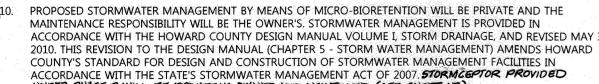
GENERAL NOTES

EXCAVATION WORK BEING DONE.

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY
- TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE
- IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT. ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
- EXISTING TOPOGRAPHIC INFORMATION SHOWN HEREON REFLECTS THE TOPOGRAPHIC SURVEY PERFORMED BY DMW, INC. ON AUGUST 27, 2019, THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD RUN SURVEY WITH ONE FOOT CONTOUR INTERVALS PREPARED BY DMW, INC. ON AUGUST 27, 2019.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UP ON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NO'S 36AA.
- EXISTING PUBLIC WATER CONSTRUCTED UNDER SDP 69-904.
- EXISTING PUBLIC SEWER CONSTRUCTED UNDER SDP 69-904.



- UNDER PHASE 2 WILL BE PRIVATELY OWNED AND MAINTAINED (SEE SHEET 15). 11. EXISTING UTILITIES ARE BASED ON FIELD LOCATIONS BY AI DATA, INC. AND SUPPLEMENTED WITH OBSERVABLE EVIDENCE DMW, INC. FIELD CREWS.
- 12. THERE ARE NO WETLANDS ON THIS SITE.
- 13. A TRAFFIC IMPACT STUDY STATEMENT, PREPARED BY WELLS AND ASSOCIATES, DATED OCTOBER 27, 2017, WAS REVIEWED AND APPROVED AS A PART OF THE FDP DOWNTOWN COLUMBIA LAKEFRONT CORE NEIGHBORHOOD PHASE 1. THE TRAFFIC GENERATED AS A RESULT OF THIS SDP-69-904 PLAN DOES NOT WARRANT A TRAFFIC SIGNAL AT THIS TIME.
- 14. THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF A 2.0 FOOT PROTECTIVE COVER OVER ALL UTILITIES DURING
- 15. ALL OUTDOOR LIGHTING SHALL COMPLY WITH THE REQUIREMENTS OF ZONING SECTION 134. ALL EXTERIOR LIGHT FIXTURES SHALL BE ORIENTED TO DIRECT LIGHT INWARD AND DOWNWARD AND AWAY FROM ALL ADJOINING RESIDENTIAL PROPERTIES AND PUBLIC ROADS IN ACCORDANCE WITH SECTION 134 OF THE HOWARD
- 16. THE SITE HAS BEEN DESIGNED TO BE IN CONFORMNACE WITH ADA REGULATIONS 28 CFR PART 36, REVISED SEPTEMBER 15, 2010. HANDICAP PARKING DETAILS AND SIGNAGE SHALL BE IN ACCORDANCE WITH ADAAG (AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES) AND COMAR (CODE OF MARYLAND
- 17. ANY DAMAGE TO THE COUNTY OWNED RIGHT-OF-WAY SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
- 18. ALL SIDEWALKS SHALL BE CROSS SLOPED AT 1/4 INCH PER FOOT.
- 19. TRENCH BEDDING FOR STORM DRAINAGE STRUCTURES SHALL BE IN ACCORDANCE WITH HOWARD COUNTY STANDARD G2.01.
- 20. ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS OR MDSHA STANDARDS AS SPECIFIED ON THE STRUCTURE.
- 21. ALL MATERIALS AND CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH THE HOWARD COUNTY DESIGN
- 22. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING PROPERTY WHICH MAY OCCUR AS A RESULT OF NEGLIGENCE DURING THE EXECUTION OF WORK.
- 23. ELECTRIC, GAS, CABLE, TELEPHONE AND LIGHTING LINES ARE DESIGNED BY OTHERS.
- 24. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
- 25. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE DPW DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$6,510.00 FOR 12 SHADE TREES AND 97 SHRUBS.
- 26. THE SUBJECT PROPERTY IS ZONED NT PER THE COMPREHENSIVE PLAN EFFECTIVE 10/03/13 AND DESIGNATED DMUA PER THE DOWNTOWN COLUMBIA PLAN AND FDP-DC-L-1.
- 27. NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE REQUIRED WETLANDS, STREAM(S) OR THEIR BUFFERS, FOREST CONSERVATION EASEMENT AREA AND
- THIS SITE WHICH IS SUBJECT TO A DEVELOPMENT RIGHTS AND RESPONSIBILITIES AGREEMENT (L. 17457 F. 206),
 - IS EXEMPT FROM FOREST CONSERVATION REQUIREMENTS OF SECTION 16.1200 OF THE HOMARD COUNTY CODE SECTION IN ACCORDANCE WITH SECTION 16.1202 (BXIXIV) (PUD WITH APOP APPROVED PRIOR TO 12/31/92) WHICH WAS IN PLACE AT THE TIME THE DEVELOPMENT RIGHTS AND RESPONSIBILITIES AGREEMENT WAS RECORDED IN FEBRUARY 2017.
- 29. SETBACKS AND SITE DESIGN SHALL BE CONSISTANT WITH THE LAKEFRONT CORE NEIGHBORHOOD DESIGN
- 30. VOLUME III DESIGN MAUNUAL WAIVER ON APRIL 6, 2020, THE HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING ALONG WITH THE DEPARTMENT OF PUBLIC WORKS GRANTED A DESIGN MANUAL WAIVER TO SECTION 2.5.B.9 GEOMETRIC DESIGN-INTERSECTION SITE DISTANCE TO UTILIZE THE AASHTO GREEN BOOK METHOLOGY TO CALCULATE THE DESIGN SPEED BASED ON THE GEOMETRY OF THE ROAD THUS REDUCING THE REQUIRED SITE DISTANCE FROM 273' TO 133'. THE PROVIDED SITE DISTANCE IN THIS LOCATION IS 146'.
- ON OCTOBER 1, 2020 THE HOWARD COUNTY PLANNING BOARD MET AND CONSIDERED THIS SITE DEVELOPMENT PLAN REDLINE REVISION FOR THE CONSTRUCTION OF TEMPORARY (DESCRIBED SITE IMPROVEMENTS) ON 0.629± ACRES OF LAND ZONED NEW TOWN - NT IN THE 5TH ELECTION DISTRICT OF HOWARD COUNTY, MARYLAND.
- AND GREEN SPACE. THE NUMBER OF TEMPORARY PARKING SPACES CONSTRUCTED WITHIN THE LIMITS OF THIS SDP MAY BE INCREASED IN THE FUTURE CONSISTENT WITH THE DESIGN SHOWN, AND THE AMOUNT OF GREEN SPACE MAY BE CORRESPONDINGLY REDUCED, WITH THE APPROVAL OF PLANNING AND ZONING.

A. AS A POINT OF CLARIFICATION, THE IMPROVEMENTS ON THIS SDP ARE TEMPORARY, INCLUDING THE PARKING

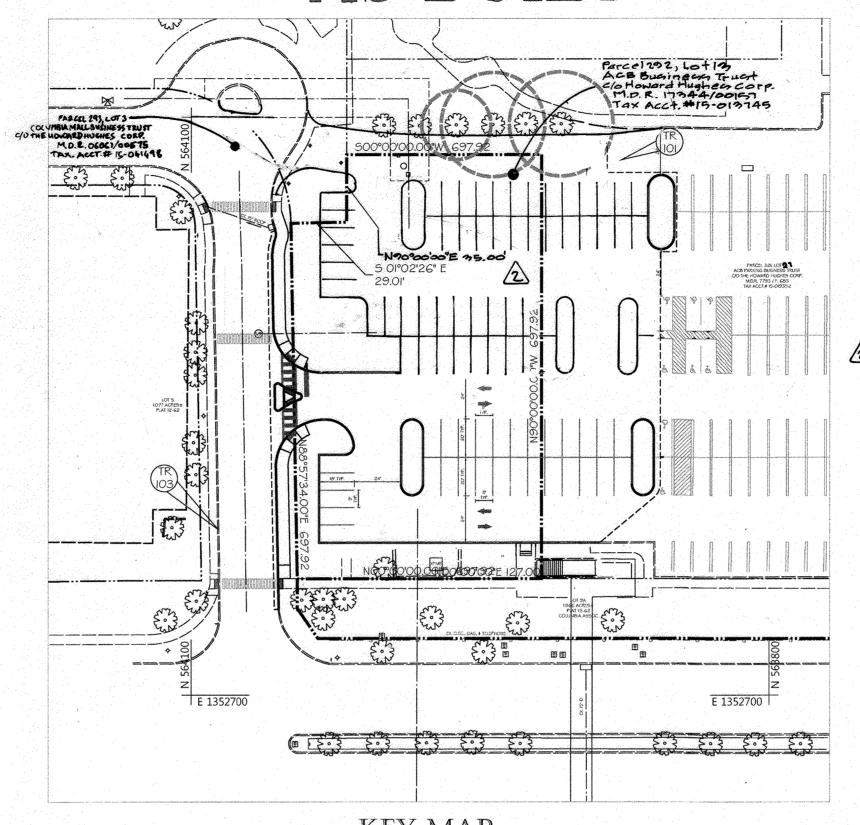
- B. THE DIRECTOR, DEPARTMENT OF PLANNING AND ZONING, MAY APPROVE MODIFICATIONS TO SDP-69-904 MEETING THE FOLLOWING CRITERIA. ANY MODIFICATIONS NOT MEETING THESE CRITERIA MUST BE APPROVED BY THE PLANNING BOARD
- THE DESIGN OF ADDITIONAL PARKING MUST BE CONSISTENT WITH THE OVERALL DESIGN OF THE PARKING APPROVED BY THE PLANNING BOARD.
- LANDSCAPING MUST BE INCLUDED IN CONFORMANCE WITH THE APPROVED LAKEFRONT CORE
- ANY MODIFICATIONS FOR THE ADDITIONAL PARKING MUST BE WELL-ORGANIZED IN TERMS OF THE LOCATION OF ACCESS POINTS, ARRANGEMENT OF PARKING SPACES, AND VEHICULAR AND PEDESTRIAN
- DESIGN AND CONSTRUCTION MUST COMPLY WITH ALL PERMITTING REQUIREMENTS, INCLUDING PROVISION OF ADDITIONAL STORMWATER MANAGEMENT IF REQUIRED.
- THE DEVELOPER SHALL SEND A NOTICE TO THE PLANNING BOARD IF A REDLINE REVISION IS APPROVED THAT WOULD ALTER THE PARKING OR GREEN AREA UNDER CONDITIONS A AND B ABOVE.

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING (500) 1-11-20

SITE DEVELOPMENT PLAN DOWNTOWN COLUMBIA 10227 WINCOPIN CIRCLE

PARCEL 298 HOWARD COUNTY MARYLAND

AS-BUILT



AS-BUILT CERTIFICATION

PROFESSIONAL ENGINEER

MARYLAND REG. NO. 12975

DATE OF SURVEY: AUGUST, 2023

I HEREBY CERTIFY, BY MY SEAL, THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF THE FACILITIES SHOWN ON THIS PLAN WERE CONSTRUCTED AS SHOWN

ON THIS "AS-BUILT" PLAN MEET THE APPROVED PLANS AND SPECIFICATIONS.

LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF

Professional Certification I hereby certify that theme plans were

prepared or approved by me, and that I am a duly licensed Professional Engineer Under the laws of the state of Maryland.

License No. 12975

Expiration Date: May 20,2024

certification For Revision 2 only

LICENSE NO.: 12975, EXPIRATION DATE: MAY 26, 2024

THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY

SHEET NUMBER	SHEET TITLE
01	COVER SHEET
02	EXISTING CONDITIONS & DEMOLITION PLAN
03	SITE GRADING AND UTILITY PLAN
04	SITE & UTILITY DETAILS
05	STORM DRAIN PROFILES AND DRAINAGE AREA MAP
06	SWM FACILITY 1 DETAIL PLANTING AND DRAINAGE AREA MAP
07	SWM NOTES AND DETAILS
08	SEDIMENT AND EROSION CONTROL PLANS
09	SEC DRAINAGE AREA MAPS
10	SEC DETAILS
11	SEC SPECIFICATIONS
12	LANDSCAPE PLAN
13	LANDSCAPE DETAILS
14	LANDSCAPE NOTES
15	SITE GRADING AND UTILITY PLAN-PHAGE
100	SEDIMENT AND EROGION CONTROL PLAN-P

SITE ANALYSIS DATA CHART

- b. APPLICABLE DPZ FILE REFERENCES: SDP-69-904, PB13-013, FDP-DC-L-1, F-18-062, F-20-004, SDP-73-23, SDP-72-19
- c. PROPOSED USE: SURFACE PARKING LOT (15,488 SF) d. EXISTING USE: VACANT LOT
- e. PROPOSED WATER: N/A
- f. PROPOSED SEWER: N/A
- g. ANY OTHER RELEVANT INFORMATION: N/A n. AREA OF STEEP SLOPES: 0 ACRES
- AREA OF FLOODPLAIN: N/A
- a. TOTAL SITE AREA: 0.629 AC.+/b. LIMIT OF DISTURBED AREA: 45,450 S.F. OR 1.04 AC.+/-
- c. TOTAL IMPERVIOUS AREA: 20,125 S.F. OR 0.46 AC.+/d. BUILDING COVERAGE OF SITE: N/A

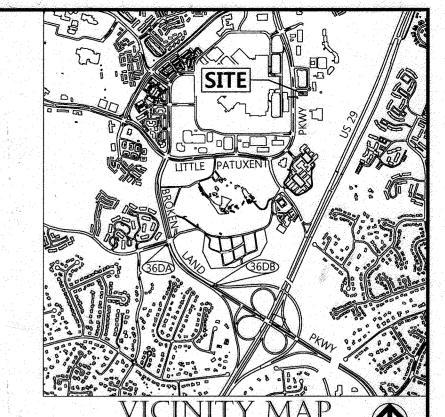
3. PARKING SPACE DATA

LOT

- a. EXISTING PARKING SPACES: 159 SPACES b. EXISTING PARKING TO REMAIN: 157 SPACES
- c. EXISTING HANDICAPPED SPACES: 8 TOTAL (4 STANDARD, 4 VAN) d. NEW TEMPORARY PARKING SPACES PROVIDED: 83 SPACES (24 @ 9'x20',590 9'x18")
- e. TOTAL PARKING SPACES: 240 SPACES
- f. REOUIRED HANDICAPPED SPACES FOR FACILITY: 6 SPACES (5 STANDARD, 1 VAN) g. REQUIRED NEW HANDICAPPED SPACES: 0 SPACES

A Parking eagement and agreement L.17401 F.146
Recorded January 10,2017 provides GTParking spaces on this lot for uses shown on app-73-23.

	ADDRESS CHART
NUMBER	STREET ADDRESS
13	10227 WINCOPIN CIRCLE, COLUMBIA, MD 21044
	And the second s



HOWARD COUNTY ADC MAP NUMBER 4935

GRID NO. D6 HOWARD COUNTY GEODETIC COORDINATES

BENCH MARK ID: 36DB EASTING: 1,350,845.671

ELEV.: 344.648

NORTHING: 560,849.324 EASTING: 1,350,037.51 ELEV.: 363.651

BENCH MARK ID: 36DA

BENCHMARK

DESCRIPTION

N: 563,876.2910 E: 1,352,977.5570 ELEV=332.67

MAGNAIL IN PAVEMENT

MAGNAIL IN CURB

TR103 N: 564,086.3200 E: 1,352,785.4820 ELEV=328.67

1. EXISTING TOPOGRAPHIC INFORMATION SHOWN HEREON REFLECTS THE RESULT A TOPOGRAPHIC SURVEY PERFORMED BY DMW, INC. ON AUGUST 27, 2019.

2. PROPERTY LINES SHOWN HEREON ARE BASED UPON THE RESULTS OF ALTA SURVEY DATED 08/31/12.

3. ADJOINING PROPERTY INFORMATION REFERENCED FROM HOWARD COUNTY, MARYLAND

PURPOSE STATEMENT

THE PURPOSE OF REDLINE REVISION #1 IS TO:

1. PROVIDE TEMPORARY SURFACE PARKING IN PREPARATION FOR THE FUTURE REDEVELOPMENT OF DOWNTOWN COLUMBIA AS PART OF THE

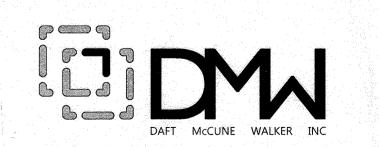
2. PROVIDE NEW STORMWATER MANAGEMENT BMP'S TO TREAT REQUIRED

Added PHZ Parking lot & rev. notes accordingly

REPLACEMENT OF ORIGINAL SDP SET WITH TEMPORARY PARKING LOT DESIGN SET **Revision Description** TEMPORARY SURFACE LOT

PARCEL 298, LOT 13 10227 WINCOPIN CIRCLE COLUMBIA, MD 21044 OWNER / DEVELOPER:

AMERICAN CITY BUILDING BUSINESS TRUST C/O THE HOWARD HUGHES CORPORATION COLUMBIA REGIONAL OFFICE 10960 GRANTCHESTER WAY, SUITE 110 COLUMBIA, MD 21044 (410) 964-4800



01 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 2128 410 296 3333 F: 410 296 4705 WWW.DMW.COM COLUMBIA "TOWN CENTER" 13/0298 & 17/0321 36 5-03 LITTLE PATUXENT

COVER SHEET

REVISED SITE DEVELOPMENT PLAN SCALE: AS SHOWN | Proj. No. 19029.00 Des. By PAB Date 04-02-2020 -BUILT SHEET 1 OF Orn. By PAB 01 of 16 Chk. By RRP

NOTE: THIS AS-BUILT WAS PERFORMED BY GUTSCHICK LITTLE \$ WEBER, P.A. THE INSTRUMENTS USED IN PERFORMING THE AS-BUILT SURVEY: TRIMBLE ROBOTIC TOTAL STATION.

27020 , EXPIRATION DATE: 01/25/2 10-12-2020

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE

DULY LICENSED PROFESSIONAL

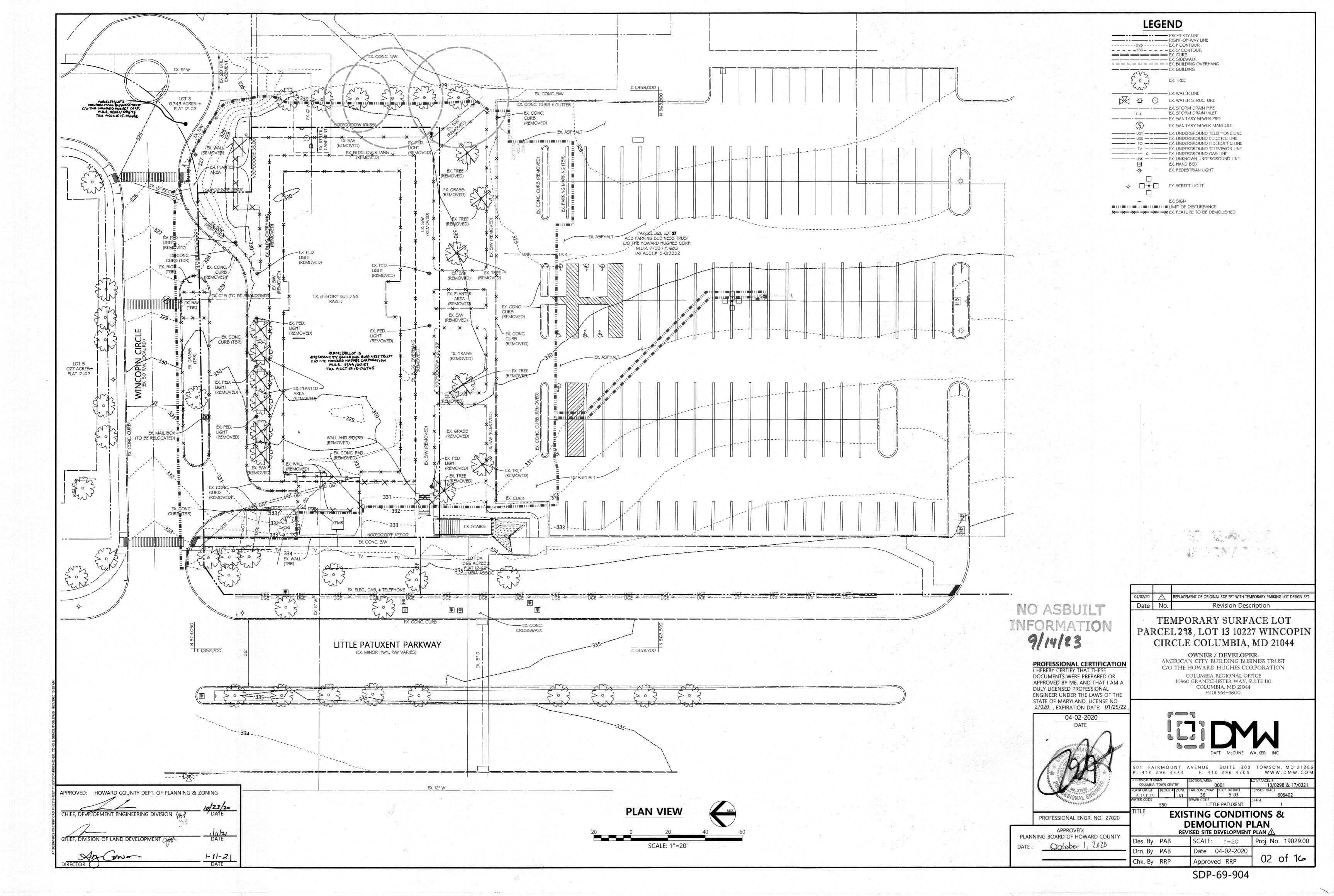
DOCUMENTS WERE PREPARED OR

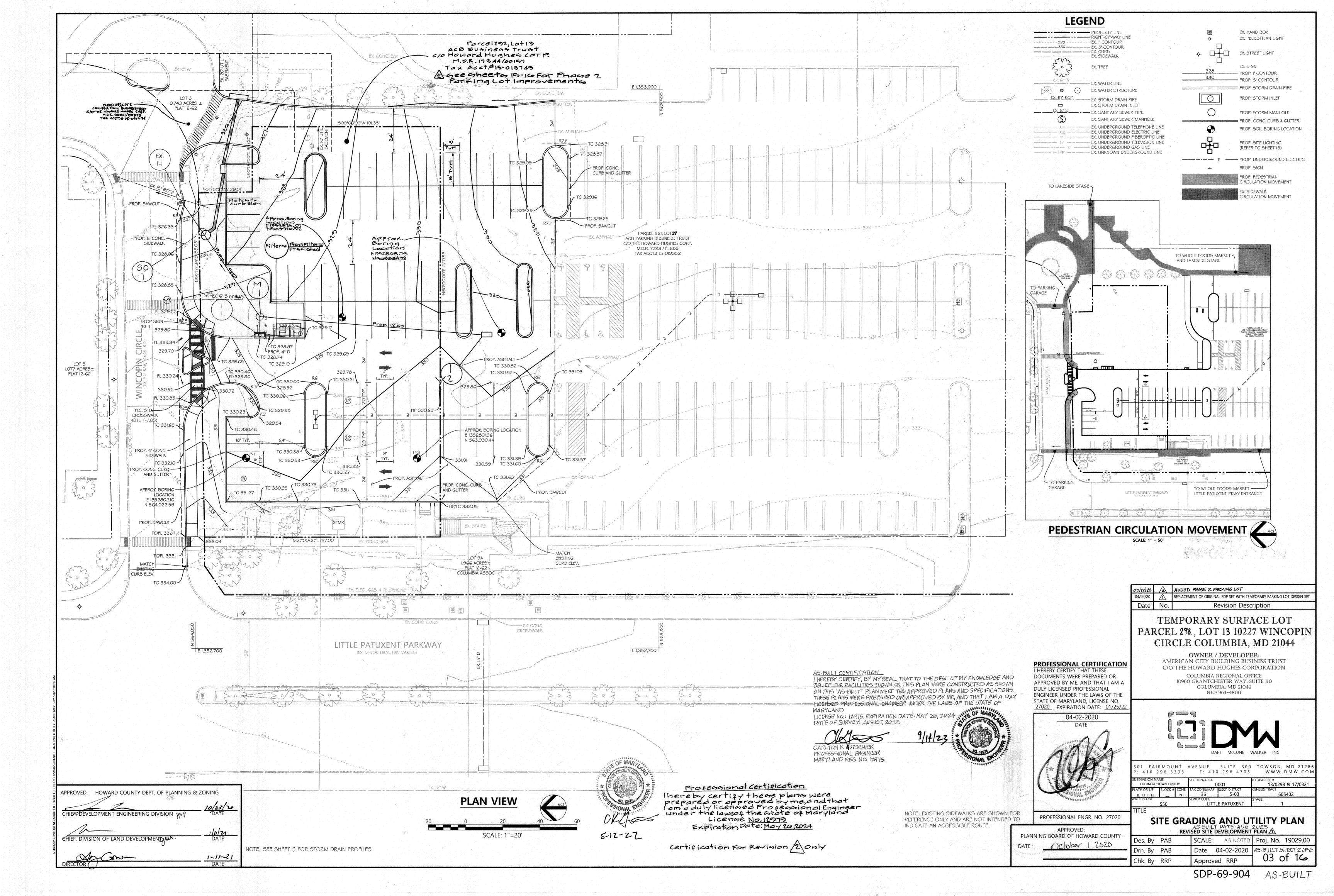
APPROVED BY ME, AND THAT I AM A

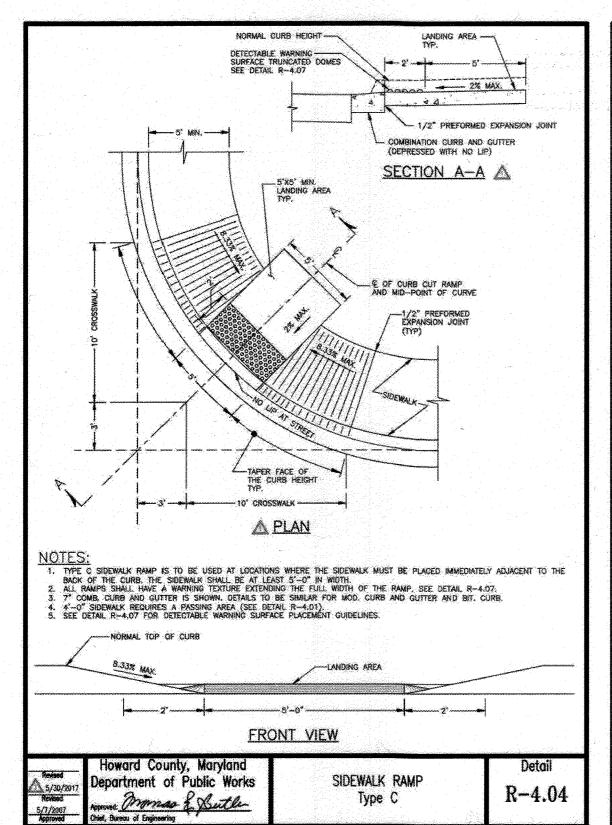
ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO.

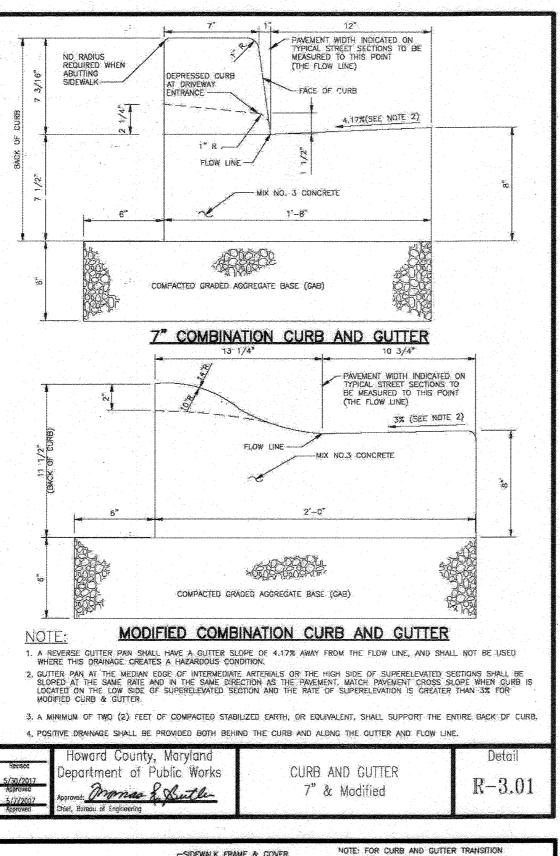
PROFESSIONAL ENGR. NO. 27020

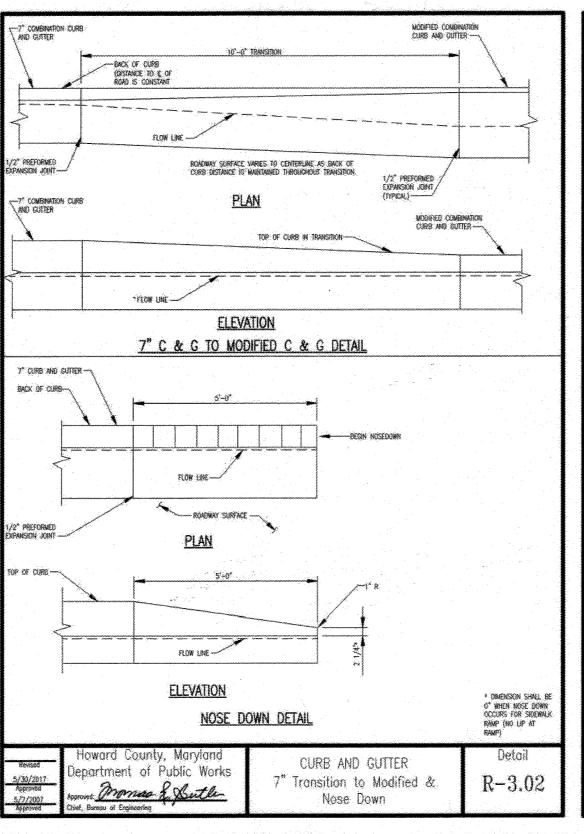
APPROVED: PLANNING BOARD OF HOWARD COUNTY October 1, 2020

