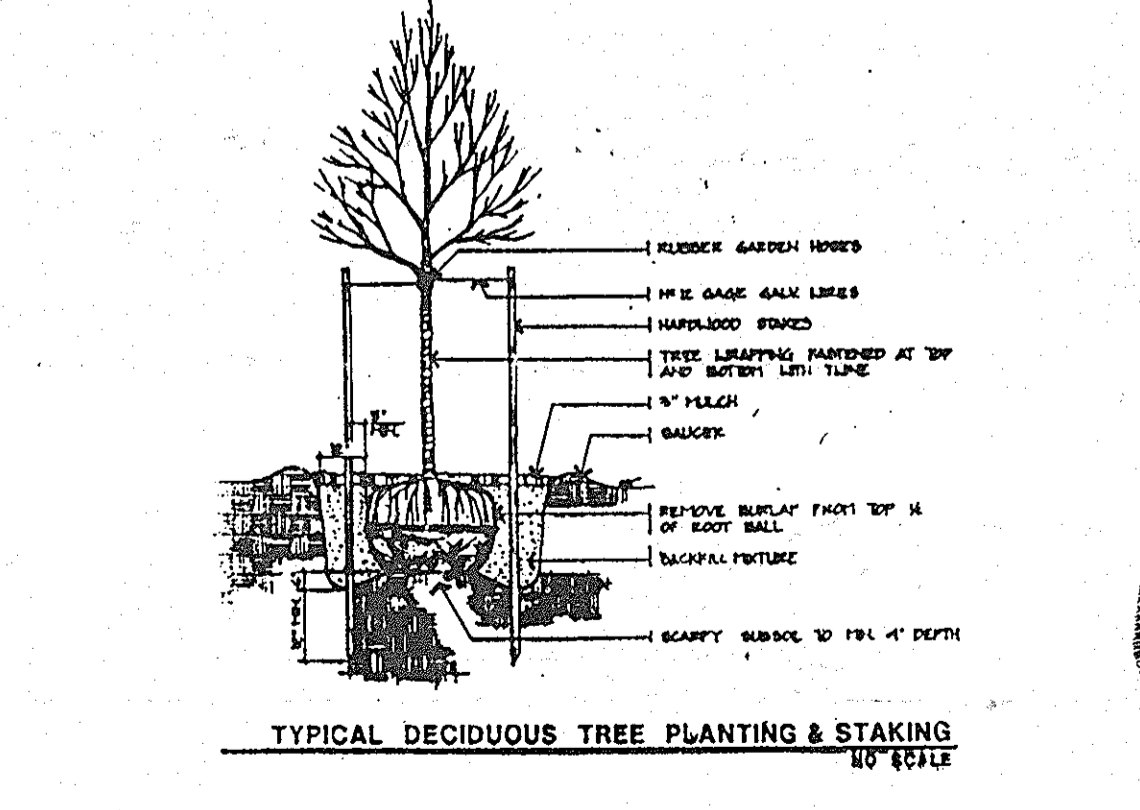
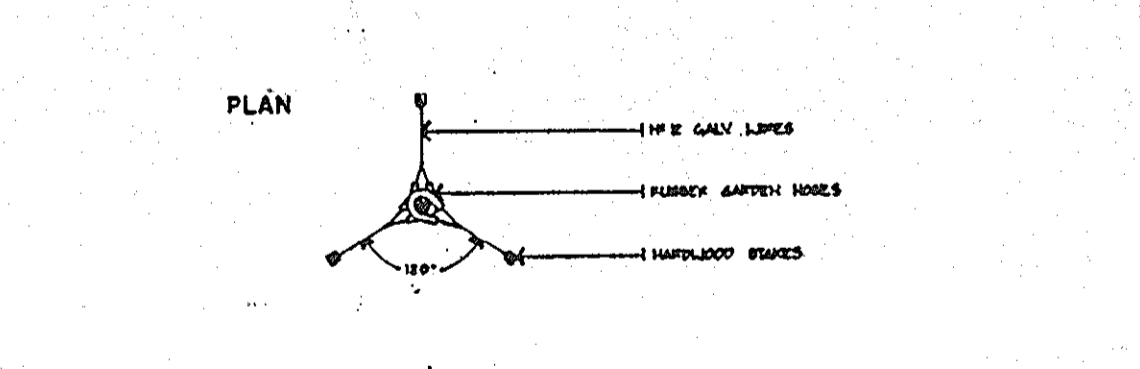
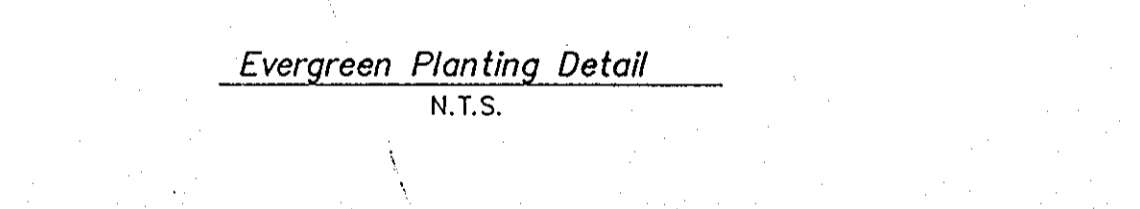
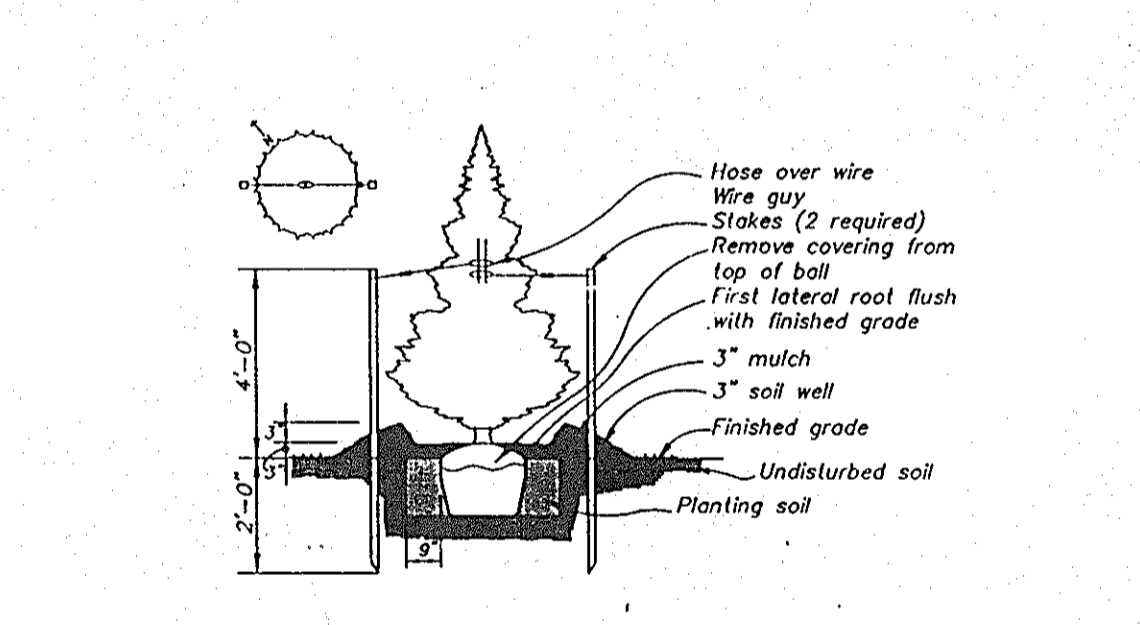
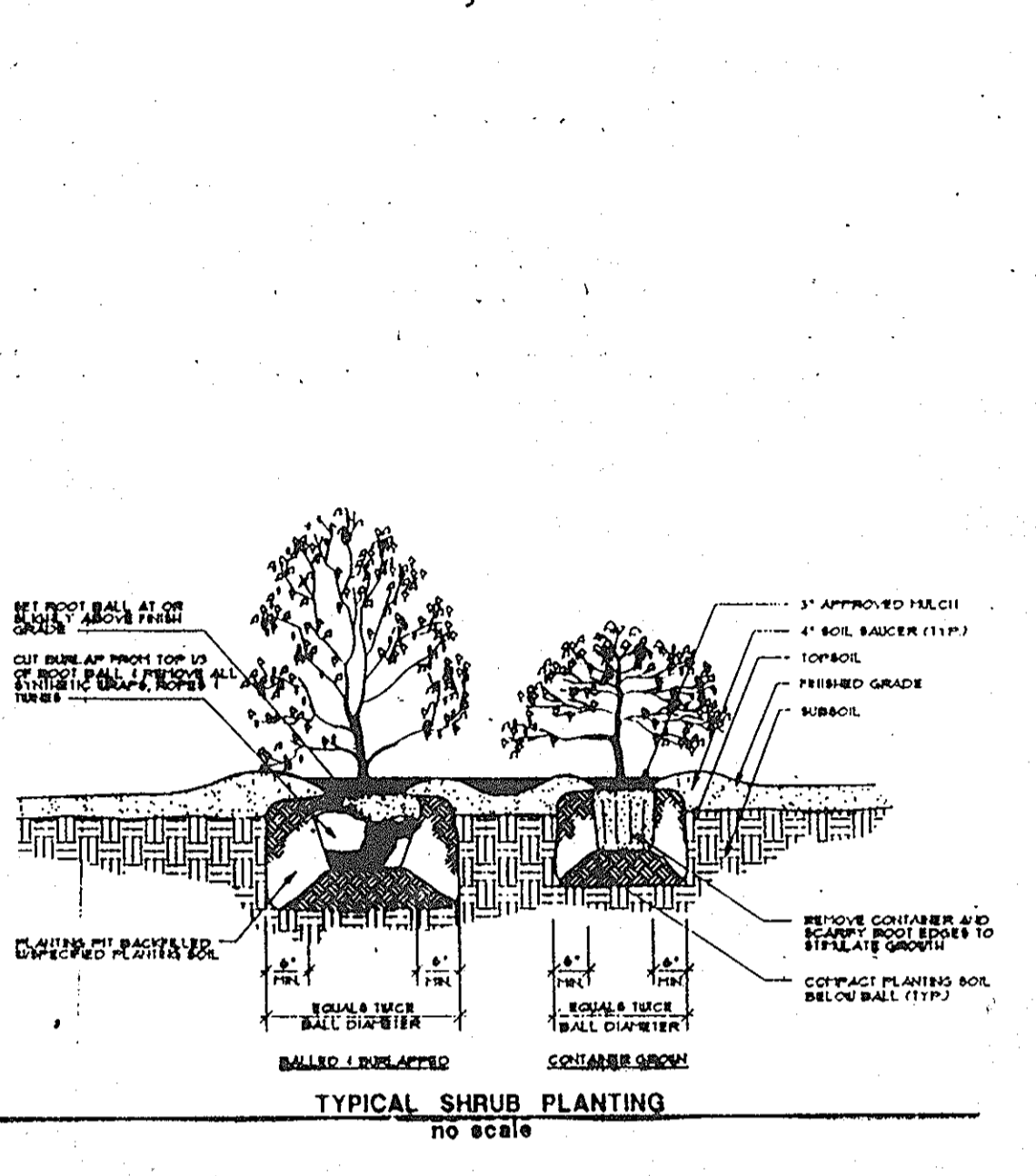
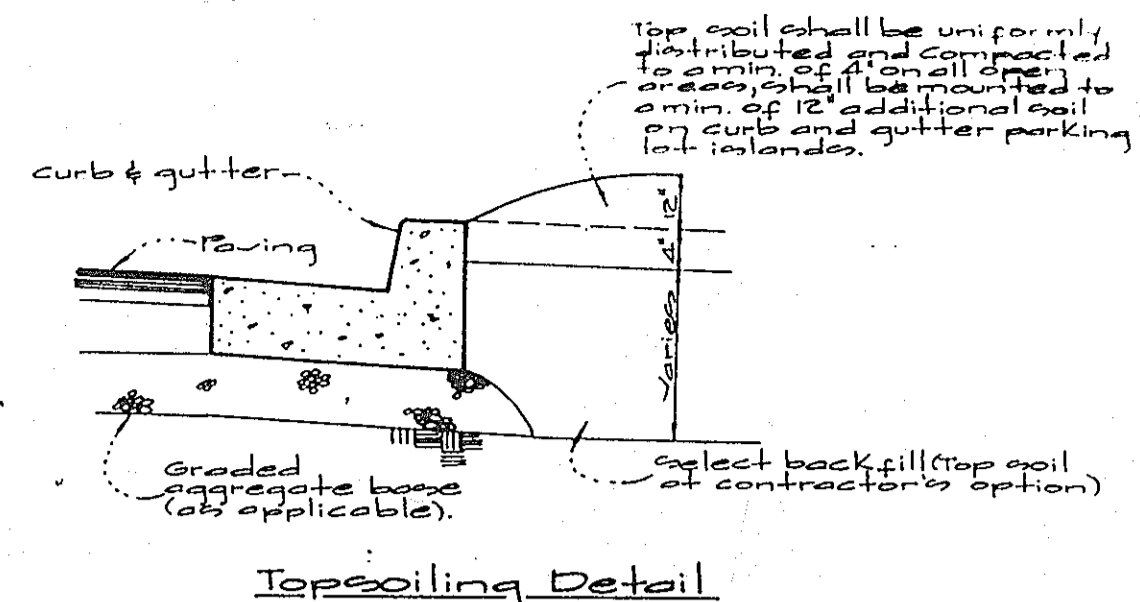
7. Plant Guarantee
All plant material shall be guaranteed for the duration of one full growing season, after final inspection and acceptance of the work in the planting project. Plants shall be alive and in satisfactory growing condition at the end of the guarantee period.

