STRUCTURES LOCATED ON THESE LOTS.

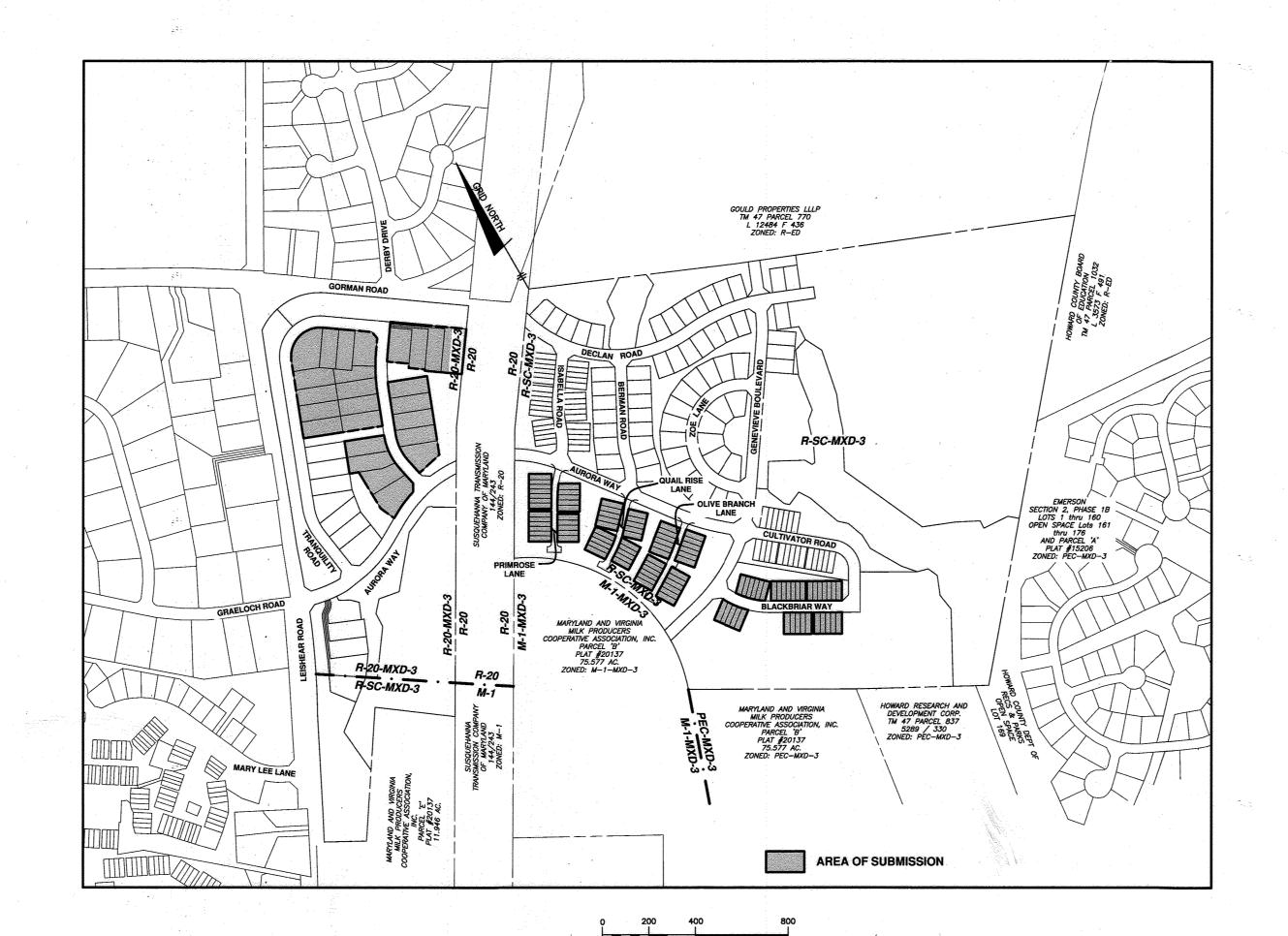
GENERAL NOTES

- 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. 26110-26117.
- 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 24-5138-D.
- 7.) SEWER IS PUBLIC. THE CONTRACT NUMBER IS 24-5138-D.
- 8.) THIS PROJECT IS LOCATED WITHIN THE METROPOLITAN DISTRICT. THE DRAINAGE AREA IS THE HAMMOND
- 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 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-22-001. 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 (1-1/2" 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 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 DETAIL R-6.03 and R-6.05.
- 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 \$43,650.00 FOR THE REQUIRED 130 SHADE TREES AND 31 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-22-001. THE EASEMENTS WERE RECORDED UNDER F-21-001, 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 APRIL 10, 2022, ON WHICH DATE DEVELOPER AGREEMENT #F22001/24-5138-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
- 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-22-001. THERE ARE 15 MIHUS TO BE PROVIDED WITH THIS PHASE/SECTION. A TOTAL OF 8 MIHUS WERE TO BE PROVIDED WITH PHASE 1 SECTION 1, AND 17 MIHUS SHALL BE PROVIDED WITH PHASE 2 FOR A TOTAL OF 40 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 GOUP, INC. O JUNE 29, 2018 AND REVISED ON NOVEMBER 16, 2018 AND FEBRUARY 6, 2019. IT WAS APPROVED WITH THE APPROVAL OF S-18-003.
- 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.
- 31.) FOR FLAG AND PIPE STEM LOTS, REFUSE COLLECTION, SNOW REMOVAL, AND ROAD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF THE FLAG OR PIPE STEM AND ROAD ROAD OF-WAY AND NOT ONTO THE PIPE

APPROVED:	HOWARD COUNTY DEPARTMENT	OF PLANNING AND ZONING
	CHAD Edmondson	8/18/2022
CHIEF, DEVE	OPMENT ENGINEERING DIVISION	DATE
	DocuSigned by:	8/19/2022
CHIEF, DIVISI	ON OF LAND DEVELOPMENT	DATE
	Docusigned by: Amy Glonan	8/19/2022
DIRECTOR	5B4D5DD9479C4D4	DATE

RESIDENTIAL SITE DEVELOPMENT PLAN WELLINGTON FARMS

PHASE 1 SECTION 3 LOTS 144 thru 269



LOT	and the second second second second	ADDRESS	LOT	enter e enter e entre	ADDRESS	
144	71 3 6	TRANQUILITY RD	208	8005	QUAIL RISE LN	
145	72.55	TRANQUILITY RD	209	8003	QUAIL RISE LN	216 216 217
146	7]44	TRANQUILITY RD	210	8001	QUAIL RISE LN	
147		TRANQUILITY RD	211	7900	OLIVE BRANCH LN	
148		TRANQUILITY RD	212	7902	OLIVE BRANCH LN	SCACE STATE AND
149	100	TRANQUILITY RD	213	7904	OLIVE BRANCH LN	
150		TRANQUILITY RD	214	7906	OLIVE BRANCH LN	
151		TRANQUILITY RD	215	7908	OLIVE BRANCH LN	
152		TRANQUILITY RD	216	7910	OLIVE BRANCH LN	
153	705	TRANQUILITY RD	217	7914	OLIVE BRANCH LN	
154		TRANQUILITY RD	218	7916	OLIVE BRANCH LN	
155	######################################	TRANQUILITY RD	219	7918	OLIVE BRANCH LN	1 400 440 (000 5057 47
156		TRANQUILITY RD	220	7920	OLIVE BRANCH LN	ADC MAP/GRID: 5053-47
157	2007	TRANQUILITY RD	221	7922	OLIVE BRANCH LN	
158	Z* (Z	TRANQUILITY RD	222	7924	OLIVE BRANCH LN	
159	3.5	TRANQUILITY RD	223	7925	OLIVE BRANCH LN	
160		TRANQUILITY RD	224	7923	OLIVE BRANCH LN	
161	0.2074	TRANQUILITY RD	225	7921	OLIVE BRANCH LN	SHEET INDEX
162		TRANQUILITY RD	226	7919	OLIVE BRANCH LN	SHEET TITLE
163		TRANQUILITY RD	227	7917	OLIVE BRANCH LN	1 SITE DEVELOPMENT PLAN
164	() ·	TRANQUILITY RD	228	7915	OLIVE BRANCH LN	the control of the co
165		TRANQUILITY RD	229	7911	OLIVE BRANCH LN	2 GENERIC BOXES AND HO
166	(2000 B)	TRANQUILITY RD	230	7909	OLIVE BRANCH LN	3-5 SITE DEVELOPMENT AND
167	T NEW S	TRANQUILITY RD	231	7907	OLIVE BRANCH LN	6 STORMWATER MANAGEN
168		PRIMROSE LN	232	7905	OLIVE BRANCH LN	7-9 LANDSCAPE F
169		PRIMROSE LN	233	7903	OLIVE BRANCH LN	10-12 SEDIMENT & EROSION (
170		PRIMROSE LN	234	7901	OLIVE BRANCH LN	Francisco de la constanta de l
171		PRIMROSE LN	235	7803	BLACKBRIAR WAY	13 SEDIMENT & EROSION C
172		PRIMROSE LN	236	7805	BLACKBRIAR WAY	14 SEDIMENT & EROSION CO
173		PRIMROSE LN	237	7807	BLACKBRIAR WAY	
174		PRIMROSE LN	238	7809	BLACKBRIAR WAY	
175	i	PRIMROSE LN	239	7811	BLACKBRIAR WAY	SITE ANALYSIS DATA CHART
176		PRIMROSE LN	240	7813	BLACKBRIAR WAY	
177		PRIMROSE LN	241	7817	BLACKBRIAR WAY	A.) TOTAL PROJECT AREA (AS SHOWN ON F-22-001) 33.38 ACRES
178		PRIMROSE LN	242	7819	BLACKBRIAR WAY	B.) AREA OF PLAN SUBMISSION (BUILDABLE LOTS ONLY) 12.23 ACRES
179		PRIMROSE LN	243	7821	BLACKBRIAR WAY	
180		PRIMROSE LN	244	7823	BLACKBRIAR WAY	C.) LIMIT OF DISTURBED AREA13.4 ACRES
181		PRIMROSE LN	245	7825	BLACKBRIAR WAY	D.) PRESENT ZONING:
182	_ :	PRIMROSE LN	246	7827	BLACKBRIAR WAY	E.) PROPOSED USE OF SITE:RESIDENTIAL -
183		PRIMROSE LN	247	7829	BLACKBRIAR WAY	ATTACHED AND
184	-	PRIMROSE LN	248	7833	BLACKBRIAR WAY	F.) FLOOR SPACE ON EACH LEVEL OF BLDG PER USE N/A
185		PRIMROSE LN	249	7835	BLACKBRIAR WAY	G.) TOTAL NUMBER OF UNITS ALLOWED
186		PRIMROSE LN	250	7837	BLACKBRIAR WAY	AS SHOWN ON FINAL PLAT(S)126
187		PRIMROSE LN	251	7839	BLACKBRIAR WAY	H.) TOTAL NUMBER OF UNITS PROPOSED24 SFD
188		PRIMROSE LN	252	7841	BLACKBRIAR WAY	102 TOWNHOUS
189	_	PRIMROSE LN	253	7843	BLACKBRIAR WAY	126 TOTAL
190		PRIMROSE LN	254	7845	BLACKBRIAR WAY	I.) MAXIMUM NUMBER OF EMPLOYEES, TENANTS ON SITE PER USE N/A
191 192		QUAIL RISE LN	255	7842	BLACKBRIAR WAY	J.) NUMBER OF PARKING SPACES REQUIRED BY
		QUAIL RISE LN	256	7840	BLACKBRIAR WAY	HO. CO. ZONING REGS AND/OR FDP CRITERIA 315 (PER F-2
193		QUAIL RISE LN	257	7838	BLACKBRIAR WAY	K.) NUMBER OF PARKING SPACES PROVIDED ONSITE
194 195	-	QUAIL RISE LN	258 259	7836	BLACKBRIAR WAY BLACKBRIAR WAY	(INCLUDES HANDICAPPED SPACES)*300 (PER F-2
195		QUAIL RISE LN	i	7834		
196	-	QUAIL RISE LN	260 261	7830	BLACKBRIAR WAY	L.) OPEN SPACE ON-SITE N/A
ı		QUAIL RISE LN		7828	BLACKBRIAR WAY	M.) AREA OF RECREATIONAL OPEN SPACE REQUIRED136,200 SF
198		QUAIL RISE LN	262	7826 7824	BLACKBRIAR WAY	AREA OF RECREATIONAL OPEN SPACE PROVIDED372,478 SF (P
199		QUAIL RISE LN	263	7824	BLACKBRIAR WAY	N.) BUILDING COVERAGE OF SITE1,680 SF }
200		QUAIL RISE LN	264	7822	BLACKBRIAR WAY	PERCENTAGE OF GROSS AREA52.3%
201		QUAIL RISE LN	265	7808	BLACKBRIAR WAY	(MAXIMUM ALLOWED 60%)
202		QUAIL RISE LN	266	7806 7804	BLACKBRIAR WAY	O.) APPLICABLE DPZ FILE REFERENCES:F-08-148, ECI WP-20-039, V
203		QUAIL RISE LN	267	7804	BLACKBRIAR WAY	P-20-006, F-
204		QUAIL RISE LN	268	7802	BLACKBRIAR WAY	F-22-001, SD
205		QUAIL RISE LN	269	7800	BLACKBRIAR WAY	
200			1			
206 207		QUAIL RISE LN QUAIL RISE LN	1			*SEE PARKING CHART ON SHEET 2 OF F-22-001. THE TOTAL PAR

