

DRAWING NO.	SDP SHT. NO.	TITLE
T-1	1	Title Sheet
T-2	2	Project Site Plan
<b>DETAILS</b>		
D-1		Typical Sections & Paving Details
D-2		Typical Sections & Details
D-3		Decorative Paving Details
D-4		Typical Details
D-5		Gate & Storage Tank Details
D-6		Concrete Risers & Planter Details
D-7		Playground Equipment Details
D-8		Playground Equipment Details
D-9		Timber Construction Details
D-10		Timber Construction Details
D-11		Softball Field Layout & Details
D-12		Baseball Field Layout & Details
<b>BLOW-UP DETAILS</b>		
B-1		Court Yard & Maintenance Yard Enlargement
B-2		Seating Area Enlargements
B-3	3	Tot-Lot Layout
<b>GRADING</b>		
G-1	4	Grading, Paving & Storm Water Management Plan
G-2	5	Grading & Paving Plan
<b>PLANTING</b>		
P-1	6	Planting Plan
P-2	7	Planting Plan
P-3		Planting Plan for Seating Areas
P-4		Planting Plan of Courtyard
P-5		Planting Plan of Tot-Lot Area
P-6		Planting Details
<b>CONSTRUCTION LAYOUT</b>		
C-1		Construction Layout Plan
C-2		Construction Layout Plan
<b>UTILITIES</b>		
U-1	8	Utility and Storm Drain Plan
U-2	9	Utility and Storm Drain Plan
U-3	10	Utility and Storm Drain Plan
U-4	11	Utility and Storm Drain Plan
U-5	12	Inlet Schedule
U-6	13	Manhole Schedule & Details
U-7	14	Storm Drainage Profiles
U-8	15	Storm Drainage Profiles
U-9	16	Storm Drainage Profiles
U-10	17	Pump Room Details and Sanitary Sewer Profiles
U-11	18	Storm Water Management Profiles and Details
<b>WATER</b>		
W-1		Water Main Plan & Profile
<b>SEDIMENT AND EROSION CONTROL</b>		
SC-1	19	Sediment & Erosion Control Plan
SC-2	20	Sediment & Erosion Control Plan
SC-3	21	Sediment & Erosion Control Details
	21A	E&S DETAILS AND NOTES
<b>UTILITIES/CONCRESSION</b>		
A-1		Storage Building
A-2		Storage Building
A-3		Storage Shed
A-4		Storage Shed
A-5		Equipment/Vehicle Building
A-6		Equipment/Vehicle Building
A-7		Press Box
A-8		Schedules
A-9		Details
A-10		Details
A-11		Details
A-12		Details
A-13		Details
A-14		Details
<b>STRUCTURAL</b>		
S-1		Roof Framing Plans
S-2		Foundation and First Floor Plans
S-3		Schedules and Details
S-4		Storage Bins, Details & General Notes
<b>MECHANICAL</b>		
M-1		Office/Concession Building - Mechanical
M-2		Storage Building - Toilet/Storage Building-Mech
M-3		Vehicle/Equipment Building & Risers - Mech
M-4		Risers - Schedules - Details and Press Box - Mech
<b>ELECTRICAL</b>		
E-1		Outside Electrical Work - Sheet 1
E-2		Outside Electrical Work - Sheet 2
E-3		Outside Electrical Work - Sheet 3
E-4		Sports Lighting Details - Electrical
E-5		Office/Concession Building - Electrical
E-6		Storage Building - Toilet/Storage Bldg. - Elec
E-7		Storage Shed - Equipment/Vehicle Bldg. - Elec
E-8		Press Box - Electrical
E-9		Panel Schedules - Electrical
E-10		Miscellaneous Details - Electrical



# HOWARD COUNTY MARYLAND DEPARTMENT OF PUBLIC WORKS FOR DEPARTMENT OF RECREATION AND PARKS

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS  
 HOWARD COUNTY HEALTH DEPARTMENT  
 COUNTY HEALTH OFFICER *[Signature]* DATE 2-22-83

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING  
 PLANNING DIRECTOR *[Signature]* DATE 3-3-83

CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION  
*[Signature]* DATE 3-3-83

APPROVED FOR PUBLIC WATER, PUBLIC SEWERAGE AND STORM DRAINAGE SYSTEMS AND ROADS  
 DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
 DIRECTOR *[Signature]* DATE 2-10-83  
 CHIEF, BUREAU OF ENGINEERING *[Signature]* DATE 2-1-83

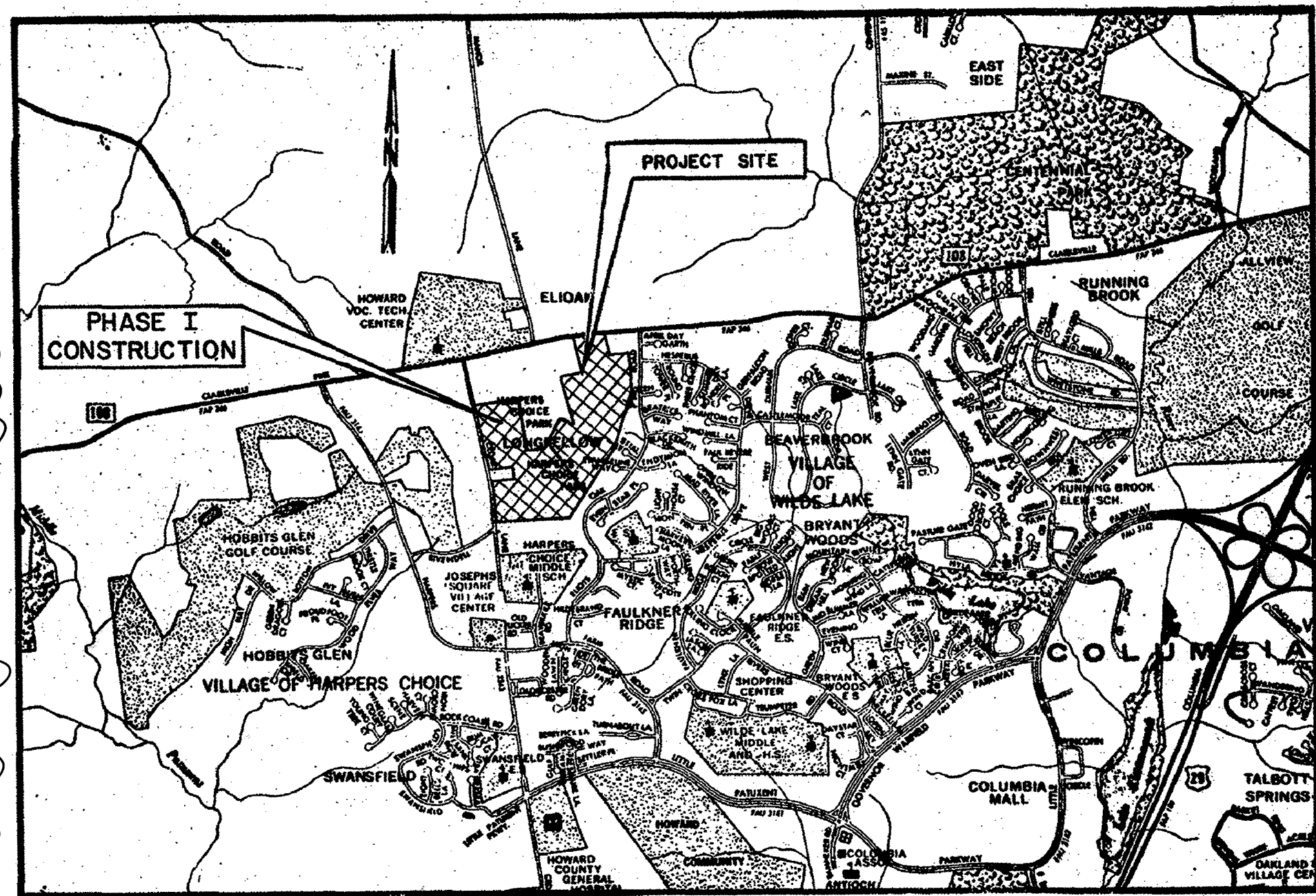
DEPARTMENT OF RECREATION & PARKS  
 HOWARD COUNTY, MARYLAND  
 DIRECTOR *[Signature]* DATE 2-2-83

NOTE:  
 THIS SHEET'S INDEX WAS MODIFIED TO INCLUDE THE WASHPAD FACILITIES DESIGN INFORMATION. REFER TO THE CEDAR LANE PARK FACILITIES WASHPAD DESIGN PACKAGE, CAPITAL PROJECT C-0313 DATED JANUARY 2020.

SHEET NUMBER	TITLE
1 OF 11	TITLE SHEET
2 OF 11	PROJECT SITE PLAN
3 OF 11	UTILITY AND STORM DRAIN PLAN
4 OF 11	SEDIMENT & EROSION CONTROL PLAN
5 OF 11	BOCCO COURT GRADING PLAN
6 OF 11	BOCCO COURT SEDIMENT AND EROSION CONTROL PLAN & FOREST CONSERVATION WORKSHEET
7 OF 11	BOCCO COURT SEDIMENT AND EROSION CONTROL DETAILS
8 OF 11	SEDIMENT & EROSION CONTROL NOTES
9 OF 11	BOCCO COURT STORMWATER MANAGEMENT PLAN, DRAINAGE AREA MAP, NOTES AND DETAILS
10 OF 11	BOCCO COURT DETAILS
11 OF 11	DUGOUT SHADE STRUCTURE

NOTES:  
 1) SEE SHEET 2 OF 10 FOR PERMIT INFORMATION  
 2) SEE SHEET 2 OF 10 FOR GENERAL NOTES  
 3) SEE SHEET 2 OF 11 FOR REVISION NO. 3 - DUGOUT SHADE STRUCTURE

SHEET NUMBER	TITLE
1 OF 15	TITLE SHEET
2 OF 15	PROJECT SITE PLAN
3 OF 15	UTILITY AND STORM DRAIN PLAN
4 OF 15	SEDIMENT AND EROSION CONTROL PLAN
5 OF 15	BOCCO COURT GRADING PLAN
6 OF 15	BOCCO COURT SEDIMENT AND EROSION CONTROL PLAN AND FOREST CONSERVATION WORKSHEET
7 OF 15	BOCCO COURT SEDIMENT AND EROSION CONTROL DETAILS
8 OF 15	SEDIMENT AND EROSION CONTROL NOTES
9 OF 15	BOCCO COURT STORMWATER MANAGEMENT PLAN, DRAINAGE AREA MAP, NOTES AND DETAILS
10 OF 15	BOCCO COURT DETAILS
11 OF 15	DUGOUT SHADE STRUCTURE
12 OF 15	WASHPAD SITE PLAN
13 OF 15	WASHPAD DISCHARGE PIPING PROFILES
14 OF 15	WASHPAD EROSION AND SEDIMENT PLAN
15 OF 15	WASHPAD EROSION AND SEDIMENT DETAILS AND NOTES



LOCATION MAP  
 SCALE: 1" = 2000'

# PHASE I CEDAR LANE PARK

MARYLAND ROUTE 108 AND CEDAR LANE

CAPITAL PROJECT N-4-3028

STATE OF MARYLAND  
 PROFESSIONAL ENGINEER  
 12/19/12  
 REVISION 3 ONLY

STATE OF MARYLAND  
 PROFESSIONAL ENGINEER  
 12/19/12  
 PROFESSIONAL CERTIFICATE:  
 I HEREBY CERTIFY THAT THE INFORMATION CLOUDED AND LISTED UNDER REVISION # 1 (OR 2 DEPENDING ON THE PAGE) ON THIS DOCUMENT WAS PREPARED OR APPROVED BY ME, AND I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND (LICENSE NO. 19591, EXPIRATION DATE 3/15/2014). I DO NOT CERTIFY THE ACCURACY OF ANY OTHER INFORMATION, ALL OF WHICH WAS PREPARED BY OTHERS.

STATE OF MARYLAND  
 PROFESSIONAL ENGINEER  
 6-21-21  
 PROFESSIONAL CERTIFICATE:  
 I HEREBY CERTIFY THE INFORMATION IDENTIFIED UNDER REVISION # 4 ONLY.

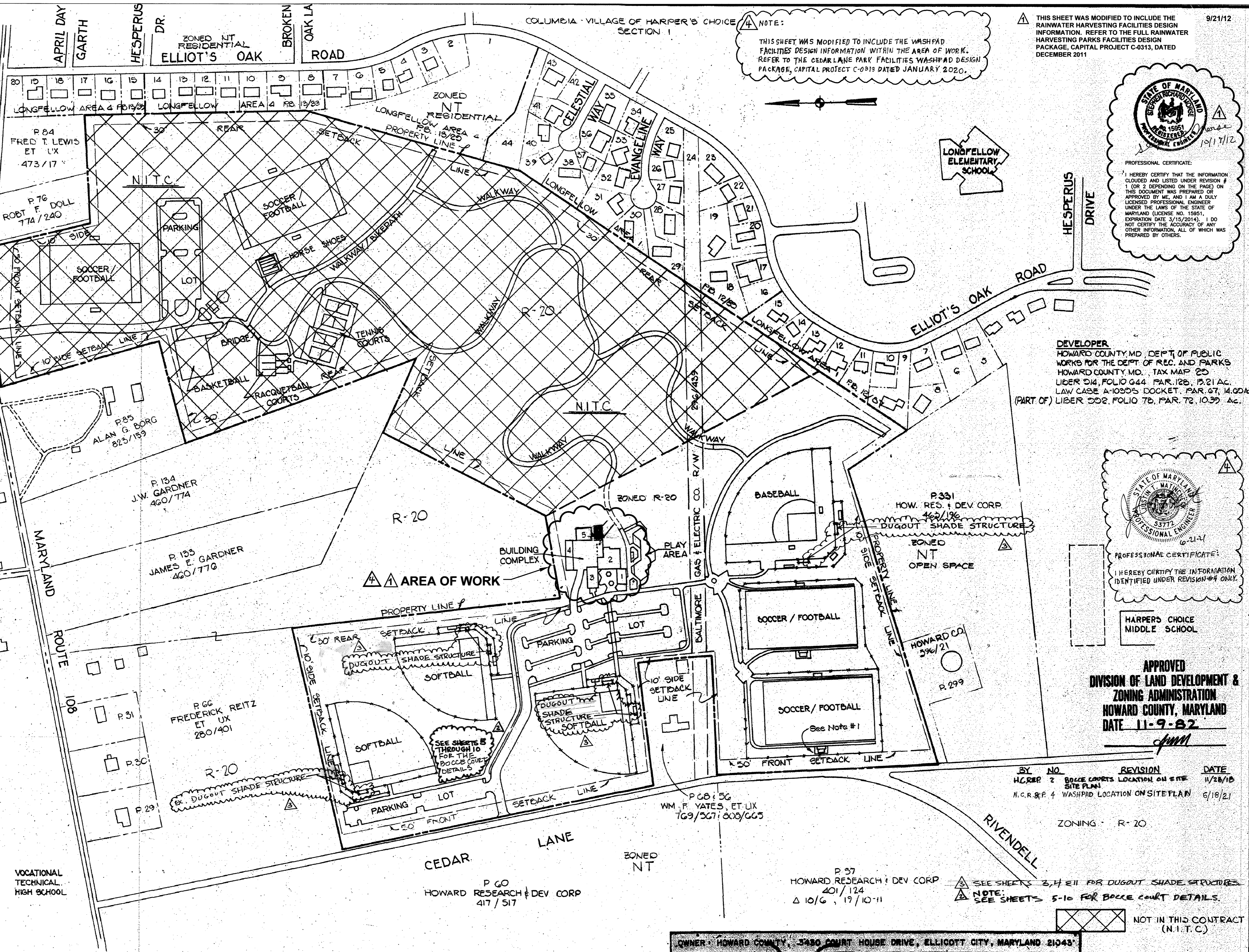
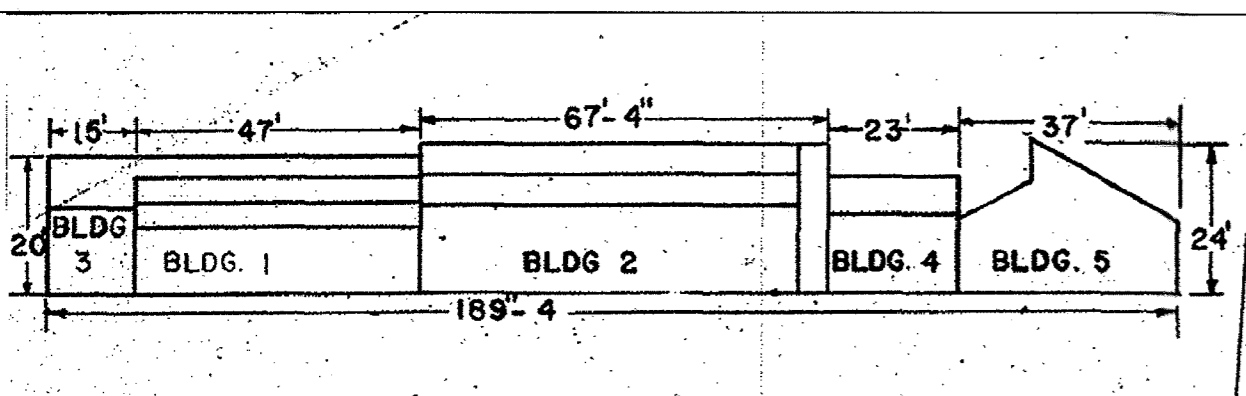
THIS SHEET WAS MODIFIED TO INCLUDE THE RAINWATER HARVESTING FACILITIES DESIGN INFORMATION. REFER TO THE FULL RAINWATER HARVESTING PARKS FACILITIES DESIGN PACKAGE, CAPITAL PROJECT C-0313, DATED DECEMBER 2011

APPROVED  
 DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION  
 HOWARD COUNTY, MARYLAND  
 DATE 11-9-82  
*[Signature]*

NOTE:  
 THE LOD OF 4,792 SFT IS EXEMPT FROM PROVIDING STORMWATER MANAGEMENT. ANY FUTURE REVISIONS WHERE THE CUMULATIVE DISTURBANCE EXCEEDS 5,000 SFT THEN STORMWATER MANAGEMENT WILL BE PROVIDED.

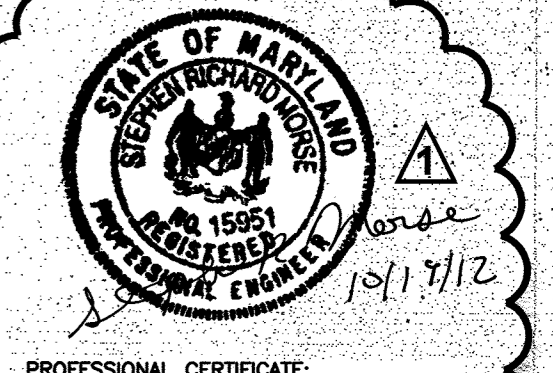
BY NO.	REVISION	DATE
H.C.R.P. 2	BOCCO COURTS SHEET INDEX REVISION	11/28/16
H.C.R.P. 3	DUGOUT SHADE STRUCTURES	4/1/21
H.C.R.P. 4	WASHPAD SHEET INDEX REVISION	8/18/21

DRAWING NO. 71  
 1 OF 15  
 SHEET INDEX  
 1 OF 15



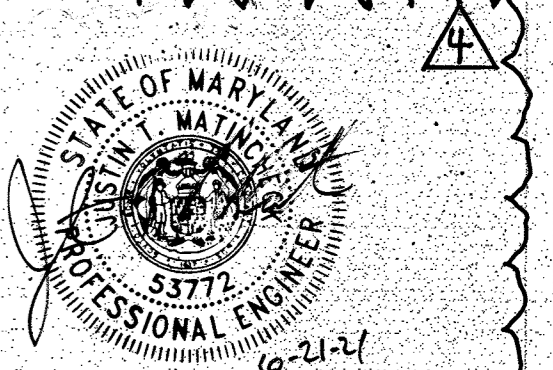
NOTE:  
THIS SHEET WAS MODIFIED TO INCLUDE THE WASHPAD FACILITIES DESIGN INFORMATION WITHIN THE AREA OF WORK. REFER TO THE CEDAR LANE PARK FACILITIES WASHPAD DESIGN PACKAGE, CAPITAL PROJECT C-0313 DATED JANUARY 2020.

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DEVELOPER  
HOWARD COUNTY, MD. DEPT. OF PUBLIC WORKS FOR THE DEPT. OF REC. AND PARKS  
HOWARD COUNTY, MD. TAX MAP 25  
LIBER D14, FOLIO G44. PAR. 12B, 13.21 AC.  
LAV CASE A-10305 DOCKET. PAR. 67, 14.00 AC.  
(PART OF) LIBER 002, FOLIO 78, PAR. 72, 10.39 AC.



PROFESSIONAL CERTIFICATE:  
I HEREBY CERTIFY THE INFORMATION IDENTIFIED UNDER REVISION #4 ONLY.

HARPERS CHOICE MIDDLE SCHOOL

APPROVED  
DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION  
HOWARD COUNTY, MARYLAND  
DATE 11-9-82

GENERAL NOTES

- EXISTING ZONING IS R-20 WITH A VARIANCE TO SETBACK REQUIREMENTS GRANTED BY COUNTY COUNCIL RESOLUTION NO. 132.
- SITE IS LOCATED ON HOWARD COUNTY TAX MAP 25 IN ELECTION DISTRICT NO. 5.
- THE TOTAL AREA SUBMITTED IS 40.25 AC.
- BLDG. SQ. FT. = 12,628 - 0.72% Coverage
- PARKING SPACES = 356
- PARKING SPACES REQUIRED = 1 PER 100 SQ. FT. OF BLDG. = 127 P.S.
- OPEN AREA = 31 ACRES.

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS  
HOWARD COUNTY HEALTH DEPARTMENT  
COUNTY HEALTH OFFICER: [Signature] DATE: 2-22-83

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING  
PLANNING DIRECTOR: [Signature] DATE: 3-3-83

APPROVED FOR PUBLIC WATER, PUBLIC SEWERAGE AND STORM DRAINAGE SYSTEMS AND ROADS  
CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION: [Signature] DATE: 3-3-83

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
DIRECTOR: [Signature] DATE: 2/11/83  
CHIEF, BUREAU OF ENGINEERING: [Signature] DATE: 2/11/83

DEPARTMENT OF RECREATION & PARKS  
HOWARD COUNTY, MARYLAND  
DIRECTOR: [Signature] DATE: 2-2-83

**Johnson, Mirmiran & Thompson, P. A.**  
ENGINEERS • PLANNERS • SURVEYORS • LANDSCAPE ARCHITECTS  
1200 YORK ROAD • BALTIMORE, MARYLAND • 21060 • (301) 921-5500



PROJECT SITE  
PLAN  
CEDAR LANE PARK

OWNER: HOWARD COUNTY, 3480 COURT HOUSE DRIVE, ELICOTT CITY, MARYLAND 21043

MARYLAND ROUTE 108 AND CEDAR LANE  
CAPITAL PROJECT NO. N-4-3028  
ELECTION DISTRICT NO. 5  
HOWARD COUNTY, MARYLAND

DRAWING NO. 1-2	SCALE: NOT TO SCALE	DES. PWZ
NO. 1-2	TO SCALE	DRK. SL
2 OF 13		
	OCT. 1982	CHK. FEM

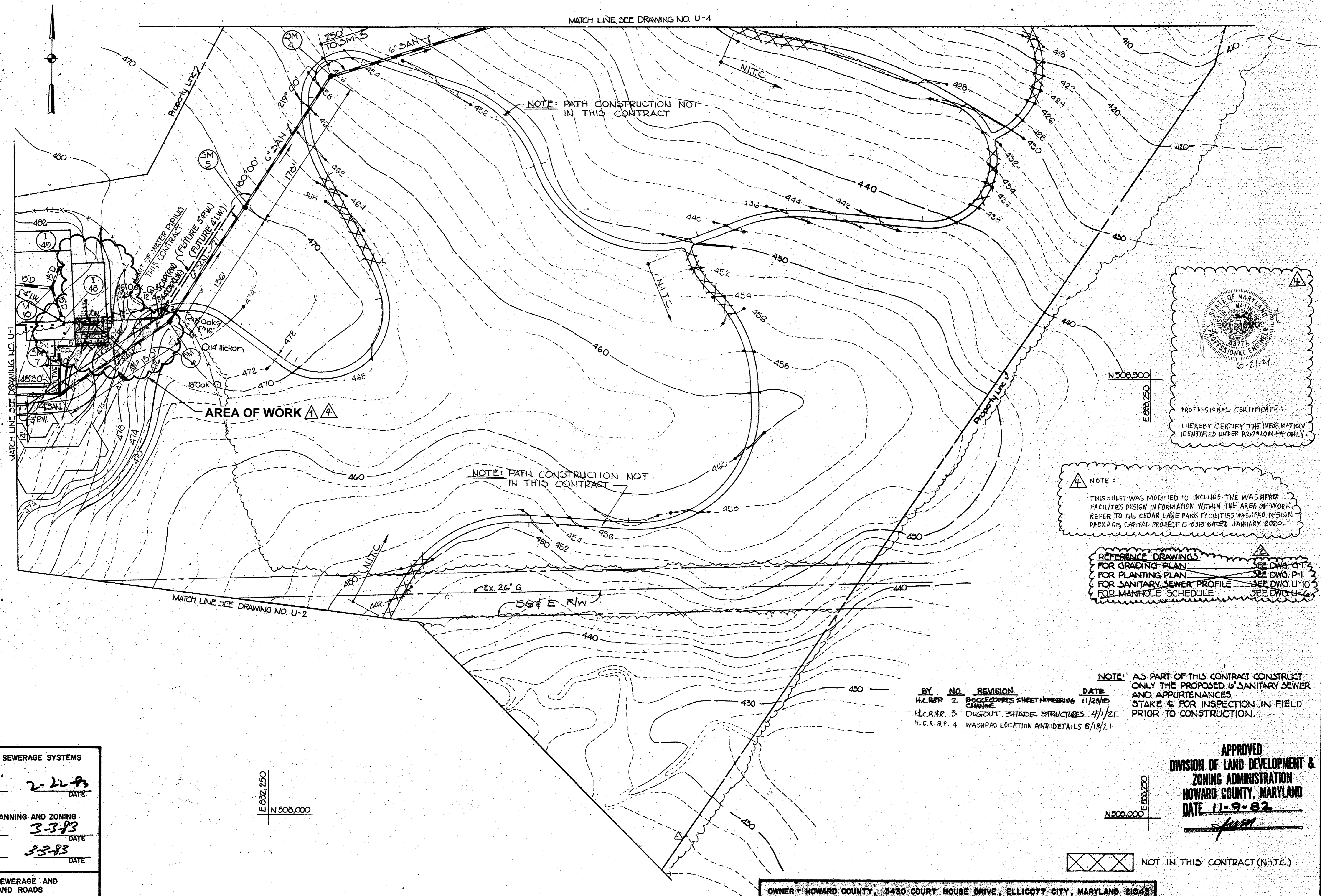
SDP-83-41311-28-23  
2 OF 15

THIS SHEET WAS MODIFIED TO INCLUDE THE RAINWATER HARVESTING FACILITIES DESIGN INFORMATION. REFER TO THE FULL RAINWATER HARVESTING PARKS FACILITIES DESIGN PACKAGE, CAPITAL PROJECT C-0313, DATED DECEMBER 2011

9/21/12

MATCH LINE SEE DRAWING NO. U-4

**STATE OF MARYLAND**  
**REGISTERED PROFESSIONAL ENGINEER**  
 15951  
 10/19/12  
**PROFESSIONAL CERTIFICATE:**  
 I HEREBY CERTIFY THAT THE INFORMATION CLOUDED AND LISTED UNDER REVISION # 1 (OR 2 DEPENDING ON THE PAGE) ON THIS DOCUMENT WAS PREPARED OR APPROVED BY ME, AND I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND (LICENSE NO. 15951, EXPIRATION DATE 3/15/2014). I DO NOT CERTIFY THE ACCURACY OF ANY OTHER INFORMATION, ALL OF WHICH WAS PREPARED BY OTHERS.



**STATE OF MARYLAND**  
**REGISTERED PROFESSIONAL ENGINEER**  
 63772  
 6-21-12  
**PROFESSIONAL CERTIFICATE:**  
 I HEREBY CERTIFY THE INFORMATION IDENTIFIED UNDER REVISION #4 ONLY.

**NOTE:**  
 THIS SHEET WAS MODIFIED TO INCLUDE THE WASHPAD FACILITIES DESIGN INFORMATION WITHIN THE AREA OF WORK. REFER TO THE CEDAR LANE PARK FACILITIES WASHPAD DESIGN PACKAGE, CAPITAL PROJECT C-0313 DATED JANUARY 2020.

**REFERENCE DRAWINGS:**  
 FOR GRADING PLAN SEE DWG. G-1  
 FOR PLANTING PLAN SEE DWG. P-1  
 FOR SANITARY SEWER PROFILE SEE DWG. U-10  
 FOR MANHOLE SCHEDULE SEE DWG. U-6

**NOTE:** AS PART OF THIS CONTRACT CONSTRUCT ONLY THE PROPOSED 6\"/>

BY	NO.	REVISION	DATE
H.C.R.P.	2	BOCCOPOINTS SHEET NUMBERING CHANGE	11/28/16
H.C.R.P.	3	DUGOUT SHADE STRUCTURES	4/1/21
H.C.R.P.	4	WASHPAD LOCATION AND DETAILS	6/18/21

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS  
**Howard County Health Department**  
 COUNTY HEALTH OFFICER *[Signature]* DATE: 2-22-83

APPROVED HOWARD COUNTY OFFICE OF PLANNING AND ZONING  
 PLANNING DIRECTOR *[Signature]* DATE: 3-3-83

CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION *[Signature]* DATE: 3-3-83

APPROVED FOR PUBLIC WATER, PUBLIC SEWERAGE AND STORM DRAINAGE SYSTEMS AND ROADS  
**DEPARTMENT OF PUBLIC WORKS**  
 HOWARD COUNTY, MARYLAND  
 DIRECTOR *[Signature]* DATE: 2-10-83

**DEPARTMENT OF RECREATION & PARKS**  
 HOWARD COUNTY, MARYLAND  
 DIRECTOR *[Signature]* DATE: 2-2-83

**Johnson, Mirmiran & Thompson, P. A.**  
 ENGINEERS • PLANNERS • SURVEYORS • LANDSCAPE ARCHITECTS  
 1526 YORK ROAD • BALTIMORE, MARYLAND • 21093 • (301) 921-6500



**UTILITY AND STORM DRAIN PLAN**  
**CEDAR LANE PARK**

OWNER: HOWARD COUNTY, 3430 COURT HOUSE DRIVE, ELLICOTT CITY, MARYLAND 21045

**MARYLAND ROUTE 108 AND CEDAR LANE**  
**CAPITAL PROJECT NO. N-4-3028**  
**ELECTION DISTRICT NO. 5**  
**HOWARD COUNTY, MARYLAND**

DRAWING NO. U-33 OF U-11	SCALE 1" = 50'	DES. J.A.R.
DATE OCT. 1982		DRW. E.B.B.
		CHK. J.A.R.

NOT IN THIS CONTRACT (N.I.T.C.)

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS

HOWARD COUNTY HEALTH DEPARTMENT

*[Signature]*  
COUNTY HEALTH OFFICER

DATE: 2-22-83

APPROVED HOWARD COUNTY OFFICE OF PLANNING AND ZONING

*[Signature]*  
PLANNING DIRECTOR

DATE: 3-3-83

*[Signature]*  
CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION

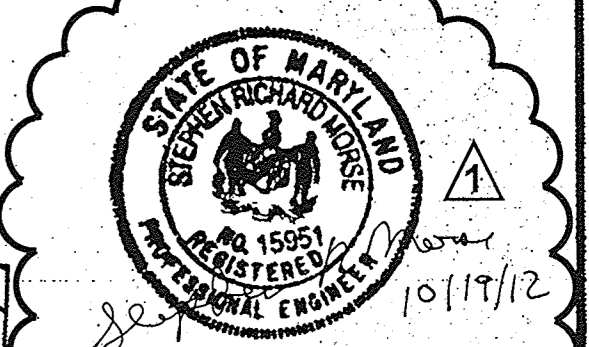
DATE: 3-3-83

BY NO. REVISION DATE  
H.C.R.P. 2 DOCK COURTS-SHEET NUMBERING REVISION 10/18/18  
H.C.R.P. 4 WASHPAD LOCATION AND DETAILS 6/18/21

NOTE: AT THE DIRECTION OF THE ENGINEER, CONSTRUCT THE TEMPORARY DIVERSION DIKE ADJACENT TO THE TOE OF THE PROPOSED FILL SLOPE.