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 to 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, Victoria, or Escort.



PLANT LIST

KEY QTY.	NAME (Common / Botanical)	SIZE	COMMENTS
SHADE TREES			
FP 25,	Palmrose Green Ash / <i>Fraxinus pennsylvanica</i> 'Palmrose'	2 1/2 - 3" Cal; 12-14' Ht.	B&B
QR 31	Red Oak / <i>Quercus rubra</i>	2 1/2 - 3" Cal; 12-14' Ht.	B&B
ZS 36	Village Green Zelkova / <i>Zelkova serrata</i> 'Village Green'	2 1/2 - 3" Cal; 12-14' Ht.	B&B

KEY QTY.	NAME (Common / Botanical)	SIZE	COMMENTS
EVERGREEN TREES			
PN 43	White Pine / <i>Pinus strobus</i>	8 - 10' Ht.	B&B
PO 40	Serbian Spruce / <i>Picea omorika</i>	8 - 10' Ht.	B&B

KEY QTY.	NAME (Common / Botanical)	SIZE	COMMENTS
ORNAMENTAL TREES			
CK 25	Kousa Dogwood / <i>Cornus kousa</i>	2 1/2 - 3" Cal; 8-10' Ht.	B&B; Multi-stem
KP 10	Goldenraintree / <i>Koeleretaria paniculata</i>	2 1/2 - 3" Cal; 8-10' Ht.	B&B
MZ 21	Calocarpa Zumi Crabapple / <i>Malus x zumi</i> 'Calocarpa'	2 1/2 - 3" Cal; 8-10' Ht.	B&B; Tree Form
PC 14	Thundercloud Plum / <i>Prunus cerasifera</i> 'Thundercloud'	2 1/2 - 3" Cal; 8-10' Ht.	B&B

KEY QTY.	NAME (Common / Botanical)	SIZE	COMMENTS
SHRUBS			
VP 17	Mariessi Viburnum / <i>Viburnum plicatum</i> 'Mariessi'	30 - 36" Ht.	B&B
BT 07	Crimson Pinyon Barberry / <i>Barberis thunbergii</i> var. <i>atropurpurea</i> 'Crimson Pinyon'	15" - 18" Width	Container
PL 15	Otto Luyken Cherry Laurel / <i>Prunus laurocerasus</i> 'Otto Luyken'	18" - 24" Width	Container

SCHEDULE A PERIMETER LANDSCAPE EDGE

Category Perimeter	Adjacent to Roadways						Adjacent to Perimeter Prop.
	1	2	3	4	5	6	
Landscape Type	E	E	E	B	E	E	N/A
Linear Feet of Roadway Frontage/Perimeter	35'	125'	595'	175'	135'	30'	N/A
Credit for Ex. Vegetation (Yes, No, Linear Feet) (describe below if needed)	N	N	N	N	N	N	N/A
Credit for Wall, Fence or Berm (Yes, No, Linear Feet) (describe below if needed)	N	Y	Y	Y	Y	N	N/A
Number of Plants Required							
Shade Trees	1	3	15	4	3	1	0
Evergreen Trees	0	0	0	4	0	0	0
Shrubs	9	0	0	0	0	8	0
Number of Plants Provided							N/A
Shade Trees							
Evergreen Trees							
Other Trees (2:1 subst.)							
Shrubs (10:1 subst.)							
(describe plant substitution credits below if needed)							

