

GENERAL NOTES

- Subject property Zoned T.O.D. per Zoning Board case number ZB-1086M dated September 13, 2010.
- Coordinates based on NAD 83 Maryland Coordinate System as projected by Howard County Geodetic Control Station numbers 38DA and 386A (adjustment: December 2007)  
Station Number 38DA N 556,796.9221 E 1,390,221.4576 Elev. 126.08  
Station Number 386A N 555,897.3373 E 1,390,132.0933 Elev. 80.78
- Topographic contours based on aerial survey performed by Harford Aerial Surveys, Inc. dated January, 2008 and supplemented by field run topography prepared by Fisher, Collins and Carter Inc. dated May 2010.
- No cemeteries exist on this site based on a site visit and on an examination of the Howard County Cemetery Inventory Map.
- No historic structures exist on the subject property.
- There are no existing structures or dwellings on this site.
- Previous Department of Planning and Zoning file numbers: S-87-066, F-87-070, F-88-055, SDP-84-275, SDP-90-041, F-89-085, F-90-125, F-91-069, SDP-90-055, F-93-023, ZB-1086M, WP-11-130, ECP-11-046, F-11-057, WP-12-051, WP-11-147, S-11-001, WP-12-109, S-14-001, F-12-026, ZB-1102M, SDP-13-068, SDP-14-019, F-15-008, S-15-001, F-21-069 and ECP-11-093, **F-23-058**
- The forest stand delineation and wetland delineation was submitted and approved (August 2014) with F-15-008.
- The property is located within the Metropolitan District.
- The T.O.D. Zoning District has no Open Space Requirement.
- Existing water is public. Contract Number 14-5065-D
- Existing sewer is public. Contract Number 14-1107-D
- Soils information taken from ESC Soil Survey dated November 2, 2009.
- Stormwater management will be provided in accordance with the 2010 MDE chapter 5 regulations (ESD to MEP) and the latest Howard County Design Manual, Vol. 1, chapter 5, adopted on or about May 4, 2010. ESD practices will be utilized (1) Micro-bioretenion and (2) Filters to treat Fe-1.0'. A sand filter will treat the remaining 0.8' (Fe-1.8') Recharge volume will be provided through the use of a stone reservoir below the sand filter. Stormwater management facilities will be privately owned and maintained by the Commercial Association. The street trees will be privately owned and maintained by Oxford Square Commercial Association.
- The Forest Conservation Act requirements for this project were addressed by F-12-026 and F-15-008.
- The required surety for the required 31.5 trees will be posted as part of the Developers Agreement in the amount of \$9,450 (25 shades x \$300 + 13 evergreens x \$150).  
The financial surety for the Green Neighborhood planting requirement shall be posted as part of the developer's agreement in the amount of \$9,900 (31 shades x 300 + 4 evergreens x 150). This plan was prepared in accordance with Section 16.124 of the Howard County Code and the Howard County Landscape Manual.
- Traffic control devices, markings and signing shall be in accordance with the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD). All street and regulatory signs shall be in place prior to the placement of any asphalt.
- Street light placement and the type of fixtures and poles shall be in accordance with the Howard County Design Manual, Volume III (2006), Section 5.5.A. A minimum of 20' shall be maintained between any street light and any tree.
- The D.A.P. approved the plan on October 22, 2014.
- No clearing, grading or construction is permitted within the wetlands, streams, their required buffers or their extended Green neighborhood buffers, unless the activities considered necessary or waivers are approved by the Department of Planning and Zoning.
- The property is subject to The Habitat Management Agreement which allows periodic inspections by the Department of Planning and Zoning.
- An ECP has been submitted for this plan. Subsequently SDP-16-051 was approved. TC letter dated June 27, 2017.
- Site clean-up has occurred and no special conditions are needed for development.
- Water and Sewer Contract #14-5010-D will be used to extend and serve the site.
- Stream and wetland restoration and the Habitat Management Plan will be implemented per SDP-15-045.
- All sign posts used for traffic control signs installed in the County 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 the top of each post.
- All construction shall be in accordance with the latest standards and specifications of Howard County plus MSHA standards and specifications if applicable.
- The contractor shall notify the Department of Public Works/Bureau of 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 being done.
- All plan dimensions are to face of curb unless otherwise noted.
- Existing Utilities are based on record drawings and field surveys.
- a. The Traffic study was prepared by the Traffic Group, dated March 17, 2011 (S-11-001), updated September 9, 2013 (S-14-001) and June 2, 2017 (S-15-001).
- Date of counts: December 2, 2010 and June 4, 2013
- Report submitted as of Plan numbers: S-11-001, S-14-001 and S-15-001
- School Statement: All traffic counts were performed while Schools were in session.
- Lists of intersections studied: County Roads of intersection of Coca-Cola Drive at Park Circle Drive/St. Margarets Blvd. Level of Service for morning peak is level 'B' and for evening peak is 'D' thru study year 2020.
- Mitigation Statement: All mitigation improvements for widening and striping were provided under the Final Road Plan F-12-026.
- Floodplain limits shown for the overall Oxford Square projects was prepared by Whitman Reardon and Associates and is delineated on Plat #924(F-91-069). In November, 2013, new FEMA Floodplain Limits were issued. The Limits of this FEMA are within the existing 100 year floodplain easement for this project.

# Site Development Plan

## Parcels 'V', 'C-C' and Open Space Lot 245

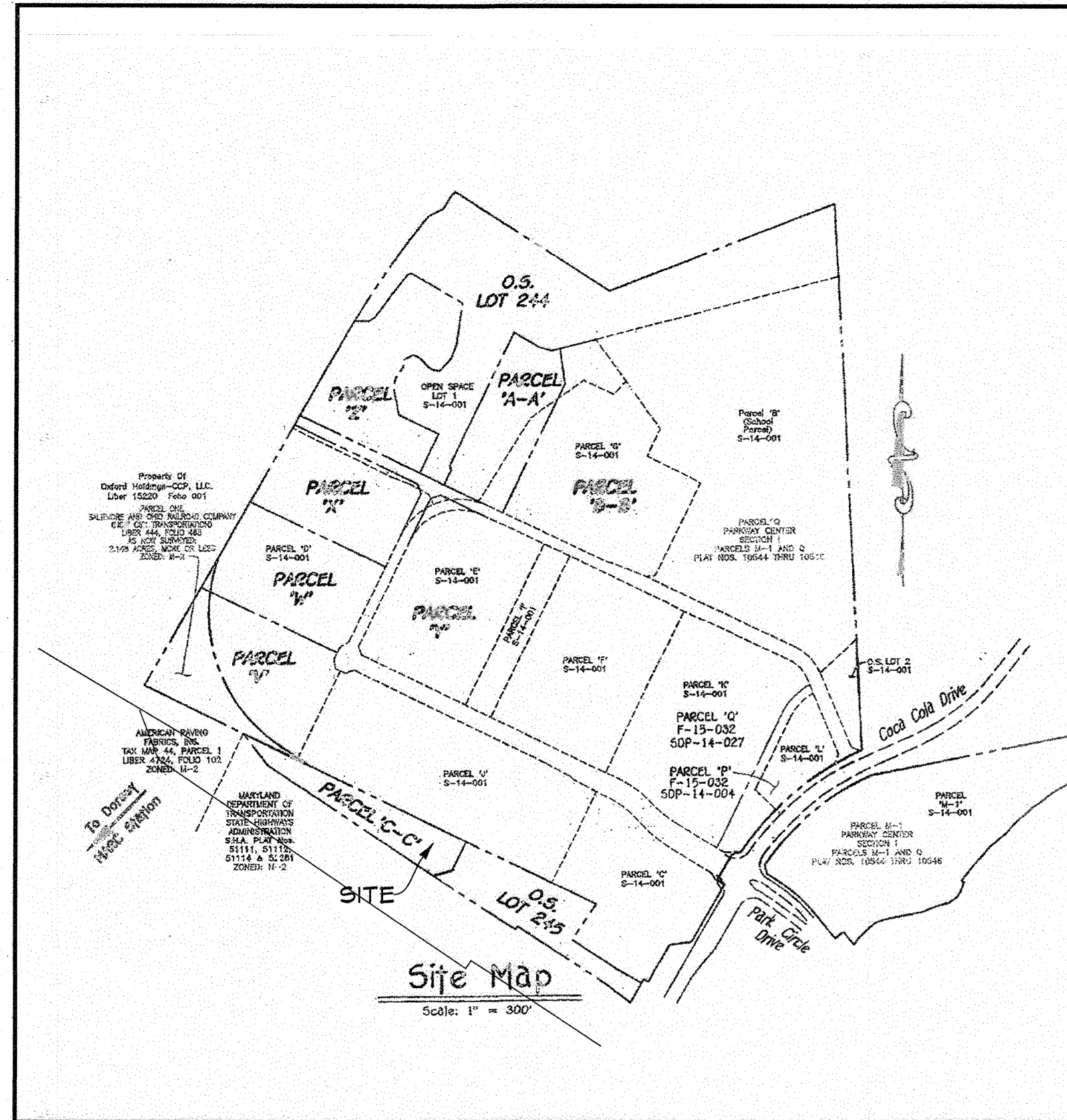
### THE ATTIC

# OXFORD SQUARE

## "A Howard County Green Neighborhood"

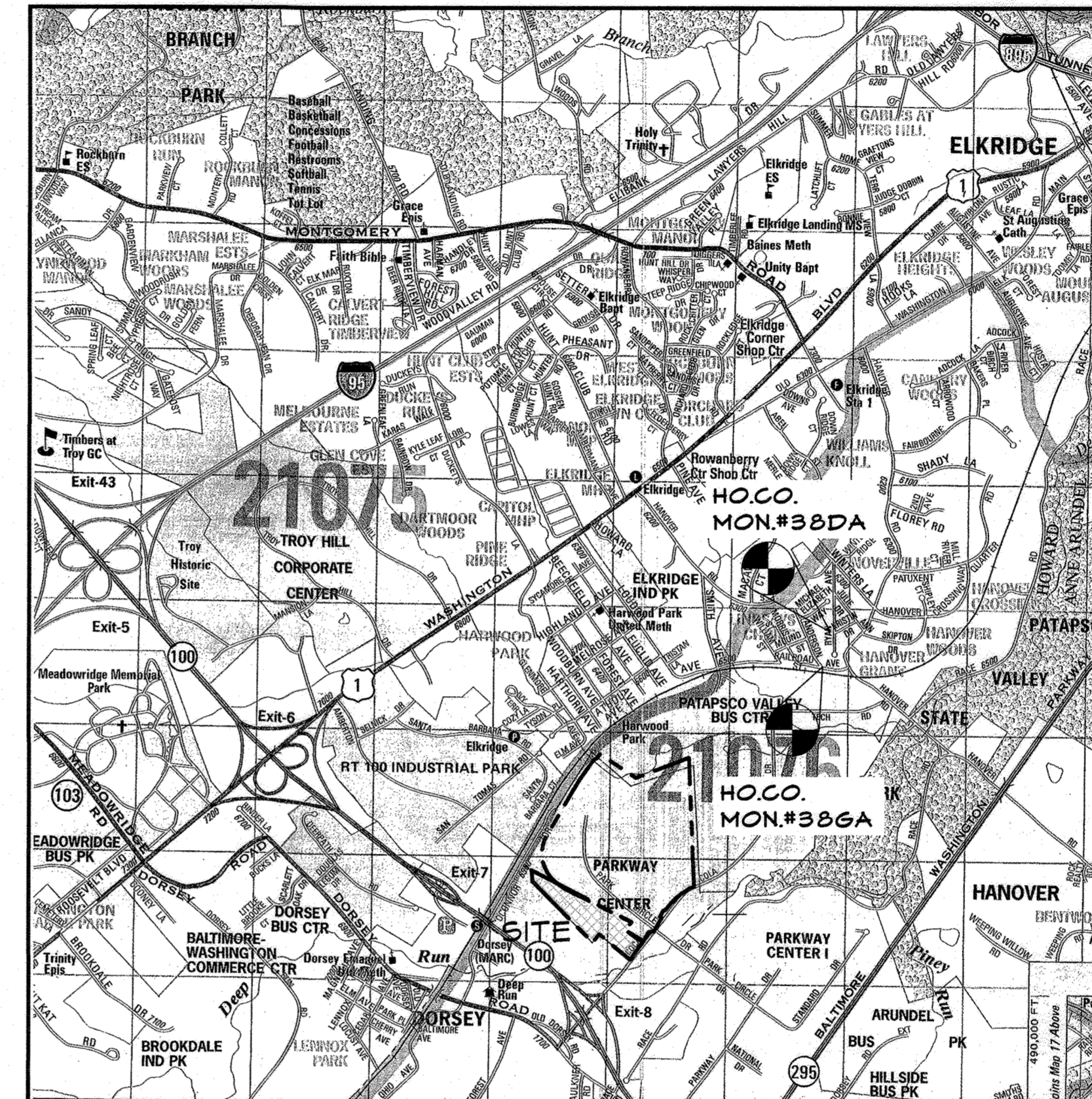
SHEET INDEX

- COVER SHEET
- EXISTING CONDITIONS and DEMOLITION PLAN
- SITE DEVELOPMENT PLAN
- GRADING PLAN
- SITE DETAILS
- LAYOUT PLAN
- EROSION and SEDIMENT CONTROL PLAN
- EROSION and SEDIMENT CONTROL DETAILS
- EROSION and SEDIMENT CONTROL SPECIFICATIONS
- STORMWATER MANAGEMENT PLAN
- SWM /STORM DRAIN DRAINAGE AREA MAP
- STORMWATER MANAGEMENT DETAILS
- STORMWATER MANAGEMENT DETAILS
- UTILITY PROFILES
- LANDSCAPE PLAN
- LANDSCAPE PLAN
- LANDSCAPE DETAILS AND NOTES
- GREEN NEIGHBORHOOD
- GREEN NEIGHBORHOOD
- BUILDING ELEVATIONS
- ESC & SWM DETAILS AND OVERALL PARCEL/ PROPERTY PLAN



**SITE MAP**  
SCALE: 1"=300'  
ESD FACILITY SUMMARY TABLE

Facility	Drainage Area AC.	Impervious Area AC.	PE REQ.	ESDV REQ. cf	75% ESDV REQ. cf	Volume Provided cf	PE Achieved
(M-6) Micro-Bio retention#1	0.135	0.082	1.8	521	391	521	1.8
(M-6) Micro-Bio retention#2	0.265	0.098	1.8	663	497	663	1.8
(M-8) Swale	1.1	0.46	1.0	1,703	N/A	1,703	1.0
Filterra #1	0.44	0.44	1.0	1,518	N/A	1,518	1.0
Filterra #2	0.44	0.44	1.0	1,518	N/A	1,518	1.0
(F-1) Sandfilter	A+B+C+E	4.6	1.36	4,921		5,644	
						11,567	



**VICINITY MAP**  
SCALE: 1"=2000'  
REFER TO HOWARD COUNTY APC 5055, B-1

**Oxford Square**

Howard County, Maryland

Preston Capital Management, Inc.  
Hord Coplan Macht, Inc.

GN for Site Credit F-3b: Exceed LID Stormwater Treatment Development Summary

Project	Rev Provided	Rev Revised After Approvals	Rev Dates
Howard County Middle School #20 SDP (SDP-12-075)	1,781 cuft	Yes	
Final Plan (F-12-026)	3,013 cuft		
Final Plan (F-13-095)	3,582 cuft		
Lennar Site Plan (SDP-13-068)	10,951 cuft	Yes	
Final Plan (F-14-011)	1,440 cuft		
Retail Plan (SDP-14-004)	1,846 cuft		
Lennar Site Plan#2 (SDP-14-019)	9,585 cuft	Yes	
Woodfield Site Plan (SDP-14-027)	6,230 cuft		
Lennar Site Plan #3 (SDP-14-071)	1,804 cuft		
Lennar Site Plan #4 (SDP-14-072)	5,202 cuft	Yes	
Final Plan (F-15-008)	2,922 cuft	Yes	
Parcel 'F-F' (SDP-15-053)	5,566 cuft		
Final Plan (F-15-088)	1,745 cuft		
Parcel 'I' (SDP-15-074A) (under review)	10,589 cuft	Yes	02.21.19
Elementary School #42 Parcel 'B-B' (SDP-16-013)	8,846 cuft	Yes	01.16.19
Parcel 'V', 'C-C' (SDP-16-051)	0 cuft		
Parcel 'Z' & 'E-E' (SDP-18-052)	11,012 cuft	Yes	02.21.19
The Yards (SDP-18-019)(under review)	15,500 cuft		
Bristol Court (SDP-18-055)(under review)	7,581 cuft		05.15.19
	109,195 cuft		

Percentage of Project's Rev Goal: 103.33%  
Remaining WQV Needed to meet Goal: (3,514) cuft

Lot/Parcel Number	Facility Name & Number	Practice Type (Quantity)	Public	Private	HOA Maintains	Misc.
V, 'C-C', OS Lot 245	Micro Bio#1	(M-6)521 cf		x	Commercial	
V, 'C-C', OS Lot 245	Micro Bio#2	(M-6)663 cf		x	Association	
V, 'C-C', OS Lot 245	Swale	(M-8) 1,703 cf		x	Maintains	
V, 'C-C', OS Lot 245	Filterra#1	1,518 cf		x		
V, 'C-C', OS Lot 245	Filterra#2	1,518 cf		x		
V, 'C-C', OS Lot 245	Sand Filter	(F-1) 5,644 cf		x		

OWNER

**KELLOGG - CCP, LLC**  
c/o DAVID P. SCHEFFENACKER, JR.  
MANAGING MEMBER  
100 WEST ROAD, SUITE 304, TOWSON, MD 21204  
410-296-3800

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 NUMBER: 18868 EXPIRATION DATE: 10/8/24

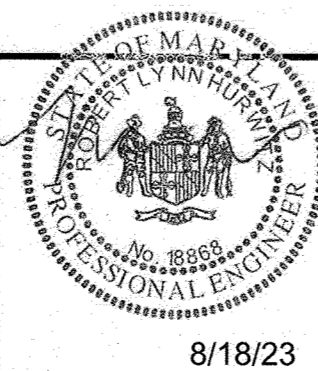
SWM SUMMARY TABLE

ESDV Volume required = 9,501 CF  
ESDV Volume provided = 11,567 CF  
Rev Required = 735 cf  
PE Required = 1.8  
PE Provided = 2.05  
Rev Provided on SDP-15-074a and SDP-18-019

APPROVED: DEPARTMENT OF PLANNING AND ZONING

11/22/23  
11/27/23  
Date

**CENTURY ENGINEERING**  
CONSULTING ENGINEERS - PLANNERS  
10710 Gilroy Road, Hunt Valley, MD 21031  
Phone: 443.589.2400 Fax: 443.589.2401



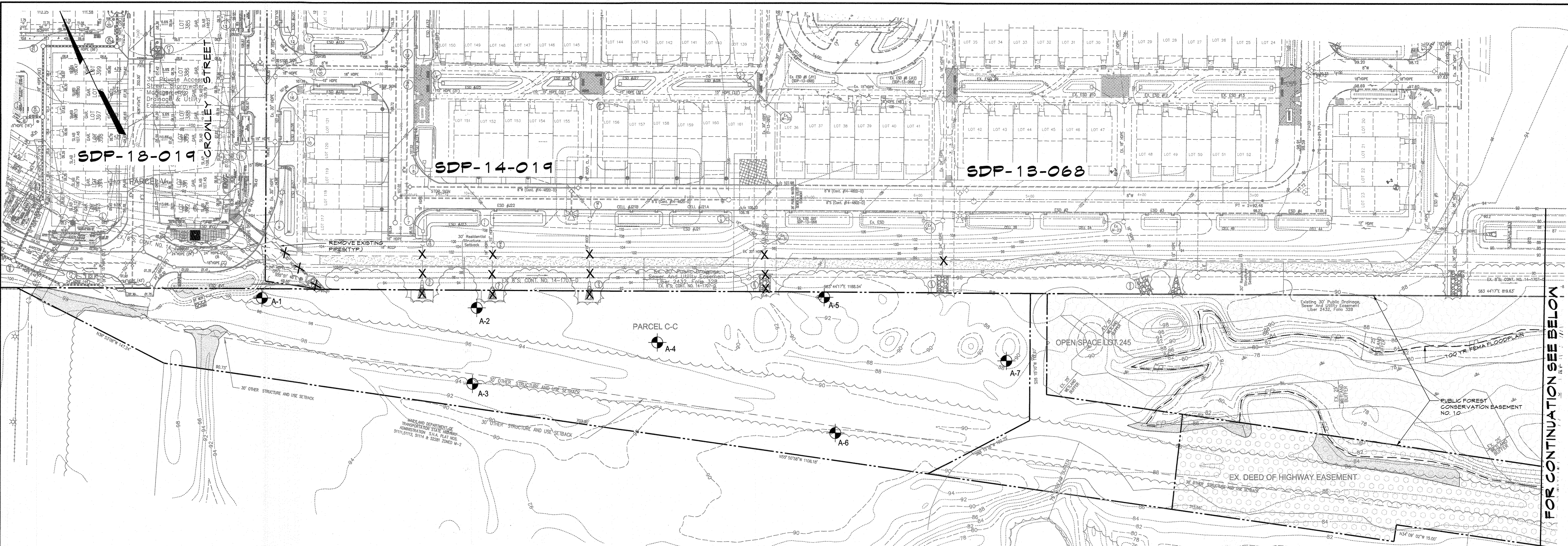
DESIGN BY:	RLH/KAD		
DRAWN BY:			
CHECKED BY:			
DATE:	10-3-22		
BY	NO.	REVISION	DATE

DEVELOPER  
**PRESTON - SCHEFFENACKER PROPERTIES**  
100 West Road, Suite 304  
Towson, MARYLAND 21204  
410-296-3800

Cover Sheet  
PARCELS 'V', 'C-C', & OPEN SPACE LOT 245 - THE ATTIC  
**OXFORD SQUARE**  
"A HOWARD COUNTY GREEN NEIGHBORHOOD"  
TAX MAP: 38 PARCEL: 781 GRID: 20 ZONED: TOD  
ELECTION DISTRICT: 1 HOWARD COUNTY, MARYLAND  
SHEET 1 OF 21

C.E.I. PROJECT NUMBER  
131117.00  
SCALE:  
As Shown

SA 2013 Facilities 131117.00 Oxford Square CIVIL CADD Drawings SDP - Attic Building A Revisions and Entrance Revisions 131117.02 (SDP-02) Existing Conditions Aug 18, 2023 4:32pm kdarley



**LEGEND**

- 676 Existing Minor Contour
- 670 Existing Major Contour
- Existing Edge of Road
- Existing Stream
- Existing Trees/Tree Line
- Existing Curb & Gutter
- Existing Sidewalk
- EX 15" D Existing Storm Drains
- EX 6" K Existing Water Main
- EX 6" S Existing Sanitary Sewer
- Tract Boundary
- Utility Easement Line
- Existing Building
- Proposed Grades
- Proposed Sewer
- Proposed Water and Fire Hydrant
- Proposed Storm Drain and Inlets
- Proposed Curb & Gutter
- Proposed Sidewalk
- 15% or greater slopes in LOD
- Soils Line
- SWM Borings
- PIPES TO BE REMOVED

**STEEP SLOPES ON-SITE:**

Existing Steep Slopes 15%-25%	4,474 S.F. (0.10 AC)
Existing Steep Slopes 25%-100%	25,476 S.F. (0.58 AC)

Note: There are no contiguous steep slopes greater than 25% and greater than 20,000 in area.

- EXISTING DEED OF HIGHWAY EASEMENT
- EXISTING FOREST CONSERVATION EASEMENT

**PLAN**

SCALE: 1"=40'  
0 40' 80'



**PLAN**

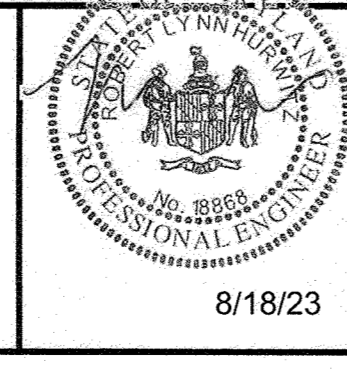
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 Chief, Development Engineering Division  
 Chief, Division of Land Development  
 Director

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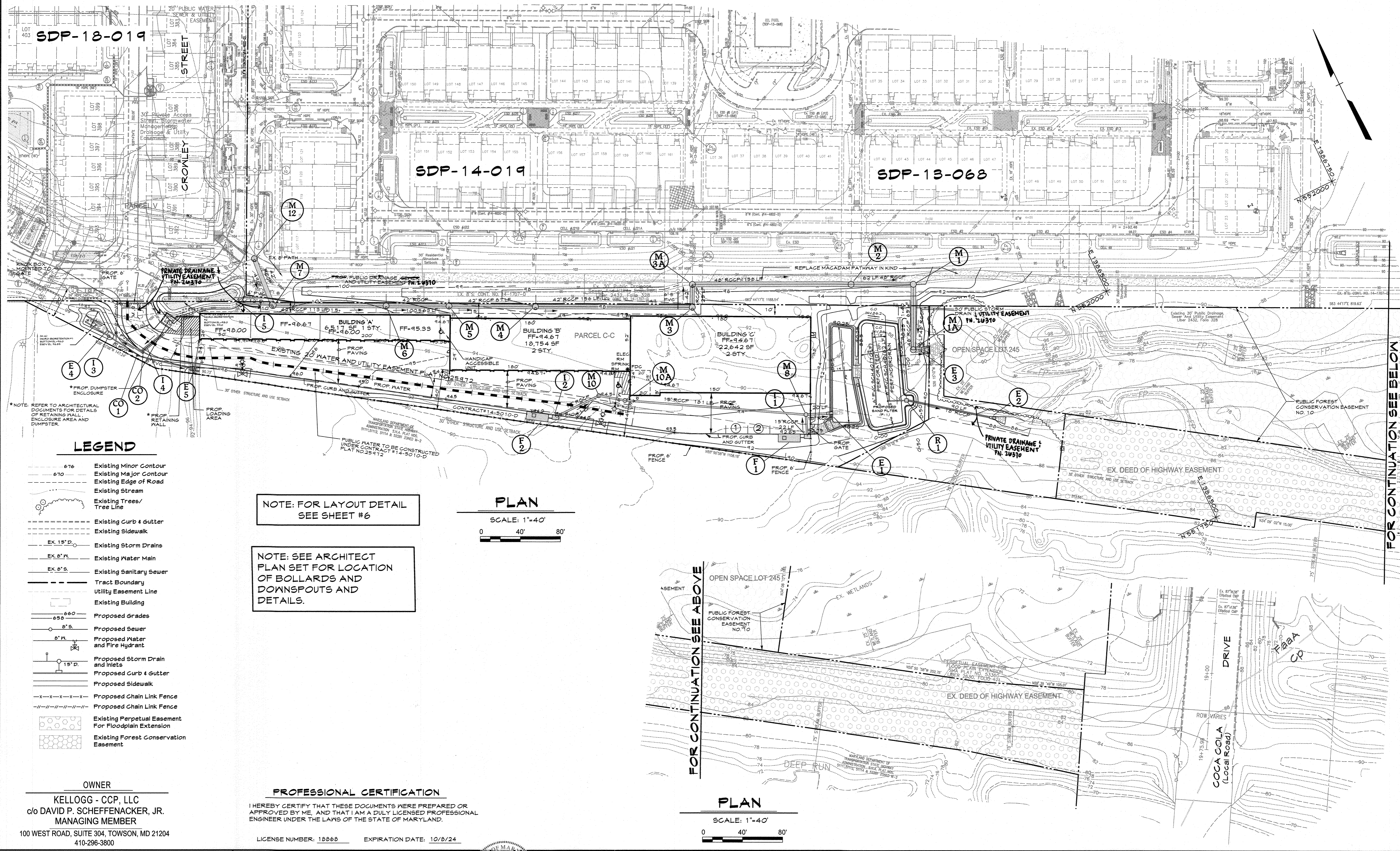


DESIGN BY: RLH/KAD	
DRAWN BY:	
CHECKED BY:	
DATE: 10-3-22	
BY NO.	
REVISION	
DATE	

**DEVELOPER**  
**PRESTON - SCHEFFENACKER PROPERTIES**  
 100 West Road, Suite 304  
 Towson, MARYLAND 21204  
 410-296-3800

**Existing Conditions / Demolition Plan**  
 PARCELS 'V', 'C-C', & OPEN SPACE LOT 245 - THE ATTIC  
**OXFORD SQUARE**  
 "A HOWARD COUNTY GREEN NEIGHBORHOOD"  
 TAX MAP: 38 PARCEL: 761 GRID: 20 ZONED: TOD  
 ELECTION DISTRICT: 1 SHEET 2 OF 21  
 C.E.I. PROJECT NUMBER: 131117.00  
 SCALE: As Shown

S:\2013\Facilities\13111700 Oxford Square\CIVIL\CADD\Drawings\SDP - Attic Building A Revisions and Entrance Revisions\13111702 (SDP-03) Site Development Plan - ATTIC.dwg Aug 18, 2023 4:07 pm kdarley



### LEGEND

- Existing Minor Contour
- Existing Major Contour
- Existing Edge of Road
- Existing Stream
- Existing Trees/Tree Line
- Existing Curb & Gutter
- Existing Sidewalk
- EX. 15" D. Existing Storm Drains
- EX. 8" W. Existing Water Main
- EX. 8" S. Existing Sanitary Sewer
- Tract Boundary
- Utility Easement Line
- Existing Building
- 6.5' Proposed Grades
- 8" S. Proposed Sewer
- 8" W. Proposed Water and Fire Hydrant
- 15" D. Proposed Storm Drain and Inlets
- Proposed Curb & Gutter
- Proposed Sidewalk
- Proposed Chain Link Fence
- Existing Perpetual Easement For Floodplain Extension
- Existing Forest Conservation Easement

NOTE: FOR LAYOUT DETAIL SEE SHEET #6

NOTE: SEE ARCHITECT PLAN SET FOR LOCATION OF BOLLARDS AND DOWNSPOUTS AND DETAILS.

### PLAN

SCALE: 1"=40'  
0 40' 80'

FOR CONTINUATION SEE ABOVE

### PLAN

SCALE: 1"=40'  
0 40' 80'

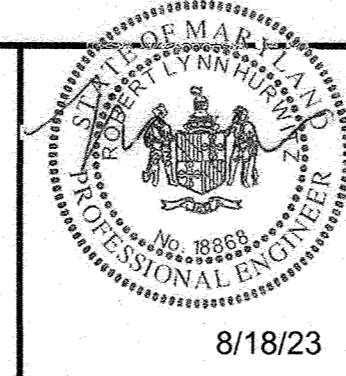
FOR CONTINUATION SEE BELOW

**OWNER**  
 KELLOGG - CCP, LLC  
 c/o DAVID P. SCHEFFENACKER, JR.  
 MANAGING MEMBER  
 100 WEST ROAD, SUITE 304, TOWSON, MD 21204  
 410-296-3800

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 LICENSE NUMBER: 18868      EXPIRATION DATE: 10/8/24

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 Chief, Development Engineering Division  
 Date: 11/21/23  
 Chief, Division of Land Development  
 Date: 11/27/23  
 Director

**CENTURY ENGINEERING**  
 CONSULTING ENGINEERS - PLANNERS  
 10710 Gilroy Road, Hunt Valley, MD 21031  
 Phone: 443.589.2400 Fax: 443.589.2401



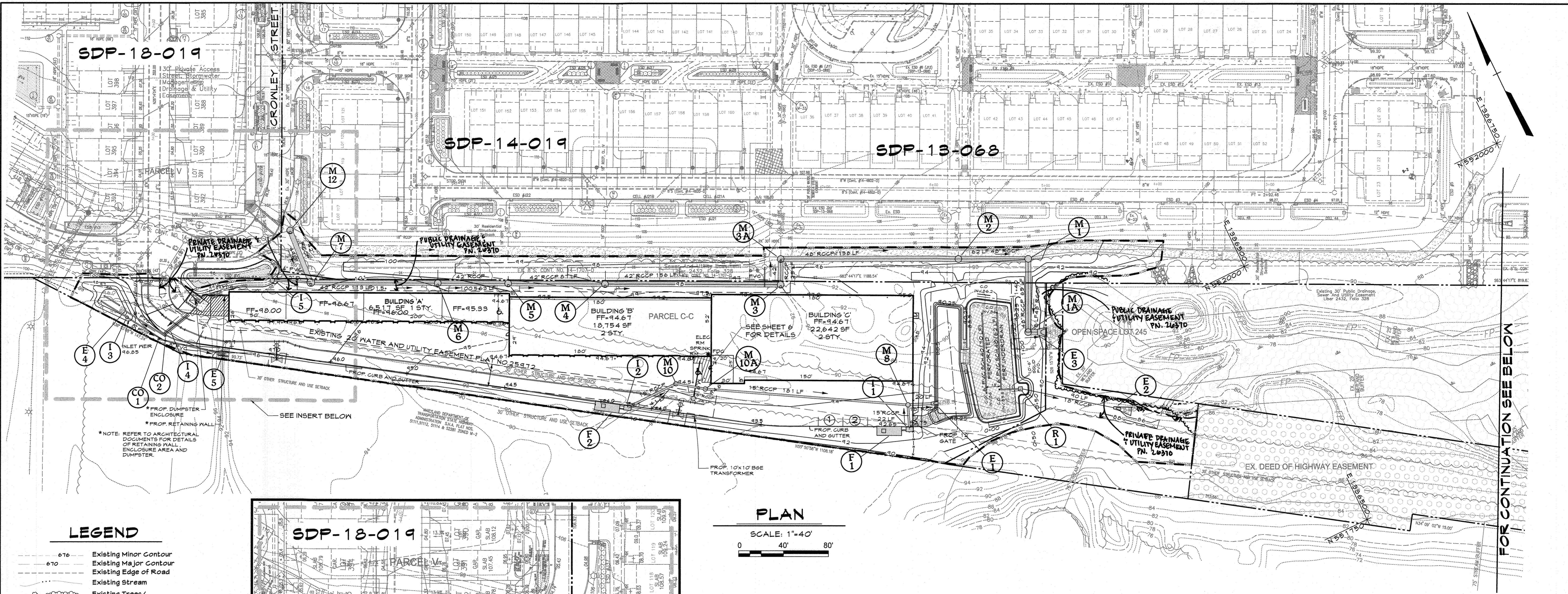
DESIGN BY: RLH/KAD	
DRAWN BY:	
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DATE: 10-3-22	
BY NO.	
REVISION	
DATE	

**DEVELOPER**  
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 ELECTION DISTRICT 1 HOWARD COUNTY, MARYLAND  
 SHEET 3 OF 21

C.E.I. PROJECT NUMBER  
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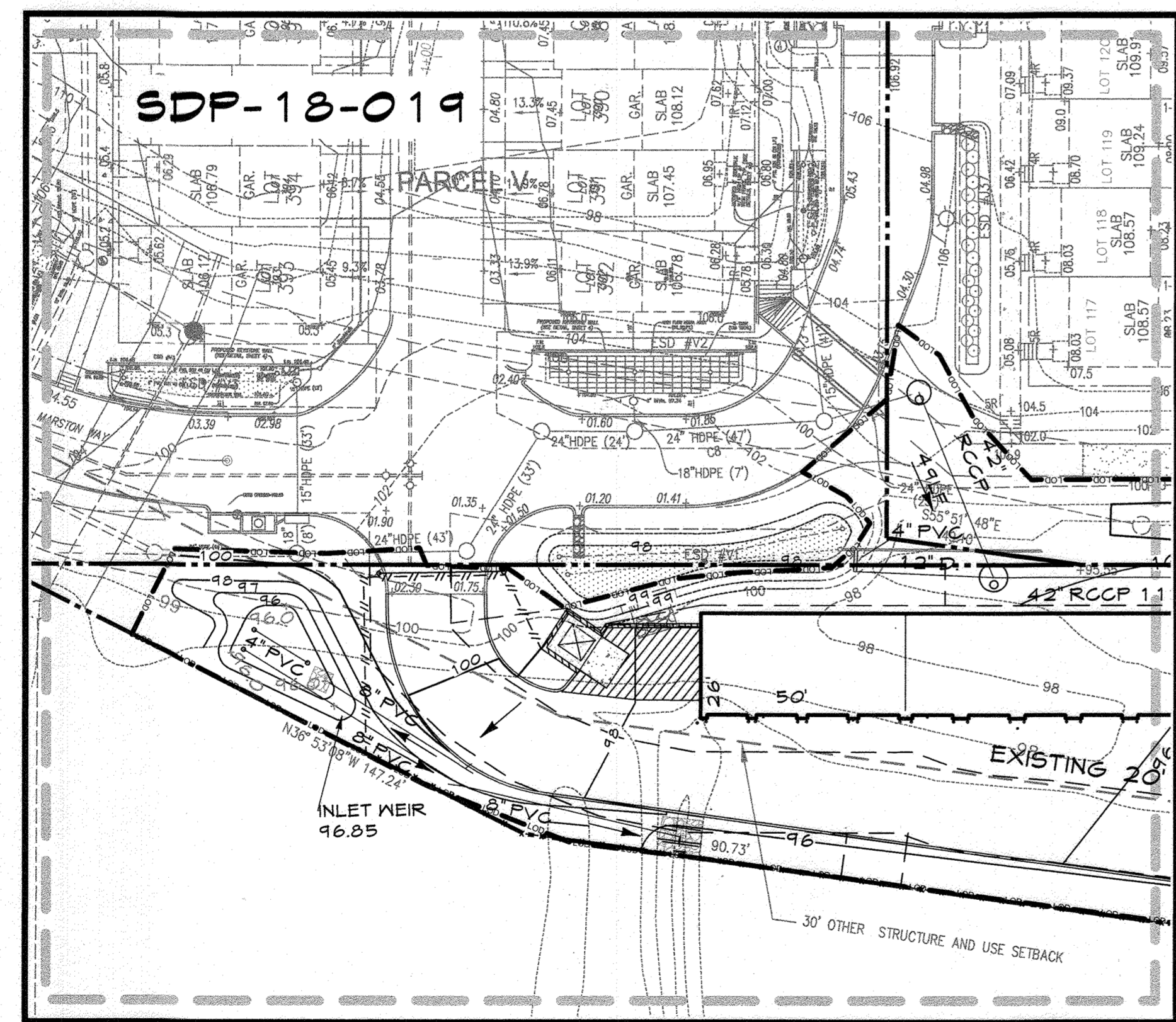
S:\2013\Facilities\13111700 Oxford Square\CADD\Drawings\SDP - Attic Building A Revisions and Entrances Revisions\13111702 (SDP-04) Grading Plan - ATTIC Aug 18, 2023 9:50pm kdarvey



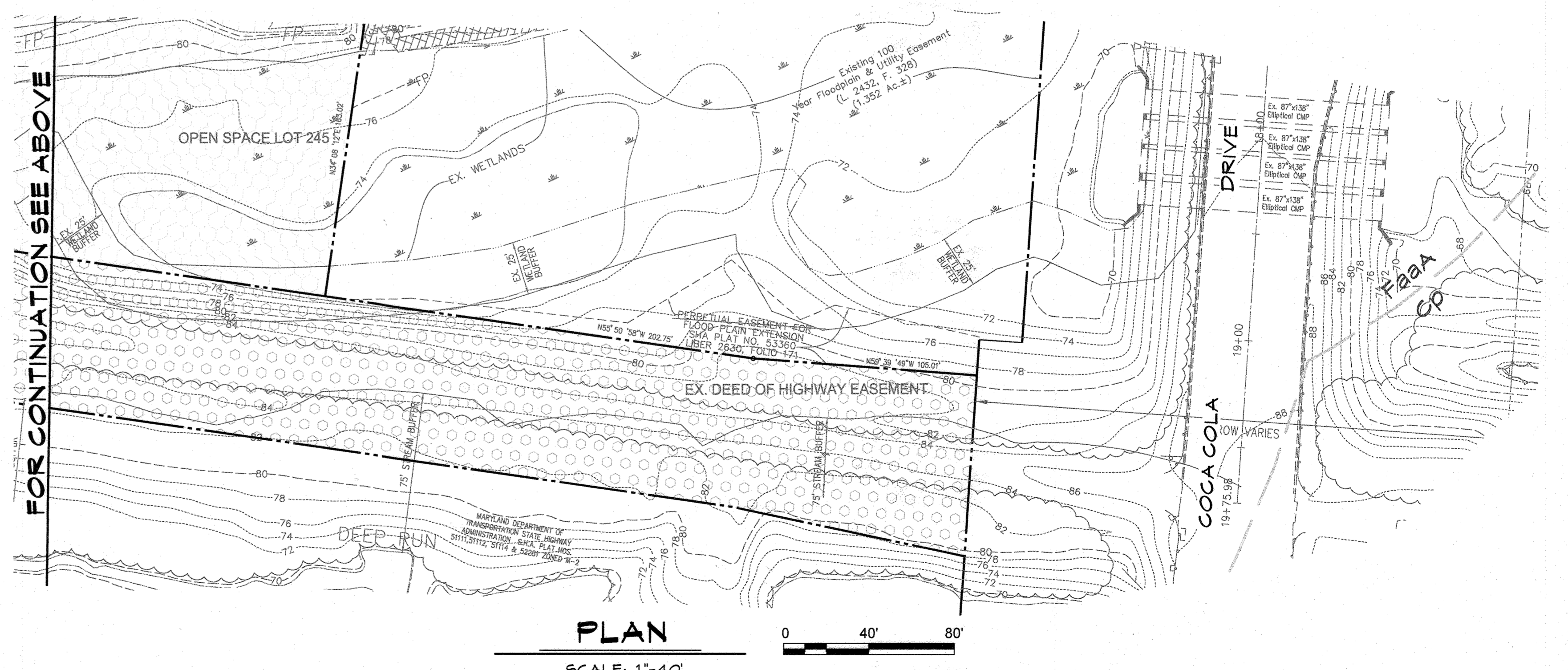
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- Tract Boundary
- Utility Easement Line
- Existing Building
- Proposed Grades
- Proposed Sewer
- Proposed Water and Fire Hydrant
- Proposed Storm Drain and Inlets
- Proposed Curb & Gutter
- Proposed Sidewalk
- EXISTING PERPETUAL EASEMENT FOR FLOODPLAIN EXTENSION
- EXISTING FOREST CONSERVATION EASEMENT
- Proposed Duct Bank



**PLAN**  
SCALE: 1"=40'  
0 40' 80'



FOR CONTINUATION SEE ABOVE

**PLAN**  
SCALE: 1"=40'  
0 40' 80'

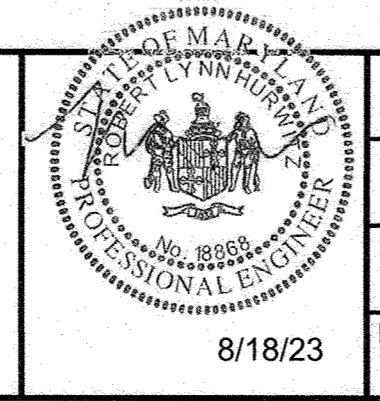
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LICENSE NUMBER: 18868 EXPIRATION DATE: 10/8/24

**INSERT**  
SCALE: 1"=30'  
0 30' 60'

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
Chief, Development Engineering Division  
Date: 11/21/23  
Chief, Division of Land Development  
Date: 11/27/23  
Director

