

## GENERAL NOTES

- Subject property zoned "R-MH" and "CE-CLI" per 2/02/04 Comprehensive Zoning Plan and the Comp Lite Zoning Amendments adopted 7/28/06.
- The coordinates shown hereon are based upon the Howard County Geodetic Control which is based on the Maryland State Plane Coordinate system. Howard County monument numbers 471B and 471C were used for the project.
- Boundary and topographic survey performed by M. Najib Roshan on March 5, 2007.
- Public water and sewer will be used within this site; as specified in Contract #24-4656-D. Sewer contract #24-4656-D and 24-0932-D and water contract #1-W are to be utilized.
- The soils shown on this plan are derived from the soil Survey Geographic (SSURGO) database for Howard County, Maryland. The data source for this product is the U.S. Department of Agriculture, Natural Resources Conservation Service.
- Gross area of site: 5.613 ac.<sup>±</sup>
- Net Area of site: 5.301 ac.<sup>±</sup>
- Number of parking spaces required: 148
- Number of parking spaces provided: 152
- A.P.T.O. traffic study prepared by Traffic Solutions, Inc., on November 24, 2009.
- There are no historic structures or cemeteries on-site, to the best of our knowledge.
- Wetland and stream evaluation report was prepared by Exploration Research Inc. on April 9, 2004.
- Stormwater Management is provided as necessary in accordance with the 2000 Stormwater Management Manual. The channel protection is provided through the extended detention facility which will be privately owned and maintained. Water quality is provided through an organic filter facility and a surface sand filter. Recharge is provided beneath the organic filter through additional stone storage and infiltration areas.
- Private Howard County Filers numbers: Beechrest Parcels 'A' and 'B' recorded under Plat #10490, F-92-1851, WP-92-1785, BAC-90-05 NAV, F-10-069, WP-10-089, and AA-10-003. Beechrest Parcel 'A' developed under SDF-87-05.
- This plan is subject to the 5th Edition Subdivision and Land Development Regulations and to the 2006 Zoning Regulations.
- No grading, removal of vegetative cover or trees, or placement of new structures shall be permitted within the limits of wetlands, stream(s), or their buffers nor within forest conservation easement areas.
- Landscaping is provided in accordance with the Landscape Plan in accordance with Section 16.124 of the Howard County Code and the Landscape Manual. Financial surety for the required landscaping will be posted as part of the Developer's Agreement in the amount of \$24,250.00 (76 shade trees @ \$300 ea. and 48 evergreen trees @ \$100 ea.)
- The Contractor shall notify the following utility companies or agencies at least five (5) working days before starting work shown on these plans:
  - State Highway Administration  
410.591.5533
  - B&G Contractor Services  
410.850.4620
  - BBE(Underground Damage Control)  
410.787.8068
  - 1,800.257.7777
  - Miss Utility  
410.795.1390
  - Colonial Pipeline Company  
410.318.4900
  - Howard County, Dept. of Public Works, Bureau of Utilities  
410.318.4850
  - Howard County, Dept. of Public Works/Bureau of Engineering Construction Division  
410.318.4850
  - Howard County Health Department  
410.318.4850
  - 1,800.252.1133
  - Verizon  
1,800.743.0033/10.224.9210
  - SHA Permit Inspector for Howard County  
301.624.8121
- The project is in conformance with the latest Howard County Standards unless waivers have been approved.
- There are no floodplains on-site.
- All plan dimensions are to face of curb unless otherwise noted.
- All proposed spot elevations along curb and gutter are to the flowlune unless otherwise noted.
- All construction shall be in accordance with the latest standards and specifications of Howard County in addition to MSHA standards and specifications where applicable.
- Any damage to public rights-of-way, paving or existing utilities will be corrected at the Contractor's expense.
- Existing utilities are located by the use of any or all of the following: Road Construction Plans, Field Surveys, Public Water and Sewer Plans and other available record drawings. Approximate location of the existing utilities are shown for the Contractor's information. Contractor shall locate existing utilities well in advance of construction activities and take all necessary precautions to protect the existing utilities and to maintain uninterrupted service. Any damage incurred due to the Contractor's operations shall be repaired immediately at the Contractor's expense.
- All HPE pipe specification and installation shall meet AASHTO M-252 Type S, M-294
- Soil & Pavement Design (respectively).
- Soil compaction specifications, requirements, methods and materials are to be in accordance with the recommendations of the project Geotechnical Engineer. Geotechnical Engineer to confirm acceptability of proposed paving section, based on soil test, prior to construction.
- All traffic control devices, markings and signing shall be in accordance with the latest edition of the Manual of Uniform Traffic Control Devices (MUTCD). All street and regulatory signs shall be in place prior to the placement of any asphalt.
- Estimates of Earthwork quantities are provided solely for the purpose of calculating fees.
- All exterior light fixtures shall be allowed to cast light upwards and downwards on-site away from all buildings, residential properties and public areas in accordance with Section 134 of the Howard County Zoning Regulations. Light trespass will not exceed 0.5 foot candles.
- All sign posts used for traffic control signs installed in the SHA Right-of-way shall be mounted on a 2" galvanized steel, perforated, square tube post (14 gauge) inserted into a 2-1/2" galvanized steel, perforated, square tube sleeve (12 gauge) - 3' long. A galvanized steel pole cap shall be mounted on top of each post.
- Street light placement and type of fixture and pole shall be in accordance with the Howard County Design Manual Volume III (1993) and modified by Guidelines for Street Lights in Residential Developments (June 2003). A minimum spacing of 20 feet shall be maintained between any street light and any tree.
- Trash pickup shall be private.
- This plan is subject to "AA" Case No. 10-003. On March 3, 2010, the planning director ordered that the petition for additional adjustment ("AA") from section 16.12.2 of the Howard County Zoning regulations to reduce the 50 foot structure and use setback to 40' to construct two apartment buildings and associated parking be granted.
- This plan is subject to WP-10-089. On January 26, 2010, the planning director granted unconditional approval for a waiver from section 16.1205(a)(10) which requires the retention of specimen trees that are not contained within other priority forest retention areas as outlined in section 16.1205(a)(1-a).
- This plan is subject to a waiver from Design Manual volume IV detail R-6.09 allowing the reduction of the width of a segment of the two way driveway from 24 feet to 20 feet and detail R-9.03 to reduce the width of the monolithic curb and sidewalk from 6 feet to 4 feet 9 inches. The waiver was approved by the Development Engineering Division on January 21, 2010.
- Noise Study prepared by The Wilson T. Ballard Company dated January 2010 demonstrates that the 65dBA unmitigated noise level along Rte. 1 has no impact on the proposed building on site.
- The proposed building will have an automatic fire protection sprinkler system.
- There are 40 existing mobile homes on site. The residents shall be relocated per a relocation plan approved by Howard County.
- A new Address Sign assembly shall be fabricated and installed by Howard County Bureau of Highways at the developer's owner's expense.
- Open Space obligations for the Beechrest apartments are met as follows: Open Space Lot 1 (0.044 Ac.) is dedicated to the Department of Recreation and Parks, Howard County, Maryland to be used as a park system. The Open Space on Parcel 'B' is 3.224 Ac. Total open space provided is 3.268 Ac.
- Moderate Income Housing Units (MIHU) agreement and covenants are recorded in Liber 12334 Folio 247.
- On-site proposed public water and sewer to be constructed per contract #24-4656-D.
- Stormwater Management is provided in accordance with the 2000 Maryland Stormwater Design Manual Volumes I and II. It was determined that this project met the criteria outlined in the MDE Stormwater Management Regulations Guidance for implementation for acceptance for the 2000 Design criteria and granted a waiver. This plan is also subject to the expiration of this waiver unless all stormwater management is constructed by May 4, 2017.

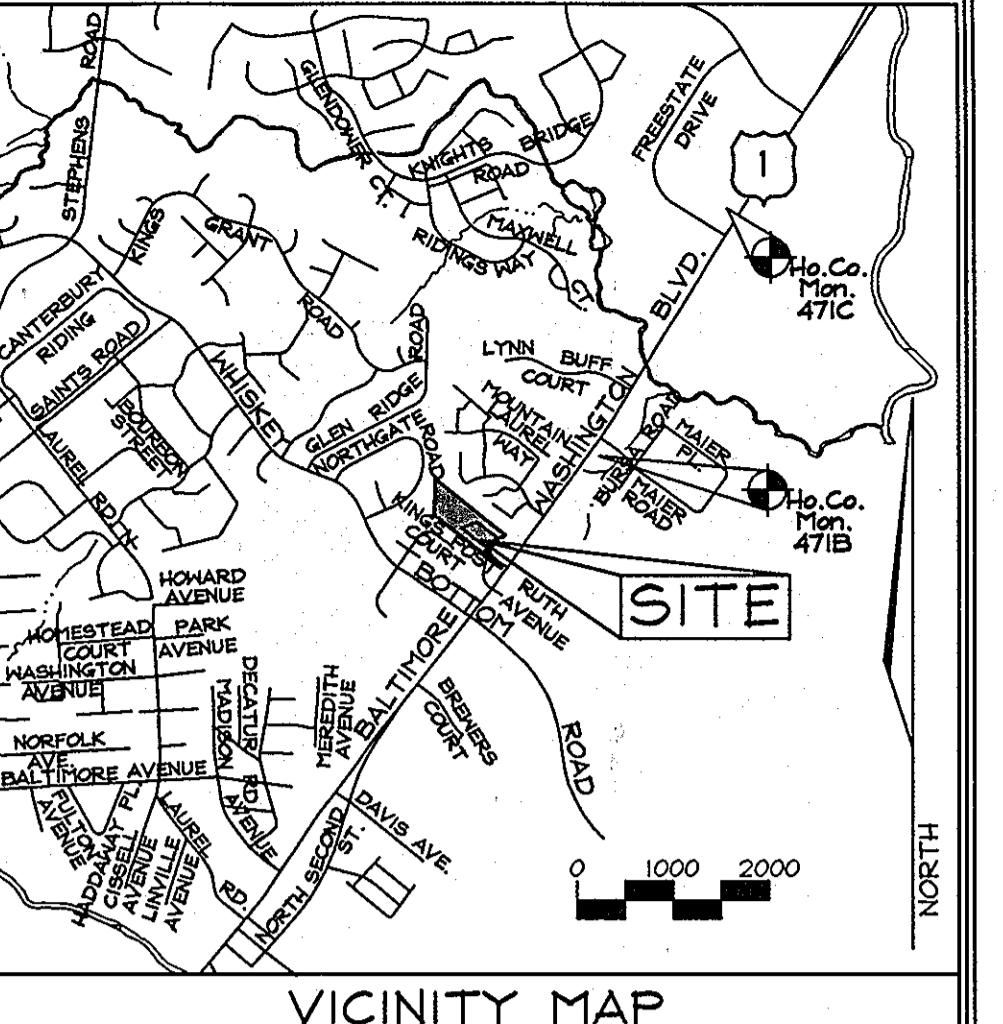
# SITE DEVELOPMENT PLANS

## BEECHREST APARTMENTS

### PARCEL "B" and OPEN SPACE LOT 1

### BUILDINGS #1 and #2

### HOWARD COUNTY, MARYLAND

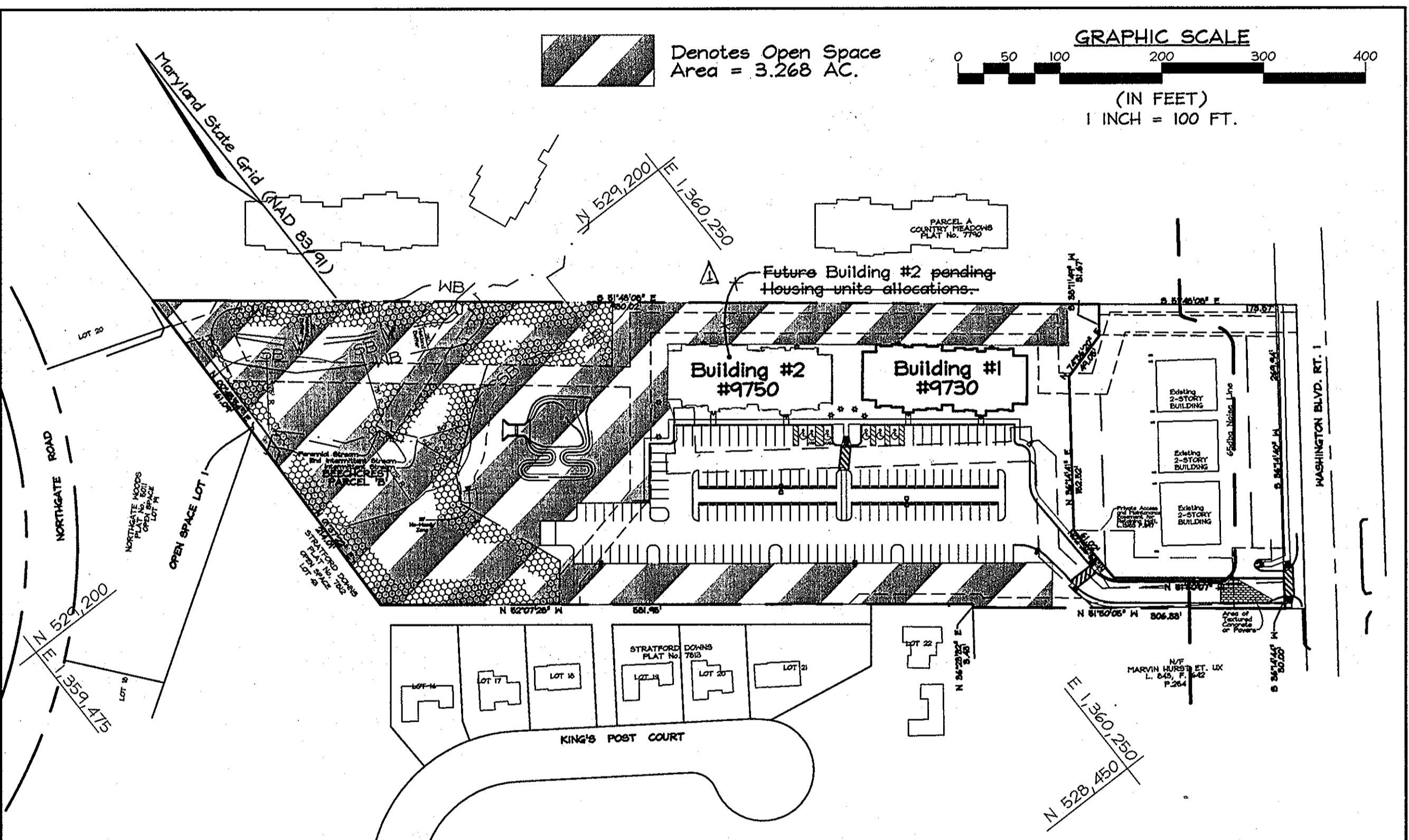


VICINITY MAP  
SCALE E=1=2000'  
ADC MAP 5164 GRID II-B

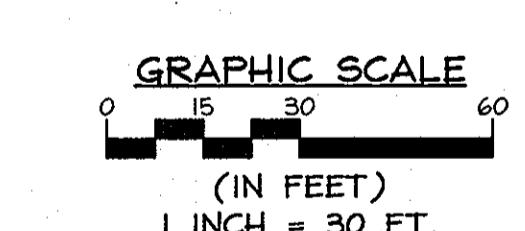
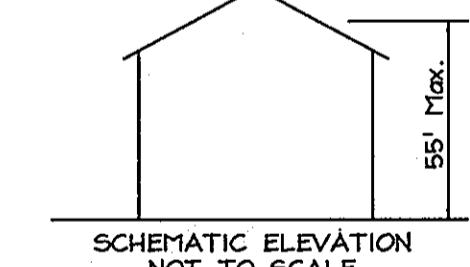
GEOGRAPHIC SURVEY CONTROLS

♦ Sta. 471B N 529,701.543 E 1,261,464.7279 Elev. 170.884 (feet)

♦ Sta. 471C N 532,036.867 E 1,362,814.0718 Elev. 188.267 (feet)



BUILDING LINE TABLE	
LINELIST, FT.	LINEIDLIST, FT.
1	47.46
2	35
3	47.46
4	2.82
5	39
6	2.87
7	4.10
8	38
9	4.10
10	30
11	40
12	11.37
13	41
14	11.37
15	42
16	11.37
17	42
18	11.37
19	42
20	11.37
21	53
22	42
23	53
24	11.37
25	53
26	42
27	20
28	11.37
29	20
30	64
31	62
32	61
33	67
34	63



LOCATION MAP

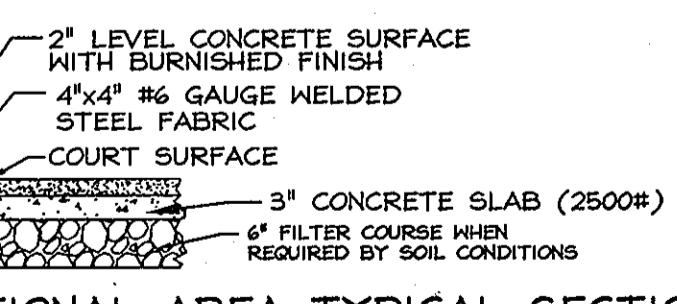
SCALE: 1"=100'

#### PARKING REQUIREMENTS

- Parking spaces required 64 units x 2 spaces per unit = 128 spaces
- Overflow & guest parking required = 0.3 spaces per unit = 20 spaces
- Total parking spaces required = 148 spaces
- Total parking spaces provided = 152

#### SITE ANALYSIS DATA CHART

- Total project area: 5.613 ac.<sup>±</sup>
- Total area of Open Space Lot 1: 0.044 ac.
- Total area of Open Space Lot 2: 5.572 ac.
- Slope of Steep (25%) Slopes = 0.312 ac.
- Net Area (Total Project Area - Steep Slopes) of site = 5.301 ac.
- Maximum Units Allowed = 5.301 x 15 = 79.52; therefore 79.
- Limit of disturbed area: 3.922 ac.
- Present zoning: "R-MH" and "CE-CLI" per 02/02/04 Comprehensive Zoning Plan
- Total area of Moderate Income Housing Units (MIHU) required & provided = 64 x 20% = 13 units. This project is developed under RA-15 Zoning Regulations, as permitted under section 113.D.2.
- Proposed uses for site & structures: Apartment buildings.
- Floor space on each level of building(s) per use 9,497 sf
- Building coverage of 0.436 ac or 7.76%
- Howard County Reference File Number: 10490, F-92-1851, WP-92-175, BAC-90-05 NAV, F-10-069, 24-4656-D, 24-158-D, 24-092-D, and 1-W.
- Total number of units proposed for this submission: 64
- Total open space required for R-MH: 25% of site area or 5.613 ac. x 25% = 1.403 ac.
- Total open space provided: 0.044 Ac. Open space Parcel 'B' is 3.224 Ac.
- Recreational open space required: 400 sqft per unit = 400 sqft x 64 = 25,600 sqft.
- Recreational open space provided: Based on section 16.121.a.(4).vii a sports court paved area at a ratio of 10 sqft per unit is provided.



RECREATIONAL AREA TYPICAL SECTION

Not To Scale

24 HOUSING ALLOCATIONS HAVE BEEN GRANTED ON 2/6/2012 UNDER COUNCIL RESOLUTION 175-2011.

#### OWNER/DEVELOPER

BEECHREST DEVELOPMENT, LLC  
2600 Mt. Rita Lane  
Brookland Park  
Clarksville, Maryland 21029-1186  
(410) 531-0114

#### PROFESSIONAL CERTIFICATION

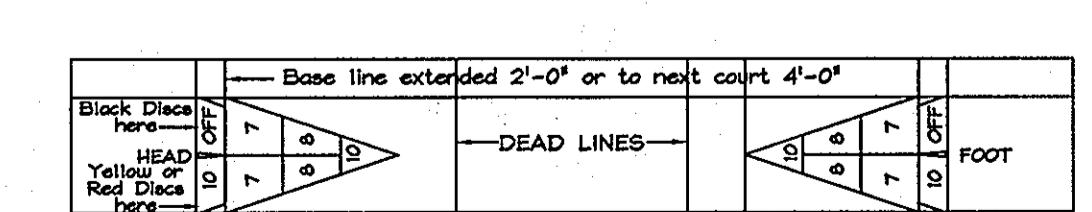
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. #2410, Expiration Date: 7/29/2011.

