## GENERAL NOTES

1.) THE PROJECT IS IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE

2.) THE SUBJECT PROPERTY IS ZONED PGCC PER THE 10-6-2013 COMPREHENSIVE ZONING PLAN.

3.) BOUNDARY IS BASED ON RECORD PLAT NO. 25042-25046

4.) THE EXISTING TOPOGRAPHY SHOWN ON THESE LOTS IS BASED ON MASS GRADING AS SHOWN ON APPROVED F-17-096 ROAD CONSTRUCTION PLANS.

5.) THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS. 16IB AND 17AB WERE USED FOR THIS PROJECT

6.) WATER IS PUBLIC. THE CONTRACT NUMBER IS 24-5019-D.

7.) SEWER IS PUBLIC. THE CONTRACT NUMBER IS 24-5019-D.

STRUCTURES LOCATED ON THESE LOTS.

8.) THIS PROJECT IS LOCATED WITHIN THE METROPOLITAN DISTRICT. THE DRAINAGE AREA IS THE LITTLE

9.) EXISTING UTILITIES SHOWN ARE BASED ON CONTRACT DRAWINGS, AERIAL, AND SOME FIELD SURVEYED

10.) THERE ARE NO WETLANDS, STREAMS, OR THEIR REQUIRED BUFFERS, 100-YEAR FLOODPLAIN OR 25% OR GRÉATER STEEP SLOPES THAT ARE AT LEAST 20,000 S.F. OF CONTIGUOUS AREA LOCATED ON THESE LOTS. 11.) TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO BURIAL GROUNDS, CEMETERIES OR HISTORIC

12.) STORMWATER MANAGEMENT FOR THESE LOTS WAS PREVIOUSLY PROVIDED AND APPROVED UNDER F-17-096. TREATMENT IS PROVIDED VIA FIFTY (M-5) DRY WELLS, THREE (M-6) MICRO BIO-RETENTIONS, FIVE (F-6) BIORETENTIONS AND ONE AREA OF (N-3) SHEETFLOW TO CONSERVATION AREA. ALL FACILTIES ARE PRIVATELY OWNED AND MAINTAINED WITH THE EXCEPTION OF MBR-5 WHICH IS PUBLICLY OWNED AND PRIVATELY MAINTAINED.

13.) DRIVEWAYS SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWINGMINIMUM REQUIREMENTS:

A) WIDTH - 12' (16' SERVING MORE THAN ONE RESIDENCE). B) SURFACE - 6" OF COMPACT CRUSHER RUN BASE WITH TAR AND CHIP COATING (1-1/2" MIN.). GEOMETRY - MAX. 15% GRADE, MAX. 10% GRADE CHANGE & MIN. 45' TURNING RADIUS.

D) STRUCTURES(CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (H25 LOAD) E) DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOODPLAIN WITH NO MORE THAN 1 G) MAINTENANCE - SUFFICIENT TO INSURE ALL WEATHER USE.

14.) FOR DRIVEWAY ENTRANCE DETAILS REFER TO THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD DETAIL R-6.03.

15.) LANDSCAPING IS PROVIDED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL AND SHOWN ON THE CERTIFIED LANDSCAPE PLAN WITHIN THIS SITE DEVELOPMENT PLAN SET. RESIDENTIAL INTERNAL LANDSCAPING SHALL BE PROVIDED UNDER THIS SITE DEVELOPMENT PLAN. FINANCIAL SURETY IN THE AMOUNT OF \$7,500.00 FOR THOSE REQUIRED 25 SHADE TREES SHALL BE PROVIDED AS PART

FINANCIAL SURETY IN THE AMOUNT OF \$18,600.00 FOR THE REQUIRED PERIMETER LANDSCAPING TREES AND PARKING LOT LANDSCAPING WAS PAID AS PART OF THE DEVELOPERS AGREEMENT UNDER F-17-096. THOSE REQUIRED TREES ARE TO BE PLANTED UNDER THIS SITE DEVELOPMENT PLAN.

16.) THE REQUIREMENT OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION FOR THÉSE LOTS WAS PROVIDED UNDER F-17-096. THE EASEMENTS WERE RECORDED UNDER F-17-095, RECORD

17.) THIS SUBDIVISION IS SUBJECT TO SECTION 18.122B OF THE HOWARD COUNTY CODE. PUBLIC WATER AND/OR SEWER SERVICE HAS BEEN GRANTED UNDER THE TERMS AND PROVISIONS, THEREOF, EFFECTIVE 2-26-2019, ON WHICH DATE DEVELOPER AGREEMENT #F17096/24-5019-D WAS FILED AND ACCEPTED.

18.) THIS PROJECT IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS, THE ZONING REGULATIONS EFFECTIVE OCTOBER 6, 2013, AND THE TURF VALLEY RESIDENTIAL SUBDISTRICT FDP, SECOND AMENDMENT. PER SECTION 126(H)(1) OF THE ZONING REGULATIONS, PLANNING BOARD APPROVAL OF THIS SITE DEVELOPMENT PLAN IS REQUIRED.

19.) ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE BUILDER'S EXPENSE.

20.) IN ACCORDANCE WITH SECTION 128 OF THE HOWARD COUNTY ZONING REGULATIONS, BAY WINDOWS, WINDOW WELLS, ORIELS, VESTIBULES, BALCONIES AND CHIMNEYS MAY ENCROACH 4 FEET INTO ANY SETBACK OR REQUIRED DISTANCE BETWEEN BUILDINGS PROVIDED THE FEATURE HAS A MAXIMUM WIDTH OF 16 FEET. EXTERIOR STAIRWAYS OR RAMPS, ABOVE OR BELOW GROUND LEVEL (EXCLUDING THOSE ATTACHED TO A PORCH OR DECK) MAY ENCROACH 10 FEET INTO A FRONT SETBACK OR A SETBACK FROM A PROJECT BOUNDARY, 16 FEET INTO A REAR SETBACK, 4 FEET INTO A SIDE SETBACK OR REQUIRED DISTANCE BETWEEN BUILDINGS. OPEN OR ENCLOSED PORCHES OR DECKS AND THE STAIRWAYS OR RAMPS ATTACHED THERETO MAY ENCROACH 10 FEET INTO A FRONT OR REAR SETBACK, SETBACK FROM A PROJECT BOUNDARY OR A REQUIRED DISTANCE

21.) THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT 410-313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR

22.) THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.

23.) DESIGN MANUAL WAIVER DMV2-19-07 WAS APPROVED ON 7.9.2019 FOR GRAVITY SEWER SERVICE TO THE FIRST FLOOR ONLY FOR LOTS 63, 64, 65, AND 66 DENOTED AS "C.N.S." ON THE PLANS. BASEMENT SERVICE TO THESE LOTS TO BE PROVIDED BY PRIVATE ON-SITE PUMP.

24.) FLAG AND PIPESTEM LOTS, REFUSE COLLECTION, SNOW REMOVAL, AND ROAD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF THE FLAG OR PIPESTEM AND ROAD RIGHT-OF-WAY LINE AND NOT ONTO THE PIPESTEM LOT DRIVEWAY.

25.) HEAD IN PARKING SPACES ALONG PUCCINI LANE ARE TO BE MAINTAINED BY THE HOMEOWNERS ASSOCIATION INCLUDING PAVEMENT, STRIPING, CURB LITTER PICKUP AND SIDEWALKS.

26.) THE ARTICLES OF INCORPORATION FOR THE TURF VALLEY POD E-1 NEIGHBORHOOD ASSOCIATION INC. WERE ACCEPTED BY THE STATE DEPARTMENT OF ASSESSMENT AND TAXATION ON 11/30/2018 ID# D19258532.

27.) THIS PROJECT COMPLIES WITH THE REQUIREMENTS OF HOWARD COUNTY CODE SECTION 16.129, GOLF COURSE REDEVELOPMENT.

28.) SHC ELEVATIONS SHOWN ARE LOCATED AT THE PROPERTY LINE.

29.) A DESIGN MANUAL WAIVER REQUESTING A WAIVER FROM DESIGN MANUAL, VOLUME I, SECTION 5.2.3.1 TO ALLOW A REDUCED NUMBER OF SOIL BORINGS FOR THIS DEVELOPMENT WAS SUBMITTED UNDER P-16-001 AND APPROVED ON NOVEMBER 29, 2017

# RESIDENTIAL SITE DEVELOPMENT PLAN NUMBER NORTHING EASTING ELEVATION PARK VIEW AT TURF VALLE 17AB 598,435.249 1,348,615.2482 508.469

PHASE II LOTS 18 thru 72



Lot	Street Address		Practice	Quantity	Ownership		
Lot 20	10338	Puccini Lane	(M-5) Dry Well	2	Private		
Lot 21	10340	Puccini Lane	(M-5) Dry Well	2	Private		
Lot 33	10505	Rossini Lane	(N-3) Sheetflow to Conservation Area	NA	Private		
Lot 34	10507	Rossini Lane	(N-3) Sheetflow to Conservation Area	NA	Private		
Lot 35	10509	Rossini Lane	(N-3) Sheetflow to Conservation Area	NA	Private		
Lot 36	10511	Rossini Lane	(N-3) Sheetflow to Conservation Area	NA	Private		
Lot 37	10513	Rossini Lane	(N-3) Sheetflow to Conservation Area	NA	Private		
Lot 45	10405	Puccini Lane	(M-5) Dry Well	1	Private		
Lot 46	10409	Puccini Lane	(M-5) Dry Well	2	Private		
Lot 47	10413	Puccini Lane	(M-5) Dry Well	2	Private		
Lot 48	10417	Puccini Lane	(M-5) Dry Well	2	Private		
Lot 49	10421	Puccini Lane	(M-5) Dry Well	2	Private		
1 -4 50	40405	Dunnini I ann	(M-5) Dry Well	2	Private		
Lot 50	10425	Puccini Lane	(N-1) Disconnection of Rooftop Runoff	NA	Private		
Lot 52	10433	Puccini Lane	(M-5) Dry Well	2	Private		
Lot 53	10437	Puccini Lane	(M-5) Dry Well	2	Private		
Lot 54	10436	Puccini Lane	(M-5) Dry Well	2	Private		
Lot 55	10432	Puccini Lane	(M-5) Dry Well	2	Private		
Lot 56	10428	Puccini Lane	(M-5) Dry Well	2	Private		
Lot 57	10424	Puccini Lane	(M-5) Dry Well	2	Private		
Lot 59	10414	Puccini Lane	(M-5) Dry Well	1	Private		
Lot 60	10408	Puccini Lane	(M-5) Dry Well	2	Private		
Lot 61	10402	Puccini Lane	(M-5) Dry Well	2	Private		
Lot 62	10396	Puccini Lane	(M-5) Dry Well	2	Private		
Lot 63	10390	Puccini Lane	(M-5) Dry Well	2	Private		
Lot 64	10384	Puccini Lane	(M-5) Dry Well	2	Private		
Lot 65	10378	Puccini Lane	(M-5) Dry Well	2	Private		
Lot 66	10372	Puccini Lane	(M-5) Dry Well	2	Private		
Lot 69	10356	Puccini Lane	(M-5) Dry Well	2	Private		
Lot 70	10352	Puccini Lane	(M-5) Dry Well	2	Private		
Lot 71	10348	Puccini Lane	(M-5) Dry Well	2	Private		
Lot 72	10344	Puccini Lane	(M-5) Dry Well	2	Private		

