#### GENERAL NOTES

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

2.) THE SUBJECT PROPERTY IS ZONED R-20-MXD-3 AND R-SC-MXD-3 PER THE 10-6-2013 COMPREHENSIVE ZONING PLAN.

3.) BOUNDARY IS BASED ON RECORDED PLAT NO. 26023-26035.

4.) THE EXISTING TOPOGRAPHY SHOWN ON THESE LOTS IS BASED ON MASS GRADING AS SHOWN ON APPROVED F-21-044 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. 46FB AND 47AA WERE USED FOR THIS PROJECT.

6.) WATER IS PUBLIC. THE CONTRACT NUMBER IS 24-5137-D.

7.) SEWER IS PUBLIC. THE CONTRACT NUMBER IS 24-5137-D.

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

9.) EXISTING UTILITIES SHOWN ARE BASED ON APPROVED WATER/SEWER CONTRACT DRAWINGS, APPROVED ROAD CONSTRUCTION PLANS, AERIAL, AND FIELD SURVEYED LOCATIONS.

10.) THERE ARE NO WETLANDS, STREAMS, OR THEIR REQUIRED BUFFERS, 100—YEAR FLOODPLAIN OR 25% OR GREATER 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 STRUCTURES LOCATED ON THESE LOTS.

12.) STORMWATER MANAGEMENT FOR THESE LOTS WAS PREVIOUSLY PROVIDED AND APPROVED UNDER F-21-044. THE ON-LOT DRY WELLS FOR TREATMENT OF THE HOUSES FOR THE LOTS THAT REQUIRE THEM ARE PROVIDED ON THIS SITE DEVELOPMENT PLAN. ALL THE DRYWELLS ARE TO BE OWNED AND MAINTAINED BY THE OWNERS OF THE LOTS ON WHICH THEY RESIDE

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  $(1-\frac{1}{2})$ " MIN.). C) 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 FOOT DEPTH OVER DRIVEWAY.
G) MAINTENANCE — SUFFICIENT TO INSURE ALL WEATHER USE.

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

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. FINANCIAL SURETY IN THE AMOUNT OF \$18,600.00 FOR THE REQUIRED 45 SHADE TREES AND 34 EVERGREEN TREES SHALL BE PAID AS PART OF THE GRADING PERMIT.

16.) THE REQUIREMENT OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION FOR THESE LOTS WAS PROVIDED UNDER F-21-044. THE EASEMENTS WERE RECORDED UNDER F-21-044, 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 DECEMBER 22, 2021, ON WHICH DATE DEVELOPER AGREEMENT #F21044/24-5137-D WAS FILED AND ACCEPTED.

18.) THIS PROJECT IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE ZONING REGULATIONS EFFECTIVE OCTOBER 6, 2013.

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 TO THE START OF WORK.

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

23.) THE ARTICLES OF INCORPORATION FOR THE HOMEOWNERS ASSOCIATION WAS ACCEPTED BY THE STATE DEPARTMENT OF ASSESSMENT AND TAXATION ON 2-9-2021 ID# D21406426.

24.) SECTION 110.0.d.1.e OF THE ZONING REGULATIONS LIMITS THE LENGTH OF SINGLE—FAMILY ATTACHED UNITS TO 120 FEET BUT IT ALSO GRANTS THE DIRECTOR OF DPZ THE AUTHORITY TO APPROVE A GREATER LENGTH UP TO A MAXIMUM OF 200 FEET BASED ON DETERMINATION THAT THE DESIGN OF THE BUILDING WILL MITIGATE THE VISUAL IMPACT OF THE INCREASED LENGTH. A REQUEST TO ALLOW FOR A GREATER BUILDING LENGTH FOR SEVERAL ROWS OF SINGLE—FAMILY ATTACHED UNITS WAS APPROVED BY THE DIRECTOR OF THE DEPARTMENT OF PLANNING AND ZONING ON MAY 19, 2020.

25.) A MIHU AGREEMENT AND COVENANTS WILL BE REQUIRED IN ACCORDANCE WITH SECTION 13.402 OF THE COUNTY CODE. THE AGREEMENT AND COVENANTS ARE RECORDED WITH THE FINAL PLAN, F-21-044. THERE ARE NO MIHUS TO BE PROVIDED WITH THIS SECTION/PHASE. A TOTAL OF 8 MIHUS WERE TO BE PROVIDED WITH PHASE 1 SECTION 1, 22 WITH PHASE 1 SECTION 3, AND 10 WITH PHASE 2 FOR A TOTAL OF 40 MIHUS WHICH MEETS THE OVERALL PROJECTS OBLIGATION.

26.) NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE LIMITS OF WETLANDS, STREAMS, THEIR REQUIRED BUFFERS, FLOODPLAIN, OR FOREST CONSERVATION EASEMENTS.

27.) A NOISE STUDY IS NOT REQUIRED. THIS PROJECT IS NOT WITHIN THE LIMITS IDENTIFIED IN SECTION 2.5.F2. OF THE DESIGN MANUAL FOR A NOISE STUDY.

28.) THE TRAFFIC IMPACT STUDY WAS PREPARED BY THE TRAFFIC GROUP, INC. ON JUNE 29, 2018 AND REVISED ON NOVEMBER 16, 2018 AND FEBRUARY 6, 2019. IT WAS APPROVED WITH THE APPROVAL OF

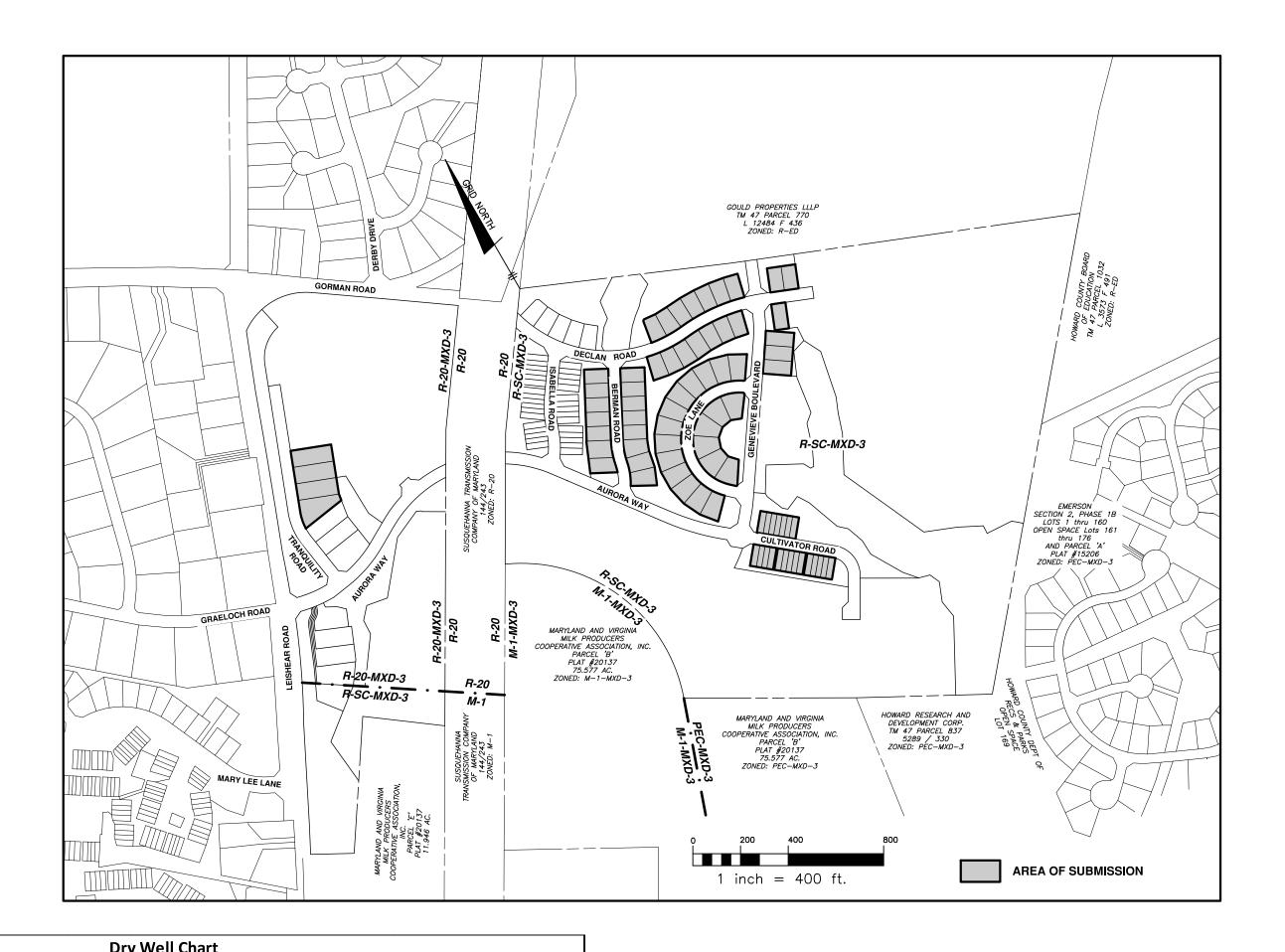
29.) THE SPEED STUDY WAS PREPARED BY THE TRAFFIC GROUP, INC. ON SEPTEMBER 10, 2018 WITH THE SPEED COUNTS BEING TAKEN ON APRIL 5, 2018 AND APRIL 6, 2018. IT WAS APPROVED WITH THE APPROVAL

30.) IN ACCORDANCE WITH COUNCIL BILL 76-2018, EFFECTIVE JAN 11, 2019 AND PER SECTION 3.105(C) OF THE COUNTY CODE, ALL NEW RESIDENTIAL CONSTRUCTION THAT HAS A GARAGE, CARPORT, OR DRIVEWAY SHALL FEATURE A DEDICATED ELECTRIC LINE OF SUFFICIENT VOLTAGE SO THAT AN ELECTRIC VEHICLE CHARGING STATION MAY BE ADDED IN THE FUTURE. THIS DEDICATED LINE SHALL BE PROVIDED FOR EACH UNIT.

# APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING Docusigned by: Light Edmondson A/22/2022 CHIEF, DEVELOPMENT ENGINEERING DIVISION Docusigned by: 4/25/2022 CHIEF, Docusigned by: Docusigned by: Amy Glonan A/25/2022 DIRECTOR DATE

## RESIDENTIAL SITE DEVELOPMENT PLAN WELLINGTON FARMS

PHASE 1 SECTION 2 LOTS 54 thru 132



Lot	Address	Dry Well	Length (ft)	Width (ft)	Depth (ft)	Ground	Top of	Bottom of	Bottom of
			. ,	, ,	,	Elevation	Storage Elevation	<b>Stone Elevation</b>	Sand Elevation
54	7112 Tranquility Rd	54A	12.0	6.0	4.0	374.50	373.50	369.50	368.50
<b>5</b> 7	7 112 Handanity Na	54B	12.0	6.0	4.0	374.50	373.50		368.50
55	7120 Tranquility Rd	55A	12.0	6.0	4.0	377.00	376.00	372.00	371.00
55	7 120 Tranquility Nu	55B	12.0	6.0	4.0	378.50	377.50	373.50	372.50
56	7124 Tranquility Rd	56A	12.0	6.0	4.0	379.00	378.00	374.00	373.00
50	1 124 Hanquilly Ru	56B	12.0	6.0	4.0	380.50	379.50	375.50	374.50
57	7128 Tranquility Rd	57A	12.0	6.0	4.0	382.50	381.50	377.50	376.50
31	1 120 Hanquilly Ru	57B	12.0	6.0	4.0	383.25	382.25	378.25	377.25
50	7225 Darman Dd	58A	10.0	5.0	4.0	394.50	393.50	389.50	388.50
58	7225 Berman Rd	58B	10.0	5.0	4.0	395.00	394.00	390.00	389.00
50	7004 Dames Dd	59A	10.0	5.0	4.0	396.00	395.00	391.00	390.00
59	7221 Berman Rd	59B	10.0	5.0	4.0	396.50	395.50	391.50	390.50
	7047 D D I	60A	10.0	5.0	4.0	397.00	396.00	392.00	391.00
60	7217 Berman Rd	60B	10.0	5.0	4.0	397.50	396.50		391.50
		70A	10.0	5.0	4.0	392.20	391.20		386.20
70	7220 Berman Rd	70B	10.0	5.0	4.0	392.20	391.20		386.20
		71A	10.0	5.0	4.0	391.00	390.00		385.00
71	7224 Berman Rd	71B	10.0	5.0	4.0	391.00	390.00		385.00
		72A	10.0	5.0	4.0	391.50	390.50		385.50
72	7228 Berman Rd	72B	10.0	5.0	4.0	391.50	390.50		385.50
		87A	10.0	5.0	4.0	383.20	382.20		377.20
87	7553 Zoe Ln	87B	10.0	5.0	4.0	383.20	382.20		377.20
		88A	10.0	5.0	4.0	383.00	382.00	369.50 369.50 372.00 373.50 374.00 375.50 377.50 378.25 389.50 390.00 391.00	377.00
88	7549 Zoe Ln	88B	10.0	5.0	4.0	384.20	383.20		378.20
		89A	10.0	5.0	4.0	385.20	384.20		379.20
89	7545 Zoe Ln	89B	10.0	5.0	4.0	385.20	384.20		379.20
		90A	10.0	5.0	4.0	386.52	385.52		380.52
90	7541 Zoe Ln	90B	10.0	5.0	4.0	386.52	385.52		380.52
		91A	10.0	5.0	4.0	387.59	386.59		381.59
91	7537 Zoe Ln	91B	10.0	5.0	4.0	387.59	386.59		381.59
		91B 92A	10.0	5.0	4.0	388.00	387.00		382.00
92	7533 Zoe Ln	92A 92B	10.0	5.0	4.0	388.00	387.00		382.00
		92B 93A	10.0			389.20	388.20		383.20
93	7529 Zoe Ln	93A 93B		5.0	4.0				
			10.0	5.0	4.0	389.20	388.20		383.20
94	7521 Zoe Ln	94A	10.0	5.0	4.0	390.00	389.00		384.00
		94B	10.0	5.0	4.0	390.00	389.00		384.00
95	7517 Zoe Ln	95A	10.0	5.0	4.0	390.00	389.00		384.00
		95B	10.0	5.0	4.0	390.00	389.00		384.00
96	7513 Zoe Ln	96A	10.0	5.0	4.0	388.80	387.80		382.80
		96B	10.0	5.0	4.0	387.50	386.50		381.50
97	7509 Zoe Ln	97A	10.0	5.0	4.0	387.00	386.00	Stone Elevation           369.50           369.50           372.00           373.50           374.00           375.50           377.50           378.25           389.50           390.00           391.00           392.00           392.50           387.20           386.00           386.50           378.20           378.20           378.20           378.20           378.20           380.20           380.20           381.52           382.59           382.59           383.00           385.00           385.00           385.00           385.00           385.00           385.00           385.00           385.00           385.00           385.00           385.00           385.00           385.00           385.00           385.00           385.00           385.00           385.00           385.00	381.00
		97B	10.0	5.0	4.0	385.00	384.00		379.00
98	7505 Zoe Ln	98A	10.0	5.0	4.0	384.75	383.75	Stone Elevation           369.50           369.50           372.00           373.50           374.00           375.50           377.50           378.25           389.50           390.00           391.00           392.00           392.50           387.20           386.00           386.50           378.20           378.20           378.20           378.20           378.20           380.20           380.20           381.52           382.59           382.59           383.00           385.00           385.00           385.00           385.00           385.00           385.00           385.00           385.00           385.00           385.00           385.00           385.00           385.00           385.00           385.00           385.00           385.00           385.00           385.00	378.75
		98B	10.0	5.0	4.0	383.50	382.50		377.50
99	7501 Zoe Ln	99A	10.0	5.0	4.0	382.40	381.40		376.40
	7501 200 211	99B	10.0	5.0	4.0	382.00	381.00		376.00
110	7604 Genevieve Blvd	110A	10.0	5.0	4.0	376.15	375.15	\$\text{Stone Elevation}\$ 369.50 369.50 372.00 373.50 374.00 375.50 377.50 378.25 389.50 390.00 391.00 391.50 392.00 392.50 387.20 386.00 386.00 386.50 378.20 378.20 378.20 378.20 378.20 378.20 378.20 378.20 378.20 378.20 378.20 378.20 389.50 380.20 380.20 380.20 380.20 381.52 381.52 382.59 382.59 382.59 383.00 384.20 385.00 385.00 385.00 385.00 385.00 385.00 385.00 385.00 385.00 385.00 385.00 385.00 3877.40 377.40 377.00 371.15 371.40	370.15
	7 COT COTIC VIEWE DIVO	110B	10.0	5.0	4.0	376.15	375.15		370.15
111	7608 Genevieve Blvd	111A	10.0	5.0	4.0	376.40	375.40	371.40	370.40
111	7000 Genevieve blvd	111B	10.0	5.0	4.0	376.40	375.40	371.40	370.40

70.15 70.15 70.40 70.40
70.40
0.40

NOTE: STORMWATER MANAGEMENT REPORT WITH DRY WELL COMPUTATIONS PREVIOUSLY APPROVED UNDER F-21-044.

						129	7706	<b>CULTIVATOR RD</b>	
						130	7704	<b>CULTIVATOR RD</b>	
MODERATE INC	OME HOUS	SING UNIT	(MIHU)			131	7702	<b>CULTIVATOR RD</b>	
APPLICATION			• •			132	7700	<b>CULTIVATOR RD</b>	
Phase/Section	P1S1	P1S2	P1S3	P2	TOTAL				
Total Number of Lots/Units Proposed	45	79	126	144	394				
Total Number of MIHU's Required	5	8	13	14	40				
Number of MIHU's Provided Onsite	8	0	22	10	40				
(Exempt from APFO allocations)				10	40				
Number of APFO Allocations Required	40	71	113	130	354				
(Remaining Lots/Units)	70	''	113	100					
MIHU Fee-in-Lieu	NA	NA	NA	NA	NA				
(Indicate Lot/Unit numbers)	INA	I IVA	INA	INA	INA				
			_						
					PERM	IIT INFO	RMAT	TION CHAR	T

SUBDIVISION NAME:

26023-26035

WELLINGTON FARMS

LOI		ADDRESS	
54	7112	TRANQUILITY RD	
55	7112	TRANQUILITY RD	
		·	
56	7124	TRANQUILITY RD	
57	7128	TRANQUILITY RD	
58	7225	BERMAN RD	
59	7221	BERMAN RD	
60	7217		
61	7217		
62	7209		
63	7205		
64	7201	BERMAN RD	
65	7200	BERMAN RD	
66	7204		
67	7204		
67 68	7208		
69 70	7216		
70	7220	BERMAN RD	
71	7224	BERMAN RD	
72	7228	BERMAN RD	
73	7427		
73 74	7427	DECLAN RD	
	1		
75 <b>-</b> 2	7435		
76	7439		
77	7443	DECLAN RD	
78	7447		
79	7451		
80	7446	DECLAN RD	
81	7442	DECLAN RD	
82	7438		
83	7434	DECLAN RD	
84	7430	DECLAN RD	
85	7426	DECLAN RD	
86	7420	DECLAN RD	
87	7553	ZOE LN	
88	7549	ZOE LN	
89	7545	ZOE LN	
90	7541	ZOE LN	
91	7537	ZOE LN	
91 92		ZOE LN ZOE LN	
	7533		
93	7529	ZOE LN	
94	7521	ZOE LN	
95	7517	ZOE LN	
96	7517	ZOE LN	
90 97	7509	ZOE LN	
98 00	7505 7501	ZOE LN	
99	7501	ZOE LN	
100	7500	ZOE LN	
101	7508	ZOE LN	
102	7516	ZOE LN	
102	7516	ZOE LIN ZOE LN	
104	7538	ZOE LN	
105	7548	ZOE LN	
106	7459	DECLAN RD	
107	7463	DECLAN RD	
108	7458	DECLAN RD	
109	7600	GENEVIEVE BLVD	
110	7604	GENEVIEVE BLVD	
111	7608	GENEVIEVE BLVD	
112	7701	CULTIVATOR RD	
113	7703	CULTIVATOR RD	
114	7705	CULTIVATOR RD	
114 115	7705	CULTIVATOR RD  CULTIVATOR RD	
116	7709	CULTIVATOR RD	
117	7711	CULTIVATOR RD	
118	7713	CULTIVATOR RD	
119	7730	CULTIVATOR RD	
120	7728	CULTIVATOR RD	
120	7726	CULTIVATOR RD	
122	7724	CULTIVATOR RD	
123	7722	CULTIVATOR RD	
124	7718	CULTIVATOR RD	
125	7716	CULTIVATOR RD	
125	7714	CULTIVATOR RD	
10,	7712	CULTIVATOR RD	
127	7710	CULTIVATOR RD	
127	7710	1	
	7710	CULTIVATOR RD	
128		CULTIVATOR RD CULTIVATOR RD	
128 129	7706		
128 129 130	7706 7704	CULTIVATOR RD	

SECTION/AREA:

PHASE

SECTION 2

TAX MAP NO

LOT/PARCEL #

LOTS 54-132

606806

ELECTION

**ADDRESS CHART** 

**ADDRESS** 

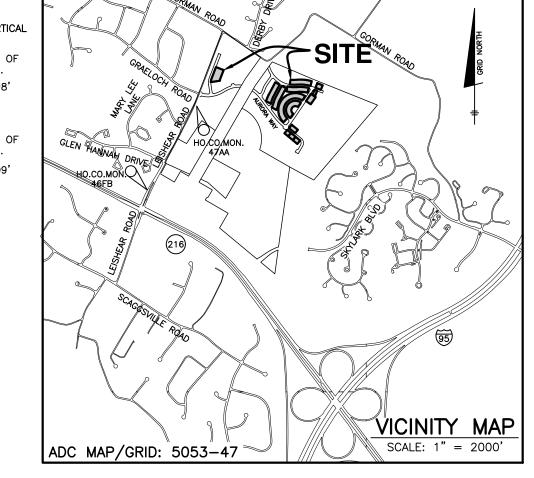
<u>BENCHMARKS</u> NAD '83 HORIZONTAL – NAVD88 VERTICAL

STAMPED BRASS DISK SET ON TOP OF A 3ft DEEP COLUMN OF CONCRETE.

N 537149.785' E 1347468.998'
ELEVATION: 317.217'

STAMPED BRASS DISK SET ON TOP OF A 3ft DEEP COLUMN OF CONCRETE.