#### PERMIT INFORMATION CHART

Subdivision Name: BEECHREST PROPERTY PARCEL 'B'	Section/Area:	Lot/Parcel No.:
Plat # 21654 L. 005 F. 143 21654	N/A	435

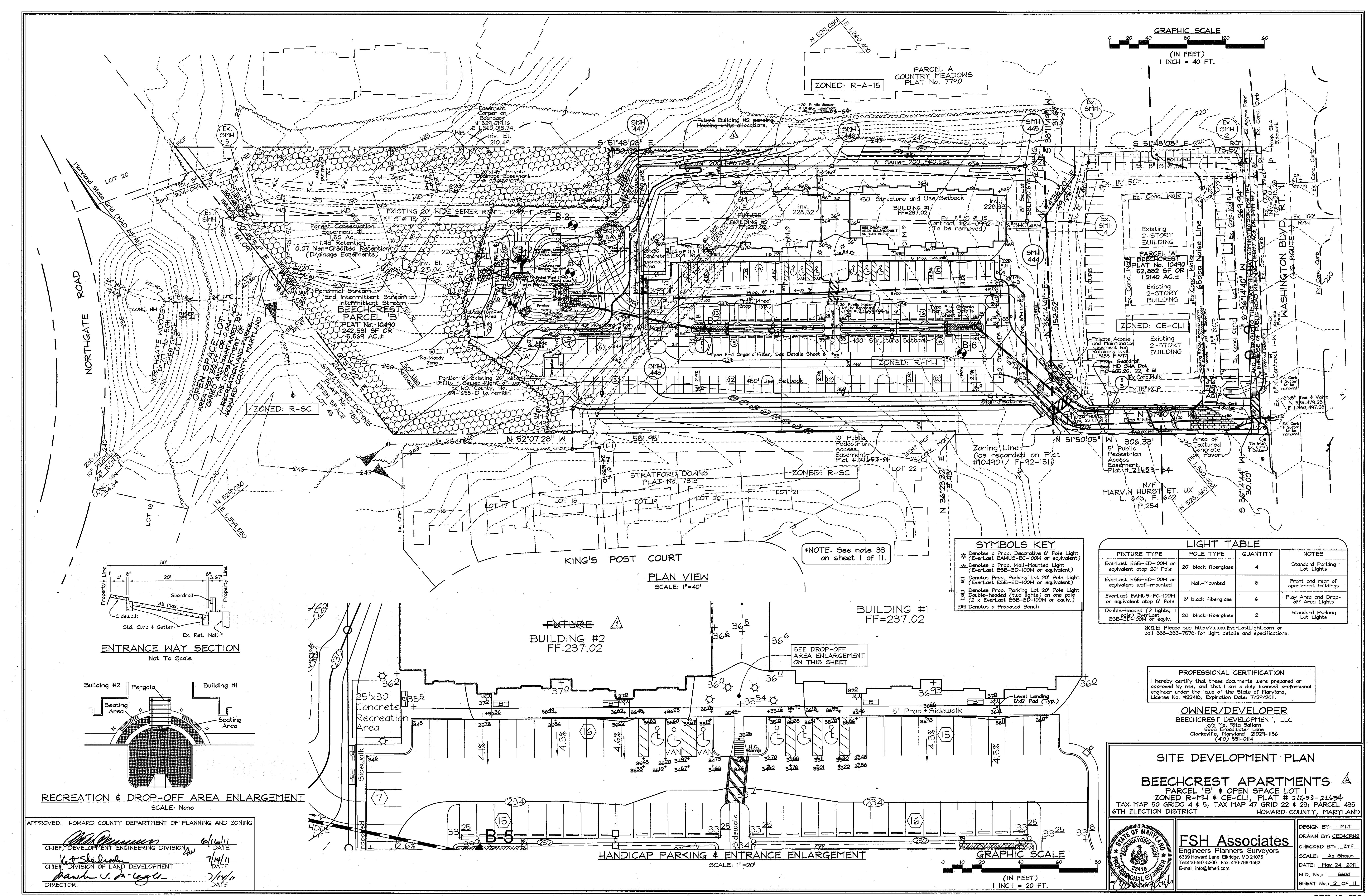
#### LAYOUT OF GAMES AND SPORT ACTIVITIES, SHUFFLEBOARD AND BOCCIE

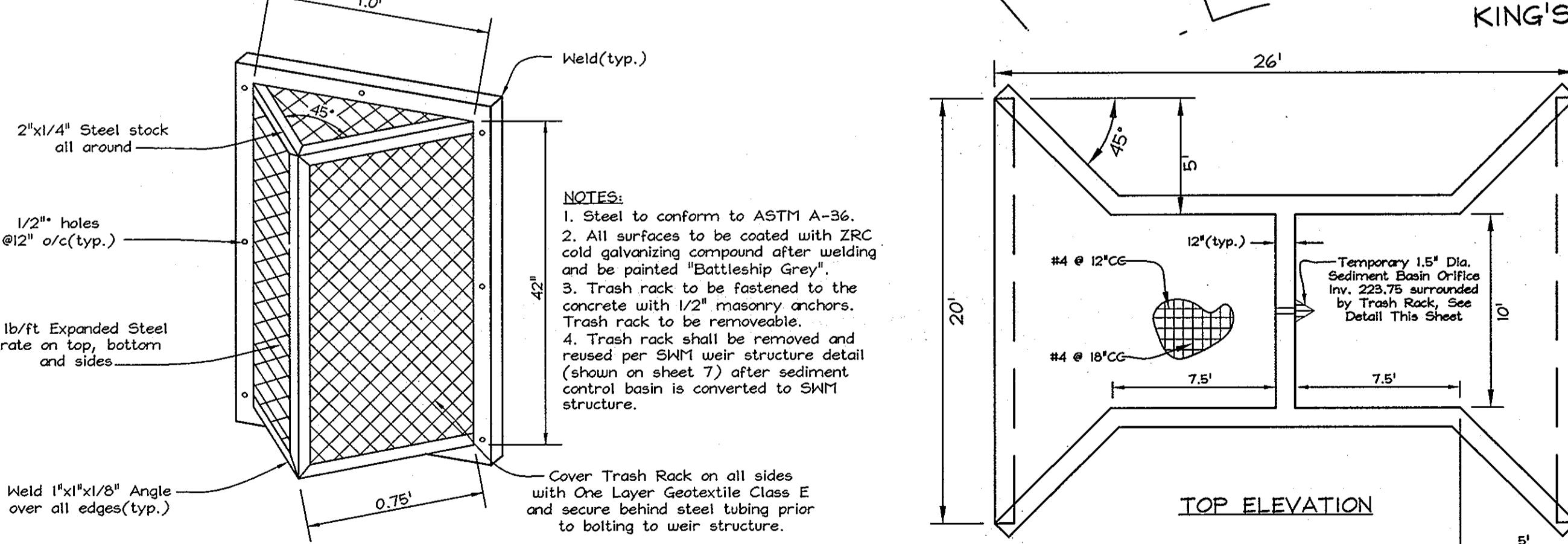
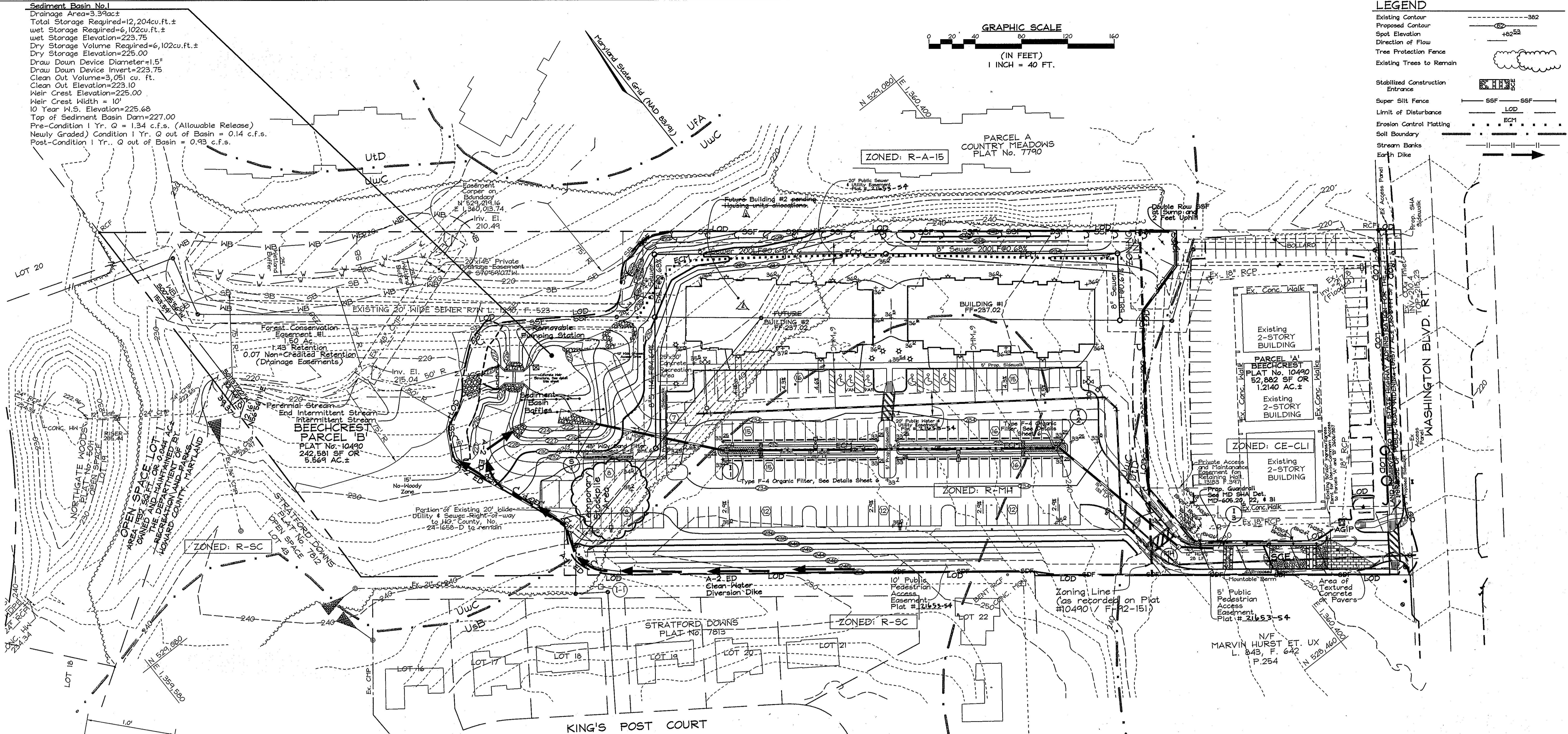
NOT TO SCALE



COVER SHEET	
<b>BEECHREST APARTMENTS</b>	
PARCEL "B" & OPEN SPACE LOT 1	
ZONED R-MH & CE-CLI, PLAT # 21653-21654	
TAX MAP 50 GRIDS 4 & 5, TAX MAP 47 GRID 22 & 23; PARCEL 435	
6TH ELECTION DISTRICT	
HOWARD COUNTY, MARYLAND	
DESIGN BY: MLT	
DRAWN BY: CEDCRH2	
CHECKED BY: ZYF	
SCALE: As Shown	
DATE: May 24, 2011	
W.O. #: 3600	
SHEET NO. 1 OF 11	

	FSH Associates
Engineers Planners Surveyors	6339 Howard Lane, Elkridge, MD 21075
Tel: 410-567-5200 Fax: 410-796-1562	
E-mail: info@fsheri.com	





**SEDIMENT BASIN TRASH RACK DETAIL**  
NOT TO SCALE

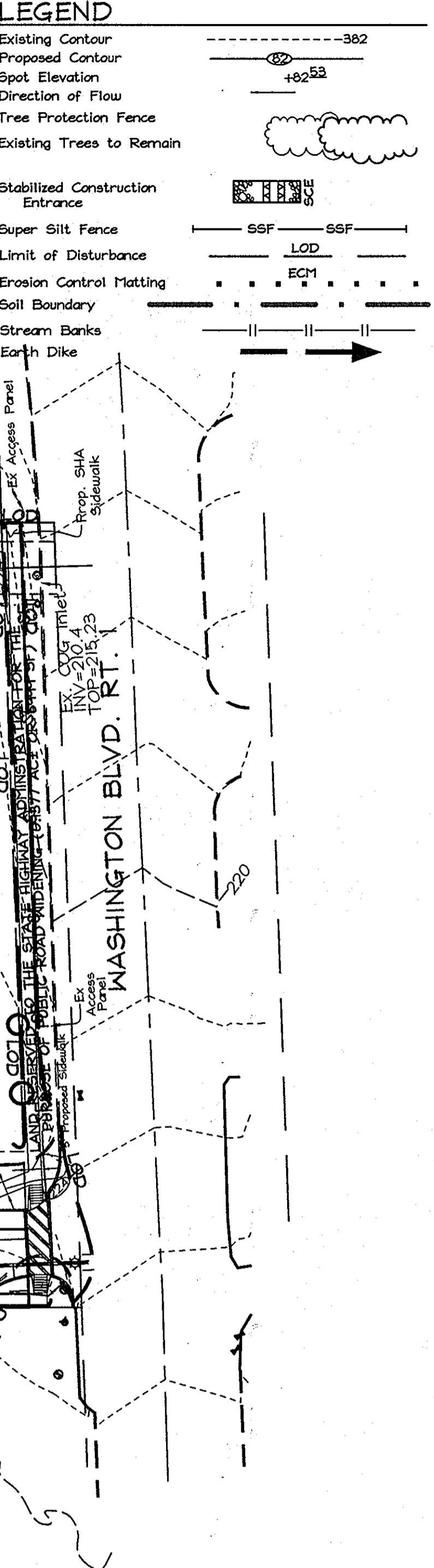
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
Vet. S. Schlesinger  
CHIEF, DIVISION OF LAND DEVELOPMENT  
Parsons C. D. Legg Jr.  
DIRECTOR  
DATE: 6/10/11  
DATE: 7/14/11  
DATE: 7/14/11

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS  
USDA-NATURAL RESOURCES CONSERVATION SERVICE  
THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND  
SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT  
John R. Robertson  
HOWARD SCD  
DATE: 6/22/11

ENGINEERS CERTIFICATE  
I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION  
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.  
Zacharia Y. Fisch  
SIGNATURE OF ENGINEER  
ZACHARIA Y. FISH  
DATE: 5/25/11

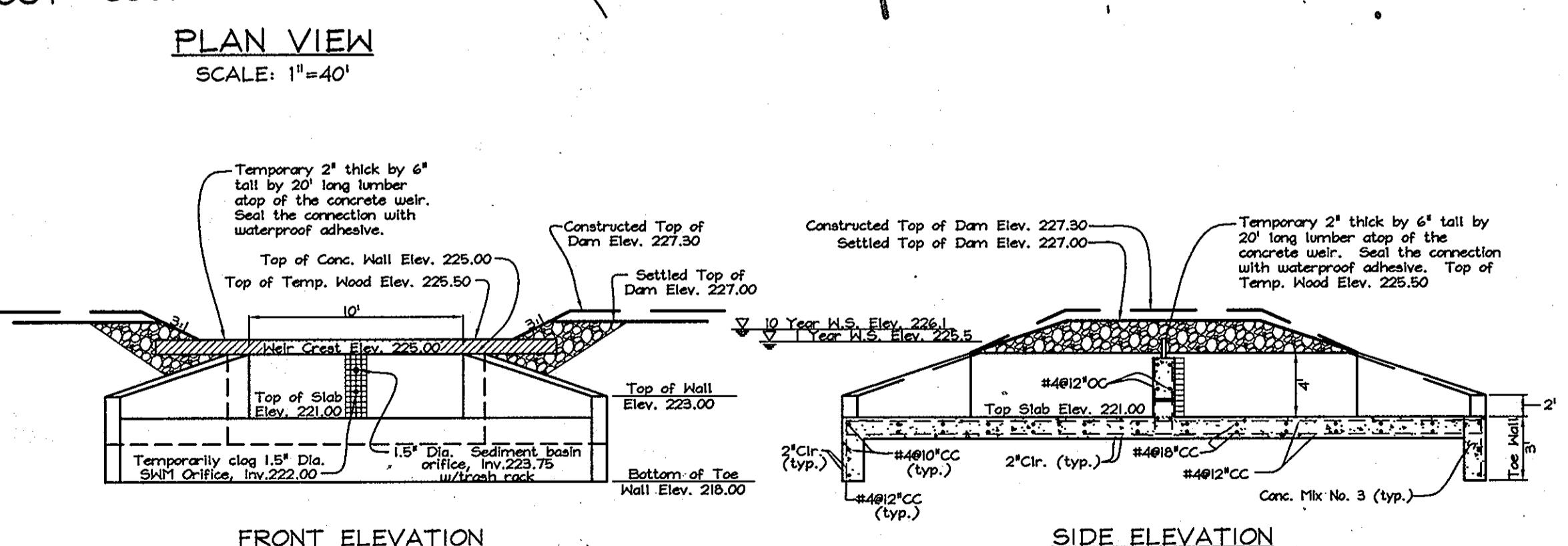
DEVELOPER'S CERTIFICATE  
I HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE  
DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL  
AND THAT I HAVE RECEIVED A COPY OF THE HOWARD SOIL CONSERVATION  
PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT  
OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL  
OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO  
AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL  
CONSERVATION DISTRICT.  
Rob Bell, Managing Partner  
SIGNATURE OF DEVELOPER  
DATE: 5/24/11

**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. #22418, Expiration Date: 7/29/2011.



<b>SOILS LEGEND</b>	
SYMBOL	NAME / DESCRIPTION
UdB	Urban land-Sassafras-Beltsville complex, 0 to 5 percent slopes
ULD	Urban land-Udorthans complex, 0 to 15 percent slopes
UWC	Urban land-Woodstown-Sassafras complex, 5 to 10 percent slopes
	SOIL GROUP
D	
D	
D	

**OWNER/DEVELOPER**  
BEECHCREST DEVELOPMENT, LLC  
5553 Woodlawn Lane  
Clarksville, Maryland 21029-1156  
(410) 631-0114