ADDRESS CHART

BENCHMARKS NAD '83 HORIZONTAL - NAVD88 VERTICAL

	A 3ft DEEP CO N 537149.785	S DISK SET ON TOP OF STAMPED BRADLUMN OF CONCRETE. A 3ft DEEP C E 1347468.998' N 538961.64	S DISK SET ON TOP OF CONCRETE.
RES	SS CHART		GLEN HANNAN DRIVE OF HO.CO.MON.
:	LOT	ADDRESS	
	208	8005 QUAIL RISE LN	
	209	8003 QUAIL RISE LN	
	210	8001 QUAIL RISE LN	216
	211	7900 OLIVE BRANCH LN	
	212	7902 OLIVE BRANCH LN	
	213	7904 OLIVE BRANCH LN	
	214	7906 OLIVE BRANCH LN	
	215	7908 OLIVE BRANCH LN	
	216	7910 OLIVE BRANCH LN	
	24-7	TOTAL OUNTED DATE COLLEGE	

برياؤه كالمحمدين بمركوسة ارتحائر برمان	the contract of the contract o
	SHEET INDEX
SHEET	TITLE
1	SITE DEVELOPMENT PLAN COVER SHEET
2	GENERIC BOXES AND HOUSE FOOTPRINTS
3-5	SITE DEVELOPMENT AND GRADING PLAN
6	STORMWATER MANAGEMENT DETAILS
7–9	LANDSCAPE PLAN
10-12	SEDIMENT & EROSION CONTROL PLAN
13	SEDIMENT & EROSION CONTROL NOTES
14	SEDIMENT & EROSION CONTROL DETAILS

SITE ANALYSIS DATA CHART

B.) AREA OF PLAN SUBMISSION (BUILDABLE LOTS ONLY)	_12.23 ACRES
C.) LIMIT OF DISTURBED AREA	_13.4 ACRES
D.) PRESENT ZONING:	_R-20-MXD-3 & R-SC-MXD-
E.) PROPOSED USE OF SITE:	
F.) FLOOR SPACE ON EACH LEVEL OF BLDG PER USE	ATTACHED AND DETACHED N/A
G.) TOTAL NUMBER OF UNITS ALLOWED AS SHOWN ON FINAL PLAT(S)	_126
H.) TOTAL NUMBER OF UNITS PROPOSED	_24 SFD 102 TOWNHOUSES 126 TOTAL
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	_ 315 (PER F-22-001)
K.) NUMBER OF PARKING SPACES PROVIDED ONSITE (INCLUDES HANDICAPPED SPACES)	*300 (PER F-22-001)
L.) OPEN SPACE ON-SITE	_ N/A

52.3% WITH LARGEST COVERAGE PERCENTAGE OF GROSS AREA (MAXIMUM ALLOWED 60%) F-08-148, ECP-18-042, S-18-003, O.) APPLICABLE DPZ FILE REFERENCES: WP-20-039, WP-20-099, WP-20-117, P-20-006, F-21-025, F-21-044 F-22-001, SDP-22-003, SDP-22-009

AREA OF RECREATIONAL OPEN SPACE PROVIDED_____372,478 SF (PROVIDED UNDER F-21-044)

*SEE PARKING CHART ON SHEET 2 OF F-22-001. THE TOTAL PARKING SPACE REQUIREMENT FOR THE FIRST 3 PHASE/SECTIONS AMOUNTS TO 626. THE TOTAL PARKING SPACES PROVIDED AMOUNTS TO 765.

THIS RESIDENTIAL PROJECT IS REQUIRED TO PROVIDE A MINIMUM OF 10% OF THE 126 DWELLING UNITS AS MODERATE INCOME HOUSING UNITS. A TOTAL OF 22 MIHUS ARE TO BE PROVIDED WITH THIS PLAN. THOSE UNITS ARE LOCATED ON LOTS 169, 221, 236, 238, 239, 242, 244, 246, 249, 251, and 253.

	MODERATE INC APPLICATION	· ·				
	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 (Exempt from APFO allocations)	8	0.5	15	17	40
	Number of APFO Allocations Required (Remaining Lots/Units)	40	71	113	130	354
	MIHU Fee-in-Lieu (Indicate Lot/Unit numbers)	NA	NA	NA	NA	NA

NOTE: THE ADDITIONAL 4 MIHU'S PROVIDED ABOVE THE REQUIREMENT THRU THE COMPLETION OF PHASE 1 SECTION 3 SHALL BE CREDITED TOWARDS THE OBLIGATION OF PHASE 2

	`								
	I	PERMI	T INFORM	MATION	CHART		BUILDER:		
SUBDIVISION WEL		TON FA	ARMS	SECTION/AREA PHASE 1 SECTION 3	LOTS	/PARCEL # 144-269	9720 PATUXE COLUMBIA, M	NVR NT WOODS DRIVE IARYLAND 21046 156-4080	
26110-2		GRID No.	ZONE R-20-MXD-3 R-SC-MXD-3	TAX MAP NO 46	ELECTION DISTRICT 6	CENSUS TRACT 606806	DESIGN: DBT	DRAFT: DBT	_

5.21. 2023 REVISE GEN NOTE 25 AND MIMU CHART TO REFLECT 15 MIMUFOR PISS AND 17 MINU FOR PHASE Z NO. DATE were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland

BENCHMARK ENGINEERING, INC 3300 N. RIDGE ROAD A SUITE 140 A ELLICOTT CITY, MARYLAND 21043 (P) 410-465-6105 (F) 410-465-6644

WWW.BEI-CIVILENGINEERING.COM

License No. 23300 Expirition Date; 6-30-2023.

.1,680 SF BASED ON THE SFA LOTS

OWNER: ESC WELLINGTON, L.C. 5074 DORSEY HALL DRIVE, SUITE 205 ELLICOTT CITY, MARYLAND 21042 410-720-3021	WELLINGTON FARMS Phase 1 Section 3 Lots 144 thru 269 (previously recorded as Plat No. 26110-26117)
BUILDER:	TAX MAP: 46 - GRID: 6 - PARCEL: 163 ZONED: R-20-MXD-3 / R-SC-MXD-3 ELECTION DISTRICT NO. 6 - HOWARD COUNTY, MARYLAND