N 538961.645' E 1348439.009'
ELEVATION: 362.621'



	SHEET INDEX						
SHEET TITLE							
1	SITE DEVELOPMENT PLAN COVER SHEET						
2	GENERIC BOXES AND HOUSE FOOTPRINTS						
3-5	SITE DEVELOPMENT AND GRADING PLAN						
6-8	LANDSCAPE PLAN						
9-12	SEDIMENT & EROSION CONTROL PLAN						
13	SEDIMENT & EROSION CONTROL DETAILS AND ROOF LEADER MANIFOLD DETAIL						

79 TOTAL

#### SITE ANALYSIS DATA CHART

A.) TOTAL PROJECT AREA (AS SHOWN ON F-21-044)	_ 93.76 ACRES
B.) AREA OF PLAN SUBMISSION (BUILDABLE LOTS ONLY)	_10.83 ACRES
C.) LIMIT OF DISTURBED AREA	_11.70 ACRES
D.) PRESENT ZONING:	_R-20-MXD-3 & R-SC-MXD-3
E.) PROPOSED USE OF SITE:	_RESIDENTIAL — SINGLE FAMILY ATTACHED AND DETACHED
F.) FLOOR SPACE ON EACH LEVEL OF BLDG PER USE _	
G.) TOTAL NUMBER OF UNITS ALLOWED AS SHOWN ON FINAL PLAT(S)	_79
H.) TOTAL NUMBER OF UNITS PROPOSED	_58 SFD _21 TOWNHOUSES

(INCLUDES HANDICAPPED SPACES) 274 (PER F-21-044)

L.) OPEN SPACE ON-SITE N/A

M.) AREA OF RECREATIONAL OPEN SPACE REQUIRED 136,200 SF

AREA OF RECREATIONAL OPEN SPACE PROVIDED\_\_\_\_\_\_372,478 SF (PROVIDED UNDER F-21-044)

N.) BUILDING COVERAGE OF SITE\_\_\_\_\_\_\_\_2,024 SF 
PERCENTAGE OF GROSS AREA\_\_\_\_\_\_\_47.8% 
WITH LARGEST COVERAGE (MAXIMUM ALLOWED 60%)

O.) APPLICABLE DPZ FILE REFERENCES: \_\_\_\_\_\_\_\_F-08-148, ECP-18-042, S-18-003, WP-20-039, WP-20-099, WP-20-117, P-20-006, F-21-025, F-21-044

BENCHMARK

BENCHMARK

ENGINEERS & LAND SURVEYORS & PLANNERS

ENGINEER No. 32311 Fxp 11 10 15 4c; 6-30-2023.

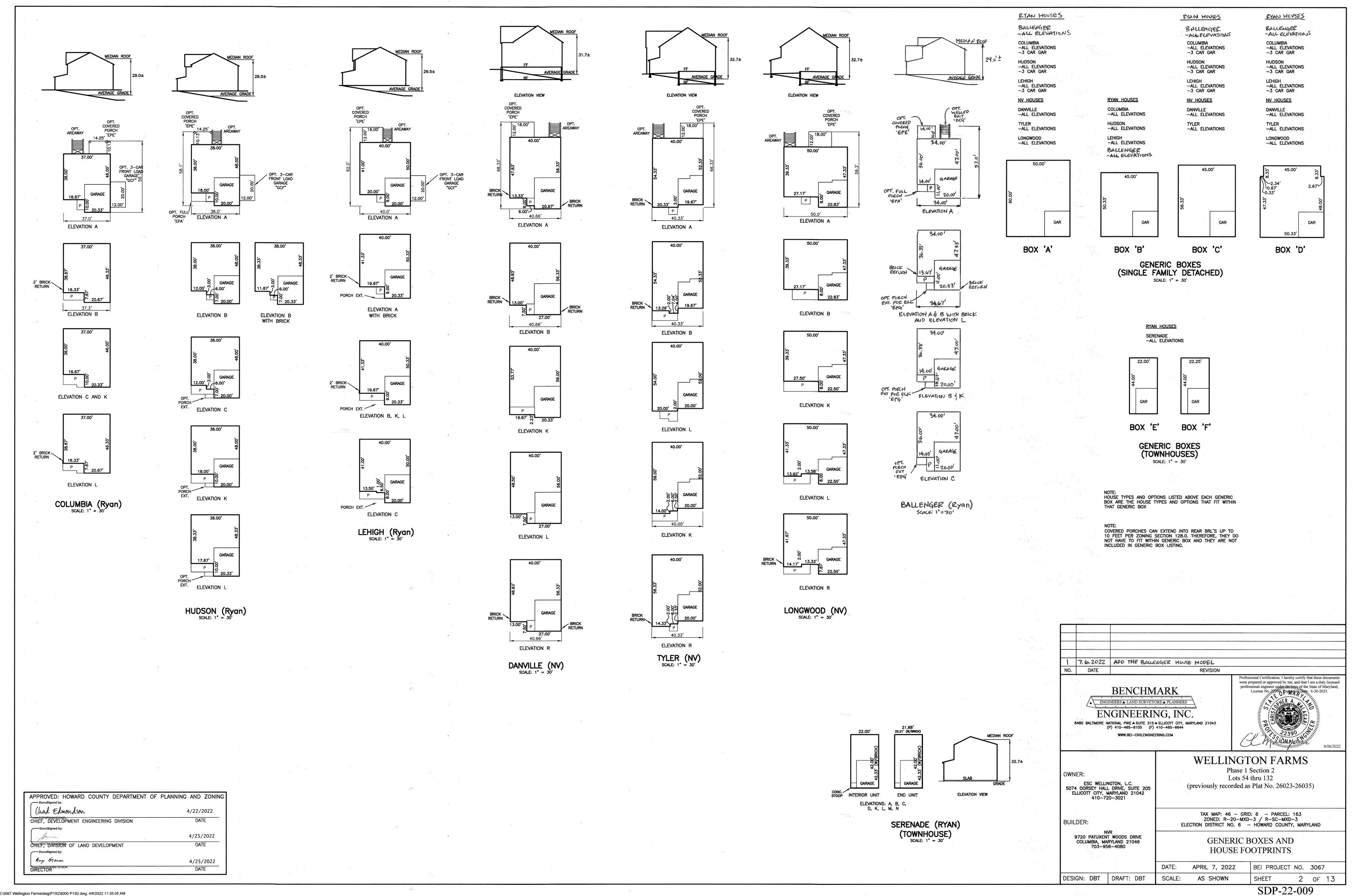
BABO BALTIMORE NATIONAL PIKE & SUITE 315 & ELLICOTT CITY, MARYLAND 21043 (P) 410-465-6105 (F) 410-465-6644

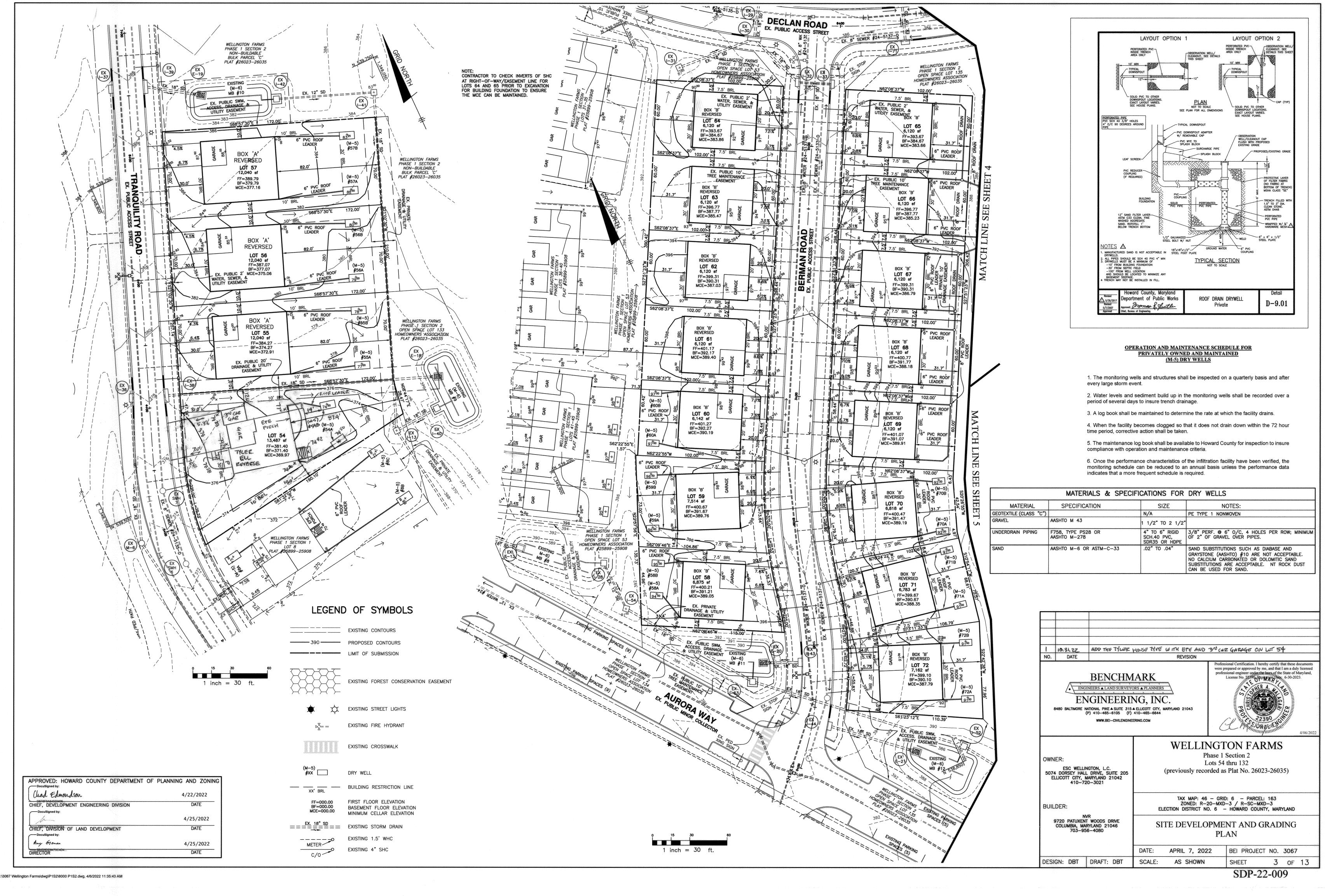
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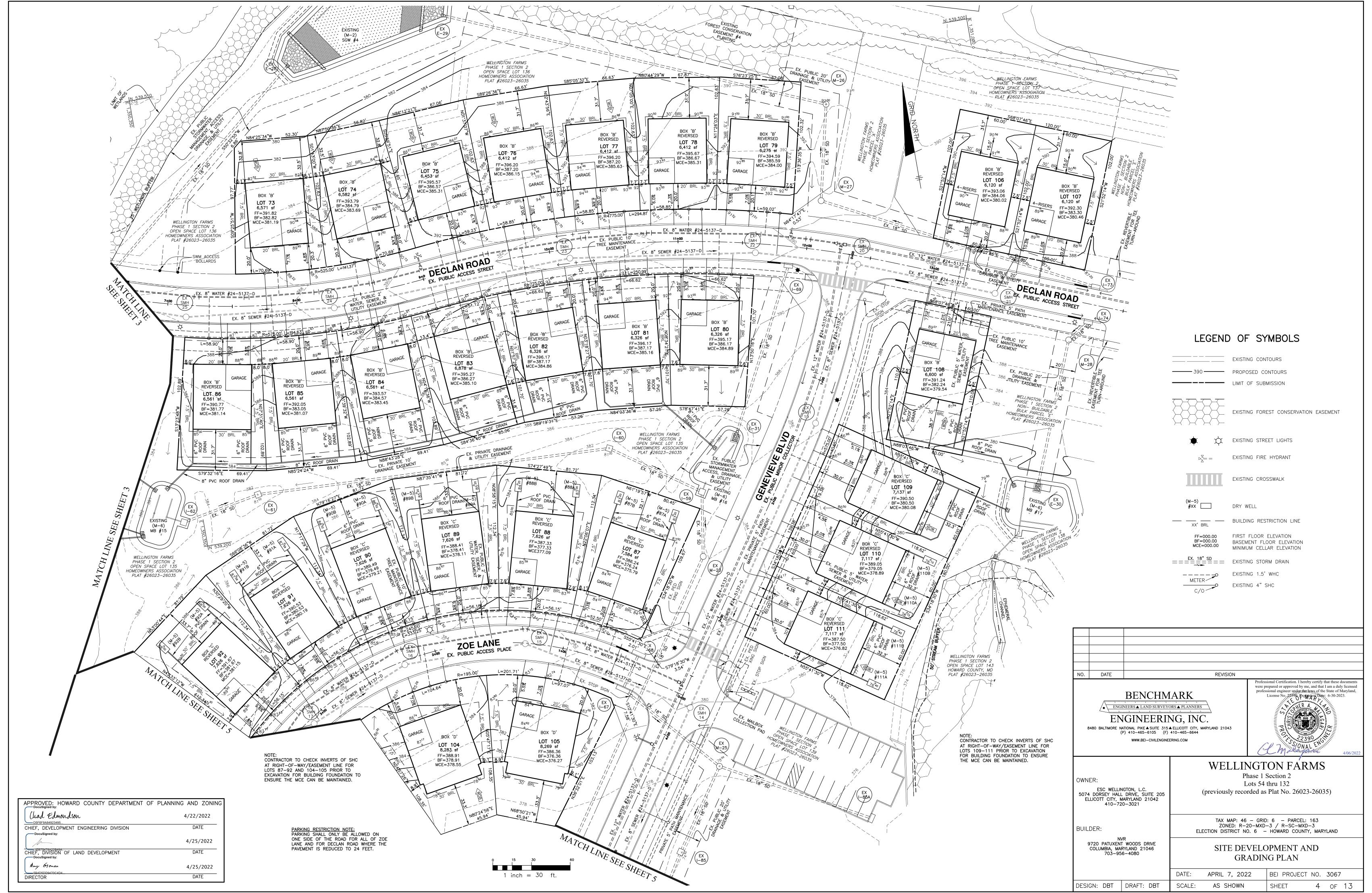
	4/6/2
OWNER:  ESC WELLINGTON, L.C. 5074 DORSEY HALL DRIVE, SUITE 205 ELLICOTT CITY, MARYLAND 21042 410-720-3021	WELLINGTON FARMS  Phase 1 Section 2  Lots 54 thru 132  (previously recorded as Plat No. 26023-26035)
	TAX MAP: 46 - GRID: 6 - PARCEL: 163
BUILDER:	ZONED: $R-20-MXD-3$ / $R-SC-MXD-3$ ELECTION DISTRICT NO. 6 - HOWARD COUNTY, MARYLAND
NVR 9720 PATUXENT WOODS DRIVE	SITE DEVELODMENT DLAN