Schedule 'A' Number of Shade Trees for bonding: 27 x \$300 = \$8,100
 Schedule 'A' Number of Evergreen Trees for bonding: 4 x \$150 = \$600
 Schedule 'A' Number of Shrubs for bonding: 17 x \$30 = \$510
\$9,210 TOTAL

COMMENTS: See note #10 for surty

SCHEDULE B PARKING LOT INTERNAL LANDSCAPING

Number of Parking Spaces	329
Number of Trees Required	@ 1 per 20 spaces = 17
Number of Trees Provided	
Shade Trees	
Other Trees (2:1 substitution)	

Schedule 'B' Number of Shade Trees for bonding: 17 x \$300 = \$5,100

LANDSCAPING NOTES

- This plan has been prepared in accordance with Section 16.124 of the Howard County Code and Chapter VI (Alternative Compliance) of the Howard County Landscaping Manual.
- Contractor shall notify all utilities at least (5) five days before starting work. All General Notes, especially those regarding utilities, on Sheet 1 shall apply.
- Field verify underground utility locations and existing conditions before starting planting work. Contact engineer 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" are provided for landscape surety calculation purposes only.
- Financial surety for the required landscaping has been posted as part of the DPW Developer's Agreement in the amount of \$14,310.
- Tabulation for landscape shown: Required planting by HRD for 6.43 acres of office/R&D at 24 trees / acre = 154 trees
 Planting provided:
 Shade Trees (existing and proposed): 90
 Ornamental Trees: 70 = 35.0 E.S.T.
 Evergreen Trees (existing and proposed): 69 = 41.5 E.S.T.
 E.S.T. - Equivalent Shade Trees

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Director: [Signature] 10/2/98
 Chief, Division of Land Development: [Signature] 10/2/98
 Chief, Development Engineering Division: [Signature] 10/1/98



GUTSCHICK LITTLE & WEBER, P.A.
 C. VIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE SUITE 250 BURTONSVILLE OFFICE PARK BURTONSVILLE, MD 20886

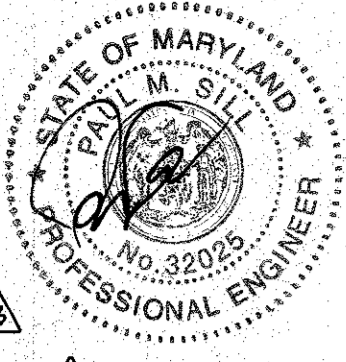
TELEPHONE: (301)421-4024 NO. VA. (301)985-2524 BALTO. (301)880-1820 FAX (301)421-4186

DATE	REVISION	BY	APPR.

PREPARED FOR:
 Manekin Corporation
 7109 Columbia Gateway Drive
 Columbia, Maryland 21046
 Attn: Cole Selward
 Phone: 410-290-1400

LANDSCAPE NOTES & DETAILS
COLUMBIA GATEWAY
 PARCEL "S-28"
 CUMFORD ELECTION DISTRICT No. 6
 HOWARD COUNTY, MARYLAND

DES.	SCALE	ZONING	G.L.W. FILE NO.
		M-1	98075
DRN.	DATE	TAX MAP No.	SHEET
	Sept 17, 1998	43-7	5 OF 9



Professional Certification: I hereby certify that these documents were prepared or approved by me and that I am a duly licensed Professional Engineer under the laws of the State of Maryland, License No. 32025, expiration date: June 6, 2009.



COLUMBIA GATEWAY
PARCEL "S-1"
PLAT No. 8809
ZONING: M-1

DEVELOPER/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 of 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 HSD.

R. G. [Signature] 9/24/98
Date

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] 8/18/98
Date

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements.

[Signature] 9/24/98
Date

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

[Signature] 9/24/98
Date

Contractor is to construct a brick bulkhead to block pipes from flowing to street. To keep them in trap.



COLUMBIA GATEWAY
PARCEL "S-28"
PLAT No. 13142
ZONING: M-1

PROFESSIONAL CERTIFICATION:
I HEREBY CERTIFY THAT ONLY THE "REVISION 4" MODIFICATIONS WERE PREPARED AND APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE No. 18265, EXPIRATION DATE: 8/18/19. IN ADDITION, THE ORIGINAL E.O.R. HAS PROVIDED WRITTEN PERMISSION TO MODIFY THIS DRAWING.

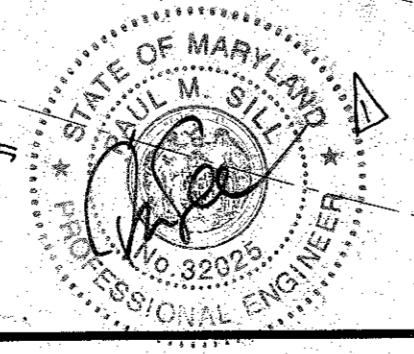
- Legend
- L.O.D. Existing Contour
 - Proposed Contour
 - Silt Fence
 - Removable Rump Station
 - Inlet blocking
 - Temporary Swale
 - Stabilized Construction Entrance
 - Drainage Divide