**FRONT ELEVATION**

**SIDE ELEVATION**

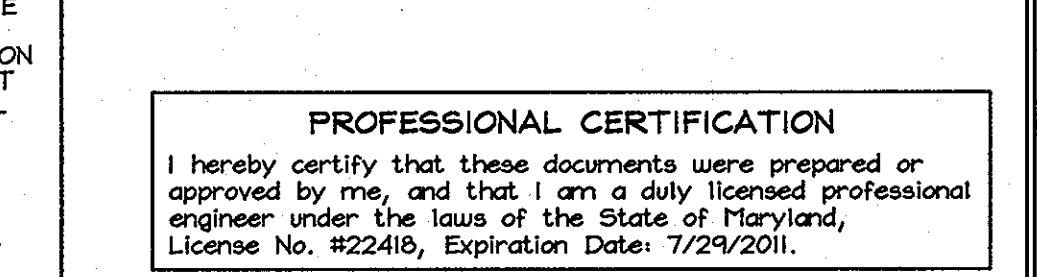
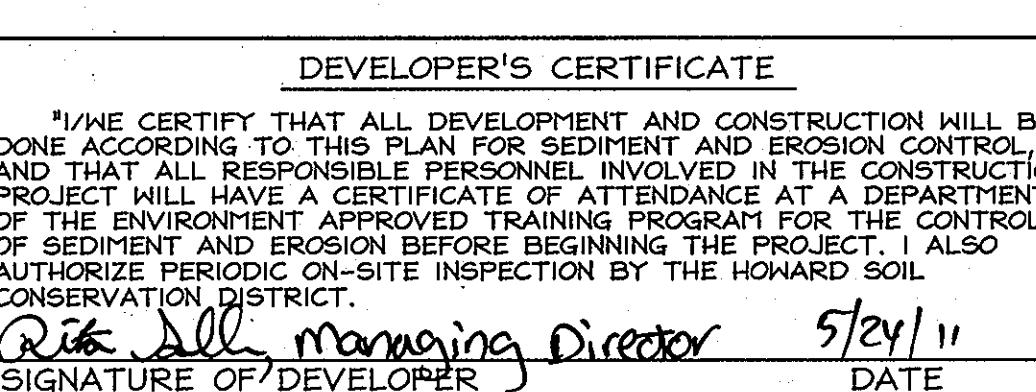
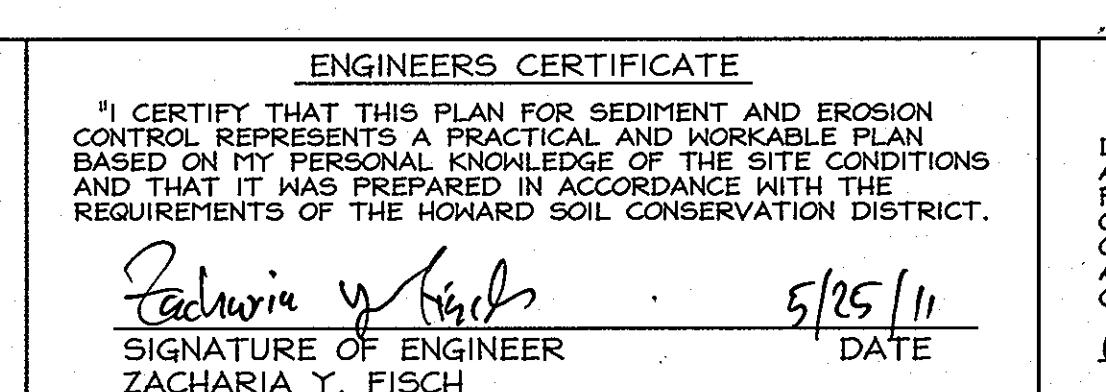
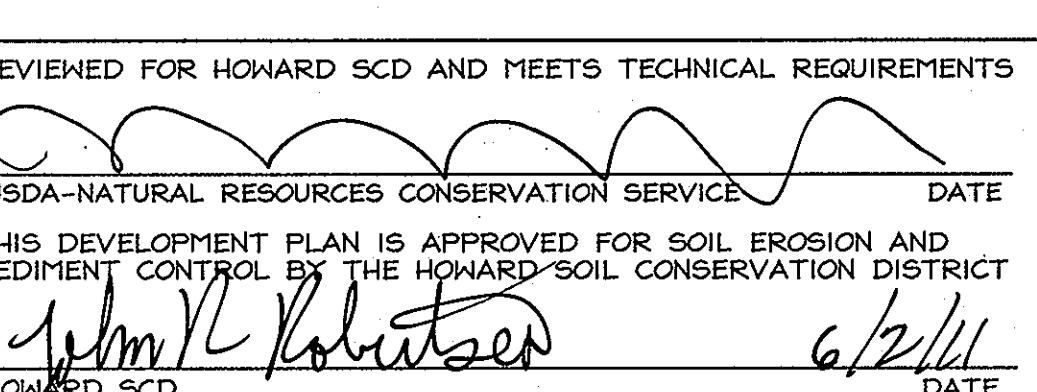
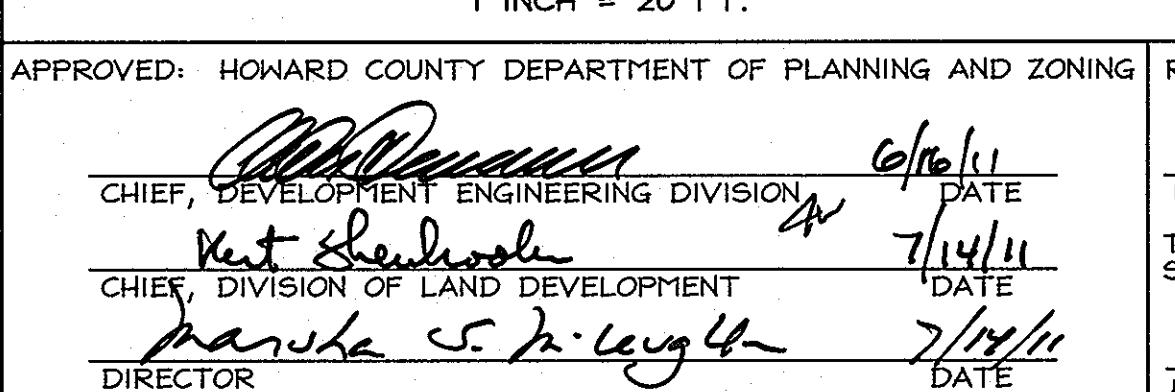
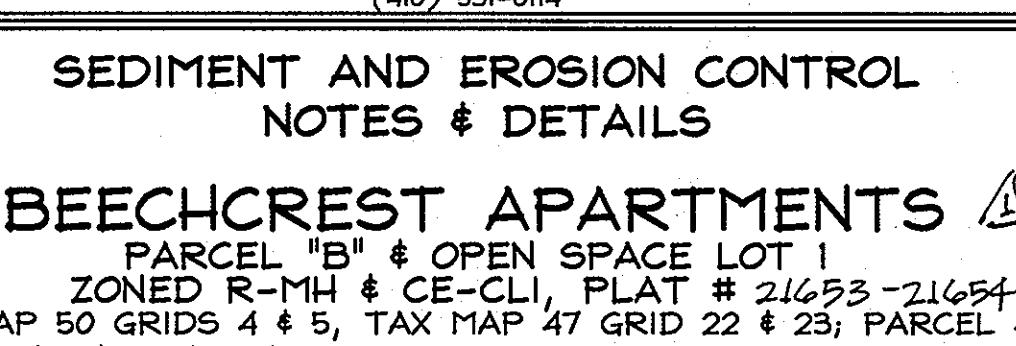
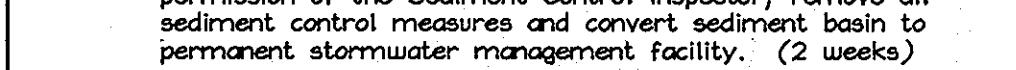
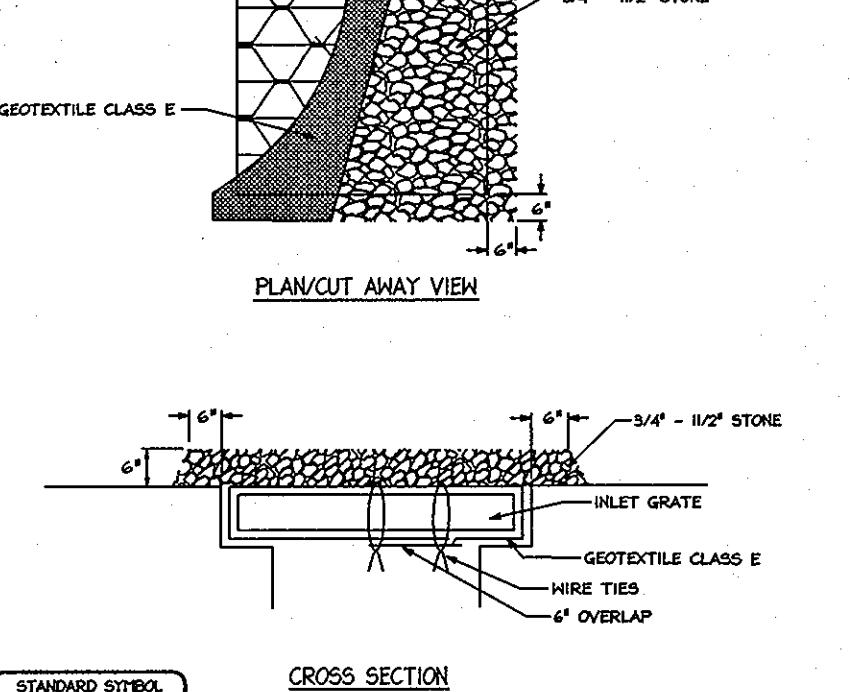
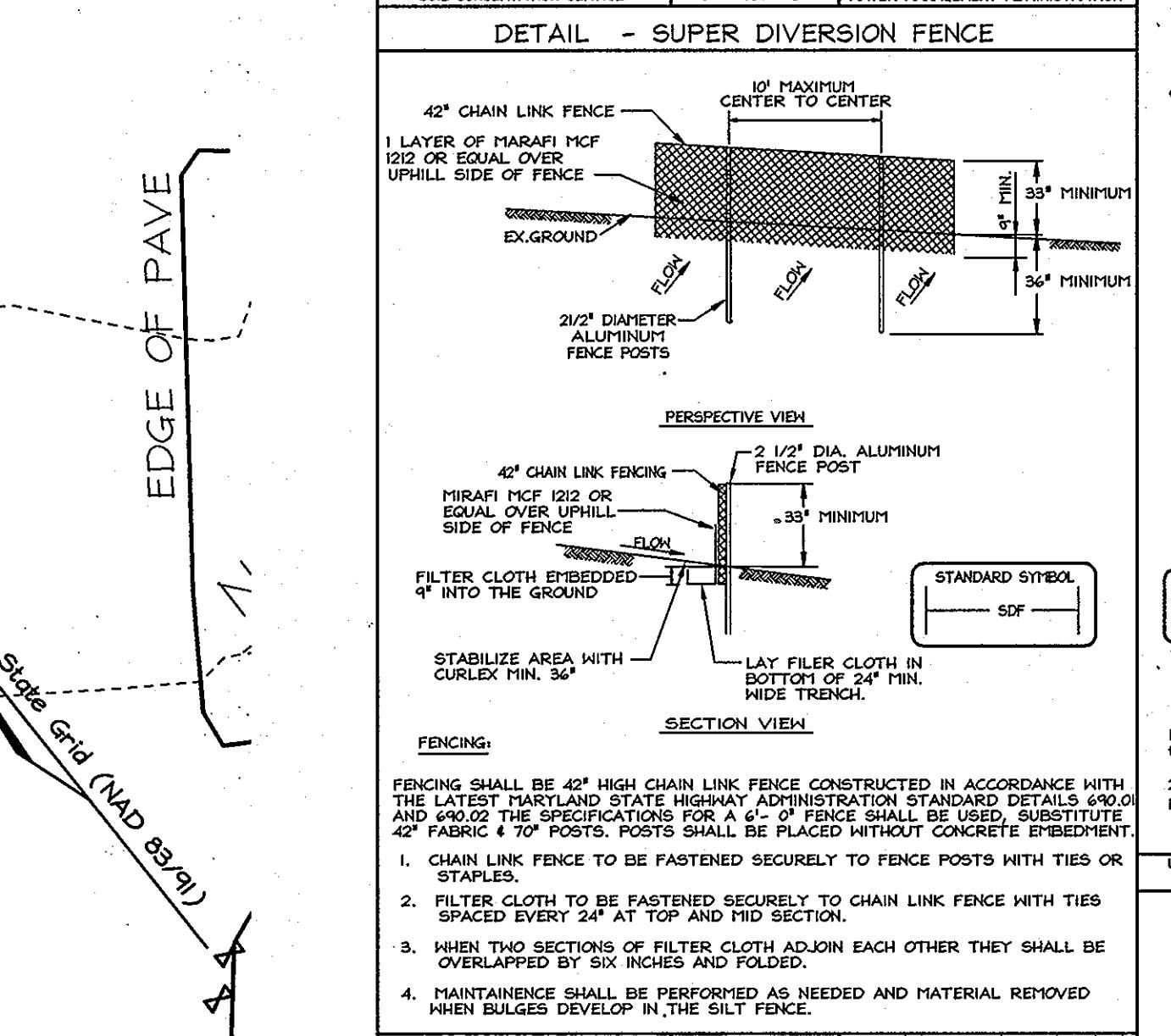
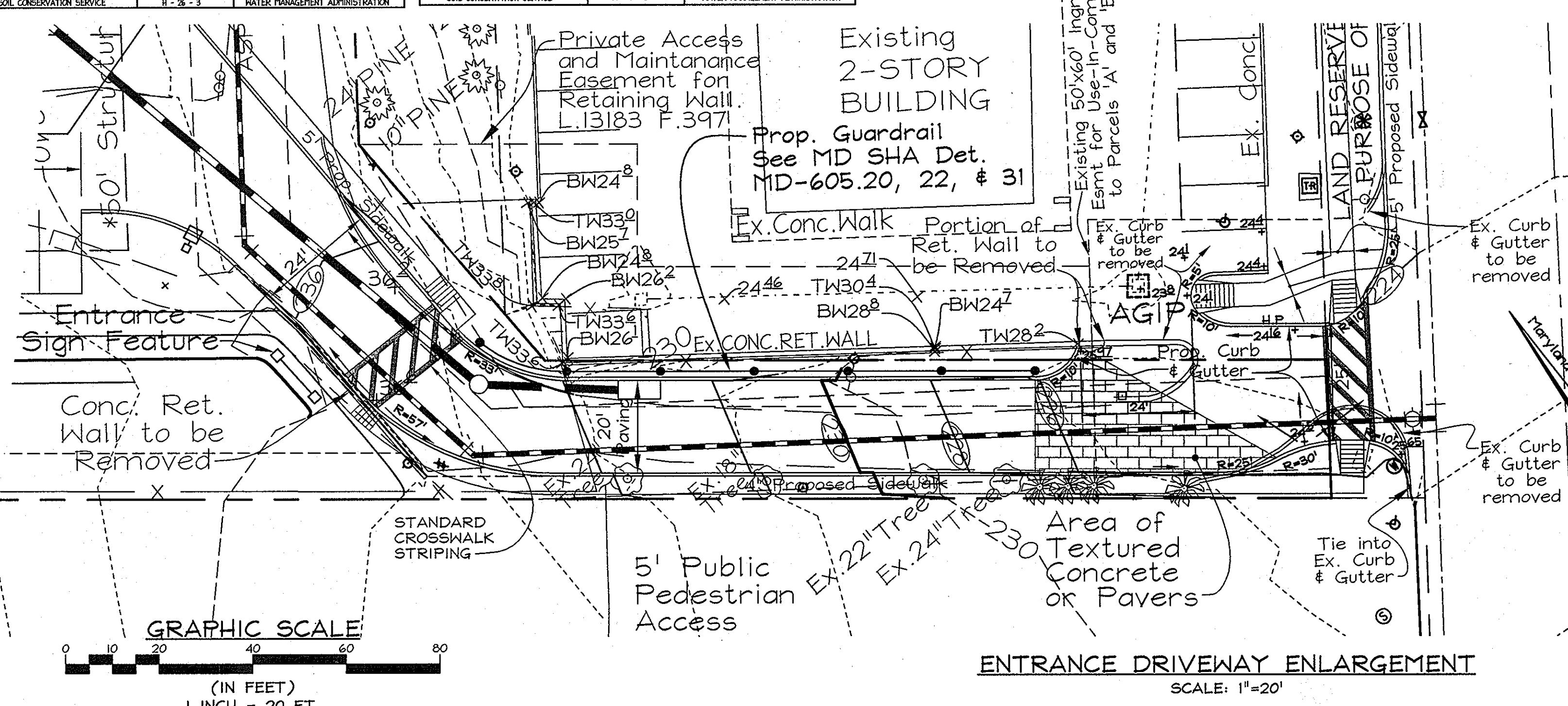
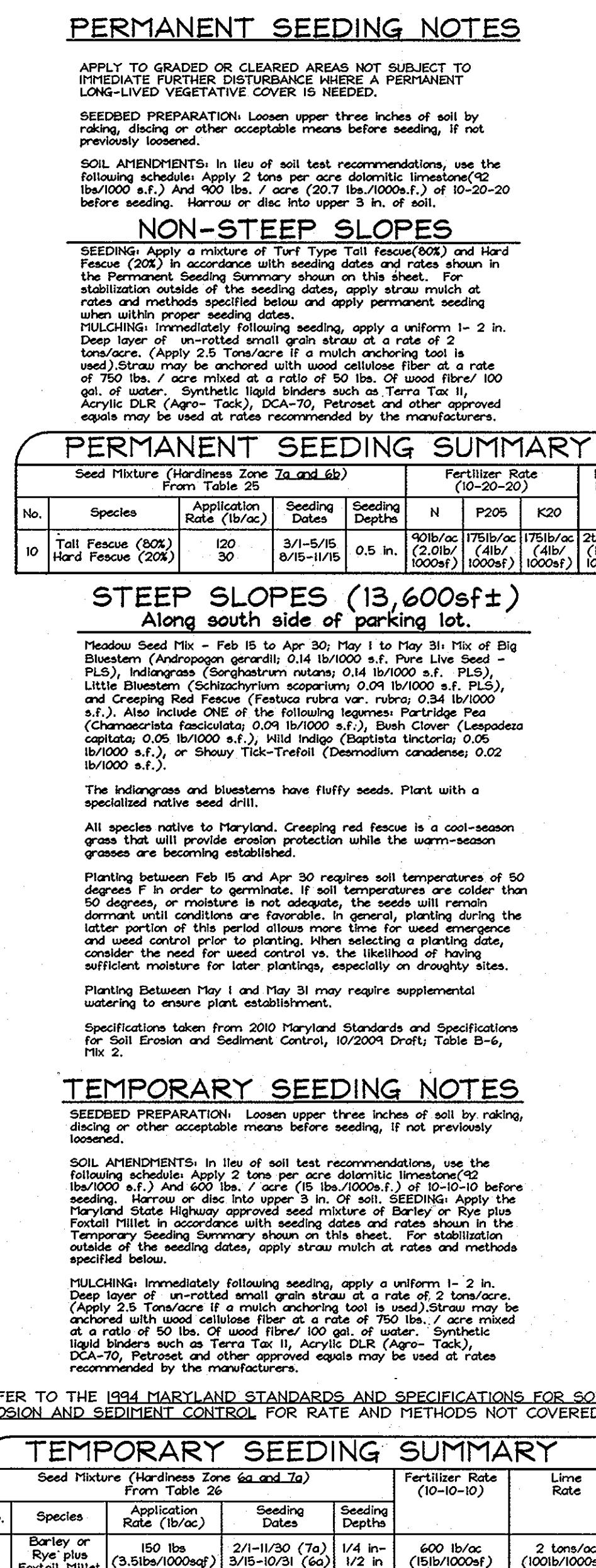
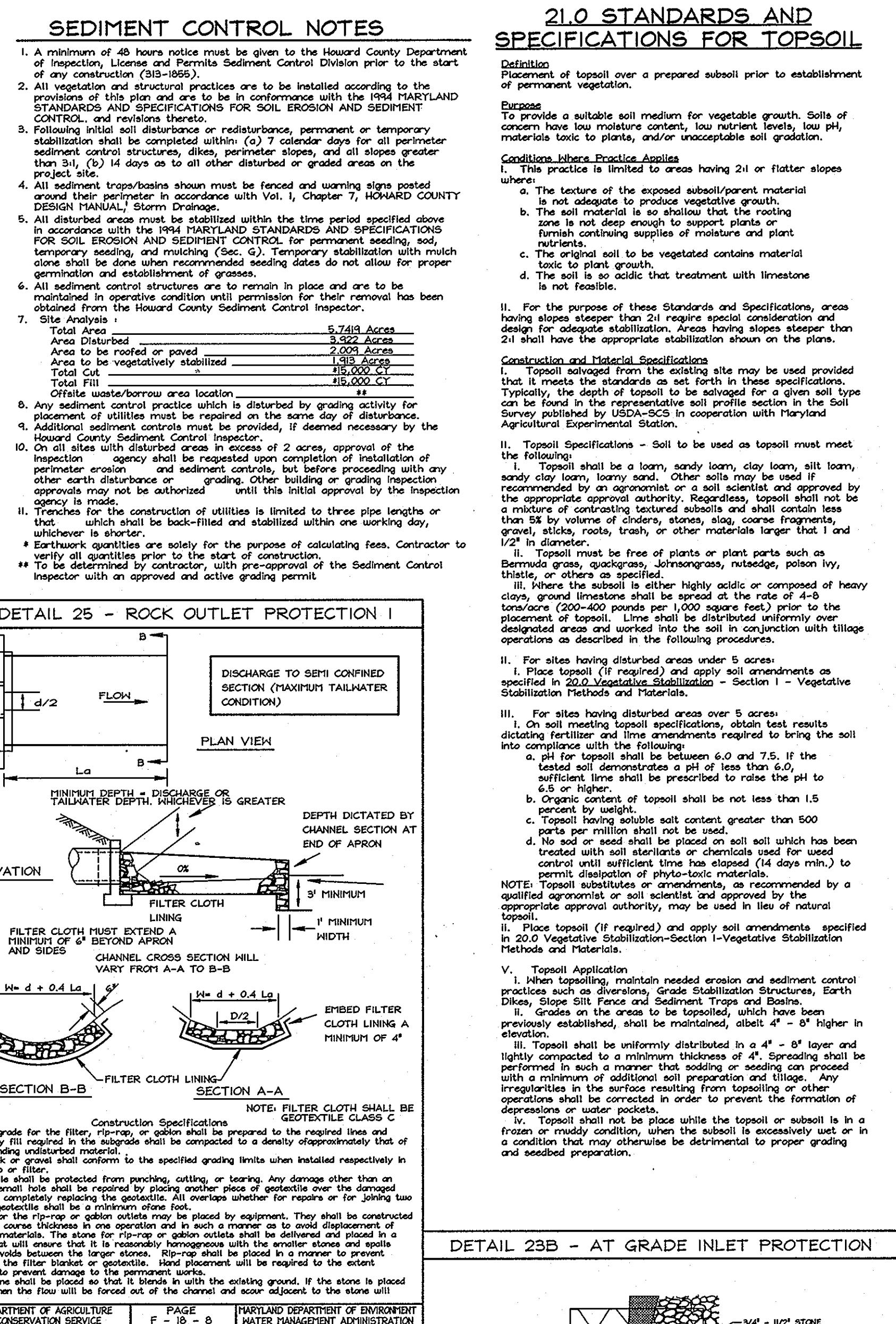
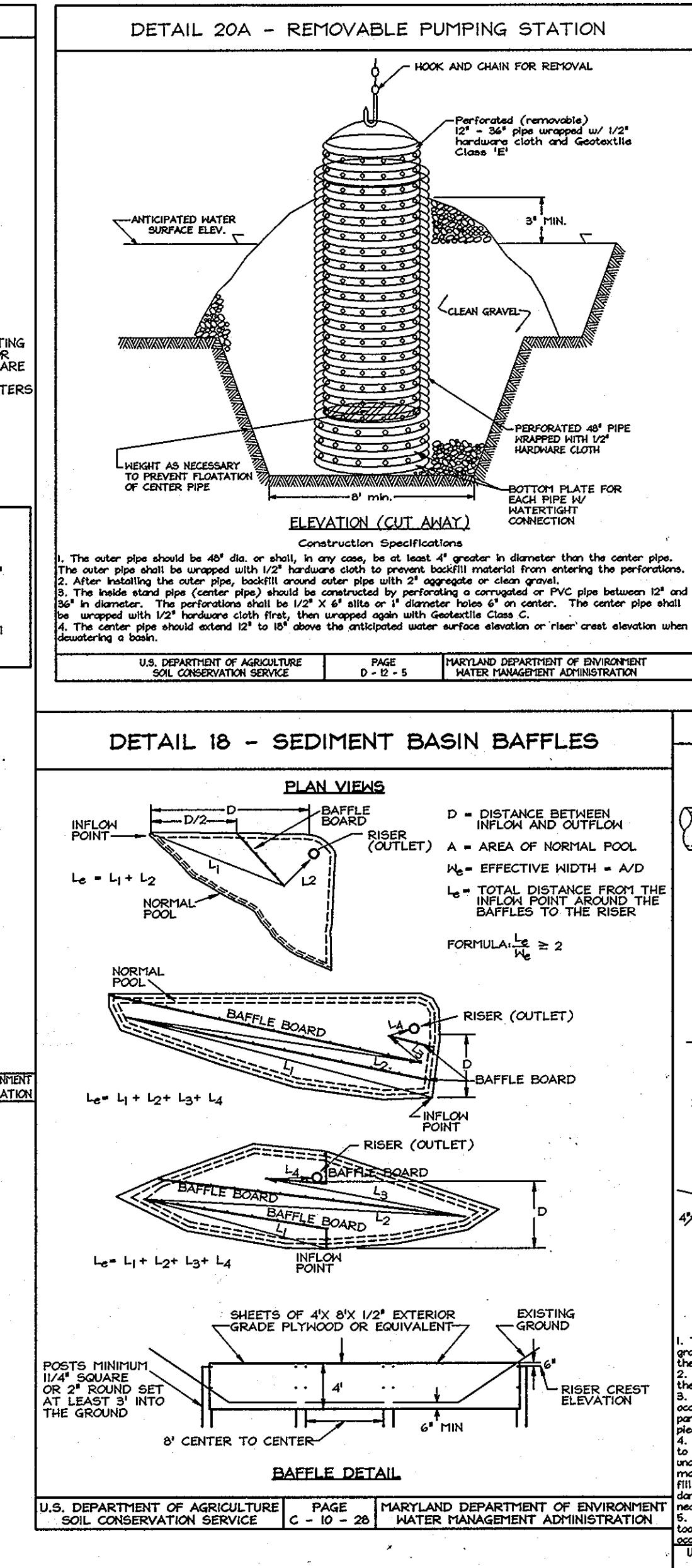
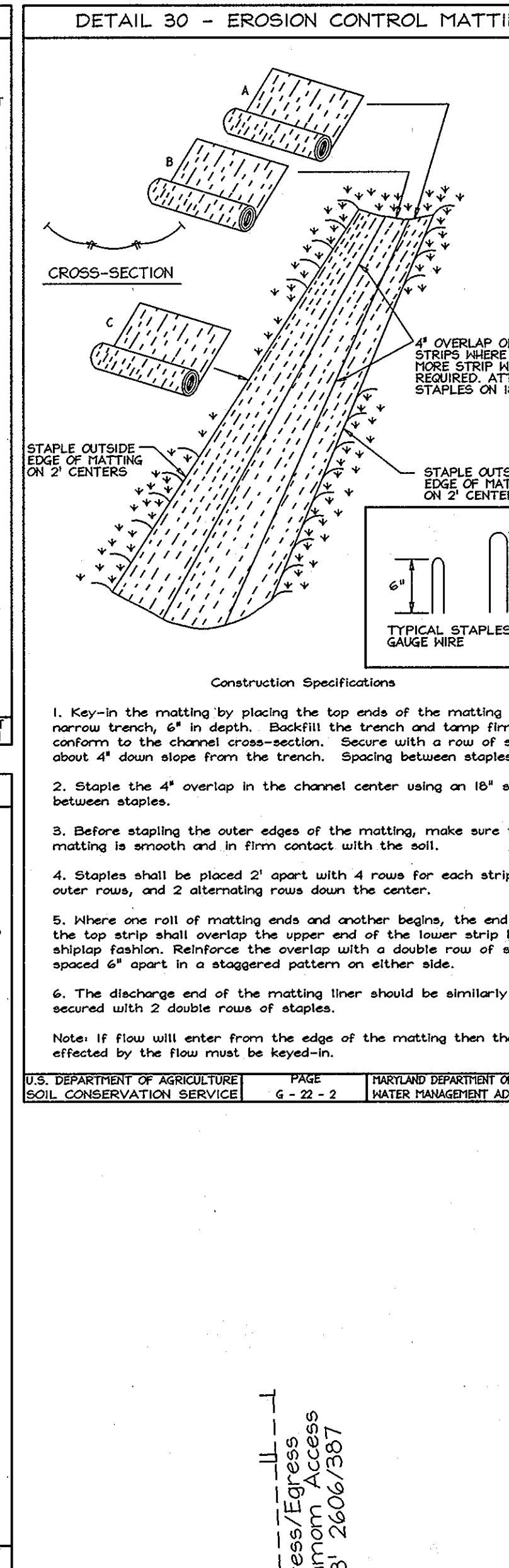
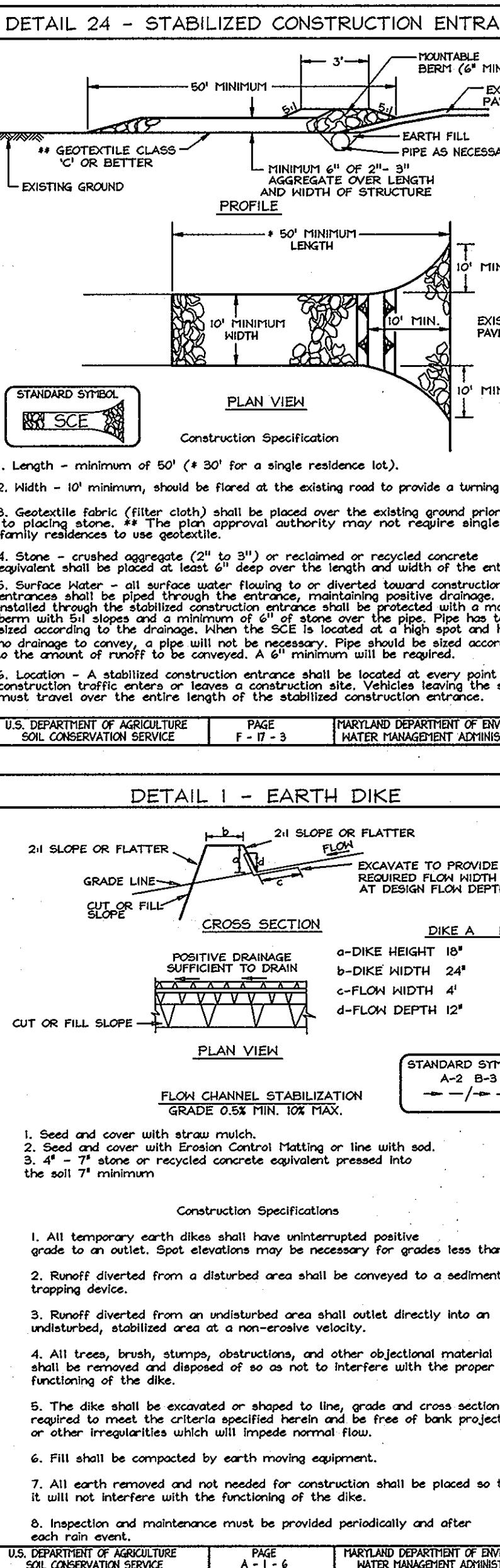
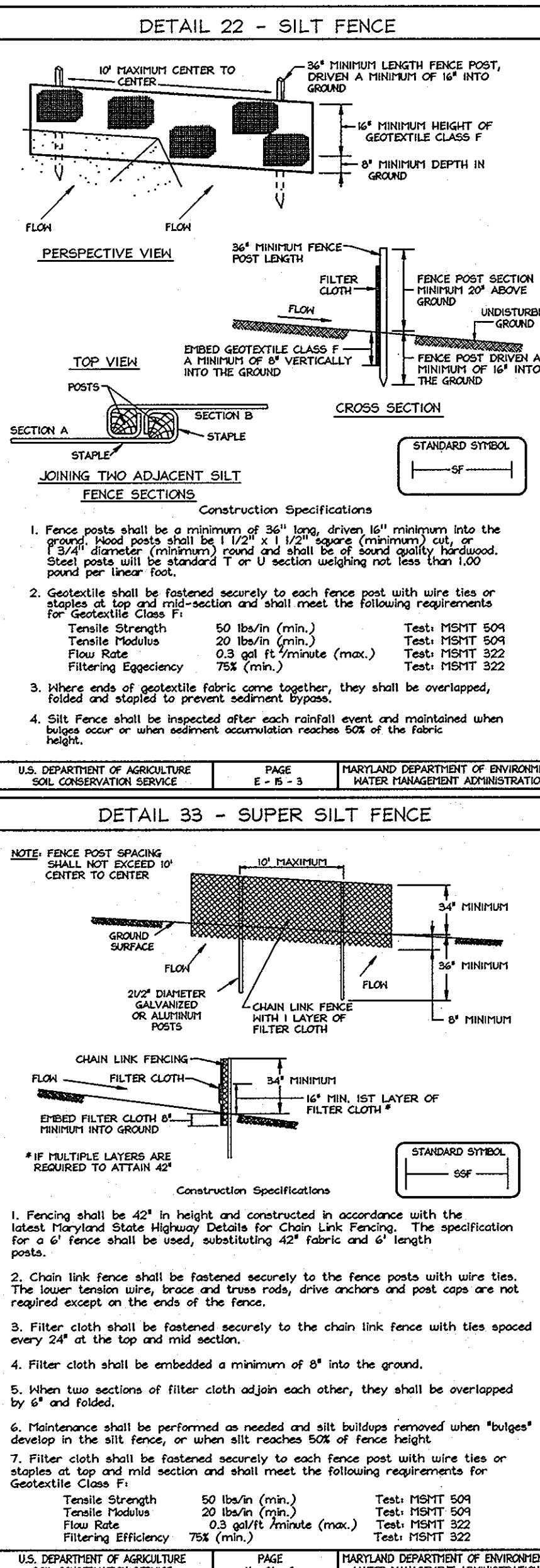
Not To Scale