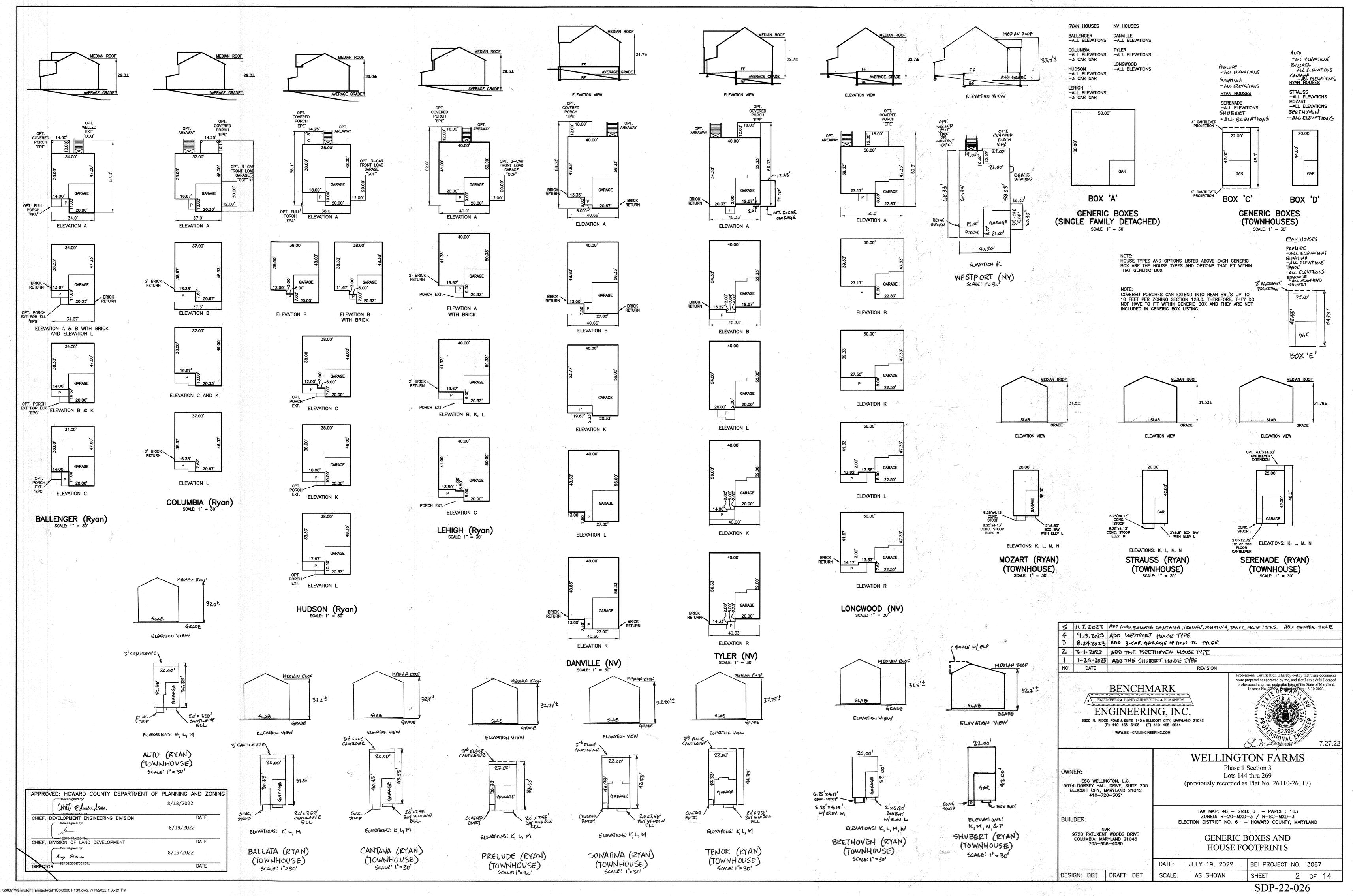
SCALE:

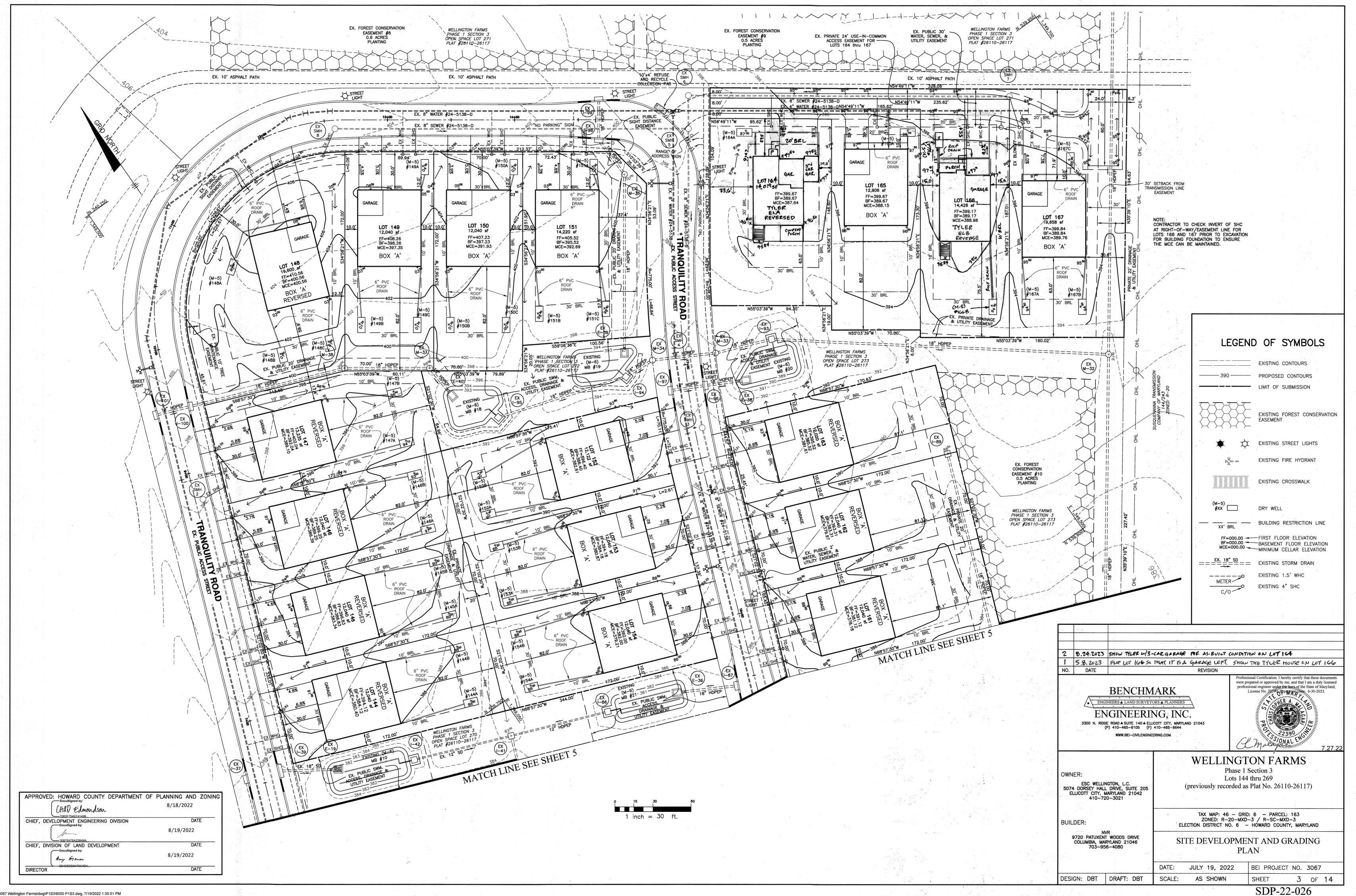
9720 PATUXENT WOODS DRIVE SITE DEVELOPMENT PLAN COLUMBIA, MARYLAND 21046 703-956-4080 **COVER SHEET**