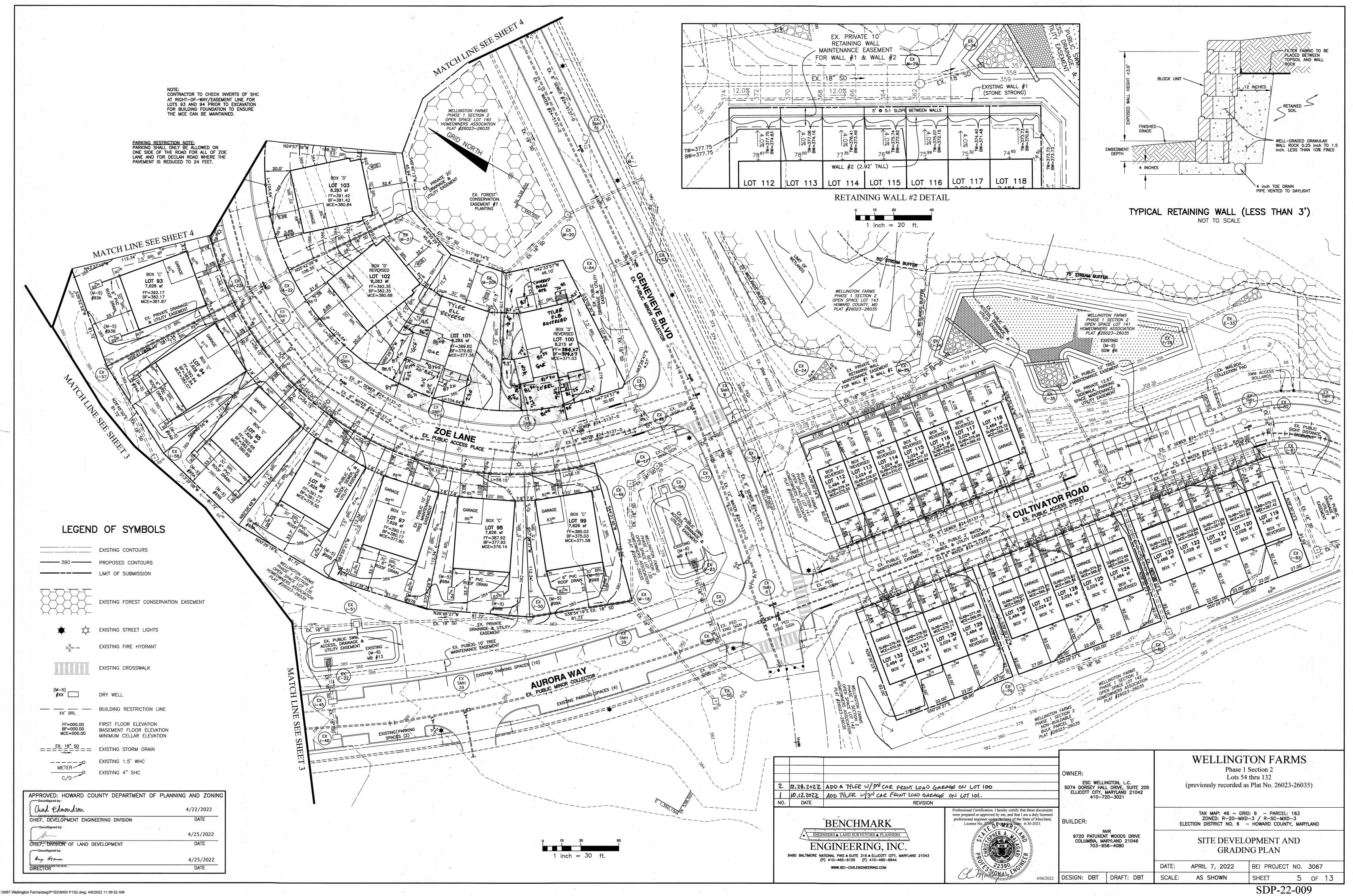
PESIGN: DBT DRAFT: DBT SCALE: AS SHOWN SHEET 1 OF 13