**M CENTURY ENGINEERING**  
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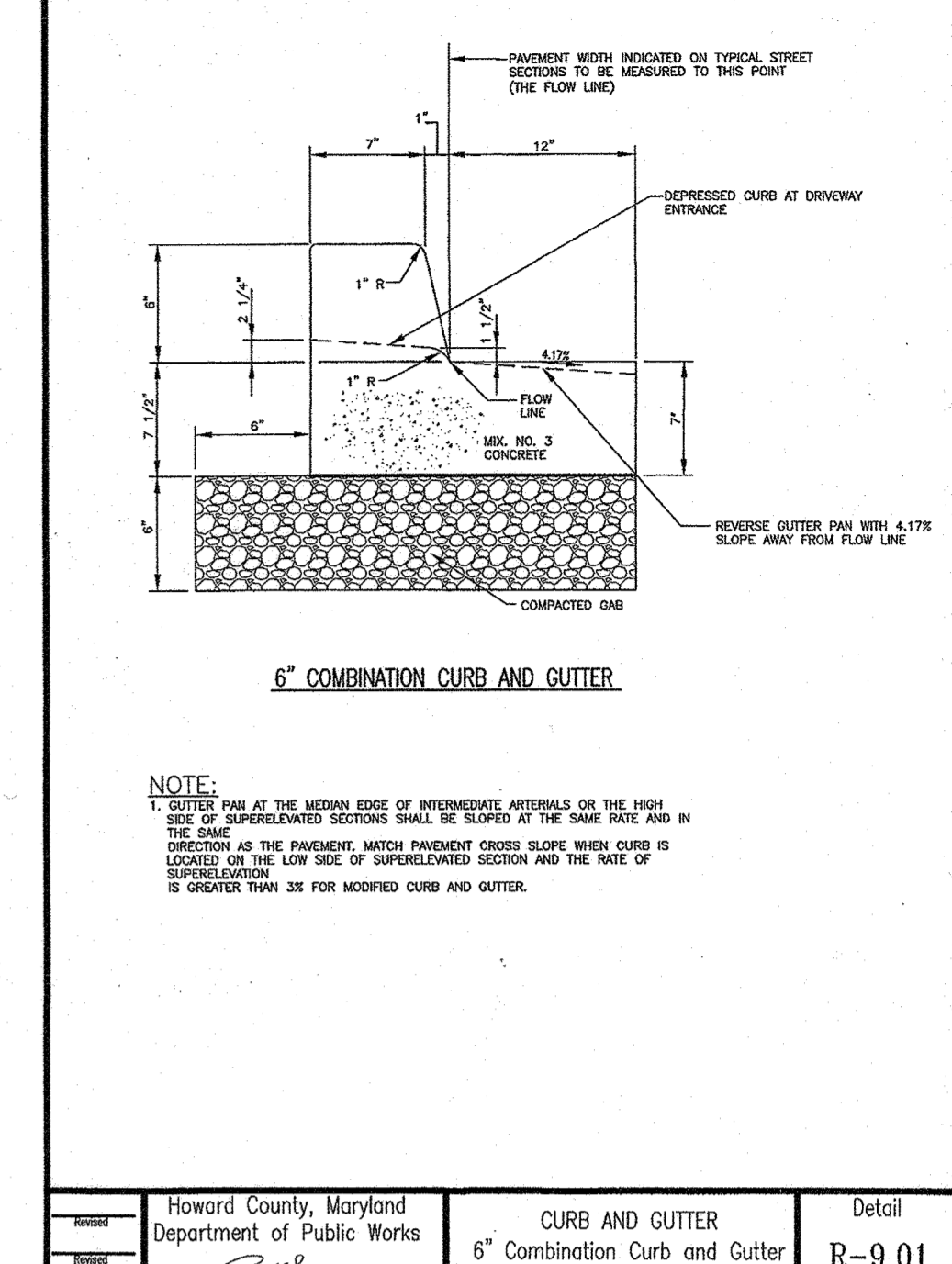
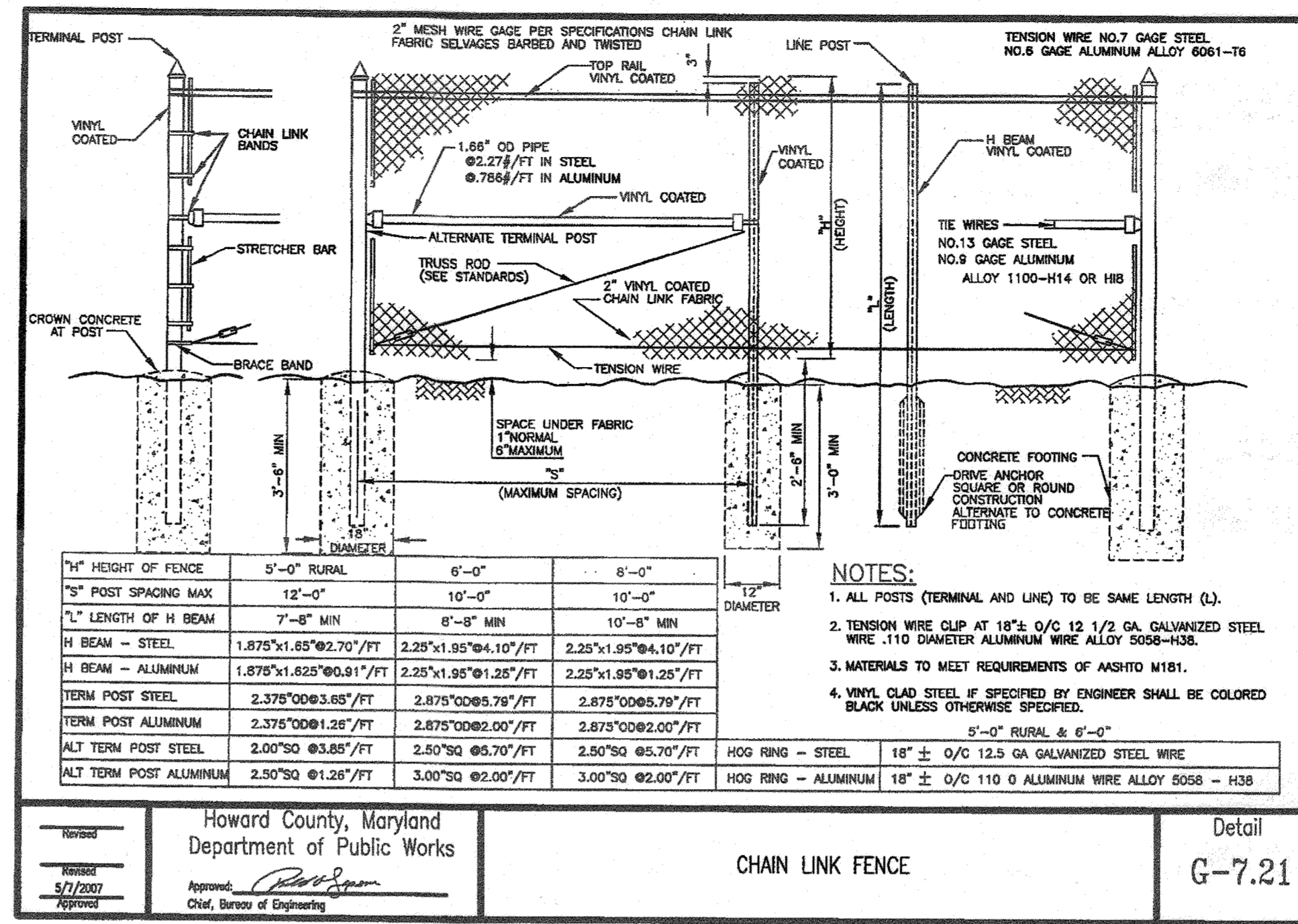
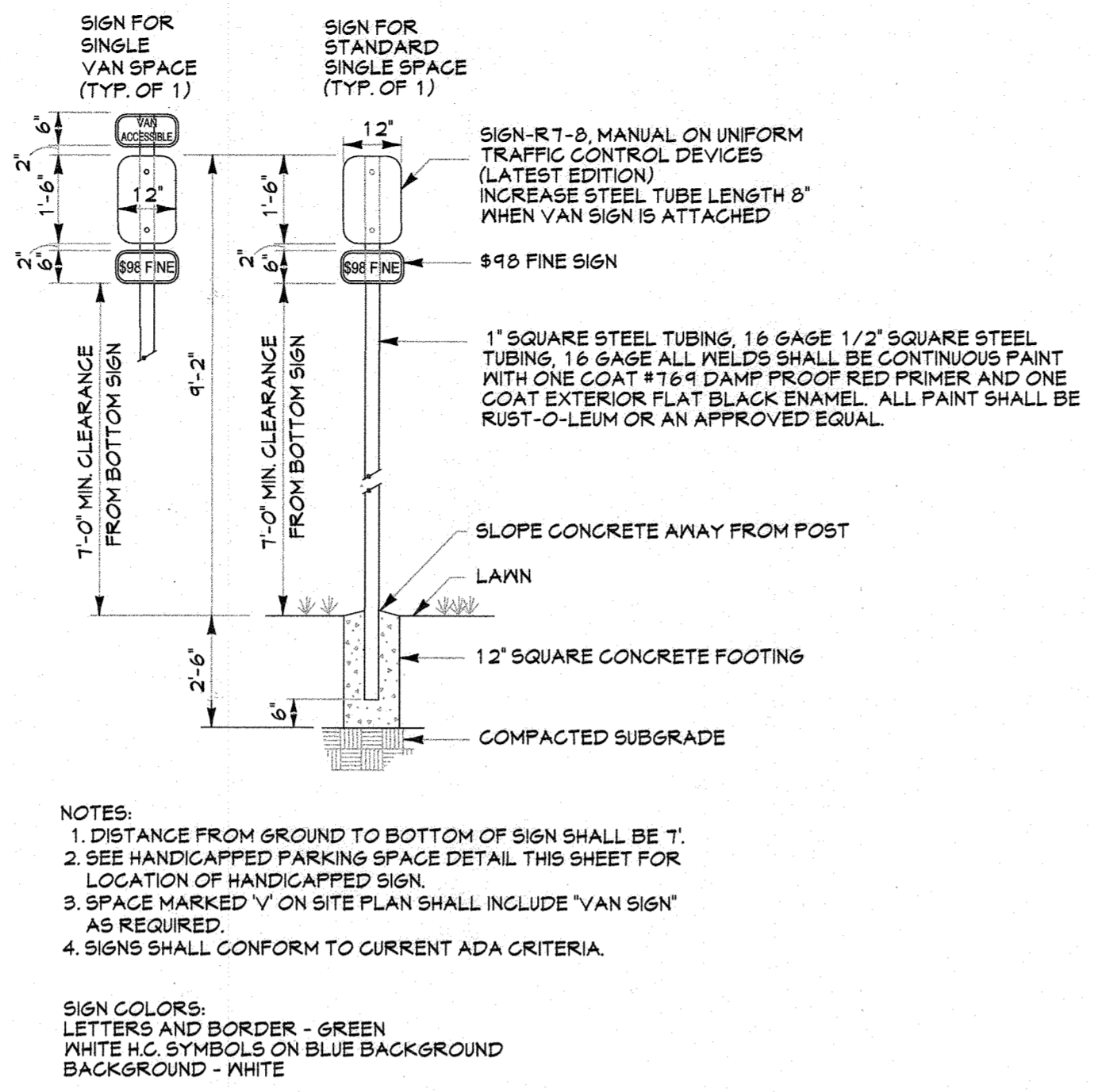
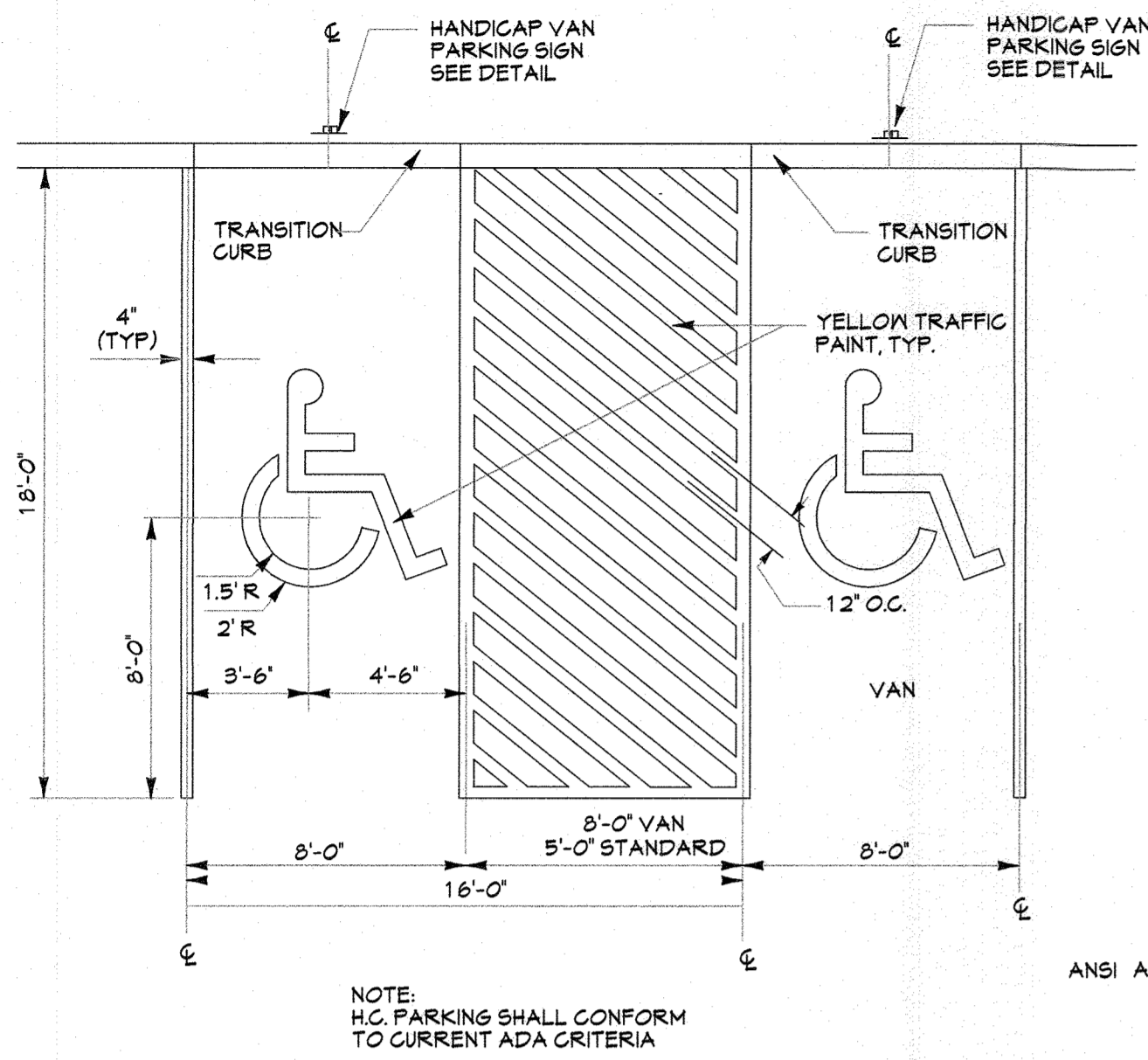


DESIGN BY: RLH/KAD					
DRAWN BY:					
CHECKED BY:					
DATE: 10-3-22	BY	NO.	REVISION	DATE	

**DEVELOPER**  
PRESTON - SCHEFFENACKER PROPERTIES  
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**Grading Plan**  
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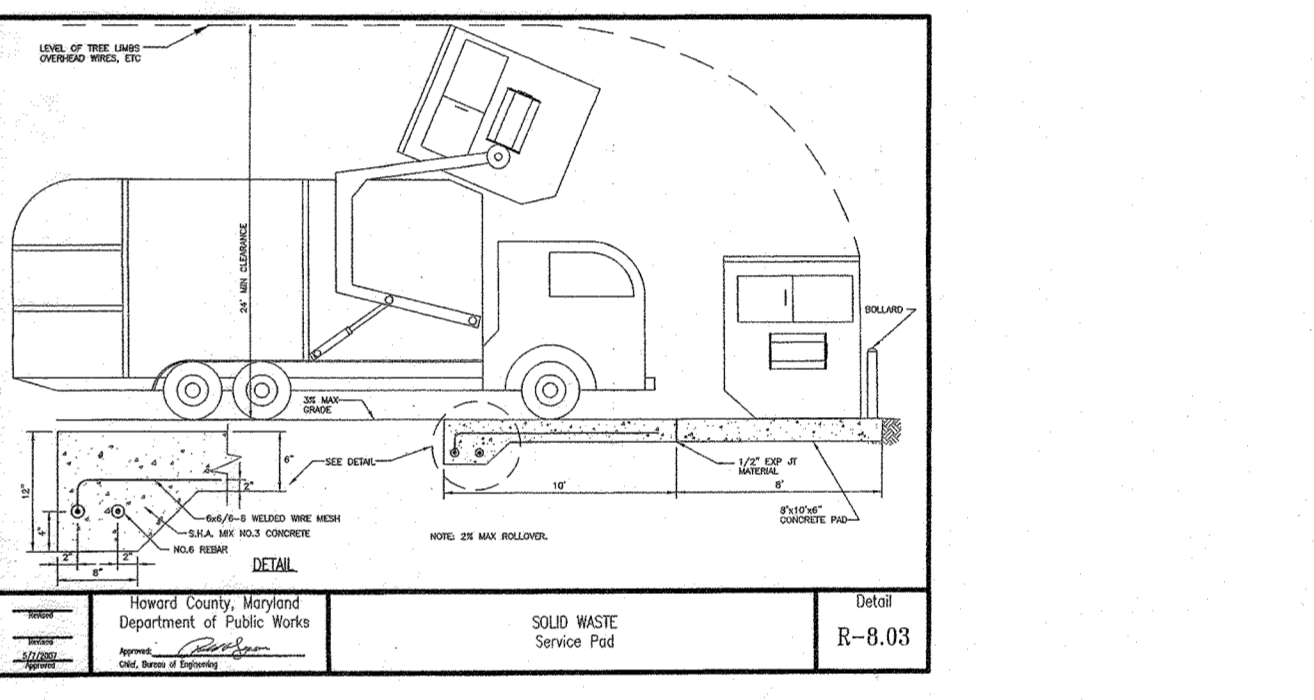
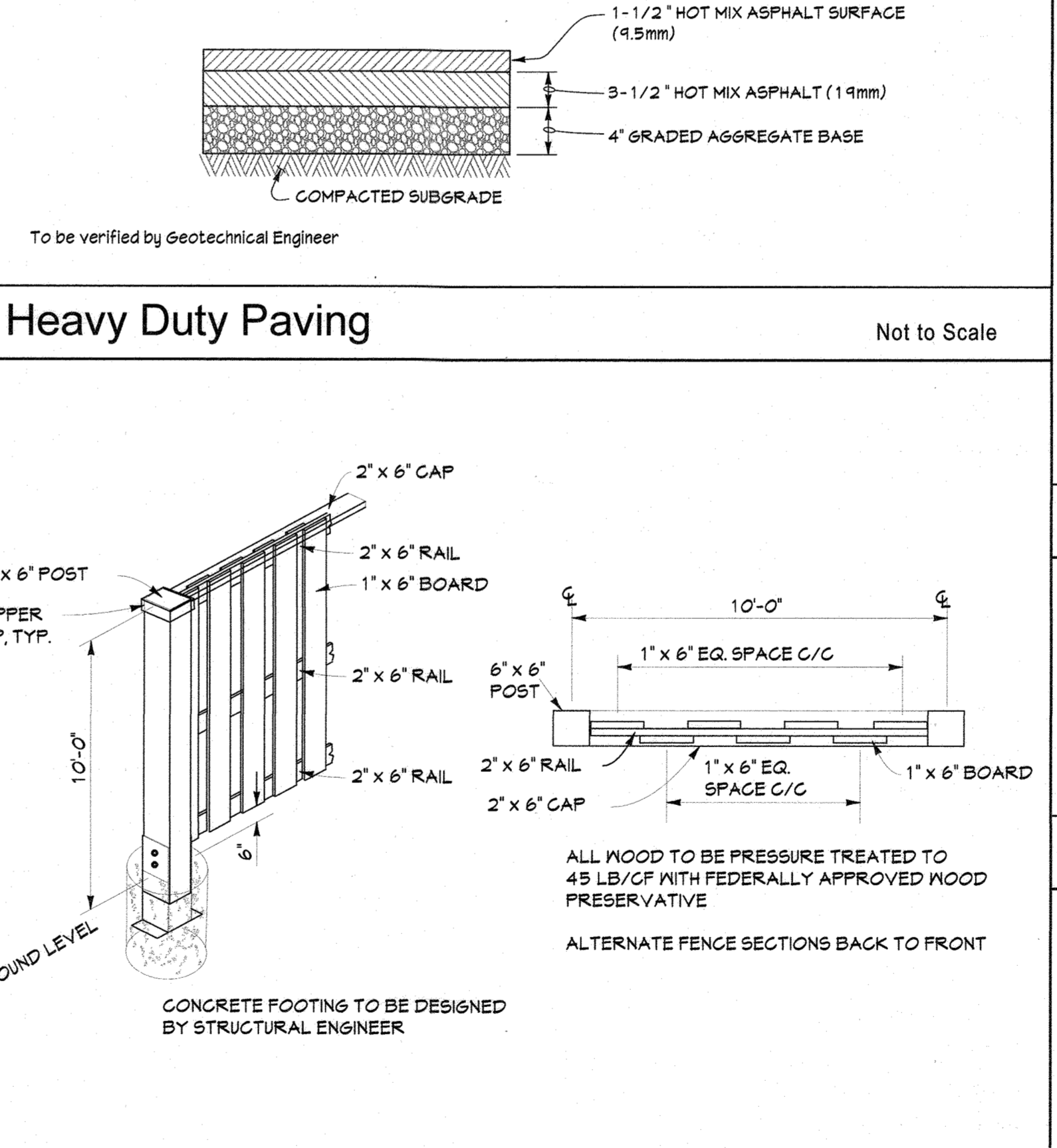
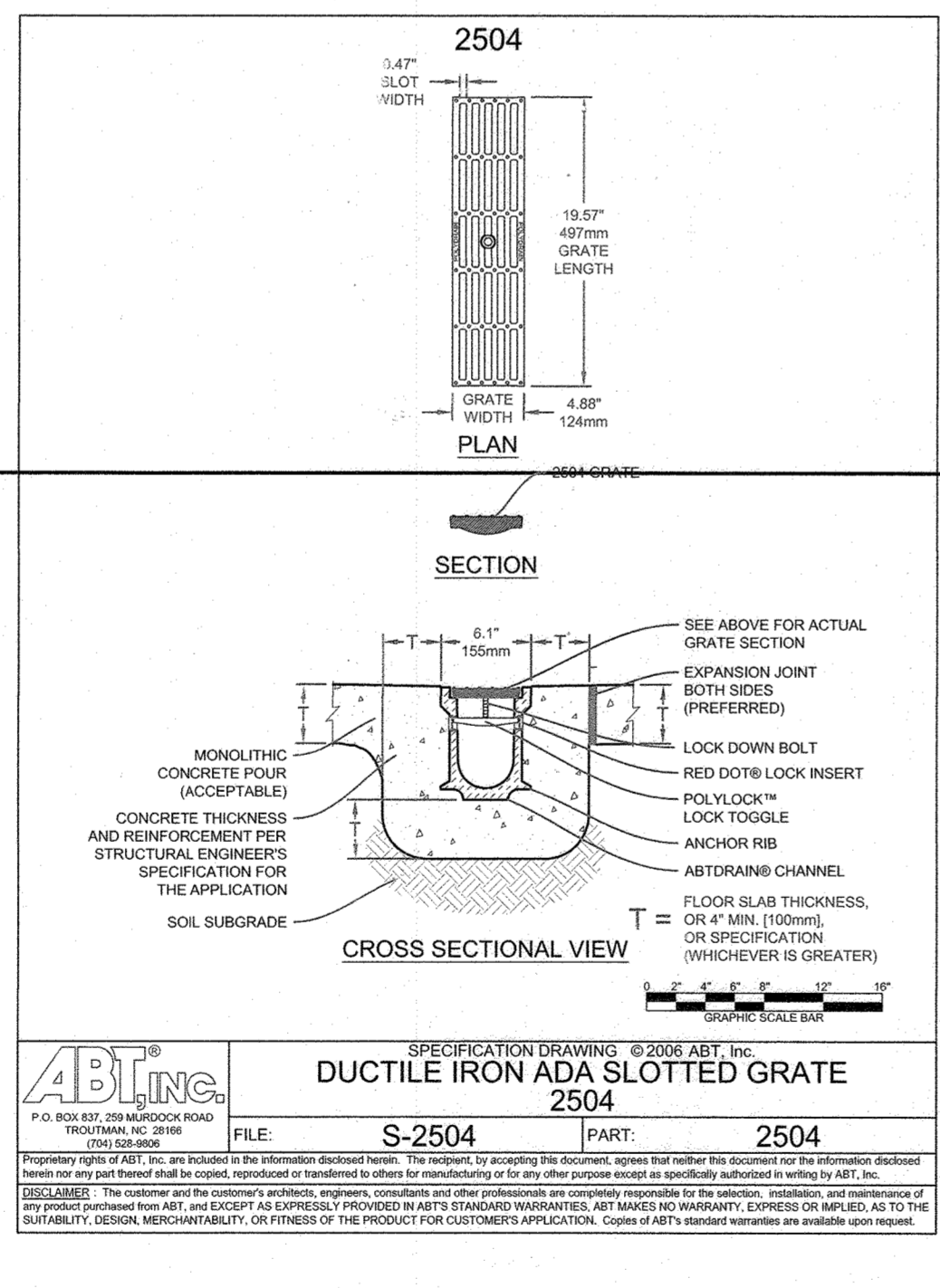
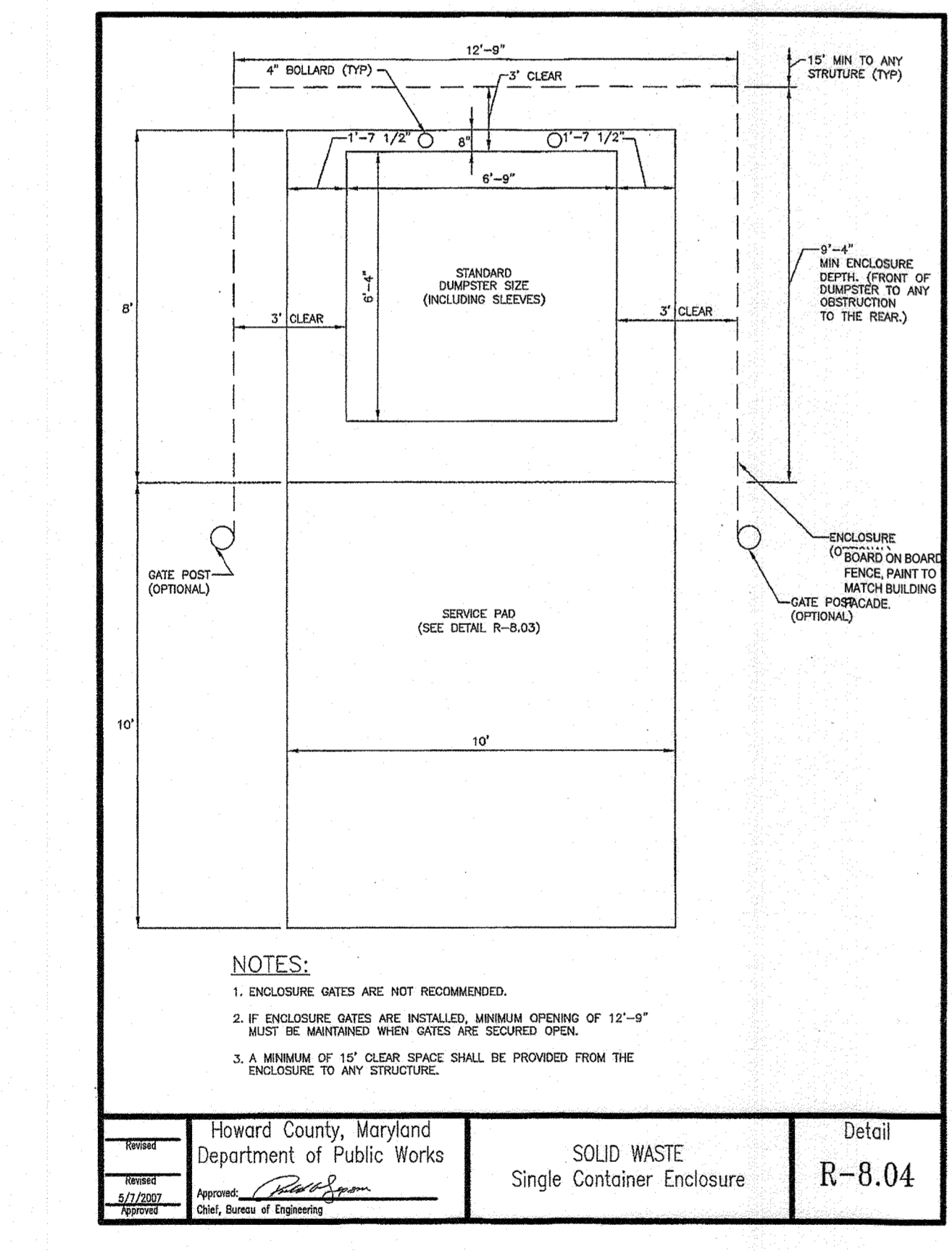


Handicap Parking: Van & Standard Not to Scale

Handicap Parking Signs Not to Scale

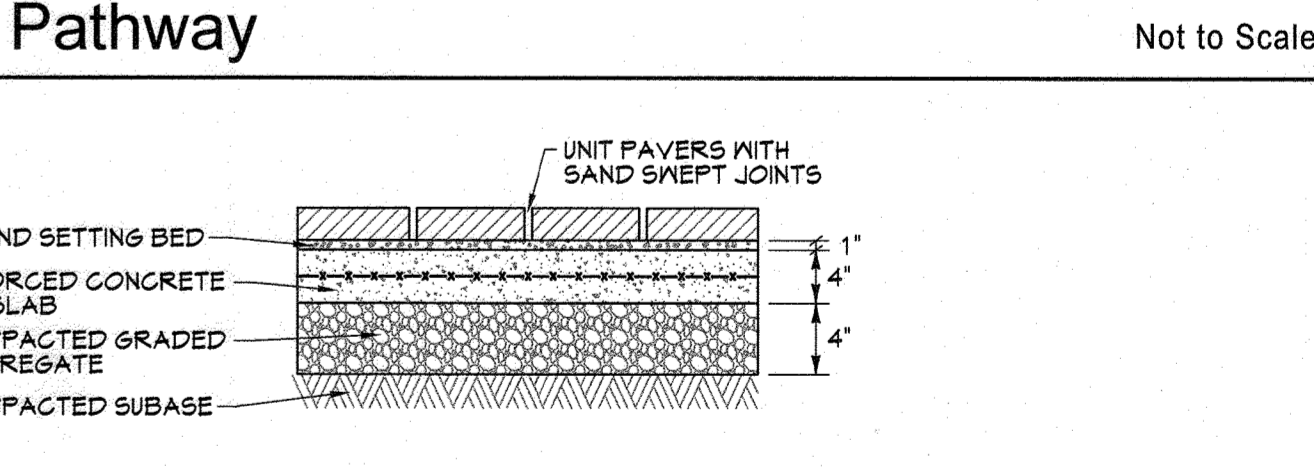
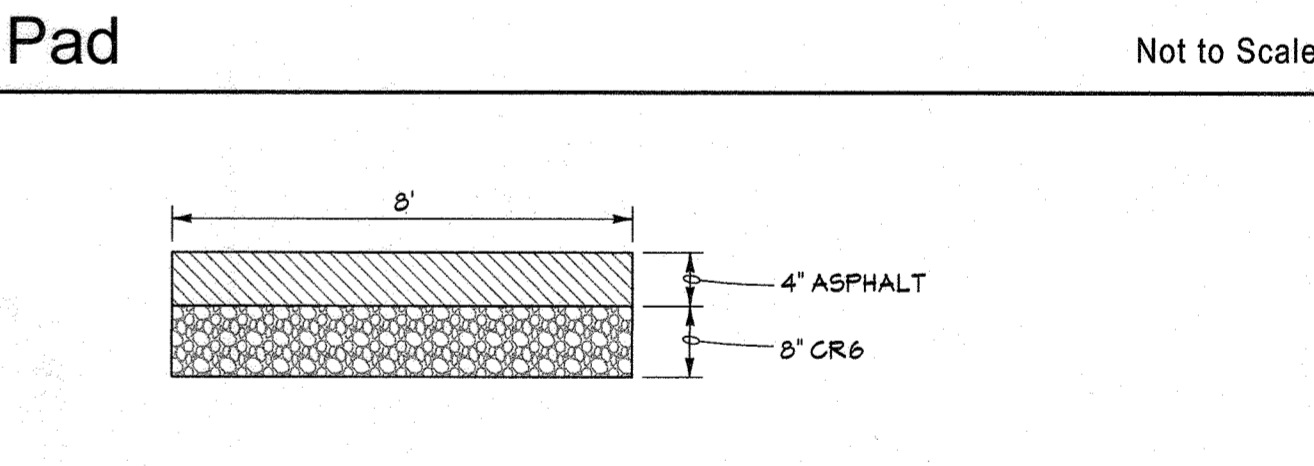
Chain Link Fence Not to Scale

6" Curb and Gutter Not to Scale



Dumpster Enclosure (See Architectural Plans for Dumpster Enclosure Details) Not to Scale

Board on Board Fence Not to Scale



Unit Paving Section Not to Scale

**OWNER**  
 KELLOGG - CCP, LLC  
 c/o DAVID P. SCHEFFENACKER, JR.  
 MANAGING MEMBER  
 100 WEST ROAD, SUITE 304, TOWSON, MD 21204  
 410-296-3800

**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 NUMBER: 18868 EXPIRATION DATE: 10/8/24

**CENTURY ENGINEERING**  
 CONSULTING ENGINEERS - PLANNERS  
 10710 Gilroy Road, Hunt Valley, MD 21031  
 Phone: 443.589.2400 Fax: 443.589.2401

DESIGN BY:	RLH/KAD
DRAWN BY:	
CHECKED BY:	
DATE:	10-3-22
BY NO.	
REVISION	
DATE	

**DEVELOPER**  
 PRESTON - SCHEFFENACKER PROPERTIES  
 100 West Road, Suite 304  
 Towson, MARYLAND 21204  
 410-296-3800

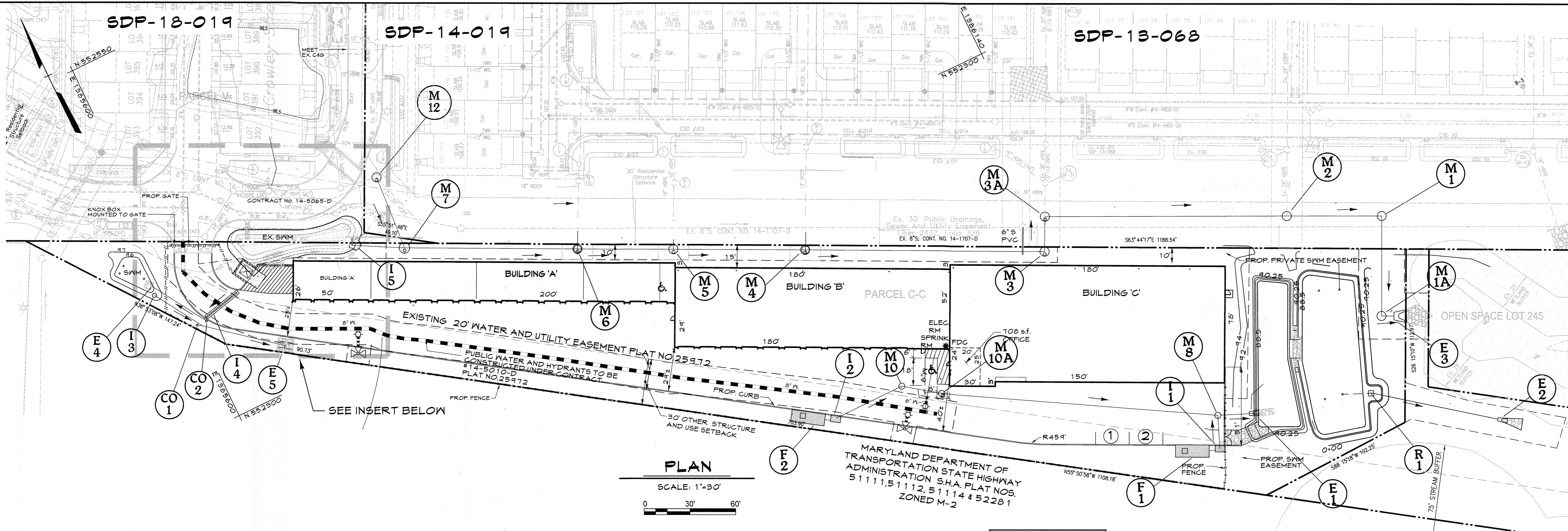
**Site Details & Notes**  
 PARCELS 'V', 'C-C', & OPEN SPACE LOT 245 - THE ATTIC  
**OXFORD SQUARE**  
 "A HOWARD COUNTY GREEN NEIGHBORHOOD"  
 TAX MAP: 38 PARCEL: 761 GRID: 20 ZONED: TOD  
 ELECTION DISTRICT 1 SHEET 5 OF 21

C.E.I. PROJECT NUMBER  
 131117.00  
 SCALE:  
 As Shown

SDP-18-019

SDP-14-019

SDP-13-068

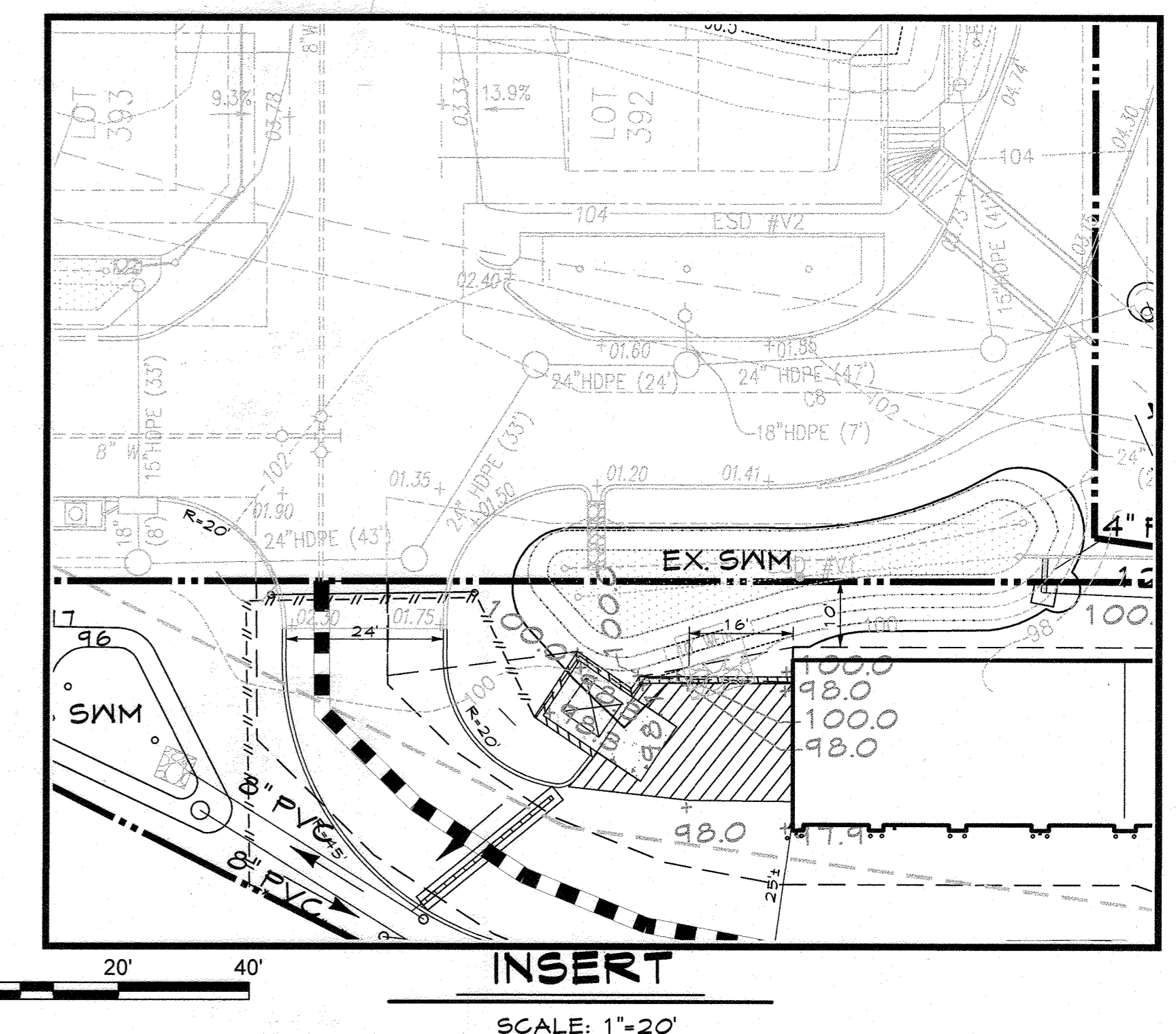


**LEGEND**

- 676 --- Existing Minor Contour
- 670 --- Existing Major Contour
- --- Existing Edge of Road
- --- Existing Stream
- --- Existing Trees/Tree Line
- --- Existing Curb & Gutter
- --- Existing Sidewalk
- EX. 15" D. --- Existing Storm Drains
- EX. 8" M. --- Existing Water Main
- EX. 8" S. --- Existing Sanitary Sewer
- --- Tract Boundary
- --- Utility Easement Line
- --- Existing Building
- 660 --- Proposed Grades
- 8" S. --- Proposed Sewer
- 8" M. --- Proposed Water and Fire Hydrant
- 15" D. --- Proposed Storm Drain and Inlets
- --- Proposed Curb & Gutter
- --- Proposed Sidewalk
- X-X-X-X --- Proposed Chain Link Fence
- // // // // --- Proposed Wood Fence

**STRUCTURES LOCATION SCHEDULE**

M1	N 552090.64	E 1306329.70
M1A	N 552064.94	E 1306002.16
M2	N 552117.77	E 1306273.06
M3	N 552166.44	E 1306121.00
M3A	N 552106.69	E 1306131.41
M4	N 552235.40	E 1305401.15
M5	N 552273.77	E 1305403.47
M6	N 552301.53	E 1305047.14
M7	N 552340.40	E 1305760.20
M8	N 552020.59	E 1306176.79
M9	N 552064.94	E 1306002.16
M10	N 552126.90	E 1305991.60
E1	N 552012.54	E 1306145.03
E2	N 551938.24	E 1306340.56
E3	N 552028.40	E 1306308.60
E4	N 552401.13	E 1305585.00
E5	N 552327.26	E 1305646.37

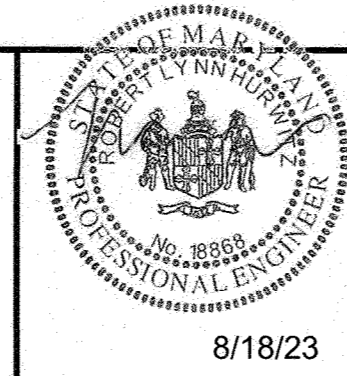


**OWNER**  
KELLOGG - CCP, LLC  
c/o DAVID P. SCHEFFENACKER, JR.  
MANAGING MEMBER  
100 WEST ROAD, SUITE 304, TOWSON, MD 21204  
410-296-3800

**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 NUMBER: 18860      EXPIRATION DATE: 10/8/24

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
Date: 11/22/23  
Date: 11/27/23

**CENTURY ENGINEERING**  
CONSULTING ENGINEERS - PLANNERS  
10710 Gilroy Road, Hunt Valley, MD 21031  
Phone: 443.589.2400 Fax: 443.589.2401

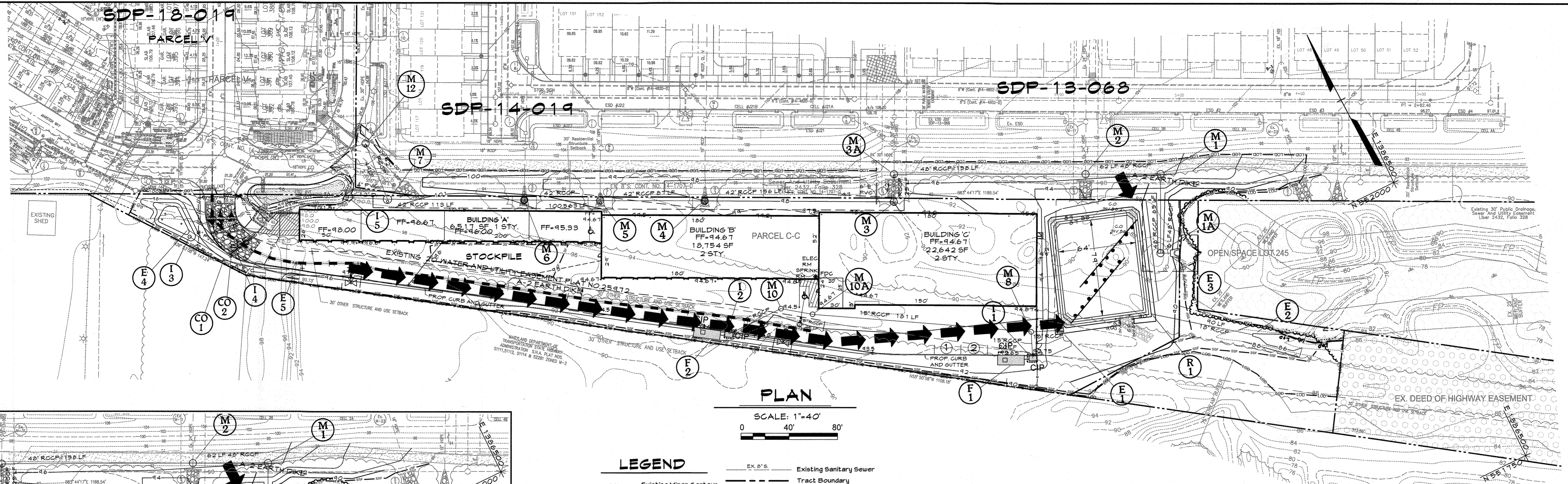


DESIGN BY:	RLH/KAD
DRAWN BY:	
CHECKED BY:	
DATE:	10-3-22
BY NO.	
REVISION	
DATE	

**DEVELOPER**  
PRESTON - SCHEFFENACKER PROPERTIES  
100 West Road, Suite 304  
Towson, MARYLAND 21204  
410-296-3800

**Layout Plan**  
PARCELS 'V', 'C-C', & OPEN SPACE LOT 245 - THE ATTIC  
**OXFORD SQUARE**  
"A HOWARD COUNTY GREEN NEIGHBORHOOD"  
TAX MAP: 3 PARCEL: 761 GRID: 20 ZONED: T00  
ELECTION DISTRICT 1 SHEET 6 OF 21  
SCALE: As Shown  
C.E.I. PROJECT NUMBER: 131117.00

S:\2013\Facilities\13111700 Oxford Square\CAD\Drawings\SDP - Attic Building A Revisions and Entrance Revisions\13111702 (SDP-01d) Erosion & Sediment Control Plan.dwg Aug 18, 2023 4:11pm kdarley

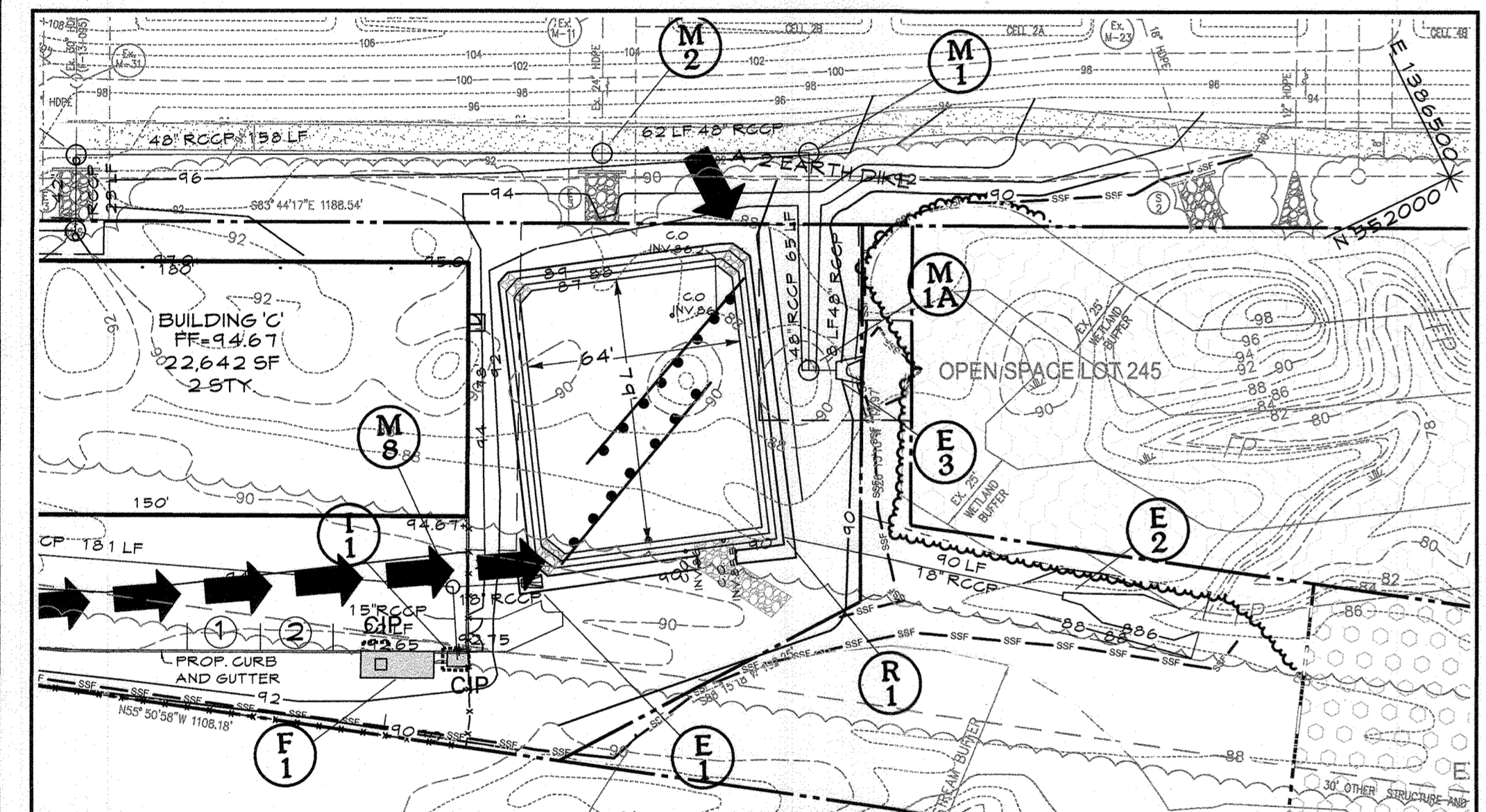


**PLAN**

SCALE: 1"=40'  
0 40' 80'

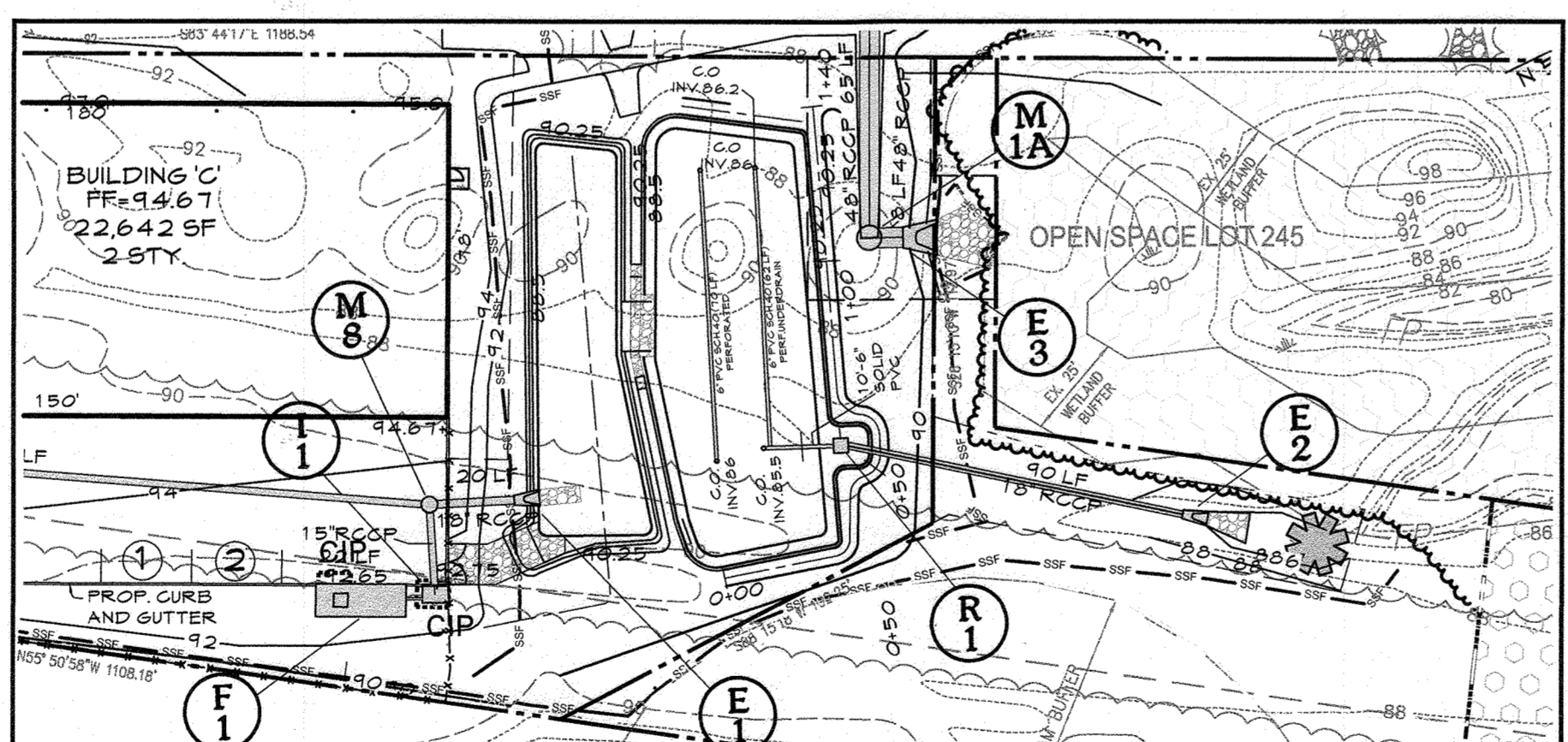
**LEGEND**

- |           |  |           |                                 |
|-----------|--|-----------|---------------------------------|
| - - - - - | Existing Minor Contour                               | - - - - - | Existing Sanitary Sewer         |
| - - - - - | Existing Major Contour                               | - - - - - | Tract Boundary                  |
| - - - - - | Existing Edge of Road                                | - - - - - | Utility Easement Line           |
| - - - - - | Existing Stream                                      | - - - - - | Existing Building               |
| - - - - - | Existing Trees/ Tree Line                            | - - - - - | Proposed Grades                 |
| - - - - - | Existing Curb & Gutter                               | - - - - - | Proposed Sewer                  |
| - - - - - | Existing Sidewalk                                    | - - - - - | Proposed Water and Fire Hydrant |
| - - - - - | Existing Storm Drains                                | - - - - - | Proposed Storm Drain and Inlets |
| - - - - - | Existing Water Main                                  | - - - - - | Proposed Curb & Gutter          |
| - - - - - | Super Silt Fence                                     | - - - - - | Proposed Sidewalk               |
| - - - - - | Earth Dike   |           |                                 |
| [Symbol]  | CIP Curb Inlet Protection                            |           |                                 |
| [Symbol]  | SCE Stabilized Construction Entrance                 |           |                                 |
| [Symbol]  | Baffle board   |           |                                 |
| [Symbol]  | EXISTING PERPETUAL EASEMENT FOR FLOODPLAIN EXTENSION |           |                                 |
| [Symbol]  | EXISTING FOREST CONSERVATION EASEMENT                |           |                                 |



**INITIAL TRAP GRADING PLAN**

SCALE: 1"=40'  
0 40' 80'



**FINAL GRADING AND ESC AFTER TRAP REMOVAL**

SCALE: 1"=40'  
0 40' 80'

**SEQUENCE OF CONSTRUCTION \***

- Obtain grading permits. (2 days)
  - Install erosion and sediment control measure SCE and SSF to protect area during necessary grading to construct sediment trap and storm drain from Ex M-12 to E-3. (4 days)
  - With the permission of the sediment control inspector install storm drain from Ex M-12 to E-3 including stone outfall protection. Provide same day stabilization or if not possible silt fence on downslope of trench. Stabilize areas as storm drains are installed below existing walk. Make tie-ins of existing pipes to MH M-2 to M-7 and I-5. Once pipes are functioning grade sediment trap. Install earth dikes and rip rap for trap outfall. (15 days)
  - With the permission of the sediment control inspector begin site grading. Begin building construction. Install curb and gutter, FILTERRAS sub-base and utilities. Install inlet protection once inlets are installed. Delay construction of pipe from I-1 to E-1. Repair any sediment control devices at the end of each working day as necessary. (60 days)
  - Once buildings are constructed and with the permission of the sediment control inspector, flush storm drain pipes, remove trap and earth dike to complete sub-base and install super silt fence to construct micro-bioretentation facility. (7 days)
  - Construct sand filter, micro-bioretentation, Filterras, and outfall pipe E-1 - I-1. Repair super silt fence as necessary at the end of each working day. (15 days)
  - Stabilize any area disturbed by sand filter construction. (2 days)
  - Final Pave and stabilize any remaining areas. (7 days)
  - Install landscaping. (7 days)
  - With the approval of the sediment control inspector, once all areas are stabilized, remove remaining sediment control measures and stabilize any area disturbed by this process. (5 days)
- \* All construction waste must be managed in accordance with the Construction Waste Management Plan.