BENCHMARKS

590,475,2538 1,344,753,9350 469,892

7//	>		
	DES	SCRIPTION	
	20.8' WEST OF	VEST OF WBL RT. PK NAIL IN SHOUL AST POST IN GUA	DER,
	THERBURN RO	CTION OF RTE. 99 AD, 14.8' WEST OF NE OF MANHOLE	
CHA	ART		
	Quantity	Ownership	
	2	Private	
	2	Private	
rea	NA	Private	
	1	Private	
	2	Private	
	2	Private	
	2	Private	

SCALE: 1"=2000'

SHEET INDEX						
SHEET	TITLE					
1	SITE DEVELOPMENT PLAN COVER SHEET					
2	GENERIC BOXES AND HOUSE TYPES					
3-4	SITE DEVELOPMENT AND GRADING PLAN					
5	STORMWATER MANAGEMENT DETAILS					
6-7	LANDSCAPE PLAN					
8-9	SEDIMENT & EROSION CONTROL PLAN					
10	SEDIMENT & EROSION CONTROL NOTES & DETAILS					

*****									
ADDRESS CHART									
LOT	STREET ADDRESS	LOT	STREET ADDRESS						
18	10334 PUCCINI LANE	46	10409 PUCCINI LANE						
19	10336 PUCCINI LANE	47	10413 PUCCINI LANE						
20	10338 PUCCINI LANE	48	10417 PUCCINI LANE						
21	10340 PUCCINI LANE	49	10421 PUCCINI LANE						
22	10345 PUCCINI LANE	50	10425 PUCCINI LANE						
23	10347 PUCCINI LANE	51	10429 PUCCINI LANE						
24	10349 PUCCINI LANE	52	10433 PUCCINI LANE						
25	10351 PUCCINI LANE	53	10437 PUCCINI LANE						
26	10355 PUCCINI LANE	54	10436 PUCCINI LANE						
27	10357 PUCCINI LANE	55	10432 PUCCINI LANE						
28	10359 PUCCINI LANE	56	10428 PUCCINI LANE						
29	10363 PUCCINI LANE	57	10424 PUCCINI LANE						
30	10365 PUCCINI LANE	58	10420 PUCCINI LANE						
31	10501 ROSSINI LANE	59	10414 PUCCINI LANE						
32	10503 ROSSINI LANE	60	10408 PUCCINI LANE						
33	10505 ROSSINI LANE	61	10402 PUCCINI LANE						
34	10507 ROSSINI LANE	62	10396 PUCCINI LANE						
35	10509 ROSSINI LANE	63	10390 PUCCINI LANE						
36	10511 ROSSINI LANE	64	10384 PUCCINI LANE						
37	10513 ROSSINI LANE	65	10378 PUCCINI LANE						
38	10515 ROSSINI LANE	66	10372 PUCCINI LANE						
39	10517 ROSSINI LANE	67	10366 PUCCINI LANE						
40	10519 ROSSINI LANE	68	10360 PUCCINI LANE						
41	10521 ROSSINI LANE	69	10356 PUCCINI LANE						
42	10523 ROSSINI LANE	70	10352 PUCCINI LANE						
43	10397 PUCCINI LANE	71	10348 PUCCINI LANE						
44	10401 PUCCINI LANE	72	10344 PUCCINI LANE						
45	10405 PUCCINI LANE								

PERMIT INFORMATION CHART

ZONE

SECTION/AREA:

PHASE I

LOT/PARCEL #

LOTS 18-72

CENSUS

TRACT

602201

ELECTION

DISTRICT

SUBDIVISION NAME:

25042-25046

PARK VIEW AT TURF VALLEY

13

# SITE ANALYSIS DATA CHART

A.) TOTAL PROJECT AREA (AS SHOWN ON F-17-096) 21.33 ACRES B.) AREA OF PLAN SUBMISSION (BUILDABLE LOTS ONLY) 8.04 ACRES

C.) LIMIT OF DISTURBED AREA \_\_\_\_\_\_\_10.3 ACRES

D.) PRESENT ZONING: \_\_\_\_\_ \_\_\_PGCC (RESIDENTIAL SUBDISTRICT)

E.) PROPOSED USE OF SITE:\_\_\_\_ RESIDENTIAL - SINGLE FAMILY

ATTACHED AND DETACHED F.) FLOOR SPACE ON EACH LEVEL OF BLDG PER USE \_\_\_ N/A

G.) TOTAL NUMBER OF UNITS ALLOWED

AS SHOWN ON FINAL PLAT(S)\_\_

H.) TOTAL NUMBER OF UNITS PROPOSED\_ I.) MAXIMUM NUMBER OF EMPLOYEES,

TENANTS ON SITE PER USE \_\_\_

J.) NUMBER OF PARKING SPACES REQUIRED BY HO. CO. ZONING REGS AND/OR FDP CRITERIA \_\_\_\_\_ 25 SFA x 2.5 = 63 SPACES

K.) NUMBER OF PARKING SPACES PROVIDED ONSITE PROVIDED UNDER F-17-096 (INCLUDES HANDICAPPED SPACES)\_\_

L.) OPEN SPACE ON-SITE \_\_\_\_\_

M.) AREA OF RECREATIONAL OPEN SPACE REQUIRED\_\_\_\_ N/A AREA OF RECREATIONAL OPEN SPACE PROVIDED\_\_\_\_ N/A

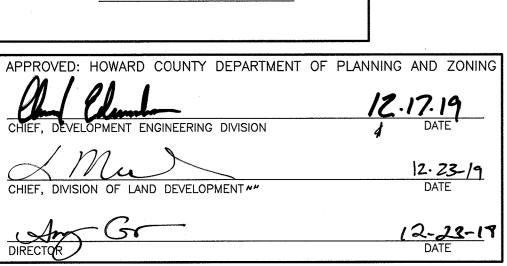
N.) BUILDING COVERAGE OF SITE \_\_

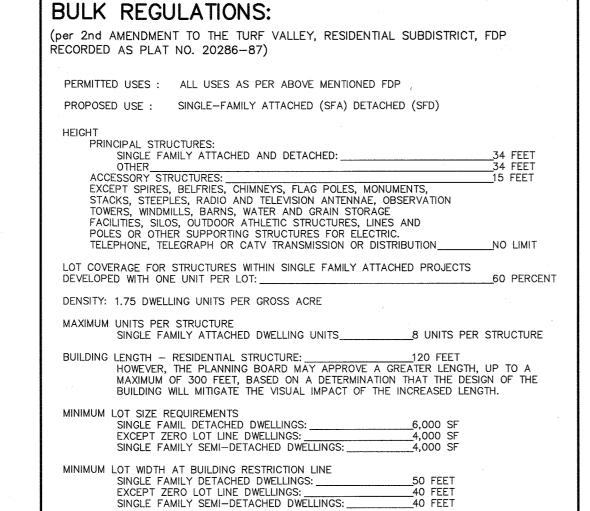
BASED ON GENERIC BOX PERCENTAGE OF GROSS AREA\_\_\_\_ \_39.9%

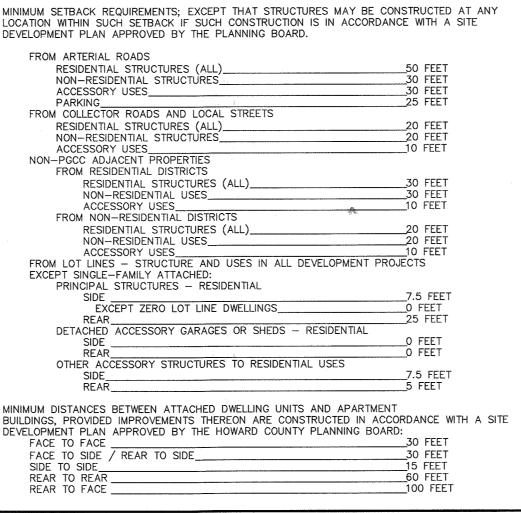
O.) APPLICABLE DPZ FILE REFERENCES: \_\_\_

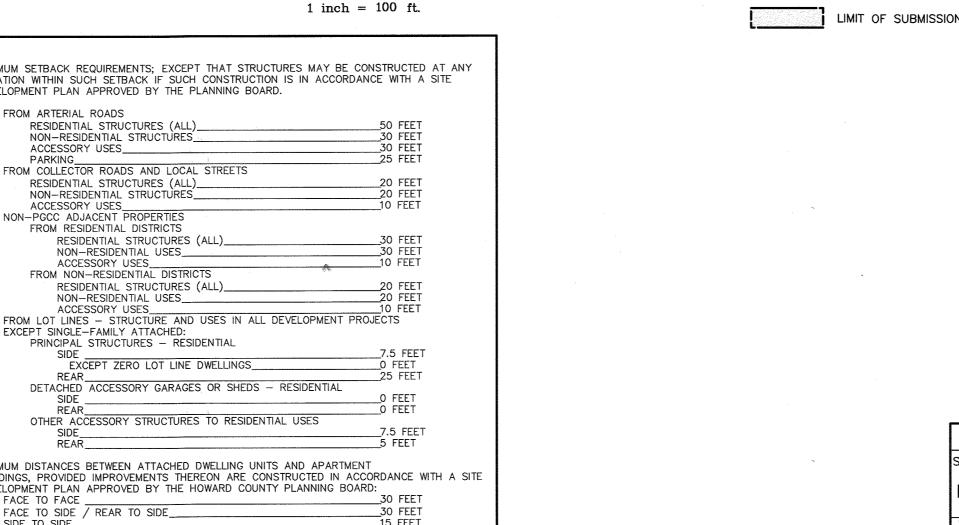
ECP-11-062, S-11-004, P-16-001 SP-08-006, F-17-095, F-17-096 WP-15-111, WP-18-101

PLANNING BOARD OF HOWARD COUNTY









DATE REVISION were prepared or approved by me, and that I am a duly license professional engineer under the laws of the State of Maryland BENCHMARK License No. 22390, Expiration Date: 6-30-2021 • ENGINEERS ▲ LAND SURVEYORS ▲ PLANNERS ENGINEERING, INC. 8480 BALTIMORE NATIONAL PIKE & SUITE 315 & ELLICOTT CITY, MARYLAND 21043 (P) 410-465-6105 (F) 410-465-6644 WWW.BEI-CIVILENGINEERING.COM

SCALE:

AS SHOWN

MANGIONE ENTERPRISES OF TURF VALLEY, LIMITED PARTNERSHIF 1205 YORK ROAD, PENTHOUSE LUTHERVILLE, MARYLAND 21093 410-825-8400 BUILDERS:

OWNER:

NV HOMES 9720 PATUXENT WOODS DRIVE COLUMBIA, MARYLAND 21046 410-379-3385 JAMES KEELTY AND COMPANY, INC 61 EAST PADONIA ROAD TIMONIUM. MARYLAND 21093

410-252-8600

RESIDENTIAL - SINGLE FAMILY ATTACHED AND DETACHED PARK VIEW AT TURF VALLEY PHASE II LOTS 18 - 72 TAX MAP: 17, PARCEL: 706, GRID: 13