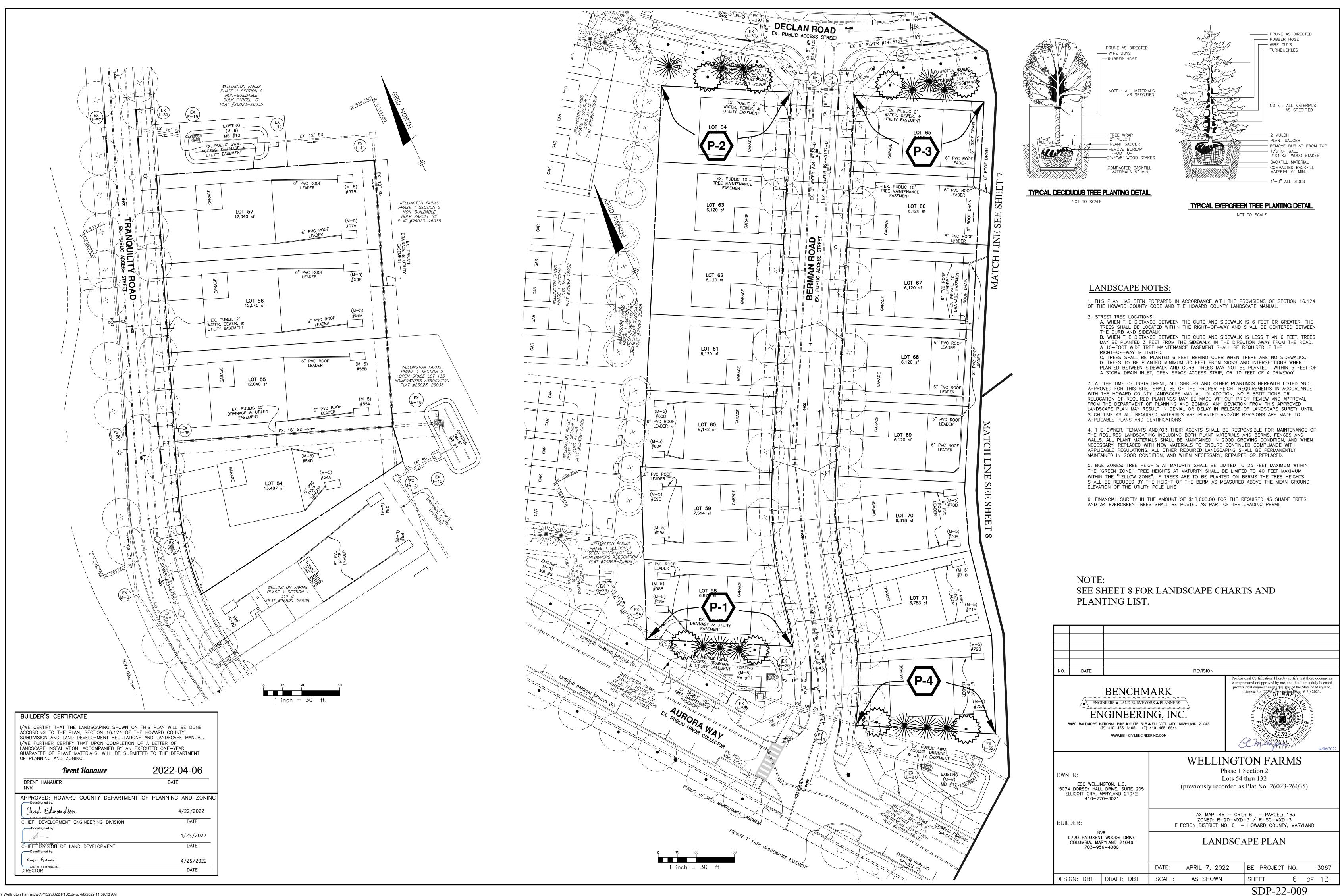
SDP-22-009



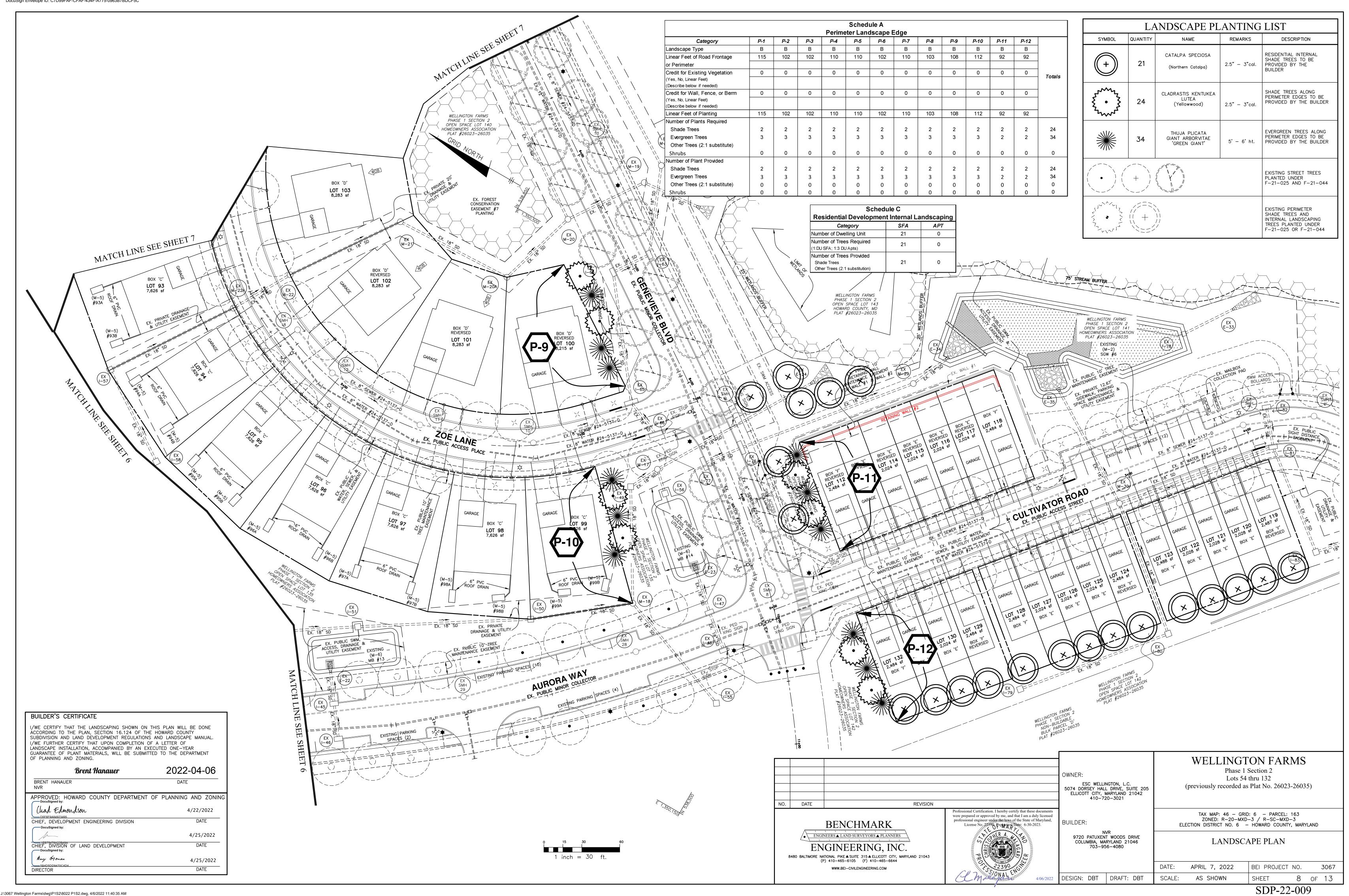


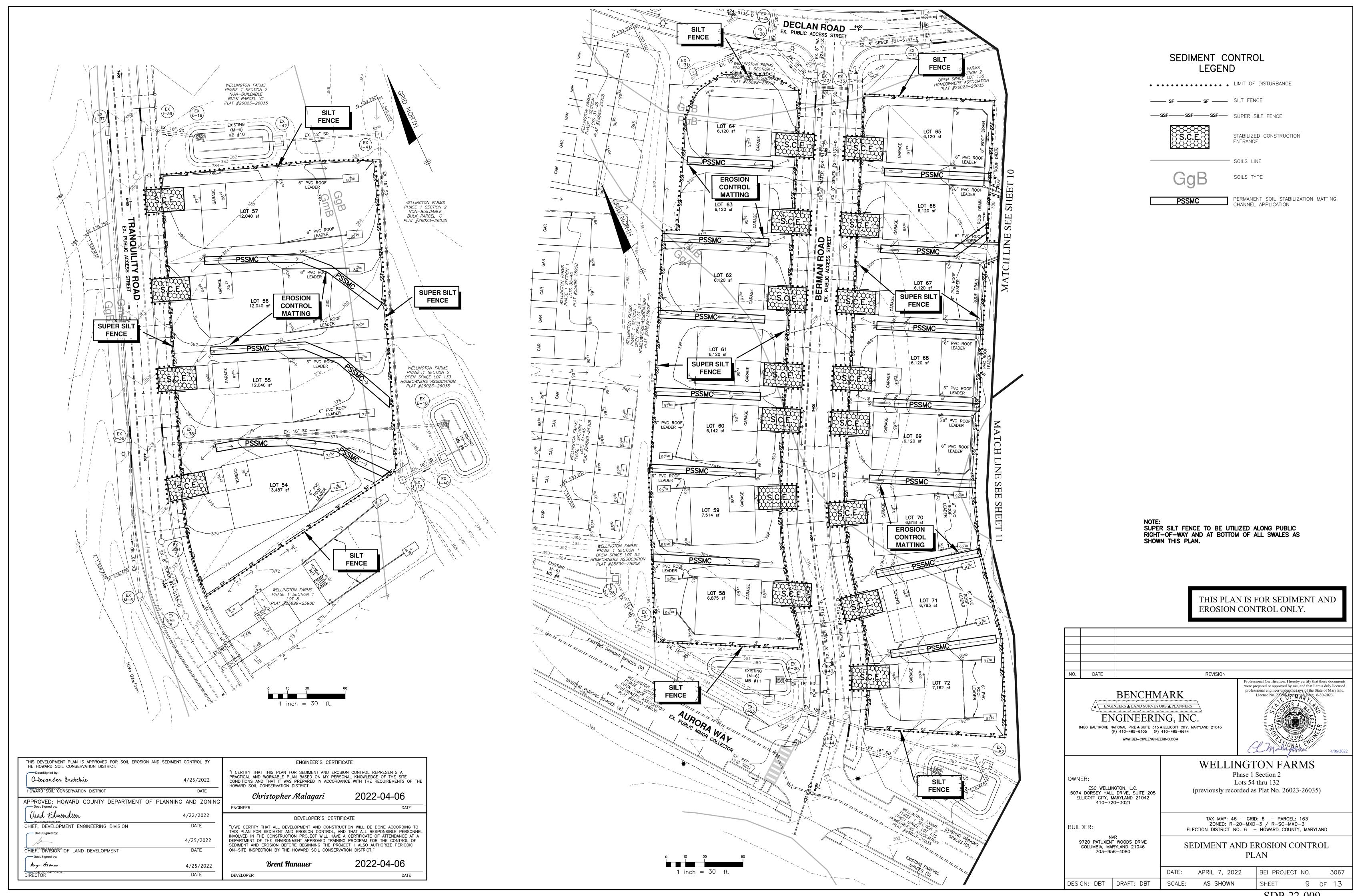


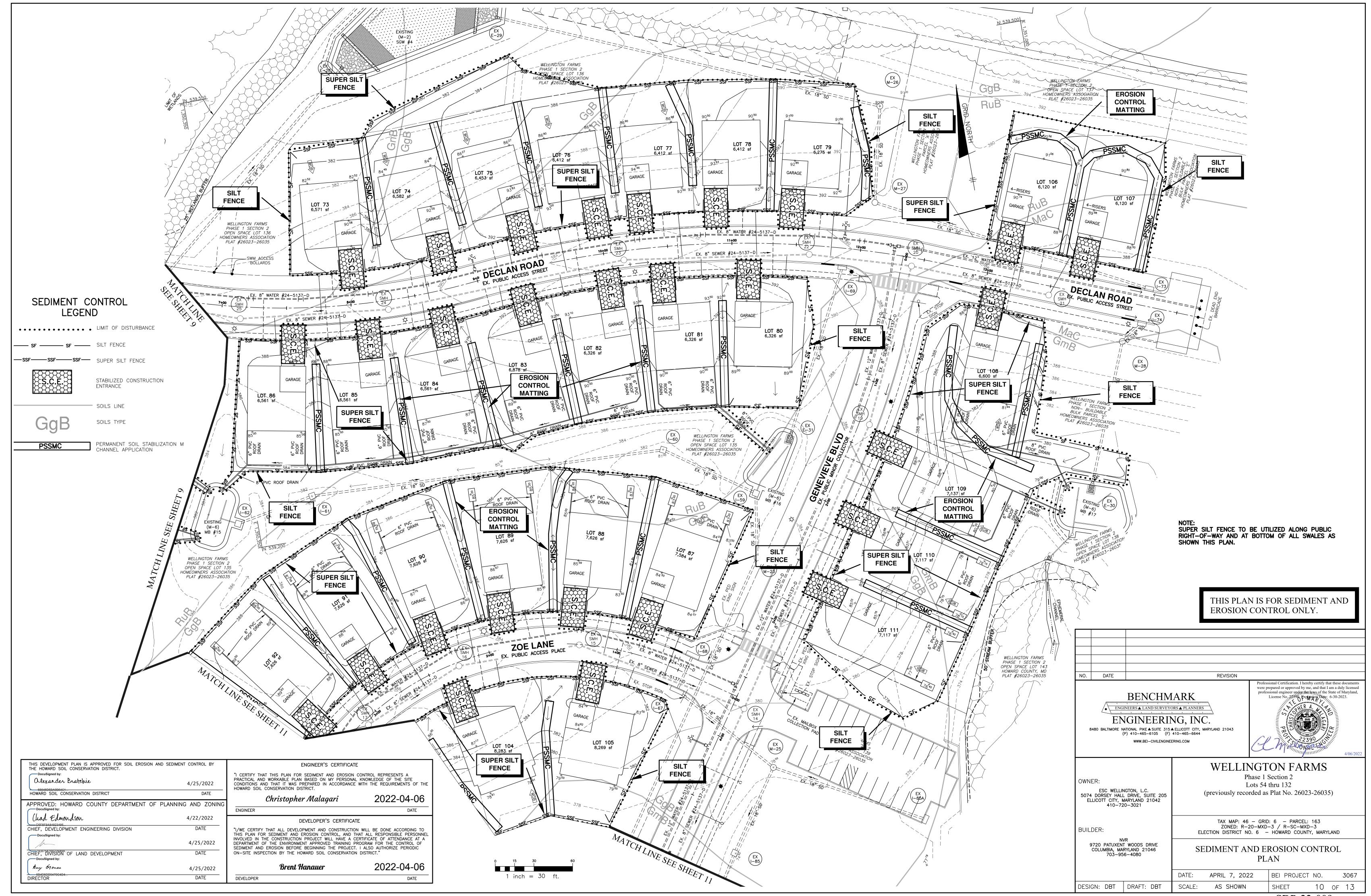


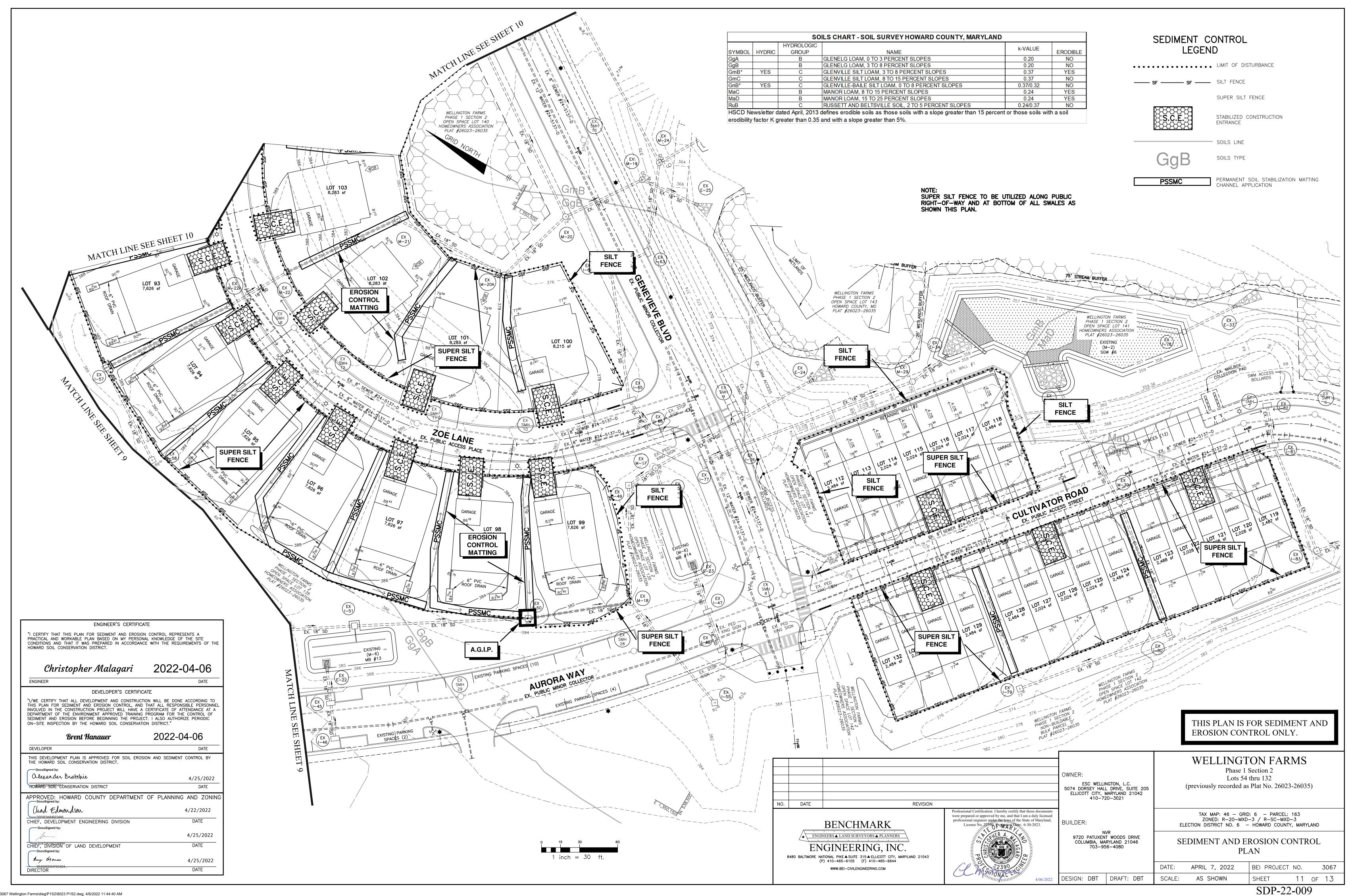












#### **B-4 STANDARDS AND SPECIFICATIONS**

#### **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

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. 1. 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 NCREMENTAL STABILIZATION

Establishment of vegetative cover on cut and fill slopes.

Γο 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 necessary. 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

3. Incremental Stabilization - Fill Slopes 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 operation ceases as prescribed in the plans.

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

Figure B.

**ENGINEER** 

DEVELOPER

Olexander Bratchie

(lead Edmondson

DocuSigned by:

DocuSigned b

Amy Glonan

DIRECTOR 9470C4D4.

HOWARD SOUR 46 ONSERVATION DISTRICT

CHIEF, DEVELOPMENT ENGINEERING DIVISION

CHIEFF, TOT WASHER OF LAND DEVELOPMENT

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

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

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 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 nlus clav) 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

conditions. Graded areas must be maintained in a true and even grade as specified on the

approved plan, then scarified or otherwise loosened to a depth of 3 to 5 inches. Apply soil amendments as specified on the approved plan or as indicated by the results of a soil test.

Mix soil amendments into the top 3 to 5 inches of soil by disking or other suitable means. Rake lawn areas to smooth the surface, remove large objects like stones and branches, and ready the area for seed application. Loosen 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

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: 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 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 1½ inches in diameter. b. 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 mo

performed by a recognized private or commercial laboratory. Soil samples taken for engineering purposes may also be used for chemical analyses. Fertilizers must be uniform in composition, free flowing and suitable for accurate application by appropriate equipment. Manure may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers must all be delivered to the site fully labeled

according to the applicable laws and must bear the name, trade name or trademark and warranty of the producer. 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. 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

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

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

c. Inoculants: The inoculant for treating legume seed in the seed mixtures must be a pure

d. Sod or seed must not be placed on soil which has been treated with soil sterilants or

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

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

culture of nitrogen fixing bacteria prepared specifically for the species. Inoculants must

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

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

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

above 75 to 80 degrees Fahrenheit can weaken bacteria and make the inoculant less

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

directed on the package. Use four times the recommended rate when hydroseeding.

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

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

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

#### SEEDING AND MULCHING

The application of seed and mulch to establish vegetative cover To protect disturbed soils from erosion during and at the end of construction. Conditions Where Practice Applies

permit dissipation of phyto-toxic materials.

seed to soil contact.

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

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

"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 THI HOWARD SOIL CONSERVATION DISTRICT.

ENGINEER'S CERTIFICATE

2022-04-06 Christopher Malagari

DATE

DEVELOPER'S CERTIFICATE "I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO IHIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNE 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

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

2022-04-06 Brent Hanauer

4/25/2022

4/22/2022

4/25/2022

DATE

4/25/2022

DATE

DATE

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

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

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

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

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

c. Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer). i. If fertilizer is being applied at the time of seeding, the application rates should not exceed the following: nitrogen, 100 pounds per acre total of soluble

200 pounds per acre. ii. Lime: Use only ground agricultural limestone (up to 3 tons per acre may be applied by hydroseeding). Normally, not more than 2 tons are applied by hydroseeding at any one time. Do not use burnt or hydrated lime when

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

iii. Mix seed and fertilizer on site and seed immediately and without interruption. iv. When hydroseeding do not incorporate seed into the soil.

1. Mulch Materials (in order of preference)

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 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. b. Wood Cellulose Fiber Mulch (WCFM) consisting of specially prepared wood cellulose processed into a uniform fibrous physical state. i. WCFM is to be dyed green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the

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

iii. WCFM materials are to be manufactured and processed in such a manner that the wood cellulose fiber mulch will remain in uniform suspension in water under agitation and will blend with seed, fertilizer and other additives to form a homogeneous slurry. The mulch material must form a blotter-like ground cover, on application, having moisture absorption and percolation properties and must cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedlings.

iv. WCFM material must not contain elements or compounds at concentration levels that will be phyto-toxic. v. WCFM must conform to the following physical requirements: fiber length of approximately 10 millimeters, diameter approximately 1 millimeter, pH range of 4.0 to 8.5, ash content of 1.6 percent maximum and