**ENGINEER'S CERTIFICATION**

I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

*Ming* 8/18/23  
Signature of Engineer Date  
Print name below signature

**DEVELOPER'S CERTIFICATION**

"I/We certify that all development and construction will be done according to this plan, and that any responsible personnel involved in the construction project will have a 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."

*David P. Scheffenneker* 8-18-23  
Signature of Developer Date  
Print name below signature

**For the Howard Soil Conservation District**

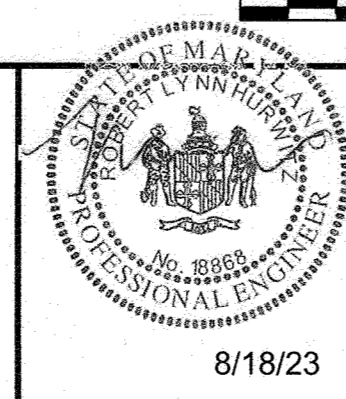
This Development Plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.

*Alvonda Butcher* 08/23/23  
Howard Soil Conservation District Date

**OWNER**  
KELLOGG - CCP, LLC  
c/o DAVID P. SCHEFFENACKER, JR.  
MANAGING MEMBER  
100 WEST ROAD, SUITE 304, TOWSON, MD 21204  
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LICENSE NUMBER: 18868 EXPIRATION DATE: 10/8/24

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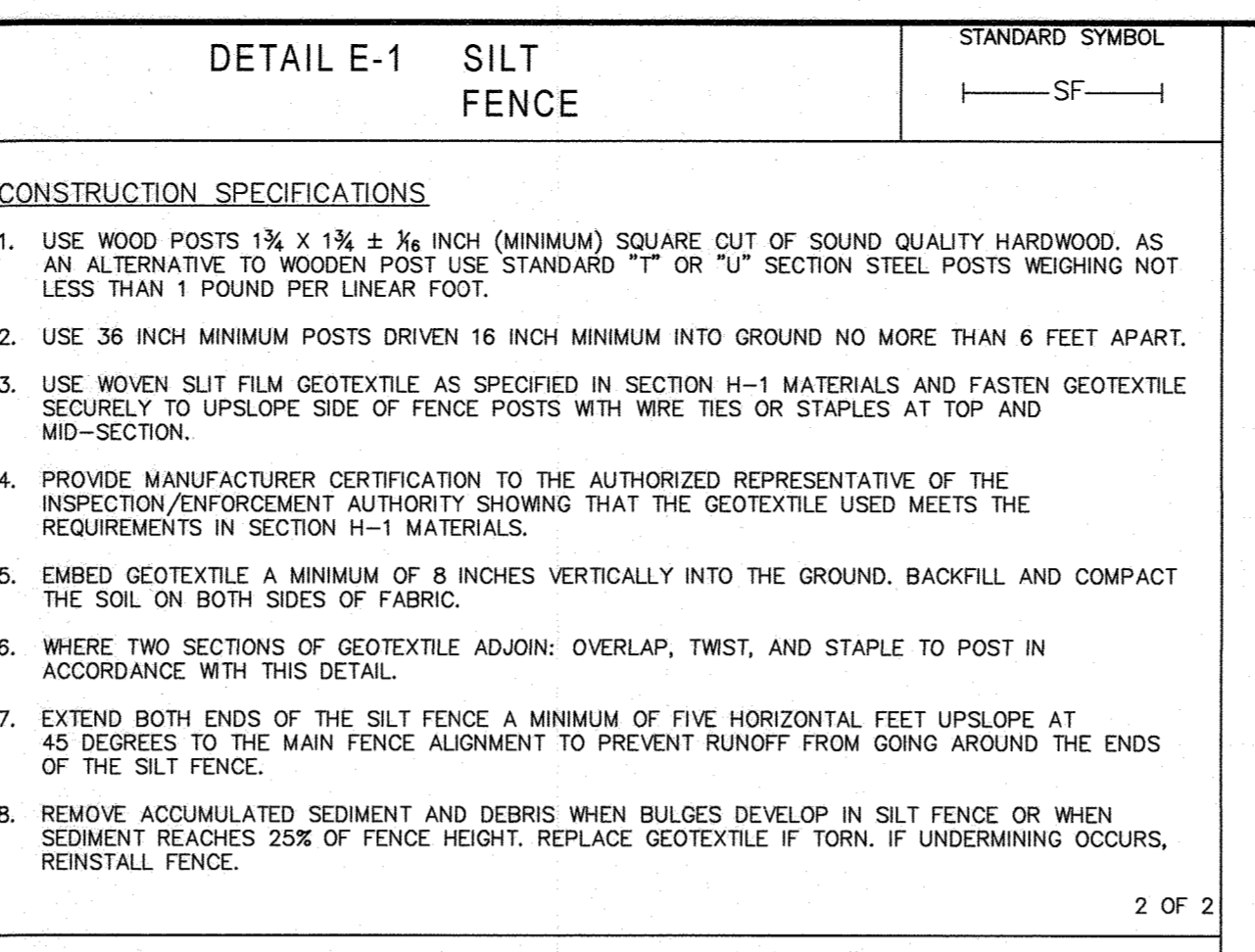
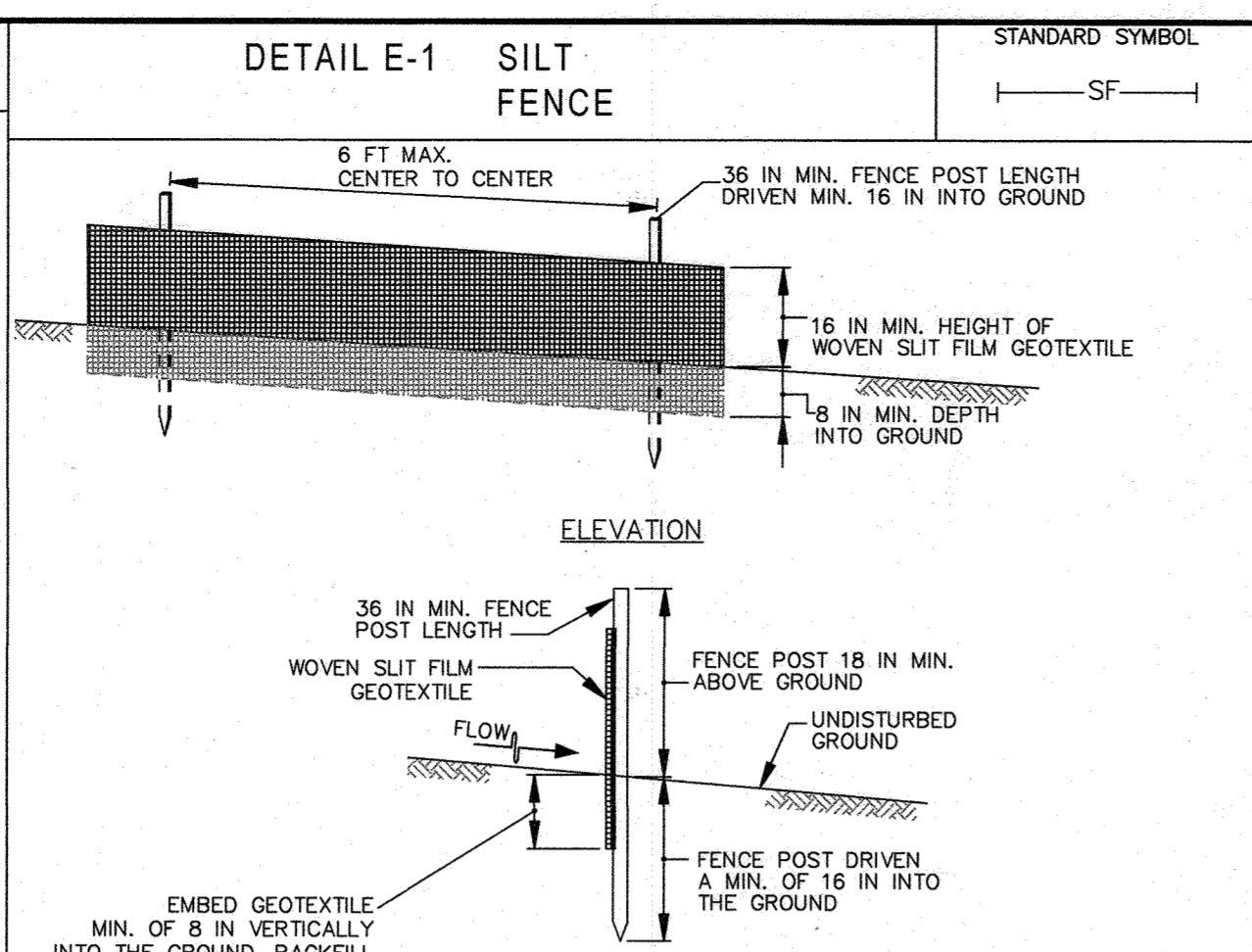
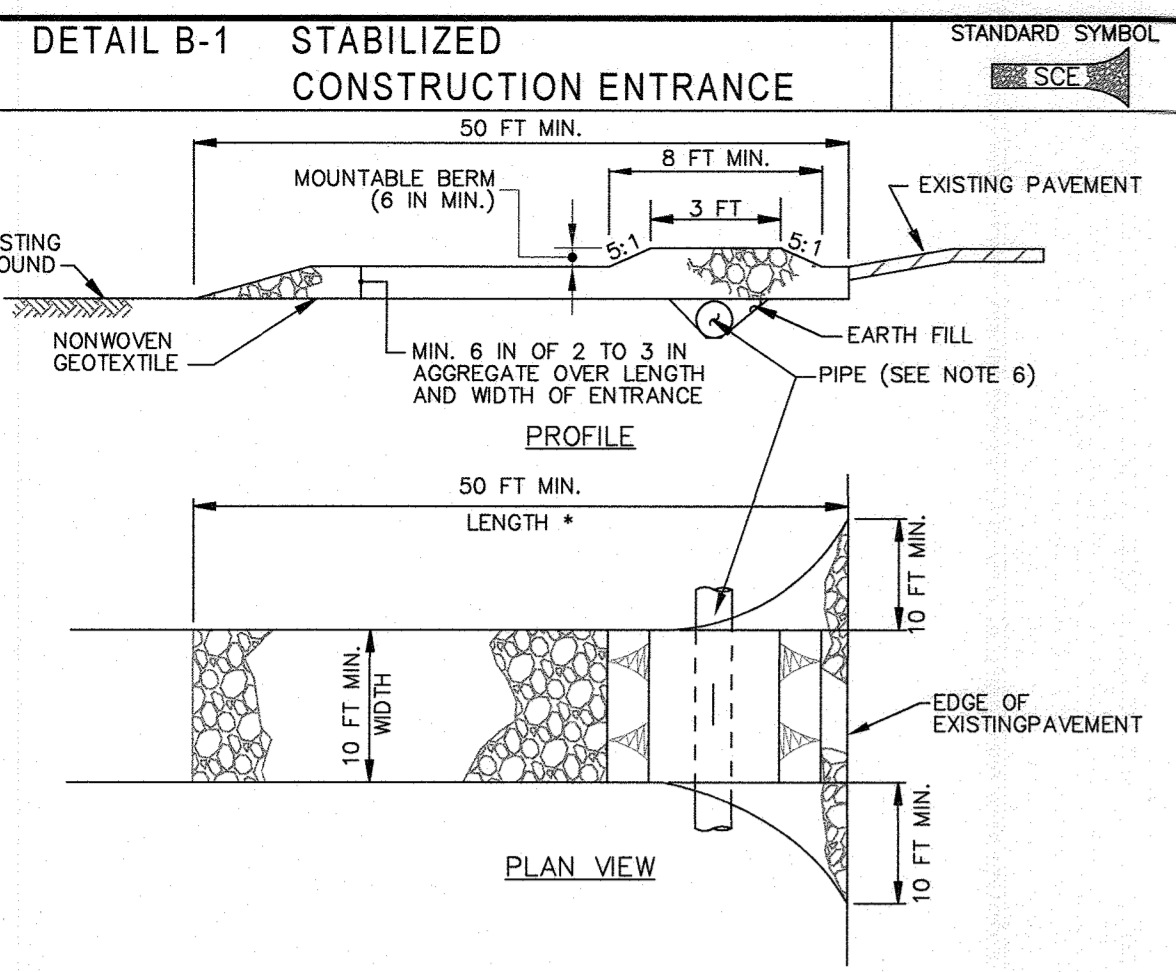


DESIGN BY: RLH/KAD	DATE: 10-3-22	BY NO.	REVISION	DATE
DRAWN BY:				
CHECKED BY:				

**DEVELOPER**  
PRESTON - SCHEFFENACKER PROPERTIES  
100 West Road, Suite 304  
Towson, MARYLAND 21204  
410-296-3800

**Erosion & Sediment Control Plan**  
PARCELS 'V', 'C-C', & OPEN SPACE LOT 245 - THE ATTIC  
**OXFORD SQUARE**  
"A HOWARD COUNTY GREEN NEIGHBORHOOD"  
TAX MAP: 38 PARCEL: 761 GRID: 20 ZONED: T00  
ELECTION DISTRICT 1 HOWARD COUNTY, MARYLAND  
SHEET 7 OF 21

C.E.I. PROJECT NUMBER  
131117.00  
SCALE:  
As Shown



**PERMANENT SEEDING NOTES**

Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.

**Seeding Preparation:** Loosen upper three inches of soil by raking, disking or other acceptable means before seeding, if not previously loosened.

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

- Preferred -- Apply 2 tons/acre dolomitic limestone (92 lbs/1000 sq. ft.) and 600 lbs/acre 10-10-10 fertilizer (14 lbs/1000 sq. ft.) before seeding. Harrow or disk into upper three inches of soil. At time of seeding, apply 400 lbs/acre 30-0-0 ureaform fertilizer (9 lbs/1000 sq. ft.)
- Acceptable -- Apply 2 tons/acre dolomitic limestone (92 lbs/1000 sq. ft.) and 1000 lbs/acre 10-10-10 fertilizer (23 lbs/1000 sq. ft.) before seeding. Harrow or disk into upper three inches of soil.

**Seeding:** -- For periods March 1 -- April 30, and August 1 -- October 15, seed with 60 lbs/acre (14 lbs/1000 sq. ft.) of Kentucky 31 Tall Fescue. For the period May 1 -- July 31, seed with 60 lbs Kentucky 31 Tall Fescue per acre and 2 lbs/acre (.05 lbs/1000 sq. ft.) of weeping lovegrass. During the period of October 16 -- February 28, protect site by:

Option 1 -- Two 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 30 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 seeding areas and make needed repairs, replacements and reseedings.

**TEMPORARY SEEDING NOTES**

Apply to graded or cleared areas likely to be re-disturbed where a short-term vegetative cover is needed.

**Seeding preparation:** -- Loosen upper three inches of soil by raking, disking or other acceptable means before seeding, if not previously loosened.

**Soil Amendments:** -- Apply 600 lbs/acre 10-10-10 fertilizer (14 lbs/1000 sq. ft.)

**Seeding:** -- For periods March 1 -- April 30 and from August 15 -- October 15, seed with 2-1/2 bushel per acre of annual rye (3.2 lbs/1000 sq. ft.). For the period May 1 -- August 14, seed with 3 lbs/acre of weeping lovegrass (07 lbs/1000 sq. ft.). For the period November 15 -- February 28, protect site by applying 2 tons/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/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 additional rates and methods not specified.

**HOWARD SOIL CONSERVATION DISTRICT (HSCD) STANDARD SEDIMENT CONTROL NOTES**

- A pre-construction meeting must occur with the Howard County Department of Public Works, Construction Inspection Division (CID), 410-313-1855 after the future L.O.D and protected areas are marked clearly in the field. A minimum of 48 hour notice to CID must be given at the following stages:
  - Prior to the start of earth disturbance.
  - Upon completion of the installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading.
  - Prior to the start of another phase of construction or opening of another grading unit.
  - Prior to the removal or modification of sediment control practices.

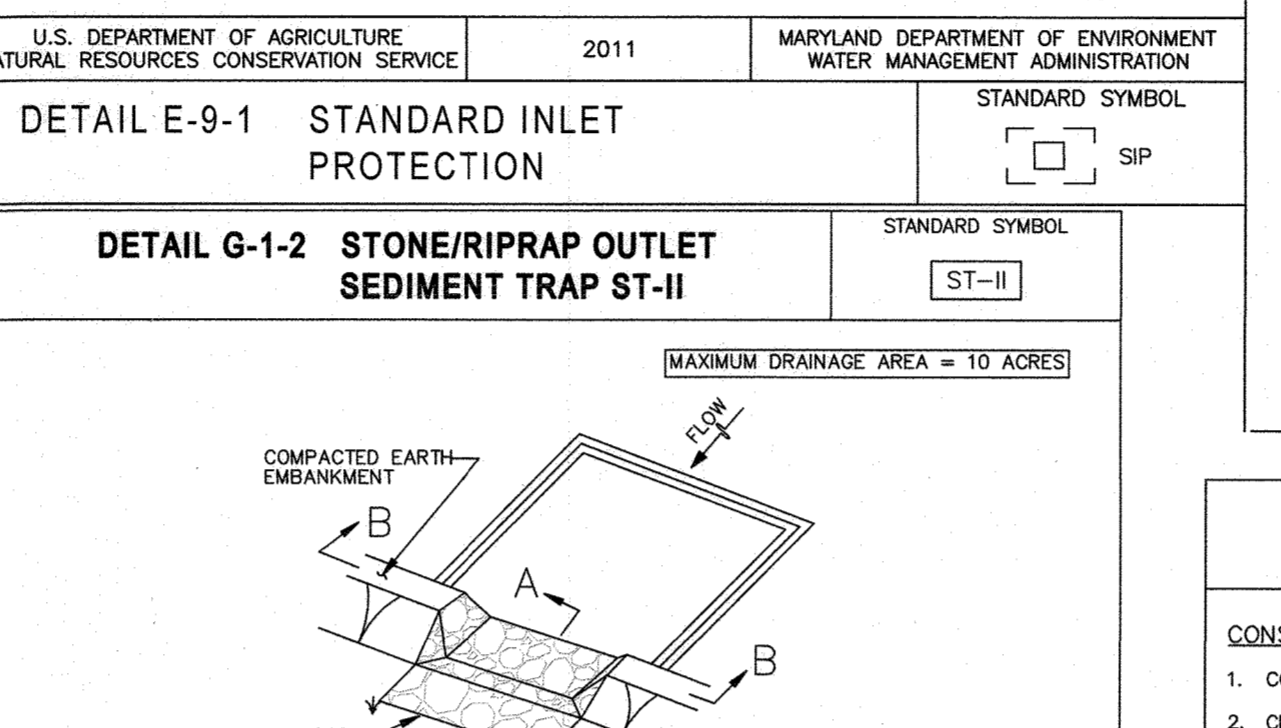
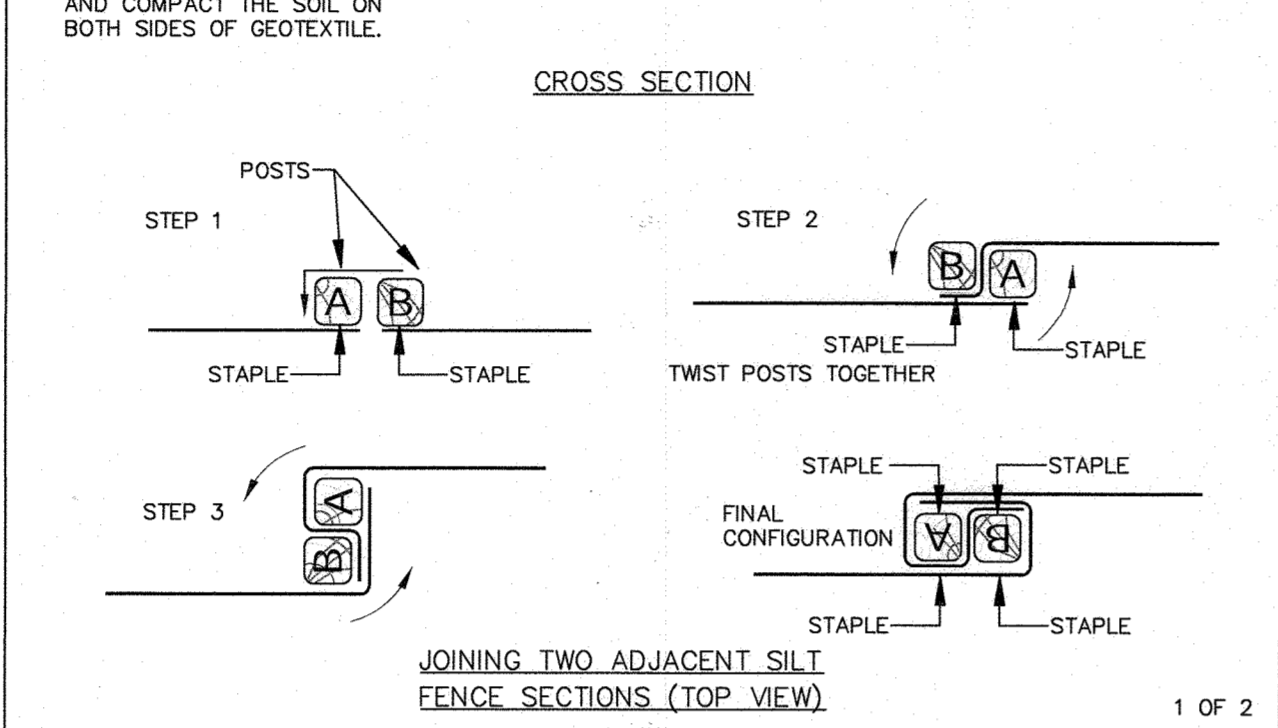
Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made. Other related state and federal permits shall be referenced, to ensure coordination and to avoid conflicts with this plan.

- All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, and revisions thereto.
- Following initial soil disturbance or re-disturbance, permanent or temporary stabilization is required within three (3) calendar days as to the surface of all perimeter controls, dikes, swales, ditches, perimeter slopes, and all slopes steeper than 1 horizontal to 1 vertical (3:1); and seven (7) calendar days as to all other disturbed areas on the project site except for those areas under active grading.
- All disturbed areas must be stabilized within the time period specified above in accordance with the 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL (Sec. B-4-2), permanent seeding (Sec. B-4-5), temporary seeding (Sec. B-4-4) and mulching (Sec. B-4-3). Temporary stabilization with mulch alone can only be applied between the fall and spring seeding dates if the ground is frozen. Incremental stabilization (Sec. B-4-1) specifications shall be enforced in areas with >15' of cut and/or fill. Stockpiles (Sec. B-4-8) in excess of 20 ft. must be benched with stable outlet. All concentrated flow, steep slope, and highly erodible areas shall receive soil stabilization matting (Sec. B-4-6).
- 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 CID.
- Site Analysis:
 

Total Area of Site:	1.12	Acres
Area Disturbed:	2.80	Acres
Area to be roofed or paved:	1.5	Acres
Area to be vegetatively stabilized:	2.49	Acres
Total Cut:	20,000	Cu. Yds.
Total Fill:	20,000	Cu. Yds.
Offsite waste/borrow area location:	* If borrow becomes necessary, borrow will be taken from open grading permit on Oxford Square site.	
- 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 CID. The site and all controls shall be inspected by the contractor weekly, and the next day after each rain event. A written report by the contractor, made available upon request, is part of every inspection and should include:
  - Inspection date
  - Inspection type (routine, pre-storm event, during rain event)
  - Name and title of inspector
  - Weather information (current conditions as well as time and amount of last recorded precipitation)
  - Brief description of project's status (e.g., percent complete) and/or current activities
  - Evidence of sediment discharges
  - Identification of plan deficiencies
  - Identification of sediment controls that require maintenance
  - Identification of missing or improperly installed sediment controls
  - Compliance status regarding the sequence of construction and stabilization requirements
  - Photographs
  - Monitoring/sampling
  - Maintenance and/or corrective action performed
  - Other inspection items as required by the General Permit for Stormwater Associated with Construction Activities (NPDES, MDE).
- Trenches for the construction of utilities is limited to three pipe lengths or that which can and shall be back-filled and stabilized by the end of each workday, whichever is shorter.
- Any major changes or revisions to the plan or sequence of construction must be reviewed and approved by the HSCD prior to proceeding with construction. Minor revisions may be allowed by the CID per the list of HSCD-approved field changes.
- Disturbance shall not occur outside the L.O.D. A project is to be sequenced so that grading activities begin on one grading unit (maximum acreage of 20 ac. per grading unit) at a time. Work may proceed to a subsequent grading unit when at least 50 percent of the disturbed area in the preceding grading unit has been stabilized and approved by the CID. Unless otherwise specified and approved by the CID, no more than 30 acres cumulatively may be disturbed at a given time.
- Wash water from any equipment, vehicles, wheels, pavement, and other sources must be treated in a sediment basin or other approved washout structure.
- Topsoil shall be stockpiled and preserved on-site for redistribution onto final grade.
- All Silt Fence and Super Silt Fence shall be placed on-the-contour, and be imbricated at 25' minimum intervals, with lower ends curled uphill by 2' in elevation.
- Stream channels must not be disturbed during the following restricted time periods (inclusive):
  - Use I and IP March 1 - June 15
  - Use III and IIP October 1 - April 30
  - Use IV March 1 - May 31
- A copy of this plan, the 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, and associated permits shall be on-site and available when the site is active.

**CONSTRUCTION SPECIFICATIONS**

- PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SCE. USE MINIMUM LENGTH OF 50 FEET (30 FEET FOR SINGLE RESIDENCE LOT). USE MINIMUM WIDTH OF 10 FEET. FLARE SCE 10 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
- PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SCE UNDER THE ENTRANCE, MAINTAINING POSITIVE DRAINAGE. PROTECT PIPE INSTALLED THROUGH THE SCE WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE. PROVIDE PIPE AS SPECIFIED ON APPROVED PLAN. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY, A PIPE IS NOT NECESSARY. A MOUNTABLE BERM IS REQUIRED WHEN SCE IS NOT LOCATED AT A HIGH SPOT.
- PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS.
- PLACE CRUSHED AGGREGATE (2 TO 3 INCHES IN SIZE) OR EQUIVALENT RECYCLED CONCRETE (WITHOUT REBAR) AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SCE.
- MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT, ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAN SURFACE, MOUNTABLE BERM, AND SPECIFIED DIMENSIONS. IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILLED, DROPPED, OR TRACKED ONTO ADJACENT ROADWAY BY VACUUMING, SCRAPING, AND/OR SWEEPING. WASHING ROADWAY TO REMOVE MUD TRACKED ONTO PAVEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE.



**CONSTRUCTION SPECIFICATIONS**

- CONSTRUCT TRAP IN SUCH A MANNER THAT EROSION AND WATER POLLUTION ARE AVOIDED.
- CLEAR, GRUB, AND STRIP ANY VEGETATION AND ROOT MAT FROM THE AREA UNDER THE EMBANKMENT AND TRAP BOTTOM.
- USE FILL MATERIAL FREE OF ROOTS, WOODY VEGETATION, OVERSIZED STONES, ROCKS, ORGANIC MATERIAL, OR OTHER OBJECTIONABLE MATERIAL FOR THE EMBANKMENT.
- CONSTRUCT TOP OF EMBANKMENT 1 FOOT MINIMUM ABOVE WEIR CREST. COMPACT THE EMBANKMENT BY TRAVELING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED.
- MAKE ALL CUT AND FILL SLOPES 2:1 OR FLATTER.
- PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS, OVER THE BOTTOM AND SIDES OF OUTLET AND APRON PRIOR TO PLACEMENT OF RIPRAP. OVERLAP SECTIONS OF GEOTEXTILE AT LEAST 1 FOOT WITH THE SECTION NEARER TO THE TRAP PLACED ON TOP. EMBED GEOTEXTILE AT LEAST 6 INCHES INTO EXISTING GROUND AT ENTRANCE OF OUTLET CHANNEL.
- USE CLEAN 4 TO 7 INCH RIPRAP TO CONSTRUCT THE WEIR. USE CLASS I RIPRAP FOR THE APRON. USE OF RECYCLED CONCRETE EQUIVALENT IS ACCEPTABLE.
- PLACE 1 FOOT OF CLEAN 3/4 TO 1 1/2 INCH STONE OR EQUIVALENT RECYCLED CONCRETE ON THE UPSTREAM FACE OF THE WEIR.
- CONSTRUCT AND MAINTAIN THE OUTLET ACCORDING TO APPROVED PLAN, AND IN SUCH A MANNER THAT EROSION AT OR BELOW THE OUTLET DOES NOT OCCUR.
- STABILIZE THE EMBANKMENT AND INTERIOR SLOPES WITH SEED AND MULCH. STABILIZE POINTS OF CONCENTRATED INFLOW AS SHOWN ON APPROVED PLAN.
- REMOVE SEDIMENT AND RESTORE TRAP TO ORIGINAL DIMENSIONS WHEN SEDIMENT HAS ACCUMULATED TO CLEANOUT ELEVATION (50% OF WEIR STORAGE DEPTH). DEPOSIT REMOVED SEDIMENT IN AN APPROVED AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE. KEEP POINTS OF INFLOW AND OUTFLOW AS WELL AS INTERIOR OF THE TRAP FREE FROM EROSION, AND REMOVE ACCUMULATED DEBRIS. MAINTAIN EMBANKMENTS TO CONTINUOUSLY MEET REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION. REMOVE ANY TREES, BRUSH, OR OTHER WOODY VEGETATION GROWING ON EMBANKMENT OR NEAR PRINCIPAL SPILLWAY. MAINTAIN LINE, GRADE, AND CROSS SECTION.
- WHEN Dewatering TRAP, PASS REMOVED WATER THROUGH AN APPROVED SEDIMENT CONTROL PRACTICE.
- UPON REMOVAL, GRADE AND STABILIZE THE AREA OCCUPIED BY TRAP.

**DEVELOPER'S CERTIFICATION**

"I/We certify that all development and construction will be done according to this plan, and that any responsible personnel involved in the construction project will have a 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."

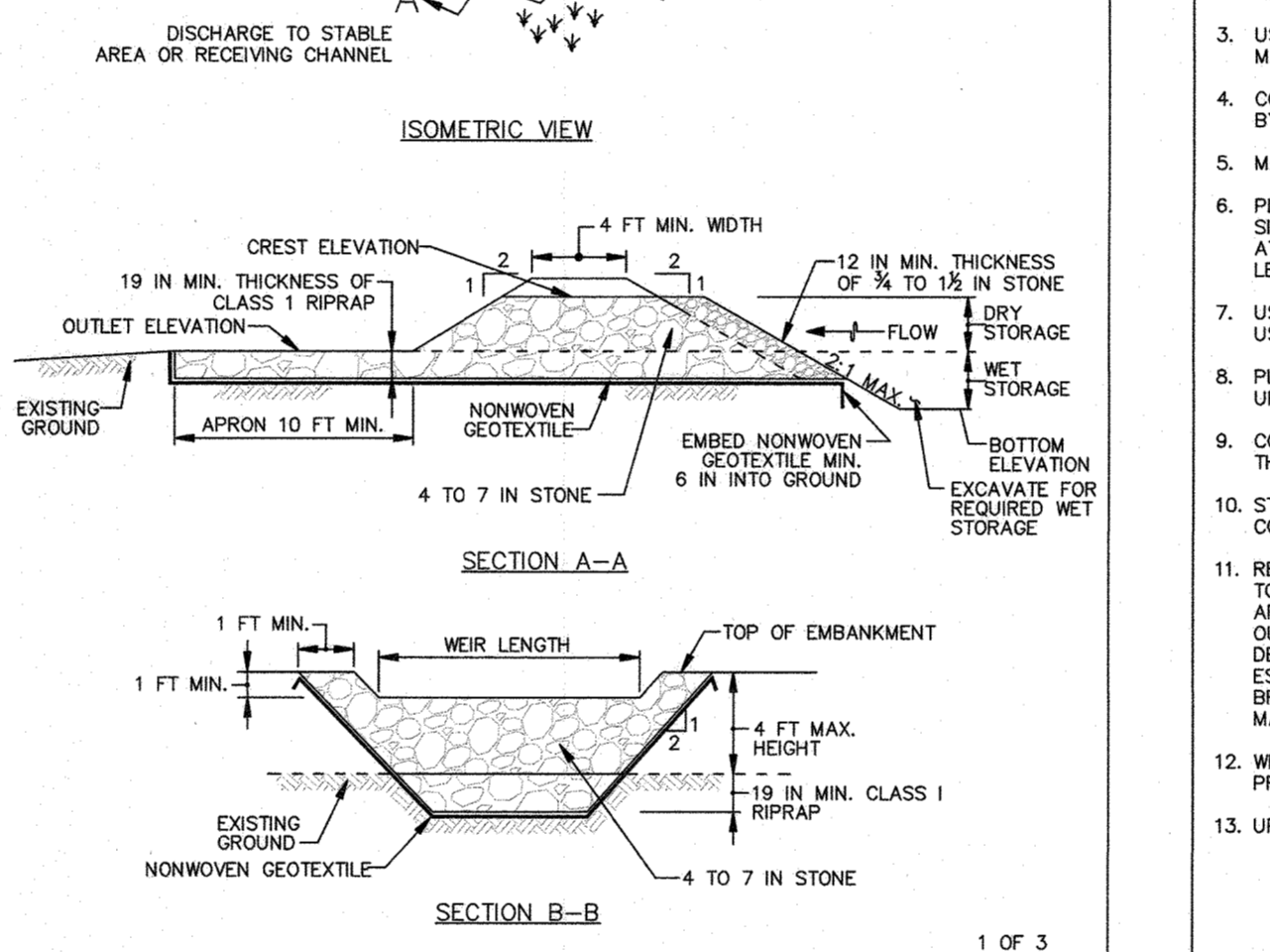
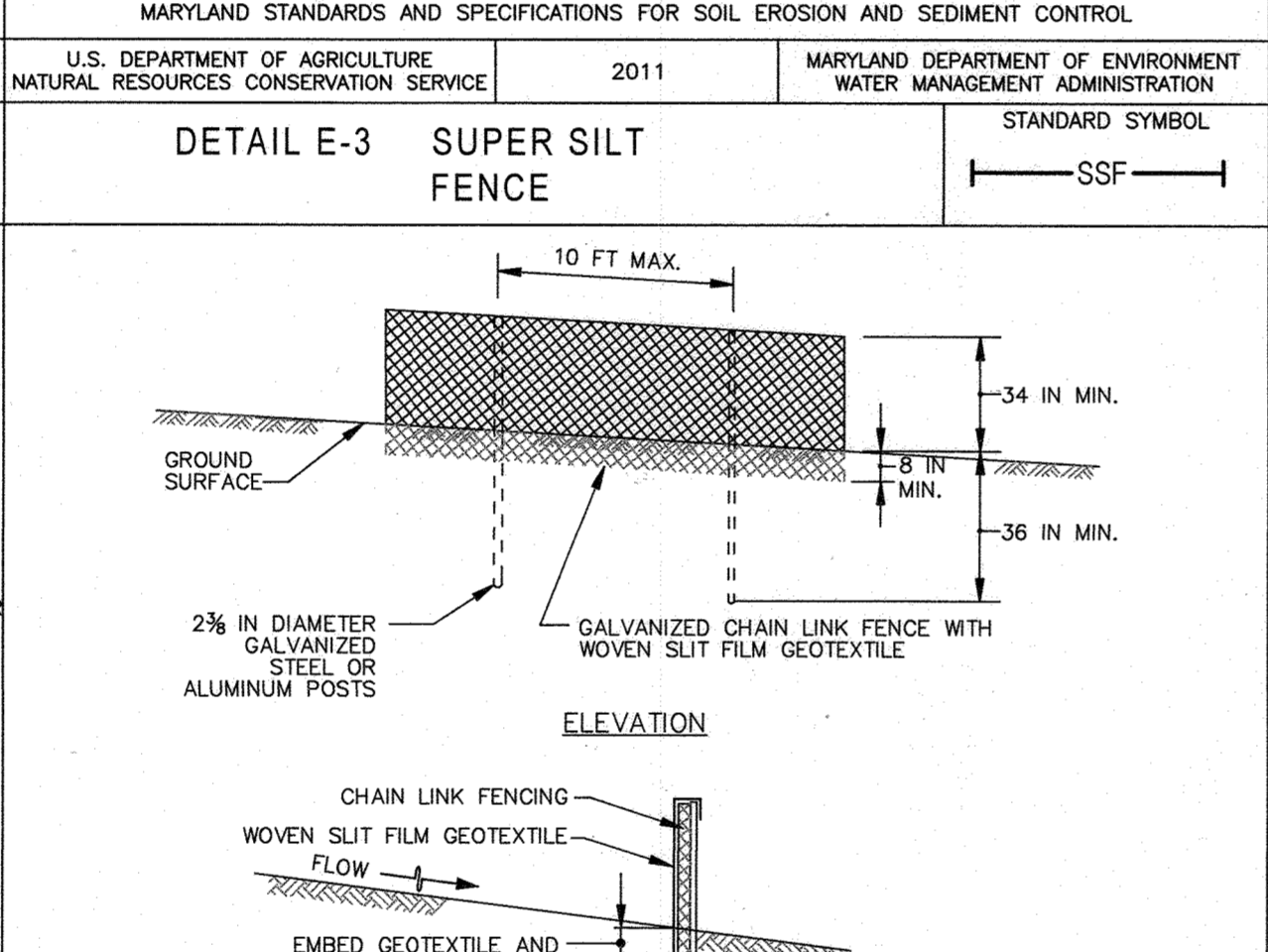
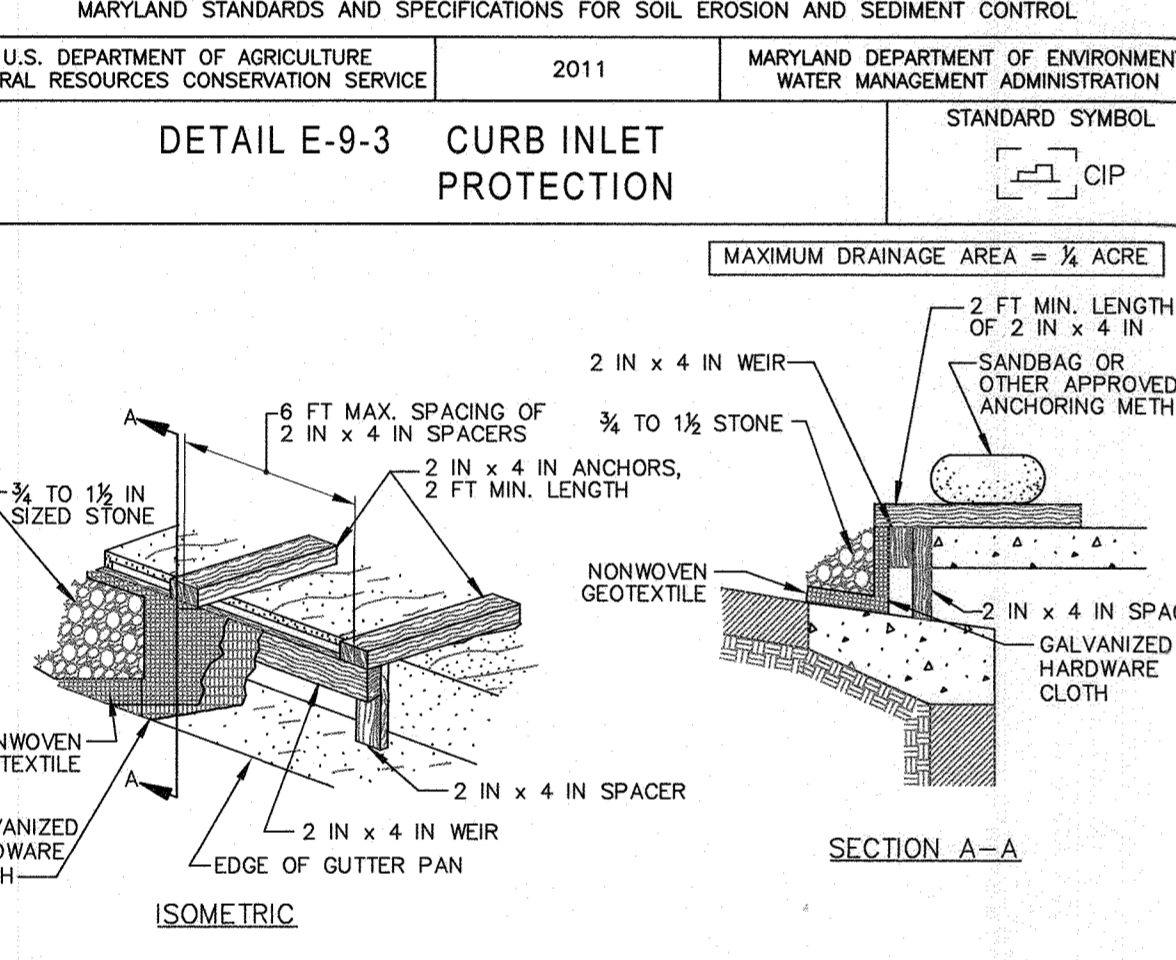
Signature of Developer: *David P. Scheffenneker* Date: *8-18-23*

For the Howard Soil Conservation District  
Signature: *Alexander Pratchuk* Date: *8/23/23*  
Howard Soil Conservation District

**ENGINEER'S CERTIFICATION**

"I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."

Signature of Engineer: *M. J. King* Date: *8/18/23*



**CONSTRUCTION SPECIFICATIONS**

- USE NOMINAL 2 INCH x 4 INCH LUMBER
- USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS.
- NAIL THE 2x4 WEIR TO 9 INCH LONG VERTICAL SPACERS (MAXIMUM 6 FEET APART).
- ATTACH A CONTINUOUS PIECE OF 1/2 INCH GALVANIZED HARDWARE CLOTH, WITH A MINIMUM WIDTH OF 30 INCHES AND A MINIMUM LENGTH OF 4 FEET LONGER THAN THE THROAT OPENING, TO THE 2x4 WEIR, EXTENDING IT 2 FEET BEYOND THROAT ON EACH SIDE.
- PLACE A CONTINUOUS PIECE OF NONWOVEN GEOTEXTILE OF THE SAME DIMENSIONS AS THE HARDWARE CLOTH OVER THE HARDWARE CLOTH AND SECURELY ATTACH TO THE 2x4 WEIR.
- PLACE THE ASSEMBLY AGAINST THE INLET THROAT AND NAIL TO 2x4 ANCHORS (MINIMUM 2 FEET LENGTH). EXTEND THE ANCHORS ACROSS THE INLET TOP AND HOLD IN PLACE BY SANDBAGS OR OTHER APPROVED ANCHORING METHOD.
- INSTALL END SPACERS A MINIMUM OF 1 FOOT BEYOND THE ENDS OF THE THROAT OPENING.
- FORM THE HARDWARE CLOTH AND THE GEOTEXTILE TO THE CONCRETE GUTTER AND FACE OF CURB TO SPAN THE INLET OPENING. COVER THE HARDWARE CLOTH AND GEOTEXTILE WITH CLEAN 3/4 TO 1 1/2 INCH STONE OR EQUIVALENT RECYCLED CONCRETE.
- AT NON-SUMP LOCATIONS, INSTALL A TEMPORARY SANDBAG OR ASPHALT BERM TO PREVENT INLET BYPASS.
- STORM DRAIN INLET PROTECTION REQUIRES FREQUENT MAINTENANCE. REMOVE ACCUMULATED SEDIMENT AFTER EACH RAIN EVENT TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOSING. IF INLET PROTECTION DOES NOT COMPLETELY DRAIN WITHIN 24 HOURS AFTER A STORM EVENT, IT IS CLOGGED. WHEN THIS OCCURS, REMOVE ACCUMULATED SEDIMENT AND CLEAN, OR REPLACE GEOTEXTILE AND STONE.

**CONSTRUCTION SPECIFICATIONS**

- INSTALL 2 3/8 INCH DIAMETER GALVANIZED STEEL POSTS OF 0.085 INCH WALL THICKNESS AND SIX FOOT LENGTH SPACED NO FURTHER THAN 10 FEET APART. DRIVE THE POSTS A MINIMUM OF 36 INCHES INTO THE GROUND.
- FASTEN 9 GAUGE OR HEAVIER GALVANIZED CHAIN LINK FENCE (2 3/8 INCH MAXIMUM OPENING) 42 INCHES IN HEIGHT SECURELY TO THE FENCE POSTS WITH WIRE TIES OR HUG RINGS.
- FASTEN WOVEN SILT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS, SECURELY TO THE UPSLOPE SIDE OF CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 8 INCHES INTO THE GROUND.
- WHERE ENDS OF THE GEOTEXTILE COME TOGETHER, THE ENDS SHALL BE OVERLAPPED BY 6 INCHES, FOLDED, AND STAPLED TO PREVENT SEDIMENT BY PASS.
- EXTEND BOTH ENDS OF THE SUPER SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SUPER SILT FENCE.
- PROVIDE MANUFACTURER CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.
- REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN, IF UNDERMINING OCCURS, REINSTALL CHAIN LINK FENCING AND GEOTEXTILE.