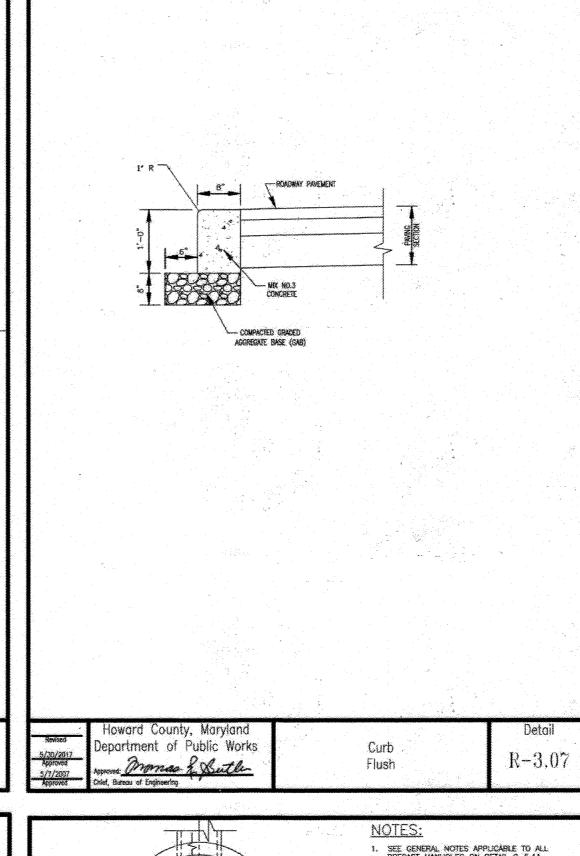


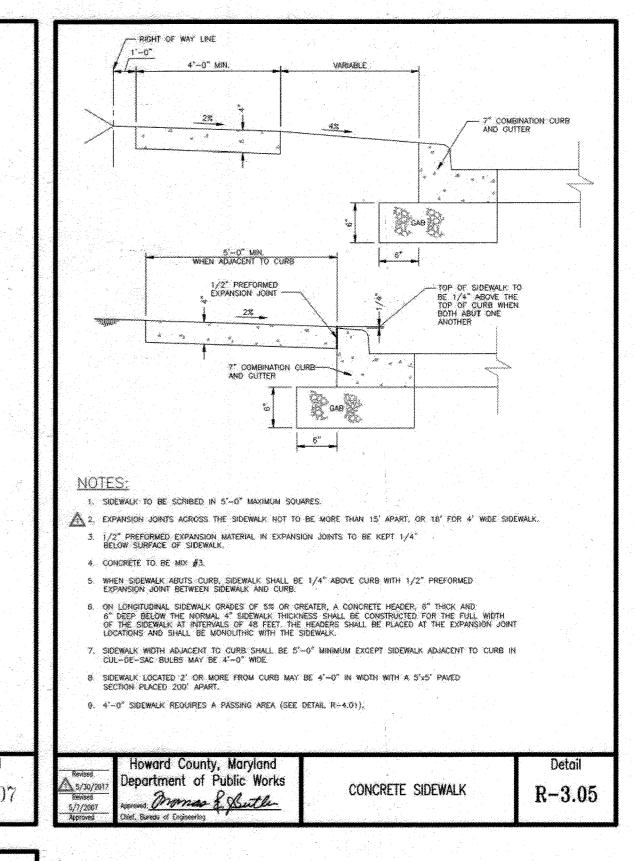


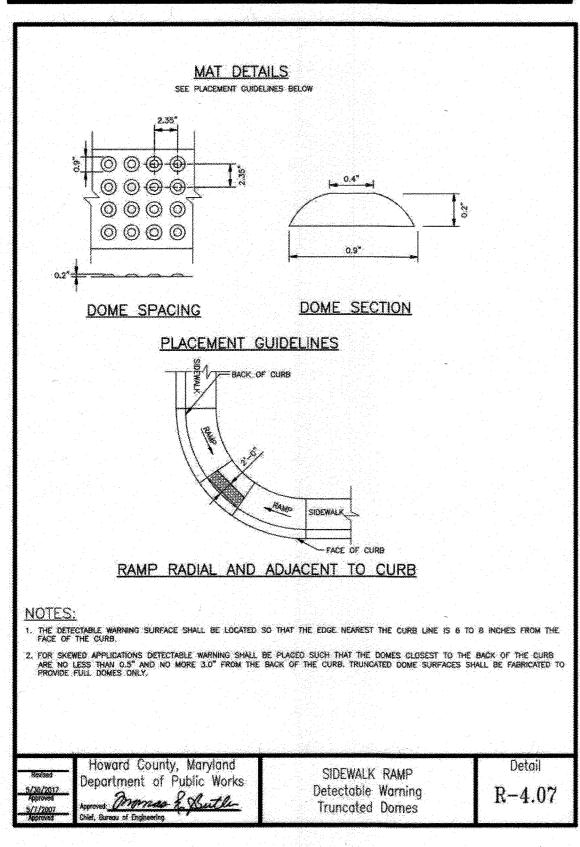


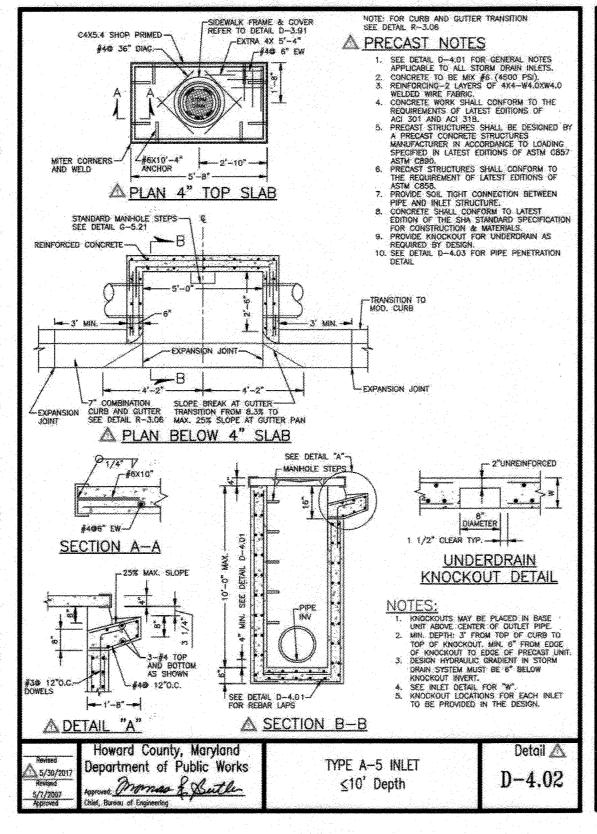


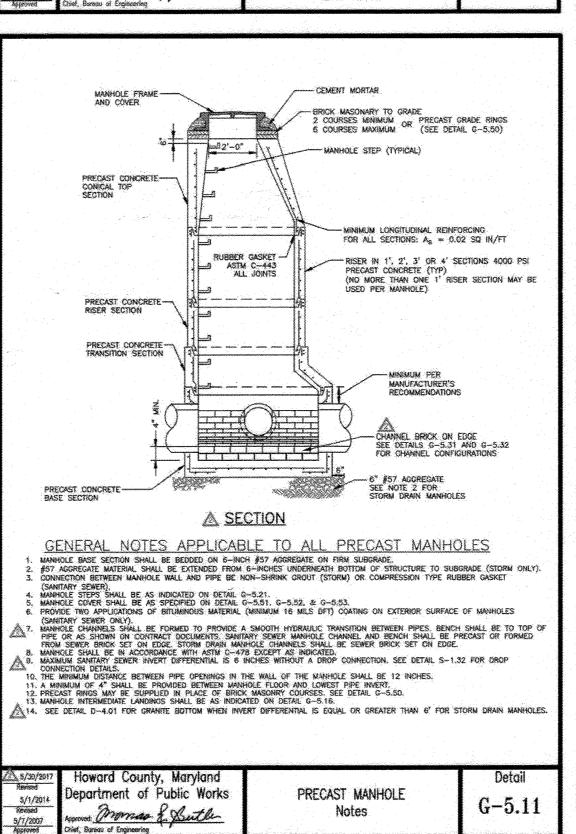


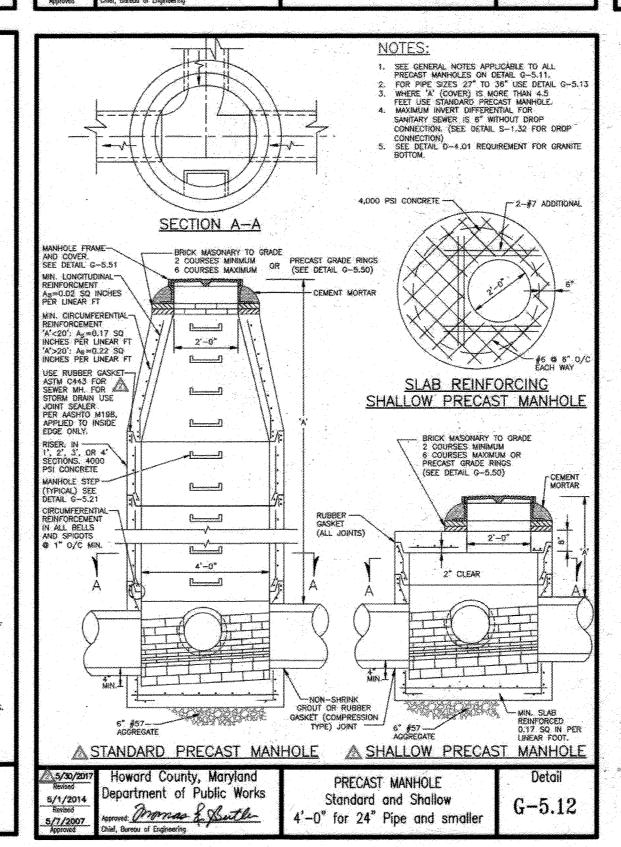


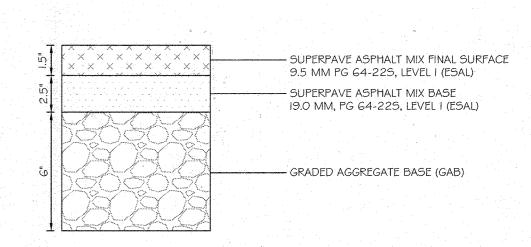












ASPHALT PAVEMENT SECTION (P-1)

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE

DULY LICENSED PROFESSIONAL

DOCUMENTS WERE PREPARED OR

APPROVED BY ME, AND THAT I AM A

ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 27020 , EXPIRATION DATE: 01/25/2

> 04-02-2020 DATE

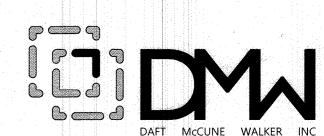
NO ASBUILT INFORMATION 9/14/183

REPLACEMENT OF ORIGINAL SDP SET WITH TEMPORARY PARKING LOT DESIGN SE Date No. **Revision Description**

TEMPORARY SURFACE LOT PARCEL 298, LOT 13 10227 WINCOPIN CIRCLE COLUMBIA, MD 21044

> OWNER / DEVELOPER: AMERICAN CITY BUILDING BUSINESS TRUST C/O THE HOWARD HUGHES CORPORATION COLUMBIA REGIONAL OFFICE 10960 GRANTCHESTER WAY, SUITE 110 COLUMBIA, MD 21044

(410) 964-4800



01 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 2128 : 410 296 3333 F: 410 296 4705 WWW.DMW.C COLUMBIA "TOWN CENTER

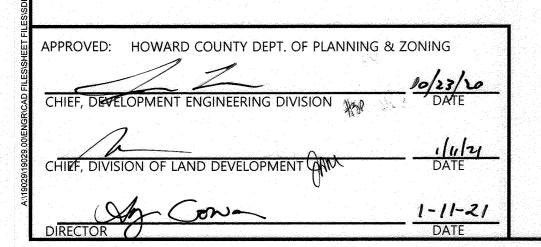
36 5-03 LITTLE PATUXENT

Orn. By PAB

SITE & UTILITY DETAILS REVISED SITE DEVELOPMENT PLAN 🛆

APPROVED: PLANNING BOARD OF HOWARD COUNTY Des. By PAB October 1, 2070 Chk. By RRP

PROFESSIONAL ENGR. NO. 27020



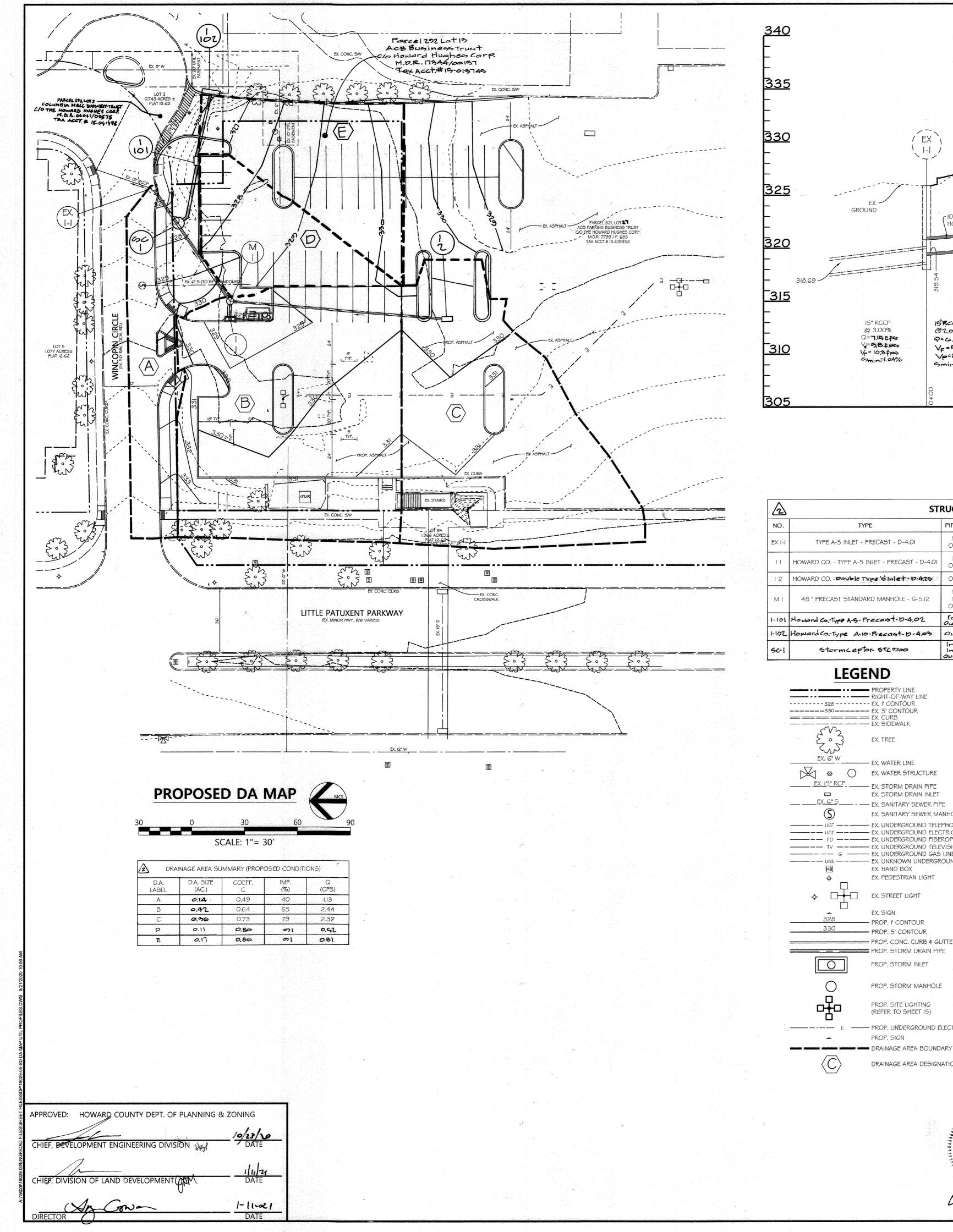
Approved RRP

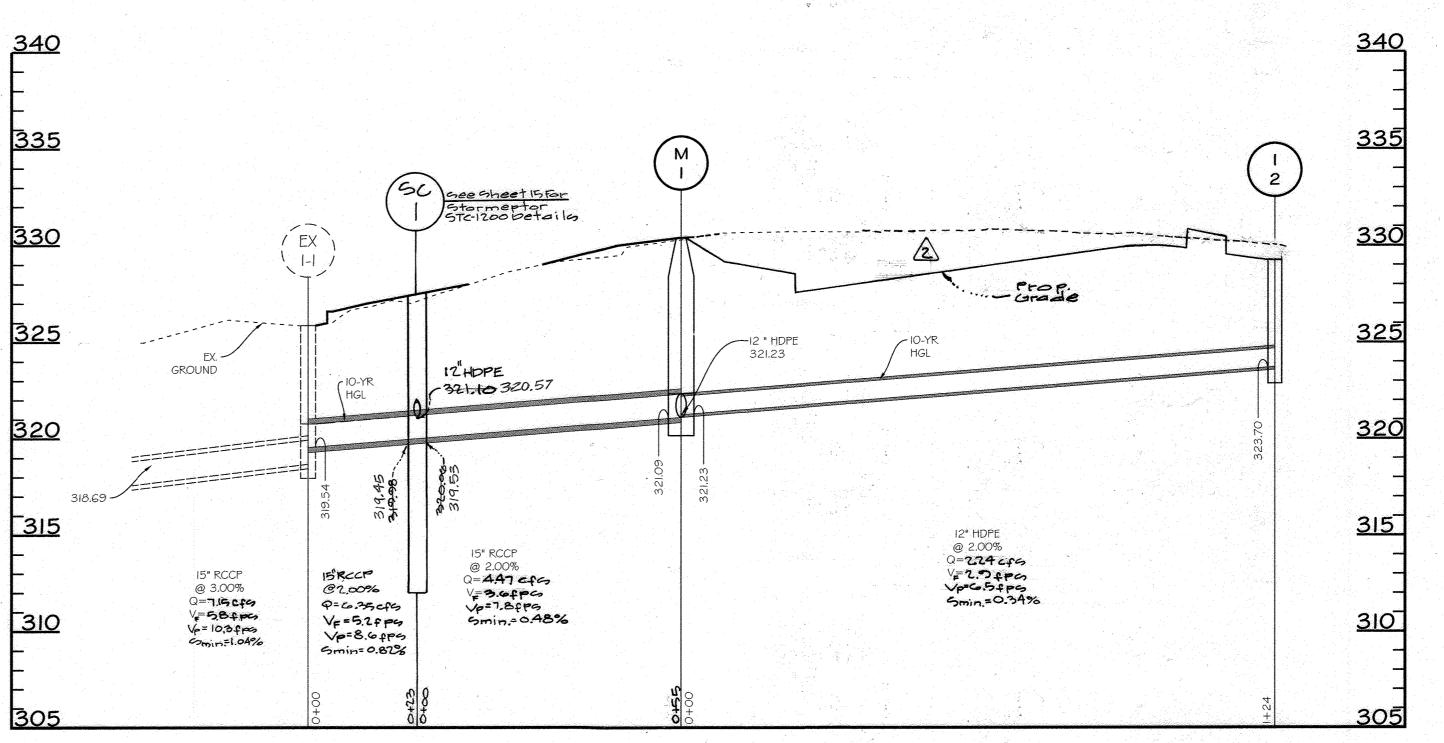
Date 04-02-2020

SDP-69-904

SCALE: AS SHOWN | Proj. No. 19029.00

04 of 16





330 GROUND 325.10 **324.53** * FOR FILTERRA PROFILE SEE AS-BUILT, SHEET 3 OF G (SHEET 6 OF 16) Q=2.3|cfs 1 2 9 PPC V=6.65PG Smin=0.36% PROFILE: M-1 to I-1

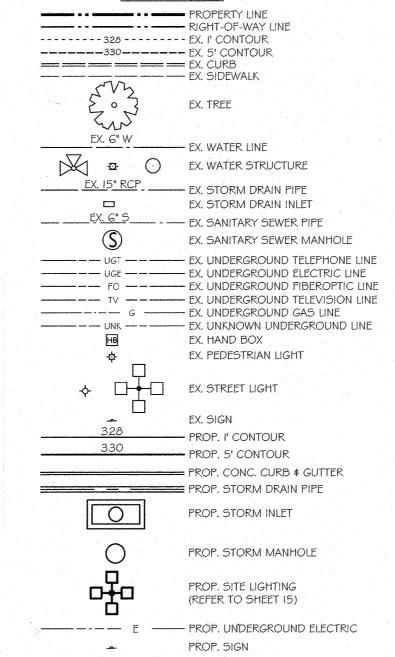
SCALE: HORIZ. I"=20' VERT. I"=5'

PROFILE: Ex. I-1 to I-2

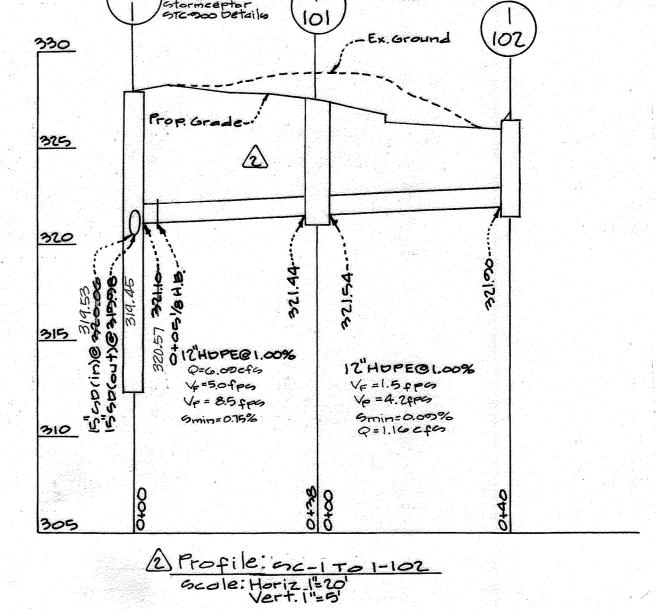
SCALE: HOR!Z. I"=20' VERT. I"=5'

		·				<u> </u>		
2	△ STRUCTURE SCHEDULE							
NO.	TYPE	PIPE SIZE	RIM / WEIR ELEV.	INV. IN	INV. OUT	NORTHING	EASTING	
EX 1-1	TYPE A-5 INLET - PRECAST - D-4.01	IN 15" OUT 15"	325.88	319.54	318.69	564,058.61	1,352,942.81	
11	HOWARD CO TYPE A-5 INLET - PRECAST - D-4.01	IN 4" OUT 12"	328.74	325.10	321.43	564,015.22	1,352,868.35	
12	HOWARD CO Pouble Type 's inlet - D-425	OUT 12"	319.37		323.70	563,892.06	1,352,868.35	
МІ	48 " PRECAST STANDARD MANHOLE - G-5.12	IN 12" IN 12" OUT 15"	330.40	32I.23 32I.23	321.09	564,015.22	1,352,878.49	
1-101	Howard Co. Type A-5-Precast-0-4.02	to 12"	327.48	32154	321.44	564,034.9%	1,352,95871	
1-102	Howard Co-Type A-10-Precast- D-4.03	out 12"	326.72		321.90	564,026.78	1,352,007.35	
56-1	Stormceptor- STC000	In 12°	318.00	320.57	310.08 310.05	564,04.08	1,352,923.21	

LEGEND



DRAINAGE AREA DESIGNATION



PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE

DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 27020 , EXPIRATION DATE: 01/25/2 04-02-2020

PROFESSIONAL ENGR. NO. 27020

APPROVED: PLANNING BOARD OF HOWARD COUNTY October 1,2020

Chk. By RRP

Date No.

501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 2128 : 410 296 3333 F: 410 296 4705 WWW.DMW.CC

REVISED PER ADDITION OF PHASE 2 PARKING LOT

04/02/20 REPLACEMENT OF ORIGINAL SDP SET WITH TEMPORARY PARKING LOT DESIGN SE

TEMPORARY SURFACE LOT

PARCEL 293, LOT 13 10227 WINCOPIN

CIRCLE COLUMBIA, MD 21044

OWNER / DEVELOPER:

AMERICAN CITY BUILDING BUSINESS TRUST

C/O THE HOWARD HUGHES CORPORATION

COLUMBIA REGIONAL OFFICE

10960 GRANTCHESTER WAY, SUITE 110

COLUMBIA, MD 21044

(410) 964-4800

Revision Description

LITTLE PATUXENT STORM DRAIN PROFILES AND

45-BUILT DATE: DRAINAGE AREA MAP REVISED SITE DEVELOPMENT PLAN 406.2023 Des. By PAB SCALE: ####### Proj. No. 19029.00 Drn. By PAB Date 04-02-2020 AS-BUILT SHEET 3 OF

Certification For Revision 2 only

I hereby certify that these plans were prepared or approved by me, and that I am a duly licensed Professional Engineer Under the laws of the state of Maryland License No. 12975

I HEREBY CERTIFY, BY MY SEAL, THAT TO THE BEST OF MY KNOWLEDGE AND

BELIEF THE FACILITIES SHOWN ON THIS PLAN WERE CONSTRUCTED AS SHOWN

ON THIS "AS-BUILT" PLAN MEET THE APPROVED PLANS AND SPECIFICATIONS.

LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF

LICENSE NO .: 12975, EXPIRATION DATE: MAY 26, 2024

DATE OF SURVEY: AUGUST, 2023

Professional Certification

CARLTONK GUTSCHICK

PROFESSIONAL ENGINEER

Expiration bate: May 26,2024

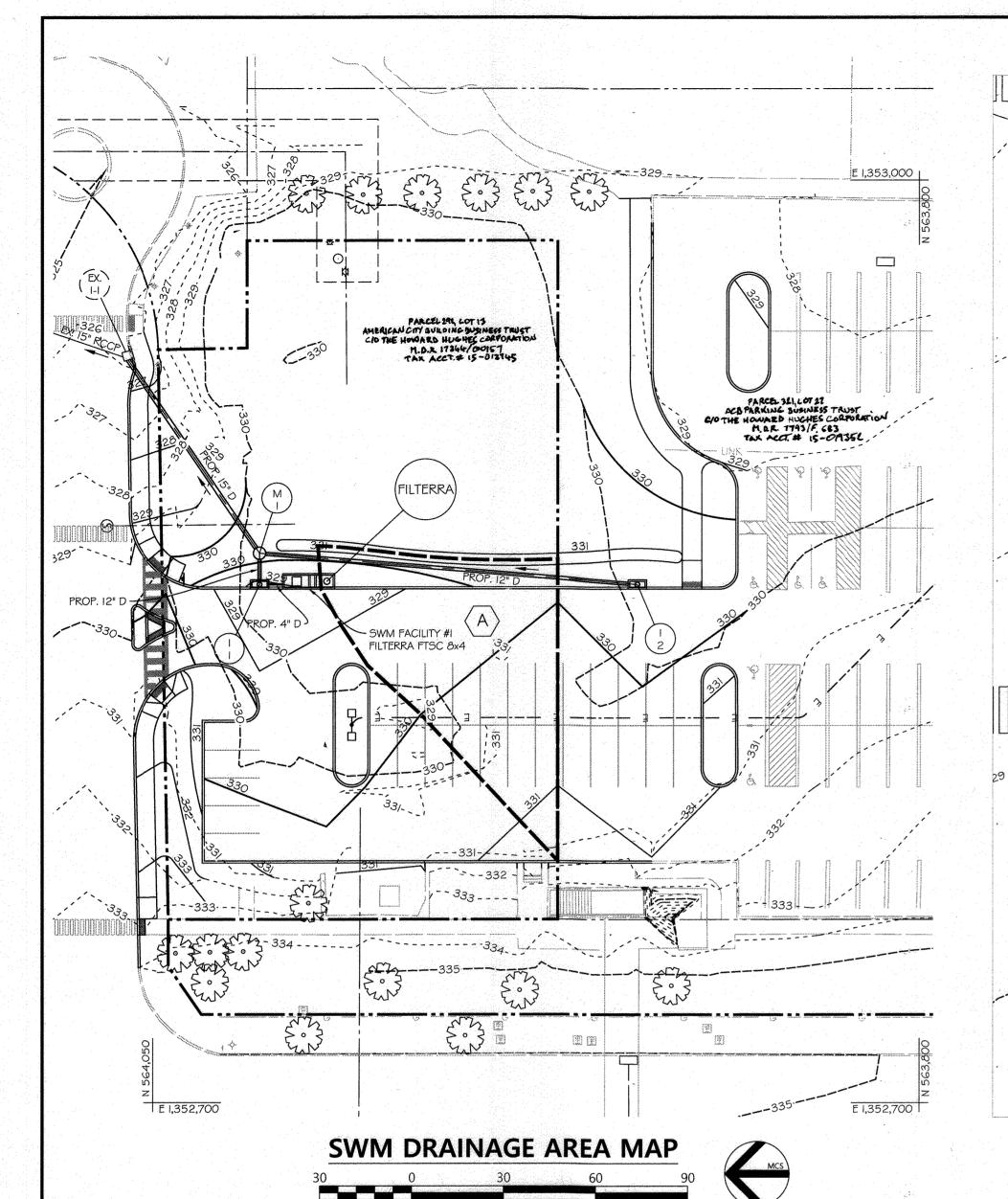
MARYLAND REG. NO. 12975

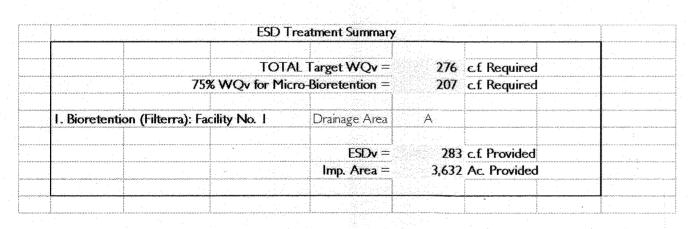
MARYLAND.

THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY

SDP-69-904

05 of 16 Approved RRP AS-BUILT





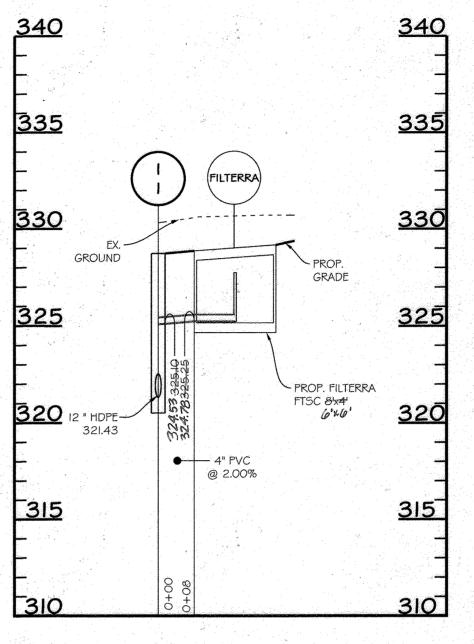
SCALE: 1"= 30'

	Sizing Criteria	Required	Provided	
	Water Quality Volume (WQ _V) (c.f.)	276	283	
	Recharge Volume (Re _V) (c.f.)	n/a	n/a	
	Channel Protection Volume (Cpy)	n/a	n/a	
	Overbank Flood Protection Volume (Qp)	n/a	n/a	
:	Extreme Flood Volume (Q ₁)	n/a	n/a	
	* WQv Required: Accounts for 75% of New Ta	arget ESDv for Mic	cro-Bioretention	
	**Qp Required: Is based on the existing condition	ons		

SWM FAC	CILITY #1 P	LANT SCHEDULE					*, a	
KEY	QTY	BOTANICAL/COMMON NAME		PLANT SIZE	ROOT		REMARKS	
alla si								
TREES								
PX	1	Prunus x cistena / Purpleleaf Sand Cherry		2.5" cal.	B&B	See	Filterra Planting S	pecs

FILTERRA SEQUENCE OF CONSTRUCTION

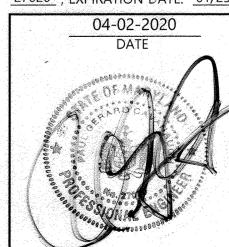
- 1. SEE EROSION AND SEDIMENT CONTROL PLANS FOR OVERALL SEQUENCE OF CONSTRUCTION AND IMPLEMENTATION OF FILTERRA SEQUENCE OF
- 2. UNIT SHALL BE CONSTRUCTED AT THE LOCATION AND ELEVATIONS SHOWN ON THESE DRAWINGS. ANY MODIFICATIONS TO THE ELEVATIONS OR LOCATION SHALL BE AT THE DIRECTION OF THE ENGINEER OF RECORD.
- 3. DURING UTILITY AND CURB & GUTTER INSTALLATION, EXCAVATE TO COMPACTED SUB-GRADE FOR THE FOOTPRINT OF THE UNIT. REFER TO INSTALLATION GUIDELINES FOR FILTERRA LOCATED ON THIS SHEET FOR PLACEMENT OF UNIT. THROAT OF UNIT SHALL BE BLOCKED AT ALL TIMES
- BEFORE, DURING, AND AFTER THE INSTALLATION PROCESS. 4. PROVIDE FILTER SOCK IN FRONT OF THROAT OPENING OF UNIT.
- 5. ONCE CONTRIBUTING DRAINAGE AREA TO THE FILTERRA HAS BEEN STABILIZED, CONTACT SUPPLIER (CONTECH) AND SCHEDULE INSPECTION WITH SUPPLIER AND HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- 6. UPON THE WRITTEN APPROVAL OF THE SUPPLIER AND THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR, ACTIVATE THE FILTERRA UNIT (REMOVE FILTER SOCK AND ANY OTHER THROAT BLOCKING AND ALLOW RUNOFF TO ENTER THE UNIT).



PROFILE: I-1 to Filterra SCALE: HORIZ. I"=20'

PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR

APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 27020 , EXPIRATION DATE: 01/25/22



PROFESSIONAL ENGR. NO. 27020

October 1,2000



04/02/20 REPLACEMENT OF ORIGINAL SDP SET WITH TEMPORARY PARKING LOT DESIGN SET

TEMPORARY SURFACE LOT

PARCEL 298, LOT 13 10227 WINCOPIN

CIRCLE COLUMBIA, MD 21044

OWNER / DEVELOPER: AMERICAN CITY BUILDING BUSINESS TRUST

C/O THE HOWARD HUGHES CORPORATION

COLUMBIA REGIONAL OFFICE

10960 GRANTCHESTER WAY, SUITE 110

COLUMBIA, MD 21044

(410) 964-4800

Revision Description

Date No.