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

[Signature] 10/2/98
Director

[Signature] 10/2/98
Chief, Division of Land Development

[Signature] 10/1/98
Chief, Development Engineering Division



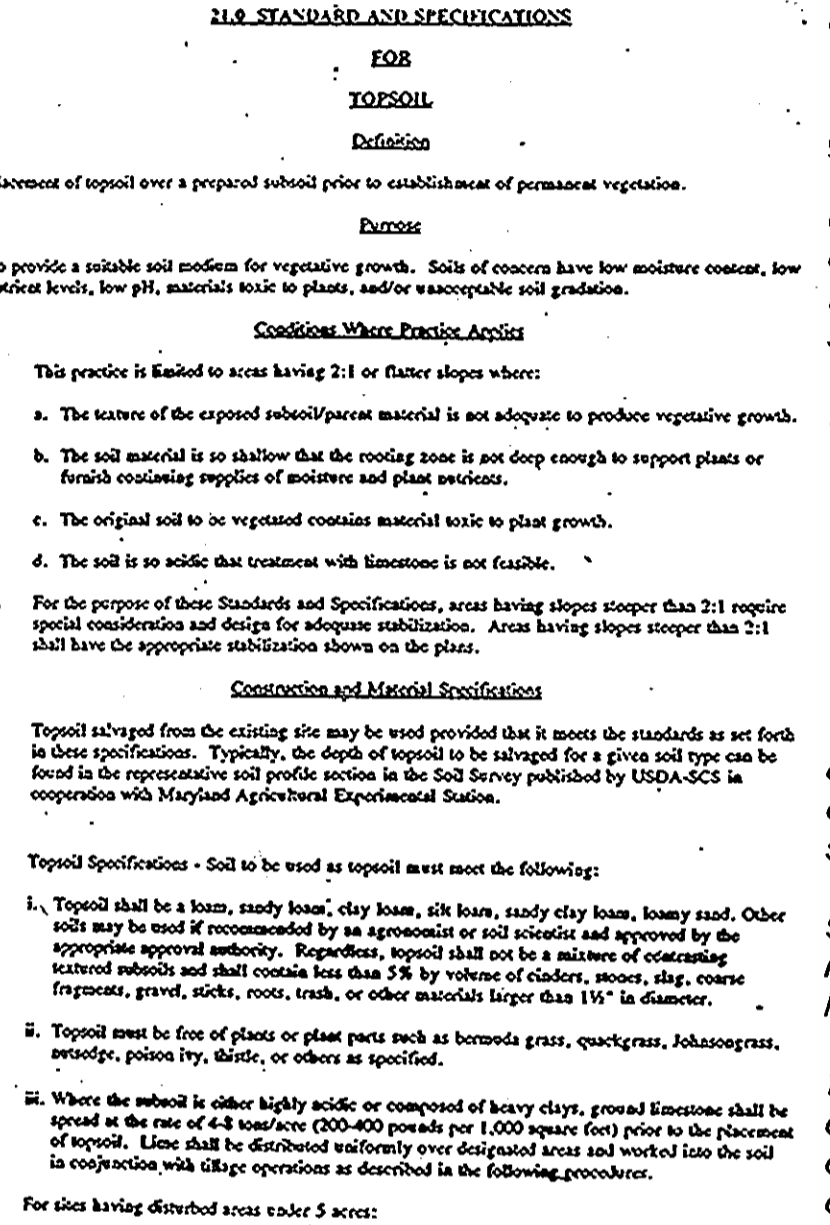
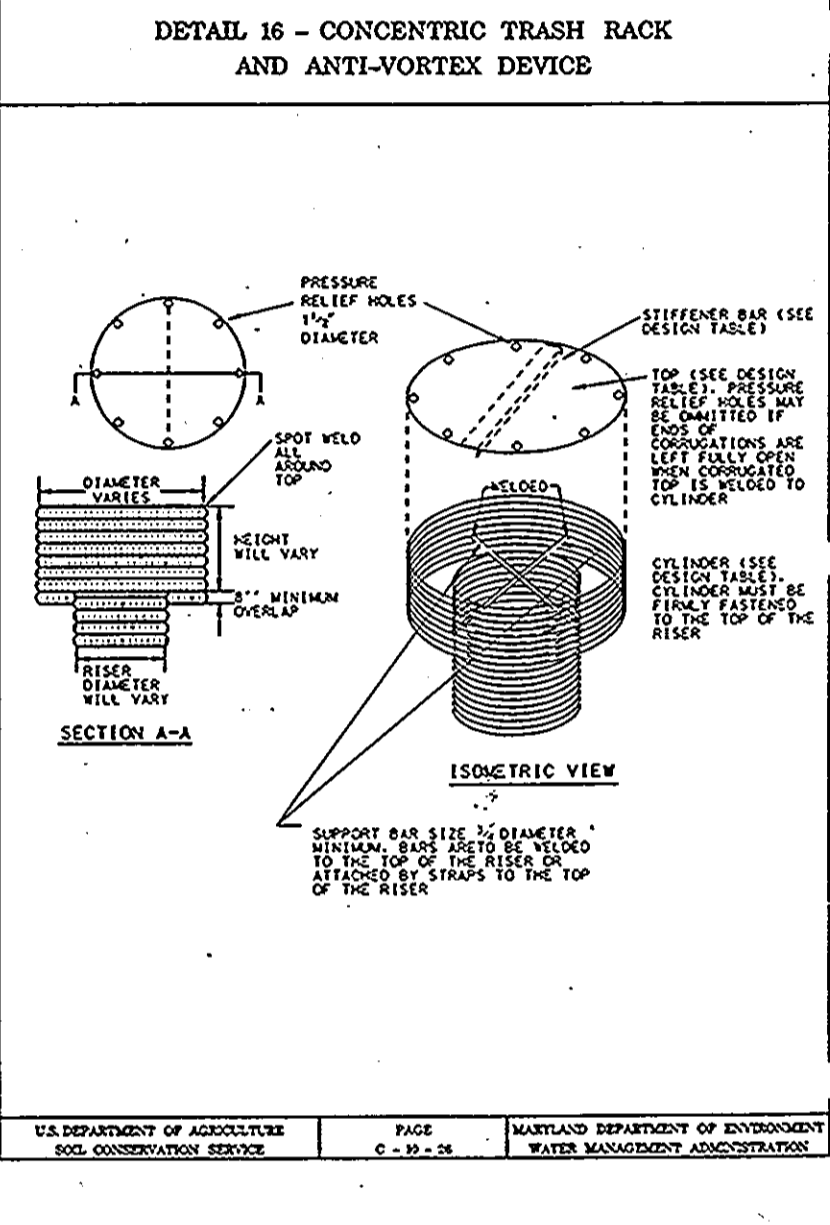