**DETAIL G-1-2 STONE/RIPRAP OUTLET SEDIMENT TRAP ST-II**

STONE/RIPRAP OUTLET SEDIMENT TRAP ST-II, TRAP NO. _____	ACRES
DRAINAGE AREA - INITIAL	ACRES
DRAINAGE AREA - INTERIM	ACRES
DRAINAGE AREA - FINAL	3.0 MAX
TOTAL STORAGE REQUIRED	10,800
TOTAL STORAGE PROVIDED	12,548
WEIR STORAGE REQUIRED	5,400
WEIR STORAGE PROVIDED	5,954
DRY STORAGE REQUIRED	5,400
DRY STORAGE PROVIDED	6,594
EXISTING GROUND ELEVATION AT OUTLET (WET STORAGE ELEVATION)	88.0
TRAP BOTTOM ELEVATION	87.0
TRAP BOTTOM DIMENSIONS	64' X 87'
WEIR LENGTH	8'
WEIR CREST (DRY STORAGE) ELEVATION	89.0
CLEANOUT ELEVATION	87.5
TOP OF EMBANKMENT ELEVATION	90.0
SIDE SLOPE	2:1 H:V RATIO
EMBANKMENT TOP WIDTH	4'
OUTLET PROTECTION - LENGTH	10'
OUTLET PROTECTION - DEPTH	19"

**OWNER**

**KELLOGG - CCP, LLC**  
c/o DAVID P. SCHEFFENACKER, JR.  
MANAGING MEMBER  
100 WEST ROAD, SUITE 304, TOWSON, MD 21204  
410-296-3800

**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 NUMBER: 18868 EXPIRATION DATE: 10/8/24

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division  
*[Signature]* Date: *11/22/23*

Chief, Division of Land Development  
*[Signature]* Date: *11/22/23*

Director  
*[Signature]* Date: *11/22/23*

**M CENTURY ENGINEERING**  
CONSULTING ENGINEERS - PLANNERS  
10710 Gilroy Road, Hunt Valley, MD 21031  
Phone: 443.589.2400 Fax: 443.589.2401

8/18/23

DESIGN BY:	RLH/KAD
DRAWN BY:	
CHECKED BY:	
DATE:	10-8-22
BY:	NO.
REVISION	DATE

**DEVELOPER**

**PRESTON - SCHEFFENACKER PROPERTIES**  
100 West Road, Suite 304  
Towson, MARYLAND 21204  
410-296-3800

**Erosion & Sediment Control Details**

PARCELS 'V', 'C-C', & OPEN SPACE LOT 245 - THE ATTIC

**OXFORD SQUARE**  
"A HOWARD COUNTY GREEN NEIGHBORHOOD"  
TAX MAP: 38 PARCEL 761 GRID: 20 ZONED: TOD  
ELECTION DISTRICT 7  
SHEET 8 OF 24

C.E.I. PROJECT NUMBER: 131117.00  
SCALE: AS SHOWN

S:\2013\Facilities\131117.00 Oxford Square\CADD\Drawings\SDP - Attic Building A Revisions and Entrance Revisions\131117.02 (SDP-08) Erosion & Sediment Control Details.dwg Aug 18, 2023 4:04pm kadrey



### B-4 STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION

**DEFINITION**  
Using vegetation as cover to protect exposed soil from erosion.

**PURPOSE**  
To promote the establishment of vegetation on exposed soil.

**CONDITIONS WHERE PRACTICE APPLIES**  
On all disturbed areas not stabilized by other methods. This specification is divided into sections on incremental stabilization, soil preparation, soil amendments and topsoiling, seeding and mulching, temporary stabilization, and permanent stabilization.

**EFFECTS ON WATER QUALITY AND QUANTITY**  
Stabilization practices are used to promote the establishment of vegetation on exposed soil. When soil is stabilized with vegetation, the soil is less likely to erode and more likely to allow infiltration of rainfall, thereby reducing sediment loads and runoff to downstream areas.

Planting vegetation in disturbed areas will have an effect on the water budget, especially on volumes and rates of runoff, infiltration, evaporation, transpiration, percolation, and groundwater recharge. Over time, vegetation will increase organic matter content and improve the water holding capacity of the soil and subsequent plant growth.

Vegetation will help reduce the movement of sediment, nutrients, and other chemical carried by runoff to receiving waters. Plants will also help protect groundwater supplies by assimilating those substances present within the root zone.

**SEDIMENT CONTROL PRACTICES MUST REMAIN IN PLACE DURING GRADING, SEEDBED PREPARATION, SEEDING, MULCHING, AND VEGETATIVE ESTABLISHMENT.**

**ADEQUATE VEGETATIVE ESTABLISHMENT**  
Inspect seeded areas for vegetative establishment and make necessary repairs, replacements, and reseedings within the planting season.

- Adequate vegetative establishment requires 95 percent groundcover.
- If an area has less than 40 percent groundcover, restabilize following the original recommendations for lime, fertilizer, seedbed preparation, and seeding.
- If an area has between 40 and 44 percent groundcover, over-seed and fertilize using half of the rates originally specified.
- Maintenance fertilizer rates for permanent seeding are shown in Table B.6.

### B-4-1 STANDARDS AND SPECIFICATIONS FOR INCREMENTAL STABILIZATION

**DEFINITION**  
Establishment of vegetative cover on cut and fill slopes.

**PURPOSE**  
To provide timely vegetative cover on cut and fill slopes as work progresses.

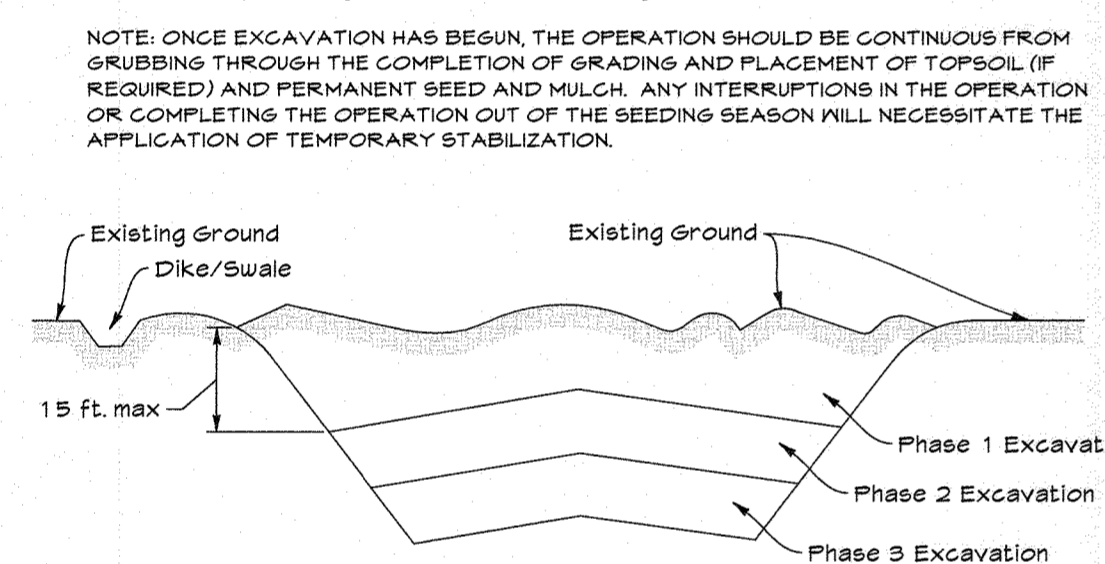
**CONDITIONS WHERE PRACTICE APPLIES**  
Any cut or fill slope greater than 15 feet in height. This practice also applies to stockpiles.

**CRITERIA**

**A. Incremental Stabilization - Cut Slopes**

- Excavate and stabilize cut slopes in increments not to exceed 15 feet in height. Prepare seedbed and mulch on all cut slopes as the work progresses.
- Construction sequence example (Refer to Figure B.1).
- Perform Phase 1 excavation, prepare seedbed, and stabilize.
- Perform Phase 2 excavation, prepare seedbed, and stabilize. Overseed Phase 1 areas as necessary.
- Perform final phase excavation, prepare seedbed, and stabilize. Overseed previously seeded areas as necessary.

**NOTE: ONCE EXCAVATION HAS BEGUN, THE OPERATION SHOULD BE CONTINUOUS FROM GRUBBING THROUGH THE COMPLETION OF GRADING AND PLACEMENT OF TOPSOIL (IF REQUIRED) AND PERMANENT SEED AND MULCH. ANY INTERRUPTIONS IN THE OPERATION OR COMPLETING THE OPERATION OUT OF THE SEEDING SEASON WILL NECESSITATE THE APPLICATION OF TEMPORARY STABILIZATION.**



**Figure B.1: Incremental Stabilization - Cut**

**B. Incremental Stabilization - Fill Slopes**

- Construct and stabilize fill slopes in increments not to exceed 15 feet in height. Prepare seedbed and apply seed and mulch on all slopes as the work progresses.
- Stabilize slopes immediately when the vertical height of a fill reaches 15 feet or when the grading operation ceases as prescribed in the plans.
- At the end of each day, install temporary water conveyance practices (as necessary) to intercept surface runoff and convey it down the slope in a non-erosive manner.
- Construction sequence example (Refer to Figure B.2).
- Construct and stabilize all temporary suales or dikes that will be used to divert runoff around the fill. Construct silt fence on low side of fill unless other methods shown on the plans address this area.
- At the end of the day, install temporary water conveyance practices (as necessary) to intercept surface runoff and convey it down the slope in a non-erosive manner.
- Place Phase 1 fill, prepare seedbed, and stabilize.
- Place Phase 2 fill, prepare seedbed, and stabilize.
- Place final phase fill, prepare seedbed, and stabilize. Overseed previously seeded areas as necessary.

**NOTE: ONCE THE PLACEMENT OF FILL HAS BEGUN, THE OPERATION SHOULD BE CONTINUOUS FROM GRUBBING THROUGH THE COMPLETION OF GRADING AND PLACEMENT OF TOPSOIL (IF REQUIRED) AND PERMANENT SEED AND MULCH. ANY INTERRUPTIONS IN THE OPERATION OR COMPLETING THE OPERATION OUT OF THE SEEDING SEASON WILL NECESSITATE THE APPLICATION OF TEMPORARY STABILIZATION.**

### B-4-2 STANDARDS AND SPECIFICATIONS FOR SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS

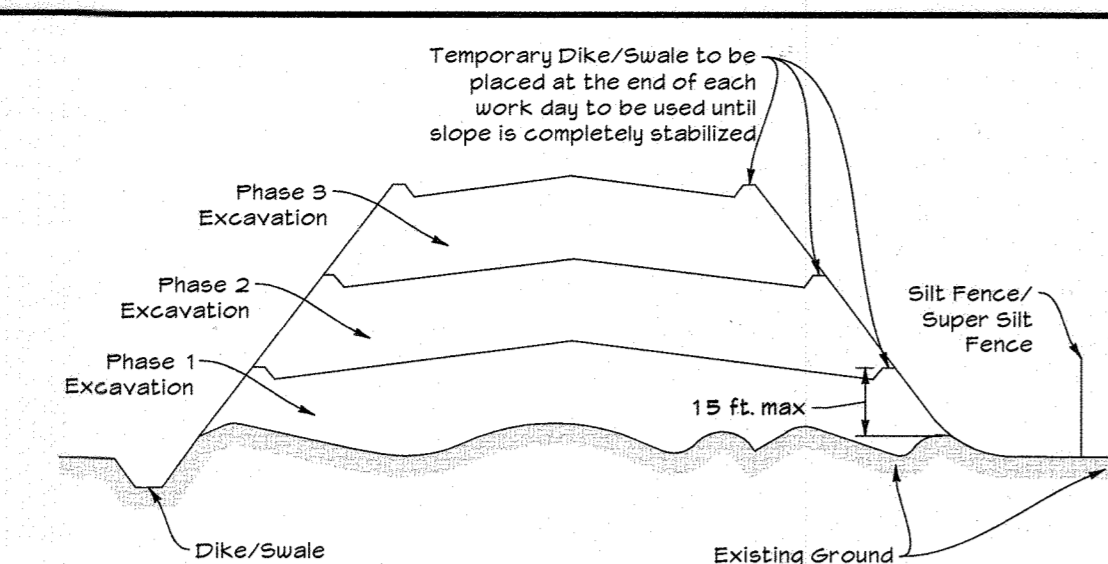
**DEFINITION**  
The process of preparing the soils to sustain adequate vegetative stabilization.

**PURPOSE**  
To provide a suitable soil medium for vegetative growth.

**CONDITIONS WHERE PRACTICE APPLIES**  
Where vegetative stabilization is to be established.

**CRITERIA**

**OWNER**  
KELLOGG - CCP, LLC  
c/o DAVID P. SCHEFFENACKER, JR.  
MANAGING MEMBER  
100 WEST ROAD, SUITE 304, TOWSON, MD 21204  
410-296-3800



**Figure B.2: Incremental Stabilization - Fill**

**A. Soil Preparation**

**1. Temporary Stabilization**

- Seed preparation consists of loosening soil to a depth of 3 to 5 inches by means of suitable agricultural or construction equipment, such as disc harrows or chisel plows or rippers mounted on construction equipment. After soil is loosened, it must not be rolled or dragged smooth but left in a roughened condition. Slopes 3:1 or flatter are to be tracked with ridges running parallel to the contour of the slope.
- Apply fertilizer and lime as prescribed on the plans.
- Incorporate lime and fertilizer into the top 3 to 5 inches of soil by disking or other suitable means.

**2. Permanent Stabilization**

- A soil test is required for any earth disturbance of 5 acres or more. The minimum soil conditions required for permanent vegetative establishment are:
  - Soil pH between 6.0 to 7.0.
  - Soluble salts less than 500 parts per million (ppm).
  - Soil contains less than 40 percent clay but enough fine grained material (greater than 50 percent silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception: If loess soils will be planted, then a sandy soil (less than 50 percent silt plus clay) would be acceptable.
  - Soil contains 1.5 percent minimum organic matter by weight.
  - Soil contains sufficient pore space to permit adequate root penetration.
- Application of amendments or topsoil is required if on-site soils do not meet the above conditions.
- Graded areas must be maintained in a true and even grade as specified on the approved plan, then scarified or otherwise loosened to a depth of 3 to 5 inches.
- Apply soil amendments as specified on the approved plan or as indicated by the results of a soil test.
- Mix soil amendments into the top 3 to 5 inches of soil by disking or other suitable means. Rake lawn areas to smooth the surface, remove large objects like stones and branches, and ready the area for seed application. Loosen or surface soil by dragging with a heavy chain or other equipment to roughen the surface where site conditions will not permit normal seedbed preparation. Track slopes 3:1 or flatter with tracked equipment leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. Leave the top 1 to 3 inches of soil loose and friable. Seedbed loosening may be unnecessary on newly disturbed areas.

**B. Topsoiling**

- Topsoil is placed over prepared subsoil prior to establishment of permanent vegetation. The purpose is to provide a suitable soil medium for vegetative growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.
- Topsoil salvaged from an existing site may be used provided it meets the standards as set forth in this specification. Typically, the depth of topsoil must be salvaged for a given soil type can be found in representative soil profile section in the Soil Survey published by USDA-NRCS.
- Topsoiling is limited to areas having 2:1 or flatter slopes where:
  - The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
  - The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant material.
  - The original soil to be vegetated contains material toxic to plant growth.
  - The soil is so acidic that treatment with limestone is not feasible.
- Areas having slopes steeper than 2:1 require special consideration and design.
- Topsoil Specifications: Soil to be used as topsoil must meet the following criteria:
  - Topsoil must be a loam, sandy loam, clay loam, silt loam, sandy clay loam, or loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Topsoil must not be a mixture of contrasting textured subsoils and must contain less than 5 percent by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1 1/2 inches in diameter.
  - Topsoil must be free of noxious plants or plant parts such as Bermuda grass, quack grass, Johnson grass, nut sedge, poison ivy, thistle, or others as specified.
  - Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil.
- Topsoil Application
  - Erosion and sediment control practices must be maintained when applying topsoil.
  - Uniformly distribute topsoil in a 5 to 8 inch layer and lightly compact to a minimum thickness of 4 inches. Spreading is to be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations must be corrected in order to prevent the formation of depressions or water pockets.
  - Topsoil must not be placed if the topsoil or subsoil is in a frozen or muddy condition when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.

**C. Soil Amendments (Fertilizer and Lime Specifications)**

- Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas of 5 acres or more. Soil analysis may be performed by a recognized private or commercial laboratory. Soil samples taken for engineering purposes may also be used for chemical analyses.
- Fertilizers must be uniform in composition, free flowing and suitable for accurate application by appropriate equipment. Manure may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers must all be delivered to the site fully labeled according to the applicable laws and must bear the name, trade name or trademark and warranty of the producer.
- Lime materials must be ground limestone (hydrated or burnt lime may be substituted except when hydroseeding) which contains at least 90 percent total oxides (calcium oxide plus magnesium oxide). Limestone must be ground to such fineness that at least 50 percent will pass through a #100 mesh sieve and 10 to 100 percent will pass through a #20 mesh sieve.
- Lime and fertilizer are to be evenly distributed and incorporated into the top 3 to 5 inches of soil by disking or other suitable practices.
- Where the subsoil is either highly acidic or composed of heavy clays, spread ground limestone at the rate of 4 to 8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil.

### B-4-3 STANDARDS AND SPECIFICATIONS FOR SEEDING AND MULCHING

**DEFINITION**  
The application of seed and mulch to establish vegetative cover.

**PURPOSE**  
To protect disturbed soils from erosion during and at the end of construction.

**CONDITIONS WHERE PRACTICE APPLIES**  
To the surface of all perimeter controls, slopes, and any disturbed area not under active grading.

**CRITERIA**

**A. Seeding**

- Specifications
  - All seed must meet the requirement of the Maryland State Seed Law. All seed must be subject to re-testing by a recognized seed laboratory. All seed used must have been tested within the 6 months immediately preceding the date of sowing such material on any project. Refer to Table B.4 regarding the quality of seed. Seed tags must be available upon request to the inspector to verify type of seed and seeding rate.
  - Mulch alone may be applied between the fall and spring seeding dates only if the ground is frozen. The appropriate seeding mixture must be applied when the ground thaws.
  - Inoculants: The inoculant for treating legume seed in the seed mixtures must be a pure culture of nitrogen fixing bacteria prepared specifically for the species. Inoculants must not be used later than the date indicated on the container. Add fresh inoculants as directed on the package; use four times the recommended rate when hydroseeding. Note: It is very important to keep inoculant as cool as possible until used. Temperatures above 75 to 80 degrees Fahrenheit can weaken bacteria and make the inoculant less effective.
  - Sod and seed must not be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min) to permit dissipation of phytotoxic materials.
- Application
  - Dry seeding: This includes use of conventional drop or broadcast spreaders.
    - Incorporate seed into the subsoil at the rates prescribed on Temporary Seeding Table B.1, Permanent Seeding Table B.5, or site-specific seeding summaries.
    - Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in each direction. Roll the seeded area with a weighted roller to provide good seed to soil contact.
  - Drill or Cultivator Seeding: Mechanized seeders that apply and cover seed with soil.
    - Cultivating seeders are required to bury the seed in such a fashion as to provide at least 1/2 inch of soil covering. Seedbed must be firm after planting.
    - Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in each direction.
  - Hydroseeding: Apply seed uniformly with hydro-seeder (slurry includes seed and fertilizer).
    - If fertilizer is being applied at the time of seeding, 100 pounds per acre total soluble nitrogen, P<sub>2</sub>O<sub>5</sub> (phosphorus), 200 pounds per acre K<sub>2</sub>O (potassium), 200 pounds per acre.
    - Lime: Use only ground agricultural limestones (up to 3 tons per acre may be applied by hydroseeding). Normally, not more than 2 tons are applied by hydroseeding at any one time. Do not use burnt or hydrated lime when hydroseeding.
    - Mix seed and fertilizer on site and seed immediately and without interruption.
    - When hydroseeding, do not incorporate into the soil.

**B-4-4 STANDARDS AND SPECIFICATIONS FOR TEMPORARY STABILIZATION**

**DEFINITION**  
To stabilize disturbed soils with vegetation for up to 6 months.

**PURPOSE**  
To use fast growing vegetation that provides cover on disturbed soils.

**CONDITIONS WHERE PRACTICE APPLIES**  
Exposed soils where ground cover is needed for a period of 6 months or less. For longer duration of time, permanent stabilization practices are required.

**CRITERIA**

**A. Select one or more of the species or seed mixtures listed in Table B.1 for the appropriate Plant Hardiness Zone (from Figure B.3), and enter them in the Temporary Seeding Summary below along with application rates, seeding dates and seeding depths. If the Summary is not put on the plan and completed, then Table B.1 plus fertilizer and lime rates must be put on the plan.**

**B. For sites having soil tests performed, use and show the recommended rates by the testing agency. Soil tests are not required for Temporary Seeding.**

**C. When stabilization is required outside of a seeding season, apply seed and mulch or straw mulch along as prescribed in Section B-4-3.A.1.1b and maintain until the next seeding season.**

### B-4-4 STANDARDS AND SPECIFICATIONS FOR PERMANENT STABILIZATION

**DEFINITION**  
To stabilize disturbed soils with permanent vegetation.

**PURPOSE**  
To use long-lived perennial grasses and legumes to establish permanent cover on disturbed soils.

**CONDITIONS WHERE PRACTICE APPLIES**  
Exposed soils where ground cover is needed for 6 months or more.

**CRITERIA**

**A. Seed Mixtures**

- General Use
  - Select one or more of the species or mixtures listed in Table B.3 for the appropriate Plant Hardiness Zone (from Figure B.3) and based on the site condition or purpose shown on Table B.3. Enter selected mixtures, application rates, and seeding dates in the Permanent Seeding Summary. The Summary is to be placed on the plan.
  - Additional planting specifications for exceptional sites such as shorelines, stream banks, or dunes or for special purposes such as wildlife or aesthetic treatment may be found in USDA-NRCS Technical Field Office Guide, Section 9.4.2 - Critical Area Planting.
- For areas having disturbed areas over 5 acres, use and show the rates recommended by the soil testing agency.
- For areas receiving low maintenance, apply urea form fertilizer (46-0-0) at 3 1/2 pounds per 1000 square feet (150 pounds per acre) at the time of seeding in addition to the soil amendments shown in the Permanent Seeding Summary.

**2. Turfgrass Mixtures**

- Areas where turfgrass may be desired include lawns, parks, playgrounds, and commercial sites which will receive a medium to high level of maintenance.
- Select one or more of the species or mixtures listed below based on the site conditions or purpose. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The Summary is to be placed on the plan.
  - Kentucky Bluegrass/Full Sun Mixture: For use in areas that receive intensive management. Irrigation required in the areas of central Maryland and Eastern Shore. Recommended Certified Kentucky Bluegrass Cultivars Seeding Rate: 1.5 to 2.0 pounds per 1000 square feet. Choose a minimum of three Kentucky Bluegrass cultivars with each ranging from 10 to 35 percent of total mixture by weight.
  - Kentucky Bluegrass/Perennial Ryegrass/Full Sun Mixture: For use in full sun areas where rapid establishment is necessary and when turf will receive medium to intensive management. Certified Perennial Ryegrass/Certified Kentucky Bluegrass Seeding Rate: 2 pounds mixture per 1000 square feet. Choose a minimum of three Kentucky Bluegrass cultivars with each ranging from 10 to 35 percent of the total mixture by weight.
  - Kentucky Bluegrass/Perennial Ryegrass/Full Sun Mixture: For use in drought prone areas and/or for areas receiving low to medium management in full sun to medium shade. Recommended mixture includes; Certified Tall Fescue/Cultivars #5 to 100 percent, Certified Kentucky Bluegrass Cultivars 0 to 5 percent Seeding Rate: 5 to 10 pounds per 1000 square feet. One or more cultivars may be blended.
  - Kentucky Bluegrass/Fine Fescue/ Shade Mixture: For use in areas with shade in drought prone areas. For seedings later in the high quality, intensive managed turf area. Mixture includes; Certified Kentucky Bluegrass Cultivars 30 to 40 percent and Certified Fine Fescue 60 to 70 percent. Seeding Rate: 1 1/2 to 3 pounds per 1000 square feet.

**3. Ideal Times of Seeding for Turf Grasses:**

**Western Maryland:** March 15 to June 1, August 1 to October 1 (Hardiness Zones: 5b, 6a)

**Central Maryland:** March 1 to May 15, August 15 to October 15 (Hardiness Zone: 6b)

**Southern MD, Eastern Shore:** March 1 to May 15, August 15 to October 15 (Hardiness Zones: 7a, 7b)

**4. Till areas to receive seed by disking or other approved methods to a depth of 2 to 4 inches, level and rake the areas to prepare a proper seedbed. Remove stones and debris over 1/2 inches in diameter. The resulting seedbed must be in such condition that future mowing of grasses will pose no difficulty.**

**5. If soil moisture is deficient, supply new seedings with adequate water for plant growth (1/2 to 1 inch over 3 to 4 days depending on soil texture) until they are firmly established. This is especially true when seedlings are made late in the planting season, in abnormally dry or hot seasons, or on steep slopes where equipment can operate safely. If used on sloping land, this practice should follow the contour.**

**6. Wood cellulose fiber may be used for anchoring straw. Apply the fiber binder at a net dry weight of 750 pounds per acre. Mix the wood cellulose fiber with water at a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.**

**7. Synthetic binders such as Acrylic DLR (Agro-Tack), DCA-10, Petroset, Terra Tack II, Terra Tack AR or other approved equal may be used. Follow application rates as specified by the manufacturer. Application of liquid binders needs to be heavier at the edges where wind catches much, such as in valleys and on crests of banks. Use of asphalt binders is strictly prohibited.**

**8. Lightweight plastic netting may be stapled over the mulch according to manufacturer recommendations. Netting is usually available in rolls 4 to 15 feet wide and 300 to 3,000 feet long.**

**Temporary Seeding Summary**

Hardiness Zone:	EA	EB	Application Rate (lb/acre)	Seeding Dates	Seeding Depth	Fertilizer Rate (10-20-20)	Lime Rate
No.	Species						
N/A	Annual Ryegrass ( <i>Lolium perenne</i> ssp. <i>multiclavatum</i> )	40	May 15 to May 31 Aug 1 to Sep 30	0.5 in.			
	Barley ( <i>Hordeum vulgare</i> )	40	May 15 to May 31 Aug 1 to Sep 30	1.0 in.	40 lb/ac (1 lb/1000sqft)	2 tons/ac (40 lb/1000sqft)	
	Foxtail Millet ( <i>Setaria italica</i> )	30	Jun 1 to Jul 31	0.5 in.			
	Pearl Millet ( <i>Pennisetum glaucum</i> )	20	Jun 1 to Jul 31	0.5 in.			

**Permanent Seeding Summary**

Hardiness Zone:	EA	EB	Application Rate (lb/acre)	Seeding Dates	Seeding Depth	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	Fertilizer Rate (10-20-20)	Lime Rate
No.	Species									
q	Tall Fescue ( <i>Lolium arundinaceum</i> )	60	Mar 1 to May 15 Aug 1 to Oct 15	X to 1/2 in.	45 lb/ac (1 lb/1000sqft)	40 lb/ac (2 lb/1000sqft)	40 lb/ac (2 lb/1000sqft)	2 tons/ac (40 lb/1000sqft)		
	Kentucky Bluegrass ( <i>Poa pratensis</i> )	40		X to 1/2 in.						
	Perennial Ryegrass ( <i>Lolium perenne</i> )	20		X to 1/2 in.						

### B-4-4 STANDARDS AND SPECIFICATIONS FOR STOCKPILE AREAS

**DEFINITION**  
A mound or pile of soil protected by appropriately designed erosion and sediment control measures.

**PURPOSE**  
To provide a designated location for the temporary storage of soil that controls the potential for erosion, sedimentation, and changes to drainage patterns.

**CONDITIONS WHERE PRACTICE APPLIES**  
Stockpile areas are utilized when it is necessary to salvage and store soil for later use.

**CRITERIA**

**A. The stockpile location and all related sediment control practices must be clearly indicated on the erosion and sediment control plan.**

**B. The footprint of the stockpile must be sized to accommodate the anticipated volume of material and based on a side slope ratio no steeper than 2:1. Benching must be provided in accordance with Section B-3 Land Grading.**

**C. Runoff from the stockpile area must drain to a suitable sediment control practice.**

**D. Access to the stockpile area must be provided by a suitable sediment control practice.**

**E. Clear water runoff into the stockpile area must be minimized by use of a diversion fence such as an earth dike, temporary suale or diversion fence. Provisions must be made for discharging concentrated flow in a non-erosive manner.**

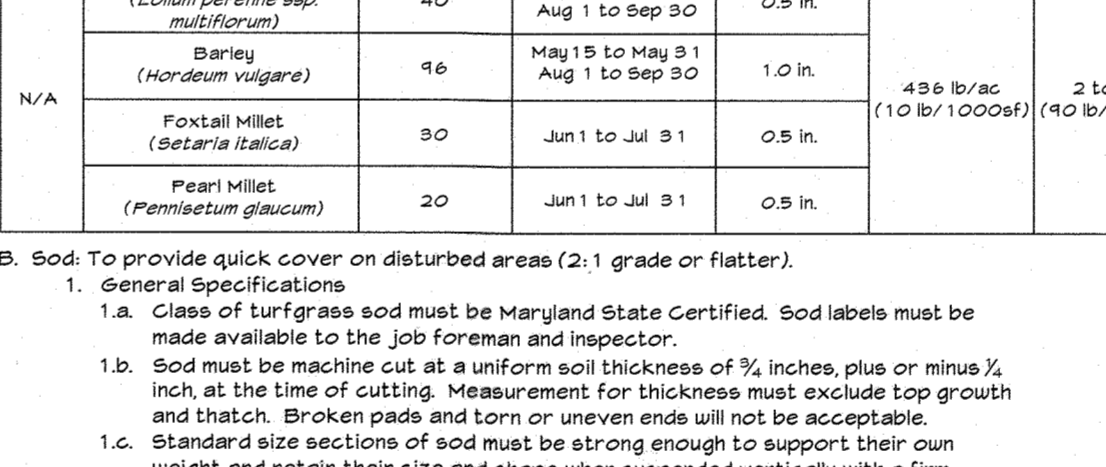
**F. Where runoff concentrates along the toe of the stockpile fill, an appropriate erosion/sediment control practice must be used to intercept the discharge.**

**G. Stockpiles must be stabilized in accordance with the 3/1:1 day stabilization requirement as well as Standard B-4-1 Incremental Stabilization and Standard B-4-4 Temporary Stabilization.**

**H. If the stockpile is located on an impervious surface, a liner should be provided below the stockpile to facilitate cleanup. Stockpiles containing contaminated material must be covered with impermeable sheeting.**

**MAINTENANCE**

The stockpile area must continuously meet the requirements for Adequate Vegetative Establishment in accordance with Section B-4 Vegetative Stabilization. Side slopes must be maintained at no steeper than a 2:1 ratio. The stockpile area must be kept free of erosion. If the vertical height of a stockpile exceeds 20 feet for 2:1 slopes, 30 feet for 3:1 slopes or 40 feet for 4:1 slopes, benching must be provided in accordance with Section B-3 Land Grading.



**DETAIL G-2-4 Baffle Boards**

**STANDARD SYMBOL**  
BB

**BAFFLES ARE REQUIRED TO PROVIDE A FLOW LENGTH BETWEEN INFLOW POINT AND OUTLET EQUAL TO TWICE THE EFFECTIVE TRAP/BASIN WIDTH.**

**SET ELEVATION AT 1/2 OF THE DRY STORAGE (WEIR STORAGE ELEVATION + DRY STORAGE ELEVATION) / 2 OR 6 IN BELOW WEIR CREST (OUTLET) WHICHEVER IS LOWER.**

**COVERS OF 4 FT X 6 FT X 1/2 IN EXISTING GRADE, PLYWOOD OR EQUIVALENT**

**POSITIONS MINIMUM 4 IN SQUARE OR 5 IN ROUND SET AT LEAST 3 FT INTO THE GROUND**

**4 FT CENTER TO CENTER**

**6 IN MIN.**

**3 FT TYP.**

**BAFFLE DETAIL**

**MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL**  
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE 2011 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION G.46

**B-4-4 STANDARDS AND SPECIFICATIONS FOR PERMANENT STABILIZATION**

**DEFINITION**  
To stabilize disturbed soils with permanent vegetation for up to 6 months.

**PURPOSE**  
To use fast growing vegetation that provides cover on disturbed soils.

**CONDITIONS WHERE PRACTICE APPLIES**  
Exposed soils where ground cover is needed for a period of 6 months or less. For longer duration of time, permanent stabilization practices are required.

**CRITERIA**

**A. Select one or more of the species or seed mixtures listed in Table B.1 for the appropriate Plant Hardiness Zone (from Figure B.3), and enter them in the Temporary Seeding Summary below along with application rates, seeding dates and seeding depths. If the Summary is not put on the plan and completed, then Table B.1 plus fertilizer and lime rates must be put on the plan.**

**B. For sites having soil tests performed, use and show the recommended rates by the testing agency. Soil tests are not required for Temporary Seeding.**

**C. When stabilization is required outside of a seeding season, apply seed and mulch or straw mulch along as prescribed in Section B-4-3.A.1.1b and maintain until the next seeding season.**

### B-4-4 STANDARDS AND SPECIFICATIONS FOR PERMANENT STABILIZATION

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**C. When stabilization is required outside of a seeding season, apply seed and mulch or straw mulch along as prescribed in Section B-4-3.A.1.1b and maintain until the next seeding season.**

**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 NUMBER:** 18060 **EXPIRATION DATE:** 10/8/24

**For the Howard Soil Conservation District**  
This Plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.  
*Alexander Bratchev* 08/23/23  
Howard Soil Conservation District Date

**Professional Certification**

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*Alexander Bratchev* 08/23/23  
Howard Soil Conservation District Date

5/20/13 Facilities 13 11 17.00 Oxford Square CIVIL CADD Drawings/SDP - Atk Building & Revisions and Entrance Revisions/13 11 17.00 (SDP-09) Erosion & Sediment Control Specifications.dwg Aug 18, 2023 3:59pm Kedaraj

**APPROVED: DEPARTMENT OF PLANNING AND ZONING**

**OWNER**  
KELLOGG - CCP, LLC  
c/o DAVID P. SCHEFFENACKER, JR.  
MANAGING MEMBER  
100 WEST ROAD, SUITE 304, TOWSON, MD 21204  
410-296-3800

**DESIGN BY:** RLH/KAD  
**DRAWN BY:** RLH/KAD  
**CHECKED BY:** RLH/KAD  
**DATE:** 10-3-22

**DEVELOPER**  
PRESTON - SCHEFFENACKER PROPERTIES  
100 West Road, Suite 304  
Towson, MARYLAND 21204  
410-296-3800

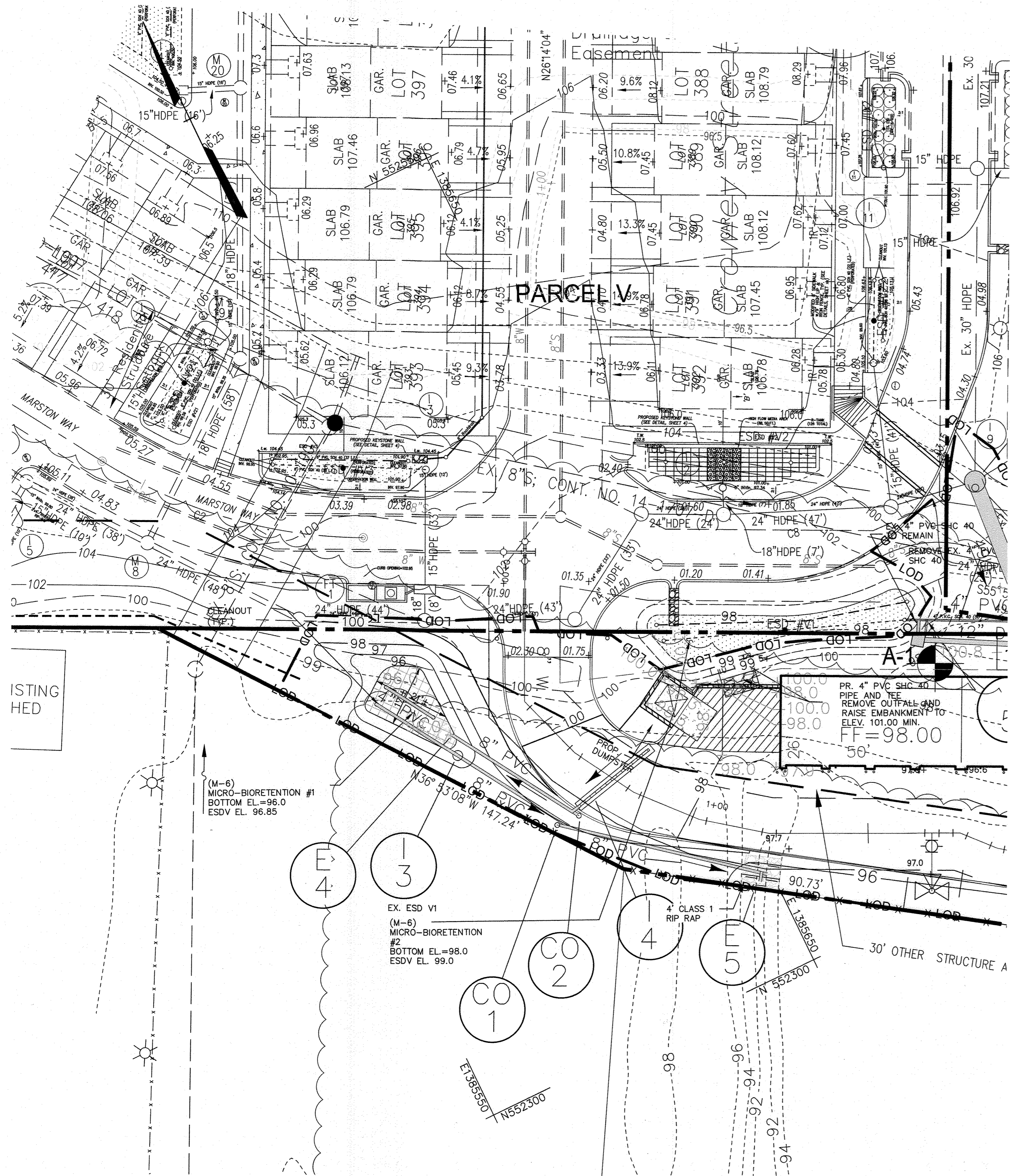
**Erosion & Sediment Control Details**  
PARCELS 'V', 'C-C', & OPEN SPACE LOT 245 - THE ATTIC  
**OXFORD SQUARE**  
"A HOWARD COUNTY GREEN NEIGHBORHOOD"  
TAX MAP: 38 PARCEL: 761 GRID: 20 ZONED: TO  
ELECTION DISTRICT 1 HOWARD COUNTY, MARYLAND  
SHEET 9 OF 21

**C.E.I. PROJECT NUMBER**  
131117.00  
**SCALE:**  
AS SHOWN

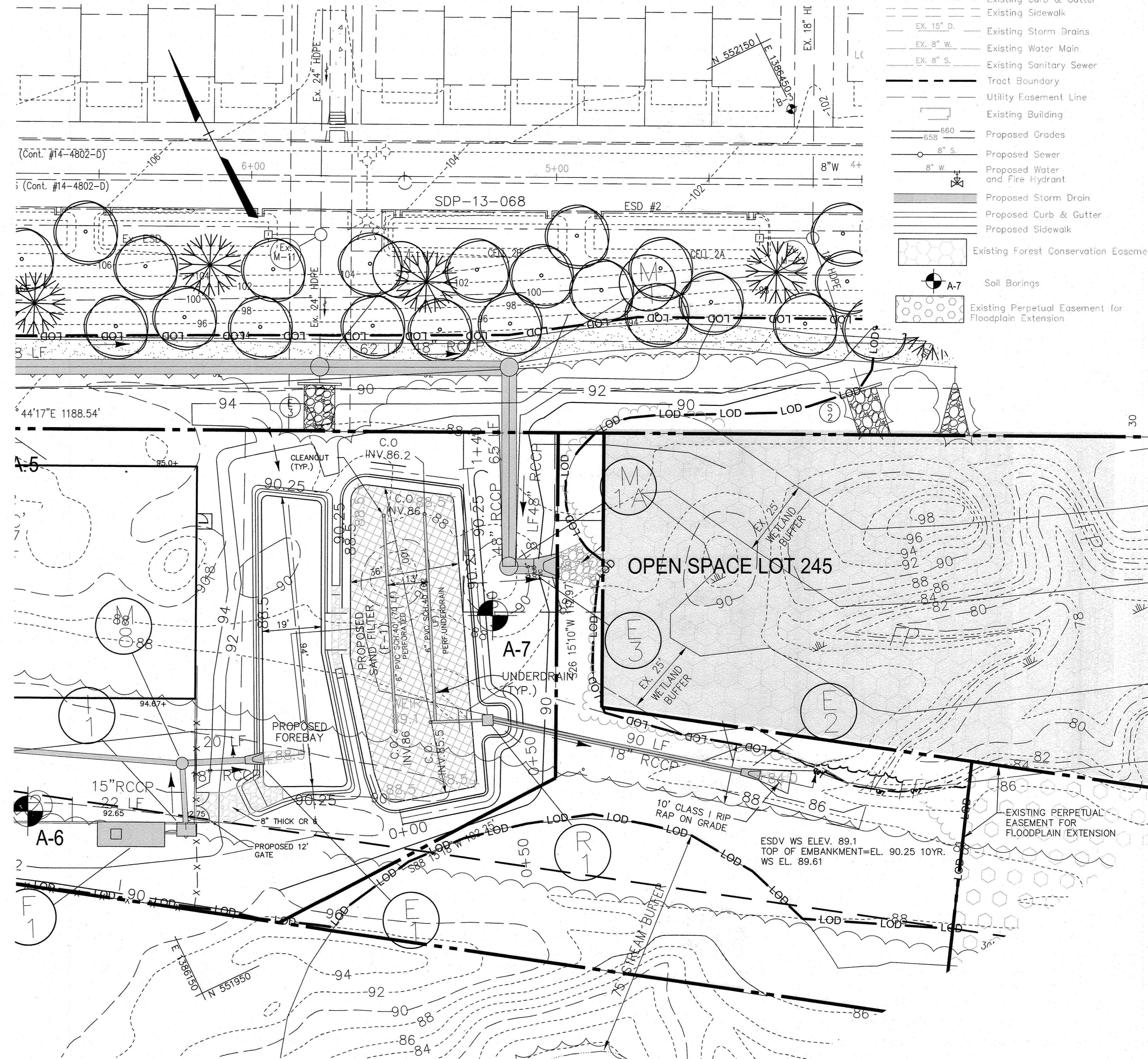
**SDP-16-051**

LEGEND

- 676 Existing Minor Contour
- 670 Existing Major Contour
- Existing Edge of Road
- Existing Stream
- Existing Trees/Tree Line
- Existing Curb & Gutter
- Existing Sidewalk
- EX. 15" D. Existing Storm Drains
- EX. 8" W. Existing Water Main
- EX. 8" S. Existing Sanitary Sewer
- Tract Boundary
- Utility Easement Line
- Existing Building
- 658 660 Proposed Grades
- 8" S. Proposed Sewer
- 8" W. Proposed Water and Fire Hydrant
- Proposed Storm Drain
- Proposed Curb & Gutter
- Proposed Sidewalk
- Existing Forest Conservation Easement
- A-7 Soil Borings
- Existing Perpetual Easement for Floodplain Extension



PLAN  
SCALE: 1"=20'  
0 20' 40'

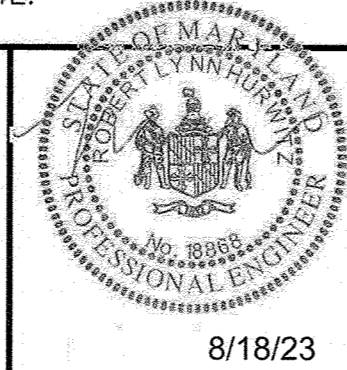


PLAN  
SCALE: 1"=20'  
0 20' 40'

OWNER  
KELLOGG - CCP, LLC  
c/o DAVID P. SCHEFFENACKER, JR.  
MANAGING MEMBER  
100 WEST ROAD, SUITE 304, TOWSON, MD 21204  
410-296-3800

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 NUMBER: 18868  
EXPIRATION DATE: 8/18/23

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
Date: 11/21/23  
Date: 11/21/23



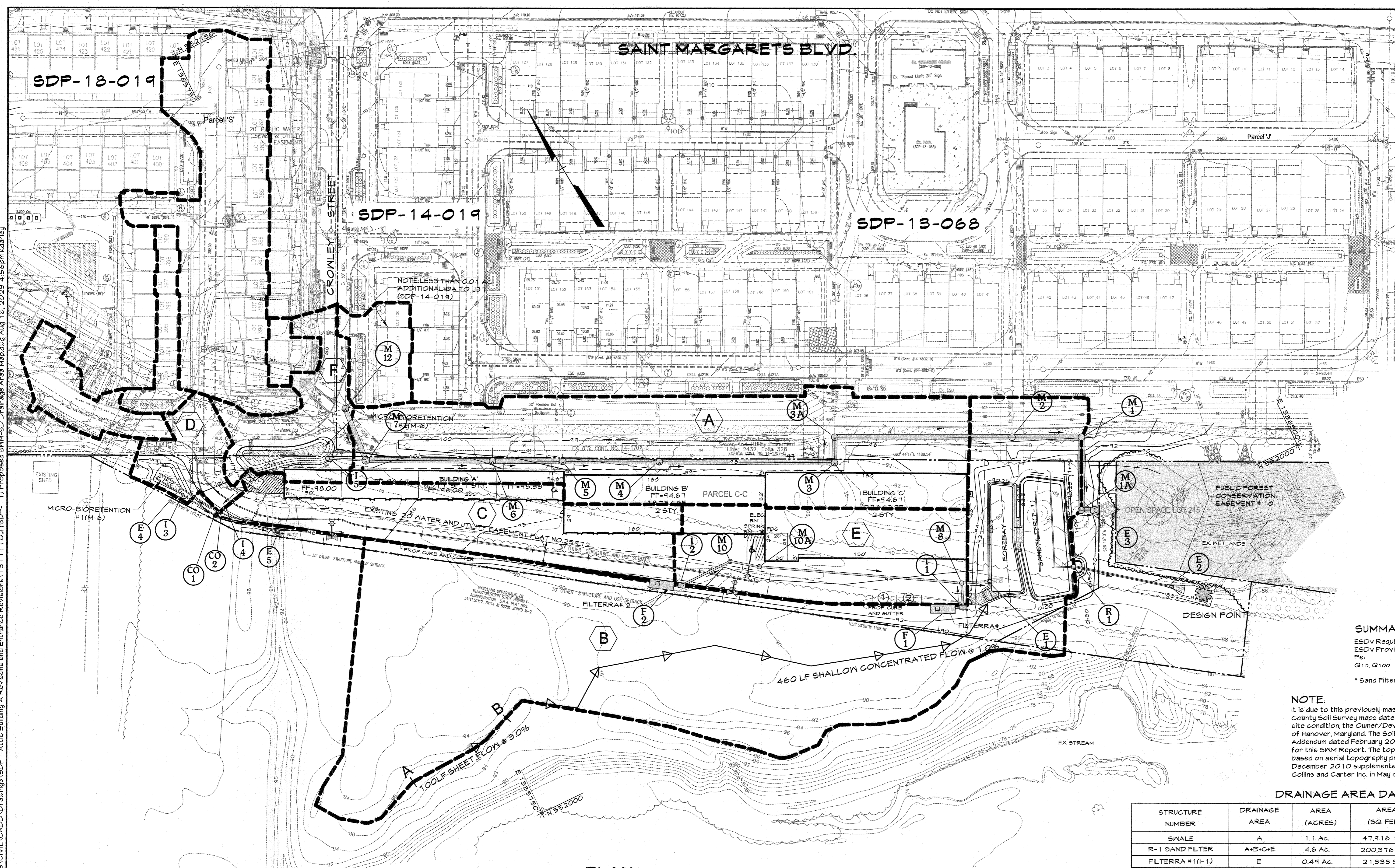
DESIGN BY:	RLH/KAD
DRAWN BY:	
CHECKED BY:	
DATE:	10-3-22
BY NO.	
REVISION	
DATE	

DEVELOPER  
PRESTON - SCHEFFENACKER PROPERTIES  
100 West Road, Suite 304  
Towson, MARYLAND 21204  
410-296-3800

Storm Water Management Plan  
PARCELS 'V', 'C-C', & OPEN SPACE LOT 245 - THE ATTIC  
OXFORD SQUARE  
"A HOWARD COUNTY GREEN NEIGHBORHOOD"  
TAX MAP: 38 PARCEL: 761 GRID: 20 ZONED: TOD  
ELECTION DISTRICT 1 HOWARD COUNTY, MARYLAND  
SHEET 10 OF 21

C.E.I. PROJECT NUMBER 131117.00  
SCALE: As Shown

S:\2013\Facilities\131117.Oxford Square\Civil\CADD\Drawings\SDP - Attic Building A Revisions and Entrance Revisions\131117.02(SDP-11) Proposed SWM-SD Drainage Area Map.dwg Aug 18, 2023 4:56pm Karter



### LEGEND

- 6"6 Existing Minor Contour
- 6"0 Existing Major Contour
- Existing Edge of Road
- Existing Stream
- Existing Trees/Tree Line
- Existing Curb & Gutter
- Existing Sidewalk
- EK 15" D Existing Storm Drains
- EK 8" M Existing Water Main
- EK 8" S Existing Sanitary Sewer
- Tract Boundary
- Utility Easement Line
- Existing Building
- 6"6 Proposed Grades
- 8" S Proposed Sewer
- Proposed Water and Fire Hydrant
- Proposed Storm Drain and Inlets
- Proposed Curb & Gutter
- Proposed Sidewalk
- Existing Forest Conservation Easement
- Existing Perpetual Easement for Floodplain Extension

### SUMMARY TABLE

ESDV Required =	10,507 CF.
ESDV Provided:	11,593 CF.
Pe:	1.8
Q10, Q100	Not Required

\* Sand Filter used with HoGo Approval

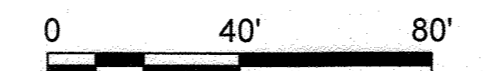
**NOTE:**  
 It is due to this previously mass graded condition that the normal Howard County Soil Survey maps dated July 1968 do not apply. As a result of this site condition, the Owner/Developer have contracted EGS-Mid Atlantic, LLC of Hanover, Maryland. The Soil Report is dated November 2009 with an Addendum dated February 2010 that summarized the Soils Groups required for this SWM Report. The topography utilized for this plan of subdivision is based on aerial topography prepared by Harford Aerial Surveys dated December 2010 supplemented with field run topography prepared by Fisher Collins and Carter Inc. in May of 2010.

