STORMWATER MANAGEMENT INFORMATION							
PARCEL	FACILITY NUMBER	PRACTICE TYPE(QUANTITY)	PUBLIC	PRIVATE	HOA MAINTENANCE		
PARCEL 263	BIO RETENTION 1	M-6		YE5	YE5		

ROADWAY INFORMATION CHART							
ROAD NAME	CLASSIFICATION	DESIGN SPEED	POSTED SPEED LIMIT	R/W WIDTH			
COOKS LANE	PUBLIC ACCESS STREET	30 M.P.H.	25 M.P.H.	35'			

ADDRESS CHART					
PARCEL #	STREET ADDRESS				
263	4008 COOK5 LANE				
262	4004 COOK5 LANE				
60	4000 COOK5 LANE				
662 - LOT 1	3996 COOK5 LANE				
662 - LOT 2	3992 COOK5 LANE				
662 - LOT 3	3988 COOKS LANE				
264 - LOT 2	4001 COOK5 LANE				

## SITE ANALYSIS DATA CHART

A. TOTAL AREA OF SITE = 0.94 AC. + (COOKS LANE ROW)

B. LIMIT OF DISTURBED AREA = 0.93 AC. ± PRESENT ZONING DESIGNATION = R-ED D. EXISTING USE: PUBLIC ACCESS STREET

E. PROPOSED USE: PUBLIC ACCESS STREET HOUSING PREVIOUS HOWARD COUNTY FILES: P5048, F-80-092, & 5-17-006

G. TOTAL AREA OF FLOODPLAIN LOCATED ON SITE 0.0 AC. H. TOTAL AREA OF SLOPES IN EXCESS OF 15% = 0.0 AC± (0 AC. 25% OR

TOTAL AREA OF WETLANDS (INCLUDING BUFFER) LOCATED ON SITE = 0.0 AC. \* TOTAL FOREST 0.0 Ac. \* K. TOTAL GREEN OPEN AREA = 1.00 Ac. #

TOTAL IMPERVIOUS AREA = 0.53 Ac. ± M. AREA OF ERODIBLE SOILS = 0.0 Ac. (EXCESS OF 15%)

> 4+75 L NO PARKING ANY TIME NO PARKING ANY TIME & SPEED LIMIT 25 NO PARKING ANY TIME & SPEED LIMIT 25

> > DRAINAGE AREA

DESIGNATION

A-ex

B-ex

C-ex

Total Addhyd

Cooks Lane Ex.

Total Existing

A-1-PR

A-1-Bio #2 - Outflow

B-pr-Inflow

**B-Pond-Outflow** 

C-pr

Total Proposed Dorsey

Cooks Lane Pr.

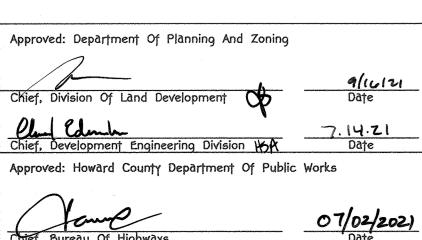
Total Addhyd

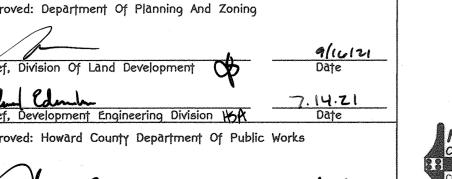
Decrease from Ex.

SIGN CHART POSTED SIGN SIGN CODE CENTERLINE STA. OFFSET 20' L NO PARKING ANYTIME EXISTING 18.5' L NO PARKING ANYTIME SHEET 7 18.5' L NO PARKING ANYTIME 18.5' L NO PARKING ANYTIME SHEET 7 18.5' L NO PARKING ANYTIME SEE DETAIL SHEET 7 18.5' L NO PARKING ANYTIME SHEET 7 NO PARKING ANYTIME SEE DETAIL 18.5' L STEEP GRADE 10% 18.5' L NO PARKING ANYTIME 18.5' L INO PARKING HERE TO 14' R CORNER" (LEFT ARROW) ASSEMBLY - "NO PARKING HERE TO CORNER" (WITH RIGHT SEE DETAIL SHEET 7 ARROW) AND "NO PARKING ANYTIME (WITH LEFT ARROW)

MO PARKING SIGNS SHALL BE INSTALLED AT A 45-DEGREE ANGLE TO THE ROADWAY

STREET LIGHT CHART						
STREET NAME   STATION   OFFSET   FIXTURE/POLE TYPE						
COOKS LANE		F-19-047 22' LT	14' BLACK FIBERGLASS POLE W/ PREMIER COLONIAL FIXTURE AND LE.D100 "NO PARKING ANY TIME" SIGN  14' BLACK FIBERGLASS POLE			
COOKS LANE	12+75	10° LT	W/ PREMIER COLONIAL FIXTURE AND LE.D100 NOT INSTALLED			
COOK5 LANE	13+70	27° LT	14' BLACK FIBERGLASS POLE W/ PREMIER COLONIAL FIXTURE AND L.E.D150 NOT INSTALLED			



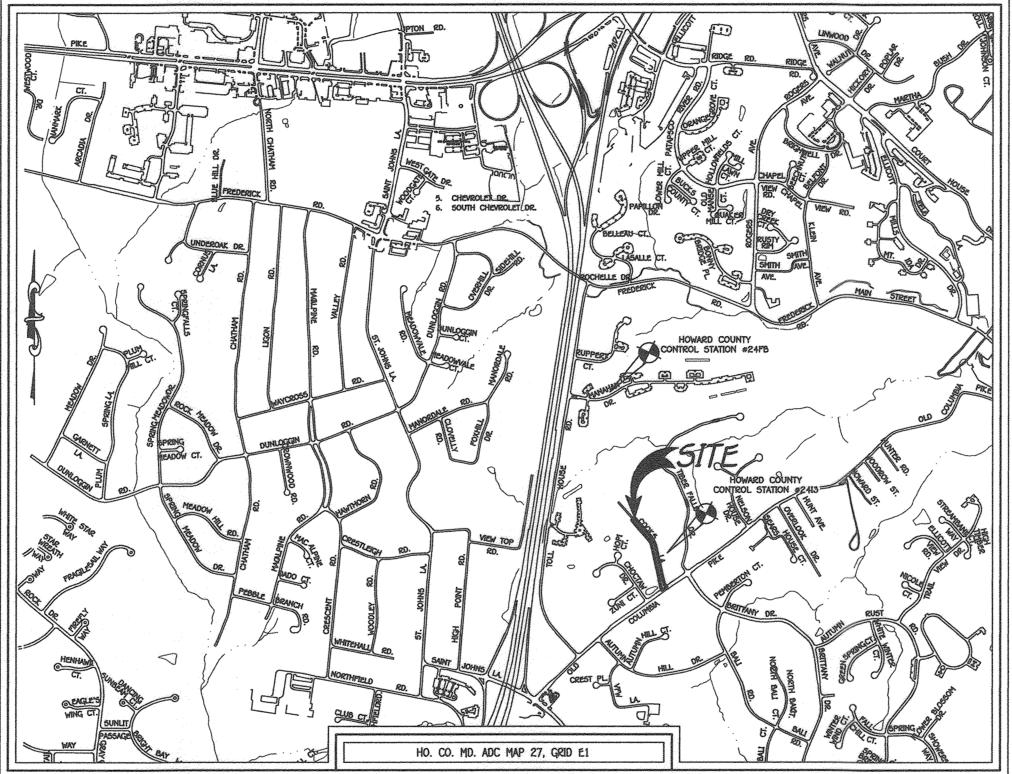




## ROAD IMPROVEMENT PLAN

# COOKS LANE

TAX MAP No. 24 SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND



-		
	VICINITY	MAF
	5CALE: 1" =	1200'