water holding capacity of 90 percent minimum. a. Apply mulch to all seeded areas immediately after seeding.

uniform loose depth of 1 to 2 inches. Apply mulch to achieve a uniform distribution and depth so that the soil surface is not exposed. When using a mulch anchoring tool, increase the application rate to 2.5 tons per acre. 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

i. A mulch anchoring tool is a tractor drawn implement designed to punch and anchor 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. If used on sloping land, this practice should follow the contour.

ii. Wood cellulose fiber may be used for anchoring straw. Apply the fiber binder at a net dry weight of 750 pounds per acre. Mix the wood cellulose fiber with water at a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water iii. Synthetic binders such as Acrylic DLR (Agro-Tack), DCA-70, Petroset, Terra Tax II,

iv. Lightweight plastic netting may be stapled over the mulch according to manufacturer

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

To stabilize disturbed soils with permanent vegetation.

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

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 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

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

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. Certifie 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

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:

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

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

B. Sod: to provide quick cover on disturbed areas (2:1 grade or flatter).

irrigating for any piece of sod within eight hours.

1. General Specifications 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

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

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

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 otherwise specified

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

**TEMPORARY STABLIZATION** 

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

To stabilize disturbed soils with vegetation for up to 6 month

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.

1. 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.

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

#### H-5 STANDARDS AND SPECIFICATIONS

alone as prescribed in Section B-4-3.A.1.b and maintain until the next seeding season.

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 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.

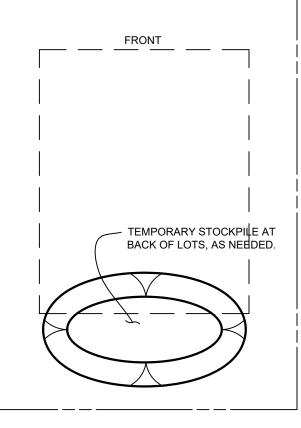
Mulches: See Section B-4-2 Soil Preparation, Topsoiling, and Soil Amendments, Section B-4-3 Seeding and Mulching, and Section B-4-4 Temporary Stabilization. Mulch must be anchored to prevent blowing.

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

material can be used to control air currents and soil blowing. 6. <u>Chemical Treatment</u>: Use of chemical treatment requires approval by the appropriate plan



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

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

Conditions Where Practice Applies Stockpile areas are utilized when it is necessary to salvage and store soil for later use.

sedimentation, and changes to drainage patterns.

impermeable sheeting.

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

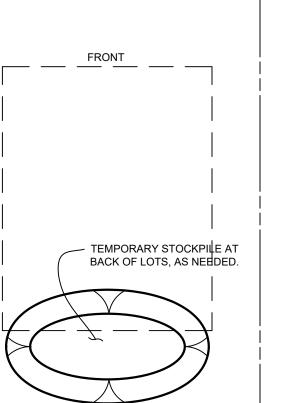
and based on a side slope ratio no steeper than 2:1. Benching must be provided in accordance with Section B-3 Land Grading.

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

6. Where runoff concentrates along the toe of the stockpile fill, an appropriate erosion/sediment

Standard B-4-1 Incremental Stabilization and Standard B-4-4 Temporary Stabilization. to facilitate cleanup. Stockpiles containing contaminated material must be covered with

The stockpile area must continuously meet the requirements for Adequate Vegetative Establishment in 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



To provide a designated location for the temporary storage of soil that controls the potential for erosion,

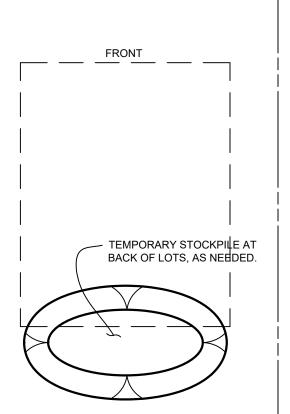
2. The footprint of the stockpile must be sized to accommodate the anticipated volume of material

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

an earth dike, temporary swale or diversion fence. Provisions must be made for discharging concentrated flow in a non-erosive manner.

7. Stockpiles must be stabilized in accordance with the 3/7 day stabilization requirement as well as 8. If the stockpile is located on an impervious surface, a liner should be provided below the stockpile

accordance with Section B-4 Vegetative Stabilization. Side slopes must be maintained at no steeper than a accordance with Section B-3 Land Grading.



• Evidence of sediment discharges control practice must be used to intercept the discharge. • 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 Monitoring/sampling

• Name and title of inspector

• 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

HOWARD SOIL CONSERVATION DISTRICT (HSCD)
STANDARD SEDIMENT CONTROL NOTES

1. A pre—construction meeting must occur with the Howard County Department of Public

protected areas are marked clearly in the field. A minimum of 48 hours notice to CID must

b. Upon completion of the installation of perimeter erosion and sediment controls, but

c. Prior to the start of another phase of construction or opening of another grading

2. All vegetative and structural practices are to be installed according to the provisions of

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

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

(Sec. B-4-4) and mulching (Sec. B-4-3). Temporary stabilization with mulch alone can only

 $\underline{\text{CONTROL}}$  for topsoil (Sec. B-4-2), permanent seeding (Sec. B-4-5), temporary seeding

be applied between the fall and spring seeding dates if the ground is frozen. Incremental

concentrated flow, steep slope, and highly erodible areas shall receive soil stabilization

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.

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

10.83\_ Acres

11.70\_ Acres

\_\_ Acres

Acres

. Cu Yds

. Cu Yds

SITE WITH AN ACTIVE GRADING PERMIT

5.96

5.74

1,740 \*

1,740 \*

7. Any sediment control practice which is disturbed by grading activity for placement of

8. Additional sediment control must be provided, if deemed necessary by the CID. The site

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

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

• Weather information (current conditions as well as time and an=mount of last recorded

• Brief description of project's status (e.g. percent complete) and/or current activities

\*CUT/FILL NUMBERS

FOR SEDIMENT

TO VERIFY.