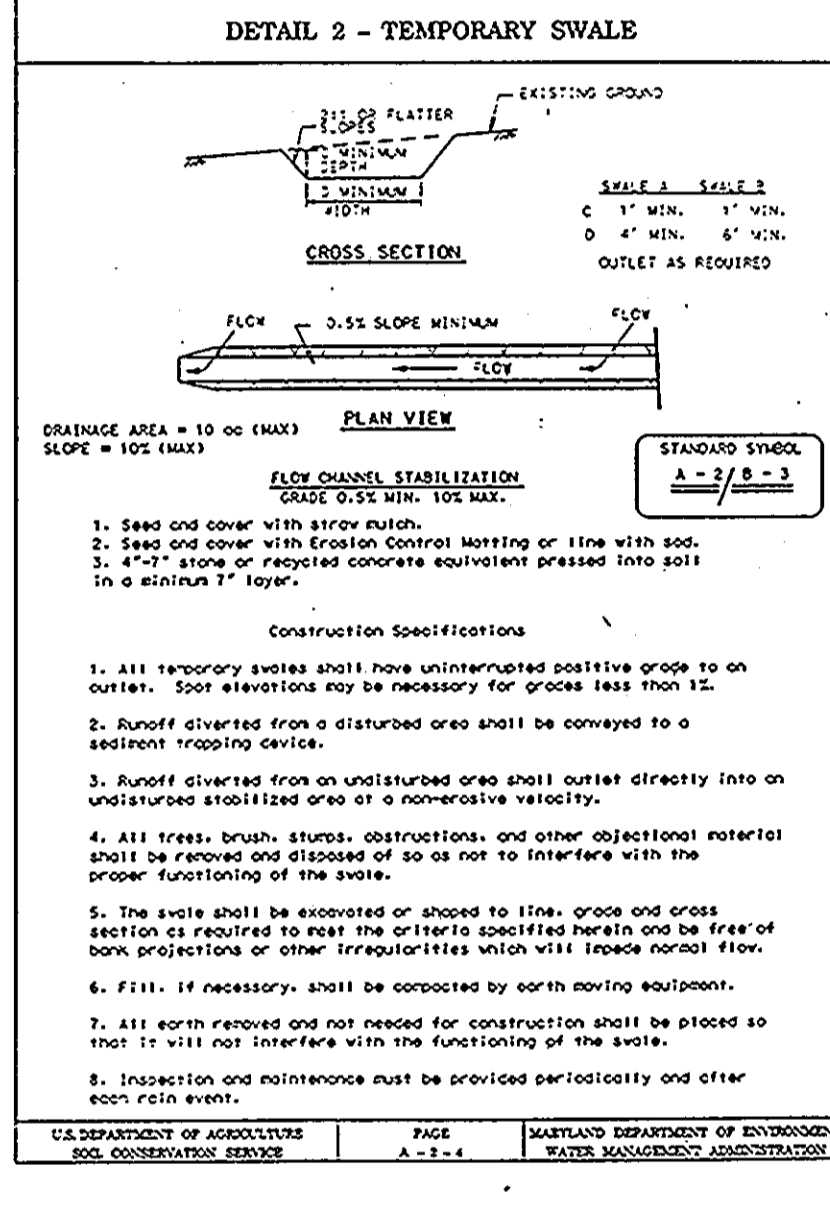
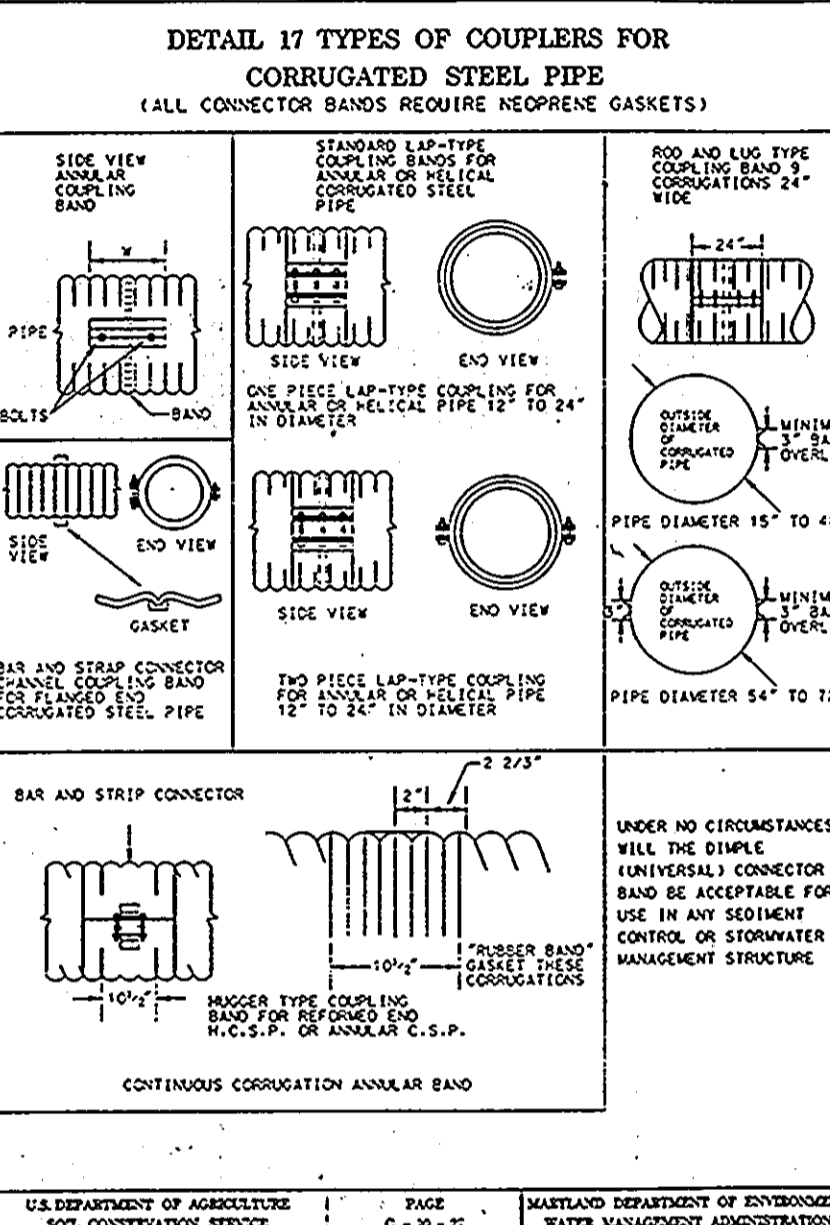
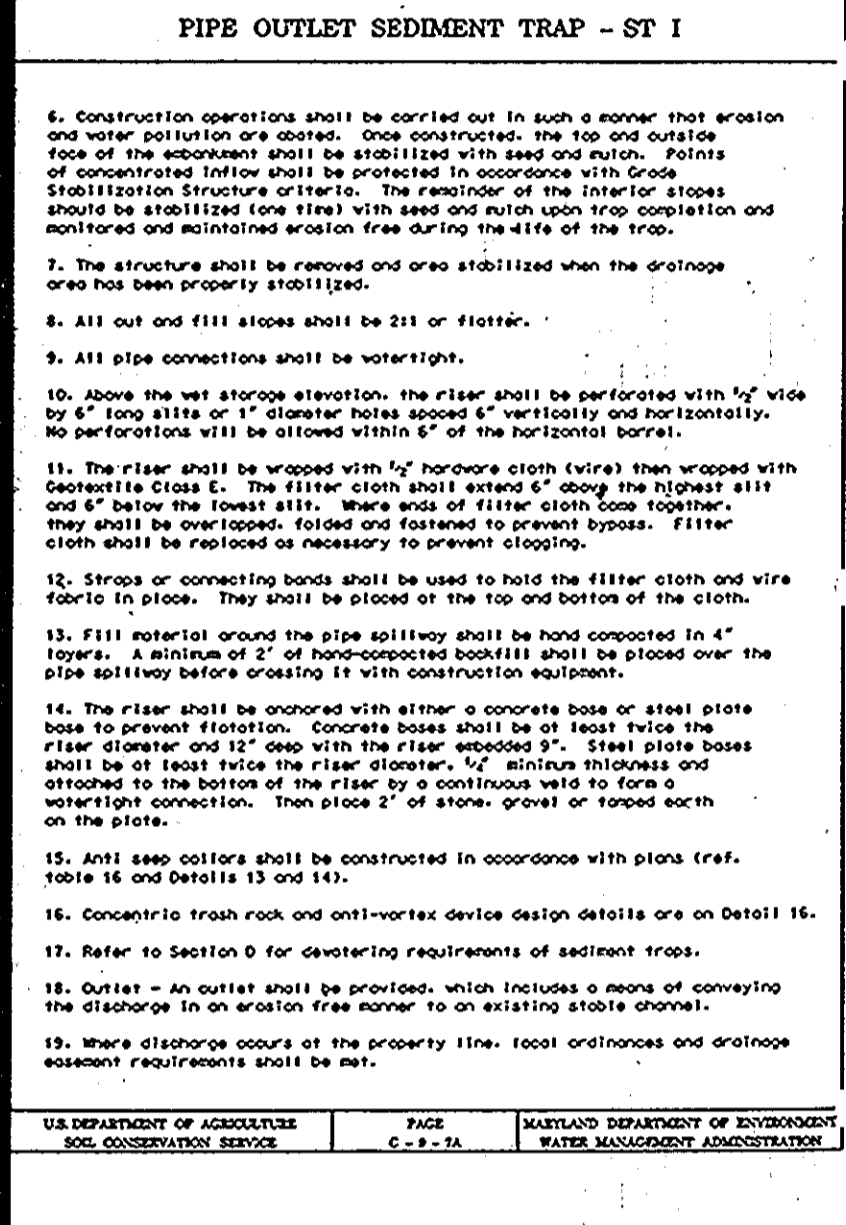
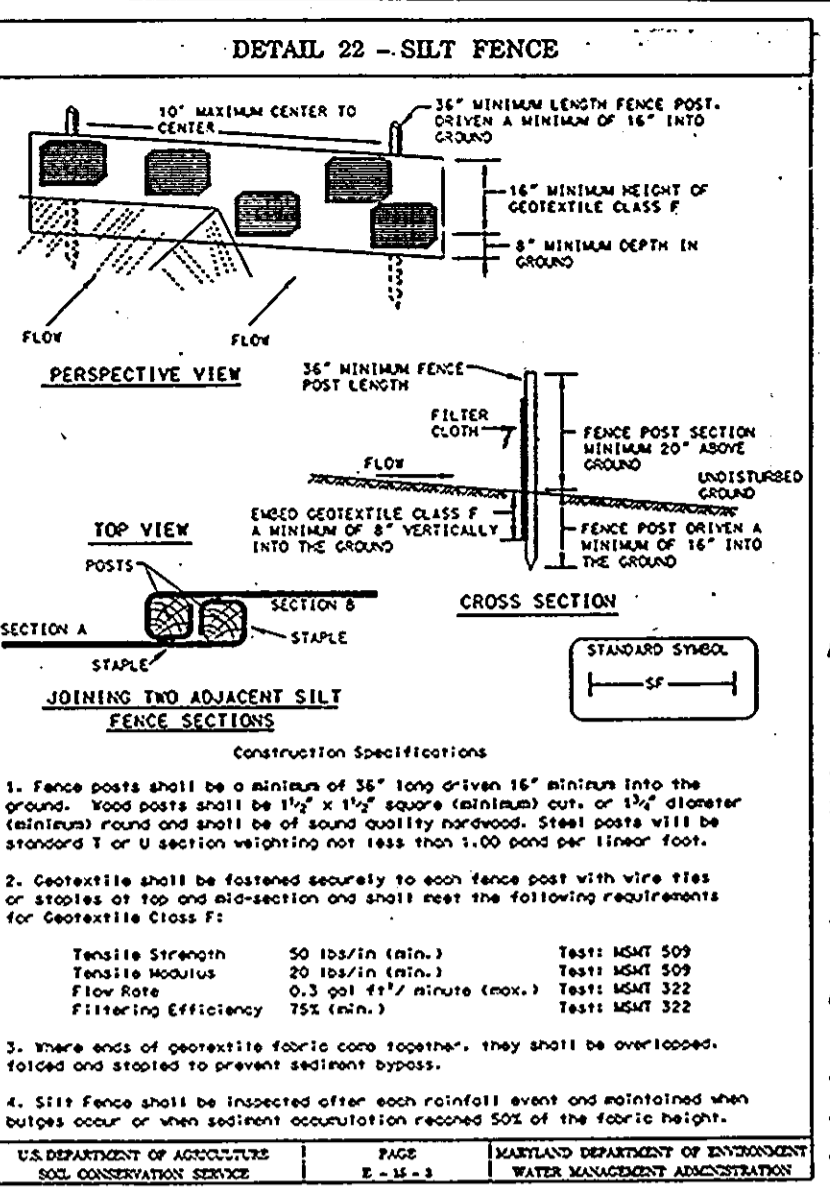
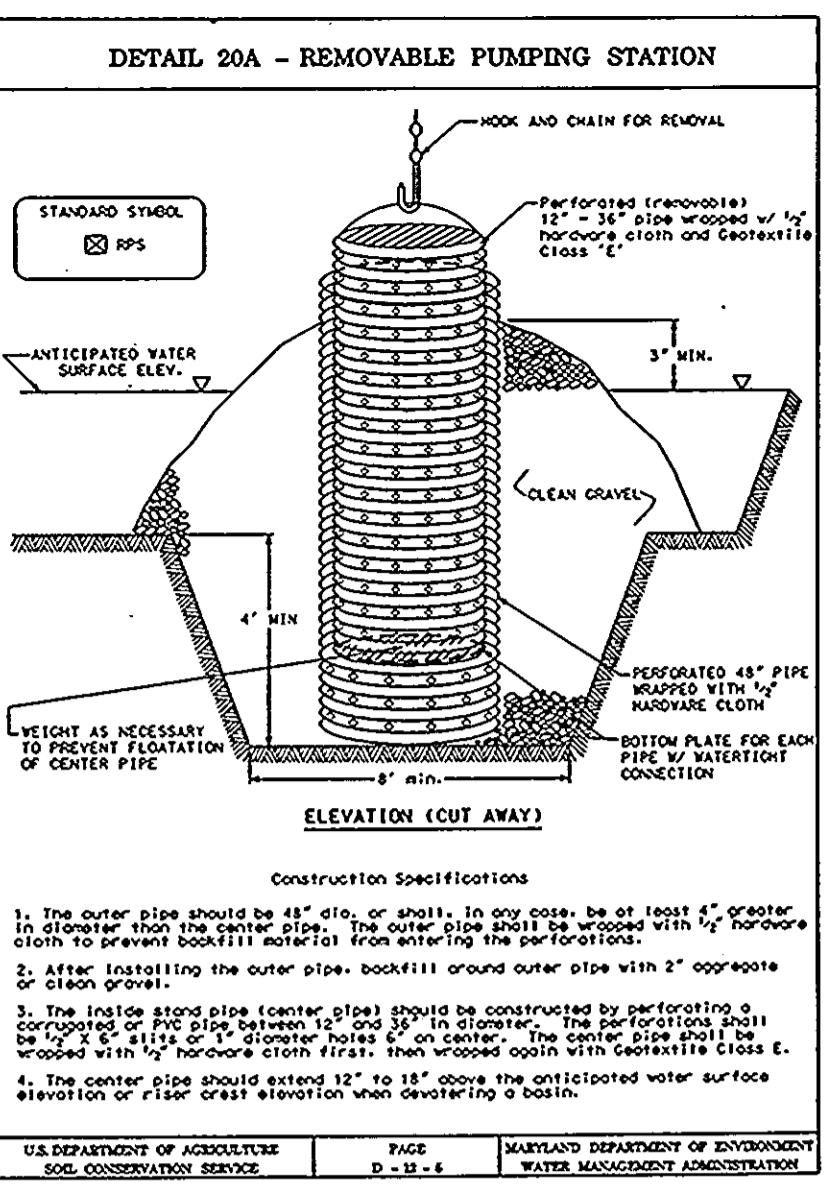
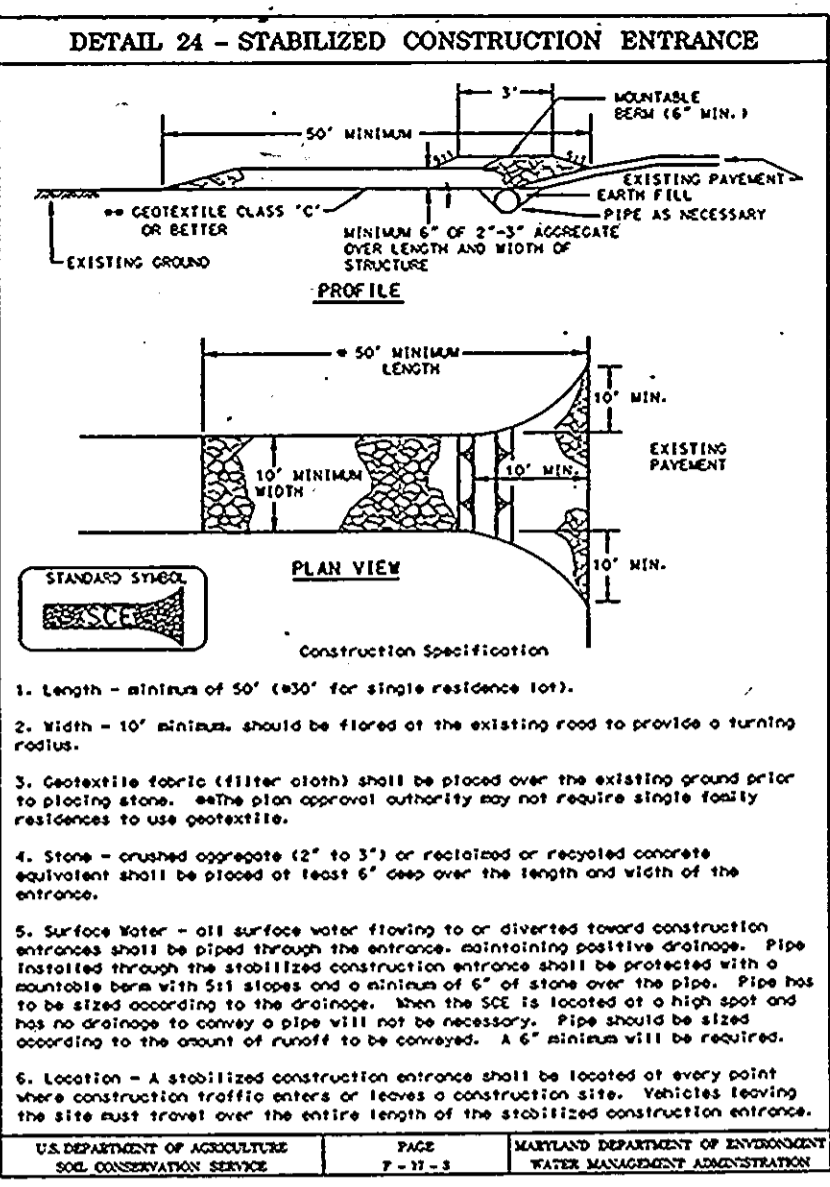