LEGEND

EX. SIDEWALK

----- EX. WATER LINE

EX. WATER STRUCTURE

EX. 6" 5 ---- EX. SANITARY SEWER PIPE

EX. UNDERGROUND ELECTRIC LINE

EX. UNDERGROUND GAS LINE

EX. UNDERGROUND FIBEROPTIC LINE

EX. UNDERGROUND TELEVISION LINE

EX. HAND BOX EX. PEDESTRIAN LIGHT

EX. STREET LIGHT

PROP. SITE LIGHTING (REFER TO SHEET 15)

PROP. STORM INLET

PROP. STORM MANHOLE PROP. CONC. CURB & GUTTER

PROPOSED SITE PLANTINGS

(REFER SHEET 13)

EX. SIGN

PROP. SIGN PROP. I' CONTOUR PROP. 5' CONTOUR

PROP. UNDERGROUND ELECTRIC

PROP. STORM DRAIN PIPE

EX. 15" RCP EX. STORM DRAIN PIPE

EX. TREE TO REMAIN

EX. STORM DRAIN INLET

EX. SANITARY SEWER MANHOLE

EX. UNDERGROUND TELEPHONE LINE

- EX. UNKNOWN UNDERGROUND LINE

PROPERTY LINE

----- 328 ----- EX. I' CONTOUR ----- EX. 5' CONTOUR EX. CURB

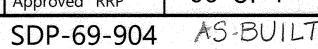
EX. 6" W

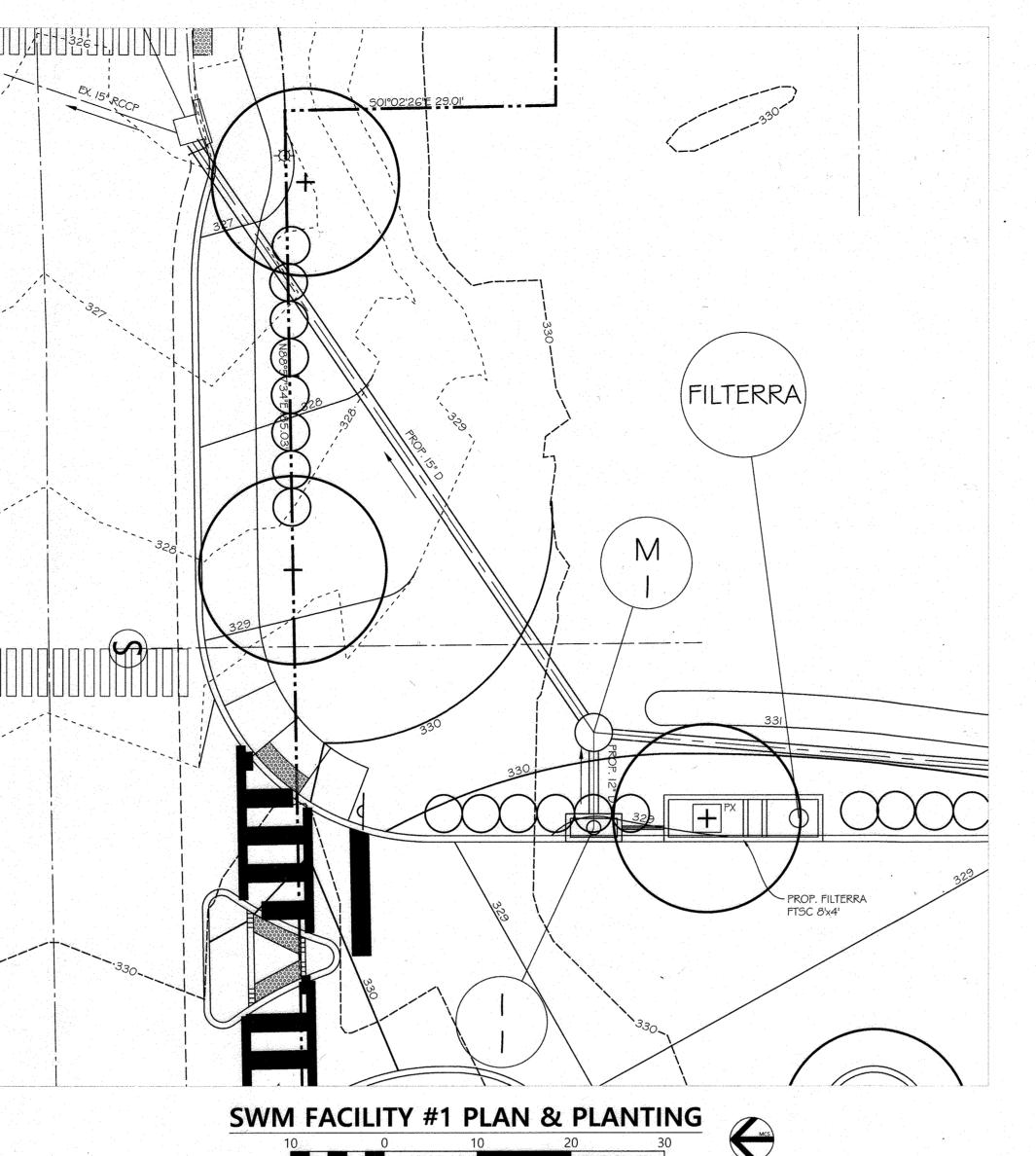
----- RIGHT-OF-WAY LINE

01 FAIRMOUNT : 410 296 3333	AVENUE SUITE 30 F: 410 296 470	O TOWSON, MD 21286 5 WWW.DMW.COM
DIVISION NAME COLUMBIA "TOWN CENTER"	SECTION/AREA 0001	LOT/PARCEL # 13/0298 & 17/0321
T# OR L/F BLOCK # ZONE B. 13 F. 13 NT	TAX ZONE/MAP ELECT. DISTRICT 36 5-03	CENSUS TRACT 605402
ER CODE 550	SEWER CODE LITTLE PATUXENT	STAGE 1

SWM FACILITY 1 DETAIL PLANTING

Des. By PAB SCALE: AS NOTED | Proj. No. 19029.00 Date 04-02-2020 AS-BUILT SHEET 4 OF G Drn. By PAB 06 of 16 Approved RRP Chk. By RRP





			SCALE: 1"=10	0'					
					1. 5				
SWM FAC	ILITY #1 F	PLANT SCHEDULE						**************************************	
KEY	QTY	BOTANICAL/COMMON NAME			PLANT SIZE	ROOT		REMARKS	
SACLAS SAC									
TREES									
PΧ	1	Prunus x cistena / Purpleleaf Sand Cherry			2.5" cal.	B&B	See	Filterra Planting Sp	ecs

AS-BUILT CERTIFICATION THEREBY CERTIFY, BY MY SEAL, THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF THE FACILITIES SHOWN ON THIS PLAN WERE CONSTRUCTED AS SHOWN ON THIS "AS-BUILT" PLAN MEET THE APPROVED PLANS AND SPECIFICATIONS. THESE PLANS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF

LICENSE NO .: 12975, EXPIRATION DATE: MAY 26, 2024 DATE OF SURVEY: AUGUST, 2023

CARLTON K GUTSOHICK PROFESSIONAL ENGINEER MARYLAND REG. NO. 12975

APPROVED: PLANNING BOARD OF HOWARD COUNTY

1-11-21

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

OPERATION AND MAINTENANCE SCHEDULE FOR FILTERRA

- a. THE START OF THE MAINTENANCE PLAN BEGINS WHEN THE SYSTEM IS ACTIVATED FOR FULL OPERATION. FULL OPERATION IS DEFINED AS THE UNIT INSTALLED CURB AND GUTTER AND TRANSITIONS IN PLACE AND ACTIVATION (BY SUPPLIER) WHEN MULCH AND PLANT ARE ADDED AND TEMPORARY THROAT PROTECTION REMOVED. ACTIVATION CANNOT BE CARRIED OUT UNTIL THE SITE IS FULLY STABILIZED (FULL LANDSCAPING, GRASS COVER, FINAL PAVING AND STREET SWEEPING COMPLETED).
- Supplier, since it is included in the purchase of the system. Owner MUST PROMPTLY NOTIFY THE (MAINTENANCE) SUPPLIER OF ANY DAMAGE
 TO THE PLANT(S) AND SHALL ADVISE OTHER LANDSCAPE OR MAINTENANCE
 CONTRACTORS TO LEAVE ALL MAINTENANCE TO THE SUPPLIER (I.E. NO OR FERTILIZING). AFTER THE FIRST YEAR, THE OWNER SHALL MAINTAIN THE PLANT MATERIAL, MULCH LAYER AND SOIL LAYER TWICE A YEAR. MAINTENANCE SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING OR FALL. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT
- FILTERRA PLANT SELECTION LIST. . THE OWNER SHALL PERFORM A PLANT INSPECTION IN THE SPRING AND IN THE FALL OF EACH YEAR. DURING THE INSPECTION, THE OWNER SHALL REMOVE DEAD AND DISEASED VEGETATION CONSIDERED BEYOND

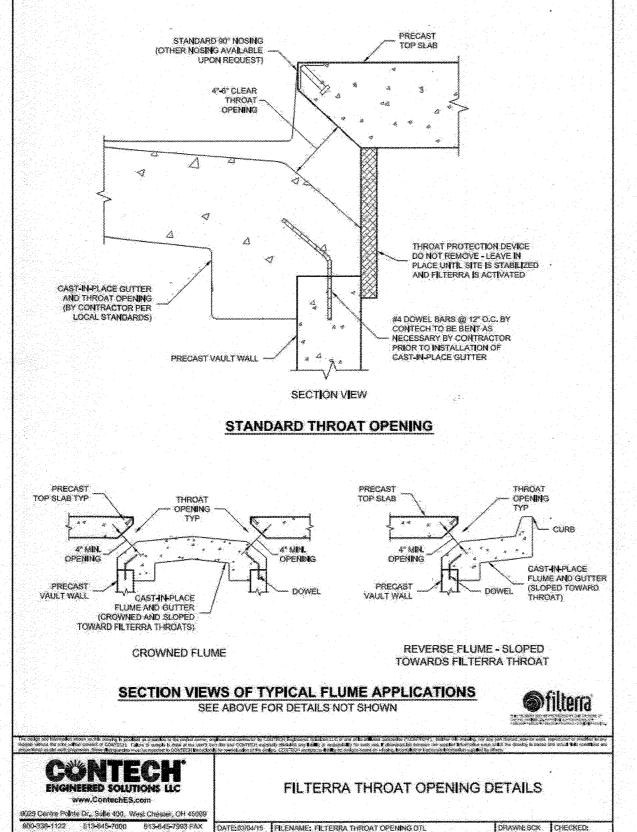
INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND

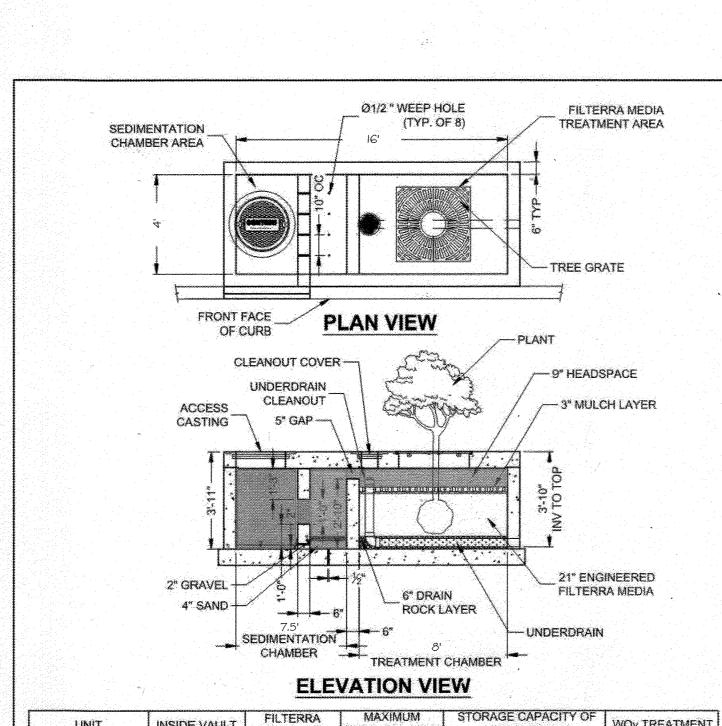
PRUNING ACCEPTABLE REPLACEMENT PLANT MATERIAL IS LIMITED TO THE

- TREATMENT, REPLACE DEAD PLANT MATERIAL WITH ACCEPTABLE REPLACEMENT PLANT MATERIAL, TREAT DISEASED TREES AND SHRUBS, AND REPLACE ALL DEFICIENT STAKES AND WIRES. d. THE OWNER SHALL INSPECT THE MULCH EACH SPRING AND FALL. THE
- MULCH SHALL BE REPLACED EVERY TWO TO THREE YEARS. MULCH MAY NEED TO BE REPLACED MORE FREQUENTLY DEPENDING ON RAINFALL PATTERNS. THE PREVIOUS MULCH LAYER SHALL BE REMOVED BEFORE THE NEW LAYER IS APPLIED.
- e. THE OWNER SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS, BUT AT A MINIMUM, TWICE PER YEAR AND AFTER EACH HEAVY STORM.
- f. BI-ANNUALLY REMOVE TRASH & DEBRIS AS IT ACCUMULATES. THIS SHOULD BE DONE IN THE SPRING AND THE FALL. THE SPRING MAINTENANCE SHALL TARGET CLEANING UP WINTER DEBRIS (SALTS AND SANDS) WHILE THE FALL MAINTENANCE SHALL TARGET THE REMOVAL OF LEAF LITTER REMOVE AND REPLACE TOP FEW INCHES OF FILTER MEDIA WHEN WATER
- PONDS FOR MORE THAN 48 HRS. REFER TO FILTERRA'S MAINTENACE VISIT **PROCEDURE**
- h. Prune and replace dead vegetation as necessary when PERFORMING MAINTENANCE VISITS. CONSULT FILTERRA PLANT LIST FOR
- ACCEPTABLE SPECIES. . WATER VEGETATION DURING DRY PERIODS.

INSTALLATION GUIDELINES FOR FILTERRA

- EACH UNIT SHALL BE CONSTRUCTED AT THE LOCATIONS AND ELEVATIONS ACCORDING TO THE SIZES SHOWN ON THE APPROVED DRAWINGS. ANY MODIFICATIONS TO THE ELEVATION OR LOCATION SHALL BE AT THE DIRECTION OF AND APPROVED BY THE ENGINEER.
- IF THE FILTERRA IS STORED BEFORE INSTALLATION, THE TOP SLAB MUST BE PLACED ON THE BOX USING THE 2x4 WOOD PROVIDED, TO PREVENT CONTAMINATION FROM THE SITE, ALL INTERNAL FITTINGS SUPPLIED (IF ANY), MUST BE LEFT IN PLACE PER THE DELIVERY.
- THE UNIT SHALL BE PLACED ON THE COMPACTED SUB-GRADE WITH A MINIMUM 6-INCH GRAVEL BASE MATCHING THE FINAL GRADE OF THE CURB LINE IN THE AREA OF THE UNIT. THE UNIT IS TO BE PLACED SUCH THAT THE UNIT AND TOP SLAB MATCH THE GRADE OF THE CURB IN THE AREA OF THE UNIT. COMPACT UNDISTURBED SUB-GRADE MATERIALS TO 95% OF THE MAXIMUM DENSITY AT +1% TO 2% OF THE OPTIMUM MOISTURE. UNSUITABLE MATERIAL BELOW SUB-GRADE SHALL BE REPLACED TO SITE ENGINEER'S APPROVAL CONTACT CONTECH FOR GUIDANCE WHERE SLOPE EXCEEDS 5%.
- . ONCE THE UNIT IS SET, THE INTERNAL WOODEN FORMS AND PROTECTIVE SILT FABRIC COVER MUST BE LEFT INTACT. ONLY REMOVE THE TEMPORARY WOODEN SHIPPING BLOCKS BETWEEN THE BOX AND THE TOP SLAB. THE TOP LID SHOULD BE SEALED ONTO THE BOX BEFORE BACKFILLING, USING A NON-SHRINK GROUT BUTYL RUBBER OR SIMILAR WATERPROOF SEAL THE BOARDS ON THE TOP OF THE LID AND BOARDS SEALED IN THE UNIT'S THROAT MUST **NOT** BE REMOVED. THE SUPPLIER WILL REMOVE THESE SECTIONS AT THE TIME OF ACTIVATION.
- OUTLET CONNECTIONS SHALL BE ALIGNED AND SEALED TO MEET THE APPROVED DRAWINGS WITH MODIFICATIONS NECESSARY TO MEET SITE CONDITIONS AND LOCAL REGULATIONS. THE CORRECT OUTLET WILL BE MARKED ON THE FILTERRA BOX. DO **NOT** USE PLUGGED COUPLINGS MARKED "USE OTHER CONNECTION".
- BACKFILLING SHALL BE PERFORMED IN A CAREFUL MANNER, BRINGING THE APPROPRIATE FILL MATERIAL UP IN 6" LIFTS ON ALL SIDES. PRECAST SECTIONS SHALL RESET IN A MANNER THAT WILL RESULT IN A WATERTIGHT JOINT IN ALL INSTANCES, INSTALLATION OF THE FILTERRA UNIT SHALL CONFORM TO ASTM SPECIFICATION C891 "STANDARD PRACTICE FOR INSTALLATION OF UNDERGROUND PRECAST UTILITY STRUCTURES" UNLESS SPECIFIED OTHERWISE IN CONTRACT DOCUMENTS.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE CURB AND GUTTER AND TRANSITION TO THE FILTERRA UNIT FOR PROPER STORMWATER FLOW INTO THE SYSTEM THROUGH THE THROAT OPENING. CONTRACTOR SHALL ENSURE THAT THE FLOW LINE OF THE FILTERRA UNIT IS AT A HIGHER ELEVATION THAN THE FLOW LINE OF THE BYPASS STRUCTURE OR RELIEF. EFFECTIVE BYPASS FOR THE FILTERRA SYSTEM IS ESSENTIAL FOR CORRECT OPERATION, FAILURE TO COMPLY WITH THIS GUIDELINE MAY CAUSE FAILURE AND/OR DAMAGE TO THE FILTERRA DEVICE. A STANDARD DRAWING OF THE THROAT AND GUTTER DETAIL IS SHOWN ON THIS SHEET.





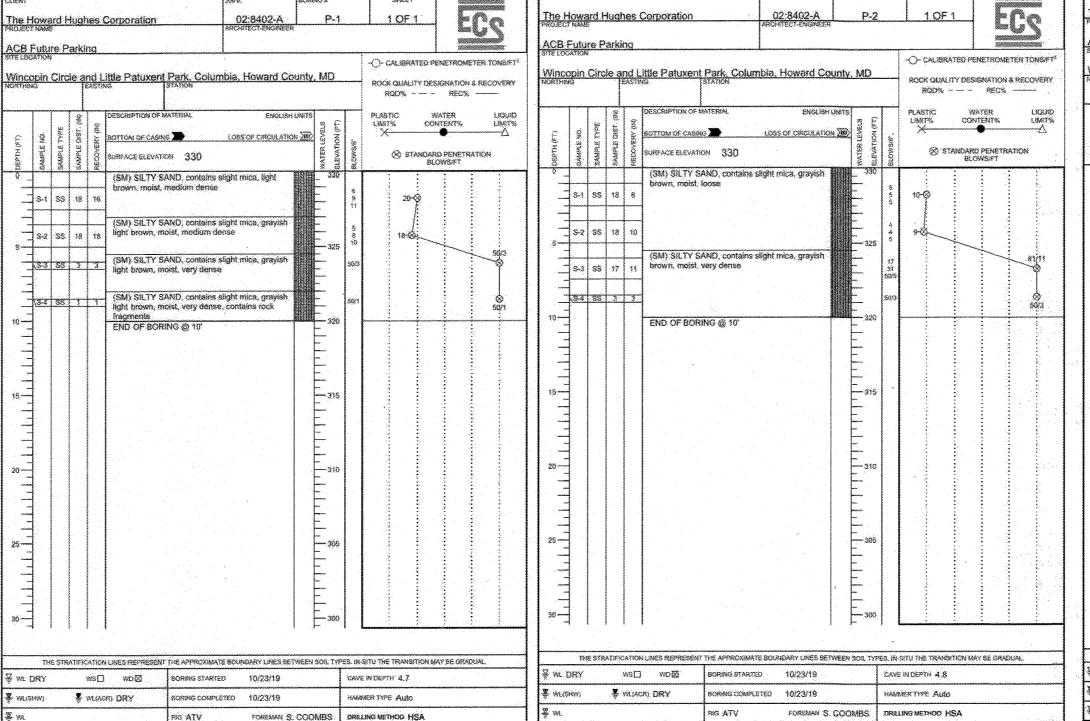
Z NOTE: THIS CHANGE REFLECTS THAT A PTSC GXG WAS INSTALLED ONSITE

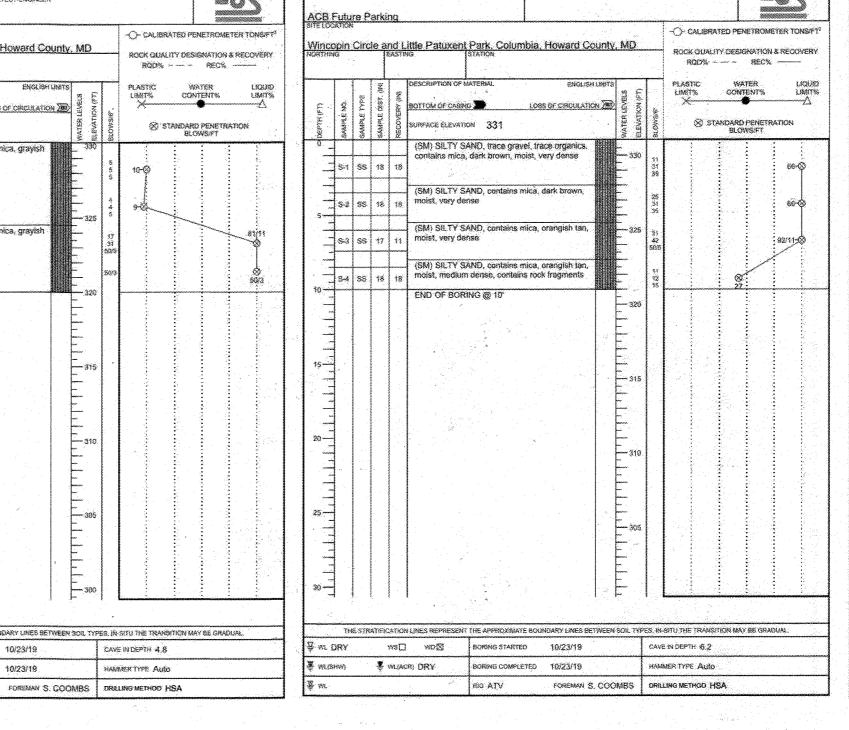
1-11-21

UNIT DESIGNATION	INSIDE VAULT DIMENSIONS	FILTERRA TREATMENT AREA	MAXIMUM DRAINAGE AREA TREATED (SF)	STORAGE CAPACITY OF UNIT PRIOR TO FILTRATION (CF)	WQv TREATMEN EQUIVALENT (CI
FTSC 6"x 4"	12'x4'	6'x4'	4,356. 7	85	.339
FTSC 8' x 4'	16' x 4'	8' × 4'	5,990	117	467
FTSC 6' x 6'	12'×6'	6' x 6'	6,534	126	511-
FTSC 8' x 6'	16' x 6'	8' × 6'	9,039	176	702
FTSC 10' x 6'	19' x 6'	10" × 6"	10,454	204	816
FTSC 10' x 8'	20' x 8'	10" x 8"	15,246	298	1,194
FTSC 11' x 8'	22' × 8'	11' x 8'	16,990	330	1,322

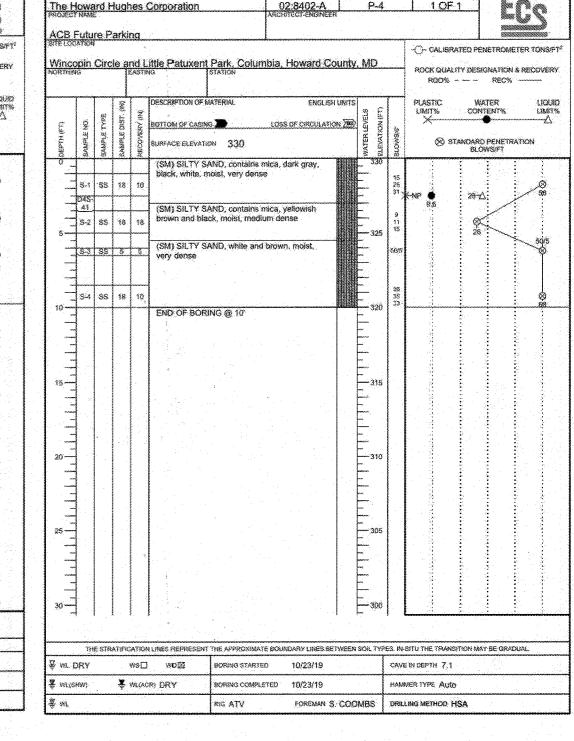
APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

CONT ENGINEERED SOI WWW.Contech	LUTIONS LLC			ERRA® WITH TATION CHAMBER	
605 Global Way, Suite 113,	Linthicum, MD 21090				
866-740-3318 OFFICE	866-376-8511 FAX	DATE:10-28-15	SCALE: NONE	PRODUCT No.: FTSC	DRAWN BY: BAS
	***************************************		······································	***************************************	·······





e Howard Hughes Corporation



Planting Requirements for Filterra® Systems

Plant Material Selection

- Select plant(s) as specified in the engineering plans and specifications.
- Select plant(s) with full roof development but not to the point where root
- Use local nursery container plants only. Ball and burlapped plants are not permitted.
- For precast Filterra systems, plant(s) must not have scaffold limbs at least 14 inches from the crown due to spacing between the top of the mulch and the tree grate. Lower branches can be pruned away provided there are sufficient scaffold branches for tree or shrub development.
- · For precast Filterra systems, at the time of installation plant(s) must be at least 4 feet tall from the crown.
- Plant(s) shall not have a mature height greater than 25 feet.
- For standard 21" media depth, a 7 15 gallon container size shall be used. Media less than 21" (Filterra boxes only) will require smaller container plants.
- Plant(s) must have a single trunk at installation, and pruning may be necessary at activation and maintenance for some of the faster growing species, or species known to produce basal sprouts.

Plant Installation

- During transport protect the plant leaves from wind and excessive jostling.
- · Prior to removing the plant(s) from the container, ensure the soil moisture is sufficient to maintain the integrity of the root ball. If
- Cut away any roots which are growing out of the container drain holes. Plants with excessive root growth from the drain holes.
- · Plant(s) should be carefully removed from the pot by gently pounding on the sides of the container with the fist to loosen roof ball. Then carefully slide out. Do not lift plant(s) by trunk as this can break roots and cause soil to fall off. Extract the root ball in a horizontal position and support it to prevent it from breaking apart. Alternatively the pot can be cut away to minimize root ball
- . Remove any excess soil from above the root flare after removing plant(s) from container.
- Excavate a hole with a diameter 4" greater than the root ball, gently place the plant(s).
- · If plant(s) have any circling roots from being pot bound, gently tease them loose without breaking them.
- If root ball has a root mat on the bottom, it should be shaved off with a knife just above the mat line.
- Plant the tree/shrub/grass with the top of the root ball 1" above surrounding media to allow for settling.
- All plants should have the main stem centered in the tree grate upon completion of installation.
- · With all trees/shrubs, remove dead, diseased, crossed/rubbing, sharply crotched branches or branches growing excessively long or in wrong direction compared to majority of branches.

Filterra Bioretention Systems Mulch Specifications

General Description

Filterra Bioretention Systems mulch consists of double shredded wood or bark mulch.

Basic Use

The mulch is used in Filterra Bioretention Systems as the surface component for pretreatment of stormwater runoff, protection of the Filterra bioretention media and moisture control. No more than a 3" mulch layer should be applied.

Technical Specifications

- Mulch should be approved by Contech Engineered Solutions LLC for use in Filterra systems
- Mulch should include only hardwood, fir or cedar material.
- Mulch should be double shredded wood or bark, but not bark nugget mulch.
- If dyed, Mulch should be brown or black only.
- Mulch should be certified by the Mulch and Soil Council.
- Mulch should be of a type that is low in total phosphorus (TP)

- To prevent transplant shock (especially if planting takes place in the hot season), it may be necessary to prune some of the foliage to compensate for reduced root uptake capacity. This is accomplished by pruning away some of the smaller secondary branches or a main scaffold branch if there are too many. Too much foliage relative to the root ball can dehydrate and damage
- Plant staking may be required

Professional Certification I here by certify that these plans were

prepared or approved by me, and that I am a duly licensed Professional Engineer

under the laws of the State of Maryland.

Certification For Revision 2 only

Expiration bate: May 26,2024

License No- 12975

Mulch Installation

- GRAFT

SOIL SURFACE

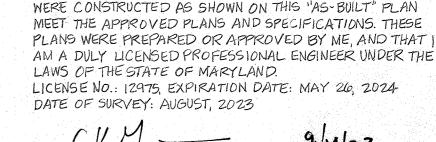
CROWN -

- · Only mulch that has been analyzed and approved by the Contech Engineered Solutions lab can be used in the Filterra system
- Mulch must be applied to a depth of 3" evenly over the surface of the media

Irrigation Requirements

- Each Filterra® system must receive adequate irrigation to ensure survival of the living system during periods of drier weather. . Irrigation sources include rainfall runoff from downspouts and/or gutter flow, applied water through the tree grate or in some
- cases from an irrigation system with emitters installed during construction.
- At Activation: Apply about one (cool climates) to two (warm climates) gallons of water per inch of trunk diameter over the root
- During Establishment: In common with all plants, each Filterra® plant will require more frequent watering during the establishment period. One inch of applied water per week for the first three months is recommended for cooler climates (2 to 3 inches for warmer climates). If the system is receiving rainfall runoff from the drainage area, then irrigation may not be needed. Inspection of the soil moisture content can be evaluated by gently brushing aside the mulch layer and feeling the soil. Be sure to replace the mulch when the assessment is complete. Irrigate as needed**.
- . Established Plants: Established plants have fully developed root systems and can access the entire water column in the media. Therefore irrigation is less frequent but requires more applied water when performed. For a mature system assume 3.5 inches of available water within the media matrix. Irrigation demand can be estimated as 1" of irrigation demand per week. Therefore if dry periods exceed 3 weeks, irrigation may be required. It is also important to recognize that plants which are exposed to windy areas and reflected heat from paved surfaces may need more frequent irrigation. Long term care should develop a history which is more site specific.

** Five gallons per square yard approximates 1 inch of water. Therefore for a 6' by 6 foot Filterra® approximately 20-60 gallons of applied water is needed. To ensure even distribution of water it needs to be evenly sprinkled over the entire surface of the filter bed, with special attention to make sure the root ball is completely wetted. NOTE: if needed, measure the time it takes to fill a five gallon bucket to estimate the applied water flow rate. Then calculate the time needed to irrigate the Filterra®, For example is the flow rate of the sprinkler is 5 gallons/minute then it would take 12 minutes to irrigate a 6'x6' filter.



I HEREBY CERTIFY, BY MY SEAL, THAT TO THE BEST OF MY

KNOWLEDGE AND BELIEF THE FACILITIES SHOWN ON THIS PLAN

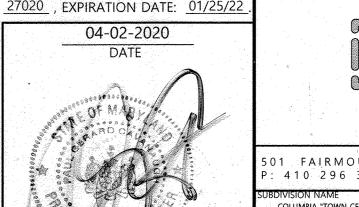
CARLTONK GUTSCHICK PROFESSIONAL ENGINEER MARYLAND REG. NO. 12975



OSINZEZ /2 ADJUSTED FILTEREA CALLOUT REPLACEMENT OF ORIGINAL SDP SET WITH TEMPORARY PARKING LOT DESIGN SE **Revision Description**

TEMPORARY SURFACE LOT PARCEL 298, LOT 13 10227 WINCOPIN CIRCLE COLUMBIA, MD 21044

OWNER / DEVELOPER: AMERICAN CITY BUILDING BUSINESS TRUST C/O THE HOWARD HUGHES CORPORATION COLUMBIA REGIONAL OFFICE 10960 GRANTCHESTER WAY, SUITE 110 COLUMBIA, MD 21044 (410) 964-4800



04-02-2020

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE

DULY LICENSED PROFESSIONAL

DOCUMENTS WERE PREPARED OR

APPROVED BY ME, AND THAT I AM A

ENGINEER UNDER THE LAWS OF THE

STATE OF MARYLAND, LICENSE NO.