ARE ROUGH ESTIMAT

CONTROL PURPOSES

ONLY. CONTRACTOR

Works, Construction Inspection Division (CID), 410-3133-1855 after the future LOD and

before proceeding with any other earth disturbance or grading,

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

this plan and are to be in conformance with the <u>2011 MARYLAND STANDARDS AND</u>

SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, and revisions thereto.

be given at the following stages:

those areas under active grading.

Total Area of Site:

Area to be roofed or paved:

Area to be vegetatively stabilized:

Off-site waste/borrow area location:

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

• Maintenance and/or corrective action performed

Area Disturbed:

Total fill:

a. Prior to the start of earth disturbance.

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) at a time. Work may proceed to a subsequent grading unit when at least 50 percent of the disturbed area in the preceding grading unit has been stabilized and approved by the CID. Unless otherwise specified and approved by the 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 treated in a sediment basin or other approved washout structure.

13. Topsoil shall be stockpiled and preserved on-site for redistribution onto final grade. 14. All silt fence and super silt fence shall be placed on—the—contour, and be imbricated at 25' minimum intervals, with lower ends curled uphill by 2' in elevation.

• 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 <u>2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL</u>, and associated permits shall be on—site and available when

15. Stream channels must not be disturbed during the following restricted time periods

#### SEQUENCE OF CONSTRUCTION

NOTIFY SEDIMENT CONTROL DIVISION 48 HOURS PRIOR TO START OF WORK

#### SEQUENCE PERTAINS TO EACH INDIVIDUAL HOUSE OR TOWNHOUSE STICK AS PERMITS ARE ISSUED. NOT ALL HOUSES/STICKS WILL BE CONSTRUCTED AT THE SAME TIME.

1. Obtain grading/building permit. Notify D.I.L.P. at 410-313-1880 at least 24 hours before starting any work. (1 day)

2. Hold on-site pre-construction meeting. (day 2)

with the permanent seedbed notes. (day 91-100)

all slopes greater than 3:1.

3. Install individual lot perimeter controls (i.e. stabilized construction entrance). (day 3)

4. Excavate for foundation, rough grade lot, and stabilize in accordance with the temporary seedbed notes. (day 4-10)

roof leaders for lots that require them. (day 11-90) 6. Upon approval from the Howard County Sediment Control Inspector, remove all sediment control devices and stabilize any remaining disturbed areas in accordance

5. Construct house, install water and sewer house connections from easement/right-of-

way up to house, backfill, and construct driveway. Install on-lot dry wells and connect

Note: Following initial soil disturbance or any re-disturbances, permanent or temporary stabilization shall be completed within:

A. 3 calendar days for all perimeter sediment control structures, dikes, swales and

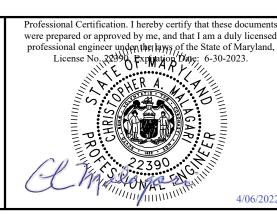
B. 7 calendar days for all other disturbed areas. During grading and after each rainfall, contractor will inspect and provide necessary maintenance to the sediment control measures of this plan.

### NO. DATE

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

BENCHMARK



OWNER:  ESC WELLIN 5074 DORSEY HALL ELLICOTT CITY, M 410-72	DRIVE, SUITE 205 IARYLAND 21042			Section 2 thru 132		5)		
BUILDER:		TAX MAP: 46 — GRID: 6 — PARCEL: 163 ZONED: R-20-MXD-3 / R-SC-MXD-3 ELECTION DISTRICT NO. 6 — HOWARD COUNTY, MARYLAND						
N\ 9720 PATUXENT COLUMBIA, MAI 703-95	WOODS DRIVE RYLAND 21046	SE	EDIMENT AND EI	ROSION CO TES	ONTR	ROL		
		DATE:	APRIL 7, 2022	BEI PROJECT	NO.	3067		
DESIGN: DBT	DRAFT: DBT	SCALE:	AS SHOWN	SHEET	12	of 13		

REVISION

#### BUILDER:

SHEET

12 OF 13 SDP-22-009

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

acre. Mix the wood cellulose fiber with water to attain a mixture with a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.

or water. This may be done by one of the following methods (listed by preference), depending upon the size of the area and erosion hazard:

Terra Tack AR or other approved equal may be used. Follow application rates as

Use of asphalt binders is strictly prohibited recommendations. Netting is usually available in rolls 4 to 15 feet wide and 300 to

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.

#### PERMANENT STABILIZATION

Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The summary is to be placed on the plan.

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:

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

(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

true when seedings are made late in the planting season, in abnormally dry or hot seasons, or on

a. Class of turfgrass must be Maryland State Certified. Sod labels must be made available to the job

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

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

#### 120 2.8 1.0 Mar 1 to May 15: Aug 1 to Oct 3: 112 2.8 1.0 Mar 1 to May 15; Aug 1 to Nov

Depth 2/

Seeding Rate 1/

40 1.0 0.5

96 2.2 1.0

30 0.7 0.5

Plant Species

Annual Ryegrass (Lolium perenne s

Cool-Season Grasses

Multiflorum

Dats (Avena sativa)

Warm-Season Grasses

Barley (Hordeum vulgare)

Wheat (Triticum aestivum)

Cereal Rye (Secale cereale)

Foxtail Millet (Serataria italica)

Oats are the recommended nurse crop for warm-season grasses.

2/ For sandy soils, plant seeds at twice the depth listed above.

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. iseding rates listed above are for temporary seedings, when planted alone. 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, foxtail millet), do not exceed more than 5% (by weight) of the overall permaner eeding mix. Cereal rye generally should not be used as a nurse crop, unless planting will occur very late fall beyond the seeding dates for other temporary seedings. Cereal rye has allelopathic 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.

Table B.1: Temporary Seeding for Site Stabilization

Recommended Seeding Dates by Plant Hardiness Zone 3/

Mar 1 to May 15: Aug 1 to Oct 3:

Mar 1 to May 15; Aug 1 to Oct 3

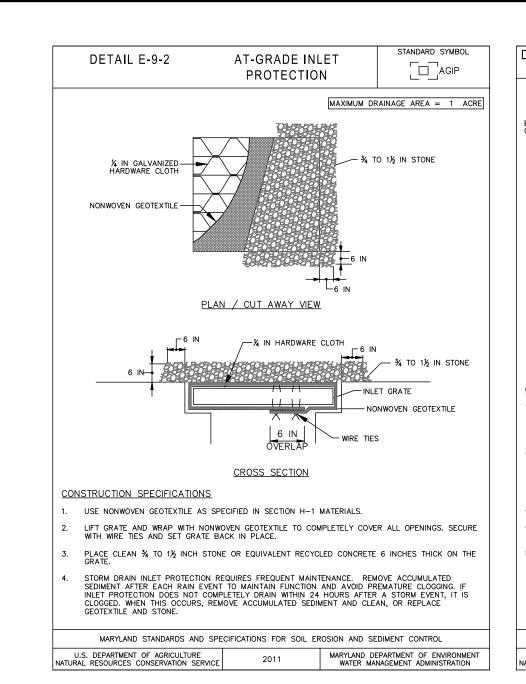
Mar 1 to May 15; Aug 1 to Oct 3

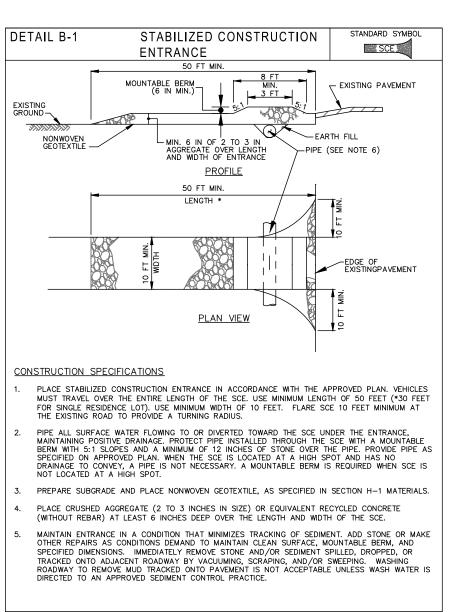
May 16 to Jul 31

Parmanant Souding Summary

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.

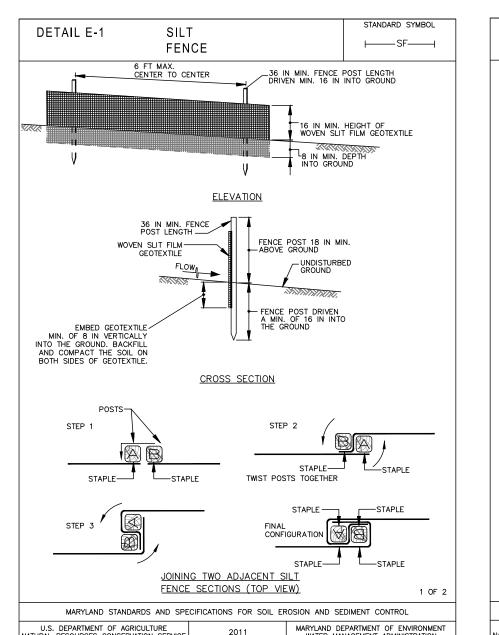
			remailent see	unig Summary				
	Hardiness Zone (from F Seed Misture (from Tab	· ,	6b Tall Fescue/Kentucky B	Fertilizer Rate (10-20-20)			Lime Rate	
Ď.	Species	Application Rate (lb/ac.)	Seeding Dates	Seeding Depths	N	P2O5	K2O	
)	Fescue, Tall	60	Mar 1 to May 15 Aug 1 to Oct 15	1/4 - 1/2 in	45 pounds per acre (1.0 lb/		90 lb/ac 2 lb/	
	Bluegrass, Kentucky	40	Mar 1 to May 15 Aug 1 to Oct 15	1/4 - 1/2 in		90 lb/ac (2 lb/		2 tons/ac (90lb/
				1/4 - 1/2 in	100 sf)	1000 sf)	1000 sf)	1000 sf)

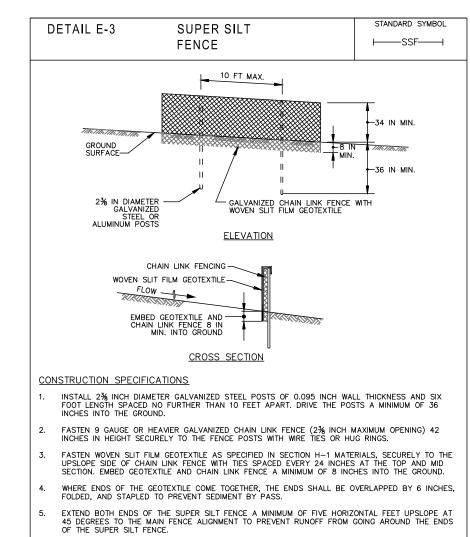




MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

2011



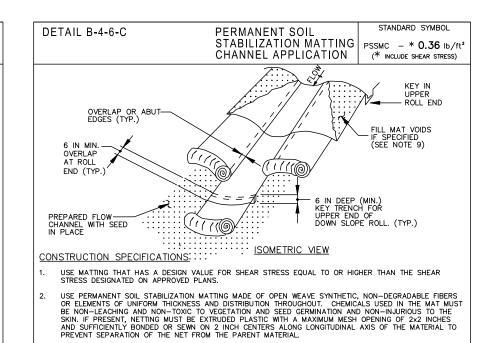


PROVIDE MANUFACTURER CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION  $H\!-\!1$  MATERIALS.