### DRAINAGE AREA DATA

STRUCTURE NUMBER	DRAINAGE AREA	AREA (ACRES)	AREA (SQ. FEET)	C	ZONED	% IMP.
SNALE	A	1.1 Ac.	47,916 Sq. Ft.	----	TOD	42
R-1 SAND FILTER	A+B+C+E	4.6 Ac.	200,376 Sq. Ft.	----	TOD	100
FILTERRA #1(1-1)	E	0.49 Ac.	21,393 Sq. Ft.	.95	TOD	100
FILTERRA #2(1-2)	C	0.52 Ac.	22,860 Sq. Ft.	.95	TOD	100
MICRO-BIO #2 1-5	F	0.26 Ac.	11,526 Sq. Ft.	.68	TOD	37
MICRO-BIO #1 1-3, 1-4	D	0.14 Ac.	5,940 Sq. Ft.	----	TOD	61

### PLAN

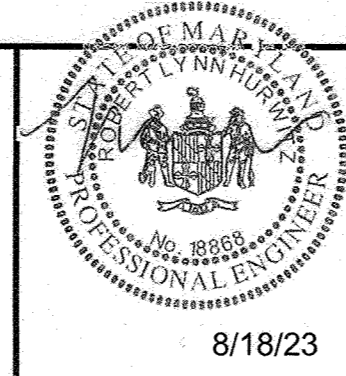
SCALE: 1"=40'



**OWNER**  
 KELLOGG - CCP, LLC  
 c/o DAVID P. SCHEFFENACKER, JR.  
 MANAGING MEMBER  
 100 WEST ROAD, SUITE 304, TOWSON, MD 21204  
 410-296-3800

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 Chief, Development Engineering Division  
 Date: 11/22/23  
 Chief, Division of Land Development  
 Date: 11/22/23  
 Director

**CENTURY ENGINEERING**  
 CONSULTING ENGINEERS - PLANNERS  
 10710 Gilroy Road, Hunt Valley, MD 21031  
 Phone: 443.589.2400 Fax: 443.589.2401

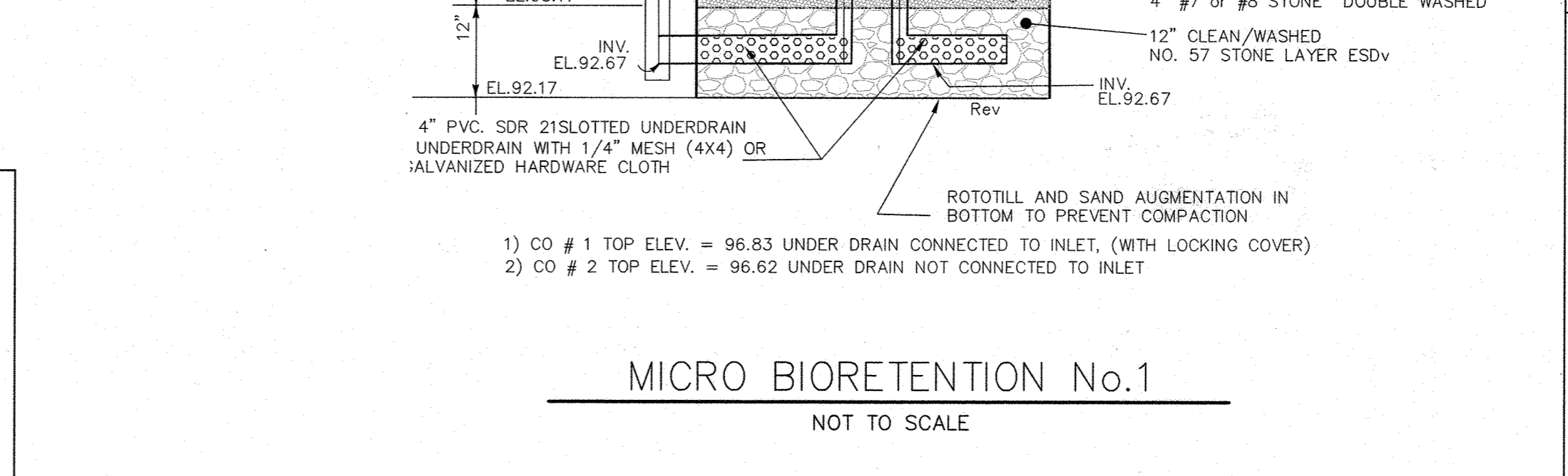
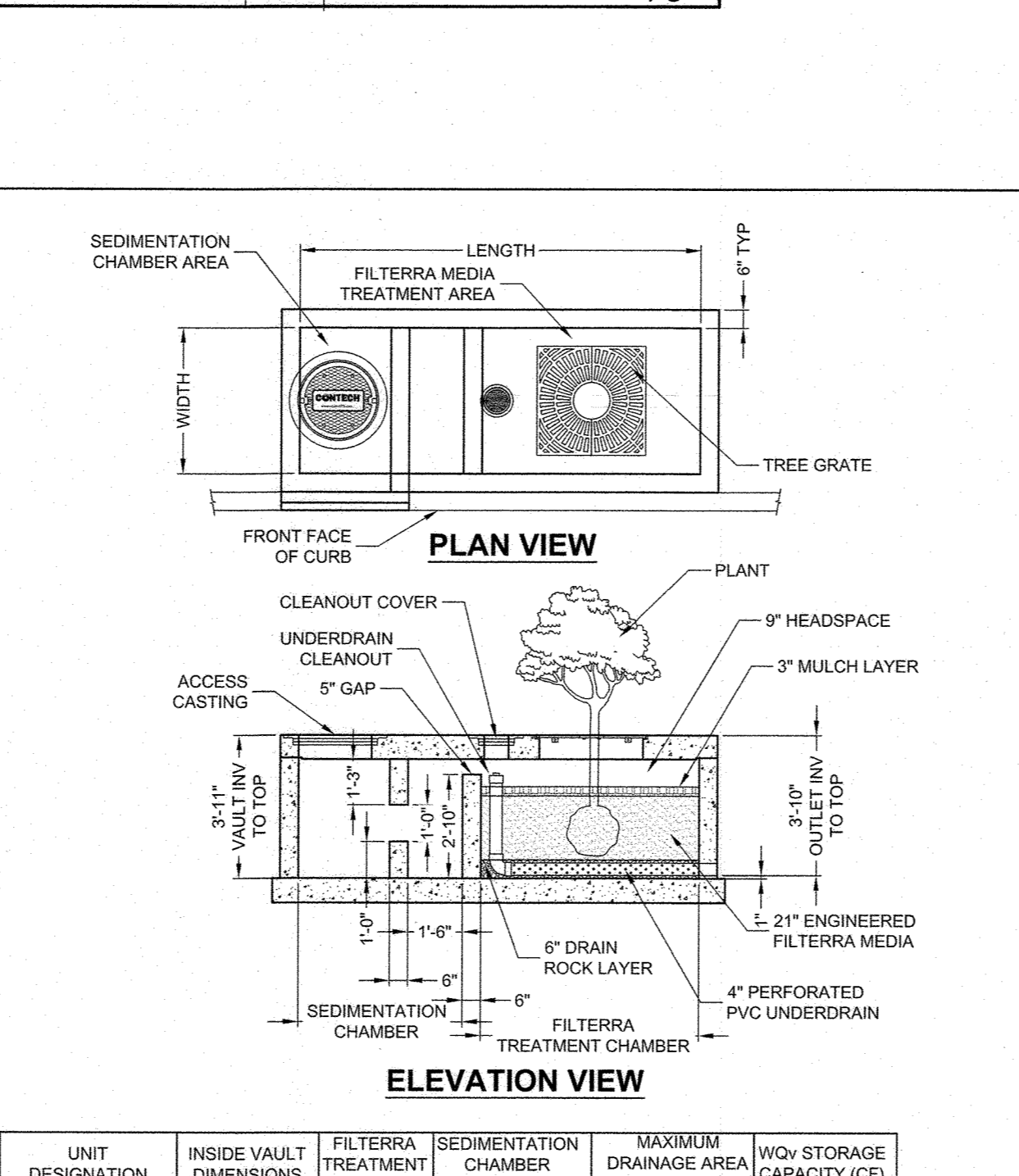
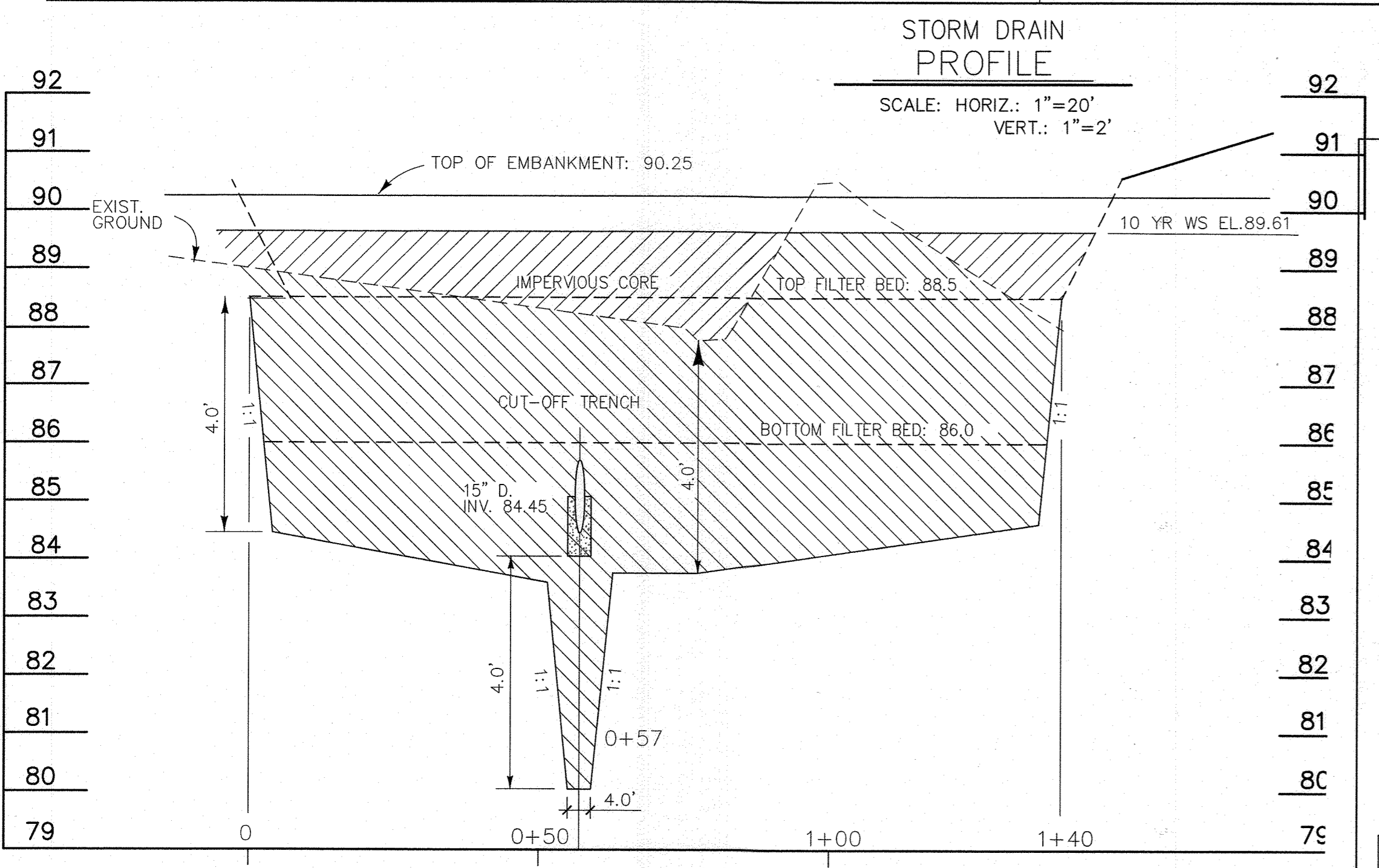
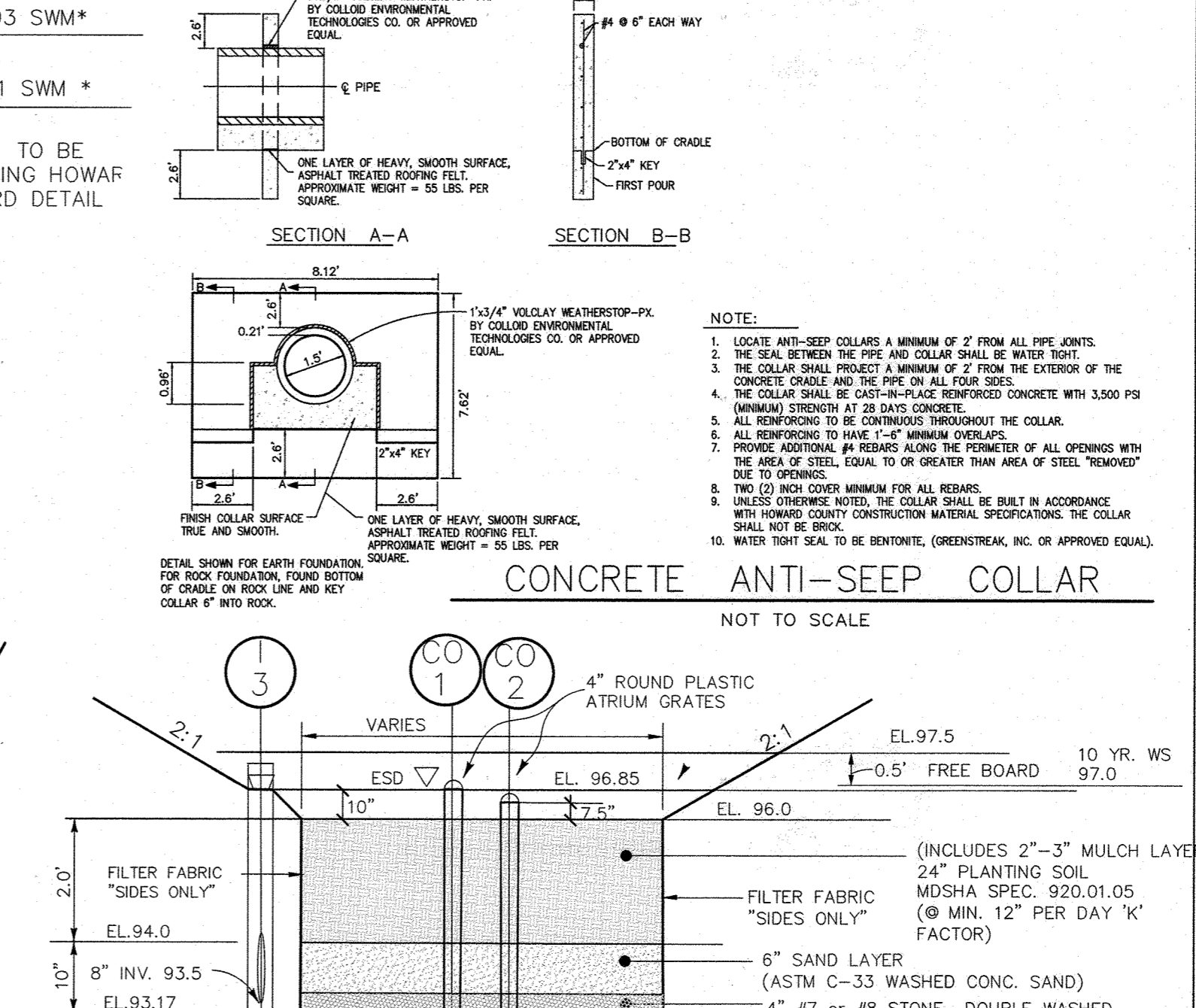
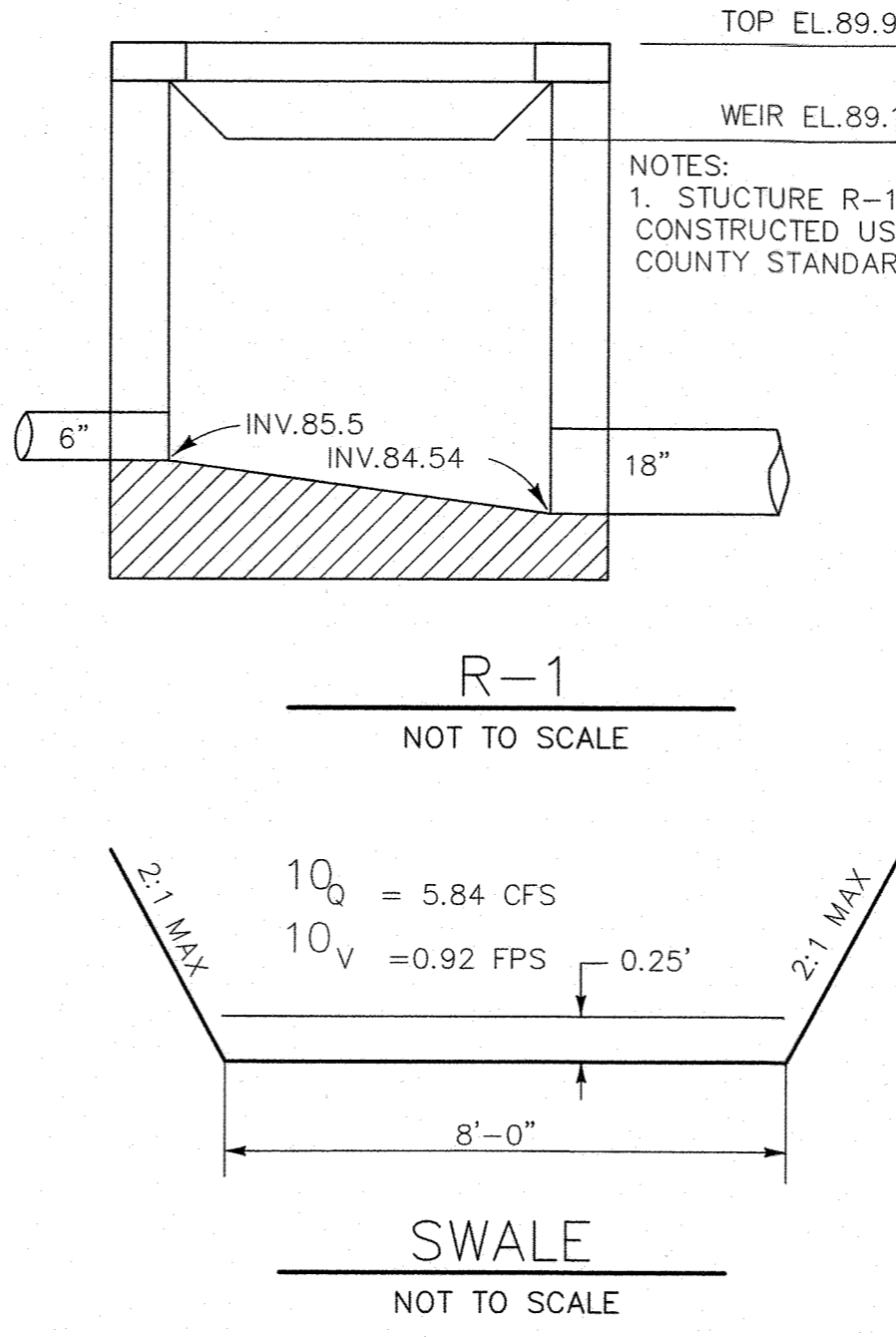
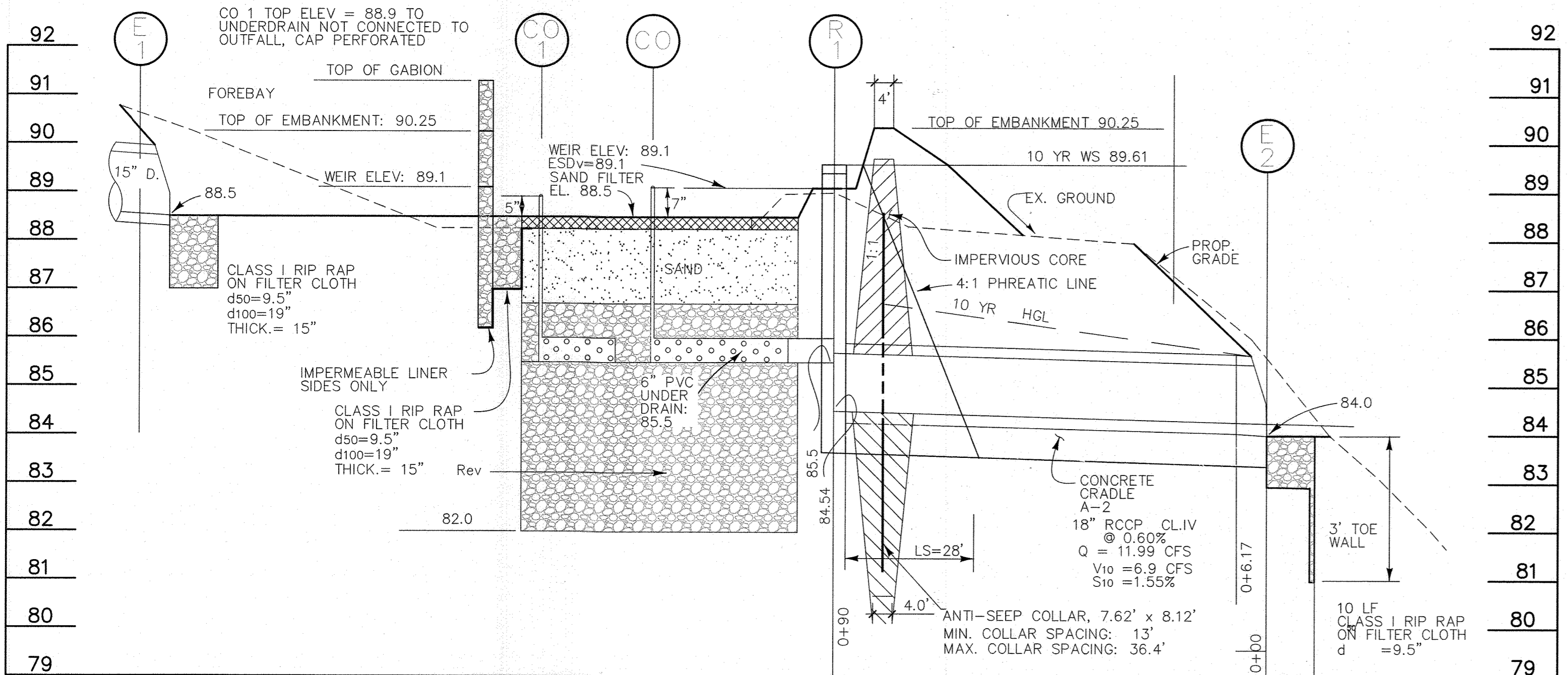


DESIGN BY: RLH/KAD  
 DRAWN BY:  
 CHECKED BY:  
 DATE: 10-3-22  
 BY NO. REVISION DATE

**DEVELOPER**  
 PRESTON - SCHEFFENACKER PROPERTIES  
 100 West Road, Suite 304  
 Towson, Maryland 21204  
 410-296-3800

Proposed Stormwater Management/Storm Drain  
 Drainage Area Map  
 PARCELS 'V', 'C-C', & OPEN SPACE LOT 245 - THE ATTIC  
**OXFORD SQUARE**  
 "A HOWARD COUNTY GREEN NEIGHBORHOOD"  
 TAX MAP: 38 PARCEL: 761 GRID: 20 ZONED: TOD  
 ELECTION DISTRICT 1 SHEET 11 OF 21

C.E.I. PROJECT NUMBER  
 131117.00  
 SCALE:  
 As Shown



**PLANTING SOIL**

The soil shall be a uniform mix, free of stones, slumps, roots or other similar objects larger than two inches. No other materials or substances shall be mixed or dumped within the micro-bioretention practice that may be harmful to plant growth, or prove a hindrance to the planting or maintenance operations. The planting soil shall be free of Bermuda grass, Quackgrass, Johnson grass, or other noxious weeds as specified under COMAR 15.08.01.05.

The planting soil shall be tested and shall meet the following criteria:

- Soil Component - Loamy Sand or Sandy Loam (USDA Soil Textural Classification)
- Organic Content - Minimum 10% by dry weight (ASTM D 2974). In general, this can be met with a mixture of loamy sand (60%-65%) and compost (35% to 40%) or sandy loam (30%), coarse sand (30%), and compost (40%).
- Clay Content - Media shall have a clay content of less than 5%.
- pH Range - Should be between 5.5 - 7.0. Amendments (e.g., lime, iron sulfate plus sulfur) may be mixed into the soil to increase or decrease pH.

There shall be at least one soil test per project. Each test shall consist of both the standard soil test for pH, and additional organic matter, and soluble salts. A textural analysis is required from the site stockpiled planting soil. If planting soil is imported, then a texture analysis shall be performed for each location where the planting soil was excavated.

UNIT DESIGNATION	INSIDE VAULT DIMENSIONS	FILTERRA TREATMENT AREA	SEDIMENTATION CHAMBER AREA	MAXIMUM DRAINAGE AREA TREATED (SF)	WOV STORAGE CAPACITY (CF)
FTSC 6' x 4'	12' x 4'	8' x 4'	5.5' x 4'	5,216	99
FTSC 8' x 4'	16' x 4'	8' x 4'	7.5' x 4'	7,141	136
FTSC 6' x 6'	12' x 6'	8' x 6'	5.5' x 6'	7,847	149
FTSC 8' x 6'	16' x 6'	8' x 6'	7.5' x 6'	10,734	204
FTSC 10' x 6'	19' x 6'	10' x 6'	8.5' x 6'	12,638	240
FTSC 10' x 8'	20' x 8'	10' x 8'	9.5' x 8'	18,178	346
FTSC 11' x 8'	22' x 8'	11' x 8'	10.5' x 8'	20,000	383

**OWNER**

**KELLOGG - CCP, LLC**  
 c/o DAVID P. SCHEFFENACKER, JR.  
 MANAGING MEMBER  
 100 WEST ROAD, SUITE 304, TOWSON, MD 21204  
 410-296-3800

**NOTE TO CONTRACTOR**

THE CONTRACTOR SHALL SUPPLY A LETTER CERTIFICATION TO THE STORMWATER MANAGEMENT AS-BUILT CERTIFYING ENGINEER. THIS LETTER CERTIFICATION SHALL BE PREPARED BY A MARYLAND LICENSED GEOTECHNICAL ENGINEER WHICH CERTIFIES WITH REGARD TO THE MICRO BIORETENTION PLANTING SOIL THE FOLLOWING:

- MEETS THE MARYLAND DEPARTMENT OF THE ENVIRONMENT SPECIFICATION.
- HAS BEEN UNIFORMLY MIXED PRIOR TO PLACEMENT.
- HAS BEEN LAB TESTED TO ACHIEVE A PERMEABILITY OF NO LESS THAN 1/2 FOOT PER DAY AND NO MORE THAN 2 FEET PER DAY.
- THE PERMEABILITY TEST METHOD UTILIZED.
- THE PERMEABILITY TEST RESULTS.
- THE MIX GRADATION (T 88).
- RECOMMENDATIONS FOR COMPACTION DURING PLACEMENT TO ARCHIVE TARGET PERMEABILITY.

THE CONTRACTOR RESPONSIBLE FOR INSTALLING THE MICRO-BIORETENTION FACILITY MUST PROVIDE A LETTER TO THE STORMWATER MANAGEMENT AS-BUILT CERTIFYING ENGINEER WHICH CERTIFIES THAT THE PLANTING SOIL (PS) HAS BEEN KEPT FREE OF CONTAMINATION PRIOR TO ITS PERMANENT PLACEMENT IN THE FACILITY.

**CONTECH ENGINEERED SOLUTIONS LLC**  
 605 Global Way, Suite 113, Luthersville, MD 21080  
 866-740-3318 OFFICE 866-376-8511 FAX DATE: 4/13/15 SCALE: NONE PRODUCT NO: FTSC DRAWN BY: BCL

**FILTERRA® WITH SEDIMENTATION CHAMBER PROJECT LOCATION:**

**PROFESSIONAL CERTIFICATION**

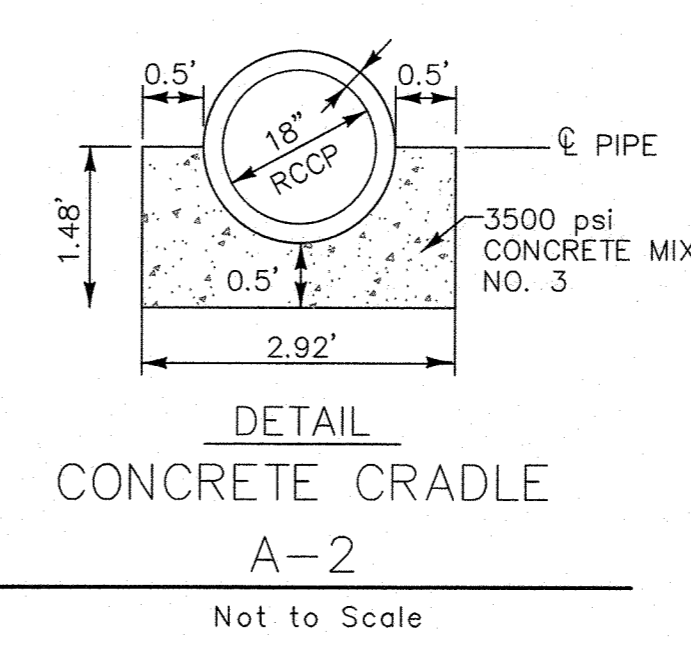
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.

LICENSE NUMBER: 18868 EXPIRES: 12/31/24 DATE:

Appendix B.A. Construction Specifications for Environmental Site Design Practices

**Table B.4.1 Materials Specifications for Micro-Bioretention, Rain Gardens & Landscape Infiltration-**

Material	Specification	Size	Notes
Plantings	see Appendix A, Table A.4	n/a	plantings are site-specific
Planting soil [2' to 4' deep]	loamy sand (60 - 65%) & compost (35 - 40%) or sandy loam (30%), coarse sand (30%) & compost (40%)	n/a	USDA soil types loamy sand or sandy loam; clay content < 5%
Organic content	Min. 10% by dry weight (ASTM D 2974)		
Mulch	shredded hardwood	n/a	aged 6 months, minimum; no pine or wood chips
Pea gravel diaphragm	pea gravel: ASTM-D-448	NO. 8 OR NO. 9 (1/8" TO 3/8")	
Curtain drain	ornamental stone: washed cobbles	stone: 2" to 5"	
Geotextile		n/a	PE Type 1 nonwoven
Gravel (underdrains and infiltration berms)	AASHTO M-43	NO. 57 OR NO. 6 AGGREGATE (3/8" to 3/4")	
Underdrain piping	F 758, Type PS 28 or AASHTO M-278	4" to 6" rigid schedule 40 PVC or SDR35	Slotted or perforated pipe; 3/8" perf. @ 6" on center, 4 holes per row; minimum of 3" of gravel over pipes; not necessary underneath pipes. Perforated pipe shall be wrapped with 1/2-inch galvanized hardware cloth.
Poured in place concrete (if required)	MSHA Mix No. 3; F <sub>c</sub> = 3500 psi @ 28 days, normal weight, air-entrained; reinforcing to meet ASTM-615-60	n/a	on-site testing of poured-in-place concrete required: 28 day strength and slump test; all concrete design (cast-in-place or pre-cast) not using previously approved State or local standards requires design drawings sealed and approved by a professional structural engineer licensed in the State of Maryland - design to include meeting ACI Code 350.R/89; vertical loading [H-10 or H-20]; allowable horizontal loading (based on soil pressures); and analysis of potential cracking.
Sand	AASHTO-M-6 or ASTM-C-33	0.02" to 0.04"	Sand substitutions such as Diabase and Graystone (AASHTO) #10 are not acceptable. No calcium carbonated or dolomitic sand substitutions are acceptable. No "rock dust" can be used for sand.



**OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED FILTERRAS.**

- 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.
- FOLLOW THE MAINTENANCE RECOMMENDATIONS BY FILTERRA.
- A LOGBOOK SHALL BE MAINTAINED TO DOCUMENT THE INSPECTIONS.
- 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 FACILITY HAVE BEEN VERIFIED, THE MONITORING SCHEDULE CAN BE REDUCED AT AN ANNUAL BASIS.

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division  
 Date: 4/12/23

Division of Land Development  
 Date: 4/27/23

Director

**CENTURY ENGINEERING**  
 CONSULTING ENGINEERS - PLANNERS  
 10710 Gilroy Road, Hunt Valley, MD 21031  
 Phone: 443.589.2400 Fax: 443.589.2401

8/18/23

DESIGN BY: RLH/KAD  
 DRAWN BY:  
 CHECKED BY:  
 DATE: 10-3-22

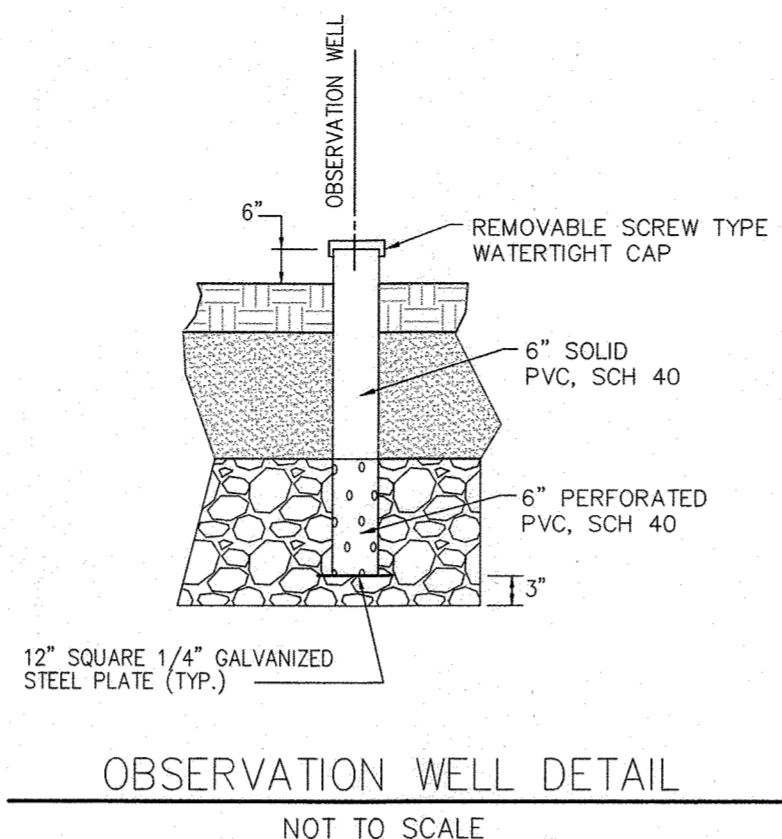
BY NO. REVISION DATE

DEVELOPER  
**PRESTON - SCHEFFENACKER PROPERTIES**  
 100 West Road, Suite 304  
 Towson, MARYLAND 21204  
 410-296-3800

**Stormwater Management Details**  
 PARCELS 'V', 'C-C', & OPEN SPACE LOT 245 - THE ATTIC  
**OXFORD SQUARE**  
 "A HOWARD COUNTY GREEN NEIGHBORHOOD"  
 TAX MAP: 38 PARCEL: 761 GRID: 20 ZONED: T00  
 ELECTION DISTRICT 1 HOWARD COUNTY, MARYLAND  
 SHEET 12 OF 21

C.E.I. PROJECT NUMBER: 131117.00  
 SCALE: As Shown

Material	Specifications/Test Method	Size	Notes
sand	clean AASHTO-6 of ASTM Concrete sand	0.02" to 0.04"	Sand substitutions such as Diabase and Graystone #10 are not acceptable. No calcium carbonated or dolomitic sand substitutions are acceptable. No "rock dust" can be used for sand.
peat	ash content <15% pH range: 5.2 to 4.9 loose bulk density 0.12 to 0.15 g/cc	n/a	The material must be reed-sedge hemic peat, shredded, uncompacted, uniform and clean.
leaf compost		n/a	
underdrain gravel	AASHTO-M-43	0.375" to 0.75"	
geotextile fabric (if required)	ASTM-D-4833 (puncture strength lb.) ASTM-D-4632 (Tensile Strength lb.)	0.08" thick opening size of #80 sieve	Must maintain 125 gm per sq.ft. flow rate. Note: a 4" gravel layer may be substituted for geotextiles meant to "separate" sand filter layers
impermeable liner (if required)	ASTM-D-4833(thickness) ASTM-D-412 (tensile strength 1,100 lb., elongation 200%) ASTM-D-624 (tear resistance-150 lb./in) ASTM-D-471 (water absorption: +8 to -2% mass)	30 mil thickness	Liner to be ultraviolet resistant. A geotextile fabric should be used to protect the liner from puncture.
underdrain piping	F 758, Type PS 28 or AASHTO -M-278	4" to 6" rigid Schedule 40 PVC or SDR35	¾" perf. @ 6" on center, 4 holes per row; minimum 3" of gravel over pipes; not necessary underneath pipes
concrete (cast-in-place)	MSHA Standards and Specs. Section 902 Mix No. 3 f <sub>c</sub> =3500 psi normal weight, air-entrained; reinforcing to meet ASTM-615-60	n/a	on-site testing of poured-in-place concrete required: 28 day strength and slump test; all concrete design (cast-in-place or precast) not using previously approved State and local standards requires design sealed and approved by a professional structural engineer licensed in the State of Maryland
concrete(pre-cast)	per pre-cast manufacturer	n/a	SWM ABOVE NOTE
non-rebar steel	ASTM A-36	n/a	structural steel to be hot-dipped galvanized ASTM-A-123



OBSERVATION WELL DETAIL  
NOT TO SCALE

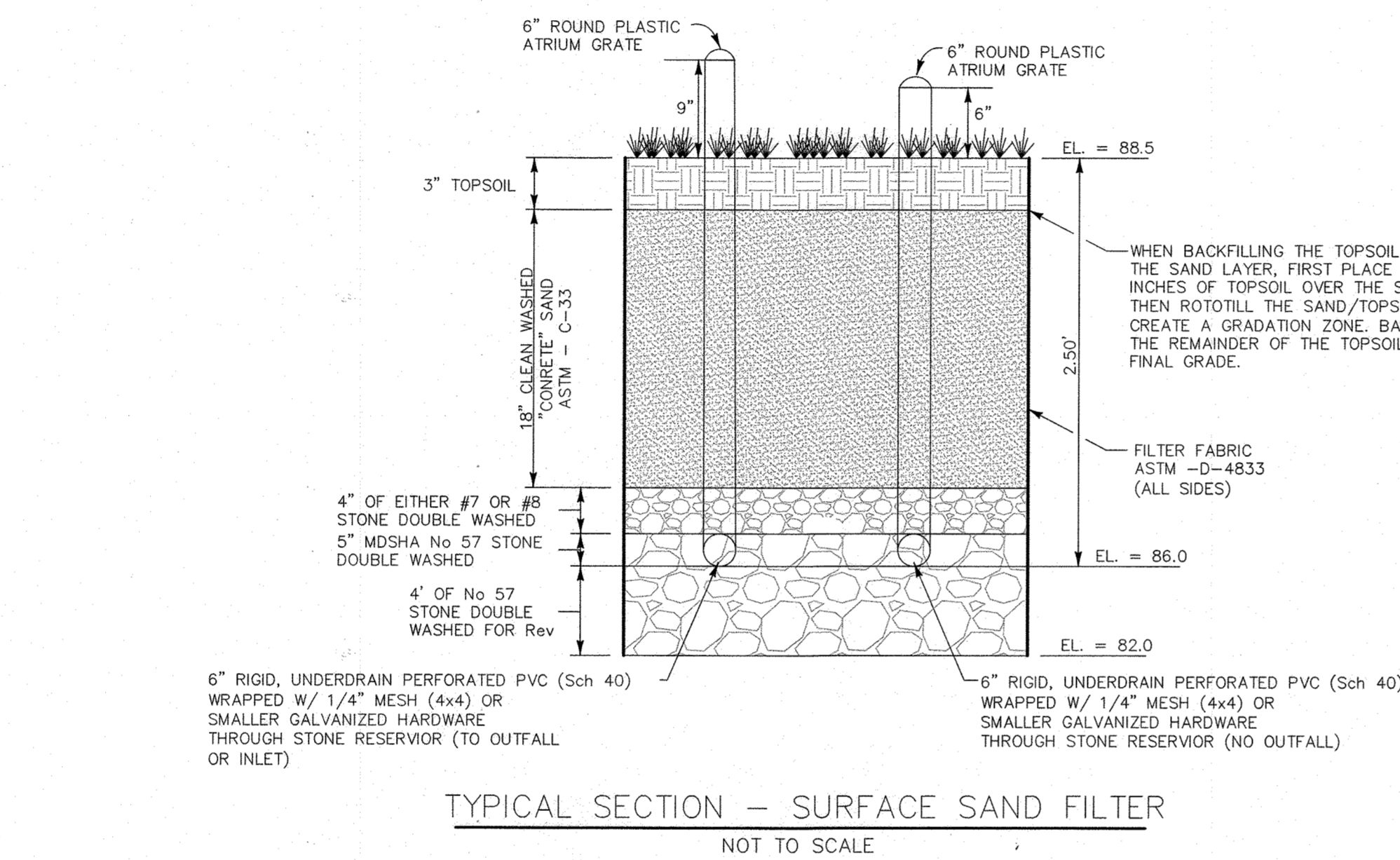
SAND FILTER SPECIFICATIONS (F-1)

- MATERIAL SPECIFICATIONS FOR SAND FILTER  
THE ALLOWABLE MATERIALS FOR SAND FILTER CONSTRUCTION ARE DETAILED IN TABLE B.3.1
- SAND FILTER TESTING SPECIFICATIONS  
UNDERGROUND SAND FILTERS, FACILITIES WITHIN SENSITIVE GROUNDWATER AQUIFERS, AND FILTERS DESIGNED TO SERVE URBAN HOT SPOTS ARE TO BE TESTED FOR WATER TIGHTNESS PRIOR TO PLACEMENT ON FILTER MEDIA. ENTRANCES AND EXITS SHOULD BE PLUGGED AND THE SYSTEM COMPLETELY FILLED WITH WATER TO DEMONSTRATE WATER TIGHTNESS MEANS NO LEAKAGE FOR A PERIOD OF 8 HOURS. ALL OVERFLOW WEIRS, MULTIPLE ORIFICES AND FLOW DISTRIBUTION SLOPS ARE TO BE FIELD-TESTED TO VERIFY ADEQUATE DISTRIBUTION OF FLOWS.
- SAND FILTER CONSTRUCTION SPECIFICATIONS  
PROVIDE SUFFICIENT MAINTENANCE ACCESS (i.e., 12-FOOTWIDE ROAD WITH LEGALLY RECORDED EASEMENT), VEGETATED ACCESS SLOPES ARE TO BE A MAXIMUM OF 10%; GRAVEL SLOPES TO 15%; PAVED SLOPES TO BE 25%.

ABSOLUTELY NO RUNOFF IS TO ENTER THE FILTER UNTIL ALL CONTRIBUTING DRAINAGE AREAS HAVE BEEN STABILIZED.  
SURFACE OF FILTER BED IS TO BE LEVEL.  
ALL UNDERGROUND SAND FILTER SHOULD BE CLEARLY DELINEATED WITH SIGNS SO THAT THEY MAY BE LOCATED WHEN MAINTENANCE IS DUE.  
SURFACE SAND FILTERS MAY BE PLANTED WITH APPROPRIATE GRASSES; SEE MAA APPROVED SPECIES LIST.  
"POCKET" SAND FILTERS ( AND RESIDENTIAL BIO-RETENTION FACILITIES TREATING AREAS LARGER THAN AN ACRE) SHALL BE SIZED WITH A STONE "WINDOW" THAT COVERS APPROXIMATELY 10% OF THE FILTER AREA. THIS "WINDOW" SHALL BE FILLED WITH PEA GRAVEL (3/4 INCH STONE).

OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED SURFACE STORMWATER FILTRATION SYSTEMS(M-6) AND (F-1)\*

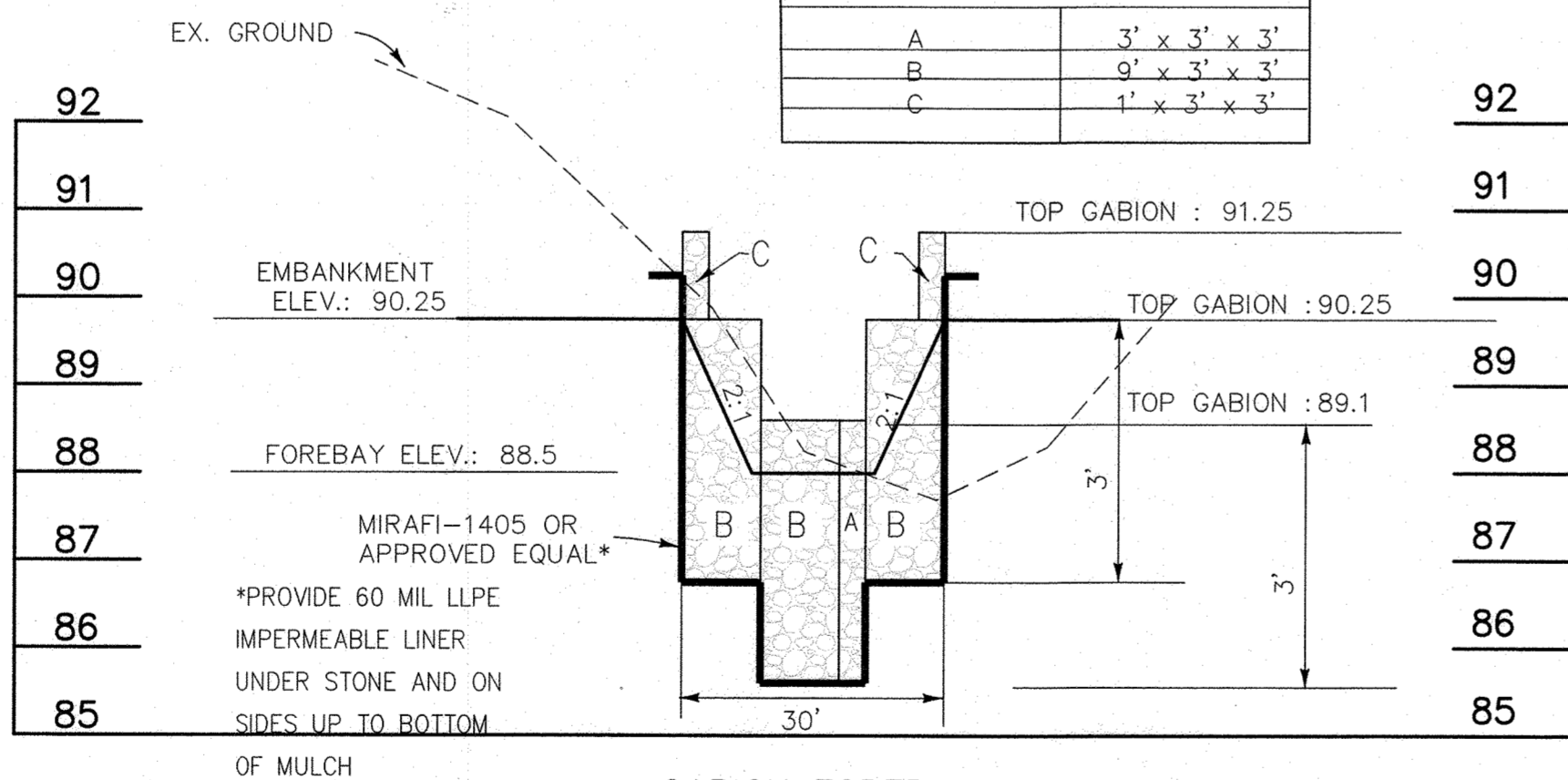
- THE STORMWATER WETLAND FACILITY SHALL BE INSPECTED ANNUALLY AND AFTER MAJOR STORMS. INSPECTIONS SHALL BE PERFORMED DURING WET WEATHER TO DETERMINE IF THE FACILITY IS FUNCTIONING PROPERLY.
- THE TOP AND SIDE SLOPES OF THE EMBANKMENT SHALL BE MOWED A MINIMUM OF ONCE PER YEAR, WHEN VEGETATION REACHES 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 SIGNS OF EROSION IN THE FACILITY SHALL BE REPAIRED AS SOON AS IT IS NOTICED.
- REMOVE SILT WHEN IT EXCEEDS FOUR (4) INCHES DEEP IN THE FOREBAY.
- FILTER MATERIAL MUST BE REPLACED WHEN WATER REMAINS ON THE SURFACE OF THE FILTER BED FOR MORE THAN 24 HOURS FOLLOWING A 1 OR 2 YEAR STORM EVENT OR MORE THAN 48 HOURS AFTER A 10 YEAR STORM EVENT.
- 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 AT AN ANNUAL BASIS UNLESS THE PERFORMANCE DATA INDICATES THAT A MORE FREQUENT SCHEDULE IS REQUIRED.