NOTE: THIS SHEET WAS MODIFIED TO INCLUDE THE WASHPAD FACILITIES DESIGN INFORMATION WITHIN THE AREA OF WORK. REFER TO THE CEDAR LANE PARK FACILITIES WASHPAD DESIGN PACKAGE, CAPITAL PROJECT C-0313 DATED JANUARY 2020.

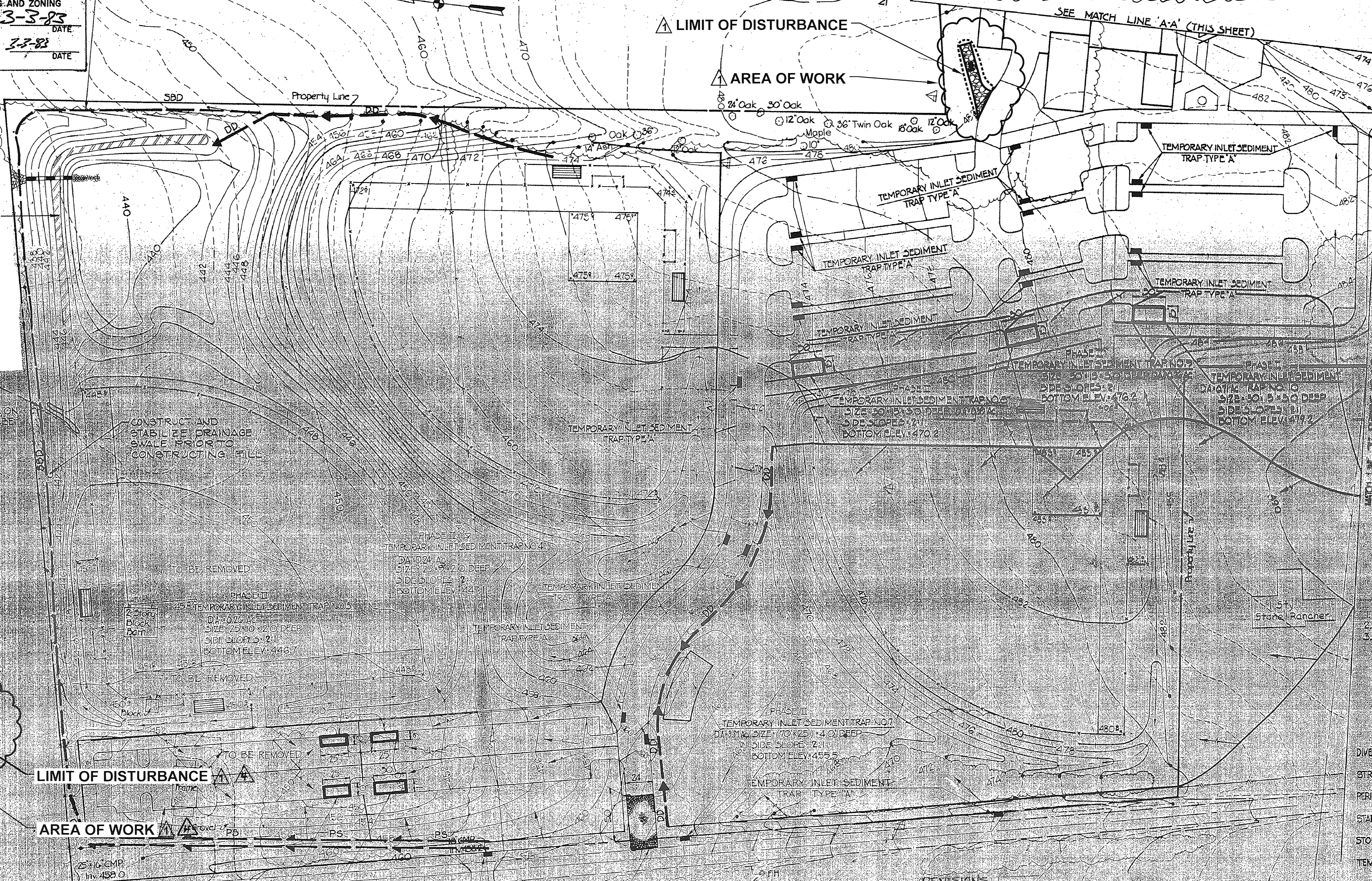
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PROFESSIONAL CERTIFICATE:  
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PROFESSIONAL CERTIFICATE:  
I HEREBY CERTIFY THE INFORMATION IDENTIFIED UNDER REVISION #4 ONLY.



SITE ANALYSIS:  
1. IMPERVIOUS AREA: 3.3 Acres  
2. REVEGETATED AREA: 4.79 Acres  
3. UNDISTURBED AREA: 2.2 Acres  
TOTAL: 10.29 Acres

LEGEND

DIVERSION DIKE	DD
STRAW BALE DIKE	SBD
PERIMETER SWALE	PS
STABILIZED CONSTR. ENTR.	SC
STONE OUTLET STRUCTURE	SOS
TEMPORARY SEDIMENT TRAP	ST

REFERENCE DRAWINGS:  
FOR CONSTRUCTION LAYOUT: SEE DWG. C-1  
FOR GRADING PLAN: SEE DWG. C-1  
FOR DRAINAGE PLAN: SEE DWG. C-1  
FOR STRUCTURE SCHEDULES: SEE DWG. U-4 (1-5)  
FOR EROSION CONTROL DETAILS: SEE DWG. C-1-B

APPROVED  
DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION  
HOWARD COUNTY, MARYLAND  
DATE: 11-9-82  
*[Signature]*

REVISIONS

NO.	DESCRIPTION	DATE
3	DOUGOUT SHADE STRUCTURES	4/1/21

APPROVED FOR PUBLIC WATER, PUBLIC SEWERAGE AND STORM DRAINAGE SYSTEMS AND ROADS

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
*[Signature]* 2/10/83  
CHIEF, BUREAU OF ENGINEERING  
DEPARTMENT OF RECREATION & PARKS  
HOWARD COUNTY, MARYLAND  
6/20/83

Johnson, Mirman & Thompson, P.A.  
ENGINEERS • PLANNERS • SURVEYORS • LANDSCAPE ARCHITECTS  
1526 YORK ROAD • BALTIMORE, MARYLAND 21286 • (301) 981-6500



### SEDIMENT & EROSION CONTROL PLAN CEDAR LANE PARK

HOWARD COUNTY, 3430 COURT HOUSE DRIVE, ELLICOTT CITY, MARYLAND 21043  
MARYLAND ROUTE 108 AND CEDAR LANE  
CAPITAL PROJECT NO. N-4-3028  
ELECTION DISTRICT NO. 5  
HOWARD COUNTY, MARYLAND

DRAWING	SCALE	DES. P.W.Z.
No. 30-1 OF 30-3 4 of 11 SDP 10 OF 21 10/17/12	1" = 50'	DRW. W.K.S. OCT. 1982 CHK. E.E.M.

SDP-83-41

N 569,948  
E 1,343,468

MARYLAND STATE GRID  
NAD 83/11

E 1,343,470  
N 569,948

SOILS LEGEND			
SYMBOL	NAME / DESCRIPTION	GROUP	'K' FACTOR
UuB	URBAN LAND-UDORTHERTS COMPLEX, 0 TO 8 PERCENT SLOPES	D	0.28

NOTES:  
1) SOIL INFORMATION HAS BEEN TAKEN FROM THE UNITED STATES DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE, WEB SOIL SURVEY.  
2) HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR 'K' GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT.

N 569,949  
E 1,343,902

PAVING SECTIONS						
SEC. NO.	ROAD AND STREET CLASSIFICATION	CALIFORNIA BEARING RATIO (CBR)	MIN. HMA WITH GAB			
			1 TO <5% TO <7'	7 TO <15% TO <7'	15 TO <25% TO <7'	25 TO <50% TO <7'
P-2	PARKING DRIVE ABLES, RESIDENTIAL AND NON-RESIDENTIAL WITH NO MORE THAN 10 HEAVY TRUCKS PER DAY	HMA SUPERPAVE FINAL SURFACE 9.5 MM, PG 64-22, LEVEL 1 (ESAL)	1.5	1.5	1.5	1.5
	LOCAL ROADS, ACCESS PLACE, CUL-DE-SACS, RESIDENTIAL	HMA SUPERPAVE INTERMEDIATE SURFACE 9.5 MM, PG 64-22, LEVEL 1 (ESAL)	1.0	1.0	1.0	1.0
		HMA SUPERPAVE BASE 19.0 MM, PG 64-22, LEVEL 1 (ESAL)	2.0	2.0	2.0	2.0
		GRADED AGGREGATE BASE (GAB)	8.0	4.0	3.0	4.0

NOTES:  
1. HEAVY TRUCKS ARE DEFINED AS THOSE WITH SIX (6) WHEELS OR MORE INCLUDING GARAGE TRUCKS.  
2. HMA SUPERPAVE LAYERS SHALL BE PLACED IN APPROPRIATE COMPACTED LIFT THICKNESS: 1.5" MIN TO 3.0" MAX, 1.5" MIN TO 3.0" MAX, 1.5" MIN TO 3.0" MAX, AND 9.5 MM SURFACE (1.0" MIN TO 2.0" MAX).  
3. GRADED AGGREGATE BASE (GAB) TO BE PLACED AND COMPACTED IN 4" MAX COMPACTED THICKNESS LAYERS.  
4. THE INTERMEDIATE SURFACE COURSE LAYER MUST BE PLACED WITHIN 2 WEEKS OF PLACEMENT OF BASE COURSE AND IS REQUIRED PRIOR TO SUBSTANTIAL COMPLETION INSPECTION AND BOND REDUCTION.  
5. IN LIEU OF PLACING THE INTERMEDIATE SURFACE COURSE LAYER FOR COMMERCIAL/INDUSTRIAL ENTRANCE APRONS WITHIN THE COUNTY RIGHT-OF-WAY WHERE ADJACENT LINES ARE NOT REQUIRED, THE THICKNESS OF THE INTERMEDIATE PAVEMENT LAYER CAN BE ADDED TO THE REQUIRED THICKNESS OF THE BASE ASPHALT LAYER.  
6. THE CONSTRUCTION DRAWINGS SHALL SHOW THE PAVING SECTION, ROAD CLASSIFICATION AND CBR VALUE FOR EACH ROADWAY.

SITE ANALYSIS DATA SHEET	
ENVIRONMENTAL AREA	SIZE OR USE
TOTAL PROJECT AREA	14.69 ACRES±
LIMIT OF DISTURBANCE	0.9117 ACRES±
*GREEN OPEN AREA (LAWN)	0.3040 ACRES±
*IMPERVIOUS AREA	0.5778 ACRES±
PROPOSED SITE USES	COMMERCIAL
*WETLANDS	0.00 ACRES±
*WETLAND BUFFERS	0.00 ACRES±
*FLOODPLAINS	0.00 ACRES±
*FLOODPLAIN BUFFERS	0.00 ACRES±
*EXISTING FOREST	0.00 ACRES±
*SLOPES GREATER THAN 15% (2)	0.2383 ACRES±
*SLOPES GREATER THAN 25%	0.0000 ACRES±
*HIGHLY ERODIBLE SOILS	0.0000 ACRES±

NOTES:  
1. SOIL INFORMATION HAS BEEN TAKEN FROM THE UNITED STATES DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE, WEB SOIL SURVEY.  
2. HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR 'K' GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT.  
3. \*AREA WITHIN LOD

### LEGEND

EXISTING CONTOUR --- 382  
PROPOSED CONTOUR --- 382  
EXISTING TREE [Symbol]  
SOIL BOUNDARY [Symbol]  
EXISTING CHAIN LINK FENCE [Symbol]  
EX. PARKING SPACE [Symbol]  
MODERATE SLOPES 15% TO 25% [Symbol]  
STEEP SLOPES > 25% [Symbol]  
EX. LIGHT POLE [Symbol]  
TEMPORARY SLOPE STABILIZATION MATTING WITH DESIGN SHEAR STRESS ≥ 2.25 LBS/FT [Symbol]  
PERMANENT CHANNEL STABILIZATION MATTING (4'-3.28 FT'S, SHEAR STRESS = 0.92 LBS/FT) [Symbol]  
LIMIT OF DISTURBANCE [Symbol] LOD  
SILT FENCE [Symbol] SF  
SUPER SILT FENCE [Symbol] SSF  
GRATE INLET PROTECTION [Symbol] GIP  
PROP. CLEAN WATER DIVERSION EARTH DIKE [Symbol] A-2  
PROP. TEMPORARY MOUNTAIN BERM [Symbol]  
PROP. STABILIZED CONSTRUCTION ENTRANCE [Symbol] SCE  
EXISTING TREELINE [Symbol]  
PROPOSED TREELINE [Symbol]

- ### GENERAL NOTES
- SUBJECT PROPERTY ZONED R-20 PER THE 10/06/2013 COMPREHENSIVE ZONING PLAN.
  - PROPERTY ADDRESS: 5081 CEDAR LANE, COLUMBIA, MARYLAND 21044
  - TOTAL AREA OF PROPERTY: 14.69 AC±
  - PUBLIC WATER AND PUBLIC SEWER WILL BE USED WITHIN THIS SITE.
  - THE BOUNDARY SHOWN HEREON IS BASED ON A FIELD RUN BOUNDARY SURVEY PREPARED BY HOWARD COUNTY SURVEY DIVISION ON OCTOBER 23, 2017. THE TOPOGRAPHY SHOWN HEREON HAS BEEN FIELD RUN BY HOWARD COUNTY SURVEY DIVISION ON OCTOBER 23, 2017. THE EXISTING TOPOGRAPHY SHOWN OUTSIDE THE SITE IS BASED ON HOWARD COUNTY AERIAL TOPOGRAPHY FLOWN IN 2011.
  - REFERENCE: LIBER 1082 FOLIO 368
  - THE SOILS SHOWN HAVE BEEN TAKEN FROM THE US DEPARTMENT OF AGRICULTURE, NATURAL RESOURCE CONSERVATION SERVICE, WEB SOIL SURVEY WEBSITE.
  - NO WETLANDS, STREAMS OR BUFFERS ARE PRESENT WITHIN THE BOCCO COURT LOD.
  - EXISTING WELLS, SEPTIC SYSTEMS AND SEWAGE DISPOSAL EASEMENTS WITHIN 100 FEET OF THE PROPERTY BOUNDARIES AND ALL EXISTING AND PROPOSED WELLS THAT ARE LOCATED WITHIN 200 FEET DOWN GRADIENT OF EXISTING OR PROPOSED SEPTIC SYSTEMS AND SEWAGE DISPOSAL EASEMENTS HAVE BEEN FIELD LOCATED.
  - EXISTING UTILITIES ARE LOCATED BY THE USE OF ANY OR ALL OF THE FOLLOWING: ROAD CONSTRUCTION PLANS, FIELD SURVEYS, PUBLIC WATER AND SEWER PLANS AND OTHER AVAILABLE RECORD DRAWINGS. APPROXIMATE LOCATION OF THE EXISTING UTILITIES ARE SHOWN FOR THE CONTRACTOR'S INFORMATION. CONTRACTOR SHALL LOCATE EXISTING UTILITIES WELL IN ADVANCE OF CONSTRUCTION ACTIVITIES AND TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND TO MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO THE CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
  - PRELIMINARY GEOTECHNICAL INFORMATION HAS BEEN TAKEN FROM THE US DEPARTMENT OF AGRICULTURE, NATURAL RESOURCE CONSERVATION SERVICE, WEB SOIL SURVEY WEBSITE AND FIELD INVESTIGATIONS. IF FUTURE INVESTIGATIONS SHOW UNSATISFACTORY SOIL CONDITIONS FOR ANY OF THE STORMWATER MANAGEMENT TREATMENTS SHOWN, EITHER UNDERDRAINS WILL BE PROVIDED OR A DIFFERENT PRACTICE WILL BE SUBSTITUTED.
  - THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL, WHICH IS BASED ON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENTS NUMBERS 291A AND 291D WERE USED FOR THIS PROJECT.
  - NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE LIMITS OF WETLANDS, STREAMS, OR THEIR REQUIRED BUFFERS, FLOODPLAIN AND FOREST CONSERVATION EASEMENT AREAS, UNLESS WAIVERS HAVE BEEN APPROVED OR ACTIVITIES HAVE BEEN DETERMINED ESSENTIAL BY THE DEPARTMENT OF PLANNING AND ZONING.
  - ALL SWALES TO HAVE EROSION CONTROL MATTING.
  - THE STORMWATER MANAGEMENT OBLIGATIONS FOR THIS SITE WILL BE MET BY N-2, NON-ROOFTOP DISCONNECTION. THE ARTIFICIAL TURF WILL BE TREATED WITH ITS GRAVEL RESERVOIR DESIGN.
  - PREVIOUS DPZ FILE REFERENCES: SDP-83-41 AND ECPZ 18-048.
  - FOREST CONSERVATION REQUIREMENT OBLIGATION OF 0.1 ACRE WILL BE MITIGATED THROUGH 20% PRESERVE. A REDLINE WILL BE COMPLETED ONCE THE BANK CREDITS HAVE BEEN EXHAUSTED FROM THE PRESERVE AT CLARKSVILLE. THE DEPARTMENT OF PLANNING AND ZONING ALONG WITH THE DEPARTMENT OF RECREATION AND PARKS WILL TRACK THE BANK CREDITS. ANY FUTURE IMPROVEMENTS ON THIS SITE WILL REQUIRE FOREST CONSERVATION.
  - LANDSCAPING IS NOT REQUIRED FOR THIS PROJECT AS IT IS INTERNAL TO AN EXISTING PARK.

ADDRESS CHART	
LOT	STREET ADDRESS
-	5081 CEDAR LANE COLUMBIA MD. 21044

PROFESSIONAL CERTIFICATE:  
I HEREBY CERTIFY THE INFORMATION IDENTIFIED UNDER REVISION #4 ONLY.

STATE OF MARYLAND  
JAMES M. SILL  
53772  
PROFESSIONAL ENGINEER  
6-21-21

THE PURPOSE OF THIS REVISED SITE DEVELOPMENT PLAN IS TO SHOW EXISTING CONDITIONS AND TO ADD THE PROPOSED BOCCO COURT AND HANDICAP PARKING.

OWNER/DEVELOPER  
HOWARD COUNTY DEPARTMENT OF RECREATION & PARKS  
60 PAUL WALSHY  
7120 OAKLAND MILLS ROAD  
COLUMBIA, MARYLAND 21046  
410-313-1695

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
*Paul M. Sill*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
DATE: 1-28-19  
DATE: 1/28/19  
DATE: 1-30-19  
DATE: 1-30-19

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT  
*Paul M. Sill*  
DATE: 1/28/19

ENGINEERS CERTIFICATE  
I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.  
*Paul M. Sill*  
SIGNATURE OF ENGINEER  
DATE: 1/28/19

DEVELOPER'S CERTIFICATE  
I HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL 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.  
*John*  
SIGNATURE OF DEVELOPER  
DATE: 1/15/19

PERMIT INFORMATION CHART					
PROJECT NAME		SECTION	PARCEL #		
CEDAR LANE BOCCO COURT		N/A	67		
LIBER/FOLIO	GRID #	ZONING	TAX MAP #	ELECT. DIS.	CENSUS TRACT
1082/368	17	R-20	29	5TH	6055.03
WATER CODE		SEWER CODE			
I-02		NA			

No.	Description	Date
4	WASHPAD-REVISED SHEET NUMBERING	6/18/21
3	DUGOUT SHADE STRUCTURES	4/1/21
2	NEW SHEET-TO SHOW LOCATION OF PROPOSED BOCCO COURT AND NEW CONDITIONS	

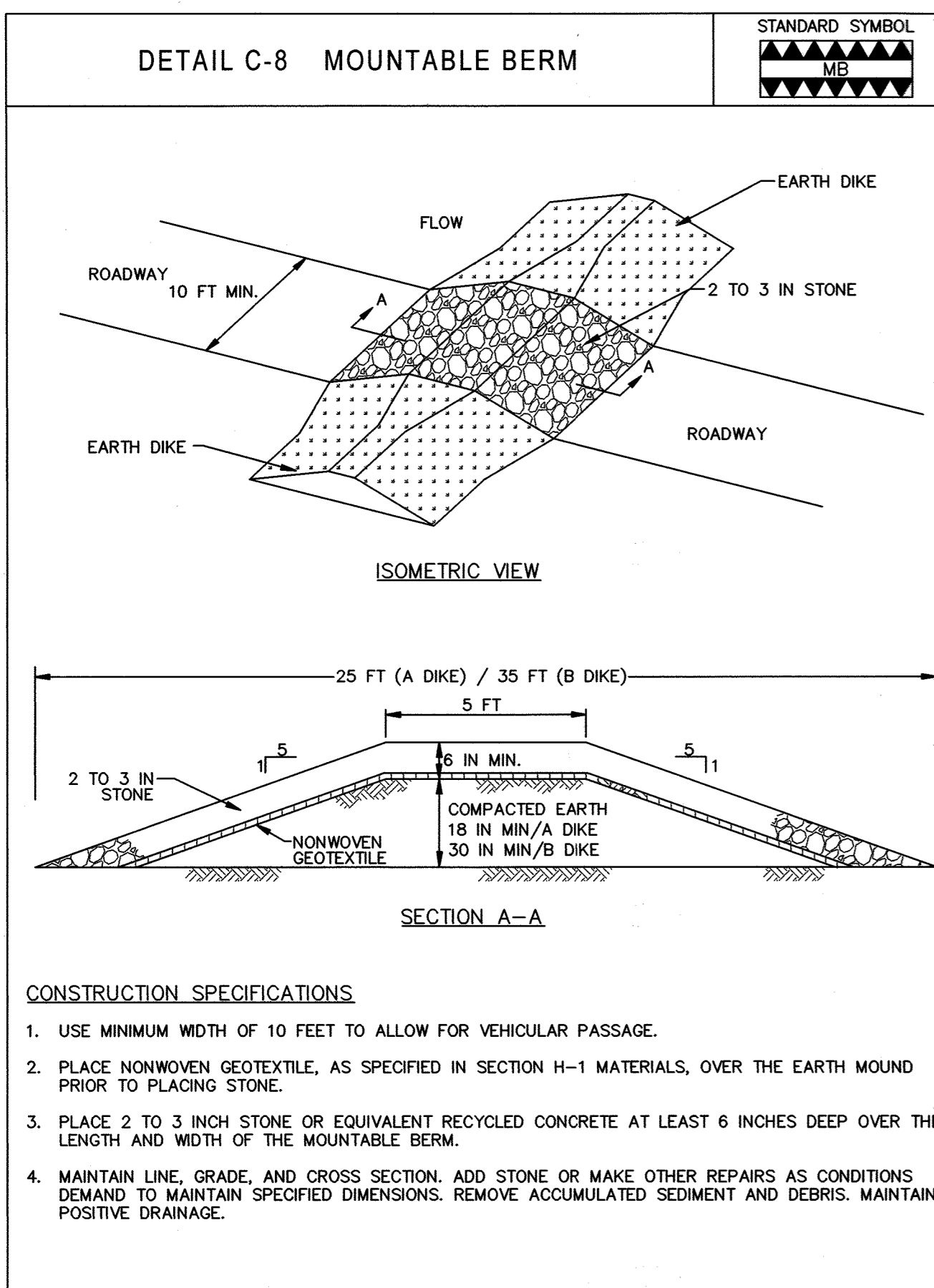
REVISED SITE DEVELOPMENT PLAN  
BOCCO COURT GRADING PLAN  
CEDAR LANE PARK BOCCO COURT  
5081 CEDAR LANE  
TAX MAP 29 GRID 17  
5TH ELECTION DISTRICT  
PARCEL 67  
HOWARD COUNTY, MARYLAND

DESIGN BY: PS  
DRAWN BY: JCV  
CHECKED BY: PS  
SCALE: AS SHOWN  
DATE: JANUARY 10, 2019  
PROJECT # 18-003  
SHEET # 5 OF 5

11130 Dovedale Court, Suite 200  
Marriottsville, Maryland 21104  
Phone: 410.325.5076  
Fax: 410.696.2022  
Email: info@sillengineering.com  
Civil Engineering for Land Development

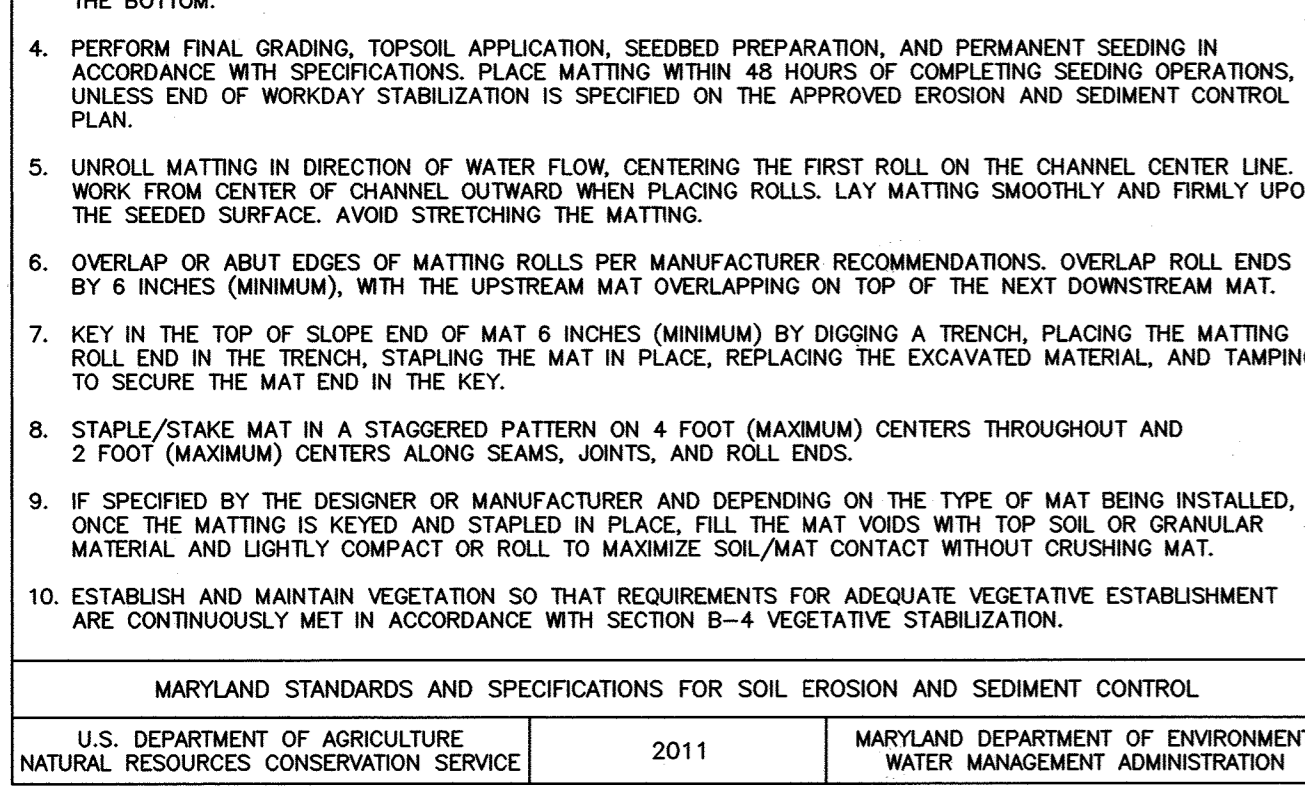
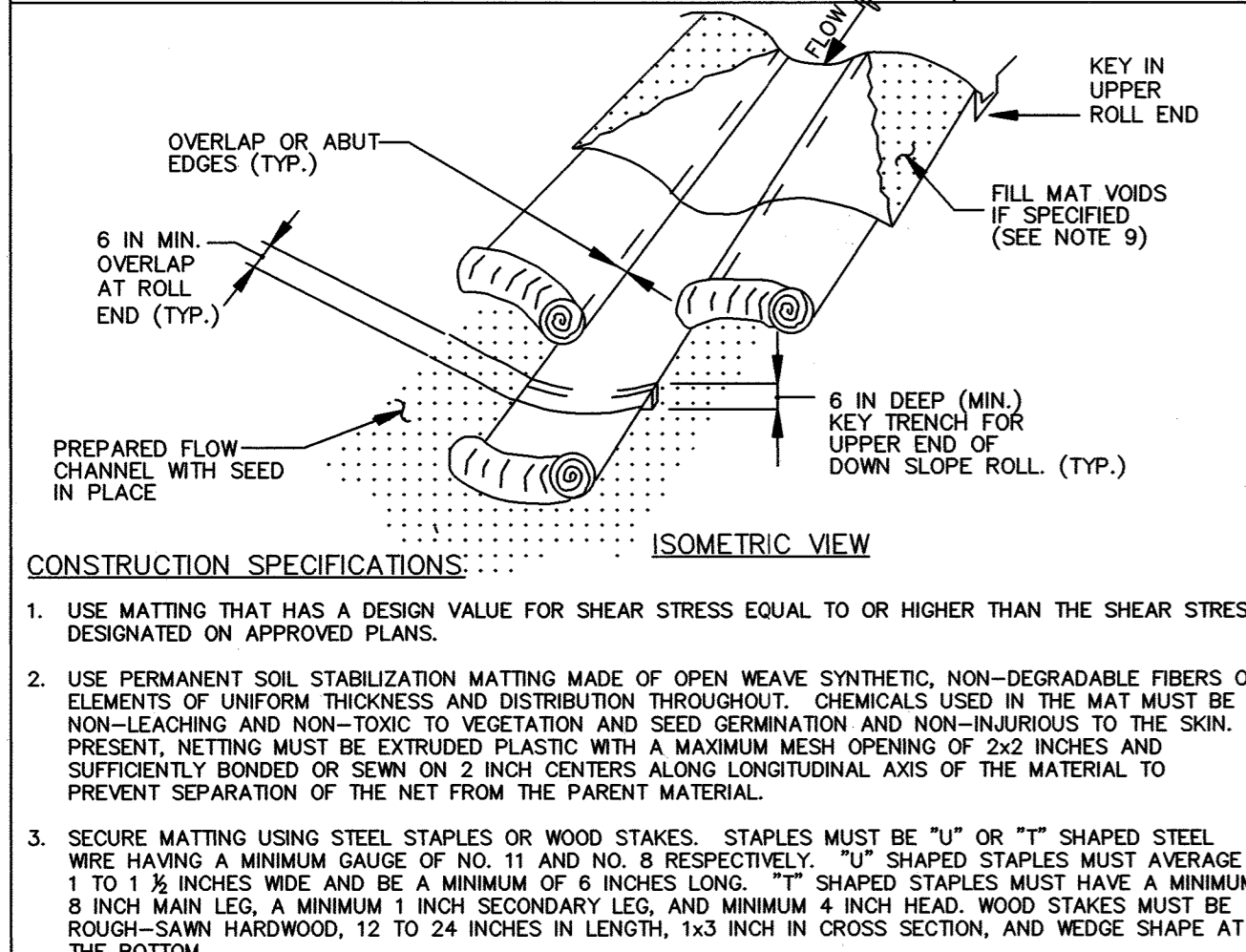
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 33025, EXPIRATION DATE: JUNE 20, 2019





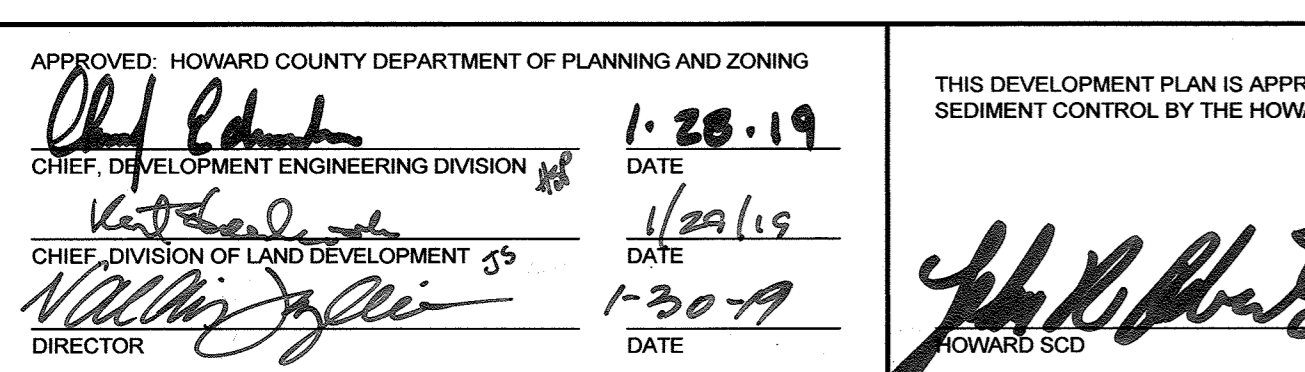
MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE 2011 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