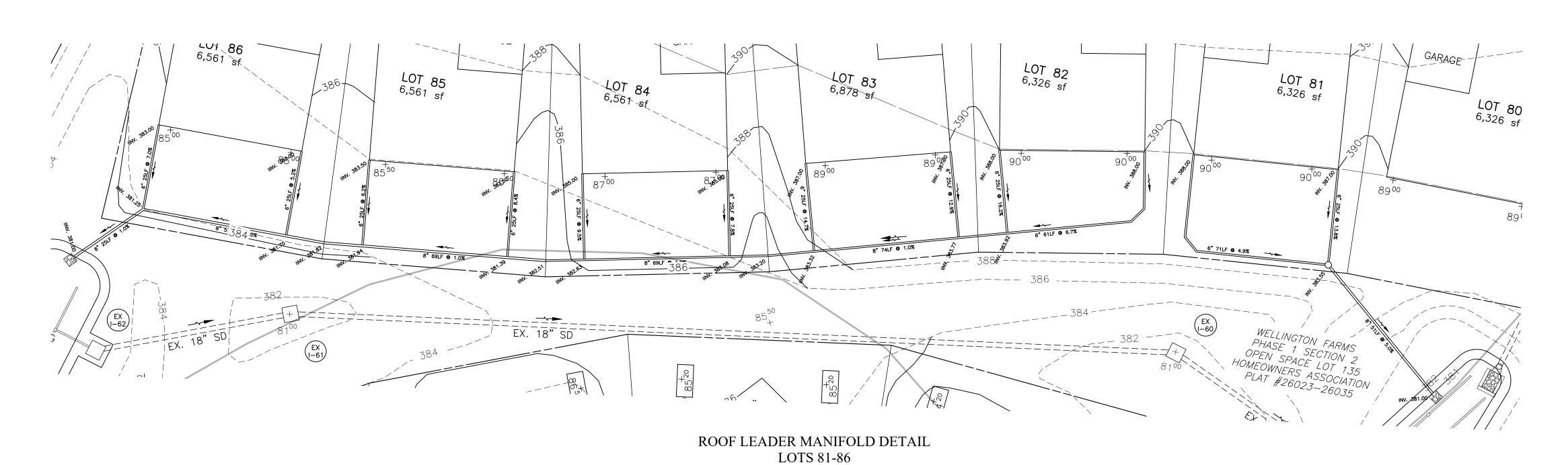
MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

2011

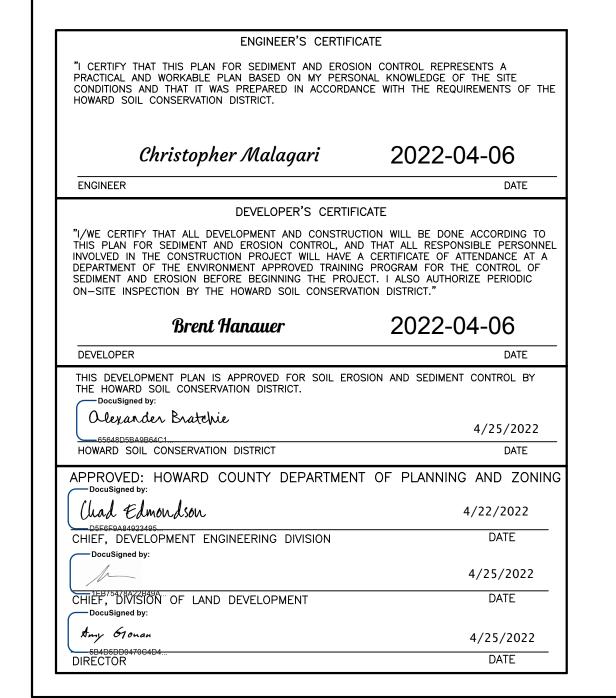
REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL CHAIN LINK FENCING AND GEOTEXTILE.



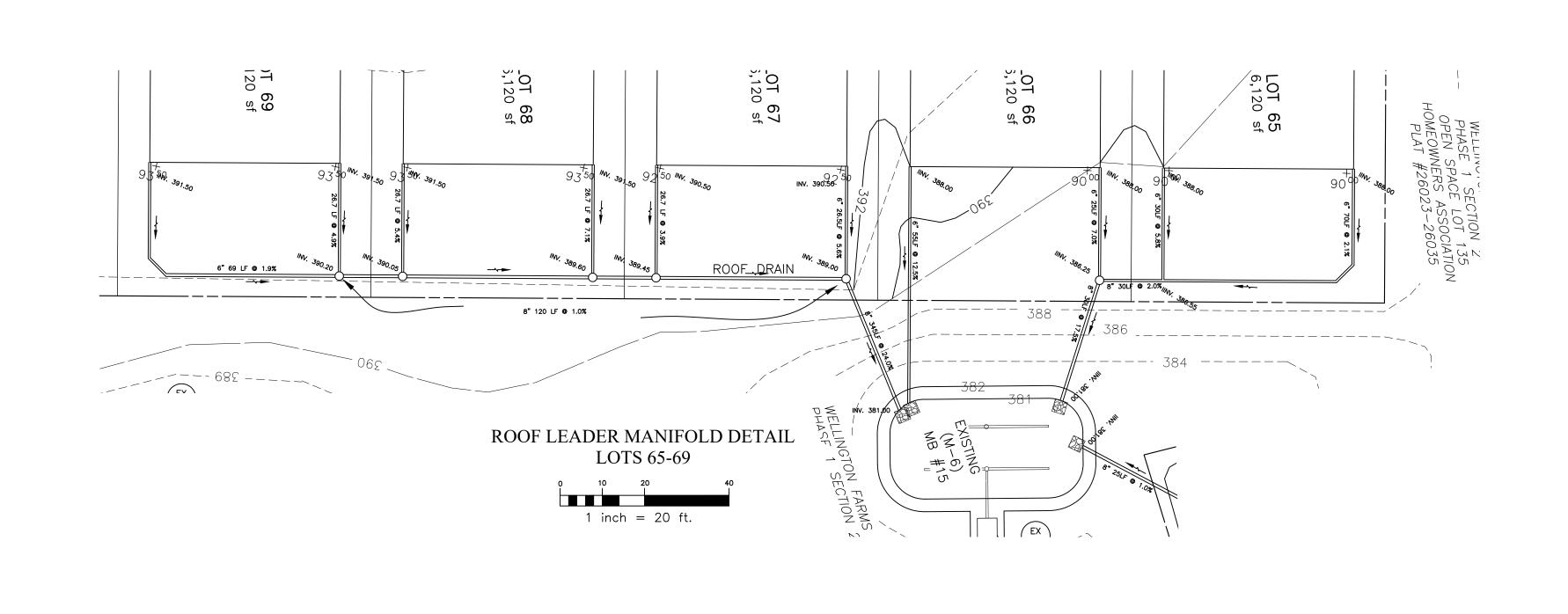
- SECURE MATTING USING STEEL STAPLES OR WOOD STAKES. STAPLES MUST BE "U" OR "T" SHAPED STEEL WIRE HAVING A MINIMUM GAUGE OF NO. 11 AND NO. 8 RESPECTIVELY. "U" SHAPED STAPLES MUST AVERAGE 1 TO 1 ½ INCHES WIDE AND BE A MINIMUM OF 6 INCHES LONG. "T" SHAPED STAPLES MUST HAVE A MINIMUM 8 INCH MAIN LEG, A MINIMUM 1 INCH SECONDARY LEG, AND MINIMUM 4 INCH HEAD. WOOD STAKES MUST BE ROUGH—SAWN HARDWOOD, 12 TO 24 INCHES IN LENGTH, 1x3 INCH IN CROSS SECTION, AND WEDGE SHAPE AT THE BOTTOM.
- PERFORM FINAL GRADING, TOPSOIL APPLICATION, SEEDBED PREPARATION, AND PERMANENT SEEDING IN ACCORDANCE WITH SPECIFICATIONS. PLACE MATTING WITHIN 48 HOURS OF COMPLETING SEEDING OPERATIONS, UNLESS END OF WORKDAY STABILIZATION IS SPECIFIED ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
- UNROLL MATTING IN DIRECTION OF WATER FLOW, CENTERING THE FIRST ROLL ON THE CHANNEL CENTER LINE. WORK FROM CENTER OF CHANNEL OUTWARD WHEN PLACING ROLLS. LAY MATTING SMOOTHLY AND FIRMLY UPON THE SEEDED SURFACE. AVOID STRETCHING THE MATTING.
- OVERLAP OR ABUT EDGES OF MATTING ROLLS PER MANUFACTURER RECOMMENDATIONS. OVERLAP ROLL ENDS BY 6 INCHES (MINIMUM), WITH THE UPSTREAM MAT OVERLAPPING ON TOP OF THE NEXT DOWNSTREAM MAT.
- KEY IN THE TOP OF SLOPE END OF MAT 6 INCHES (MINIMUM) BY DIGGING A TRENCH, PLACING THE MATTING ROLL END IN THE TRENCH, STAPLING THE MAT IN PLACE, REPLACING THE EXCAVATED MATERIAL, AND TAMPING TO SECURE THE MAT END IN THE KEY.
- STAPLE/STAKE MAT IN A STAGGERED PATTERN ON 4 FOOT (MAXIMUM) CENTERS THROUGHOUT AND 2 FOOT (MAXIMUM) CENTERS ALONG SEAMS, JOINTS, AND ROLL ENDS.
- IF SPECIFIED BY THE DESIGNER OR MANUFACTURER AND DEPENDING ON THE TYPE OF MAT BEING INSTALLED, ONCE THE MATTING IS KEYED AND STAPLED IN PLACE, FILL THE MAT VOIDS WITH TOP SOIL OR GRANULAR MATERIAL AND LIGHTLY COMPACT OR ROLL TO MAXIMIZE SOIL/MAT CONTACT WITHOUT CRUSHING MAT. ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE CONTINUOUSLY MET IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.
- MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL 2011

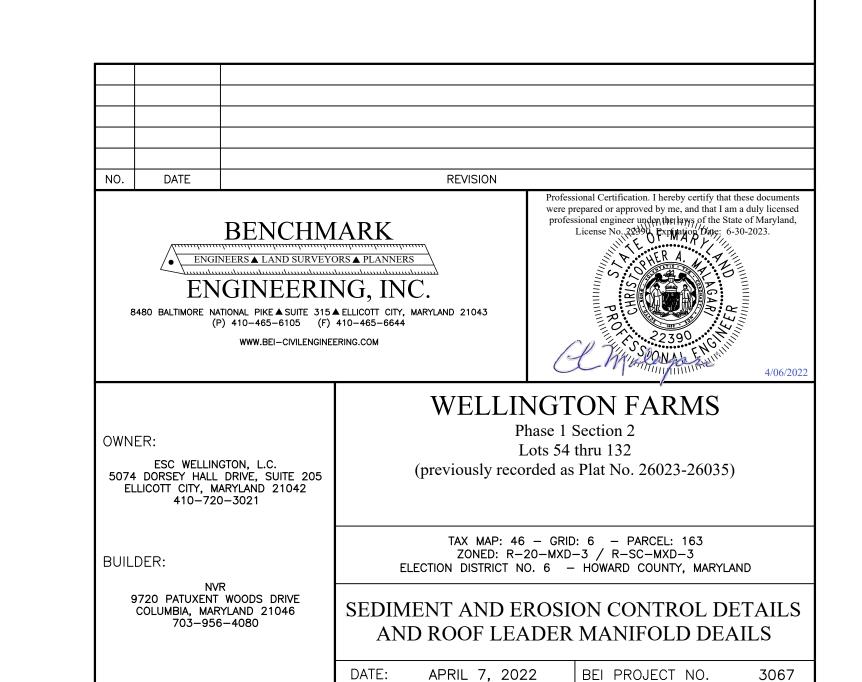


1 inch = 20 ft.



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13 of 13