TYPICAL SECTION - SURFACE SAND FILTER  
NOT TO SCALE

SIZE CHART

LETTER CODE	L x W x D
A	3' x 3' x 3'
B	9' x 3' x 3'
C	1' x 3' x 3'



GABION FOREBAY PROFILE  
SCALE: HORIZ: 1"=20'  
VERT: 1"=2'

OWNER

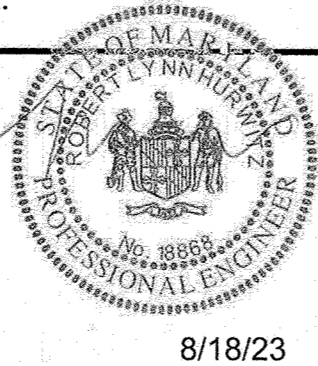
KELLOGG - CCP, LLC  
c/o DAVID P. SCHEFFENACKER, JR.  
MANAGING MEMBER  
100 WEST ROAD, SUITE 304, TOWSON, MD 21204  
410-296-3800

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 NUMBER: 18868

EXPIRES DATE: 8/18/23



DESIGN BY: RLH/KAD  
DRAWN BY:  
CHECKED BY:  
DATE: 10-3-22

REVISION	BY	NO.	DATE

DEVELOPER

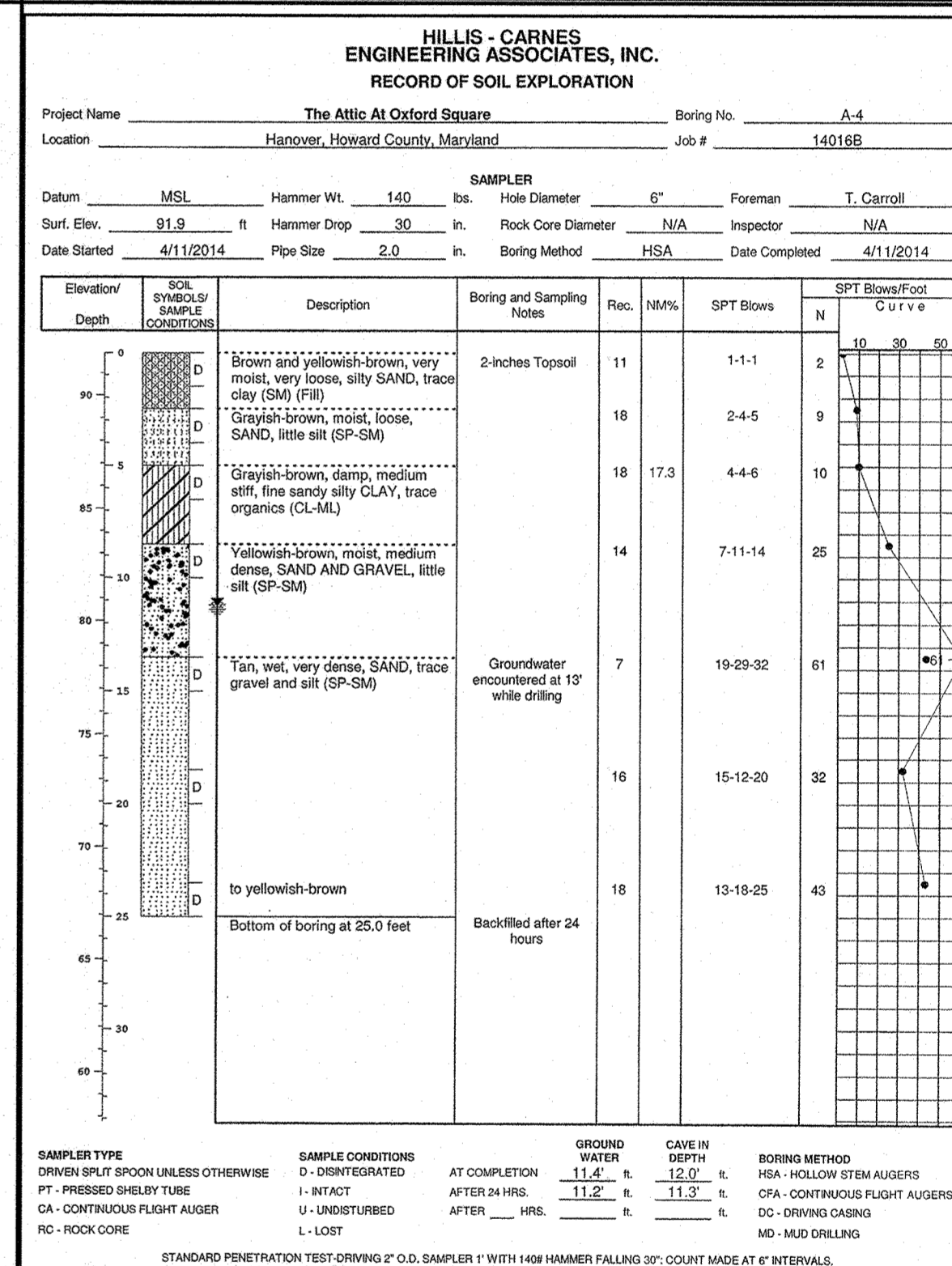
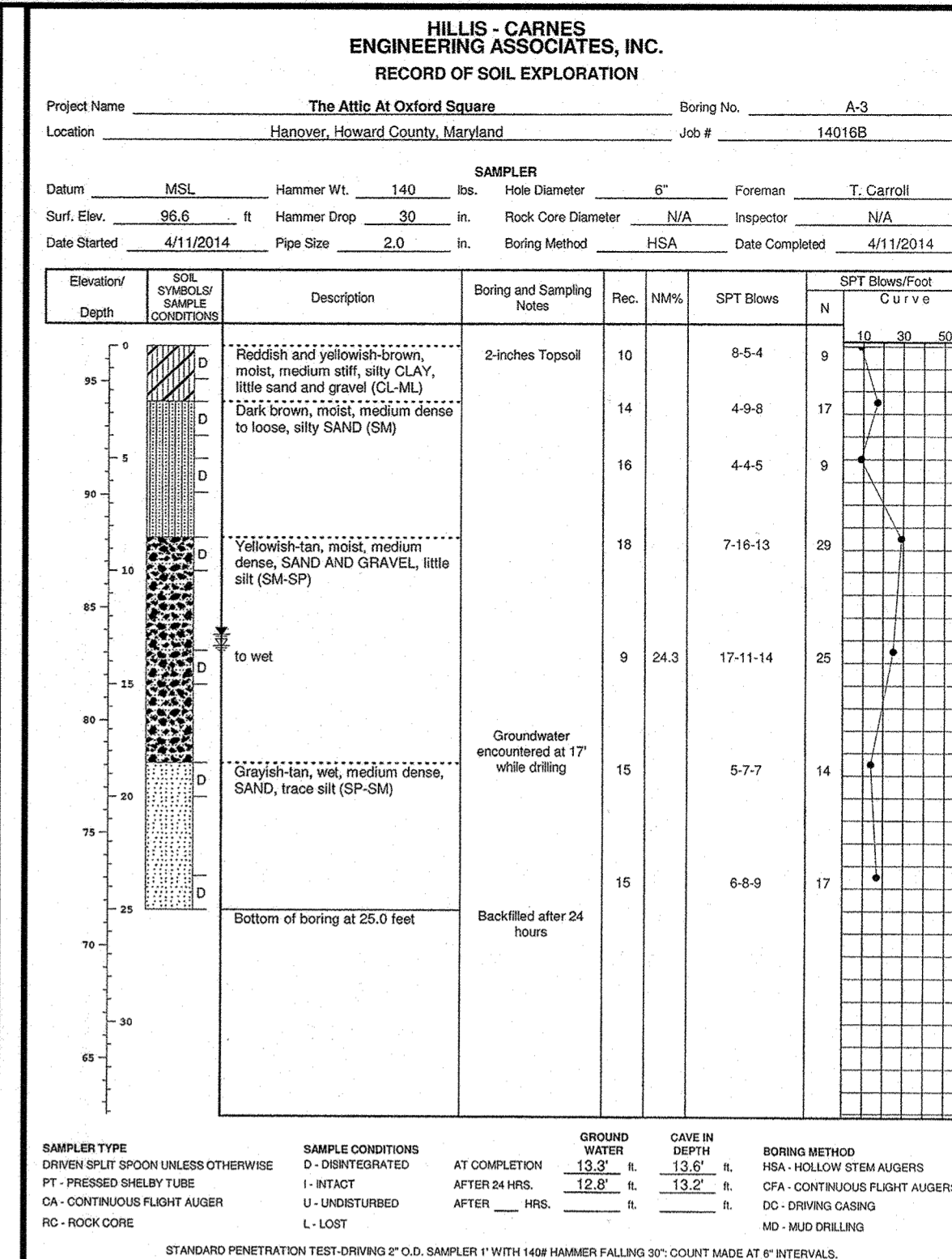
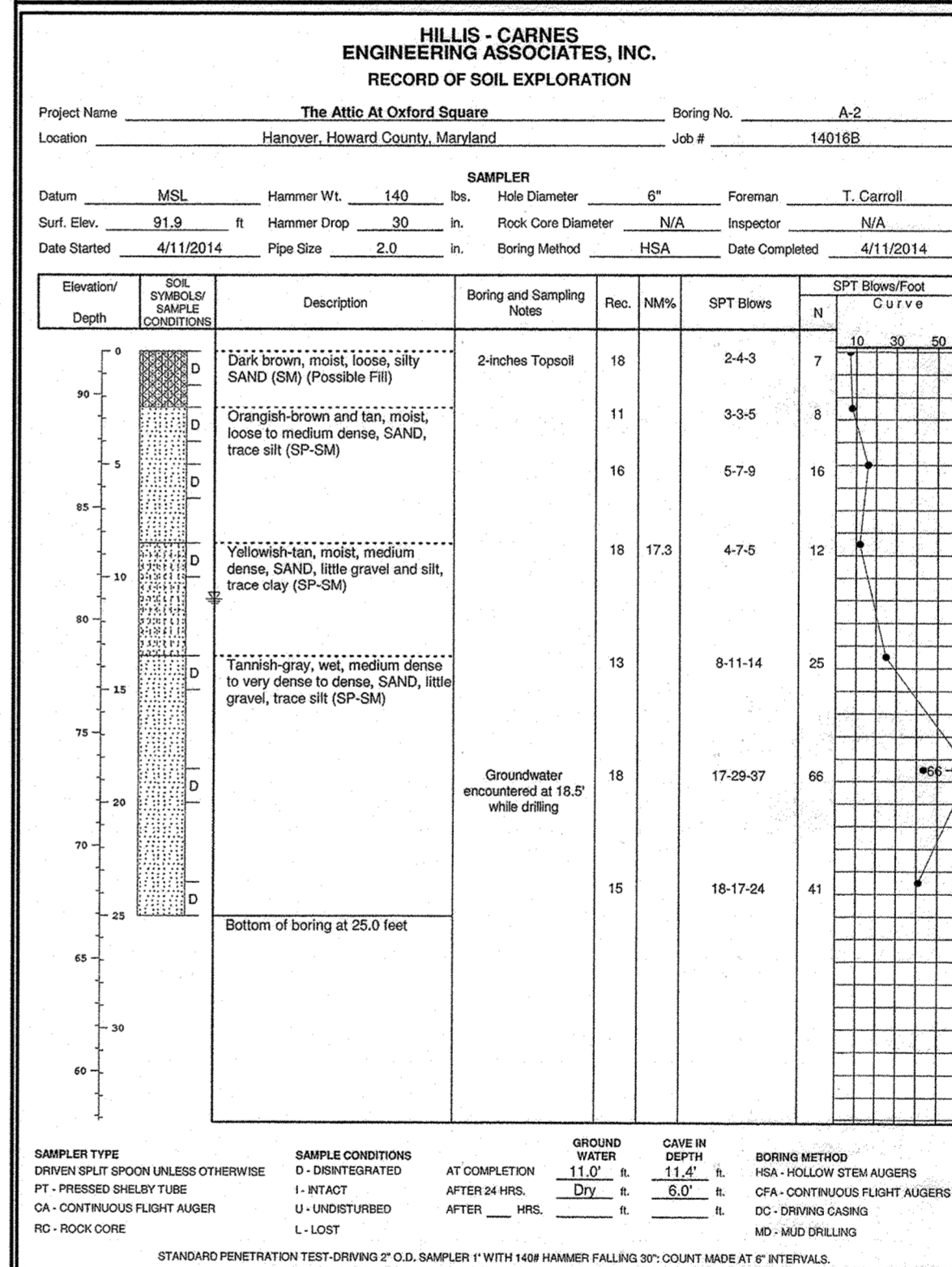
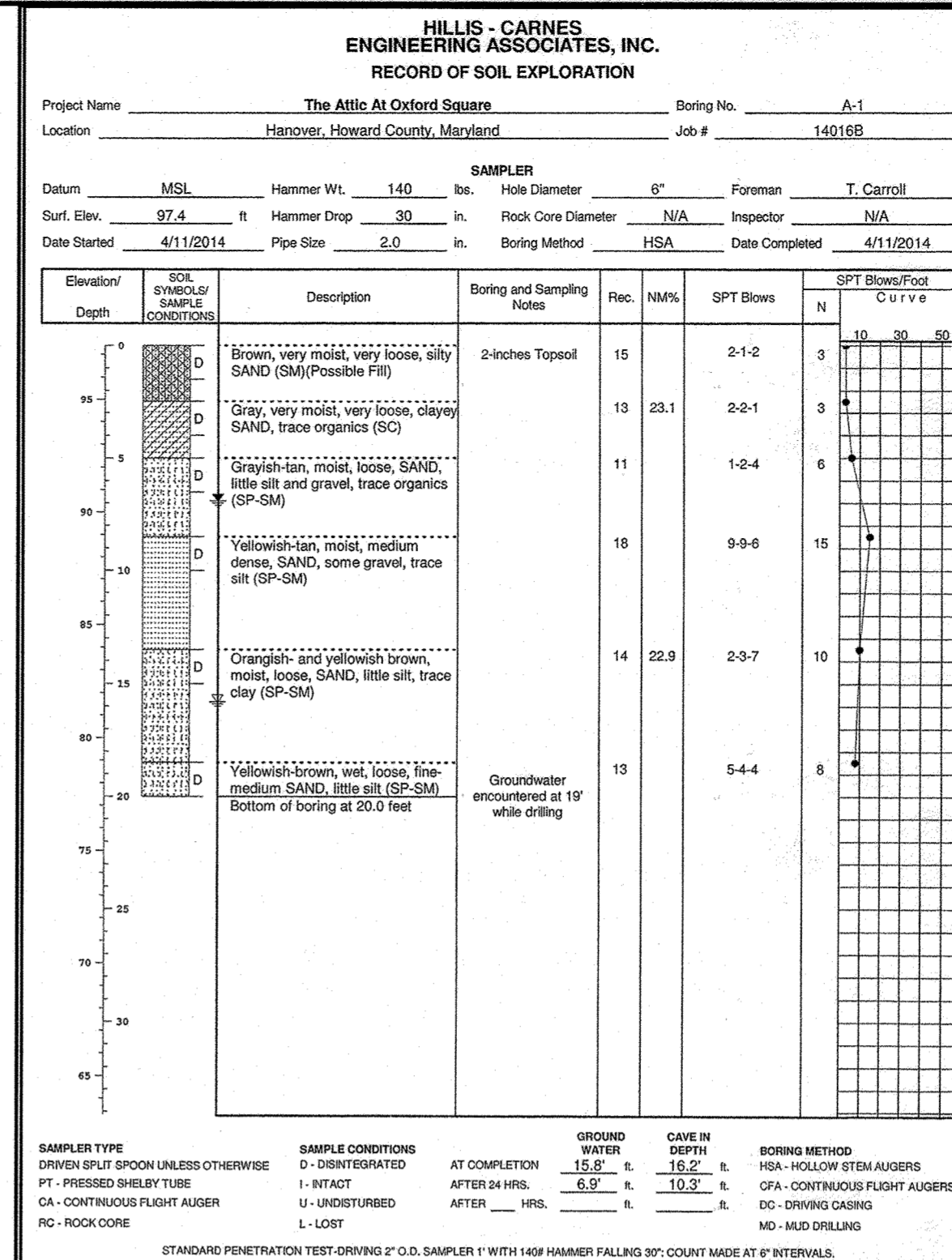
PRESTON - SCHEFFENACKER PROPERTIES  
100 West Road, Suite 304  
Towson, MARYLAND 21204  
410-296-3800

Stormwater Management Details

PARCELS 'V', 'C-C', & OPEN SPACE LOT 245 - THE ATTIC  
**OXFORD SQUARE**  
"A HOWARD COUNTY GREEN NEIGHBORHOOD"  
TAX MAP: 38 PARCEL: 761 GRID: 20 ZONED: T0D  
ELECTION DISTRICT 1 HOWARD COUNTY, MARYLAND  
SHEET 13 OF 21

C.E.I. PROJECT NUMBER  
131117.00

SCALE:  
As Shown



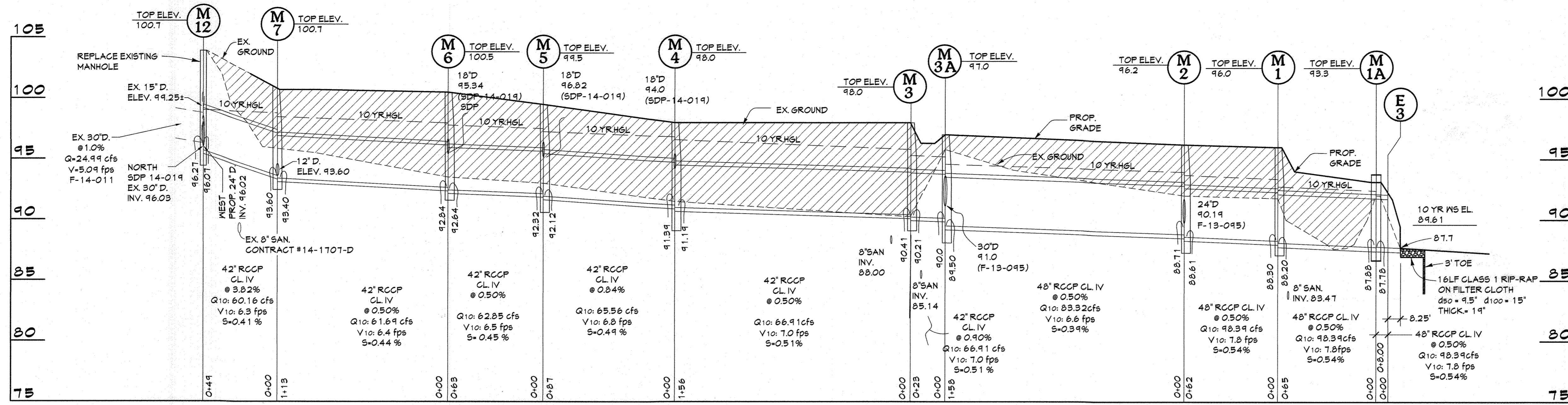
MICRO BIORETENTION MAINTENANCE SCHEDULE

- FACILITY SHALL BE INSPECTED TWICE A YEAR ANNUALLY AND AFTER EVERY MAJOR STORM EVENT.
- THE TOP FEW INCHES OF FILTER MEDIA SHOULD BE REMOVED AND REPLACED WHEN WATER PONDS FOR MORE THAN 48 HOURS. SILTS AND SEDIMENT SHOULD BE REMOVED FROM THE SURFACE OF THE FILTER BED WHEN ACCUMULATION EXCEEDS ONE INCH.
- WHERE PRACTICES ARE USED TO TREAT AREAS WITH HIGHER CONCENTRATIONS OF HEAVY METALS (E.G., PARKING LOTS, ROADS), MULCH SHOULD BE REPLACED ANNUALLY. OTHERWISE, THE TOP TWO TO THREE INCHES SHOULD BE REPLACED AS NECESSARY.
- OCCASIONAL PRUNING AND REPLACEMENT OF DEAD VEGETATION IS NECESSARY. IF SPECIFIC PLANTS ARE NOT SURVIVING, MORE APPROPRIATE SPECIES SHOULD BE USED. WATERING MAY BE REQUIRED DURING PROLONGED DRY PERIODS.

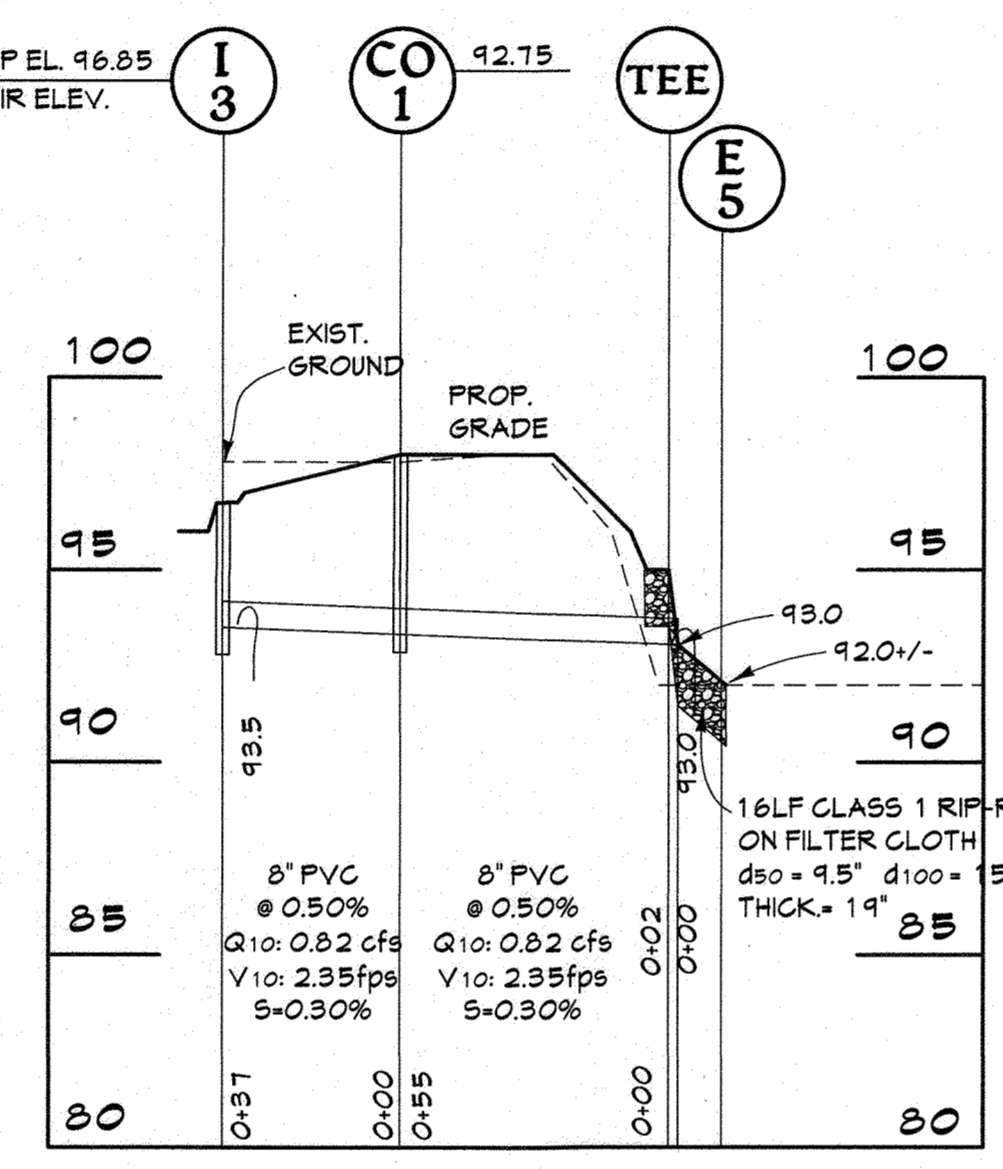
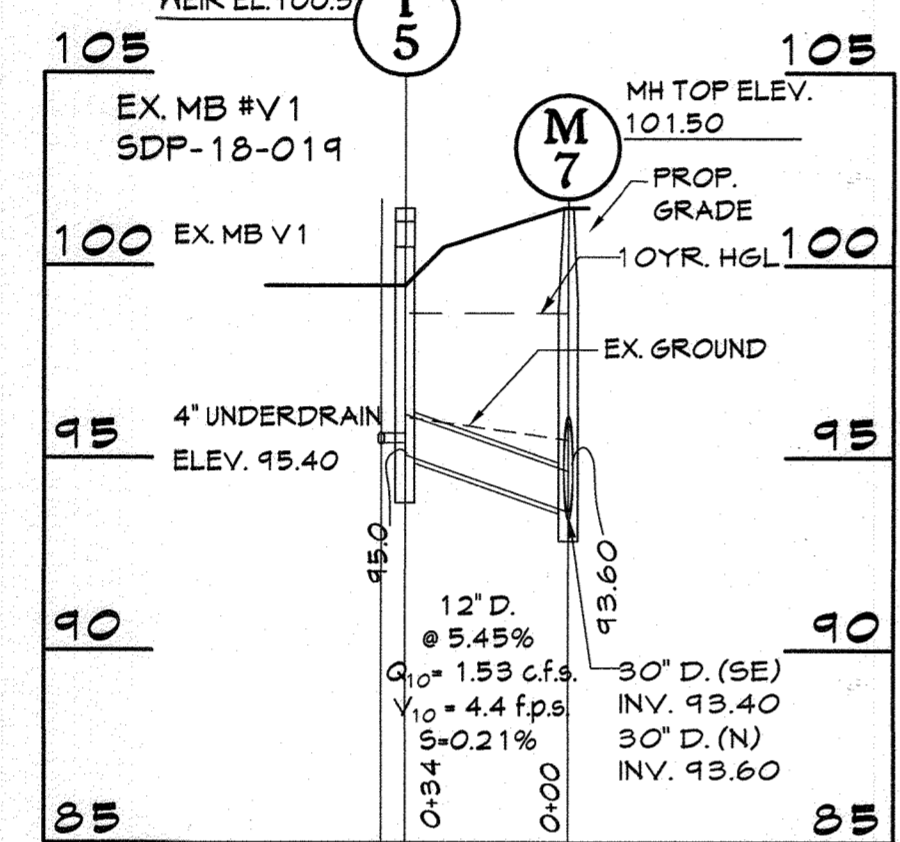
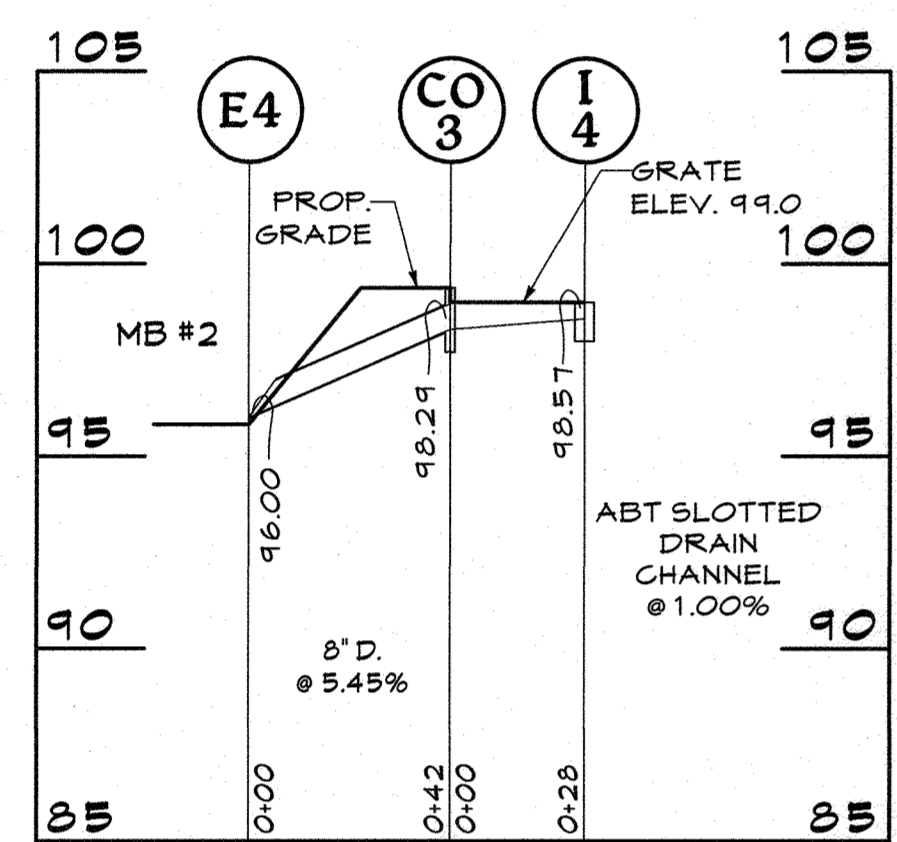
STORMWATER MANAGEMENT POND GENERAL CONSTRUCTION SPECIFICATIONS

CUT OFF TRENCH - THE CUT OFF TRENCH SHALL BE EXCAVATED INTO IMPERVIOUS MATERIAL ALONG OR PARALLEL TO THE CENTERLINE OF THE EMBANKMENT AS SHOWN ON THE PLANS. THE BOTTOM WIDTH OF THE TRENCH SHALL BE GOVERNED BY THE EQUIPMENT USED FOR EXCAVATION, WITH THE MINIMUM WIDTH BEING FOUR FEET. THE DEPTH SHALL BE AT LEAST FOUR FEET BELOW EXISTING GRADE OR AS SHOWN ON THE PLANS. THE SIDE SLOPES OF THE TRENCH SHALL BE 1 TO 1 OR FLATTER. THE BACKFILL SHALL BE COMPACTED WITH CONSTRUCTION EQUIPMENT, ROLLERS, OR HAND TAMPERS TO ASSURE MAXIMUM DENSITY AND MINIMUM PERMEABILITY.

EMBANKMENT CORE - THE CORE SHALL BE PARALLEL TO THE CENTERLINE OF THE EMBANKMENT AS SHOWN ON THE PLANS. THE TOP WIDTH OF THE CORE SHALL BE A MINIMUM OF FOUR FEET. THE HEIGHT SHALL EXTEND UP TO AT LEAST THE 10 YEAR WATER ELEVATION OR AS SHOWN ON THE PLANS. THE SIDE SLOPES SHALL BE 1 TO 1 OR FLATTER. THE CORE SHALL BE COMPACTED WITH CONSTRUCTION EQUIPMENT, ROLLERS, OR HAND TAMPERS TO ASSURE MAXIMUM DENSITY AND MINIMUM PERMEABILITY. IN ADDITION, THE CORE SHALL BE PLACED CONCURRENTLY WITH THE OUTER SHELL OF THE EMBANKMENT.



STRUCTURE SCHEDULE			
NO.	TYPE	SIZE	DETAIL
M-1	PRE-CAST MH	72"	MD.384.05
M-1A	STD. JUNCTION BOX	SEE DETAIL	MD.386.11
M-2	PRE-CAST MH	72"	MD.384.05
M-3	PRE-CAST MH	72"	MD.384.05
M-4	PRE-CAST MH	72"	MD.384.05
M-5	PRE-CAST MH	72"	MD.384.05
M-6	PRE-CAST MH	72"	MD.384.05
M-7	PRE-CAST MH	84"	MD.384.07
E-2	STANDARD CONCRETE END SECTION	18"	HQ.CO.STD. DETAIL D.5.5.1
E-1	STANDARD CONCRETE END SECTION	15"	HQ.CO.STD. DETAIL D.5.5.1
E-3	STANDARD CONCRETE END SECTION	42"	HQ.CO.STD. DETAIL D.5.5.1
R-1	TYPE 'D' -INLET		HQ.CO.STD. DETAIL D.4.10
M-8	PRE-CAST MH	48"	HQ.CO.STD. DETAIL D.5.1.2
M-9	PRE-CAST MH	48"	HQ.CO.STD. DETAIL D.5.1.2
M-10	PRE-CAST MH	48"	HQ.CO.STD. DETAIL D.5.1.2
I-1	TYPE A-5 INLET		HQ.CO.STD. DETAIL D.4.02
I-2	TYPE A-5 INLET		HQ.CO.STD. DETAIL D.4.02
I-3	TYPE D INLET (4 SIDES)		HQ.CO.STD. DETAIL D.4.02
I-5	TYPE D INLET (4 SIDES)		HQ.CO.STD. DETAIL D.4.10 WEIR ALL 4 SIDES
M-12	PRE-CAST MH	72"	MD.384.05
M-10A	PRE-CAST MH	48"	HQ.CO.STD. DETAIL D.5.1.2

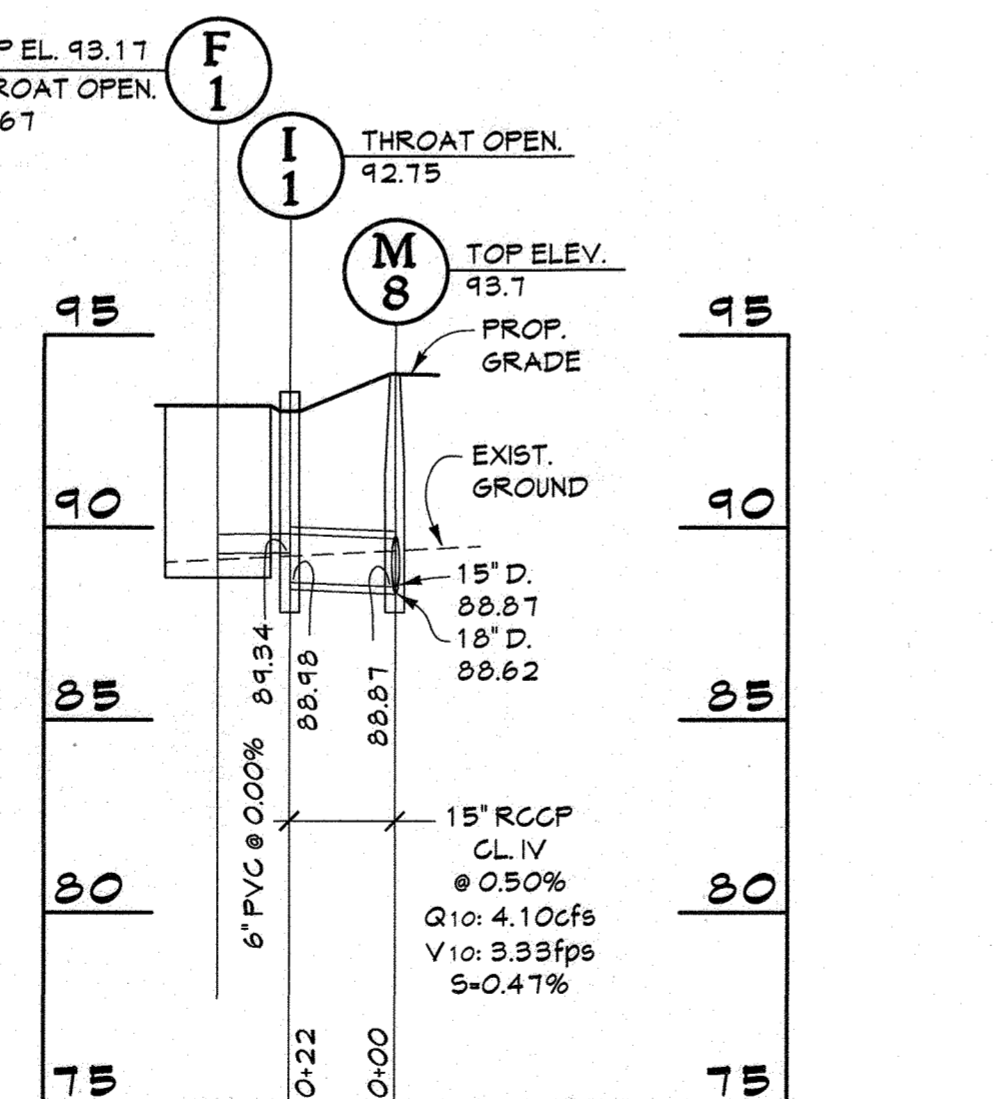
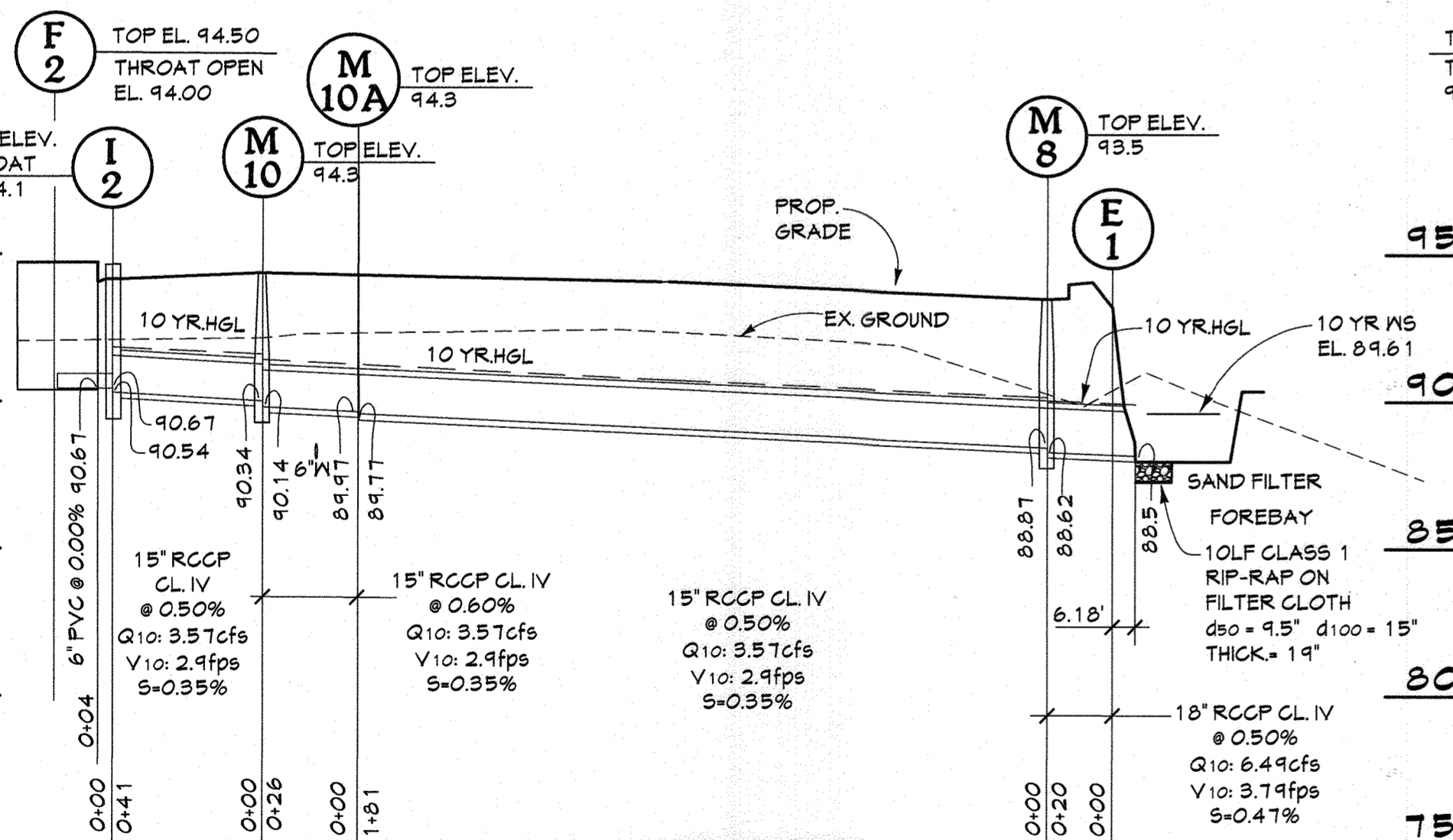
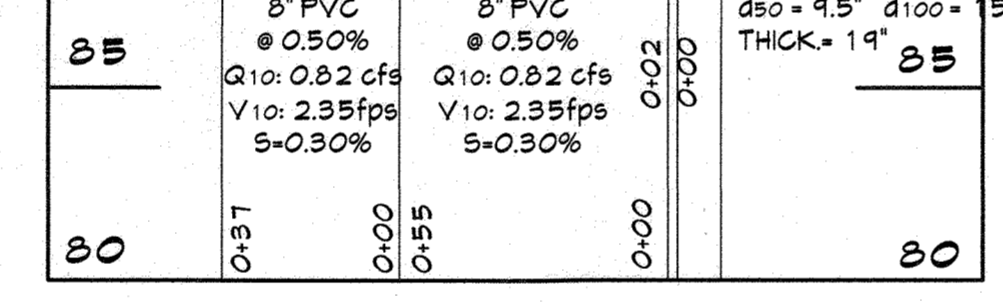
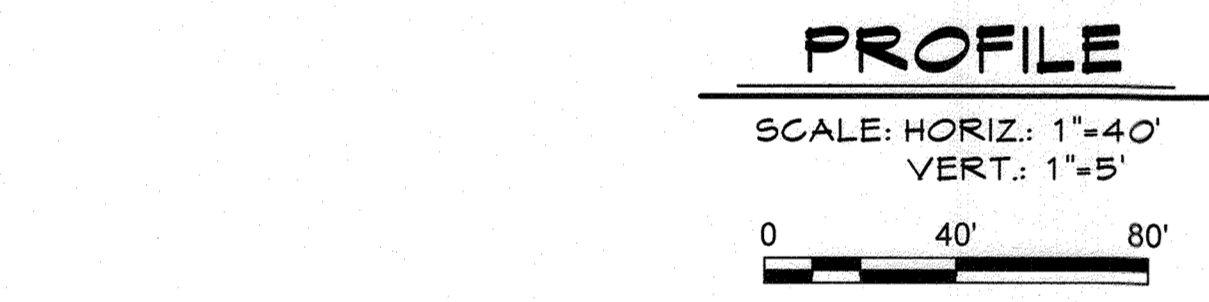


**PROFILE**  
SCALE: HORIZ.: 1"=40'  
VERT.: 1"=5'

PIPE SCHEDULE	
TYPE	LINEAR FEET
15" RCCP	277
30" HDPE	172
42" RCCP	491
18" RCCP	20
2" WATER	15
6" SAN	15
15" HDPE	93
18" HDPE	8
48" RCCP	293

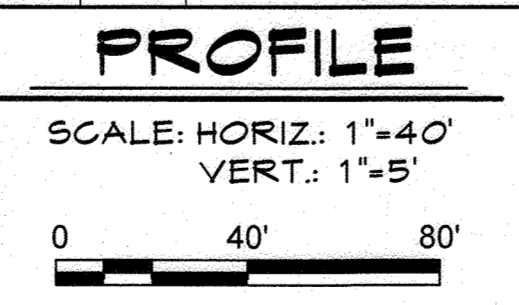
**STRUCTURE SCHEDULE**  
\* CURB FLOW LINE

NO.	FTSC SIZE	* THROAT OPENING ELEV.	OUTSIDE TOP ELEV.	SIZE/INV. UNDERDRAIN	INSIDE BOTTOM
F-1	22" x 8"	92.67	93.17	6" 89.34	89.26
F-2	22" x 8"	94.00	94.50	6" 90.67	90.59



**OWNER**  
KELLOGG - CCP, LLC  
c/o DAVID P. SCHEFFENACKER, JR.  
MANAGING MEMBER  
100 WEST ROAD, SUITE 304, TOWSON, MD 21204  
410-296-3800

**PROFESSIONAL CERTIFICATION**  
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LICENSE NUMBER: 18868 EXPIRATION DATE: 10/8/24



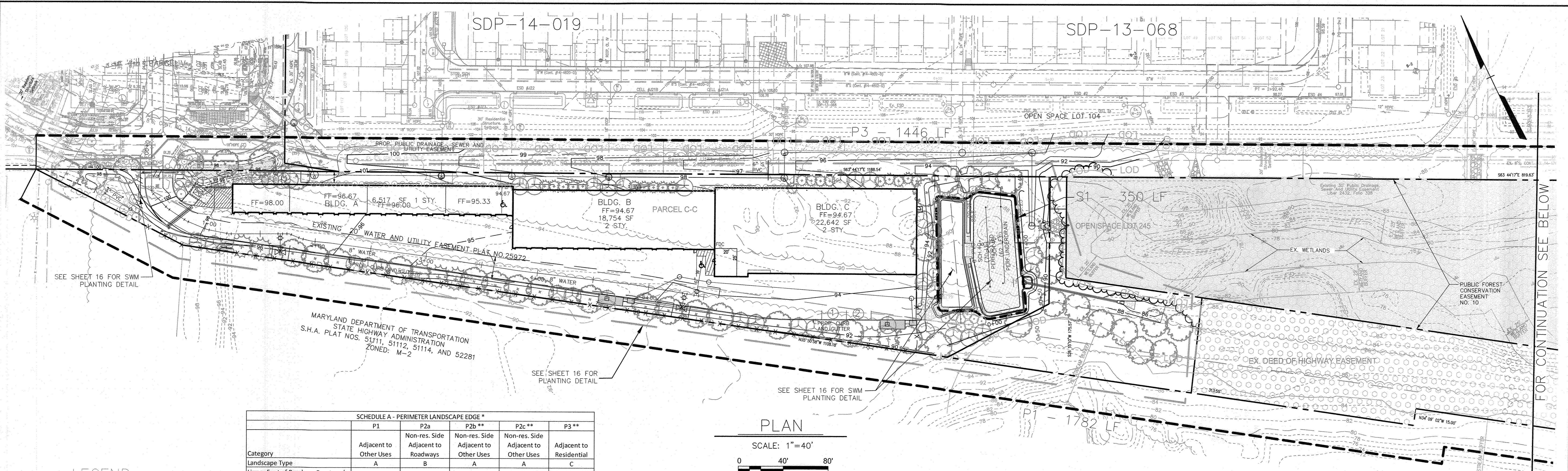
APPROVED: DEPARTMENT OF PLANNING AND ZONING  
Date: 10/12/23  
Date: 11/27/23  
Date: 11/27/23

**CENTURY ENGINEERING**  
CONSULTING ENGINEERS - PLANNERS  
10710 Gilroy Road, Hunt Valley, MD 21031  
Phone: 443.589.2400 Fax: 443.589.2401

DESIGN BY: RLH/KAD  
DRAWN BY:  
CHECKED BY:  
DATE: 10-3-22  
BY NO. REVISION DATE

**DEVELOPER**  
PRESTON - SCHEFFENACKER PROPERTIES  
100 West Road, Suite 304  
Towson, MARYLAND 21204  
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**Storm Drain Profiles**  
PARCELS 'V', 'C-C', & OPEN SPACE LOT 245 - THE ATTIC  
**OXFORD SQUARE**  
"A HOWARD COUNTY GREEN NEIGHBORHOOD"  
TAX MAP: 38 PARCEL: 761 GRID: 20 ZONED: TOD  
ELECTION DISTRICT 1 HOWARD COUNTY, MARYLAND  
SHEET 14 OF 21  
C.E.I. PROJECT NUMBER: 131117.00  
SCALE: As Shown



**SCHEDULE A - PERIMETER LANDSCAPE EDGE \***

Category	P1	P2a	P2b **	P2c **	P3 **
Landscape Type	Adjacent to Other Uses	Non-res. Side Adjacent to Roadways	Non-res. Side Adjacent to Other Uses	Non-res. Side Adjacent to Other Uses	Adjacent to Residential
Linear Feet of Roadway Frontage/Perimeter	1782	85	305	165	1446
Credit for Existing Vegetation (Yes, No, Linear Feet) (Describe below if needed)	YES/ 932	YES/ 85	YES/ 305	YES/ 165	YES/ 545
Credit for Wall, Fence, or Berm (Yes, No, Linear Feet) (Describe below if needed)	NO	NO	NO	NO	NO
Number of Plants Required					
Shade Trees	14	0	0	0	0
Evergreen Trees	0	0	0	0	0
Shrubs	0	0	0	0	0
Number of Plants Provided					
Shade Trees	22	0	0	0	2
Evergreen Trees	7	0	0	0	20
Other Trees (2:1 substitution)	15	0	0	0	16
Shrubs (10:1 substitution)	0	0	0	0	48

\* The perimeter landscape edges are calculated based on the limit of disturbance for Parcel V and parcel lines for Parcel C-C and Open Space Lot 245.  
 \*\* P2b, P2c, and P3 are internal to the overall Oxford Square property and do not have planting requirements.