+362.5	SPOT ELEVATION
H.P.	HIGH POINT
	SOILS LINES AND TYPE
~	PROPOSED TREELINE
~~~~	EXISTING TREELINE
O‱e	existing trees & shrubs
XXX	EXISTING TREES & SHRUBS ( TO BE REMOVED)
T.B.R.	TO BE REMOVED OR RELOCATED
x x	EXISTING FENCE LINE
·	EXISTING PAVING
	PROPOSED PAVING
	PUBLIC SEWER, WATER & UTILITY EASEMENT
LOD	LIMITS OF DISTURBANCE
	CREDITED OPEN SPACE
	USE-IN-COMMON ACCESS EASEMENT

-55F- SUPER SILT FENCE

PROPOSED SWM BORING LOCATION

PRIVATE DRAINAGE AND UTILITY EASEMENT

LEGEND

162 PROPOSED CONTOUR

EXISTING 2' CONTOURS

EXISTING 10' CONTOURS

DESCRIPTION

**SYMBOL** 

--492---

THE INSTRUMENTS THAT WERE USED IN PERFORMING THIS

AS-BUILT SURVEY: 10 SECOND ROBOTIC TOTAL STATION AND PRISM.

THE SUBJECT PROPERTY IS ZONED R-ED PER 10/06/2013 COMPREHENSIVE ZONING PLAN. EXISTING UTILITIES ARE BASED ON CONTR. 10-0950-D, CONTR. 30-W AND CONTR. 542-5.

THIS PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT. PUBLIC WATER AND PUBLIC SEWER EXIST WITHIN THIS

BOUNDARY INFORMATION IS BASED ON A SURVEY DATED SEPTEMBER, 2017 BY FISHER, COLLINS & CARTER, INC. THE EXISTING TOPOGRAPHY INFORMATION SHOWN IS BASED ON HOWARD COUNTY AERIAL CONTOURS AND SUPPLEMENTED WITH A FIELD RUN SURVEY OF WETLANDS AND STREAM BANKS PERFORMED ON OR ABOUT JANUARY, 2017 BY FISHER,

6. COORDINATES BASED ON NAD '83, MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC

CONTROL STATIONS NOS: CONTROL STATION NO. 2418 NORTH 500,640.901 FEET

CONTROL STATION NO. 24FB NORTH 582,652.119 FEET

7. NO CEMETERIES EXIST ON THIS SITE BASED ON A VISUAL SITE VISIT AND BASED ON A EXAMINATION OF THE HOWARD COUNTY CEMETERY INVENTORY MAP. 8. COOKS LANE AND THE SECTION OF OLD COLUMBIA PIKE WHERE COOKS LANE INTERSECTS ARE NOT DESIGNATED AS

DISTANCES SHOWN ARE BASED ON SURFACE MEASUREMENT AND NOT REDUCED TO NAD '83 GRID. 10. PREVIOUS DEPARTMENT OF PLANNING AND ZONING FILE NUMBERS: P5048, F-80-092, & 5-17-006, ZB-1106M.

11. CONTRACTOR TO CONTACT THE HOWARD COUNTY TRAFFIC DIVISION (410) 313-5752. FOR COORDINATION OF STREET

SIGN INSTALLATION. 12. TRAFFIC CONTROL DEVICES:

(a) THE R1-1 (STOP) SIGN AND THE STREET NAME SIGN (SNS) ASSEMBLY FOR THIS DEVELOPMENT MUST BE INSTALLED BEFORE THE BASE PAVING IS COMPLETED. (b) THE TRAFFIC CONTROL DEVICE LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND MUST BE FIELD APPROVED

BY HOWARD COUNTY TRAFFIC DIVISION (410-313-2430) PRIOR TO THE INSTALLATION OF ANY OF THE TRAFFIC (c) ALL TRAFFIC CONTROL DEVICES AND THEIR LOCATIONS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE

MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MDMUTCD).

(d) ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED (QUICK PUNCH), SQUARE TUBE POST (14 GAUGE) INSERTED INTO A 2-1/2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (12 GAUGE) - 3' LONG. THE ANCHOR SHALL NOT EXTEND MORE THAN TWO QUICK PUNCH HOLES ABOVE GROUND LEVEL. A GALVANIZED STEEL POLE CAP

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

14. NO FLOODPLAIN EXISTS WITHIN THE LIMITS OF THIS PROJECT. 15. THE FOREST STAND DELINEATION AND WETLAND DELINEATION FOR THIS PROJECT WAS PREPARED BY ECO-SCIENCE

PROFESSIONALS, INC. DATED FEBRUARY, 2017. 16. SOILS SHOWN HEREON BASED ON NRCS WEBSOIL SURVEY AND HOWARD COUNTY SOIL SURVEY MAP #13. 17. ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.

19. SIGHT DISTANCE IS NOT REQUIRED AT THE INTERSECTION OF COOKS LANE AND OLD COLUMBIA PIKE SINCE IT IS AN EXISTING INTERSECTION. CONFIRMS THAT A CLEAR LINE OF SIGHT EXISTS AT THE INTERSECTION LOOKING NORTH AND SOUTH ALONG OLD COLUMBIA PIKE.

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

20. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION

WORK BEING DONE. 21. CONTRACTOR TO MAINTAIN ACCESS FOR EXISTING HOMES ALONG COOKS LANE DURING CONSTRUCTION.

22. FOREST CONSERVATION OBLIGATIONS FOR THIS PROJECT WILL BE ADDRESSED BY SUBMISSION OF A DECLARATION OF INTENT IN ACCORDANCE WITH SECTION 16.1202(B)(2)(V) OF THE HOWARD COUNTY CODE. 23. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY

PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE. 24. STREET LIGHT PLACEMENT AND THE TYPE OF FIXTURE AND POLE SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME III (1993) AND AS MODIFIED BY "GUIDELINES FOR STREET LIGHTS IN RESIDENTIAL DEVELOPMENTS (JUNE 1993)." A MINIMUM SPACING OF 20' SHALL BE MAINTAINED BETWEEN ANY STREETLIGHT AND ANY

25. THE IMPROVEMENTS PROPOSED WITHIN THIS PLAN ARE TO SATISFY A PORTION OF ENHANCEMENT 3 LISTED IN THE BODY OF THE DECISION AND ORDER ZB CASE 1106M APPROVED ON OCTOBER 13, 2016. 26. QUANTITY AND QUALITY STORMWATER MANAGEMENT WILL BE PROVIDED IN ACCORDANCE WITH THE MARYLAND

DEPARTMENT OF ENVIRONMENT STORM WATER DESIGN MANUAL, VOLUMES I & II, REVISED 2009. A SOUTHERN PORTION OF THE QUALITY TREATMENT FOR THIS PROJECT WILL BE PROVIDED IN A MICRO-BIORETENTION FACILITY (M-6) LOCATED ON PARCEL 263 AND WILL BE OWNED AND MAINTAINED BY THE DORSEY'S RIDGE HOMEOWNER'S ASSOCIATION. THE NORTHERN PORTION OF THIS PROJECT WILL RECEIVE QUALITY TREATMENT WITHIN AN EXISTING BIO-RETENTION FACILITY (F-6) PREVIOUSLY APPROVED ON DORSEY'S RIDGE (F-19-047) AND PUBLICLY OWNED AND JOINTLY MAINTAINED. QUANTITY STORMWATER MANAGEMENT, INCLUDING THE 100 YEAR STORM AND THE 2016 STORM (STORM OF RECORD) FOR THIS PROJECT HAS BEEN PROVIDED WITHIN A POND PROVIDED BY, AND PREVIOUSLY APPROVED UNDER, DORSEY'S

27. THIS PLAN IS SUBJECT TO A DESIGN MANUAL WAIVER APPROVED ON MARCH 29, 2021 TO SECTION 2.3 B.2 VERTICAL CURVES, AND SECTION 2.4 B.2 PAVEMENT WIDTHS AND CROSS SLOPE OF THE HOWARD COUNTY DESIGN MANUAL, VOLLIME III ROADS AND BRIDGES. THIS APPROVED DESIGN MANUAL WAIVER REQUEST ALLOWS: A REDUCED VERTICAL CURVE LENGTH TO 60' IN LENGTH. THIS APPROVAL IS TO ALLOW A FULL LANDING GRADE AT THE INTERSECTION OF COOKS LANE AND OLD COLUMBIA PIKE

A REDUCTION IN PAYING WIDTH FROM 24' TO 22' AND A CROSS-SLOPE SECTION IN LIEU OF A CROWNED SECTION BETWEEN STATIONS 6+18.59 AND 10+10.43 OF COOKS LANE. THIS APPROVAL IS LIMITED RIGHT-OF-WAY WIDTH OF COOKS LANE AND TO MEET EXISTING DRIVEWAY GRADES

a. W3-1 (STOP AHEAD) WARNING SIGN INSTALLED AROUND STA 12+50, RIGHT
b. W7-1 (STEEP GRADE) WARNING SIGN WITH A SUPPLEMENTAL PANEL FOR "10%" MOUNTED BELOW INSTALLED AROUND STA 11+00, RIGHT 2. ADD AN ADDITIONAL STREET LIGHT AT STA 12+75, LEFT (LED-100 POST-TOP).

## PURPOSE STATEMENT:

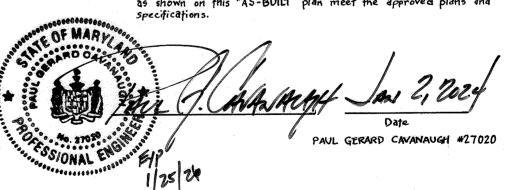
THE APPROVAL OF THE C.E.F. ZONING (ZONING CASE ZB-1106M) FOR DORSEY'S RIDGE F-19-047 REQUIRED THE ENHANCEMENT OF COOK'S LANE AND PORTIONS OF OLD COLUMBIA PIKE.

COOKS LANE WAS TO BE WIDENED TO THE EXTENT PRACTICABLE (22FT.) AND TO BE PROVIDED CURB AND GUTTER ALONG WITH A SIDEWALK. THIS WAS TO BE ACCOMPLISHED USING THE CURRENT ROAD GEOMETRY AND THE EXISTING 35' RIGHT OF WAY.

IN ADDITION, THE DEVELOPER AGREED TO REDUCE THE LANDING SLOPE OLD COLUMBIA PIKE IF BGE AND MR. WALLEY AGREED TO PROVIDE

OLD COLUMBIA PIKE WAS TO BE PROVIDED A SIDEWALK TO CONNECT THE PROPOSED SIDEWALK IN COOKS LANE TO THE EXISTING SIDEWALKS IN OLD COLUMBIA PIKE TO THE NORTHEAST AND SOUTHWEST.

> AS-BUILT CERTIFICATION I hereby certify, by my seal, that to the best of my knowledge and belief that the facilities shown on the plan was constructed as shown on this "AS-BUILT" plan meet the approved plans and



TITLE SHEET COOKS LANE

PREVIOUS FILE NUMBERS: P5048, F-80-092, & 5-17-006

ZONED: R-ED TAX MAP NO.: 24 GRID NO.: 18

SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE: AS SHOWN DATE: MAY, 2021

"AS-BUILT" SHEET 1 OF 19

715HER, COLLINS & CARTER, INC. VIL ENGINEERING CONSULTANTS & LAND SURVEYORS

PROFESSIONAL CERTIFICATION HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21476, EXPIRATION DATE: 7/14/21.

DORSEY'S RIDGE - 100-YEAR VS. ELLICOTT CITY FLOOD

T/C

(hrs)

69 | 0.18 |

62 0.12

76 0.24

85 0.11

80 0.14

0.21

82

\*-ELLICOTT CITY FLOOD Q'S EXISTING CONDITIONS REFLECT RCN VALUES OF WOODS IN GOOD CONDITION

**RCN** 

AREA

(SQ. MILES)

0.00669

0.00272

0.01163

Existing 100-yr. Peak for site (F-19-047) and Cook's Lane (F-20-066) = 59.89 c.f.s. Existing 2016 Peak for site (F-19-047) and Cook's Lane (F-20-066) = 95.89 c.f.s.

Proposed 100-yr. Peak for site (F-19-047) and Cook's Lane (F-20-066) = 51.83 c.f.s

Proposed 2016 Peak for site (F-19-047) and Cook's Lane (F-20-066) = 85.28 c.f.s.

3.94 0.00616

1.09 0.00170

(Acres)

1.68

1.74

100-YEAR Q

17.24

55.17

4.94

59.89

11.05

7.63

10.08

40.04

15.39

45.87

51.33

8.56

16.70%

**ELLICOTT CITY** 

FLOOD Q (CFS)

28.03

25.95

34.18

87.54

8.57

95.89

19.48

17.78

71.15

25.82

75.77

9.68

85.28 10.61

12.40% Decrease

REMARKS

Pgs. 224-247

Pgs. 224-247

Pgs. 224-247

Total Ex. via Addhyo

Pgs. 248-301

Pgs. 248-301

Pgs. 248-301

Prop. Inflow to Pond

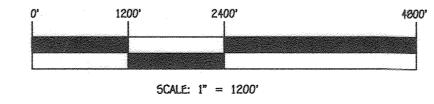
'B' Pgs. 248-301

**Pond Outflow** 

Pgs. 248-301

Total Pr. via Addhyo

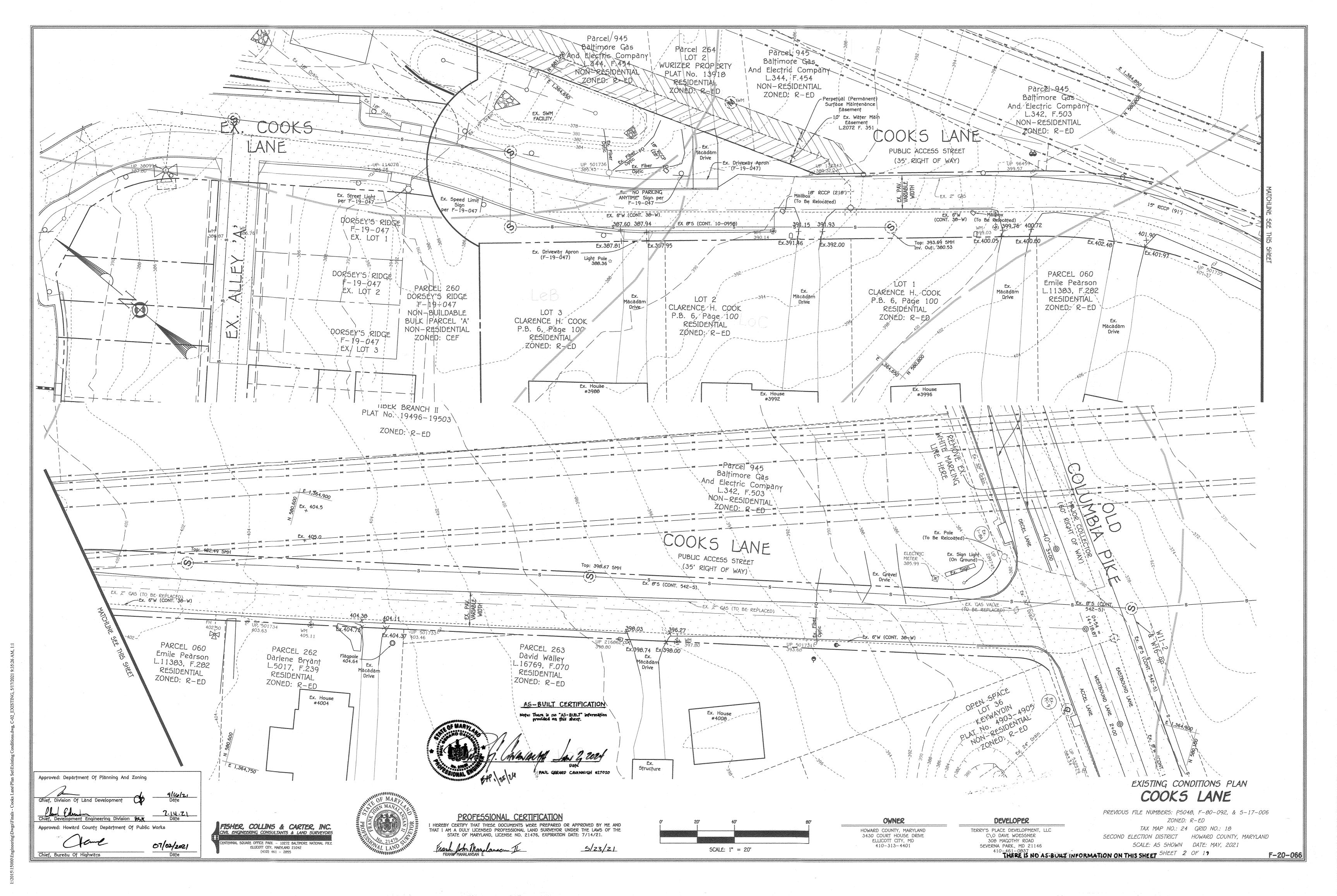
5/23/21

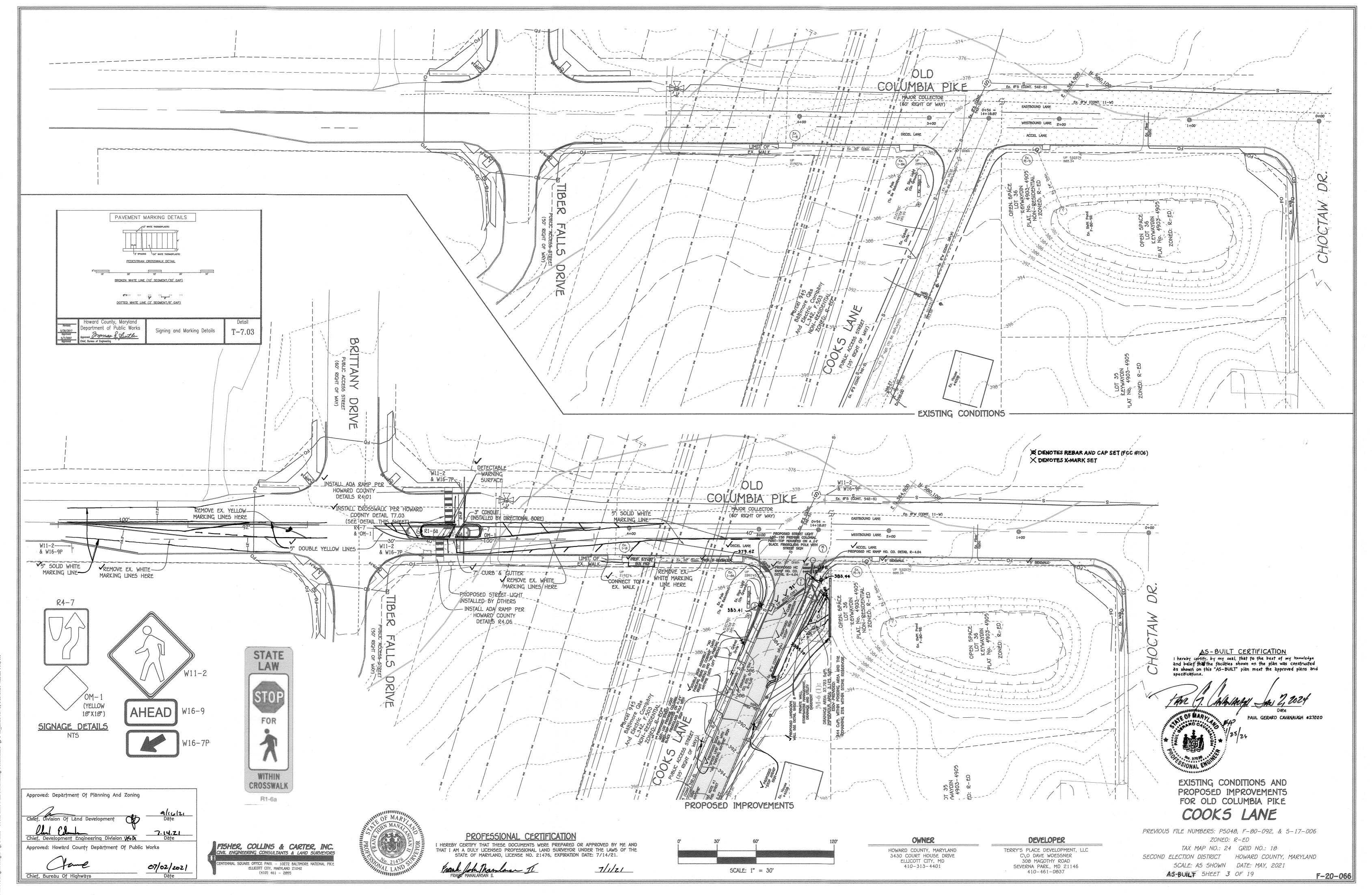


HOWARD COUNTY, MARYLAND 3430 COURT HOUSE DRIVE ELLICOTT CITY, MD 410-313-4401