JULY 19, 2022

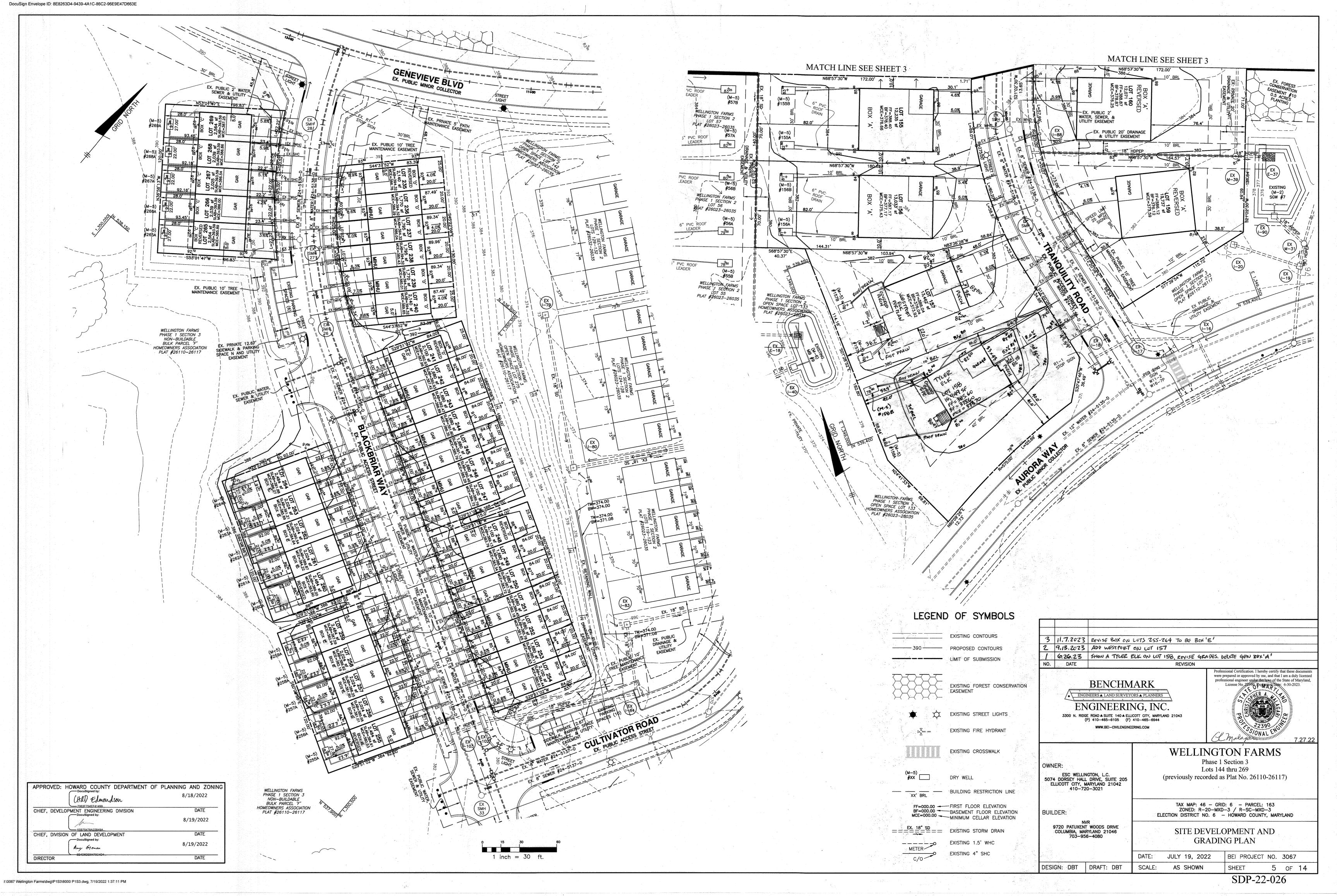
AS SHOWN

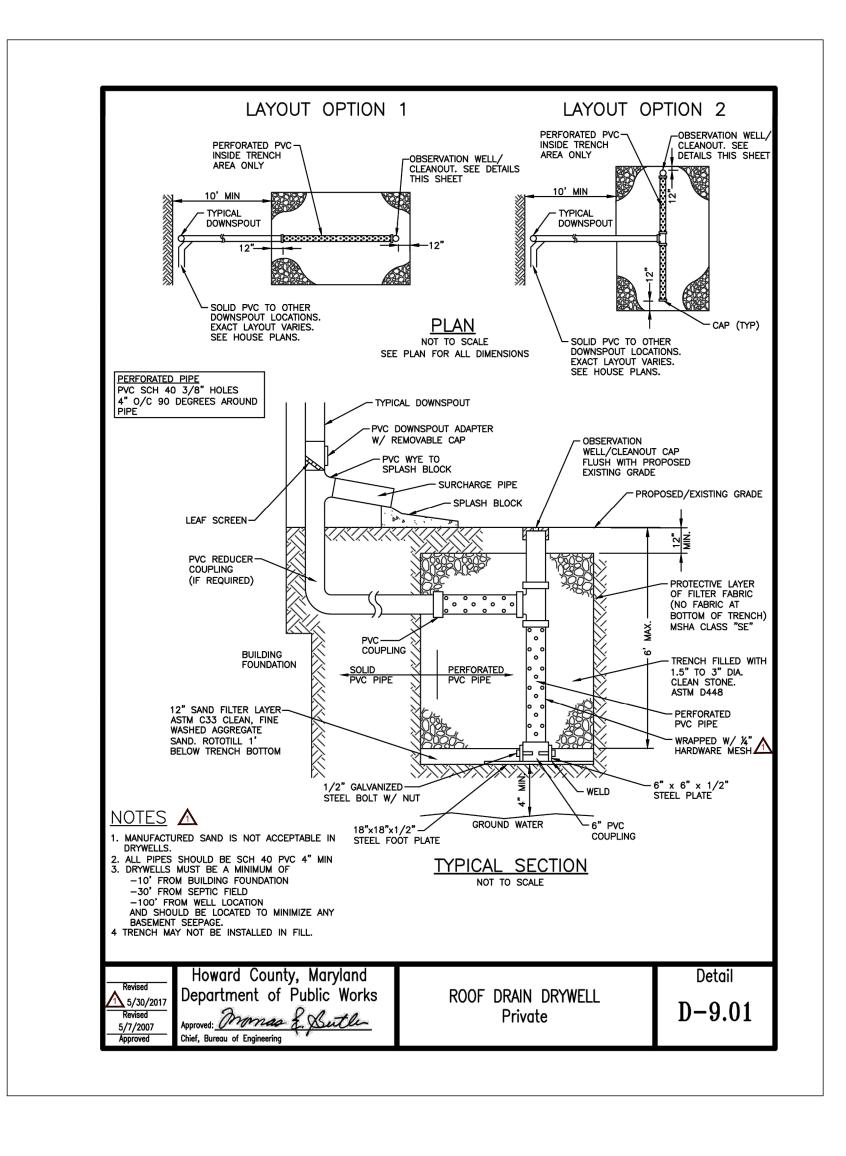
BEI PROJECT NO. 3067











MATERIALS & SPECIFICATIONS FOR 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.							

OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED (M-5) DRY WELLS

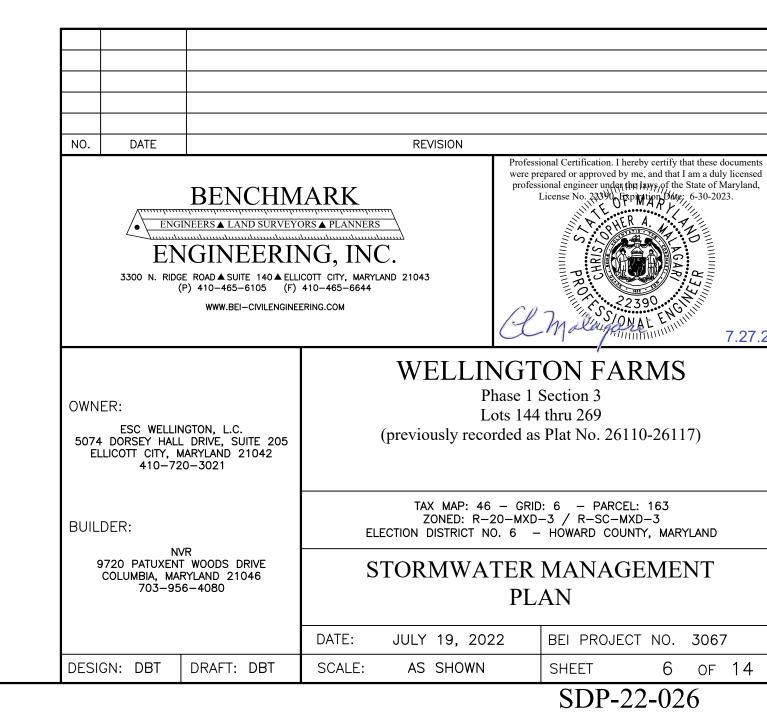
- 1. The monitoring wells and structures shall be inspected on a quarterly basis and after every large storm event.
- 2. Water levels and sediment build up in the monitoring wells shall be recorded over a period of several days to insure trench drainage.
- 3. A log book shall be maintained to determine the rate at which the facility drains.
- 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.

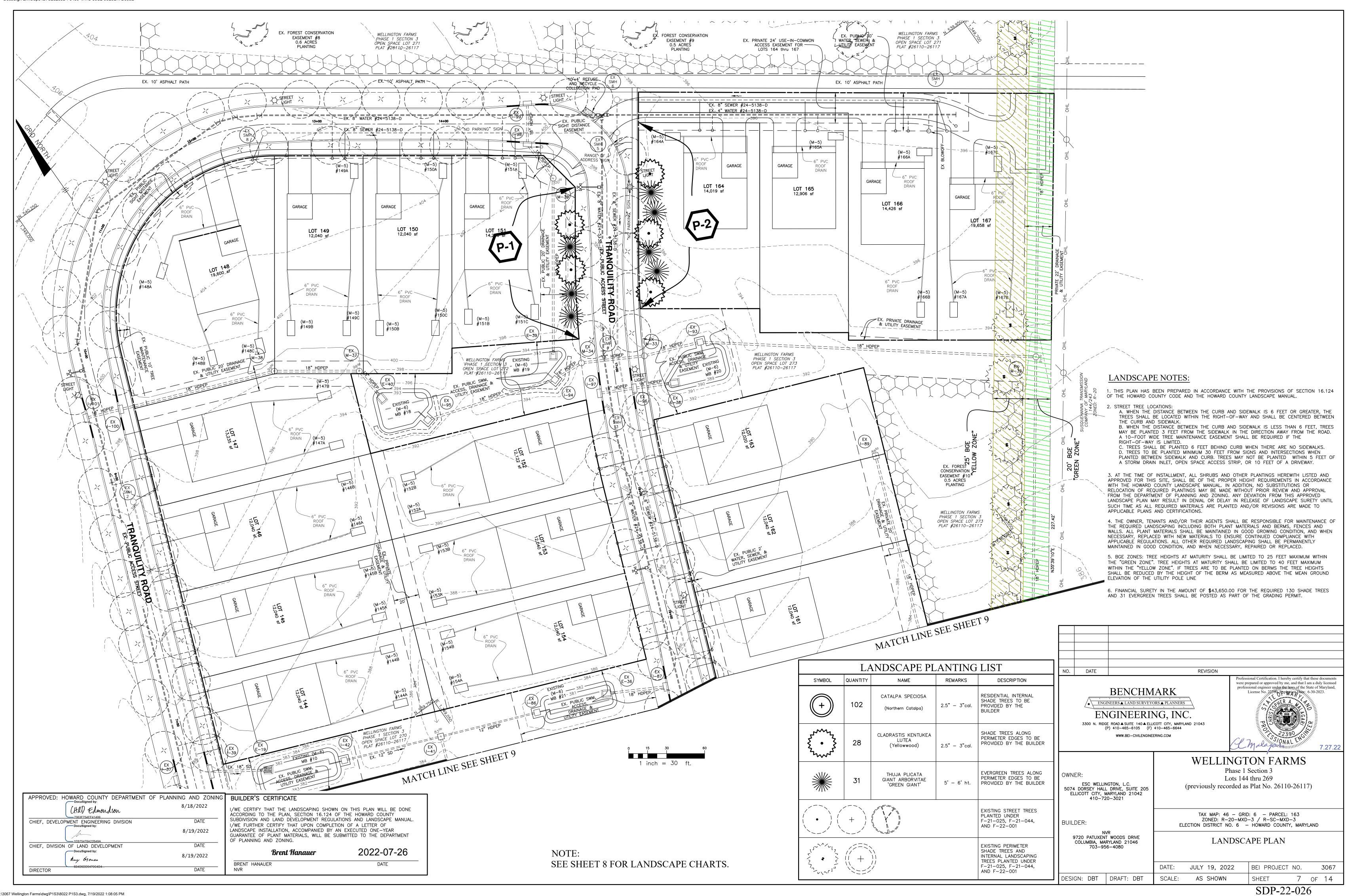
APPROVED: HOWARD COUNTY DEPARTMENT	OF	PLANNING	AND	ZONING
(HAD Edmondson		8/	18/20	22
CHIEF, DEVELOPMENT ENGINEERING DIVISION Docusigned by:			DAT	E
1FB75478A22B49A		8/	19/20)22
CHIEF, DIVISION OF LAND DEVELOPMENT			DAT	E
Docusigned by: Amy 61 on an		8/	19/20	22
DIRECTOR			DAT	E