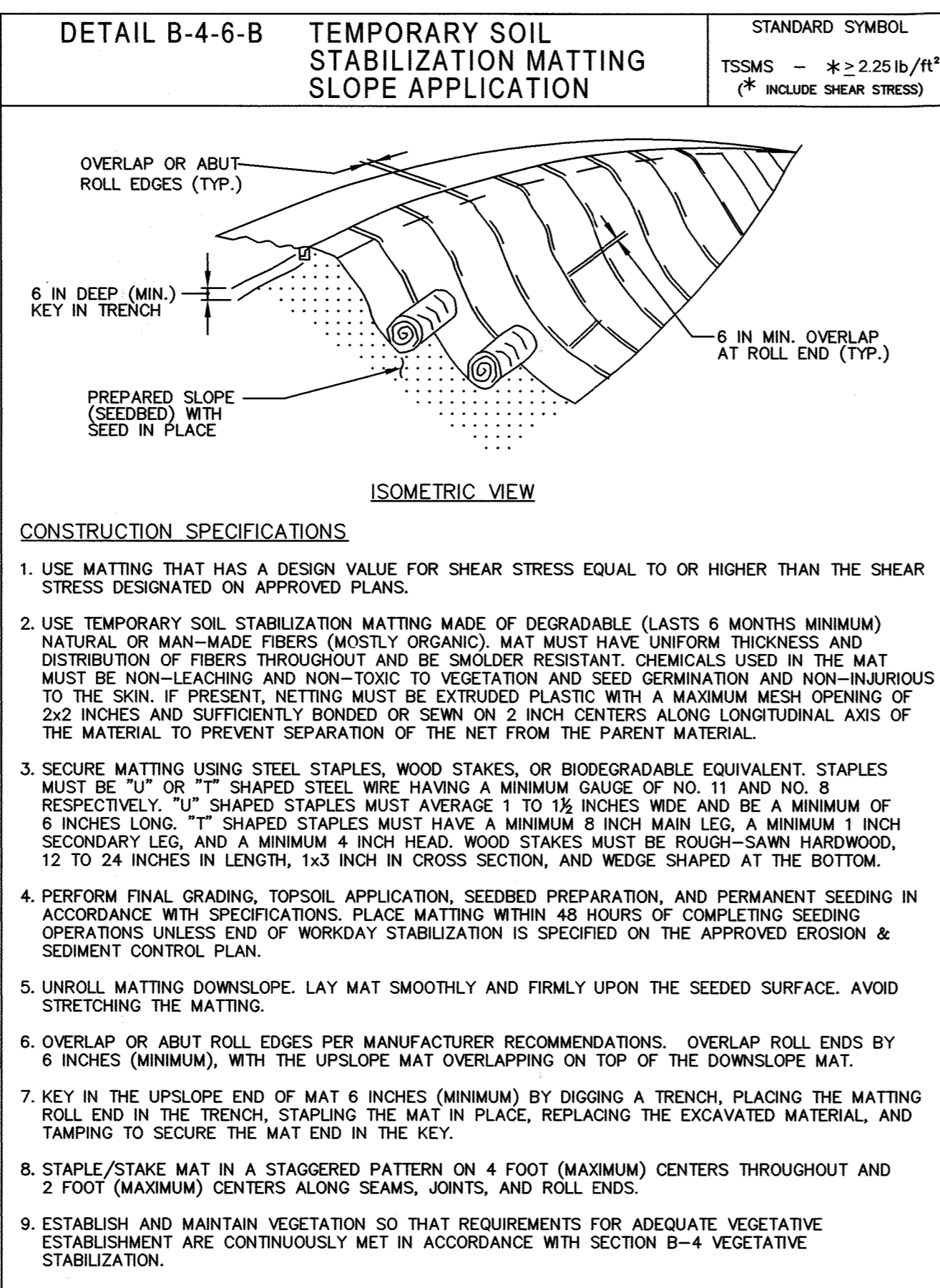
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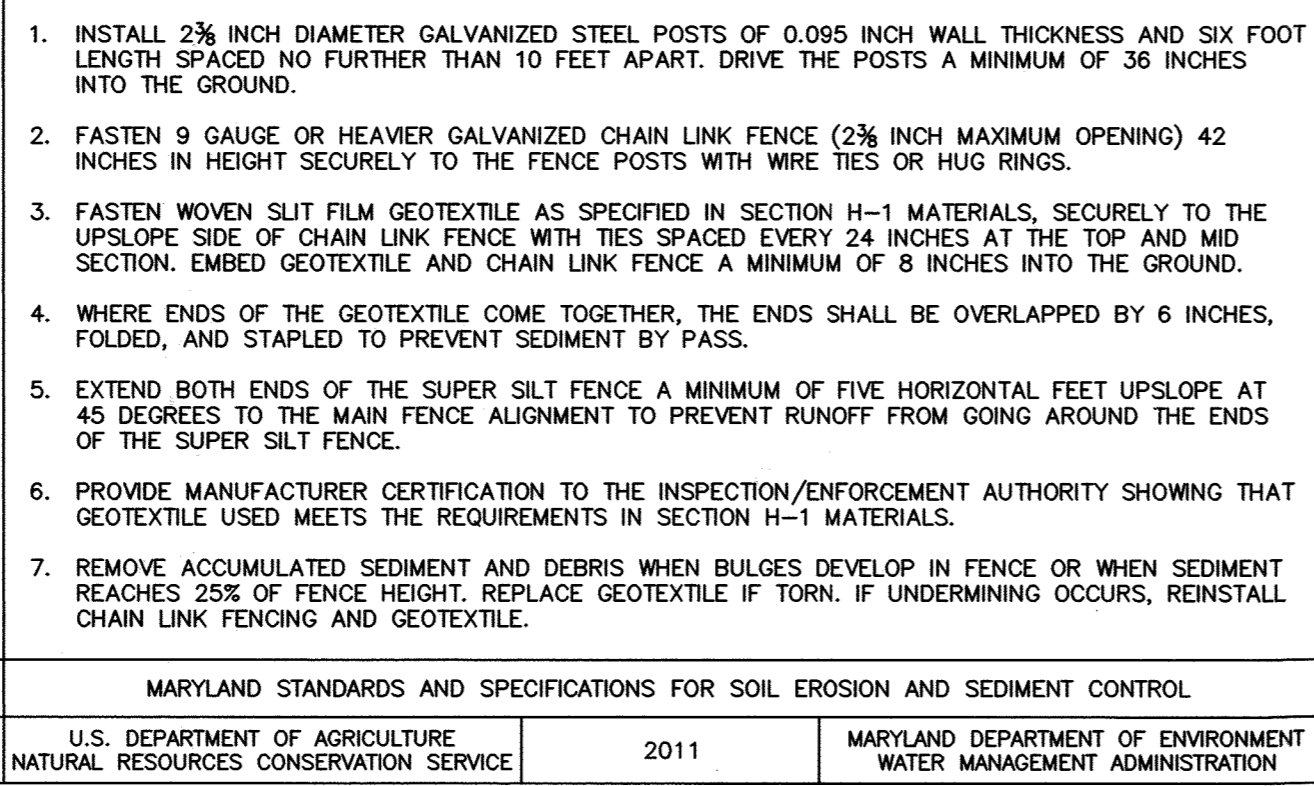
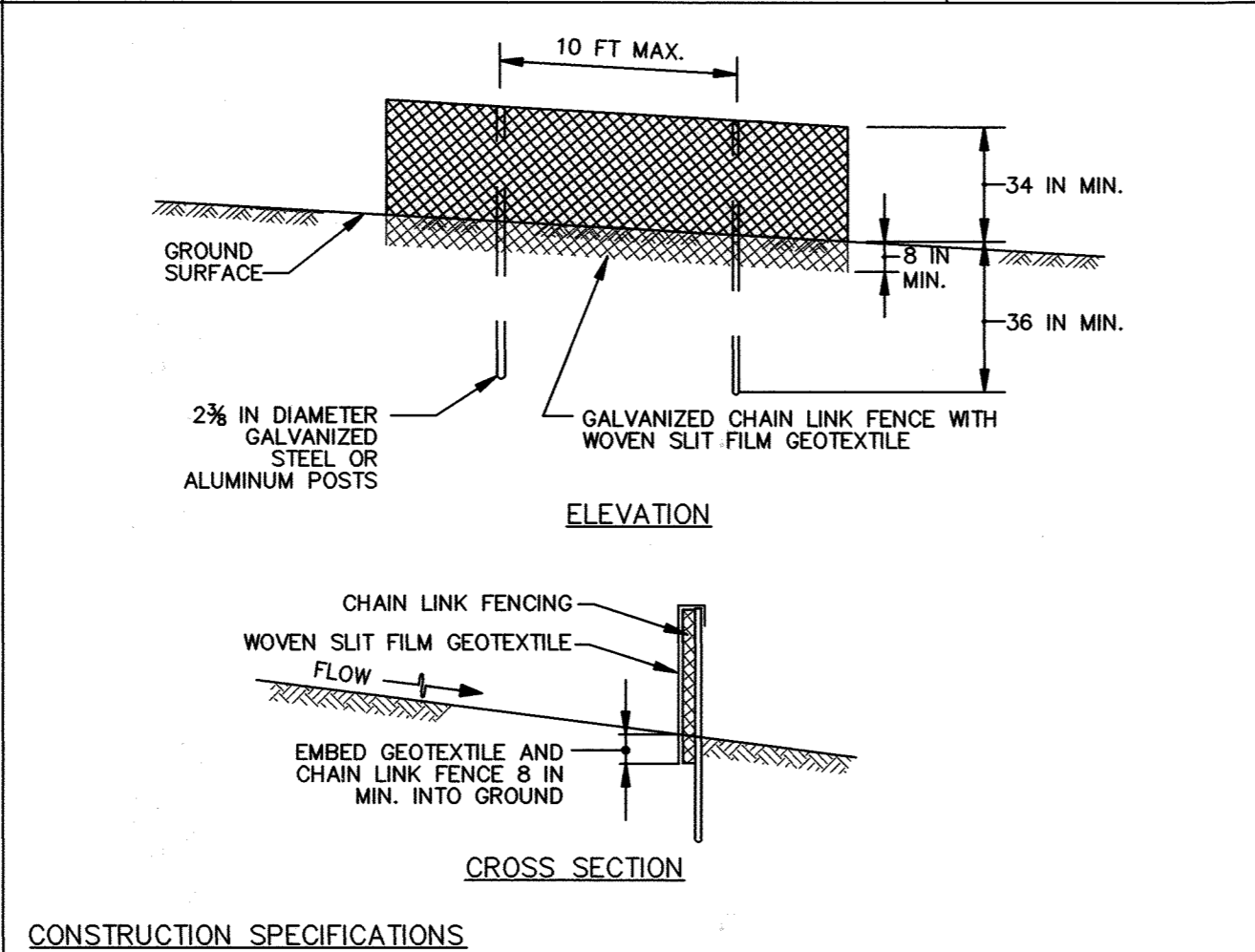
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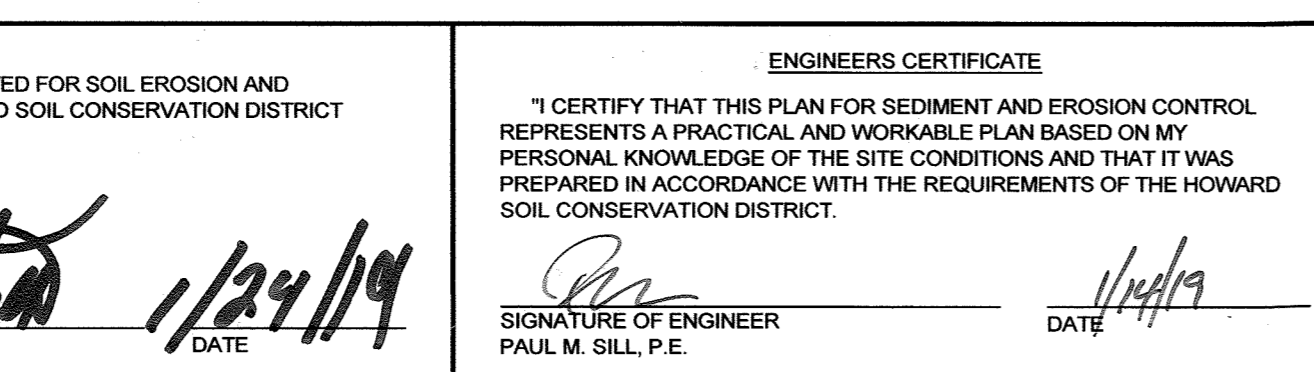
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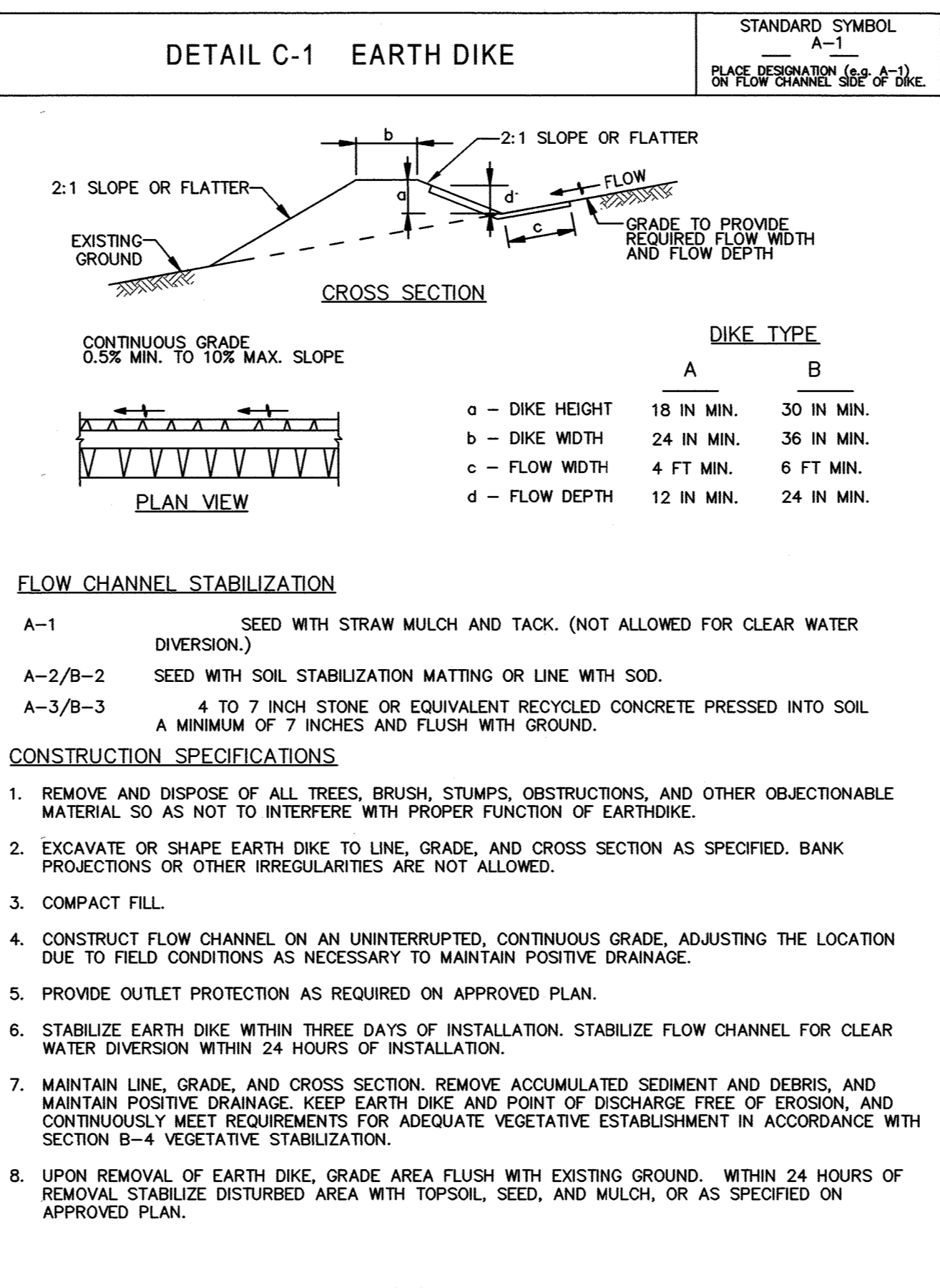
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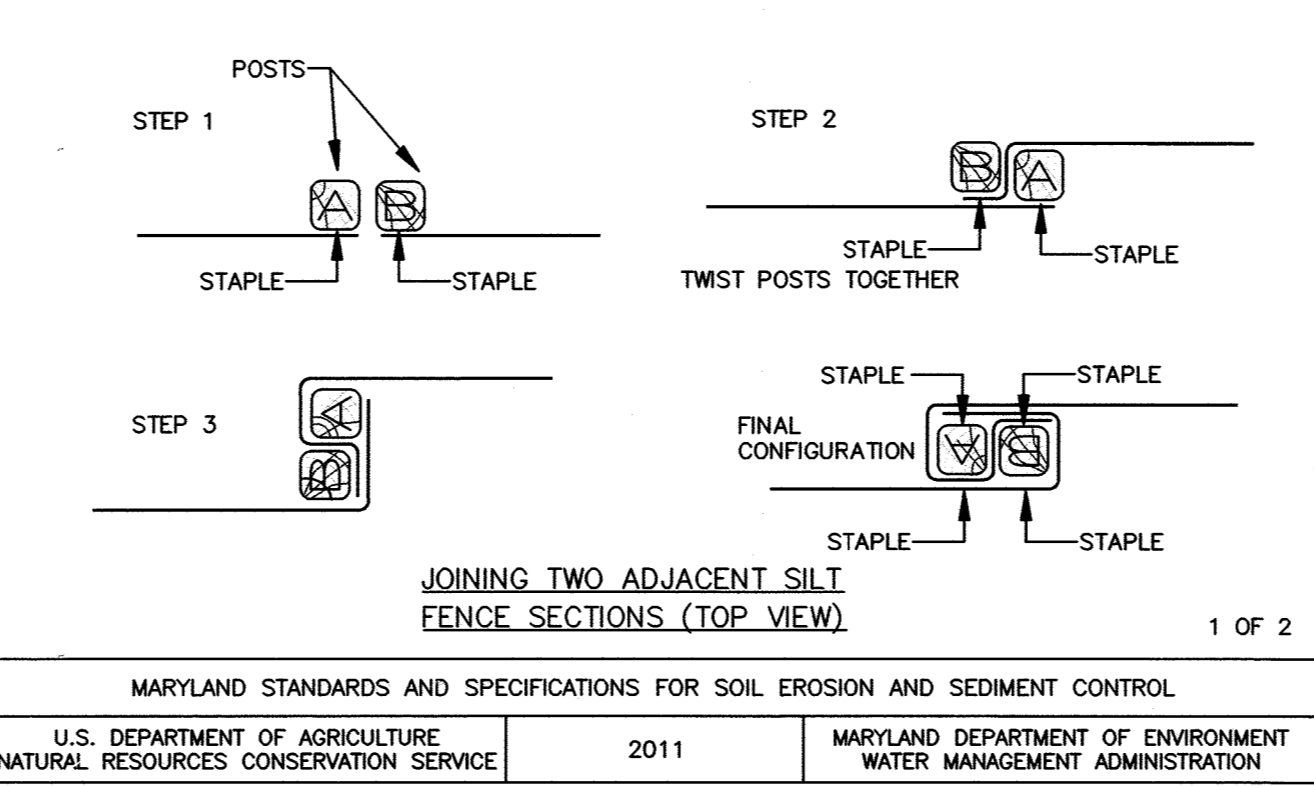
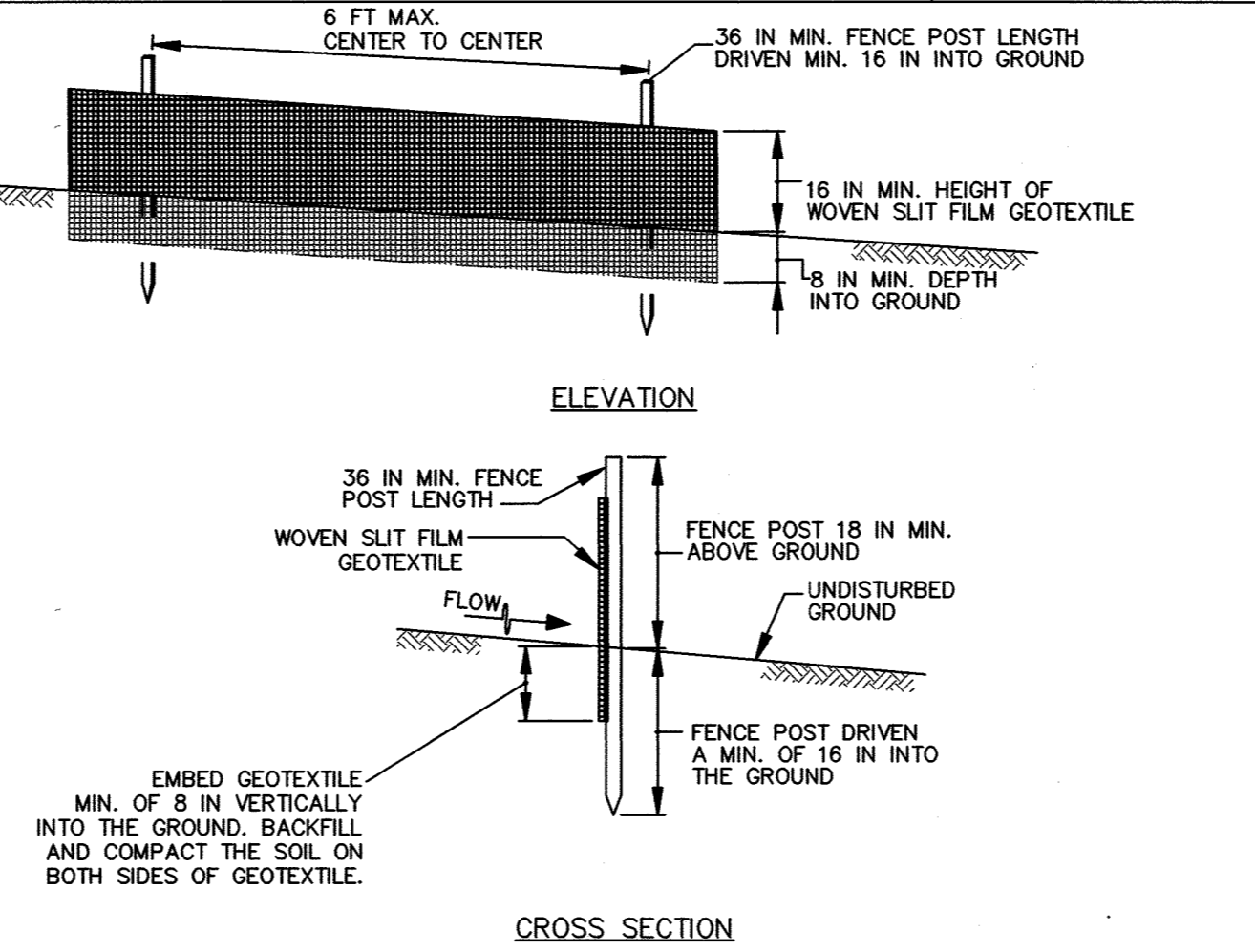
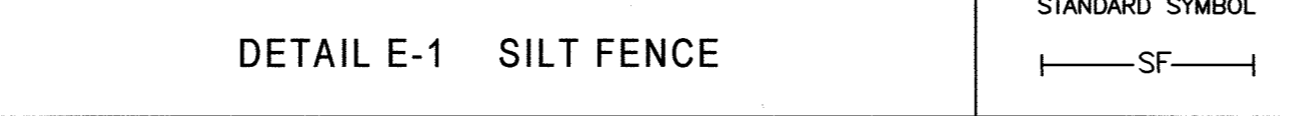
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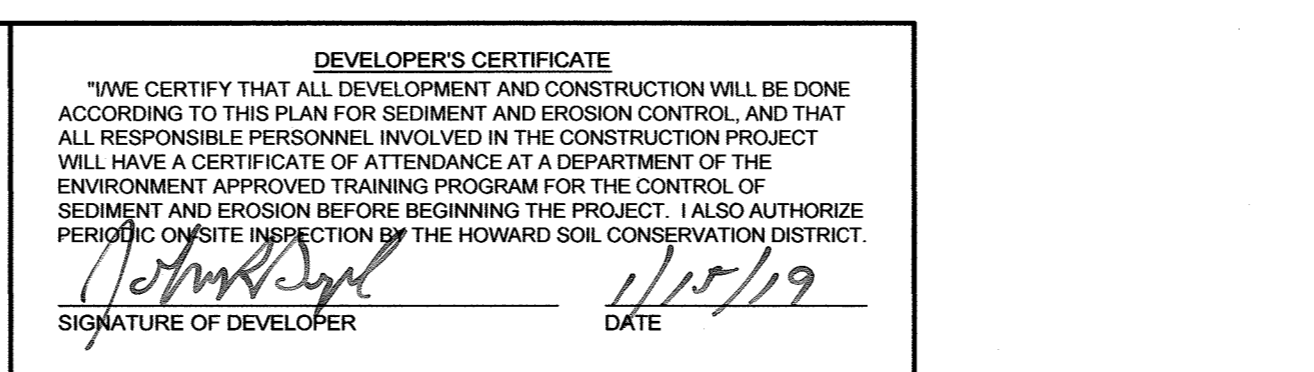
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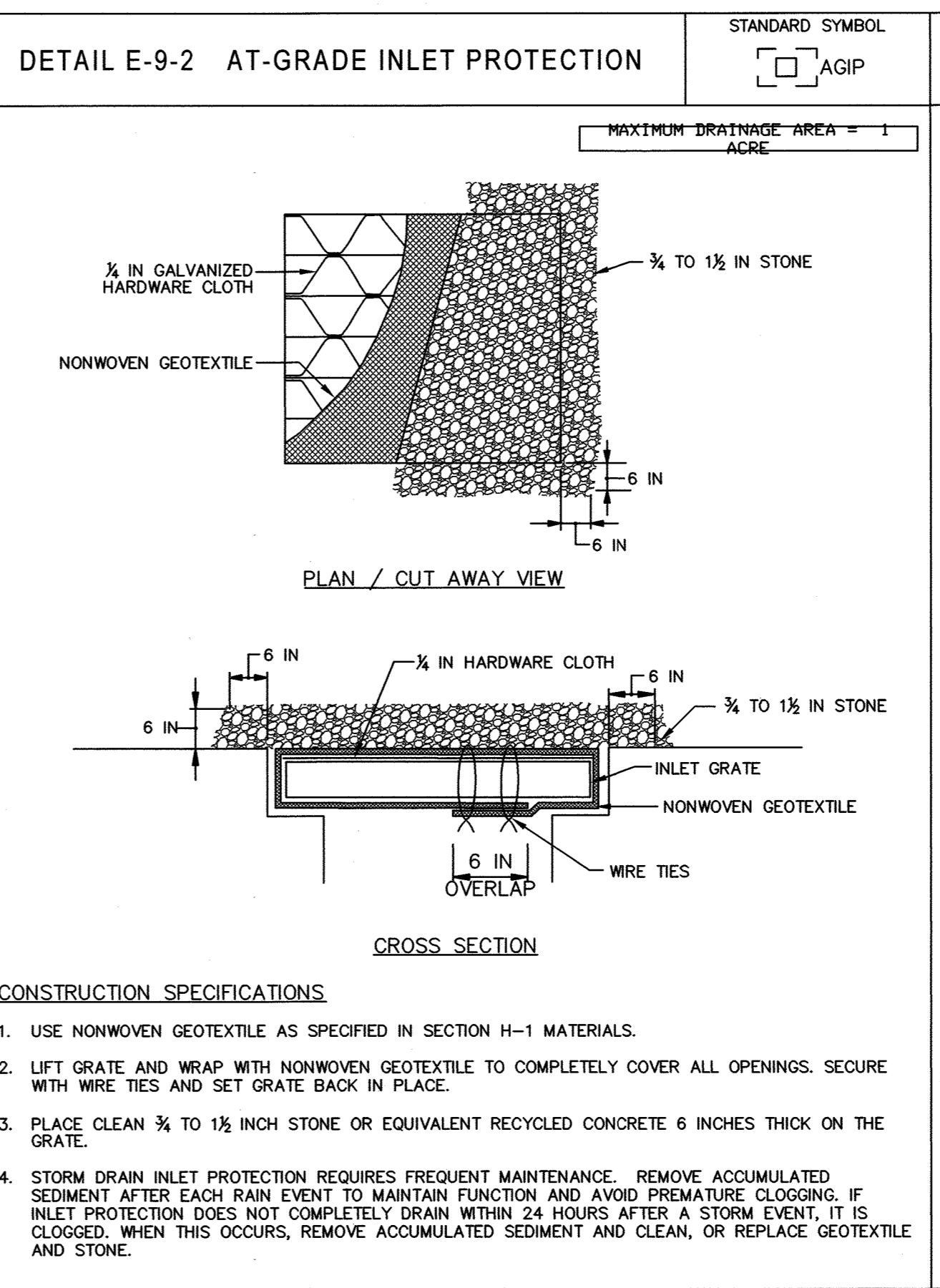
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U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE 2011 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

SEDIMENT CONTROL NOTES

- 1. A PRE-CONSTRUCTION MEETING MUST OCCUR WITH THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS, CONSTRUCTION INSPECTION DIVISION (CID), 410-313-1855 AFTER THE FUTURE LOD AND PROTECTED AREAS ARE MARKED CLEARLY IN THE FIELD. A MINIMUM OF 48 HOURS NOTICE TO CID MUST BE GIVEN AT THE FOLLOWING STAGES:
A. PRIOR TO THE START OF EARTH DISTURBANCE
B. UPON COMPLETION OF THE INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING
C. PRIOR TO THE START OF ANY OTHER PHASE OF CONSTRUCTION OR OPENING OF ANOTHER GRADING UNIT.
D. 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, MARYLAND RELATED STATE AND FEDERAL PERMITS SHALL BE REFERENCED, TO ENSURE COORDINATION AND TO AVOID CONFLICTS WITH THIS PLAN
2. ALL VEGETATION 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 THEREOF
3. FOLLOWING INITIAL SOIL DISTURBANCE OR RED-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 3 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
4. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED IN ACCORDANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR TOPSOIL (SEC. B-4-2), PERMANENT SEEDING (SEC. B-4-5), TEMPORARY SEEDINGS (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-4-4) IN EXCESS OF 20 FT. MUST BE BENCHED WITH STABLE BUTTLET. ALL CONCENTRATED FLOW, STEEP SLOPE, AND HIGHLY ERODIBLE AREAS SHALL RECEIVE SOIL STABILIZATION MATTING (SEC. B-4-6)
5. 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 CID
6. SITE ANALYSIS:
TOTAL AREA: 14.99 ACRES
AREA DESCRIBED: 0.89 ACRES
AREA TO BE ROOFED OR PAVED: 0.56 ACRES
AREA TO BE VEGETATIVELY STABILIZED: 0.33 ACRES
TOTAL CUT: \*\* 1113.61 CY
TOTAL FILL: \*\* 300.42 CY
OFFSITE WASTE/BORROW AREA LOCATION: \*\* 813.19 CY
7. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
8. ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE CID, THE SITE AND ALL CONTROL 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-STORE 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)
9. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PILES LENGTHS OR THAT WHICH CAN AND SHALL BE BACKFILLED AND STABILIZED BY THE END OF EACH WORKDAY, WHICHEVER IS SHORTER
10. ANY MAJOR CHANGES OR REVISIONS TO THE PLAN OR SEQUENCE OF CONSTRUCTION MUST BE REVIEWED AND APPROVED BY THE HSCD PRIOR TO CONSTRUCTION. MINOR REVISIONS MAY BE ALLOWED BY THE CID PER THE LIST OF HSCD-APPROVED FIELD CHANGES
11. 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 AT LEAST 50 PERCENT OF THE DISTURBED AREA IN THE PRECEDING GRADING UNIT HAS BEEN STABILIZED AND APPROVED BY THE HSCD, UNLESS OTHERWISE SPECIFIED AND APPROVED BY THE HSCD, NO MORE THAN 30 ACRES CUMULATIVELY MAY BE DISTURBED AT A GIVEN TIME
12. WASH WATER FROM ANY EQUIPMENT, VEHICLES, WHEELS, PAVEMENT, AND OTHER SOURCES MUST BE TREATED IN A SEDIMENT BASIN OR OTHER APPROVED WASHOUT STRUCTURE
13. TOPSOIL SHALL BE STOCKPILED AND PRESERVED ON-SITE FOR REDISTRIBUTION UNTIL FINAL GRADE
14. ALL SILT FENCE AND SUPER SILT FENCE SHALL BE PLACED ON THE CONTOUR, AND BE IMBERICATED AT 25' MINIMUM INTERVALS, WITH LOWER ENDS CURLED UP 2' IN ELEVATION
15. STREAM CHANNELS MUST NOT BE DISTURBED DURING THE FOLLOWING RESTRICTED TIME PERIODS (INCLUSIVE):
USE I AND II MARCH 1 - JUNE 15
USE III AND IIIP OCTOBER 1 - APRIL 30
USE IV MARCH 1 - MAY 31
16. 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
EARTHWORK QUANTITIES ARE SOLELY FOR THE PURPOSE OF CALCULATING FEES. CONTRACTOR TO VERIFY ALL QUANTITIES PRIOR TO THE START OF CONSTRUCTION
TO BE DETERMINED BY CONTRACTOR, WITH PRE-APPROVAL OF THE SEDIMENT CONTROL INSPECTOR WITH AN APPROVED AND ACTIVE GRADING PERMIT.