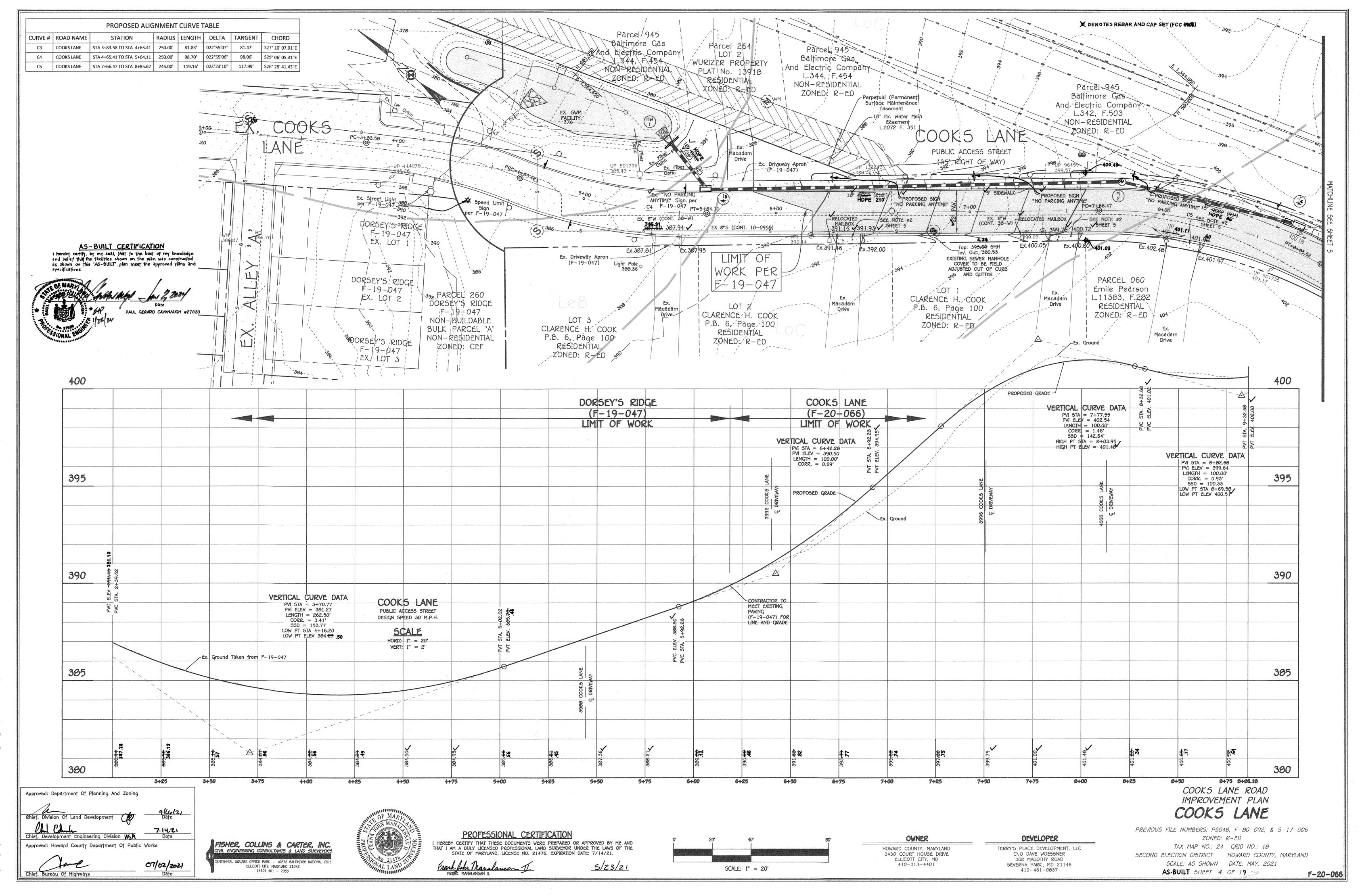
DEVELOPER TERRY'S PLACE DEVELOPMENT, LLC C\O DAVE WOESSNER 308 MAGOTHY ROAD SEVERNA PARK, MD 21146 410-461-0837

F-20-066

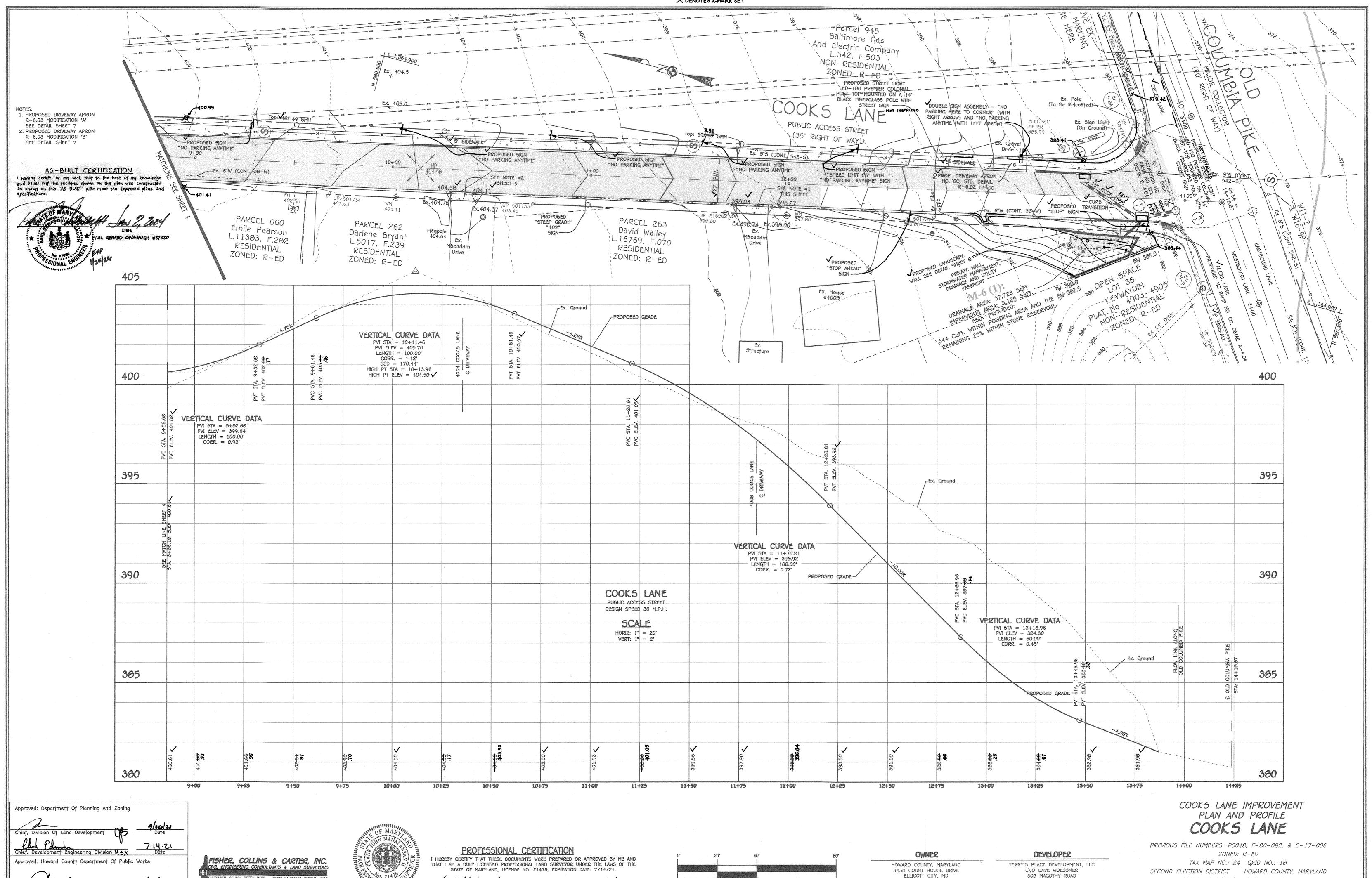




5000\Engineering\Dwgs\Finals - Cooks Lane\Plan Set\Existing Conditions.dwg. C-03 EXISTING. 6/25/2021 4:23:23 PM



.\2015\15000\Engineering\Dwgs\Finals - Cooks Lane\Plan Set\Plan and Profile.dwg, C-04 PLAN, 5/9/2021 1:34:44 PM, 1



7/1/21

5CALE: 1" = 20"

SCALE: AS SHOWN DATE: MAY, 2021

F-20-066

AS-BUILT SHEET 5 OF 19

410-313-4401

SEVERNA PARK, MD 21146

410-461-0837

Chief, Bureau Of Highways

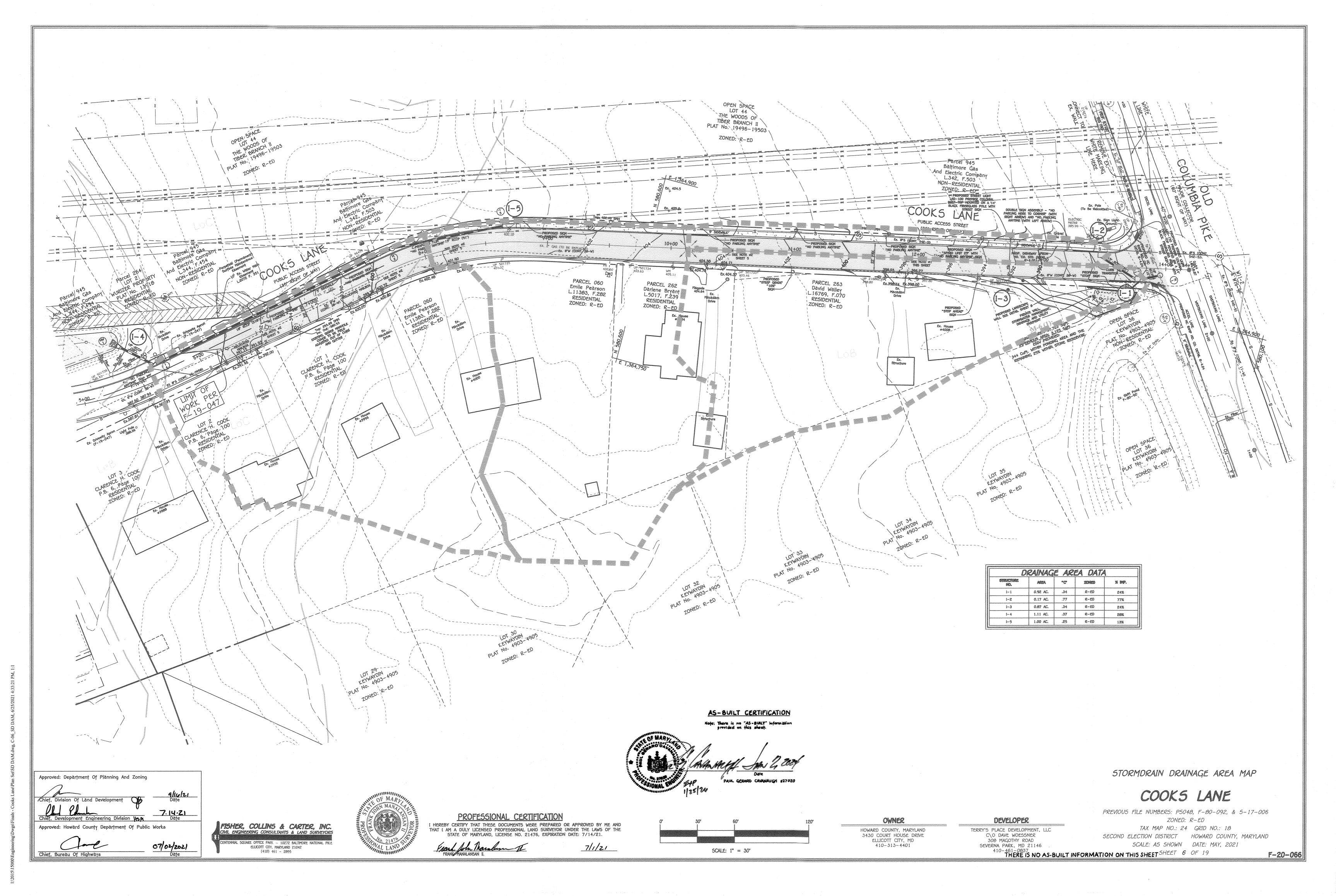
سرانوا ووسيون الم الما والانتهام والمستقمين المعالم المستقمين والمادر والمستقمين

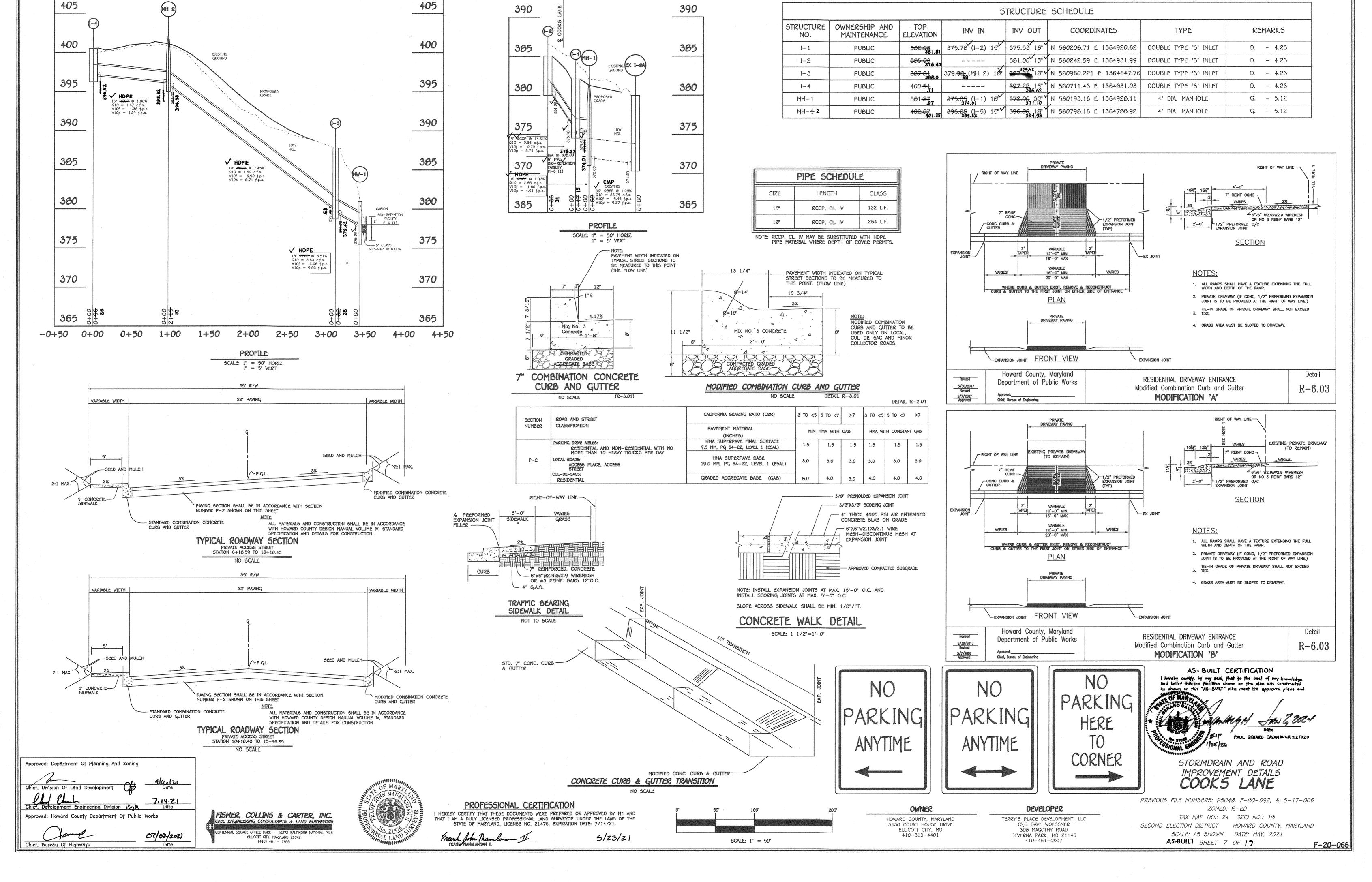
NNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE

ELLICOTT CITY, MARYLAND 21042

(410) 461 - 2855

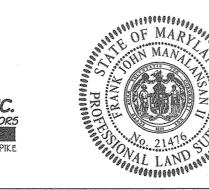
07/02/2021





I:\2015\15000\Engineering\Dwgs\Finals - Cooks Lane\Plan Set\SD Profiles.dwg, C-07\_SD Profile, 5/9/2021 2:01:44 PM,

Approved: Department Of Planning And Zoning 9/10/21 Division Of Land Development 7.14.21 Approved: Howard County Department Of Public Works 07/02/2021 Chief, Bureau Of Highways



INFILTRATION AND FILTER SYSTEM CONSTRUCTION SPECIFICATIONS

INFILTRATION AND FILTER SYSTEMS EITHER TAKE ADVANTAGE OF EXISTING PERMEABLE SOILS OR CREATE A PERMEABLE MEDIUM SUCH AS SAND FOR WC), AND RE V. IN SOME INSTANCES WHERE PERMEABILITY IS GREAT. THESE FACILITIES MAY BE USED FOR QP AS WELL. THE MOST COMMON SYSTEMS INCLUDE INFILTRATION TRENCHES, INFILTRATION BASINS, SAND FILTERS, AND ORGANIC FILTERS.

WHEN PROPERLY PLANTED, VEGETATION WILL THRIVE AND ENHANCE THE FUNCTIONING OF THESE SYSTEMS FOR EXAMPLE, PRE-TREATMENT BUFFERS WILL TRAP SEDIMENTS THAT OFTEN ARE BOUND WITH PHOSPHOROUS AND METALS. VEGETATION PLANTED IN THE FACILITY WILL AID IN NUTRIENT UPTAKE AND WATER STORAGE. ADDITIONALLY, PLANT ROOTS WILL PROVIDE ARTERIES FOR STORMWATER TO PERMEATE SOIL FOR GROUNDWATER RECHARGE. FINALLY, SUCCESSFUL PLANTINGS PROVIDE AESTHETIC VALUE AND WILDLIFE HABITAT MAKING THESE FACILITIES MORE DESIRABLE TO THE PUBLIC.

DESIGN CONSTRAINTS:

> PLANTING BUFFER STRIPS OF AT LEAST 20 FEET WILL CAUSE SEDIMENTS TO SETTLE OUT BEFORE REACHING THE FACILITY. THEREBY REDUCING THE POSSIBILITY OF CLOGGING.

> DETERMINE AREAS THAT WILL BE SATURATED WITH WATER AND WATER TABLE DEPTH SO THAT APPROPRIATE PLANTS MAY BE SELECTED (HYDROLOGY WILL BE SIMILAR TO BIORETENTION FACILITIES, SEE FIGURE A.5 AND TABLE A.4 FOR PLANTING MATERIAL GUIDANCE). > PLANTS KNOWN TO SEND DOWN DEEP TAPROOTS SHOULD BE AVOIDED IN SYSTEMS WHERE FILTER

FABRIC IS USED AS PART OF FACILITY DESIGN. > TEST SOIL CONDITIONS TO DETERMINE IF SOIL AMENDMENTS ARE NECESSARY.

> PLANTS SHALL BE LOCATED SO THAT ACCESS IS POSSIBLE FOR STRUCTURE MAINTENANCE. > STABILIZE HEAVY FLOW AREAS WITH EROSION CONTROL MATS OR SOD.

> TEMPORARILY DIVERT FLOWS FROM SEEDED AREAS UNTIL VEGETATION IS ESTABLISHED. > SEE TABLE A.5 FOR ADDITIONAL DESIGN CONSIDERATIONS.

BIO-RETENTION

SOIL BED CHARACTERISTICS

THE CHARACTERISTICS OF THE SOIL FOR THE BIORETENTION FACILITY ARE PERHAPS AS IMPORTANT AS THE FACILITY LOCATION, SIZE, AND TREATMENT VOLUME. THE SOIL MUST BE PERMEABLE ENOUGH TO ALLOW RUNOFF TO FILTER THROUGH THE MEDIA, WHILE HAVING CHARACTERISTICS SUITABLE TO PROMOTE AND SUSTAIN A ROBUST VEGETATIVE COVER CROP. IN ADDITION, MUCH OF THE NUTRIENT POLLUTANT UPTAKE (NITROGEN AND PHOSPHORUS) IS ACCOMPLISHED THROUGH ABSORPTION AND MICROBIAL ACTIVITY WITHIN THE SOIL PROFILE. THEREFORE, SOILS MUST BALANCE THEIR CHEMICAL AND PHYSICAL PROPERTIES TO SUPPORT BIOTIC COMMUNITIES ABOVE AND BELOW GROUND.

THE PLANTING SOIL SHOULD BE A SANDY LOAM, LOAMY SAND, LOAM (USDA), OR A LOAM/SAND MIX (SHOULD CONTAIN A MINIMUM 35 TO 60% SAND, BY VOLUME). THE CLAY CONTENT FOR THESE SOILS SHOULD BE LESS THAN 25% BY VOLUME [ENVIRONMENTAL QUALITY RESOURCES (EQR), 1996; ENGINEERING TECHNOLOGY INC. AND BIOHABITATS, INC. (ETAB), 1993]. SOILS SHOULD FALL WITHIN THE SM. ML SC CLASSIFICATIONS OR THE UNIFIED SOIL CLASSIFICATION SYSTEM (USCS). A PERMEABILITY OF AT LEAST 1.0 FEET PER DAY (0.5"/HR) IS REQUIRED (A CONSERVATIVE VALUE OF 0.5 FEET PER DAY IS USED FOR DESIGN). THE SOIL SHOULD BE FREE OF STONES, STUMPS, ROOTS, OR OTHER WOODY MATERIAL OVER 1" IN DIAMETER, BRUSH OR SEEDS FROM NOXIOUS WEEDS (E.G., JOHNSON GRASS, MUGWORT, NUTSEDGE, AND CANADA THISTLE OR OTHER NOXIOUS WEEDS AS SPECIFIED UNDER COMAR 15.08.01.05.) SHOULD NOT BE PRESENT IN THE SOILS. PLACEMENT OF THE PLANTING SOIL SHOULD BE IN 12 TO 18 LIFTS THAT ARE LOOSELY COMPACTED (TAMPED LIGHTLY WITH A BACKHOE BUCKET OR TRAVERSED BY DOZER TRACKS). THE SPECIFIC CHARACTERISTICS ARE PRESENTED IN TABLE A.3.

TABLE A.3 PLANTING SOIL CHARACTERISTICS

PARAMETER	VALUE
PH RANGE	5.2 TO 7.00
ORGANIC MATTER	1.5 TO 4.0% (BY WEIGHT)
MAGNESIUM	35 LBS. PER ACRE, MINIMUM
PHOSPHORUS (PHOSPHATE - P205)	75 LBS. PER ACRE, MINIMUM
POTASSIUM (POTASH -1(K2O)	85 LBS. PER ACRE, MINIMUM
SOLUBLE SALTS	500 PPM
CLAY	10 TO 25 %
SILT	30 TO 55 %
5AND	35 TO 60%

MULCH LAYER

THE MULCH LAYER PLAYS AN IMPORTANT ROLE IN THE PERFORMANCE OF THE BIORETENTION SYSTEM. THE MULCH LAYER HELPS MAINTAIN SOIL MOISTURE AND AVOIDS SURFACE SEALING, WHICH REDUCES PERMEABILITY. MULCH HELPS PREVENT EROSION, AND PROVIDES A MICROENVIRONMENT SUITABLE FOR SOIL BIOTA AT THE MULCH/SOIL INTERFACE. IT ALSO SERVES AS A PRETREATMENT LAYER, TRAPPING THE FINER SEDIMENTS, WHICH REMAIN SUSPENDED AFTER THE PRIMARY PRETREATMENT.

THE MULCH LAYER SHOULD BE STANDARD LANDSCAPE STYLE, SINGLE OR DOUBLE SHREDDED HARDWOOD MULCH OR CHIPS. THE MULCH LAYER SHOULD BE WELL AGED (STOCKPILED OR STORED FOR AT LEAST 12 MONTHS), UNIFORM IN COLOR, AND FREE OF OTHER MATERIALS, SUCH AS WEED SEEDS, SOIL, ROOTS, ETC. THE MULCH SHOULD BE APPLIED TO A MAXIMUM DEPTH OF THREE INCHES. GRASS CLIPPINGS SHOULD NOT BE USED AS A MULCH MATERIAL.

PLANTING GUIDANCE

PLANT MATERIAL SELECTION SHOULD BE BASED ON THE GOAL OF SIMULATING A TERRESTRIAL FORESTED COMMUNITY OF NATIVE SPECIES. BIORETENTION SIMULATES AN UPLAND-SPECIES ECOSYSTEM. THE COMMUNITY SHOULD BE DOMINATED BY TREES, BUT HAVE A DISTINCT COMMUNITY OF UNDERSTORY TREES, SHRUBS AND HERBACEOUS MATERIALS. BY CREATING A DIVERSE, DENSE PLANT COVER, A BIORETENTION FACILITY WILL BE ABLE TO TREAT STORMWATER RUNOFF AND WITHSTAND URBAN STRESSES FROM INSECTS, DISEASE, DROUGHT, TEMPERATURE, WIND, AND EXPOSURE.

THE PROPER SELECTION AND INSTALLATION OF PLANT MATERIALS IS KEY TO A SUCCESSFUL SYSTEM. THERE ARE ESSENTIALLY THREE ZONES WITHIN A BIORETENTION FACILITY (FIGURE A.5). THE LOWEST ELEVATION SUPPORTS PLANT SPECIES ADAPTED TO STANDING AND FLUCTUATING WATER LEVELS. THE MIDDLE ELEVATION SUPPORTS PLANTS THAT LIKE DRIER SOIL CONDITIONS, BUT CAN STILL TOLERATE OCCASIONAL INUNDATION BY WATER. THE OUTER EDGE

IS THE HIGHEST ELEVATION AND GENERALLY SUPPORTS PLANTS ADAPTED TO DRYER CONDITIONS. A SAMPLE OF APPROPRIATE PLANT MATERIALS FOR BIORETENTION FACILITIES ARE INCLUDED IN TABLE A.4. THE LAYOUT OF PLANT MATERIAL SHOULD BE FLEXIBLE. BUT SHOULD FOLLOW THE GENERAL PRINCIPALS DESCRIBED IN TABLE A.5. THE OBJECTIVE IS TO HAVE A SYSTEM, WHICH RESEMBLES A RANDOM, AND NATURAL PLANT LAYOUT, WHILE MAINTAINING OPTIMAL CONDITIONS FOR PLANT ESTABLISHMENT AND GROWTH. FOR A MORE EXTENSIVE BIORETENTION PLAN, CONSULT ETAB, 1993 OR CLAYTOR AND SCHUELER, 1997.

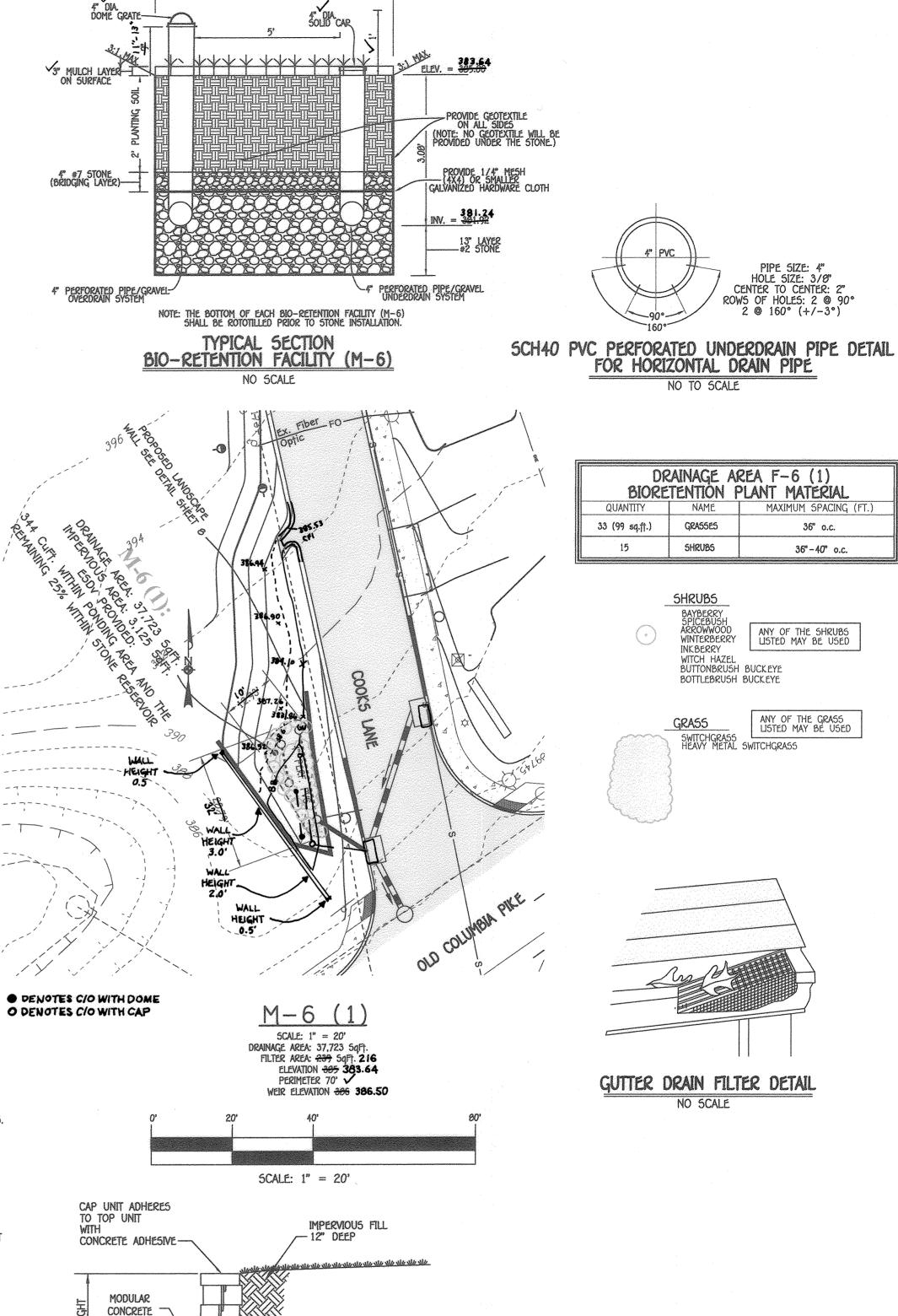
## OPERATION AND MAINTENANCE SCHEDULE FOR BIO-RETENTION AREA (M-6)

1. ANNUAL MAINTENANCE OF PLANT MATERIAL, MULCH LAYER AND SOIL LAYER IS REQUIRED. MAINTENANCE OF OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL AND PRUNING.

2. SCHEDULE OF PLANT INSPECTION WILL BE TWICE A YEAR IN SPRING AND FALL THIS INSPECTION WILL INCLUDE REMOVAL OF DEAD AND DISEASED VEGETATION CONSIDER BEYOND TREATMENT. TREATMENT OF ALL DISEASED TREES AND SHRUBS AND REPLACEMENT OF ALL DEFICIENT STAKES AND WIRES.

3. MULCH SHALL BE INSPECTED EACH SPRING. REMOVE PREVIOUS MULCH LAYER BEFORE APPLYING NEW LAYER ONCE EVERY 2 TO 3 YEARS.

4. SOIL EROSION TO BE ADDRESSED ON AN AS NEEDED BASIS. WITH A MINIMUM OF ONCE PER MONTH AND AFTER HEAVY STORM EVENTS.



CONCRETE BLOCK LANDSCAPE WALL DETAIL

STORMWATER MANAGEMENT DETAILS COOKS LANE

-Drainage aggregate 12"

—4" DIA. DRAIN PIPE OUTLET ◎ END OF WALL OR @ 40'

THICK MIN.

CENTERS MAX.

PREVIOUS FILE NUMBERS: P5048, F-80-092, & 5-17-006 ZONED: R-ED TAX MAP NO.: 24 GRID NO.: 18

SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE: AS SHOWN DATE: MAY, 2021 AS-BUILT SHEET 8 OF 19

AS-BUILT CERTIFICATION l hereby certify, by my seal, that to the best of my knowledge and belief that the facilities shown on the plan was constructed s shown on this "AS-BUILT" plan meet the approved plans and

PAUL GERARD CAVANAUGH #27020

HOWARD COUNTY, MARYLAND 3430 COURT HOUSE DRIVE ELLICOTT CITY, MD 410-313-4401

UNITS

LEVELING PAD MIN. 6" THICK