PLAN VIEW  
SCALE: 1"=40'

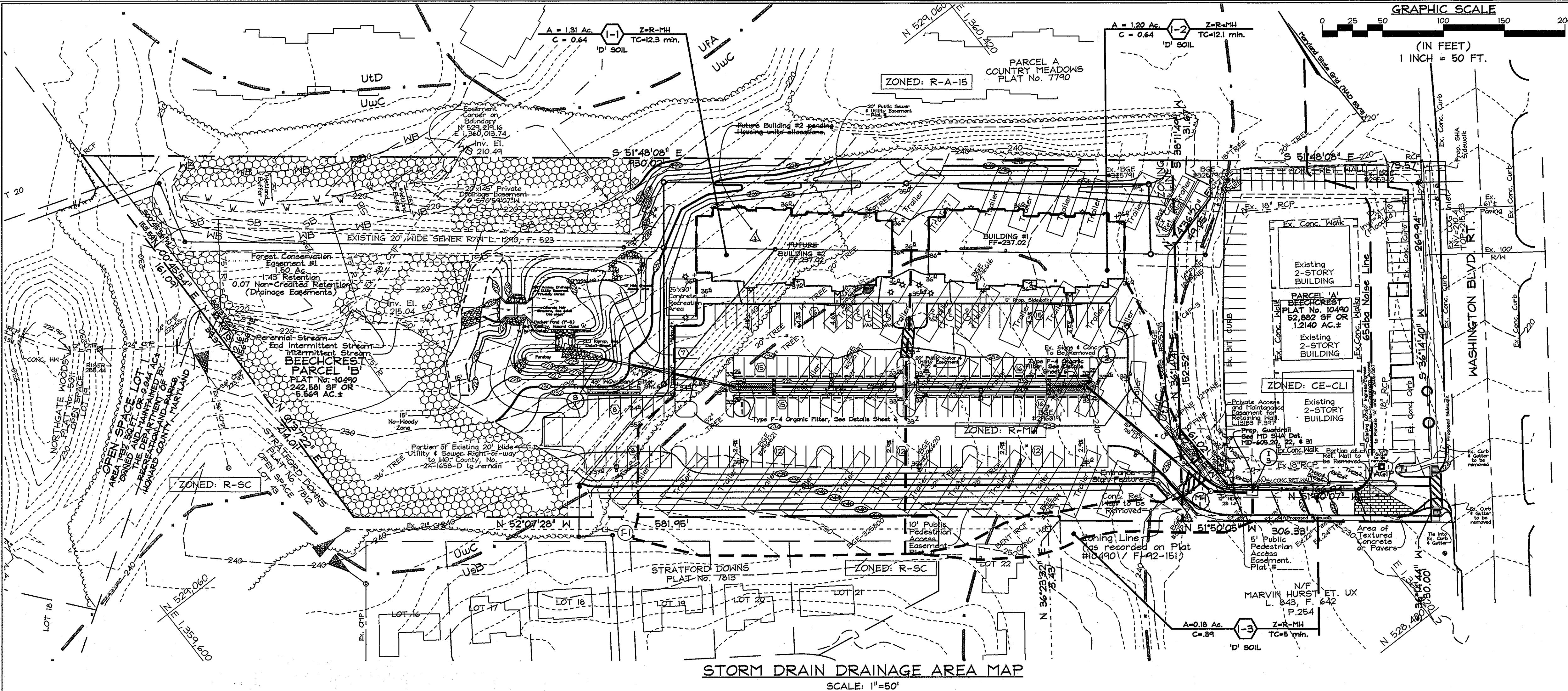
**SEDIMENT AND EROSION CONTROL PLAN**  
**BEECHCREST APARTMENTS**  
PARCEL "B" & OPEN SPACE LOT 1  
ZONED R-MH & CE-CLI, PLAT # 21653-21654  
TAX MAP 50 GRIDS 4 & 5, TAX MAP 47 GRID 22 & 23; PARCEL 435  
6TH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

**FSH Associates**  
Engineers Planners Surveyors  
6339 Howard Lane, Elkhridge, MD 21075  
Tel: 410-567-5200; Fax: 410-796-1562  
E-mail: info@fsheri.com

DESIGN BY: MLT  
DRAWN BY: CEDCRH2  
CHECKED BY: ZYF  
SCALE: As Shown  
DATE: May 24, 2011  
W.O. No.: 3600  
SHEET NO.: 3 OF 11

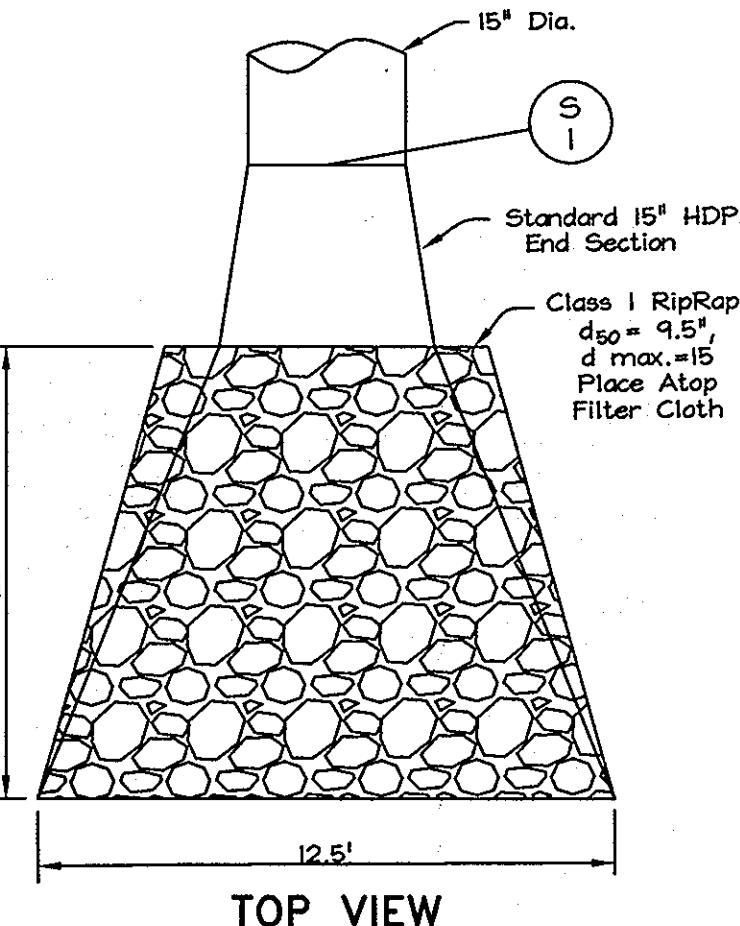






SYMBOL	NAME / DESCRIPTION	SOIL GROUP
UsB	Urban land-Sassafras-Beltsville complex, 0 to 5 percent slopes	D
UTD	Urban land-Udorthens complex, 0 to 15 percent slopes	D
UWC	Urban land-Woodstown-Sassafras complex, 5 to 10 percent slopes	D

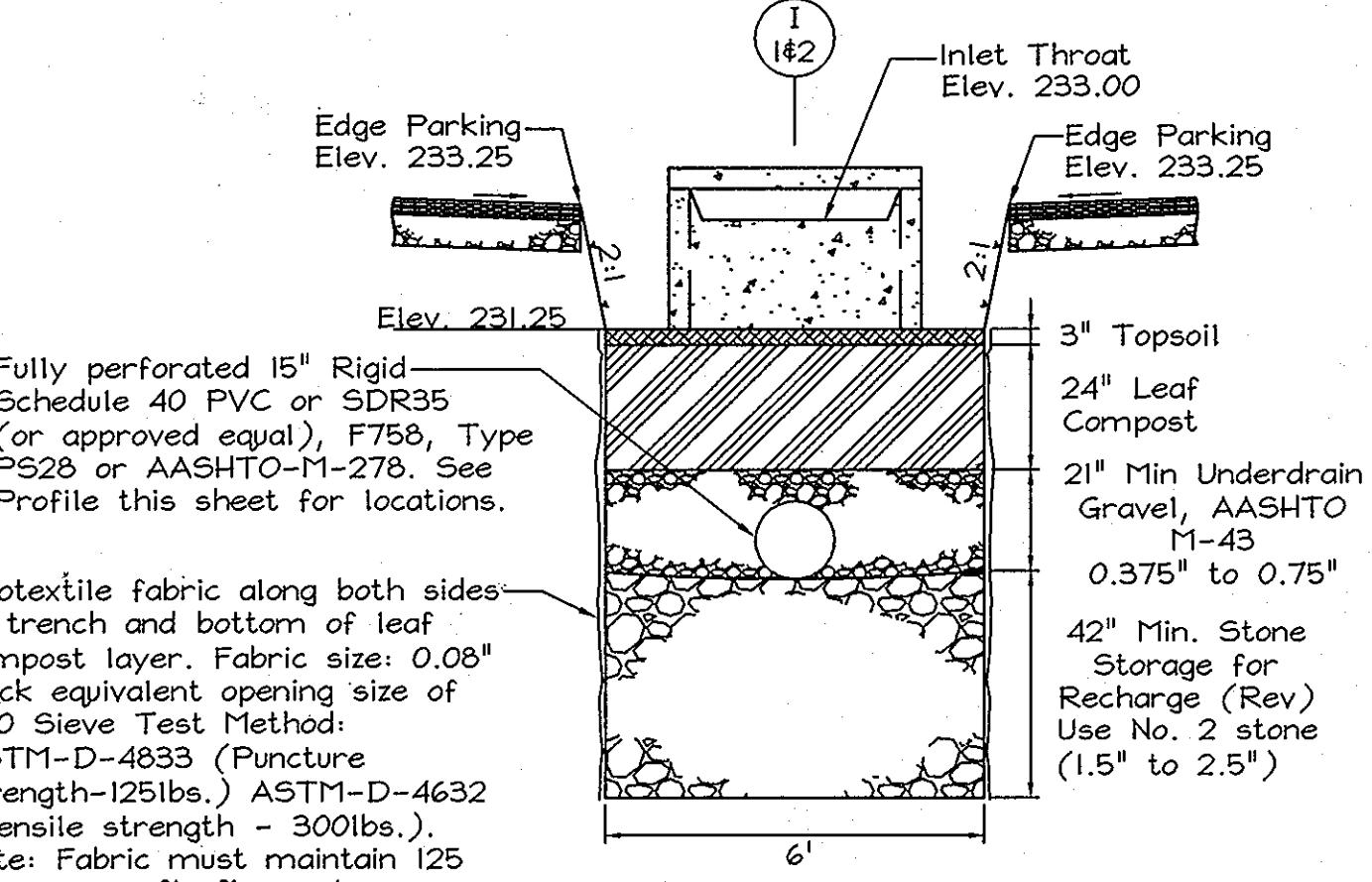
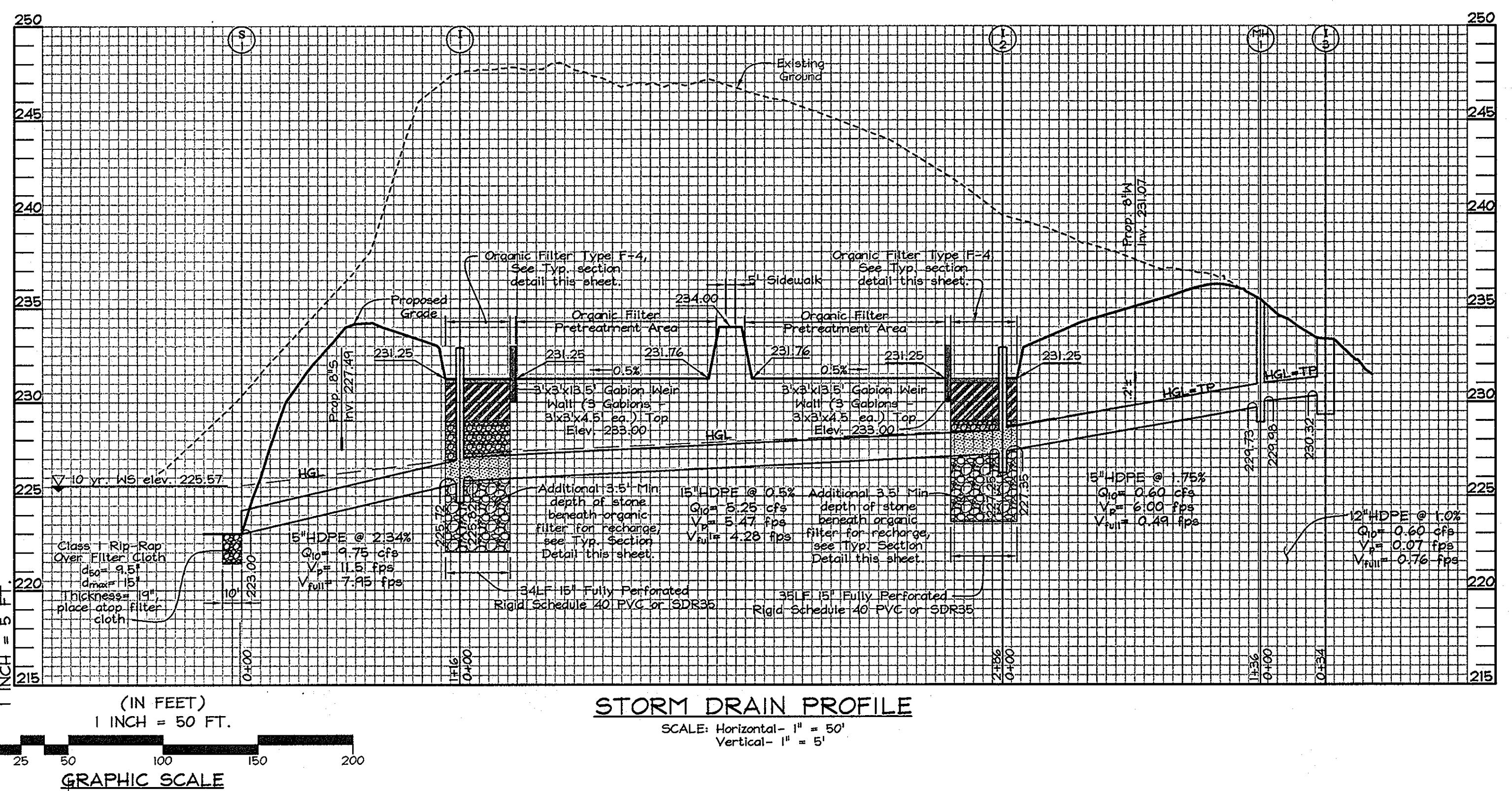
**NOTE:**  
Roof down-spouts from the rear of the buildings shall outfall at the front of the buildings.