					Well Chart Ground	Top of	Bottom of	Bottom of
Lot	Dry Well	Length (ft)	Width (ft)	Depth (ft)				
	144A	11.0	6.0	4.0	Elevation 386.50	Storage Elevation 385.50	381.50	380.50
144	144A 144B	11.0	6.0	4.0	388.00	387.00	383.00	382.00
	145A	11.0	6.0	4.0	389.00	388.00	384.00	383.00
145	145B	11.0	6.0	4.0	390.20	389.20	385.20	384.20
1.10	146A	11.0	6.0	4.0	391.00	390.00	386.00	385.00
146	146B	11.0	6.0	4.0	393.00	392.00	388.00	387.00
147	147A	11.0	6.0	4.0	394.10	393.10	389.10	388.10
177	147B	11.0	6.0	4.0	396.40	395.40	391.40	390.40
	148A	12.0	6.0	5.0	403.90	402.90	397.90	396.90
148	148B	12.0	6.0	5.0	401.50	400.50	395.50	394.50
	148C	12.0	6.0	5.0 5.0	401.50 404.50	400.50 403.50	395.50	394.50
1/19	149A 149B	12.0 12.0	6.0 6.0	5.0	404.50	400.20	398.50 395.20	397.50 394.20
149	149B	12.0	6.0	5.0	401.20	400.20	395.20	394.20
	150A	12.0	6.0	5.0	403.30	402.30	397.30	396.30
150	150B	12.0	6.0	5.0	401.20	400.20	395.20	394.20
	150C	12.0	6.0	5.0	400.00	399.00	394.00	393.00
	151A	12.0	6.0	5.0	402.00	401.00	396.00	395.00
151	151B	12.0	6.0	5.0	398.60	397.60	392.60	391.60
	151C	12.0	6.0	5.0	398.60	397.60	392.60	391.60
152	152A	11.0	6.0	4.0	390.40	389.40	385.40	384.40
102	152B	11.0	6.0	4.0	390.40	389.40	385.40	384.40
153	153A	11.0	6.0	4.0	388.20	387.20	383.20	382.20
	153B	11.0	6.0	4.0	388.20	387.20	383.20	382.20
154	154A	11.0	6.0	4.0	386.00	385.00	381.00	380.00
	154B	11.0	6.0	4.0	386.00	385.00	381.00	380.00
155	155A 155B	11.0 11.0	6.0 6.0	4.0 4.0	382.50 383.50	381.50 382.50	377.50 378.50	376.50 377.50
	156A	11.0	6.0	4.0	381.00	380.00	376.00	377.50
156	156B	11.0	6.0	4.0	381.00	380.00	376.00	375.00
	157A	11.0	6.0	4.0	380.40	379.40	375.40	374.40
157	157B	11.0	6.0	4.0	380.40	379.40	375.40	374.40
450	158A	11.0	6.0	4.0	378.80	377.80	373.80	372.80
158	158B	11.0	6.0	4.0	378.80	377.80	373.80	372.80
164	164A	12.0	6.0	5.0	397.00	396.00	391.00	390.00
165	165A	12.0	6.0	5.0	396.50	395.50	390.50	389.50
166	166A	12.0	6.0	5.0	396.20	395.20	390.20	389.20
100	166B	12.0	6.0	5.0	394.50	393.50	388.50	387.50
	167A	12.0	6.0	5.0	394.50	393.50	388.50	387.50
167	167B	12.0	6.0	5.0	394.50	393.50	388.50	387.50
400	167C	12.0	6.0	5.0	396.00	395.00	390.00	389.00
168 169	168A	8.0	5.0	4.0	393.53	392.53	388.53	387.53 387.53
170	169A 170A	8.0 8.0	5.0 5.0	4.0 4.0	393.53 392.86	392.53 391.86	388.53 387.86	386.86
170	170A	8.0	5.0	4.0	392.00	391.19	387.19	386.19
171	171A 172A	8.0	5.0	4.0	391.52	390.52	386.52	385.52
173	172A	8.0	5.0	4.0	390.85	389.85	385.85	384.85
174	174A	8.0	5.0	4.0	390.85	389.85	385.85	384.85
175	175A	8.0	5.0	4.0	389.38	388.38	384.38	383.38
176	176A	8.0	5.0	4.0	388.71	387.71	383.71	382.71
177	177A	8.0	5.0	4.0	388.04	387.04	383.04	382.04
178	178A	8.0	5.0	4.0	387.37	386.37	382.37	381.37
179	179A	8.0	5.0	4.0	386.03	385.03	381.03	380.03
180	180A	8.0	5.0	4.0	385.36	384.36	380.36	379.36
181	181A	8.5 8.5	5.0	4.0	385.39	384.39	380.39	379.39
182	182A	8.5 8.5	5.0 5.0	4.0	386.07 387.40	385.07	381.07	380.07 381.40
183 184	183A 184A	8.5 8.5	5.0 5.0	4.0 4.0	387.40 388.07	386.40 387.07	382.40 383.07	381.40 382.07
185	184A 185A	8.5 8.5	5.0	4.0	388.07 388.74	387.74	383.74	382.07 382.74
186	186A	8.5	5.0	4.0	390.67	389.67	385.67	384.67
187	187A	8.5	5.0	4.0	391.34	390.34	386.34	385.34
188	188A	8.5	5.0	4.0	391.34	390.34	386.34	385.34
189	189A	8.5	5.0	4.0	392.01	391.01	387.01	386.01
190	190A	8.5	5.0	4.0	392.68	391.68	387.68	386.68
191	191A	8.5	5.0	4.0	391.76	390.76	386.76	385.76
192	192A	8.5	5.0	4.0	390.42	389.42	385.42	384.42
193	193A	8.5	5.0	4.0	389.75	388.75	384.75	383.75
194	194A	8.5	5.0	4.0	389.08	388.08	384.08	383.08
195	195A	8.5	5.0	4.0	387.74	386.74	382.74	381.74

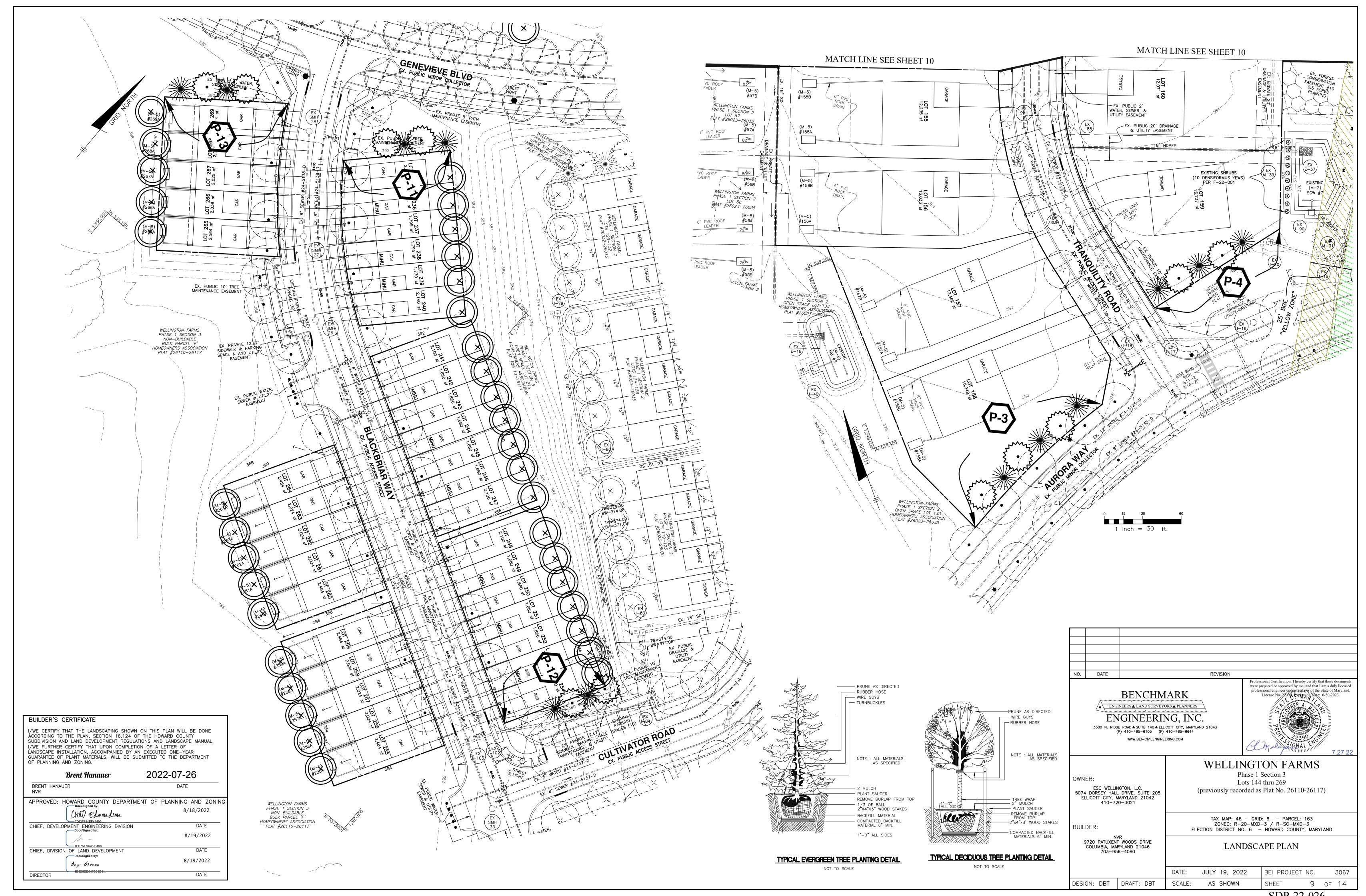
Dry Well Chart												
Ī	Lot	Dry Well	Length (ft)	Width (ft)	Depth (ft)	Ground	Top of	Bottom of	Bottom of			
						Elevation	Storage Elevation					
	196	196A	8.0	5.0	4.0	385.49	384.49	380.49	379.49			
	197	197A	8.0	5.0	4.0	384.62	383.62	379.62	378.62			
	198	198A	8.0	5.0	4.0	383.95	382.95	378.95	377.95			
	199	199A	8.0	5.0	4.0	382.61	381.61	377.61	376.61			
	200	200A	8.0	5.0	4.0	381.94	380.94	376.94	375.94			
	201	201A	8.0	5.0	4.0	382.09	381.09	377.09	376.09			
	202	202A	8.0	5.0	4.0	383.43	382.43	378.43	377.43			
	203	203A	8.0	5.0	4.0	384.10	383.10	379.10	378.10			
	204	204A	8.0	5.0	4.0	385.44	384.44	380.44	379.44			
	205	205A	8.0	5.0	4.0	386.11	385.11	381.11	380.11			
	206	206A	8.5	5.0	4.0	387.65	386.65	382.65	381.65			
	207	207A	8.5	5.0	4.0	388.32	387.32	383.32	382.32			
	208	208A	8.5	5.0	4.0	388.99	387.99	383.99	382.99			
	209	209A	8.5	5.0	4.0	390.33	389.33	385.33	384.33			
	210	210A	8.5	5.0	4.0	391.00	390.00	386.00	385.00			
ľ	211	211A	8.5	5.0	4.0	387.98	386.98	382.98	381.98			
	212	212A	8.5	5.0	4.0	387.98	386.98	382.98	381.98			
	213	213A	8.5	5.0	4.0	387.98	386.98	382.98	381.98			
	214	214A	8.5	5.0	4.0	388.65	387.65	383.65	382.65			
	215	215A	8.5	5.0	4.0	388.65	387.65	383.65	382.65			
	216	216A	8.5	5.0	4.0	388.65	387.65	383.65	382.65			
F	217	217A	8.0	5.0	4.0	388.15	387.15	383.15	382.15			
	218	218A	8.0	5.0	4.0	388.15	387.15	383.15	382.15			
	219	219A	8.0	5.0	4.0	387.48	386.48	382.48	381.48			
	220	220A	8.0	5.0	4.0	386.80	385.80	381.80	380.80			
	221	221A	8.0	5.0	4.0	386.14	385.14	381.14	380.14			
	222	222A	8.0	5.0	4.0	385.47	384.47	380.47	379.47			
r	223	223A	8.5	5.0	4.0	384.75	383.75	379.75	378.75			
	224	224A	8.5	5.0	4.0	385.42	384.42	380.42	379.42			
	225	225A	8.5	5.0	4.0	386.09	385.09	381.09	380.09			
	226	226A	8.5	5.0	4.0	386.76	385.76	381.76	380.76			
	227	227A	8.5	5.0	4.0	387.43	386.43	382.43	381.43			
	228	228A	8.5	5.0	4.0	388.10	387.10	383.10	382.10			
-	229	229A	8.5	5.0	4.0	386.42	385.42	381.42	380.42			
	230	230A	8.5	5.0	4.0	387.75	386.75	382.75	381.75			
	231	231A	8.5	5.0	4.0	387.75	386.75	382.75	381.75			
	232	232A	8.5	5.0	4.0	387.75	386.75	382.75	381.75			
	233	233A	8.5	5.0	4.0	387.75	386.75	382.75	381.75			
	234	234A	8.5	5.0	4.0	387.08	386.08	382.08	381.08			
-	255	255A	8.5	5.0	4.0	383.04	382.04	378.04	377.04			
	256	256A	8.5	5.0	4.0	383.71	382.71	378.71	377.71			
	257	257A	8.5	5.0 5.0	4.0	384.36	383.36	379.36	378.36			
	257 258	257A 258A	8.5	5.0 5.0	4.0	385.05	384.05	380.05	379.05			
	259	259A	8.5	5.0 5.0	4.0	385.72	384.72	380.72	379.03 379.72			
H	260	260A	8.5	5.0	4.0	387.33	386.33	382.33	381.33			
	260 261	261A	8.5	5.0 5.0	4.0	388.00	387.00	383.00	382.00			
	261 262	261A 262A	8.5	5.0 5.0	4.0	388.67	387.67	383.67	382.67			
	262 263	262A 263A	8.5	5.0 5.0	4.0	389.34	388.34	384.34	383.34			
	263 264	263A 264A	8.5	5.0 5.0	4.0	399.34 390.01	389.01	385.01	384.01			
ŀ												
	265 266	265A	8.5 9.5	5.0	4.0	391.98	390.98	386.98	385.98			
	266 267	266A	8.5	5.0	4.0	391.98	390.98	386.98	385.98			
	267	267A	8.5	5.0	4.0	391.98	390.98	386.98	385.98			
	268	268A	8.5	5.0	4.0	391.98	390.98	386.98	385.98			
L	269	269A	8.5	5.0	4.0	391.98	390.98	386.98	385.98			