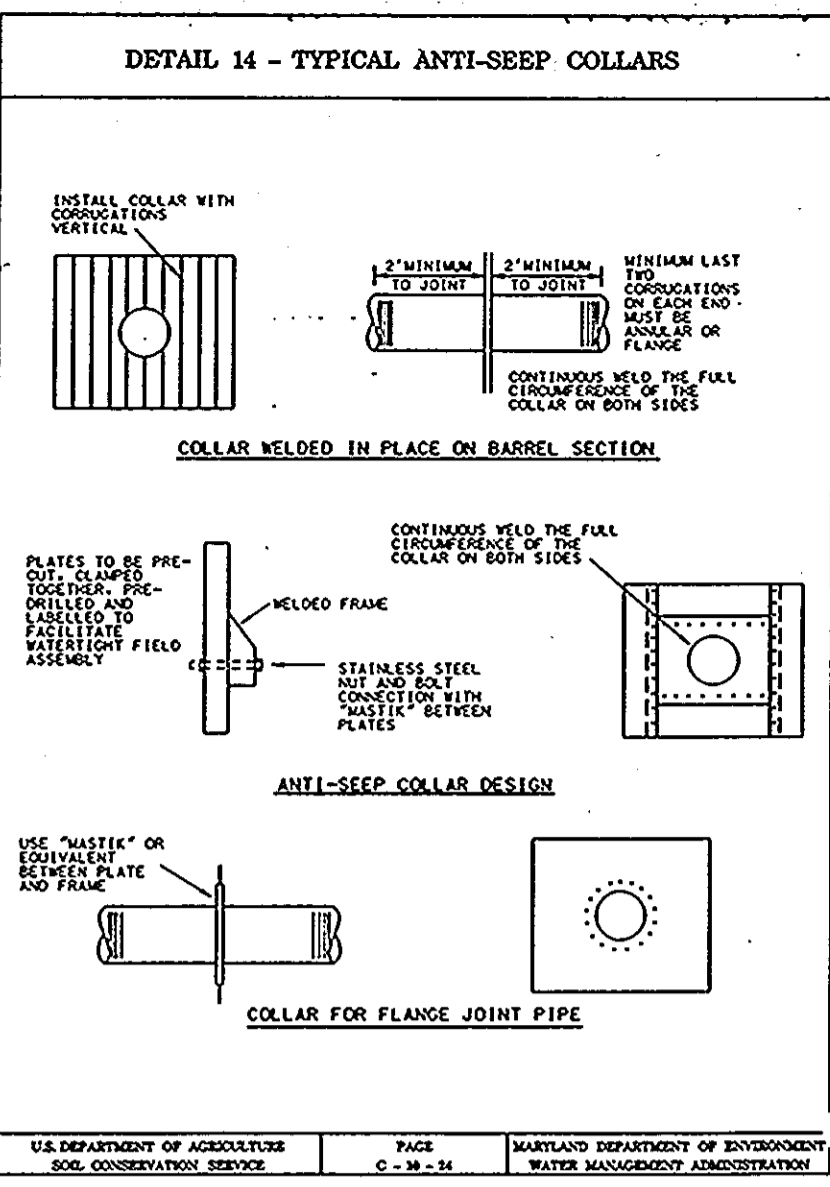
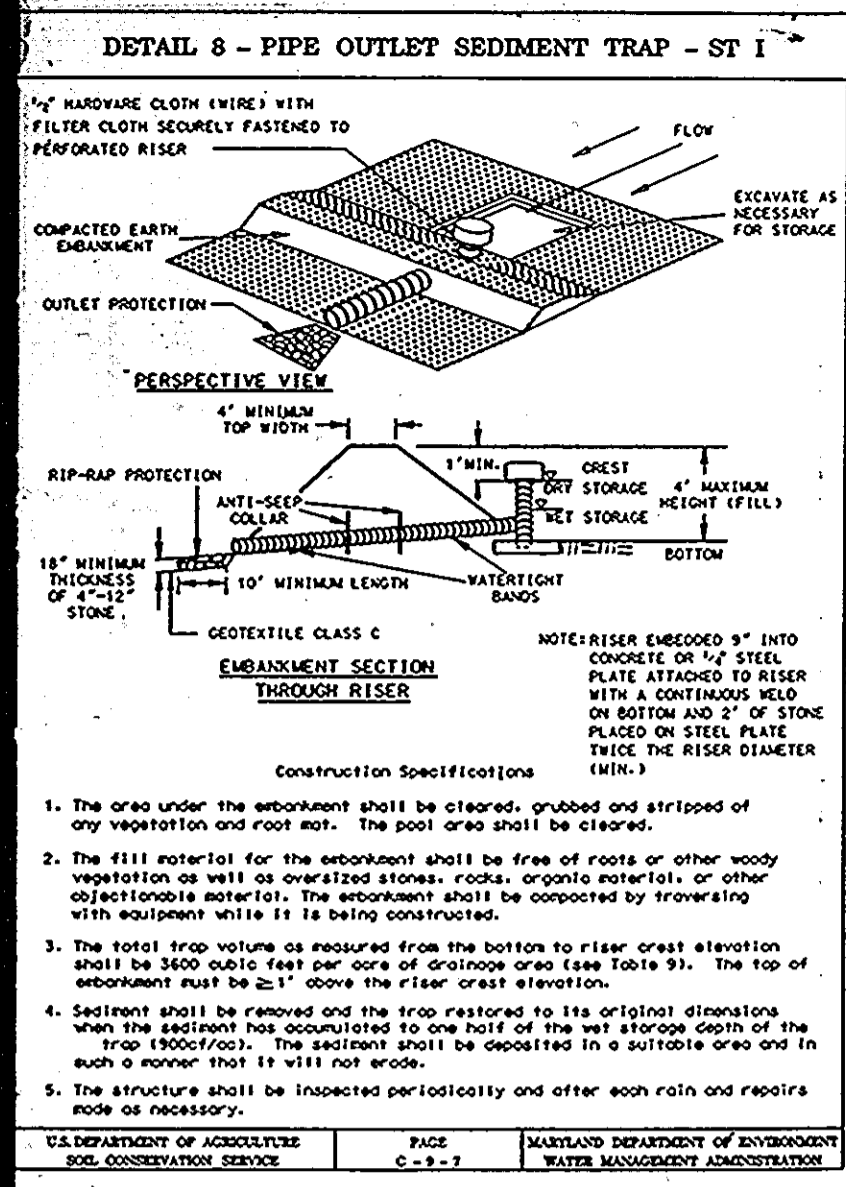
GLW GUTSCHICK LITTLE & WEBER, P.A.
CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
3000 NATIONAL DRIVE - SUITE 250 - BURTONTOWNE OFFICE PARK
BURTONTOWNE, MARYLAND 20894
TEL: 301-421-4024 FAX: 301-421-4100