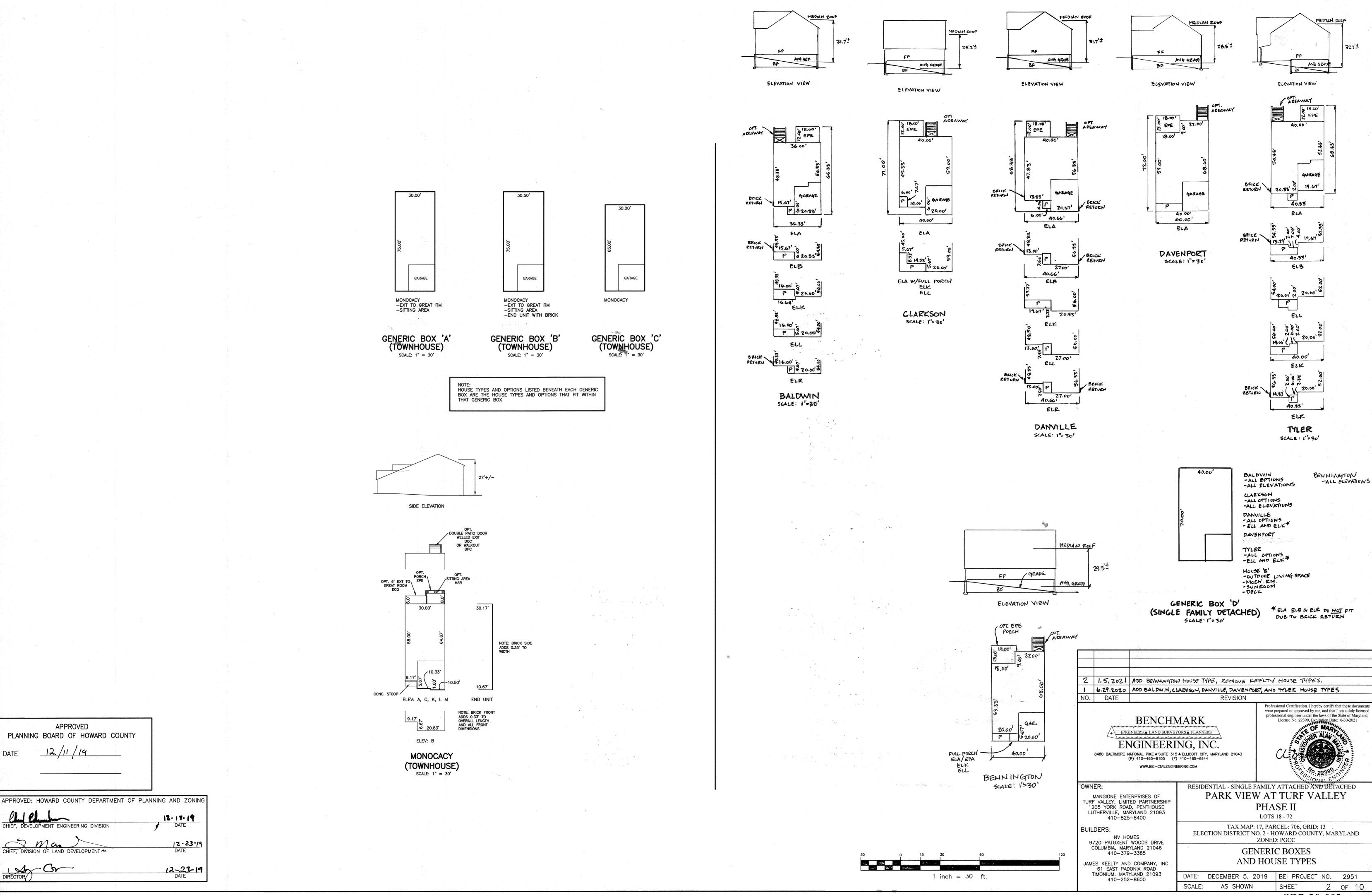
ELECTION DISTRICT NO. 2 - HOWARD COUNTY, MARYLAND ZONED: PGCC SITE DEVELOPMENT PLAN