PROFESSIONAL ENGR. NO. 27020

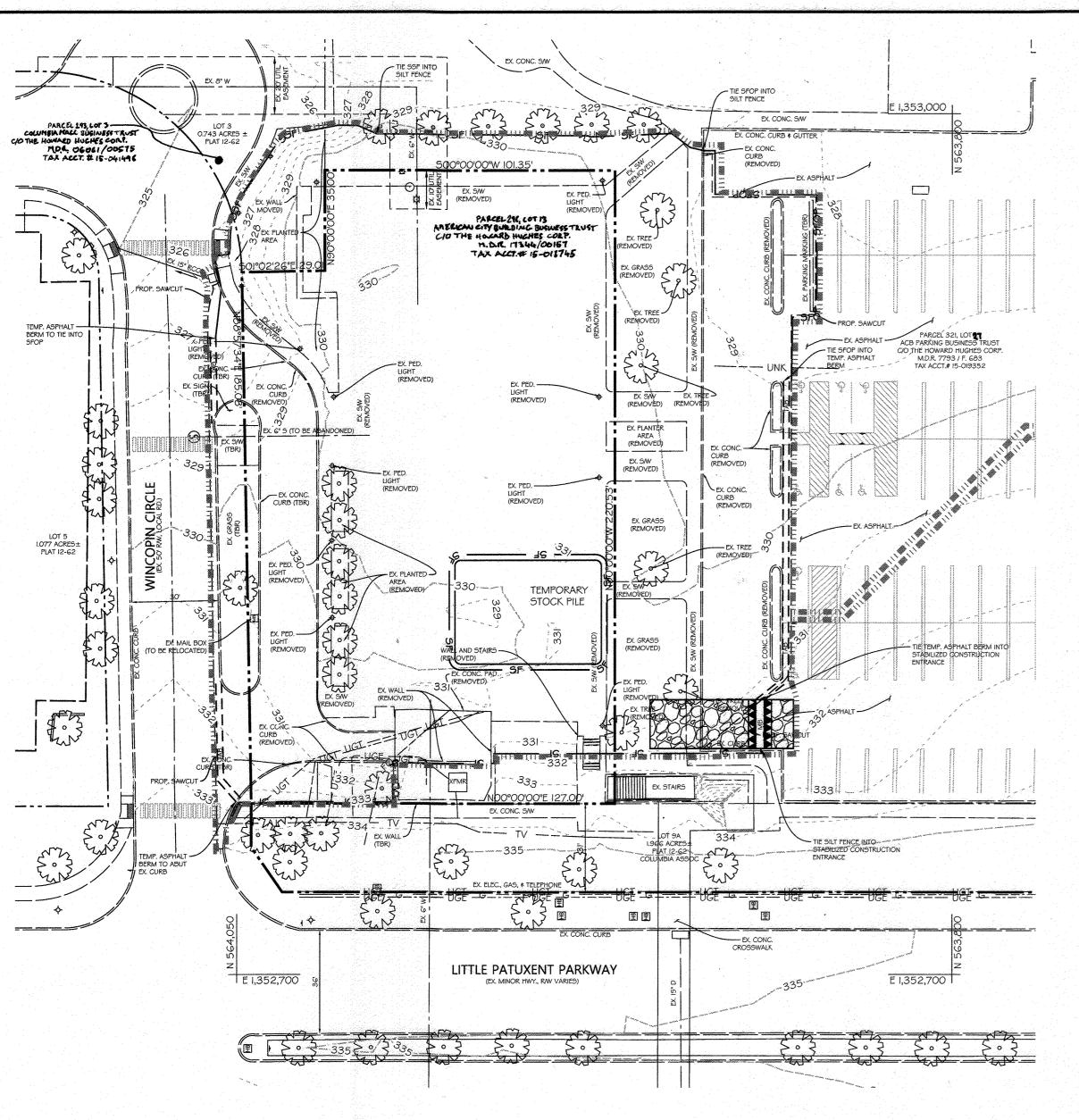
APPROVED: PLANNING BOARD OF HOWARD COUNTY Ortober 1,2020

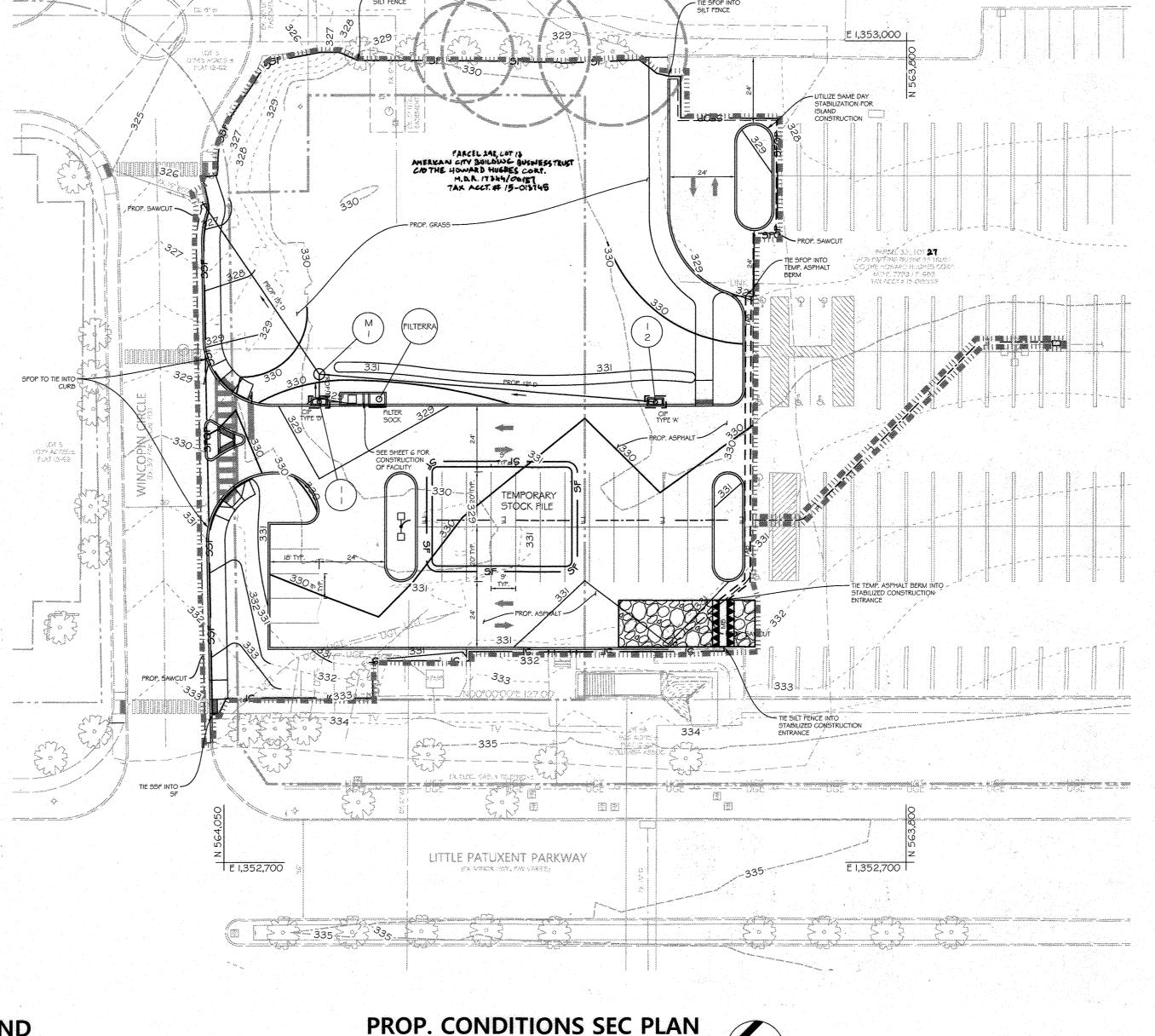
501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 2128 : 410 296 3333 F: 410 296 4705 WWW.DMW.C

5-03 LITTLE PATUXENT

SWM NOTES AND DETAILS REVISED SITE DEVELOPMENT PLAN

SCALE: AS SHOWN Des. By PAB Proj. No. 19029.00 AS-BUILT SHEET SOF Drn. By PAB Date 04-02-2020 07 of 16 Approved RRP Chk. By RRP





EX. CONDITIONS SEC PLAN

ALL UNDERLYING SOILS WITHIN LIMIT OF DISTURBANCE ARE URBAN LAND-UDORTHENTS COMPLEX (UUB), O TO 8% SLOPES WHICH ARE HYDROLOGIC SOIL GROUP 'D'.

SEQUENCE OF CONTRUCTION

- 1. OBTAIN A GRADING PERMIT FOR THE PROPOSED WORK. NOTIFY THE HOWARD COUNTY DEPARTMENT OF PERMITS AND LICENSES (DILP) AT LEAST 48 HOURS PRIOR TO BEGINNING WORK. (2 DAYS)
- 2. INSTALL THE STABILIZED CONSTRUCTION ENTRANCE (SCE) AND PERIMETER CONTROLS: SUPER SILT FENCE (SSF), SILT FENCE (SF), SILT FENCE ON PAVEMENT (SFOP), AND TEMPORARY ASPHALT BERM (TAB) AS SHOWN ON THE PLANS (5 DAYS). (5 DAYS)

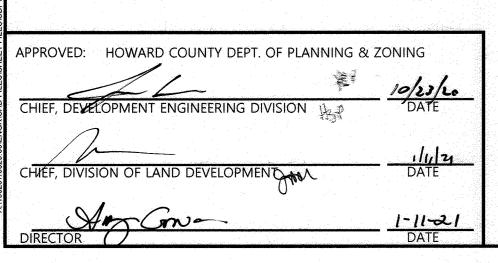
NOTE: REFER TO DAILY STABILIZATION NOTES FOR WORK PERFORMED OUTSIDE OF THE PERIMETER CONTROLS SHOWN ON THESE PLANS.

- 3. IF NECESSARY, AN ON-SITE STOCKPILE AREA WILL BE LOCATED WITHIN THE LIMIT OF DISTURBANCE WITH THE COORDINATION AND DISCRETION OF THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR AND THE GENERAL CONTRACTOR.
- 4. WITH THE SEDIMENT CONTROL INSPECTOR'S WRITTEN APPROVAL, BEGIN GRADING SITE TO GRADES SHOWN ON THESE PLANS MAKING SURE TO ACCOUNT FOR THE PAVEMENT SECTION. ALL SPOIL WILL NEED TO BE TAKEN TO A SITE WITH AN APPROVED OPEN GRADING PERMIT AND AN APPROVED SEDIMENT CONTROL PLAN. (2 WEEKS)
- 5. WHILE GRADING OPERATIONS ARE UNDERWAY, INSTALL PROPOSED STORM DRAIN SYSTEMS AND LIGHTING/ELECTRIC. WUTILIZE PUMP AND PORTABLE SEDIMENT TANK AND DISCHARGE TO A STABILIZED OUTLET OR STORM DRAIN SYSTEM IN A NON-EROSIVE MANNER. INSTALL FILTERRA SYSTEM, ENSURING THAT THROAT OPENING IS BLOCKED WITH BOARD FROM SUPPLIER. SEE STORMWATER MANAGEMENT SEQUENCE OF CONSTRUCTION FOR INSTALL INSTALL FILTER SOCK AT THROAT OPENING AS EXTRA MEASURE. AS SOON AS INLETS ARE INSTALLED,
- 6. INSTALL CURB AND GUTTER, SIDEWALK, RAMPS, AND ASPHALT PAVEMENT SECTION. CONTRACTOR SHALL WORK FROM STABILIZED CONSTRUCTION ENTRANCE TOWARDS WINCOPIN CIRCLE. AFTER THESE ITEMS ARE INSTALLED, RELOCATE PERIMETER CONTROLS, SPECIFICALLY SUPER SILT FENCE (SSF). REMOVE TEMPORARY ASPHALT BERMS ALONG WINCOPIN ONCE CURB AND PAVEMENT IS INSTALLED. (3 WEEKS)

NOTE: STEPS 5 AND 6 MAY BE DONE CONCURRENTLY.

IMMEDIATELY INSTALL INLET PROTECTION. (1 WEEK)

- 7. INSTALL SITE AND STORMWATER PLANTINGS PER LANDSCAPE PLANS PROVIDED IN THIS SET. (2 WEEKS)
- 8. WITH THE SEDIMENT CONTROL INSPECTOR'S & SUPPLIER'S WRITTEN APPROVAL THAT THE STORMWATER MANAGEMENT FACILITIES' CONTRIBUTING DRAINAGE AREA IS PERMANENTLY STABILIZED, REMOVE FILTER SOCK AND THROAT OPENING BLOCKAGE ON FILTERRA AND ALLOW RUNOFF TO ENTER FACILITIES (ACTIVATE FILTERRA). REMOVE INLET PROTECTION ON INLETS. (2 DAYS)
- 9. WITH THE SEDIMENT CONTROL INSPECTOR'S WRITTEN APPROVAL, REMOVE REMAINING CONTROLS AND IMMEDIATELY STABILIZE/REPAIR THOSE AREAS DISTURBED BY THEIR REMOVAL. (3 DAYS)



LEGEND

PROPERTY LINE ----- 328 ----- EX. I' CONTOUR ----- FX 5' CONTOUR _____ __ EX. CURB ---- EX. BUILDING OVERHANG ————— EX. BUILDING ----- EX. WATER LINE

₩ • 0	EX. WATER STRUCTURE
	- EX. STORM DRAIN PIPE EX. STORM DRAIN INLET - EX. SANITARY SEWER PIPE
	EX. SANITARY SEWER MANHOLE
	- EX. UNDERGROUND TELEPHONE LIN EX. UNDERGROUND ELECTRIC LINE - EX. UNDERGROUND FIBEROPTIC LINE - EX. UNDERGROUND TELEVISION LIN EX. UNDERGROUND GAS LINE - EX. UNKNOWN UNDERGROUND LINI - EX. HAND BOX - EX. PEDESTRIAN LIGHT
♦ □ + □	EX. STREET LIGHT
328 330	EX. SIGN PROP. I' CONTOUR PROP. 5' CONTOUR
- 1	PROP. SITE LIGHTING (REFER TO SHEET 15)
E	PROP. UNDERGROUND ELECTRIC

PROP. SIGN

PROP. STORM DRAIN PIPE PROP. STORM INLET PROP. STORM MANHOLE PROP. CONC. CURB & GUTTER SF - SIT FENCE ----- SFOP ------ SILT FENCE ON PAVEMENT SSF — SUPER SILT FENCE WILLIAM III WELL WILLIAM LIMIT OF DISTURBANCE

TAB TEMPORARY ASPHALT BERM _ _ _ IAD _ _ _ _

STABILIZED CONSTRUCTION ENTRANCE W/ MOUNTABLE BERM

CURB INLET PROTECTION

SCALE: 1"= 30

UTILITY CONSTRUCTION NOTES

(FOR ALL UTILITY CONSTRUCTION BEYOND EROSION AND SEDIMENT CONTROL MEASURES)

1. CONTRACTOR SHOULD OPEN ONLY THAT SECTION OF TRENCH THAT CAN BE BACKFILLED AND STABILIZED EACH DAY.

2. PLACE ALL EXCAVATED MATERIAL ON THE UPHILL SIDE OF A TRENCH. 3. ANY SEDIMENT CONTROLS DISTURBED BY UTILITY CONSTRUCTION ARE TO BE REPAIRED IMMEDIATELY.

DAILY STABILIZATION NOTES

2. FOR AREAS TO BE VEGETATIVELY STABILIZED:

(FOR ALL CONSTRUCTION OUTSIDE PERIMETER SEDIMENT AND EROSION CONTROL MEASURES) CONTRACTOR SHALL ONLY DISTURB THAT AREA WITH WHICH CAN BE COMPLETED AND STABILIZED BY THE END OF EACH WORKING DAY. ALL EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF A TRENCH. STABILIZATION SHALL BE AS FOLLOWS:

1. FOR AREAS TO BE PAVED, THE APPLICATION OF STONE BASE.

a. PERMANENT SEED AND SOIL STABILIZATION MATTING OR SOD FOR ALL STEEP SLOPES, CHANNELS OR SWALES. b. PERMANENT SEED AND MULCH FOR ALL OTHER AREAS.

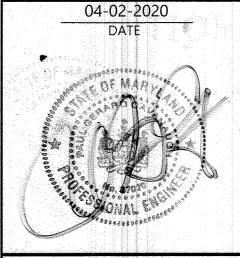
IF THE CONTRACTOR IS UNABLE TO BACKFILL AND STABILIZE TRENCH, THEN SILT FENCE WILL BE PLACED ON THE

3. ANY SOIL/SEDIMENT TRACKED ONTO ROADWAYS MUST BE REMOVED IMMEDIATELY BY MECHANICAL METHODS (SCRAPING, SWEEPING, ETC.) AND FLUSHING OF PAVEMENT WILL NOT BE PERMITTED.

NO ASBUILT INFORMATION

PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE

DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 27020 , EXPIRATION DATE: 01/25/22



PROFESSIONAL ENGR. NO. 27020

APPROVED: PLANNING BOARD OF HOWARD COUNTY October 1,2020

04/02/20 REPLACEMENT OF ORIGINAL SDP SET WITH TEMPORARY PARKING LOT DESIGN SET Date No. Revision Description

OWNERS/DEVELOPER CERTIFICATION:

SOIL CONSERVATION DISTRICT AND/OR MDE."

OF THE HOWARD SOIL CONSERVATION DISTRICT."

4 WW

PRINTED NAME & TITLE

PRINTED NAME

Des. By PAB

Drn. By PAB

Chk. By RRP

OWNER'S/DEVELOPER'S SIGNATURE

GREG FITCHITT - REGIONAL PRESIDENT

DESIGN CERTIFICATION

"I/WE HEREBY CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION, OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS APPROVED EROSION

APPROVED TRAINING PROGRAM FOR THE CONTROL ON EROSION AND SEDIMENT PRIOR TO BEGINNING THE PROJECT. I CERTIFY RIGHT-OF-ENTRY FOR PERIODIC ON-SITE EVALUATION BY HOWARD COUNTY, THE HOWARD

"I HEREBY CERTIFY THAT THIS PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH CURRENT MARYLAND EROSION AND SEDIMENT CONTROL LAWS, REGULATIONS, AND STANDARDS, THAT IT REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE, AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS

AND SEDIMENT CONTROL PLAN, INCLUDING INSPECTING AND MAINTAINING CONTROLS, AND THAT THE RESPONSIBLE PERSONNI

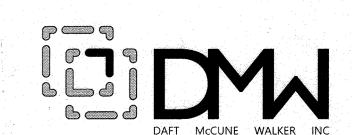
TEMPORARY SURFACE LOT PARCEL 298, LOT 13 10227 WINCOPIN CIRCLE COLUMBIA, MD 21044

MD REGISTRATION NO.

P.E., R.L.S., OR R.L.A. (CIRCLE ONE)

OWNER / DEVELOPER: AMERICAN CITY BUILDING BUSINESS TRUST C/O THE HOWARD HUGHES CORPORATION COLUMBIA REGIONAL OFFICE 10960 GRANTCHESTER WAY, SUITE 110 COLUMBIA, MD 21044

(410) 964-4800



01 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 2128 F: 410 296 4705 WWW.DMW.CO 410 296 3333 13/0298 & 17/0321

LITTLE PATUXENT

SCALE:

SEDIMENT AND EROSION CONTROL PLANS REVISED SITE DEVELOPMENT PLAN

> 08 of 16 Approved RRP

1'' = 20'

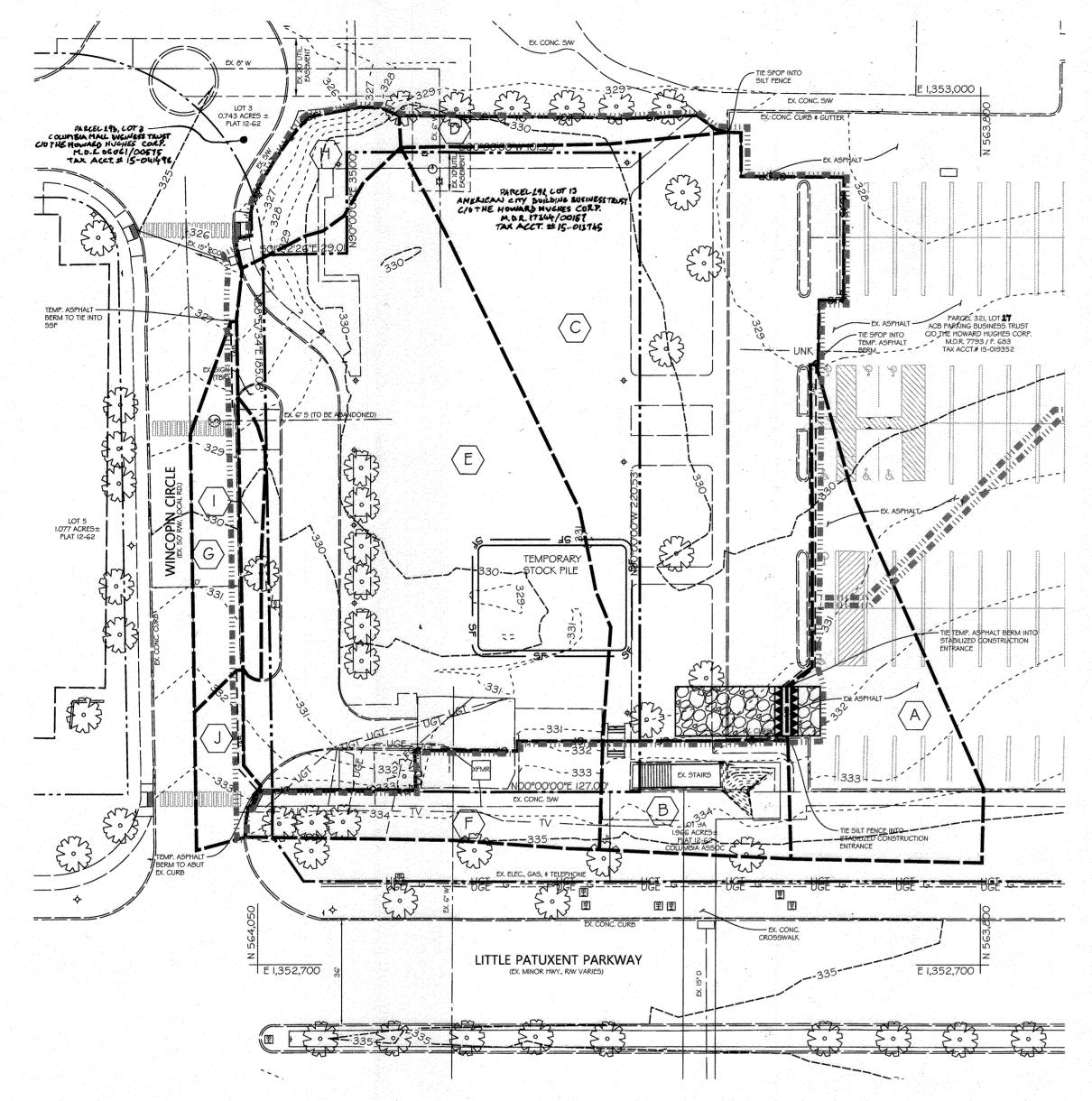
Proj. No. 19029.00

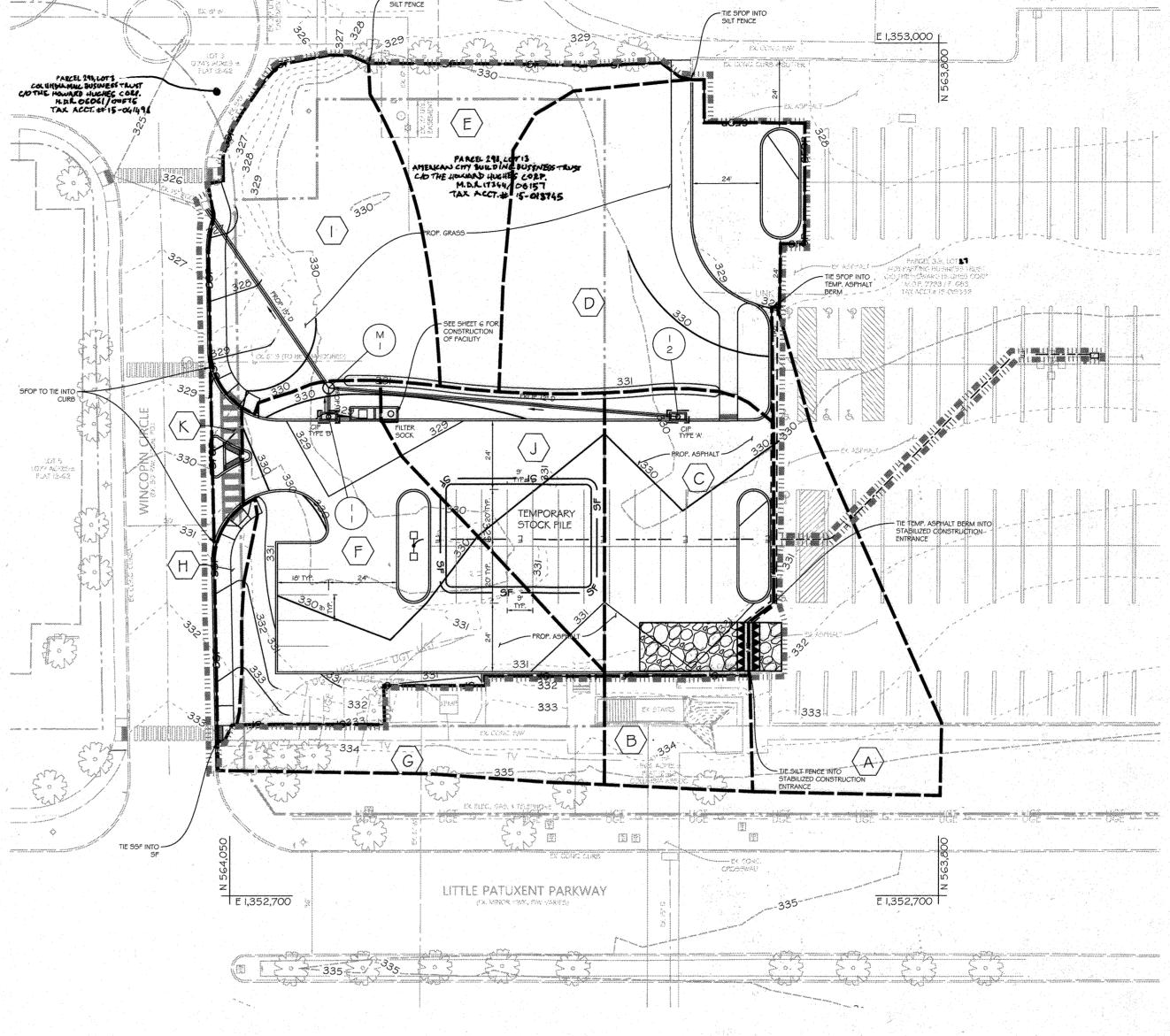
SDP-69-904

Date 04-02-2020

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND

LIMIT OF DISTURBANCE: 45,450 SF. / I.O4 AC±





EX. SEC DRAINAGE AREA MAP

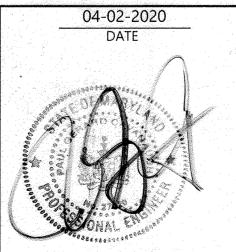
EXISTING SEDIMENT CONTROL DRAINAGE AREA SUMMARY TABLE					
DRAINAGE AREA	AREA DRAINING TO CONTROL (AC.)	CONTROL TYPE	NOTES		
Α	0.14	TEMP. ASPHALT BERM			
В	0.06	SILT FENCE	DRAINS TO AREA 'C'		
С	0.39 (0.45 TOTAL)	SILT FENCE ON PAVEMENT	RECEIVES AREA 'B'		
D	0.02	SILT FENCE			
E	0.48 (0.55 TOTAL)	SILT FENCE ON PAVEMENT	RECEIVES AREA 'F'		
F	0.07	SILT FENCE	DRAINS TO AREA 'E'		
G	0.04	SUPER SILT FENCE			
Н	0.04	SUPER SILT FENCE			
:	0.02	SUPER SILT FENCE			
J	0.02	TEMP. ASPHALT BERM			

PROP. SEC DRAINAGE AREA MAP

DRAINAGE AREA	AREA DRAINING TO CONTROL (AC.)	CONTROL TYPE	NOTES
Α	0.14	TEMP. ASPHALT BERM	
В	0.05	SILT FENCE	DRAINS TO AREA 'C'
С	0.13 (0.18 TOTAL)	CURB INLET PROTECTION	RECEIVES AREA 'B'
D	0.23	SILT FENCE ON PAVEMENT	
E	0.1	SILT FENCE	
F	0.21 (0.29 TOTAL)	CURB INLET PROTECTION	RECEIVES AREA 'G'
G	0.08	SILT FENCE	DRAINS TO AREA 'F'
Н	0.02	SUPER SILT FENCE	
1 .	0.18	SUPER SILT FENCE	
J	0.1	FILTER SOCK	
K	0.01	SILT FENCE ON PAVEMENT	

PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE

DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 27020 , EXPIRATION DATE: 01/25/2



LIMIT OF DISTURBANCE: 45,450 SF. / 1.04 AC±

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND

PROFESSIONAL ENGR. NO. 27020 PLANNING BOARD OF HOWARD COUNTY

October 1, 2020

04/02/20 REPLACEMENT OF ORIGINAL SDP SET WITH TEMPORARY PARKING LOT DESIGN SET

TEMPORARY SURFACE LOT

PARCEL 298, LOT 13 10227 WINCOPIN

CIRCLE COLUMBIA, MD 21044

OWNER / DEVELOPER: AMERICAN CITY BUILDING BUSINESS TRUST

C/O THE HOWARD HUGHES CORPORATION

COLUMBIA REGIONAL OFFICE

10960 GRANTCHESTER WAY, SUITE 110

COLUMBIA, MD 21044

(410) 964-4800

Revision Description

Date No.

LEGEND

PROPERTY LINE -328 - - - - EX. I' CONTOUR

EX. 5' CONTOUR EX. CURB

EX. SIDEWALK EX. BUILDING OVERHANG EX. BUILDING

EX. WATER LINE

EX. HAND BOX EX. PEDESTRIAN LIGHT

EX. SIGN

PROP. STORM INLET

PROP. STORM MANHOLE PROP. CONC. CURB & GUTTER

> PROP. SITE LIGHTING (REFER TO SHEET 15)

CURB INLET PROTECTION

STABILIZED CONSTRUCTION ENTRANCE W/ MOUNTABLE BERM

DRAINAGE AREA DESIGNATION

EX. STREET LIGHT

PROP. STORM DRAIN PIPE

PROP. SIGN

SFOP - SILT FENCE ON PAVEMENT

TAB TEMPORARY ASPHALT BERM

DRAINAGE AREA BOUNDARY

STANDARD INLET PROTECTION

SUPER SILT FENCE LIMIT OF DISTURBANCE

EX. STORM DRAIN INLET EX. SANITARY SEWER PIPE

- EX, UNDERGROUND TELEPHONE LINE - EX. UNDERGROUND ELECTRIC LINE

--- EX. UNDERGROUND GAS LINE EX. UNKNOWN UNDERGROUND LINE

EX. WATER STRUCTURE

501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 21286 P: 410 296 3333 F: 410 296 4705 WWW.DMW.COM 13/0298 & 17/0321

LITTLE PATUXENT

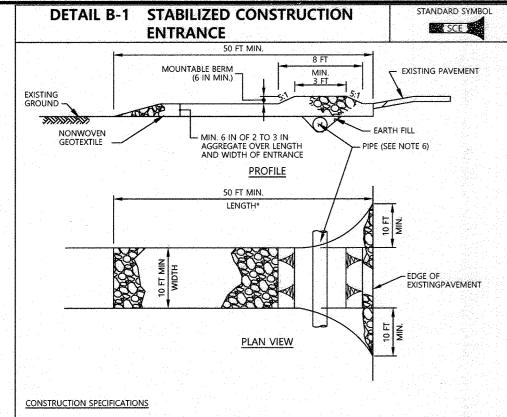
SEC DRAINAGE AREA MAPS REVISED SITE DEVELOPMENT PLAN 🛆

SCALE: AS SHOWN Proj. No. 19029.00 Des. By PAB Drn. By PAB Date 04-02-2020 09 of 16 Approved RRP Chk. By RRP

SDP-69-904

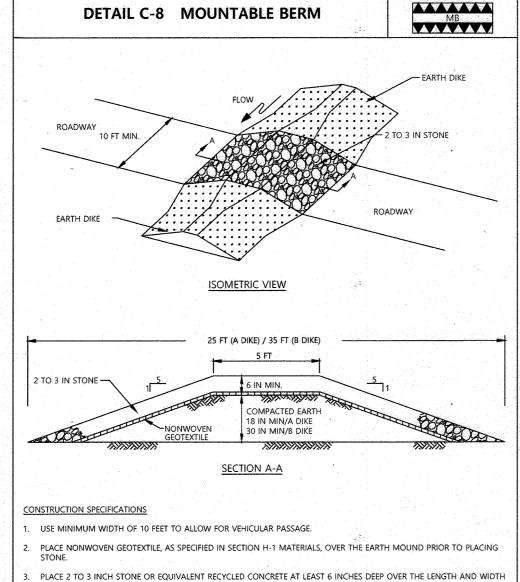
APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING CHIEF, DEVELOPMENT ENGINEERING DIVISION 1/1/21 DATE 1-11-21 DATE

ALL UNDERLYING SOILS WITHIN LIMIT OF DISTURBANCE ARE URBAN LAND-UDORTHENTS COMPLEX (UUB), O TO 8% SLOPES WHICH ARE HYDROLOGIC SOIL GROUP 'D'.



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

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL



MAINTAIN LINE, GRADE, AND CROSS SECTION. ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO maintain specified dimensions, remove accumulated sediment and debris, maintain positive drainage.