B-4-8 STANDARDS AND SPECIFICATIONS FOR STOCKPILE AREA

- 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
1. THE STOCKPILE LOCATION AND ALL RELATED SEDIMENT CONTROL PRACTICES MUST BE CLEARLY INDICATED ON THE EROSION AND SEDIMENT CONTROL PLAN.
2. 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.
3. RUNOFF FROM THE STOCKPILE AREA MUST DRAIN TO A SUITABLE SEDIMENT CONTROL PRACTICE.
4. ACCESS TO THE STOCKPILE AREA FROM THE UPGRADE SIDE.
5. CLEAR WATER RUNOFF INTO THE STOCKPILE AREA MUST BE MINIMIZED BY USE OF A DIVERSION DEVICE SUCH AS AN EARTH DIKE, TEMPORARY SWALE OR DIVERSION FENCE. PROVISIONS MUST BE MADE FOR DISCHARGING CONCENTRATED FLOW IN A NON-EROSIVE MANNER.
6. WHERE RUNOFF CONCENTRATES ALONG THE TOE OF THE STOCKPILE, FILL, AN APPROPRIATE EROSION/SEDIMENT CONTROL PRACTICE MUST BE USED TO INTERCEPT THE DISCHARGE.
7. STOCKPILES MUST BE STABILIZED IN ACCORDANCE WITH THE 37 DAY STABILIZATION REQUIREMENT AS WELL AS STANDARD B-4-1 INCREMENTAL STABILIZATION AND STANDARD B-4-4 TEMPORARY STABILIZATION.
8. 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.

STANDARDS AND SPECIFICATIONS FOR TEMPORARY STABILIZATION

- 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
1. SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED IN TABLE B.1 FOR THE APPROPRIATE PLANT HARDNESS ZONE (FROM FIGURE B.3), AND ENTER THEM IN THE TEMPORARY SEEDING SUMMARY BELOW ALONG WITH APPLICATION RATES, AND SEEDING DATES AND SEEDING DEPTHS. IF THIS SUMMARY IS NOT PUT ON THE PLAN AND COMPLETED, THEN TABLE B.1 PLUS FERTILIZER AND SOIL TEST RATES MUST BE PUT ON THE PLAN.
2. FOR SITES HAVING SOIL TESTS PERFORMED, USE AND SHOW THE RECOMMENDED RATES BY THE TESTING AGENCY. SOIL TESTS ARE NOT REQUIRED FOR TEMPORARY SEEDING.
3. WHEN STABILIZATION IS REQUIRED OUTSIDE OF A SEEDING SEASON, APPLY SEED AND MULCH OR STRAW MULCH ALONE AS PRESCRIBED IN SECTION B-4-3.1.1.5 AND MAINTAIN UNTIL THE NEXT SEEDING SEASON.

STANDARDS AND SPECIFICATIONS FOR PERMANENT STABILIZATION

- TO STABILIZE DISTURBED SOILS WITH PERMANENT VEGETATION.
PURPOSE
TO USE LONG-LEIVED PERENNIAL GRASSES AND LEGUMES TO ESTABLISH PERMANENT GROUND COVER ON DISTURBED SOILS.
CONDITIONS WHERE PRACTICE APPLIES
EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR 6 MONTHS OR MORE.
CRITERIA
A. SEED MIXTURES
1. GENERAL USE
A. SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED IN TABLE B.3 FOR THE APPROPRIATE PLANT HARDNESS ZONE (FROM FIGURE B.3), AND BASED ON THE SITE CONDITION OR PURPOSE FOUND ON TABLE B.3.
B. ENTER SELECTED MIXTURE(S), APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT SEEDING SUMMARY.
C. THE SUMMARY IS TO BE PLACED ON THE PLAN.
D. 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 342 - CRITICAL AREA PLANTING
E. FOR SITES HAVING DISTURBED AREA OVER 5 ACRES, USE AND SHOW THE RATES RECOMMENDED BY THE SOIL TESTING AGENCY.
D. 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
A. AREAS WHERE TURFGRASS MAY BE DESIRED INCLUDE LAWNS, PARKS, PLAYGROUNDS, AND COMMERCIAL SITES WHICH WILL RECEIVE A MEDIUM TO HIGH LEVEL OF MAINTENANCE.
B. 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.
I. 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 THE TOTAL MIXTURE BY WEIGHT.
II. KENTUCKY BLUEGRASS/PERENNIAL RYE GRASS MIXTURE: FOR USE IN FULL SUN AREAS WHERE B.22 RAPID ESTABLISHMENT IS NECESSARY AND WHEN TURF WILL RECEIVE MEDIUM TO INTENSIVE MANAGEMENT. CERTIFIED PERENNIAL RYEGRASS CULTIVARS/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.
III. TALL FESCUE/KENTUCKY BLUEGRASS: 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 95 TO 100 PERCENT, CERTIFIED KENTUCKY BLUEGRASS 5 TO 5 PERCENT, SEEDING RATE: 5 TO 8 POUNDS PER 1000 SQUARE FEET. ONE OR MORE CULTIVARS MAY BE BLENDED.
IV. KENTUCKY BLUEGRASS/FINE FESCUE: SHADE MIXTURE: FOR USE IN AREAS WITH SHADE IN BLUEGRASS LAWNS. FOR ESTABLISHMENT IN HIGH QUALITY, INTENSIVELY MANAGED TURF AREA. MIXTURE INCLUDES: CERTIFIED KENTUCKY BLUEGRASS CULTIVARS 30 TO 40 PERCENT AND CERTIFIED FINE FESCUE AND 60 TO 70 PERCENT. SEEDING RATE: 1 1/2 TO 3 POUNDS PER 1000 SQUARE FEET.
NOTES: SELECT TURFGRASS VARIETIES FROM THOSE LISTED IN THE MOST CURRENT UNIVERSITY OF MARYLAND PUBLICATION, AGRONOMY MEMO #77, "TURFGRASS CULTIVAR RECOMMENDATIONS FOR MARYLAND" CHOOSE CERTIFIED MATERIAL. CERTIFIED MATERIAL IS THE BEST GUARANTEE OF CULTIVAR PURITY. THE CERTIFICATION PROGRAM OF THE MARYLAND DEPARTMENT OF AGRICULTURE, TURF AND SEED SECTION, PROVIDES A RELIABLE MEANS OF CONSUMER PROTECTION AND ASSURES A PURE GENETIC LINE.
C. IDEAL TIMES OF SEEDING FOR TURF GRASS MIXTURES
WESTERN MD: MARCH 15 TO JUNE 1, AUGUST 1 TO OCTOBER 1 (HARDNESS ZONES: 5B, 6A)
CENTRAL MD: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDNESS ZONE: 6B)
SOUTHERN MD: EASTERN SHORE: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDNESS ZONES: 7A, 7B)
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 1/2 INCHES IN DIAMETER. THE RESULTING SEEDBED MUST BE IN SUCH CONDITION THAT FUTURE MOWING OF GRASSES WILL POSE NO DIFFICULTY.
E. IF SOIL MOISTURE IS DEFICIENT, SUPPLY NINE SEEDINGS WITH ADEQUATE WATER FOR PLANT GROWTH (1/2 TO 1 INCH EVERY 3 TO 4 DAYS DEPENDING ON SOIL TEXTURE) UNTIL THEY ARE FIRMLY ESTABLISHED. THIS IS ESPECIALLY TRUE WHEN SEEDING AREAS THAT LATE IN THE PLANTING SEASON, IN ABNORMALLY DRY OR HOT SEASONS, OR ON ADVERSE SITES.
B. SOD: TO PROVIDE QUICK COVER ON DISTURBED AREAS (2:1 GRADE OR FLATTER).
1. GENERAL SPECIFICATIONS
A. CLASS OF TURFGRASS SOD MUST BE MARYLAND STATE CERTIFIED. SOD LABELS MUST BE MADE AVAILABLE TO THE JOB FOREMAN AND INSPECTOR.
B. SOD MUST BE MACHINE CUT AT A UNIFORM SOIL THICKNESS OF 3/4 INCH, PLUS OR MINUS 1/8 INCH. AT THE TIME OF CUTTING, MEASUREMENT FOR THICKNESS MUST EXCLUDE TOP GROWTH AND THATCH. BROKEN PADS AND TORN OR UNEVEN ENDS WILL NOT BE ACCEPTABLE.
C. STANDARD SIZE SECTIONS OF SOD MUST BE STRONG ENOUGH TO SUPPORT THEIR OWN WEIGHT AND RETAIN THEIR SIZE AND SHAPE WHEN SUSPENDED VERTICALLY WITH A FIRM GRASP ON THE UPPER 10 PERCENT OF THE SECTION.
D. SOD MUST NOT BE HARVESTED OR TRANSPORTED WHEN MOISTURE CONTENT (EXCESSIVELY DRY OR WET) MAY ADVERSELY AFFECT ITS SURVIVAL.
E. SOD MUST BE HARVESTED, DELIVERED, AND INSTALLED WITHIN A PERIOD OF 36 HOURS. SOD NOT TRANSPORTED WITHIN THIS PERIOD MUST BE APPROVED BY AN AGRONOMIST OR SOIL SCIENTIST PRIOR TO ITS INSTALLATION.
2. SOD INSTALLATION
A. DURING PERIODS OF EXCESSIVELY HIGH TEMPERATURE OR IN AREAS HAVING DRY SUBSOIL, LIGHTLY IRRIGATE THE SUBSOIL IMMEDIATELY PRIOR TO LAYING THE SOD.
B. LAY THE FIRST ROW OF SOD IN A STRAIGHT LINE WITH SUBSEQUENT ROWS PLACED PARALLEL TO IT AND TIGHTLY WEDGED AGAINST EACH OTHER. STAGGER LATERAL JOINTS TO PROMOTE MORE UNIFORM GROWTH AND STRENGTH. ENSURE THAT SOD IS NOT STRETCHED OR OVERLAPPED AND THAT ALL JOINTS ARE BUTTED TIGHT IN ORDER TO PREVENT VOIDS WHICH WOULD CAUSE AIR DRYING OF THE ROOTS.
C. WHEREVER POSSIBLE, LAY SOD WITH THE LONG EDGES PARALLEL TO THE CONTOUR AND WITH STAGGERING JOINTS. ROLL, AND TAMP, PEG OR OTHERWISE SECURE THE SOD TO PREVENT SLIPPAGE ON SLOPES. ENSURE SOLID CONTACT EXISTS BETWEEN SOD ROOTS AND THE UNDERLYING SOIL SURFACE.
D. WATER THE SOD IMMEDIATELY FOLLOWING LAYING AND TAMPING UNTIL THE UNDERSIDE OF THE NEW SOD PAD AND SOIL SURFACE BELOW THE SOD ARE THOROUGHLY WET. COMPLETE THE OPERATIONS OF LAYING, TAMPING AND IRRIGATING FOR ANY PIECE OF SOD WITHIN EIGHT HOURS.
3. SOD MAINTENANCE
A. IN THE ABSENCE OF ADEQUATE RAINFALL, WATER DAILY DURING THE FIRST WEEK OR AS OFTEN AND SUFFICIENTLY AS NECESSARY TO MAINTAIN MOIST SOIL TO A DEPTH OF 4 INCHES.
B. AFTER THE FIRST WEEK, SOD WATERING IS REQUIRED AS NECESSARY TO MAINTAIN ADEQUATE MOISTURE CONTENT.
C. DO NOT MOW UNTIL THE SOD IS FIRMLY ROOTED. NO MORE THAN 1/2 OF THE GRASS LEAF MUST BE REMOVED BY THE INITIAL CUTTING OR SUBSEQUENT CUTTINGS. MAINTAIN A GRASS HEIGHT OF AT LEAST 3 INCHES UNLESS OTHERWISE SPECIFIED.

STANDARD STABILIZATION NOTE

FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION MUST BE COMPLETED WITHIN THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1), AND SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING. DURING GRADING AND AFTER EACH RAINFALL, CONTRACTOR WILL INSPECT AND PROVIDE NECESSARY MAINTENANCE TO THE SEDIMENT CONTROL MEASURES ON THIS PLAN.

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
A. SOIL PREPARATION
1. TEMPORARY STABILIZATION
a. SEEDBED 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 THE SOIL IS LOOSENED, IT MUST NOT BE ROLLED OR DRAGGED SMOOTH BUT LEFT IN THE ROUGHENED CONDITION. SLOPES 3:1 OR FLATTER ARE TO BE TRACKED WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE.
b. APPLY FERTILIZER AND LIME AS PRESCRIBED ON THE PLANS.
c. INCORPORATE LIME AND FERTILIZER INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.
2. PERMANENT STABILIZATION
a. A SOIL TEST IS REQUIRED FOR ANY EARTH DISTURBANCE OF 5 ACRES OR MORE. THE MINIMUM SOIL CONDITIONS REQUIRED FOR PERMANENT VEGETATIVE ESTABLISHMENT ARE:
I. SOIL PH BETWEEN 6.0 AND 7.0
II. SOLUBLE SALTS LESS THAN 500 PARTS PER MILLION (PPM)
III. SOIL CONTAINS LESS THAN 40 PERCENT CLAY BUT ENOUGH FINE GRAINED MATERIAL (GREATER THAN 30 PERCENT SILT PLUS CLAY) TO PROVIDE THE CAPACITY TO HOLD A MODERATE AMOUNT OF MOISTURE. AN EXCEPTION: IF LOVEGRASS WILL BE PLANTED, THEN A SANDY SOIL (LESS THAN 30 PERCENT SILT PLUS CLAY) WOULD BE ACCEPTABLE.
IV. SOIL CONTAINS 1.5 PERCENT MINIMUM ORGANIC MATTER BY WEIGHT.
V. SOIL CONTAINS SUFFICIENT PORE SPACE TO PERMIT ADEQUATE ROOT PENETRATION.
b. APPLICATION OF AMENDMENTS OR TOPSOIL IS REQUIRED IF ON-SITE SOILS DO NOT MEET THE ABOVE CONDITIONS.
c. 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.
d. APPLY SOIL AMENDMENTS AS SPECIFIED ON THE APPROVED PLAN OR AS INDICATED BY THE RESULTS OF A SOIL TEST.
e. 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 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 2 INCHES OF SOIL LOOSE AND FRIABLE. SEEDBED LOOSENING MAY BE UNNECESSARY ON NEWLY DISTURBED AREAS.
B. TOPSOILING
1. 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.
2. TOPSOIL SALVAGED FROM AN EXISTING SITE MAY BE USED PROVIDED IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-NRCS.
3. TOPSOILING IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:
a. THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.
b. THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FURNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS.
c. THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.
d. THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIME IS NOT FEASIBLE.
4. AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN.
5. TOPSOIL SPECIFICATIONS: SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING CRITERIA:
a. 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 AUTHORITY. TOPSOIL MUST NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND MUST CONTAIN LESS THAN 5 PERCENT BY VOLUME OF CINDEHS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1 1/2 INCHES IN DIAMETER.
b. TOPSOIL MUST BE FREE OF NOXIOUS PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACK GRASS, JOHNSON GRASS, MUT SEED, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.
c. 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.
6. TOPSOIL APPLICATION
a. EROSION AND SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED WHEN APPLYING TOPSOIL.
b. 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.
c. 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)
1. 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.
2. 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.
3. LIME MATERIALS MUST BE GROUND LIMESTONE (HYDRATED OR BURNT LIME MAY BE SUBSTITUTED EXCEPT WHEN HYDROSEEDING) WHICH CONTAINS AT LEAST 50 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 98 TO 100 PERCENT WILL PASS THROUGH A #20 MESH SIEVE.
4. LIME AND FERTILIZER ARE TO BE EVENLY DISTRIBUTED AND INCORPORATED INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.
5. 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.

TABLE B.1: TEMPORARY SEEDING FOR SITE STABILIZATION

Table with columns: PLANT SPECIES, SEEDING RATE (LB/AC, LB/1000 FT²), SEEDING DEPTH (INCHES), and RECOMMENDED SEEDING DATES BY PLANT HARDNESS ZONE (5b & 6a, 6b, 7a & 7b). Rows include COOL-SEASON GRASSES (ANNUAL RYEGRASS, BOUTELOU PERENNIS SSP. MULTIFLORUM, BARLEY HORDEUM VULGARIS), OATS (Avena sativa), WHEAT (Triticum aestivum), CEREAL RYE (Secale cereale), and WARM-SEASON GRASSES (FOX TAIL MILLET, PEARL MILLET).

- FERTILIZER RATE (10-20-20): 436 LB/AC (10LB/1000SF) LIME RATE: 2 TONS/AC (90LB/1000SF)
NOTES:
1. SEEDING RATES FOR THE WARM-SEASON GRASSES ARE IN POUNDS OF PURE LIVE SEED (PLS). ACTUAL PLANTING RATES SHALL BE ADJUSTED TO REFLECT PERCENT SEED GERMINATION AND PURITY. AS TESTED, ADJUSTMENTS ARE USUALLY NOT NEEDED FOR THE COOL-SEASON GRASSES. SEEDING RATES LISTED ABOVE ARE FOR TEMPORARY SEEDINGS, WHEN PLANTED AS A NURSE CROP WITH PERMANENT SEED MIXES. USE 1/3 OF THE SEEDING RATE LISTED ABOVE FOR BARLEY, OATS, AND WHEAT. FOR SMALLER-SEEDED GRASSES (ANNUAL RYEGRASS, PEARL MILLET, FOX TAIL MILLET), DO NOT EXCEED MORE THAN 5% (BY WEIGHT) OF THE OVERALL PERMANENT SEEDING MIX. CEREAL RYE GENERALLY SHOULD NOT BE USED AS A NURSE CROP, UNLESS PLANTING WILL OCCUR IN VERY LATE FALL BEYOND THE SEEDING DATES FOR OTHER TEMPORARY SEEDINGS. CEREAL RYE HAS ALLOPATHIC PROPERTIES THAT INHIBIT THE GERMINATION AND GROWTH OF OTHER PLANTS. IF IT MUST BE USED AS A NURSE CROP, SEED AT 1/3 OF THE RATE LISTED ABOVE. OATS ARE THE RECOMMENDED NURSE CROP FOR WARM-SEASON GRASSES.
2. FOR SANDY SOILS, PLANT SEEDS AT TWICE THE DEPTHS LISTED ABOVE.
3. THE PLANTING DATES LISTED ARE AVERAGES FOR EACH ZONE AND MAY REQUIRE ADJUSTMENT TO REFLECT LOCAL CONDITIONS, ESPECIALLY NEAR THE BOUNDARIES OF THE ZONE.

SEQUENCE OF CONSTRUCTION

- 1. OBTAIN GRADING PERMIT.
2. NOTIFY HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS AT (410) 313-1880 AT LEAST 24 HOURS BEFORE STARTING ANY WORK.
3. INSTALL STABILIZED CONSTRUCTION ENTRANCE, SILT FENCE AND SUPER SILT FENCE. INSTALL TEMPORARY MOUNTABLE BERM AND AT GRADE INLET PROTECTION. INSTALL CLEAR WATER DIVERSION EARTH DIKE (1 WEEK)
4. RUGH GRADE SITE (1 WEEKS)
4. INSTALL STORM DRAIN FROM CLEAN OUT TO ES-1 AND INSTALL BOCCI COURT. (1 MONTH)
5. CONSTRUCT SWALE ON EAST SIDE OF COURT, PERMANENTLY STABILIZE SWALE WITH SOD, AND GRADE AND STABILIZE SLOPE. (1 WEEK)
6. REMOVE EXISTING SIDEWALK AND GUTTER AS SHOWN ON PLANS, AND REPLACE WITH NEW CURB AND GUTTER. (1 WEEK)
7. BASE GRADE PARKING LOT AS SHOWN ON PLANS. (1WEEK)
8. FINE GRADE SITE. (1 WEEK)
9. FINAL GRADE PARKING LOT. (1 WEEK)
10. UPON STABILIZATION OF ALL DISTURBED AREAS AND WITH THE PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, REMOVE ALL SEDIMENT CONTROL MEASURES AND STABILIZE ANY REMAINING DISTURBED AREA. (1 WEEK)

TABLE B.5: RECOMMENDED PLANTING DATES FOR PERMANENT COVER IN MARYLAND

Table with columns: TYPE OF PLANT MATERIAL, PLANT HARDNESS ZONES (5b & 6a, 6b, 7a & 7b). Rows include SEEDS-COOL-SEASON GRASSES, SEEDS-WARM-SEASON COOL-SEASON GRASS MIXES, SOD-COOL-SEASON, UNROOTED WOODY MATERIALS, BARE-ROOT PLANTS, and CONTAINERIZED STOCK.

- NOTES:
1. THE PLANTING DATES LISTED ARE AVERAGES FOR EACH ZONE. THESE DATES MAY REQUIRE ADJUSTMENT TO REFLECT LOCAL CONDITIONS, ESPECIALLY NEAR THE BOUNDARIES OF THE ZONES. WHEN SEEDING TOWARD THE END OF THE LISTED PLANTING DATES, OR WHEN CONDITIONS ARE EXPECTED TO BE LESS THAN OPTIMAL, SELECT AN APPROPRIATE NURSE CROP FROM TABLE B.1 TEMPORARY SEEDING FOR SITE STABILIZATION AND PLANT TOGETHER WITH THE PERMANENT SEEDING MIX.
2. WHEN PLANTED DURING THE GROWING SEASON, MOST OF THESE MATERIALS MUST BE PURCHASED AND KEPT IN A DORMANT CONDITION UNTIL PLANTING. BARE-ROOT GRASSES ARE THE EXCEPTION—THEY MAY BE SUPPLIED AS GROWING (NON-DORMANT) PLANTS.
ADDITIONAL PLANTING DATES FOR THE LOWER COASTAL PLAIN, DEPENDENT ON ANNUAL RAINFALL AND TEMPERATURE TRENDS. RECOMMEND ADDING A NURSE CROP, AS NOTED ABOVE, IF PLANTING DURING THIS PERIOD.
WARM-SEASON GRASSES NEED A SOIL TEMPERATURE OF AT LEAST 50 DEGREES F IN ORDER TO GERMINATE. IF SOIL TEMPERATURES ARE COLDER THAN 50 DEGREES, OR MOISTURE IS NOT ADEQUATE, THE SEEDS WILL REMAIN DORMANT UNTIL CONDITIONS ARE FAVORABLE. IN GENERAL, PLANTING DURING THE LATTER PORTION OF THIS PERIOD ALLOWS MORE TIME FOR WEED EMERGENCE AND WEED CONTROL PRIOR TO PLANTING. WHEN SELECTING A PLANTING DATE, CONSIDER THE NEED FOR WEED CONTROL VS. THE LIKELIHOOD OF HAVING SUFFICIENT MOISTURE FOR LATER PLANTINGS, ESPECIALLY ON DROUGHTY SITES.
ADDITIONAL PLANTING DATES DURING WHICH SUPPLEMENTAL WATERING MAY BE NEEDED TO ENSURE PLANT ESTABLISHMENT.
FREQUENT FREEZING AND THAWING OF WET SOILS MAY RESULT IN FROST-HEAVING OF MATERIALS PLANTED IN LATE FALL. IF PLANTS HAVE NOT SUFFICIENTLY ROOTED IN PLACE, SOD USUALLY NEEDS 4 TO 6 WEEKS TO BECOME SUFFICIENTLY ROOTED. LARGE CONTAINERIZED AND BALLED-AND-BURLAPPED STOCK MAY BE PLANTED INTO THE WINTER MONTHS AS LONG AS THE GROUND IS NOT FROZEN AND SOIL MOISTURE IS ADEQUATE.

STATE OF MARYLAND PROFESSIONAL ENGINEERING BOARD
I HEREBY CERTIFY THE INFORMATION IDENTIFIED UNDER REVISION #4 ONLY.

OWNER/DEVELOPER

HOWARD COUNTY DEPARTMENT OF RECREATION & PARKS
C/O PAUL WALSKY
7120 OAKLAND HILLS ROAD
COLUMBIA, MARYLAND 21046
410-313-1695

REVISED SITE DEVELOPMENT PLAN SEDIMENT & EROSION CONTROL NOTES CEDAR LANE PARK BOCC COURT

5081 CEDAR LANE

TAX MAP 29 GRID 17

PARCEL 67

5TH ELECTION DISTRICT

HOWARD COUNTY, MARYLAND

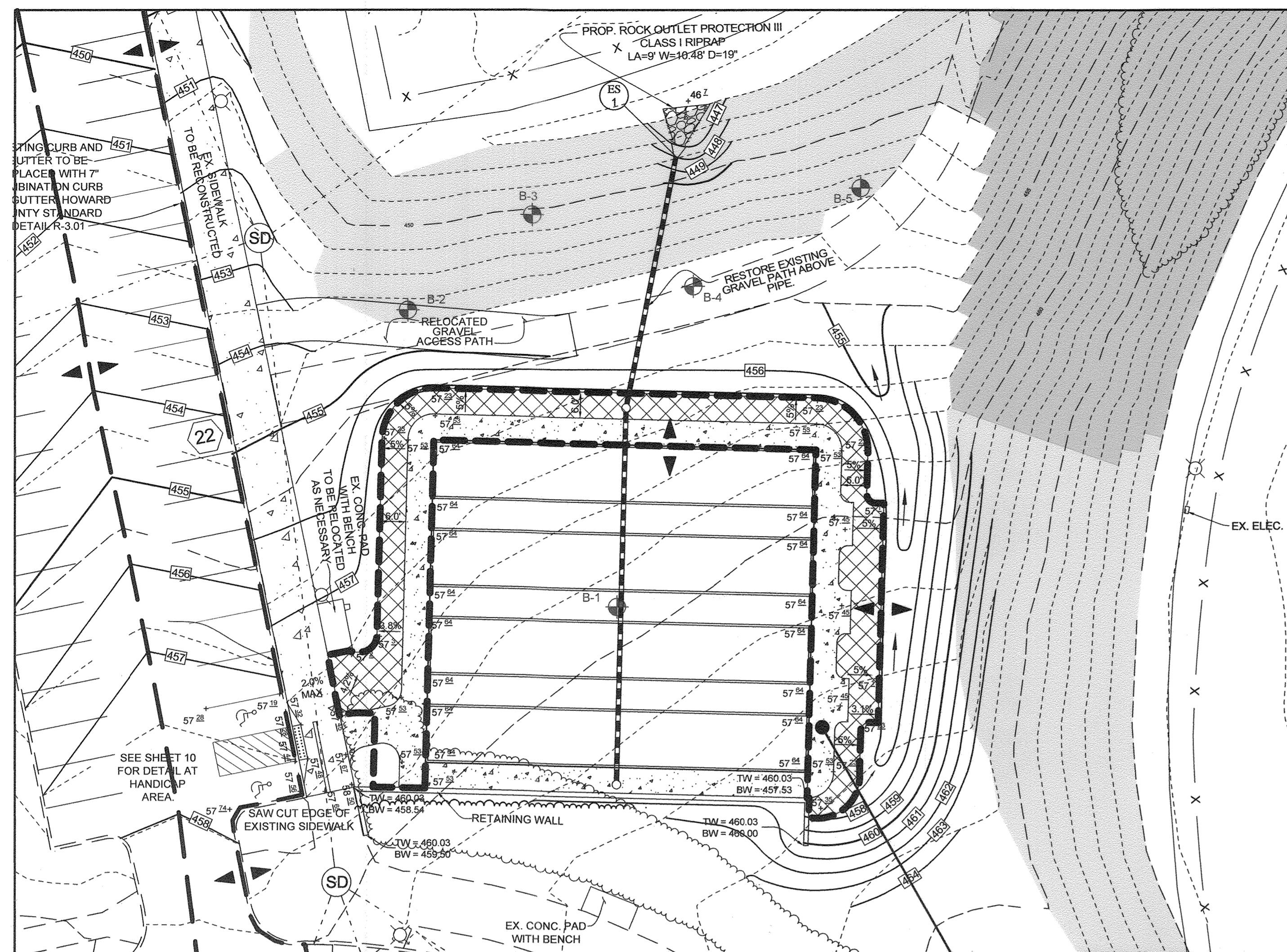
Professional Engineer seal for SILL ENGINEERING GROUP, LLC. Includes contact information: 31130 Dovedale Court, Suite 200, Marriottsville, Maryland 21044. Phone: 413.328.5976. Fax: 410.696.2022. Email: info@sillengineering.com. Civil Engineering for Land Development.

DESIGN BY: PS
DRAWN BY: JCV
CHECKED BY: PS
SCALE: AS SHOWN
DATE: JANUARY 10, 2019
PROJECT #: 18-000
SHEET #: 8

Table with columns: No., Description, Date. Rows include 4 WASHPAD - REVISED SHEET NUMBERING (6/18/21), 3 DUGOUT SHADE STRUCTURES (4/1/21), 2 NEW SHEET TO SHOW SEC NOTES FOR PROPOSED BOCC COURT.