**COVER SHEET** DATE: DECEMBER 5, 2019 | BEI PROJECT NO. 2951

SHEET

SDP-20-002

1 of 10

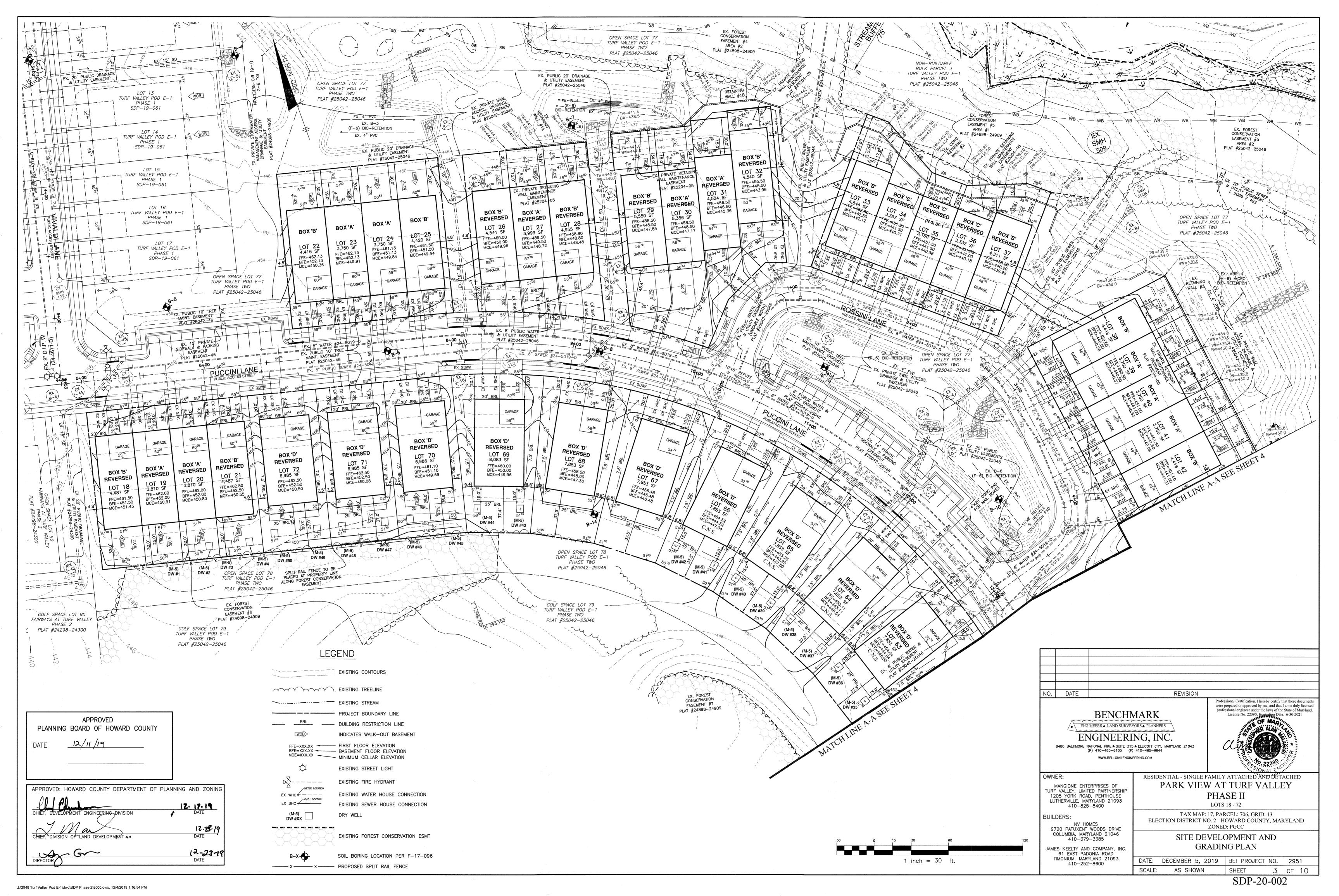


J:\2948 Turf Valley Pod E-1\dwa\SDP Phase 2\8000.dwa. 12/4/2019 1:16:44 PM

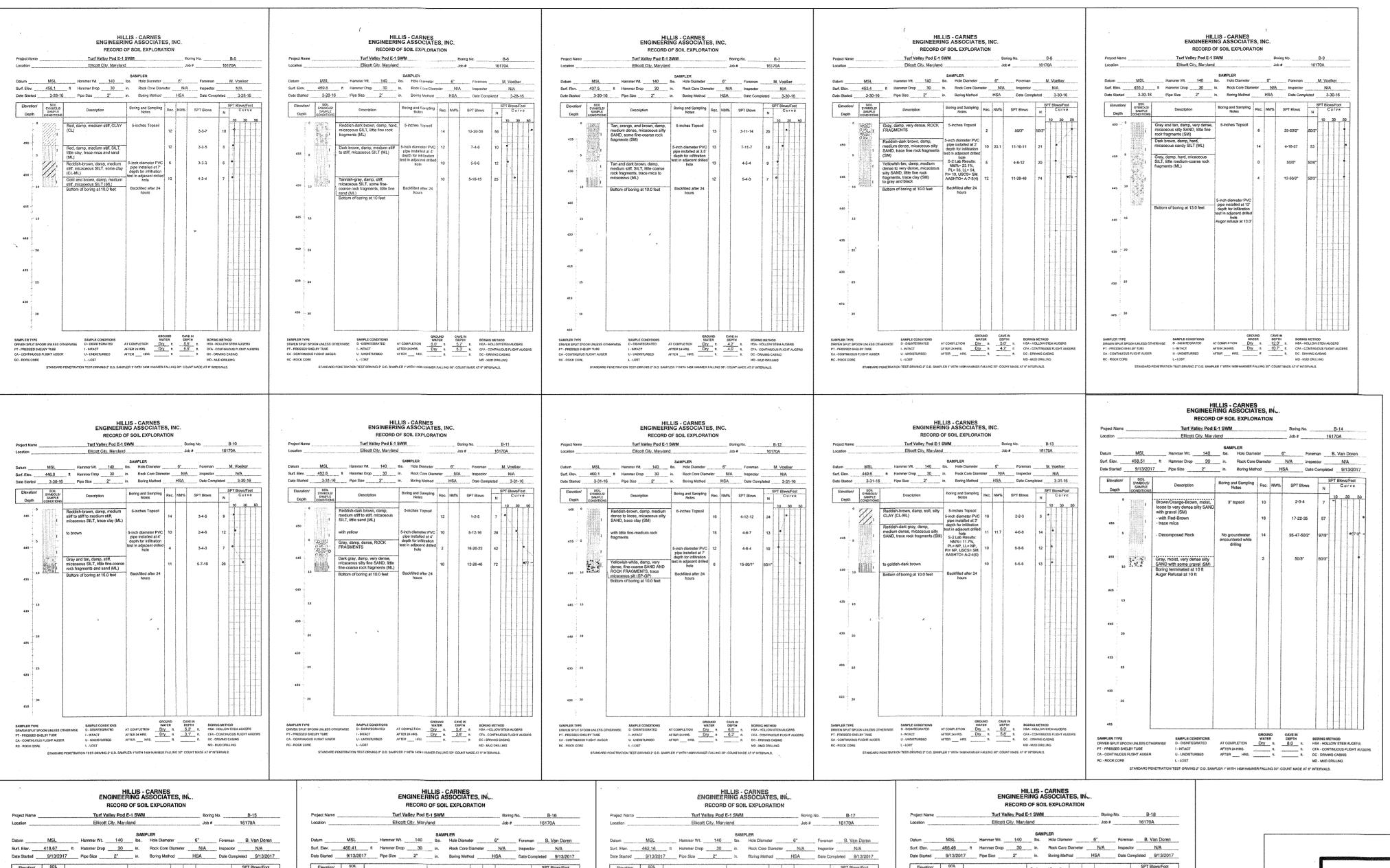
CHIEF, DEVELOPMENT ENGINEERING DIVISION

**APPROVED** 

SDP-20-002







	49	13	6.0	5.5	5.0	452.50	451.50	447.50	446.50
	50	14	6.0	5.5	5.0	452.50	451.50	447.50	446.50
	50	15	6.0	5.5	5.0	452.50	451.50	447.50	446.50
	52	16	6.0	5.5	5.0	448.80	447.80	443.80	442.80
	52	17	6.0	5.5	5.0	448.80	447.80	443.80	442.80
	53	18	6.0	5.5	5.0	449.30	448.30	444.30	443.30
	53	19	6.0	5.5	5.0	449.30	448.30	444.30	443.30
GERS	54	20	6.0	5.5	5.0	449.40	444.40	440.40	439.40
HT AUGERS	54	21	6.0	5.5	5.0	449.40	444.40	440.40	439.40
	55	22	6.0	5.5	5.0	448.40	444.40	440.40	439.40
	55	23	6.0	5.5	5.0	448.40	444.40	440.40	439.40
	56	24	6.0	5.5	5.0	447.95	444.95	440.95	439.95
	56	25	6.0	5.5	5.0	447.95	444.95	440.95	439.95
Anthermotor	57	26	6.0	5.5	5.0	447.88	446.88	442.88	441.88
70A	57	27	6.0	5.5	5.0	447.88	446.88	442.88	441.88
. Van Doren	59	28	6.0	5.5	5.0	455.55	454.55	450.55	449.55
N/A	60	29	6.0	5.5	5.0	456.00	455.00	451.00	450.00
9/13/2017 Blows/Foot	60	30	6.0	5.5	5.0	456.00	455.00	451.00	450.00
Curve	61	31	6.0	5.5	5.0	453.50	452.50	448.50	447.50
30 50	61	32	6.0	5.5	5.0	453.50	452.50	448.50	447.50
	62	33	6.0	5.5	5.0	453.50	452.50	448.50	447.50
•97.8	62	34	6.0	5.5	5.0	452.30	451.30	447.30	446.30
	63	35	6.0	5.5	5.0	451.50	450.50	446.50	445.50
	63	36	6.0	5.5	5.0	451.50	450.50	446.50	445.50
	64	37	6.0	5.5	5.0	451.20	450.20	446.20	445.20
	64	38	6.0	5.5	5.0	451.20	450.20	446.20	445.20
	65	39	6.0	5.5	5.0	451.30	450.30	446.30	445.30
	65	40	6.0	5.5	5.0	451.30	450.30	446.30	445.30
	66	41	6.0	5.5	5.0	451.30	450.30	446.30	445.30
	66	42	6.0	5.5	5.0	451.30	450.30	446.30	445.30
1	69	43	6.0	5.5	5.0	451.40	450.40	446.40	445.40
	69	44	6.0	5.5	5.0	450.50	449.50	445.50	444.50
	70	45	6.0	5.5	5.0	450.05	449.05	445.05	444.05
	70	46	6.0	5.5	5.0	450.05	449.05	445.05	444.05
	70	47	6.0	5.5	5.0	451.45	450.45	446.45	445.45
	71	48	6.0	5.5	5.0	451.45	450.45	446.45	445.45
UGERS	72	49	6.0	5.5	5.0	451.45	450.45	446.45	445.45
GHT AUGERS	72	50	6.0	5.5	5.0	451.45	450.45	446.45	445.45
	12	- 50	0.0	3.3		701.70	700.70	1770.70	770.70

Dry Well Length (ft) Length (ft) Depth (ft)

6.0

6.0

6.0

12

45

47

5.5

5.5

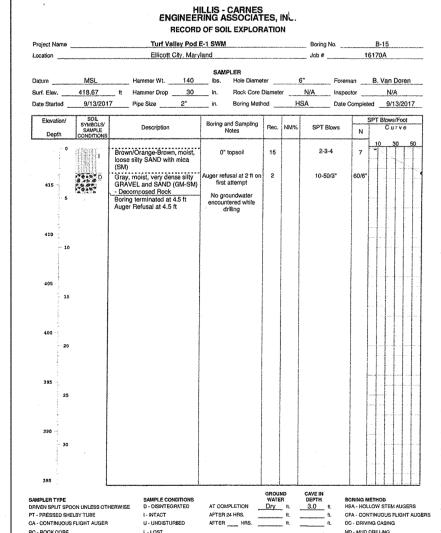
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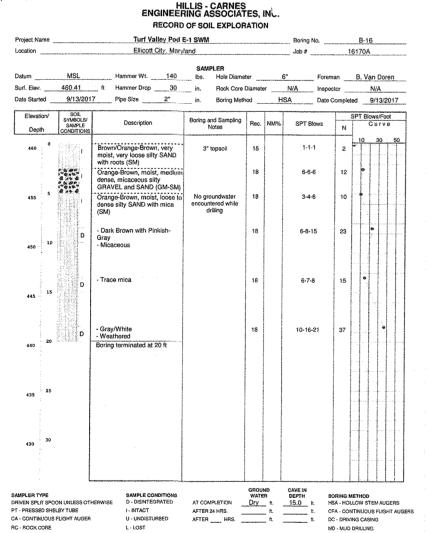
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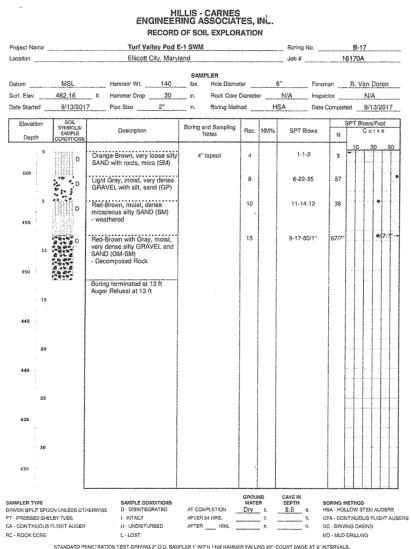
5.5



STANDARD PENETRATION TEST-DRIVING 2\* O.D. SAMPLER 1\* WITH 140# HAMMER FALLING 30\*: COUNT MADE AT 6\* INTERVALS.



STANDARD PENETRATION TEST-DRIVING 2" O.D. SAMPLER 1" WITH 140# HAMMER FALLING 30"; COUNT MADE AT 6" INTERVALS.



Project Name			THE RESERVE TO SHARE THE RE	E-1 SWM			Boring No.		В	-18	-	-	
ocation		Ellicott C	City, Mary	land			Job#		617	DA			
Datum	MSI	Hammer Wt.	140	SAMPLER Ins. Hole Dia	meter	,	6" For	reman	R	Van	Don	en.	
		ft Hammer Drop _					N/A Ins						_
ate Started							SA Da					017	_
Fination	SOIL					1				Blow			_
Elevation/ Depth	SYMBOLS/ SAMPLE	Description		Boring and Samplir Notes	Rec.	NM%	SPT Blows	N	T		11 7 6		
	CONDITIONS			<del></del>	-			+	10	)	30	50	)
465		Brown, moist, very lo SAND with roots (SM		3" topsoil	10		1-1-1	2		Ī		-	
	D	Gray with Brown, moi medium dense GRAV	st, EL with	No groundwater encountered while drilling			8-8-8	16		•			
5	A 100 0	silt and sand (GP) Brown, moist, medium	n dense	9	1		6-6-6	12	-	4.	H		
460	8 -	silty GRAVEL and SA SM)						de arrange (man			Paritable for a sale		
	4.5	Dark Brown to Pinkish	n-Grav.		10		6-5-6	11				. ]	
10	D	moist, medium dense dense silty SAND (SM	to very							1	-	-	
455		delise sity onto (oil	"							1			
									-			1	
	p	- Dark Brown with Lig	ht Gray		18		8-10-13	23		9		-	
15		- Micaceous	1		1			İ	-			-	
450											-		
								1					
	р				18		10-20-32	52		-   -		0	
20		Boring terminated at 2	PO ft		-			-			1	-	
445	1	borning torminatou at a			-			ar and a second				ĺ	
								1000		1		1	(40)
								ř				-	
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# APPROVED PLANNING BOARD OF HOWARD COUNTY

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING 12.17.19 LOPMENT ENGINEERING DIVISION 12-23-19

12-23-19

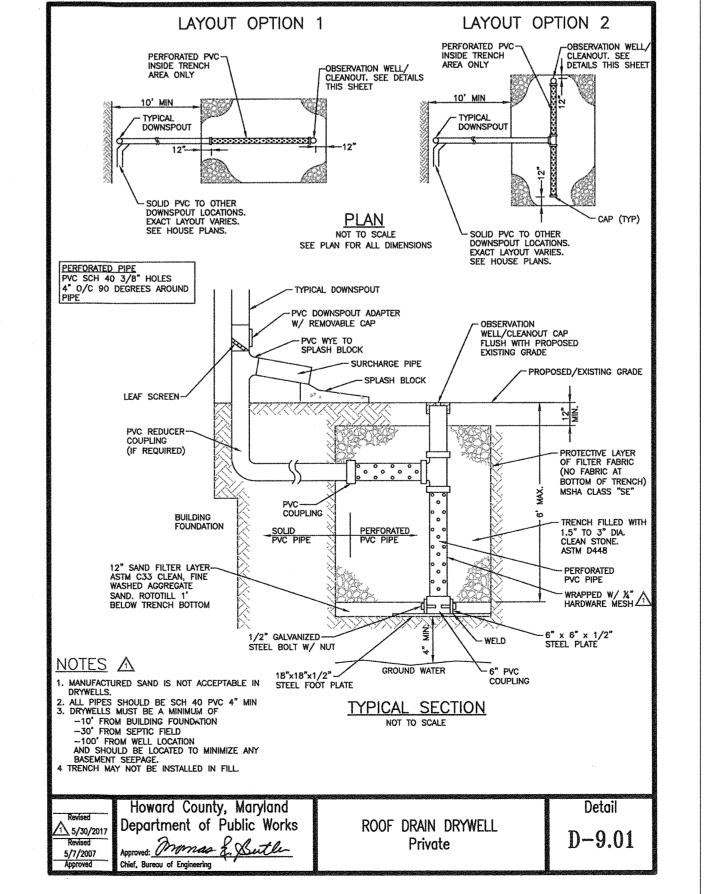
#### OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED **DISCONNECTION OF ROOFTOP RUNOFF (N-1), DISCONNECTION OF NON-ROOFTOP RUNOFF (N-2)**

Maintenance of areas receiving disconnected runoff is generally no different than that required for other lawn or landscaped areas. The areas receiving runoff should be protected from future compaction or development of impervious area. In commercial areas, foot traffic should be discouraged as well.

#### OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED SHEETFLOW TO CONSERVAION AREA (N-3)

Conservation areas shall remain undisturbed and unmanaged other than routine debris removal and repairing areas of concentrated flow. Invasive and noxious plant removal and bi-annual mowing for meadow areas may be needed. Signs delineating the limits of the conservation area should be maintained and supplemental plantings performed as needed.

MA	ATERIALS & SPECIF	ICATIONS F	OR DRY WELLS
MATERIAL	SPECIFICATION	SIZE	NOTES:
GEOTEXTILE (CLASS "C")		N/A	PE TYPE 1 NONWOVEN
GRAVEL	AASHTO M 43	1 1/2" TO 2 1/2'	,
UNDERDRAIN PIPING	F758, TYPE PS28 OR AASHTO M-278	4" TO 6" RIGID SCH.40 PVC, SDR35 OR HDPE	3/8" PERF. @ 6" O/C, 4 HOLES PER ROW; MINIMUM OF 2" OF GRAVEL OVER PIPES.
SAND	AASHTO M-6 OR ASTM-C-33	.02" TO .04"	SAND SUBSTITUTIONS SUCH AS DIABASE AND GRAYSTONE (AASHTO) #10 ARE NOT ACCEPTABLE. NO CALCIUM CARBONATED OR DOLOMITIC SAND SUBSTITUTIONS ARE ACCEPTABLE. NT ROCK DUST CAN BE USED FOR SAND.



3. A log book shall be maintained to determine the rate at which the facility drains

**Dry Well Chart** 

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

Ground

Elevation

450.70

450.70

451.20

445.90

446.86

446.86

448.20

448.20

450.50

452.50

Top of

Storage Elevation

449.70

449.70

450.20

444.90

445.86

445.86

449.50

450.30

451.50

**Bottom of** 

Stone Elevation

445.70

445.70

446.20

446.20

440.90

441.86

441.86

443.20

443.20

445.50

446.30

447.50

447.50

**Bottom of** 

**Sand Elevation** 

444.70

444.70

445.20

439.90

440.86

440.86

442.20

442.20

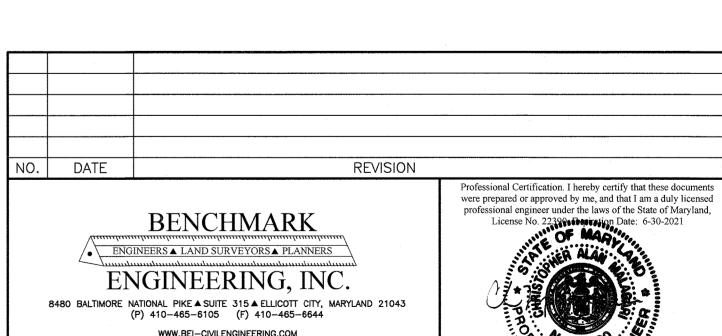
444.50

445.30

446.50

446.50

- 4. When the facility becomes clogged so that it does not drain down within the 72 hour time period, corrective action shall be taken.
- 5. The maintenance log book shall be available to Howard County for inspection to insure compliance with operation and maintenance criteria.
- 6. Once the performance characteristics of the infiltration facility have been verified, the monitoring schedule can be reduced to an annual basis unless the performance data indicates that a more frequent schedule is required.



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MANGIONE ENTERPRISES OF	PARK VIEW AT TURF VALLEY					
IRF VALLEY, LIMITED PARTNERSHIP 1205 YORK ROAD, PENTHOUSE		PHASE II				

LUTHERVILLE, MARYLAND 21093 LOTS 18 - 72 410-825-8400 **BUILDERS:** NV HOMES 9720 PATUXENT WOODS DRIVE

COLUMBIA, MARYLAND 21046

410-379-3385

JAMES KEELTY AND COMPANY, INC

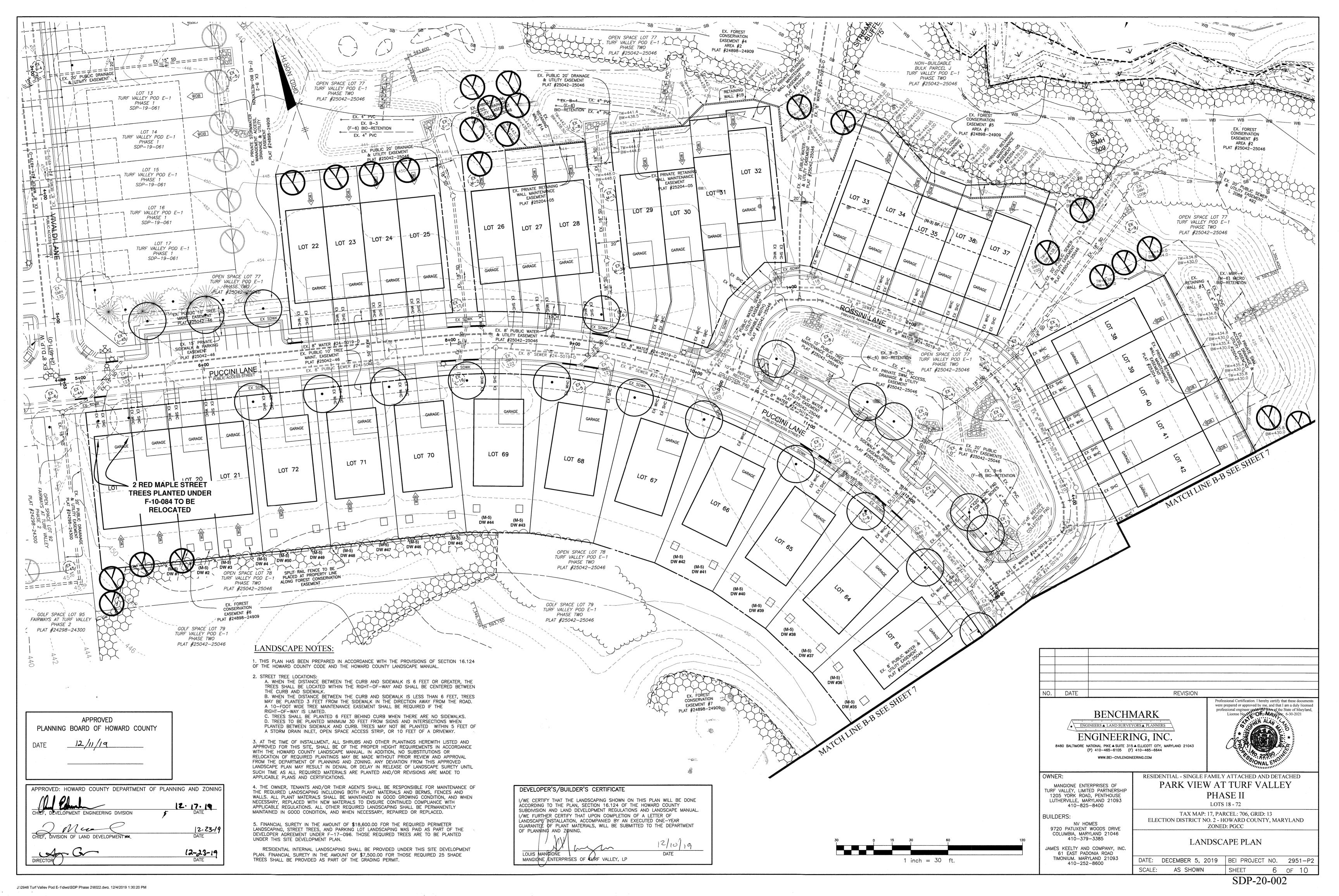
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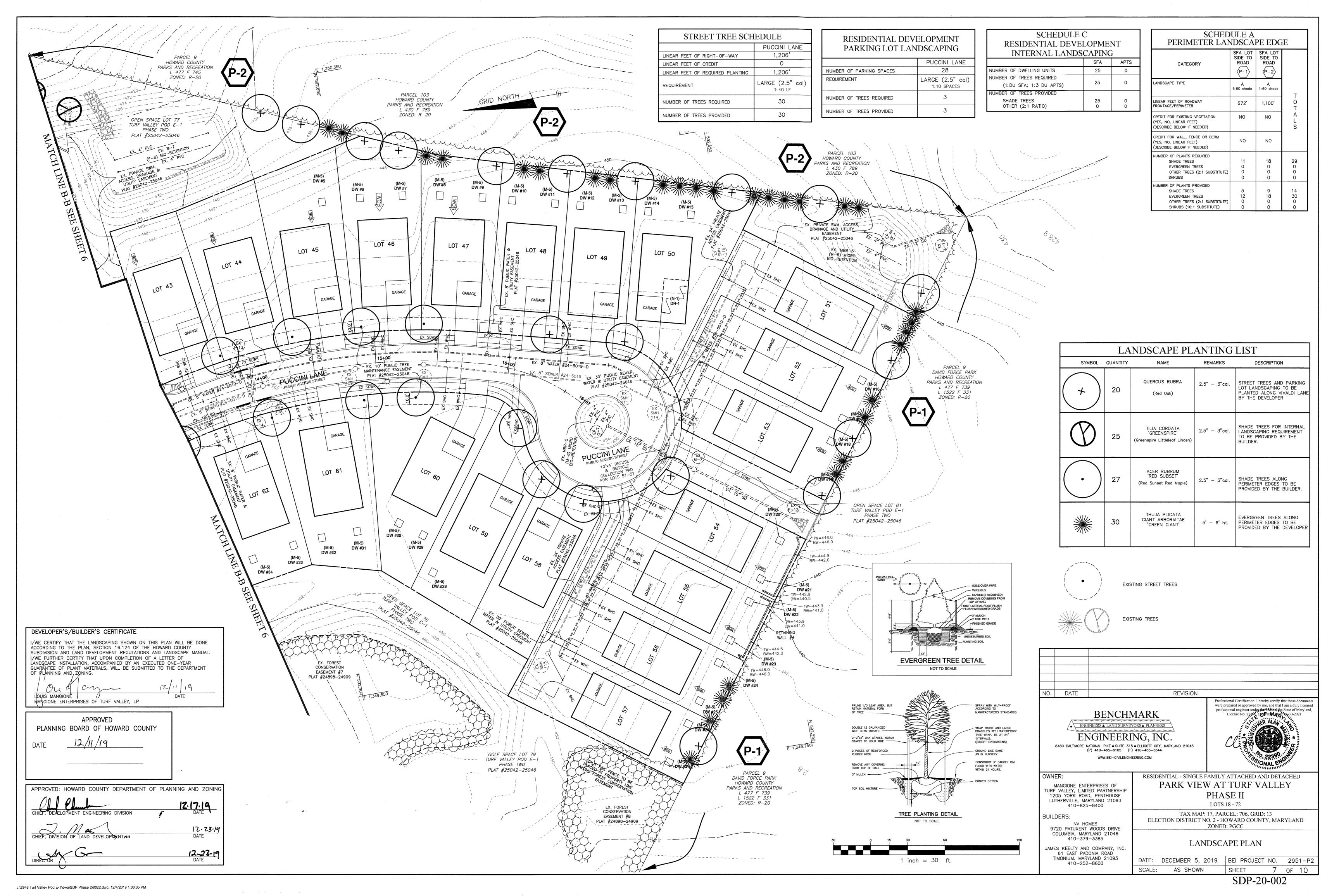
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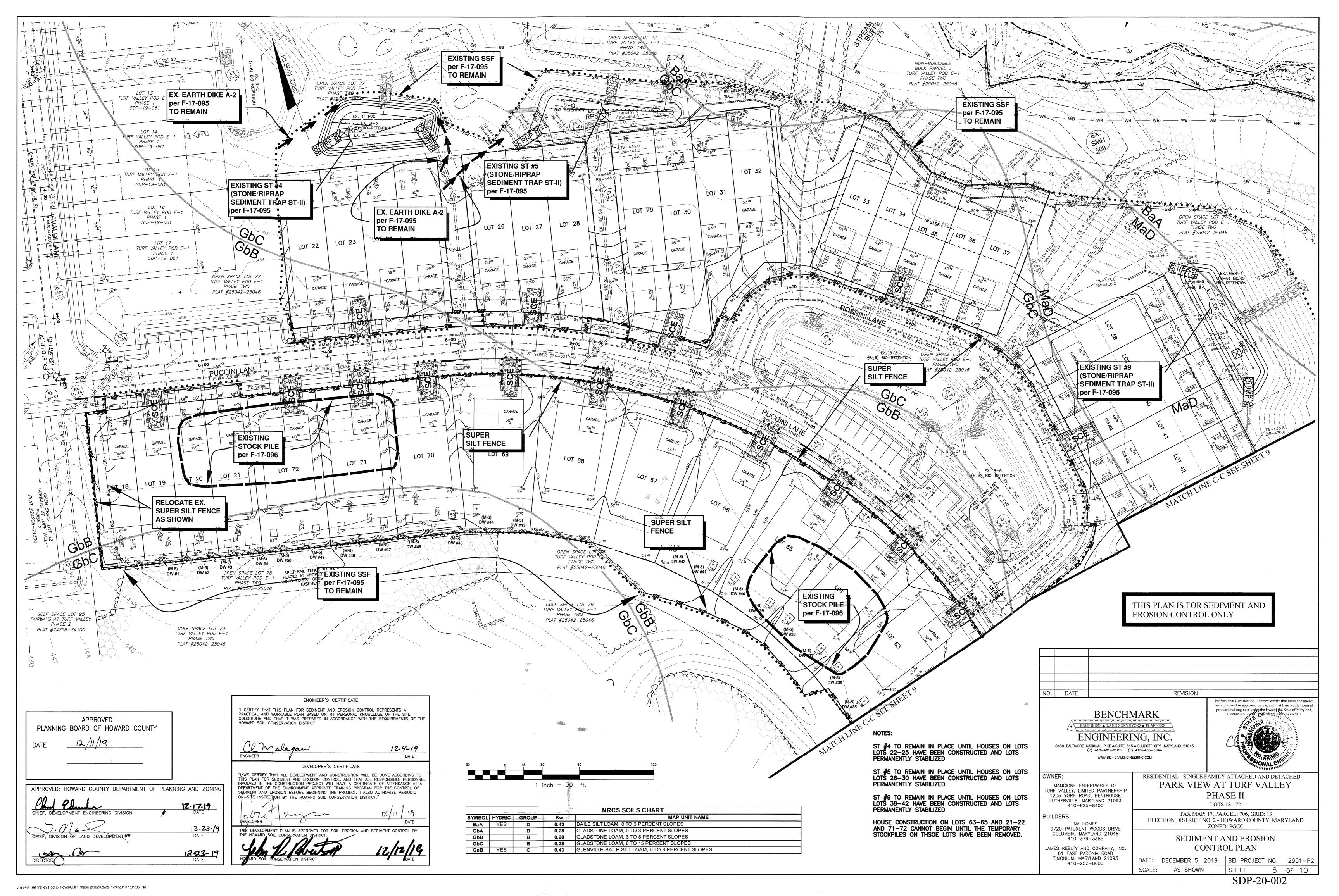
TAX MAP: 17, PARCEL: 706, GRID: 13 ELECTION DISTRICT NO. 2 - HOWARD COUNTY, MARYLAND **ZONED: PGCC** 