TERRY'S PLACE DEVELOPMENT. LLC C\O DAVE WOESSNER 308 MAGOTHY ROAD SEVERNA PARK, MD 21146 410-461-0837

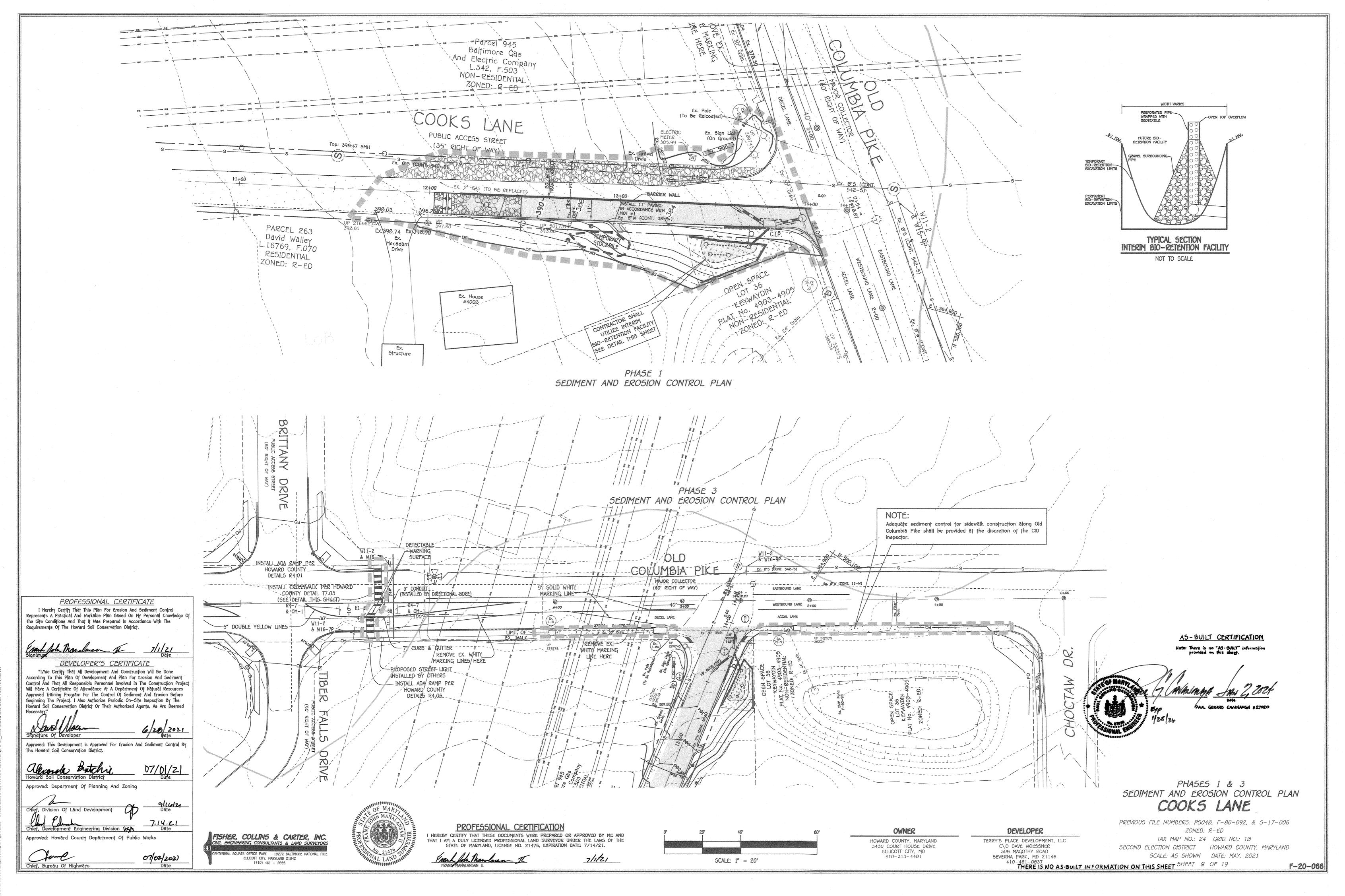
DEVELOPER

FISHER, COLLINS & CARTER. INC. IVIL ENGINEERING CONSULTANTS & LAND SURVEYORS IIAL SQUARE OFFICE PARK — 10272 BALTIMORE NATIONAL PIKI ELLICOTT CITY, MARYLAND 21042 (410) 461 - 2855

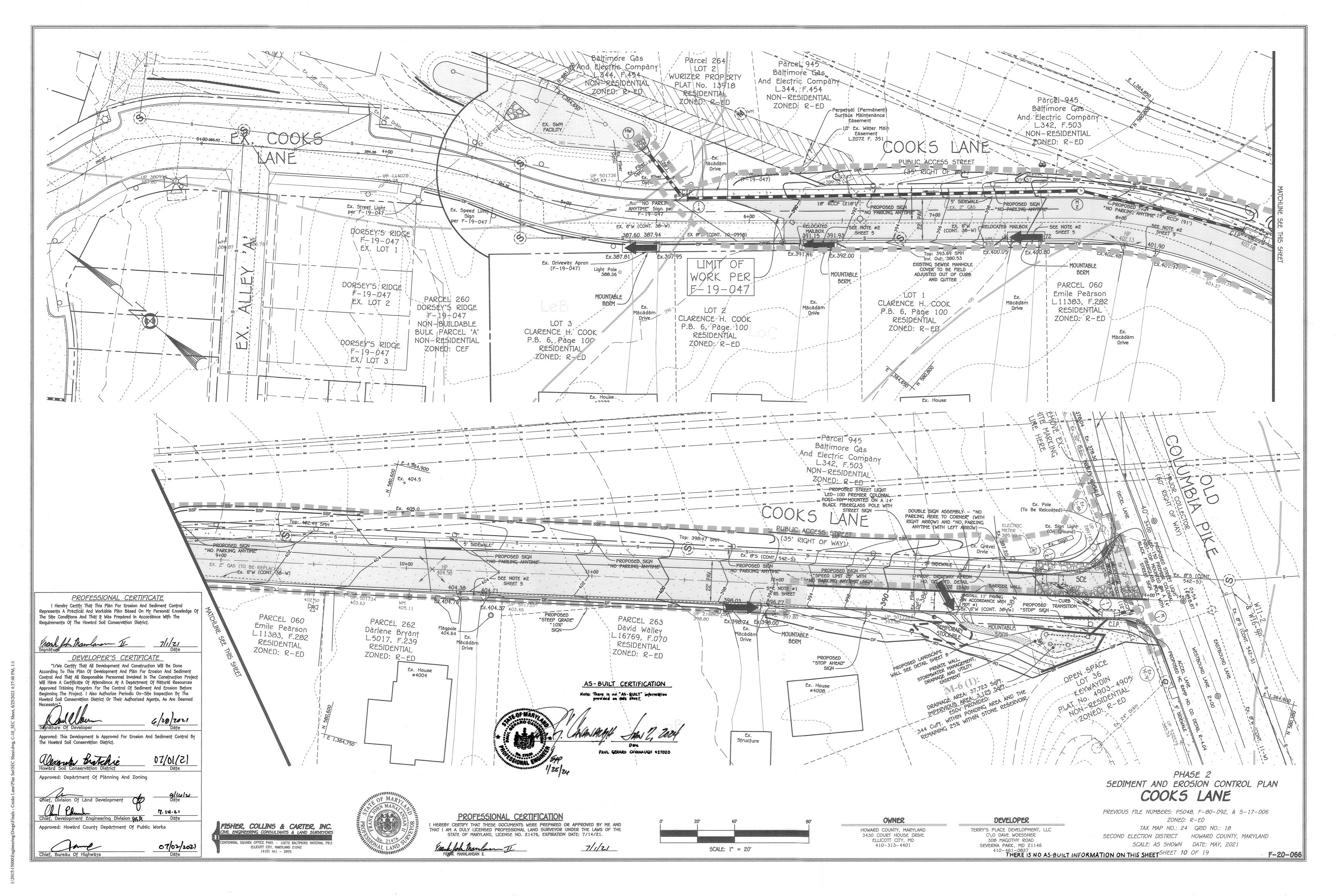
PROFESSIONAL CERTIFICATION HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE

STATE OF MARYLAND, LICENSE NO. 21476, EXPIRATION DATE: 7/14/21. 7/1/2/

F-20-066



(2015/15000)Engineering/Dwgs/Finals - Cooks Lane/Plan Set/SEC Sheet



UNNECESSARY ON NEWLY DISTURBED AREAS

B. TOPSOILING

6 TOPSOIL APPLICATION

BE USED FOR CHEMICAL ANALYSES.

DISKING OR OTHER SUITABLE MEANS.

TRADEMARK AND WARRANTY OF THE PRODUCER.

AND 90 TO 100 PERCENT WILL PASS THROUGH A #20 MESH SIEVE.

contour of the slope. Leave the top 1 to 3 inches of soil loose and friable, seedbed loosening may be

1. TOPSOIL IS PLACED OVER PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION. THE PURPOSE IS

TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH. SOILS OF CONCERN HAVE LOW MOISTLIFF CONTENT.

THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND

2. TOPSOIL SALVAGED FROM AN EXISTING SITE MAY BE USED PROVIDED IT MEETS THE STANDARDS AS SET FORTH IN

A THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH

B. THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR

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

LESS THAN 5 PERCENT BY VOLUME OF CINDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH,

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

OTHER OPERATIONS MUST BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.

C. TOPSOIL MUST NOT BE PLACED IF THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL

IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED

ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR

APPROVAL AUTHORITY. TOPSOIL MUST NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND MUST CONTAIN

B. TOPSOIL MUST BE FREE OF NOXIOUS PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACK GRASS, JOHNSON

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

C. SOIL AMENDMENTS (FERTILIZER & LIME SPECIFICATIONS)

APPLICATION BY APPROPRIATE FOURMENT. 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

3. LIME MATERIALS MUST BE GROUND LIMESTONE (HYDRATED OR BURNT LIME MAY BE SUBSTITUTED EXCEPT WHEN

HYDROSEEDING) WHICH CONTAINS AT LEAST 50 PERCENT TOTAL OXIDES (CALCIUM OXIDE PLUS MAGNESIUM OXIDE).

4. LIME AND FERTILIZER ARE TO BE EVENLY DISTRIBUTED AND INCORPORATED INTO THE TOP 3 TO 5 INCHES OF SOIL BY

5. WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, SPREAD GROUND LIMESTONE AT THE

RATE OF 4 TO 8 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL

LIMESTONE MUST BE GROUND TO SUCH FINENESS THAT AT LEAST 50 PERCENT WILL PASS THROUGH A #100 MESH SIEVE

2. FERTILIZERS MUST BE UNIFORM IN COMPOSITION. FREE FLOWING AND SUITABLE FOR ACCUPATE

PROFESSIONAL CERTIFICATE

I Hereby Certify That This Plan For Erosion And Sediment Control

DEVELOPER'S CERTIFICATE

"I/We Certify That All Development And Construction Will Be Done

According To This Plan Of Development And Plan For Erosion And Sediment

Control And That All Responsible Personnel Involved in The Construction Project

Will Have A Certificate Of Attendance At A Department Of Natural Resources

Approved Training Program For The Control Of Sediment And Erosion Before

Beginning The Project. I Also Authorize Periodic On-Site Inspection By The

Howard Soil Conservation District Or Their Authorized Agents, As Are Deemed

Approved: This Development is Approved For Erosion And Sediment Control By

Requirements Of The Howard Soil Conservation District.

Represents A Practical And Workable Plan Based On My Personal Knowledge C The Site Conditions And That It Was Prepared In Accordance With The

1. SOIL TESTS MUST BE PERFORMED TO DETERMINE THE EXACT RATIOS AND APPLICATION RATES FOR BOTH LIME AND

FERTILIZER ON SITES HAVING DISTURBED AREAS OF 5 ACRES OR MORE. SOIL ANALYSIS MAY BE PERFORMED BY A

RECOGNIZED PRIVATE OR COMMERCIAL LABORATORY. SOIL SAMPLES TAKEN FOR ENGINEERING PURPOSES MAY ALSO

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

LOW NUTRIENT LEVELS, LOW PH. MATERIALS TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL GRADATION.

IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-NRCS.

3. TOPSOILING IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:

FURNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS.

OR OTHER MATERIALS LARGER THAN 1 1/2 INCHES IN DIAMETER

GRASS, NUT SEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED

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

4. AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN.

5. TOPSOIL SPECIFICATIONS: SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING CRITERIA:

D. THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.

PERMANENT SEEDING NOTES (B-4-5)

A. SEED MIXTURES 1. GENERAL USE A SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED IN TABLE 8.3 FOR THE APPROPRIATE PLANT

HARDINESS ZONE (FROM FIGURE 8.3) AND BASED ON THE SITE CONDITION OR PURPOSE FOUND ON TABLE 8.2. ENTER SELECTED MIXTURE(5), APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT SEEDING SUMMARY. THE SUMMARY IS TO BE PLACED ON THE PLAN. . 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 AGENCY. D. FOR AREAS RECEIVING LOW MAINTENANCE, APPLY UREA FORM FERTILIZER (46-0-0) AT 3 1/2 POUNDS PER 1000 SQUARE FEET (150 POUNDS PER ACRE) AT THE TIME OF SEEDING IN ADDITION TO THE SOIL AMENDMENTS SHOWN IN THE PERMANENT SEEDING SUMMARY

2. TURFGRASS MIXTURES A AREAS WHERE TURFGRASS MAY BE DESIRED INCLUDE LAWNS, PARKS, PLAYGROUNDS, AND COMMERCIAL SITES WHICH WILL RECEIVE A MEDIUM TO HIGH LEVEL OF MAINTENANCE.

B. SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED BELOW BASED ON THE SITE CONDITIONS OR PURPOSE. ENTER SELECTED MIXTURE(S), APPLICATION RATES, AND SEEDING DATES IN THE PERMANENT SEEDING SUMMARY. THE SUMMARY IS TO BE PLACED ON THE PLAN.

. KENTUCKY BLUEGRASS: FULL SUN MIXTURE: FOR USE IN AREAS THAT RECEIVE INTENSIVE MANAGEMENT irrigation required in the areas of central maryland and eastern shore. Recommended CERTIFIED KENTUCKY BLUEGRASS CULTIVARS SEEDING RATE: 1.5 TO 2.0 POUNDS PER 1000 SQUARE FEET. CHOOSE A MINIMUM OF THREE KENTUCKY BLUEGRASS CULTIVARS WITH EACH RANGING FROM 10 TO 35 PERCENT OF THE TOTAL MIXTURE BY WEIGHT. IL KENTUCKY BLUEGRASS/PERENNIAL RYE: FULL SUN MIXTURE: FOR USE IN FULL SUN AREAS WHERE RAPID ESTABLISHMENT IS NECESSARY AND WHEN TURF WILL RECEIVE MEDIUM TO INTENSIVE MANAGEMENT.

CERTIFIED PERENNIAL RYEGRASS CULTIVARS/CERTIFIED KENTUCKY BLUEGRASS SEEDING RATE: 2 POUNDS MIXTURE PER 1000 SQUARE FEET, CHOOSE A MINIMUM OF THREE KENTUCKY BLUEGRASS CULTIVARS WITH EACH RANGING FROM 10 TO 35 PERCENT OF THE TOTAL MIXTURE BY WEIGHT. I. TALL FESCUE/KENTUCKY BLUEGRASS: FULL SUN MIXTURE: FOR USE IN DROUGHT PRONE AREAS AND/OR FOR AREAS RECEIVING LOW TO MEDIUM MANAGEMENT IN FULL SUN TO MEDIUM SHADE. RECOMMENDED MIXTURE INCLUDES; CERTIFIED TALL FESCUE CULTIVARS 95 TO 100 PERCENT, CERTIFIED KENTUCKY BLUEGRASS CULTIVARS 0 TO 5 PERCENT. SEEDING RATE: 5 TO 8 POUNDS PER 1000 SQUARE FEET ONE OR MORE CULTIVARS MAY BE BLENDED. N. KENTUCKY BLUEGRASS/FINE FESCUE: SHADE MIXTURE: FOR USE IN AREAS WITH SHADE IN BLUEGRASS

LAWNS. FOR ESTABLISHMENT IN HIGH QUALITY, INTENSIVELY MANAGED TURF AREA. MIXTURE INCLUDES; CERTIFIED KENTUCKY BLUEGRASS CULTIVARS 30 TO 40 PERCENT AND CERTIFIED FINE FESCUE AND 60

TO 70 PERCENT. SEEDING RATE: 1 1/2 TO 3 POUNDS PER 1000 SQUARE FEET SELECT TURFGRASS VARIETIES FROM THOSE LISTED IN THE MOST CURRENT UNIVERSITY OF MARYLAND PUBLICATION, AGRONOMY MEMO \$77, "TURFGRASS CULTIVAR RECOMMENDATIONS FOR MARYLAND" CHOOSE CERTIFIED MATERIAL CERTIFIED MATERIAL IS THE BEST GUARANTEE OF CULTIVAR PURITY. THE CERTIFICATION PROGRAM OF THE MARYLAND DEPARTMENT OF AGRICULTURE, TURF AND SEED SECTION, PROVIDES A RELIABLE MEANS OF CONSUMER PROTECTION AND ASSURES A PURE GENETIC LINE C. IDEAL TIMES OF SEEDING FOR TURF GRASS MIXTURES WESTERN MD: MARCH 15 TO JUNE 1, AUGUST 1 TO OCTOBER 1 (HARDINESS ZONES: 58, 6A) CENTRAL MD: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15 68) SOUTHERN MD, EASTERN SHORE: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15

D. TILL AREAS TO RECEIVE SEED BY DISKING OR OTHER APPROVED METHODS TO A DEPTH OF 2 TO 4 INCHES, LEVEL AND RAKE THE AREAS TO PREPARE A PROPER SEEDBED. REMOVE STONES AND DEBRIS OVER 1 1/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.

			PERMANENT	SEEDING	SUMMAR	Y.		
HARDINESS ZONE (FROM FIGURE B.3): 6B SEED MIXTURE (FROM TABLE B.3): 8			FERTILIZER RATE (10-20-20)			LIME RATE		
NO.	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATES	SEEDING DEPTHS	N	P205	K <sub>2</sub> 0	
Ø	TALL FESCUE	100	MAR. 1-MAY 15 AUG. 15-OCT. 15	1/4-1/2 IN.	45 LBS. PER ACRE (1.0 LB/ 1000 SF)	90 LB/AC (2 LB/ 1000 SF)	90 LB/AC (2 LB/ 1000 5F)	2 TON5/AC (90 LB/ 1000 SF)