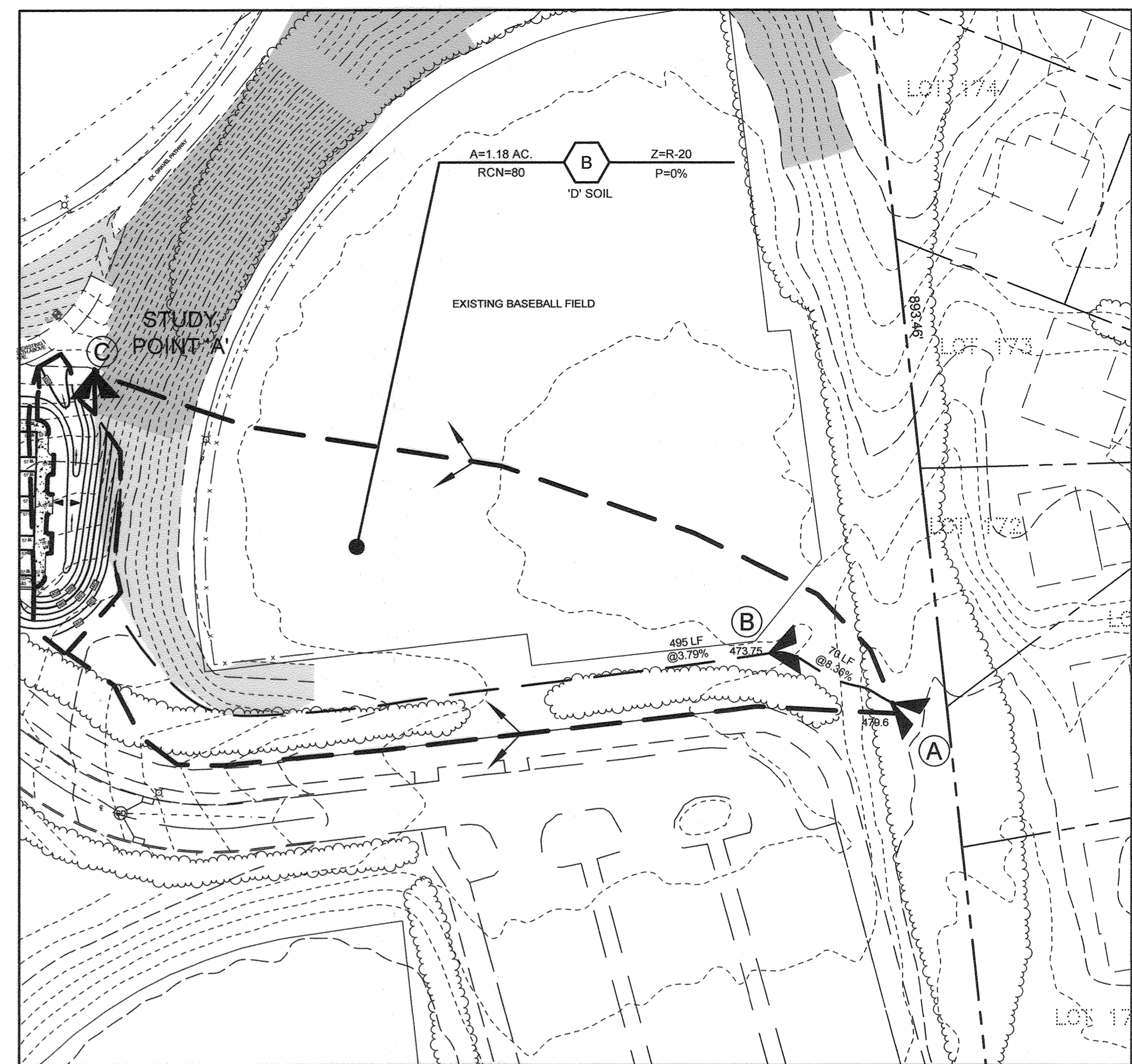
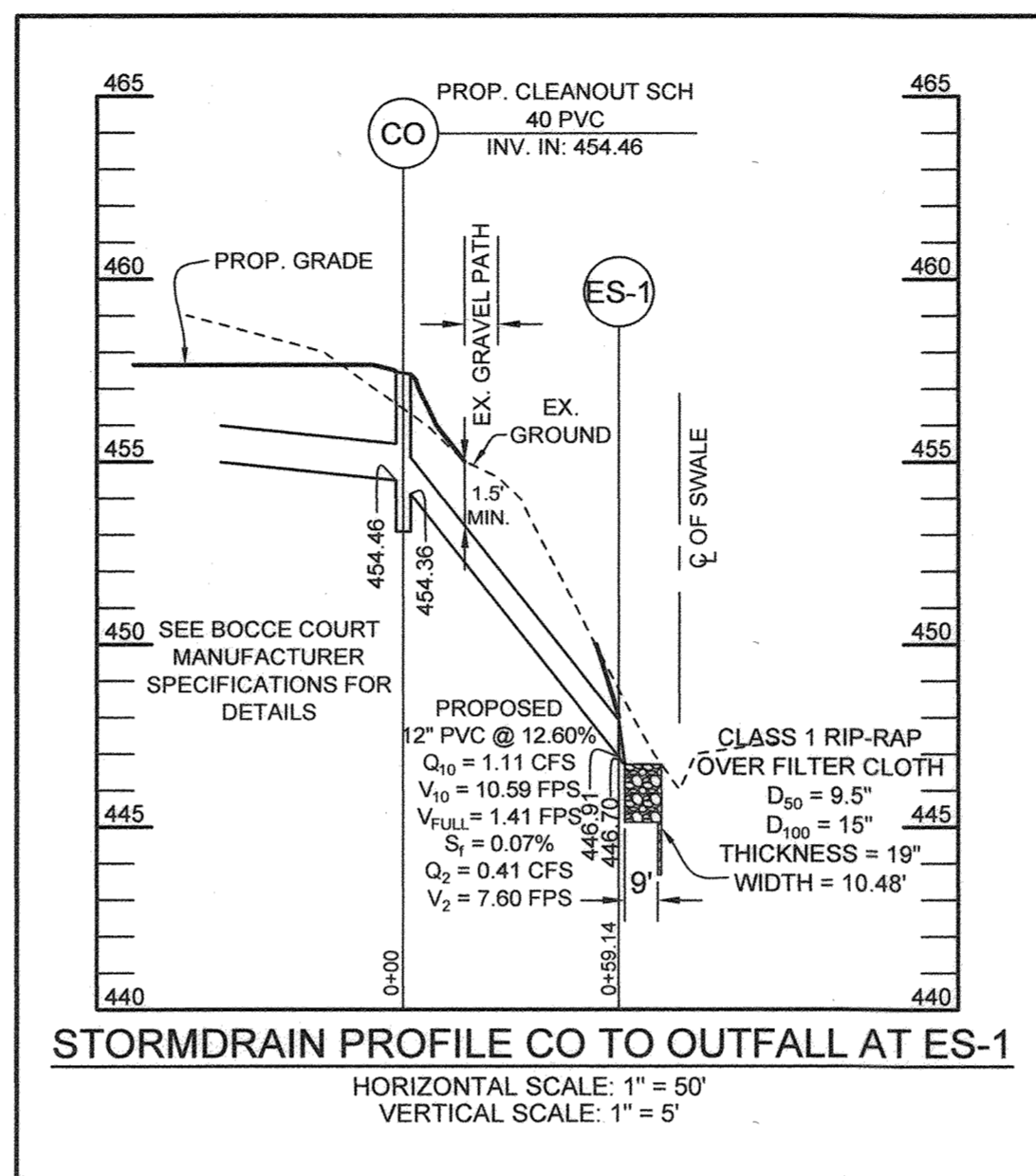
REVISIONS





### LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- DIRECTION OF FLOW
- EXISTING TREELINE
- PROPOSED TREELINE
- PROPOSED DRAINAGE AREA LINE
- EXISTING DRAINAGE AREA LINE
- DISCONNECTION OF NON-ROOFTOP RUNOFF (N-2)



BORING LOG	GEOLAB INC.
<p>Client: Howard County Government - Department of Rec. &amp; Parks</p> <p>Project: 118-071 Site: Cedar Lane Park - Bocce Court</p> <p>Area: B-1 (1 of 1) Loc. 458.2</p> <p>Soils: 2010919 - 2010919</p>	<p>Client: Howard County Government - Department of Rec. &amp; Parks</p> <p>Project: 118-071 Site: Cedar Lane Park - Bocce Court</p> <p>Area: B-1 (1 of 1) Loc. 458.2</p> <p>Soils: 2010919 - 2010919</p>
<p>1.0' - 1.2' Grass with lippox, root matter and organic mulch (USDC: SM, USDA: Loamy Sand)</p> <p>1.2' - 1.5' Red (20YR 4/3) fine to medium sandy CLAY with fine to coarse sand and silt (USDC: CL, USDA: Sandy Clay Loam)</p>	<p>1.0' - 1.2' Grass with lippox, root matter and organic mulch (USDC: SM, USDA: Loamy Sand)</p> <p>1.2' - 1.5' Red (20YR 4/3) fine to medium sandy CLAY with fine to coarse sand and silt (USDC: CL, USDA: Sandy Clay Loam)</p>

BORING LOG	GEOLAB INC.
<p>Client: Howard County Government - Department of Rec. &amp; Parks</p> <p>Project: 118-071 Site: Cedar Lane Park - Bocce Court</p> <p>Area: B-2 (1 of 1) Loc. 459.2</p> <p>Soils: 2010919 - 2010919</p>	<p>Client: Howard County Government - Department of Rec. &amp; Parks</p> <p>Project: 118-071 Site: Cedar Lane Park - Bocce Court</p> <p>Area: B-2 (1 of 1) Loc. 459.2</p> <p>Soils: 2010919 - 2010919</p>
<p>1.0' - 1.2' Grass with lippox, root matter and organic mulch (USDC: SM, USDA: Loamy Sand)</p> <p>1.2' - 1.5' Gray (10YR 6/1) silty CLAY with some fine to medium sand (USDC: CL, USDA: Silty Clay Loam)</p>	<p>1.0' - 1.2' Grass with lippox, root matter and organic mulch (USDC: SM, USDA: Loamy Sand)</p> <p>1.2' - 1.5' Gray (10YR 6/1) silty CLAY with some fine to medium sand (USDC: CL, USDA: Silty Clay Loam)</p>

BORING LOG	GEOLAB INC.
<p>Client: Howard County Government - Department of Rec. &amp; Parks</p> <p>Project: 118-071 Site: Cedar Lane Park - Bocce Court</p> <p>Area: B-3 (1 of 1) Loc. 458.3</p> <p>Soils: 2010919 - 2010919</p>	<p>Client: Howard County Government - Department of Rec. &amp; Parks</p> <p>Project: 118-071 Site: Cedar Lane Park - Bocce Court</p> <p>Area: B-3 (1 of 1) Loc. 458.3</p> <p>Soils: 2010919 - 2010919</p>
<p>1.0' - 1.2' Grass with lippox, root matter and organic mulch (USDC: SM, USDA: Loamy Sand)</p> <p>1.2' - 1.5' Brown (10YR 5/3) silty SILT with some fine to coarse sand and some gravel (USDC: ML, USDA: Silty Clay Loam)</p>	<p>1.0' - 1.2' Grass with lippox, root matter and organic mulch (USDC: SM, USDA: Loamy Sand)</p> <p>1.2' - 1.5' Brown (10YR 5/3) silty SILT with some fine to coarse sand and some gravel (USDC: ML, USDA: Silty Clay Loam)</p>

BORING LOG	GEOLAB INC.
<p>Client: Howard County Government - Department of Rec. &amp; Parks</p> <p>Project: 118-071 Site: Cedar Lane Park - Bocce Court</p> <p>Area: B-4 (1 of 1) Loc. 454.3</p> <p>Soils: 2010919 - 2010919</p>	<p>Client: Howard County Government - Department of Rec. &amp; Parks</p> <p>Project: 118-071 Site: Cedar Lane Park - Bocce Court</p> <p>Area: B-4 (1 of 1) Loc. 454.3</p> <p>Soils: 2010919 - 2010919</p>
<p>1.0' - 1.2' Grass with lippox, root matter and organic mulch (USDC: SM, USDA: Loamy Sand)</p> <p>1.2' - 1.5' Brown (10YR 5/3) silty CLAY with some fine sand, silt and gravel (USDC: CL, USDA: Silty Clay Loam)</p>	<p>1.0' - 1.2' Grass with lippox, root matter and organic mulch (USDC: SM, USDA: Loamy Sand)</p> <p>1.2' - 1.5' Brown (10YR 5/3) silty CLAY with some fine sand, silt and gravel (USDC: CL, USDA: Silty Clay Loam)</p>

BORING LOG	GEOLAB INC.
<p>Client: Howard County Government - Department of Rec. &amp; Parks</p> <p>Project: 118-071 Site: Cedar Lane Park - Bocce Court</p> <p>Area: B-5 (1 of 1) Loc. 459.8</p> <p>Soils: 2010919 - 2010919</p>	<p>Client: Howard County Government - Department of Rec. &amp; Parks</p> <p>Project: 118-071 Site: Cedar Lane Park - Bocce Court</p> <p>Area: B-5 (1 of 1) Loc. 459.8</p> <p>Soils: 2010919 - 2010919</p>
<p>1.0' - 1.2' Grass with lippox, root matter and organic mulch (USDC: SM, USDA: Loamy Sand)</p> <p>1.2' - 1.5' Yellowish-brown (10YR 5/4) silty SILT with some fine to medium sand (USDC: ML, USDA: Silty Clay Loam)</p>	<p>1.0' - 1.2' Grass with lippox, root matter and organic mulch (USDC: SM, USDA: Loamy Sand)</p> <p>1.2' - 1.5' Yellowish-brown (10YR 5/4) silty SILT with some fine to medium sand (USDC: ML, USDA: Silty Clay Loam)</p>

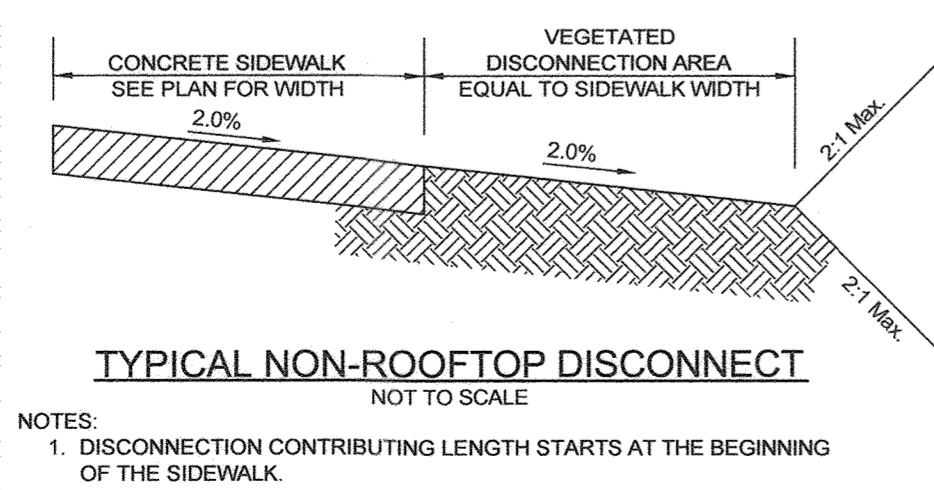
BORING B-1

BORING B-2

BORING B-3

BORING B-4

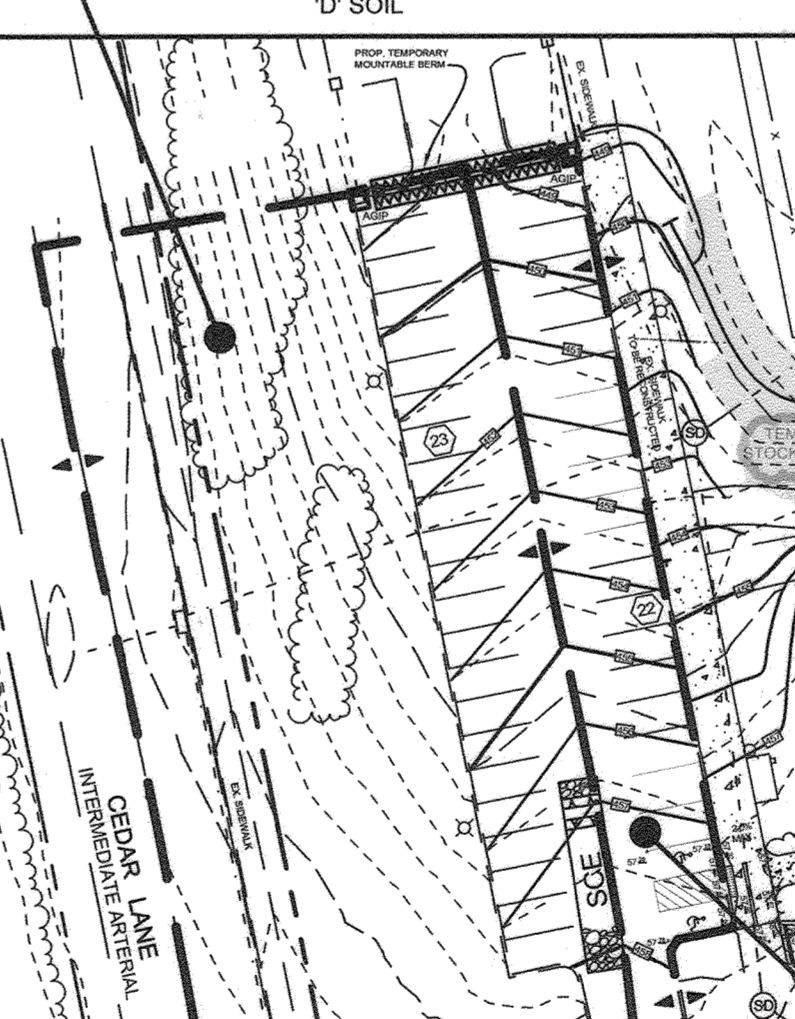
BORING B-5



### STORMWATER MANAGEMENT SUMMARY TABLE

D.A.	Pe	ESDV
	REQUIRED	PROVIDED
A	1.0'	253 CF
	1.0'	891 CF

- NOTES:
- TREATMENT FOR THE ENVIRONMENTAL SITE DESIGN VOLUMES (ESDV) WILL BE PROVIDED FOR AS FOLLOWS:
    - DRAINAGE AREA A: DISCONNECTION OF NON-ROOFTOP RUNOFF (N-2)
    - ENVIRONMENTAL SITE DESIGN TO THE MAXIMUM EXTENT PRACTICABLE HAS BEEN PROVIDED FOR THIS SITE.
  - OVERBANK FLOOD PROTECTION VOLUME (OP) AND EXTREME FLOOD VOLUME (EP) ARE NOT REQUIRED FOR THIS SITE.



### STORMWATER MANAGEMENT NOTES & DESIGN NARRATIVE

BELOW IS A LIST TO DESCRIBE THE STORMWATER MANAGEMENT REQUIREMENTS AND ACHIEVEMENTS FOR THE SITE PER THE 2000 MARYLAND STORMWATER DESIGN MANUAL, VOLUMES I AND II, AS AMENDED BY THE STORMWATER MANAGEMENT ACT OF 2007.

- STEEP SLOPES EXIST ON-SITE IN THE AREA OF DEVELOPMENT. IF NECESSARY, A WAIVER WILL BE SUBMITTED FOR THESE FEATURES TO REMAIN ON THE PROPOSED LOTS AND/OR BE DISTURBED. NO OTHER ENVIRONMENTALLY SENSITIVE AREAS EXIST ON-SITE. MATURE TREES EXIST ON SAID SLOPES AND AS STREET TREES AND PARKING LOT TREES. THE AREA IS NATURALIZED AND HAS A GRAVEL PATH. NO OTHER FORESTS, WETLANDS, STREAMS AND ASSOCIATED BUFFERS WERE FOUND ON-SITE.
- STORMWATER MANAGEMENT OBLIGATIONS WILL BE TREATED BY UTILIZING SHEET FLOW, NON-ROOFTOP DISCONNECT.
- TO THE GREATEST EXTENT PRACTICABLE THE NATURAL FLOW PATTERNS OF THE SITE HAVE BEEN MAINTAINED BY DIRECTING STORM DRAIN, AND SHEET FLOW RUNOFF TO LOCATIONS WITHIN THE NATURAL DRAINAGE DIVIDES.
- A STABILIZED CONSTRUCTION ENTRANCE, A TEMPORARY MOUNTABLE BERM, AT GRADE INLET PROTECTION, SILT FENCE, SUPER SILT FENCE, AND TEMPORARY AND PERMANENT SOIL STABILIZATION ARE USED AS SEDIMENT AND EROSION CONTROL.
- IMPERVIOUS AREAS HAVE BEEN REDUCED BY UTILIZING PERVIOUS AREAS FOR TREATMENT.
- NO DESIGN MANUAL AND WAIVER PETITION REQUESTS HAVE BEEN MADE.

### OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED DISCONNECTION OF ROOFTOP RUNOFF (N-1) DISCONNECTION OF NON-ROOFTOP RUNOFF (N-2)

- MAINTENANCE OF AREAS RECEIVING DISCONNECTED RUNOFF IS GENERALLY NO DIFFERENT THAN THAT REQUIRED FOR OTHER LAWN OR LANDSCAPED AREAS. THE OWNER SHALL ENSURE THE AREAS RECEIVING RUNOFF ARE PROTECTED FROM FUTURE COMPACTION OR DEVELOPMENT OF IMPERVIOUS AREA. IN COMMERCIAL AREAS, FOOT TRAFFIC SHOULD BE DISCOURAGED AS WELL.

### OWNER/DEVELOPER

HOWARD COUNTY DEPARTMENT OF RECREATION & PARKS  
C/O PAUL M. SILL  
7120 OAKLAND MILLS ROAD  
COLUMBIA, MARYLAND 21046  
410-313-1695

### REVISED SITE DEVELOPMENT PLAN BOCCO COURT STORMWATER MANAGEMENT PLAN, DRAINAGE AREA MAP, NOTES, AND DETAILS CEDAR LANE PARK BOCCO COURT

TAX MAP 29 GRID 17 5TH ELECTION DISTRICT PARCEL 67 HOWARD COUNTY, MARYLAND

11130 Dovedale Court, Suite 200 Marriottsville, Maryland 21104 Phone: 443.325.5076 Fax: 410.696.2022 Email: info@sillengineering.com Civil Engineering for Land Development	<p>DESIGN BY: PS</p> <p>DRAWN BY: JCV</p> <p>CHECKED BY: PS</p> <p>SCALE: AS SHOWN</p> <p>DATE: JANUARY 10, 2019</p> <p>PROJECT #: 18-000</p> <p>SHEET #: 9 of 11</p>
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PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 32025, EXPIRATION DATE: JUNE 20, 2019.

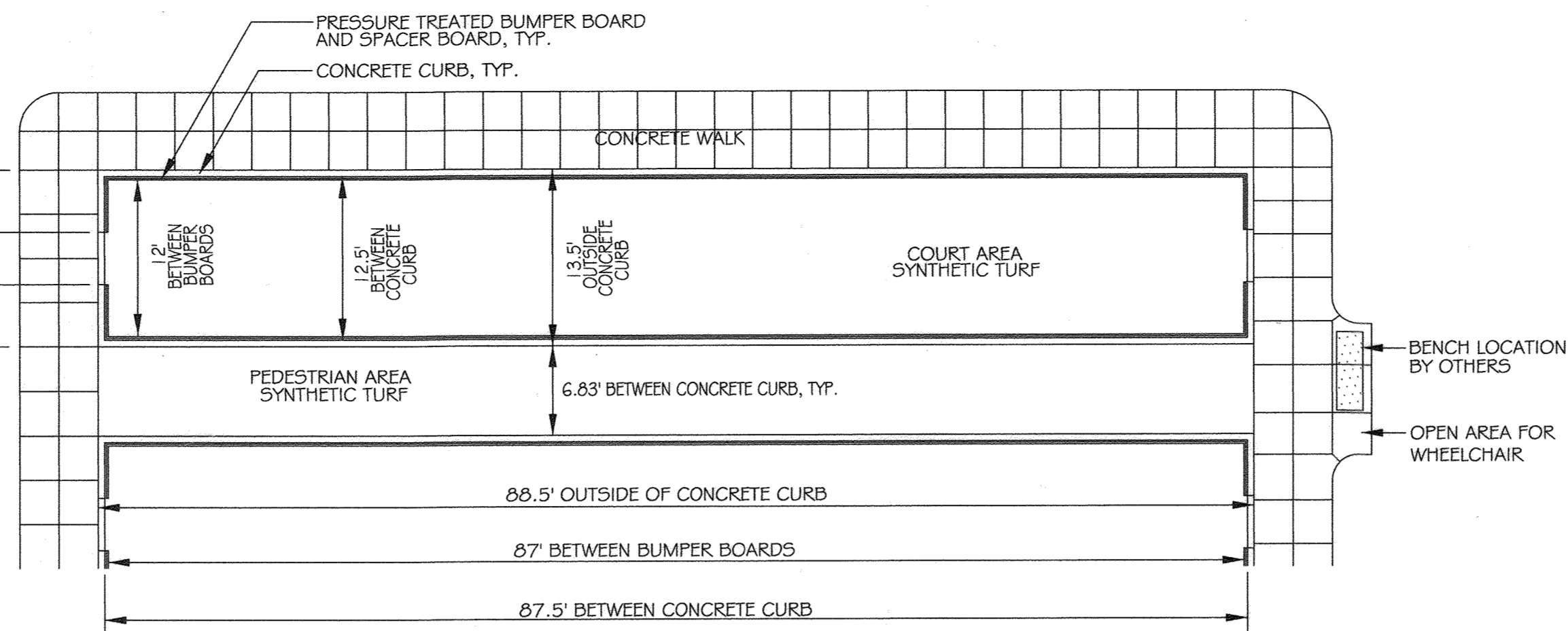
**NOTES**

- 1) PLACE EXPANSION JOINTS A MAXIMUM OF 25 FEET APART AS INDICATED ON PLAN.
- 2) PLACE CONTRACTION (SAW) JOINTS NOT MORE THAN 6 FEET APART AS INDICATED ON PLAN.
- 3) PROVIDE EXPANSION JOINTS WHERE POUR MEETS EXISTING CONCRETE PAVING OR CURB.
- 4) EXPANSION JOINTS SHALL BE RECESSED 1/4 INCH BELOW FINISHED SURFACE.
- 5) WHEN SIDEWALK ABUTS BACK OF STEEL CURB, IT SHALL BE 1/4" ABOVE TOP OF CURB.
- 6) WHEN SIDEWALK ABUTS EXISTING CONCRETE WALK, CORE DRILL AND INSTALL DOWELS.
- 7) CROSS SLOPES SHALL NOT EXCEED 2%.

4.75' FENCE & CONCRETE CURB AREA, SEE DETAIL, TYP.

4' GATE LOCATION CENTERED BETWEEN RAISED CONCRETE, FLUSH CONCRETE, TYP.

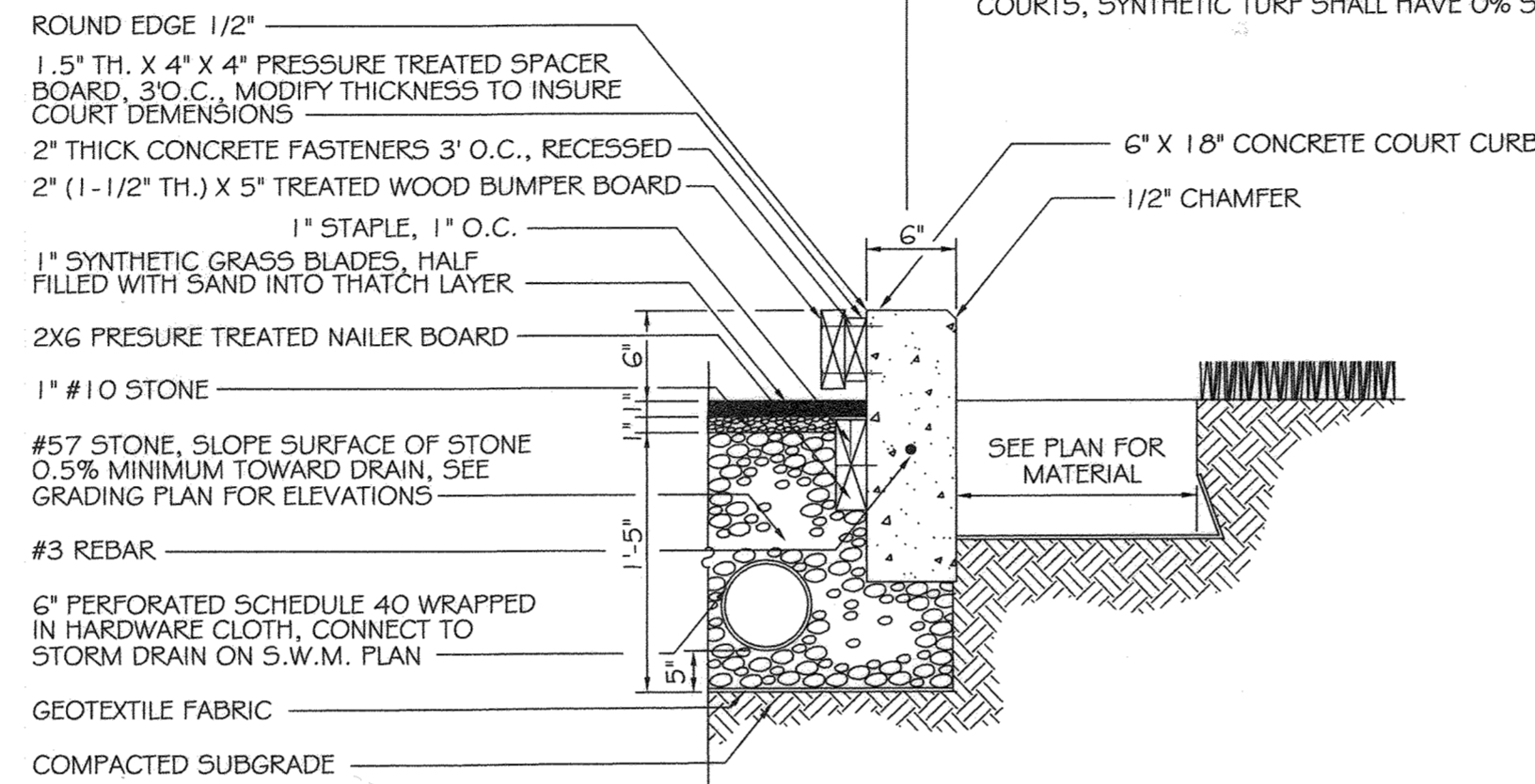
4.75' FENCE & CONCRETE CURB AREA, SEE DETAIL, TYP.



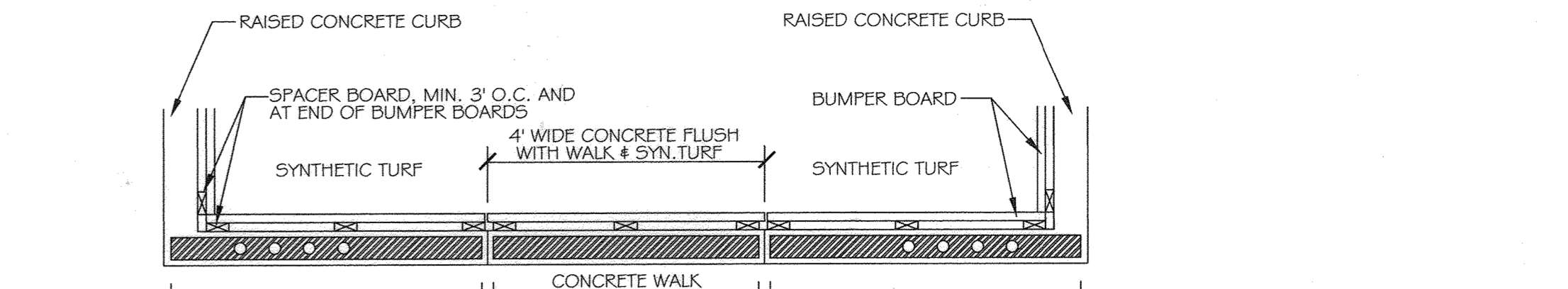
**COURT ENLARGEMENT PLAN**  
SCALE: 1" = 10'

BOCCIE COURT SIDE, SYNTHETIC TURF SHALL HAVE 0% SLOPE.

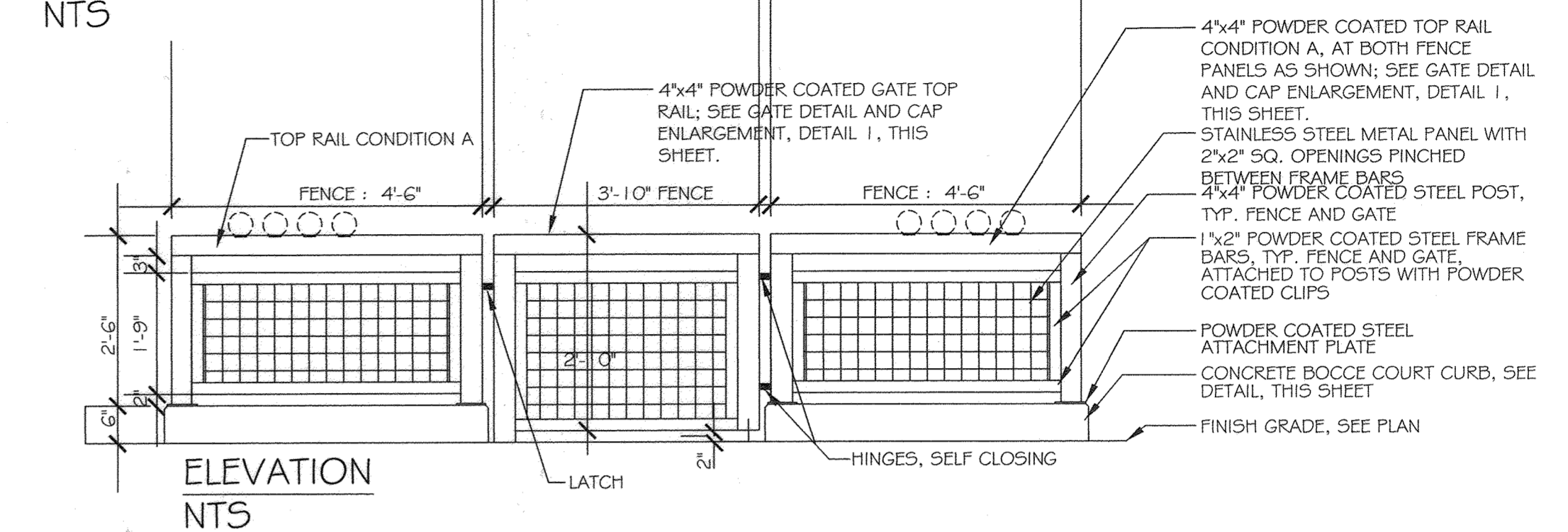
PEDESTRIAN SIDE, IN PERIMETER AREAS CONCRETE SHALL BE SLOPED AWAY FROM COURT, SEE GRADING PLAN FOR ELEVATION. IN AREAS BETWEEN COURTS, SYNTHETIC TURF SHALL HAVE 0% SLOPE.