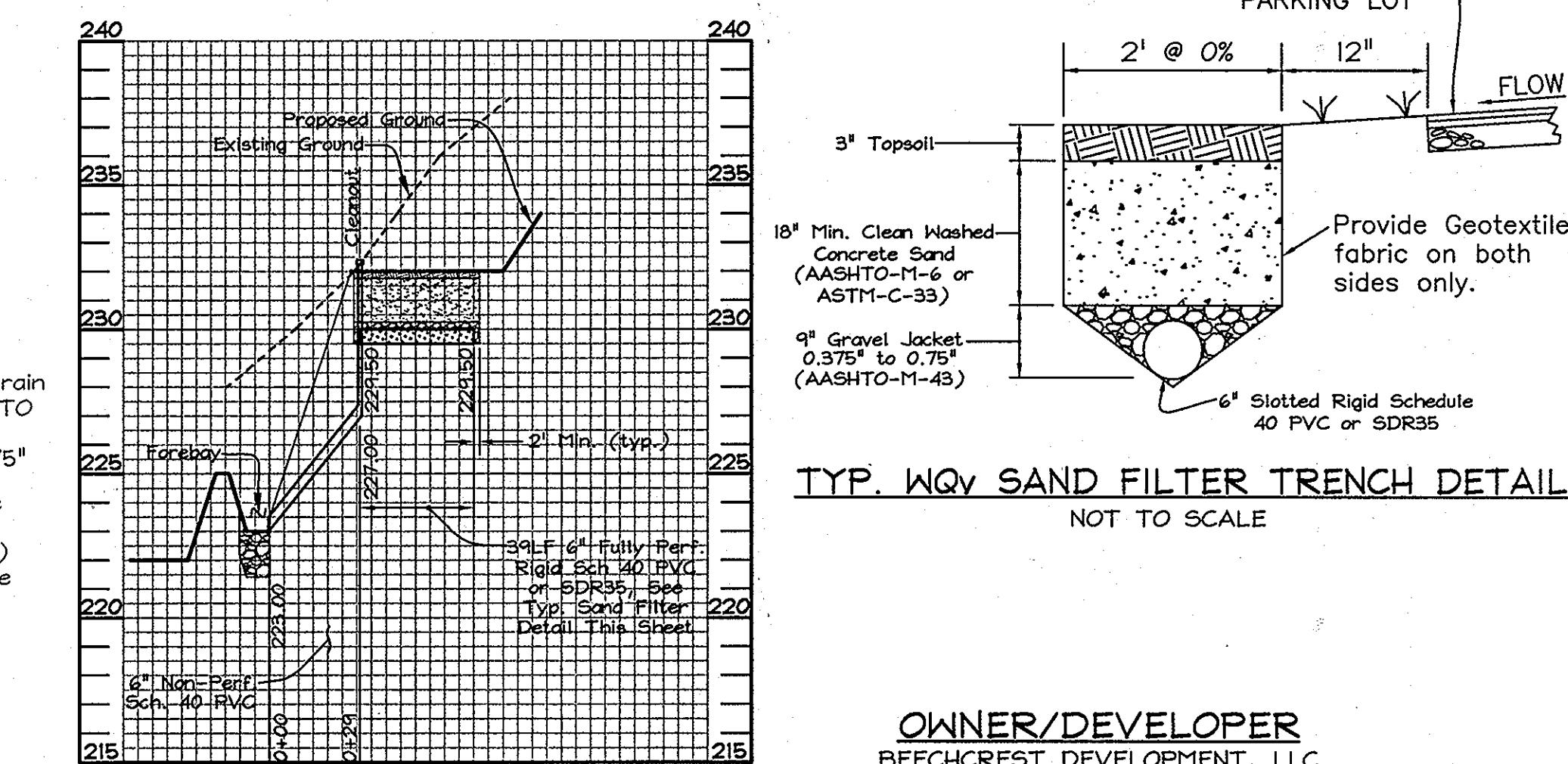
**S-1 OUTFALL DETAILS**  
Not to Scale

**OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED SURFACE STORMWATER FILTRATION SYSTEMS (F-1, F-4, AND F-5)**

- The stormwater wetland facility shall be inspected annually and after major storms. Inspections shall be performed during wet weather to determine if the facility is functioning properly.
- The top and side slopes of the embankment shall be mowed a minimum of once per year, when vegetation reaches 18" in height or as needed.
- Filters that have a grass cover shall be mowed a minimum of three (3) times per growing season to maintain a maximum grass height of less than 12 inches.
- Debris and litter shall be removed during regular mowing operations and as needed.
- Visible soil erosion at the facility shall be reported as soon as it is noticed.
- Foreign salt water, if it exceeds four (4) inches, shall be removed in the fall.
- When water ponds on the surface of the filter bed for more than 72 hours, the top few inches of discolored material shall be replaced with fresh material. Proper cleaning and disposal of the removed materials and liquid must be followed by the owner.
- A logbook shall be maintained to determine the rate at which the facility drains.
- The maintenance logbook shall be available to Howard County for inspection to insure compliance with operation and maintenance criteria.
- Once the performance characteristics of the infiltration system have been verified, the monitoring schedule can be reduced to an annual basis unless the performance data indicates that a more frequent schedule is required.



**TYPICAL ORGANIC FILTER SECTION**  
Scale: 1"=3'



**SECTION 'E'-'E' SAND FILTER PROFILE**

SCALE: Horizontal - 1" = 50'  
Vertical - 1" = 5'

**OWNER/DEVELOPER**  
BEECHCREST DEVELOPMENT, LLC  
6 Ms. Rita Sallan  
555 Main Street  
Clarksville, Maryland 21029-1156  
(410) 631-0114

**STORM DRAIN DRAINAGE AREA MAP AND PROFILES**

**BEECHCREST APARTMENTS**  
PARCEL "B" & OPEN SPACE LOT 1  
ZONED R-MH & CE-CLI, PLAT # 21652-21654  
TAX MAP 50 GRIDS 4 & 5, TAX MAP 47 GRID 22 & 23; PARCEL 435  
6TH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

**FSH Associates**  
Engineers Planners Surveyors

6339 Howard Lane, Ellicott, MD 21075  
Tel: 410-567-5200 Fax: 410-796-1552  
E-mail: info@fsheri.com

DESIGN BY: MLT  
DRAWN BY: CEDCRH2  
CHECKED BY: ZYF  
SCALE: As Shown  
DATE: May 24, 2011  
W.O. #: 3600  
SHEET NO.: 6 of 11

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION  
Kurt S. Schaefer  
DATE: 6/16/11  
CHIEF, DIVISION OF LAND DEVELOPMENT  
Kurt S. Schaefer  
DATE: 7/14/11  
DIRECTOR  
DATE: 7/14/11

STORM DRAIN STRUCTURE SCHEDULE						
NO.	TYPE	LOCATION	TOP ELEV.	INV. IN	INV. OUT	REMARKS
S-1	15" HDPE End Section	N 529.007.77 E 1,360.012.66	223.00	----	223.00	ADS or Equivalent
I-1	Type 'D' Precast Inlet	N 528.741.53 E 1,360.086.99	223.00	225.82	226.72	D. 4.04
I-2	Type 'D' Precast Inlet	N 528.741.28 E 1,360.312.51	230.00	227.35	227.25	D. 4.04
MH-II	Shallow Precast Manhole	N 528.611.57 E 1,360.341.24	235.16	223.98	229.73	G-5.12
I-3	Single WR Inlet	N 528.588.55 E 1,360.366.64	233.26	----	230.32	D. 4.32

NOTES:  
1. Top elevation for the Type 'D' Precast Inlet is the centerline of the Throat opening.  
2. The coordinate location is the centerline of the inlet.  
3. Top elevations and coordinate location of the WR Inlet is to the center of the inlet.  
4. Top elevations and location for Precast Manhole are to the center top of manhole cover.  
5. The elevation and coordinate location correspond to the point where the end section meets the incoming pipe.  
\*Thread opening all four sides.

**OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED FILTERING MAINTENANCE CRITERIA (F-4 & F-5)**

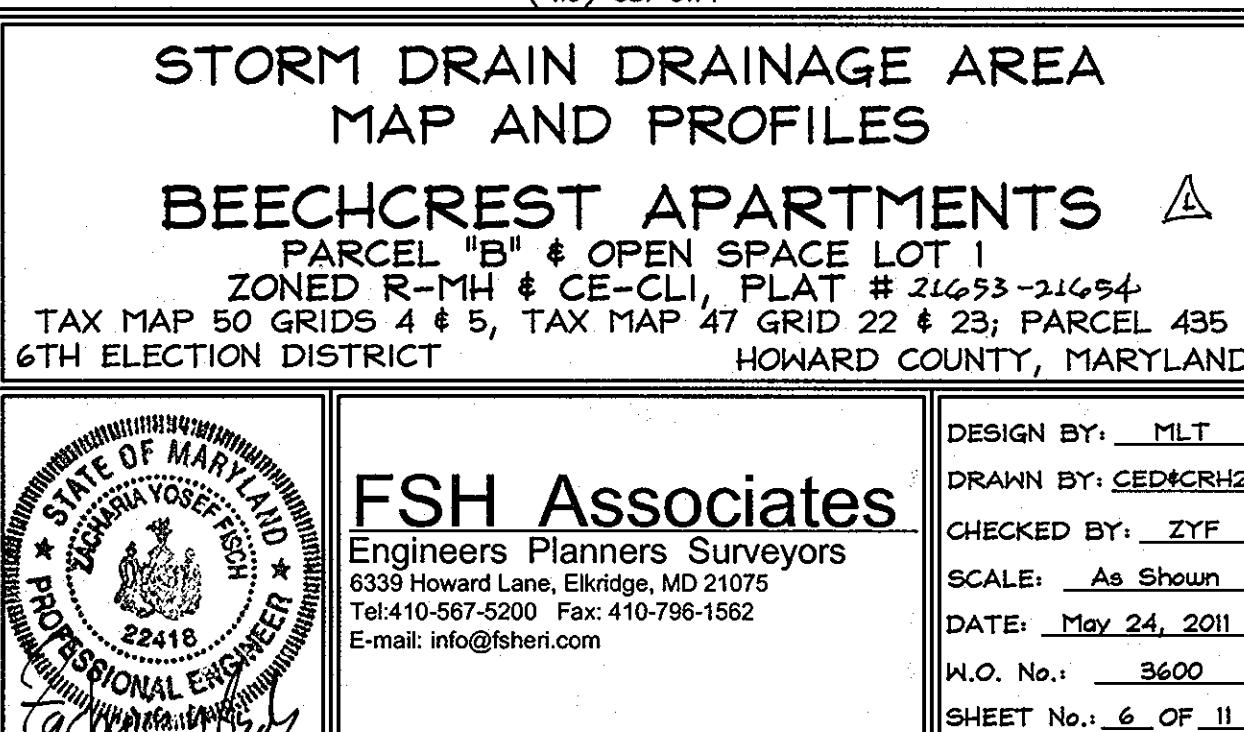
The sediment chamber outlet devices shall be cleaned/repaired when drawdown times within the chamber exceed 36 hours. Trash and debris shall be removed as necessary.

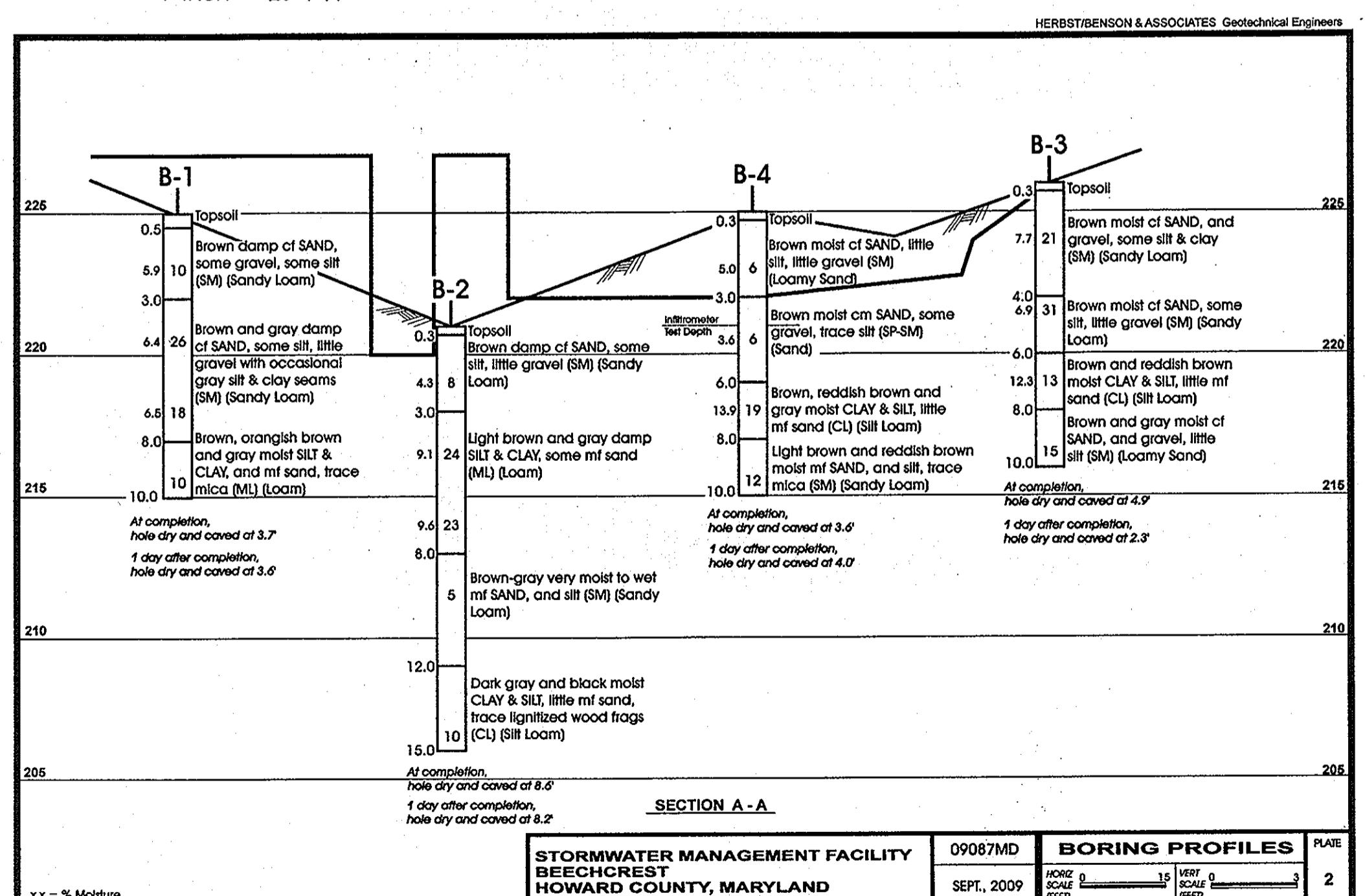
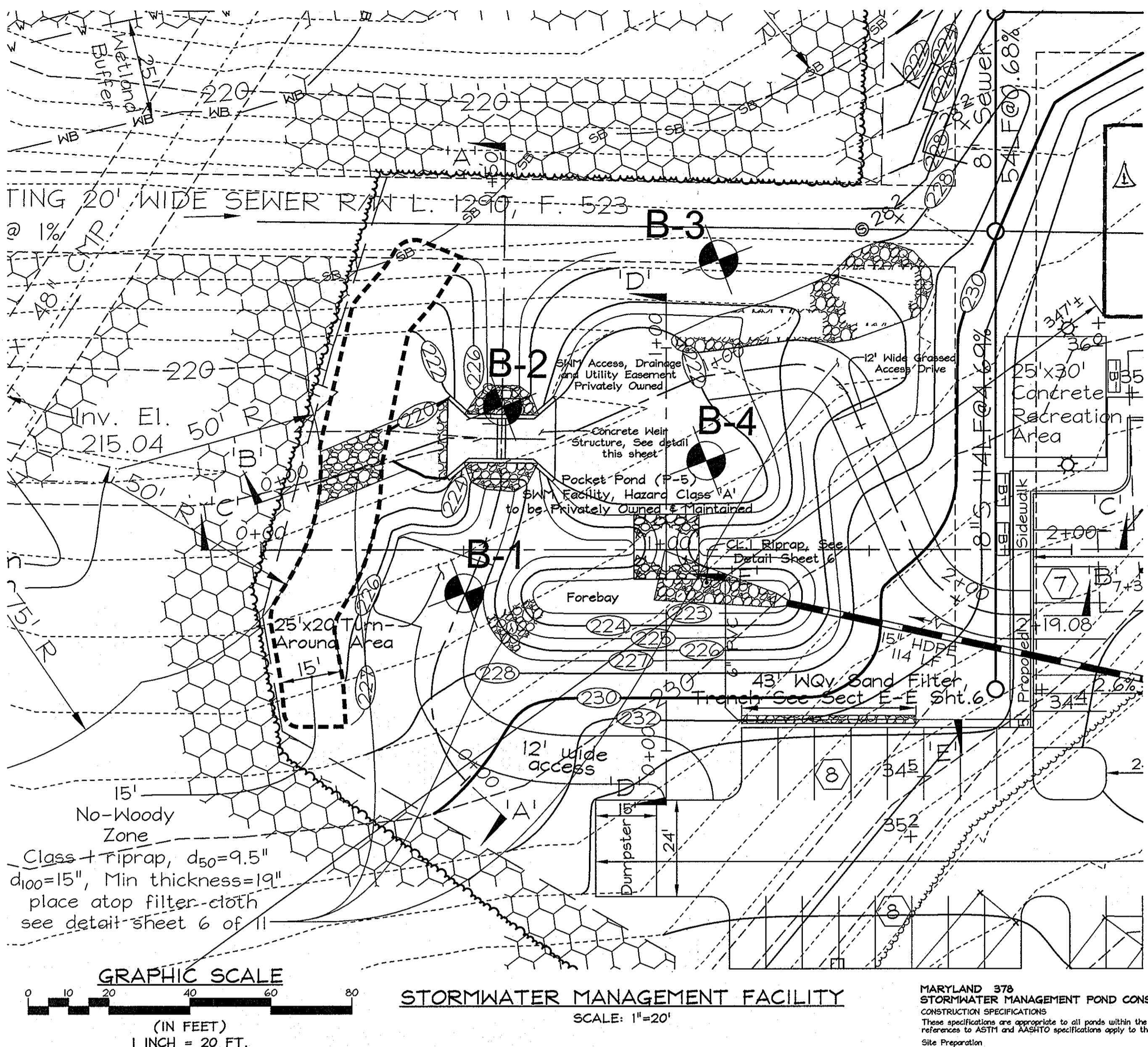
Sediment should be cleaned out of the sedimentation chamber when it accumulates to a depth of more than six inches. Vegetation within the sedimentation chamber should be limited to a height of eight inches.

When the filtering capacity of the filter diminishes substantially (e.g., when water ponds on the surface of the filter bed for more than 72 hours), the top few inches of discolored material shall be removed and shall be replaced with fresh material. The removed sediment should be disposed in an acceptable manner (e.g., landfill). Sediment should be removed from the filter bed when the accumulation exceeds one inch.

Organic filters (F-4) or surface sand filters (F-1) that have a grass cover should be mowed a minimum of 3 times per growing season to maintain maximum grass heights less than 12 inches.

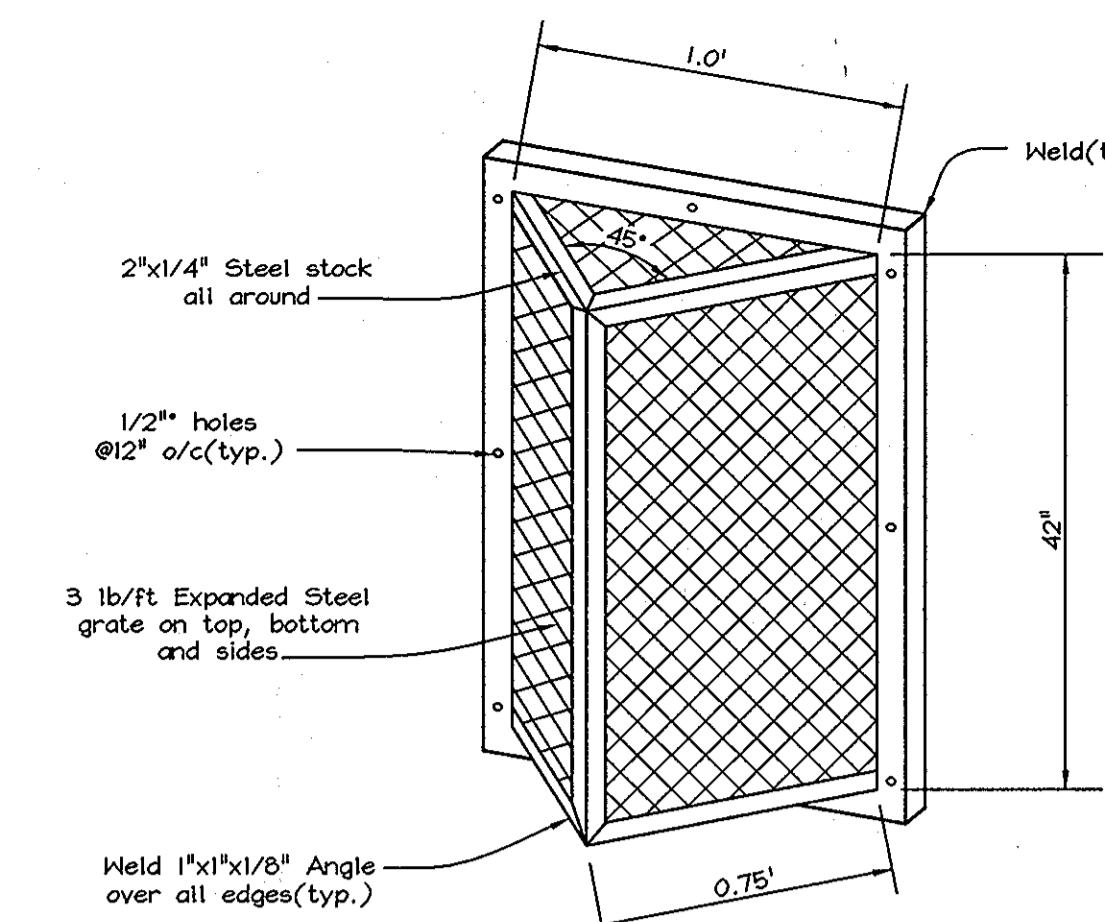
**PROFESSIONAL CERTIFICATION**  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. #22418, Expiration Date: 1/29/2011.