B. 50D: TO PROVIDE QUICK COVER ON DISTURBED AREAS (2:1 GRADE OR FLATTER).

1. GENERAL SPECIFICATIONS

A. CLASS OF TURFGRASS SOD MUST BE MARYLAND STATE CERTIFIED. SOD LABELS MUST BE MADE AVAILABLE TO THE B. 500 MUST BE MACHINE CUT AT A UNIFORM SOIL THICKNESS TO 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 ENDS WILL NOT BE ACCEPTABLE C. STANDARD SIZE SECTIONS OF SOD MUST BE STRONG FNOUGH 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. 500 MUST NOT BE HARVESTED OR TRANSPLANTED WHEN MOISTURE CONTENT (EXCESSIVELY DRY OF WET) MAY ADVERSELY AFFECT ITS SURVIVAL E. SOD MUST BE HARVESTED, DELIVERED, AND INSTALLED WITHIN A PERIOD OF 36 HOURS. SOD NOT TRANSPLANTED WITHIN THIS PERIOD MUST BE APPROVED BY AN AGRONOMIST OR SOIL SCIENTIST PRIOR TO ITS INSTALLATION. 2. SOD INSTALLATION

A. DURING PERIODS OF EXCESSIVELY HIGH TEMPERATURE OR IN AREAS HAVING DRY SUBSOIL, LIGHTLY IRRIGATE THE SUBSOIL IMMEDIATELY PRIOR TO LAYING THE SOD. 8. LAY THE FIRST ROW OF SOD IN A STRAIGHT LINE WITH SUBSEQUENT ROWS PLACED PARALLEL TO IT AND TIGHTLY WEDGED AGAINST EACH OTHER. STAGGER LATERAL JOINTS TO PROMOTE MORE UNIFORM GROWTH AND STRENGTH. ensure that sod is not stretched or overlapped and that all joints are butted tight in order to PREVENT VOIDS WHICH WOULD CAUSE AIR DRYING OF THE ROOTS.

. Wherever possible, lay 500 with the long edges parallel to the contour and with staggering joints. ROLL AND TAMP. PEG OR OTHERWISE SECURE THE SOD TO PREVENT SLIPPAGE ON SLOPES. ENSURE SOLID CONTACT EXISTS BETWEEN SOD ROOTS AND THE LINDERLYING SOIL SURFACE D. WATER THE SOO IMMEDIATELY FOLLOWING ROLLING AND TAMPING UNTIL THE UNDERSIDE OF THE NEW SOO PAD AND WIL SUKFACE BELOW THE SOD ARE THOROUGHLY WET. COMPLETE THE OPERATIONS OF LAYING, TAMPING, AND IRRIGATING FOR ANY PIECE OF SOD WITHIN EIGHT HOURS. 3. 500 MAINTENANCE

A. IN THE ABSENCE OF ADEQUATE RAINFALL, WATER DAILY DURING THE FIRST WEEK OR AS OFTEN AND SUFFICIENTLY AS NECESSARY TO MAINTAIN MOIST SOIL TO A DEPTH OF 4 INCHES, WATER SOD DURING THE HEAT OF THE DAY TO B. AFTER THE FIRST WEEK, SOD WATERING IS REQUIRED AS NECESSARY TO MAINTAIN ADEQUATE MOISTURE CONTENT. C. DO NOT MOW UNTIL THE SOD IS FIRMLY ROOTED. NO MORE THAN 1/3 OF THE GRASS LEAF MUST BE REMOVED BY

THE INITIAL CUTTING OR SUBSEQUENT CUTTINGS. MAINTAIN A GRASS HEIGHT OF AT LEAST 3 INCHES UNLESS

STANDARD STABILIZATION NOTE

FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION MUST BE A.) THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1). B.) SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER

B-4-8 STANDARDS AND SPECIFICATIONS

FOR STOCKPILE AREA <u>Definition</u> 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 patterns. Conditions Where Practice Applies

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

1. The stockpile location and all related sediment control practices must be clearly indicated on the erosion and sediment control plan 2. The footprint of the stockpile must be sized to accommodate the anticipated volume of material and based on a side slope ratio no steeper than 2:1. Benching must be provided in accordance with Section B-3 Land Grading. 3. Runoff from the stockpile area must drain to a suitable sediment control practice.

4. Access the stockpile area from the upgrade side. 5. Clear water runoff into the stockpile area must be minimized by use of a diversion device such as an earth dike, temporary swale or diversion fence. Provisions must be made for discharging concentrated flow in a non-erosive manner.

6. Where runoff concentrates along the toe of the stockpile fill, an appropriate erosion/sediment control practice must be used to intercept the discharge. 7. Stockpiles must be stabilized in accordance with the 3/7 day stabilization requirement as well as Standard B-4-1 Incremental Stabilization and Standard B-4-4 Temporary Stabilization. 8. If the stockpile is located on an impervious surface, a liner should be provided below the stockpile to

facilitate cleanup. Stockpiles containing contaminated material must be covered with impermeable Maintenance

The stockpile area must continuously meet the requirements for Adequate Vegetative Establishment in accordance with Section B-4 Vegetative Stabilization. Side slopes must be maintained at no steeper than a 2:1 ratio. The stockpile area must be kept free of erosion. If the vertical height of a stockpile exceeds 20 feet for 2:1 slopes, 30 feet for 3:1 slopes, or 40 feet for 4:1 slopes, benching must be provided in accordance with Section B-3 Land Gradino

HOWARD SOIL CONSERVATION DISTRICT (HSCD) STANDARD SEDIMENT CONTROL NOTES

1. A pre-construction meeting must occur with the Howard County Department of Public Works, Construction Inspection Division (CID), 410-313-1855 after the future LOD and protected areas are marked clearly in the field. A minimum of 48 hour notice to CID must be given at the following stages: a. Prior to the start of earth

b. Upon completion of the installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or orading. 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

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 re-disturbance, permanent or temporary stabilization is required within three (3) calendar days as to the surface of all perimeter controls, dikes, swales, ditches, perimeter slopes, and all slopes steeper than 3 horizontal to 1 vertical (3:1); and seven (7) calendar days as to all other disturbed areas on the project site except for those areas under active grading.

4. All disturbed areas must be stabilized within the time period specified above in accordance with the 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for topsoil (Sec. B-4-2), permanent seeding (Sec. B-4-5), temporary seeding (Sec. B-4-4) and mulching (Sec. B-4-3). Temporary stabilization with mulch alone can only be applied between the fall and spring seeding dates if the ground is frozen. Incremental stabilization (Sec. 8-4-1) specifications shall be enforced in areas with >15' of cut and/or fill. Stockpiles (Sec. B-4-0) 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.

6. Site Analysis For Total Site Area: Total Area of Site: 0.94+/- Acres LOD Total Area Disturbed: 0.93+/- Acres Area to be roofed or paved: 0.53+/- Acres Area to be vegetatively stabilized: 0.40+/- Acres Total Cut: 782 Cu.Yds.+/-251 Cu. Yds. N/A Offsite waste/borrow area location: \_\_\_

7. Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.

8. Additional sediment control must be provided, if deemed necessary by the CID. The site and all controls shall be inspected by the contractor weekly; and the next day after each rain event. A written report by the contractor, made available upon request, is part of every inspection and should include:

· 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

 Photographs · Monitoring/sampling

· Maintenance and/or corrective action performed . Other inspection items as required by the General Permit for Stormwater Associated with Construction

Trenches for the construction of utilities is limited to three pipe lengths or that which can and shall be back-filled and stabilized by the end of each workday, whichever is shorter 10. Any major changes or revisions to the plan or sequence of construction must be reviewed and approved by

the HSCD prior to proceeding with construction. Minor revisions may allowed by the CID per the list of HSCD-approved field changes. 11. Disturbance shall not occur outside the LO.D. A project is to be sequenced so that grading activities begin on one grading unit (maximum acreage of 20 ac. per grading unit) at a time. Work may proceed to a

subsequent grading unit when at least 50 percent of the disturbed area in the preceding grading unit has been stabilized and approved by the HSCD. Unless otherwise specified and approved by the HSCD, no more than 30 acres cumulatively may be disturbed at a given time.

12. Wash water from any equipment, vehicles, wheels, pavement, and other sources must be treated in a sediment basin or other approved washout structure.

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

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

 Use I and IP March 1 - June 15 • Use III and IIIP October 1 - April 30

Use IV March 1 - May 31

16. A copy of this plan, the 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, and associated permits shall be on-site and available when the site is active.

SEQUENCE OF CONSTRUCTION

TEMPORARY SEEDING NOTES (B-4-4)

CONDITIONS WHERE PRACTICE APPLIES

EXPOSED SOILS WHERE GROUND COVER IS NEEDED FOR A PERIOD OF 6 MONTHS OR LESS. FOR LONGER DURATION OF TIME, PERMANENT STABILIZATION PRACTICES ARE REQUIRED.

1. SELECT ONE OR MORE OF THE SPECIES OR SEED MIXTURES LISTED IN TABLE 8.1 FOR THE APPROPRIATE PLANT HARDINESS ZONE (FROM FIGURE 8.3), AND ENTER THEM IN THE TEMPORARY

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.

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 8.1 PLUS FERTILIZER