DATE	REVISION	BY	APPR.
09.15.17	REMOVE EX. LOADING DOCK, STAIR & BOLLARDS; CONSTRUCT LOADING DOCK, STAIR, PADS & BOLLARDS	A.G.L.R.	
05.30.02	Replace Loading Dock at rear of building	[Signature]	
02.16.02	Add & Loading Dock with stairs to rear of building	[Signature]	
12.21.00	REVISE PAVED AREA TO INCLUDE TWO CONC PADS AND SHOW EXISTING CONC PADS	[Signature]	

PREPARED FOR:
Manekin Corporation
7109 Columbia Gateway Drive
Columbia, Maryland 21040
Attn: Cale Scherp
Phone: 410-290-1400

Sediment Control Plan
Columbia Gateway
PARCEL "S-28"
HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=30'	M-1	98075
DATE	TAX MAP - GRID	SHEET
Sept. 17, 1998	43-7	6 OF 9



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 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings, sod, temporary seeding and mulching (Sec. C). 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	6.47	Acres
Area Disturbed	5.26	Acres
Area to be roofed or paved	4.57	Acres
Area to be vegetatively stabilized	1.07	Acres
Total Cut	3.07	Cu. Yds.
Total Fill	0.47	Cu. Yds.

 Off-site waste/borrow area location: Columbia Gateway Parcel A-UB S0P 02-10-08
- 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 control 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.
- 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 desired.
- 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.
- Maintenance: Inspect all seeded areas and make needed repairs, replacements and reseedings.

TEMPORARY SEEDING NOTES

- Apply to graded or cleared areas likely to be redisturbed where a short-term 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: Apply 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft).
- Seeding: For periods March 1 thru April 30 and from August 15 thru October 15, seed with 2-1/2 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.
- Refer to the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements.

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 of 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.