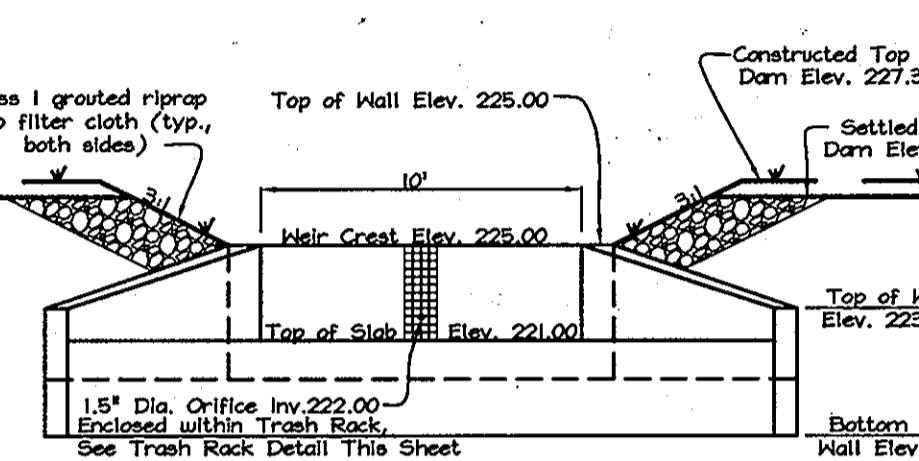
Digitized by srujanika@gmail.com

*John D. Rasmussen* 6/16/11  
EEF, DEVELOPMENT ENGINEERING DIVISION DATE  
*Kent Shealwicks* 7/14/11  
EEF, DIVISION OF LAND DEVELOPMENT DATE  
*Marshall W. Jr. Wright* 7/14/11  
ECTOR DATE



## TRASH RACK DETAIL

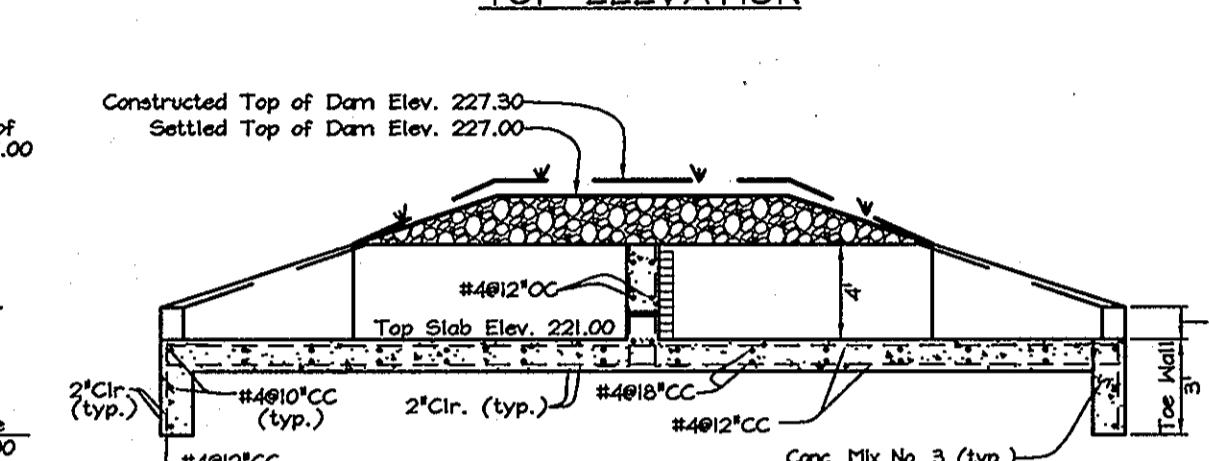
NOT TO SCALE  
ES:  
Steel to conform to ASTM A-36.  
All surfaces to be coated with ZRC cold galvanizing compound after welding  
and be painted "Battleship Grey".  
Rash rack to be fastened to the concrete with 1/2" masonry anchors.  
Rack to be removeable.



FRONT ELEVATION

# SWM WEIR STRUCTURE DETAIL

Not To Scale -



SIDE ELEVATION

**OPERATION AND MAINTENANCE SCHEDULE FOR  
PRIVATELY OWNED AND MAINTAINED  
STORMWATER PONDS**

(P-1 THROUGH P-5)

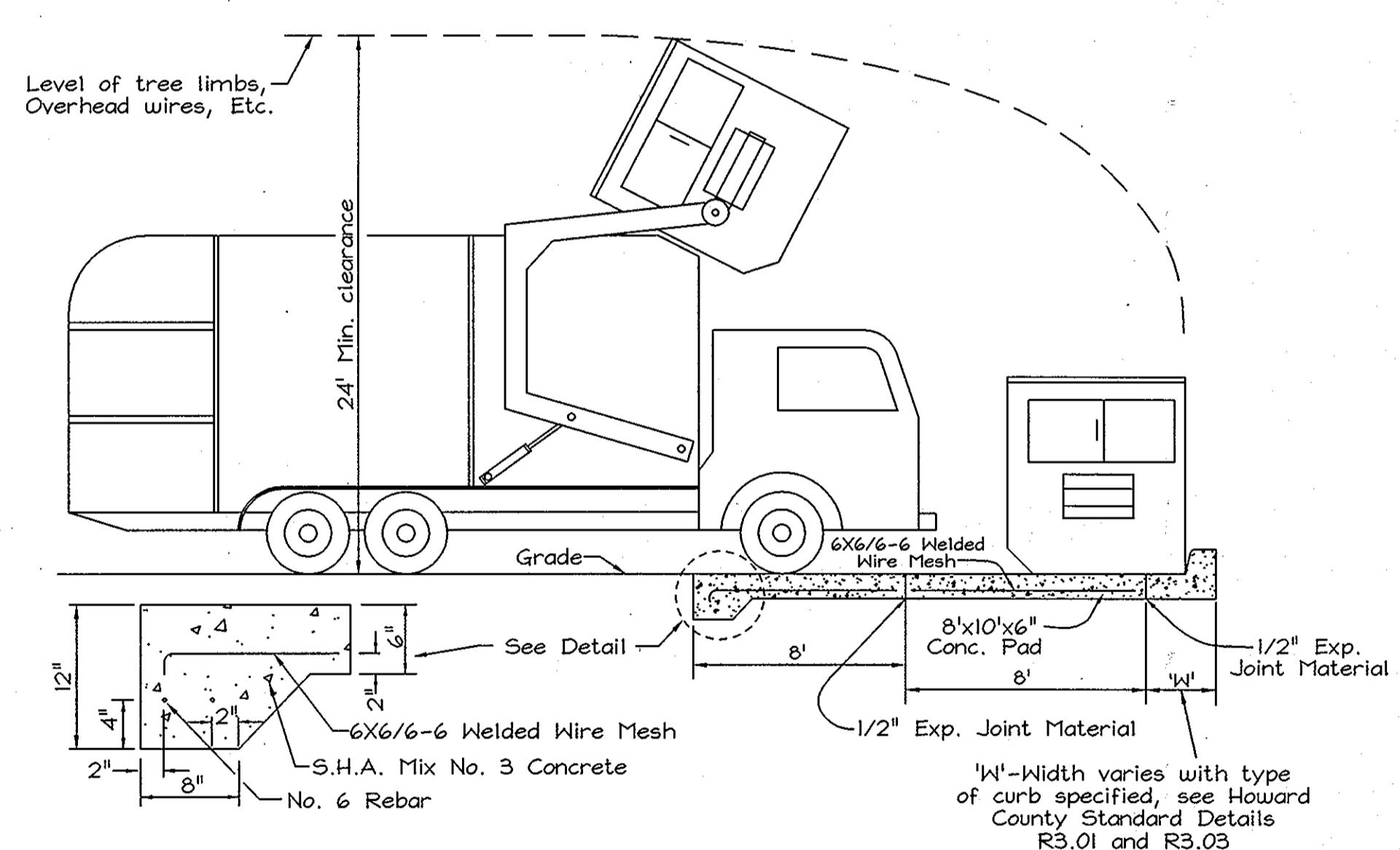
Maintenance: The pond shall be inspected annually and after major storms. Actions shall be performed during wet weather to determine if the pond is functioning properly.

The up and side slopes of the embankment shall be mowed a minimum of two (2) times per year, once in June and once in September. Other side slopes and maintenance access shall be mowed as needed.

Debris and litter shall be removed during regular mowing operations and as needed.

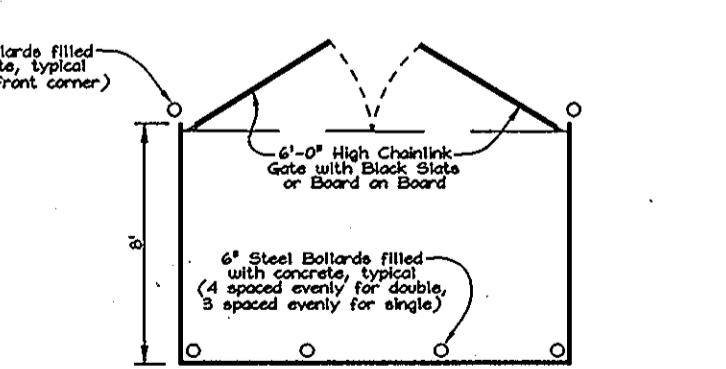
Visible signs of erosion in the pond as well as the riprap or gabion area shall be repaired as soon as it is noticed.

Routine Maintenance: Structural components of the pond such as the dam, the riser, and pipes shall be repaired upon the detection of any damage. The components shall be inspected during routine maintenance operations. Sediment shall be removed from the pond, and forebay, no later than when the capacity of the pond, or forebay, is half full of sediment, or, when deemed necessary for aesthetic reasons, upon removal from the Department of Public Works.

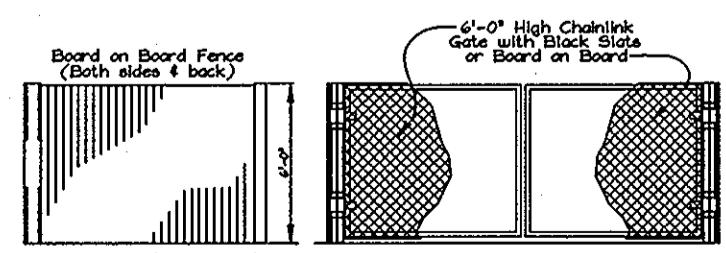


SOLID WASTE SERVICE PAD

OWNER/DEVELOPER  
BEECHCREST DEVELOPMENT, LLC  
c/o Ms. Rita Sallam  
5553 Broadwater Lane  
Clarksburg, Maryland 21029 U.S.A.



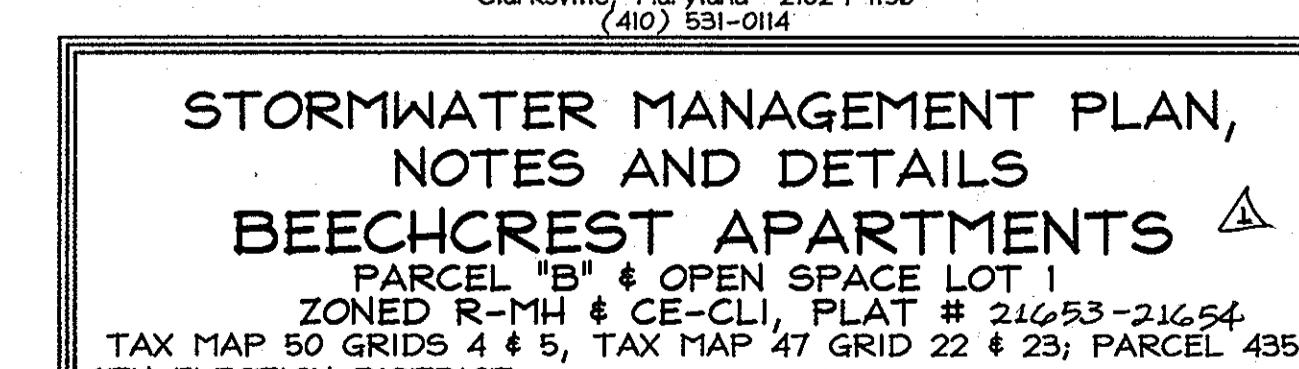
10' (Single)  
20' (Double)



RASH ENCLOSURE ELEVA  
NOT TO SCALE

**PROFESSIONAL CERTIFICATION**

I hereby certify that these documents were prepared  
approved by me, and that I am a duly licensed profes-  
sional engineer under the laws of the State of Maryland,  
License No. #22418, Expiration Date: 7/29/2011.



(410) 331-0114

STORMWATER MANAGEMENT PLAN,  
NOTES AND DETAILS  
BEECHCREST APARTMENTS ▲  
PARCEL "B" & OPEN SPACE LOT 1

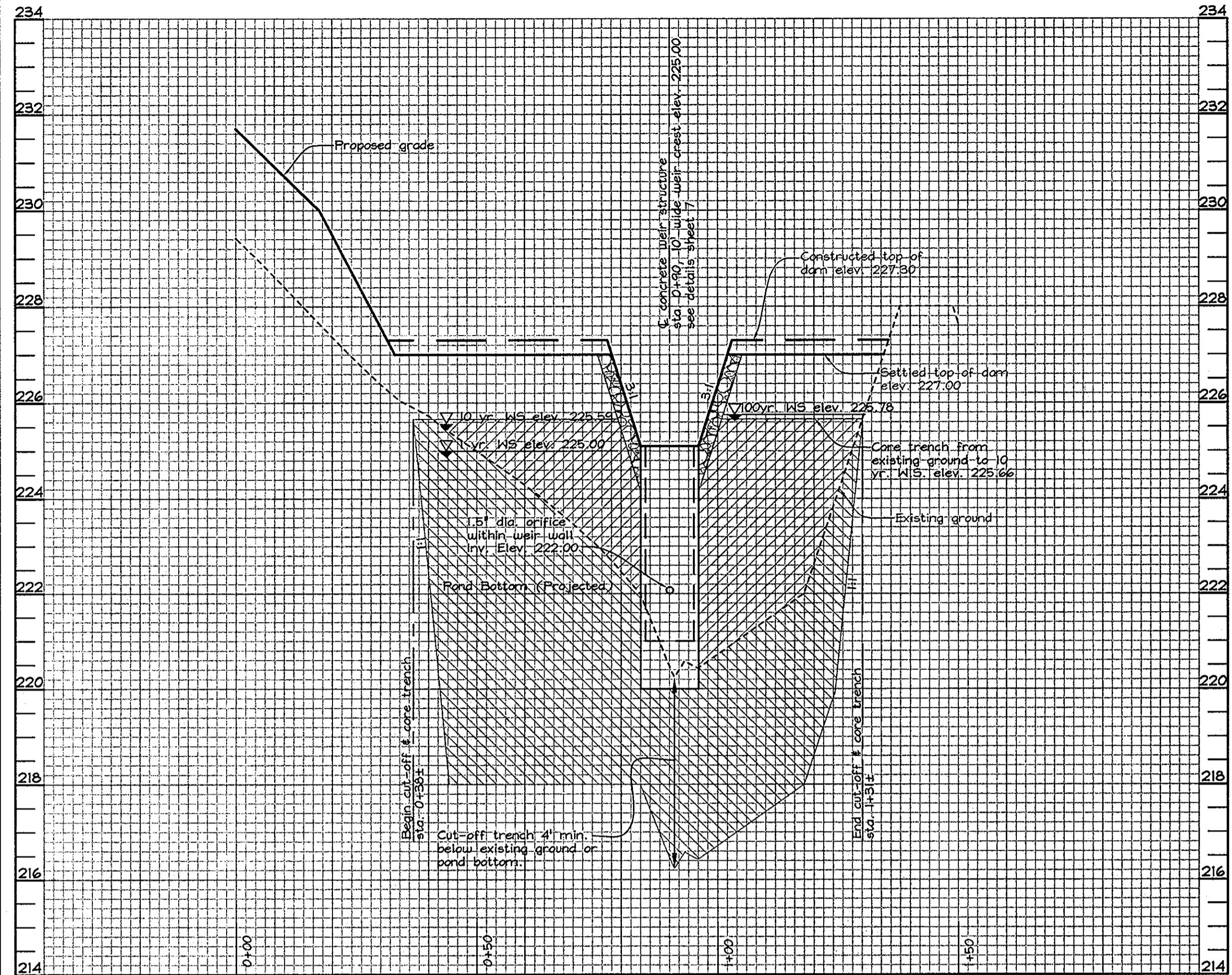
ZONED R-MH & CE-CLI, PLAT # 21653-21654  
MAP 50 GRIDS 4 & 5, TAX MAP 47 GRID 22 & 23; PARCEL 435  
ELECTION DISTRICT HOWARD COUNTY, MARYLAND



**FSH Associates**

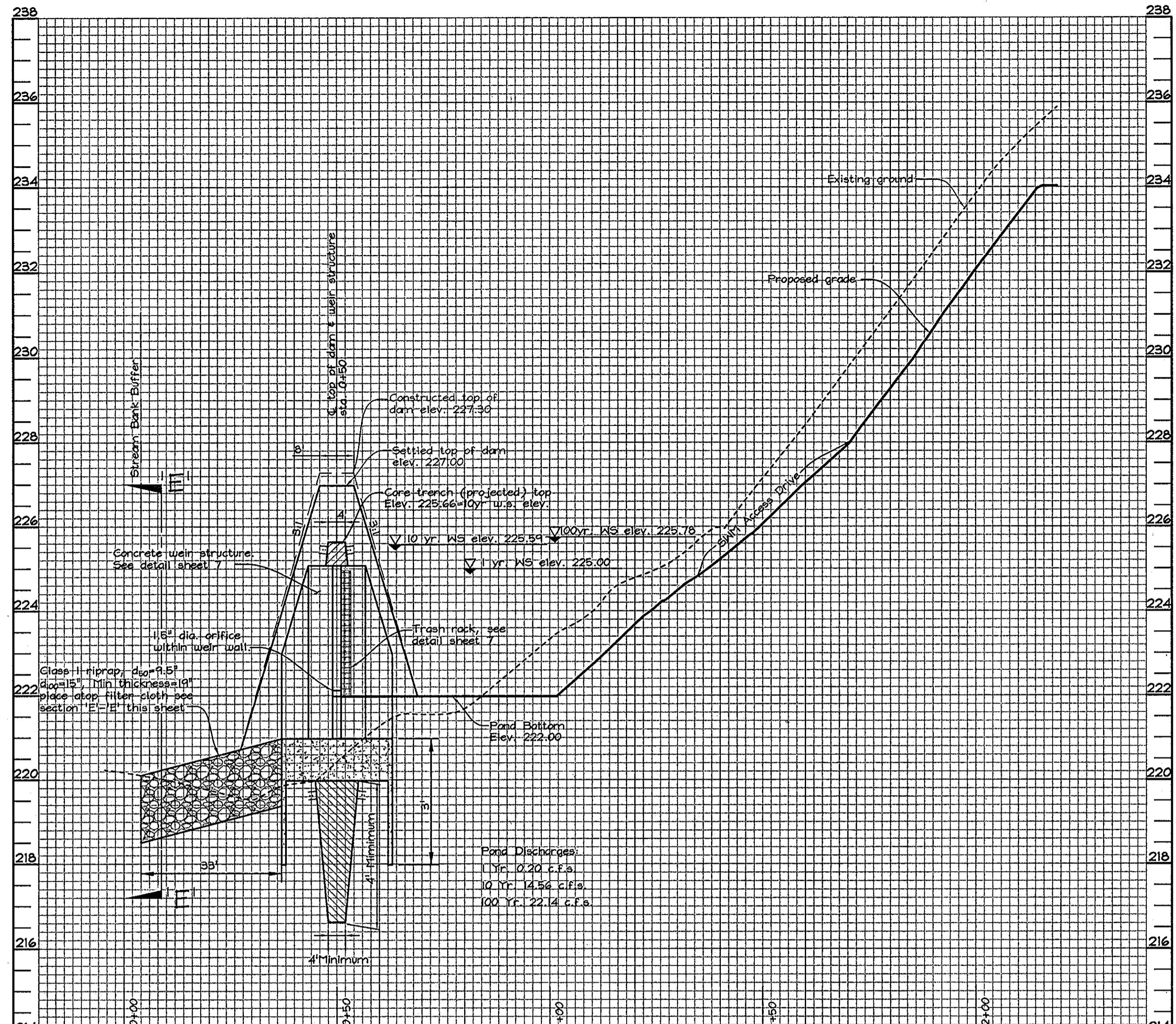
**Engineers Planners Surveyors**  
6339 Howard Lane, Elkridge, MD 21075  
Tel: 410-567-5200 Fax: 410-796-1562  
E-mail: [info@fsheri.com](mailto:info@fsheri.com)