DETAIL E-3 SUPER SILT FENCE GALVANIZED CHAIN LINK FENCE WITH OR ALUMINUM POSTS **ELEVATION** CHAIN LINK FENCING WOVEN SLIT FILM GEOTEXTILE EMBED GEOTEXTILE AND -CHAIN LINK FENCE 8 IN MIN. INTO GROUND CROSS SECTION INSTALL 2 1/8 INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND SIX FOOT LENGTH SPACED

MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

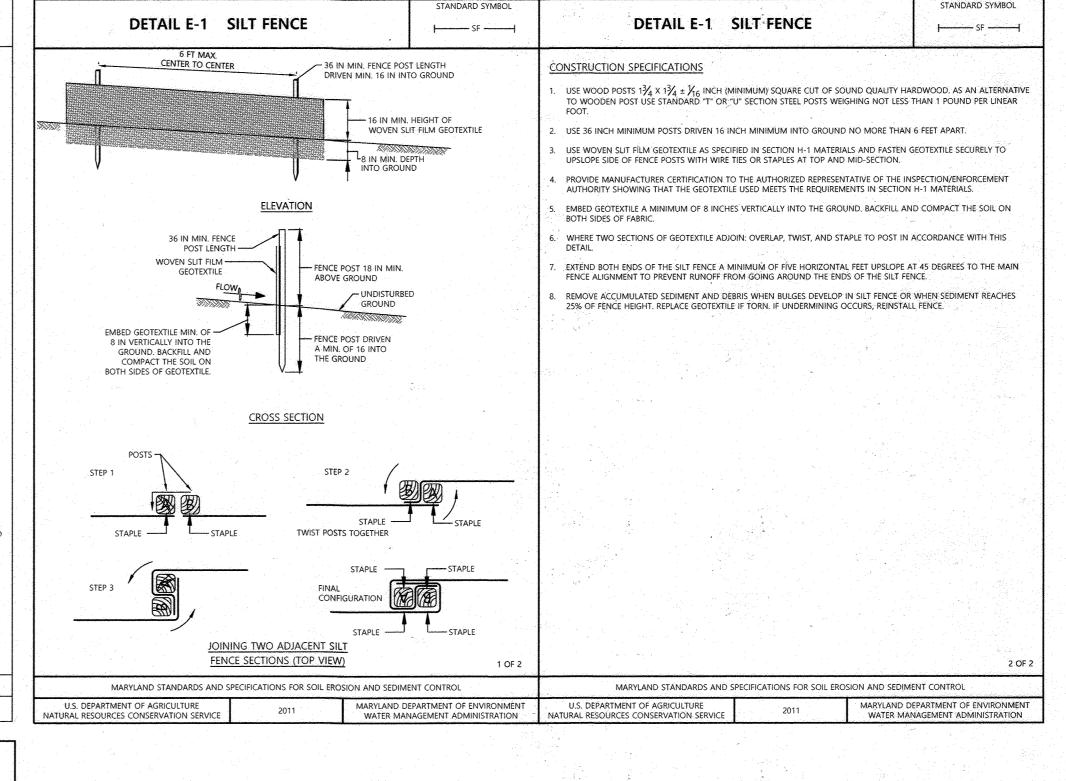
- NO FURTHER THAN 10 FEET APART. DRIVE THE POSTS A MINIMUM OF 36 INCHES INTO THE GROUND. FASTEN 9 GAUGE OR HEAVIER GALVANIZED CHAIN LINK FENCE (23/8 INCH MAXIMUM OPENING) 42 INCHES IN HEIGHT SECURELY TO THE FENCE POSTS WITH WIRE TIES OR HUG RINGS.
- FASTEN WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS, SECURELY TO THE UPSLOPE SIDE OF CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 8 INCHES INTO THE GROUND.
- WHERE ENDS OF THE GEOTEXTILE COME TOGETHER, THE ENDS SHALL BE OVERLAPPED BY 6 INCHES, FOLDED, AND STAPLED TO PREVENT SEDIMENT BY PASS.
- 45 degrees to the main fence alignment to prevent runoff from going around the ends of the super silt PROVIDE MANUFACTURER CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.

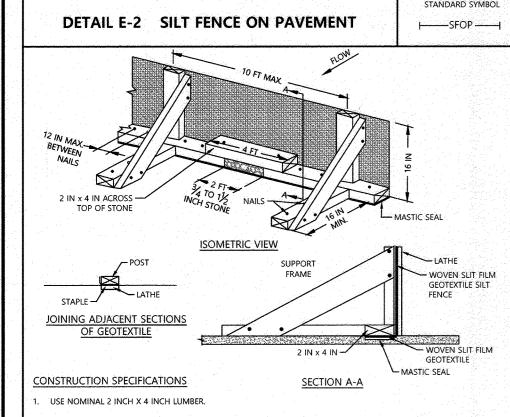
EXTEND BOTH ENDS OF THE SUPER SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT

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

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

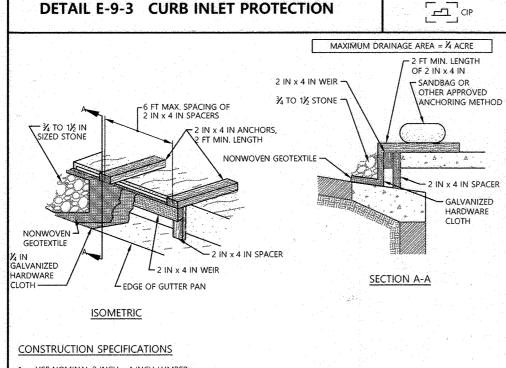
MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION





- PROVIDE MANUFACTURER CERTIFICATION TO THE AUTHORIZED REPRESENTATIVE OF THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT THE GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS. SPACE UPRIGHT SUPPORTS NO MORE THAN 10 FEET APART.
- PROVIDE A TWO FOOT OPENING BETWEEN EVERY SET OF SUPPORTS AND PLACE STONE IN THE OPENING OVER
- KEEP SILT FENCE TAUT AND SECURELY STAPLE TO THE UPSLOPE SIDE OF UPRIGHT SUPPORTS. EXTEND GEOTEXTILE UNDER
- WHERE TWO SECTIONS OF GEOTEXTILE ADJOIN: OVERLAP, FOLD, AND STAPLE TO POST IN ACCORDANCE WITH THIS DETAIL ATTACH LATHE.
- PROVIDE A MASTIC SEAL BETWEEN PAVEMENT, GEOTEXTILE, AND 2x4 TO PREVENT SEDIMENT-LADEN WATER FROM ESCAPING BENEATH SILT FENCE INSTALLATION. SECURE BOARDS TO PAVEMENT WITH 40D 5 INCH MINIMUM LENGTH NAILS.
- REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN SILT FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. MAINTAIN WATER TIGHT SEAL ALONG BOTTOM. REPLACE STONE II DISPLACED.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVI MARYLAND DEPARTMENT OF ENVIRONMEN WATER MANAGEMENT ADMINISTRATION

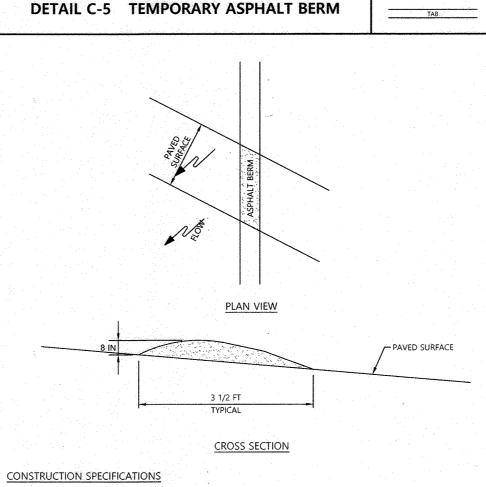


USE NOMINAL 2 INCH x 4 INCH LUMBER

OF THE MOUNTABLE BERM.

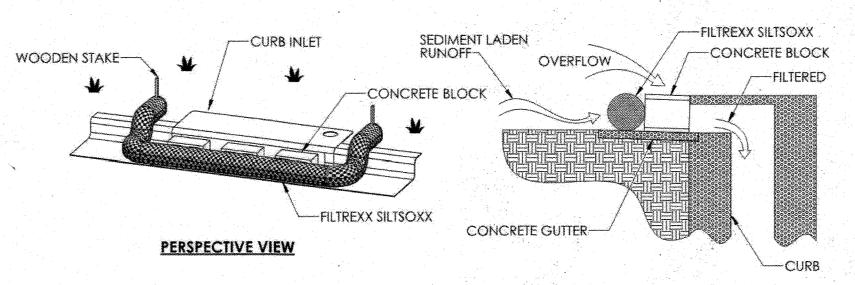
- USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS. NAIL THE 2x4 WEIR TO 9 INCH LONG VERTICAL SPACERS (MAXIMUM 6 FEET APART
- ATTACH A CONTINUOUS PIECE OF $\frac{1}{4}$ INCH GALVANIZED HARDWARE CLOTH, WITH A MINIMUM WIDTH OF 30 INCHES AND A MINIMUM LENGTH OF 4 FEET LONGER THAN THE THROAT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

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL U.S. DEPARTMENT OF AGRICULTURE TURAL RESOURCES CONSERVATION SERVI Maryland department of environment water management administration



- CONSTRUCT BERM ON AN UNINTERRUPTED, CONTINUOUS GRADE. INSTALL BERM TO CONFORM TO CROSS SECTION DIMENSIONS OF A UNIFORM HEIGHT OF 8 INCHES MINIMUM AND
 - APPROXIMATE WIDTH OF 3/2 FEET. PROVIDE OUTLET PROTECTION AS REQUIRED ON PLAN.
 - . COMPACT ASPHALT BERM.
 - REPAIR DAMAGED ASPHALT, REMOVE ACCUMULATED SEDIMENT AND DEBRIS. MAINTAIN POSITIVE DRAINAGE.
 - UPON REMOVAL OF ASPHALT BERM, RETURN TO ORIGINAL CONDITIONS OR AS SPECIFIED ON APPROVED PLAN

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL MARYLAND DEPARTMENT OF ENVIRONMEN'
WATER MANAGEMENT ADMINISTRATION U.S. DEPARTMENT OF AGRICULTURE TURAL RESOURCES CONSERVATION SERVIC

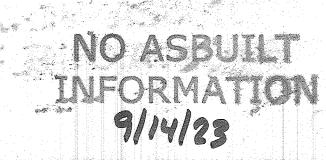


- 1. INSTALL FILTREXX SILTSOXX IN FRONT OF CURB OPENING TO A MINIMUM OF 12" BEYOND THE OPENING, EACH SIDE.
- 2. ANCHOR THE FILTREXX SILTSOXX BEHIND THE CURB WITH A WOODEN STAKE. STAKES SHALL BE ANCHORED A MINIMUM OF 12"

CROSS SECTION VIEW

- 3. STANDARD INLET PROTECTION FOR CURB INLET PROTECTION AND CURB SEDIMENT CONTAINMENT WILL USE 8" DIAMETER INLET PROTECTION. DURING CURB INSTALLATION, INLET PROTECTION SHALL BE COMPACTED TO BE SLIGHTLY SHORTER THAN
- 4. IF INLET PROTECTION BECOMES CLOGGED WITH DEBRIS AND SEDIMENT, THEY SHALL BE MAINTAINED SO AS TO ASSURE PROPER DRAINAGE AND WATER FLOW INTO THE STORM DRAIN. IN SEVERE STORM EVENTS, OVERFLOW OF THE INLET PROTECTION MAY BE ACCEPTABLE TO KEEP THE AREA FROM FLOODING.
- CURB AND DRAIN INLET PROTECTION SHALL BE POSITIONED SO AS TO PROVIDE A PERMEABLE PHYSICAL BARRIER TO THE DRAIN ITSELF, ALLOWING SEDIMENT TO COLLECT ON THE OUTSIDE OF THE INLET PROTECTION.
- CONCRETE BLOCKS SHALL BE USED A SPACER TO KEEP THE FILTREXX SILTSOXX FROM BLOCKING THE CURB OPENING. CONCRETE BLOCKS SHALL BE USED AT BOTH ENDS OF THE OPENING AND EVERY 4'.

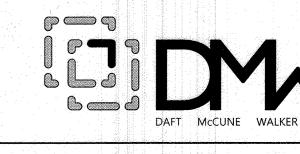
FILTREXX SILTSOXX CURB INLET PROTECTION



REPLACEMENT OF ORIGINAL SDP SET WITH TEMPORARY PARKING LOT DESIGN SET Date No. Revision Description TEMPORARY SURFACE LOT

PARCEL 298, LOT 13 10227 WINCOPIN CIRCLE COLUMBIA, MD 21044 OWNER / DEVELOPER:

AMERICAN CITY BUILDING BUSINESS TRUST C/O THE HOWARD HUGHES CORPORATION COLUMBIA REGIONAL OFFICE 10960 GRANTCHESTER WAY, SUITE 110 COLUMBIA, MD 21044 (410) 964-4800



501 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 2128 : 410 296 3333 F: 410 296 4705 COLUMBIA "TOWN CENTER"

LITTLE PATUXENT

SEC DETAILS

Chk. By RRP

REVISED SITE DEVELOPMENT PLAN 🛆 SCALE: AS SHOWN Proj. No. 19029.00 Date 04-02-2020

10 of 16

PROFESSIONAL ENGR. NO. 27020 PLANNING BOARD OF HOWARD COUNTY Des. By PAB October 1, 2020 Drn. By PAB

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE

DULY LICENSED PROFESSIONAL

DOCUMENTS WERE PREPARED OR

APPROVED BY ME, AND THAT I AM A

ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 27020 , EXPIRATION DATE: 01/25/2

04-02-2020

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING CHIEF, DEVELOPMENT ENGINEERING DIVISION IIIIZA DATE 1-11-21

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND

SDP-69-904

Approved RRP

STANDARDS AND SPECIFICATIONS FOR VEGETATIVE **STABILIZATION**

(B-4-2) SECTION 2 - SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS

A. SOIL PREPARATION

TEMPORARY STABILIZATION

a. SEEDBED PREPARATION CONSISTS OF LOOSENING SOIL TO A DEPTH OF 3 TO 5 INCHES BY MEANS OF SUITABLE AGRICULTURAL OR CONSTRUCTION EQUIPMENT, SUCH AS DISC HARROWS OR CHISEL PLOWS OR RIPPERS MOUNTED ON CONSTRUCTION EQUIPMENT, AFTER THE SOIL IS LOOSENED, IT MUST NOT BE ROLLED OR DRAGGED SMOOTH BUT LEFT IN THE ROUGHENED CONDITION. SLOPES 3:1 OR FLATTER ARE TO BE TRACKED WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF

b. APPLY FERTILIZER AND LIME AS PRESCRIBED ON THE PLANS.

c. INCORPORATE LIME AND FERTILIZER INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.

PERMANENT STABILIZATION

a. A SOIL TEST IS REQUIRED FOR ANY EARTH DISTURBANCE OF 5 ACRES OR MORE. THE MINIMUM SOIL CONDITIONS REQUIRED FOR PERMANENT VEGETATIVE ESTABLISHMENT ARE:

i. SOIL PH BETWEEN 6.0 AND 7.0.

ii. SOLUBLE SALTS LESS THAN 500 PARTS PER MILLION (PPM).

iii. SOIL CONTAINS LESS THAN 40 PERCENT CLAY BUT ENOUGH FINE GRAINED MATERIAL (GREATER THAN 30 PERCENT SILT PLUS CLAY) TO PROVIDE THE CAPACITY TO HOLD A MODERATE AMOUNT OF MOISTURE. AN EXCEPTION: IF LOVEGRASS WILL BE PLANTED, THEN A SANDY SOIL (LESS THAN 30 PERCENT SILT PLUS CLAY) WOULD BE ACCEPTABLE.

iv. SOIL CONTAINS 1.5 PERCENT MINIMUM ORGANIC MATTER BY WEIGHT.

v. SOIL CONTAINS SUFFICIENT PORE SPACE TO PERMIT ADEQUATE ROOT PENETRATION.

b. APPLICATION OF AMENDMENTS OR TOPSOIL IS REQUIRED IF ON-SITE SOILS DO NOT MEET THE ABOVE CONDITIONS

c. Graded areas must be maintained in a true and even grade as specified on the approved plan, then scarified OR OTHERWISE LOOSENED TO A DEPTH OF 3 TO 5 INCHES.

d. APPLY SOIL AMENDMENTS AS SPECIFIED ON THE APPROVED PLAN OR AS INDICATED BY THE RESULTS OF A SOIL TEST.

e. MIX SOIL AMENDMENTS INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS, RAKE LAWN AREAS to smooth the surface, remove large objects like stones and branches, and ready the area for seed APPLICATION, LOOSEN SURFACE SOIL BY DRAGGING WITH A HEAVY CHAIN OR OTHER EQUIPMENT TO ROUGHEN THE SURFACE WHERE SITE CONDITIONS WILL NOT PERMIT NORMAL SEEDBED PREPARATION, TRACK SLOPES 3:1 OR FLATTER WITH TRACKED EQUIPMENT LEAVING THE SOIL IN AN IRREGULAR CONDITION WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE slope, leave the top 1 to 3 inches of soil loose and friable. Seedbed loosening may be unnecessary on newly DISTURBED AREAS

TOPSOILING

TOPSOIL IS PLACED OVER PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION. THE PURPOSE IS TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH. SOILS OF CONCERN HAVE LOW MOISTURE CONTENT, LOW NUTRIFNT LEVELS, LOW PH, MATERIALS TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL GRADATION.

TOPSOIL SALVAGED FROM AN EXISTING SITE MAY BE USED PROVIDED IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY. THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-NRCS.

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.

c. THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.

d. 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

LARGER THAN 1 1/2 INCHES IN DIAMETER. b. Topsoil must be free of noxious plants or plant parts such as Bermuda Grass, Quack Grass, Johnson Grass, NUT SEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.

PERCENT BY VOLUME OF CINDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS

c. Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY, MAY BE USED IN LIEU OF NATURAL TOPSOIL

TOPSOIL APPLICATION

a. EROSION AND SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED WHEN APPLYING TOPSOIL.

b. Uniformly distribute topsoil in a 5 to 8 inch layer and lightly compact to a minimum thickness of 4 inches. spreading is to be performed in such a manner that sodding or seeding can proceed with a minimum of ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS MUST BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS

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 ADMENMENTS (FERTILIZER AND LIME SPECIFICATIONS)

RECOMMENDED RATE WHEN HYDROSEEDING.

SOIL TESTS MUST BE PERFORMED TO DETERMINE THE EXACT RATIOS AND APPLICATION RATES FOR BOTH LIME AND FERTILIZER ON SITES HAVING DISTURBED AREAS OF 5 ACRES OR MORE. SOIL ANALYSIS MAY BE PERFORMED BY A RECOGNIZED PRIVATE OR COMMERCIAL LABORATORY. SOIL SAMPLES TAKEN FOR ENGINEERING PURPOSES MAY ALSO BE USED FOR CHEMICAL ANALYSES.

FERTILIZERS MUST BE UNIFORM IN COMPOSITION, FREE FLOWING AND SUITABLE FOR ACCURATE APPLICATION BY APPROPRIATE EQUIPMENT. MANURE MAY BE SUBSTITUTED FOR FERTILIZER WITH PRIOR APPROVAL FROM THE APPROPRIATE APPROVAL AUTHORITY FERTILIZERS MUST ALL BE DELIVERED TO THE SITE FULLY LABELED ACCORDING TO THE APPLICABLE LAWS AND MUST BEAR THE NAME, TRADE NAME OR TRADEMARK AND WARRANTY OF THE PRODUCER.

LIME MATERIALS MUST BE GROUND LIMESTONE (HYDRATED OR BURNT LIME MAY BE SUBSTITUTED EXCEPT WHEN HYDROSEEDING) WHICH CONTAINS AT LEAST 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.

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 TOPSOIL.

(B-4-3) SECTION 3 - SEEDING AND MULCHING 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 8.4 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.

:. 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

NOTE: IT IS VERY IMPORTANT TO KEEP INOCULANT AS COOL AS POSSIBLE UNTIL USED. TEMPERATURES ABOVE 75 TO 80 DEGREES FAHRENHEIT CAN WEAKEN BACTERIA AND MAKE THE INOCULANT LESS EFFECTIVE.

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.

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

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.

APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER, APPLY HALF THE SEEDING RATE IN EACH DIRECTION ROLL THE SEEDED AREA WITH A WEIGHTED ROLLER TO PROVIDE GOOD SEED TO SOIL CONTACT.

b. DRILL OR CULTIPACKER SEEDING: MECHANIZED SEEDERS THAT APPLY AND COVER SEED WITH SOIL.

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 PLANTING.

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).

. 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

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 HYDROSEEDING.

iii. MIX SEED AND FERTILIZER ON SITE AND SEED IMMEDIATELY AND WITHOUT INTERRUPTION.

IV WHEN HYDROSEFDING DO NOT INCORPORATE SEED INTO THE SOIL

MULCHING

. 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

b. WOOD CELLULOSE FIBER MULCH (WCFM) CONSISTING OF SPECIALLY PREPARED WOOD CELLULOSE PROCESSED INTO A UNIFORM FIRROUS PHYSICAL STATE

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 FACTORS.

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. FFRTII IZFR AND OTHER ADDITIVES TO FORM A HOMOGENEOUS SLURRY THE MUICH 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.

APPLICATION

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.

ANCHORING

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. i. 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

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 FEÉT WIDE AND 300 TO 3,000 FEET LONG.

(B-4-4) SECTION 4 - TEMPORARY STABILIZATION 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. 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. WHEN STABILIZATION IS REQUIRED OUTSIDE OF A SEEDING SEASON, APPLY SEED AND MULCH OR STRAW MULCH ALONE AS

Seed Mixture (Hardiness Zone 6b)					Fertilizer Rate	Lime Rate		
Season	Species	AC I II		ACIDE I II				Lille Kate
Cool	Annual Ryegrass	40	3/1-5/15 8/1-10/15	1/2"	436 Lbs./Ac. (10 Lbs./	2 Tons/Ac. (90 Lbs./		
Warm	Pearl Millet	20	5/16-7/31	1/2"	1000 Sq.Ft.)	1000 Sq.Ft.)		

DESCRIBED IN SECTION B A 2 A 1 B AND MAINTAIN LINTH THE NEXT SEEDING SEASON

SEEDING RATES FOR THE WARM-SEASON GRASSES ARE IN POUNDS OF PURE LIVE SEED (PLS). ACTUAL PLANTING RATES SHALL be adjusted to reflect percent seed germination and purity, as tested. Adjustments are usually not needed for THE COOL-SEASON GRASSES.

SEEDING RATES LISTED ABOVE ARE FOR TEMPORARY SEEDINGS, WHEN PLANTED 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 permanent seeding Mix. Cereal Rye Generally should not be used as a nurse crop, unless PLANTING WILL OCCUR IN VERY LATE FALL BEYOND THE SEEDING DATES FOR OTHER TEMPORARY SEEDINGS. CEREAL RYE HAS 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.

FOR SANDY SOILS, PLANT SEEDS AT TWICE THE DEPTH LISTED ABOVE.

OATS ARE THE RECOMMENDED NURSE CROP FOR WARM-SEASON GRASSES.

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.

(B-4-5) SECTION 5 - PERMANENT STABILIZATION

EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR 6 MONTHS OR MORE. A. SEED MIXTURES

GENERAL USE

. SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED IN TABLE B.3 FOR THE APPROPRIATE PLANT HARDINESS ZONE (FROM FIGURE B.3) AND BASED ON THE SITE CONDITION OR PURPOSE 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

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 GUIDE, SECTION 342 - CRITICAL AREA PLANTING.

c. FOR SITES HAVING DISTURBED AREA OVER 5 ACRES, USE AND SHOW THE RATES RECOMMENDED BY THE SOIL TESTING

d. For areas receiving low maintenance, apply urea form fertilizer (46-0-0) at 3 1/2 pounds per 1000 square feet 150 pounds per acre) at the time of seeding in addition to the soil amendments shown in the permanent 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

CULTIVARS WITH EACH RANGING FROM 10 TO 35 PERCENT OF THE TOTAL MIXTURE BY WEIGHT.

SELECTED MIXTURE(S), APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT SEEDING SUMMARY. THE SUMMARY IS TO BE PLACED ON THE PLAN. KENTUCKY BLUEGRASS: FULL SUN MIXTURE: FOR USE IN AREAS THAT RECEIVE INTENSIVE MANAGEMENT. IRRIGATION required in the areas of central maryland and eastern shore. Recommended certified kentucky bluegrass CULTIVARS SEEDING RATE: 1.5 TO 2.0 POUNDS PER 1000 SQUARE FEET. CHOOSE A MINIMUM OF THREE KENTUCKY BLUEGRASS

i. Kentucky Bluegrass/Perennial Rye: full sun mixture: for USE in full sun areas where rapid establishment is necessary and when turf will receive medium to intensive management. Certified Perennial Ryegrass CULTIVARS/CERTIFIED KENTUCKY BLUEGRASS SEEDING RATE: 2 POUNDS MIXTURE PER 1000 SQUARE FEET. CHOOSE A MINIMUM OF THREE KENTUCKY BLUEGRASS CULTIVARS WITH EACH RANGING FROM 10 TO 35 PERCENT OF THE TOTAL MIXTURE BY

ii. 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 FFSCUE CULTIVARS 95 TO 100 PERCENT, CERTIFIED KENTUCKY BLUEGRASS CULTIVARS 0 TO 5 PERCENT, SEEDING RATE: 5 TO

iv. Kentucky bluegrass/fine fescue: Shade Mixture: for use in Areas with Shade in Bluegrass Lawns, for ESTABLISHMENT IN HIGH QUALITY, INTENSIVELY MANAGED TURF AREA, MIXTURE INCLUDES; CERTIFIED KENTUCKY BLUEGRASS CULTIVARS 30 TO 40 PERCENT AND CERTIFIED FINE FESCUE AND 60 TO 70 PERCENT. SEEDING RATE: 1 1/2 TO 3 POUNDS PER 1000 SOUARE 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

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)

8 POUNDS PER 1000 SQUARE FEET. ONE OR MORE CULTIVARS MAY BE BLENDED.

c. IDEAL TIMES OF SEEDING FOR TURF GRASS MIXTURES

SOUTHERN MD, EASTERN SHORE: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDINESS ZONES: 7A, 7B)

1. TILL AREAS TO RECEIVE SEED BY DISKING OR OTHER APPROVED METHODS TO A DEPTH OF 2 TO 4 INCHES, LEVEL AND RAKE THE AREAS TO PREPARE A PROPER SEEDBED. REMOVE STONES AND DEBRIS OVER 1 1/2 INCHES IN DIAMETER. THE RESULTING seedbed must be in such condition that future mowing of grasses will pose no difficulty.

e. IF SOIL MOISTURE IS DEFICIENT, SUPPLY 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 ESPECIALLY TRUE WHEN SEEDINGS ARE MADE LATE IN THE PLANTING SEASON, IN ABNORMALLY DRY OR HOT SEASONS, OR ON ADVERSE SITES.

Seed Mixture No. 9 (Hardiness Zone 6b)					** Fertilizer Rate	**Lime
No.	Species	Application Rate (Lb./Sq.Ft.)	Seeding Dates ** *	Seeding Depths	(10-20-20)	Rate
9	*Tall Fescue *Kentucky Bluegrass		3/1 - 5/15 8/15 - 10/15	1/4"-1/2"	1.0 Lb/1000 Sq.Ft. (45 Lb./Ac.)	90 Lb/ 1000 Sq.Ft.

BLEND 3 CULTIVARS OF ANY CULTIVAR LISTED ON PAGE B.32 OF THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.

AT TIME OF FINE GRADING, FERTILIZER AND LIME RATES WILL BE BASED ON SOIL TEST RESULTS; (SEE SECTION 2.C). COPY OF RECOMMENDED RATES TO BE SUPPLIED TO THE SEDIMENT CONTROL INSPECTOR. *** FOR SEEDING DATES 5/1-8/14 ADD 6 LB/AC OF EITHER FOXTAIL MILLET OR PEARL MILLET TO PERMANENT SEED MIXTURE #9

NOTE: ALL SEED MUST COMPLY WITH THE MARYLAND STATE SEED LAW. SEED MUST BE FREE OF PROHIBITED OR RESTRICTED NOXIOUS WEEDS, AS CURRENTLY LISTED BY THE MARYLAND DEPARTMENT OF AGRICULTURE, TURE AND SEED SECTION.

B. SOD: TO PROVIDE QUICK COVER ON DISTURBED AREAS (2:1 GRADE OR FLATTER).

GENERAL SPECIFICATIONS a. CLASS OF TURFGRASS SOD MUST BE MARYLAND STATE CERTIFIED. SOD LABELS MUST BE MADE AVAILABLE TO THE JOB

FOREMAN AND INSPECTOR. b. Sod must be machine cut at a uniform soil thickness of 3/4 Inch, plus or minus 1/4 Inch, at the time of CUTTING, MEASUREMENT FOR THICKNESS MUST EXCLUDE TOP GROWTH AND THATCH. BROKEN PADS AND TORN OR UNEVEN

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.

 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

a. DURING PERIODS OF EXCESSIVELY HIGH TEMPERATURE OR IN AREAS HAVING DRY SUBSOIL, LIGHTLY IRRIGATE THE SUBSOIL IMMEDIATELY PRIOR TO LAYING THE SOD. 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 sol

CAUSE AIR DRYING OF THE ROOTS. 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

IS NOT STRETCHED OR OVERLAPPED AND THAT ALL JOINTS ARE BUTTED TIGHT IN ORDER TO PREVENT VOIDS WHICH WOULD

d. WATER THE SOD IMMEDIATELY FOLLOWING ROLLING AND TAMPING UNTIL THE UNDERSIDE OF THE NEW SOD PAD AND SOIL SURFACE BELOW THE SOD ARE THOROUGHLY WET. COMPLETE THE OPERATIONS OF LAYING, TAMPING AND IRRIGATING FOR ANY PIECE OF SOD WITHIN EIGHT HOURS.

a. IN THE ABSENCE OF ADEQUATE RAINFALL, WATER DAILY DURING THE FIRST WEEK OR AS OFTEN AND SUFFICIENTLY AS NECESSARY TO MAINTAIN MOIST SOIL TO A DEPTH OF 4 INCHES. WATER SOD DURING THE HEAT OF THE DAY TO PREVENT

b. AFTER THE FIRST WEEK, SOD WATERING IS REQUIRED AS NECESSARY TO MAINTAIN ADEQUATE MOISTURE CONTENT. .. 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.

(H-1) STANDARDS AND SPECIFICATIONS FOR MATERIALS TABLE H.1: GEOTEXTILE FABRICS

3. SOD MAINTENANCE

SOD ROOTS AND THE LINDERLYING SOIL SURFACE

		SLIT	GEOTEXTILE		WOVEN MONOFILAMENT GEOTEXTILE		NONWOVEN GEOTEXTILE	
			MINIM	JM AVERA	GE ROLL \	/ALUE ¹		
PROPERTY	TEST METHOD	MD	CD	MD	CD	MD	CD	
Grab Tensile Strength	ASTM D-4632	200 lb	200 lb	370 lb	250 lb	200 ib	200 lb	
Grab Tensile Elongation	ASTM D-4632	15%	10%	15%	15%	50%	50%	
Trapezoidal Tear Strength	ASTM D-4533	75 lb	75 lb	100 lb	60 lb	80 lb	80 lb	
Puncture Strength	ASTM D-6241	450	450 lb 900 lb		450) lb		
Apparent Opening Size ²	ASTM D-4751			1	U.S. Sieve 70 (0.21 mm)		eve 70 mm)	
Permittivity	ASTM D-4491	0.05 sec -1		0.28 sec -1		1.1 s	ec -1	
Ultraviolet Resistance Retained at 500 hours	ASTM D-4355	70% strength		70% s	trength	70% st	rength	

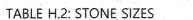
ALL NUMERIC VALUES EXCEPT APPARENT OPENING SIZE (AOS) REPRESENT MINIMUM AVERAGE ROLL VALUES (MARV). MARV IS CALCULATED AS THE TYPICAL MINUS TWO STANDARD DEVIATIONS. MD IS MACHINE DIRECTION; CD IS CROSS DIRECTION.

VALUES FOR AOS REPRESENT THE AVERAGE MAXIMUM OPENING.

GEOTEXTILES MUST BE EVALUATED BY THE NATIONAL TRANSPORTATION PRODUCT EVALUATION PROGRAM (NTPEP) AND CONFORM

THE GEOTEXTILE MUST BE INERT TO COMMONLY ENCOUNTERED CHEMICALS AND HYDROCARBONS AND MUST BE ROT AND MILDEW RESISTANT. THE GEOTEXTILE MUST BE MANUFACTURED FROM FIBERS CONSISTING OF LONG CHAIN SYNTHETIC POLYMERS AND COMPOSED OF A MINIMUM OF 95 PERCENT BY WEIGHT OF POLYOLEFINS OR POLYESTERS, AND FORMED INTO A STABLE NETWORK SO THE FILAMENTS OR YARNS RETAIN THEIR DIMENSIONAL STABILITY RELATIVE TO EACH OTHER. INCLUDING SELVAGES.

WHEN MORE THAN ONE SECTION OF GEOTEXTILE IS NECESSARY, OVERLAP THE SECTIONS BY AT LEAST ONE FOOT. THE GEOTEXTILE MUST BE PULLED TAUT OVER THE APPLIED SURFACE. EQUIPMENT MUST NOT RUN OVER EXPOSED FABRIC. WHEN PLACING RIPRAP ON GEOTEXTILE, DO NOT EXCEED A ONE FOOT DROP HEIGHT.



en e	SIZE RANGE	d50	d100	AASHTO	WEIGHT ³
NUMBER 57 ¹	% to 1½ in	½ in	1½ in	M-43	N/A
NUMBER 1	2 to 3 in	2½ in	3 in	M-43	N/A
RIPRAP ² (CLASS 0)	4 to 7 in	5½ in	7 in	N/A	N/A
CLASS I	N/A	9½ in	15 in	N/A	40 lb
CLASS II	N/A	16 in	24 in	N/A	200 lb
CLASS III	N/A	23 in	34 in	N/A	600 lb

1. THIS CLASSIFICATION IS TO BE USED ON THE UPSTREAM FACE OF STONE OUTLETS AND CHECK DAMS.

2 THIS CLASSIFICATION IS TO BE USED FOR GABIONS.

3. OPTIMUM GRADATION IS 50 PERCENT OF THE STONE BEING ABOVE AND 50 PERCENT BELOW THE MIDSIZE

stone must be composed of a well graded mixture of stone sized so that fifty (50) percent of the pieces by weight ARE LARGER THAN THE SIZE DETERMINED BY USING THE CHARTS, A WELL GRADED MIXTURE, AS USED HEREIN, IS DEFINED AS A MIXTURE COMPOSED PRIMARILY OF LARGER STONE SIZES BUT WITH A SUFFICIENT MIXTURE OF OTHER SIZES TO FILL THE SMALLER VOIDS RETWEEN THE STONES. THE DIAMETER OF THE LARGEST STONE IN SUCH A MIXTURE MUST NOT EXCEED THE RESPECTIVE D100 SELECTED FROM TABLE H.2. THE D50 REFERS TO THE MEDIAN DIAMETER OF THE STONE. THIS IS THE SIZE FOR WHICH 50 PERCENT, BY WEIGHT, WILL BE SMALLER AND 50 PERCENT WILL BE LARGER.