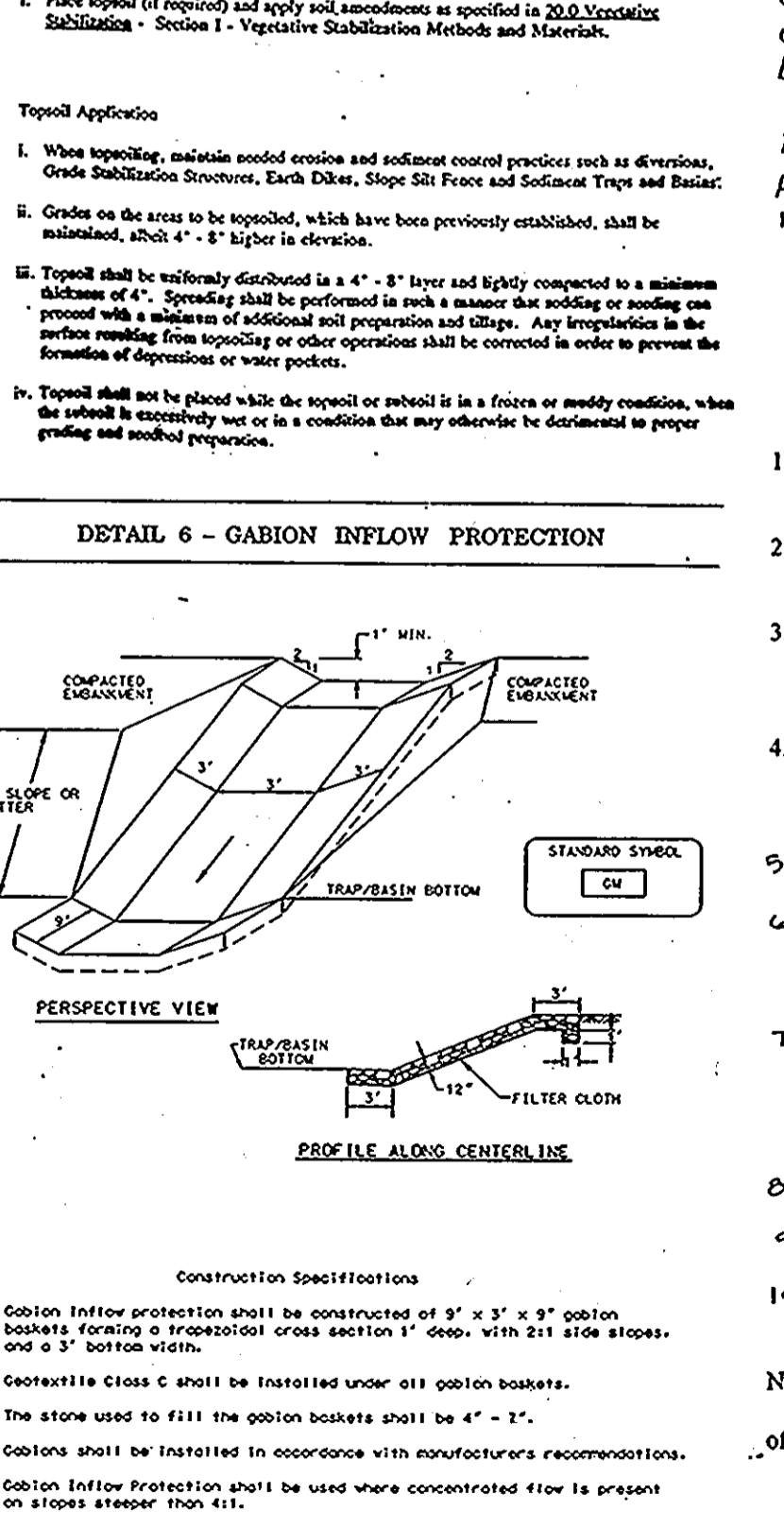
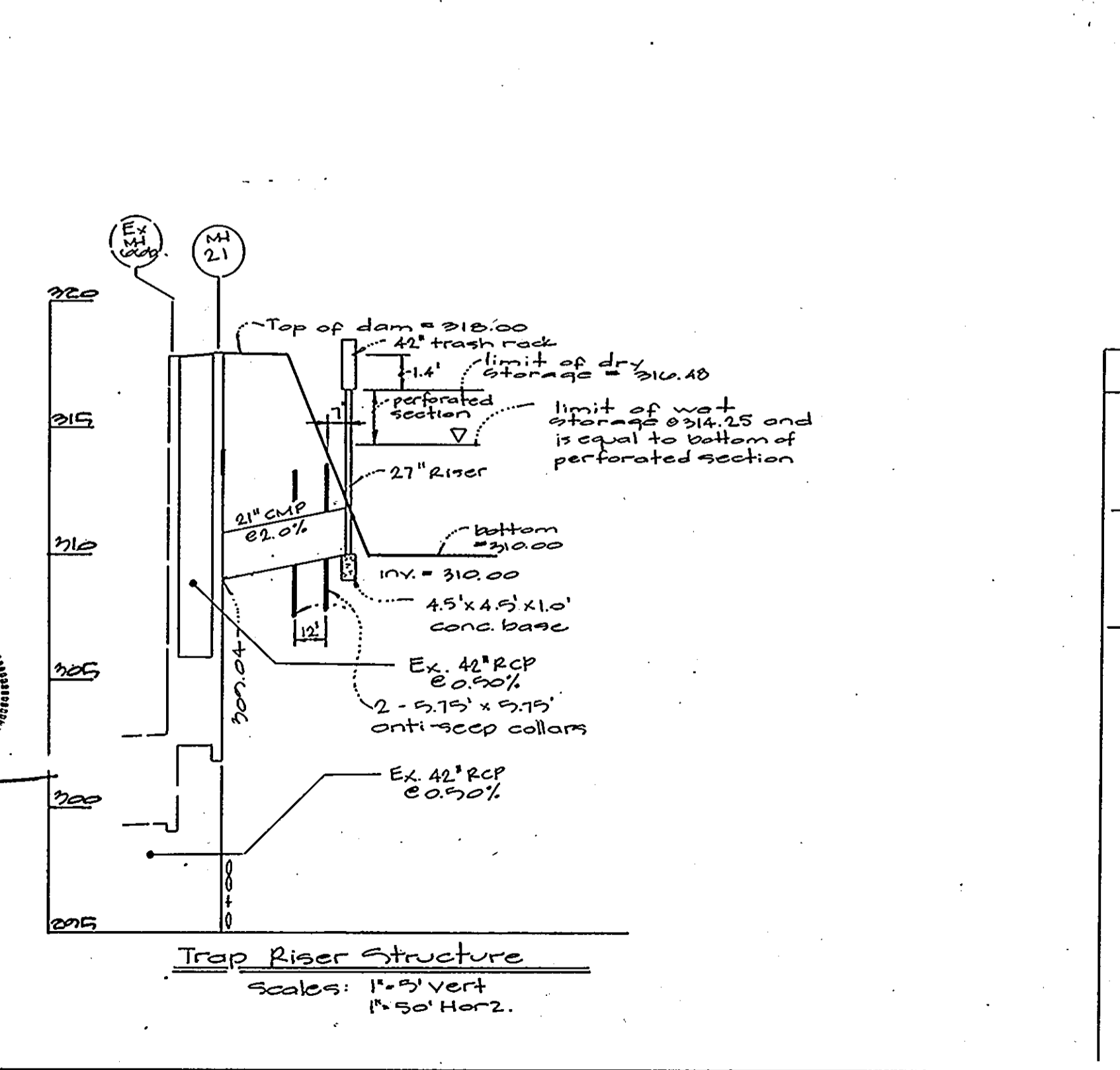
Signature: *Chad Simon* Date: *9/24/98*

Signature: *R.C. Sp* Date: *9/24/98*

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: *Chad Simon* Date: *9-23-98*

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 Director: *Paul Butler* Date: *10/2/98*
 Chief, Division of Land Development: *Chris Hamilton* Date: *10/2/98*
 Chief, Development Engineering Division: *Chris Hamilton* Date: *10/2/98*

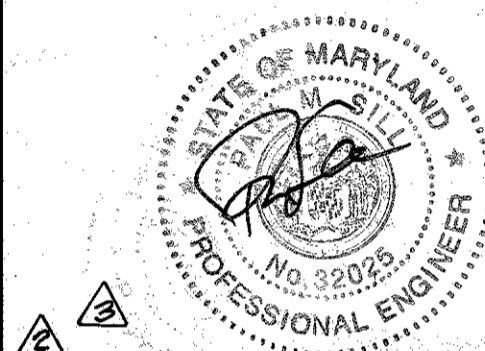


GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK - BURTONSVILLE, MARYLAND 20866
 TEL: (301) 421-4024 MO. VA: (501) 989-2524 BALT. (410) 880-1820 BALT. (301) 421-4188 DES. DRN. CHK. DATE

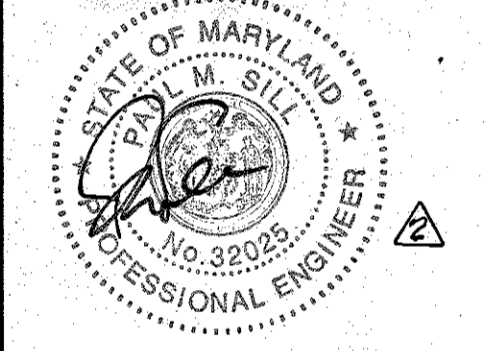
PREPARED FOR:
 Manekin Corporation
 7105 Columbia Gateway Dr.
 Columbia, Maryland 21046
 (410) 270-1400
 att: Cole Schorr

Sediment Control Notes and Details
Columbia Gateway
 Parcel 5-2b
 4th Election District
 Howard County, Maryland

SCALE	ZONING	G. L. W. FILE No.
	M-1	28-079
DATE	TAX MAP No.	SHEET
Sept 17, 1998	43-7	7 of 9



Professional Certification: I hereby certify that these documents were prepared or approved by me and that I am a duly licensed Professional Engineer under the laws of the State of Maryland, License No. 32025, expiration date June 6, 2009



PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT ONLY THE REVISIONS AND MODIFICATIONS WERE PREPARED AND APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 18265, EXPIRATION DATE: 5/31/18. IN ADDITION, THE ORIGINAL E.O.R. HAS PROVIDED WRITTEN PERMISSION TO MODIFY THIS DRAWING.



APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING
 Director: *[Signature]* 10/2/08
 Chief, Planning & Development: *[Signature]* 11/2/08
 Chief, Development Engineering Division: *[Signature]* 10/1/08

Note: C-9011 is used due to Mass grading.

GLW GUTSCHICK LITTLE & WEBER, P.A.
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS
 3909 NATIONAL DRIVE - SUITE 200 - BURTNSVILLE OFFICE PARK
 BURTNSVILLE, MARYLAND 21046
 TEL: 301-421-4024 FAX: 410-980-1820 DC/VA: 301-999-2524 FAX: 301-421-4198

NO.	DATE	DESCRIPTION	BY	APPR.
09.15.17		REMOVE EX. LOADING DOCK, STAIR & BOLLARDS; CONSTRUCT LOADING DOCK, STAIR, PADS & BOLLARDS	GLR	
09.30.08		Expand Loading Dock at rear of building	GAA	
12.16.08		Add 2 Loading Docks with stairs to rear of building	GAA	
12.21.08		REVISE PAVED AREA TO INCLUDE TWO CONC PADS AND SHOW EXISTING CONC PAD	SAA	

PREPARED FOR:
 Manskin Corporation
 7105 Columbia Gateway Drive
 Columbia, Maryland 21046
 Attn: Cole Gehner
 Phone: 410-290-1400

Drainage Area Map
Columbia Gateway
 PARCEL "S-28"
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=30'	M-1	98075
DATE	TAX MAP - GRID	SHEET
Sept. 17, 1998	43-7	9 OF 9