3. WHEN STABILIZATION IS REQUIRED OUTSIDE OF A SEEDING SEASON, APPLY SEED AND MULCH OR STRAW

TEMPORARY SEEDING SUMMARY

MULCH ALONE AS PRESCRIBED IN SECTION B-4-3.A.1.8 AND MAINTAIN UNTIL THE NEXT SEEDING SEASON.

1"

DUST CONTROL

DEFINITION

PURPOSE

TO PREVENT BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES, REDUCE ON AND OFF-SITE

CONDITIONS WHERE PRACTICE APPLIES

**SPECIFICATIONS** 

1. MULCHES - SEE STANDARDS FOR VEGETATIVE STABILIZATION WITH MULCHES ONLY. MULCH SHOULD BE CRIMPED

3. TILLAGE - TO ROUGHEN SURFACE AND BRING CLODS TO THE SURFACE. THIS IS AN EMERGENCY MEASURE WHICH

4. IRRIGATION - THIS IS GENERALLY DONE AS AN EMERGENCY TREATMENT. SITE IS SPRINKLED WITH WATER UNTIL

5. BARRIERS - SOLID BOARD FENCES SILT FENCES, SNOW FENCES, BURLAP FENCES, STRAW BALE DIKES AND

6. CALCIUM CHLORIDE - APPLY AT RATES THAT WILL KEEP SURFACE MOIST. MAY NEED RETREATMENT.

2. TOPSOILING - COVERING WITH LESS EROSIVE SOIL MATERIALS, SEE STANDARDS FOR TOPSOILING.

THE SURFACE IS MOIST. REPEAT AS NEEDED. AT NO TIME SHOULD THE SITE BE IRRIGATED TO THE POINT THAT

SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CONTROLLING SOIL BLOWING. CURRENTS AND SOIL BLOWING.

CURRENTS AND SOIL BLOWING. BARRIERS PLACED AT RIGHT ANGLES TO PREVAILING CURRENTS AT INTERVALS

1. PERMENENT VEGETATION - SEE STANDARDS FOR PERMANENT VEGETATIVE COVER AND PERMANENT STABILIZATION

WITH SOD, EXISTING TREES OR LARGE SHRUBS MAY AFFORD VALUABLE PROTECTION IF LEFT IN PLACE.

SHOULD BE USED BEFORE SOIL BLOWING STARTS. BEGIN PLOWING ON WINDWARD SIDE OF THE SITE. CHISEL-TYPE

PLOWS SPACED ABOUT 12" APART, SPRING-TOOTHED HARROWS AND SIMILAR PLOWS ARE EXAMPLES OF EQUIPMENT

THIS PRACTICE IS APPLICABLE TO AREAS SUBJECT TO DUST BLOWING AND MOVEMENT WHERE ON AND OFF-SITE

CONTROLLING DUST BLOWING AND MOVEMENT ON CONSTRUCTION SITES AND ROADS

PURPOSI

TO USE FAST GROWING VEGETATION THAT PROVIDES COVER ON DISTURBED SOILS.

TO STABILIZE DISTURBED SOILS WITH VEGETATION FOR UP TO 6 MONTHS.

AND LIME RATES MUST BE PUT ON THE PLAN.

SPECIES APPLICATION RATE (LB/AC)

RYE

TEMPORARY METHODS

RUNOFF BEGINS TO FLOW.

PERMANENT METHODS

HARDINESS ZONE (FROM FIGURE 8.3): 68 SEED MIXTURE (FROM TABLE 8.1):

96

72

DAMAGE, HEALTH HAZARDS AND IMPROVE TRAFFIC SAFETY.

2. VEGETATIVE COVER - SEE STANDARDS FOR TEMPORARY VEGETATIVE COVER.

112

DAMAGE IS LIKELY WITHOUT TREATMENT.

WHICH MAY PRODUCE THE DESIRED EFFECT.

OF ABOUT 10 TIMES THEIR HEIGHT ARE EFFECTIVE IN

3. STONE - COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL

OR TACKED TO PREVENT BLOWING.

ORTAIN A GRADING PERMIT. (2 WEEKS) 2. NOTIFY "MISS UTILITY" AT LEAST 40 HOURS BEFORE BEGINNING ANY WORK AT 1-800-257-7777, NOTIFY THE HOWARD COUNTY OFFICE OF CONSTRUCTION/INSPECTION AT 410-313-1330 AT LEAST 24 HOURS BEFORE STARTING WORK.

3. REQUEST A PRE-CONSTRUCTION MEETING WITH THE APPROPRIATE ENFORCEMENT 4. COMMENCE INSTALLATION OF STABILIZED CONSTRUCTION ENTRANCE AND PERIMETER CONTROLS AS SHOWN ON PHASE 1 OF SHEET 9. (2 WEEK)

5. INSTALL STORM DRAIN SYSTEM I-1 TO M-1. INLET WILL RECEIVE CURB INLET PROTECTION (1 WEEK) 6. COMMENCE SITE DEMOLITION, GRADING TO PROPOSED SUB-GRADE, INSTALLATION OF UTILITIES AND BIO-RETENTION TO INTERIM CONDITION IN ACCORDANCE WITH PHASE 1.

7. COMMENCE INSTALLATION OF PAVING BASE COURSE AND INSTALLATION OF SIDEWALK

IN ACCORDANCE WITH PHASE 1. STABILIZE ALL SURROUNDING AREAS. (3 WEEKS) 5. WITH INSPECTORS PERMISSION, MODIFY PHASE 1 CONTROLS AS NEEDED TO MEET PHASE 2 SEDIMENT AND EROSION CONTROLS SHOWN ON SHEET 10. (1 WEEK) 6. COMMENCE SITE DEMOLITION GRADING TO PROPOSED SUB-GRADE, INSTALLATION OF UTILITIES IN ACCORDANCE WITH PHASE 2. (1 MONTH

7. COMMENCE INSTALLATION OF PAVING BASE COURSE AND INSTALLATION OF SIDEWALK (WITHIN COOKS LANE RIGHT-OF-WAY). STABILIZE ALL SURROUNDING AREAS. (3 8. COMMENCE CONVERSION OF BIO-RETENTION TO FINAL DESIGN, INSTALL PERMANENT EROSION AND CONTROL MATTING AND COMMENCE INSTALLATION OF FINAL PAVING

9. AT COMPLETION OF PAVING EFFORTS, CONTRACTOR SHALL PERMANENTLY SEED ANY DISTURBANCE. (1 DAY) 10. COMMENCE PHASE 3 INSTALLATION OF SIDEWALK WITHIN THE OLD COLUMBIA PIKE

RIGHT-OF-WAY AS SHOWN ON SHEET 9 (1 WEEK) 11. OBTAIN APPROVAL OF SEDIMENT CONTROL INSPECTOR PRIOR TO THE REMOVAL OF SEDIMENT CONTROLS. (3 DAYS)

12. REMOVE ANY REMAINING SEDIMENT CONTROLS AND STABILIZE ALL AREAS THAT ARE DISTURBED BY REMOVAL OF SEDIMENT CONTROLS. (2 DAYS)

13. NOTE: THE CONTRACTOR SHALL INSPECT AND PROVIDE NECESSARY MAINTENANCE AFTER EACH RAINFALL AND ON A DAILY BASIS.

AS-BUILT CERTIFICATION

Note: There is no "AS-BUILT" information

provided on this sheet.

SEDIMENT AND EROSION CONTROL NOTES AND DETAILS COOKS LANE

PREVIOUS FILE NUMBERS: PS048, F-80-092, & 5-17-006 ZONED: R-ED

TAX MAP NO.: 24 GRID NO.: 18 SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE: AS SHOWN DATE: MAY, 2021 THERE IS NO AS-BUILT INFORMATION ON THIS SHEET SHEET 11 OF 19

TABLE & 1 TEMPORARY SERVING FOR SITE STABILIZATION

anterioren antigia en	,	ADLL D.1	THION	art olluing for ott	- 01/101011		
PLANT SPECS	SEEDING RATE 1/		SEEDING DEPTH 2/	RECOMMENDED SEEDING DATES BY PLANT HARDINESS ZONE 3/			
	LB./AC.	LB./1000 FT. <sup>2</sup>	1 /11/2011/2011	5b AND 6a	6b	7a AND 7b	
COOL-SEASON GRASSES							
ANNUAL RYEGRASS (LOLIUM PERENNE SSP. MUTIFLORUM)	40	1.0	0.5	MAR. 15 TO MAY 31; AUG. 1 TO SEPT. 30	MAR, 1 TO MAY 15; AUG. 1 TO OCT. 15	FEB. 15 TO APR. 30; AUG. 15 TO NOV. 30	
BARLEY (HORDEUM VULGARE)	96	2.2	1.0	MAR. 15 TO MAY 31; AUG. 1 TO SEPT. 30	MAR. 1 TO MAY 15; AUG. 1 TO OCT. 15	FEB. 15 TO APR. 30; AUG. 15 TO NOV. 3	
OATS (AVENA SATIVA)	72	1.7	1.0	MAR. 15 TO MAY 31; AUG. 1 TO SEPT. 30	MAR. 1 TO MAY 15; AUG. 1 TO OCT. 15	FEB. 15 TO APR. 30; AUG. 15 TO NOV. 3	
WHEAT (TRITICUM AESTIVUM)	120	2.8	1.0	MAR. 15 TO MAY 31; AUG. 1 TO SEPT. 30	MAR. 1 TO MAY 15; AUG. 1 TO OCT. 15	FEB. 15 TO APR. 30; AUG. 15 TO NOV. 3	
CEREAL RYE (SECALE CEREALE)	112	2.8	1.0	MAR. 15 TO MAY 31; AUG. 31 TO OCT. 31	MAR. 1 TO MAY 15; AUG. 1 TO NOV. 15	FEB. 15 TO APR. 30; AUG. 15 TO DEC. 1	
WARM-SEASON GRASSES							
FOXTAIL MILLET (SETARIA ITALICA)	30	0.7	0.5	JUNE 1 TO JULY 31	MAY 16 TO JULY 31	MAY 1 TO AUGUST 14	
PEARL MILLET (PENNISETUM GLAUCUM)	20	0.5	0.5	JUNE 1 TO JULY 31	MAY 16 TO JULY 31	MAY 1 TO AUGUST 14	

1. SEEDING RATES FOR THE WARM-SEASON GRASSES ARE IN POUNDS OF PURE LIVE SEED (PLS). ACTUAL PLANTING RATES SHALL BE ADJUSTED TO REFLECT PERCENT SEED GERMINATION AND PURITY, AS TESTED. ADJUSTMENTS ARE USUALLY NOT NEEDED FOR THE COOL-SEASON GRASSES.

SEEDING RATES LISTED ABOVE ARE FOR TEMPORARY SEEDINGS, WHEN PLANTED 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. OATS ARE THE RECOMMENDED NURSE CROP FOR WARM-SEASON GRASSES.

PROFESSIONAL CERTIFICATION

HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21476, EXPIRATION DATE: 7/14/21.

5/23/21

B-4-3 STANDARDS AND SPECIFICATIONS FOR SEEDING & MULCHING

THE APPLICATION OF SEED AND MULCH TO ESTABLISH VEGETATIVE COVER.

PURPOSE

CONDITIONS WHERE PRACTICE APPLIES

A. ALL SEED MUST MEET THE REQUIREMENT OF THE MARYLAND STATE SEED LAW. ALL SEED MUST BE SUBJECT TO RE-TESTING BY

C. INOCULANTS: THE INOCULANT FOR TREATING LEGUME SEED IN THE SEED MIXTURES MUST BE A PURE CULTURE OF NITROGEN

D. SOD OR SEED MUST NOT BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS OR CHEMICALS USED FOR

I. INCORPORATE SEED INTO THE SUBSOIL AT THE RATES PRESCRIBED ON TEMPORARY SEEDING TABLE B.1,

II. APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH

DIRECTION. ROLL THE SEEDED AREA WITH WEIGHTED ROLLER TO PROVIDE GOOD SEED TO SOIL CONTACT.

C. HYDROSEEDING: APPLY SEED UNIFORMLY WITH HYDROSEEDER (SLURRY INCLUDES SEED AND FERTILIZER).

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

A. STRAW CONSISTING OF THOROUGHLY THRESHED WHEAT, RYE, OAT, OR BARLEY AND REASONABLY BRIGHT IN COLOR. STRAW IS

OR EXCESSIVELY DUSTY. NOTE: USE ONLY STERILE STRAW MULCH IN AREAS WHERE ONE SPECIES OF GRASS IS DESIRED.

TO BE FREE OF NOXIOUS WEED SEEDS AS SPECIFIED IN THE MARYLAND SEED LAW AND NOT MUSTY, MOLDY, CAKED, DECAYED,

III. WOFM MATERIALS ARE TO BE MANUFACTURED AND PROCESSED IN SUCH A MANNER THAT THE WOOD CELLULOSE FIBER

IV. WCFM MATERIAL MUST NOT CONTAIN ELEMENTS OR COMPOUNDS AT CONCENTRATION LEVELS THAT WILL BY PHYTO-TOXIC

V. WCFM MUST CONFORM TO THE FOLLOWING PHYSICAL REQUIREMENTS: FIBER LENGTH OF APPROXIMATELY 10 MILLIMETERS,

B. WHEN STRAW MULCH IS USED, SPREAD IT OVER ALL SEEDED AREAS AT THE RATE OF 2 TONS PER ACRE TO A UNIFORM LOOSE

EXPOSED. WHEN USING A MULCH ANCHORING TOOL, INCREASE THE APPLICATION RATE TO 2.5 TONS PER ACRE.

DEPTH OF 1 TO 2 INCHES. APPLY MULCH TO ACHIEVE A UNIFORM DISTRIBUTION AND DEPTH SO THAT THE SOIL SURFACE IS NOT

C. WOOD CELLULOSE FIBER USED AS MULCH MUST BE APPLIED TO A NET DRY WEIGHT OF 1500 POUNDS PER ACRE. MIX THE WOOD

A. PERFORM MULCH ANCHORING IMMEDIATELY FOLLOWING APPLICATION OF MULCH TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE

EQUIPMENT CAN OPERATE SAFELY. IF USED ON SLOPING LAND, THIS PRACTICE SHOULD FOLLOW THE CONTOUR.