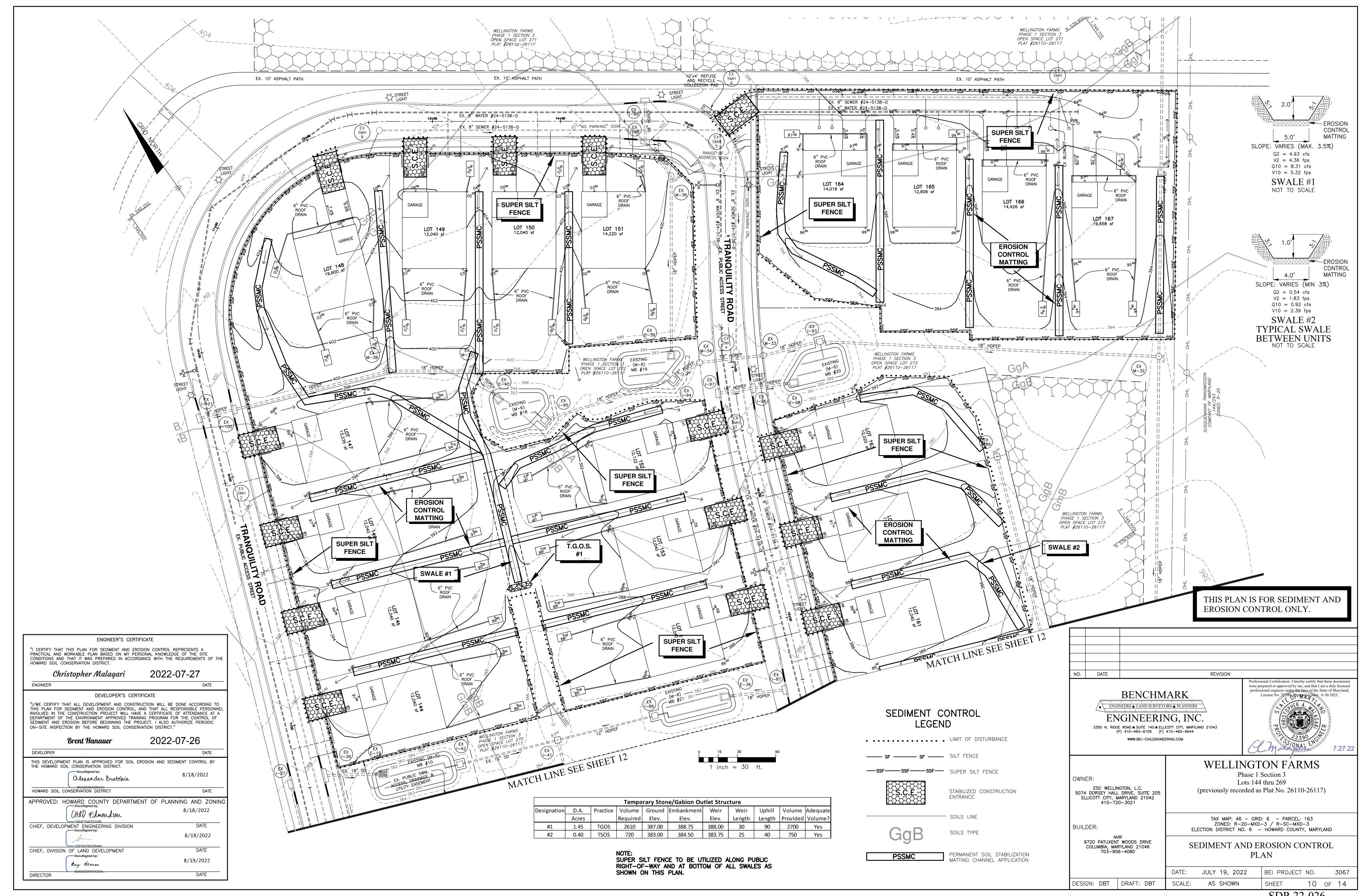
NOTE: STORMWATER MANAGEMENT REPORT WITH DRY WELL COMPUTATIONS PREVIOUSLY APPROVED UNDER F-22-001. THE ABOVE CHART IS FOR CONSTRUCTION PURPOSES ONLY (i.e. DIMENSIONS AND ELEVATIONS)