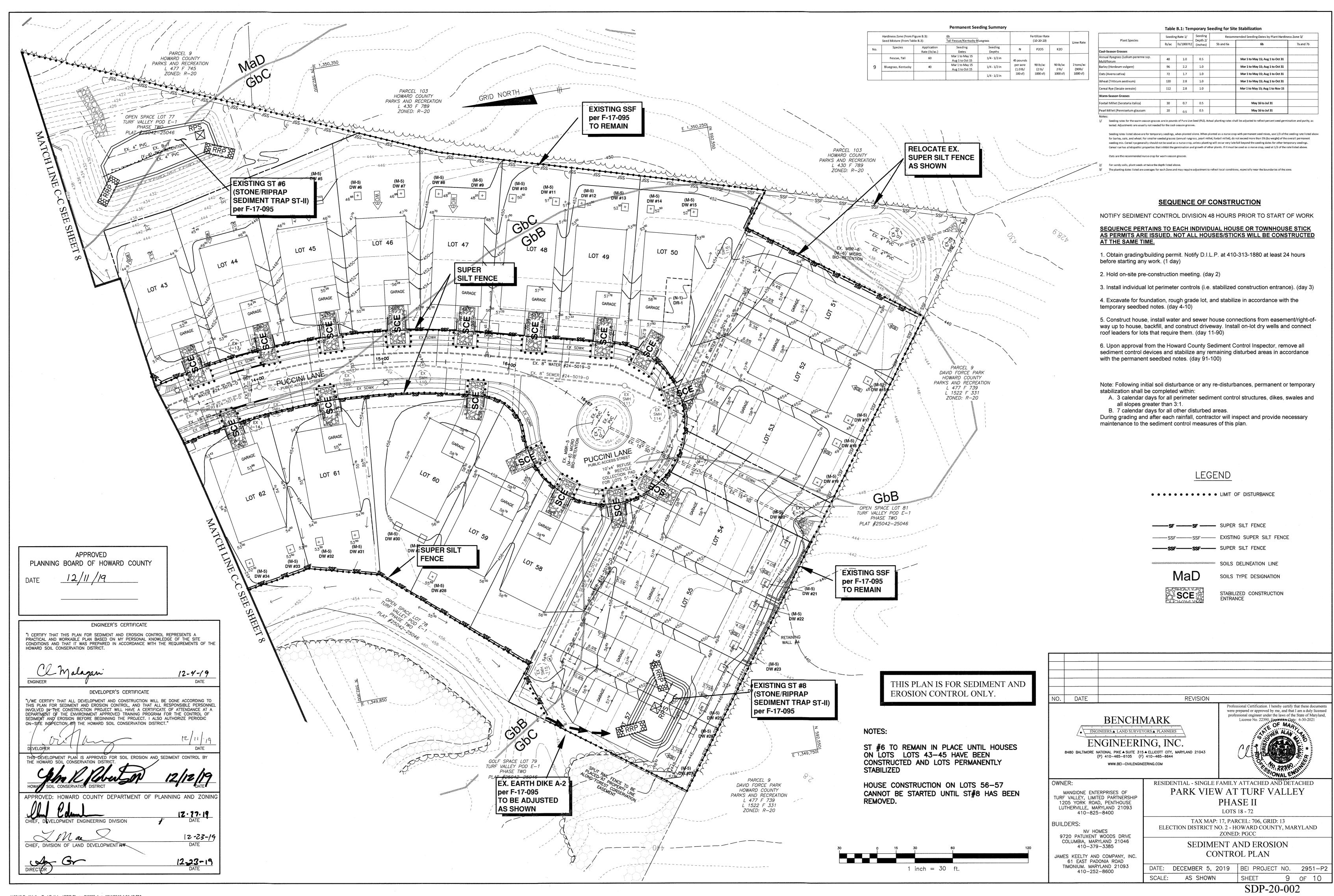
STORMWATER MANAGEMENT DETAILS DATE: DECEMBER 5, 2019 | BEI PROJECT NO. 2951 SCALE: AS SHOWN SHEET 5 of 10

SDP-20-002









### **B-4 STANDARDS AND SPECIFICATIONS**

VEGETATIVE STABILIZATION

Using vegetation as cover to protect exposed soil from erosion.

To promote the establishment of vegetation on exposed soil. Conditions Where Practice Applies On all disturbed areas not stabilized by other methods. This specification is divided into sections on

stabilization; soil preparation, soil amendments and topsoiling; seeding and mulching; temporary stabilization and permanent stabilization.

Effects on Water Quality and Quantity Stabilization practices are used to promote the establishment of vegetation on exposed soil. When soil is stabilized with vegetation, the soil is less likely to erode and more likely to allow infiltration of rainfall,

reducing sediment loads and runoff to downstream areas.

Planting vegetation in disturbed areas will have an effect on the water budget, especially on volumes and runoff, infiltration, evaporation, transpiration, percolation, and groundwater recharge. Over time, vegetation

increase organic matter content and improve the water holding capacity of the soil and subsequent plant Vegetation will help reduce the movement of sediment, nutrients, and other chemicals carried by runoff to receiving waters. Plants will also help protect groundwater supplies by assimilating those substances

within the root zone Sediment control practices must remain in place during grading, seedbed preparation, seeding, mulching, and vegetative establishment.

Adequate Vegetative Establishment Inspect seeded areas for vegetative establishment and make necessary repairs, replacements, and reseedings within the planting season.

 Adequate vegetative stabilization requires 95 percent groundcover. 2. If an area has less than 40 percent groundcover, restabilize following the original recommendations for lime fertilizer seedbed preparation, and seeding 3. If an area has between 40 and 94 percent groundcover, over-seed and fertilize using half of the rates

originally specified. 4. Maintenance fertilizer rates for permanent seeding are shown in Table B.6.

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

Establishment of vegetative cover on cut and fill slopes.

To provide timely vegetative cover on cut and fill slopes as work progresses Conditions Where Practice Applies Any cut or fill slope greater than 15 feet in height. This practice also applies to stockpiles.

A. Incremental Stabilization - Cut Slopes 1. Excavate and stabilize cut slopes in increments not to exceed 15 feet in height. Prepare seedbed

and apply seed and mulch on all cut slopes as the work progresses. 2. Construction sequence example (Refer to Figure B.1): a. Construct and stabilize all temporary swales or dikes that will be used to convey runoff around the excavation.

b. Perform Phase 1 excavation, prepare seedbed, and stabilize. c. Perform Phase 2 excavation, prepare seedbed, and stabilize. Overseed Phase 1 areas as

d. Perform final phase excavation, prepare seedbed, and stabilize. Overseed previously seeded areas as necessary. Note: Once excavation has begun the operation should be continuous from grubbing through the completion of grading and placement of topsoil (if required) and permanent seed and mulch. Any interruptions in the operation or completing the operation out of the seeding season will necessitate

the application of temporary stabilization B. Incremental Stabilization - Fill Slopes

operation ceases as prescribed in the plans.