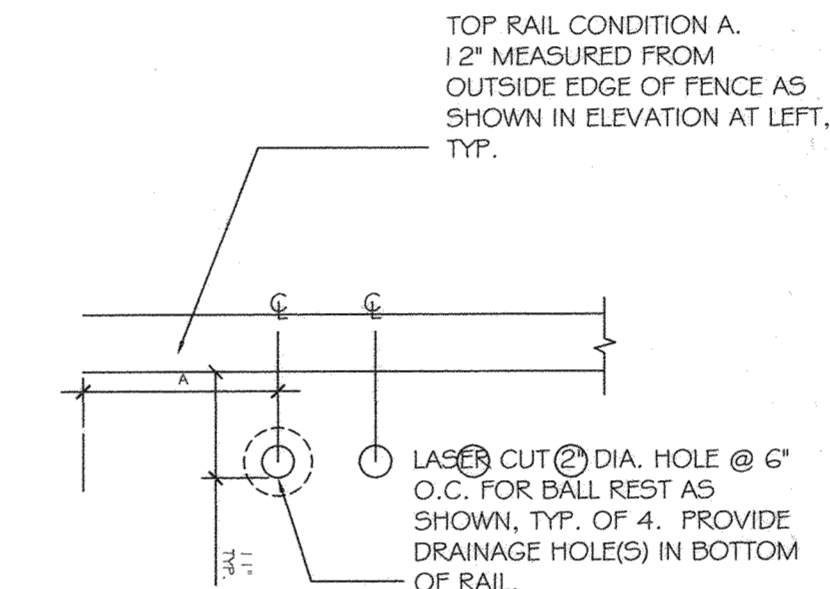
**SECTION THROUGH CURB**  
SCALE: 1" = 1'-0"



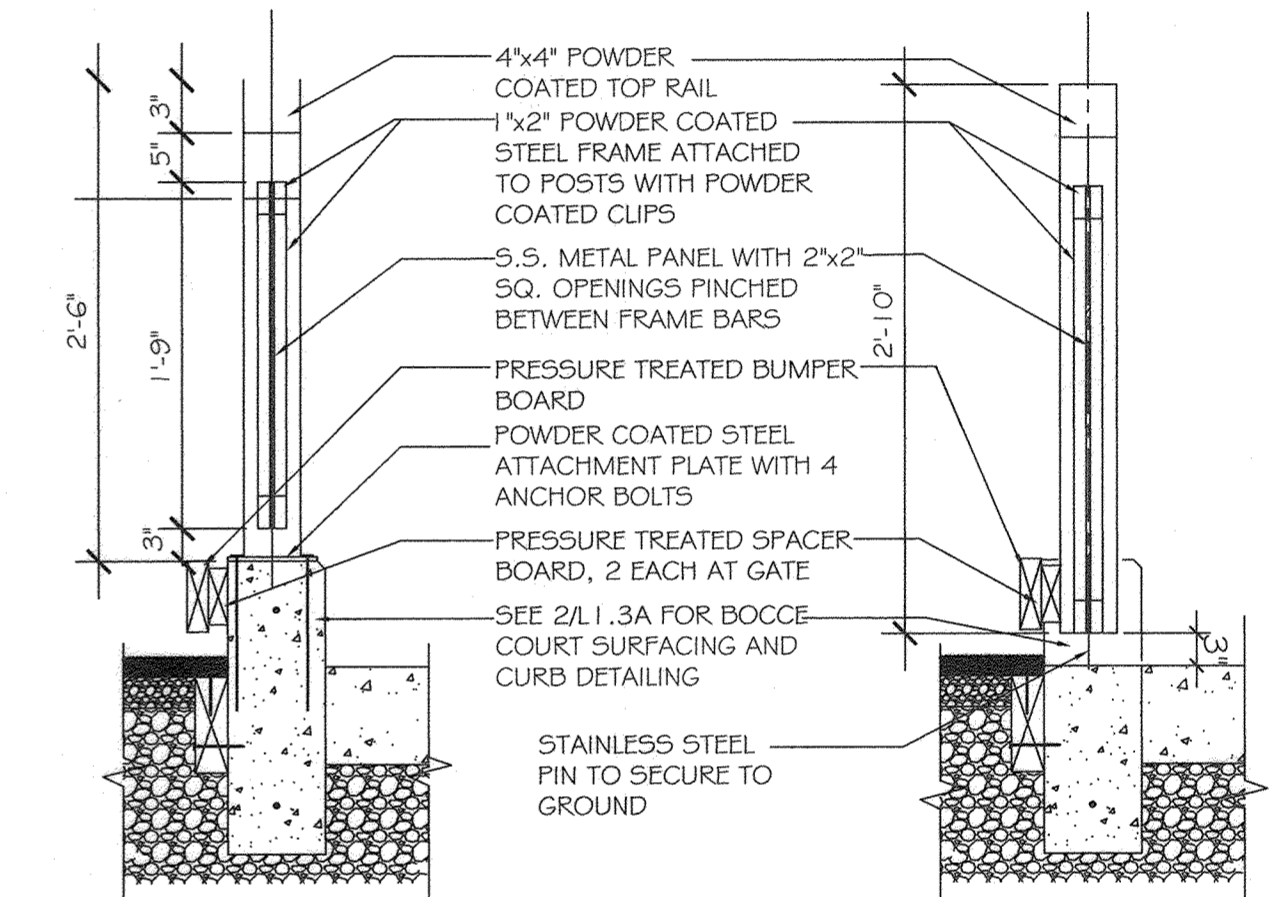
**COURT END PLAN**  
NTS



- NOTES:**
1. CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR BOCCIE FENCE AND GATES.
  2. GATE SELF-CLOSING HINGES AND LATCH SHALL BE INCLUDED IN THE SHOP DRAWING SUBMITTAL AND FINAL CONTRACTOR - OWNER AGREEMENT.

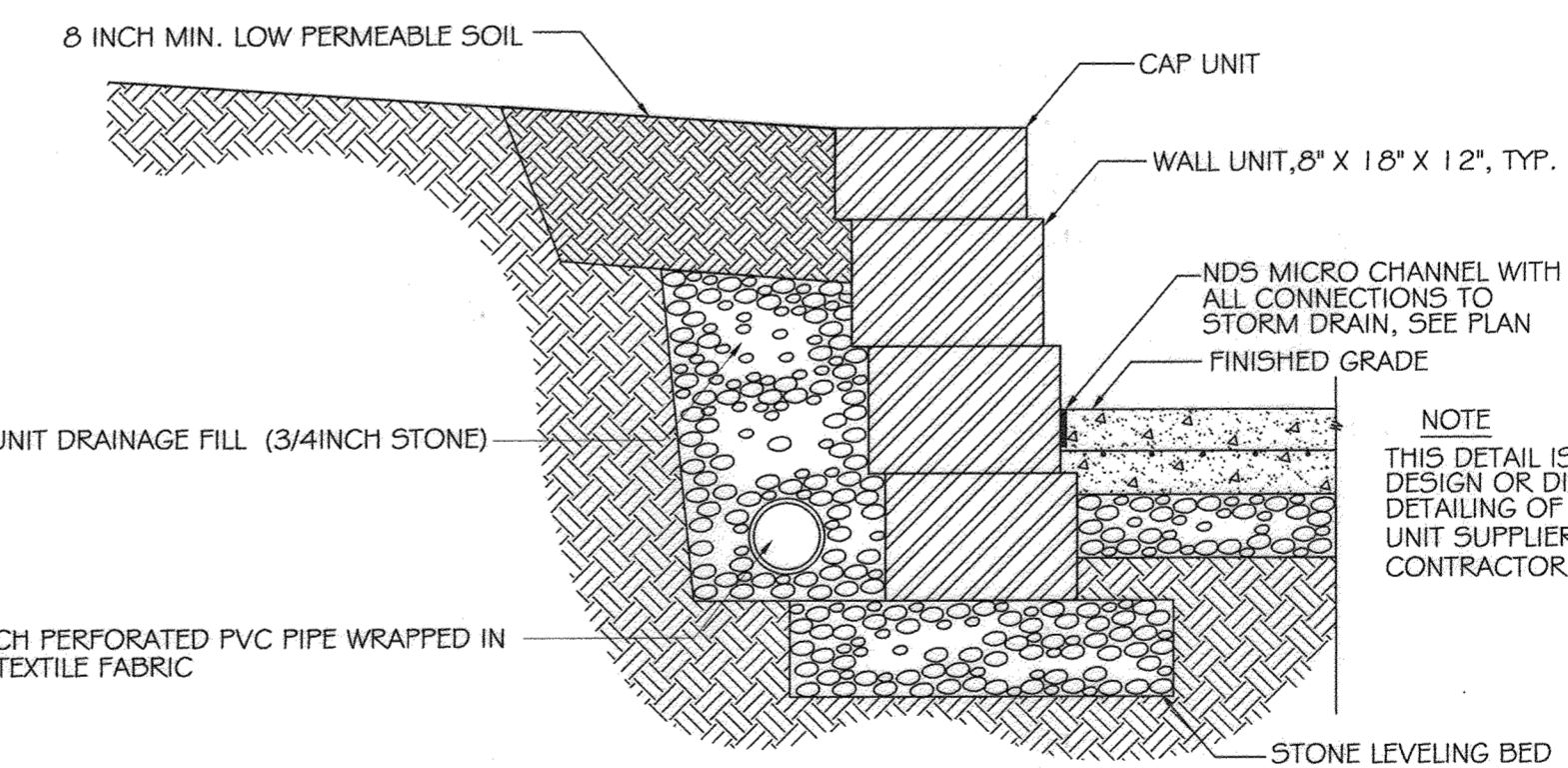


**TOP RAIL CONDITION A**



**SECTION A: THROUGH FENCE**  
NTS

**SECTION B: THROUGH GATE**  
NTS



**3 SEGMENTAL BLOCK WALL**  
NTS

**OWNER/DEVELOPER**

HOWARD COUNTY DEPARTMENT OF RECREATION & PARKS  
C/O PAUL WALSKY  
7120 OAKLAND MILLS ROAD  
COLUMBIA, MARYLAND 21046  
410-313-1695

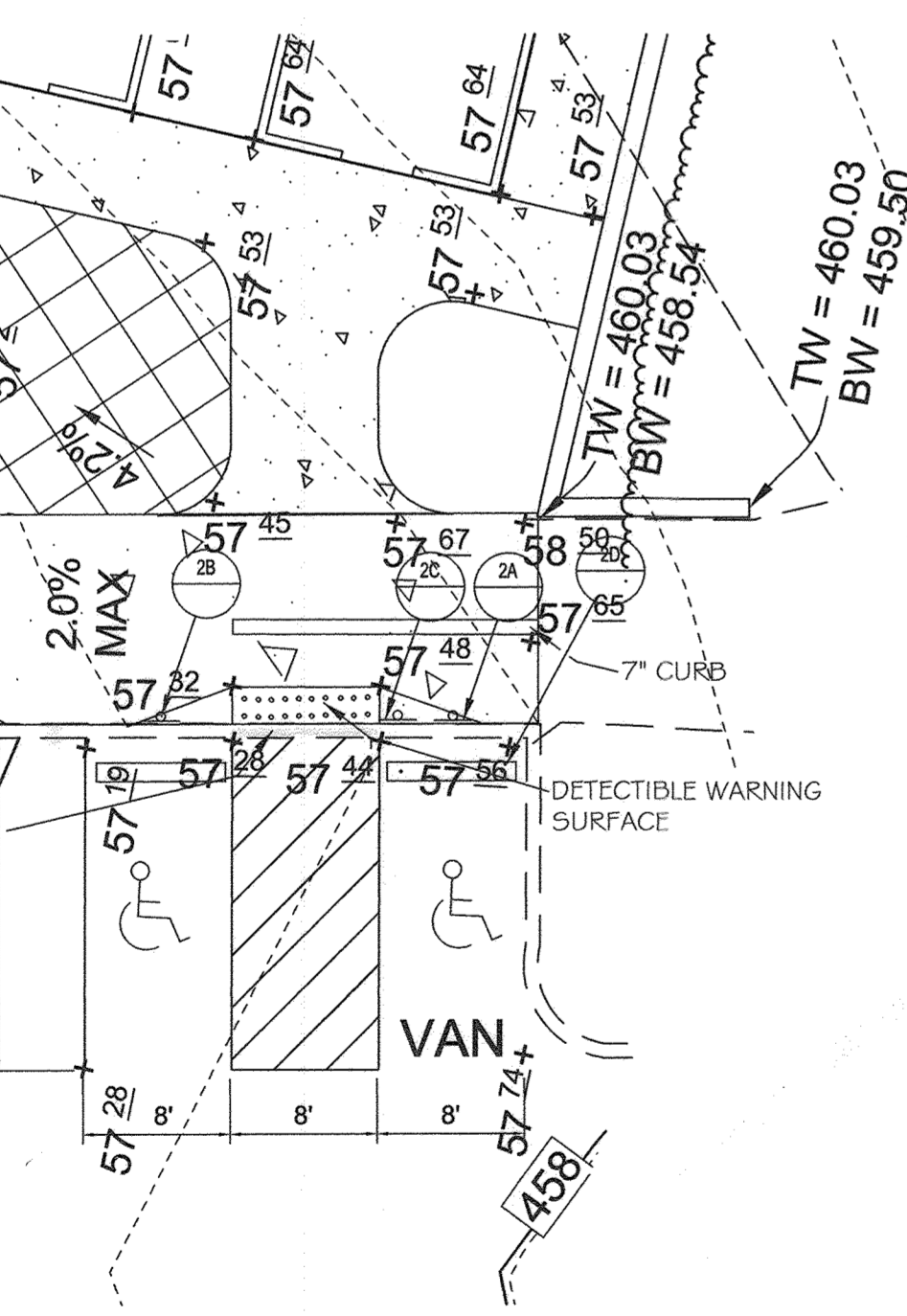
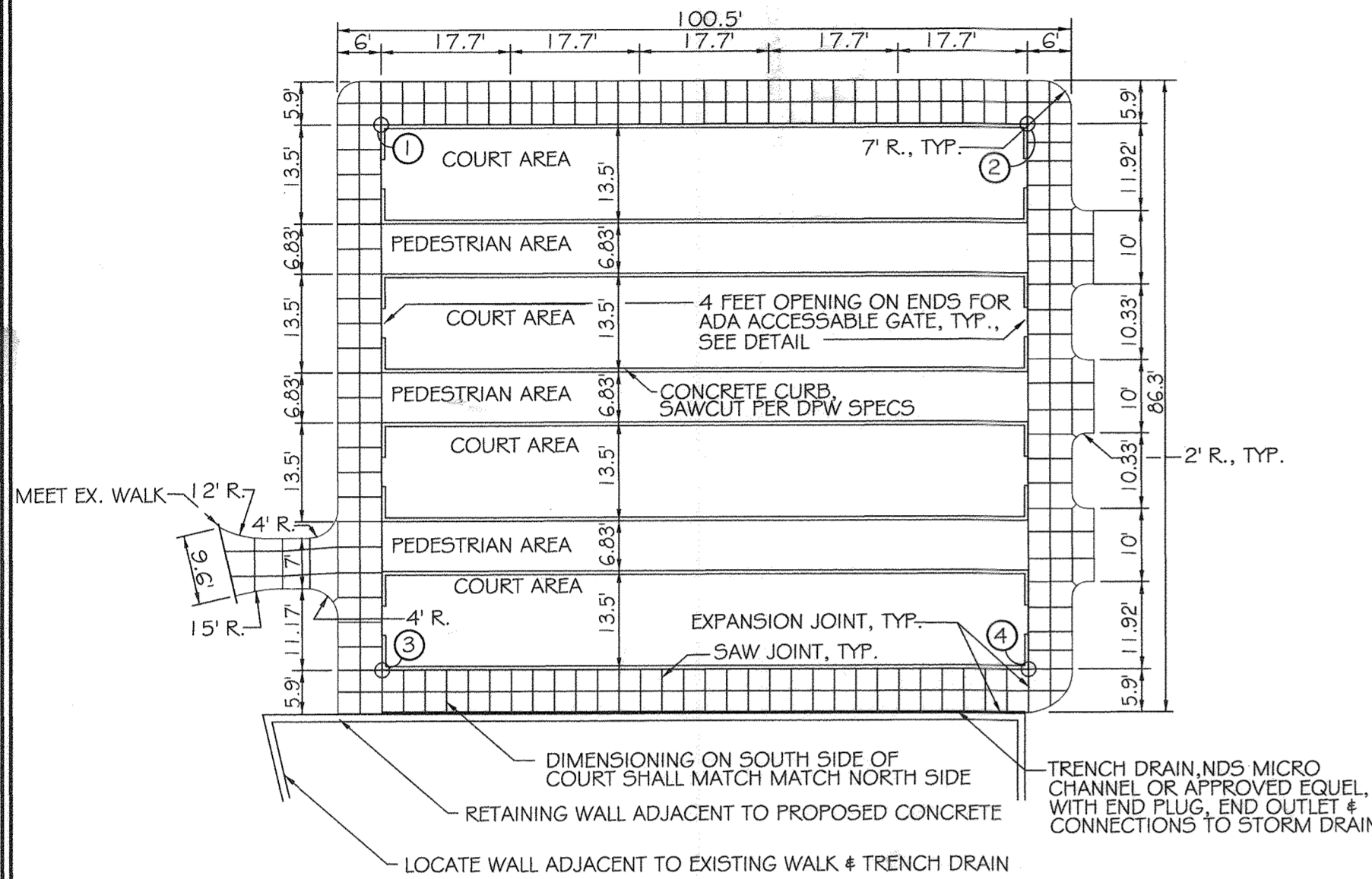
**REVISED SITE DEVELOPMENT PLAN**  
**BOCCIE COURT DETAILS**  
**CEDAR LANE PARK BOCCIE COURT**

TAX MAP 29 GRID 17 5TH ELECTION DISTRICT 5081 CEDAR LANE PARCEL 67 HOWARD COUNTY, MARYLAND

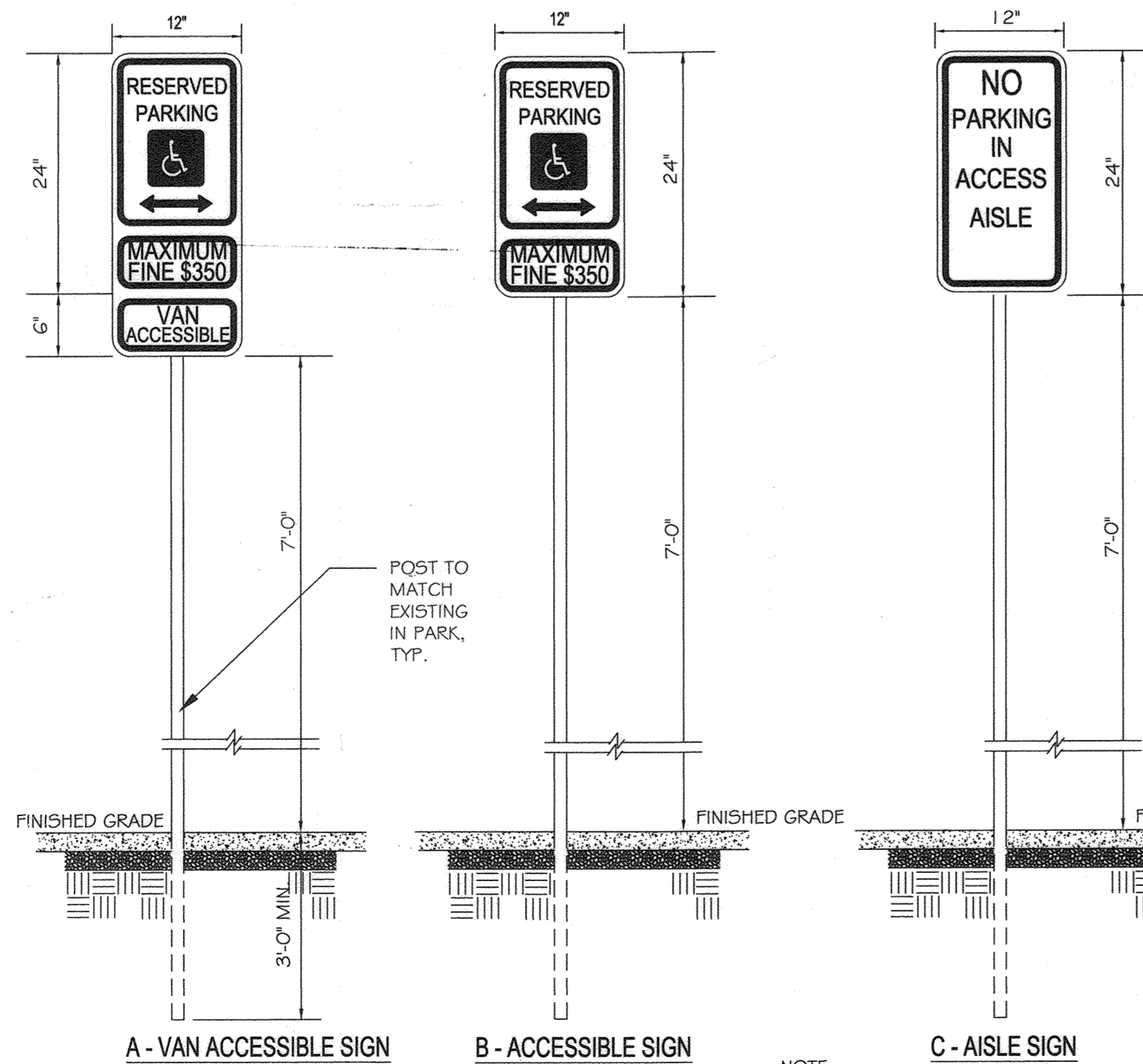
	<b>SILL ENGINEERING GROUP, LLC</b> 11130 Dovegate Court, Suite 200 Manassasville, Maryland 21104 Phone: 443.325.9076 Fax: 410.696.2022 Email: info@sillengineering.com Civil Engineering for Land Development	DESIGN BY: PS DRAWN BY: JCV CHECKED BY: PS SCALE: AS SHOWN DATE: JANUARY 10, 2019 PROJECT #: 18-003 SHEET #: 10 OF 15
	PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 32025, EXPIRATION DATE: JUNE 20, 2019	

**DIMENSION & JOINT PLAN**  
SCALE: 1" = 20'

**1 COURT AREA**  
SCALE AS SHOWN

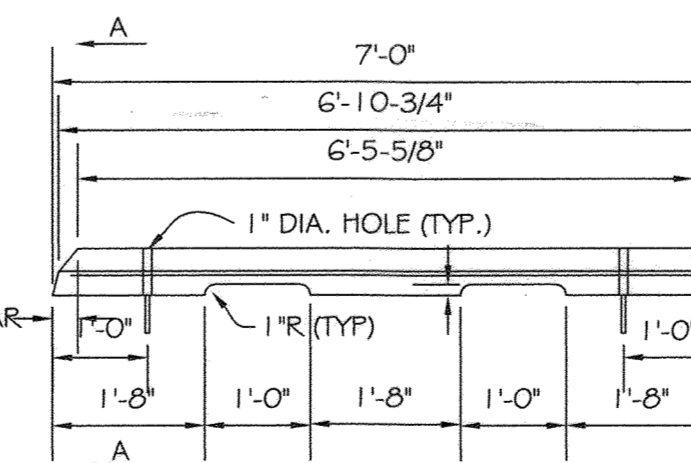


**2 HANDICAP PARKING AREA**  
SCALE AS SHOWN



- NOTE:**
1. SIGN LAYOUT AND COLORS TO MATCH THE REQUIREMENTS OF THE MARYLAND ACCESSIBILITY CODE.
  2. SIGNS SHALL BE 0.09" THICK WITH 2 SINGLE POST MOUNTING HOLES.
  3. POSTED MAXIMUM FINE SHALL BE IN ACCORDANCE WITH LOCAL CODE.
  4. SIGNS SHALL BE ATTACHED TO POST WITH STAINLESS STEEL TAMPER PROOF FASTENERS.
  5. SIGN SHALL BE CONTIGUOUS.
  6. CONTRACTOR SHALL SUPPLEMENT AND/OR REPLACE EXISTING SIGNAGE TO MEET THIS DETAIL.

- NOTE:**
1. ANCHOR PINS SHALL BE FLUSH WITH TOP OF WHEELSTOP.
  2. INSTALL WHEELSTOPS 24" FROM CURB.
  3. CONTRACTOR TO REMOVE AND RE-INSTALL EXISTING WHEELSTOPS WHEN PLACING ASPHALT SURFACE COURSE ON EXISTING PARKING LOTS.



**ELEVATION**  
**D - WHEEL STOP**

**SECTION A-A**

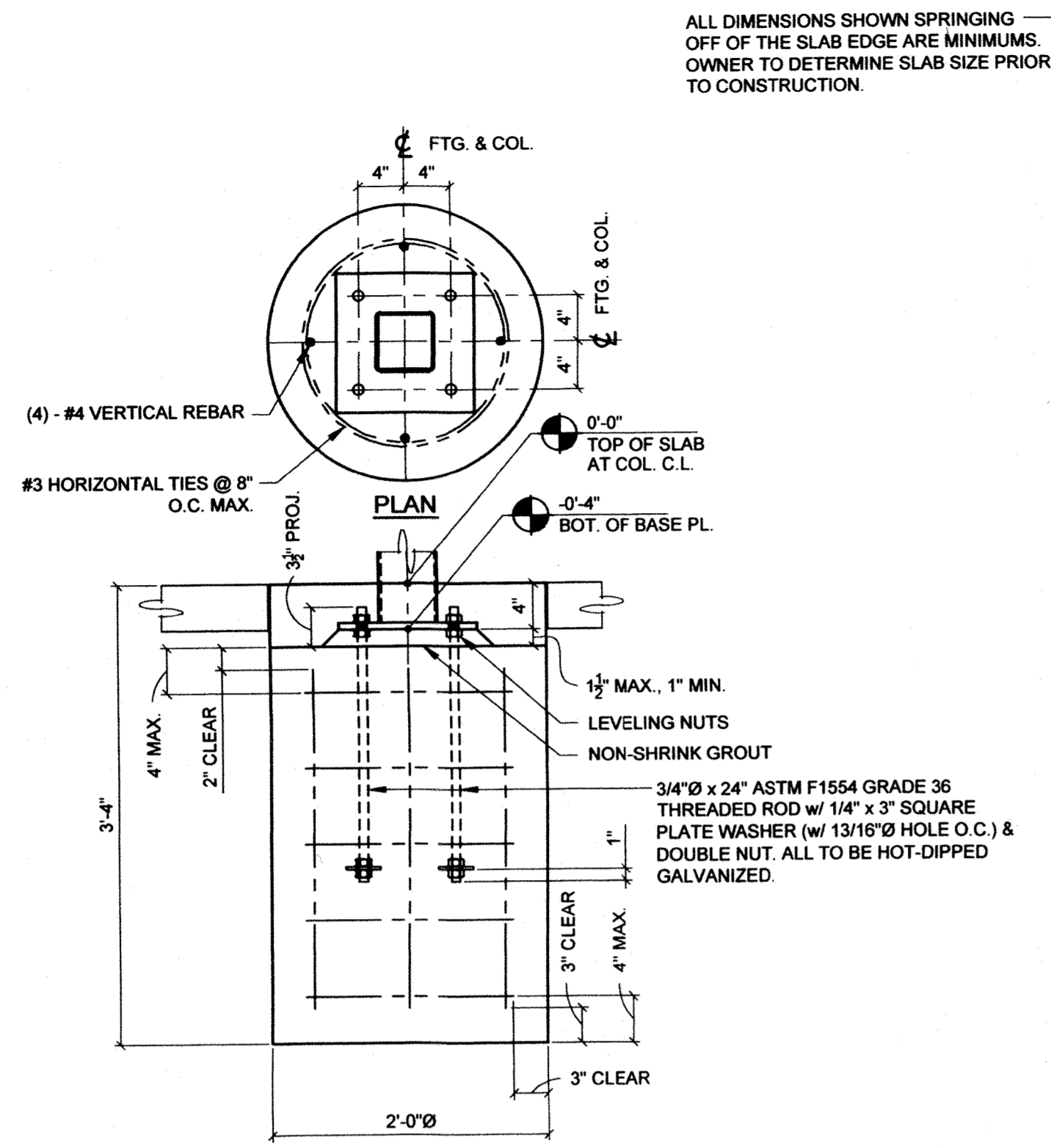
No.	Description	Date
4	WASHPAD - REVISED SHEET NUMBERING	6/18/21
3	DUGOUT SHAPE STRUCTURES	4/1/21
2	NEW SHEET TO SHOW DETAILS FOR PROPOSED BOCCIE COURT	
<b>REVISIONS</b>		

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*Oliver* 128-19 DATE  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
*Walt* 1/29/19 DATE  
 CHIEF, DIVISION OF LAND DEVELOPMENT  
*Nash* 1-30-19 DATE  
 DIRECTOR



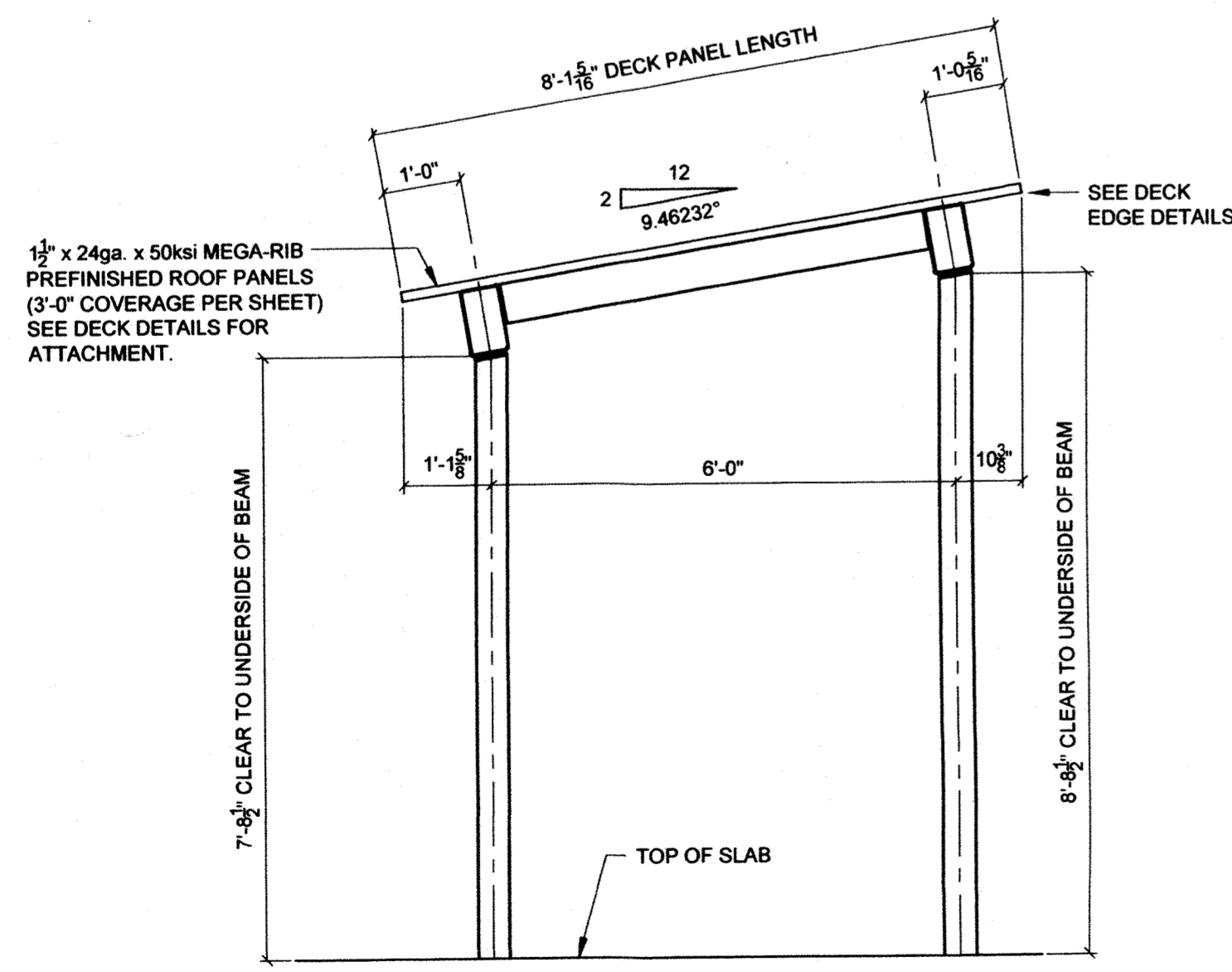
**PROFESSIONAL CERTIFICATE:**  
I HEREBY CERTIFY THE INFORMATION IDENTIFIED UNDER REVISION #4 ONLY.