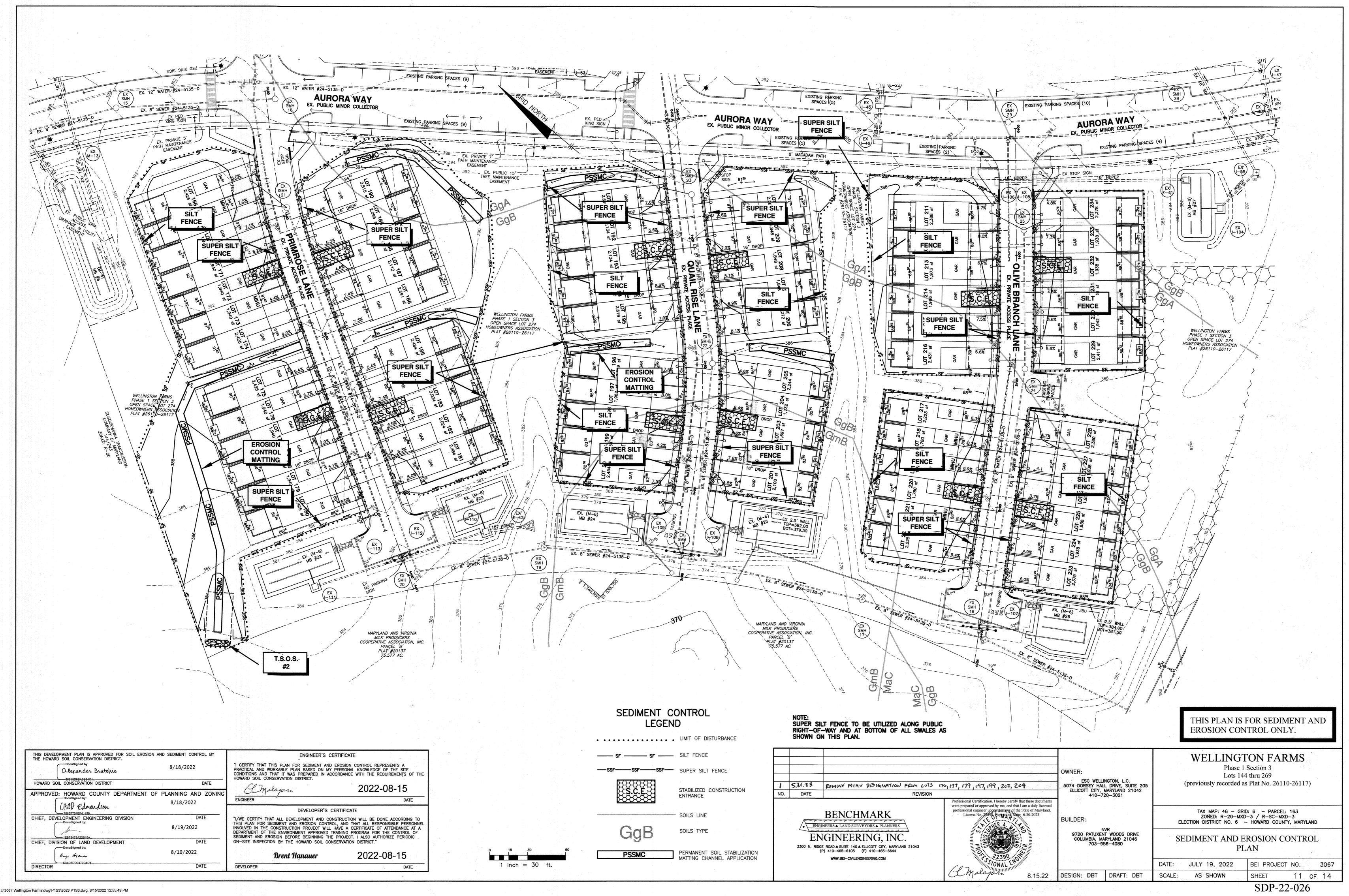


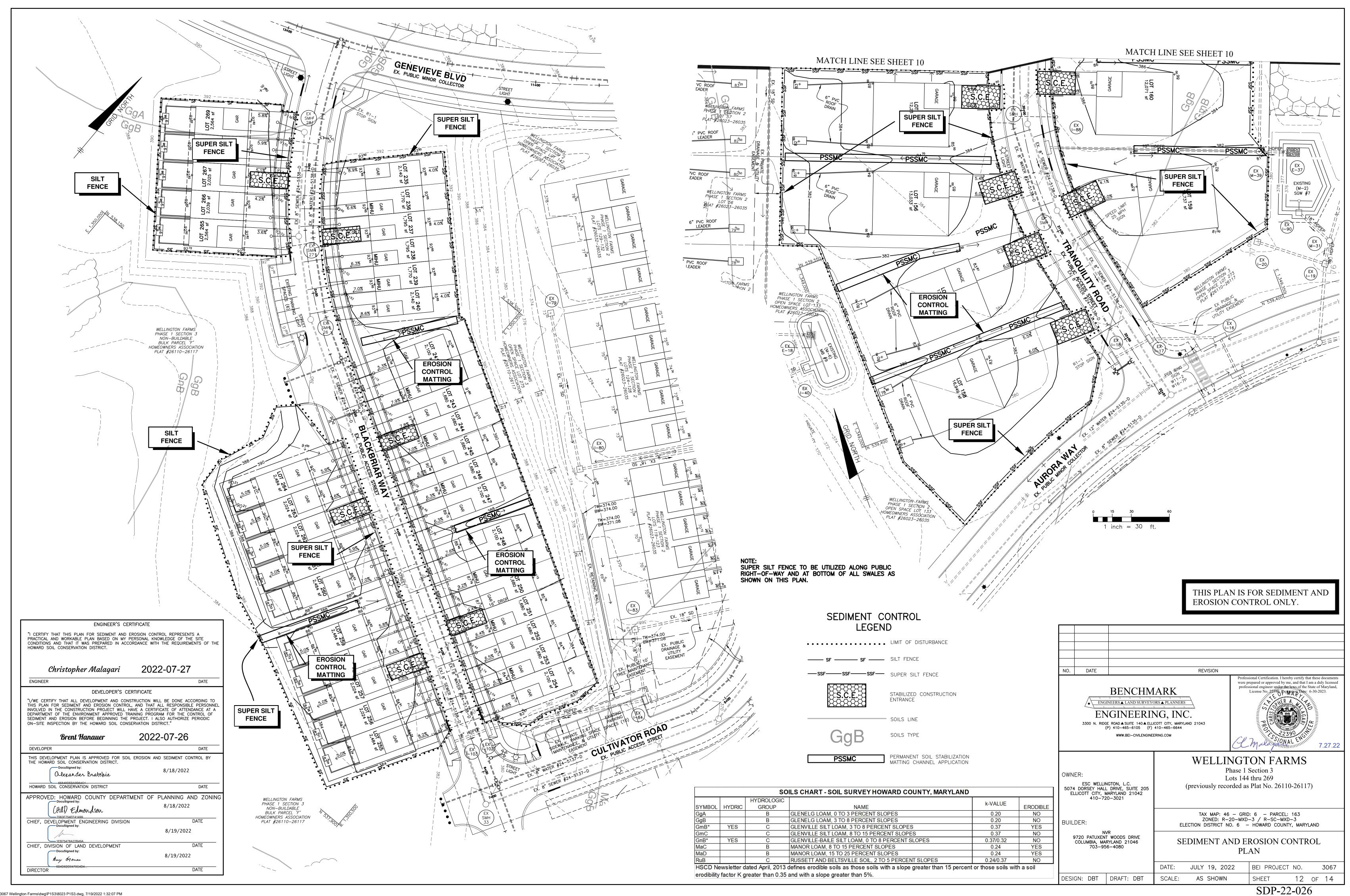












B-4 STANDARDS AND SPECIFICATIONS

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

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

runoff, infiltration, evaporation, transpiration, percolation, and groundwater recharge. Over time, vegetation

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

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.

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

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

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

intercept surface runoff and convey it down the slope in a non-erosive manner.

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

ENGINEER'S CERTIFICATE

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

2022-07-27

2022-07-26

8/18/2022

8/18/2022

8/19/2022

8/19/2022

DATE

DATE

DATE

DATE

DATE

DATE

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

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.

approved by the appropriate approval authority. Topsoil must not be a mixture of

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)

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

Soil tests must be performed to determine the exact ratios and application rates for both lime

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

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

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 subject to re-testing by a recognized seed laboratory. All seed used must have been tested within the 6 months immediately preceding the date of sowing such material on any project. Refer to Table B.4 regarding the quality of seed. Seed tags must be available upon request to the inspector to verify type of seed and seeding rate.

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. c. Inoculants: The inoculant for treating legume seed in the seed mixtures must be a pure culture of nitrogen fixing bacteria prepared specifically for the species. Inoculants must not be used later than the date indicated on the container. Add fresh inoculants as directed on the package. Use four times the recommended rate when hydroseeding. Note: It is very important to keep inoculant as cool as possible until used. Temperatures above 75 to 80 degrees Fahrenheit can weaken bacteria and make the inoculant less

d. Sod or seed must not be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phyto-toxic materials.

a. Dry Seeding: This includes use of conventional drop or broadcast spreaders. Incorporate seed into the subsoil at the rates prescribed on Temporary Seeding Table B.1, Permanent Seeding Table B.3, or site-specific seeding summaries. 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. 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 provide at least 1/4 inch of soil covering. Seedbed must be firm after

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

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

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

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

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.

1. Mulch Materials (in order of preference) a. Straw consisting of thoroughly threshed wheat, rye, oat, or barley and reasonably

soil surface below the sod are thoroughly wet. Complete the operations of laying, tamping and

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. b. When straw mulch is used, spread it over all seeded areas at the rate of 2 tons per acre to a 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 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. a. Perform mulch anchoring immediately following application of mulch to minimize loss by wind 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: 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, Terra Tack AR or other approved equal may be used. Follow application rates as

specified by the manufacturer. Application of liquid binders needs to be heavier at

the edges where wind catches mulch, such as in valleys and on crests of banks.

Use of asphalt binders is strictly prohibited 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

B-4-5 STANDARDS AND SPECIFICATIONS PERMANENT STABILIZATION

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 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

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. 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 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 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

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.

within this period must be approved by an agronomist or soil scientist prior to its installation.

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

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 otherwise specified

B-4-4 STANDARDS AND SPECIFICATIONS TEMPORARY STABLIZATION

To stabilize disturbed soils with vegetation for up to 6 month

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.

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

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

H-5 STANDARDS AND SPECIFICATIONS

Controlling the suspension of dust particles from construction activities.

not be irrigated to the point that runoff occurs.

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

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

Table B.1: Temporary Seeding for Site Stabilization

Depth 2/

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

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

seeding 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

Permanent Seeding Summary

Depths

1/4 - 1/2 in

1/4 - 1/2 in

1/4 - 1/2 in

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.

Il Fescue/Kentucky Bluegrass

Dates

Mar 1 to May 15

Aug 1 to Oct 15

Mar 1 to May 15

Aug 1 to Oct 15

Seeding 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 abov

Seeding Rate 1/

40 1.0 0.5

96 2.2 1.0

120 2.8 1.0

112 2.8 1.0

30 0.7 0.5

Plant Species

Annual Ryegrass (Lolium perenne ss

Cool-Season Grasses

Multiflorum

Dats (Avena sativa)

Warm-Season Grasses

Barley (Hordeum vulgare)

Wheat (Triticum aestivum)

Cereal Rye (Secale cereale)

Foxtail Millet (Serataria italica)

tested. Adjustments are usually not needed for the cool-season grasses.

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

Rate (lb/ac.)

60

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

Hardiness Zone (from Figure B.3)

Seed Misture (from Table B.3):

Fescue, Tall

9 Bluegrass, Kentuck

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

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

Mar 1 to May 15; Aug 1 to Nov

May 16 to Jul 31

(10-20-20)

P2O5

(2 lb/

per acre 90 lb/ac 90 lb/ac 2 tons/ac

1000 sf) 1000 sf) 1000 sf)

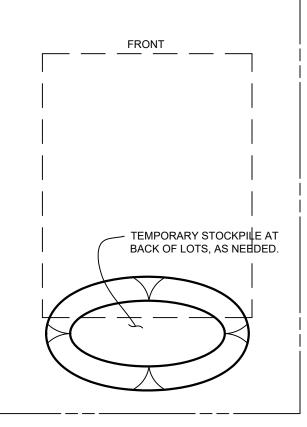
2. Hold on-site pre-construction meeting. (day 2)

all slopes greater than 3:1.

45 pounds

(1.0 lb/

100 sf)



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.

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

accordance with Section B-3 Land Grading.

3. Runoff from the stockpile area must drain to a suitable sediment control practice. 4. Access the stockpile area from the upgrade side.

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. Standard B-4-1 Incremental Stabilization and Standard B-4-4 Temporary Stabilization.

impermeable sheeting.

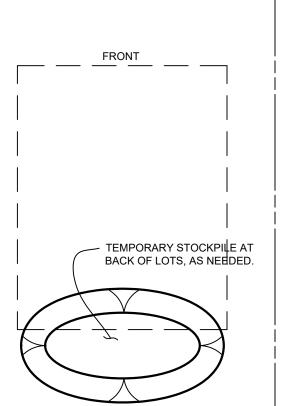
To provide a designated location for the temporary storage of soil that controls the potential for erosion, sedimentation, and changes to drainage patterns.

and based on a side slope ratio no steeper than 2:1. Benching must be provided in

an earth dike, temporary swale or diversion fence. Provisions must be made for discharging

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 to facilitate cleanup. Stockpiles containing contaminated material must be covered with

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.



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

5. Clear water runoff into the stockpile area must be minimized by use of a diversion device such as

13,990^{*} . Cu Yds 13,990* Total fill: . Cu Yds SITE WITH AN ACTIVE GRADING PERMIT Off-site waste/borrow area location:

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

12.2__ Acres

5.2___ Acres

Acres

13.4

8.2

*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:

Area Disturbed:

a. Prior to the start of earth disturbance.

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 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 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

• 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

 Monitoring/sampling • Maintenance and/or corrective action performed • Other inspection items as required by the General Permit for Stormwater Associated with

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) 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. 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

Construction Activities (NPDES, MDE).

 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

SEQUENCE OF CONSTRUCTION

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

before starting any work. (1 day)

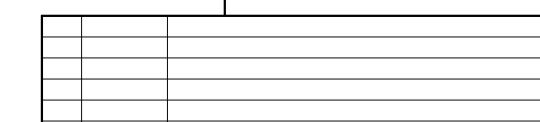
3. Install individual lot perimeter controls (i.e. SCE, SSF, SF, TGOS and TSOS). (day 3)

5. Construct house, install water and sewer house connections from easement/right-ofway up to house, backfill, and construct driveway. Install on-lot dry wells and connect

6. Upon approval from the Howard County Sediment Control Inspector, remove all sediment control devices and stabilize any remaining disturbed areas in accordance with the permanent seedbed notes. (day 91-100)

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

maintenance to the sediment control measures of this plan.