DONE BY ONE OF THE FOLLOWING METHODS (LISTED BY PREFERENCE), DEPENDING UPON THE SIZE OF5THE AREA AND EROSION HAZARD:

1. 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

II. WOOD CELLULOSE FIBER MAY BE USED FOR ANCHORING STRAW. APPLY THE FIBER BINDER AT A NET DRY WEIGHT OF 750 POUNDS

PER ACRE. MIX THE WOOD CELLULOSE FIBER WITH WATER AT A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER

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 MUICH, SUCH AS IN VALLEYS AND ON CRESTS OF

III. SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRO-TACK), DCA-70, PETROSET, TERRA TAX II, TERRA TACK AR, OR OTHER

IV. LIGHTWEIGHT PLASTIC NETTING MAY BE STAPLED OVER THE MULCH ACCORDING TO MANUFACTURER RECOMMENDATIONS.

NETTING IS USUALLY AVAILABLE IN ROLLS 4-15 FEET WIDE AND 300 TO 3,000 FEET LONG.

CELLULOSE FIBER WITH WATER TO ATTAIN A MIXTURE WITH A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER

MULCH WILL REMAIN IN UNIFORM SUSPENSION IN WATER UNDER AGITATION AND WILL BLEND WITH SEED, FERTILIZER AND

OTHER ADDITIVES TO FORM A HOMOGENEOUS SLURRY. THE MULCH MATERIAL MUST FORM A BLOTTER-LIKE GROUND COVER,

ON APPLICATION, HAVING MOISTURE ASSORPTION AND PERCOLATION PROPERTIES AND MUST COVER AND HOLD GRASS SEED

DIAMETER APPROXIMATELY 1 MILLIMETER, PH RANGE OF 4.0 TO 8.5. ASH CONTENT OF 1.6 PERCENT MAXIMUM AND WATER

1. CULTIPACKING SEEDERS ARE REQUIRED TO BURY THE SEED IN SUCH A FASHION AS TO PROVIDE AT

II. APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN

I. IF FERTILIZER IS BEING APPLIED AT THE TIME OF SEEDING, THE APPLICATION RATES SHOULD NOT EXCEED

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

THE FOLLOWING: NITROGEN, 100 POUNDS PER ACRE TOTAL OF SOLUBLE NITROGEN; P20 (PHOSPHORUS),

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

LEAST 1/4 INCH OF SOIL COVERING. SEEDBED MUST BE FIRM AFTER PLANTING.

200 POUNDS PER ACRE; K20 (POTASSIUM), 200 POUNDS PER ACRE.

TIME, DO NOT USE BURNT OR HYDRATED LIME WHEN HYDROSEEDING.

B. WOOD CELLULOSE FIBER MULCH (WCFM) CONSISTING OF SPECIALLY PREPARED WOOD CELLULOSE PROCESSED

I. WOFM IS TO BE DYED GREEN OR CONTAIN A GREEN DYE IN THE PACKAGE THAT WILL PROVIDE AN

APPROPRIATE COLOT TO FACILITATE VISUAL INSPECTION OF THE UNIFORMLY SPREAD SLURRY.

II. WCFM, INCLUDING DYE, MUST CONTAIN NO GERMINATION OR GROWTH INHIBITING FACTORS.

IN CONTACT WITH THE SOIL WITHOUT INHIBITING THE GROWTH OF THE GRASS SEEDLINGS.

IV. WHEN HYDROSEEDING DO NOT INCORPORATE SEED INTO THE SOIL.

WEEDCONTROL UNTIL SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN.) TO PERMIT DISSIPATION OF PHYTO-TOXIC MATERIALS.

FIXING BACTERIA PREPARED SPECIFICALLY FOR THE SPECIES. INOCULANTS MUST NOT BE USED LATER THAN THE DATE INDICATED

ON THE CONTAINER, ADD FRESH INOCULANTS AS DIRECTED ON THE PACKAGE. USE FOUR TIMES THE RECOMMENDED RATE WHEN

LYNDOGSEDING NOTE IT IS VERY IMPORTANT TO KEEP INCIDIANT AS COOL AS DOSSIBLE LINTH LISED TEMPERATURES AROVE 75

A RECOGNIZED SEED LABORATORY, ALL SEED USED MUST HAVE BEEN TESTED WITHIN THE 6 MONTHS IMMEDIATELY PRECEDING THE

DATE OF SOWING SLICH MATERIAL ON ANY PROJECT, REFER TO TABLE 8.4 RECARDING THE QUALITY OF SEED, SEED TAGS MUST BE

TO PROTECT DISTURBED SOILS FROM EROSION DURING AND AT THE END OF CONSTRUCTION.

TO THE SURFACE OF ALL PERIMETER CONTROLS, SLOPES, AND ANY DISTURBED AREA NOT UNDER ACTIVE GRADING.

8. MULCH ALONE MAY BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES ONLY IF THE GROUND IS FROZEN.

AVAILABLE UPON REQUEST TO THE INSPECTOR TO VERIFY TYPE OF SEED AND SEEDING RATE

TO 80 DEGREES FAHRENHEIT CAN WEAKEN BACTERIA AND MAKE THE INOCULANT LESS EFFECTIVE.

THE APPROPRIATE SEEDING MIXTURE MUST BE APPLIED WHEN THE GROUND THAWS.

A. DRY SEEDING: THIS INCLUDES USE OF CONVENTIONAL DROP OR BROADCAST SPREADERS.

PERMANENT SEEDING TABLE B.3, OR SITE-SPECIFIC SEEDING SUMMARIES.

EACH DIRECTION.

1. MULCH MATERIALS (IN ORDER OF PREFERENCE)

INTO UNIFORM FIBROUS PHYSICAL STATE

HOLDING CAPACITY OF 90 PERCENT MINIMUM.

A. APPLY MULCH TO ALL SEEDED AREAS IMMEDIATELY AFTER SEEDING.

BANKS. USE OF ASPHALT BINDERS IS STRICTLY PROHIBITED.

A. SEEDING

2. APPLICATION

B. MULCHING

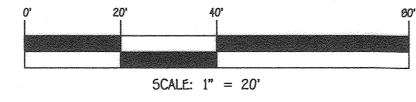
2. APPLICATION

3. ANCHORING

100 GALLONS OF WATER.

100 GALLONS OF WATER.

1. SPECIFICATIONS



OWNER HOWARD COUNTY, MARYLAND 3430 COURT HOUSE DRIVE ELLICOTT CITY, MD 410-313-4401

TERRY'S PLACE DEVELOPMENT, LLC

308 MAGOTHY ROAD SEVERNA PARK, MD 21146 410-461-0837

DEVELOPER

Chief, Bureau Of Highways

The Howard Soil Conservation District.

Approved: Department Of Planning And Zoning

Division Of Land Development

Chief, Development Engineering Division KSA

Approved: Howard County Department Of Public Works

Necessary"

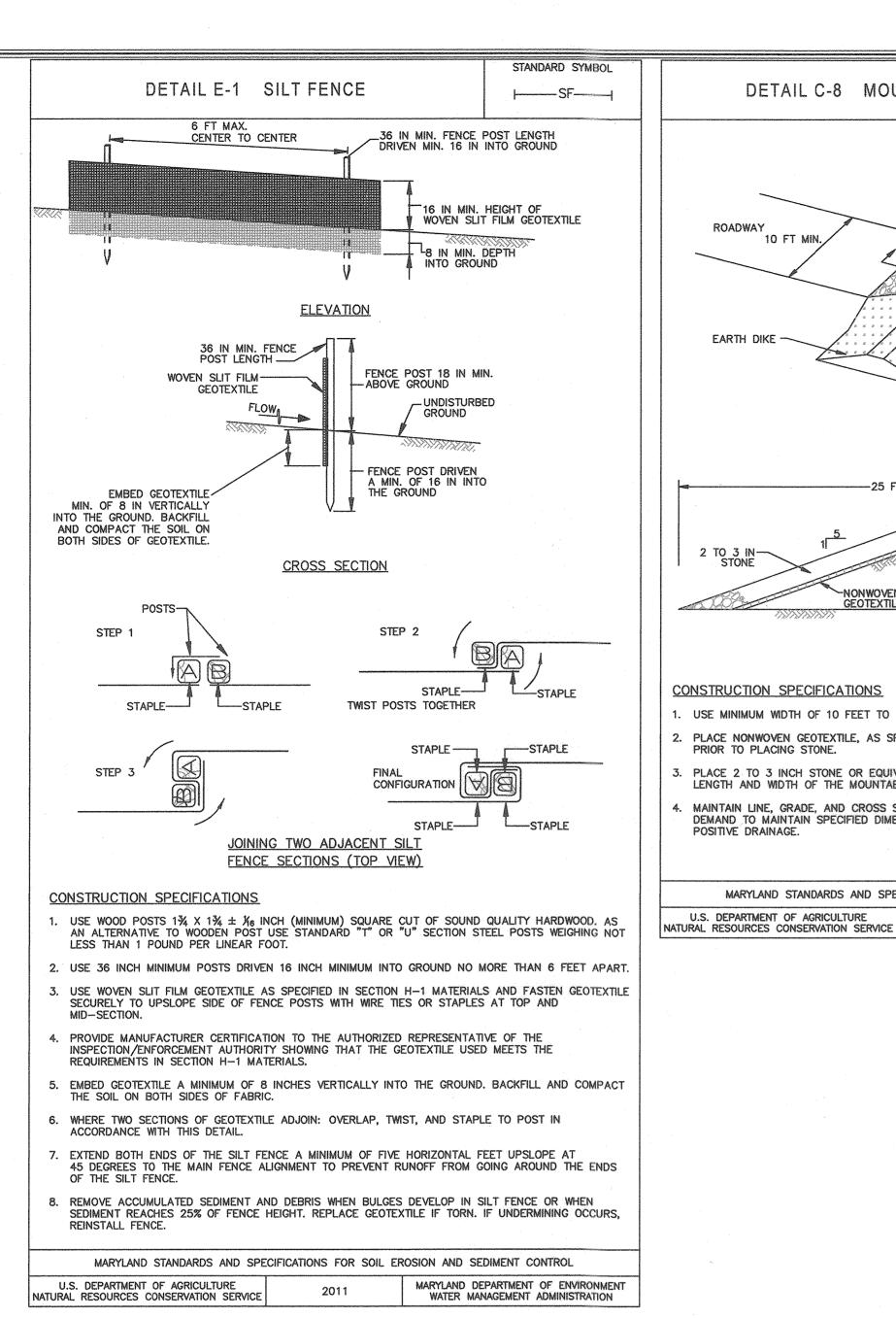
07/02/2021

5QUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIK ELLICOTT CITY, MARYLAND 21042 (410) 461 - 2855

ISHER, COLLINS & CARTER, INC. ENGINEERING CONSULTANTS & LAND SURVEYORS

C\O DAVE WOESSNER

F-20-066



PROFESSIONAL CERTIFICATE

I Hereby Certify That This Plan For Erosion And Sediment Control

DEVELOPER'S CERTIFICATE

"I/We Certify That All Development And Construction Will Be Done

According To This Plan Of Development And Plan For Erosion And Sediment

Will Have A Certificate Of Attendance At A Department Of Natural Resources

Approved Training Program For The Control Of Sediment And Erosion Before

Beginning The Project. I Also Authorize Periodic On-Site Inspection By The

Howard Soil Conservation District Or Their Authorized Agents, As Are Deemed

Approved: This Development Is Approved For Erosion And Sediment Control By

9116121

07/02/202)

Control And That All Responsible Personnel Involved In The Construction Project

The Site Conditions And That It Was Prepared In Accordance With The

Requirements Of The Howard Soil Conservation District.

The Howard Soil Conservation District.

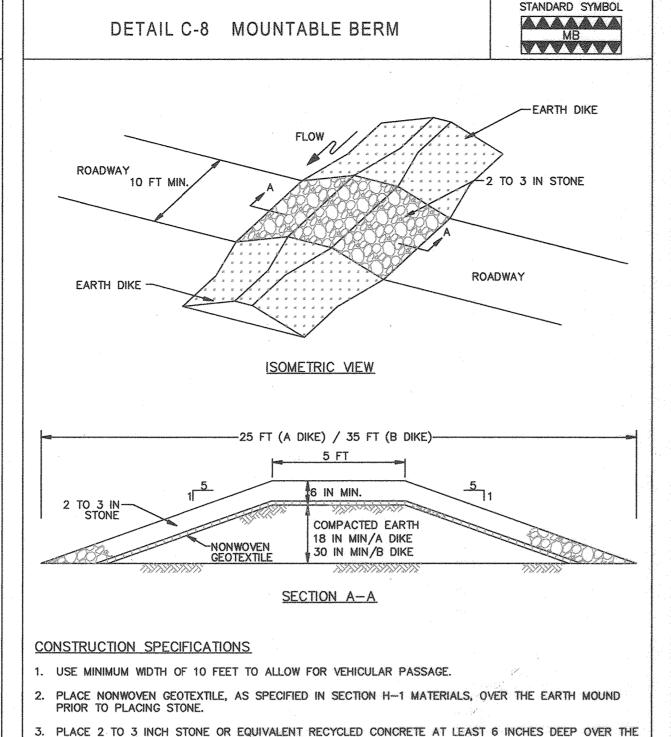
Chief, Bureau Of Highways

Approved: Department Of Planning And Zoning

ision Of Land Development

Approved: Howard County Department Of Public Works

Represents A Practical And Workable Plan Based On My Personal Knowledge O



MAINTAIN LINE, GRADE, AND CROSS SECTION. ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

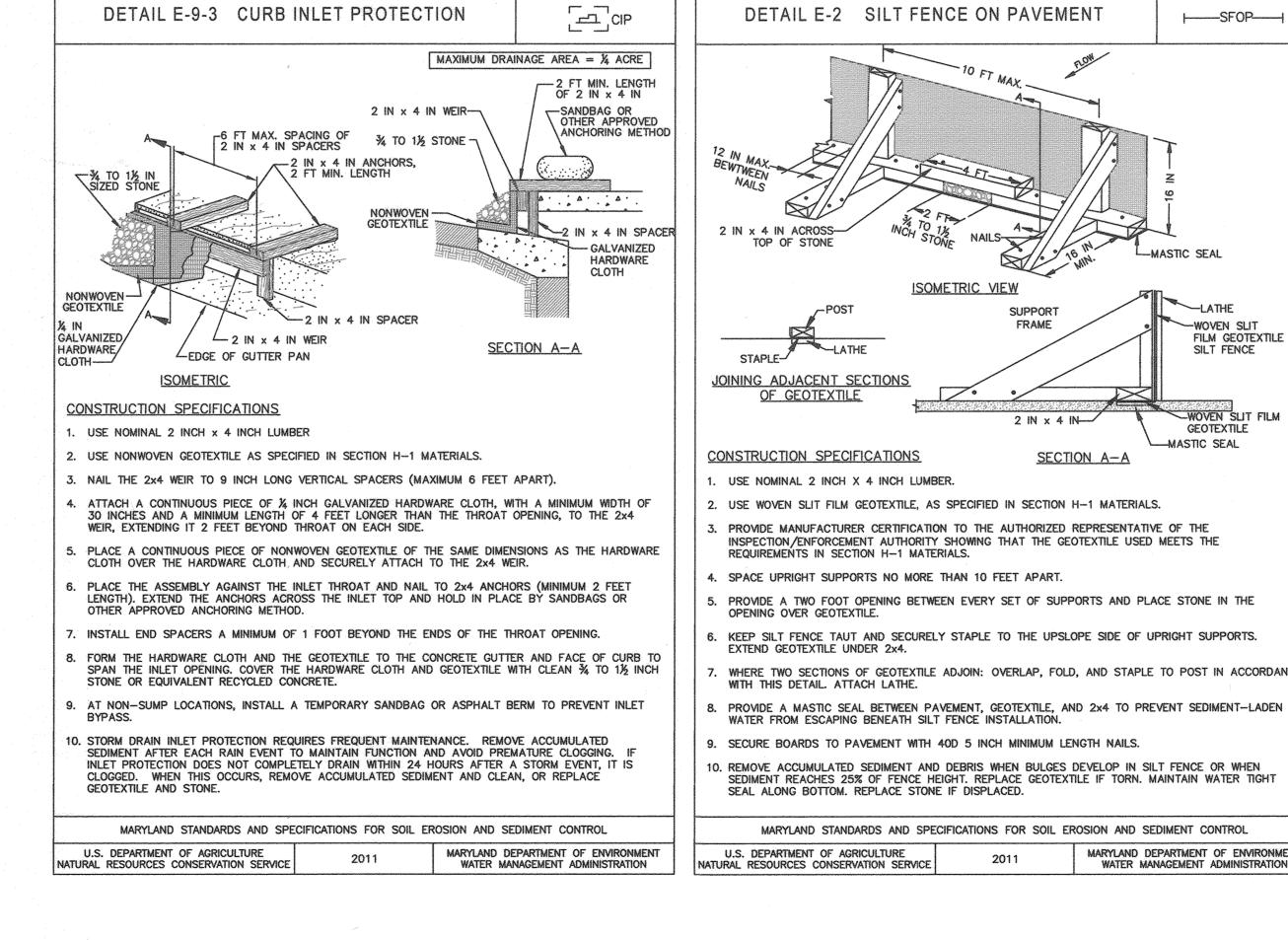
MARYLAND DEPARTMENT OF ENVIRONMENT

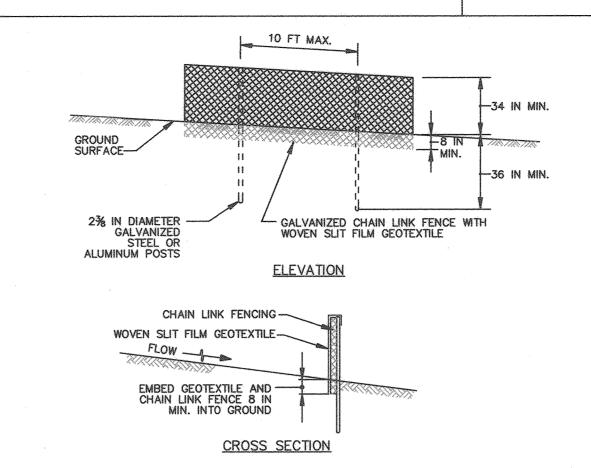
WATER MANAGEMENT ADMINISTRATION

DEMAND TO MAINTAIN SPECIFIED DIMENSIONS, REMOVE ACCUMULATED SEDIMENT AND DEBRIS, MAINTAIN

LENGTH AND WIDTH OF THE MOUNTABLE BERM.

U.S. DEPARTMENT OF AGRICULTURE





DETAIL E-3 SUPER SILT FENCE

### CONSTRUCTION SPECIFICATIONS

STANDARD SYMBOL

├── DF ──

MAXIMUM DRAINAGE AREA = 2 ACRES

UV RESISTANT IMPERMEABLE SHEETING ON BOTH SIDES OF FENCE

GALVANIZED STEEL OR ALUMINUM

SECURE WITH WIRE TIES

MARYLAND DEPARTMENT OF ENVIRONMENT

WATER MANAGEMENT ADMINISTRATION

STANDARD SYMBOL

DETAIL C-9 DIVERSION FENCE

OR ALUMINUM

OR PROVIDE SOIL STABILIZATION MATTIN

CONSTRUCTION SPECIFICATIONS

SHEETING ALONG FLOW SURFACE.

U.S. DEPARTMENT OF AGRICULTURE

NATURAL RESOURCES CONSERVATION SERVICE

FACING DOWNGRADE

FLOW -

EMBED IMPERMEABLE-

SHEETING 8 IN MIN INTO GROUND

. FASTEN CHAIN LINK FENCE SECURELY TO THE FENCE POSTS WITH WIRE TIES.

SHEETING IF TORN. IF UNDERMINING OCCURS, REINSTALL FENCE.

SPACED EVERY 24 INCHES AT TOP, MID SECTION, AND BELOW GROUND SURFACE.

10 FT MAX.

CHAIN LINK FENCE

ELEVATION

USE 42 INCH HIGH, 9 GAUGE OR THICKER CHAIN LINK FENCING (2% INCH MAXIMUM OPENING).

USE 2% INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND SIX FOOT

SECURE 10 MIL OR THICKER UV RESISTANT, IMPERMEABLE SHEETING TO CHAIN LINK FENCE WITH TIES

LENGTH SPACED NO FURTHER THAN 10 FEET APART. THE POSTS DO NOT NEED TO BE SET IN

5. EXTEND SHEETING A MINIMUM OF 4 FEET ALONG FLOW SURFACE AND EMBED END A MINIMUM OF

8 INCHES INTO GROUND. SOIL STABILIZATION MATTING MAY BE USED IN LIEU OF IMPERMEABLE

ACCUMULATED SEDIMENT AND DEBRIS. MAINTAIN POSITIVE DRAINAGE. REPLACE IMPERMEABLE

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

6. WHEN TWO SECTIONS OF SHEETING ADJOIN EACH OTHER, OVERLAP BY 6 INCHES AND FOLD WITH SEAM

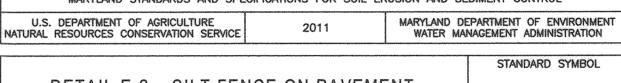
KEEP FLOW SURFACE ALONG DIVERSION FENCE AND POINT OF DISCHARGE FREE OF EROSION. REMOVE

IMPERMEABLE SHEETING

SECTION

- INSTALL 2% INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND SIX FOOT LENGTH SPACED NO FURTHER THAN 10 FEET APART. DRIVE THE POSTS A MINIMUM OF 36 INCHES
- 2. FASTEN 9 GAUGE OR HEAVIER GALVANIZED CHAIN LINK FENCE (2% INCH MAXIMUM OPENING) 42 INCHES IN HEIGHT SECURELY TO THE FENCE POSTS WITH WIRE TIES OR HUG RINGS.
- 3. FASTEN WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS, SECURELY TO THE UPSLOPE SIDE OF CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 8 INCHES INTO THE GROUND.
- WHERE ENDS OF THE GEOTEXTILE COME TOGETHER, THE ENDS SHALL BE OVERLAPPED BY 6 INCHES, FOLDED, AND STAPLED TO PREVENT SEDIMENT BY PASS.