**SCHEDULE B - PARKING LOT INTERNAL LANDSCAPING**

Number of Parking Spaces	3
Number of Trees Required	1
Number of Trees Provided	
Shade Trees	1
Other Trees (2:1 substitution)	0

**DUMPSTER SCREENING**

Linear Feet of Perimeter	30
Credit for Screen Enclosure	30 *

\* Credit is provided by screen wall.

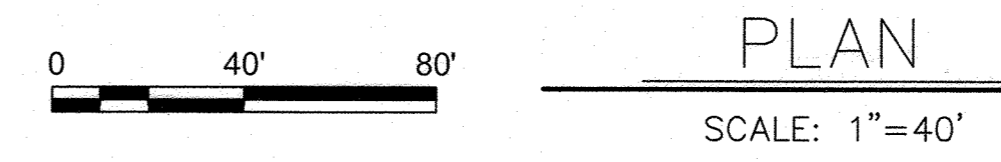
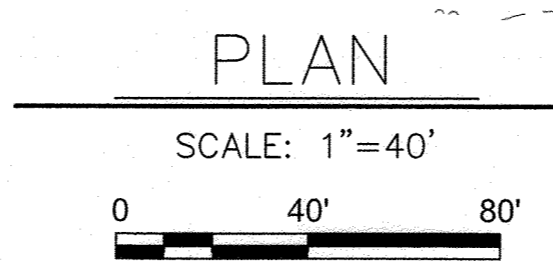
**SCHEDULE D - STORMWATER MANAGEMENT AREA LANDSCAPING**

	S1	S2
Linear Feet of Perimeter	350	150
Number of Trees Required		
Shade Trees	7	3
Evergreen Trees	9	4
Credit for Existing Vegetation (No, Yes, and %)	YES/ 26%	YES/ 21%
Credit for Other Landscaping (No, Yes, and %)	NO	NO
Number of Trees Provided		
Shade Trees	11	4
Evergreen Trees	0	0
Other Trees (2:1 substitution)	11	0
Shrubs (10:1 substitution, planted within ESD Facilities)	28	20

**LANDSCAPE DEVELOPER'S CERTIFICATE**

I/We certify that the landscaping shown on this plan will be done according to the plan, Section 16.124 of the Howard County Code, and the Howard County Landscape Manual. I/We further certify that upon completion a letter of landscape installation accompanied by an executed one-year guarantee of plant materials will be submitted to the Department of Planning and Zoning.

*Chadley Perry* Name  
*Chadley Perry* Date



**LEGEND**

- 575 Existing Minor Contour
- 570 Existing Major Contour
- Existing Edge of Road
- Existing Stream
- Existing Trees/Tree Line
- Existing Curb & Gutter
- Existing Sidewalk
- EX. 15" D. Existing Storm Drains
- EX. 8" W. Existing Water Main
- EX. 8" S. Existing Sanitary Sewer
- Tract Boundary
- Utility Easement Line
- Existing Building
- Proposed Grades
- 8" S. Proposed Sewer
- 8" W. Proposed Water and Fire Hydrant
- Proposed Storm Drain and Inlets
- Proposed Curb & Gutter
- Proposed Sidewalk
- Proposed Trees
- Proposed Shrubs
- Proposed Treeline
- Existing Perpetual Easement for Floodplain Extension
- Existing Forest Conservation Easement

**OWNER**

**KELLOGG - CCP, LLC**  
 c/o DAVID P. SCHEFFENACKER, JR.  
 MANAGING MEMBER  
 100 WEST ROAD, SUITE 304, TOWSON, MD 21204  
 410-296-3800

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 Chief, Development Engineering Division  
 Chief, Division of Land Development  
 Director

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 10710 Gilroy Road, Hunt Valley, MD 21031  
 Phone: 443.589.2400 Fax: 443.589.2401

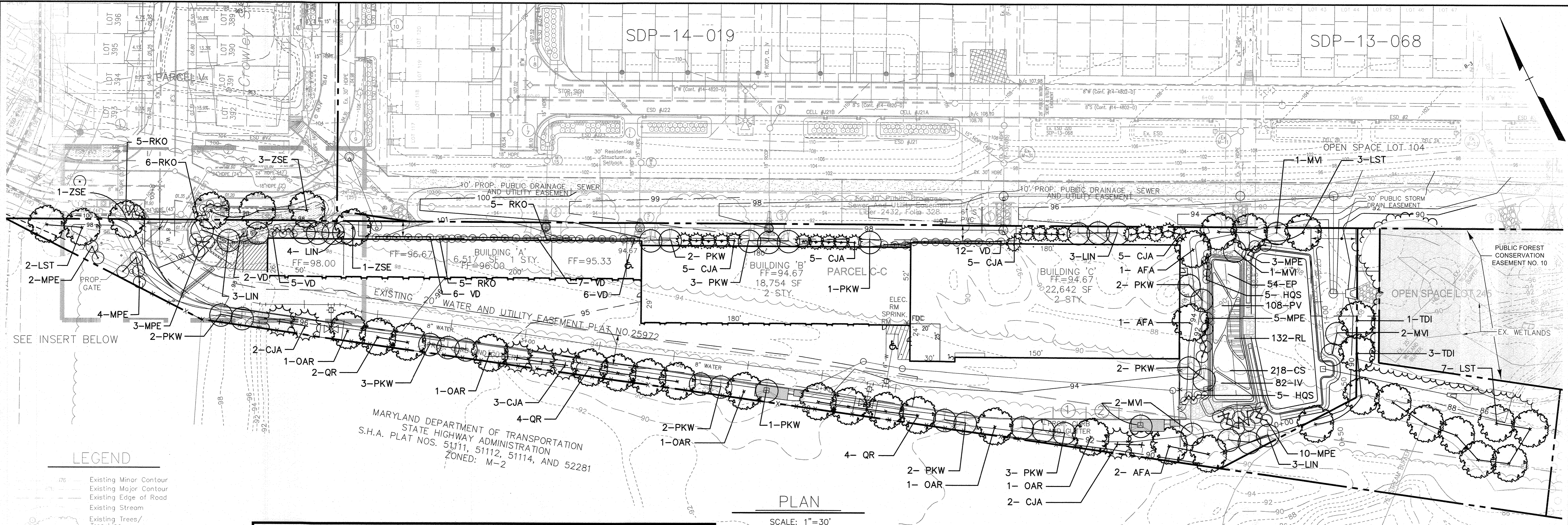
DESIGN BY: RLH/KAD  
 DRAWN BY:  
 CHECKED BY:  
 DATE: 10-3-22

REVISION	BY	NO.	DATE

**DEVELOPER**  
**PRESTON - SCHEFFENACKER PROPERTIES**  
 100 West Road, Suite 304  
 Towson, MARYLAND 21204  
 410-296-3800

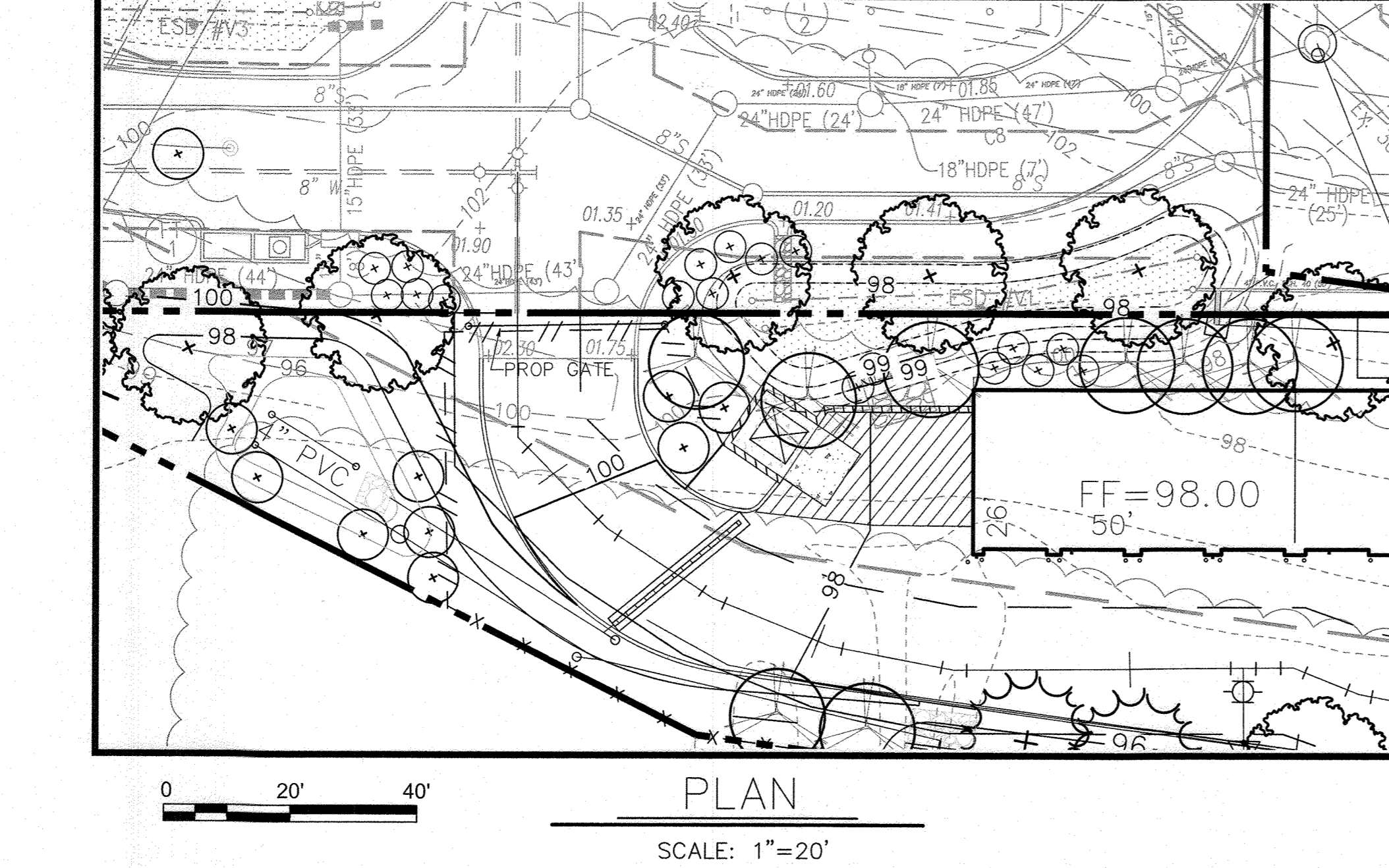
**Landscape Plan**  
 PARCELS 'V', 'C-C', & OPEN SPACE LOT 245 - THE ATTIC  
**OXFORD SQUARE**  
 "A HOWARD COUNTY GREEN NEIGHBORHOOD"  
 TAX MAP: 38 PARCEL: 761 GRID: 20 ZONED: TOD  
 ELECTION DISTRICT 1 HOWARD COUNTY, MARYLAND  
 SHEET 15 OF 21

C.E.I. PROJECT NUMBER: 131117.00  
 SCALE: 1"=40'



- LEGEND**
- Existing Minor Contour
  - Existing Major Contour
  - Existing Edge of Road
  - Existing Stream
  - Existing Trees/Tree Line
  - Existing Curb & Gutter
  - Existing Sidewalk
  - Existing Storm Drains
  - Existing Water Main
  - Existing Sanitary Sewer
  - Tract Boundary
  - Utility Easement Line
  - Existing Building
  - Proposed Grades
  - Proposed Sewer
  - Proposed Water and Fire Hydrant
  - Proposed Storm Drain and inlets
  - Proposed Curb & Gutter
  - Proposed Sidewalk
  - Proposed Trees
  - Proposed Shrubs
  - Proposed Treeline
  - Densely Shaded Area
  - Existing Perpetual Easement for Floodplain Extension
  - Existing Forest Conservation Easement

**OWNER**  
**KELLOGG - CCP, LLC**  
 c/o DAVID P. SCHEFFENACKER, JR.  
 MANAGING MEMBER  
 100 WEST ROAD, SUITE 304, TOWSON, MD 21204  
 410-296-3800



**LANDSCAPE DEVELOPER'S CERTIFICATE**

I/We certify that the landscaping shown on this plan will be done according to the plan, Section 16.124 of the Howard County Code, and the Howard County Landscape Manual. I/We further certify that upon completion a letter of landscape installation accompanied by an executed one-year guarantee of plant materials will be submitted to the Department of Planning and Zoning.

Name: *[Signature]* Date: *8/12/23*

NOTE: Per Green Neighborhood Credit E-4, densely shaded areas must be planted with native vegetation and not turf.

**PLAN**  
 SCALE: 1"=30'

**HILLIS - CARNES ENGINEERING ASSOCIATES, INC. RECORD OF SOIL EXPLORATION**

The Attic At Oxford Square  
 Location: Hanover, Howard County, Maryland  
 Boring No. A-5  
 Job # 140168

Elevation/Depth	SOIL SAMPLE LOCATION	Description	Boring and Sampling Note	Rec. H&M	SPT Blows	N	Cu	W
99.0	1	2 inches topsoil		0	0-2	5	0.1	0.0
98.5	2	Very moist, very soft, silty CLAY, little sand, trace organic (CL-M)		5	20-3	10	0.1	0.0
98.0	3	Orange-brown, moist, medium dense, SAND, little to some gravel, little silt (SP-SM)		7	3-9	13	0.1	0.0
97.5	4	Groundwater encountered at 12' with drilling		13	6-10	19	0.1	0.0
97.0	5	Tan to yellowish, med. dense to very dense, SAND, trace silt (SP-S)		13	2-3	10	0.1	0.0
96.5	6	Orange-brown, little fine-medium sand, little silt (SP-SM)		16	10-21-17	38	0.1	0.0
96.0	7	Orange-brown, little fine-medium sand, little silt (SP-SM)		16	18-20	42	0.1	0.0

**HILLIS - CARNES ENGINEERING ASSOCIATES, INC. RECORD OF SOIL EXPLORATION**

The Attic At Oxford Square  
 Location: Hanover, Howard County, Maryland  
 Boring No. A-7  
 Job # 140168

Elevation/Depth	SOIL SAMPLE LOCATION	Description	Boring and Sampling Note	Rec. H&M	SPT Blows	N	Cu	W
99.0	1	2 inches topsoil		0	0-3	5	0.1	0.0
98.5	2	tan, moist, medium dense SAND, little gravel, trace silt (SP-S)		18	17-8	13	0.1	0.0
98.0	3	tan to yellowish, med. dense to very dense, SAND, trace silt (SP-S)		18	5-7	14	0.1	0.0
97.5	4	Groundwater encountered at 11.0' with drilling		18	13-16-17	33	0.1	0.0
97.0	5	tan to yellowish, med. dense to very dense, SAND, trace silt (SP-S)		18	15-28-33	59	0.1	0.0
96.5	6	Bottom of boring at 30.0 feet	Backfilled after 24 hours	15				

**HILLIS - CARNES ENGINEERING ASSOCIATES, INC. RECORD OF SOIL EXPLORATION**

The Attic At Oxford Square  
 Location: Hanover, Howard County, Maryland  
 Boring No. A-8  
 Job # 140168

Elevation/Depth	SOIL SAMPLE LOCATION	Description	Boring and Sampling Note	Rec. H&M	SPT Blows	N	Cu	W
99.0	1	2 inches topsoil		12	0-3	8	0.1	0.0
98.5	2	tan to yellowish, med. dense to very dense, SAND, little gravel, trace silt (SP-S)		18	9-10-13	25	0.1	0.0
98.0	3	tan to yellowish, med. dense to very dense, SAND, little gravel (SP-S)		18	9-10-13	25	0.1	0.0
97.5	4	Groundwater encountered at 17' with drilling		7	6-4	21-17-17	34	0.1
97.0	5	tan and yellow		15	18-11-12	33	0.1	0.0
96.5	6	to yellow		18	14-19-15	34	0.1	0.0
96.0	7	Bottom of boring at 25.0 feet	Backfilled after 24 hours	18				

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 Date: 11/24/23  
 Date: 11/24/23  
 Date: 11/27/23

**CENTURY ENGINEERING**  
 CONSULTING ENGINEERS - PLANNERS  
 10710 Gilroy Road, Hunt Valley, MD 21031  
 Phone: 443.589.2400 Fax: 443.589.2401

DESIGN BY: RLH/KAD  
 DRAWN BY:  
 CHECKED BY:  
 DATE: 10-3-22

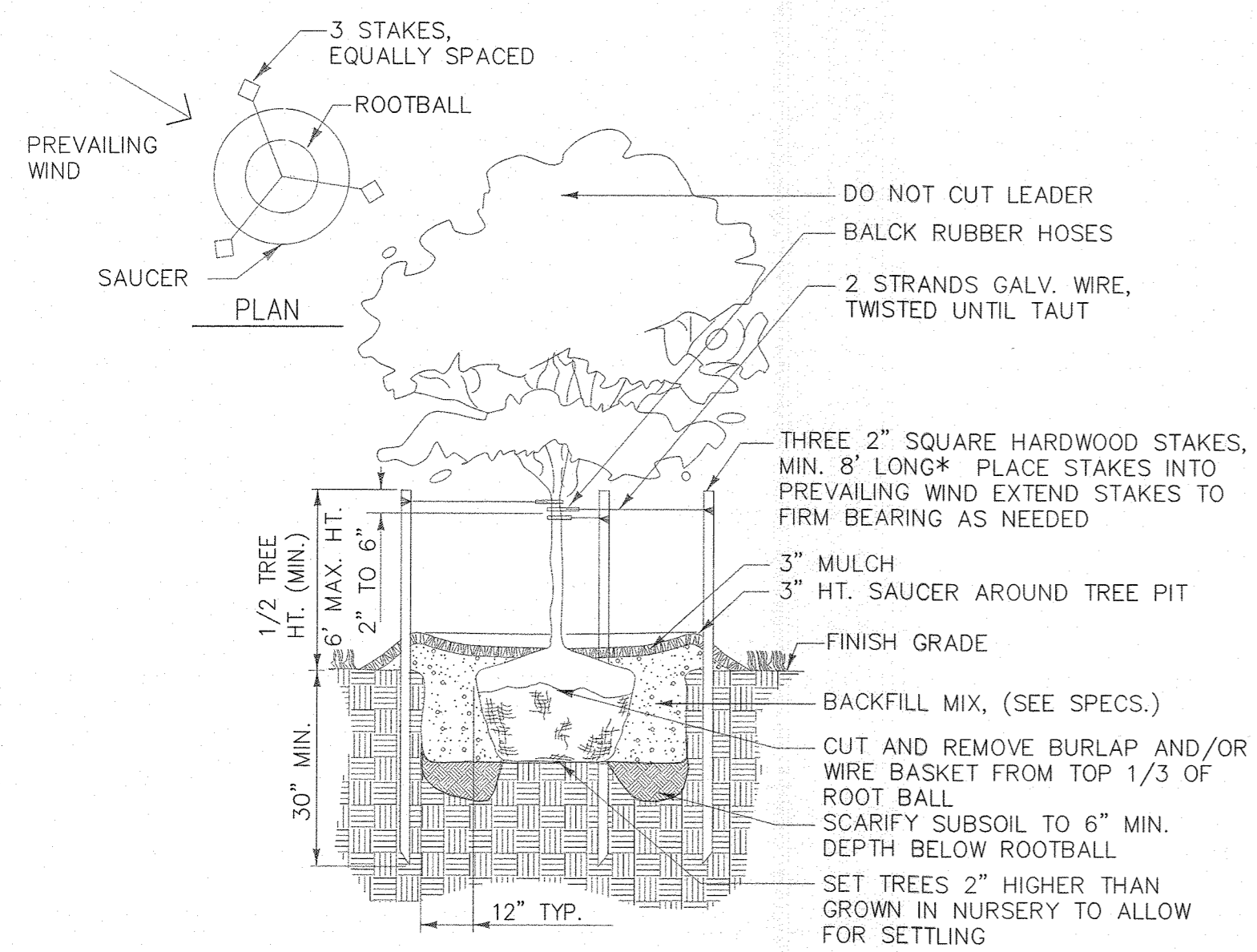
REVISION	DATE

**DEVELOPER**  
**PRESTON - SCHEFFENACKER PROPERTIES**  
 100 West Road, Suite 304  
 Towson, MARYLAND 21204  
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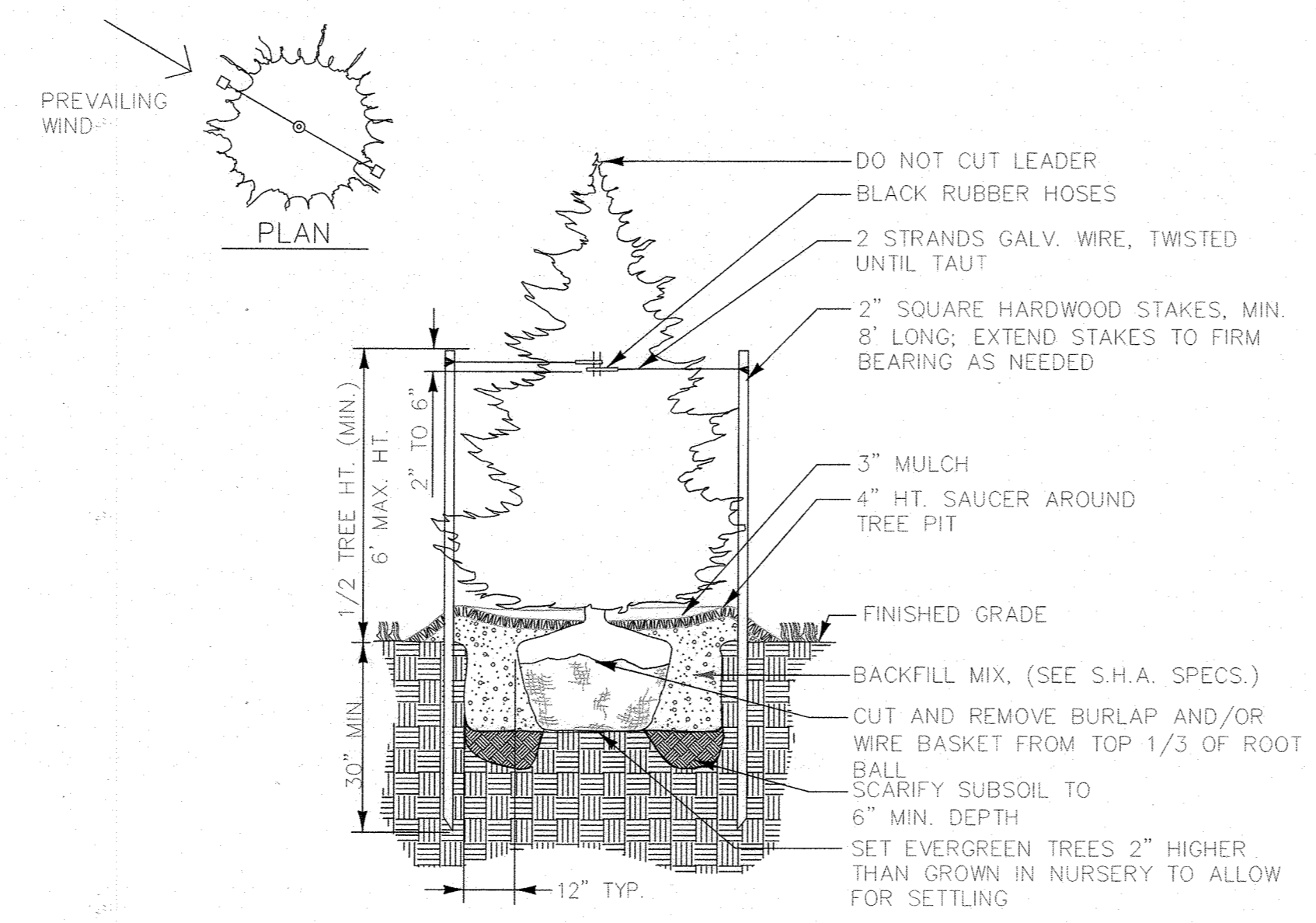
**Landscape Plan**  
 PARCELS 'V', 'C-C', & OPEN SPACE LOT 245 - THE ATTIC  
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 SHEET 16 OF 21

C.E.I. PROJECT NUMBER: 131117.00  
 SCALE:

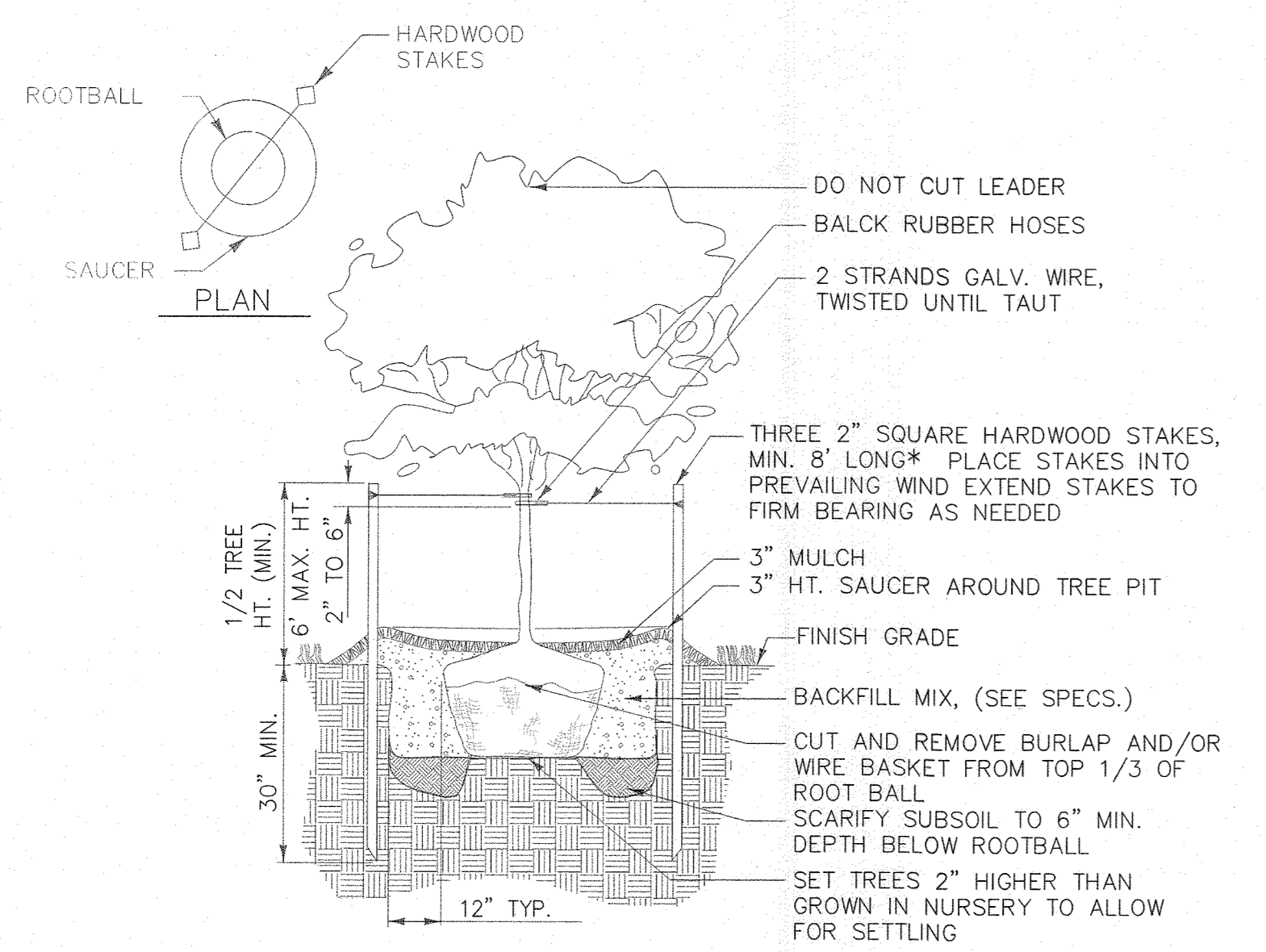




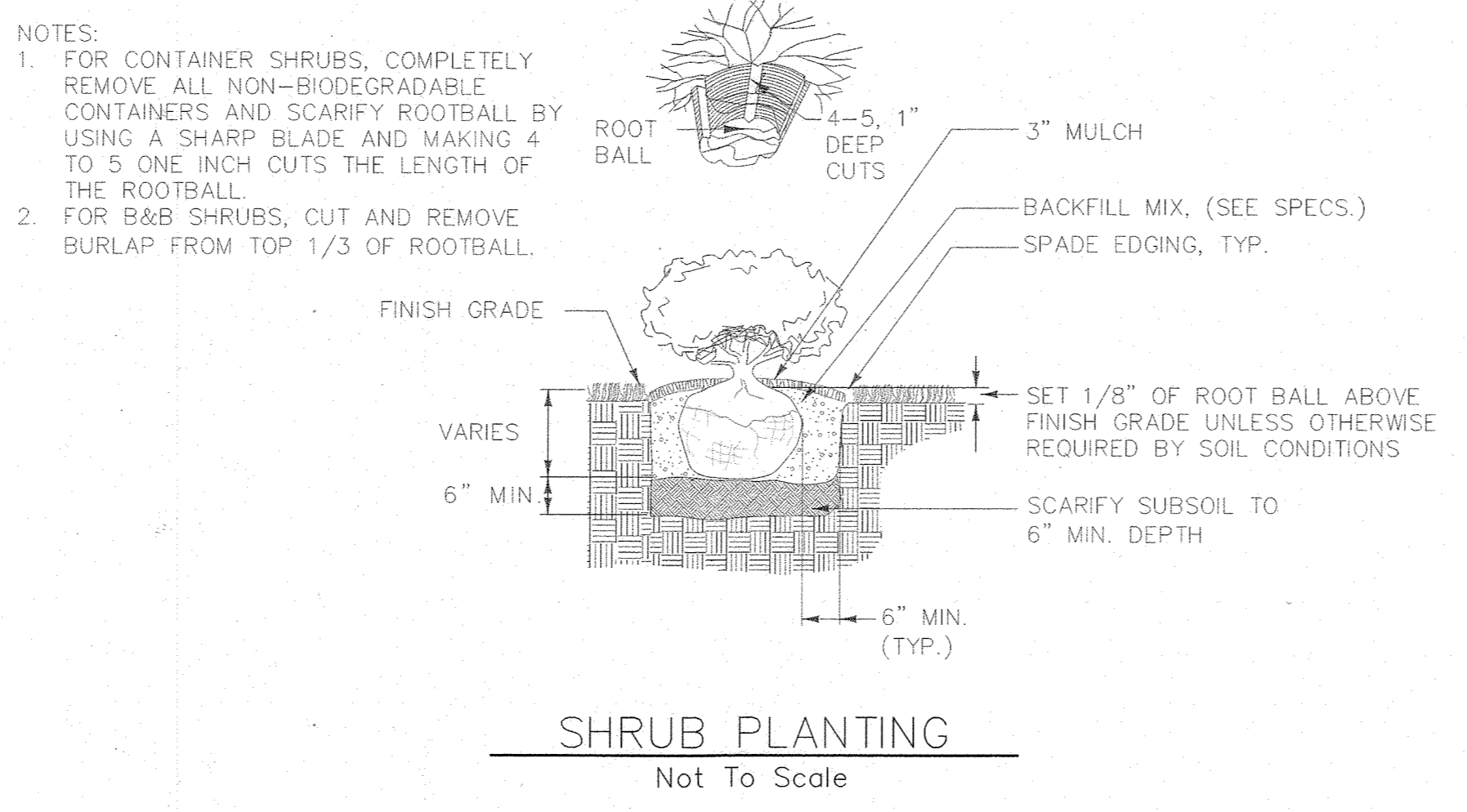
**DECIDUOUS TREE PLANTING**  
GREATER THAN 3" CALIPER  
Not To Scale



**EVERGREEN TREE PLANTING**  
Not To Scale



**DECIDUOUS TREE PLANTING**  
LESS THAN 3" CALIPER  
Not To Scale



**SHRUB PLANTING**  
Not To Scale

NOTES:  
1. FOR CONTAINER SHRUBS, COMPLETELY REMOVE ALL NON-BIODEGRADABLE CONTAINERS AND SCARIFY ROOTBALL BY USING A SHARP BLADE AND MAKING 4 TO 5 ONE INCH CUTS THE LENGTH OF THE ROOTBALL.  
2. FOR B&B SHRUBS, CUT AND REMOVE BURLAP FROM TOP 1/3 OF ROOTBALL.

**PLANTING NOTES**

- Plant material substitutions will not be accepted without approval of the Landscape Architect.
- All Shrubs and groundcover areas shall be planted in continuous prepared planting beds.
- All shrub beds shall be mulched with hardwood mulch as detailed and specified except where noted on plans.
- Maintain positive drainage out of planting beds at a minimum of two percent slope.
- Plant quantities are provided for the convenience of the contractor. 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 areas within contract limits disturbed during or prior to construction not designated to receive plantings and mulch shall be fine graded and seeded in accordance with planting and construction.
- The contractor shall notify Miss Utility, (800-257-7777) a minimum of three working days prior to planting and construction.
- All plant material shall be nursery grown and shall conform to American Nurserymen Association Standards.
- All planting procedures shall conform to Landscape Contractors Association Specification Guidelines for Baltimore/Washington Metropolitan Area (latest edition) and Century Engineering, Inc. specifications.
- Contractor shall test pit prior to plant installation.

**MINIMUM LANDSCAPE MAINTENANCE REQUIREMENTS**

- Lawn areas shall be mowed to a height of 2 to 3 inches and not allowed to reach a height of 4 inches before mowing.
- All curbs and walks shall be edged as needed.
- All lawn areas adjacent to building faces or structures shall be trimmed.
- A slow release nitrogen balanced fertilizer with a 2-1-1 ratio shall be applied at a rate of 2 pounds of nitrogen per 1000 square feet in September, October, and February.
- Lime shall be applied at the rate determined by a soils report.
- It is recommended that lawn areas be treated in mid-March to early April with pre-emergent herbicide (Betasan) or equal applied at the manufacturer's rate.
- A post-emergent herbicide (Trimec) or equal is recommended to be sprayed on lawn areas in the late spring or early fall. Follow manufacturer's rates and recommendations.
- Insecticides and fungicides are recommended for insect and disease control.
- Reseed bare areas of lawn as necessary. Yearly aeration is recommended.
- All trash, litter, and debris shall be removed from lawn areas, parking lots, and shrub beds as needed.
- Mulch all shrub and groundcover beds yearly with 3 inches of shredded hardwood bark.
- Permit shrubs and trees to grow and enlarge to their design size. Consult project Landscape Architect for details.
- Prune trees in accordance with Landscape Specification Guidelines for Baltimore-Washington Metropolitan Areas.

**PLANT LIST**

KEY	QTY	SCIENTIFIC NAME	COMMON NAME	SIZE	COMMENTS
<b>SHADE TREES</b>					
AFA	4	Acer x freemanii 'Autumn Blaze'	Autumn Blaze Red Maple	2 1/2" cal.	B & B, specimen, seedless
LST	12	Liquidambar styraciflua	American Sweetgum	2 1/2" cal.	B & B, specimen
OAR	5	Oxydendron arboreum	Sourwood	2 1/2" cal.	B & B, specimen
QR	10	Quercus rubra	Northern Red Oak	2 1/2" cal.	B & B, specimen
ZSE	5	Zelkova serrata 'Green Vase'	Green Vase Japanese Zelkova	2 1/2" cal.	B & B, specimen
Total	36				
<b>EVERGREEN TREES</b>					
CJA	27	Cryptomeria japonica	Japanese Cryptomeria	6'-8' ht.	B & B
Total	27				
<b>ORNAMENTAL TREES</b>					
LIN	13	Lagerstroemia x 'Biloxi'	Biloxi Crape Myrtle	6'-8' ht.	B & B, multistem, 3 cone min.
PKW	23	Prunus serrulata 'Kwanzan'	Kwanzan Cherry	6'-8' ht.	B & B, fruitless
Total	36				
<b>SHRUBS, PERENNIALS, AND GROUNDCOVERS</b>					
HQS	10	Hydrangea quercifolia 'Snow Queen'	Snow Queen Oakleaf Hydrangea	24"-30" ht.	Cont., 40" o.c.
RKO	21	Rosa x 'Radyod'	Blushing Pink Knockout Rose	24"-30" ht.	Cont., 36" o.c.
VD	38	Viburnum dentatum	Arrowwood Viburnum	30"-36" ht.	B & B, 42" o.c.
Total	69				

**SWM PLANT LIST**

KEY	QTY	SCIENTIFIC NAME	COMMON NAME	SIZE	COMMENTS
<b>SHADE TREES</b>					
TDI	4	Taxodium distichum	Baldcypress	6'-8' ht.	B & B
<b>ORNAMENTAL TREES</b>					
MVI	6	Magnolia virginiana	Sweetbay Magnolia	6'-8' ht.	B & B
<b>SHRUBS, PERENNIALS, AND GROUNDCOVERS</b>					
CS	282	Carex stricta	Upright Sedge	1 gal.	1.5' o.c.
EP	90	Eupatorium purpureum	Joe Pye Weed	1 gal.	2.5' o.c.
IV	148	Iris versicolor	Blue Flag	1 gal.	2' o.c.
MPE	27	Myrica pennsylvanica	Northern Bayberry	24"-30" ht.	B & B, 40" o.c.
PV	155	Panicum virgatum	Switchgrass	1 gal.	2' o.c.
RL	132	Rudbeckia laciniata	Tall Coneflower	1 gal.	1.5' o.c.

**PLANTING CALCULATIONS**

	REQUIRED	PROVIDED
SCHEDULE A (PERIMETER LANDSCAPE EDGE)	14	57.8
SCHEDULE B (PARKING LOT INTERNAL LANDSCAPING)	1	1
SCHEDULE D (STORMWATER MANAGEMENT AREA LANDSCAPING)	16.5	25.3
DUMPSTER	0	0
<b>TOTALS:</b>	<b>31.5</b>	<b>83.1*</b>

\* Results in an excess of 52 plants (64% more than required)

1. The financial surety for the required 31.5 trees will be posted as part of the developer's agreement in the amount of \$9,450.00 (25 shades x 300 + 13 evergreens x 150).

Planting Summary	Required	Provided
Type		
Shade Trees	25	40
Evergreen Trees	13	27
Ornamental Trees	0	42
Shrubs	0	96
<b>Total</b>	<b>38</b>	<b>205</b>

2. The financial surety for the Green Neighborhood planting requirement shall be posted as part of the developer's agreement in the amount of \$9,900 (31 shades x 300 + 4 evergreens x 150).

**LANDSCAPE DEVELOPER'S CERTIFICATE**

I/We certify that the landscaping shown on this plan will be done according to the plan, Section 16.124 of the Howard County Code, and the Howard County Landscape Manual. I/We further certify that upon completion a letter of landscape installation accompanied by an executed one-year guarantee of plant materials will be submitted to the Department of Planning and Zoning.

Name: *David P. Scheffnacker, Jr.* Date: *11/22/23*

**OWNER**  
KELLOGG - CCP, LLC  
c/o DAVID P. SCHEFFENACKER, JR.  
MANAGING MEMBER  
100 WEST ROAD, SUITE 304, TOWSON, MD 21204  
410-296-3800

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
Date: *10/26/23*  
Date: *11/22/23*  
Date: *11/27/23*

**CENTURY ENGINEERING**  
CONSULTING ENGINEERS - PLANNERS  
10710 Gilroy Road, Hunt Valley, MD 21031  
Phone: 443.589.2400 Fax: 443.589.2401



DESIGN BY:	DATE:	BY	NO.	REVISION	DATE
RLH/KAD	10-3-22				

**DEVELOPER**  
PRESTON - SCHEFFENACKER PROPERTIES  
100 West Road, Suite 304  
Towson, MARYLAND 21204  
410-296-3800

**Landscape Details**  
PARCELS 'V', 'C-C', & OPEN SPACE LOT 245 - THE ATTIC  
**OXFORD SQUARE**  
"A HOWARD COUNTY GREEN NEIGHBORHOOD"  
TAX MAP: 38 PARCEL: 761 GRID: 20 ZONED: TOD  
ELECTION DISTRICT 1 HOWARD COUNTY, MARYLAND  
SHEET 17 OF 21

C.E.I. PROJECT NUMBER  
131117.00  
SCALE:  
As Shown

*Beth Bunge* 10-31-23  
CHIEF, RESOURCE CONSERVATION DIVISION DATE

LEED ACCREDITED PROFESSIONAL CERTIFICATE  
GREEN NEIGHBORHOOD PLAN FOR SITES  
I hereby certify that this plan represents a practical and workable plan for achieving the targeted credits and point total shown on the Green Neighborhood for Sites Compliance Checklist.

*Matthew J. Fitzsimmons* 10007912 5/21/20  
MATTHEW J. FITZSIMMONS, LEED AP LEED ACCREDITATION NUMBER DATE

Credit No.	Credit	Champion (Name, Role)	Requirement	Site Development Plan Strategies	Documentation Location	Points	Points
<b>A Innovative/Integrated Design Process</b>							
A-1	Green Development Plan	HCM/Planners	Show how plans meet criteria, includes checklist, natural resource inventory and energy analysis	Provide documentation	GN Report GN Plan	4	4
A-2	Interdisciplinary Project Team	HCM/Planners	Includes U.S. Green Building Council Leadership in Energy and Environmental Design (LEED) Accredited professional, ecologist / environmental professional / landscape architect, and engineer	The design team includes a LEED AP professional, an ecologist, a civil engineer, an architect and landscape architect.	GN Plan	4	4
A-3	Third Party Certification	HCM/Planners	Certification of credits by independent LEED accredited professional	Alexander Design Studio	GN Plan	4	4
A-4a	Innovative Design A	HCM/Planners	Green Streets	Green Streets	GN Report SDP-16-051 Sheet 6	1	1
A-4b	Innovative Design B	HCM/Planners	Priority Parking for Fuel Efficient Cars	Reserve 5% for Priority Parking for Fuel Efficient Cars	GN Report GN Plan	1	1
A-4c	Innovative Design C	HCM/Planners	Compact Development	Residential Development will exceed 20 DU/AC	GN Plan	1	1
A-4d	Innovative Design D	HCM/Planners	Walkable Streets	More than 80% building frontage oriented toward public spaces;	GN Report GN Plan	1	1
<b>B Location Linkages &amp; Community Context</b>							
B-1a	Redevelopment Site (Brown Field)	HCM/Planners FCC/Civil	Reuse of previously developed site (minimum 25% existing impervious, with sloping scale for credits based on amount or % impervious)	More than 25% area previously developed (former sand and gravel operation).	GN Plan Reference: Sketch Plan (S-15-001)	4	2
B-1b	Redevelopment Site (Brown Field)	NA	Brown field cleanup of redevelopment site	NA	NA	8	0
B-2	Historic Buildings	NA	Preserve, restore or rehabilitate historic properties.	NA	NA	4	0
B-3a	Transit Access & Amenities for Reduced Auto Dependence (Stop)	HCM/Planners	Site is served by transit stop within 1/2 mile (1 point) or 1/4 mile (2 points) walk from property	Private Shuttle Service with 2 stops (84% DU within 1/4 mile walking distance)	GN Plan Reference: Sketch Plan (S-15-001)	2	2
B-3b	Transit Access & Amenities for Reduced Auto Dependence (Shelter)	HCM/Planners	Provide county specified transit shelter with benches and lighting at transit stop within 1/2 mile of property and provided pedestrian link to stop if none currently exists	Provide HACO transit approved shelter for private shuttle service	GN Plan Reference: SDP-13-068	4	4
B-4	Proximity to Community Resources	NA	Credit for 1/2 mile proximity to existing or proposed community resources such as schools, parks, library, post office, etc.	NA	NA	5	0
<b>C Compact, Complete &amp; Connected Development</b>							
C-1	Diversity of Uses	HCM/Planners	1 point per different land use, minimum 100 of for each non-residential per DU. Minimum of 148,000 SF each of office, institutional and civic use, per 1,469 DU	Provide 3 Uses: Institutional, Civic and Office	GN Plan References: Sketch Plan (S-15-001)	3	3
C-2	Planned Service Area	HCM/Planners	Locate the project within the Planned Service Area	The project is within the Planned Service Area	GN Plan	5	5
C-3a	Pedestrian System (Path)	HCM/Planners	Provide an off-site path system with 2 connections to internal or external sidewalks, with minimal environmental impacts, long-term maintenance	Provide a shared use path system	GN Plan GN Report Reference: Sketch Plan (S-15-001)	2	2
C-3b	Pedestrian System (Connections)	NA	Provide an off-site path system with 2 connections to internal or external sidewalks, with minimal environmental impacts, long-term maintenance	NA	NA	2	0
C-3c	Pedestrian System (Amenities)	HCM/Planners	Provide at least two different pedestrian experience features	Provide pedestrian amenities at trailheads, the lawn, school and residential news	GN Plan References: Sketch Plan (S-15-001)	2	2
C-4	Connected On-site Street Network	HCM/Planners	Provide a gridded street network	More than 75% connected streets	GN Plan GN Report	2	2
C-5	Parking does not exceed Required Minimum	HCM/Planners	Surface parking lots do not exceed required parking ratios (1 point); plan takes advantage of shared parking provisions parking structures provided (in deck or beneath building; does not include garages within individual units) (4 points)	Provide common parking structures (4 points)	GN Plan Reference: Sketch Plan (S-15-001)	4	4
C-6	Exceed Minimum Open Space Requirements	HCM/Planners	1 point for every 5% above required minimum open space for the TOC zone, 1 point for every 10% of non-buildable HCA parcels above 50% of the site (up to 3 points).	Provide more than 25% increase in amenity space above the required minimum amenity space (TOC zoning regulations)	GN Plan GN Report Reference: Sketch Plan (S-15-001)	5	5
C-7	Green Spaces and Amenity Areas	HCM/Planners	Open space along public/private roads available for public use	Publicly accessible open space will be provided at Barn community building, plaza and pool on OS Lot #107.	GN Plan GN Report Reference: SDP-15-074 Sketch Plan (S-15-001)	2	2

Credit No.	Credit	Champion (Name, Role)	Requirement	Site Development Plan Strategies	Documentation Location	Points	Points
<b>D Environmental Preservation</b>							
D-1	Stream Restoration or Wetland Creation or Restoration	EcoScience	Restoration of degraded on-site stream channel; on-site restoration of degraded wetland or creation of additional wetlands (sloping scale based on % or length of stream restored and % of acres of wetland created or restored)	Provide wetland restoration for Wetland D (41,808.810 SF).	References: Sketch Plan (S-15-001)	16	16
D-2	Habitat Management Plan	EcoScience	Prepare and implement plan that identifies, conserves and enhances natural resources and ecological communities (may include clean up of debris, removal of invasives, etc.)	Provide Habitat Management Plan	Reference: Sketch Plan (S-15-001)	4	4
D-3	25% Slope Steep Preservation	NA	Protect all existing steep slopes as defined by County regulations required; provide 25' minimum buffer at top of 25% slope (2 points)	NA	NA	2	0
D-4	15% Slope Preservation	FCC/Civil HCM/Planners	Protect existing 15%+ slopes (protect minimum 1/2 acre, with sloping scale based on area or % protected)	Preserve between 28-50% of 15%-24.9% slopes	GN Plan GN Report	4	2
D-5	Minimize Grading and Site Disturbance	FCC/Civil HCM/Planners	Minimize limit of disturbance; leave at least 20% of site undisturbed (1 point); 30% (2 points); 40% (3 points); balance cut and fill on site (2 points); retaining walls 3-5' (deduct 1 point) retaining walls 6-8' (deduct 2 points), walls 9' and higher	Balance Cut and Fill on entire site-- 2 points Minimize Retaining Walls-- 0 points No new > 25% Steep Slopes- 1 point Leave more than 20% of site undisturbed - 1 point	GN Plan GN Report	5	4
D-6	Exceed Minimum Forest Conservation Requirements	EcoScience FCC/Civil HCM/Planners	1 point for every 10% of existing forest retained above break even point; 1 point for every 10% of on-site forest planted in excess of afforestation obligation	NA	NA	5	0
D-7	Save Trees above 12" Minimum Caliper	NA	1 point for protecting each 25% of all specimen trees (does not include specimen trees within forest conservation area or within forests that are being cleared)	NA	NA	4	0
D-8a	Exceed Minimum Stream Buffer Requirements	FCC/Civil	75' buffer required for perennial and intermittent streams inside PSA, 100' buffer required for perennial and intermittent streams outside PSA	75' buffer required for perennial and intermittent streams inside PSA,	GN Plan Reference: Sketch Plan (S-15-001)	RECD	
D-8b	Exceed Minimum Stream Buffer Requirements	EcoScience FCC/Civil HCM/Planners	2 points for each additional 25' of wetland buffer provided in excess of requirements in D-8a outside wetland buffer or floodplain	Provide 150 FT Stream Buffer (75 FT enhanced buffer)-- 6 points	GN Plan Reference: Sketch Plan (S-15-001)	6	6
D-9	Exceed Minimum Wetland Buffer Requirements	EcoScience FCC/Civil HCM/Planners	2 points for each additional 25' of wetland buffer provided outside stream buffer or floodplain	NA	NA	4	0
D-10	Floodplain Buffer	NA	1 point for each 25' of buffer to floodplain outside required or provided wetland or stream buffer	NA	NA	2	0
<b>E Site Landscape Improvements</b>							
E-1	Landscape	NA	1 point for each 10% increase in number of plants (must be native plants) provided above total minimum required in Landscape Manual; retain or plant trees on south and west sides of buildings and increase trees within parking areas and along sidewalks and	Provide 20% increase in Landscape Requirements	GN Plan GN Report SDP-16-051 Sheets 15,16,17	10	3
E-2	Native Plants	NA	1 point for 80%, 2 points for 90%, 3 points for 100% of all plants native to within 200 miles of site	NA	NA	3	0
E-3	No Invasive Plants	HCM/Planners	No plants that are on GPR, USDA or Cooperative Extension Service lists of invasive plants	Will not plant invasive plants	GN Plan SDP-16-051 Sheets 15,16,17	RECD	
E-4	Lime Turf	HCM/Planners	Turf does not exceed 30% of unpaved site (1 point); no turf on new created steep slopes 25%+ or in densely shaded areas (1 point); non-turf areas must be planted in native vegetation	Will not plant conventional turf in densely shaded areas and on newly created >25% steep slopes	GN Plan GN Report SDP-16-051 Sheets 15,16,17	2	1

Credit No.	Credit	Champion (Name, Role)	Requirement	Site Development Plan Strategies	Documentation Location	Points	Points
<b>F Water Conservation / Efficiency / Management</b>							
F-1	Rainwater Harvesting System	Straughan	Collect and make use of water runoff from minimum 50% of roof area; provide storage system and monitoring device and maintenance / management program	Provide rainwater harvesting for school and recreational fields	GN Report Reference: Sketch (S-15-001) SDP (SDP-12-075)	5	5
F-2	Water-Permeable Walkways	NA	Use water-permeable materials in 50% or more of path ways; provide maintenance program	NA	NA	4	0
F-3a	Low Impact Development (LID) Stormwater Treatment	FCC/Civil	Meets minimum Design Manual requirements; no dry ponds allow ed	No dry ponds	GN Plan SDP-16-051 Sheets 10,11,12,13	RECD	
F-3b	Low Impact Development (LID) Stormwater Treatment	FCC/Civil	Exceeds Design Manual requirements; maximize use of bioretention (esp. for parking lots), rain gardens, rain barrels, stormwater wetlands, green roof, etc.	Will provide 51% water quality volume stored and infiltrated/re-used On-Site	GN Plan GN Report SDP-16-051 Sheets 10,11,12,13	8	6
<b>G Energy Efficiency</b>							
G-1	Light Pollution Reduction	FCC/Civil HCM/Planners	Shield all site lighting fixtures to reduce light and spillover below county code requirements; install sensors or timers on all exterior site lighting fixtures	NA	NA	4	0
G-2	Solar Orientation	NA	Orient 50% (1 point) or 75% (2 points) or 100% (3 points) of buildings to make available for solar strategies	NA	NA	3	0
G-3	Infrastructure Energy Efficiency	NA	Select high efficiency fixtures for parking lot and other site light fixtures	NA	NA	6	0
<b>H Materials Beneficial to the Environment / Waste Management</b>							
H-1	Environmentally Preferable Site Products	Straughan FCC/Civil HCM/Planners	Select products from a list including: recycled materials (concrete, asphalt, tires, plastic, etc.), materials with recycled content, salvaged or engineered materials;	NA	NA	8	0
H-2	Reduce Heat-Island Effect of Paving	NA	Use light-colored or high albedo materials and/or porous paving with a minimum Solar Reflective Index of 0.6 or over for at least 30% of the site hardscape	NA	NA	2	0
H-3	Site Construction Waste Management	Straughan	Develop and implement a construction waste management plan to divert, reuse, recycle or reduce the amount of site material sent to the landfill by 25% (2 points) or 50% (3 points) or 75% (4 points)	Divert 75% or more site construction waste	GN Report:	4	4
H-4	Regionally Provided Materials	Straughan FCC/Civil HCM/Planners	20% of common and public infrastructure materials from within 200 miles	Use regionally produced materials for 20% of total site materials	GN Report:	3	3
<b>I Operations and Maintenance Education</b>							
I-1	HOA Documents	Straughan;	Include information about green site features and maintenance requirements in HOA documents	Provide HOA document	Reference: SDP-15-053	RECD	
I-2	Maintenance Manual for Owner / HOA / Manager	Straughan	Provide a manual that includes information on how to maintain the green features of the site, including paving materials, landscaping and stormwater management LID and encourages additional green activities such as recycling, gardening, etc.	Provide manual	Reference: SDP-15-053	RECD	
I-3	Public Awareness of Sustainable Community	Straughan; HCM	Develop a program to advertise the environmental benefits of the community	Implement public awareness strategy	Reference: SDP-13-068	RECD	
<b>TOTAL GREEN NEIGHBORHOOD SITE POINTS</b>						<b>167</b>	<b>90</b>
Number of points required to obtain Green Neighborhood Allocations						<b>90</b>	

TOTAL GREEN NEIGHBORHOOD SITE POINTS  
Number of points required to obtain Green Neighborhood Allocations

**Third Party Certification**

By affixing my signature below, the undersigned does hereby declare and affirm to Howard County that the targeted Green Neighborhood Site credits and point total, as specified in this Green Neighborhood Site Compliance Checklist, are reasonable and achievable.