DRAWN BY: CEDICRHI  
CHECKED BY: ZYF  
SCALE: As Shown  
DATE: May 24, 2011  
I.O. No.: 3600  
SHEET No.: 7 OF 11



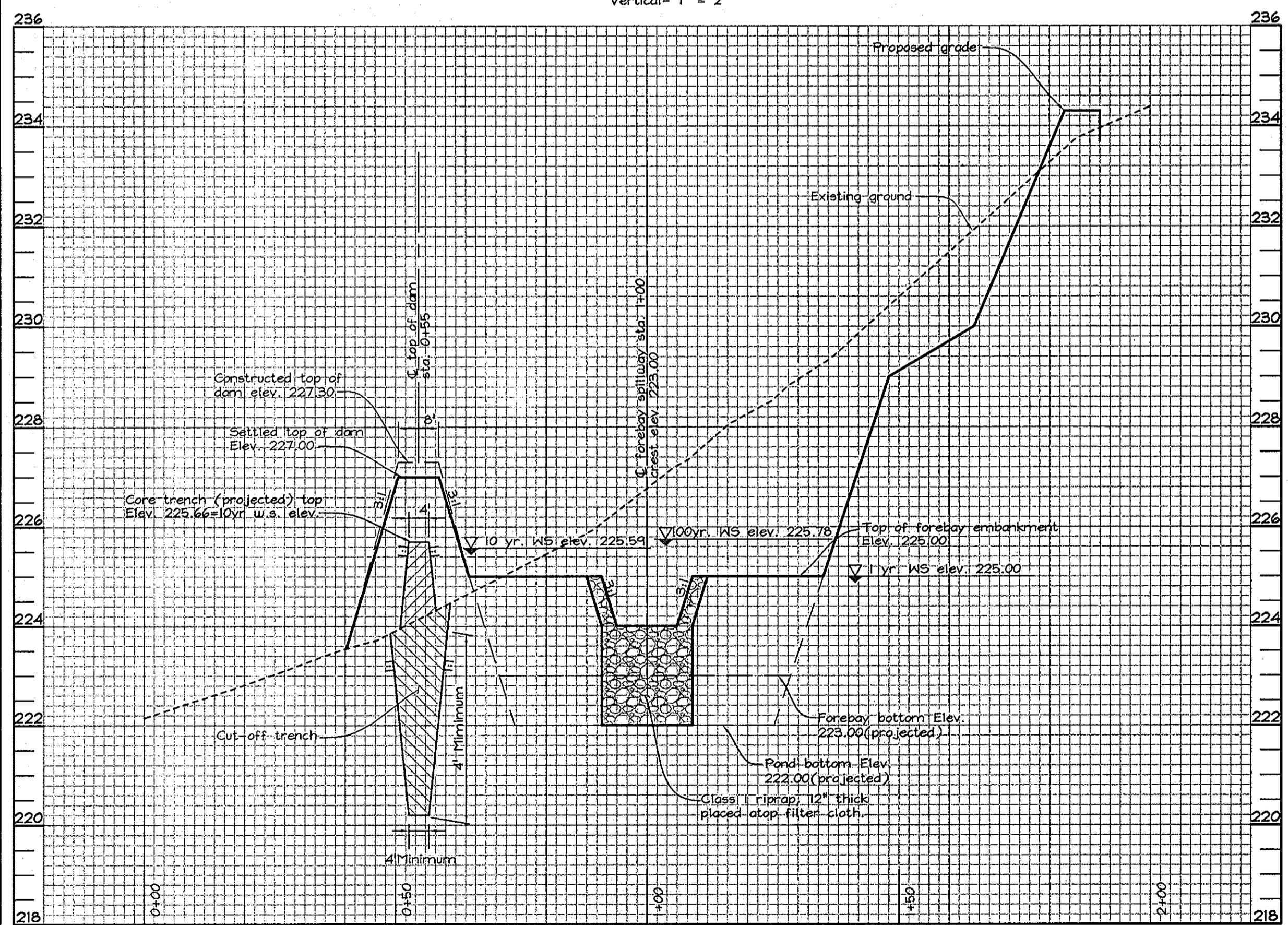
**SECTION 'A'-A' PROFILE ALONG SWM FACILITY TOP OF DAM**

SCALE: Horizontal - 1" = 20'  
Vertical - 1" = 2'



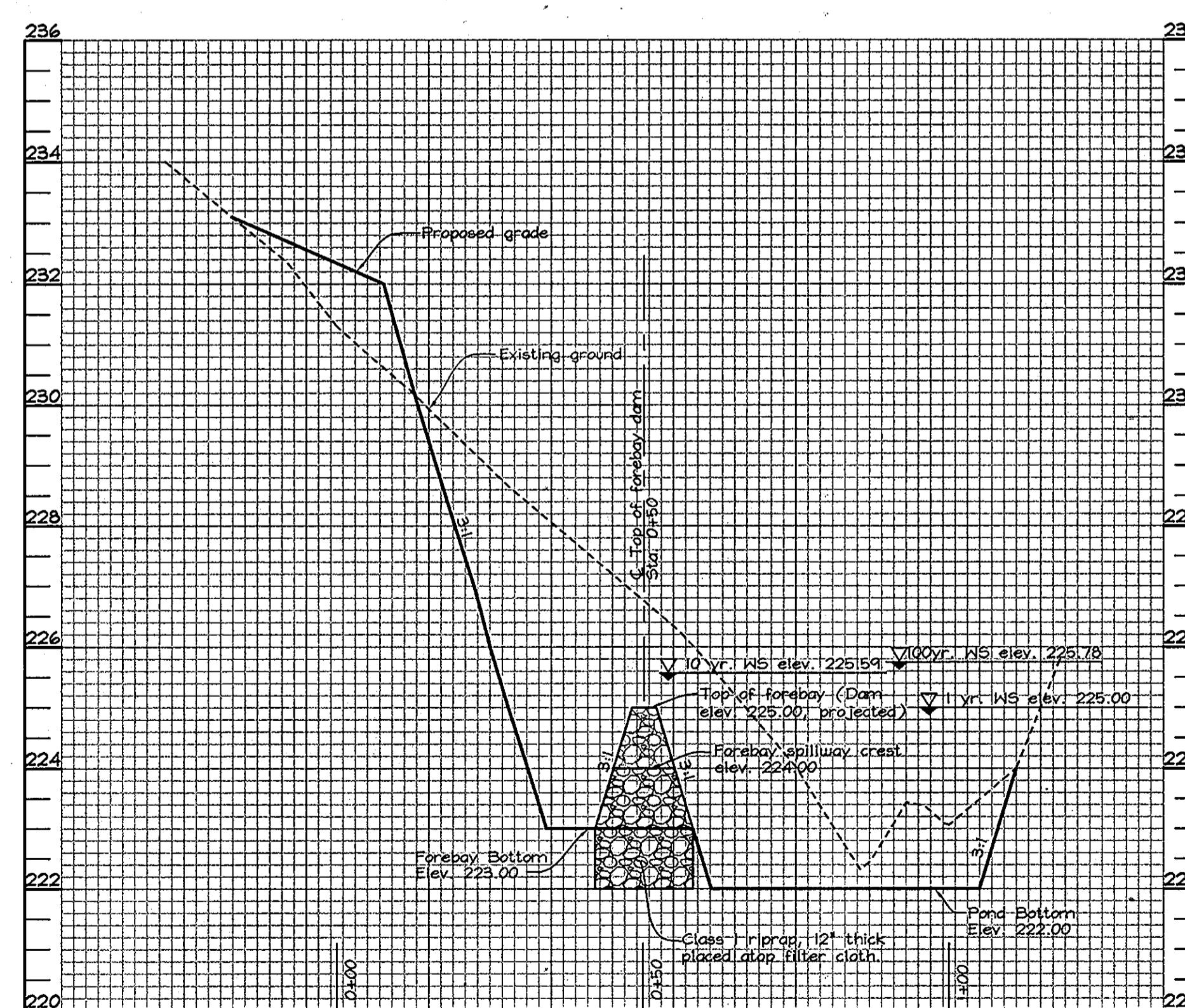
**SECTION 'B'-B' PROFILE THROUGH WEIR STRUCTURE**

SCALE: Horizontal - 1" = 20'  
Vertical - 1" = 2'



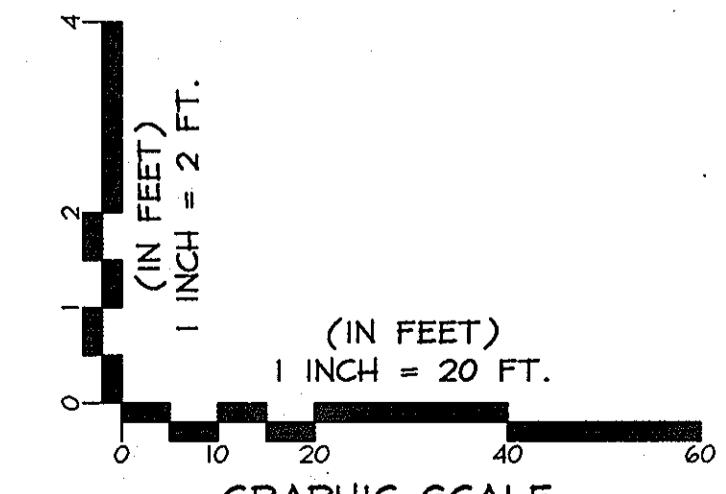
**SECTION 'C'-C' PROFILE ALONG FOREBAY TOP OF DAM**

SCALE: Horizontal - 1" = 20'  
Vertical - 1" = 2'



**SECTION 'D'-D' PROFILE THROUGH FOREBAY SPILLWAY**

SCALE: Horizontal - 1" = 20'  
Vertical - 1" = 2'



**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. #22418, Expiration Date: 7/29/2011.

**OWNER/DEVELOPER**  
**BEECHCREST DEVELOPMENT, LLC**  
2618 Rita Sallans  
5533 Howard Lane, Elridge, MD 21075  
Clarksville, Maryland 21029-1156  
(410) 531-0114

**STORM WATER MANAGEMENT PROFILES**

**BEECHCREST APARTMENTS □**

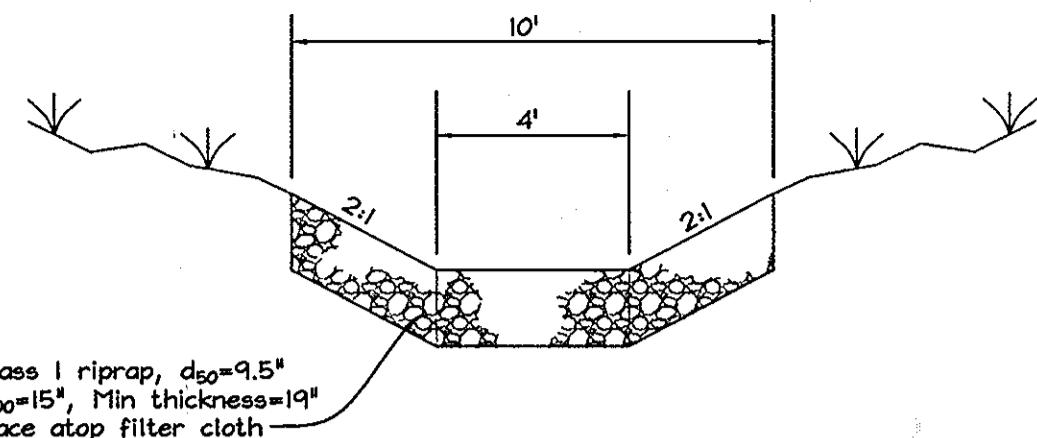
PARCEL "B" & OPEN SPACE LOT 1  
ZONED R-MH & CE-CLI, PLAT # 21G53-21G54  
TAX MAP 50 GRIDS 4 & 5, TAX MAP 47 GRID 22 & 23; PARCEL 435  
6TH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

<b>DESIGN BY:</b> <i>MLT</i> <b>DRAWN BY:</b> <i>CEDARH2</i>	<b>CHECKED BY:</b> <i>ZYF</i> <b>DATE:</b> <i>May 24, 2011</i>
<b>SCALE:</b> <i>As Shown</i> <b>W.O. No.:</b> <i>3600</i> <b>SHEET NO.:</b> <i>8 OF 11</i>	

**FSH Associates**  
Engineers Planners Surveyors  
6334 Howard Lane, Elridge, MD 21075  
Tel: 410-587-5200 Fax: 410-796-1562  
E-mail: info@fsheri.com

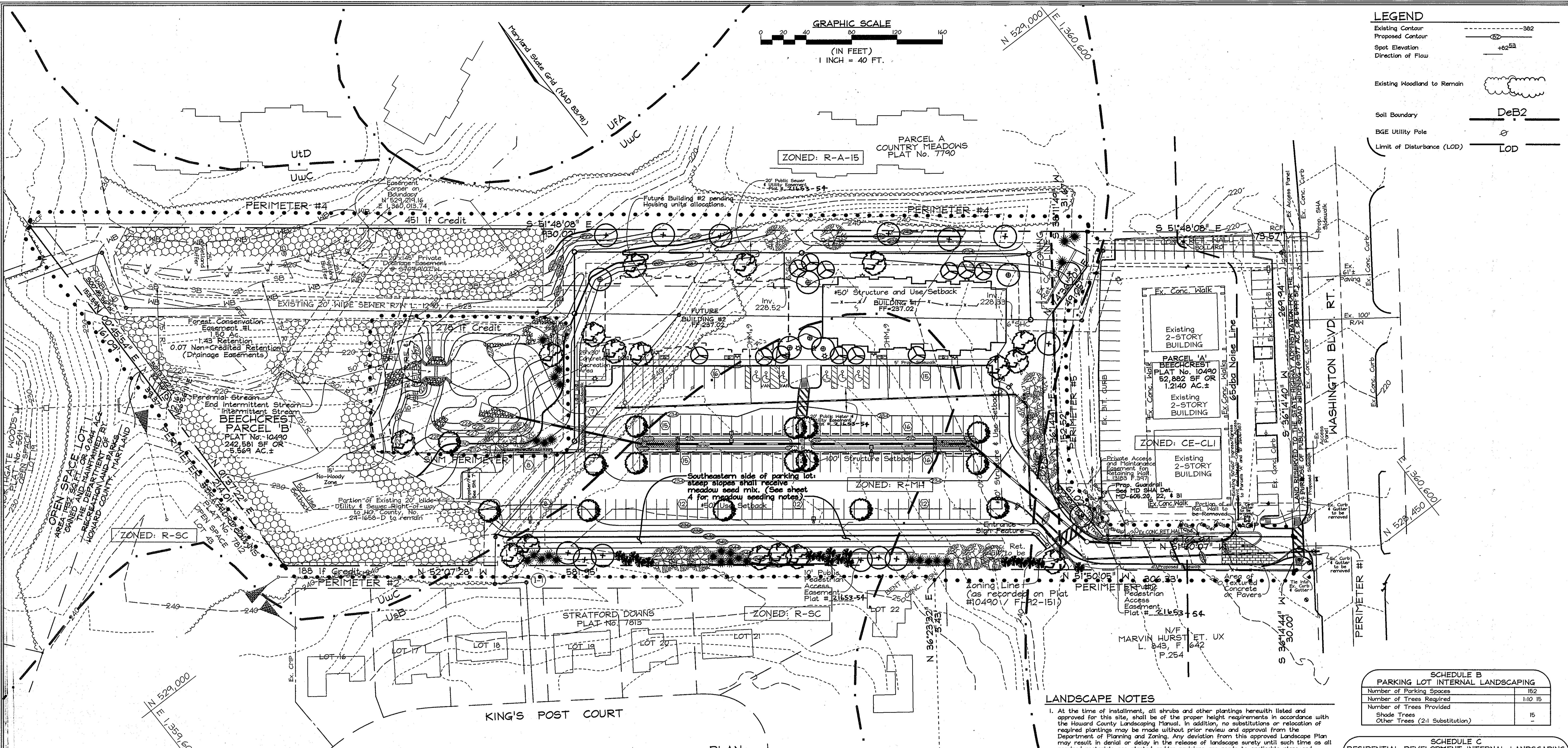


APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
*[Signature]* 6/16/11  
**CHIEF, DEVELOPMENT ENGINEERING DIVISION**  
*[Signature]* 7/14/11  
**CHIEF, DIVISION OF LAND DEVELOPMENT**  
*[Signature]* 7/14/11  
**DIRECTOR**  
*[Signature]* 7/14/11  
*[Signature]* DATE



**SECTION 'E'-E'**

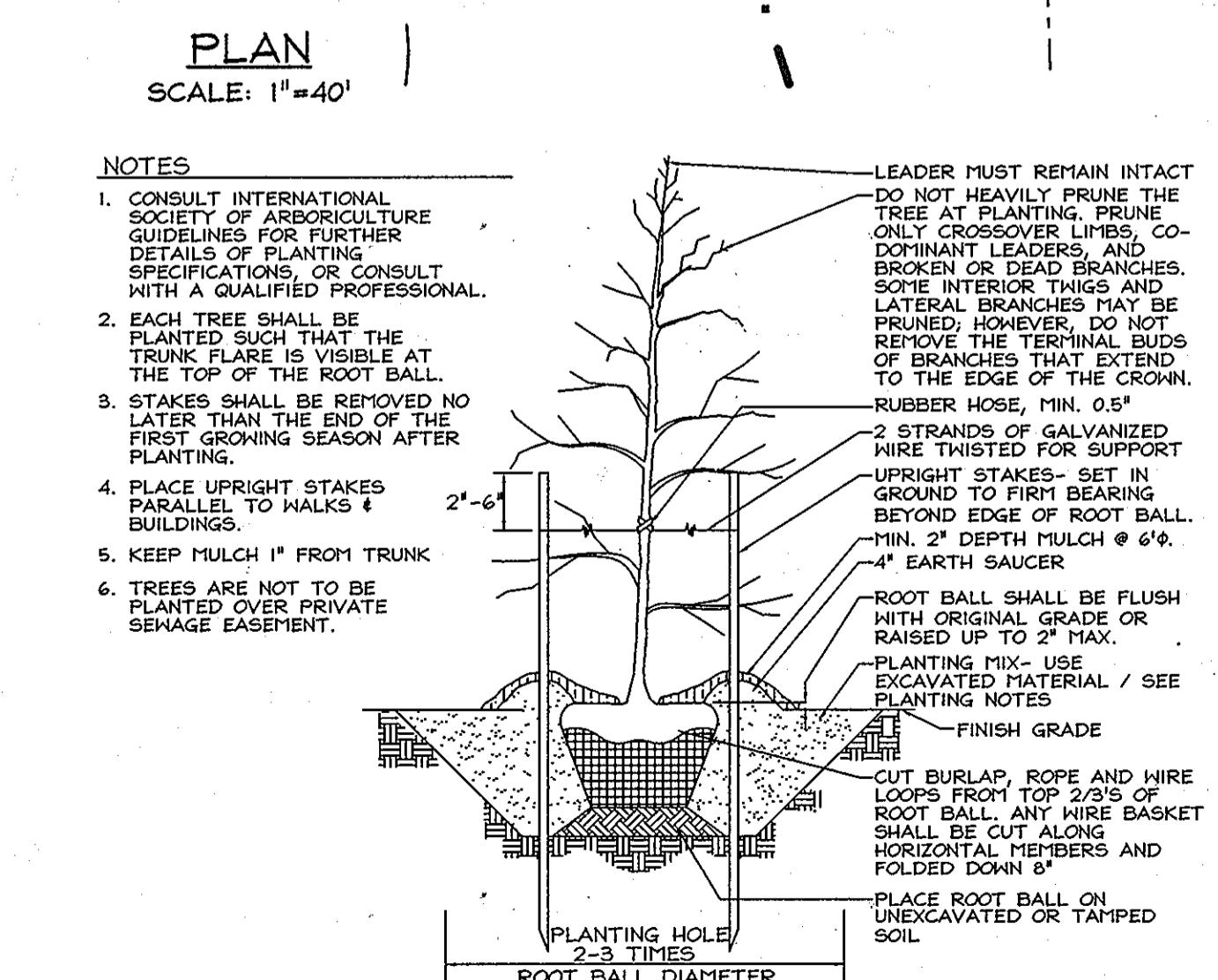
SCALE: 1" = 4'



#### LANDSCAPE NOTES

- At the time of installment, all shrubs and other plantings herewith listed and approved for this site, shall be of the proper height requirements in accordance with the Howard County Landscaping Manual. In addition, no substitutions or relocation of required plantings may be made without prior review and approval from the Department of Planning and Zoning. Any deviation from this approved Landscape Plan may result in denial or delay in the release of landscape surety until such time as all required materials are planted and/or revisions are made to applicable plans and certificates.
- The owner, tenant, and/or their agents shall be responsible for maintenance of the required landscaping, including both plant materials and berms, fences and walls. All plant materials shall be maintained in good growing condition, and when necessary, replaced with new materials to ensure continued compliance with applicable regulations. All other required landscaping shall be permanently maintained in good condition, and when necessary, repaired or replaced.
- Funding for surety - the required landscaping will be posted as part of the Developer's Agreement in the amount of \$24,250.00 (72 shade trees @ \$300 ea. and 48 evergreen trees @ \$150 ea.).
- Due to space limitations, and a lack of views into the developed area of the site at this perimeter location, we are proposing to move the required plantings elsewhere on-site. Policy allows transferring of planting material to another landscape edge if the transfer meets the intent of the regulations. We believe the area chosen meets those criteria, as it does present buffer to a view towards the proposed buildings.

LANDSCAPE SCHEDULE					
KEY	QUAN.	BOTANICAL NAME	SIZE	NOTE	
17	1	Acer rubrum 'Red Sunset'	2 1/2"-3" Cal.	B & B	
15	1	Gleditsia triacanthos inermis 'Imperial'	2 1/2"-3" Cal.	B & B	
16	1	Liquidambar styraciflua	2 1/2"-3" Cal.	B & B	
15	1	Quercus coccinea	2 1/2"-3" Cal.	B & B	
6	1	Quercus robur 'Fastigiata'	2 1/2"-3" Cal.	B & B	
12	1	Prunus serrulata 'Kwanzan'	8'-10' Ht.	B & B	
27	1	Ilex opaca	5'-6' Ht.	B & B	
18	1	Picea abies	5'-6' Ht.	B & B	
378	1	Northern Sea Oats / Chasmanthium latifolium	1 gal.	30" o.c.	



TYPICAL TREE PLANTING AND STAKING  
ALL TREES UP TO 3" CALIPER  
NOT TO SCALE

SCHEDULE D : STORMWATER MANAGEMENT AREA LANDSCAPING	
Linear Feet of Perimeter	550 lf
Credit for Existing Vegetation (No, Yes and Linear Feet)	Yes, #278 lf 272 remain
Credit for other Landscaping (No, Yes and %)	N/A
Number of Trees Required	
Shade Trees	1:50 = 5 Shade Trees
Evergreen Trees	1:40 = 7 Evergreen Trees
Other Trees(2:1 Substitution)	
Shrubs (1:1 Substitution)	
(Describe Plant Substitution Credits Below if needed)	

\* Perimeter is shared with the Forest Conservation Easement.

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. #22418, Expiration Date: 7/29/2011.