NOTE: RECYCLED CONCRETE EQUIVALENT MAY BE SUBSTITUTED FOR ALL STONE CLASSIFICATIONS FOR TEMPORARY CONTROL MEASURES ONLY. CONCRETE BROKEN INTO THE SIZES MEETING THE APPROPRIATE CLASSIFICATION, CONTAINING NO STEEL reinforcement, and having a minimum density of 150 pounds per cubic foot may be used as an equivalent. TABLE H.3: COMPOST

PARAMETERS ¹	ACCEPTABLE RANGE				
pH	5.0 - 8.5				
Moisture content	30% - 60%, wet weight basis				
Organic matter content	25% - 65%, dry weight basis				
Particle size	% passing a selected mesh size, dry weight basis 3 in (75 mm), 100% passing 1 in (25 mm), 90 - 100% passing 0.75 in (19 mm), 70 - 100% passing 0.25 in (6.4 mm), 30 - 60% passing 0.04 in (1 mm), 30% min. passing				
Physical contaminants (manmade inerts)	<1% dry weight basis				

ADAPTED FROM AASHTO STANDARDS SPECS FOR COMPOST FILTER SOCKS AND FPA EXAMPLE COMPOST FILTER PARAMETERS RECOMMENDED TEST METHODOLOGIES ARE PROVIDED IN TEST METHODS FOR THE EXAMINATION OF COMPOSTING AND COMPOST (TMEC, THE U.S COMPOSTING COUNCIL)

(B-4-8) STANDARDS AND SPECIFICATIONS FOR STOCKPILE AREA DEFINITION:

A MOUND OR PILE OF SOIL PROTECTED BY APPROPRIATELY DESIGNED EROSION AND SEDIMENT CONTROL MEASURES

TO PROVIDE A DESIGNATED LOCATION FOR THE TEMPORARY STORAGE OF SOIL THAT

CONTROLS THE POTENTIAL FOR EROSION, SEDIMENTATION, AND CHANGES TO DRAINAGE

CONDITIONS WHERE PRACTICE APPLIES:

STOCKPILE AREAS ARE UTILIZED WHEN IT IS NECESSARY TO SALVAGE AND STORE SOIL FOR CRITERIA

THE STOCKPILE LOCATION AND ALL RELATED SEDIMENT CONTROL PRACTICES MUST BE CLEARLY INDICATED ON THE EROSION AND SEDIMENT CONTROL PLAN.

THE FOOTPRINT OF THE STOCKPILE MUST BE SIZED TO ACCOMMODATE THI ANTICIPATED VOLUME OF MATERIAL AND BASED ON A SIDE SLOPE RATIO NO STEEPER THAN 2:1. BENCHING MUST BE PROVIDED IN ACCORDANCE WITH SECTION B-3

RUNOFF FROM THE STOCKPILE AREA MUST DRAIN TO A SUITABLE SEDIMENT CONTROL

ACCESS THE STOCKPILE AREA FROM THE UPGRADE SIDE.

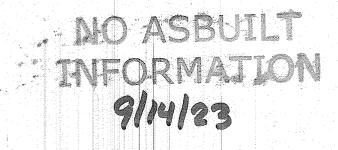
CLEAR WATER RUNOFF INTO THE STOCKPILE AREA MUST BE MINIMIZED BY USE OF A DIVERSION DEVICE SUCH AS AN EARTH DIKE, TEMPORARY SWALE OR DIVERSION FENCE PROVISIONS MUST BE MADE FOR DISCHARGING CONCENTRATED FLOW IN A NON-EROSIVE MANNER.

WHERE RUNOFF CONCENTRATES ALONG THE TOP OF THE STOCKPILE FILL. AN APPROPRIATE EROSION/SEDIMENT CONTROL PRACTICE MUST BE USED TO INTERCEPT THE DISCHARGE

STOCKPILES MUST BE STABILIZED IN ACCORDANCE WITH THE 3/7 DAY STABILIZATION REQUIREMENT AS WELL AS STANDARD B-4-1 INCREMENTAL STABILIZATION AND STANDARD B-4-4 TEMPORARY STABILIZATION. 8. IF THE STOCKPILE IS LOCATED ON AN IMPERVIOUS SURFACE, A LINER SHOULD BE

PROVIDED BELOW THE STOCKPILE TO FACILITATE CLEANUP. STOCKPILES CONTAINING CONTAMINATED MATERIAL MUST BE COVERED WITH IMPERMEABLE SHEETING. MAINTENANCE

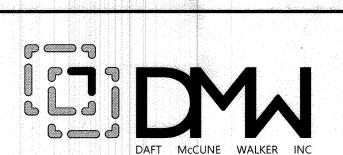
THE STOCKPILE AREA MUST CONTINUOUSLY MEET THE REQUIREMENTS FOR ADEQUAT VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION SIDE SLOPES MUST BE MAINTAINED AT NO STEEPER THAN A 2:1 RATIO. THE STOCKPILE AREA MUST BE KEPT FREE OF FROSION. IF THE VERTICAL HEIGHT OF A STOCKPILE EXCEEDS 20 FEFT 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



REPLACEMENT OF ORIGINAL SDP SET WITH TEMPORARY PARKING LOT DESIGN SE Revision Description Date | No.

TEMPORARY SURFACE LOT PARCEL 298, LOT 13, 10227 WINCOPIN CIRCLE COLUMBIA, MD 21044

> OWNER / DEVELOPER: AMERICAN CITY BUILDING BUSINESS TRUST C/O THE HOWARD HUGHES CORPORATION COLUMBIA REGIONAL OFFICE 10960 GRANTCHESTER WAY, SUITE 110 COLUMBIA, MD 21044 (410) 964-4800



501 FAIRMOUNT AVENUE SULTE 300 TOWSON, MD 2128 F: 410 296 4705 WWW.DMW.C 410 296 3333

COLUMBIA "TOWN CENTER LITTLE PATUXENT

> SEC SPECIFICATIONS REVISED SITE DEVELOPMENT PLAN 🗥

Des. By PAB SCALE: AS SHOWN | Proj. No. 19029.00 orn. By PAB Date 04-02-2020 11 ot 16 Approved RRP Chk. By RRP

SDP-69-904

1-11-21

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND

PLANNING BOARD OF HOWARD COUNTY 17070

PROFESSIONAL CERTIFICATION

APPROVED BY ME, AND THAT I AM A

ENGINEER UNDER THE LAWS OF THE

STATE OF MARYLAND, LICENSE NO.

27020 , EXPIRATION DATE: 01/25/2

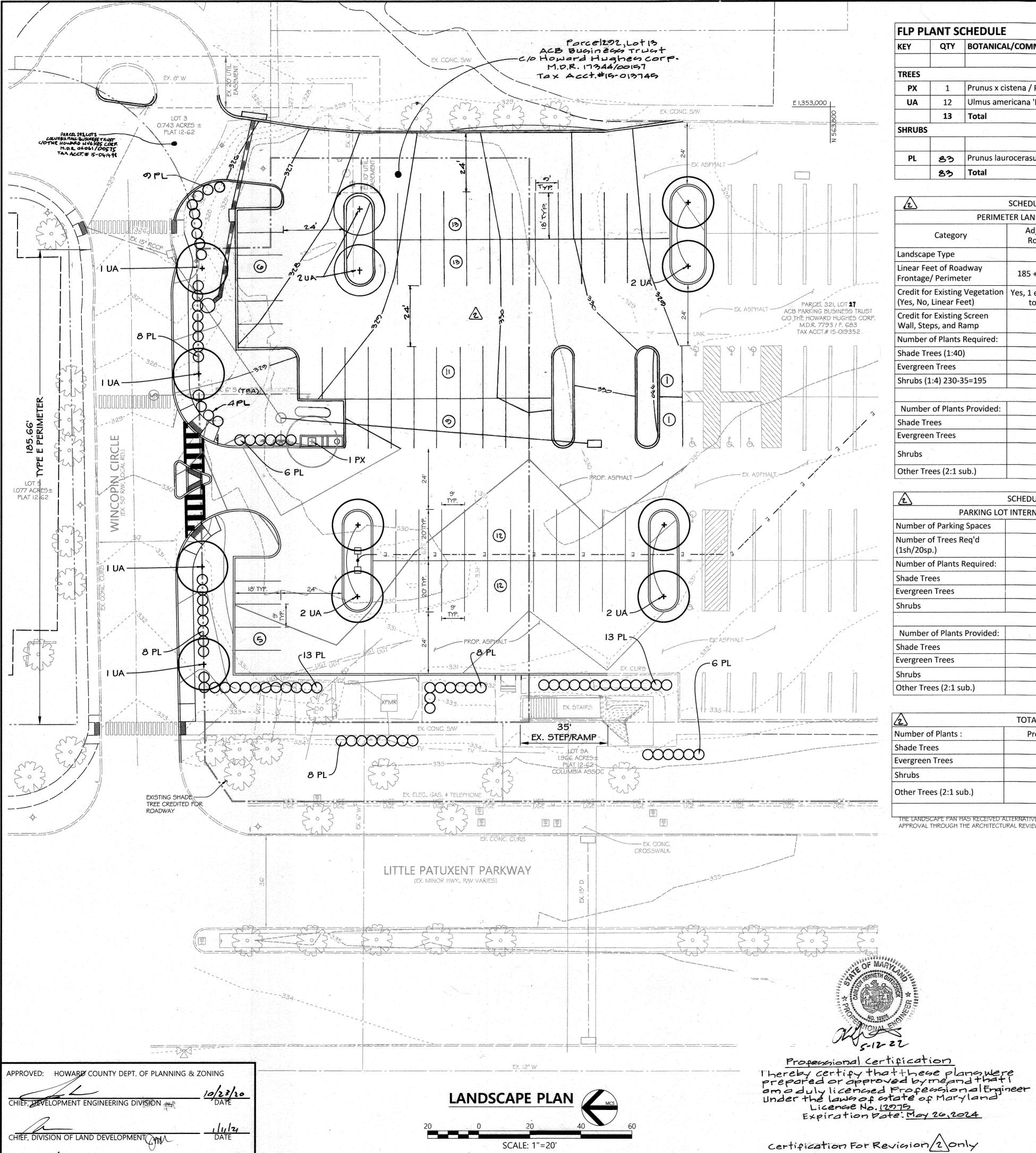
04-02-2020

PROFESSIONAL ENGR. NO. 27020

I HEREBY CERTIFY THAT THESE

DULY LICENSED PROFESSIONAL

DOCUMENTS WERE PREPARED OR



1-11-21

KEY	QTY	BOTANICAL/COMMON NAME	PLANT SIZE	ROOT	REMARKS
-	-				
TREES					
PX	1	Prunus x cistena / Purpleleaf Sand Cherry	2.5" cal.	B&B	Single Trunk Tree Form
UA	12	Ulmus americana 'Princeton' / Princeton American Elm	2.5" cal.	B&B	Locations Per Plan
	13	Total			
SHRUBS					
- :					
PL	83	Prunus laurocerasus 'Schipkaensis' / Cherry Laurel	30"	B&B/cont.	4' o.c.
	83	Total			

2	SCHEDULE A	
PERIME	TER LANDSCAPE EDGE	
Category	Adjacent to Roadways	Adjacent to Perimeter Properties
Landscape Type	E	Α
Linear Feet of Roadway Frontage/ Perimeter	185 + 180 = 365	144
Credit for Existing Vegetation (Yes, No, Linear Feet)	Yes, 1 existing trees to remain	Yes, credit for 24 large existing trees
Credit for Existing Screen Wall, Steps, and Ramp	No	
Number of Plants Required:		344.899.1344.4
Shade Trees (1:40)	5	10
Evergreen Trees	0	0
Shrubs (1:4) 230-35=195	47	36
Number of Plants Provided:		
Shade Trees	4	24 Existing
Evergreen Trees	0	
Shrubs	હ 3	Credit For Shade Trees
Other Trees (2:1 sub.)	0	

\triangle	SCHEDULE B		
PARKING LO	T INTERNAL LAN	DSCAPING	
Number of Parking Spaces		83	
Number of Trees Req'd (1sh/20sp.)		5.00	
Number of Plants Required:			1 4 1 1 4 1 1 1 1
Shade Trees		5.00	
Evergreen Trees		0	
Shrubs		0	
Number of Plants Provided:			
Shade Trees	8		
Evergreen Trees	0		
Shrubs	6		
Other Trees (2:1 sub.)	0		

2	TOTAL	
Number of Plants :	Provided	Req'd
Shade Trees	12	9
Evergreen Trees	0	
Shrubs	83	83
Other Trees (2:1 sub.)	0	24 Ex. Trees to Remian

CERTIFICATION NOTE:

ZONING.

DEVELOPER'S/OWNER'S NAME

DEVELOPER'S/OWNER'S NAME

h'hoth

GREG FITCHITT - REGIONAL PRESIDENT

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS

ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE

SUBMITTED TO THE DEPARTMENT OF PLANNING AND

SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL FOR ALTERNATIVE COMPLIANCE AND THE LAKEFRONT REDEVELOPMENT DESIGN GUIDELINES. I/WE FURTHER CERTIFY THAT UPON COMPLETION A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED

PLAN WILL BE DONE ACCORDING TO THE PLAN,

THE LANDSCAPE PAN HAS RECEIVED ALTERNATIVE COMPLIANCE APPROVAL THROUGH THE ARCHITECTURAL REVIEW COMMITTEE.

2. CONTRACTOR TO REVIEW FINAL LIGHTING PLAN PRIOR TO CONSTRUCTION AND ADJUST PLANTING CONFLICTS ACCORDINGLY.

PLANTING PLAN NOTES:

I. VERIFY LOCATION OF ALL EXISTING AND PROPOSED UTILITIES AND SITE FEATURES PRIOR TO CONSTRUCTION AND PLANT

3. ALL PLANT LOCATIONS TO BE APPROVED BY DMW PRIOR TO INSTALLATION.

4. ALL GROUNDCOVER, PERENNIAL, AND SHRUB PLANTING BEDS SHALL BE EXCAVATED TO DEPTHS SPECIFIED IN THE PLANTING DETAILS AND THE PLANTING SOIL MIX SHALL BE USED TO BACKFILL ALL PLANTING BEDS.

5. ALL EXISTING PLANTING WITHIN LOD TO BE REMOVED UNLESS OTHERWISE NOTED.

6. REFER TO SWM PLANS FOR SWM PLANTING

7. REFER ARCHITECTURE PLANS FOR SIGNAGE LOCATIONS

8. EXISTING SITE LIGHTING TO REMAIN PER PLAN. NO NEW SITE LIGHTING IS PROPOSED.

9. ALL AREAS NOT SHOWN AS PAVED OR PLANTED SHALL BE SEEDED WITH TURFGRASS PER SPECIFICATIONS.

STANDARD LANDSCAPE NOTES:

COMPLY WITH THE PROPER HEIGHT REQUIREMENT IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATIONS OF THE REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THE APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL OR DELAY IN THE RELEASE OF LANDSCAPE SURETY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO THE APPLICABLE PLANS"

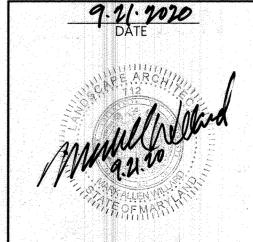
"THE OWNER, TENANTS AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED LANDSCAPING INCLUDING BOTH PLANT MATERIALS AND BERMS, FENCES AND WALLS. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION, AND WHEN NECESSARY, REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED".

"THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL WITH 12 SHADE TREES, O ORNAMENTAL TREES, O EVERGREEN TREES, AND **83** SHRUBS PROVIDED WITH LANDSCAPE SURETY IN THE AMOUNT OF \$6.510 WITH THE DPW, DEVELOPER'S AGREEMENT".

9/14/23

PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A

DULY LICENSED LANDSCAPE ARCHITEC UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 712 , EXPIRATION DATE: 11/10/2



REGISTERED LANDSCAPE ARCH. NO. 712 APPROVED:

Chk. By RRP

PLANNING BOARD OF HOWARD COUNTY Des. By PAB October 1, 2028 Drn. By PAB

DE IZZZ 2 ADDED PHASE 2 PARKING LOT AND REVISED LANDSCAPING REPLACEMENT OF ORIGINAL SDP SET WITH TEMPORARY PARKING LOT DESIGN SET Date No. Revision Description

LEGEND

----- 328 ----- EX. I' CONTOUR

EX. TREE TO REMAIN

EX. STORM DRAIN INLET

EX. SANITARY SEWER MANHOLE

EX. WATER STRUCTURE

----- UGT ----- EX. UNDERGROUND TELEPHONE LINE ----- FO ---- EX. UNDERGROUND FIBEROPTIC LINE TV --- EX. UNDERGROUND TELEVISION LINE ----- G ---- EX. UNDERGROUND GAS LINE ----- UNK ----- EX. UNKNOWN UNDERGROUND LINE EX. HAND BOX EX. PEDESTRIAN LIGHT

EX. STREET LIGHT

PROP. SITE LIGHTING (REFER TO SHEET IG)

EX. SIGN

PROP. UNDERGROUND ELECTRIC

PROP. SIGN

- PROP. I' CONTOUR

PROP. OVERFLOW RISER

PROP. STORM MANHOLE

PROPOSED SITE PLANTINGS

PROPOSED BIORETENTION SEED MIX

PROP. 5' CONTOUR

PROP. RIPRAP

EX. 15" RCP EX. STORM DRAIN PIPE

EX. 6" 5 ---- EX. SANITARY SEWER PIPE

—————— EX. CURB

TEMPORARY SURFACE LOT PARCEL 298, LOT 13 10227 WINCOPIN CIRCLE COLUMBIA, MD 21044

OWNER / DEVELOPER: AMERICAN CITY BUILDING BUSINESS TRUST C/O THE HOWARD HUGHES CORPORATION COLUMBIA REGIONAL OFFICE 10960 GRANTCHESTER WAY, SUITE 110 COLUMBIA, MD 21044

(410) 964-4800

01 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 2128 410 296 3333 F: 410 296 4705 WWW.DMW.COM 13/0298 & 17/0321

LITTLE PATUXENT LANDSCAPE PLAN REVISED SITE DEVELOPMENT PLAN 🛆

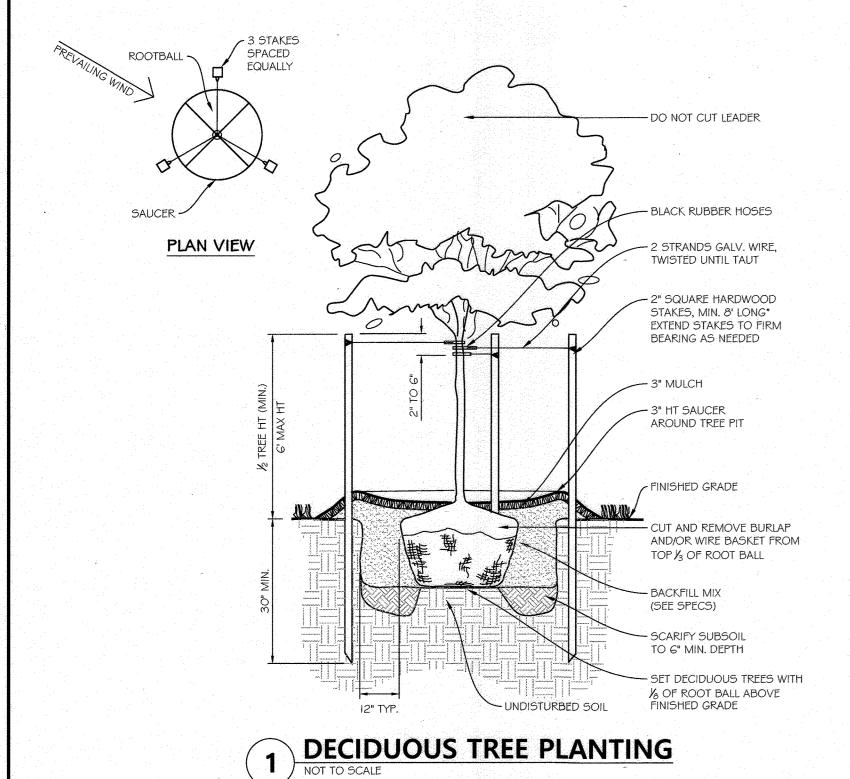
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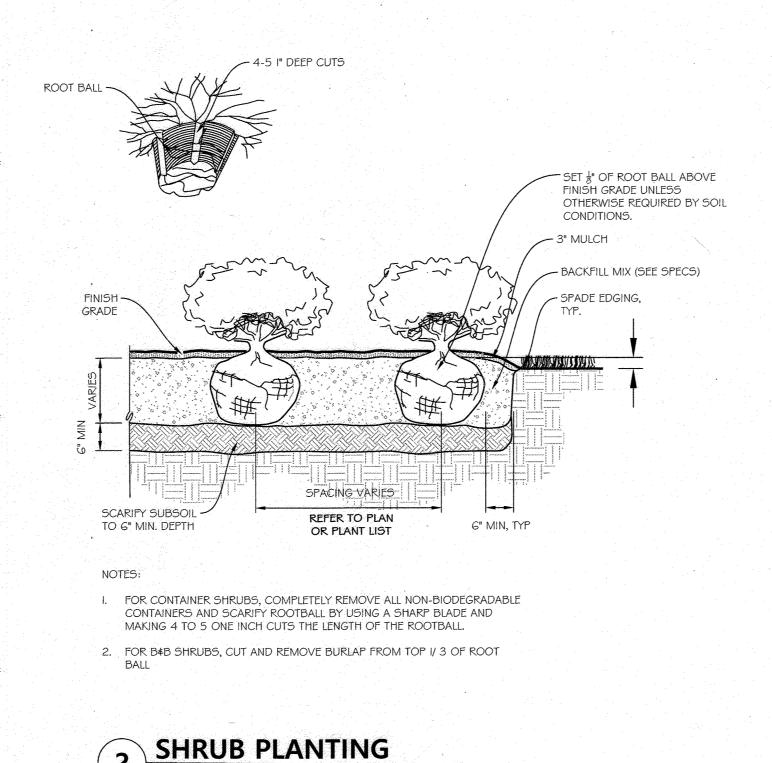
12 of 16

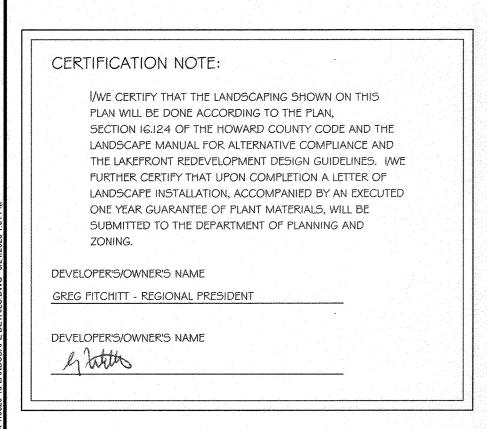
Approved RRP SDP-69-904

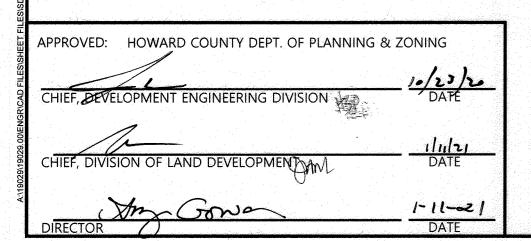
SCALE: |"=20'

Date 04-02-2020









9/14/23

OWNER / DEVELOPER:

AMERICAN CITY BUILDING BUSINESS TRUST
C/O THE HOWARD HUGHES CORPORATION

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE

APPROVED BY ME, AND THAT I AM A

DULY LICENSED LANDSCAPE ARCHITECT

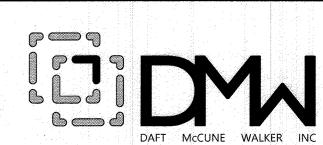
MARYLAND, LICENSE NO. 712 , EXPIRATION DATE: 11/10/21

REGISTERED LANDSCAPE ARCH. NO. 712

UNDER THE LAWS OF THE STATE OF

DOCUMENTS WERE PREPARED OR

AMERICAN CITY BUILDING BUSINESS TRUST C/O THE HOWARD HUGHES CORPORATION COLUMBIA REGIONAL OFFICE 10960 GRANTCHESTER WAY, SUITE 110 COLUMBIA, MD 21044 (410) 964-4800



 5 0 1 FAIR MOUNT AVENUE SUITE 300 TOWSON, MD 21286

 P: 410 296 3333
 F: 410 296 4705
 WWW.DMW.COM

 SUBDIVISION NAME COLUMBIA "TOWN CENTER"
 SECTION/AREA 0001
 LOT/PARCEL # 13/0298 & 17/0321

 PLAT# OR L/F BLOCK # ZONE TAX ZONE/MAP ELECT. DISTRICT CENSUS TRACT
 B. 13 F. 13 NT 36 5-03 605402

 WATER CODE SEWER CODE 550
 LITTLE PATUXENT 1

LANDSCAPE DETAILS
REVISED SITE DEVELOPMENT PLAN A

APPROVED:
PLANNING BOARD OF HOWARD COUNTY
DATE:
Detrology 1 2020
Drn. By PAB
Date 04-02-2020
Chk. By RRP
Approved RRP

REVISED SITE DEVELOPMENT PLAN
Proj. No. 19029.00
Drn. By PAB
Date 04-02-2020
Approved RRP

LANDSCAPE SPECIFICATIONS

OF AMENDMENTS, INCLUDING RATES AND SOURCES.

SOILS TESTING: THE CONTRACTOR IS RESPONSIBLE FOR TESTING ALL PROJECT SOILS. THE CONTRACTOR SHALL PROVIDE A CERTIFIED SOILS REPORT TO THE OWNER'S REPRESENTATIVE. SOILS SHALL BE SAMPLED AND TESTED BY AN APPROVED TESTING LABORATORY. THE CONTRACTOR SHALL VERIFY THAT THE SOILS ON SITE ARE ACCEPTABLE FOR THE PROPER GROWTH OF THE PROPOSED PLANT MATERIAL. SHOULD THE SOILS REPORT INDICATE UNSUITABLE SOIL CONDITIONS, THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE SOIL AMENDMENTS AS NECESSARY. THESE AMENDMENTS SHALL INCLUDE, BUT NOT BE LIMITED TO, FERTILIZERS, LIME, SOIL, AND TOPSOIL. THE CONTRACTOR SHALL PROVIDE TO THE OWNERS REPRESENTATIVE A LIST

A. TOPSOIL: TOPSOIL SHALL MEET THE ASTM D5268 STANDARD AND SHALL BE ASTM D 5268, FERTILE, FRIABLE, NATURALLY LOAMY, PH RANGE OF 5.5 TO 7.4, SOLUBLE SALTS 800 PPM (I.25 MMHOS/CM) OR LESS, 3% BY WEIGHT ORGANIC MATTER MINIMUM, CONTAINING NO SUBSOIL MATERIAL, FREE OF STONES 3/4"OR LARGER IN ANY DIMENSION, NOXIOUS WEED SEEDS, ASPHALT, CONCRETE, CONSTRUCTION DEBRIS, CRUSHED GRAVEL, AND OTHER EXTRANEOUS MATERIALS HARMFUL TO PLANT GROWTH. THE CONTRACTOR SHALL PROVIDE A CERTIFIED SOILS REPORT TO THE OWNER'S REPRESENTATIVE OF IMPORTED AND SALVAGED TOPSOILS, INCLUDING THE SOURCE OF IMPORTED TOPSOIL

I. TOPSOIL SOURCE: SALVAGED TOPSOIL FROM THE PROJECT SITE. VERIFY SUITABILITY OF SALVAGED TOPSOIL. CLEAN SURFACE SOIL OF ROOTS,

PLANTS, SOD, STONES, CLAY LUMPS, AND OTHER EXTRANEOUS MATERIALS HARMFUL TO PLANT GROWTH. a. MOW OR REMOVE VEGETATION FROM THE AREAS. WHERE SOIL IS TO BE SALVAGED. REMOVE TOPSOIL AND SUBSOIL TO THE DEPTH AS SPECIFIED OR DIRECTED. TRANSPORT SOILS SEPARATELY AND KEEP THEM APART FROM OTHER MATERIALS.

b. CONSTRUCT STORAGE AREAS ON WELL DRAINED LAND, AWAY FROM STREAMS, DRAINAGE AREAS, AND FLOODPLAINS, BEFORE PLACING STOCKPILES, INSTALL AND MAINTAIN SILT FENCE AROUND THE EDGE OF THE STOCKPILE AREAS FOR ALL SOILS AS SPECIFIED IN THE SEDIMENT

2. SHOULD ADDITIONAL TOPSOIL BE REQUIRED IN EXCESS OF THAT OBTAINED FROM ON-SITE, THE CONTRACTOR SHALL OBTAIN MATERIAL FROM APPROVED SOURCES OFF SITE TO COMPLETE THE PROJECT AT NO ADDITIONAL COST. TOPSOIL SHALL BE OBTAINED FROM AN AREA THAT HAS

B. COMPOST (LEAF MOLD): LEAFGRO OR ACCEPTABLE EQUIVALENT. COMPOST SHALL BE FINELY DIVIDED OR GRANULAR TEXTURE, OF PARTIALLY DECOMPOSED LEAVES, WITH A PH RANGE OF 6 TO 7.5, SOLUBLE SALTS SHALL HAVE CONCENTRATION LESS THAN 5.0MMHOS/CM, AND SHALL BE FREE OF NOXIOUS WEED SEEDS, AND ROCKS OVER 3/4" IN SIZE. COMPOST SHALL BE BIOLOGICALLY MATURE AND NO LONGER ABLE TO REHEAT TO THERMOPHILIC TEMPERATURES

. SALVAGED AND FURNISHED SUBSOIL FOR PLANTING SOIL BACKFILL: SHALL BE CLEAN FILL OBTAINED ON SITE FROM TREE AND SHRUB PLANTING PIT EXCAVATIONS ONLY, WELL DRAINED AND CAPABLE OF SUSTAINING HEALTHY PLANT LIFE. EXISTING SOIL BACKFILL SHALL BE FREE OF STONES 3/4" OR LARGER IN ANY DIMENSION, ASPHALTIC CONCRETE, PAVING BASE MATERIAL, CONSTRUCTION DEBRIS AND OTHER EXTRANEOUS MATERIALS HARMFUL TO PLANT GROWTH.

I. SHOULD ADDITIONAL SOIL BACKFILL FILL BE REQUIRED IN EXCESS OF THAT OBTAINED FROM ON-SITE, THE CONTRACTOR SHALL OBTAIN MATERIAL

FROM APPROVED SOURCES OFF SITE TO COMPLETE THE PROJECT AT NO ADDITIONAL COST. CLEAN SUBSOIL AND BACKFILL SHALL BE OBTAINED FROM AN AREA THAT HAS NEVER BEEN MECHANICALLY COMPACTED. TOPSOIL MAY BE SUBSTITUTED FOR SUITABLE BACKFILL

D. PLANTING SOIL MIXTURES: SHALL BE MIXED MECHANICALLY IN BULK PRIOR TO PLANTING AND BACKFILLED TO SPECIFIED DEPTHS. I. PLANTING MIX RATIOS:

a. EVERGREEN TREES AND SHRUBS: 30% COMPOST, 20%TOPSOIL, 50% EXISTING SOIL BACKFILL.

b. DECIDUOUS TREES AND SHRUBS: 15% COMPOST, 10%TOPSOIL, 75% EXISTING SOIL BACKFILL.

C. PERENNIALS/ORNAMENTAL GRASSES/GROUNDCOVER PLANTINGS: 75% COMPOST, 25% TOPSOIL PREMIXED AND TILLED INTO TOP SIX INCHES OF

E. FERTILIZERS: SHALL PROVIDE LABEL ANALYSIS OF NITROGEN, PHOSPHORUS, AND POTASSIUM CONTENT, AND INCLUDE PLANT MICRONUTRIENTS, COATINGS, OR MATERIALS THAT AUGMENT THEIR PERFORMANCE.