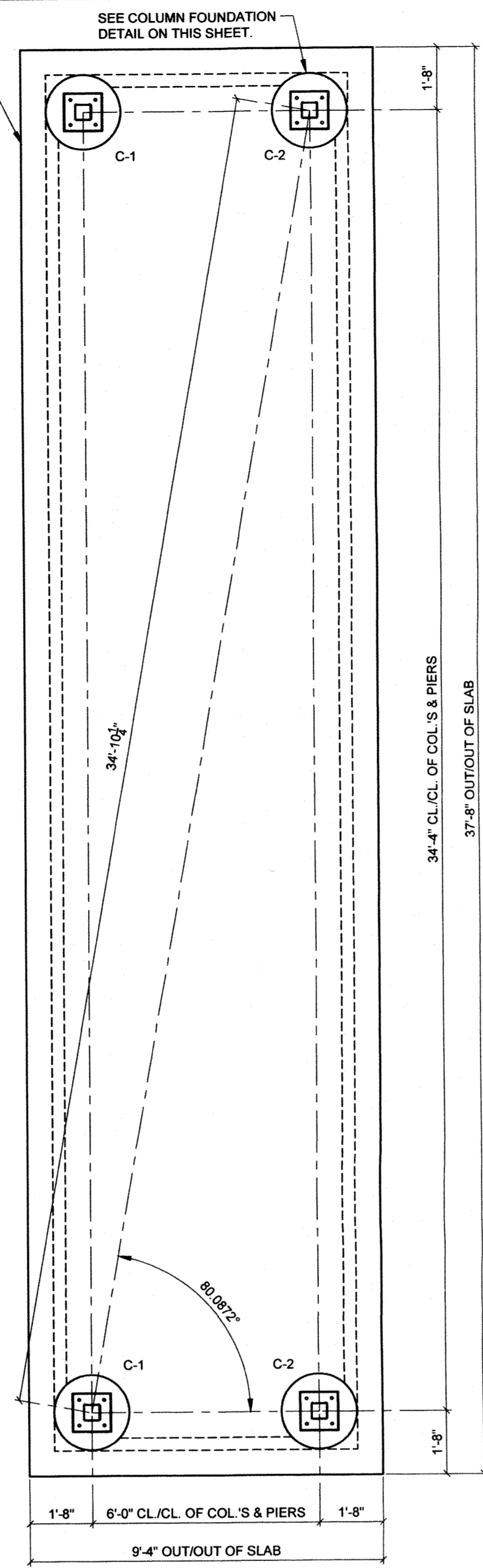
**COLUMN FOUNDATION DETAIL**

**COLUMN BASE REACTIONS:**

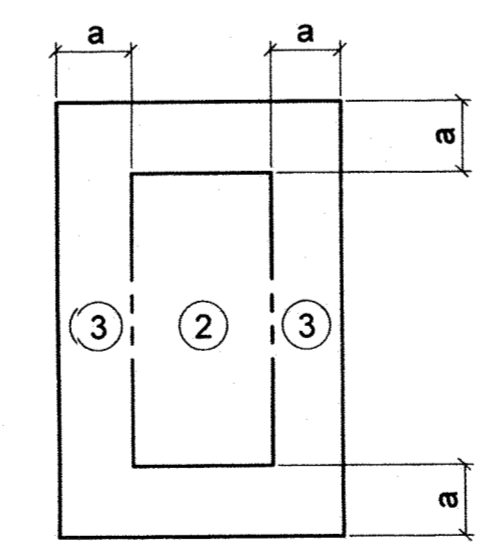
↑	$V_{DL+LL} = 3,450\#$
↓	$V_{DL+0.6\#W.UPLIFT} = -360\#$
→	$H_{DL+0.6\#W} = 300\#$
⤵	$M_{OT.DL+0.6\#W} = 2,270\#-ft$



**SECTION A**  
SCALE: 1/2" = 1'-0"



**FOUNDATION PLAN**  
SCALE: 3/8" = 1'-0"

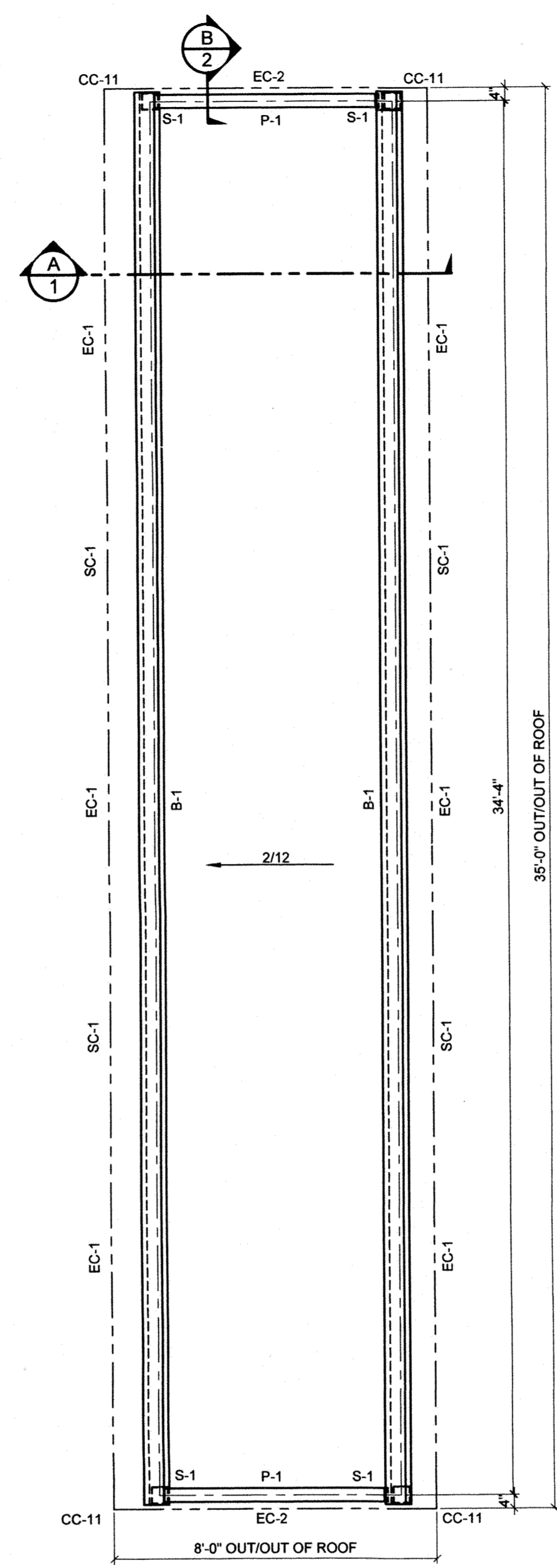


**ROOF PLAN**  
a = 3'-0"

ULTIMATE PRESSURES FOR COMPONENTS & CLADDING

ZONE	PRESSURE	SUCTION
2	32 PSF	30 PSF
3	42 PSF	52 PSF

**DUGOUT STRUCTURE**



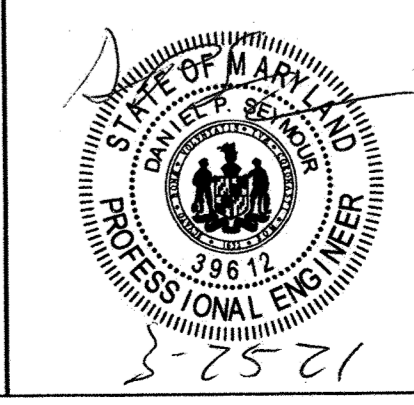
**FRAMING PLAN**  
SCALE: 3/8" = 1'-0"

**METAL ROOFING NOTES:**  
CLEAR PROTECTIVE FILM MUST BE REMOVED FROM ALL METAL PRIOR TO INSTALLATION.  
METAL ROOFING SHOULD BE STORED INDOORS OR WHEN STORED OUTSIDE IT SHOULD BE STORED UP ON BLOCKS WITH FINISHED FACE UP AND SLOPED TO DRAIN.  
DURING INSTALLATION, ALL METAL SHAVINGS MUST BE REMOVED IMMEDIATELY TO AVOID RUSTING OF PANELS.

NO.	REVISION	DATE
3	DUGOUT SHADE STRUCTURES	MARCH 2021

APPROVED: DEPARTMENT OF PLANNING & ZONING  
 Chief, Development Engineering Division: *[Signature]* Date: 4-26-21  
 Chief, Division of Land Development: *[Signature]* Date: 5/5/21  
 Director: *[Signature]* Date: 5-5-21

**DESIGN CERTIFICATION FOR:**  
 BUILDING SIZE: 8' x 35'  
 BUILDING LOCATION: COLUMBIA, MD  
 THIS CERTIFICATION OF DRAWINGS IS FOR THE ONE BUILDING ONLY AT THE SITE LISTED ABOVE. IT IS VALID ONLY IF THE MATERIALS SHOWN ON THESE DRAWINGS ARE FURNISHED BY RCP SHELTERS, INC. AND ONLY IF MATERIALS ARE PAID FOR IN FULL.  
 IF MODIFICATION IS MADE WITHOUT EXPRESSED WRITTEN CONSENT OF RCP SHELTERS, INC. OR IF PAYMENT IS NOT MADE IN FULL, THEN CERTIFICATION BECOMES NULL & VOID.



**CONTRACT NOTE:**  
Reference accepted proposal and/or executed contract for identification of items furnished. Any item not specifically included shall be provided by owner, installer or others. Some items are specifically noted as N.I.C. (not in contract).

**STEEL & HARDWARE SHOP NOTES:**  
 1. All steel plate to be ASTM A572 Grade 50.  
 2. Steel tubes to be ASTM A500 Grade C.  
 3. All welding is to be done in accordance with latest AWS standards. If welds are not specified, all welds are to develop full strength of all component parts.  
 4. All bolts to be ASTM F3125 Grade A325 Type 1. Exception: All bolts smaller than 1/2" to be A307A. Anchor bolts as noted.  
 5. All nuts to be ASTM A563DH except as noted. At F1554 Gr. 36 anchor bolts and A307A bolts, nuts to be ASTM A563A.  
 6. All fabricated steel to be powder coated; color selected by owner.  
 7. Hardware (bolts, nuts, washers, etc.) to be hot-dipped galvanized (HDG). Shop to verify hole tolerances and tolerances of threaded parts for compatibility of the galvanized parts only.

**CONCRETE NOTES:**  
 1. Remove all organic material and topsoil from slab area. Verify suitability of subgrade. Footings are to bear on undisturbed, natural soil or engineered fill. Both are to be compacted to 95% Proctor density.  
 2. Prepare slab with min. 8" compacted sand, gravel, or crushed rock.  
 3. Concrete slab to be 4" thick. Reinforce slab with 6x6-14xw1.4 welded wire fabric at mid-depth. Lap splices 8". Alt.: Fiber mesh admixture (min. 1.5#/c.y., fibrillated polypropylene).  
 4. Edge of slab to be thickened to min. 8" deep x 8" wide reinforced with 2-#4 continuous rebars. Lap splices min. 24".  
 5. In locations subject to frost, install isolation joint, max. 1/8" wide, around column piers using diamond or circular layout. Wire mesh shall be interrupted at isolation joints.  
 6. Install crack control joints (3/16" wide x 1" deep) at 8' to 12' o.c.  
 7. Concrete slabs in open areas are to be sloped for drainage from center to edge and away from columns. Surface is to be lightly broomed or have a wood troweled finish.  
 8. Concrete slabs in enclosed areas are to have positive drainage to floor drains and have a troweled finish.  
 9. Concrete slab, foundation, re-bar, wire mesh, leveling nuts, grout & anchor bolts (if required) are N.I.C.  
 10. All concrete reinforcing steel to be grade 60, deformed bars.  
 11. F<sub>c</sub> of concrete to be 3000 psi @ 28 days for foundation. F<sub>c</sub> of concrete to be 3500 psi @ 28 days for slab, air-entrained.  
 12. All concrete work to be in accordance w/ latest ACI code.  
 13. Assumed allowable soil bearing pressures: 2000 psf vertical bearing, 150 pcf passive lateral bearing. It is the Owner's responsibility to verify that the allowable soil bearing values at the site meet or exceed these assumed values. If the actual values are lower than the assumed values, the foundations must be redesigned (N.I.C.).  
 14. Leveling nuts have been shown under column base plate. Adjust leveling nuts as required to ensure all column bases are at the same elevation. Fill void between column base plate and top of foundation with non-shrink grout.  
 15. Grout shall be non-shrink, non-metallic, factory pre-mixed grout in accordance with ASTM C1107 with F<sub>c</sub> of not less than 9,000 psi.  
 16. Reinforcement shall be securely held in place while placing concrete. If required, additional bars, stirrups or chairs shall be provided to furnish support for bars.

**ELECTRICAL CONDUIT NOTE:**  
If electrical access is required, install conduit in foundation and align with access hole in column base plate. Coordinate with electrical contractor.

**ERECTION NOTES:**  
All steel members must be properly braced until the complete structural system has been constructed. Correction of minor misfits and a reasonable amount of reaming or alignment with drift pins will be considered a legitimate expense of erection. In the event of error, defect in materials, and/or workmanship of shop work which prevents proper assembling and fitting up of parts by the moderate use of drift pins, or reaming, immediately report to the seller and obtain seller's approval of the method of correction.

Bolts to be snug tight. Torque measurement is not required.  
**NOTE:** This building has been designed as a free standing, open structure. If walls are to be added, or if the building is to adjoin another structure, or if other modifications are to be made, the structure must be re-engineered prior to these modifications (by others).

**DESIGN CRITERIA:**  
 2018 International Building Code w/ Howard County Amendments  
 Type of Construction: Type II-B  
 Occupancy Classification: Business B (303.1.1 occupant load less than 50)  
 Building Risk Category II  
 Mean Roof Height = 9'-0"  
 Building Volume = 2,520 ft<sup>3</sup>  
 No. of Occupants = 40 (7 ft<sup>2</sup> per person)  
**ROOF DL**  
 Metal Roofing: 1.2 psf  
 Misc.: 0.8  
 Total = 2 psf + weight of framing

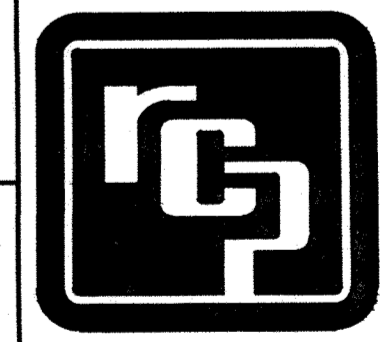
**FLOOR LL**  
L = 100 psf  
**ROOF LL**  
L = 40 psf  
**ROOF SL**  
P<sub>s</sub> = 25 psf (Ground Snow)  
 P<sub>f</sub> = 0.7 \* P<sub>s</sub> \* C<sub>e</sub> \* C<sub>d</sub> \* I<sub>s</sub>  
 C<sub>e</sub> = 1.0, C<sub>d</sub> = 1.2, I<sub>s</sub> = 1.0  
 P<sub>f</sub> = 21 psf  
 P<sub>s</sub> = P<sub>f</sub> \* C<sub>s</sub>  
 2:12 pitch: C<sub>s</sub> = 1.0, P<sub>s</sub> = 21 psf  
**WIND LOAD**  
 V<sub>ult</sub> = 110 mph, V<sub>avg</sub> = 85 mph  
 Exposure 'B', Open Building w/ GC<sub>e</sub> = 0  
 Component & Cladding Ultimate Wind Pressures: See ROOF PLAN this sheet.

**SEISMIC**  
 I<sub>e</sub> = 1.0  
 S<sub>s</sub> = 0.137, S<sub>1</sub> = 0.043  
 Site Class D (assumed)  
 S<sub>0.5</sub> = 0.148, S<sub>0.2</sub> = 0.069  
 Seismic Design Category B  
 Equivalent Lateral Force Procedure  
 Cantilevered Column Systems -  
 Steel ordinary cantilever column system  
 R = 1.25, C<sub>s</sub> = 0.117  
 V = 300#

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**AS-SS0835-02**  
 CEDAR LANE PARK  
 COLUMBIA, MD

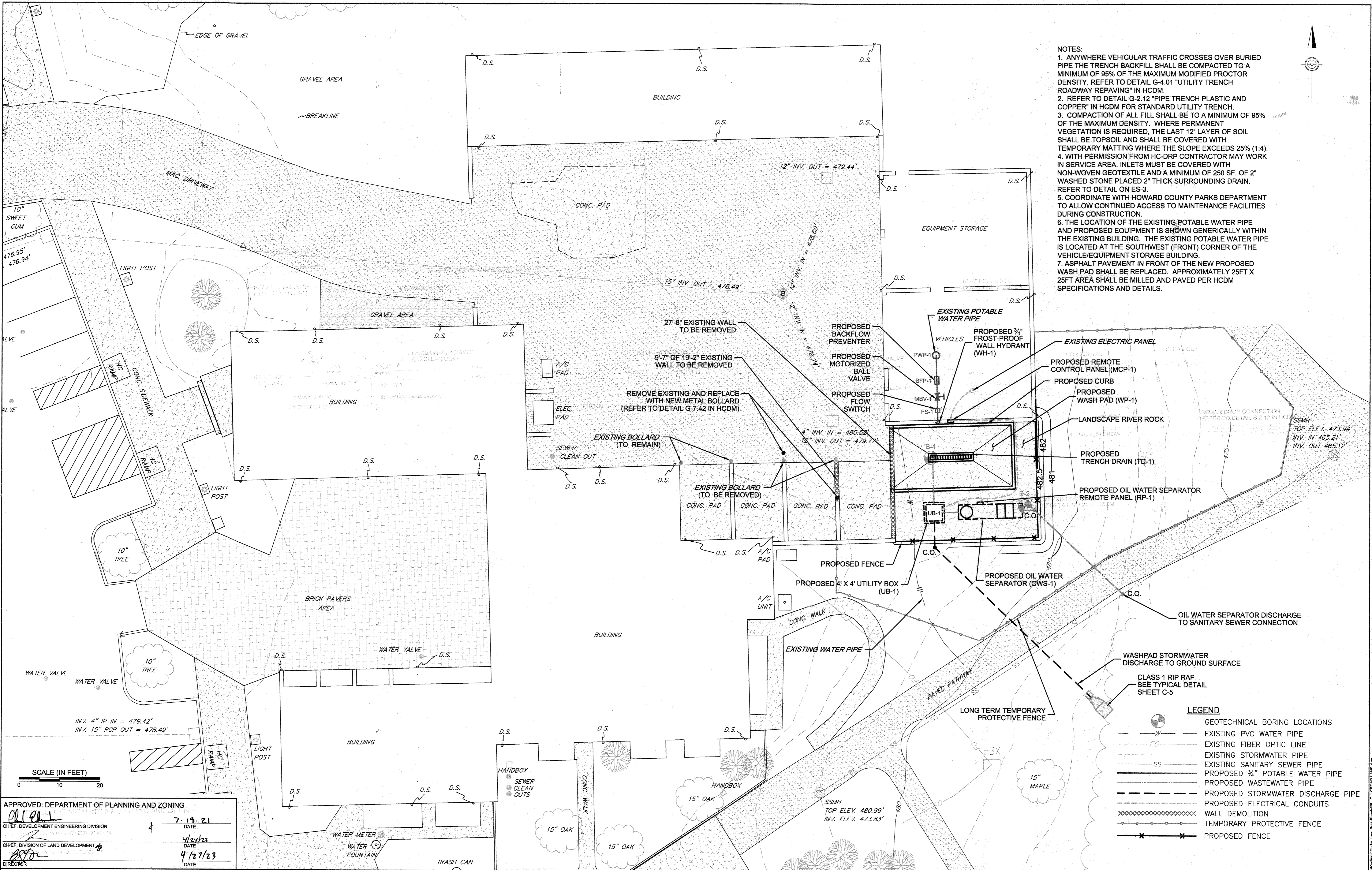
**RCP SHELTERS, INC.**  
 2100 SE RAYS WAY, STUART, FL 34994  
 PO BOX 25, STUART, FL 34995 - 0025  
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 E-mail - info@rcpselters.com www.rcpselters.com



PROJ. NO.: 20-079-A  
 DRAWN: JCS 5-21-20  
 CHKD: DPP 5-26-20

REV 1:  
 REV 2:  
 REV 3:  
 REV 4:  
 SHOP DWG NO.: 13499R1  
 EEC JOB NO.: 13499 R  
 SHEET NO.:

SDP-83-041



- NOTES:**
1. ANYWHERE VEHICULAR TRAFFIC CROSSES OVER BURIED PIPE THE TRENCH BACKFILL SHALL BE COMPACTED TO A MINIMUM OF 95% OF THE MAXIMUM MODIFIED PROCTOR DENSITY. REFER TO DETAIL G-4.01 "UTILITY TRENCH ROADWAY REPAVING" IN HC DM.
  2. REFER TO DETAIL G-2.12 "PIPE TRENCH PLASTIC AND COPPER" IN HC DM FOR STANDARD UTILITY TRENCH.
  3. COMPACTION OF ALL FILL SHALL BE TO A MINIMUM OF 95% OF THE MAXIMUM DENSITY. WHERE PERMANENT VEGETATION IS REQUIRED, THE LAST 12" LAYER OF SOIL SHALL BE TOPSOIL AND SHALL BE COVERED WITH TEMPORARY MATTING WHERE THE SLOPE EXCEEDS 25% (1:4).
  4. WITH PERMISSION FROM HC-DRP CONTRACTOR MAY WORK IN SERVICE AREA. INLETS MUST BE COVERED WITH NON-WOVEN GEOTEXTILE AND A MINIMUM OF 250 SF. OF 2" WASHED STONE PLACED 2" THICK SURROUNDING DRAIN. REFER TO DETAIL ON ES-3.
  5. COORDINATE WITH HOWARD COUNTY PARKS DEPARTMENT TO ALLOW CONTINUED ACCESS TO MAINTENANCE FACILITIES DURING CONSTRUCTION.
  6. THE LOCATION OF THE EXISTING POTABLE WATER PIPE AND PROPOSED EQUIPMENT IS SHOWN GENERALLY WITHIN THE EXISTING BUILDING. THE EXISTING POTABLE WATER PIPE IS LOCATED AT THE SOUTHWEST (FRONT) CORNER OF THE VEHICLE/EQUIPMENT STORAGE BUILDING.
  7. ASPHALT PAVEMENT IN FRONT OF THE NEW PROPOSED WASH PAD SHALL BE REPLACED. APPROXIMATELY 25FT X 25FT AREA SHALL BE MILLED AND PAVED PER HC DM SPECIFICATIONS AND DETAILS.

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 DATE: 7-19-21

CHIEF, DIVISION OF LAND DEVELOPMENT  
 DATE: 4/24/23

DIRECTOR  
 DATE: 4/27/23

**DEPARTMENT OF PUBLIC WORKS**  
 HOWARD COUNTY, MARYLAND

CHIEF, BUREAU OF ENVIRONMENTAL SERVICES  
 DATE: 4/19/23

CHIEF, BUREAU OF UTILITIES  
 DATE: 4/20/23

CHIEF, BUREAU OF CAPITAL PROJECTS, PARKS, PLANNING AND CONSTRUCTION  
 DATE: 4/20/23

**SKELLY AND LOY**  
 ENGINEERS AND ENVIRONMENTAL CONSULTANTS

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 HARRISBURG, PA 17111

TEL: (717)232-0593  
 FAX: (717)232-1799  
 www.skellyloy.com

PROFESSIONAL CERTIFICATE:  
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 53772. EXPIRATION DATE 01/10/2023

DSN. BY:	JTM				
DRN. BY:	JRG				
CHK. BY:	BAS				
DATE:	MARCH 2021	JTM	4	NEW SHEET TO SHOW PROPOSED WASHPAD LOCATIONS AND DETAILS	6/18/21
BY	NO.			REVISION	DATE

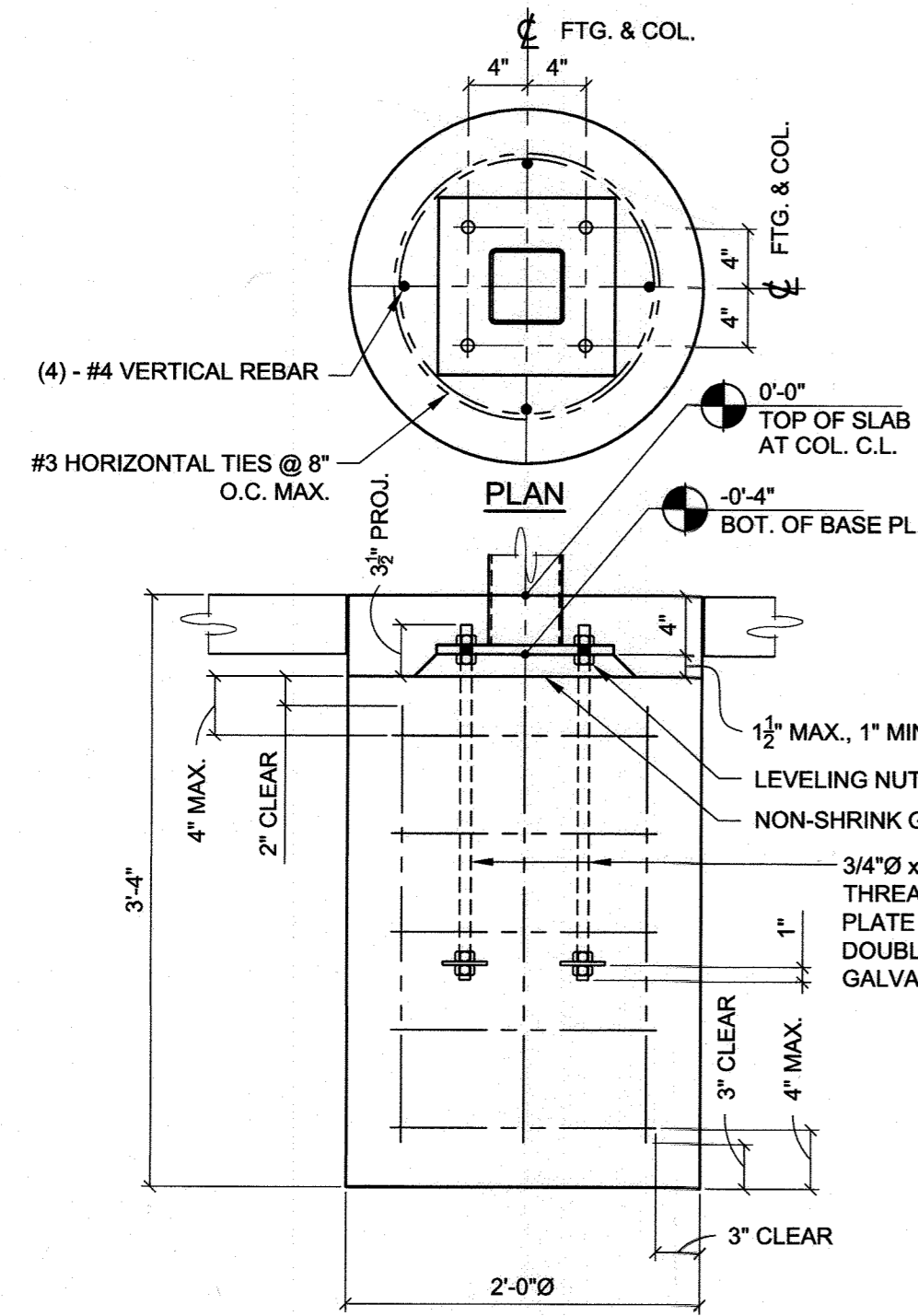
**REVISED SITE DEVELOPMENT PLAN**  
**SITE PLAN**  
**CEDAR LANE PARK**

600' SCALE MAP NO. \_\_\_\_\_ BLOCK NO. \_\_\_\_\_

**CEDAR LANE PARK**  
**FACILITIES WASH PAD DESIGN PACKAGE**

CAPITAL PROJECT: C-0313  
 ELECTION DISTRICT NOS.: 4 & 5  
 HOWARD COUNTY, MARYLAND

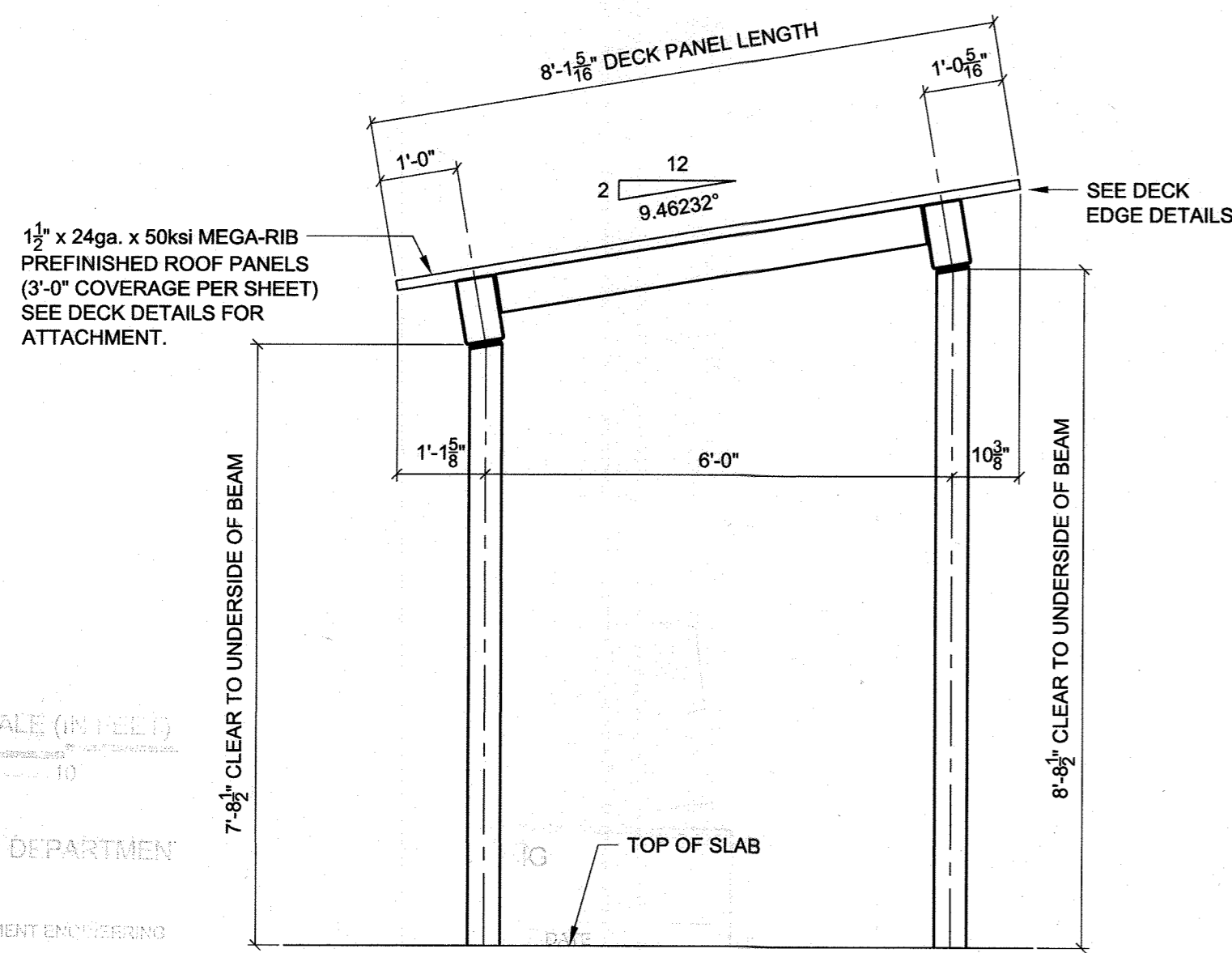
SCALE AS SHOWN  
 SHEET 12 OF 15



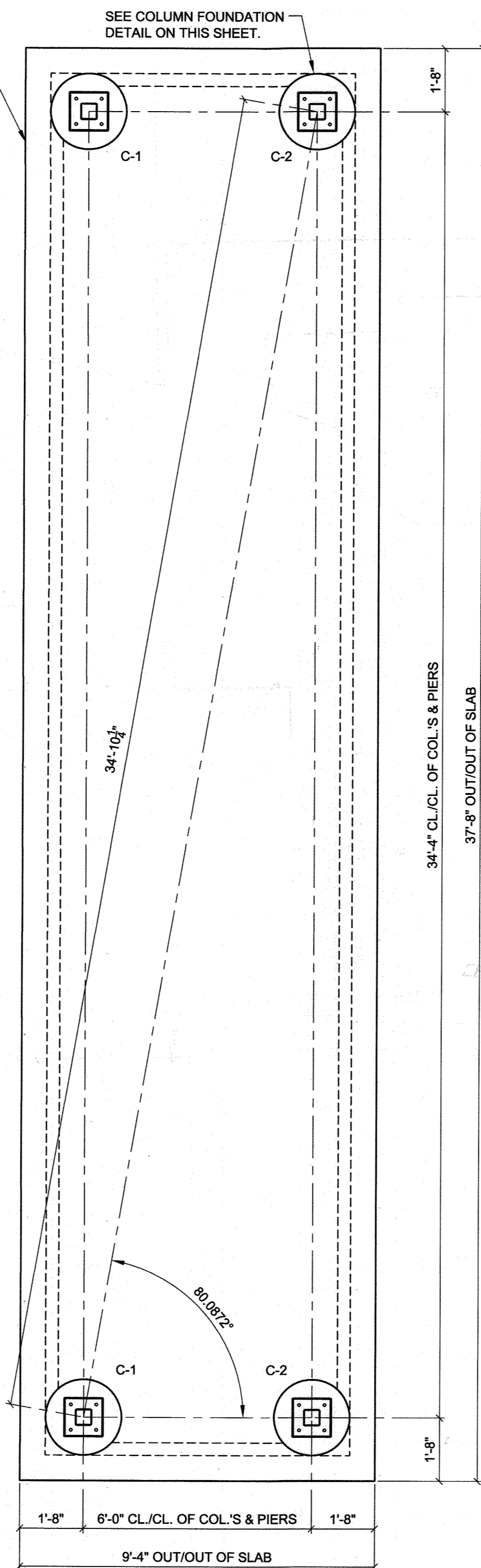
**COLUMN FOUNDATION DETAIL**

**COLUMN BASE REACTIONS:**

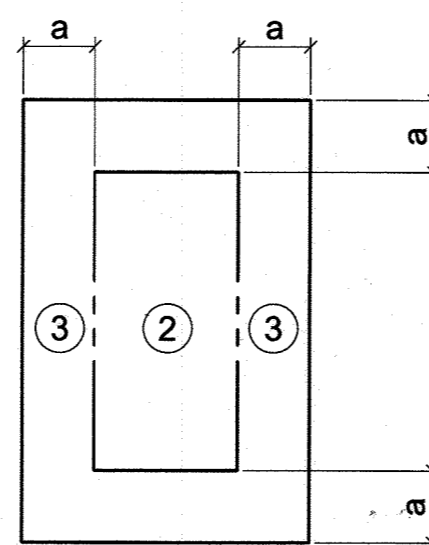
↑	$V_{DL+LL} = 3,450\#$
↓	$V_{0.8DL+0.6WL+UPLIFT} = -430\#$
—	$H_{DL+0.6WL} = 350\#$
⊂	$M_{OT.DL+0.6WL} = 2,500\#-ft$