1. Construct and stabilize fill slopes in increments not to exceed 15 feet in height. Prepare seedbed and apply seed and mulch on all slopes as the work progresses. 2. Stabilize slopes immediately when the vertical height of a lift reaches 15 feet, or when the grading

3. At the end of each day, install temporary water conveyance practice(s), as necessary, to intercept surface runoff and convey it down the slope in a non-erosive manner. 4. Construction sequence example (Refer to Figure B.2):

a. Construct and stabilize all temporary swales or dikes that will be used to divert runoff around the fill. Construct silt fence on low side of fill unless other methods shown on the plans

address this area. b. At the end of each day, install temporary water conveyance practice(s), as necessary, to intercept surface runoff and convey it down the slope in a non-erosive manner.

c. Place Phase 1 fill, prepare seedbed, and stabilize d. Place Phase 2 fill, prepare seedbed, and stabilize

e. Place final phase fill, prepare seedbed, and stabilize. Overseed previously seeded areas as

APPROVED

PLANNING BOARD OF HOWARD COUNTY

Note: Once the placement of fill has begun the operation should be continuous from grubbing through the completion of grading and placement of topsoil (if required) and permanent seed and mulch. Any interruptions in the operation or completing the operation out of the seeding season will necessitate the application of temporary stabilization. Figure B.

## The process of preparing the soils to sustain adequate vegetative stabilization. To provide a suitable soil medium for vegetative growth

Conditions Where Practice Applies Where vegetative stabilization is to be established

 A. Soil Preparation Temporary Stabilization

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.

Apply fertilizer and lime as prescribed on the plans. Incorporate lime and fertilizer into the top 3 to 5 inches of soil by disking or other suitable means.

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.

**B-4-2 STANDARDS AND SPECIFICATIONS** 

SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS

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. Application of amendments or topsoil is required if on-site soils do not meet the above

Graded areas must be maintained in a true and even grade as specified on the approved plan, then scarified or otherwise loosened to a depth of 3 to 5 inches.

Apply soil amendments as specified on the approved plan or as indicated by the results of a soil test.

Mix soil amendments into the top 3 to 5 inches of soil by disking or other suitable means. Rake lawn areas to smooth the surface, remove large objects like stones and branches, and ready the area for seed application. Loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface where site conditions will not permit normal seedbed preparation. Track slopes 3:1 or flatter with tracked equipment leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. Leave the top 1 to 3 inches of soil loose and friable. Seedbed loosening may be unnecessary on newly disturbed areas.

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

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 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. The original soil to be vegetated contains material toxic to plant growth. The soil is so acidic that treatment with limestone is not feasible.

Areas having slopes steeper than 2:1 require special consideration and design. Topsoil Specifications: Soil to be used as topsoil must meet the following criteria: Topsoil must be a loam, sandy loam, clay loam, silt loam, sandy clay loam, or loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Topsoil must not be a mixture of contrasting textured subsoils and must contain less than 5 percent by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than

11/2 inches in diameter. Topsoil must be free of noxious plants or plant parts such as Bermuda grass, quack grass, Johnson grass, nut sedge, poison ivy, thistle, or others as specified.

Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil. Topsoil Application

Erosion and sediment control practices must be maintained when applying topsoil. Uniformly distribute topsoil in a 5 to 8 inch layer and lightly compact to a minimum thickness of 4 inches. Spreading is to be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations must be

corrected in order to prevent the formation of depressions or water pockets. Topsoil must not be placed if the topsoil or subsoil is in a frozen or muddy condition. when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.

Soil Amendments (Fertilizer and Lime Specifications) Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas of 5 acres or more 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

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

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

DETAIL E-1

CENTER TO CENTER

soil by disking or other suitable means.

FENCE

STANDARD SYMBOL

-----SF-------

\_36 IN MIN. FENCE POST LENGTH DRIVEN MIN. 16 IN INTO GROUND

# **B-4-5 STANDARDS AND SPECIFICATIONS**

PERMANENT STABILIZATION

To stabilize disturbed soils with permanent vegetation.

<u>Purpose</u> To use long-lived 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.

 A. Seed Mixtures General Use

a Select one or more of the species or mixtures listed in Table B.3 for the appropriate Plant Hardiness Zone (from Figure B.3) and based on the site condition or purpose found on Table B.2. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The Summary is to be placed on the plan. b 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 Guild, Section 342 - Critical Area Planting c For sites having disturbed areas over 5 acres, use and show the rates recommended by the soil

c. Inoculants: The inoculant for treating legume seed in the seed mixtures must be a pure testing agency. culture of nitrogen fixing bacteria prepared specifically for the species. Inoculants must d For areas receiving low maintenance, apply urea form fertilizer (46-0-0) at 3 ½ pounds per 1000 square feet (150 pounds per acre) at the time of seeding in addition to the soil amendments shown directed on the package. Use four times the recommended rate when hydroseeding. in the Permanent Seeding Summary.

above 75 to 80 degrees Fahrenheit can weaken bacteria and make the inoculant less a. Areas where turfgrass may be desired include lawns, parks, playgrounds, and commercial sites which will receive a medium to high level of maintenance. d. Sod or seed must not be placed on soil which has been treated with soil sterilants or

2. Turfgrass Mixtures

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: Full Sun Mixture: For use in full sun areas where rapid

establishment is necessary and when turf will receive medium to intensive management. Certified Perennial Ryegrass 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 Cultivars 0 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 ½ 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 (Hardiness Zones: 5b, 6a) Central MD: March 1 to May 15, August 15 to October 15 (Hardiness Zone: 6b)

Southern MD, Eastern Shore: March 1 to May 15, August 15 to October 15

(Hardiness Zones: 7a, 7b) d. 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 ½ 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 new 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 not especially true when seedings are made 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 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 ¾ inch, plus or minus ¼ 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 transplanted 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 transplanted

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 rolling 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.

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. Water sod during the heat of the day to

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 1/3 of the grass leaf must be removed by the initial cutting or subsequent cuttings. Maintain a grass height of at least 3 inches unless

STANDARD SYMBOL

⊢—SSF——I

## **B-4-4 STANDARDS AND SPECIFICATIONS** TEMPORARY STABLIZATION

To stabilize disturbed soils with vegetation for up to 6 months

sedimentation, and changes to drainage patterns.

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.

Purpose

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

For sites having soil tests performed, use and show the recommended rates by the testing agency. Soil tests are not required for Temporary Seeding. When stabilization is required outside of a seeding season, apply seed and mulch or straw mulch alone as prescribed in Section B-4-3.A.1.b and maintain until the next seeding season.

# **B-4-8 STANDARDS AND SPECIFICATIONS**

STOCKPILE AREA

A mound or pile of soil protected by appropriately designed erosion and sediment control measures. To provide a designated location for the temporary storage of soil that controls the potential for erosion

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

4. Access 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 3/7 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. <u>Maintenance</u> 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.

H-5 STANDARDS AND SPECIFICATIONS

**DUST CONTROL** Controlling the suspension of dust particles from construction activities.

To prevent blowing and movement of dust from exposed soil surfaces to reduce on and off-site damage including health and traffic hazards.

Conditions Where Practice Applies Areas subject to dust blowing and movement where on and off-site damage is likely without treatment.

Specifications Mulches: See Section B-4-2 Soil Preparation, Topsoiling, and Soil Amendments, Section B-4-3 Seeding and Mulching, and Section B-4-4 Temporary Stabilization. Mulch must be anchored to

prevent blowing Vegetative Cover: See Section B-4-4 Temporary Stabilization. Tillage: Till to roughen surface and bring clods to the surface. Begin plowing on windward side of site. Chisel-type plows spaced about 12 inches apart, spring-toothed harrows, and

similar plows are examples of equipment that may produce the desired effect.

Irrigation: Sprinkle site with water until the surface is moist. Repeat as needed. The site must not be irrigated to the point that runoff occurs. Barriers: Solid board fences, silt fences, snow fences, burlap fences, straw bales, and similar

naterial can be used to control air currents and soil blowing. Chemical Treatment: Use of chemical treatment requires approval by the appropriate plan

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

1. A pre-construction meeting must occur with the Howard County Department of Public Works, Construction Inspection Division (CID), 410-3133-1855 after the future LOD and protected areas are marked clearly in the field. A minimum of 48 hours notice to CID must

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 another phase of construction or opening of another grading

d. Prior to the removal or modification of sediment control practices.

2. All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the <u>2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL</u>, and revisions thereto.

3. Following initial soil disturbance or re-disturbance, permanent or temporary stabilization is required within three (3) calendar days as to the surface of all perimeter controls, dikes, swales, ditches, perimeter slopes, and all slopes steeper than 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 above 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 seeding (Sec. B-4-4) and mulching (Sec. B-4-3). Temporary stabilization with mulch alone can only be applied between the fall and spring seeding dates if the ground is frozen. Incremental stabilization (Sec. B-4-1) specifications shall be enforced in areas with >15' of cut and/or fill. Stockpiles (Sec. B-4-8) in excess of 20 feet must be benched with stable outlet. 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 the CID.

6. Site Analysis:

Total fill:

inspection and should include

21.3 Acres Total Area of Site: 10.3 Acres \*CUT/FILL NUMBERS Area Disturbed: ARE ROUGH ESTIMATI 2.1 FOR SEDIMENT Area to be roofed or paved: \_\_ Acres CONTROL PURPOSES 8.2 Acres ONLY. CONTRACTOR Area to be vegetatively stabilized: TO VERIFY. 20,777\* , Total cut: Cu Yds

20,777\*

SITE WITH AN ACTIVE GRADING PERMIT Off-site waste/borrow area location:

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 controls shall be inspected by the contractor weekly; and the next day after each

rain event. A written report by the contractor, made available upon request, is part of every

 Inspection date • Inspection type (routine, pre-storm event, during rain event)

• Name and title of inspector • Weather information (current conditions as well as time and an=mount 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 pipe lengths or that which can and shall be back filled and stabilized by the end of each work day, 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 proceeding with 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) a a time. Work may proceed to a subsequent grading unit when at least 50 percent of the disturbed area in the preceding grading unit has been stabilized and approved by the CID. Unless otherwise specified and approved by the HSCD, no more than 20 acres cumulatively may be disturbed at a given time.

12. Wash water from any equipment, vehicles, wheels, pavement, and other sources must be

14. All silt fence and super silt fence shall be placed on—the—contour, and be imbricated at

treated in a sediment basin or other approved washout structure. 13. Topsoil shall be stockpiled and preserved on-site for redistribution onto final grade.

25' minimum intervals, with lower ends curled uphill by 2' in elevation. 15. Stream channels must not be disturbed during the following restricted time periods

• Use I and IP 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

ENGINEER'S 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.