- EXTEND BOTH ENDS OF THE SUPER SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS
- THE SUPER SILT FENCE. PROVIDE MANUFACTURER CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT
- GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS. REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL

CHAIN LINK FENCING AND GEOTEXTILE. MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL



PROVIDE MANUFACTURER CERTIFICATION TO THE AUTHORIZED REPRESENTATIVE OF THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT THE GEOTEXTILE USED MEETS THE

WHERE TWO SECTIONS OF GEOTEXTILE ADJOIN: OVERLAP, FOLD, AND STAPLE TO POST IN ACCORDANCE

SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. MAINTAIN WATER TIGHT

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

REQUIREMENTS IN SECTION H-1 MATERIALS.

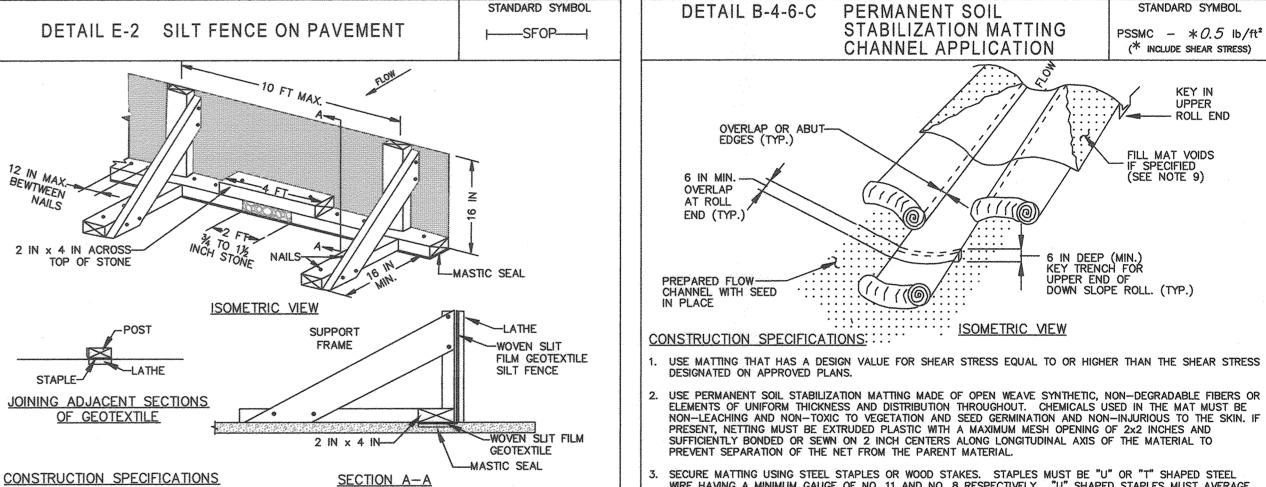
WATER FROM ESCAPING BENEATH SILT FENCE INSTALLATION.

SEAL ALONG BOTTOM. REPLACE STONE IF DISPLACED.

OPENING OVER GEOTEXTILE.

EXTEND GEOTEXTILE UNDER 2x4.

WITH THIS DETAIL. ATTACH LATHE.



USE PERMANENT SOIL STABILIZATION MATTING MADE OF OPEN WEAVE SYNTHETIC, NON-DEGRADABLE FIBERS OR ELEMENTS OF UNIFORM THICKNESS AND DISTRIBUTION THROUGHOUT. CHEMICALS USED IN THE MAT MUST BE NON-LEACHING AND NON-TOXIC TO VEGETATION AND SEED GERMINATION AND NON-INJURIOUS TO THE SKIN. IF PRESENT, NETTING MUST BE EXTRUDED PLASTIC WITH A MAXIMUM MESH OPENING OF 2x2 INCHES AND

DETAIL B-1 STABILIZED

CONSTRUCTION SPECIFICATIONS

LOCATED AT A HIGH SPOT.

U.S. DEPARTMENT OF AGRICULTURE

NATURAL RESOURCES CONSERVATION SERVICE

EXISTING ROAD TO PROVIDE A TURNING RADIUS.

DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE.

ROUND

NONWOVEN

GEOTEXTIL

CONSTRUCTION ENTRANCE

50 FT MIN.

AND WIDTH OF ENTRANCE

50 FT MIN. LENGTH

**PROFILE** 

PLAN VIEW

PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES

PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SCE UNDER THE ENTRANCE,

TO CONVEY, A PIPE IS NOT NECESSARY. A MOUNTABLE BERM IS REQUIRED WHEN SCE IS NOT

REBAR) AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SCE.

MAINTAINING POSITIVE DRAINAGE. PROTECT PIPE INSTALLED THROUGH THE SCE WITH A MOUNTABLE

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

MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT. ADD STONE OR MAKE

ROADWAY TO REMOVE MUD TRACKED ONTO PAVEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

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

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

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

MOUNTABLE BERN

H-SSF-H

SUFFICIENTLY BONDED OR SEWN ON 2 INCH CENTERS ALONG LONGITUDINAL AXIS OF THE MATERIAL TO PREVENT SEPARATION OF THE NET FROM THE PARENT MATERIAL.

SECURE MATTING USING STEEL STAPLES OR WOOD STAKES. STAPLES MUST BE "U" OR "T" SHAPED STEEL WIRE HAVING A MINIMUM GAUGE OF NO. 11 AND NO. 8 RESPECTIVELY. "U" SHAPED STAPLES MUST AVERAGE 1 TO 1 ½ INCHES WIDE AND BE A MINIMUM OF 6 INCHES LONG. "T" SHAPED STAPLES MUST HAVE A MINIMUM 8 INCH MAIN LEG, A MINIMUM 1 INCH SECONDARY LEG, AND MINIMUM 4 INCH HEAD. WOOD STAKES MUST BE ROUGH-SAWN HARDWOOD, 12 TO 24 INCHES IN LENGTH, 1x3 INCH IN CROSS SECTION, AND WEDGE SHAPE AT

- PERFORM FINAL GRADING, TOPSOIL APPLICATION, SEEDBED PREPARATION, AND PERMANENT SEEDING IN ACCORDANCE WITH SPECIFICATIONS. PLACE MATTING WITHIN 48 HOURS OF COMPLETING SEEDING OPERATIONS, UNLESS END OF WORKDAY STABILIZATION IS SPECIFIED ON THE APPROVED EROSION AND SEDIMENT CONTROL
- UNROLL MATTING IN DIRECTION OF WATER FLOW, CENTERING THE FIRST ROLL ON THE CHANNEL CENTER LINE. WORK FROM CENTER OF CHANNEL OUTWARD WHEN PLACING ROLLS. LAY MATTING SMOOTHLY AND FIRMLY UPON THE SEEDED SURFACE. AVOID STRETCHING THE MATTING.
- OVERLAP OR ABUT EDGES OF MATTING ROLLS PER MANUFACTURER RECOMMENDATIONS. OVERLAP ROLL ENDS BY 6 INCHES (MINIMUM), WITH THE UPSTREAM MAT OVERLAPPING ON TOP OF THE NEXT DOWNSTREAM MAT.
- KEY IN THE TOP OF SLOPE END OF MAT 6 INCHES (MINIMUM) BY DIGGING A TRENCH, PLACING THE MATTING ROLL END IN THE TRENCH, STAPLING THE MAT IN PLACE, REPLACING THE EXCAVATED MATERIAL, AND TAMPING TO SECURE THE MAT END IN THE KEY.
- 8. STAPLE/STAKE MAT IN A STAGGERED PATTERN ON 4 FOOT (MAXIMUM) CENTERS THROUGHOUT AND 2 FOOT (MAXIMUM) CENTERS ALONG SEAMS, JOINTS, AND ROLL ENDS.
- 9. IF SPECIFIED BY THE DESIGNER OR MANUFACTURER AND DEPENDING ON THE TYPE OF MAT BEING INSTALLED, ONCE THE MATTING IS KEYED AND STAPLED IN PLACE, FILL THE MAT VOIDS WITH TOP SOIL OR GRANULAR
- MATERIAL AND LIGHTLY COMPACT OR ROLL TO MAXIMIZE SOIL/MAT CONTACT WITHOUT CRUSHING MAT.
- 10. ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE CONTINUOUSLY MET IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

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

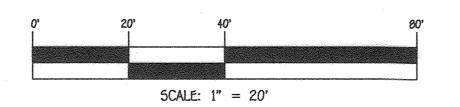
FISHER, COLLINS & CARTER, INC. IVIL ENGINEERING CONSULTANTS & LAND SURVEYORS SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKI ELLICOTT CITY, MARYLAND 21042 (410) 461 - 2855

PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21476, EXPIRATION DATE: 7/14/21.

AS-BUILT CERTIFICATION

Note: There is no "AS-BULT" information

5/23/21



HOWARD COUNTY, MARYLAND 3430 COURT HOUSE DRIVE ELLICOTT CITY, MD

410-313-4401

DEVELOPER TERRY'S PLACE DEVELOPMENT, LLC C\O DAVE WOESSNER 308 MAGOTHY ROAD

MARYLAND DEPARTMENT OF ENVIRONMENT

WATER MANAGEMENT ADMINISTRATION

SEVERNA PARK, MD 21146

PREVIOUS FILE NUMBERS: **PS04**8, F-80-092, & 5-17-006 ZONED: R-ED TAX MAP NO.: 24 GRID NO.: 18 SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SEDIMENT AND EROSION CONTROL

NOTES AND DETAILS

COOKS LANE

SCALE: AS SHOWN DATE: MAY, 2021 THERE IS NO AS BUILT INFORMATION ON THIS SHEET SHEET 12 OF 19

F-20-066

STANDARD SYMBOL

SCE

- EXISTING PAVEMENT

EXISTINGPAVEMENT

MARYLAND DEPARTMENT OF ENVIRONMENT

WATER MANAGEMENT ADMINISTRATION

STANDARD SYMBOL

PSSMC - \*0.5 lb/ft<sup>2</sup>

(\* INCLUDE SHEAR STRESS)

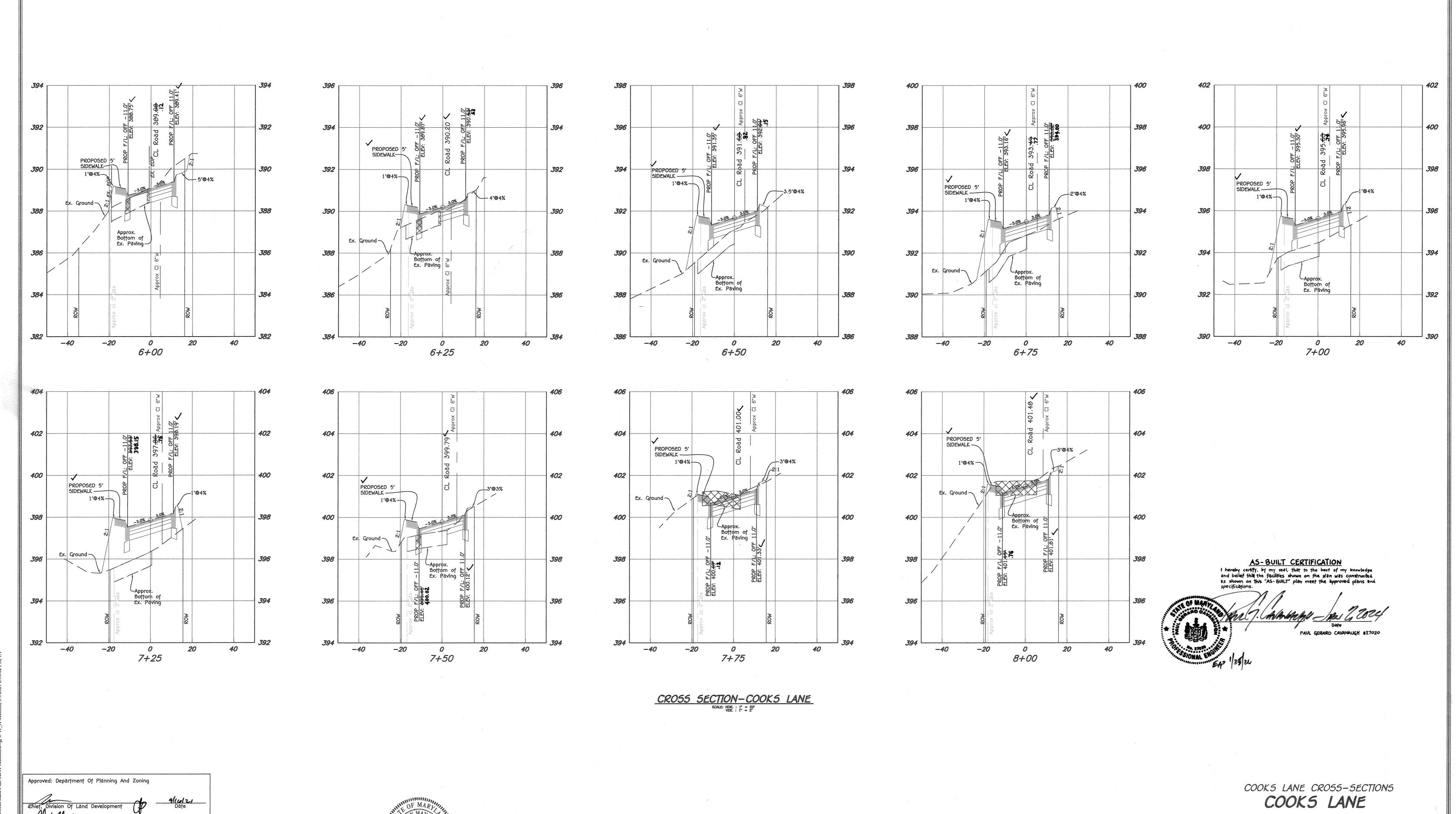
KEY IN

MAT VOIDS

UPPER END OF DOWN SLOPE ROLL. (TYP.)

-EARTH FILL

-PIPE (SEE NOTE 6)



PROFESSIONAL CERTIFICATION

FISHER, COLLINS & CARTER, INC.

CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS

IAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE ELLICOTT CITY, MARYLAND 21042 (410) 461 - 2855 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21476, EXPIRATION DATE: 7/14/21.

5/23/21

SCALE: 1" = 20'

PREVIOUS FILE NUMBERS: PS048, F-80-092, & 5-17-006

ZONED: R-ED

TAX MAP NO.: 24 GRID NO.: 18

SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE: AS SHOWN DATE: MAY, 2021

F-20-066

AS-BUILT SHEET 13 OF 19

DEVELOPER

TERRY'S PLACE DEVELOPMENT, LLC

C\O DAVE WOESSNER
308 MAGOTHY ROAD
SEVERNA PARK, MD 21146

410-461-0837

OWNER

HOWARD COUNTY, MARYLAND

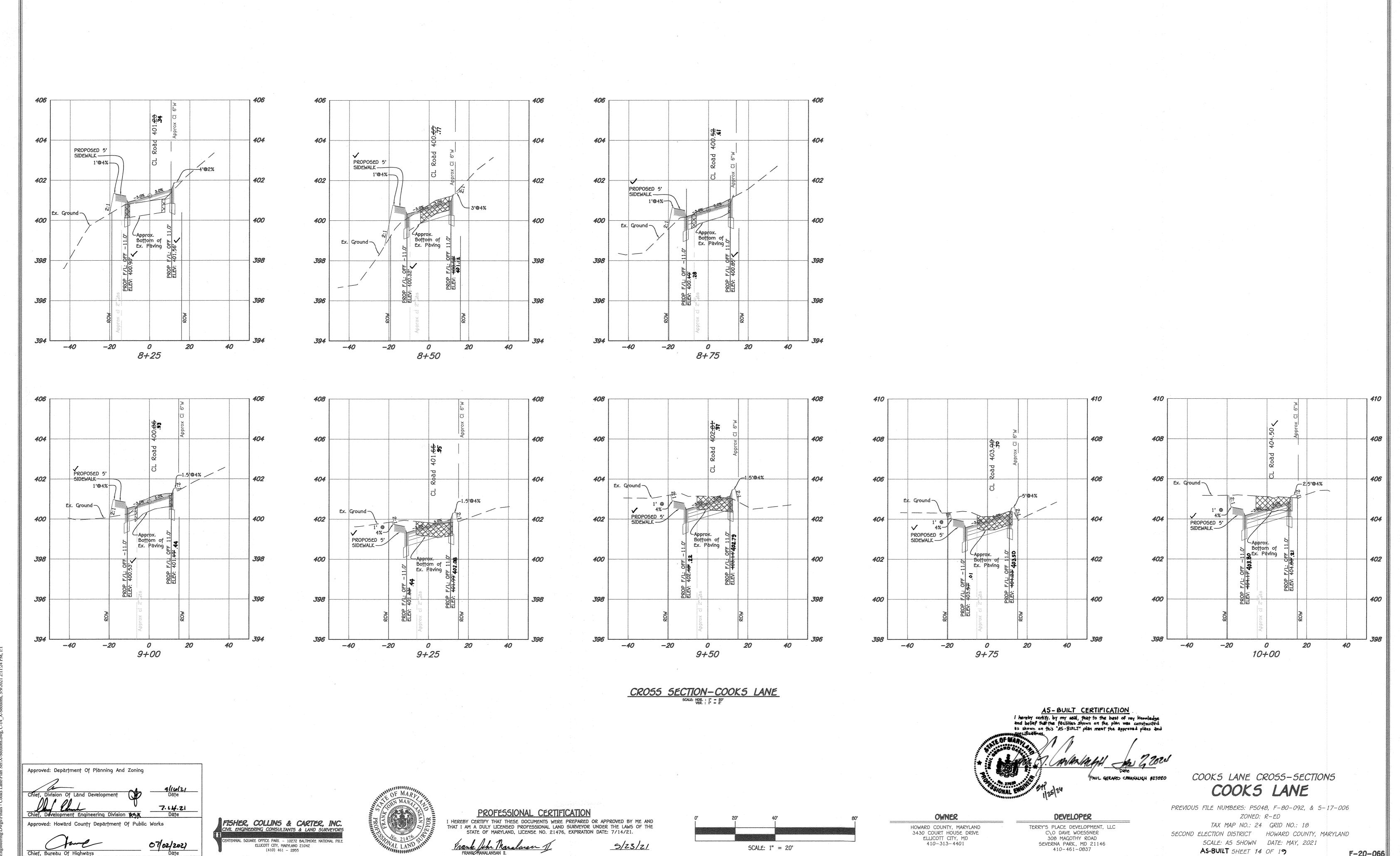
3430 COURT HOUSE DRIVE ELLICOTT CITY, MD 410-313-4401

1-7015/15000)Engineering(Dwgs/Finals - Cooks Lane(Plan Set/X-Seortions dwg C-13 X-Seortions 5/9/2021 2-10-02 1

Approved: Howard County Department Of Public Works

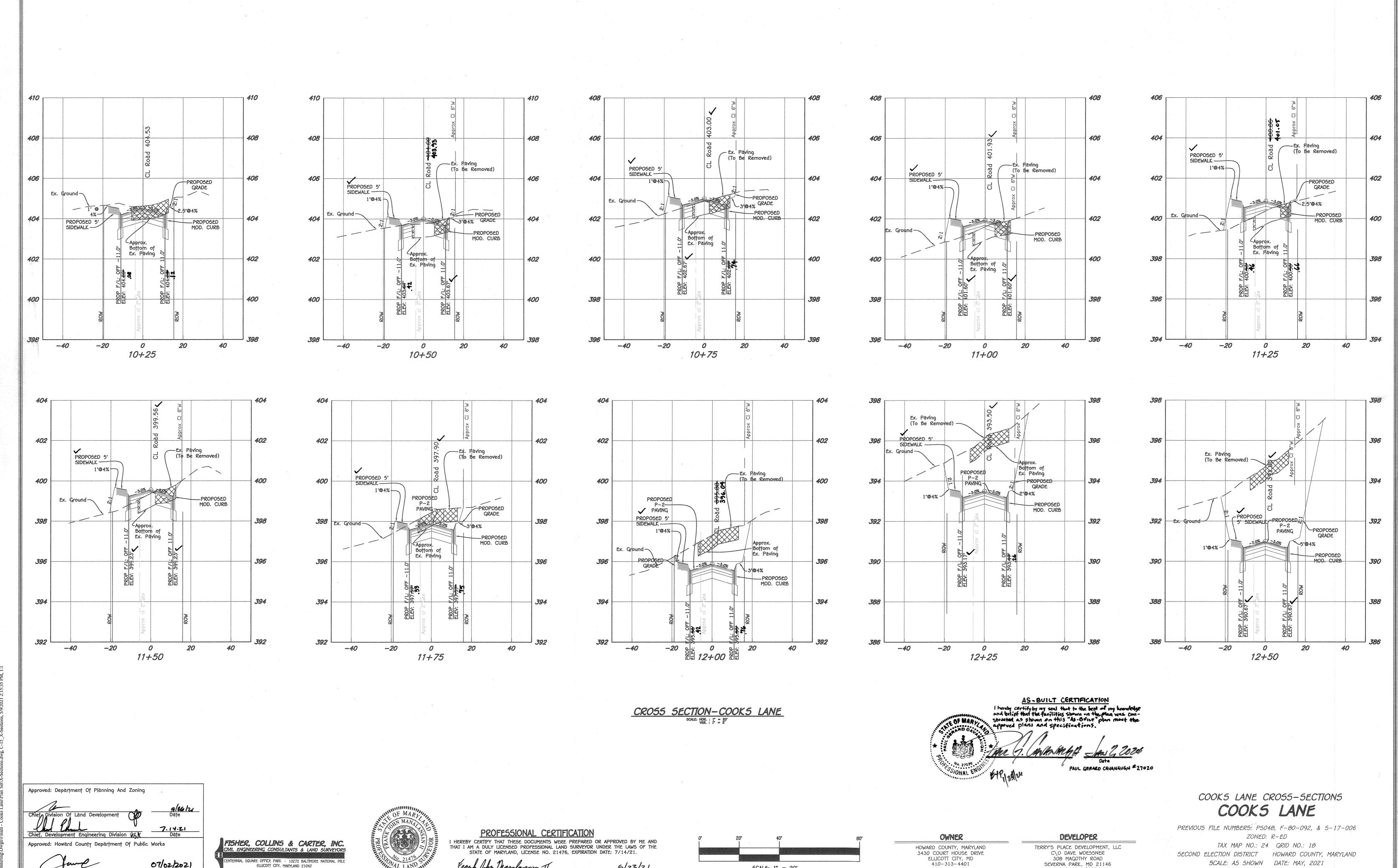
Chief, Bureau Of Highways

07/02/2021



F-20-066

Chief, Bureau Of Highways



5/23/21

5CALE: 1" = 20'

SCALE: AS SHOWN DATE: MAY, 2021

F-20-066

AS-BUILT SHEET 15 OF 19

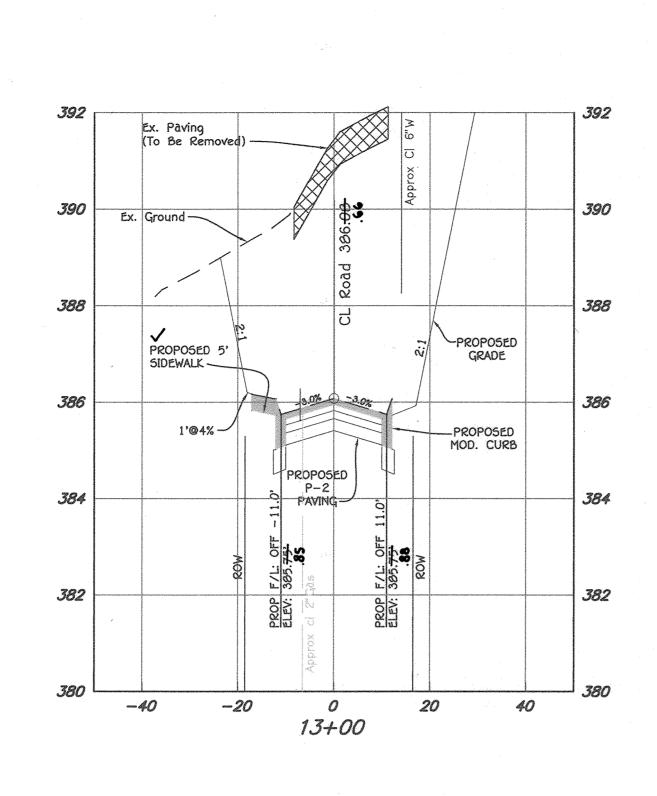
410-461-0837

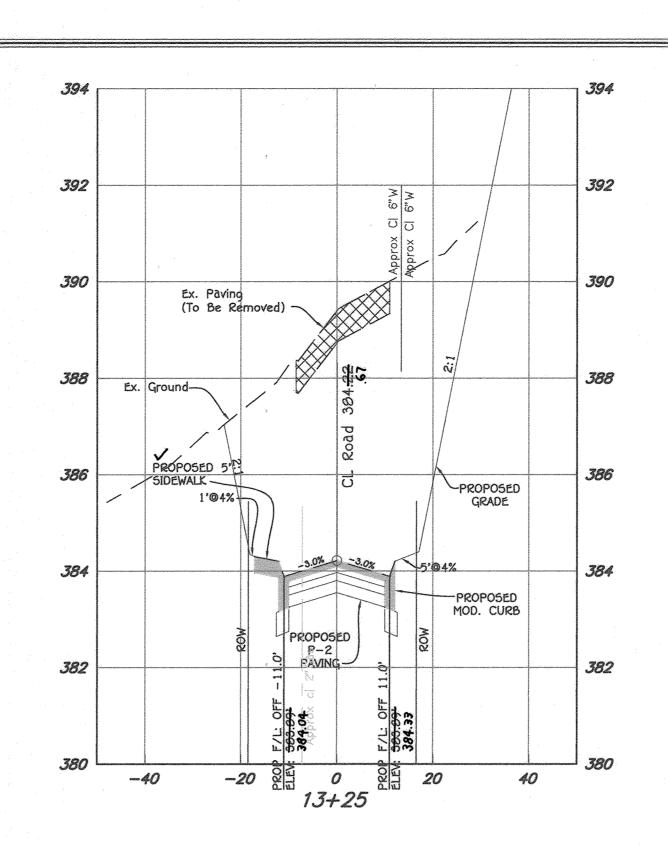
Chief, Bureau Of Highways

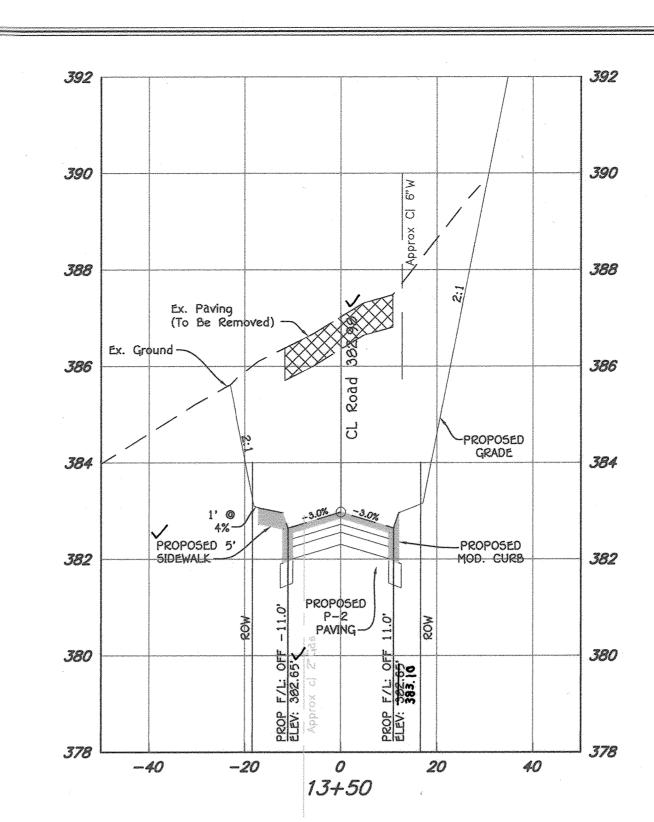
IAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE

ELLICOTT CITY, MARYLAND 21042 (410) 461 - 2055

07/02/2021

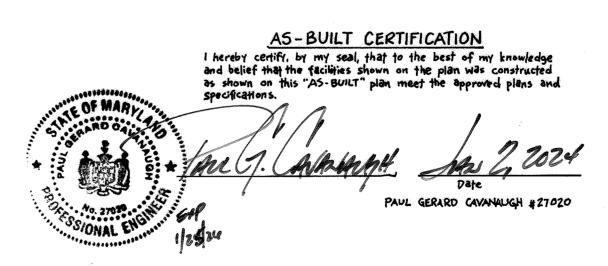






CROSS SECTION—COOKS LANE

SCALE: HOR.: I' = 20'
VER.: I' = 20'



Approved: Department Of Planning And Zoning

Chief, Division Of Land Development

Chief, Development Engineering Division KSN

Approved: Howard County Department Of Public Works

O7/02/2021

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS

CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 461 - 2855

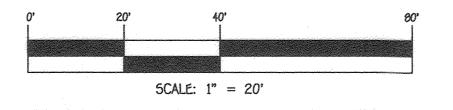


PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21476, EXPIRATION DATE: 7/14/21.

Frank John Thanslusm J.

S/23/21



OWNER

DEVELOPER

HOWARD COUNTY, MARYLAND
3430 COURT HOUSE DRIVE
ELLICOTT CITY, MD
410-313-4401

TERRY'S PLACE DEVELOPMENT, LLC
C\O DAVE WOESSNER
300 MAGOTHY ROAD
SEVERNA PARK, MD 21146
410-461-0037

COOKS LANE CROSS-SECTIONS

PREVIOUS FILE NUMBERS: P5048, F-80-092, & 5-17-006

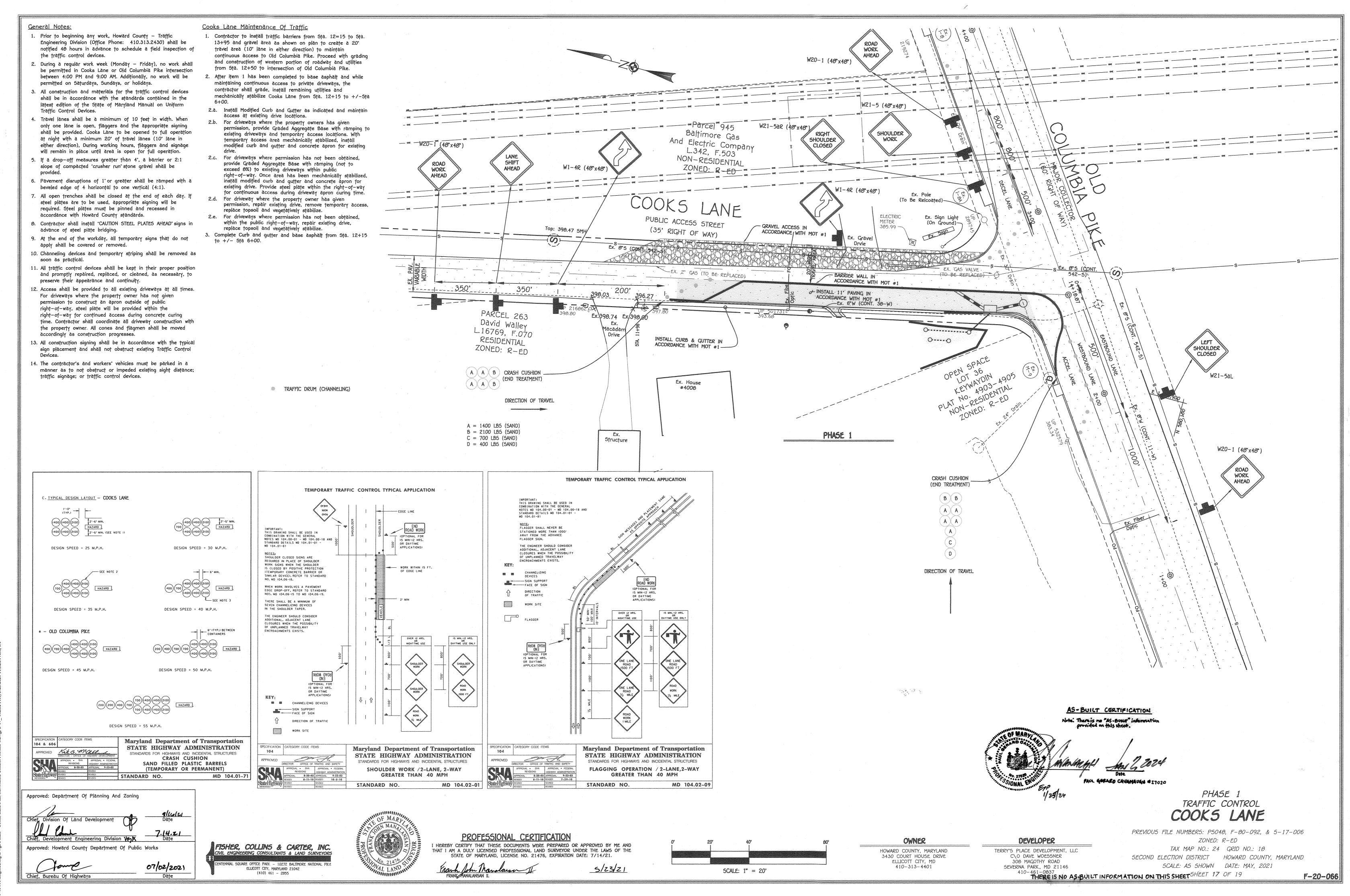
ZONED: R-ED

TAX MAP NO.: 24 GRID NO.: 18

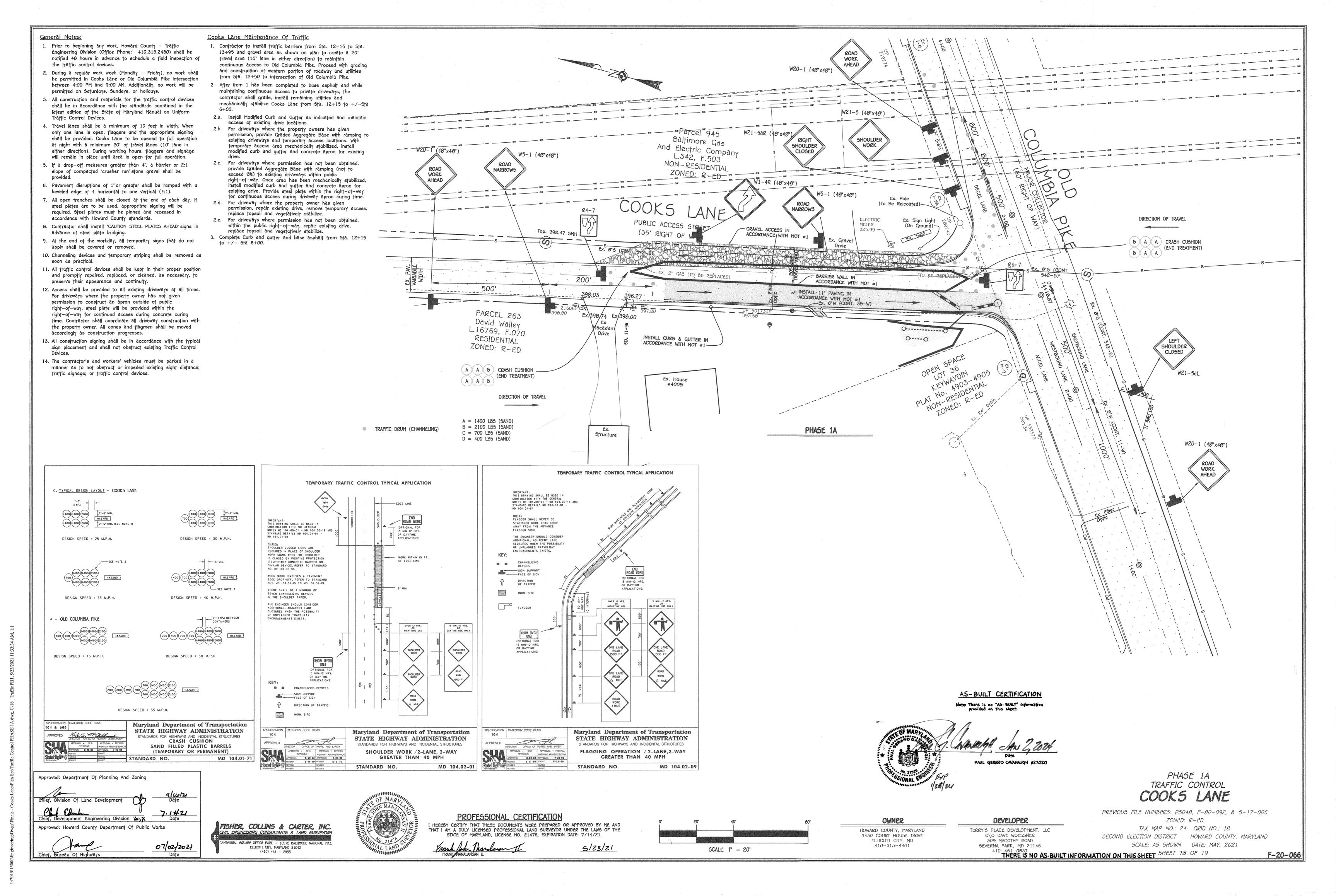
SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

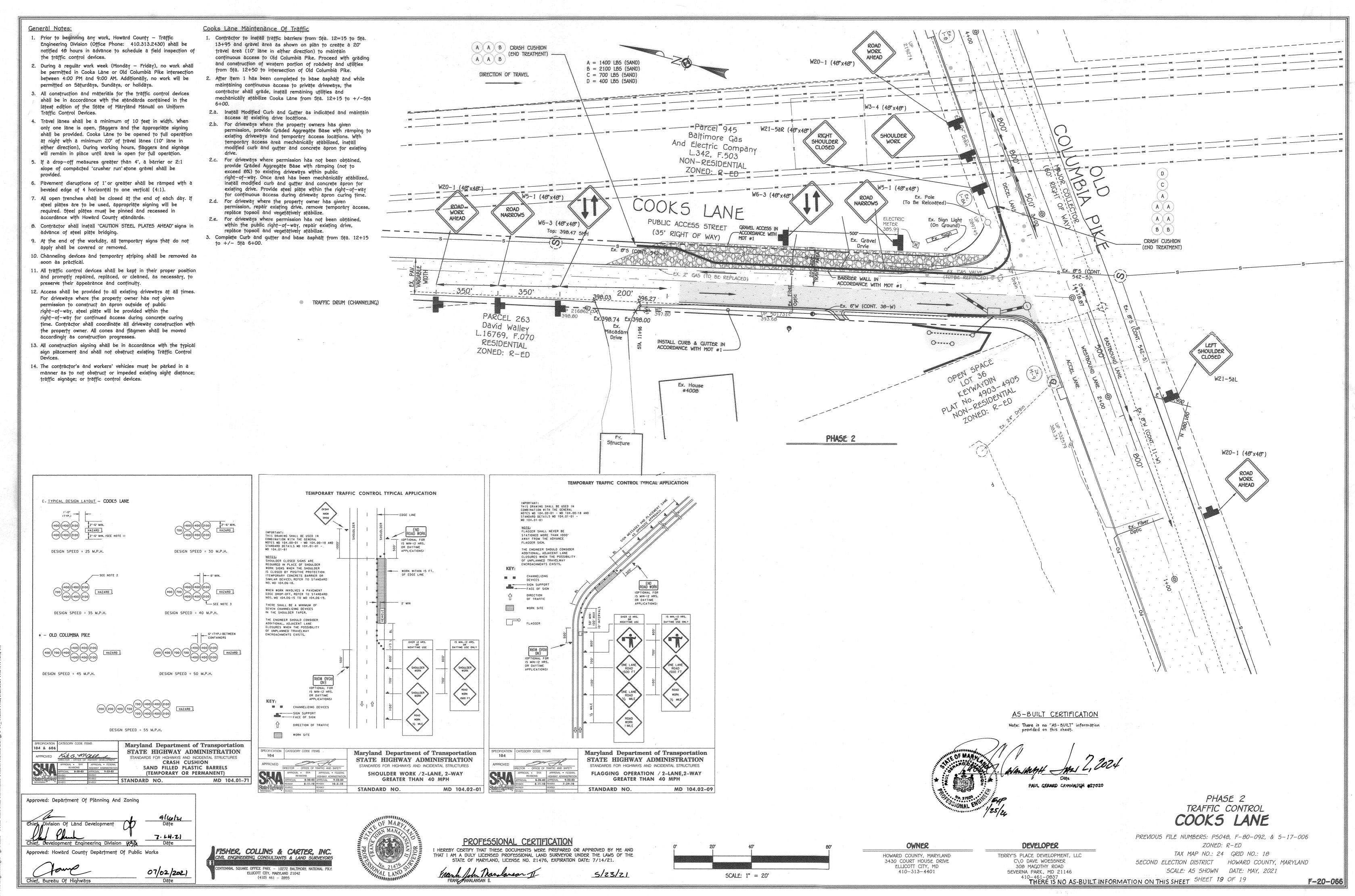
SCALE: AS SHOWN DATE: MAY, 2021

AS-BUILT SHEET 16 OF 19



1-/2015/15/000)Engineering/Dwgs/Finals - Cooks Lane/Plan Set/Traffic Control PHASE 1 dwg C-17 Traffic PH1 5/23/2021 11-32-51 AM





1.2015/15000)Engineering/Dwgs/Eingls - Cooks Lane\Plan Set/Traffic Control PHASE 2 dws C-19 Traffic PH2 5/23/2021 11:34-41 AM