BENCHMARK ENGINEERS ▲ LAND SURVEYORS ▲ PLANNERS ENGINEERING, INC 3300 N. RIDGE ROAD ▲ SUITE 140 ▲ ELLICOTT CITY, MARYLAND 21043 (P) 410-465-6105 (F) 410-465-6644 WWW.BEI-CIVILENGINEERING.COM



OWNER: ESC WELLIN 5074 DORSEY HALL ELLICOTT CITY, M 410-720	DRIVE, SUITE 205 ARYLAND 21042		WELLINGTON FARMS Phase 1 Section 3 Lots 144 thru 269 (previously recorded as Plat No. 26110-26117)					
BUILDER: NVR 9720 PATUXENT WOODS DRIVE COLUMBIA, MARYLAND 21046 703-956-4080		TAX MAP: 46 - GRID: 6 - PARCEL: 163 ZONED: R-20-MXD-3 / R-SC-MXD-3 ELECTION DISTRICT NO. 6 - HOWARD COUNTY, MARYLAND						
		SEDIMENT AND EROSION CONTROL NOTES						
		DATE:	JULY 19, 2022	BEI PROJECT I	NO.	3067		
DESIGN: DBT	DRAFT: DBT	SCALE:	AS SHOWN	SHEET	13	OF 14		

REVISION

NOTIFY SEDIMENT CONTROL DIVISION 48 HOURS PRIOR TO START OF WORK

1. Obtain grading/building permit. Notify D.I.L.P. at 410-313-1880 at least 24 hours

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)

B. 7 calendar days for all other disturbed areas. During grading and after each rainfall, contractor will inspect and provide necessary

J:\3067 Wellington Farms\dwg\P1S3\8023 P1S3.dwg, 7/19/2022 1:31:26 PM

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

(Hal) Edmondson CHIEF, DEVELOPMENT ENGINEERING DIVISION

SDP-22-026

NO. DATE

DIRECTOR

THE HOWARD SOIL CONSERVATION DISTRICT

Christopher Malagari

originally specified.

2. Construction sequence example (Refer to Figure B.1):

necessary.

application of temporary stabilization.

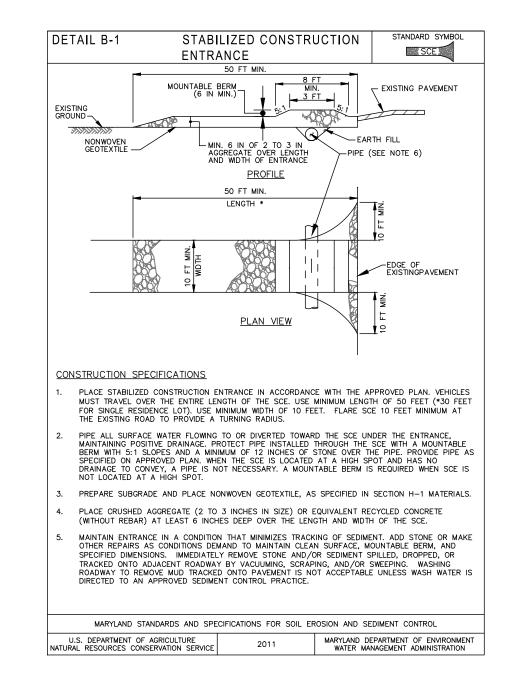
Figure B.

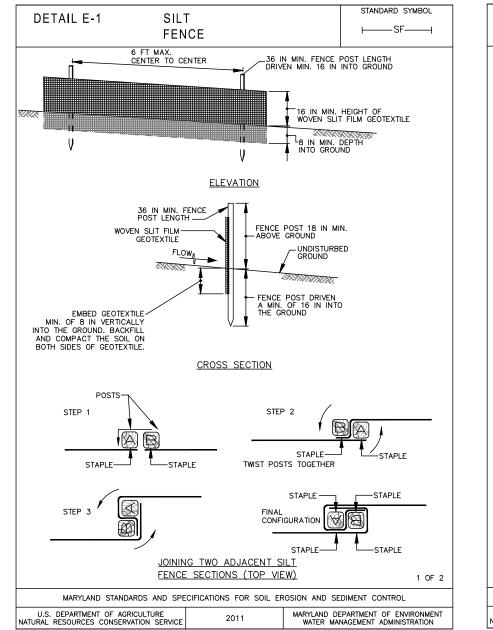
"I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT. Brent Hanauer

Olexander Bratchie HOWARD SOIL CONSERVATION DISTRICT APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DIVISION OF LAND DEVELOPMENT Amy Glonan





TEMPORARY GABION

OUTLET STRUCTURE

EARTH DIKE TRANSITION

. PROVIDE TRANSITION LENGTH AND HEIGHT AS SPECIFIED ON PLAN. HEIGHT OF TRANSITION EARTH DIKE MUST EXCEED 4 INCH MINIMUM FREEBOARD ABOVE TOP OF GABION AND EXTEND AT THIS ELEVATION UNTIL IT INTERCEPTS THE TOP OF ADJOINING EARTH DIKE.

SHAPE EARTH DIKE TO LINE, GRADE, AND CROSS SECTION AS SPECIFIED ON PLAN. BANK PROJECTIONS OR IRREGULARITIES ARE NOT ALLOWED.

. USE NONWOVEN AND WOVEN MONOFILAMENT GEOTEXTILES AS SPECIFIED IN SECTION H-1 MATERIALS.

EMBED THE GABION OUTLET STRUCTURE INTO THE SOIL A MINIMUM OF 9 INCHES. PROVIDE NONWOVEN GEOTEXTILE UNDER ALL GABIONS.

FILL GABION BASKETS WITH CLEAN 4 TO 7 INCH STONE OR EQUIVALENT RECYCLED CONCRETE WITHOUT REBAR OR WIRE MESH.

MAKE THE WEIR CREST OF THE GABION OUTLET STRUCTURE 9 INCHES LOWER THAN THE TOP OF THE ADJACENT GABIONS.

ATTACH WOVEN MONOFILAMENT GEOTEXTILE TO THE UPSTREAM FACE OF GABION BASKETS AND COVER WITH 4 TO 7 INCH STONE.

REMOVE SEDIMENT WHEN IT HAS ACCUMULATED TO WITHIN 12 INCHES OF THE WEIR CREST. REPLACE GEOTEXTILE AND STONE FACING WHEN STRUCTURE CEASES TO FUNCTION. MAINTAIN LINE, GRADE, AND CROSS SECTION.

UPON REMOVAL OF GABION OUTLET STRUCTURE, GRADE AREA FLUSH WITH EXISTING GROUND. WITHIN 24 HOURS STABILIZE DISTURBED AREA WITH TOPSOIL, SEED, AND MULCH, OR AS SPECIFIED ON APPROVED PLAN.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

PROVIDE POSITIVE DRAINAGE ALONG EARTH DIKE TO GABION OUTLET STRUCTURE.

PROVIDE STORAGE VOLUME AS SPECIFIED ON APPROVED PLANS.

INSTALL GABIONS IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS.

USE BASKETS MADE OF 11 GAUGE WIRE OR HEAVIER.

PROVIDE A MINIMUM WEIR CREST OF 6 FEET.

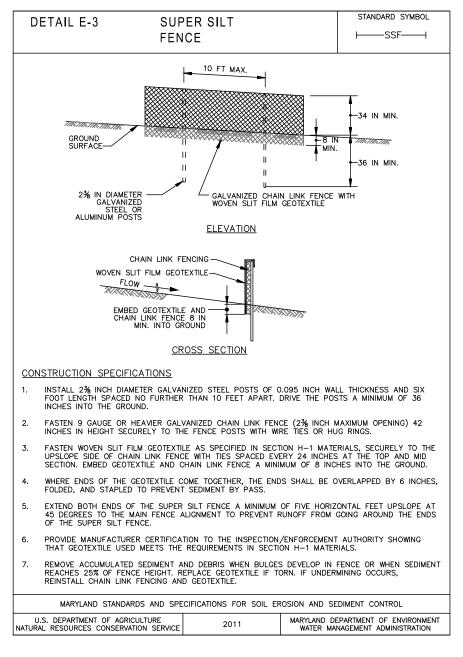
U.S. DEPARTMENT OF AGRICULTURE

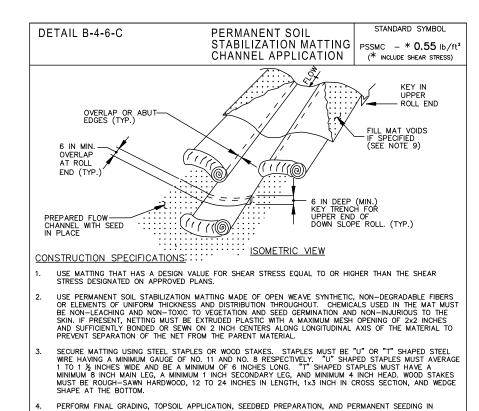
₹₹₹

DETAIL E-8

30 IN TYPE 'B' DIKE

CONSTRUCTION SPECIFICATIONS





- 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

TEMPORARY STONE

STANDARD SYMBOL

DETAIL E-7	TEMPORARY STONE OUTLET STRUCTURE		STANDARD SYMBOL		DETAIL E
A PLOW		MAXIMUM DR	AINAGE AREA = ½ ACRE	<u>c</u>	ONSTRUCTION
A	LOW	B →	_	1.	PROVIDE STOR
				2.	USE NONWOV
FLOW					PERFORATE B A MINIMUM OI EARTH DIKE.
EARTH DIKE	4.	USE CLEAN 2 MONOFILAMEN ADDITIONAL S			
2 TO 3 IN STONE		//////////////////////////////////////	2 FT MIN. TOP WIDTH	5.	USE NONWOVE
				6.	SET WEIR CRE OF 6 FEET FO
	ISOMETRIC VIEW	NONWOV BETWEEN SURFAC	ÆN GEOTEXTILE INTERFACE N STONE AND ALL EARTH ES.	7.	REMOVE SEDII GEOTEXTILE A CROSS SECTIO
EMBED BAFFLE BOARD 4 IN MIN. INTO GROUND	WEIR CREST (LEVEL) 6 IN MIN. PERFORATIONS FOR DEWATERIN 3 ROWS 1 IN DIAMETER HOLES ON 6 IN CENTERS SECTION A—A	/ ' L	= 18 IN MIN. GROUND LINE 1 FT MIN. IN x 12 FT	8.	UPON REMOV 24 HOURS ST APPROVED PL
WEIR CREST			TO 3 IN STONE		