Signature: *Charles McNamee* Title: **PRESIDENT** Date: \_\_\_\_\_

Name: **CHARLES MCNAMEE** Organization: **ALEXANDER DESIGN STUDIO**

Submission (mark "X" where applicable): \_\_\_\_\_ Site Development Plan (SDP-16-051)

**OWNER**  
KELLOGG - CCP, LLC  
c/o DAVID P. SCHEFFENACKER, JR.  
MANAGING MEMBER  
2330 WEST JOPPA ROAD, SUITE 190  
LUTHERVILLE, MARYLAND 21093-4614  
410-296-3800

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Development Engineering Division *[Signature]* Date: *11/22/23*  
Division of Land Development *[Signature]* Date: *11/27/23*  
Director

**CENTURY ENGINEERING**  
CONSULTING ENGINEERS - PLANNERS  
10710 Gilroy Road, Hunt Valley, MD 21031  
Phone: 443.589.2400 Fax: 443.589.2401

DESIGN BY:	BY	NO.	REVISION	DATE
DRAWN BY:				
CHECKED BY:				
DATE:				

**DEVELOPER**  
PRESTON - SCHEFFENACKER PROPERTIES  
2330 WEST JOPPA ROAD, SUITE 190  
LUTHERVILLE, MARYLAND 21093-4614  
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**GREEN NEIGHBORHOOD PLAN**  
PARCEL 'V', 'C-C', & OPEN SPACE LOT 245-THE ATTIC  
**OXFORD SQUARE**  
"A HOWARD COUNTY GREEN NEIGHBORHOOD"  
TAX MAP: 38 PARCEL: 761 GRID: 20 ZONED: TOD  
ELECTION DISTRICT 1 SHEET 18 OF 21

C.E.I. PROJECT NUMBER 131117.00  
SCALE: AS SHOWN

*Beth Burg*  
CHIEF, RESOURCE CONSERVATION DIVISION  
DATE: 10-31-23

LEED ACCREDITED PROFESSIONAL CERTIFICATE  
GREEN NEIGHBORHOOD PLAN FOR SITES  
I hereby certify that this plan represents a practical and workable plan for achieving the targeted credits and point total shown on the Green Neighborhood for Sites Compliance Checklist.  
*Matthew J. Fitzsimmons*  
MATTHEW J. FITZSIMMONS, LEED AP LEED ACCREDITATION NUMBER: 10007912 DATE: 10/27/2023

**GREEN NEIGHBORHOOD NOTES:**

- A-2 THE DESIGN AND DEVELOPMENT TEAM INCLUDES A LEED AP (MATTHEW FITZSIMMONS- HORD COPLAN MACTH), ENVIRONMENTAL PROFESSIONAL (JOHN CANOLES- ECO-SCIENCE PROFESSIONALS, INC.), LANDSCAPE ARCHITECT (JOSH KILRAIN- HORD COPLAN MACTH) AND AN ENGINEER (JOHN RACNOCCIA PE- CENTURY ENGINEERING, INC)
- A-3 THE THIRD PARTY CERTIFICATION IS PROVIDED BY CHARLES ALEXANDER, LEED-AP OF ALEXANDER DESIGN STUDIOS.
- B-1a THE 118.5 ACRE DEVELOPMENT CONSISTS OF 30.4 ACRES OF PREVIOUSLY DEVELOPED LAND (25.7% OF THE OXFORD SQUARE DEVELOPMENT).
- B-3a OXFORD SQUARE WILL PROVIDE TWO TRANSIT STOPS FOR THE PROPOSED PRIVATE SHUTTLE SERVICE CONNECTING OXFORD SQUARE TO THE DORSEY MARC COMMUTER RAIL STATION. THE STOPS WILL BE WITHIN 1/4 WALKING DISTANCE TO ALL DWELLING UNITS, EXCEPT FOR THE FURTHERMOST UNIT LOCATED ON PARCEL Z.
- B-3b OXFORD SQUARE WILL PROVIDE ONE SHELTER AT ONE OF THE PRIVATE SHUTTLE STOPS. THE SHELTER WILL COMPLY WITH COUNTY -APPROVED CRITERIA INCLUDING BENCHES AND LIGHTING.
- C-1 OXFORD SQUARE WILL PROVIDE THREE DIVERSE USES OTHER THAN RESIDENTIAL: INSTITUTIONAL (MIDDLE SCHOOL BUILDING AND OUTDOOR CLASSROOM SPACE, ELEMENTARY SCHOOL), CIVIC (SCHOOL'S RECREATIONAL PLAYING FIELDS AND SHARED-USE PATH) AND OFFICE.
- C-2 OXFORD SQUARE IS LOCATED WITHIN THE EXISTING PLANNED WATER AND SEWER SERVICE AREA.
- C-3c OXFORD SQUARE WILL PROVIDE A MINIMUM OF TWO PEDESTRIAN SYSTEM AMENITY EXPERIENCES: 1) SHARED USE PATH (MARKERS, BENCHES, LITTER RECEPTACLES, INFORMATIONAL SIGNS, BIKE RACKS), 2) THE LAWN (BENCHES, EXTERIOR LIGHTING, SHADE TREES, INFORMATIONAL SIGNS), 3) RESIDENTIAL COURTYARDS AND MEWS (BENCHES), AND 4) SCHOOL SITES (PLAYING FIELDS, BENCHES, BIKE RACKS)
- D-8b OXFORD SQUARE WILL PROVIDE A MINIMUM 75 FT ENHANCED STREAM BUFFER.
- E-3 OXFORD SQUARE WILL NOT PLANT INVASIVE PLANTS.
- E-4 OXFORD SQUARE WILL NOT PLANT TURF IN DENSELY SHADED AREAS.
- F-3b OXFORD SQUARE WILL PROVIDE AT LEAST 51% WATER QUALITY VOLUME STORED AND INFILTRATED/RE-USED ON-SITE.

**GREEN NEIGHBORHOOD CALCULATIONS & TABLES:**

**A-4b Priority Parking for Low-Emitting and Fuel Efficient Vehicles**

Overall Development	SDP
Total Number of Off-Street Parking Spaces:	3-3 Spaces
Total Number of Proposed Preferred Parking Spaces:	0 Spaces
Percent of Preferred Parking Spaces:	0.0%

Note: Overall Development calculation is a summary of previously submitted Site Development Plans.

**A-4c Compact Development**

Complete Build-Out	
Total Dwelling Units:	1,469 DU
Residential Land Area:	50.8 AC
Residential Density:	28.94 DU/AC

**A-4d Walkable Streets**

Complete Build-Out	
Length of Buildings Frontage Oriented Towards the Public Space:	12,026 FT
Total Length of Building Frontage:	14,492 FT
% of Building Frontage Oriented Towards the Public Spaces:	83.0%
Length of Building Frontage with Service or Garage Openings:	1,420 FT
Length of Building Frontage Oriented Towards Public Spaces (including Service and Garage openings):	13,446 FT
% of Building Frontage with Service or Garage Openings:	10.6%

**B-1a Redevelopment Site**

Gross Site Area:	118.5 Acres
Area of Existing Development (Acres):	30.4 Acres
Percent of Previously Developed:	25.7%

**B-3a Transit Access & Amenities for Reduced Auto Dependence (Stop)**

Residential Buildings within 1/4 Mile (<1,320 FT)	Total Number of Qualifying Units	Percent of all Units
All Buildings except the most distant building on Parcel Z	1,379 DU	94%

**C-1 Diversity of Uses**

Residential Uses	Number of Units	Percent of Total Units
Apartments and Townhouses	1,469 DU	100%
Nonresidential Uses	Area	SF per Dwelling Unit
Office:	166,000 SF	113 SF/DU
Institutional:		
Middle School	95,747 SF	
Middle School Outdoor Classroom Space	2,500 SF	
Elementary School	101,014 SF	
Institutional Subtotal:	199,261 SF	136 SF/DU
Civic:		
Recreational Playing Fields (School Site)	236,139 SF	
Northern Loop Shared-Use Path (8 FT wide)	22,968 SF	
Southern Loop Shared-Use Path (8 FT wide)	8,016 SF	
Civic Subtotal:	267,123 SF	182 SF/DU

**C-3a Pedestrian System (Paths and Trails)**

Northern Shared Use Path:	Width of Path: 8 FT	Length: 2,871 FT (0.54 Miles)
Southern Shared Use Path:	Width of Path: 8 FT	Length: 1,002 FT (0.19 Miles)

**C-4 Street Connections**

Street Name / ID (per S-15-001)	Street Length	Qualifying Street Length
Saint Margarets Boulevard	1,684 FT	1,684 FT
Banbury Drive	2,491 FT	2,491 FT
Southmoor Street	960 FT	960 FT
Dene Court	514 FT	- FT
Crowley Street	1,136 FT	947 FT
Danvers Street	465 FT	465 FT
Beaumont Place	1,450 FT	1,450 FT
Dunstead Street	240 FT	- FT
Headley Street	120 FT	- FT
Pattison Street	120 FT	- FT
Road I	736 FT	736 FT
Alden Way	554 FT	554 FT
Marsten Way	1,613 FT	928 FT
<b>Summary</b>		
Total Street Length:	12,083 FT	
Total Connected Street Length:		10,215 FT
Percent Connected Streets:	84.5%	

**C-5 Parking Does Not Exceed Required Minimum**

Number of Spaces within a Common Parking Structure:	1,922 spaces
Notes: No Parking structures will be constructed with this SDP. The total number of spaces in a common parking structure is subject to change depending on SDP-15-053 (under review) and future SDPs.	

**C-6 Exceed Minimum Open Space**

Net Acreage:	107.51 AC
Required Amenity Space (TOD: 10% of Net Acreage):	10.75 AC
Provided Amenity Space:	15.53 AC
Percent Increase above the Minimum Required:	44%
Note: No Amenity Space will be provided with this SDP.	

**C-7 Green Spaces and Amenity Areas**

Parcel	Road Frontage	Amenity Type	Amenity Area
Open Space 1: Lawn and Barn Parcel 'I' (SDP-15-074)	4/-108 FT (length along Banbury Drive)	Plaza & Pool; pool, pool deck and entrance plaza Barn: learning, meeting and performance space	15,307 SF (0.35 AC)
Open Space 2: Pool House and Pool O.S. Lot #107 (SDP-13-068)	4/-138 FT (length along Dene Court)	Pool house, Pool, Fitness Room, and Warming Kitchen	11,282 SF (0.26 AC)

**D-4 15% Slope Preservation**

GN Boundary	506,841 SF
Total Area of Slopes 15-24.9%:	200,866 SF
Area of Undisturbed Slopes 15-24.9%:	39.6 %
Percent of Undisturbed Slopes:	

Note: 1. The area of undisturbed slopes is the summation of slopes impacted by the greatest extent of LDOs accumulated from the entire development.  
2. Includes area of development per Sketch Plan and future environmental restoration work.

**D-5 Minimize Grading and Site Disturbance**

Complete Build Out	
Gross Area of Site	118.5 AC
Existing Impervious Cover	30.4 AC
Area of Site	68.1 AC
Area of Site to Remain Undisturbed	34.2 AC
Percent of Site to Remain Undisturbed:	27.5 %
Ratio of Cut to Fill:	1.16 Ratio
Retaining Wall:	<3 FT

Note: 1. Complete Build Out Calculations are based on the aggregate greatest extent of LDO's from entire development.  
2. No dirt will be imported or exported from Oxford Square.

**D-8b Exceed Minimum Stream Buffer Requirements**

Total Stream Buffer Width:	150 FT
Width of Buffer Exceeding Requirements:	75 FT
Total Length of Stream Buffer:	1,984.2 FT
Length of Stream Buffer Outside Other Buffers:	1,352.3 FT
Percent of Stream Buffer Outside Other Buffers:	68.2 %

**E-1 Landscaping**

Plants Required	Shade Trees				Total	Percent
	Evergreen	Shrubs	Other	Shrub		
Number of Plants Required by Landscape Manual	25	13	0	38		
Number Excess Plants Required for GN Credit	5	4	0	9		23.7
Landscape Manual and GN Requirements	30	17	0	47		

Plants Provided	Shade Trees				Total	Shrub (Substitute)
	Evergreen	Shrubs	Other Trees (Substitute)	Shrub (Substitute)		
Number of Plants Provided to Meet Landscape Manual	9	16	13	0	38	0
Number of Plants Provided to Meet GN Credits	31	4	4	0	39	0
Total Number of Plants Provided	40	16	13	4	73	0

Notes: 1. Dumpster screening requirement is met by screen wall, however 20% GN Excess Plant goal is based on providing 1 evergreen (1 evergreen per 30 LFT)  
2. Required Shade Trees (4 AFA + 5 ZSE) = 9 shade trees  
3. Required Shade Tree Substitutes (14 CIA + 18 PKW) / 2 = 16 shade trees  
4. Excess Shade Tree (12 LST + 5 OAR + 10 QR + 4 TD) = 31 native shade trees  
5. Required Evergreen Trees (15 CIA) = 15 evergreens  
6. Excess Evergreen (Substitute) Trees (4 MW) = 4 evergreens  
7. This plan provides 26 additional native shade trees over the project's 20% goal.

OWNER  
KELLOGG - CCP, LLC  
c/o DAVID P. SCHEFFENACKER, JR.  
MANAGING MEMBER  
2330 WEST JOPPA ROAD, SUITE 190  
LUTHERVILLE, MARYLAND 21093-4614  
410-296-3800

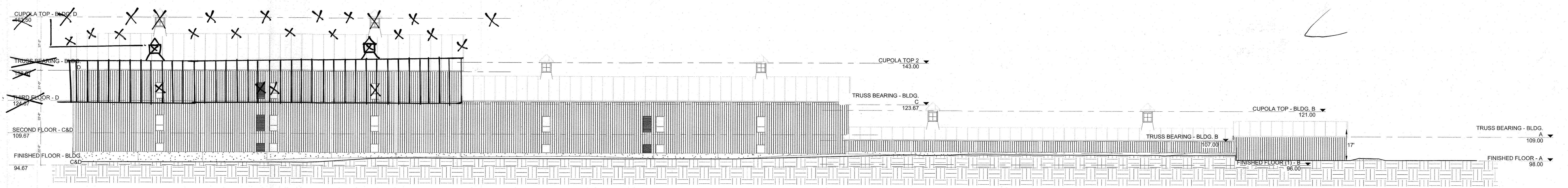
APPROVED: DEPARTMENT OF PLANNING AND ZONING  
Chief, Development Engineering Division  
Date: 11/27/23  
Director  
Date: 11/27/23

**CENTURY ENGINEERING**  
CONSULTING ENGINEERS - PLANNERS  
10710 Gilroy Road, Hunt Valley, MD 21031  
Phone: 443.589.2400 Fax: 443.589.2401

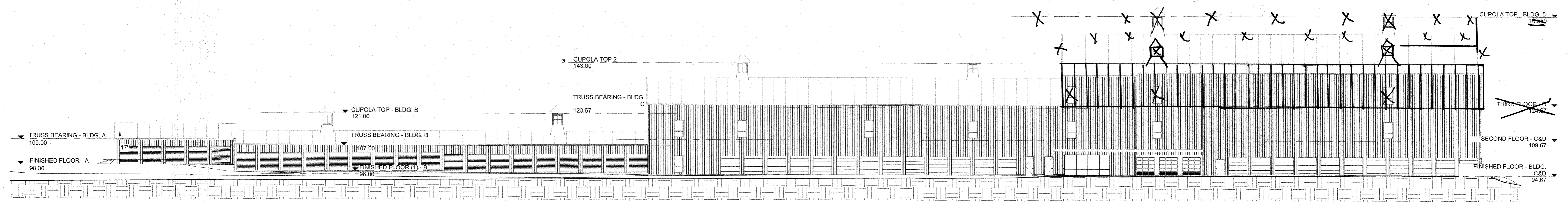
DESIGN BY:			
DRAWN BY:			
CHECKED BY:			
DATE:	03.20.2019	BY	NO.
		REVISION	DATE

DEVELOPER  
PRESTON - SCHEFFENACKER PROPERTIES  
2330 WEST JOPPA ROAD, SUITE 190  
LUTHERVILLE, MARYLAND 21093-4614  
410-296-3800

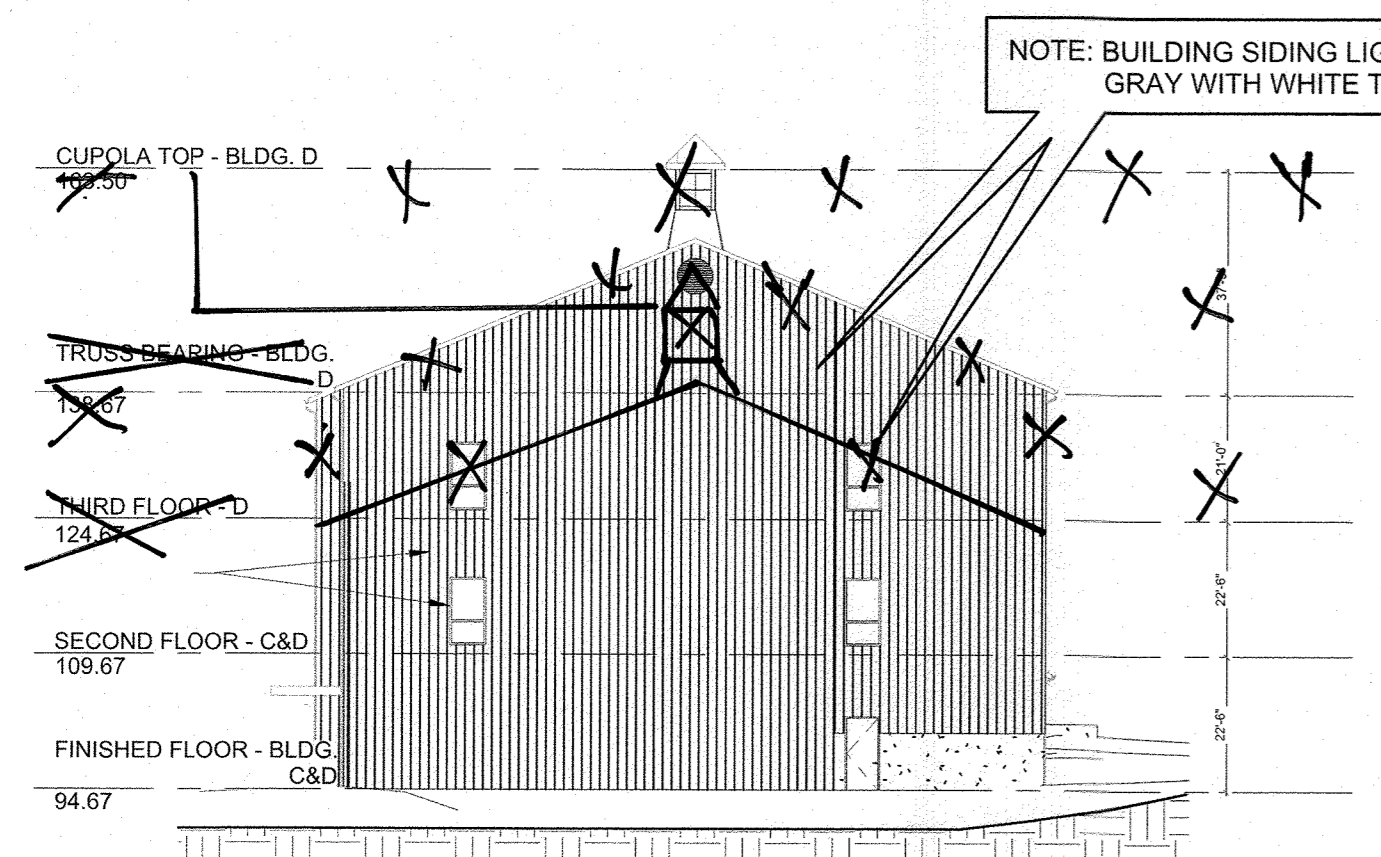
GREEN NEIGHBORHOOD PLAN  
PARCEL 'V', 'C-C', & OPEN SPACE LOT 245-THE ATTIC  
OXFORD SQUARE  
"A HOWARD COUNTY GREEN NEIGHBORHOOD"  
TAX MAP: 38 PARCEL: 761 GRID: 20 ZONED: TOD  
ELECTION DISTRICT 1 HOWARD COUNTY, MARYLAND  
SHEET 19 OF 21  
C.E.I. PROJECT NUMBER 131117.00  
SCALE: AS SHOWN



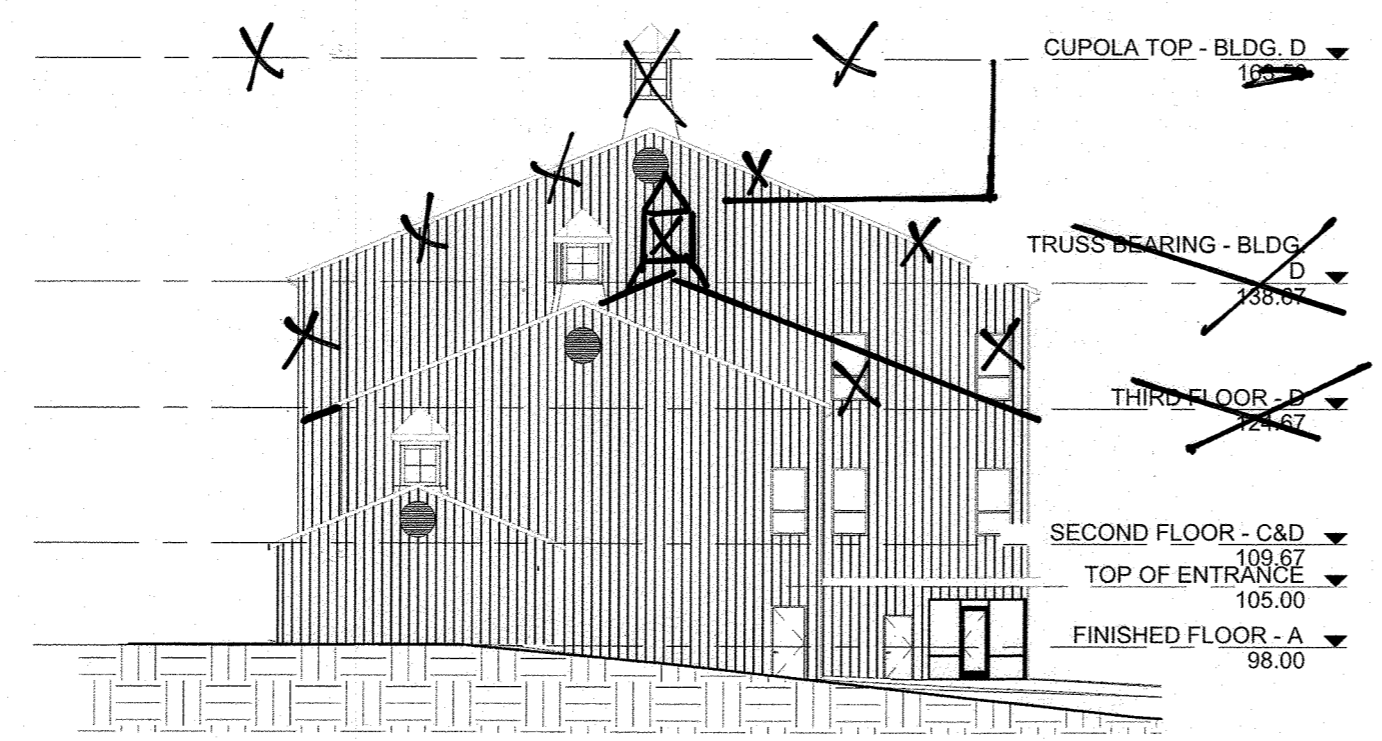
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3 EAST ELEVATION  
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5 SOUTH ELEVATION  
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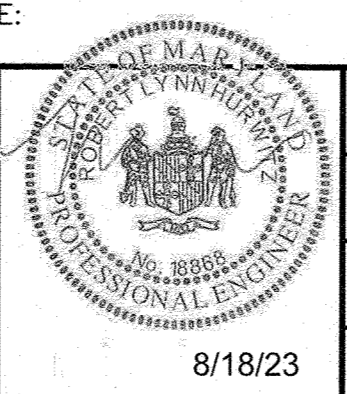
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OWNER  
**KELLOGG - CCP, LLC**  
 c/o DAVID P. SCHEFFENACKER, JR.  
 MANAGING MEMBER  
 100 WEST ROAD, SUITE 304, TOWSON, MD 21204  
 410-296-3800

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 NUMBER: 18868  
 EXPIRES DATE: 8/18/24

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 Chief Development Engineering Division  
 Date: 11/27/23  
 Director

**CENTURY ENGINEERING**  
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*Note: Architecture plans prepared by Hoffman & Assoc.*

DESIGN BY: RLH/KAD	
DRAWN BY:	
CHECKED BY:	
DATE: 10-3-22	
BY NO.	REVISION DATE

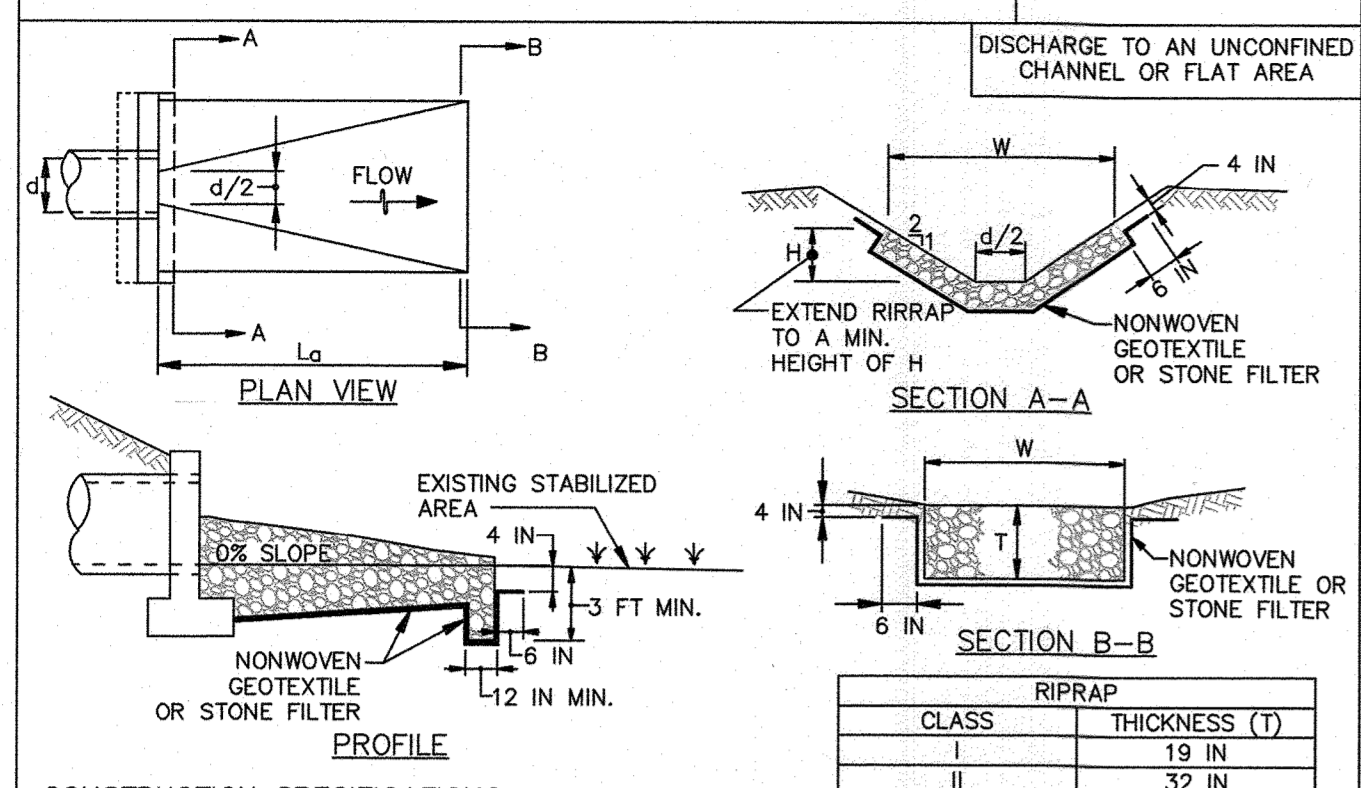
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 Towson, MARYLAND 21204  
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Building Elevations  
 PARCELS 'V', 'C-C', & OPEN SPACE LOT 245 - THE ATTIC  
**OXFORD SQUARE**  
 "A HOWARD COUNTY GREEN NEIGHBORHOOD"  
 TAX MAP: 38 PARCEL: 761 GRID: 20 ZONED: TOD  
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 SHEET 20 OF 21

C.E.I. PROJECT NUMBER  
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 SCALE:  
 As Shown

**DETAIL D-4-1-C ROCK OUTLET PROTECTION III**

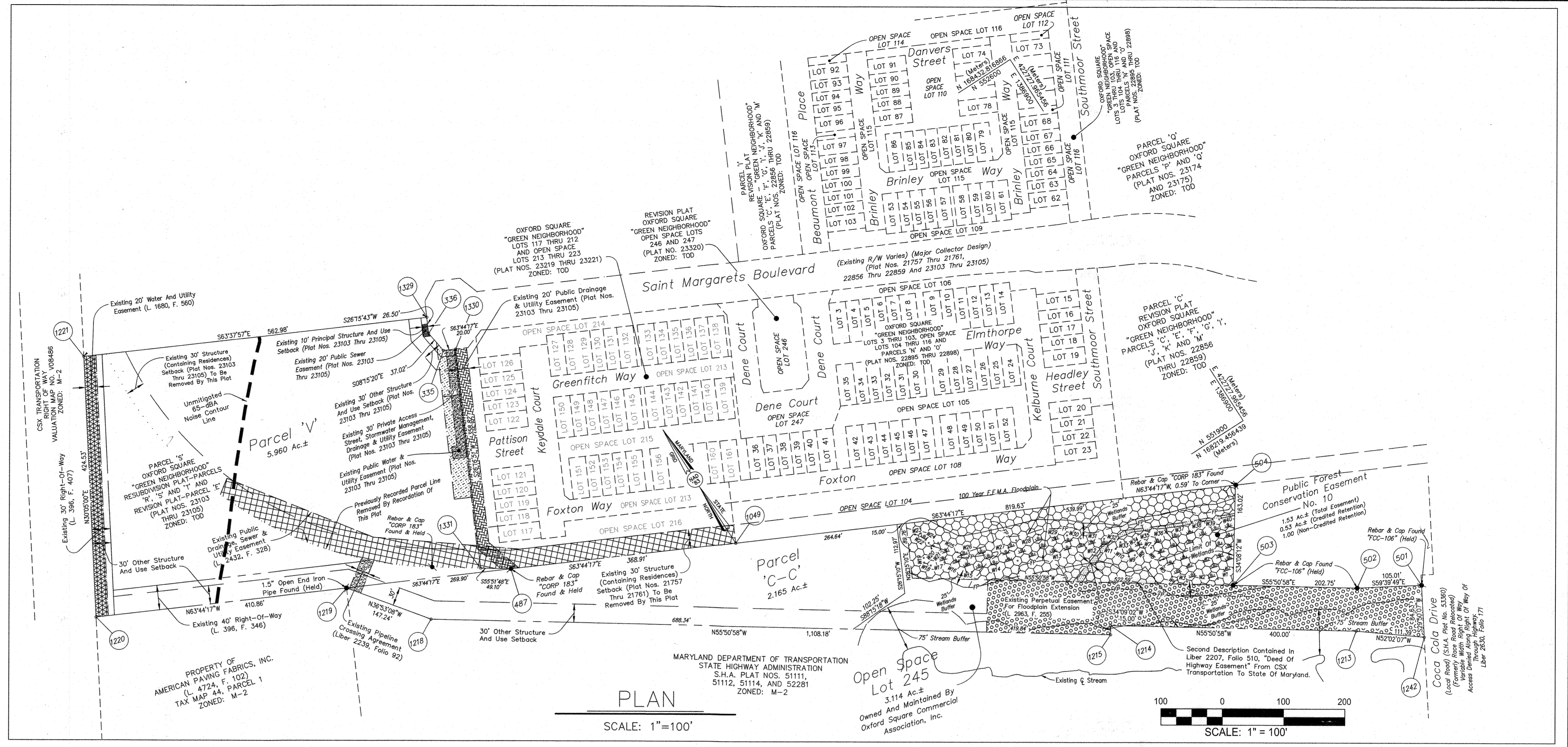
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**CONSTRUCTION SPECIFICATIONS**

1. RIPRAP AND STONE MUST CONFORM TO THE SPECIFIED CLASS.
2. USE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS, AND PROTECT FROM PUNCTURING, CUTTING, OR TEARING. REPAIR ANY DAMAGE OTHER THAN AN OCCASIONAL SMALL HOLE BY PLACING ANOTHER PIECE OF GEOTEXTILE OVER THE DAMAGED PART OR BY COMPLETELY REPLACING THE GEOTEXTILE. PROVIDE A MINIMUM OF ONE FOOT OVERLAP FOR ALL REPAIRS AND FOR JOINING TWO PIECES OF GEOTEXTILE TOGETHER.
3. PREPARE THE SUBGRADE FOR GEOTEXTILE OR STONE FILTER (3/8 TO 1 1/2 INCH MINIMUM STONE FOR 6 INCH MINIMUM DEPTH) AND RIPRAP TO THE REQUIRED LINES AND GRADES. COMPACT ANY FILL REQUIRED IN THE SUBGRADE TO A DENSITY OF APPROXIMATELY THAT OF THE SURROUNDING UNDISTURBED MATERIAL.
4. EXTEND GEOTEXTILE AT LEAST 6 INCHES BEYOND EDGES OF RIPRAP AND EMBED AT LEAST 4 INCHES AT SIDES OF RIPRAP.
5. CONSTRUCT RIPRAP OUTLET TO FULL COURSE THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO AVOID DISPLACEMENT OF UNDERLYING MATERIALS. PLACE STONE FOR RIPRAP OUTLET IN A MANNER THAT WILL ENSURE THAT IT IS REASONABLY HOMOGENEOUS WITH THE SMALLER STONES AND SPALLS FILLING THE VOIDS BETWEEN THE LARGER STONES. PLACE RIPRAP IN A MANNER TO PREVENT DAMAGE TO THE FILTER BLANKET OR GEOTEXTILE. HAND PLACE TO THE EXTENT NECESSARY.
6. WHERE NO ENDWALL IS USED, CONSTRUCT THE UPSTREAM END OF THE APRON SO THAT THE WIDTH IS TWO TIMES THE DIAMETER OF THE OUTLET PIPE, AND EXTEND THE STONE UNDER THE OUTLET BY A MINIMUM OF 18 INCHES.
7. CONSTRUCT APRON WITH 0% SLOPE ALONG ITS LENGTH AND WITHOUT OBSTRUCTIONS. PLACE STONE SO THAT IT BLENDS IN WITH EXISTING GROUND.
8. MAINTAIN LINE, GRADE, AND CROSS SECTION. KEEP OUTLET FREE OF EROSION. REMOVE ACCUMULATED SEDIMENT AND DEBRIS. AFTER HIGH FLOWS INSPECT FOR SCOUR AND RIPRAP DISLODGED RIPRAP. MAKE NECESSARY REPAIRS IMMEDIATELY.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL		
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION
	D.22	



**GENERAL CONSTRUCTION SPECIFICATIONS**

1. **GENERAL** All stormwater management facilities shall be constructed in accordance with Howard County "Standard Specifications and Details for Construction and the N.R.C.S. Maryland "Standards and Specifications for Ponds", (MD-378, 2000). These specifications are appropriate to all ponds within the scope of the standard practice MD-378. All references to ASTM and AASHTO specifications apply to the most recent version.
2. **SITE PREPARATION** Areas designated for borrow areas, embankment, and structural works shall be cleared, grubbed and stripped of topsoil. All trees, vegetation, roots, and other objectionable material shall be removed. Channel banks and sharp breaks shall be sloped to no steeper than 1:1. All trees shall be cleared and grubbed within 15 feet of the toe of the embankment.  
  
Areas to be covered by the reservoir will be cleared of all trees, brush, logs, fences, rubbish and other objectionable material unless otherwise designated on the plans. Trees, brush and stumps shall be cut approximately level with the ground surface. For dry stormwater management ponds, a minimum of a 25-foot radius around the inlet structure shall be cleared.  
  
All cleared and grubbed material shall be disposed of outside and below the limits of the dam and reservoir as directed by the owner or his representative. When specified, a sufficient quantity of topsoil will be stockpiled in a suitable location for use on the embankment and other designated areas.
3. **EARTH FILL MATERIAL** - The fill material shall be taken from approved designated borrow areas. It shall be free of roots, stumps, wood, rubbish, stones greater than 6", frozen or other objectionable materials. Fill material for the center of the embankment and cut off trench shall conform to Unified Soil Classification (CC, SC, CH, or CL) and must have at least 30% passing the #200 sieve. Consideration may be given to the use of other materials in the embankment if designed by a geotechnical engineer. Such special designs must be constructed supervised by a geotechnical engineer. Materials used in the outer shell of the embankment must have the capability to support vegetation of the quality required to prevent erosion of the embankment.  
  
**PLACEMENT** - Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in maximum 8 inch thick (before compaction) layers which are to be continuous over the entire length of the fill. The most permeable borrow material shall be placed in the downstream portions of the embankment. The principal spillway must be installed concurrently with fill placement and not excavated into the embankment.  
  
**COMPACTION** - Control the movement of the hauling equipment over the fill so that the entire surface of each lift is compacted to 95% of AASHTO Specification T-99 (or equivalent ASTM Specifications). Fill material must contain enough moisture to yield the required degree of compaction with the equipment used.  
  
When required by the reviewing agency the minimum required density shall not be less than 95% of the maximum dry density with a moisture content within +/- 2% of the optimum. Each layer of fill shall be compacted as necessary to obtain that density, and is to be certified by the engineer at the time of construction. All compaction is to be determined by AASHTO Method T-99 (Standard Proctor).

**EMBANKMENT CORE** - The core shall be parallel to the centerline of the embankment as shown on the plans. The top width of the core shall be a minimum of four feet. The height shall extend up to at least the 10 year water elevation or as shown on the plans. The side slopes shall be 1 to 1 or flatter. The core shall be compacted with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability. In addition, the core shall be placed concurrently with the outer shell of the embankment.

4. **STRUCTURE BACKFILL**  
Backfill adjacent to pipes or structures shall be of the type and quality conforming to that specified for the adjoining fill material. The fill shall be placed in horizontal layers not to exceed 4 inches in thickness and compacted by hand tampers or other manually directed compaction equipment. The material needs to fill completely all spaces under and adjacent to the pipe. At no time during the backfilling operation shall driven equipment be allowed to operate closer than 4 feet, measured horizontally, to any part of a structure. Under no circumstances shall equipment be driven over any part of a concrete structure or pipe, unless there is a compacted fill of 24" or greater over the structure or pipe.

Structure backfill may be flowable fill meeting the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 313 as modified. The mixture shall have a 100-200 psi, 28 day unconfined compressive strength. The flowable fill shall have a minimum ph of 4.0 and a minimum resistivity of 2,000 ohm-cm. Material shall be placed such that a minimum of 6" (measured perpendicular to the outside of the pipe) of flowable fill shall be under (bedding), over and, on the sides of the pipe. It only needs to extend up to the spring line for rigid conduits. Average slump of the fill shall be 7" to assure flowability of the material. Adequate measures shall be taken (sand bags, etc.) to prevent floating the pipe. When using flowable fill, all metal pipe shall be bituminous coated. Any adjoining soil fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other manually directed compaction equipment. The material shall completely fill all voids adjacent to the flowable fill zone. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall equipment be driven over any part of a structure or pipe unless there is a compacted fill of 24" or greater over the structure or pipe. Backfill material outside the structural backfill (flowable fill) zone shall be of the type and quality conforming to that specified for the core of the embankment or other embankment materials.

I HEREBY CERTIFY THAT THE ABOVE DESCRIBED WORK WAS DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION AND THE N.R.C.S. MARYLAND "STANDARDS AND SPECIFICATIONS FOR PONDS", (MD-378, 2000). THESE SPECIFICATIONS ARE APPROPRIATE TO ALL PONDS WITHIN THE SCOPE OF THE STANDARD PRACTICE MD-378. ALL REFERENCES TO ASTM AND AASHTO SPECIFICATIONS APPLY TO THE MOST RECENT VERSION.

LICENSE NUMBER: 18868 EXPIRES DATE: 8/18/23

**OWNER**  
KELLOGG - CCP, LLC  
c/o DAVID P. SCHEFFENACKER, JR.  
MANAGING MEMBER  
100 WEST ROAD, SUITE 304, TOWSON, MD 21204  
410-296-3800

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
Chief, Development Engineering Division  
Date: 11/21/23  
Director

**PROFESSIONAL ENGINEER CERTIFICATION**  
I HEREBY CERTIFY THAT THE ABOVE DESCRIBED WORK WAS DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION AND THE N.R.C.S. MARYLAND "STANDARDS AND SPECIFICATIONS FOR PONDS", (MD-378, 2000). THESE SPECIFICATIONS ARE APPROPRIATE TO ALL PONDS WITHIN THE SCOPE OF THE STANDARD PRACTICE MD-378. ALL REFERENCES TO ASTM AND AASHTO SPECIFICATIONS APPLY TO THE MOST RECENT VERSION.

**M CENTURY ENGINEERING**  
CONSULTING ENGINEERS - PLANNERS  
10710 Gilroy Road, Hunt Valley, MD 21031  
Phone: 443.589.2400 Fax: 443.589.2401  
8/18/23

DESIGN BY:	RLH/KAD
DRAWN BY:	
CHECKED BY:	
DATE:	10-3-22
BY	NO.
REVISION	DATE

**DEVELOPER**  
PRESTON - SCHEFFENACKER PROPERTIES  
100 West Road, Suite 304  
Towson, MARYLAND 21204  
410-296-3800

**ESC & SWM Details & Overall Parcel/Property Plan**  
PARCELS 'V', 'C-C', & OPEN SPACE LOT 245 - THE ATTIC  
**OXFORD SQUARE**  
"A HOWARD COUNTY GREEN NEIGHBORHOOD"  
TAX MAP: 38 PARCEL: 761 GRID: 20 ZONED: TOD  
ELECTION DISTRICT 1 HOWARD COUNTY, MARYLAND  
SHEET 21 OF 21

C.E.I. PROJECT NUMBER  
131117.00  
SCALE:  
As Shown

S:\2013\Facilities\131117.00 Oxford Square\CADD\Drawings\SDP - Attic Building A Revisions and Entrance Revisions\131117.02 (SDP-21) ESC & SWM Details Property Plan.dwg Aug 18, 2023 2:23pm padoyle