1.14N-14P-14K GRANULAR FERTILIZER, POLYMER COATED WITH MINOR NUTRIENTS

2. 20-10-5 TABLET FERTILIZER MAY BE USED FOR TREES AND SHRUBS WITH PLANTING PITS 28" AND LARGER.

3. 20N-IGP-I2K FOR TURFGRASS ESTABLISHMENT AND OTHER SEEDING

4. APPLY FERTILIZER AT RATES SPECIFIED IN MDSHA TECHNICAL REQUIREMENTS SECTION 710.03.04(C).

SHREDDED HARDWOOD BARK (SHB) MULCH: SHALL CONSIST OF NATURAL BARK DERIVED FROM HARDWOOD TREES THAT HAS BEEN MILLED AND

SCREENED TO A MAXIMUM 4 IN, PARTICLE SIZE, MULCH SHALL HAVE BEEN SHREDDED WITHIN THE LAST SIX MONTHS.

I. PLANT LIST: THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING AND INSTALLING ALL PLANT MATERIAL SHOWN ON THE DRAWINGS. THE PLANT LIST IS PROVIDED FOR CONVENIENCE ONLY. THE PLANT QUANTITIES INDICATED ON THE PLANS TAKE PRECEDENCE OVER PLANT LISTS. CONTRACTOR SHALL VERIFY ALL QUANTITIES TO HIS OWN SATISFACTION PRIOR TO BIDDING. ANY DISCREPANCIES SHALL BE REPORTED TO THE LANDSCAPE ARCHITECT IMMEDIATELY.

2. SIZE: ALL PLANTS SHALL CONFORM TO THE MEASUREMENTS SPECIFIED IN THE PLANT LISTS EXCEPT THAT PLANTS LARGER THAN SPECIFIED MAY BE USED IF APPROVED BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE. USE OF SUCH PLANTS SHALL NOT INCREASE THE CONTRACT

3. PROVIDE NURSERY-GROWN PLANTS TRUE TO GENUS, SPECIES, VARIETY, CULTIVAR, STEM FORM, SHEARING, AND OTHER FEATURES INDICATED IN PLANT LIST, PLANT SCHEDULE, OR PLANT LEGEND INDICATED ON DRAWINGS AND COMPLYING WITH APPLICABLE REQUIREMENTS IN THE CURRENT "AMERICAN STANDARD FOR NURSERY STOCK" (ANSI ZGO.I), BY AMERICAN HORT. PLANT MATERIALS SHALL HAVE HEALTHY ROOT SYSTEMS DEVELOPED BY TRANSPLANTING OR ROOT PRUNING. PROVIDE WELL-SHAPED, FULLY BRANCHED, HEALTHY, VIGOROUS STOCK, DENSELY FOLIATED WHEN IN LEAF AND FREE OF DISEASE, PESTS, EGGS, LARVAE, AND DEFECTS SUCH AS KNOTS, SUN SCALD, INJURIES, ABRASIONS, AND DISFIGUREMENT.

4. TREES WITH DAMAGED, CROOKED, OR MULTIPLE LEADERS; TIGHT VERTICAL BRANCHES WHERE BARK IS SQUEEZED BETWEEN TWO BRANCHES OR BETWEEN BRANCH AND TRUNK ("INCLUDED BARK"); CROSSING TRUNKS; CUT-OFF LIMBS MORE THAN 3/4 INCH (19 MM) IN DIAMETER; OR WITH STEM GIRDLING ROOTS ARE UNACCEPTABLE.

5. SHADE AND FLOWERING TREES SHALL BE SYMMETRICALLY BALANCED. MAJOR BRANCH UNIONS SHALL NOT HAVE 'V' SHAPED CROTCHES, OR UNIONS DERIVED FROM WATER SPROUTS CAPABLE OF CAUSING STRUCTURAL WEAKNESS.

6. PLANTS OF A LARGER SIZE MAY BE USED IF ACCEPTABLE TO THE LANDSCAPE ARCHITECT, WITH A PROPORTIONATE INCREASE IN SIZE OF ROOTS OR

7. NOTIFY LANDSCAPE ARCHITECT OF SOURCES OF PLANTING MATERIALS FOURTEEN DAYS IN ADVANCE OF DELIVERY TO SITE. 8. ALL PLANTS (B&B OR CONTAINER) SHALL BE PROPERLY IDENTIFIED BY WEATHER PROOF LABELS SECURELY ATTACHED THERETO BEFORE DELIVERY TO PROJECT SITE. LABELS SHALL IDENTIFY PLANTS BY NAME, SPECIES, AND SIZE. LABELS SHALL NOT BE REMOVED UNTIL AFTER FINAL INSPECTION BY

THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE. 9. NO SUBSTITUTIONS SHALL BE MADE WITHOUT WRITTEN CONSENT OF THE LANDSCAPE ARCHITECT. SUBSTITUTION REQUESTS SHALL BE SUBMITTED

TO THE LANDSCAPE ARCHITECT 14 DAYS IN ADVANCE OF DELIVERY TO THE SITE. IO. BULBS: IN ACCORDANCE WITH SECTION I2 OF "AMERICAN STANDARD FOR NURSERY STOCK" (ANSI ZGO.I), BY AMERICAN HORT

H. SOD

I. SUBMIT TECHNICAL DATA, SAMPLES, AND WARRANTY INFORMATION TO THE OWNER'S REPRESENTATIVE IO DAYS PRIOR TO DELIVERY ON SITE.

2. SUBMIT COPIES OF CURRENT UNIVERSITY OF MARYLAND AGRONOMY MIMEO #77 WITH PROPOSED CULTIVARS HIGHLIGHTED.

3. SUBMIT CERTIFICATION FOR GRASS SPECIES AND LOCATION OF SOURCE. 4. SUBMIT DELIVERY TICKETS TO THE OWNER'S REPRESENTATIVE.

5. SOD SHALL BE OBTAINED FROM AREAS HAVING GROWING CONDITIONS SIMILAR TO AREAS TO BE COVERED.

6. SOD SHALL CONSIST OF TURFGRASS CULTIVARS LISTED IN THE UNIVERSITY OF MARYLAND AGRONOMY MIMEO #77, CURRENT EDITION.

a. CULTIVATED GRASS SOD WITH STRONG FIBROUS ROOT SYSTEM, MINIMUM AGE OF 18 MONTHS, FIELD GROWN IN MARYLAND, MARYLAND CERTIFIED GRADE, FREE OF STONES, BURNED OR BARE SPOTS. THE ROOT SYSTEM SHALL SUPPORT ITS OWN WEIGHT, WITHOUT TEARING, WHEN SUSPENDED VERTICALLY BY HOLDING THE UPPER TWO CORNERS.

b. ALL SOD SHALL BE OBTAINED FROM AREAS HAVING GROWING CONDITIONS SIMILAR TO AREAS TO BE COVERED.

c. THE GRASS TYPE SHALL CONSIST OF TURF TYPE TALL FESCUES.

d. SOD SHALL NOT INCLUDE THE FOLLOWING WEEDS: BENT GRASS, BERMUDA GRASS, BINDWEED, BLACKBERRY, BROME GRASS, CANADIAN THISTLE, CHICKWEED, CRABGRASS, CRESS, DANDELION, HORSETAIL, JIMSONWEED, JOHNSON GRASS, LAMBSQUARTER, MORNING GLORY, MUSTARD, NIMBLE WILL NUT SEDGE, NUTGRASS, PERENNIAL SORREL, POISON IVY, POISON OAK, QUACKGRASS, RUSH GRASS, TANSY RAGWORT, AND WILD

7. MACHINE CUT SOD IN AREA NOT EXCEEDING I SQUARE YARD, IN STRIPS A LEAST I4" WIDE WITH A TOPSOIL BASE

OF 1/2 INCH, MINIMUM, AND LINCH, MAXIMUM. 8. DELIVER SOD IN ROLLS WITH GRASS FOLDED INSIDE. KEEP MOIST. EACH LOAD SHALL BEAR A MARYLAND STATE CERTIFIED LABEL AND BE IN GOOD

HEALTH AT TIME OF DELIVERY.

9. PROTECT FROM EXPOSURE TO AIR AND SUN AND FROM FREEZING. SOD THAT HAS DRIED SHALL NOT BE PLACED.

IO. ALL DAMAGED SOD WILL BE REJECTED. J. TURFGRASS AND SPECIAL PURPOSE SEEDS

I. STANDARDS AND SUBMITTALS: THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE SHALL BE FURNISHED DUPLICATE SIGNED COPIES OF A STATEMENT FROM A VENDOR, CERTIFYING THAT EACH CONTAINER OF SEED DELIVERED IS FULLY LABELED IN ACCORDANCE WITH THE FEDERAL SEED ACT AND IS AT LEAST EQUAL TO THE REQUIREMENT SPECIFIED HEREIN. THIS CERTIFICATION SHALL APPEAR ON OR WITH ALL COPIES OF INVOICES

a. SPECIES INCLUDED IN TURFGRASS SEED MIX AND SHA SPECIAL PURPOSE SEED MIXES SHALL BE MARYLAND DEPARTMENT OF AGRICULTURES (MDA)CERTIFIED SEED OF APPROVED CULTIVARS.

b. SUBMIT COPIES OF CURRENT UNIVERSITY OF MARYLAND AGRONOMY MIMEO #77 WITH PROPOSED CULTIVARS HIGHLIGHTED.

2. SEED MIXES: PROVIDE GRASS SEED MIX CONFORMING TO THE FOLLOWING REQUIREMENTS: a. TURFGRASS:

			PURITY	GERM
	TURFGRASS	SEED MIX	MIN %	MIN %
MIX		PECIES		
%	1			
	Grass Type	Cultivars (Minimum 3 Cultivars Per Grass Type)		
	Turf Type Tall Fescue	Rebel IV 30%		
95	Schedonorus phoenix (Scop.) Holub	Blade Runner 35%	98	8
		Penn RK 35%		
	Kentucky Bluegrass	Aires 30%		
5 -	Poa pratensis L. ssp. pratensis	Noble 35%	98	80
		Blue Note 35%		

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING 10/23/20 1-11-21

I. THE EXECUTION OF LANDSCAPE WORK AND PLANT INSTALLATION, SHALL COMPLY WITH ALL APPLICABLE SECTIONS OF THE "THE LANDSCAPE SPECIFICATION GUIDELINES CURRENT EDITION, PARTS 1-8 GUIDELINES PREPARED BY THE LANDSCAPE CONTRACTORS ASSOCIATION, MD, DC, VA (LCA), AND ANSI A300 (PART 6-2012, "TREE, SHRUB, AND OTHER WOODY PLANT MANAGEMENT STANDARD PRACTICES (PLANTING AND

2. THE CONTRACTOR SHALL EXAMINE THE SITE AND ALL CONDITIONS THEREON, AND TAKE INTO CONSIDERATION ALL SUCH CONDITIONS THAT MAY. AFFECT HIS WORK. START OF WORK INDICATES ACCEPTANCE OF CONDITIONS AND FULL RESPONSIBILITY FOR WORK OF THESE PLANS AND

3. THE CONTRACTOR SHALL NOTIFY MISS UTILITY (800-257-7777) A MINIMUM OF THREE DAYS PRIOR TO ANY EXCAVATION, PLANTING OR CONSTRUCTION. IF THE CONTRACTOR IS ADVISED OF THE EXISTENCE OF UNDERGROUND UTILITIES ON THE SITE, THEIR EXACT LOCATION SHALL BE VERIFIED IN THE FIELD WITH THE OWNER OR GENERAL CONTRACTOR PRIOR TO THE COMMENCEMENT OF ANY DIGGING OPERATIONS. IN THE EVENT THEY ARE UNCOVERED. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ALL DAMAGE TO UTILITIES AND SUCH DAMAGE SHALL NOT RESULT IN ANY ADDITIONAL EXPENSES TO THE OWNER. ANY DAMAGE OF UNREPORTED LINES SHALL NOT BE THE RESPONSIBILITY OF THE CONTRACTOR. 4. IF UTILITY LINES ARE ENCOUNTERED IN EXCAVATION OF TREE PITS, OTHER LOCATIONS FOR TREES SHALL BE MADE BY THE CONTRACTOR WITHOUT

ADDITIONAL COMPENSATION. ANY CHANGES OF LOCATION SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT. 5. THE CONTRACTOR SHALL PROTECT EXISTING BUILDINGS AND PROPERTY FROM DAMAGE AND SHALL BE RESPONSIBLE FOR ANY DAMAGE OR INJURY TO PERSON OR PROPERTY WHICH MAY OCCUR AS A RESULT OF HIS NEGLIGENCE IN THE EXECUTION OF HIS WORK.

6. ALL PORTIONS OF THE PROPERTY, WHICH HAVE BEEN DISTURBED OR DAMAGED DUE TO, OR INCIDENTAL TO, WORK PERFORMED UNDER THIS CONTRACT SHALL BE REPAIRED AND RESTORED TO ITS ORIGINAL CONDITION TO THE SATISFACTION OF THE OWNER. 7. THE CONTRACTOR SHALL FULLY AND SATISFACTORILY MAINTAIN AND PROTECT ALL WORK UNTIL COMPLETION AND ACCEPTANCE OF ALL WORK OR

PORTIONS THEREOF AND SHALL REPAIR OR REPLACE, AT HIS EXPENSE, ANY WORK DAMAGED DURING THAT PERIOD, TO THE SATISFACTION OF THE LANDSCAPE ARCHITECT AND OWNER. 8. ALL EQUIPMENT AND TOOLS SHALL BE PLACED SO AS NOT TO INTERFERE OR HINDER PEDESTRIAN AND VEHICULAR TRAFFIC FLOW.

9. THE LANDSCAPE ARCHITECT OR OWNER SHALL HAVE THE RIGHT, AT ANY STAGE OF THE OPERATIONS, TO REJECT ANY AND ALL WORK AND MATERIAL WHICH, IN HIS OPINION, DOES NOT MEET THE REQUIREMENTS OF THESE PLANS AND SPECIFICATIONS. ALL REJECTED MATERIALS SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR.

IO. THE CONTRACTOR SHALL COORDINATE WITH LIGHTING AND IRRIGATION CONTRACTORS REGARDING TIMING OF INSTALLATION OF PLANT MATERIAL. II. PLANTING WORK SHALL NOT BE STARTED UNTIL FINAL GRADES HAVE BEEN ESTABLISHED AND APPROVED BY THE LANDSCAPE ARCHITECT OR THE

12. UNDER NO CONDITIONS SHALL ANY WORK BE DONE IF WEATHER OR SOIL CONDITIONS ARE NOT SATISFACTORY. B. LANDSCAPE GRADING \$ DRAINAGE

I. THE CONTRACTOR SHALL ENSURE THAT HIS WORK DOES NOT INTERRUPT ESTABLISHED OR PROPOSED DRAINAGE PATTERNS.

2. THE CONTRACTOR SHALL REVIEW ARCHITECTURAL ÆNGINEERING PLANS TO BECOME THOROUGHLY FAMILIAR WITH GRADING AND UTILITIES. 3. THE CONTRACTOR SHALL MAINTAIN SEDIMENT AND EROSION CONTROL MEASURES ACCORDING TO THE REQUIREMENTS AND CONSTRUCTION

SEQUENCING AND SCHEDULES. 4. EXISTING SITE CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR BEFORE CONSTRUCTION BEGINS, ANY DISCREPANCIES IN GRADES OR DIMENSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE.

5. THE CONTRACTOR SHALL PROVIDE ADEQUATE VERTICAL DRAINAGE IN ALL PLANT BEDS AND PLANTERS.

I. CONTRACTOR SHALL FLAG AND MARK PLANTING BEDS ACCORDING TO PLANS AND OBTAIN APPROVAL BEFORE BED PREPARATION AND INSTALLATION OF PLANTS, PROVIDE 48 HOURS NOTICE TO THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE TO REVIEW LAYOUT.

2. ALL PLANTING BEDS ADJACENT TO LAWN SOD OR SEEDED AREAS SHALL BE SPADE EDGED.

D. SOIL PREPARATION OF GROUND COVER AND PERENNIAL PLANTING AREAS I. GROUND COVER AND PERENNIAL PLANTING AREAS SHALL BE CONDITIONED AND PLANTED IN CONTINUOUSLY PREPARED BEDS.

2. BEFORE BED PREPARATION CONDUCT TREE AND STUMP REMOVAL IF REQUIRED. REMOVE ALL STUMPS, BRANCHES, WOOD CHIPS AND SAWDUST FROM THE WORK SITE, WOOD CHIPS AND SAWDUST SHALL NOT BE USED FOR COMPOST OR MULCHING ON THE WORK SITE.

3. REMOVE UNDESIRABLE VEGETATION: SPRAY EXISTING LAWN AND WEEDS WITH A MIXTURE OF ROUNDUP AND 2-4D PER MANUFACTURER'S

4. CUT OR MOW DEAD VEGETATION TO A HEIGHT OF I IN. AND REMOVE THE DEBRIS INCLUDING ROOTS MASS.

5. LOOSEN PLANTING BED BY TILLING TO 6" DEPTH EXCEPT WITHIN CRITICAL ROOT ZONES OF EXISTING TREES OR WHERE UNDERGROUND UTILITIES ARE

6. SPREAD 14-14-14 FERTILIZER AND CONDITION SOIL FOR PH IF REQUIRED BY SOILS TEST.

7. THOROUGHLY INCORPORATE THE COMPOST/TOPSOIL MIX AND FERTILIZER IN TO THE PLANTING BED TO 6" DEPTH.

8. FINE GRADE AND RAKE PLANTING BED, REMOVE DEBRIS AND ROCK I"DIA. OR LARGER BEFORE SETTING OUT PLANTS. E. PLANTING

I, PLANTS SHALL BE LOCATED AS SHOWN ON THE DRAWINGS OR AS DESIGNATED IN THE FIELD. THE LANDSCAPE CONTRACTOR SHALL FLAG OR MARK PLANT LOCATIONS FOR REVIEW AND/OR ADJUSTMENT BY THE LANDSCAPE ARCHITECT PRIOR TO PLANTING. ALL LOCATIONS ARE TO BE APPROVED BY THE LANDSCAPE ARCHITECT BEFORE EXCAVATION. PROVIDE 48 HOURS NOTICE TO THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE TO

2. THE SEASON FOR PLANTING TREES, SHRUBS AND GROUNDCOVER SHALL BE MARCH 15 TO JUNE I AND SEPTEMBER 15 TO NOVEMBER 15, UNLESS OTHERWISE APPROVED BY THE LANDSCAPE ARCHITECT. OUT OF SEASON PLANTING, IF ANY, SHALL BE FULLY GUARANTEED BY THE CONTRACTOR. 3. DURING PLANTING OPERATIONS, EXCESS WASTE MATERIALS SHALL BE PROMPTLY AND FREQUENTLY REMOVED FROM THE SITE.

F. SETTING TREES ANDS SHRUBS I. UNLESS OTHERWISE SPECIFIED. ALL TREES AND SHRUBS SHALL BE PLANTED IN PITS, CENTERED AND SET ON UNDISTURBED SOIL TO SUCH DEPTH THAT I/8 OF THE ROOT BALL IS ABOVE GRADE. PLANTS SHALL BE PLANTED UPRIGHT, ROTATED AND FACED TO GIVE THE BEST APPEARANCE OR

RELATIONSHIP TO ADJACENT STRUCTURES, WALKWAYS OR PROMINENT VIEW. 2. ROOT-BALL DEPTH: FURNISH TREES AND SHRUBS WITH ROOT BALL DEPTH MEASURED FROM TOP OF ROOT BALL, WHICH BEGINS AT ROOT FLARE ACCORDING TO ANSI Z60.1. ROOT FLARE SHALL BE VISIBLE BEFORE PLANTING.

3. IDENTIFY THE ROOT FLARE AND REMOVE EXCESS SOIL IF NECESSARY. NEVER COVER TOP OF ROOT BALL WITH SOIL.

4. FOR CONTAINER GROWN TREES AND SHRUBS SLASH THE SIDES OF ROOT BALL FROM TOP TO BOTTOM. MAKE 4 TO 5 VERTICAL CUTS AT

5. FOR SINGLE SHRUBS, THE PITS SHALL BE DUG 12" WIDER THAN THE DIAMETER OF THE ROOT BALL. 4. FOR SHRUB MASS PLANTING, THE ENTIRE BED SHALL BE TILLED TO 6"DEPTH AND PREPARED AS SPECIFIED IN "D. SOIL PREPARATION OF GROUND COVER AND PERENNIAL PLANTING AREAS" OF THESE SPECIFICATIONS, EACH SHRUB PIT SHALL THEN BE EXCAVATED FOR THE PROPER SETTING DEPTH OF THE ROOT BALL AND BACKFILLED WITH THE SPECIFIED BACKFILL MIX. PLANTS SHALL REST ON UNDISTURBED SOIL OR WELL COMPACTED BACKFILL. 5. THE SIDES AND BOTTOM OF ALL PLANTING BEDS SHALL BE SCARIFIED. IF PLANTING PIT IS PLACED OVER PREVIOUSLY COMPACTED SUBGRADE

6. AT TIME OF INSTALLATION CUT AND REMOVE ROPE OR WIRE TO THE EDGE OF THE ROOT BALL. REMOVE AS MUCH BURLAP, WOVEN PRODUCTS, AS POSSIBLE. ALL SYNTHETIC FILM OR TWINE MUST BE REMOVED FROM ROOT BALL. REMOVE OR PULL BACK ALL MATERIALS 12" FROM TOP OF ROOT

SCARIFY TO A MINIMUM DEPTH OF 12" BELOW ROOT BALL AND INCORPORATE BACKFILL MIX. TAMP BY HAND TO PROVIDE FIRM STABLE BASE FOR

7. PLANTING PITS SHALL BE BACKFILLED WITH SPECIFIED SOIL MIX AND HAND COMPACTED CAREFULLY TO AVOID INJURY TO ROOTS AND TO FILL ALL VOIDS. WHEN THE HOLE IS NEARLY FILLED, WATER SHALL BE ADDED AS NECESSARY AND ALLOWED TO SOAK IN. THE HOLE SHALL BE FILLED TO FINISHED GRADE AND A SHALLOW SAUCER OR RIDGE SHALL BE FORMED AROUND EACH PLANT BY PLACING A RIDGE OF SOIL AROUND THE EDGE OF

EACH PIT. IF THE GROUND SETTLES, ADDITIONAL SOIL SHALL BE FILLED INTO THE PIT TO REACH THE LEVEL OF THE FINISHED GRADE. G. SETTING PERENNIALS, GRASSES AND GROUNDCOVERS: SET OUT GROUNDCOVERS AT SPECIFIED SPACING IN UNIFORM DIAGONAL ROWS AND PLANT.

I. SET TOP OF POT OR CROWN EVEN WITH EXISTING GRADE. 2. BACKFILL WITH AMENDED PLANT MIX AND FIRMLY COMPACT BY HAND SO THAT ROOTS ARE SURROUNDED BY SOIL BELOW THE MULCH.

3. APPLY PRE-EMERGENT HERBICIDE WHEN PLANTS ARE DRY TO AVOID BURNING.

4. THOROUGHLY WATER ENTIRE PLANTING BED.

a. FERTILIZING AT THE TIME OF INSTALLATION, MIX 14-14-14 FERTILIZER INTO THE BACKFILL SOIL OF TREES, SHRUBS, VINES, PERENNIALS AND GRASSES, FERTILIZER SHALL BE MIXED THOROUGHLY INTO THE FULL DEPTH OF ALL PLANTING AREAS.

H. TREE STAKING AND GUYING: SHALL COMPLY WITH THE LCA GUIDELINES AND AS SHOWN IN THE PLANTING DETAILS.

I. THE CONTRACTOR SHALL BE WHOLLY RESPONSIBLE FOR STABILITY AND CONDITIONS OF ALL TREES AND SHRUBS AND SHALL BE LIABLE FOR ANY DAMAGE CAUSED BY INSTABILITY OF ANY PLANT MATERIALS.

I. PLANTING BEDS SHALL BE TOP DRESSED WITH 2-INCH (NOT TO EXCEED 3 -INCHES) SHREDDED HARDWOOD MULCH UNDER SHRUBS AND TREES, AND 1.5 TO 2-INCH DEPTH FOR GROUNDCOVERS, PERENNIALS AND OTHER HERBACEOUS PLANTINGS. DO NOT PLACE MULCH AGAINST TREE TRUCKS. MULCH SHALL BE PLACED IMMEDIATELY AFTER PLANTING AND WATERING.

K. SEEDING & SODDING

I. SOIL PREPARATION FOR SEEDED AND SODDED AREAS

a. CLEARING: PRIOR TO OR DURING GRADING AND TILLAGE OPERATIONS THE GROUND SURFACE SHALL BE WELL DRAINED, CLEARED OF ALL BRUSH, ROOTS, STONES LARGER THAN 2 INCHES IN DIAMETER, OR ANY OTHER MATERIAL WHICH MAY HINDER PROPER GRADING, TILLAGE, OR SUBSEQUENT MAINTENANCE OPERATIONS. b. BERMING AND FINE GRADING: AREAS TO BE SEEDED AND/OR SODDED SHALL BE GRADED AS SHOWN ON THE DRAWINGS OR AS DIRECTED AND ALL SURFACES SHALL BE LEFT IN AN EVEN AND PROPERLY COMPACTED CONDITION SO AS TO PREVENT THE FORMATION OF DEPRESSIONS WHERE WATER WILL STAND. AREAS TO BE TOPSOILED SHALL BE GRADED TO A SMOOTH SURFACE AND TO A GRADE THAT WILL ALLOW SEEDING TO

c. SUBGRADE: SEEDING AND SODDING AREAS SHALL NOT BE COMPACTED MORE THAN 85% PROCTOR FOR THE

a. TOPSOILING: THE OWNER'S REPRESENTATIVE SHALL INSPECT THE SUB-GRADE IMMEDIATELY PRIOR TO PLACING TOPSOIL, THE SUBGRADE, WHERE EXCESSIVELY COMPACTED BY TRAFFIC OR OTHER CAUSES, SHALL BE LOOSENED BY SCARIFYING TO A DEPTH OF AT LEAST 4 INCHES TO PERMIT BONDING OF THE TOPSOIL TO THE SUBGRADE. TOPSOIL SHALL BE UNIFORMLY SPREAD BY APPROVED EQUIPMENT TO A 6" THICKNESS OVER THE DESIGNATED AREAS AND IN SUCH MANNER THAT PLANTING CAN PROCEED WITH LITTLE ADDITIONAL SOIL PREPARATION OR TILLAGE. TOPSOIL SHALL NOT BE PLACED WHEN THE SUBGRADE IS FROZEN, EXCESSIVELY WET, EXTREMELY DRY, OR IN A CONDITION OTHERWISE DETRIMENTAL TO THE PROPOSED PLANTING OR THE PROPER GRADING. TOPSOIL SHALL BE GRADED TO THE LINES INDICATED AND TOPSOILING OR OTHER OPERATIONS SHALL BE CORRECTED TO PREVENT FORMATIONS OF DEPRESSIONS WHERE WATER WILL STAND. e. COMPOSTING: SPREAD I" DEPTH OF COMPOST OVER SODDING AND SEEDING AREAS AND INCORPORATE INTO

f. TILLAGE: AFTER TOPSOILED AREAS REQUIRED TO BE SEEDED HAVE BEEN BROUGHT TO THE GRADES SHOWN ON THE PLANS AND AS SPECIFIED, THEY SHALL BE THOROUGHLY TILLED TO A DEPTH OF 8 INCHES BY APPROVED METHODS TO ENSURE THAT THE TOPSOIL AND THE EXISTING SOIL ARE THOROUGHLY MIXED, UNTIL THE CONDITION OF THE SOIL IS ACCEPTABLE TO THE OWNER'S REPRESENTATIVE. ANY OBJECTIONABLE UNDULATIONS OR IRREGULARITIES IN THE SURFACE RESULTING FROM TILLAGE OR OTHER OPERATIONS SHALL BE REMOVED BEFORE PLANTING OPERATIONS ARE BEGUN. THE WORK SHALL BE PERFORMED ONLY DURING PERIODS WHEN SATISFACTORY RESULTS ARE LIKELY TO BE OBTAINED. WHEN CONDITIONS ARE SUCH, BY REASON OF DROUGHT, EXCESSIVE MOISTURE OR OTHER FACTORS, THAT RESULTS ARE NOT LIKELY TO BE SATISFACTORY, STOP THE WORK AND RESUME ONLY WHEN DESIRED RESULTS ARE LIKELY TO BE OBTAINED. q. APPLICATION OF FERTILIZER: MEET ALL MARYLAND STATE REQUIREMENTS FOR THE APPLICATION OF NITROGEN=N AND PHOSPHOROUS ON NEW LAWN ESTABLISHMENT. THE FERTILIZER SHALL BE DISTRIBUTED

SEEDED OR SODDED AND SHALL BE INCORPORATED INTO THE SOIL TO A DEPTH OF 6 INCHES BY METHODS APPROVED BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE. THE INCORPORATION OF FERTILIZER MAY BE ACCOMPLISHED AS PART OF THE TILLAGE OPERATIONS SPECIFIED. DISTRIBUTION OF SEED AND FERTILIZER TOGETHER, BY MEANS OF APPROVED EQUIPMENT, WILL BE ACCEPTABLE. h. APPLICATION OF LIME: IMMEDIATELY FOLLOWING OR SIMULTANEOUSLY WITH THE INCORPORATION OF THE FERTILIZER, LIME SHALL BE DISTRIBUTED AT A RATE OF 50 POUNDS PER I,000 SQUARE FEET OR AT SUCH RATE AS DETERMINED BY SOIL TESTS, AND SHALL BE INCORPORATED INTO THE SOIL TO A DEPTH OF 8 INCHES BY METHODS WHICH ARE ACCEPTABLE TO THE ENGINEER. THE INCORPORATION OF THE LIME, ALONG WITH THE FERTILIZER, MAY FORM A PART OF THE TILLAGE OPERATION SPECIFIED, PROVIDED GRASS SEED IS NOT

UNIFORMLY AT A RATE OF 2.5 POUNDS OF 20N-IGP-I2K-PER 1,000 SQUARE FEET OVER THE AREAS TO BE

2. SODDING a. MOISTEN PREPARED SURFACE IMMEDIATELY PRIOR TO LAYING SOD.

b. LAY SOD IN ACCORDANCE WITH ASPA GUIDELINES.

INCLUDED IN THE MIXTURE...

c. NO SOD SHALL BE PLACED BETWEEN JUNE I AND AUGUST 15 OR NOVEMBER I AND APRIL 15, UNLESS DIRECTED

BY OWNER/DMW.

d. IMMEDIATELY AFTER LAYING, SPRINKLE SOD THOROUGHLY WITH WATER AND HAND TAMP. e. LAY SOD SMOOTH AND TIGHT WITH NO OPEN JOINTS VISIBLE. STAGGER END JOINTS 12 INCHES, MINIMUM.

DO NOT STRETCH OR OVERLAP SOD PIECES. ALIGN WITH ADJOINING GRASS AREAS. f. ON 2:1 SLOPES AND STEEPER, LAY SOD PERPENDICULAR TO SLOPE STARTING AT THE BOTTOM OF THE SLOPE. SECURE EVERY ROW WITH WOODEN PEGS AT MAXIMUM 2 FEET ON CENTER. DRIVE PEGS FLUSH WITH SOIL

g. AFTER SOD AND SOIL HAVE DRIED FROM INITIAL WATERING, ROLL SODDED AREAS TO ENSURE GOOD BOND BETWEEN SOD AND SOIL AND TO REMOVE MINOR DEPRESSIONS AND IRREGULARITIES h. WATERING: WATER SODDED AREAS A MINIMUM OF THREE TIMES AFTER LAYING, TO A DEPTH OF 4 INCHES.