LEGEND	
Existing Contour	382
Proposed Contour	382
Spot Elevation	+82.53
Direction of Flow	
Existing Woodland to Remain	
Soil Boundary	
BGE Utility Pole	
Limit of Disturbance (LOD)	LOD

SCHEDULE B PARKING LOT INTERNAL LANDSCAPING	
Number of Parking Spaces	152
Number of Trees Required	1:10 15
Number of Trees Provided	
Shade Trees	
Other Trees (2:1 Substitution)	15

SCHEDULE C RESIDENTIAL DEVELOPMENT INTERNAL LANDSCAPING	
Number of Dwelling Units	64
Number of SFA (1 DU SFA; 13 DU Apts.)	21
Number of trees provided	
Shade Trees	
Other Trees (2:1 Substitution)	12

OWNER/DEVELOPER  
BEECHCREST DEVELOPMENT, LLC  
c/o Ms. Rita Sallan  
5553 Broadwater Lane  
Clarksville, Maryland 21029-1156  
(410) 591-0114

#### LANDSCAPE PLAN

BEECHCREST APARTMENTS ▲  
PARCEL "B" & OPEN SPACE LOT 1  
ZONED R-MH & CE-CLI, PLAT # 21653-21654  
TAX MAP 50 GRIDS 4 & 5, TAX MAP 47 GRID 22 & 23; PARCEL 435  
6TH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

STATE OF MARYLAND DEPARTMENT OF AGRI-CULTURE PROFESSIONAL ENGINEER 25-15 Signature	FSH Associates Engineers Planners Surveyors 6339 Howard Lane, Elridge, MD 21075 Tel: 410-567-5200 Fax: 410-796-1562 E-mail: info@fsheri.com
DESIGN BY: MLT DRAWN BY: CEDACRH2 CHECKED BY: ZYF SCALE: As Shown DATE: May 24, 2011 W.O. No.: 3600 SHEET NO. 9 OF 11	

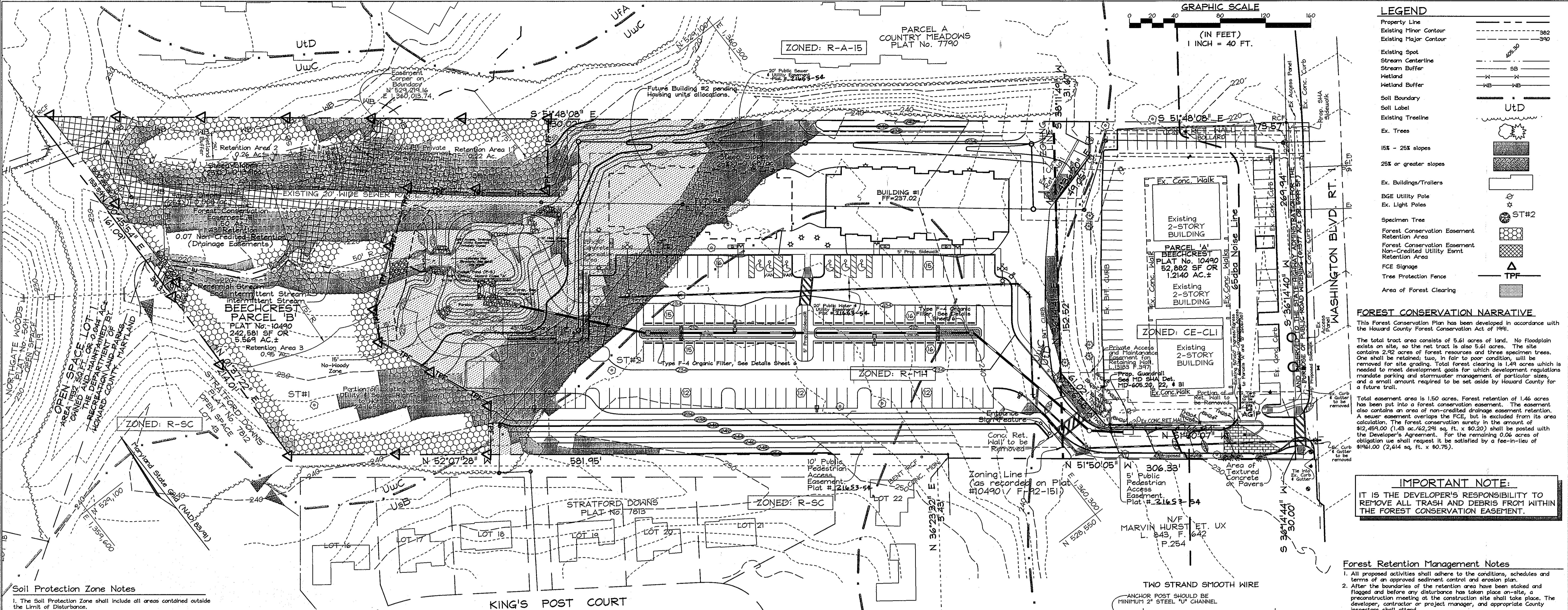
SCHEDULE A PERIMETER LANDSCAPE EDGE					
CATEGORY	Adjacent to Roadways	Adjacent to Perimeter Properties			
Perimeter/Frontage Designation					
Landscaping Type	B	-	2	3	4
Frontage/Perimeter	30	-	892	375	450
Credit for Existing Vegetation (Yes, No, Linear Feet)	No	-	Yes* (804) 704	Yes* (375) 0	Yes* (474) 0
Remaining Perimeter Length	No	-	No	No	No
Number of Trees Required	1:50 1	-	1:40 18	1:50 0	1:60 8
Evergreen Trees	-	-	1:20 35	-	-
Shrubs	-	-	-	-	-
Number of Plants Provided	0	-	18	0	8
Evergreen Trees	0**	-	35	0	3*
Other Trees (2:1 Substitution)	-	-	-	-	-
Shrubs (1:1 Substitution)	-	-	-	-	-
(Describe Plant Substitution Credits Below if needed)					

\* Existing forest to remain

\*\* Moved to Perimeter 5, see Landscape Note 4.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
*[Signature]* DATE: 6/16/11  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
CHIEF, DIVISION OF LAND DEVELOPMENT  
*[Signature]* DATE: 7/1/11  
DIRECTOR  
*[Signature]* DATE: 7/1/11  
CHIEF, DIVISION OF LAND DEVELOPMENT  
*[Signature]* DATE: 7/1/11  
DIRECTOR  
*[Signature]* DATE: 7/1/11  
OWNER/DEVELOPER'S BUILDER'S CERTIFICATE  
I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN  
WILL BE DONE ACCORDING TO THE SECTION 16.24 OF THE  
HOWARD COUNTY ZONING CODE AND THE LANDSCAPE MANUAL.  
I/WE FURTHER CERTIFY THAT UPON COMPLETION, A LETTER OF  
LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE(1)  
YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE  
DEPARTMENT OF PLANNING AND ZONING.

Rita J. Sheri Managing Partner 5/24/11  
SIGNATURE OF OWNER/DEVELOPER DATE



#### Soil Protection Zone Notes

1. The Soil Protection Zone shall include all areas contained outside the limit of disturbance.  
 2. Where possible, the Soil Protection Zone shall extend to the drip line of specimen trees. For other groups of trees, the zone shall be 40% of the height of the tree, whichever is greater.  
 3. No construction activity is permitted within the Soil Protection Zone.  
 4. If soil has been compacted or grading has taken place in the vicinity of the Soil Protection Zone, root pruning shall be implemented (see Root Pruning detail shown on this plan).  
 5. Root pruning shall occur prior to the beginning of construction.  
 6. Where the Soil Protection Zone must encroach inside the Critical Root Zone of a tree, soil disturbance shall be mitigated with vertical mulching, soil trenching, or another method approved by the ERI Forest Conservation Professional.  
 7. Prior to construction, the limits of disturbance shall be marked and the ERI Professional shall determine which trees will need protective treatment or removal.  
 8. Removal and mitigation shall be undertaken by a qualified MD Tree Expert to ensure damage to surrounding trees is minimized.  
 9. Brush and limbs removed for construction shall be chipped and spread at the edge of the Soil Protection Zone to a depth of 6 inches. This shall occur outside the Soil Protection Zone where compaction could impact otherwise unprotected Critical Root Zone.

#### Forest Retention Area Protection Signage

Min. 11"

FOREST RETENTION AREA  
MACHINERY, DUMPING OR STORAGE OF ANY MATERIALS IS PROHIBITED

VIOLATORS ARE SUBJECT TO FINES AS IMPOSED BY THE MARYLAND FOREST CONSERVATION ACT OF 1991

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 6/16/11  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
*[Signature]* 7/14/11  
DATE  
CHIEF, DIVISION OF LAND DEVELOPMENT  
*[Signature]* 7/14/11  
DATE  
DIRECTOR

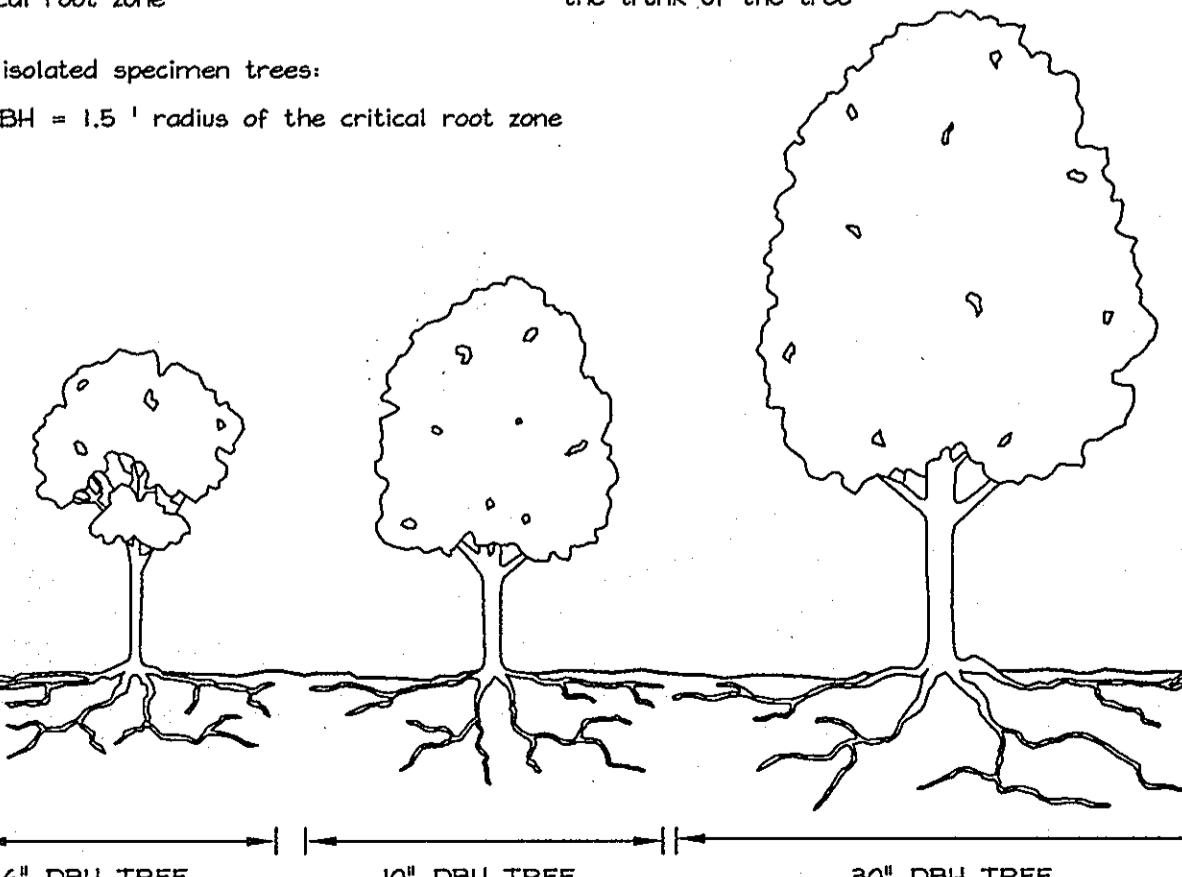
#### SPECIMEN TREES

NO.	DBH	COMMON NAME	SCIENTIFIC NAME	CONDITION	RETAINED
ST-1	36"	American Beech	Fagus grandifolia	Poor	Yes
ST-2	31"	Red Oak	Quercus rubra	Fair	No
ST-3	48"	Red Maple	Acer rubrum	Poor	No

NOTE: See F-10-069 for bearing, distance, and area FCE info.

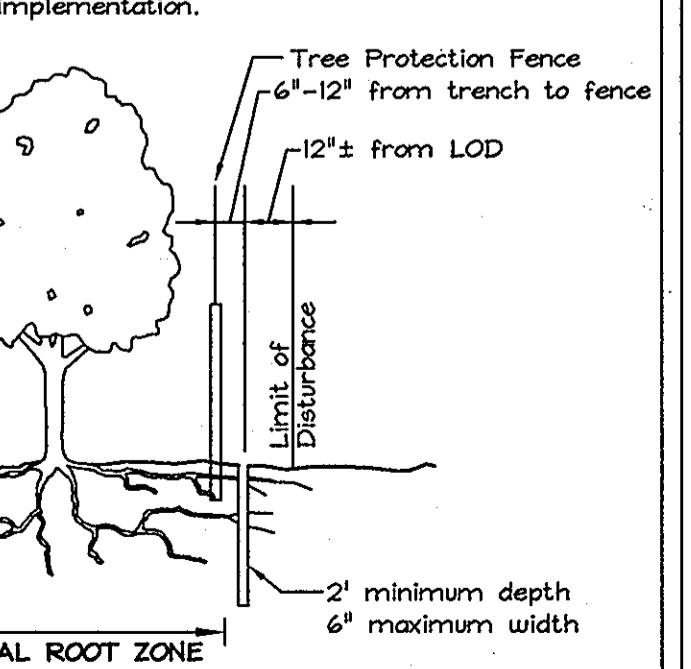
#### Critical Root Zone

SIGNAGE NOTE: ALL TREE PROTECTION SIGNS SHALL BE PLACED ON METAL 1" POSTS OR PRESSURE TREATED WOOD POLES. NO ATTACHMENT OF SIGNS TO TREES IS PERMITTED. PROTECTIVE SIGNAGE MUST REMAIN IN PLACE FOR PERPETUITY.



#### Root Pruning

1. Retention areas shall be set prior to construction.
2. Boundaries of retention areas shall be flagged, and location of trench shall be specified by ERI Qualified Professional.
3. Roots shall be cut cleanly with root pruning equipment. Where roots >1" are found, trenching shall be done by air spade or hand tools. Roots >1" shall be cut with a hand saw.
4. Trench shall be immediately backfilled with soil removed or high organic content soil.
5. Any other techniques shall be approved by the ERI Qualified Professional before implementation.



#### FOREST CONSERVATION WORKSHEET

##### Net Tract Area

- A. Total Tract Area
  - B. Area Within 100 Year Floodplain
  - C. Other deductions
  - D. Net Tract Area
- Zoning Use Category: RESIDENTIAL-SUBURBAN  
Land Use Category
- E. Afforestation Minimum (15 % x D)
  - F. Conservation Threshold (20 % x D)
- Existing Forest Cover
- G. Existing Forest on Net Tract Area
  - H. Forest Area Above Conservation Threshold
- Breakeven Point
- I. Forest Retention Above Threshold with no Mitigation
  - J. Clearing Permitted without Mitigation
- Proposed Forest Clearing
- K. Forest Areas to be Cleared
  - L. Forest Areas to be Retained
- Planting Requirements
- M. Reforestation for Clearing Above Threshold
  - N. Reforestation for Clearing Below the Threshold
  - P. Credit for Retention Above Conservation Threshold
  - Q. Total Reforestation Required
  - R. Total Afforestation Required
  - S. Total Reforestation and Afforestation Requirement

Acres

5.61  
--  
5.61

0.84  
--  
1.12

2.92  
1.80

1.48  
--  
1.44

1.49  
1.43

0.37  
0  
0.31

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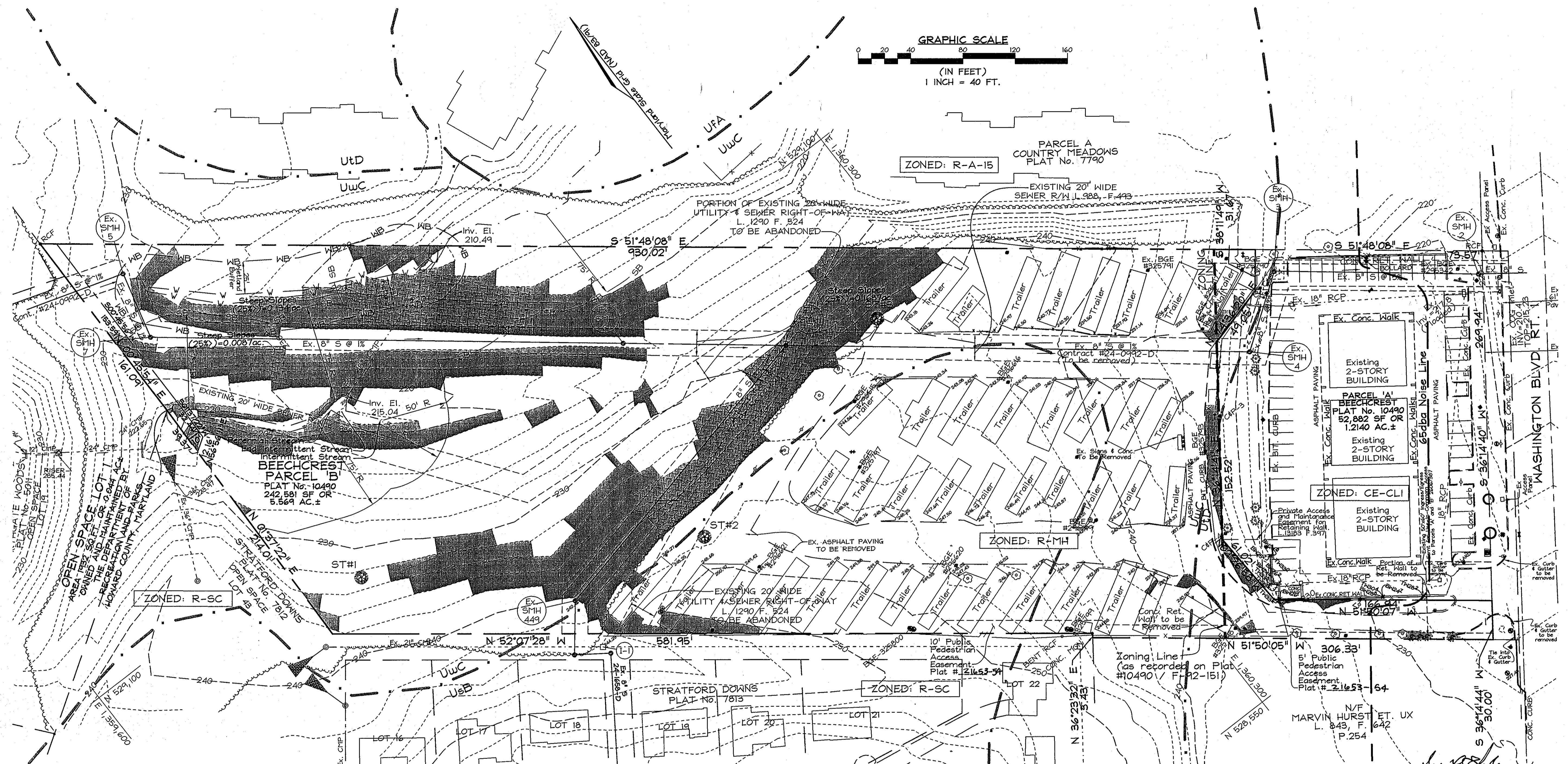
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SOILS LEGEND		
SYMBOL	NAME / DESCRIPTION	SOIL GROUP
UsB	Urban land-Sassafras-Bettsville complex, 0 to 5 percent slopes	D*
UuD	Urban land-Udorthens complex, 0 to 15 percent slopes	D
UuC	Urban land-Woodstoun-Sassafras complex, 5 to 10 percent slopes	D

\* K value > 0.35



KEY	TYPE OF COMMUNITY	AREA Acres	SOIL INFORMATION			EXISTING VEGETATION (Type and approx. %)	STAND CHARACTERISTICS		FOREST AREA IN SENSITIVE ENVIRONMENTS		
			SOIL TYPE	Typical Forest Cover	Woodland Suitability Index		SIZE AVG. DIAM.	AGE			
F-1	Oak-Beech	2.92	UsB UuC	Mixed Hardwoods Mixed Hardwoods	70-80 pines 85-90 oaks 85+ pines 45+ oaks	Good Good	white oak 25% red maple 20% black cherry 15% beech 15% Sweetgum 10% box elder 5% others 10%	16-18" 4-6" 2-5" 4-24" 4-6" 3"	70-90 70-90 70-90 70-90 70-90 70-90	Good Open canopy leading to invasive plants (Microstegium, multiflora rose, etc.) taking hold 0.31 ac steep slopes 25%+ 1.01 ac stream buffer 0.31 ac wetlands and buffer	0.31 ac steep slopes 25%+ 1.01 ac stream buffer 0.31 ac wetlands and buffer
L-1	Lawn	2.69	UsB UuD UuC	Mixed Hardwoods - Mixed Hardwoods	70-80 pines 85-90 oaks 80+ pines 80-90 oaks	Good Good Good	- - -	- - -	- - -	- - -	

PLAN  
SCALE: 1"=40'

NOTE:  
All BGE utility poles on-site are to be removed.  
All existing structures / trailers on-site are to be removed.

OWNER/DEVELOPER  
BEECHCREST DEVELOPMENT, LLC  
c/o Ms. Rita Sallom  
5553 Broadwater Lane  
Clarksburg, Maryland 20824-1156  
(410) 551-0114

#### EXISTING CONDITIONS AND SOILS PLAN

BEECHCREST APARTMENTS  
PARCEL "B" & OPEN SPACE LOT 1  
ZONED R-MH & CE-CLI, PLAT # 21653 - 21654  
TAX MAP 50 GRIDS 4 & 5, TAX MAP 47 GRID 22 & 23; PARCEL 435  
6TH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND



FSH Associates  
Engineers Planners Surveyors  
6339 Howard Lane, Elkhridge, MD 21075  
Tel: 410-567-5200 Fax: 410-796-1562  
E-mail: info@fshei.com

DESIGN BY: MLT  
DRAWN BY: CEDARH2  
CHECKED BY: ZYF  
SCALE: 1" = 50'  
DATE: May 24, 2011  
W.O. No.: 3600  
Sheet No.: II of II

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
*[Signature]*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE 6/16/11  
Kathy DeLisle  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE 7/14/11  
Tina Marshall  
DIRECTOR DATE 7/14/11  
*[Signature]*

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. #22418, Expiration Date: 7/29/2011.