**SECTION A**  
SCALE: 1/2" = 1'-0"



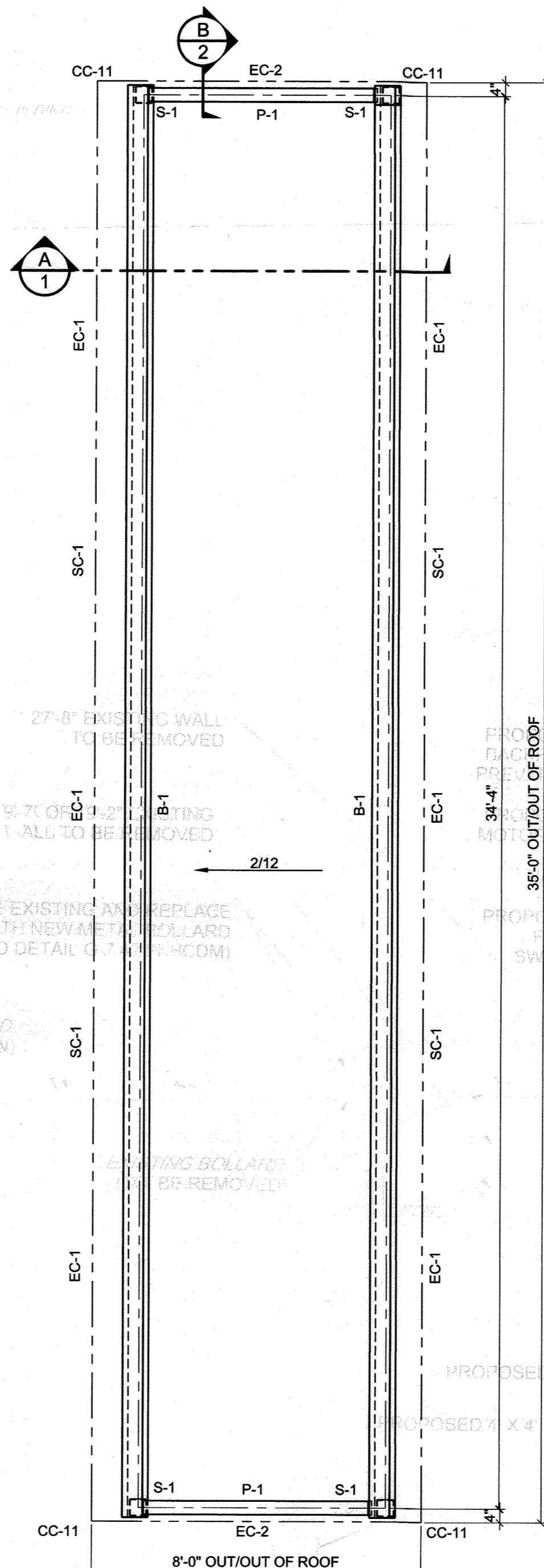
**FOUNDATION PLAN**  
SCALE: 3/8" = 1'-0"



**ROOF PLAN**  
a = 3'-0"

**ULTIMATE PRESSURES FOR COMPONENTS & CLADDING**

ZONE	PRESSURE	SUCTION
2	34.6 PSF	32.2 PSF
3	46.1 PSF	57.1 PSF



**FRAMING PLAN**  
SCALE: 3/8" = 1'-0"

**METAL ROOFING NOTES:**

CLEAR PROTECTIVE FILM MUST BE REMOVED FROM ALL METAL PRIOR TO INSTALLATION.

METAL ROOFING SHOULD BE STORED INDOORS OR WHEN STORED OUTSIDE IT SHOULD BE STORED UP ON BLOCKS WITH FINISHED FACE UP AND SLOPED TO DRAIN.

DURING INSTALLATION, ALL METAL SHAVINGS MUST BE REMOVED IMMEDIATELY TO AVOID RUSTING OF PANELS.

**CONTRACT NOTE:**  
Reference accepted proposal and/or executed contract for identification of items furnished. Any item not specifically included shall be provided by owner, installer or others. Some items are specifically noted as N.I.C. (not in contract).

**STEEL & HARDWARE SHOP NOTES:**

- All steel plate to be ASTM A572 Grade 50.
- Steel tubes to be ASTM A500 Grade C.
- All welding is to be done in accordance with latest AWS standards. If welds are not specified, all welds are to develop full strength of all component parts.
- All bolts to be ASTM F3125 Grade A325 Type 1. Exception: All bolts smaller than 1/2"Ø to be A307A. Anchor bolts as noted.
- All nuts to be ASTM A563DH except as noted. At F1554 Gr. 36 anchor bolts and A307A bolts, nuts to be ASTM A563A.
- All fabricated steel to be powder coated; color selected by owner.
- Hardware (bolts, nuts, washers, etc.) to be hot-dipped galvanized (HDG). Shop to verify hole tolerances and tolerances of threaded parts for compatibility of the galvanized parts only.

**CONCRETE NOTES:**

- Remove all organic material and topsoil from slab area. Verify suitability of subgrade. Footings are to bear on undisturbed, natural soil or engineered fill. Both are to be compacted to 95% Proctor density.
- Prepare slab with min. 8" compacted sand, gravel, or crushed rock.
- Concrete slab to be 4" thick. Reinforce slab with 6x6-w1.4xw1.4 welded wire fabric at mid-depth. Lap splices 8". All: Fiber mesh admixture (min. 1.5%/c-y, fibrillated polypropylene).
- Edge of slab to be thickened to min. 8" deep x 8" wide reinforced with 2-#4 continuous rebars. Lap splices min. 24".
- In locations subject to frost, install isolation joint, max. 1/8" wide, around column piers using diamond or circular layout. Wire mesh shall be interrupted at isolation joints.
- Install crack control joints (3/16" wide x 1" deep) at 8' to 12' o.c.
- Concrete slabs in open areas are to be sloped for drainage from center to edge and away from columns. Surface is to be lightly broomed or have a wood troweled finish.
- Concrete slabs in enclosed areas are to have positive drainage to floor drains and have a troweled finish.
- Concrete slab, foundation, re-bar, wire mesh, leveling nuts, grout & anchor bolts (if required) are N.I.C.
- All concrete reinforcing steel to be grade 60, deformed bars.
- F<sub>c</sub> of concrete to be 3000 psi @ 28 days for foundation. F<sub>c</sub> of concrete to be 3500 psi @ 28 days for slab, air-entrained.
- All concrete work to be in accordance w/ latest ACI code.
- Assumed allowable soil bearing pressures: 2000 psf vertical bearing, 150 pcf passive lateral bearing. It is the Owner's responsibility to verify that the allowable soil bearing values at the site meet or exceed these assumed values. If the actual values are lower than the assumed values, the foundations must be redesigned (N.I.C.).
- Leveling nuts have been shown under column base plate. Adjust leveling nuts as required to ensure all column bases are at the same elevation. Fill void between column base plate and top of foundation with non-shrink grout.
- Grout shall be non-shrink, non-metallic, factory pre-mixed grout in accordance with ASTM C1107 with F<sub>c</sub> of not less than 9,000 psi.
- Reinforcement shall be securely held in place while placing concrete. If required, additional bars, stirrups or chairs shall be provided to furnish support for bars.

**ELECTRICAL CONDUIT NOTE:**

If electrical access is required; install conduit in foundation and align with access hole in column base plate. Coordinate with electrical contractor.

**ERECTION NOTES:**

All steel members must be properly braced until the complete structural system has been constructed. Correction of minor misfits and a reasonable amount of reaming or alignment with drift pins will be considered a legitimate expense of erection.

In the event of error, defect in materials, and/or workmanship of shop work which prevents proper assembling and fitting up of parts by the moderate use of drift pins, or reaming, immediately report to the seller and obtain seller's approval of the method of correction.

Bolts to be snug tight. Torque measurement is not required.

**NOTE:** This building has been designed as a free standing, open structure. If walls are to be added, or if the building is to adjoin another structure, or if other modifications are to be made, the structure must be re-engineered prior to these modifications (by others).

**DESIGN CRITERIA:**

2018 International Building Code w/ Howard County Amendments  
 Type of Construction: Type II-B  
 Occupancy Classification: Business B (303.1.1 occupant load less than 50)  
 Building Risk Category II  
 Mean Roof Height = 9'-0"  
 Building Volume = 2,520 ft<sup>3</sup>  
 No. of Occupants = 40 (7 ft<sup>2</sup> per person)

**ROOF DL**

Metal Roofing 1.2 psf  
 Misc. 0.8  
 Total = 2 psf + weight of framing

**FLOOR LL**

L = 100 psf

**ROOF LL**

L<sub>r</sub> = 40 psf

**ROOF SL**

P<sub>s</sub> = 25 psf (Ground Snow)  
 P<sub>f</sub> = 0.7\*P<sub>s</sub>\*C<sub>e</sub>\*C<sub>t</sub><sup>1/2</sup>  
 C<sub>e</sub> = 1.0, C<sub>t</sub> = 1.2, I<sub>s</sub> = 1.0  
 P<sub>s</sub> = 21 psf  
 P<sub>f</sub> = P<sub>s</sub>\*C<sub>e</sub>  
 2:12 pitch; C<sub>e</sub> = 1.0, P<sub>s</sub> = 21 psf

**WIND LOAD**

V<sub>w</sub> = 115 mph, V<sub>max</sub> = 89 mph  
 Exposure 'B', Open Building w/ G<sub>C</sub> = 0  
 Component & Cladding Ultimate Wind Pressures: See ROOF PLAN this sheet.

**SEISMIC**

I<sub>e</sub> = 1.0  
 S<sub>s</sub> = 0.137, S<sub>1</sub> = 0.043  
 Site Class D (assumed)  
 S<sub>0.5</sub> = 0.146, S<sub>0.1</sub> = 0.069  
 Seismic Design Category B  
 Equivalent Lateral Force Procedure  
 Cantilevered Column Systems -  
 Steel ordinary cantilever column system  
 R = 1.25, C<sub>d</sub> = 0.117  
 V = 300#

**APPROVED: DEPARTMENT OF PLANNING & ZONING**

Chief, Development Engineering Division 7/19/21  
 Chief, Division of Land Development 4/21/23  
 Director 4/27/23

NO.	REVISION	DATE
3	DUGOUT SHADE STRUCTURES	MARCH 2021

**DESIGN CERTIFICATION FOR:**

BUILDING SIZE: 8' x 35'  
 BUILDING LOCATION: COLUMBIA, MD

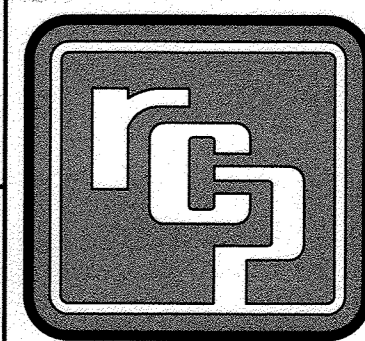
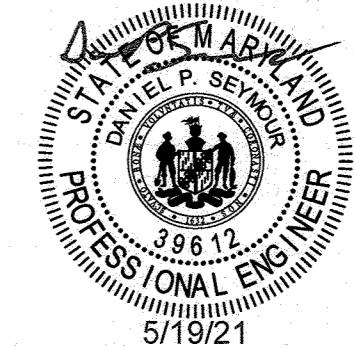
THIS CERTIFICATION OF DRAWINGS IS FOR THE ONE BUILDING ONLY AT THE SITE LISTED ABOVE. IT IS VALID ONLY IF THE MATERIALS SHOWN ON THESE DRAWINGS ARE FURNISHED BY RCP SHELTERS, INC. AND ONLY IF MATERIALS ARE PAID FOR IN FULL.

IF MODIFICATION IS MADE WITHOUT EXPRESSED WRITTEN CONSENT OF RCP SHELTERS, INC. OR IF PAYMENT IS NOT MADE IN FULL, THEN CERTIFICATION BECOMES NULL & VOID.

Digitally signed by Daniel P Seymour  
 Date: 2021.05.19 14:41:45 -05'00'

DANIEL P. SEYMOUR, P.E.  
 710 FRENCH STREET  
 PESHTIGO, WI 54157

PROFESSIONAL CERTIFICATION  
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 39612. EXPIRATION DATE: 11-03-2022.



PROJ. NO.: 20-079-A

DRAWN:	JCS	5-21-20
CHKD:	DPP	5-26-20
REV 1:	DPS	5-19-21
REV 2:		
REV 3:		
REV 4:		
SHOP DWG NO.:	13499R1	
ECC JOB NO.:	13499 R	
SHEET NO.:		

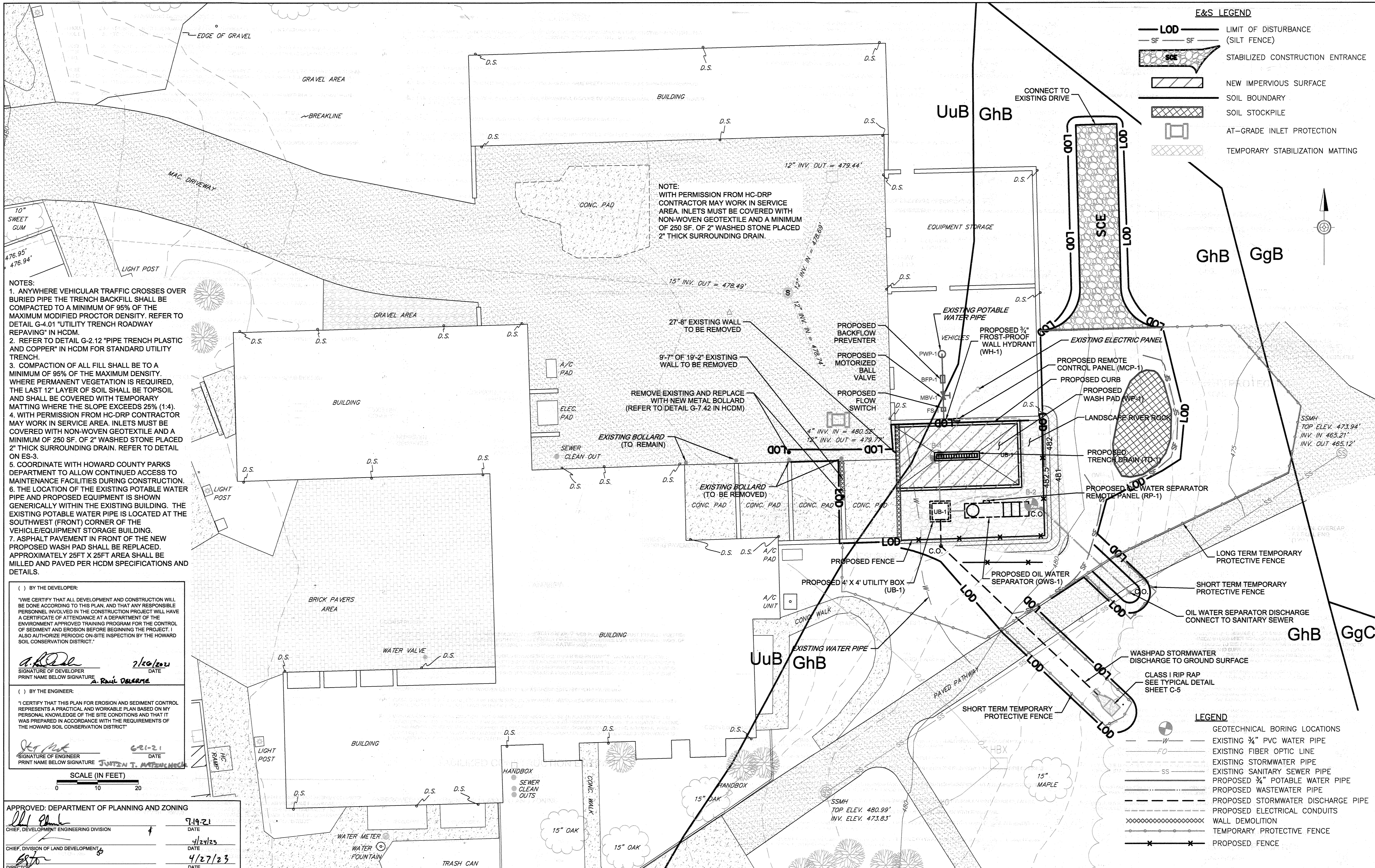
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**AS-SS0835-02**  
 CEDAR LANE PARK  
 COLUMBIA, MD

**RCP SHELTERS, INC.**  
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 E-mail - info@rcpselters.com  
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- E&S LEGEND**
- LOD — LIMIT OF DISTURBANCE (SILT FENCE)
  - SF — SF — STABILIZED CONSTRUCTION ENTRANCE
  - ▨ NEW IMPERVIOUS SURFACE
  - ▧ SOIL BOUNDARY
  - ▩ SOIL STOCKPILE
  - AT-GRADE INLET PROTECTION
  - ▨ TEMPORARY STABILIZATION MATTING

- NOTES:**
1. ANYWHERE VEHICULAR TRAFFIC CROSSES OVER BURIED PIPE THE TRENCH BACKFILL SHALL BE COMPACTED TO A MINIMUM OF 95% OF THE MAXIMUM MODIFIED PROCTOR DENSITY. REFER TO DETAIL G-4.01 "UTILITY TRENCH ROADWAY REPAVING" IN HC DM.
  2. REFER TO DETAIL G-2.12 "PIPE TRENCH PLASTIC AND COPPER" IN HC DM FOR STANDARD UTILITY TRENCH.
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( ) BY THE DEVELOPER:

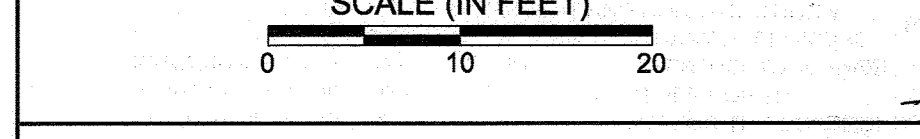
"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."

*A. Paul DeLorme* 7/20/2021  
 SIGNATURE OF DEVELOPER DATE  
 PRINT NAME BELOW SIGNATURE **A. PAUL DELORME**

( ) BY THE ENGINEER:

"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."

*Justin T. Antenucci* 6/21/21  
 SIGNATURE OF ENGINEER DATE  
 PRINT NAME BELOW SIGNATURE **JUSTIN T. ANTENUCCI**



APPROVED: DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 7/19/21  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*[Signature]* 4/24/23  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*[Signature]* 4/27/23  
 DIRECTOR DATE

**DEPARTMENT OF PUBLIC WORKS**  
 HOWARD COUNTY, MARYLAND

*[Signature]* 4/19/23  
 CHIEF, BUREAU OF ENVIRONMENTAL SERVICES DATE

*[Signature]* 4/20/23  
 CHIEF, BUREAU OF UTILITIES DATE

*[Signature]* 4/20/23  
 CHIEF, BUREAU OF CAPITAL PROJECTS, PARK PLANNING AND CONSTRUCTION DATE

**EISENHOWER BOULEVARD**  
 SUITE 300  
 HARRISBURG, PA 17111

TEL: (717)232-0593  
 FAX: (717)232-1799  
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*[Signature]*  
 PROFESSIONAL ENGINEER

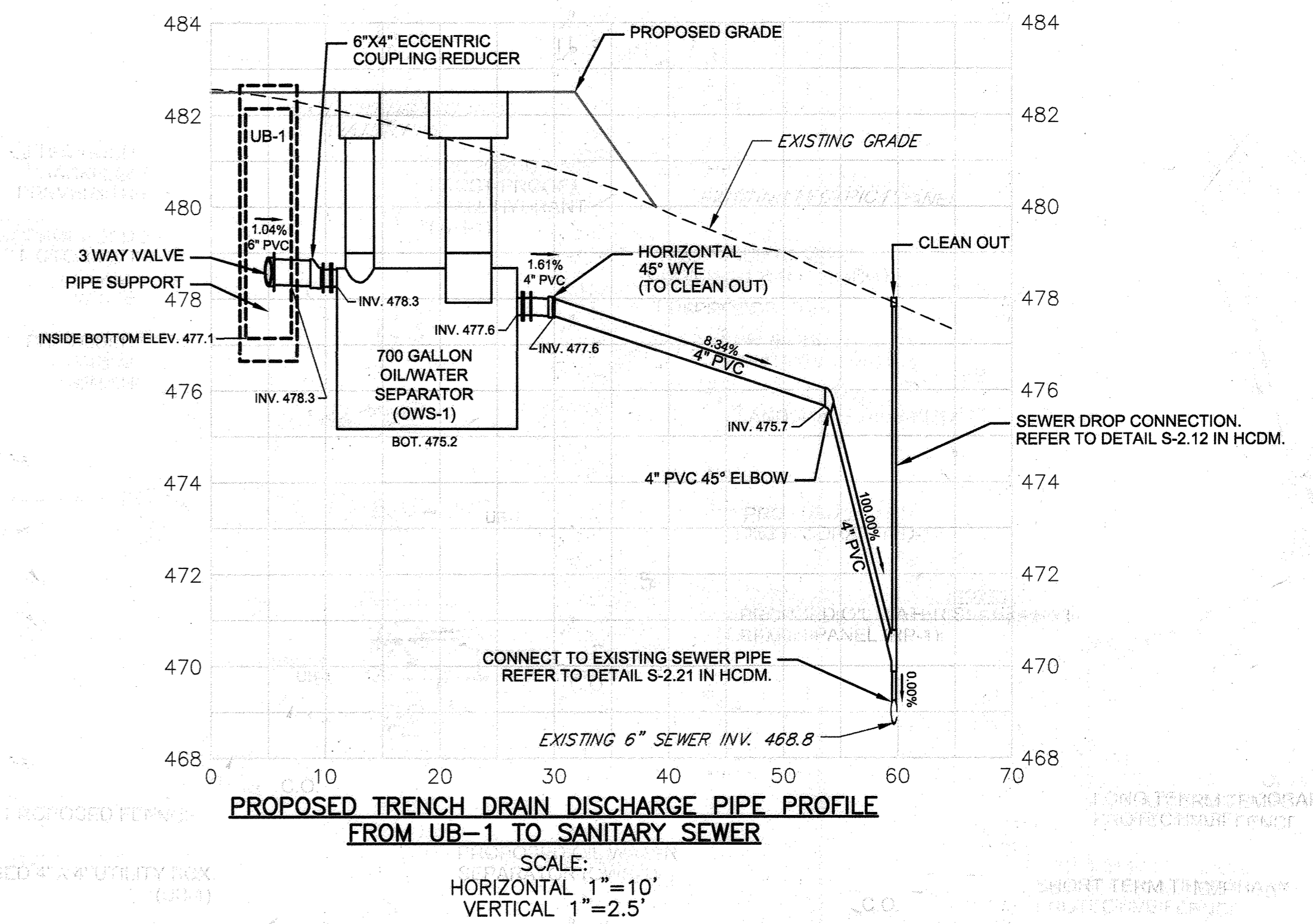
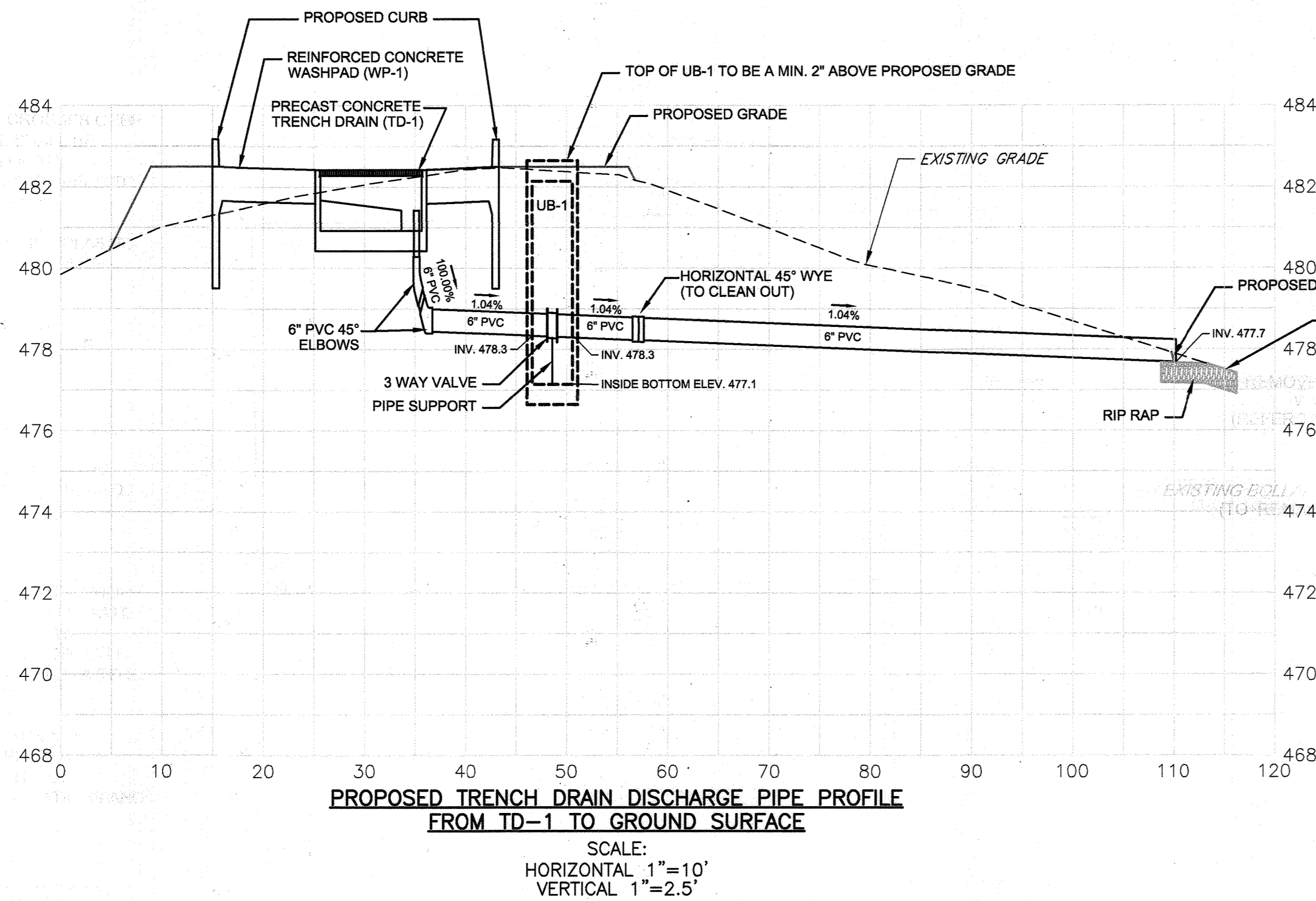
DSN. BY:	JTM			
DRN. BY:	JRG			
CHK. BY:	BAS			
DATE:	MARCH 2021	JTM	4	NEW SHEET TO SHOW PROPOSED WASHPAD LOCATIONS AND DETAILS 6/18/21
BY:	NO.	REVISION	DATE	600' SCALE MAP NO. BLOCK NO.

**REVISED SITE DEVELOPMENT PLAN E&S PLAN CEDAR LANE PARK**

**CEDAR LANE PARK FACILITIES WASH PAD DESIGN PACKAGE**

CAPITAL PROJECT: C-0313  
 ELECTION DISTRICT NOS.: 4 & 5  
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
 SHEET 14 OF 15



APPROVED: DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 7.19.21  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*[Signature]* 4/24/23  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

*[Signature]* 4/27/23  
DIRECTOR DATE

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*[Signature]* 4/19/23  
CHIEF, BUREAU OF ENVIRONMENTAL SERVICES DATE

*[Signature]* 4/20/23  
CHIEF, BUREAU OF UTILITIES DATE

*[Signature]* 4/20/23  
CHIEF, BUREAU OF FACILITIES DATE

*[Signature]* 4/20/23  
CHIEF, BUREAU OF CAPITAL PROJECTS, PARK PLANNING AND CONSTRUCTION DATE

440 EISENHOWER BOULEVARD  
SUITE 300  
HARRISBURG, PA 17111

TEL: (717)232-0593  
FAX: (717)232-1799  
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*[Signature]*

DSN. BY:	JTM			
DRN. BY:	JRG			
CHK. BY:	BAS			
DATE:	MARCH 2021	JTM	4	NEW SHEET TO SHOW PROPOSED WASHPAD LOCATIONS AND DETAILS
BY:	NO.			REVISION
DATE:				DATE

REVISED SITE DEVELOPMENT PLAN PROFILES  
CEDAR LANE PARK

600' SCALE MAP NO. \_\_\_\_\_ BLOCK NO. \_\_\_\_\_

CEDAR LANE PARK FACILITIES WASH PAD DESIGN PACKAGE

CAPITAL PROJECT: C-0313  
ELECTION DISTRICT NOS.: 4 & 5  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

SHEET 13 OF 15