I) FIRST WATERING: WITHIN 4 HOURS OF PLACEMENT. 2)SECOND AND THIRD WATERINGS: WATER WHEN SOD BEGINS TO APPEAR DRY, BUT NOT LATER THAN 2 WEEKS OF FIRST OR SECOND WATERING.

a. GENERAL: ALL SEEDING SHALL BE DONE IN THE SPRING BETWEEN MARCH I AND MAY 15 OR IN THE FALL BETWEEN AUGUST I AND OCTOBER IS. THE CONTRACTOR SHALL EMPLOY A METHOD OF SOWING, MAKING USE OF APPROVED MECHANICAL POWER DRAWN DRILLS AND SEEDERS, MECHANICAL HAND SEEDERS OR OTHER APPROVED METHODS. WHEN DRILLS ARE USED, PROVISIONS SHALL BE MADE BY MARKERS OR OTHER MEANS TO ASSURE THAT SUCCESSIVE SEEDED STRIPS WILL OVERLAP OR BE SEPARATED BY A SPACE NOT GREATER THAN THE SPACE BETWEEN ROWS PLANTED BY THE EQUIPMENT BEING USED. IF INSPECTION REVEALS, DURING PLANTING OPERATIONS OR AFTER, THAT STRIPS WIDER THAN THE SPACE BETWEEN THE ROWS PLANTED HAVE BEEN LEFT UNPLANTED, OR THAT OTHER AREAS HAVE BEEN SKIPPED, THE ENGINEER WILL REQUIRE THE SOWING OF ADDITIONAL SEED ON THESE AREAS. WHEN CONDITIONS ARE SUCH, BY REASON OF DROUGHT, HIGH WINDS, EXCESSIVE MOISTURE, OR OTHER FACTORS, THAT SATISFACTORY RESULTS ARE NOT LIKELY TO BE OBTAINED, STOP THE WORK AND RESUME ONLY WHEN CONDITIONS ARE FAVORABLE.

b. AREAS TO BE SEEDED: ALL GRADED AREAS, EXCEPT THOSE TO RECEIVE PAVING, PLANTING BEDS AND SODDING, SHALL BE SEEDED IN ACCORDANCE WITH THESE SPECIFICATIONS. SEE THE DRAWINGS FOR LOCATION OF EACH SEED MIX.

c. METHOD AND RATE OF SEEDING: I) LAWN SEEDING AND UPLAND SEEDING: ON SLOPING LAND, SEEDING OPERATION SHALL BE ON THE CONTOUR, WHERE FEASIBLE. APPLY SEED UNIFORMLY WITH A CYCLONE SEEDER, DRILL, CULTIPACKER SEEDER OR HYDROSEEDER (SLURRY SHALL INCLUDE SEED AND FERTILIZER). SEED BED SHALL BE FIRM AND MOIST. SEED SHALL BE APPLIED AT THE RATE OF 7 LBS., PER 1,000 SQUARE FEET ON SLOPES GREATER THAN 6 TO 1, AND AT THE RATE OF 5 TO 8 LBS. PER 1,000 SQUARE FEET ON SLOPES AND FLAT AREAS LESS THAN 6 TO I. THE SEED SHALL BE UNIFORMLY DISTRIBUTED OVER THE DESIGNATED AREAS AND SHALL BE COVERED TO A DEPTH OF 1/4 INCH BY MEANS OF BRUSH HARROW, SPIKETOOTH HARROW, CULTIPACKER OR OTHER APPROVED METHODS. BROADCAST SEEDING SHALL NOT BE DONE DURING WINDY WEATHER. DRILL SEEDING SHALL BE DONE WITH APPROVED EQUIPMENT BEST SUITED TO PERFORM THE WORK UNDER THE CONDITIONS EXISTING AT THE SITE.

2) WETLAND SEEDING: SEED BED SHALL BE FIRM AND MOIST. SEED SHALL BE APPLIED AT THE RATE OF 5 TO 8 LBS. PER 1,000 SQUARE FEET WITH A CYCLONE SPREADER. THE SEED SHALL BE UNIFORMLY DISTRIBUTED OVER THE DESIGNATED AREAS AND SHALL BE COVERED TO A DEPTH OF 1/4 INCH BY MEANS OF HAND RAKING. 3)CLEAN UP: AFTER THE SEEDING HAS BEEN COMPLETED, AND PRIOR TO COMPACTION, THE SURFACE SHALL BE CLEANED OF ALL STONES LARGER THAN 2 INCHES IN DIAMETER AND OF ALL ROOTS, BRUSH, TRASH, OR OTHER OBJECTS THAT MAY INTERFERE WITH MAINTENANCE OPERATIONS. 4. MULCHING

a. LAWN SEEDED AREAS SHALL BE MULCHED WITH STRAW AND SECURED BY THE ASPHALT MIX METHOD, IN ACCORDANCE WITH ARTICLE 36.04, SECTION 3, MULCHING OF THE MDSHA STANDARD SPECIFICATIONS.

b. UPLAND SEEDED AREAS AND WETLAND SEEDED AREAS SHALL BE MULCHED WITH STRAW AND SECURED BY THE PEG AND STRING METHOD, IN ACCORDANCE WITH ARTICLE 36.05, SECTION 3, MULCHING OF THE STANDARD SPECIFICATIONS.

MAINTENANCE

a. IT IS THE INTENTION OF THE CONTRACT TO PROVIDE THE GREATEST QUANTITY OF ATTRACTIVE LAWN WITHIN THE CONSTRUCTION AREA AT ALL TIMES. THE CONTRACTOR SHALL COOPERATE BY CONTROLLING HIS ACTIVITIES TO PROTECT AND MAINTAIN AS MUCH AREA IN LAWN AS POSSIBLE WITHIN THESE LIMITS.

b. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER CARE AND MAINTENANCE OF THE SEEDED AREAS

CERTIFICATION NOTE:

ZONING.

DEVELOPER'S/OWNER'S NAME

DEVELOPER'S/OWNER'S NAME

hado

GREG FITCHITT - REGIONAL PRESIDENT

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS

SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL FOR ALTERNATIVE COMPLIANCE AND

FURTHER CERTIFY THAT UPON COMPLETION A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED

ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE

SUBMITTED TO THE DEPARTMENT OF PLANNING AND

THE LAKEFRONT REDEVELOPMENT DESIGN GUIDELINES. I/WE

PLAN WILL BE DONE ACCORDING TO THE PLAN,

UNTIL THE WORK UNDER THE ENTIRE CONTRACT HAS BEEN COMPLETED AND ACCEPTED BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE. MAINTENANCE SHALL CONSIST OF REPAIR AND REPLACEMENT OF ERODED AREAS, WATERING, RE-FERTILIZING, RE-LIMING, RESEEDING AND RE-MULCHING AS NECESSARY TO PROVIDE AN EVEN, FIXED GROWTH OF GRASS. IN ADDITION, THE CONTRACTOR SHALL PROVIDE PROTECTION AGAINST TRAFFIC AND SHALL ERECT THE NECESSARY BARRICADES AND WARNING SIGNS REQUIRED. IMMEDIATELY AFTER PLANTING IS COMPLETED. SEEDED AREAS SHALL BE WATERED AND MAINTAINED UNTIL A

THICK STAND OF GRASS IS ESTABLISHED. c. MOWING: THE SEEDED LAWN AREAS SHALL BE MOWED WITH APPROVED MOWING EQUIPMENT. IF WEEDS OR OTHER UNDESTRABLE VEGETATION THREATEN TO SMOTHER THE PLANTED SPECIES, SUCH VEGETATION SHALL BE MOWED, OR IN THE CASE OF RANK GROWTHS, SHALL BE UPROOTED AND REMOVED FROM THE AREA. THE FIRST MOWING SHALL NOT BE ATTEMPTED UNTIL THE SOD IS FIRMLY ROOTED AND SECURED IN PLACE. NOT MORE THAN 1/3 OF THE GRASS LEAF SHALL BE REMOVED BY THE INITIAL CUTTING OR SUBSEQUENT CUTTINGS. GRASS HEIGHT SHALL BE MAINTAINED BETWEEN I 1/2 AND 2 1/2 INCHES UNLESS OTHERWISE SPECIFIED. UPLAND AND WETLAND SEED AREAS SHALL NOT BE MOWED.

I) FIRST WEEK: THE CONTRACTOR SHALL PROVIDE ALL LABOR AND FURNISH ALL WATERING NECESSARY FOR ESTABLISHMENT OF THE SEED. IN THE ABSENCE OF ADEQUATE RAINFALL, WATERING SHALL BE PERFORMED DAILY OR AS OFTEN AS NECESSARY DURING THE FIRST WEEK AND IN SUFFICIENT QUANTITIES TO MAINTAIN MOIST SOIL TO A DEPTH OF AT LEAST 4 INCHES. WATERING SHOULD BE DONE DURING THE HEAT OF THE DAY TO HELP PREVENT WILTING.

2)SECOND AND SUBSEQUENT WEEKS: THE CONTRACTOR SHALL WATER THE LAWN AS REQUIRED TO MAINTAIN ADEQUATE MOISTURE IN THE UPPER 4 INCHES OF SOIL NECESSARY FOR THE PROMOTION OF DEEP ROOT

6. REPAIR OF SEEDED AREAS

a. AFTER THE GRASS IN SEEDED AREAS HAS APPEARED, ALL AREAS AND PARTS OF AREAS WHICH, IN THE OPINION OF THE OWNER'S REPRESENTATIVE, FAIL TO SHOW A UNIFORM STAND OF GRASS, FOR ANY REASON WHATSOEVER, SHALL BE RESEEDED, FERTILIZED AND MULCHED AND SUCH AREAS AND PARTS OF AREAS SHALL BE SEEDED REPEATEDLY UNTIL ALL AREAS ARE COVERED WITH A SATISFACTORY GROWTH OF GRASS. RESEEDING TOGETHER WITH NECESSARY GRADING, FERTILIZING, AND TRIMMING SHALL BE DONE AT THE EXPENSE OF THE CONTRACTOR BY SPREADING THE SEED BY A METHOD APPROVED BY THE OWNER'S REPRESENTATIVE, AND DURING AN APPROVED SEASON. RESEEDING SHALL BE ACCOMPLISHED WITHIN THE

b. IF STAND IS INADEQUATE, RE-APPLY SEED AND FERTILIZE, USING HALF OF THE RATES ORIGINALLY APPLIED. c. IF STAND IS OVER 60% DAMAGED, RE-ESTABLISH, FOLLOWING ORIGINAL LIME, FERTILIZER, SEED BED

PREPARATION AND SEEDING RECOMMENDATIONS.

7. FINAL ACCEPTANCE SODDING, LAWNS AND UPLAND SEEDING a. EXCEPT AS OTHERWISE INDICATED, LAWNS SHALL BE MAINTAINED UNTIL ALL SEEDED AREAS HAVE A CLOSE STAND OF GRASS WHICH HAS RECEIVED TWO MOWINGS AND HAS NO BARE SPOTS GREATER THAN TWO INCHES (2") IN DIAMETER OR SUBSTANTIAL COMPLETION, WHICHEVER DATE IS LATER.

b. THE OWNER'S REPRESENTATIVE SHALL INSPECT THE LAWNS UPON WRITTEN REQUEST BY THE CONTRACTOR. THE REQUEST SHALL BE RECEIVED AT LEAST TWO WEEKS BEFORE THE ANTICIPATED DATE OF INSPECTION.

I. THE CONTRACTOR SHALL DISPOSE OF STUMPS AND MAJOR ROOTS OF ALL PLANTS TO BE REMOVED.

2. ANY DEPRESSIONS CAUSED BY REMOVAL OPERATIONS SHALL BE REFILLED WITH FERTILE, FRIABLE SOIL PLACED AND COMPACTED SO AS TO RE ESTABLISH PROPER GRADE FOR NEW PLANTING AND/OR LAWN AREAS. 3. ALL DISTURBED AREAS OF THE SITE NOT PLANTED WITH SHRUBS OR GROUND COVER SHALL BE FINE GRADED

AND SODDED OR SEEDED ACCORDING TO PLANTING AND CONSTRUCTION SPECIFICATIONS AND NOTES. M. WARRANTY AND MAINTENANCE AGREEMENT I. ALL PLANTS SHALL BE GUARANTEED TO REMAIN ALIVE AND HEALTHY FOR ONE FULL YEAR AFTER INITIAL

ACCEPTANCE

THE OWNER.

2. INSPECTION AND INITIAL ACCEPTANCE: a. INITIAL ACCEPTANCE SHALL BE DEFINED AS APPROVAL, BY THE OWNER'S REPRESENTATIVE OF THE COMPLETE LANDSCAPE INSTALLATION.

b. CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE IN WRITING, OF PROJECT COMPLETION AND REQUEST AN INSPECTION WITHIN TWO WEEKS OF COMPLETION. 3. IF THE PLANT MATERIAL AND WORKMANSHIP ARE SATISFACTORY, THE OWNER'S REPRESENTATIVE WILL GIVE

WRITTEN NOTICE TO THAT EFFECT. THIS WILL CONSTITUTE THE CERTIFICATE OF ACCEPTANCE, AND THE WARRANTY PERIOD WILL BEGIN FROM THAT DATE. 4. MAINTENANCE SHALL BEGIN AFTER EACH PLANT HAS BEEN SATISFACTORILY INSTALLED AND SHALL CONTINUE UNTIL 90 DAYS AFTER INITIAL ACCEPTANCE BY THE OWNER'S REPRESENTATIVE. DURING THIS TIME, THE CONTRACTOR SHALL DO ALL WORK WHICH IS NECESSARY TO ESTABLISH AND KEEP THE PLANTS ALIVE AND

5. MAINTENANCE INCLUDES MOWING OF TURF, WATERING, PRUNING, WEEDING, FERTILIZING, MULCHING, REPLACEMENT OF SICK OR DEAD PLANTS, AND ANY OTHER CARE NECESSARY FOR THE PROPER GROWTH OF THE PLANT MATERIAL, THE CONTRACTOR MUST BE ABLE TO PROVIDE CONTINUED MAINTENANCE IF REQUESTED BY

N. FINAL INSPECTION I. THE CONTRACTOR WILL CONDUCT A FINAL INSPECTION WITH THE OWNER'S REPRESENTATIVE AT THE END OF THE ONE YEAR PERIOD. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE DMW LANDSCAPE ARCHITECT TWO WEEKS PRIOR TO THE ANTICIPATED MEETING.

2. ANY MATERIAL THAT IS 25% DEAD OR MORE SHALL BE CONSIDERED DEAD AND MUST BE REPLACED AT NO CHARGE. A TREE SHALL BE CONSIDERED DEAD WHEN THE MAIN LEADER HAS DIED BACK, OR THERE IS 25% OF

3. DECIDUOUS MATERIAL WILL BE GUARANTEED TO BREAK DORMANCY IF PLANTED IN DORMANT SEASON. P. REPLACEMENTS AND CONDITIONS

I. REPLACEMENTS WILL BE MADE DURING THE NEXT APPROPRIATE PLANTING PERIOD. 2. REPLACEMENT PLANTS USED AFTER FINAL INSPECTION SHALL BE GUARANTEED FOR AN ADDITIONAL 90 DAYS. 3. REPLACEMENTS WILL BE OF THE SAME SIZE AND SPECIES AS THE ORIGINAL WITH NO ADDITIONAL SOIL

4. THE CONTRACTOR WILL NOT BE RESPONSIBLE FOR PLANT MATERIAL THAT HAS BEEN DAMAGED DUE TO

VANDALISM, FIRE, RELOCATION OR OTHER ACTIVITIES BEYOND THE CONTRACTOR'S CONTROL. 5. PLANT LOSSES DUE TO ABNORMAL WEATHER CONDITIONS SUCH AS FLOODS, EXCESSIVE WIND, OR SEVERE

FREEZING WILL NOT BE THE RESPONSIBILITY OF THE CONTRACTOR.

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE

MARYLAND, LICENSE NO.

DOCUMENTS WERE PREPARED OR

APPROVED BY ME, AND THAT I AM A

UNDER THE LAWS OF THE STATE OF

712 , EXPIRATION DATE: 11/10/21

REGISTERED LANDSCAPE ARCH. NO. 712

APPROVED:

PLANNING BOARD OF HOWARD COUNTY

DULY LICENSED LANDSCAPE ARCHITECT

04/02/20 REPLACEMENT OF ORIGINAL SDP SET WITH TEMPORARY PARKING LOT DESIGN SET Date No. Revision Description TEMPORARY SURFACE LOT

PARCEL 298, LOT 13 10227 WINCOPIN

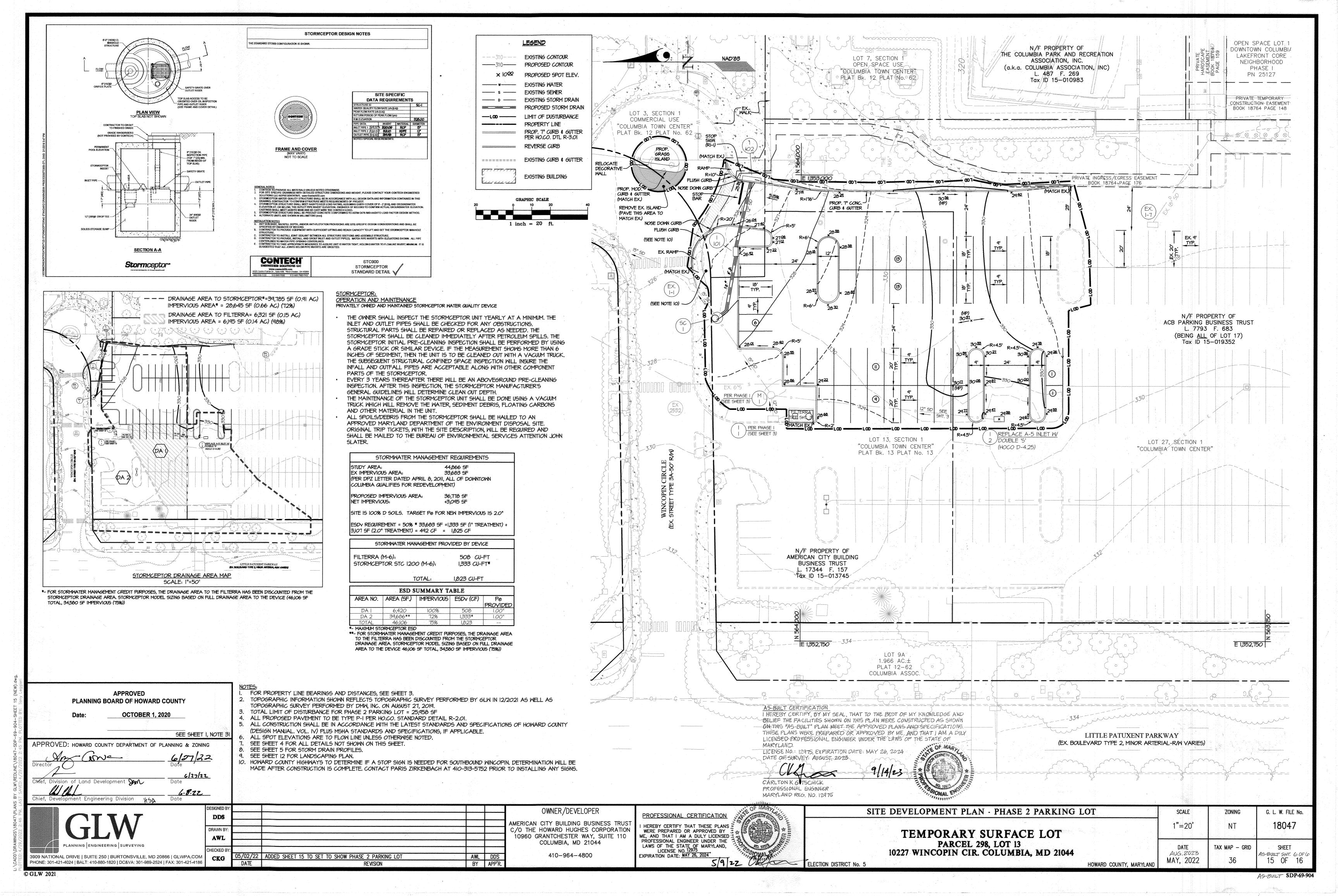
CIRCLE COLUMBIA, MD 21044 OWNER / DEVELOPER: AMERICAN CITY BUILDING BUSINESS TRUST C/O THE HOWARD HUGHES CORPORATION COLUMBIA REGIONAL OFFICE 10960 GRANTCHESTER WAY, SUITE 110 COLUMBIA, MD 21044

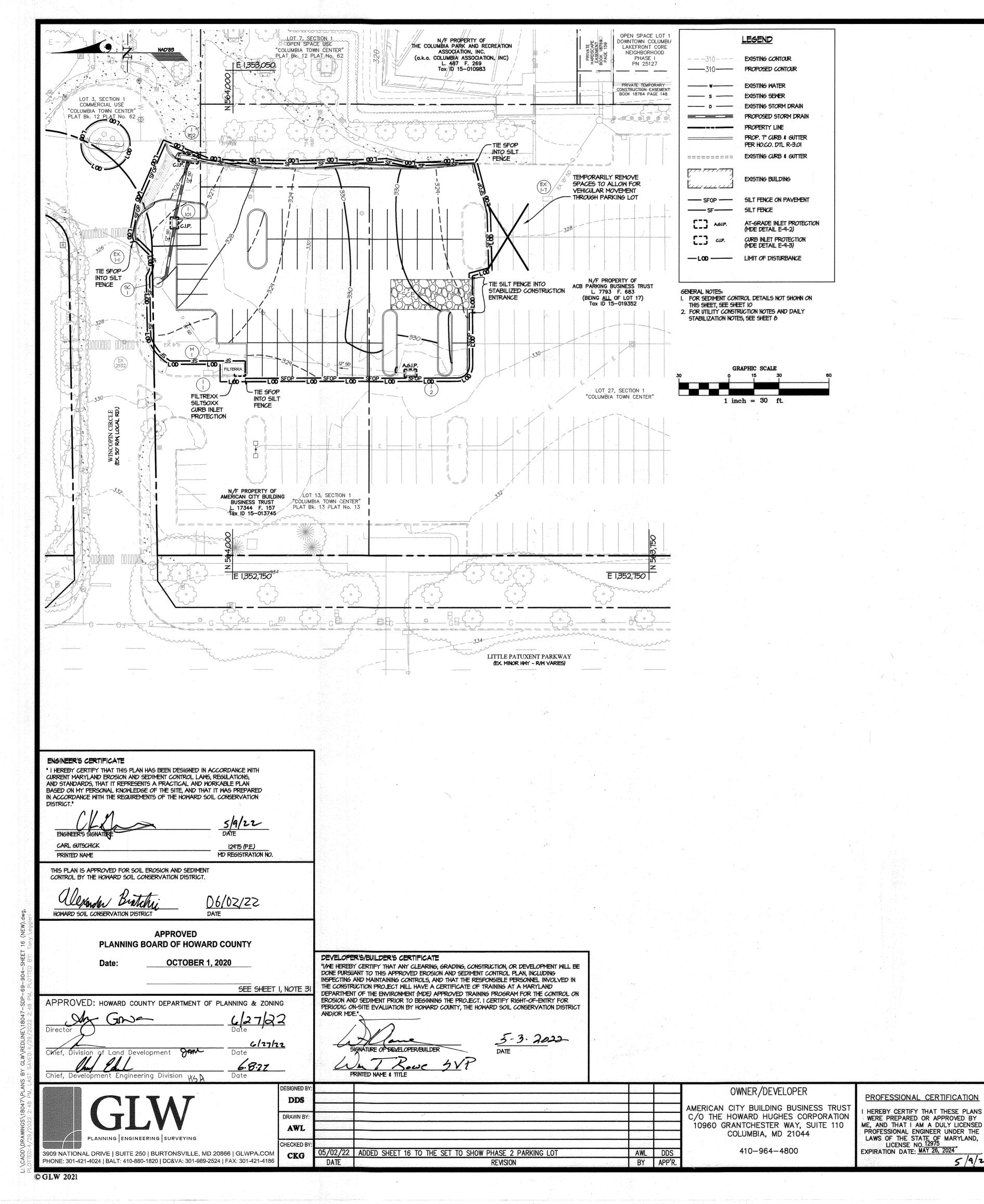
(410) 964-4800

01 FAIRMOUNT AVENUE SUITE 300 TOWSON, MD 2128 : 410 296 3333 F: 410 296 4705 WWW.DMW.COI COLUMBIA "TOWN CENTER" 13/0298 & 17/0321 LITTLE PATUXENT

> LANDSCAPE NOTES REVISED SITE DEVELOPMENT PLAN 🗥

Des. By PAB SCALE: Proj. No. 19029.00 Date 04-02-2020 Drn. By PAB 14 of 16 Approved RRP Chk. By RRP





AGIP DETAIL E-9-2 AT-GRADE INLET PROTECTION MAXIMUM DRAINAGE AREA = 1 ACR —¾ TO 1½ IN STONE NONWOVEN GEOTEXTILE-_6 IN PLAN / CUT AWAY VIEW CROSS SECTION CONSTRUCTION SPECIFICATIONS USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS. LIFT GRATE AND WRAP WITH NONWOVEN GEOTEXTILE TO COMPLETELY COVER ALL OPENINGS. SECURE WITH WIRE TIES AND SET GRATE BACK IN PLACE. PLACE CLEAN 1/4 TO 11/2 INCH STONE OR EQUIVALENT RECYCLED CONCRETE 6 INCHES THICK ON THE GRATE. 1. STORM DRAIN INLET PROTECTION REQUIRES FREQUENT MAINTENANCE. REMOVE ACCUMULATED SEDIMENT AFTER EACH RAIN EVENT TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOGGING. IF INLET PROTECTION DOES NOT COMPLETELY DRAIN WITHIN 24 HOURS AFTER A STORM EVENT, IT IS CLOGGED. WHEN THIS OCCURS, REMOVE ACCUMULATED SEDIMENT AND CLEAN, OR REPLACE GEOTEXTILE AND STONE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

SEQUENCE OF CONSTRUCTION

- OBTAIN A GRADING PERMIT FOR THE PROPOSED WORK. NOTIFY THE HOWARD COUNTY DEPARTMENT OF LICENSES AND PERMITS (DILP) AT LEAST 40 HOURS PRIOR TO BEGINNING WORK (2 DAYS)
- 2. INSTALL THE STABILIZED CONSTRUCTION ENTRANCE (SCE) AND PERIMETER CONTROLS: SILT FENCE (SF), FILTER SOCK ON FILTERRA, AND SILT FENCE ON PAVEMENT (SFOP) AS SHOWN ON THE PLANS (5 DAYS)
- 3. IF NECESSARY, AN ON-SITE STOCKPILE AREA WILL BE LOCATED WITHIN THE LIMIT OF DISTURBANCE WITH THE COORDINATION AND DISCRETION OF THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR AND THE GENERAL CONTRACTOR.
- 4. BEGIN GRADING SITE TO GRADES SHOWN ON THESE PLANS, MAKING SURE TO ACCOUNT FOR THE PACEMENT SECTION. ALL SPOIL WILL NEED TO BE TAKEN TO A SITE WITH AN APPROVED OPEN GRADING PERMIT AND AN APPROVED SEDIMENT CONTROL PLAN. (4 WEEKS)
- 5. INSTALL PROPOSED STORMCEPTOR, STORM DRAIN SYSTEMS AND LIGHTING/ELECTRIC AS SHOWN ON THESE PLANS. AS SOON AS INLETS ARE INSTALLED, IMMEDIATELY INSTALL INLET PROTECTION (I WEEK)
- 6. INSTALL CURB AND GUTTER AND ASPHALT PAVEMENT SECTION. AFTER THESE ITEMS ARE INSTALLED, RELOCATE PERIMETER CONTROLS AS NEEDED. (4 WEEKS)

NOTE: STEPS 5 AND 6 MAY BE DONE CONCURRENTLY

- 7. INSTALL SITE AND STORMWATER PLANTINGS PER LANDSCAPE PLANS PROVIDED IN THIS SET (2 WEEKS)
- 8. ONCE THE STORMWATER MANAGEMENT FACILITIES' CONTRIBUTING DRAINAGE AREA IS PERMANENTLY STABILIZED, REMOVE FILTER SOCK AND INLET PROTECTION ON INLETS (2 DAYS)
- 9. REMOVE ANY REMAINING CONTROLS AND IMMEDIATELY STABILIZE/REPAIR THOSE AREAS DISTURBED BY THEIR REMOVAL (3 DAYS)

SEDIMENT CONTROL NOTES

- I. A PRE-CONSTRUCTION MEETING MUST OCCUR WITH THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS, CONSTRUCTION INSPECTION DIVISION (CID), 410-313-1855 AFTER THE PUTURE LOD AND PROTECTED AREAS ARE MARKED CLEARLY IN THE FIELD. A MINIMUM OF 48 HOURS NOTICE TO CID MUST BE GIVEN AT THE FOLLOWING STAGES:
- A. PRIOR TO THE START OF EARTH DISTURBANCE. B. UPON COMPLETION OF THE INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH
- DISTURBANCE OR GRADING, C. PRIOR TO THE START OF ANOTHER PHASE OF CONSTRUCTION OR OPENING OF ANOTHER GRADING UNIT,

D. PRIOR TO THE REMOVAL OR MODIFICATION OF SEDIMENT CONTROL PRACTICES.

OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE. OTHER RELATED STATE AND FEDERAL PERMITS SHALL BE REFERENCED, TO ENSURE COORDINATION AND TO AVOID CONFLICTS WITH THIS PLAN.

- 2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" AND REVISIONS THERETO.
- 3. FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A. 3 CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN
- 3 HORIZONTAL TO I VERTICAL (3:1): AND B. 7 CALENDAR DAYS AS TO ALL OTHER DISTURBED AREAS ON THE PROJECT SITE EXCEPT FOR THOSE AREAS UNDER ACTIVE GRADING.
- 4. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" FOR TOPSOIL (SEC. B-4-2), PERMANENT SEEDING (SEC. B-4-5), TEMPORARY SEEDING (SEC. B-4-4) AND MULCHING (SEC. B-4-3). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES IF THE GROUND FROZEN. INCREMENTAL STABILIZATION (SEC. B-4-I) SPECIFICATIONS SHALL BE ENFORCED IN AREAS WITH 1/5' OF CUT AND/OR FILL STOCKPILES (SEC. B-4-8) IN EXCESS OF 20 FT. MUST BE BENCHED WITH STABLE OUTLET. ALL CONCENTRATED FLOW, STEEP SLOPE, AND HIGHLY ERODIBLE AREAS SHALL RECEIVE SOIL STABILIZATION MATTING (SEC. B-4-6).
- 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.

TOTAL AREA OF SITE AREA DISTURBED 0.6± AC. AREA TO BE ROOFED OR PAVED AREA TO BE VEGETATIVELY STABILIZED 0.2± AC. 1,000 ± CY 100 ± CY

OFF-SITE WASTE/BORROW : A SITE WITH AN ACTIVE GRADING PERMIT AREA LOCATION

1. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY 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 MEEKLY; AND THE NEXT DAY AFTER EACH RAIN EVENT. A WRITTEN REPORT BY THE CONTRACTOR, MADE AVAILABLE UPON REQUEST, IS PART OF EVERY INSPECTION AND SHOULD INCLUDE:
 - INSPECTION DATE INSPECTION TYPE (ROUTINE, PRE-STORM EVENT, DURING RAIN EVENT)
 - NAME AND TITLE OF INSPECTOR WEATHER INFORMATION (CURRENT CONDITIONS AS WELL AS TIME AND AMOUNT OF LAST RECORDED PRECIPITATION)
 - BRIEF DESCRIPTION OF PROJECT'S STATUS (E.G., PERCENT COMPLETE) AND/OR CURRENT ACTIVITIES EVIDENCE OF SEDIMENT DISCHARGES
- IDENTIFICATION OF PLAN DEFICIENCIES IDENTIFICATION OF SEDIMENT CONTROLS THAT REQUIRE MAINTENANCE
- IDENTIFICATION OF MISSING OR IMPROPERLY INSTALLED SEDIMENT CONTROLS COMPLIANCE STATUS REGARDING THE SEQUENCE OF CONSTRUCTION AND STABILIZATION REQUIREMENTS
- MONITORING/SAMPLING
- MAINTENANCE AND/OR CORRECTIVE ACTION PERFORMED
- OTHER INSPECTION ITEMS AS REQUIRED BY THE GENERAL PERMIT FOR STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITIES (NPDES, MDE). 1. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO 3 PIPE LENGTHS OR THAT WHICH SHALL BE BACKFILLED AND STABILIZED BY THE END OF
- EACH WORK DAY, WHICHEVER IS SHORTER.
- IO. ANY MAJOR CHANGES OR REVISIONS TO THE PLAN OR SEQUENCE OF CONSTRUCTION MUST BE REVIEWED AND APPROVED BY HSCD PRIOR TO PROCEEDING WITH CONSTRUCTION. MINOR REVISIONS MAY BE ALLOWED BY THE CID PER THE LIST OF HSCD-APPROVED FIELD CHANGES.
- II. DISTURBANCE SHALL NOT OCCUR OUTSIDE THE LOD. 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 SUBSECUENT GRADING UNIT WHEN AT LEAST 50 PERCENT OF THE DISTURBED AREA IN THE PRECEDING GRADING UNIT HAS BE STABILIZED AND APPROVED BY CID. UNLESS OTHERWISE SPECIFIED AND APPROVED BY THE HSCD, NO MORE THAN 30 ACRES CUMULATIVELY MAY BE DISTURBED AT A GIVEN TIME.
- 12. WASH WATER FROM ANY EQUIPMENT, VEHICLES, WHEELS, PAVEMENT, AND OTHER SOURCES MUST BE TREATED IN A SEDIMENT BASIN OR OTHER APPROVED
- 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 (INCLUSIVE):
- USE I AND IP MARCH I JUNE 15 · USE III AND IIIP OCTOBER I - APRIL 30 - USE IV MARCH I - MAY 31
- 16. A COPY OF THIS PLAN, THE "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL," AND ASSOCIATED PERMITS SHALL BE ON-SITE AND AVAILABLE WHEN THIS SITE IS ACTIVE.

INFORMATION

ELECTION DISTRICT No. 5

SEDIMENT AND EROSION CONTROL PLANS - PHA	SE 2	SCALE	ZONING	G. L. W. FILE N
TEMPORARY SURFACE LOT		1"=30'	7	18047
PARCEL 298, LOT 13 10227 WINCOPIN CIR. COLUMBIA, MD 21044		DATE	TAX MAP — GRID	SHEET
lo. 5	HOWARD COUNTY, MARYLAND	MAY, 2022	36	16 OF 1