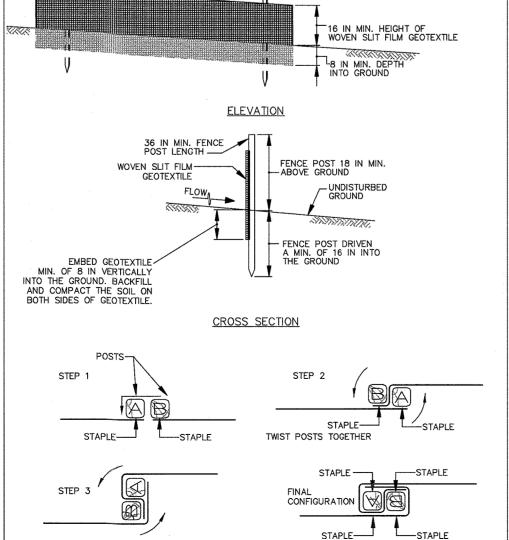
12-4-19 DATE DEVELOPER'S CERTIFICATE I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO HIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNE NVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED 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." DATE **DEVELOPER** 

I'HIS D'EVELOPMENT $\ell$ PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY PROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

DEVELOPMENT ENGINEERING DIVISION 12-23-1

12-23-19

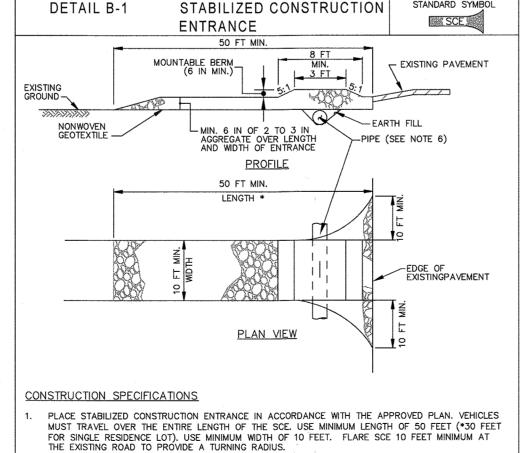
J:\2948 Turf Valley Pod E-1\dwq\SDP Phase 2\8023.dwq. 12/4/2019 1:32:03 PM



JOINING TWO ADJACENT SILT

FENCE SECTIONS (TOP VIEW)

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL



Use of asphalt binders is strictly prohibited

**B-4-3 STANDARDS AND SPECIFICATIONS** 

SEEDING AND MULCHING

Conditions Where Practice Applies

a. All seed must meet the requirements of the Maryland State Seed Law. All seed must be

subject to re-testing by a recognized seed laboratory. All seed used must have been

any project. Refer to Table B.4 regarding the quality of seed. Seed tags must be

available upon request to the inspector to verify type of seed and seeding rate.

b. Mulch alone may be applied between the fall and spring seeding dates only if the ground is

frozen. The appropriate seeding mixture must be applied when the ground thaws.

not be used later than the date indicated on the container. Add fresh inoculants as

chemicals used for weed control until sufficient time has elapsed (14 days min.) to

a. Dry Seeding: This includes use of conventional drop or broadcast spreaders.

Note: It is very important to keep inoculant as cool as possible until used. Temperatures

i. Incorporate seed into the subsoil at the rates prescribed on Temporary Seeding Table

ii. Apply seed in two directions, perpendicular to each other. Apply half the seeding rate

in each direction. Roll the seeded area with a weighted roller to provide good

B.1, Permanent Seeding Table B.3, or site-specific seeding summaries.

b. Drill or Cultipacker Seeding: Mechanized seeders that apply and cover seed with soil.

ii. Apply seed in two directions, perpendicular to each other. Apply half the

c. Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and

i. Cultipacking seeders are required to bury the seed in such a fashion as to

provide at least 1/4 inch of soil covering. Seedbed must be firm after

i. If fertilizer is being applied at the time of seeding, the application rates should

ii. Lime: Use only ground agricultural limestone (up to 3 tons per acre may be

iii. Mix seed and fertilizer on site and seed immediately and without interruption.

iv. When hydroseeding do not incorporate seed into the soil.

processed into a uniform fibrous physical state.

uniformly spread slurry.

the growth of the grass seedlings.

a. Apply mulch to all seeded areas immediately after seeding.

of wood cellulose fiber per 100 gallons of water.

upon the size of the area and erosion hazard:

3.000 feet long.

application rate to 2.5 tons per acre.

factors.

a. Straw consisting of thoroughly threshed wheat, rye, oat, or barley and reasonably

bright in color. Straw is to be free of noxious weed seeds as specified in the

b. Wood Cellulose Fiber Mulch (WCFM) consisting of specially prepared wood cellulose

Maryland Seed Law and not musty, moldy, caked, decayed, or excessively dusty,

Note: Use only sterile straw mulch in areas where one species of grass is desired.

i. WCFM is to be dyed green or contain a green dye in the package that will

ii. WCFM, including dye, must contain no germination or growth inhibiting

iii. WCFM materials are to be manufactured and processed in such a

iv. WCFM material must not contain elements or compounds at

concentration levels that will be phyto-toxic.

water holding capacity of 90 percent minimum.

b. When straw mulch is used, spread it over all seeded areas at the rate of 2 tons per acre to a

c. Wood cellulose fiber used as mulch must be applied at a net dry weight of 1500 pounds per

a. Perform mulch anchoring immediately following application of mulch to minimize loss by wind

If used on sloping land, this practice should follow the contour.

provide an appropriate color to facilitate visual inspection of the

manner that the wood cellulose fiber mulch will remain in uniform

fertilizer and other additives to form a homogeneous slurry. The

mulch material must form a blotter-like ground cover, on application

cover and hold grass seed in contact with the soil without inhibiting

of approximately 10 millimeters, diameter approximately 1 millimeter,

pH range of 4.0 to 8.5, ash content of 1.6 percent maximum and

uniform loose depth of 1 to 2 inches. Apply mulch to achieve a uniform distribution and depth

acre. Mix the wood cellulose fiber with water to attain a mixture with a maximum of 50 pounds

or water. This may be done by one of the following methods (listed by preference), depending

i. A mulch anchoring tool is a tractor drawn implement designed to punch and anchor

ii. Wood cellulose fiber may be used for anchoring straw. Apply the fiber binder at a net

maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.

iii. Synthetic binders such as Acrylic DLR (Agro-Tack), DCA-70, Petroset, Terra Tax II, Terra Tack AR or other approved equal may be used. Follow application rates as

iv. Lightweight plastic netting may be stapled over the mulch according to manufacturer recommendations. Netting is usually available in rolls 4 to 15 feet wide and 300 to

dry weight of 750 pounds per acre. Mix the wood cellulose fiber with water at a

specified by the manufacturer. Application of liquid binders needs to be heavier at the edges where wind catches mulch, such as in valleys and on crests of banks.

STANDARD SYMBO

mulch into the soil surface a minimum of 2 inches. This practice is most effective

on large areas, but is limited to flatter slopes where equipment can operate safely.

so that the soil surface is not exposed. When using a mulch anchoring tool, increase the

having moisture absorption and percolation properties and must

v. WCFM must conform to the following physical requirements: fiber length

suspension in water under agitation and will blend with seed,

not exceed the following: nitrogen, 100 pounds per acre total of soluble

nitrogen; P2O5 (phosphorous), 200 pounds per acre; K2O (potassium),

applied by hydroseeding). Normally, not more than 2 tons are applied by

hydroseeding at any one time. Do not use burnt or hydrated lime when

tested within the 6 months immediately preceding the date of sowing such material on

To the surface of all perimeter controls, slopes, and any disturbed area not under active grading.

The application of seed and mulch to establish vegetative cover

1. Specifications

2. Application

B. Mulching

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

permit dissipation of phyto-toxic materials.

seeding rate in each direction.

200 pounds per acre.

1. Mulch Materials (in order of preference)

seed to soil contact.

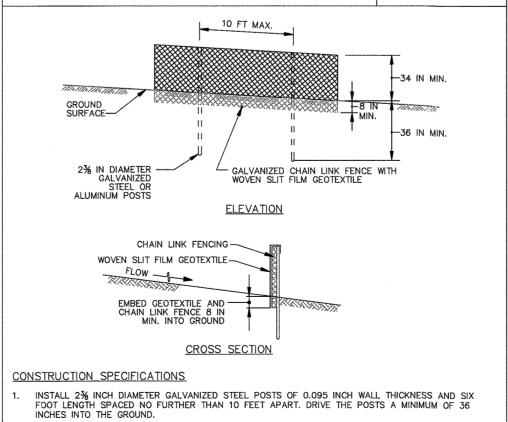
PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SCE UNDER THE ENTRANCE, MAINTAINING POSITIVE DRAINAGE. PROTECT PIPE INSTALLED THROUGH THE SCE WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE, PROVIDE PIPE AS ON APPROVED PLAN. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO TO CONVEY, A PIPE IS NOT NECESSARY. A MOUNTABLE BERM IS REQUIRED WHEN SCE IS PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS

PLACE CRUSHED AGGREGATE (2 TO 3 INCHES IN SIZE) OR EQUIVALENT RECYCLED CONCRETE

(WITHOUT REBAR) AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SCE.

MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT. ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAN SURFACE, MOUNTABLE BERM, AND SPECIFIED DIMENSIONS. IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILLED, DROPPED, OR TRACKED ONTO ADJACENT ROADWAY BY VACUUMING, SCRAPING, AND/OR SWEEPING. WASHING ROADWAY TO REMOVE MUD TRACKED ONTO PAVEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE. MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



SUPER SILT

**FENCE** 

DETAIL E-3

FASTEN 9 GAUGE OR HEAVIER GALVANIZED CHAIN LINK FENCE (2% INCH MAXIMUM OPENING) 42 INCHES IN HEIGHT SECURELY TO THE FENCE POSTS WITH WIRE TIES OR HUG RINGS.

FASTEN WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS, SECURELY TO THE UPSLOPE SIDE OF CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 8 INCHES INTO THE GROUND. WHERE ENDS OF THE GEOTEXTILE COME TOGETHER, THE ENDS SHALL BE OVERLAPPED BY 6 INCHES, FOLDED, AND STAPLED TO PREVENT SEDIMENT BY PASS.

EXTEND BOTH ENDS OF THE SUPER SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SUPER SILT FENCE. PROVIDE MANUFACTURER CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING

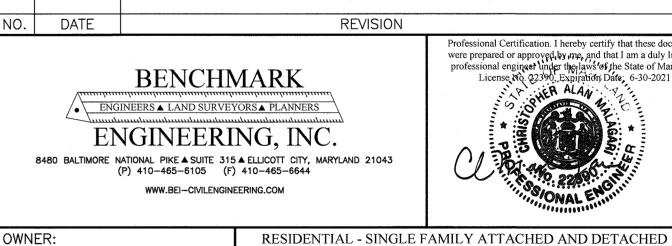
REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN FENCE OR WHEN SEDIMENT

MARYLAND DEPARTMENT OF ENVIRONMENT

REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL CHAIN LINK FENCING AND GEOTEXTILE. MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL FROSION AND SEDIMENT CONTROL

THAT GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.

U.S. DEPARTMENT OF AGRICULTURE



BUILDERS:

NV HOMES

410-379-3385

JAMES KEELTY AND COMPANY, INC

61 EAST PADONIA ROAD

TIMONIUM. MARYLAND 21093

410-252-8600

PARK VIEW AT TURF VALLEY MANGIONE ENTERPRISES OF URF VALLEY, LIMITED PARTNERSHI PHASE II 1205 YORK ROAD, PENTHOUSE LUTHERVILLE, MARYLAND 21093 LOTS 18 - 72 410-825-8400 TAX MAP: 17, PARCEL: 706, GRID: 13 ELECTION DISTRICT NO. 2 - HOWARD COUNTY, MARYLAND **ZONED: PGCC** 9720 PATUXENT WOODS DRIVE COLUMBIA, MARYLAND 21046

AS SHOWN

SCALE:

SEDIMENT AND EROSION CONTROL NOTES & DETAILS DATE: DECEMBER 5, 2019 | BEI PROJECT NO. 2951-P2

SDP-20-002

10 of 10

rofessional Certification. I hereby certify that these documer

ere prepared or approved by me, and that I am a duly license

professional engineer under the laws of the State of Maryland License No. 22390, Expiration Date: 6-30-2021